AFWTF CHRONOLOGY

January 1983

--- The Outer Range was active 15 calendar days this month providing operational support to various units associated with two carrier Battle Groups (CVBG), Task Force 302.5 (Canada), and several individual range users.

--- The Inner Range was active 20 days this month providing services to aircraft from two air wings, five U. S. surface units, and four Canadian surface units.

--- Nine ships completed 18 ship days of Naval Gunfire Support Exercises (NGFS) on the Inner Range this month.

--- The Inner Range refurbishment, which started last month, was completed 13 January.

--- The Underwater Tracking Range (UTR) was active 12 days this month providing services to aircraft from two air wings, one Patrol Squadron (VP), and one surface unit.

--- The Electronic Warfare Range (EWR) was active 20 days this month providing services to aircraft from Carrier Air Wing (CVW) SEVEN and CVW-15, seven U. S. surface units, two Canadian surface units, one U. S. subsurface unit, and two U. S. Army units.

--- The EWR radiated a total of 433.5 hours of threat simulations throughout the month. Threat Platform Simulator (TPS) sites and hours of operation were: Pico del Este, 209.5 hours; Mt. Pirata, 159.5 hours, and St. Croix, 64.5 hours.

February 1983

--- The Outer Range was active 18 calendar days this month providing operational support to two air units, five U. S. surface units, and two Canadian surface units.

--- The Inner Range was active 14 calendar days this month providing services to Canadian Task Group 302 ships, aircraft from CVW-7 and Fleet Composite Squadron (VC) EIGHT, and four U. S. surface units.

--- The UTR was active 15 days this month providing operational support to two U. S. subsurface units, one Canadian subsurface units, and aircraft from five VP squadrons.

--- The EWR was active 21 calendar days this month providing services to seven ships from Canadian Task Group 302, three U. S. ships, and the 124TH MI CO (U. S. Army).

--- A total of 309.5 hours of threat simulations were radiated throughout the month. TPS sites and hours of operation were: Pico del Este, 92 hours; Mt. Pirata, 178 hours; St. Croix, 22.5 hours; and the At-Sea Simulator Platform (ASSP), 17 hours.

March 1983

--- The Outer Range was active 29 calendar days this month providing operational support services to aircraft from four CVWs and numerous U. S. and non-U. S. surface units.

--- The Inner Range was active 29 calendar days this month providing services to ten U. S. ships and aircraft from five CVWs.

--- Ten U. S. Navy ships conducted a total of 19 ship days of NGFS exercises.

--- Over 1100 aircraft check-ins were recorded at the Cerro Matias OP for conducting Air-to-Ground Ordnance operations and Aerial Mining operations on the Inner Range this month. Over 8000 ordnance hits were recorded (not including strafing rounds). This was by far the greatest amount of aircraft activity ever in the Vieques Inner Range area. The previous high was 735 aircraft check-ins.

--- The UTR was active 27 days this month providing support to aircraft from three VP squadrons and two CVWs, and six surface units.

--- The EWR was active 26 calendar days this month providing services to aircraft from CVW-6, CVW-7, and CVW-15, two aircraft carriers, six U. S. ships, one Netherland ships, and units from Task Force 21.

--- The EWR radiated a total of 488.5 hours of threat simulations throughout the month. TPS sites and hours of operation were: Pico del Este, 217 hours; Mt. Pirata, 124 hours; St. Croix, 135 hours; and the ASSP, 12.5 hours.

April 1983

--- The Outer Range was active 21 calendar days this month. Operational support services were provided for CVW-3, nine surface units, and the Pacific Missile Test Center (PMTC) QF-4 flight team.

--- The USS TICONDEROGA conducted CNO Project (CNOP) 100 operations on the range during the month. Aerial Target Services provided 13 BQM-34S and five BQM-34E drone flights in varying single and multi target profiles. Marine/Ocean Engineering provided two QST-35 SEPTAR targets. The Range Operations Center (ROC) also supported the PMTC F-4 launched AQM-37C aerial targets which were a part of this project.

--- The Inner Range was active 15 calendar days in April. Operational support services were provided for two air units, four surface units, and the 2ND Anglico.

--- The UTR was active 22 days this month providing operational support for five air units, three subsurface units, two surface units, and the Naval Surface Weapons Center (NSWC) ACURAD Project.

--- The EWR was active 14 days this month providing operational support services to two air units and seven ships.

May 1983

--- The Outer Range was active 12 days this month. Services were provided to eight U. S. surface units, one non-U. S. surface unit, and NAVORDTESTU (ESMC Operation).

--- An AFWTF Radar Calibration Test was conducted this month by O&M. All available tracking radars, the WAAS Radar, and the ITCS trackers were set-up to track an A-4 aircraft flying a controlled course. These tests are run periodically to assure tracking accuracy of all track sites.

--- The Inner Range was active 13 days this month providing operational support to nine U. S. ships and one air unit.

--- Support was providing for 12 days of NGFS exercises. Over 1000 rounds were fired and scored during these operations.

--- The UTR was active 17 days this month providing services to six air units, three surface units, and one subsurface unit.

--- The UTR provided tracking, positioning, and logistics support to the USNS APACHE (TAFT 172) and Deep Drone during four days of deep water recovery of a MK48 torpedo on the range. This was the deepest known recovery of a MK48 torpedo. The UTR Marine Support group provided MK-72-2 pinger components for use on Deep Drone during this operation. This tracking device on the Deep Drone enabled it to be positioned directly over the MK48, thereby saving the operation a great deal of search time.

--- The EWR was active 13 days this month providing threat simulation support to eight U. S. ships and aircraft from one VP squadron.

--- A total of 189 hours of threat simulations were emitted by the EWR during the month. TPS sites and hours of operation were: Pico del Este, 107.5 hours; Mt. Pirata, 58 hours; and St. Croix 23.5 hours.

June 1983

--- The Outer Range was operational four days this month. Services were provided for one foreign surface unit, two U. S. surface units, and air units from Joint Task Force 140 (JTF-140)/Universal Trek 83.

--- The Inner Range was active ten days this month. Operational support services were provided for one U. S. surface unit, one U. S. air unit, and JTF-140/Universal Trek 83 participants.

--- Operational "Universal Trek 83" was conducted on the Inner Range from the 2nd through the 11th of the month. This was a JTF-140 effort comprising of land, sea, and air units conducting various amphibious, air, underwater, and infantry exercises at Vieques.

--- The Inner Range was closed the last half of the month for refurbishment.

--- The UTR was active 10 days this month providing operational support services to three U. S. surface units, one U. S. subsurface unit, and aircraft from five VP squadrons.

June 1983 (continued)

--- The EWR was active eight days this month providing threat simulation support to three U. S. surface units and aircraft and ships from JTF-140.

--- The EWR radiated a total of 86 hours of threat simulations throughout the month. TPS sites and hours of operation were: Pico del Este, 61 hours and Mt. Pirata, 25 hours.

July 1983

--- The Outer Range was active 11 days during the month. Operational support services were provided for seven U. S. surface units.

--- The Inner Range was active 15 days this month providing support to four U. S. surface units, one U. S. air wing detachment, one NMCB detachment, and combined surface, air, and marine amphibious units comprising the Support Arms Coordination Exercises (SACEX-83).

--- The UTR was active 28 days this month providing operational support services to six U. S. surface units, two U. S. subsurface units, and six U. S. air units.

--- The EWR was active 19 days this month providing threat simulation services to seven U. S. surface units and one ground based unit.

--- The EWR radiated a total of 337 hours of threat simulations throughout the month. TPS sites and hours of operation were: Pico del Este, 140.8 hours; Mt. Pirata, 129.5 hours; and St. Croix, 67.0 hours.

August 1983

--- The Outer Range was active 14 days this month. Operational support services were provided for one foreign surface unit, nine U. S. surface units, and two U. S. air wings. READEX 2-83 (Phase IV and V) CV62/TYT3 and ORE and Mobile Sea Range operations were completed.

--- The USS TICONDEROGA conducted CNOP-100 and fleet operational test and evaluation exercises on the range. Single and multiple target profiles were flown in varying configurations. O&M aerial target systems launched and flew 12 BQM-34S, four BQM-34T, and one BQM-34E aerial targets in support of the project. PMTC personnel launched and flew one QF-86 and three AQM-37C aerial targets. VC-8 aircraft launched one AQM-37A. Tactical Electronic Warfare Squadron (VAQ) aircraft flew the multiple aircraft raids and conducted the Electronic Warfare portion of this exercise.

--- The Inner Range was active 19 days this month providing services to seven U. S. surface units and aircraft from two U. S. air wings and VC-8.

--- The UTR was active 24 days this month providing operational support services to two U. S. subsurface units, seven U. S. surface units, and four U. S. air units.

August 1983 (continued)

--- The EWR was active 20 days this month providing threat simulation services to 11 U. S. surface units, two U. S. air wings, and one non-U. S. surface unit.

--- A total of 239.5 threat simulations were radiated from the EWR throughout the month. TPS sites and hours of operation were: Pico del Este, 131 hours; Mt. Pirata, 95 hours; and St. Croix, 13.5 hours.

September 1983

--- The Outer Range was active 12 days this month. Operational support services were provided to one U. S. air wing and two U. S. surface unit.

--- Eight days of long distance Link 11 operations were conducted with the Navy Tactical Interoperability System Agency Detachment FOUR at Charleston, SC. This organization has a transportable Link 11 test station known as the Multiple Unit Link 11 Test and Operational Training System (MULTOTS) van. The tests run this month were to test the AFWTF system and check the reliability of long distance linking. Propagation problems prevented long term evaluation of AFWTF equipment but the tests were valuable for training.

--- The Inner Range was active eight days this month including one day of mine recovery operations. Operational support services were provided to two U. S. air units and one U. S. surface unit.

--- The UTR was active six days this month providing services to one U. S. surface unit.

--- The EWR was active 11 days this month providing operational support services to four U. S. surface units and one U. S. air unit.

--- The EWR radiated a total of 137 hours of threat simulations throughout the month. TPS sites and hours of operation were: Pico del Este, 81 hours; Mt. Pirata, 42 hours; and St. Croix, 14 hours.

October 1983

--- The Outer Range was active 16 days this month providing services to three air wings, 11 U. S. surface units, and elements from Task Force 21 (READEX 2-83 Orange forces).

--- The Inner Range was active 24 days this month. Operational support services were provided for six U. S. surface units, aircraft from four U. S. air wings and VC-8.

--- Six U. S. ships conducted a total of ten ship days of NGFS exercises on the Inner Range this month.

--- The EWR was active 21 days this month providing threat simulation services to 12 U. S. surface units, two U. S. air wings, and one U. S. subsurface unit.

November 1983

--- The Outer Range was active eight days this month. Operational support services were provided to seven U. S. surface units and one foreign surface unit.

--- The Inner Range was active 19 days this month providing operational support services to eight U. S. surface units and aircraft from one U. S. air wing.

--- Eight U. S. ships conducted a total of 16 ship-days of NGFS exercises on the Inner Range this month.

--- The UTR was active 23 days this month providing services to two U. S. subsurface units, three U. S. surface units, and four U. S. air unit.

--- The EWR was active 17 days this month providing operational support to 12 U. S. surface units.

--- The EWR radiated a total of 314 hours of threat simulations during the month. TPS sites and hours of operation were: Pico del Este, 178 hours; Mt. Pirata 128 hours; and St. Croix 7.5 hours.

December 1983

--- The Outer Range was active for two days this month. Operational support services were provided to three U. S. surface units.

--- The Inner Range was active six days this month providing support to one U. S. air unit, one U. S. surface unit, and a EOD/AFWTF Mine Recovery team.

--- One subsurface unit completed nine days of subsurface WSAT operations at AFWTF this month (four days at Roosevelt Roads and five days at St. Croix).

--- The EWR was active five days this month providing services to four U. S. surface units and one U. S. subsurface unit (one event cancelled after site man-up).

--- Pico del Este provided 19.5 hours of radiated threat simulations and the Mt. Pirata site was active 2.9 hours.

RANGE SUPPORT CHART

January 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
11-12, 15, 17-18	CVW-15	AAG
11, 15, 24	USS CARL VINSON	SAM
11, 19	USS CONOLLY	SAM
12-13	CVW-15	ASM
12-13, 24-26	CVW-15	AAM
12, 16	USS NICHOLSON	SSG
13, 17	USS NICHOLSON	SAG
14, 17-20	CVW-7	AAG
15, 24, 29	USS CARL VINSON	SAG
18	USS DWIGHT D. EISENHOWER	SAM
19	CVW-7	AAM
20	CVW-7	ASM
25, 27	HMCS MARGAREE	SAG
25, 27	HMCS NIPIGON	SAG
26	USS BEARY	SAG
27-28	AFWTF	AQM REHEARSAL
27	USS BEARY	SSG

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-13	AFWTF/EOD	RANGE REFURBISHMENT
12-13	CVW-7	MINEX
12-13, 27-29	CVW-15	MINEX
12-15, 17-22	CVW-7	AGO
12-15, 17-19, 24-29	CVW-15	AGO
14	CVW-15	MRCI
16, 23	USS CONOLLY	NGFS
20, 29-30	AFWTF	MINE RECOVERY
21	VC-8	SOUND FOCUS
21-22	USS DEYO	NGFS
21-22	USS NICHOLSON	NGFS
24-25	HMCS MARGAREE	NGFS
24-25	HMCS NIPIGON	NGFS
28-30	USS BEARY	NGFS
29-31	USS SPRUANCE	NGFS
31	HMCS ANNAPOLIS	NGFS
31	HMCS FRASER	NGFS

January 1983 (continued)

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
8	VP-62	TORPEX/MK-30
11, 15, 25, 29	CVW-15	TORPEX/MK-30
16-17, 30	CVW-15	ASW/TORPEX
17-19	CVW-7	ASW/TORPEX
20	USS NICHOLSON	TORPEX
21	CVW-7	TORPEX/MK-30

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
11, 13-18, 20	USS CONOLLY	Z-11-EW
11, 13-18, 20, 24-25, 27-28	USS CARL VINSON	EWEX
12-14, 17, 21	USS NICHOLSON	EWEX
12-15, 17-22	CVW-7	A-6-EW
12-14, 17-21	USS DWIGHT D. EISENHOWER	EWEX
15-16	U. S. SUBMARINE	EWEX
17-21, 24	523 ASW	EWEX
20-22, 26	USS DEYO	EWEX
24-25, 27-28	USS BEARY	EWEX
24, 31	HMCS MARGAREE	EWEX
24, 31	HMCS NIPIGON	EWEX
29-30	USS SPRUANCE	EWEX
31	124TH MIBN (USA)	EWEX

February 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
3-4, 7-11	USS MAHAN	LINK-11
8-11	USS MAHAN	CNOP-547/NTU (SAM)
9-10	USS LAWRENCE	SAM
14-18	MAG-31	AAM
15	USS TRUETT	SSG/SAG
20	HMCS HURON	TRKX
20	HMCS ALGONQUIN	TRKX
21	HMCS HURON	SAM
21	HMCS ALGONQUIN	SAM
22-24	MAG-31	AAM
23	USS DEWEY	SAM/TRKX
28	CVW-7	AAM/AAG
28	USS WILLIAM V. PRATT	SAG

February 1983 (continued)

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS SPRUANCE	NGFS
8, 10	USS LAWRENCE	NGFS
9-10	VC-8	AGO
12-14, 16	USS TRUETT	NGFS
15	HMCS SKEENA	NGFS
15	HMCS SAGUENAY	NGFS
22-23	USS DEWEY	NGFS
23	HMCS HURON	NGFS
23	HMCS ALGONQUIN	NGFS
24	HMCS ASSINIGOINE	NGFS
27-28	CVW-7	AGO

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
2	VP-5	TORPEX
1, 3-5	USS SUBSURFACE #1	WSAT
7	VP-23	TORPEX
10	VP-45	TORPEX
5-9, 11-12	USS SUBSURFACE #2	WSAT
13	USS SUBSURFACE #2	ISE
14	USS SUBSURFACE #2	CNOP-155
18, 23	VP-56	TORPEX
24	HMCS SUBSURFACE	TORPEX
27	VP-93	TORPEX

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1, 8-9, 11	HMCS ANNAPOLIS	EWEX
1, 8-9, 11	HMCS FRASER	EWEX
1-4, 7-10	124TH MIBN (USA)	EWEX
8-10	USS LAWRENCE	EWEX
9-10	USS MAHAN	EWEX
12-14, 16	USS TRUETT	EWEX
15-17, 20, 22	HMCS HURON	EWEX
15-17, 21-22	HMCS SKEENA	EWEX
15-17, 21-22	HMCS SAGUENAY	EWEX
20-21, 24-25	HMCS ASSINIBOINE	EWEX
20, 22-25	HMCS ALGONQUIN	

March 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	CVW-7	AAM
2	USS DEWEY	SAG
3	HMS BATTLEAXE	SAG
3	HMS ZULU	SAG
5	USS TEXAS	SAM/TRKX/SAG
5-6, 9-10	CVW-15	AAM
6	USS BEARY	SSG
6	USS TEXAS	SSG
6	USS DAHLGREN	SAM
6	USS CONYNGHAM	SAM
6	USS GALLERY	SAM
7	USS CARL VINSON	SAM/CIWS
7, 9-10	CVW-15	AAG
7-9	USS MAHAN	CNOP-547/NTU/LNKX/ TRKX
7	USS CONYNGHAM	SSG
7	USS DAHLGREN	SSG
8	HNLMS VAN GALEN	SAG
9	USS BEARY	SAG
10	USS MAHAN	CNOP-547/NTU/SAM
10	CVW-15	AAM
11	USS MAHAN	CNOP-547/NTU
11	HNLMS VAN GALEN	SAG/SAM
11	USS DAHLGREN	SSG
11	USS CONYNGHAM	SSG
11	USS GALLERY	SSG
13	CVW-15	AAM
13	USS BOWEN	SAG
13	USS HUGHES	SAG
13	USS DEYO	SAG
13	USS BELKNAP	SAG
13	USS JOHN RODGERS	SAG
14	USS JOHN RODGERS	SAM
14	USS DEYO	SAM
14	USS HEWES	SAM
14	CVW-7	ASM
14	USS MAHAN	SAG
14	USS VIRGINIA	SAG
14, 18	COMTACWINGSLANT	AAG
14	VAW	LNKX
15-17	TF-21	READEX 1-83/LNKX
16	CVW-3	AAG
18	USS ANTRIM	SAG
18	CVW-7	AAM
18	USS MAHAN	SAG
18	USS VIRGINIA	SAG
18	USS BOWEN	SAG
19	USS ANTRIM	SAG
19	USS RADFORD	SAG
20	USS ANTRIM	RIMEX/READEX 1-83
20	USS BELKNAP	RIMEX/READEX 1-83

March 1983 (continued)

Outer Range (continued)

DATE	EXERCISE UNIT	TYPE EXERCISE
20	USS FLATLEY	RIMEX/READEX 1-83
20	USS MAHAN	RIMEX/READEX 1-83
20	USS VIRGINIA	RIMEX/READEX 1-83
20	USS WILLIAMS	RIMEX/READEX 1-83
20-22	CVW-3	AAG
21, 23, 27	CVW-3	ASM
22	HMS EURYALS	SAM
22	HMS RYLE	SAM/SAG
23	USS HUGHES	SAG
23	USS MOINESTER	SAG
23	USS BELKNAP	SAG
23	USS BOWEN	SAG
23	USS PHARRIS	SAG
23	USS RADFORD	SAG
24-25	HMS INVINCIBLE	AAM
24-25	801 NAS	AAM
25-30	TF-21	MSR/READEX 1-83
25-27	TF-88	TRKX
28	USS STEPHEN W. GROVES	SSM/SSG
28-29	USS TICONDEROGA	TRKX
29	USS S. W. GROVES	SSM/SSG/SAG
30-31	USS AUBREY FITCH	TRKX/SAM
30	CVW-3	AAM
30	CVW-3	SHRIKEX
31	USS TICONDEROGA	SSG
31	CVW-3	AAM

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-7, 12-14, 16, 18-19, 21-23 25-28	CVW-7	AGO
5-14	CVW-15	AGO
4-5	USS MILLER	NGFS
5-6	USS DEWEY	SPOTEX/NGFS
5	CVW-7	MINEX
2, 4, 7	VC-8	AGO
8-9	USS DONALD B. BEARY	NGFS
8-9	USS TEXAS	NGFS
8-10	USS DAHLGREN	NGFS
10	CVW-15	MINEX
10-11	USS BOWEN	NGFS
12	USS MAHAN	NGFS
10, 12, 14, 16, 18, 21-23	CVW-6	AGO
16-23, 25-31	CVW-3	AGO
18, 22-23	CVW-17	AGO
18-19, 23-24	USS BELKNAP	NGFS
19	CVW-3	MINEX
19, 21	USS HEWES	NGFS
20-21	USS MOINSTER	NGFS

March 1983 (continued)

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
3-4	CVW-7	TORPEX QUAST
5, 7, 8, 10, 11, 14-15, 19, 21-27	USNS APACHE T-ATF-172	DEEP DRONE OPS
7-8	USS DEWEY	SSRNM
8-9	USS BOWEN	SSRNM
9	VP-5	TORPEX
9	VP-45	TORPEX
13	VP-11	TORPEX
13	USS MAHAN	SSRNM
17, 23, 30	CVW-3	TORPEX
18	CVW-3	TORPEX
18	U. S. SUBSURFACE	TORPEX
23-30	USS GARCIA	WSAT/FORACS
30-31	U. S. SUBSURFACE	WSAT/FORACS
30	USS JESSE L. BROWN	SSRNM

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1, 22	CVW-7	EWEX
1, 22	USS DWIGHT D. EISENHOWER	EWEX
2-8	CVW-7	EWEX
5-6	USS DWIGHT D. EISENHOWER	EWEX
5-8	USS VINSON	EWEX
7-12	CVW-6	EWEX
7-10, 12-14	CVW-15	EWEX
10	USS MOUNT WHITNEY	EWEX
10	CVW-3	EWEX
10-11	USS BOWEN	EWEX
10, 12-14	USS VINSON	EWEX
12	CVW-7	EWEX
13	USS DWIGHT D. EISENHOWER	EWEX
14	USS MOUNT WHITNEY	EWEX
14	TF-21	EWEX
15-16	HNLMS VAN GALEN	EWEX
17	USS BELKNAP	EWEX
18	USS JOHN RODGERS	EWEX
19-21	TF-21	EWEX
20	USS JOHN RODGERS	EWEX
21	USS DWIGHT D. EISENHOWER	EWEX
21	CVW-7	EWEX
28, 30	USS TICONDEROGA	EWEX
28, 30	USS STEPHEN W. GROVES	EWEX
29	USS BROWN	EWEX
31	USS TICONDEROGA	EWEX

April 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1, 10, 12	USS TICONDEROGA	SAG
1, 4, 6, 20	USS TICONDEROGA	TRKX
2	USS RICHARD L. PAGE	SAG
2, 4	CVW-3	AAG
4	USS STEPHEN W. GROVES	SAG
4, 7-9, 13, 15, 20	USS TICONDEROGA	CNO/SAM
5	USS NASSAU	SAM
5	USS CARON	TRKX/LNKX
6-8	USS CARON	SAG
6-8, 10, 12, 15, 18-19	PMTC	QF-4 OPS
7	USS CARON	SAM
8	USS NASSAU	LNKX
9-10, 14	USS TICONDEROGA	CNO/SSM
12	USS MOOSBRUGGER	SAM
13	USS TICONDEROGA	CNO/SSG
26	USS NICHOLSON	SAM/SAG
27, 29	USS JOHN KING	SSG
28	USS JOHN KING	SAG
30	USS CLAUDE V. RICKETTS	SAM

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2	USS JESSE L. BROWN	NGFS
1-2, 4	CVW-3	AGO
2, 4	CVW-3	MINEX
5	CVW-3	MRCI
6-7	USS NASSAU	NGFS
8-11	USS MOOSBRUGGER	SPOTEX/NGFS
9-10	USS CARON	NGFS
11, 14	VF-301	AGO
16-17	AFWTF	MINE RECOVERY

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-8	U. S. SUBSURFACE	WSAT
4	CVW-3	TORPEX
8-9	VP-56	TORPEX
9-12	NAVSURFWPNCEN	ACURAD TEST
10-15	U. S. SUBSURFACE	MK48 CERTIFICATION
11-13	USS CARON	WSAT
20	VP-11	TORPEX
24	VP-64	TORPEX
25-28	U. S. SUBSURFACE	WSAT
28	VP-5/VP-23	TORPEX
28	USS JOHN KING	TORPEX
28-29	USS JOHN KING	SSRNM

April 1983 (continued)

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1, 2-5	CVW-3	EWEX
4-6, 8, 12	USS CARON	EWEX
5	USS JOHN F. KENNEDY	EWEX
5-7	USS NASSAU	EWEX
8, 11-12	USS MOOSBRUGGER	EWEX
9	USS TICONDEROGA	EWEX
11-14	VF-301	EWEX
27	USS JOHN KING	EWEX
30	USS CLAUDE V. RICKETTS	EWEX

May 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
2	USS BIDDLE	SAG
3	USS RICHMOND K. TURNER	TRKX
4	USS TATTNALL	TRKX
4	USS RICHMOND K. TURNER	SAM
4	USS RICHMOND K. TURNER	SAG
5	USS RICHMOND K. TURNER	SAM
5	USS RICHMOND KL TURNER	TRKX
10	AFWTF	RADAR CALIBRATION
12, 15	USS STUMP	SAG/LINK 11
14	USS BLAKELY	SSG
15-16	NAVORDTESTU	ESMC TEST
16	USS GARCIA	SAG
17	USS BLAKELY	SAG
24	USS TICONDEROGA	TRKX
31	SNS EXTREMADURA	TRKX
31	SNS EXTREMADURA	SAM

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
3-4	USS BIDDLE	NGFS
3-4	USS JOHN KING	NGFS
7-8	USS TATTNALL	NGFS
11-12	USS STUMP	NGFS
12-14	USS CLAUDE V. RICKETTS	NGFS
13-14	USS BLAKELY	NGFS
17-18	USS HAYLER	NGFS
19	USS GARCIA	NGFS
24	VC-8	AGO
25	USS TICONDEROGA	NGFS

May 1983 (continued)

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS SKIPJACK	FORACS
2	USS SKIPJACK	TORPEX
3-4	USS SKIPJACK	WSAT
5	VP-26	TORPEX
9	VP-56/VP-24	TORPEX
10-12	USS CLAUDE V. RICKETTS	WSAT
13	VP-8	TORPEX
16-18	USNS APACHE	DEEP DRONE OPS
19	USS HAYLER	SSRNM
19	VP-5	MK30/TORPEX
20	USS HAYLER	STAN TRIALS
22	VP-26	TORPEX
26	VP-23	TORPEX

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2	USS CLAUDE V. RICKETTS	EWEX
2-3	USS RICHMOND K. TURNER	EWEX
2-4	USS BIDDLE	EWEX
10	USS CLAUDE V. RICKETTS	EWEX/FORACS
11-12	USS STUMP	EWEX
13-14	USS BLAKELY	EWEX
16-19	USS HAYLER	EWEX
19	VP-5	EWEX
19	USS GARCIA	EWEX

June 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
6	HMS YARMOUTH	TRKX
6	USS HARRY E. YARNELL	LNKX
6-7	JTF-140/UNIVERSAL TREK-83	ASO
11	NAVORDTESTU	ESMC TEST
29	USS UNDERWOOD	TRKX/SAM
29	AFWTF	RADAR CALIBRATION

June 1983 (continued)

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
2-3	JTF-140	U/W OPS
4-5	JTF-140	FAMILIARIZATION FLIGHT
6-9	VC-8	SOUND FOCUS
6-10	JTF-140	AGO
8	JTF-140	MORTAR FIRE
8-9	USS NICHOLSON	NGFS
11	JTF-140	TASK FORCE OPS

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
5-6	USS NICHOLSON	SSRNM
6	USS HARRY E. YARNELL	SSRNM
11	VP-26	AERIAL TORPEX
14	VP-49	AERIAL TORPEX
17	U. S. SUBSURFACE	TORPEX
21	VP-8	AERIAL TORPEX
26	VP-93	AERIAL TORPEX
26-30	USS RICHMOND K. TURNER	WSAT
29	VP-16	AERIAL TORPEX

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
4	USS LAWRENCE	EWEX
6-10	JTF-140	EWEX
7	USS NICHOLSON	EWEX
29-30	USS UNDERWOOD	EWEX

July 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	AFWTF	WSAT RANGE SURVEY
5	USS RICHMOND K. TURNER	TRKX
6	USS RICHMOND K. TURNER	SAM
13	USS LUCE	TRKX/SAM
13	USS SEMMES	TRKX/SAM
16	USS CALIFORNIA	SAM
17	USS CALIFORNIA	ICSE/CSPE/EW
19	USS THORN	LINK 11
20	USS THORN	SAM

July 1983 (continued)

Outer Range (continued)

DATE	EXERCISE UNIT	TYPE EXERCISE
22	USS PETERSON	SAM/SAG
22	USS NASSAU	LINK 11
23	USS NASSAU	SAG
24	USS NASSAU	SSG

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
11-15	NMCB-133	INFANTRY OPS
18-19	USS SEMMES	NGFS
18-19	USS THORN	NGFS
22-27	4TH MAB	SACEX
22-27	USS NASSAU	SUPPORT ARMS COORD.
22-27	VC-8	SUPPORT ARMS COORD.
27-28	USS LUCE	NGFS
27-28	CVW-8 DET.	AGO
31	USS KIDD	NGFS

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
11-15, 18-21	124TH MIB/U. S. ARMY	EWEX
12	USS LUCE	EWEX
12, 18-19	USS SEMMES	EWEX
15-17	USS CALIFORNIA	EWEX
20	USS THORN	EWEX
22-27, 29	USS NASSAU	EWEX
22, 26	USS PETERSON	EWEX
30-31	USS KIDD	EWEX

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS RICHMOND K. TURNER	WSAT
1-2	USS RICHMOND K. TURNER	SSRNM
5-6	USNS BARTLETT	SSRNM
8	VP-11	QAST
9-17	U. S. SUBSURFACE	WSAT
10-15	USS CALIFORNIA	WSAT
11, 12	VP-5/VP-23	AERIAL TORPEX
15, 26	VP-44	AERIAL TORPEX
16-22	USS LUCE	WSAT
17-18	USS THORN	SSRNM
19	VP-24	AERIAL TORPEX

July 1983 (continued)

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
21-29	U. S. SUBSURFACE	WSAT
23, 26-27	USS NASSAU	SSRNM
23	VP-64	AERIAL TORPEX
23	VP-62	AERIAL TORPEX
26-31	USS PETERSON	WSAT

August 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
3-4	HNLMS VAN NES	SAM/SAG
4	CVW-8	ACM
5	USS TICONDEROGA	SAM/TRKX
5	USS TICONDEROGA	MANNED RAIDS
6	USS TICONDEROGA	SAM/SAG
12-13	PMTC	QF-86
13	USS SAVANNAH	SAM/SAG
13	HMLMS VAN NES	SSG
12, 16, 29-31	PMTC	MANNED FLIGHT CHECK
14	USS TICONDEROGA	SAM
14	USS JOHN F. KENNEDY	SAM/SAG
14, 22	USS FAHRION	SAG
14, 22	USS STEPHEN W. GROVES	SAG
14-15, 18	CVW-3	AAG
15-18	CVW-3	AAM
15	USS HARRY E. YARNELL	JFK BG RIMEX
15	USS RICHARD L. PAGE	JFK BG RIMEX
15	USS FAHRION	JFK BG RIMEX
15	USS TICONDEROGA	SAM/SAG
15	USS VALDEZ	SAG
16	USS SELLERS	SAM
26	USS AYLWIN	SAG

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-5, 7-9	CVW-7	AGO
1-2	USS W. S. SIMS	NGFS
1-5, 7-9, 11	CVW-8	AGO
2-3	CVW-8	MINEX
3-6	USS LAWRENCE	NGFS
3-8, 13-14	AFWTF	MINE RECOVERY
6-7	USS AYLWIN	NGFS
6, 12	USS PAUL	NGFS
10-11	USS VALDEZ	NGFS
13	USS RICKETTS	NGFS
14	NRR/RAMO RAIDER	BOAT GUNEX
19-21	VC-8	AGO
23-24	USS BRISCOE	NGFS

August 1983 (continued)

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2, 4-6	U. S. SUBSURFACE	WSAT
5	U. S. SUBSURFACE	MK48 QUALS
2-4	U. S. SUBSURFACE	PUTT INSTALLATION & REMOVAL
2	USS CARON	TORPEX
3	USS LAWRENCE	TORPEX
3	USS U. S. SIMS	TORPEX
3	USS GALLERY	TORPEX
2-3	CVW-6	AERIAL TORPEX
5-11	USS BRISCOE	WSAT
12-17	USS SEMMES	WSAT
11-12	USS BRISCOE	SSRNM
15, 30	VP-44	AERIAL TORPEX
16-17	USS SEMMES	SSRNM
21-26	USS SELLERS	WSAT
24	VP-68	AERIAL TORPEX
24	VP-96	AERIAL TORPEX
24-25	USS SELLERS	SSRNM

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS INDEPENDENCE	EWEX
1-4	USS LAWRENCE	EWEX
1	USS CARON	EWEX
1-3	USS W. S. SIMS	EWEX
2	USS DETROIT	EWEX
2-5	CVW-6	EWEX
2	CVW-3	EWEX
2, 6	HNLMS VAN NES	EWEX
3	USS RECOVERY	EWEX
5-12, 23-24	USS BRISCOE	EWEX
13-15	USS VALDEZ	EWEX
15-17	USS SEMMES	EWEX
17-18	USS SELLERS	EWDX

September 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-10	TF-21	READEX 2-83
1, 9	USS PAUL	SAG
1, 2, 4	USS DETROIT	SAG
1, 9	USS MOOSBRUGGER	SAG
1, 7	CVW-6	AAM

September 1983 (continued)

Outer Range (continued)

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2, 4	CVW-6	AAG
2	USS LAWRENCE	SAG
2	CVW-6	AAM
3	USS TICONDEROGA	SAM/TRKX

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2	CVW-3	AGO/MINEX
6	EOD	MINE RECOVERY
15-16	USS PETERSON	NGFS
18-20	VC-8	AGO

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
18-23	USS COONTZ	WSAT

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2	CVW-3/USS JOHN F. KENNEDY	EWEX
10-11, 13-14, 18-20	USS COONTZ	EWEX
15	USS PETERSON	EWEX
16, 19	USS DOYLE	EWEX

October 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	CVW-3	AAM
2	CVW-3	ASM
11-12, 18-21, 24-25	NTISA	LINK 11 LONG RANGE
12	USS COONTZ	SAM
15, 19	USS DOYLE	SAM
15	USS DOYLE	SAG
21	AFWTF	RADAR CALIBRATION/ SPARS CHECK
16, 19, 23-24	CVW-3	AAM
16, 18-19, 21	CVW-1	AAG
18, 30-31	CVW-6	AAG
18	CVW-6	ASM (CAPTIVE)

October 1983 (continued)

Outer Range (continued)

DATE	EXERCISE UNIT	TYPE EXERCISE
18	USS INDEPENDENCE	TRKX
20	USS INDEPENDENCE	SAM
21	USS CARON	SAG
21, 29	CVW-6	ASM
21	USS RICHMOND K. TURNER	SAG
22	USS RICHARD L. PAGE	SAG
23	USS KING	SAM/SAG/TRKX
27-29	TF-21	AAWEX/READEX 2-83
31	USS CLAUDE V. RICKETTS	SAG
31	CVW-6	AAM

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS KIDD	NGFS
6-7	USS MACDONOUGH	NGFS
8	USS GLOVER	NGFS
11-28	2ND ANGLICO	INFANTRY OPS
12	VC-8	AGO
13-25, 27-28	CVW-3	AGO
15, 20	CVW-1	MINEX
15-17, 19-21, 23-25	CVW-1	AGO
16-17	USS JULIUS A. FURER	NGFS
17-21, 26, 29-31	CVW-6	AGO
17, 27	CVW-6	PRACTICE MINEX
18-19	CVW-6	MRCI
18-19, 21, 28	CVW-3	MINEX
22-23	USS RICHARD L. PAGE	NGFS
26	AFWTF	MINE RECOVERY
30-31	USS CLAUDE V. RICKETTS	NGFS
30, 31	CVW-8	AGO/MINEX

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS KIDD	EWEX
1	PETERSON	EWEX/ICSE
5, 8-9	USS GLOVER	EWEX
8	U. S. SUBSURFACE	EWEX
13-14, 17-19, 21, 23-25	CVW-3	EWEX
15, 21, 23	USS JOHN F. KENNEDY	EWEX
16-19, 21, 29-31	CVW-6	EWEX
16-17	USS JULIUS A. FURER	EWEX
18-21, 26, 30	USS INDEPENDENCE	EWEX
18-21, 26	USS CLARK	EWEX
18-21, 26	USS CARON	EWEX

October 1983 (continued)

Electronic Warfare Range (continued)

DATE	EXERCISE UNIT	TYPE EXERCISE
22-24	USS KING	EWEX
26	USS RICHMOND K. TURNER	EWEX
30	USS CLAUDE V. RICKETTS	EWEX
30	USS GALLERY	EWEX

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-9	U. S. SUBSURFACE	WSAT
4	AFWTF	MK30 HELO LAUNCH TRAINING
5	VP-44	AERIAL TORPEX
11	VP-24	AERIAL TORPEX
12	U. S. SUBSURFACE	ISE
14-15, 17	CVW-3	AERIAL TORPEX
16-17	USS JULIUS A. FURER	SSRNM
17	USS FAHRION	TORPEX
17	USS STEPHEN W. GROVES	TORPEX
21	CVW-6	AERIAL TORPEX
21-28	U. S. SUBSURFACE	WSAT
23	VP-8	AERIAL TORPEX
26	VP-16	AERIAL TORPEX
26-27, 30-31	USS KING	WSAT
29	U. S. SUBSURFACE	MK48 CMD QUALS
29-31	U. S. SUBSURFACE	WSAT

November 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
9	HMS ANTRIM	SSG
9	HMS ANTRIM	TRKX
9, 11	HMS ANTRIM	SAM
9	USS KLAKRING	SSG
10	USS KLAKRING	TRKX
10-11	HMS ANTRIM	SAG
11	USS RICHARD E. BYRD	SAM/TRKX
22	USS STARK	SAM/SSG
26	USS WILLIAM V. PRATT	SSG
28	USS WILLIAM V. PRATT	SAG
29	USS LUCE	SAM/LNKX
29	USS O'BANNON	LNKX
30	USS TALBOT	SAM
30	USS O'BANNON	SSG/SAG/LNKX

November 1983 (continued)

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2	NSWU-4	SMALL ARMS
7-9	USS RICHARD E. BYRD	NGFS
9	USS VREELAND	NGFS
9	10TH MARINES	SPOTEX
10-11	USS SELLERS	NGFS
12-13	USS CONYNGHAM	NGFS
21-27	CVW-1	AGO
23, 27	USS WILLIAM V. PRATT	NGFS
27-28	USS O'BANNON	NGFS
29-30	USS TRUETT	NGFS
29-30	NSWU-4	SEAL OPS
30	USS LUCE	NGFS
30	2ND FORCE RECON	SMALL UNIT TACTICS

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-8	U. S. SUBSURFACE	WSAT
3-4	USCGC ALERT	FORACS
10	VP-45	TORPEX/MK30
13-21	U. S. SUBSURFACE	WSAT
16	VP-23	TORPEX/MK30
23, 27	HS-11	AIR TORPEX/MK30
27	VS-32	AIR TORPEX/MK30
28-29	USS TURETT	SSRNM
29-30	USS O'BANNON	SSRNM

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
8-9	USS RICHARD E. BYRD	EWEX
8	USS VREELAND	EWEX
10	USS KLAKRING	EWEX
14	USS CONYNGHAM	EWEX
16-17	USS AUBREY FITCH	EWEX
2-21	USS SCOTT	EWEX
21, 23	USS STARK	EWEX
21-28	USS AMERICA	EWEX
24	USS KIDD	EWEX
27	USS WILLIAM V. PRATT	EWEX
27-28, 30	USS O'BANNON	EWEX
29-30	USS TRUETT	EWEX

December 1983

Outer Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS LUCE/USS TRUETT	SSG
1	USS LUCE/USS TRUETT	SAG
3	USS KIDD	SAG
3	USS KIDD	SSG

Inner Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1-2	VC-8	AGO
1	NSWU	SEAL OPS
1-5	U. S. MARINE RECON	TACTICS
3-5	EOD/AFWTF	MINE RECOVERY
5-6	USS TALBOT	NGFS
7-31	EOD	RANGE REFURBISHMENT

Underwater Tracking Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	VP-11	AERIAL TORPEX
4	VP-92	AERIAL TORPEX
7-15	U. S. SUBSURFACE	WSAT
20	VP-11	AERIAL TORPEX

Electronic Warfare Range

DATE	EXERCISE UNIT	TYPE EXERCISE
1	USS LUCE	EWEX
2	USS TALBOT	EWEX
4	USS KIDD	EWEX
11	USS THORN	EWEX
12	U. S. SUBSURFACE	EWEX

AFWTF CHRONOLOGY

January 1984

---The Outer Range was active 19 days providing operational support services to two U. S. surface units, five foreign surface units, Marine Airgroup 31, CVW 17 and three special projects.

---The Inner Range was active nine days this month providing support to six foreign surface units, CVW 17, Puerto Rico Air National Guard (PRANG) and NMCB-74.

---The Underwater Tracking Range (UTR) was active 16 days, supporting three U. S. surface units, VP-66, CVW-17 and five Canadian surface units.

---The Electronic Warfare Range (EWR) was active 16 days supporting two U. S. surface units, two foreign units, TF302.1.5 (Canadian), the 523 ASA CO from FORSCOM, and CVW 17.

February 1984

---The Outer Range was active 24 days providing support to 19 U. S. surface units for Readex 2-84, six foreign surface units, two U. S. aircraft carriers with air wings.

---The Inner Range was active 24 days, providing support to eight U. S. and three foreign surface units, and four U. S. air wings.

---The UTR was active 19 days, providing support to nine U. S. surface and four foreign surface units, one U. S. subsurface unit, and two U. S. air wings and four VP squadrons.

---The EWR was active 26 days Threat Platform Simulator sites provided 487 hours of threat emissions to 17 U. S. surface units, five foreign surface units and two carrier air wings.

March 1984

---The Outer Range was active 13 days this month providing services to USS AMERICA, four U. S. surface and two foreign surface units, and CVW-1.

---The Inner Range was active 13 days to provide services to two U. S. surface units, two air wings, VC-8 and PRANG.

---The UTR was active 12 days providing support to one U. S. surface unit, two U. S. air wings and seven VP squadrons.

---The EWR was active eight days with the Threat Platform Simulator sites providing 91 hours to two U. S. surface units, one air wing embarked on a U. S. aircraft carrier and to PRANG.

April 1984

---The Outer Range was active 16 days providing support to 14 U. S. and one foreign subsurface units and one CNO project, 11 ships were part of COMPUTEX 2-84.

---The Inner Range was active 23 days providing support to 10 U. S. surface units, VC-8, VA-203, JTF-140, 23rd Marines and Ocean Venture 84 participants who conducted two days of amphibious operations.

---The UTR was active 23 days providing services to six U. S. surface, three subsurface units and two VP squadrons.

---The EWR was active 11 days with the TPS providing 187 hours to seven U. S. ships and elements of JTF 140 (Ocean Venture 84).

May 1984

---The Outer Range was active 19 days providing operational services to 10 U. S. surface units, three foreign surface units and one U. S. carrier air wing.

---The Inner Range was active 27 days providing services to 11 U. S. ships, JTF-140 and aircraft from three air units. ALPHA Company/1st Battalion 508th Infantry conducted 10 days of operations on Vieques.

---The UTR was active 23 days, providing services to eight U. S. ships, one U. S. submarine and three VP squadrons.

---The EWR was active 31 days providing 631 hours of threat emissions to 13 U. S. ships, one foreign ship, one U. S. air unit and 10 elements of JTF 140.

June 1984

---The Outer Range was active 15 days providing support to eight U. S. ships, Marine Air Group 31 and several UNITAS XXV ships.

---The Inner Range was active 14 days providing services to six U. S. ships, five foreign ships, TF-138 (UNITAS XXV) and one air squadron. UNITAS XXV conducted seven days of amphibious exercises on Vieques.

---The UTR was active 23 days providing services to two U. S. ships, two U. S. submarines and one VP squadron.

---The EWR was active 10 days providing 125 hours of threat emissions to six U. S. ships, one U. S. submarine and three South American ships from UNITAS XXV.

July 1984

---The Outer Range was active 16 days providing services to five U. S. ships and one foreign ship.

---The Inner Range was closed 22 June through 20 July for refurbishment. After reopening, four ships conducted naval gunfire exercises. U. S. Marine and Seabee units conducted infantry operations and 2nd Marines conducted Remotely Piloted Vehicle (RPV) operations.

---The UTR was active 16 days providing support to three U. S. ships, and one U. S. submarine and six VP squadrons.

---The EWR was active 16 days providing 188 hours of threat emissions to five U. S. ships, one U. S. submarine and one foreign unit.

August 1984

---The Outer Range was active 20 days providing services to Readex 1-85 (TF-21) and four U. S. ships.

---The Inner Range was active 23 days providing services to three U. S. ships and three air wings elements from Readex 1-85.

---The UTR was active 26 days providing support to five U. S. ships, three U. S. submarines, three VP squadrons and three carrier air wings.

---The EWR was active 21 days providing 321 hours of threat emissions to two CVBG's, three air wings and one foreign ship.

September 1984

---The Outer Range was active 21 days providing services to two CVBG's (Readex 2-84), two CNO projects and one foreign ship.

---The Inner Range provided services for 12 days to 5 U. S. ships, one foreign ship and aircraft from three U. S. carrier air wings.

---The UTR was active 16 days providing services to two U. S. submarines and aircraft from three VS and two VP squadrons.

---The EWR was active 11 days providing 120 hours of threat emissions to two CVBG's, one foreign unit and one carrier air wing squadron.

October 1984

---The Outer Range was active 21 days providing services to two U. S. and two foreign ships and two VP squadrons.

---The Inner Range was active 10 days providing services to two U. S. and two foreign ships and to aircraft from two squadrons.

---The UTR was active 27 days providing support to two U. S. submarines, two U. S. and two foreign ships and four VP squadrons.

---The EWR was active 10 days providing 155 hours of threat emissions to one U. S. and three foreign ships.

November 1984

---The Outer Range was active 22 days, providing service to 19 U. S. ships (most part of COMPTUEX 1-85), six foreign ships and to one CVW air wing.

---The Inner Range was active 17 days this month, providing support to 12 U. S. ships, one foreign ship and to aircraft from four squadrons.

---The UTR was active 29 days, providing service to four U. S. submarines, seven U. S. surface units and aircraft from 1 carrier air wing and one VP squadron.

---The EWR was active 17 days providing 195 hours of threat emissions to 15 U. S. and one foreign ship, one U. S. submarine and ships from STANAVFORLANT.

December 1984

---The Outer Range was active 12 days, providing services to five U. S. ships and to aircraft from one carrier air wing.

---The Inner Range was active 12 days providing services to three U. S. ships, one carrier air wing and one VC squadron.

---The UTR was operational 16 days providing support to two U. S. submarines, one U. S. ship and one carrier air wing.

---The EWR was active 14 days providing 193 hours of threat emissions to five U. S. ships, one U. S. submarine and one carrier air wing.

JANUARY 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
4, 11	AFWTF	BQM-74C	UHF/BQM TEST
10-14,17,18	MAG-31	BQM-74C	AAM
12,18	HNLMS VAN SPEYK	TDU/3,A4	SAG/TKX
16	HNLMS VAN SPEYK	TDU/2,A4	SAM
17	HNLMS VAN SPEYK	QST-35	SSG
18	HMS AMBUSCADE	TDU/A4	SAM
18,19,20	HMS AMBUSCADE	2,A4	TKX
18,21	HMS AMBUSCADE	TDU/A4	SAG
18,19	NATC		TOMAHAWK REHEARSAL
22	HMCS IROQUOIS	TDU/A4	SAG
24,25	HMCS HURON HMCS ALGONQUIN HMCS IROQUOIS	4,A4	TKX
25,26	TU 302.1.5	TDU/A4	SAG
26-28,30	CVW-17	BANNER/A4	AAG/ACM
26	HMCS HURON HMCS ALGONQUIN HMCS IROQUOIS	3,BQM-74C	SAM
27,28	PMTC	QF-86	QF-86 CHECK FLIGHT
28	CVW-17	QST-35 w/DPT	ASM
28,30,31	CVW-17	QF-86 BQM-34S 2,BQM-74C	AAM
31	USS SARATOGA	TDU/2,A4	SAG/CIWS
31	USS BRISCOE	TDU/A4	SAG

JANUARY 1984 (Cont'D)

INNER RANGE

Date	Exercise Unit	Type Exercise
7	NMCB-74	MORTEX
19	HMS AMBUSCADE	NGFS
20	PRANG	AGO/STRAFING
24	HMCS FRASER HMCS SAGUENAY	NGFS
24,26-28,30,31	CVW-17	AGO
30,31	HMCS IROQUOIS HMCS HURON	NGFS
30	HMCS ALGONQUIN	NGFS

UNDERWATER TRACKING RANGE

10,17,19	AFWTF	ACL TEST
15,16	USCGC DILIGENCE	FORACS
20,22,23	CNSSC	DEEP DRONE TEST
21	CPWL (VP-66)	AERIAL TORPEX
24,28	USS SARATOGA (CVW-17)	AERIAL TORPEX
24,25,27-31	USS EDENTON	DEEP DRONE OPS
26	HMCS FRASER HMCS SAGUENAY	TORPEX
28	HMCS HURON HMCS IROQUOIS HMCS ALGONQUIN	TORPEDO LOAD
31	USS BRISCOE	TORPEX

ELECTRONIC WARFARE RANGE

16-20,24-26	FORSCOM (523 ASA CO.)	EWX

ELECTRONIC WARFARE RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
16,17	HNLMS VAN SPEYK	EWX
18-21	HMS AMBUSCADE	EWX
22-26,30	TU 302.1.5	EWX
26-29,31	USS SARATOGA (CVW-17)	EWX
27,28,31	USS BRISCOE	EWX

FEBRUARY 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,3,5	USS SARATOGA (CVW-17)	QST-35	SHRIKEX,ASM
2,4	CVW-17/VA-37		ACM
3,4	USS DALE/USS BRISCOE	TDU	CIWS,SAG
3	CVW-17	BQM-74C,34S	AAM
5	USS SELLERS USS SEATTLE	TDU	SAG,SAM
6	USS JOHN L HALL USS SPRAGUE USS PETERSON USS JULIUS A. FURER	QST-35	SSG
6-9	VA-105		ACM
7	USS VREELAND USS JOHN L. HALL USS JULIUS A. FURER	TDU	CIWS/SAG
7	USS PETERSON USS AYLWIN	QST-35	SSG
8	USS EDSON	TDU	SAG
9-12	TF-21	BQM-34S	MSR
10	USS EDSON/USS BRISCOE	TDU,QST-35	TKX,SAG,SSG
11,12	USS AMERICA (CVW-1)	BANNER	AAG
11	USS TAURUS/USS AQUILA	QST-35	SSG
12,13	USS AMERICA (CVW-1)	QST-35	SHRIKEX,ASM
13	USS SARATOGA (CVW-17)	BANNER	AAG
13,28	USS AMERICA	TDU	SAM,SAG
14	USS DALE	TDU,BQM-74C	SAM,TKX,CIWS
15	CVW-1	AQM	AAM
15,16	TG-316.2	TDU	ADEX,SAG

OUTER RANGE (Cont'd)

Date	Exercise Unit	Target	Type Exercise
16	TG-316.2	TDU	SAM
20	USS KLAKRING	TDU	CIWS,SAG
21	AFWTF		WAAS CERT.
24,25,27	AFWTF		QF-86 CHECKS
24	HMS MANCHESTER		LINK 11
26,27	USS JOSEPHUS DANIELS	BQM-34S	SAM,TKX
26	HMS AVENGER HMS BIRMINGHAM	TDU	SAG,SAM
27,28	CVW-7	ACM	
28	USS WILLIAM V. PRATT USS PREBLE HMS AVENGER HMS BIRMINGHAM	BQM-74C	SAM,TKX
28	HMS FIFE HMS MANCHESTER HMS YARMOUTH HMS APOLLO	TDU	SAG
29	USS AMERICA (CVW-1)	QF-86	AAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-4,8-10,12,13,17	USS SARATOGA (CVW-17)	AGO,MINEX,LASER
6,7	USS TAURUS/USS BIDDLE	NGFS
6,8,9,19	USS VREELAND	NGFS
6,7,8	VA-37	AGO
7,13	USS SELLERS	NGFS
9,10	USS EDSON	NGFS
9,11,13,14	CVW-8	AGO
10-15,17,28,29	USS AMERICA (CVW-1)	AGO,LASER,MINEX

INNER RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
11,12	USS PREBLE	NGFS
13	2ND ANGLICO/USS SELLERS/ USS TAURUS	SPOTEX,NGFS
13	HMCS HURON	NGFS
14	CVW-1	MRCI
15-21	AFWTF	MINE RECOVERY
21	USS JULIUS A FURER	NGFS
25	HMS AVENGER HMS BIRMINGHAM	NGFS
27-29	CVW-7	AGO

UNDERWATER TRACKING RANGE

1-7	USS EDENTON	DEEP DRONE TARGET
2,3	HMCS ALGONQUIN HMS IROQUOIS 3 H-2 (#404,412,438)	TORPEX (MK-30)
3	HMCS FRASER/1 H-2 (#436)	TORPEX (MK-30)
4-12	US SUBSURFACE	WSAT
5	USS JOHN L HALL USS SPRAGUE	ASW TORPEX
6	USS PETERSON USS AYLWIN USS JULIUS A. FURER USS SELLERS USS SAMUEL ELIOT MORISON	ASW TORPEX
7	VP-44	AERIAL TORPEX (MK-30)
9	CVW-17(VS-30)	AERIAL TORPEX (MK-30)
11	US SUBSURFACE	MK-48 CMD QUAL.
13	HMCS HURON/1 H-3 (#413)	TORPEX

UNDERWATER TRACKING RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
14	CVW-1 (HS 11)	AERIAL TORPEX (MK-30)
17	VP-11	AERIAL TORPEX (MK-30)
20,21	USS BIDDLE	SSRNM
24	CPWL (VP-49,VP-16)	AERIAL TORPEX (MK-30)
28	CVW-1 (VS-32,HS 11)	AERIAL TORPEX (MK-30)

ELECTRONIC WARFARE RANGE

1-4,8-12,13,16-19	USS SARATOGA (CVW-17)	EWX
2	TU-302.1.5	EWX,ADEX
3,4	USS SARATOGA USS BRISCOE USS DALE	Z-5,ASCM,EWX
5,6	TG 21.5	EWX
5	USS AYLWIN USS CLIFTON SPRAGUE	Z-3-ASCM
6	USS SAMUEL ELIOT MORRISON USS AQUILA USS JOHN L. HALL USS JULIUS A. FURER USS TAURUS	Z-3-ASCM
6	TF-21/USS BIDDLE USS VREELAND	EWX
8,10	USS EDSON	Z-3-ASCM
10	USS BRUMBY/USS BRISCOE	EWX
10-16,17,28,29	USS AMERICA (CVW-1)	EWX,Z-3-ASCM, Z-5-ASCM
11,12,13	USS PREBLE	EWX

ELECTRONIC WARFARE RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
11	USS TAURUS/USS AQUILA	EWX
12,15,16,19,20	USS KLAKRING	EWX
13	USS SELLERS (CVW-8) USS BRUMBY USS WILLIAM V. PRATT	EWX
15	TF-316.2	EWX
21	USS JULIUS A. FURER	EWX
26	HMS AVENGER HMS BIRMINGHAM	EWX
28	HMS FIFE HMS MANCHESTER HMS APOLLO	EWX

MARCH 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	CVW-1	QF-86	AAM
1	USS PREBLE	TDU	SAG
1,4	USS AMERICA (CVW-1)	MK-28 TORPEDO TGT	LIVE TORPEX
1,4	USS SEMMES	TDU	SAG
1-3,7,8	USS AMERICA TG 20.1		AAWEX
2	USS AMERICA	TDU	SAM
2	USS PREBLE USS WILLIAM V. PRATT HMS AVENGER HMS BIRMINGHAM	AQM (2)	SAM
3	USS PREBLE USS WILLIAM V. PRATT	QST-35	SSG
4	USS WILLIAM V. PRATT	TDU	SAG
6	CVW-1	AQM	AAM
9,11-14	USS MCINERNEY	A-4	TRACKEX
11	USS MCINERNEY	QST-35	SSG
14	USS MCINERNEY	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-3,6-8	CVW-1	AGO
1-4,6-8	CVW-7	AGO
1	USS WILLIAM V. PRATT	NGFS
14,15	USS BRUMBY	NGFS
16,27	156 TFG (PRANG)	AGO
23,27,29	VC-8	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	HS-11/VS-32 (CVW-1)	AERIAL TORPEX
4,31	VP-26	AERIAL TORPEX
5	VS-31	AERIAL TORPEX
7	USCGC ALERT	FORACS
8	VS-32	AERIAL TORPEX
9	VP-10	AERIAL TORPEX
12,21	VP-49	AERIAL TORPEX
12	USS AMERICA	SSRNM
18	VP-11	AERIAL TORPEX
26	VP-56	AERIAL TORPEX
29	VP-23	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

1-3	USS AMERICA (CVW-1)	EWX
10,12	USS MCINERNEY	EWX
14	USS BRUMBY	EWX
16,27	156 TFG (PRANG)	EWX

APRIL 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
8	USS SAMPSON	TDU	ANTI-AIRCRAFT WARFARE EXERCISE (AAWEX)
9,10	USS KOELSCH USS EDWARD MCDONNELL	TDU	AAWEX
11	USS KING/USS STARK/ USS JOHN KING	AIRCRAFT	AAWEX
11	HNLMS VAN SPEYK	TDU	SAG
12	USS STARK USS AUBREY FITCH	TDU	AAWEX
13,14	USS ELMER MONTGOMERY	TDU,AIRCRAFT	AAWEX
13,14	USS STARK USS AUBREY FITCH	BQM-74C	SAM/SAG
14	USS KING USS AUBREY FITCH	BQM-74C	SAM
15	USS THORN/USS TALBOT/ USS KING	TDU	AAWEX
17	AFWTF	BQM-34S	TEST FLIGHT
19,20,23	USS TICONDEROGA (CNO PROJ 100)		TRACKEX
23,24	USS TICONDEROGA (CNO PROJ 100)	AQM-37C, BQM-34S,BQM-34E	MSLX
28	USS TICONDEROGA (CNO PROJ 100)	BQM-74, BQM-34S,AQM-37C	MSLX
29	USS TICONDEROGA (CNO PROJ 100)	AQM-37C, BQM-34E,BQM-34S HARPOON	MSLX
30	USS BARNEY		TRACKEX,LINK 14
30	USS BARNEY	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
2,4-6,26	VC-8	AGO
7,8	USS ELMER MONTGOMERY	NGFS
8	USS AUBREY FITCH	NGFS
9,10,14	USS THORN	NGFS
9,10,13,14,16	USS TALBOT	NGFS
11-14,16	VA-203	AGO
11	USS SAMPSON	NGFS
12,13,17	USS KOELSCH	NGFS
13,14,16	USS EDWARD MCDONNELL	NGFS
15	USS KING	NGFS
16	USS STARK	NGFS
17,18	USS JOHN KING	NGFS
23-28	23RD MARINES	MORTAR FIRINGS
23	OCEAN VENTURE-84	AERIAL MINEX
24,30	JTF-140	AGO
26,27	OCEAN VENTURE-84	AMPHIBIOUS OPS
26-30	AFWTF	MINE RECOVERY

UNDERWATER TRACKING RANGE

3-6	US SUBSURFACE	CART
8-16	US SUBSURFACE	WSAT/MK-48 CMD QUAL
8,12	USS KOELSCH	COMPTUEX TORPEX
8	USS STARK	COMPTUEX TORPEX
9	VP-56	AERIAL TORPEX
10	USS AUBREY FITCH USS ELMER MONTGOMERY	COMPTUEX TORPEX

UNDERWATER TRACKING RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
12	USS TALBOT	COMPTUEX TORPEX
12,13	USS THORN	COMPTUEX TORPEX,ISE
13,23	VP-11	AERIAL TORPEX
18,19	NUSC, NEW LONDON	SAR ARRAY TEST
18-27	US SUBSURFACE	WSAT/MK-48 CMD QUAL

ELECTRONIC WARFARE RANGE

7	TG 21.9/USS THORN	EWX
8	USS THORN/USS TALBOT	EWX
10	USS SAMPSON USS TALBOT USS THORN USS EDWARD MCDONNELL	EWX
11-14,16	VA-203	EWX
12-16	TG 21.9	EWX
13	USS STARK USS AUBREY FITCH	EWX
24	US SUBSURFACE	EWX
30	JTF-140	EWX

MAY 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3,5	USS HAYLER		LINK 11
4	USS HAYLER		LINK 14
4	USS HAYLER	BANNER	SAG
4,5	USS HAYLER		TRACKEX
5	USS HAYLER	TDU	SAM
5,7,8,15, 16,18,24-26	USS WAINWRIGHT		TRACKEX
7,8	USS WAINWRIGHT	BQM-74C, BQM-34S,BQM-34E	SAM
8	USS DEWEY	TDU	SAG
8,9	USS DEWEY		LINK 11
9	USS WAINWRIGHT	TDU	SAG
9	AFWTF	A4 (POD)	PROGRAM TEST
9-12	USS COONTZ		Z-5-C1,TRACKEX
10	HMS BRISTOL	BQM-74C, AQM-37A	SAM
10	USS AMERICA (CVW-1)	BQM-74C	AAM
10	USS WILLIAM V. PRATT USS BRUMBY	SLED (YFRT)	SSG
11	HMS BRISTOL	TDU	SAG
15	USS DEYO	TDU	SAG
16	USS DEYO	TDU,SLED	SAM,SSG
17,18	USS DE WERT		LINK 11
18	USS DE WERT	BQM-74C	SAM
24	USS IOWA	QST-35	SSG
26	USS CHARLES F. ADAMS	BQM-74C	SAM

OUTER RANGE (Cont'd)

Date	Exercise Unit	Target	Type Exercise
29	HMS ARIADNE	TDU	SAM,SAG
30,31	SNS BALEREAS	BQM-74C	SAM
31	SNS BALEREAS	A4	TRACKEX

INNER RANGE

Date	Exercise Unit	Type Exercise
1-5	JTF 140 (OCEAN VENTURE-84)	AGO,AMPHIB
6,7	USS HAYLER	NGFS
8	VC-8	AGO
9,10	USS DEWEY	NGFS
10	CVW-1	AGO
10	USS PREBLE (CVW-1)	NGFS,SPOTEX
10,11	USS BARNEY	NGFS
11,12	USS COONTZ	NGFS
12,13,17,20	USS McCANDLESS	NGFS
15,16	A CO/1BN/508 INF	TGT PREP (EMA)
16-18,20	156 TFG (PRANG)	AGO
17-19	USS DEYO	NGFS
17-19	A CO/1BN/508 INF	DZ RECCE
18,20-24	A CO/1BN/508 INF	INFTRY OPS
18,19	USS SCOTT	NGFS
21-23	USS IOWA	NGFS
25,27,28	USS WAINWRIGHT	NGFS
30	USS SPRUANCE	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USNS MOHAWK	MK-30 RECOVERY
2	VP-11	AERIAL TORPEX (MK-30)
2-7	USS BARNEY	WSAT
4,5	USCGC RELIANCE	FORACS
7,8	USS BARNEY	SSRNM
11-17	USS WAINWRIGHT	WSAT
12	CPWL (VP-62)	AERIAL TORPEX (MK-30)
14-19	USS McCANDLESS	WSAT
15,16	USS WAINWRIGHT	SSRNM
15-22	US SUBSURFACE	WSAT
16,17	USS DEYO	SSRNM
18-20	USS McCANDLESS	SSRNM
20	USS McCANDLESS	PACER OPS (MK-30)
29-31	USS CHARLES F. ADAMS	WSAT
30	VP-23	AERIAL TORPEX (MK-30)

ELECTRONIC WARFARE RANGE

1-4	JTF 140	EWX
3-8	USS HAYLER	EWX
5-10,15-17,25,26	USS WAINWRIGHT	EWX
6,10,11	USS BARNEY	EWX
8	USS DEWEY	EWX
8-12,14	USS COONTZ	EWX
11,12	USS McCANDLESS	EWX
13	USS COONTZ	Z-3-ASCM,Z-5-ASCM
16-18	USS DEYO	EWX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
17,19,20	USS DE WERT	EWX
18	USS SCOTT	EWX
20	156 TFG (PRANG)	EWX
21-24	USS IOWA	EWX,ICSE
27-31	USS CHARLES F. ADAMS	EWX (Z-3,Z-5-ASCM)
29	HMS ARIADNE	EWX
30	USS SPRUANCE	EWX

JUNE 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
4-8	MAG-31 VMGR-252		TANKERX
4-9	MAG-31	BQM-74C,AQM-37A	AAM
7-9	EASTERN SPACE & MISSILE CENTER		SPACE TRK (STX CAPRI RDR)
9	USS TRIPPE	TDU	SAG/SAM
16	USS MACDONOUGH	BQM-74C	SAM
19	USS TALBOT/USS ARIES/ VENEZUELAN NAVY (VENAV) UNIT	QST-35	SSG
19	USS THORN/VENAV/ COLOMBIAN NAVY (COLNAV) UNITS	A4,TDU	TRACKEX,SAG
19	USS THORN/USS TALBOT/ USS ARIES	TDU	SAM/SAG
20	USS MACDONOUGH/VENAV/ USS HERCULES/COLNAV	QST-35	SSG
20	USS TALBOT VENAV	A4,TDU	TRACKEX,SAG
21	USS SCAMP/USS THORN/ VENAV/COLNAV	QST-35	SSG
21	USS MACDONOUGH/VENAV/ COLNAV	A4,TDU	TRACKEX,SAG
21	USS MACDONOUGH USS THORN USS TALBOT VENAV/COLNAV	BQM-74C	SAG
26-29	USS HALYBURTON		LINK 11
27,28	USS HALYBURTON	BQM-74C,TDU	SAM
27,30	USS HALYBURTON	TDU	SAG
27	AFWTF	A4/POD	RADAR PGM TST

INNER RANGE

Date	Exercise Unit	Type Exercise
4,5,6	VC-8	AGO
6-8	USS TRIPPE USS CHARLES F. ADAMS	NGFS
15-16	USS MACDONOUGH	NGFS
18-23,25	TF-138	UNITAS XXV AMPHIB OPS
19	USS MACDONOUGH USS ARIES ARV URDANET/ARC BADILLA	NGFS NGFS
20	USS THORN/USS HERCULES/ ARV SUCRE/ARC CALDAS	NGFS
21	USS MACDONOUGH USS ARIES ARV SALOM	NGFS
22-30	AFWTF	RANGE REFURBISHMENT

UNDERWATER TRACKING RANGE

1-4	USS CHARLES F. ADAMS	WSAT/TORPEX
5,6	USS CHARLES F. ADAMS	SSRNM
7,12	AFWTF	MK-30 ENGINEERING RUNS, ACL CHECKOUT
8-18	US SUBSURFACE	WSAT/MK-84 COMMAND QUALIFICATION
20	USS MACDONOUGH	ISE TORPEX (MK-30)
21,22,23	US SUBSURFACE	TORPEX
28,29	VP-45	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
6,7	USS TRIPPE	EWX
13	USS MACDONOUGH USS THORN USS TALBOT	EWX
19	USS MACDONOUGH USS ARIES VENAV COLNAV	EWX
20	USS THORN USS HERCULES ARC CALDAS	EWX
21	USS TALBOT USS MACDONOUGH VENAV	EWX
21,22	USS SUBSURFACE	EWX
27,28	USS HALYBURTON	EWX(M1,2,3) ICSE

JULY 1984

OUTER RANGE

Date	Exercise Unit	Target	Type of Exercise
10-14,16	USS YORKTOWN	A4	TRACKEX,EW
12-14,16-18	USS YORKTOWN		LINK 11
17	HMS ACTIVE	A4	TRACKEX
18	HMS ACTIVE	SLED	SSG
17-19	HMS ACTIVE	TDU	SAG
18	USS IOWA	TDU	SAG
17-19	HMS ACTIVE	TDU	SAM
20	USS IOWA	QST-35	SSG,LINK 11
21,23,24	USS MOINESTER	A4	TRACKEX
22	USS MOINESTER	QST-35	SSG
25	USS STUMP	TDU	SAM
30	USS BLAKELY	TDU	SAM

INNER RANGE

Date	Exercise Unit	Type of Exercise
1-20	AFWTF	RANGE REFURBISHMENT
14-25	3RD FORECONCO/4TH MARINES	INFANTRY OPS (EAST AND WEST MANEUVER AREAS)
15,16,18-20	2ND MARINES	SPECIAL OPS
21,22,23	USS MOINESTER	NGFS
21	USS IOWA	NGFS
23,24	USS STUMP	NGFS
24,25	NMCB 62	INFANTRY,MORTAR OPS
29,30	USS BLAKELY	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type of Exercise
2	VP-11	AERIAL TORPEX
6	VP-56	AERIAL TORPEX
10	CTG 24.7(VP-26)	AERIAL TORPEX
11-17	USS STUMP	WSAT
12,13	USS IOWA	TACTICAL TRIALS/ SSRNM
14,21,28	CPW-11(VP-45,VP-56, VP-94)	AERIAL TORPEX
19	CPW-5(VP-8)	AERIAL TORPEX
23,24	USS MOINESTER	SSRNM
24	US SUBSURFACE	TORPEX
24,25,28	USS STUMP	SSRNM
10-14,16-18	USS YORKTOWN	EWX,ICSE
16-18,23-25	USS STUMP	EWX
18-20	USS IOWA	EWX
19	HMS ACTIVE	EWX
20-22	USS MOINESTER	EWX
25	US SUBSURFACE	EWX
30	USS BLAKELY	EWX

AUGUST 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
9-11,14,20-22	AFWTF-PMTC	QF-86	QF-86 TEST
13,14,17	USS DWIGHT D. EISENHOWER (CVW-7)	BANNER	AAG
13,14,30	USS DWIGHT D. EISENHOWER (CVW-7)	QST-35	SHRIKEX
13,14	USS SOUTH CAROLINA	BQM-74C	SAM,LINK 11
14	USS SOUTH CAROLINA	QST-34,TDU	SSG,SAG
15,16	USS DWIGHT D. EISENHOWER (CVW-7)	QF-86,BQM-74C	AAM
17	USS NICHOLAS	A4,BQM-74C	TRACKEX,SAM
20	USS BELKNAP	TDU	SAG
20-24	USS BELKNAP		LINK 11
21	USS BELKNAP	A4(EW),QST-35	TRACKEX,SSG
21-26,31	ROYAL NORWEGIAN AIR FORCE (RNAF), US SURFACE UNITS	ASSP,DHC6	CNO PROJ 775
22	CVW-8	QST-35	SHRIKEX
23-27,31	TF-21		READEX 2-84
23	USS NICHOLAS	QST-35	SSG
24,25	USS INDEPENDENCE (CVW-6)	QF-86,BQM-34S, BQM-74C	AAM
24,25	USS INDEPENDENCE (CVW-6) FEWSG	A4	AAWEX
25,26,30,31	USS INDEPENDENCE (CVW-6)	BANNER,TDU	AAG
25	USS DWIGHT D. EISENHOWER (CVW-7) & CBG	TDU,SLED	SAG,SSG
27-30	TF-21		MSR (READEX 2-84)

OUTER RANGE (Cont'd)

Date	Exercise Unit	Target	Type Exercise
30	USS JOSEPHUS DANIELS	TDU	SAG
31	TF-21	EX-LCU	HARPOONEX

INNER RANGE

Date	Exercise Unit	Type Exercise
2,3,6-9,27,28	VC-8	AGO/SF
12-16,22-25,29,30	USS DWIGHT D. EISENHOWER (CVW-7)	AGO
12,14	USS DWIGHT D. EISENHOWER (CVW-7)	MINEX
18	USS BELKNAP	NGFS
21-23	USS ARTHUR W. RADFORD	NGFS,SPOTEX
22-25,30,31	CVW-8	AGO
23-26,30,31	USS INDEPENDENCE (CVW-6)	AGO,SF
25	USS INDEPENDENCE (CVW-6)	MINEX
31	USS JOSEPHUS DANIELS	NGFS

UNDERWATER TRACKING RANGE

1	CPWL	AERIAL TORPEX
2-7	USS SOUTH CAROLINA	WSAT
8	CPW-11	AERIAL TORPEX
10-19	US SUBSURFACE	WSAT
12,14,15,18,22,25	CVW-7	AERIAL TORPEX
15	USS ARTHUR W. RADFORD	TORPEX
16,17	USS DWIGHT D. EISENHOWER	SSRNM
25,29	CVW-8	AERIAL TORPEX

UNDERWATER TRACKING RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
25,26	USS INDEPENDENCE (CVW-6)	AERIAL TORPEX
25,26	USS ARTHUR W. RADFORD	SSRNM
27	US SUBSURFACE	TORPEX
28	CPW-5 (VP-10)	AERIAL TORPEX
29-31	US SUBSURFACE	WSAT
30,31	USS MISSISSIPPI	SSRNM,FORACS

ELECTRONIC WARFARE RANGE

6,7,10,12,14	USS SOUTH CAROLINA	EWX
12-16,27,29,30	USS DWIGHT D. EISENHOWER (CVW-7)	EWX
17	USS NICHOLAS	EWX
18,20,21	USS BELKNAP	EWX,Z3/5 ASCM
23-27,28-31	USS INDEPENDENCE (CVW-6)	EWX
24,25	HMS ANDROMEDA	EWX
24-30	VS-24	EWX
28	US SUBSURFACE	EWX

SEPTEMBER 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
2	USS DWIGHT D. EISENHOWER (CVW-7)	AQM-37A	AAM
3	USS INDEPENDENCE (CVW-6)	AQM-37A	AAM
3	TF-88	HULK	SINKEX
4	HMS YARMOUTH		TRACKEX
5-7,9	US SUBSURFACE		CNO PROJ 251 TRACKEX/REHEARSAL (TOMAHAWK)
5	HMS YARMOUTH	TDU	SAG
8,10	US SUBSURFACE	HULK	CNO PROJECT 251 MISSILEX
8,11	US SUBSURFACE		LINK 11
11	USS HERCULES	SLED	SSG
13	USS GEMINI USS AGUILLA USS TAURUS USS PEGASUS	QST-35	SSG RANGE FAMILIARIZATION
17,19	USS JOSEPH HEWES	QST-35	SSG
19	USS JOSEPH HEWES	BQM-74C	SAM
21,24,27	AFWTF/PMTC	QF-86	REHEARSAL
22	ESMC	DELTA	ROCKET LAUNCH
25	USS TICONDEROGA	BQM-34S,T AQM-37C	CNO PROJ 623 OPS.
26	USS TICONDEROGA	QF-86,BQM-34S AQM-37C	CNO PROJ 623 OPS.
27	USS TICONDEROGA	BQM-34S,AQM-37C	CNO PROJ 623 OPS.
29	USS TICONDEROGA	QF-86,BQM-34S,E	CNO PROJ 623 OPS.
30	USS TICONDEROGA	BQM-34S,AQM-37C	CNO PROJ 623 OPS.

INNER RANGE

Date	Exercise Unit	Type Exercise
1,2	USS DANIELS	NGFS
1	USS CAPODANNO	NGFS
1,2,6,9,11	USS VOGE	NGFS
2,3,4	CVW-6,CVW-7	AGO
2,3,4	CVW-8	AGO
4,5	USS MISSISSIPPI	NGFS
5	HMS YARMOUTH	NGFS
13,14,18,19	USS JOSEPH HEWES	NGFS

UNDERWATER TRACKING RANGE

1-7	US SUBSURFACE	WSAT,MK-48 CMD QUAL
2,3	VS-31,VS-28	AERIAL TORPEX
3	VS-24	AERIAL TORPEX
6-14	US SUBSURFACE	WSAT
10,11,17	VP-5	AERIAL TORPEX
20	VP-24	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

1,4	USS DWIGHT D. EISENHOWER (CVW-7)	EWX
2-4	USS INDEPENDENCE (CVW-6)	EWX
4,5	VS-24	EWX
4	HMS YARMOUTH	EWX
10	USS GEMINI	EWX
13,14,17-19	USS JOSEPH HEWES	EWX

OCTOBER 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS TICONDEROGA	QF-86,AQM-37C	CNO PROJ 623 OPS
2,3,5-8,22	AFWTF,PMTC	QF-86	QF-86 REHEARSAL
8-12,24	USS MAHAN	QF-86,BQM-34S, BQM-74C,AQM-37C	CNO PROJ 623 OPS
18	HMS YARMOUTH	QST-35	SSG
19	HMS YARMOUTH	TDU	SAG
23,24,29	FGS MÖLDERS	A4,BQM-74C, BQM-34E	TRACKEX,SAM
25,26	VP-16,VP-5		HARPOON FLT TNG
29,30	USS MAHAN	YFRT/SLED,QST-35	SSG
30,31	FGS MÖLDERS	A4,TDU	TRACKEX,SAG
30	FGS MÖLDERS	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
1,2	USS MAHAN	NGFS
2	USS TICONDEROGA	NGFS
9-12	VC-8	AGO
12,15,19	CVW-8	AGO
17	HMS YARMOUTH	NGFS
31	HNLMS TROMP	NGFS

UNDERWATER TRACKING RANGE

1-8	US SUBSURFACE	WSAT
1	VP-8,CPW-5	QAST

UNDERWATER TRACKING RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
2,3	USS MAHAN	SSRNM
11-17	FGS MÖLDERS	WSAT
17,19,22,25,28	APL,JHU	SUSEX
18,23,26	VP-5/16/24/26,CPW-11	AERIAL TORPEX
23-31	US SUBSURFACE	WSAT
29	VP-5/16/24	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

1,2,10,17,18,23	USS MAHAN	EWX
17-19	HMS YARMOUTH	EWX
29	US SUBSURFACE	EWX
29-31	NLTG	EWX

NOVEMBER 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
5	HNLMS TROMP	AQM-37A	MISSILEX
6	HNLMS LUETJENS/SNFL	A4/TDU	SAG
7,10	USS UNDERWOOD USS CHARLES F. ADAMS	A4/TDU	SAG
7	USS SOUTH CAROLINA USS DOYLE USS KIDD	A4/TDU	SAG
7	USS MILLER USS DOYLE USS SOUTH CAROLINA USS KIDD USS UNDERWOOD	SLED	SSG
8	USS IOWA	A4/TDU	SAG
8	USS IOWA, USS BELKNAP	SLED	SSG
8	USS BOWEN USS MOINESTER	A4/TDU	SAG
9	USS MOINESTER USS KIDD, USS BOWEN USS TRIPP	SLED	SSG
9	COMPTUEX 1-85	BQM-74C	RIMEX
10	USS HERCULES USS MACDONOUGH HNLMS TJERK HIDDES USS BARNEY	SLED	SSG
10	USS BELKNAP	QST-35	SSG
11	CVW-3	QST-35	CAPTIVE SHRIKEX
12	COMPTUEX 1-85,CVW-3	BQM-74C	AAM
12	USS KALAMAZOO	BQM-74C	SAM
12	USS KALAMAZOO	A4/TDU	SAG
13	CVW-3	A4/BANNER	AAG
14	CVW-3	HULK	SINKEX

OUTER RANGE (Cont'd)

Date	Exercise Unit	Target	Type Exercise
15	COMPTUEX 1-85	SLED	SSG
19	FS JEANNE D'ARC	A4	TRACKEX
20,23	HNLMS CALLENBURG	A4	TRACKEX
23	HNLMS CALLENBURG	BQM-74C	SAM
26-28	USS LUCE		LINK 11
27	USS LUCE	BQM-74C	SAM
28,29	HMS LIVERPOOL	BQM-74C	TRACKEX,SAM
28,29	HMS LIVERPOOL	A4/TDU	SAG
29,30	USS GLOVER		LINK 14
29	USS SAIPAN		LINK 11
30	USS GLOVER	A4/TDU	SAG

INNER RANGE

Date	Exercise Unit	Type Exercise
1	FGS MÖLDERS	NGFS
6,8	USS KIDD	NGFS
6,11,14,15	USS MILLER	NGFS
6,8,9	USS BOWEN	NGFS
8,9	USS ARTHUR W. RADFORD	NGFS
7-15	CVW-3	AGO
9,10,11	USS SOUTH CAROLINA	NGFS
11,12	USS RICHARD E. BYRD	NGFS
10	USS IOWA	NGFS
11,13	CVW-3	MINEX,SPOTEX
14-16	USS MACDONOUGH	NGFS

INNER RANGE (Cont'd)

Date	Exercise Unit	Type Exercise
17	156 TFG	AGO
20,21	CVW-8,VC-8	AGO
28	USS LUCE	NGFS
28-30	2 FORECONCO	SWIM OPS
30	USS SAIPAN	NGFS
30	USS GLOVER	NGFS

UNDERWATER TRACKING RANGE

1,2	US SUBSURFACE	WSAT,MK-48 CMD QUAL
3,4,5	US SUBSURFACE,VP-8, VS-22	AERIAL TORPEX
5,6	USS BOWEN	SSRNM
6	USS DOYLE USS UNDERWOOD,HS-9	AERIAL TORPEX
7-16	US SUBSURFACE	WSAT,MK-48 CMD QUAL
8,9	USS KIDD	SSRNM
9,10	USS BELKNAP	SSRNM
10,11	USS MILLER	SSRNM
11,12	USS RICHARD E. BYRD	SSRNM
12	HS-7	AERIAL TORPEX
17	VP-64,VP-66	AERIAL TORPEX
19	VP-5	AERIAL TORPEX
22-24	US SUBSURFACE	WSAT,MK-48 CMD QUAL
24-30	US SUBSURFACE	WSAT
26	VP-10	AERIAL TORPEX
29	CPW-11	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
6,7	USS DOYLE	EWR
6-8	USS FITCH	EWR
7	HMCS OTTAWA	EWR
8	USS MOINESTER	EWR
8,10	USS BELKNAP	EWR
8	SNFL	EWR
9	USS SOUTH CAROLINA USS IOWA USS UNDERWOOD	EWX
10	USS CHARLES F. ADAMS USS BARNEY	EWX
11-14	CVW-3	EWX
11	USS MILLER	EWX
12	VS-22	EWX
14	US SUBSURFACE	EWX
14,15	USS MACDONOUGH	EWX
20,21	CVW-8	EWX
26-28	USS LUCE	EWX
28,29	HMS LIVERPOOL	EWX
29	USS THORN	EWX
30	USS GLOVER USS SAIPAN	EWX

DECEMBER 1984

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3,5,7,10-13	USS NIMITZ (CVW-8)	A4/BANNER	AAG
4,5	USS BELKNAP	SLED	SSG
4	USS NIMITZ (CVW-8)	BQM-74C	AAM
5	USS BRADLEY	A-4,BQM-74C	TRACKEX,MISSILEX
7	USS GEMINI	SLED	SSG
8	USS BELKNAP	A-4/TDU	SAG
10	USS NIMITZ (CVW-8)	HULK,QST-35	SINKEX,SHRIKEX
10-14	VF-103	A-4/BANNER	AAG
20	USS CLARK	A-4,BQM-74C	TRACKEX,MISSILEX
28	AFWTF/VC-8	A-4	AIC TRAINING

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS GLOVER USS SAIPAN	NGFS
2-12	USS NIMITZ (CVW-8)	AGO
3-6	VC-8	AGO
5,6	USS NIMITZ (CVW-8)	MINEX
11	USS BELKNAP	NGFS
12-14	EOD/AFWTF	MINE RECOVERY SCORING
15-31	AFWTF/NAVSTA	RANGE REFURBISHMENT

UNDERWATER RANGE

Date	Exercise Unit	Type Exercise
1-4	US SUBSURFACE	WSAT
1	CPW-5,VP-26	AERIAL TORPEX
5-14	US SUBSURFACE	WSAT
7-9	USS NIMITZ (CVW-8)	VS/HS TORPEX
9,10	USS NIMITZ (CVW-8)	SSRNM
10	USS NIMITZ (CVW-8) USS BELKNAP	HS TORPEX
12	USS BELKNAP	SSRNM
13,14	US SUBSURFACE	CNO PROJ OPS, ARRAY TEST
15	CPW-11,VP-5	AERIAL TORPEX
17	CPW-5,VP-8	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

1	USS GLOVER	EWX
1,2	USS TALBOT	EWX
2-12	USS NIMITZ (CVW-8)	EWX
2-4	US SUBSURFACE	EWX
4	USS AQUILLA	EWX
5,6,12	USS BRADLEY	EWX
17,20	USS CLARK	EWX

AFWTF CHRONOLOGY

January 1985

- The Outer Range was active 21 days this month. Operational support services were provided to 3 U.S. surface units, 7 foreign surface units, the USS NIMITZ/CVW-8, MAG-31, and FITRON 202.

- The Inner Range was active 26 days this month. This included 11 days of range refurbishment and 4 days of mine recovery operations. Operational support services were provided to 2 U.S. surface units, 5 foreign surface units, 1 U.S. aircraft carrier with onboard airwing, and aircraft from VP-49.

- The Underwater Tracking Range (UTR) was active 12 days this month providing operational support services to 3 surface units (1 U.S., 2 foreign), 1 foreign submarine, 5 Patrol Squadrons from COMPATWING FIVE and COMPATWING ELEVEN, and aircraft from the VS-24 and HS-9 squadrons from CVW-8. Support was also provided to UTC ONE and SEACON for the survey and implant of a deep moor on the Range.

- The Electronic Warfare Range (EWR) was active 19 days this month providing threat simulation services to 2 U.S. surface units, 9 foreign surface units, 1 U.S. aircraft carrier with onboard airwing, and a detachment from the 88th ARCOM (U.S. Army) group.

February 1985

- The Outer Range was active 22 days during February. Operational support services to 5 U.S. ships, 4 foreign ships, and detachments from FITRON 202 and CVWR-20.

- The Inner Range was active 9 days this month. Support services were provided to 6 foreign surface units and aircraft from 4 U.S. air units.

- The UTR was active 28 days this month. Operational support services were provided to 2 U.S. submarines, 1 Canadian submarine, 6 Canadian ships, 1 U.S. ship and 3 VP squadrons.

- The EWR was active 20 days this month providing threat simulation services to 4 U.S. surface units, 8 foreign surface units, and 2 U.S. Army land based units.

March 1985

- The Outer Range was active 24 days this month. Support services were provided to 15 U.S. surface units, 3 foreign surface units, participants in READEX 1-85 (including the USS NIMITZ/CVW-8), and aircraft from CVW-3.

March 1985 (continued)

- The Inner Range was active 26 days during March. Operational support services were provided to 9 U.S. surface units, 1 foreign surface unit, the USS NIMITZ/CVW-8, and aircraft from CVW-3, VC-8, and VP-49.

- The UTR was active 18 days this month. Support services were provided to 9 U.S. surface units, 1 U.S. aircraft carrier with onboard airwing and aircraft from CVW-3 and several VP squadrons.

- The EWR was active 20 days this month providing threat simulation services to 4 U.S. surface units, 3 foreign surface units, 1 U.S. aircraft carrier with onboard airwing, and aircraft from CVW-3 flying out of Roosevelt Roads.

April 1985

- The Outer Range was active 20 days during April. Operational support services were provided to 7 U.S. surface units, several participants in Composite Task Unit Exercise (COMPTUEX) 2-85 including the USS SARATOGA/CVW-17, and USS CORAL SEA/CVW-13 and aircraft of CVW-3.

- The Inner Range was active for 20 days this month. Operational support services were provided to 10 U.S. surface units, ships from the task units engaged in COMPTUEX 2-85 events, 2 U.S. Army battalions, a detachment of the 2nd Marine Division, Naval Special Warfare Unit FOUR, 2 Carrier Battle Groups (CVBG) and their associated CVW's, and aircraft from CVW-3, CVW-17, VC-8, and VP-23.

- The UTR was active for 27 days of April providing operational support services to 13 U.S. surface units, 1 U.S. subsurface unit, 3 VP squadrons, 1 VS squadron, and UCT-1.

- The EWR was active for 18 days this month providing threat simulation services to 18 U.S. surface units (individually or as part of COMPTUEX 2-85) and aircraft of CVW-3 deployed at Roosevelt Roads.

May 1985

- The Outer Range was active 17 days during the month of May. Operational support services were provided to surface units of Task Force 21 - COMPTUEX 2-85, one airwing, two surface units, and two agencies.

- The Inner Range was active 15 days of May. Operational support services were provided to 5 U.S. surface units, 4 U.S. air units, and to EOD for mine recovery.

May 1985 (continued)

- The UTR was active 17 days during the month of May. Operational support services were provided to 5 U.S. air units, 6 U.S. surface units, and 1 Canadian surface unit.

- The EWR was active 10 days in May. Operational support services were provided to 14 U.S. surface units and 1 Canadian surface unit.

June 1985

- The Outer Range was active 17 days in June. Operational support services were provided to 9 U.S. surface units, Task Force 138/ UNITAS XXVI, 1 U.S. Marine Air Group and Eastern Space Missile Command (ESMC).

- The Inner Range was active 16 days in June. Operational support services were provided to 12 U.S. surface units, 1 U.S. Army unit, 2 U.S. air units, 1 Venezuelan Marine unit, 3 Venezuelan surface units and 1 British surface unit.

- The UTR was active 17 days in June. Operational support services were provided to 6 U.S. surface units, 1 U.S. subsurface and 4 U.S. air units.

- The EWR was active 17 days in June. Operational support services were provided to 16 U.S. surface units, 1 U.S. air unit and 3 Venezuelan surface units. Foreign units were part of UNITAS XXVI/TF-138.

July 1985

- The Outer Range was active 18 days in July. Operational support services were provided to 16 U.S. surface units, 2 U.S. air wings, READEX 2-85 units, 3 foreign surface units and ESMC.

- The Inner Range was active 22 days in July. Operational support services were provided to 6 U.S. surface units, 8 U.S. air units, and 2 foreign surface units, air-to-ground operations took 22 days and naval gunfire exercises used 8 days.

- The UTR was active 12 days in July. Operational support services were provided to 8 U.S. surface units, 4 U.S. air units, and 1 foreign surface unit.

- The EWR was active 18 days in July. Operational support services were provided to 9 U.S. surface units, 3 U.S. air units, and 2 foreign surface units.

August 1985

- The Outer Range was active 19 days during August. Operational support services were provided to 16 U.S. surface units, 2 U.S. air units, 2 non-U.S. surface units, Task Force 21 and Task Force 88 in conjunction with READEX 3-85.

- The Inner Range was active 25 days during August. Operational support services were provided to 4 U.S. surface units, 3 U.S. air units, and 4 special support units.

- The UTR was active 22 days during August. Operational support services were provided to 10 U.S. surface units, 11 U.S. air units, and 2 foreign surface units.

- The EWR was active 23 days in August 1985. Operational support services were provided to 5 U.S. surface ships, 1 air unit, and READEX 3-85.

September 1985

- The Outer Range was active 21 days in September. Operational support services were provided to 4 U.S. air units, 5 U.S. surface units, Task Force 88 and 21 operations in conjunction with READEX 3-85 and 1 agency.

- The Inner Range was active 13 days in September. Operational support services were provided to 5 U.S. air units, 4 U.S. surface units and 1 U.S. Army unit.

- The UTR was active 15 days during September. Operational support services were provided to 7 U.S. air units, 2 U.S. surface units, and 1 U.S. submarine.

- The EWR was active 12 days in September. Operational support services were provided to 5 U.S. surface units and 1 U.S. air unit.

October 1985

- The Outer Range was active 16 days during the month of October. Operational support services were provided to 4 U.S. surface units and 1 U.S. air unit.

- The Inner Range was active 7 days in October. Support services were provided to 2 U.S. air units.

- The UTR was active 24 days in October. Operational support services were provided to 2 U.S. subsurface units, 1 U.S. surface unit, and 6 U.S. air units.

- The EWR was active 12 days in October. Support services were provided to 5 U.S. surface units and 1 U.S. subsurface unit.

November 1985

- The Outer Range was active 5 days during November. Operational support services were provided to 3 U.S. surface units and multinational surface units of the Allied Caribe 85 exercise units.

- The Inner Range was active 6 days during November providing operational support services to 4 U.S. air units, 1 U.S. surface unit and Allied Caribe 85 exercise units.

- The UTR was active 13 days in November providing support services to 2 U.S. surface units and 8 U.S. air units.

- The EWR was active 9 days in November providing support services to 6 U.S. surface units, 1 U.S. air unit, and 2 foreign surface units of Allied Caribe 85.

December 1985

- The Outer Range was active 6 days during December providing support services to 4 U.S. surface units.

- The Inner Range was active 8 days during December providing operational support services to 4 U.S. surface units, 1 U.S. air unit, and ground forces from COMSOLANT.

- The UTR was active 8 days in December providing operational support services to 5 U.S. air units and 2 U.S. surface units.

- The EWR was active 10 days during December. Operational support services were provided to 7 U.S. surface units and 1 foreign surface unit.

RANGE UTILIZATION CHRONOLOGY

JANUARY 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
4,9	AFWTF/VC-8	A4	AIC TRAINING
8-10,16-18,22	MAG-31	BQM-74C,AQM-37A	AAM
14-17	USS YORKTOWN	A4	TRACKEX
14-17,23-25	USS YORKTOWN		LINKEX
17	USS YORKTOWN	SLED,QST-35	SSG
19,21	USS NIMITZ,CVW-8	A4/BANNER	AAG
19,20	USS NIMITZ,CVW-8	QST-35	SHRIKEX
19,20	USS YORKTOWN	A4	CIWS TRACKEX
19	USS DOYLE	A4/TDU	SAG
23	HMCS ANNAPOLIS, HMCS SAGUENAY	A4/TDU	SAG
23-25	USS YORKTOWN	BQM-74C,AQM-37,QF-86	SQT
23,24	USS CARON		LINKEX
23,24	USS YORKTOWN	QF-86	QF-86 TRACKEX
26	HMCS ANNAPOLIS, HMCS SAGUENAY	SLED	SSG
26	USS CARON	A4/TDU	SAG,TRACKEX
28-31	FITRON 202	A4/POD	DACT
29,30	HMCS FRASER, HMCS NIPPIGON	SLED,A4/TDU	SSG,SAG
30,31	HMCS ALGONQUIN, HMCS ATHABASKAN, HNLMS A. CRIJNSSEN	A4/POD	MSLX REH

Encl (2)

INNER RANGE

Date	Exercise Unit	Type Exercise
3-13	AFWTF/NAVSTA	RANGE REFURBISHMENT
14-17	NSWU	COMM/NAV
18-22	USS NIMITZ,CVW-8	AGO
18,19	USS YORKTOWN	NGFS
19	USS NIMITZ,CVW-8	PRACTICE MINEX
20	USS NIMITZ,CVW-8	MRCI (MINEX)
22	HMCS ANNAPOLIS, HMCS SAGUENAY	NGFS
22,23,25,26	AFWTF/EOD	MINE RECOVERY
23-25	USS CARON	NGFS
29	HMS ARROW	NGFS
31	HMCS FRASER,HMCS NIPIGON	NGFS
31	VP-49	MINING RNG FAM FLT

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
9	CPW-5,VP-26	AERIAL TORPEX
12	CRPWL,VP-64,VP-62	AERIAL TORPEX
14	UTC ONE	SURVEY
14	CPW-5,VP-44	AERIAL TORPEX
16	USS YORKTOWN	TORPEX
19,20	USS NIMITZ,CVW-8	AERIAL TORPEX
24	HMCS ANNAPOLIS,HMCS SAGUENAY	TORPEX
27-31	SUBSURFACE (CANADIAN)	WSAT
28	CPW-11,VP-16	AERIAL TORPEX
30	CPW-11,VP-49	AERIAL TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
10,11,14-19	USS YORKTOWN	EWX(M-1-2-3) EW TRACKEX
16	USS YORKTOWN	Z-3ASCM,Z-5ASCM
17,21-25,28,29,31	88th ARCOM	EWX(M1-2)
18-22	USS NIMITZ/CVW-8	EWX
19,23,24,26	HMCS ANNAPOLIS,HMCS SAGUENAY	EWX
19	HMCS FRASER,HMCS PROTECTEUR, HMCS ANNAPOLIS,HMCS SAGUENAY	EW TRACKEX
23,24,26	USS CARON	EWX(M1-2)
26,30,31	HMCS ALGONQUIN,HMCS ATHABASKAN	EWX(M1-2),EW TRACKEX
26	HMCS NIPIGON	EW TRACKEX
29,30	HMCS FRASER,HMCS NIPIGON HMCS PROTECTEUR, HNLMS A. CRIJNSSEN	EWX(M1-2)

FEBRUARY 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-6	FITRON 202	A4/POD	DACT
1,2,4,6,8,9	HMCS ALGONQUIN, HMCS ATHABASKAN	BQM-74C,SLED A4/TDU	MISSILEX/GUNNERY
2,4-8	CVWR-20	A4/POD	DACT,LINKEX
4,5	CVWR-20	BQM-74C	AAM
6,7	HMS FEARLESS, HMS GLAMORGAN	A4/TDU	TRACKEX/MISSILEX
11	USS FAHRION	BQM-74C	SAM
14,28	USS MAHAN	SLED	SSG
14	USS UNDERWOOD	BQM-74C	SAM
14	USS UNDERWOOD	A4/TDU	SAG
15	USS UNDERWOOD	SLED	SSG
19-21,23-28	USS MAHAN (CNO PROJ 623)	AQM-37C,BQM-74C BQM-34S,QF-86	SAM
21-24	USS MAHAN	A4	AIC
21	USS BLAKELY	A4/TDU	SAG
22	USS CAPODANNO	SLED	SSG
22-25	FAA (FPS-67 RADAR)	A4	TRACKEX/RADAR EVAL.

FEBRUARY 1985 (continued)

INNER RANGE

Date	Exercise Unit	Type Exercise
5,6	HMCS ATHABASKAN,HMCS ALGONQUIN	NGFS
6	HMS GLAMORGAN	NGFS
7	156th TFG (PRANG)	AGO
8	CVWR-20	AGO
12,13	111 TASG	AGO
12-14	VC-8	AGO
19	HMCS MARGAREE,HMCS OTTAWA	NGFS
20	HMCS ATHABASKAN	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-5	CANADIAN SUBSURFACE UNIT	WSAT/TORPEX
5-14	USS JESSE L. BROWN	WSAT/SPEC OPS
6	HMCS FRASER,HMCS NIPIGON	TORPEX
7,8	HMCS ALGONQUIN,HMCS ATHABASKAN	TORPEX
8-18	US SUBSURFACE	WSAT
12,28	VP-10,VP-44	AERIAL TORPEX
18-27	US SUBSURFACE	WSAT
18,20	HMCS MARGAREE,HMCS OTTAWA HMCS ALGONQUIN	TORPEX
22	VP-49	AERIAL TORPEX

FEBRUARY 1985 (continued)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	88 ARCOM	EWX(M1-2)
1	USS TICONDEROGA	EWX(M1-2-3)
1,5-9	HMCS ALGONQUIN,HMCS NIPIGON HMCS ATHABASKAN,HMCS FRASER	EWX(M1-2-3)
2	HMCS FRASER, HMCS ALGONQUIN HMCS NIPIGON	EWX TRACKEX
4-8,12-14	124 MI Bn	EWX(M1-2)
10	HMCS ONONDAGA	EWX(M1-2)
14,17-20	USS MAHAN	EWX(M1-2-3)
15-18	USS UNDERWOOD	EWX(M1-2-3)
16,19-21	HMCS MARGAREE,HMCS OTTAWA HMCS PRESERVER	EWX(M1-2-3)
19,22	USS CAPODANNO	EWX,EW TRACKEX

MARCH 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS MAHAN (CNO PROJ 623)	BQM-34S,BQM-34E QF-86	SAMSLX
2	HMS SOUTHAMPTON		LINK 11
3	HMCS OTTAWA	A-4/TDU	SAGUNEX
6	HNLMS A. CRIJNSSEN	PRANG ACFT	TRACKEX
7,12	ESMC		RADAR SLEW CHECK
8	AFWTF, PMTC	QF-86	QF-86 TEST FLIGHT
11-14	HMLMS A. CRIJNSSEN		LINK 11
11,12	USS IWO JIMA		LINK 14
12,13	USS IWO JIMA	QST,A-4/TDU	SSGUNEX,SAGUNEX
12	USS IWO JIMA	BQM-74C	SAMSLX
13	HNLMS A. CRIJNSSEN	A-4/TDU	SAMSLX
14	CVW-3,VF-31	BQM-74C,QF-86	SAMSLX
15	USS NIMITZ, CVW-8		LONG RANGE STRIKE OPS
16-22	USS NIMITZ, CVW-8		RDX 1-85(MSR)
16,18	USS NIMITZ, CVW-8	A-4/BANNER	AAGUNEX
16,17,19-24	CVW-3		DACT
17	USS KIDD, USS MOINESTER	A-4/TDU	SAGUNEX
17	USS CLAUDE V. RICKETTS, USS DOYLE	QST-35	SSGUNEX
17	USS BOWEN, USS TRIPPE	A-4/TDU	SAGUNEX
17,18	USS NIMITZ, CVW-8, USS MOHAWK		TORPEX
18	USS ARROW, USS DOYLE USS CLAUDE V. RICKETTS USS SOUTH CAROLINA, USS CLIFTON SPRAGUE	A-4/TDU	SAGUNEX

OUTER RANGE (continued)

Date	Exercise Unit	Target	Type Exercise
18	USS DEWEY, USS ARIES USS MOINESTER, HNLMS A. CRIJNSSEN, USS GEMINI	QST-35	SSGUNEX
18	HNLMS A. CRIJNSSEN USS DOYLE, USS MOHAWAK	A-4/TDU	SSGUNEX
20-22	TF-21		MSR OPS
23-27	USS NIMITZ, CVW-8	BQM-74C	AAMSLX

INNER RANGE

Date	Exercise Unit	Type Exercise
3	HMCS OTTAWA	NGFS
5-9,11-15,18-23	2nd MARINE DIV.	RPV Operations
6-8	USS NASSAU, 10th MARINE DIV., VC-8	SACEX, NGFS, ATG Ops.
6-8	2nd MARINE DIV.	Ground/Amphibious Ops.
9,10	USS VALDEZ	NGFS
10,11	USS CAPODANNO	NGFS
14,15	USS IWO JIMA	NGFS
14,15	USS IWO JIMA	HELO OPS, Small Arms
15,16,18,26,27	USS NIMITZ, CVW-8	ATG Ops./CAS
17,18	USS DEWEY	NGFS
18,27	USS BOWEN	NGFS
19,21	CVW-3	MINEX
19-26	CVW-3	AGO
25-27	USS PATTERSON	NGFS
30,31	USS JESSE L. BROWN	NGFS
30,31	USS CLAUDE V. RICKETTS	NGFS
31	1st BN 75th INF.	NGFS SPOTTER

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2,4	CPW-11, VP-49/VP-16	TORPEX (AIR)
5,6	USS GALLERY	SSRNM
5	USS GALLERY	TORPEX (SURF)
10,11	USS VALDEZ	SSRNM
11,12	USS CLIFTON SPRAGUE	SSRNM
11-13	AFWTF	Buoy Implant
13,14	USS IWO JIMA	SSRNM
14,15,20	CPW-5, VP-10	TORPEX (AIR)
17	USS NIMITZ, CVW-8, USS BOWEN, USS TRIPPE	TORPEX(AIR & SURF)
18	USS NIMITZ, CVW-8, USS DEWEY, USS MOINESTER	TORPEX(AIR & SURF)
23	CVW-3	TORPEX (AIR)
24,26	USS NIMITZ, CVW-8, CVW-3	TORPEX (AIR)
30	CPW-5, VP-44	TORPEX (AIR)
30,31	USS CONOLLY	WSAT

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
2	HMS SOUTHAMPTON, HMS BERWICK, HMS MINERVA	EW SVCS (SURF)
6-9	USS NASSAU	EW SVCS (SURF)
9-11	USS CAPODANNO	EW SVCS (SURF)
9	USS CAPODANNO	EW TRACKEX (Z-3)
12-15	USS IWO JIMA	EW SVCS (SURF)
16-22	USS NIMITZ, CVW-8	EW SVCS (SURF, AIF
22,23	CVW-3	EW SVCS (AIR)
30	USS JESSE L. BROWN	EW SVCS (SURF)

APRIL 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
2	USS GLOVER	QST35	SSGUNEX
3,5,10,12	AFWTF		AIR INTCPT CONTROL
8,18	AFWTF		RADAR CALIBRATION
13	USS JOHN L. HALL	SLED	SSGUNEX
13	USS JOHN L. HALL		TRACKEX
14	USS JOHN L. HALL	BQM-74C	SAMSLX
20-22	CNO PROJECT 251		REHEARSAL
23-24	CNO PROJECT 251/ US SUBSURFACE	HULK	TOMAHAWK MSLX
25-26	COMPTUEX 2-85 UNITS		REHEARSAL
26	COMPTUEX 2-85 UNITS	BQM-74C/ AQM-37A	SAMSLX
26,28	COMPTUEX 2-85 UNITS	SLED	SSGUNEX
27	USS JOSEPH HEWES	QST-35 & SLED	SSGUNEX
28	USS COMPTE DE GRASSE, USS CARON	QST-35	SSGUNEX
29	USS RICHMOND K. TURNER (CTX)	BQM-74C	SAMSLX
29	USS CLAUDE V. RICKETTS	SLED	SSGUNEX
30	COMPTUEX 2-85 UNITS	QST-35 & SLED	SSGUNEX

INNER RANGE

Date	Exercise Unit	Type Exercise
1-2	USS CLAUDE V. RICKETTS, VC-8,1 BN/75 INF	NGFS & CAS
3	USS GLOVER	NGFS
8-10	NAVSPECWARFARE UNIT 4	RECON OPS
8-9	USS AINSWORTH	NGFS
9	USS CORAL SEA/CVW-13 (VFA131,132,VMFA314,323,VA55)	ATG
10	USS AINSWORTH/2D MAR DIV	NGFS/SPOTEX
19	VP23	MRCI
21,25	E.O.D. & AFWTF	MINE RECOVERY
22	CVW-17	ATG
25-30	CVW-3	ATG
27	USS TICONDEROGA	NGFS
28	USS JOSEPH HEWES,PAUL	NGFS
30	USS GARCIA,STUMP,PAUL	NGFS

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
2,3	USS GLOVER	EW SERVICES
9-10	USS AINSWORTH	EW SERVICES
13-15	USS JOHN L. HALL	EW TRACKEX,ASCM
17,20	USS EL PASO	EW SERVICES
22	USS SARATOGA	EW SERVICES
25,26	USS STUMP USS CLAUDE V. RICKETTS USS JOSEPH HEWES USS GROVES	EW TRACKEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
27	USS TICONDEROGA, USS YORKTOWN USS JOSEPH HEWES USS COMPTE DE GRASSE	EW SERVICES
28	USS PAUL,STUMP,CVW-3, JOSEPH HEWES,KLAKRING, WILLIAMS	EW SERVICES
29	USS PAUL,DONALD D. BEARY, RICHMOND K. TURNER	EW SERVICES
30	USS GARCIA,STUMP	EW SERVICES

UNDERWATER TRACKING RANGE

1	USS JESSE L. BROWN	SSRNM
1-6	USS CONOLLY	WSAT
2-3	USS CLAUDE V. RICKETTS	SSRNM
2,9,10,12	CPW-5	TORPEX
5-16	US SUBSURFACE	WSAT
8	USS CONOLLY	SSRNM
15,16	USS JOHN L. HALL	SSRNM
17,18	VP56,VS32	QAST
18,19	USNS MOHAWK	DEEP DRONE OPS
22-27	UCT-1	SEACON,MOOR INSTALL
24,25	USS STEPHEN W. GROVES,NSWC	ACOUSTIC RANGING
26	USS RICHMOND K. TURNER, YORKTOWN	TORPEX
26	USS RICHMOND K. TURNER	SSRNM
27	USS GARCIA	SSRNM

UNDERWATER TRACKING RANGE
(continued)

Date	Exercise Unit	Type Exercise
27	USS OLIVER HAZARD PERRY, GARCIA	TORPEX
27,28	USS GARCIA,STEPHEN W. GROVES	SSRNM
28	USS PAUL	TORPEX
29	USS P. WILLIAMS	SSRNM
30	USS DONALD D. BEARY, JOSEPH HEWES, RICHMOND K. TURNER	TORPEX

MAY 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,2	CPTX 2-85	SLED	SSG
2,3	CPTX 2-85	QST-35	SSG
4	USS TAYLOR	BQM-74C	SAM/LINK 11
5,6	USS TAYLOR		LINK 11
15	AFWTF	QST-35	ITCS Test
18-21,28	ESMC	GEO-S	Satellite Track
20	Naval Ord. Test Unit	Missile	Missile Track
22-24	USS DAHLGREN	BQM-74C/34E	SAM
22-24,29-30	USS DAHLGREN		LINK 11
28-29	AFWTF	QF-86	Rehearsal FLT
29	CVW-1	BQM-74C	AAM
30	CVW-1	QF-86/BQM-74C/34E	AAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS STUMP	NGFS
1	USS GARCIA	NGFS
1-3	CVW-3	ATG
2-3	USS DONALD D. BEARY	NGFS
2-3	USS COMPTE DE GRASSE	NGFS
2-5	448th ENGINEER CBT BN	Maneuver
3-4	USS PETERSON	NGFS
9	VP-49	MRCI

INNER RANGE (continued)

Date	Exercise Unit	Type Exercise
18	VP-10	MRCI
14-17,20,22,29,30	EOD	Mine Recovery
29-30	VP-16	MRCI

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,3	USS GARCIA	EW Services
2	USS MAHAN, USS PAUL, USS COMPTE DE GRASSE, USS CLAUDE V. RICKETTS	EW Services
3	USS CARON	EW Services
3,5	USS TAYLOR	EW Services
4	USS GROVES, USS SANTA MONICA	Ew Services
4-6	HMCS NIPIGON	EW Services
8	USS PETERSON	EW Services
22-24	USS DAHLGREN	EW Services

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS PAUL, USS COMPTE DE GRASSE USS CLAUDE V. RICKETTS	TORPEX
3	USS KLAKRING, USS STUMP USS CLAUDE V. RICKETTS	TORPEX
5-8	HMCS NIPIGON	TASP PROJECT
9	VP-45	TORPEX

UNDERWATER TRACKING RANGE
(Continued)

Date	Exercise Unit	Type Exercise
11	VP-94	TORPEX
14	VP-11	TORPEX
20	VP-24	TORPEX
24	VP-56	TORPEX
26-31	USS DAHLGREN	WSAT
31	USS DAHLGREN	SSRNM

JUNE 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3	USS AYLWIN, USS HALYBURTON, USS JOHN HANCOCK, USS MACDONOUGH, USS NICHOLSON	BQM-74C	SAM
3	USS AYLWIN, USS HALYBURTON, USS JOHN HANCOCK, USS NICHOLSON	QST-35 TDU	SSG/SAG
3,6,10,11,12, 18,25,28,29	ESMC		Satellite Track
5,6,7,8,10,12	Marine Air Group 31/ 41 DET. A., VMGR 252, VMFA 122, VMFA 312, VMGR 234, VMFA 251, VMFA 451, VMFA 321	BQM-74C/AQM-37A	AAM
14,21	USS MAHAN		LINK 11
16	USS MAHAN	SLED/YFRT	SSG
19	UNITAS XXVI/TF-138	QST-35	SSG
19	UNITAS XXVI/TF-138	TDU	SAG
19	UNITAS XXVI/TF-138		LINK 14/11
20	UNITAS XXVI/TF-138	MQM-74C	SAM
20	USS RICKETTS	TDU	SAG
20	UNITAS XXVI/TF-138		LINK 14/11
21	USS JOHN RODGERS	TDU	SAM
21	USS STUMP	QST-35	SSG
21	UNITAS XXVI/TF-138		LINK 14
22	USS TATTNALL	BQM-74C	SAM
22	USS TATTNALL	SLED/YFRT	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
6,7,8	USS JOHN HANCOCK	NGFS
7,8	USS MACDONOUGH	NGFS
7,8	75TH RANGERS	SPOTEX.
8	VP-44	MINE
11,12	USS TALBOT	NGFS
14	USS MAHAN	NGFS
17,18	VC-8	ATG
18,19,20	UNITAS XXVI(Venezuela)	ARTY.
19	USS RICKETTS	NGFS
19	ARV URDANETA	NGFS
20	USS STUMP,USS ARIES,USS GEMINI,ARV SALON	NGFS
21,22	USS BIDDLE	NGFS
21	USS HAWES, ARV SOUBLETTE	NGFS
24	USS TATTNALL	NGFS
25,26,27	PUERTO RICO AIR NATIONAL GUARD	ATG
26,27	USS BLAKELY	NGFS
26	HMS PLYMOUTH	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS DAHLGREN	SSRNM
4-13	USS SUBMARINE	WSAT/CNO
7	USS MACDONOUGH	TORPEX

UNDERWATER TRACKING RANGE (continued)

Date	Exercise Unit	Type Exercise
7	USS NICHOLSON	TORPEX
7	USS AYLWIN	TORPEX
10	VP-45	TORPEX
18	VP-49	TORPEX
19	VP-44	TORPEX
21,24	VP-56	TORPEX
21	USS RICKETTS	TORPEX
25	USS TATTNALL	TORPEX
26	USS TATTNALL	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
3,7,8	USS MACDONOUGH	EWX
6,7	USS JOHN HANCOCK	EWX
7,8	USS AYLWIN	EWX
7,8	USS NICHOLSON	EWX
7,8	USS HALYBURTON	EWX
9	CVW-17	EWX
10,11,12	USS TALBOT	EWX
13,20	USS RICKETTS	EWX
13,20,21,22	USS STUMP	EWX
13,20,21	USS HAWES	EWX

ELECTRONIC WARFARE RANGE (continued)

Date	Exercise Unit	Type Exercise
15,16	USS MAHAN	EWX
20,21,22	USS ARIES	EWX
20	USS GEMINI	EWX
20	ARV SALON	EWX
20	ARV URDANETA	EWX
20,21	ARV SOUBLETTE	EWX
20,23	USS TATTNALL	EWX
20	USS JOHN RODGERS	EWX
21	USS BIDDLE	EWX
26,27	USS BLAKELY	EWX

JULY 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,2,3,7	USS WAINWRIGHT, USS TAYLOR, USS MACDONOUGH		Link 11
3	USS WAINWRIGHT USS FURER, USS TAYLOR, USS MACDONOUGH	QST-35 BQM-74C AQM-37A	SAM/SSG
7	USS TAYLOR, USS MACDONOUGH	BQM-74C	SAM
7	USS TAYLOR	QST-35	SSG
9	RDX 2-85 USS PAUL, USS MAHAN, USS GROVES	QST-35/ SLED	SSG
10	RDX 2-85, USS YORKTOWN, USS HERCULES, USS BEARY	QST-35/ SLED	SSG
11	RDX 2-85, USS AINSWORTH USS SCOTT, USS CARON	YFRT/ SLED	SSG
12,14	COMANDANTE ROBERTO IVENS	YFRT/ SLED	SSG
12,14	HMCS SKEENA	YFRT/ SLED	SSG
12	CVW-17	AQM-37A	AAM
14	CVW-3	HULK	SINKEX
14	RDX 2-85 MOBILE SEA RANGE	BQM-74C	LIVE FIRE
15,24	ESMC	SATELLITE	SATELLITE TRACKING
16	USS SARATOGA, CVW-17	QF-86, BQM-34E	AAM

OUTER RANGE (Continued)

Date	Exercise Unit	Target	Type Exercise
17	RDX 2-85, CNO PROJ K1126	BQM-74C	CNO PROJ K 1146
20	CVW-17	AQM-37A BQM-74C	AAM
21	CVW-17	BQM-34T	AAM
29,30	USS HAWES		Link 11
30	USS HAWES	BQM-74C	SAM
30	USS FORRESTAL	BQM-74C	SAM/Link 11
31	FGS BREMEN	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
2	PRANG	ATG
6,8,9,10,11,13,16,18, 20,21,22	CVW-17	ATG
8,9,13,15-20	VC-8	ATG
9,10	USS YORKTOWN	NGFS
9,10,11	USS MAHAN	NGFS
9-14,16-20	CVW-3	ATG
10,11	USS SCOTT	NGFS
10	CVW-17	MINEX
15,16,18	CVW-3	MINEX
11	USS BEARY	NGFS
13	HMCS SKEENA, COMANDANTE ROBERTO IVEN (Portugal)	NGFS

INNER RANGE (continued)

Date	Exercise Unit	Type Exercise
16,17	USS BRISCOE	NGFS
15,17,18,20	CVW-7	ATG
21,22	USS SAMPSON	NGFS
22-25	VA-174	ATG
30-31	CVW-6	ATG
31	CVW-1	ATG

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS FURER	SSRNM
2	VP-23	TORPEX
2,3	USS MACDONOUGH	SSRNM
8,9,11,12,15,16	VS-30	TORPEX
9	USS SCOTT	SSRNM
9,11,21	HS-3	TORPEX
9	USS CARON	TORPEX
10	USS AINSWORTH	TORPEX
11	USS BEARY	TORPEX
11	USS MAHAN	TORPEX
12	USS S.W. GROVES	TORPEX
15	HMCS SKEENA	TORPEX
20	VS-22	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
2	USS WAINWRIGHT USS TAYLOR USS FURER USS MACDONOUGH	EWX
7,8	USS SARATOGA	EWX
9-12,14-20	CVW-17	EWX
9-11,15-19	FEWSG	EWX
13	HMCS SKEENA	EWX
16	USS PEGASUS	EWX
18	USS EISENHOWER	EWX
29,30,31	USS HAWES	EWX
29,30,31	FGS BREMEN	EWX
30,31	USS FORRESTAL/ CVW-6	EWX

AUGUST 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
5,9	USS HAYLER USS HAYLER	BQM-74C QST-35	SAM SSG
5,6,8,9	USS HAYLER		LINK 11
6	USS HAYLER	YFRT/SLED	SSG
8,22,28	ESMC-STT/STX	SATELLITE	SATELLITE TRKX
13	HMS ALACRITY	BQM-74C	SAM
15	HMS ALACRITY	QST-35	SSG
15	CVW-13	BQM-74C	AAM
17	CVW-7	QST-35	ASM
18	CVW-7	BQM-74C	AAM
19	USS J.A. FURER	AQM-37	SAM
19	USS CAPODANNO	QST-35	SSG
20	USS DEWERT/RDX 3-85 USS J.L. BROWN USS J. WILLIAMS USS GALLERY USS TATTNALL	QST-35	SSG
21	USS BIDDLE/RDX 3-85 USS TATTNALL USS O.H. PERRY USS CAPODANNO USS GALLERY USS SAVANNAH	BQM-74C/ AQM-37	RDX 3-85/ RIMEX
21	USS SELLERS/RDX 3-85 USS CONOLLY	QST-35	SSG
22	USS DEWERT/RDX 3-85 USS SELLERS USS CONOLLY USS J.L. BROWN USS J. WILLIAMS USS BIDDLE	BQM-74C/ AQM-37	RDX 3-85/ RIMEX

OUTER RANGE (Continued)

Date	Exercise Unit	Target	Type Exercise
22	USS ARIES USS GEMINI	QST-35	SSG
23	USS O.H. PERRY USS BIDDLE	QST-35	SSG
23	USS CONOLLY USS SELLERS	YFRT/SLED	SSG
24	USS DEWERT USS J. WILLIAMS USS O.H. PERRY USS BIDDLE USS CAPODANNO USS J.L. BROWN USS TATTNALL	YFRT/SLED	SSG
25	CVW-13	BQM-74C	AAM
26	USS CONOLLY	HULK	TOMAHAWK REH.
28	USS CONOLLY	HULK	TOMAHAWK MSLX
29,30	USS MOOSBRUGGER		LINK 11
30	USS DEWERT USS O.H. PERRY	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
5	NSWU-Four	Small Arms
6,7	USS AYWIN	NGFS
8,9,10	USS HAYLER	NGFS SPOTEX
9	DET TENTH MAR	SPOTEX
12-19,21-28	USS CORAL SEA/CVW-13	ATG
15-16	TACRON 22	CAS

INNER RANGE (Continued)

Date	Exercise Unit	Type Exercise
16	CVW-7	ATG/LRS
17,18,19	USS EISENHOWER/CVW-7	ATG
18	USS EISENHOWER/CVW-7	MINEX
20,26,27	READEX 3-85	NGFS
21,26-28	READEX 3-85	MINEX
29	READEX 3-85	MRCI
31	92D SIB	AMPHIB OPS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	FGS BREMEN	SURFACE TORPEX
3	VP-64	TORPEX
5,6	VP-23	TORPEX
8	VP-45	TORPEX
9	VP-5	TORPEX
9	USS BIDDLE,USS CONOLLY, USS DEWERT, VS-31,HS-5	RDX 3-85/TORPEX
12	VP-12	TORPEX
14	HMCS ALACRITY	SURFACE TORPEX
17	VP-31,HS-5	TORPEX
19-29	USS PROVIDENCE	WSAT
20	USS CAPODANNO,USS SELLERS	RDX 3-85/TORPEX
22	USS TATTNALL,USS O.H. PERRY	RDX 3-85/TORPEX
23	USS BROWN,USS WILLIAMS	RDX 3-85/TORPEX
26	VP-11	TORPEX
30-31	CVW-6/VS/HS	TORPEX

AUGUST 1985 (continued)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
4,5,8,9	USS HAYLER	EWX
12-19	USS CORAL SEA/CVW-13	EWX
19	USS EISENHOWER	EWX
19-25	READEX 3-85	EWX
19	USS JULIUS A. FURER	EWX TRACKEX
20-30	CVW-13	EWX
29	USS MOOSBRUGGER	EWX

SEPTEMBER 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	CVW-13	BQM-74C AQM-37A	AAM
1-2	RDX 3-85/CTF-88	ACFT.	AAW
3-6	USS MOOSBRUGGER		LINK 11
4-6,8-11	CVW-6	BANNER	AAG
4	USS MOOSBRUGGER	YFRT/SLED	SSG
5	USS MOOSBRUGGER	QST-35	SSG
6,16,24-26	ESMC	Satellite	Radar Tracking
6-7	USS FARRAGUT	BQM-74C	SAM
7	USS MOOSBRUGGER	A4/TDU	SAM
10	HMS ALACRITY	A4/TDU	SAM
13	VP-23	GORST	ASO
17-18	CPW-11	QST-35	ASO
21	USS CLARK	BQM-74C	SAM
27	USS O'BANNON		LINK 11
30	USS MISSISSIPPI	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-2	CVW-13	AGO
4	USS SEMMES	NGFS
5-6	USS NICHOLSON	NGFS
18-20	VC-8	AGO

INNER RANGE (continued)

Date	Exercise Unit	Type Exercise
19-20	VP-16	MINEX
20	VP-56	MINEX
26	NMCB 3	MORTAR EXERCISE
27	PRANG/75th RANGERS	CAS
28-29	USS ADAMS	NGFS
28-29	USS MISSISSIPPI	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1,3-4	HS-17	TORPEX
3	VS-28	TORPEX
4,19,27	VP-45	TORPEX
6	VP-5	TORPEX
8-11	USS HONOLULU	WSAT
8-11	USS NICHOLSON	ASW
11-14	USS FARRAGUT	WSAT
25	VP-56	TRACKEX
26	CPW-11	QAST
30	VP-23	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-2	USS MOOSBRUGGER	EWX
3-6	USS MOOSBRUGGER	EWX
7,11	USS FARRAGUT	EWX
20	USS CLARK	EWX
28-29	USS MISSISSIPPI	EWX
28-30	USS ADAMS	EWX

OCTOBER 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS MISSISSIPPI	BQM-74C	SAM
1-4	USS O'BANNON		LINK 11
1	USS O'BANNON	YFRT/SLED	SSG
2	USS O'BANNON	A4/TDU	SAG
3	USS O'BANNON	BQM-74C	SAM
10,11,14-18, 21-25	USS BAINBRIDGE		LINK 11
16	VP-11	GORST	ASO
23-24	USS BAINBRIDGE	BQM-74C/34S	SAM
31	USS ELROD	BQM-74C	SAM/LINK 11

INNER RANGE

Date	Exercise Unit	Exercise Type
9-11,16,18,22	VC-8	AGO
11-12	VX-5	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Exercise Type
2	VP-11	TORPEX
5,15,24	VP-45	TORPEX
2-10	USS JACK	WSAT
11	VP-26	TORPEX

UNDERWATER TRACKING RANGE (Continued)

Date	Exercise Unit	Type Exercise
19	VP-5	TORPEX
14-22	USS TINOSA	WSAT
28,29	VP-8	TORPEX
29-31	USS BAINBRIDGE	WSAT
30	VP-56	TORPEX
31	VP-11	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Exercise Type
1	USS MISSISSIPPI	EWX
2	USS O'BANNON	EWX
8-10	USS JACK	EWX
10,14	USS BRADLEY	EWX
10-12,14-17	USS BAINBRIDGE	EWX
31	USS ELROD	EWX

NOVEMBER 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,4	USS ELROD		LINK 11
15	ALLIED CARIBE 85	BQM-74C A4/TDU	SAM
16	ALLIED CARIBE 85	QST-35	SSG
29	USS FARRAGUT	BQM-74C	SAM
29	USS FARRAGUT		LINK 11
29	USS GEMINI	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
9	VP-11	MRCI
14	USS C.V. RICKETTS	NGFS
14	HMS NOTTINGHAM	NGFS
15	VP-56	MINEX
22	VS-31	MINEX
23	VS-31	AGO
23	VC-8	AGO
30	USS FARRAGUT	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-3	USS BAINBRIDGE	WSAT
5-6	USS ELROD	WSAT
5	VP-5	TORPEX

UNDERWATER TRACKING RANGE (continued)

Date	Exercise Unit	Type Exercise
14	VP-11	TORPEX
16	VP-62	TORPEX
19-22	VS-31	TORPEX
25	VP-8	TORPEX
25	VP-26	TORPEX
26	VP-45	TORPEX
26	VP-56	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,2	USS ELROD	EWX
13-14	USS C.V. RICKETTS HMS NOTTINGHAM HNLMS BLOYS VAN TRESLONG	EWX
19	USS VREELAND	EWX
21-22	VS-31	
22	USS FLATLEY	EWX
22,29	USS GEMINI	EWX
29,30	USS FARRAGUT	EWX

DECEMBER 1985

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
2,4	USS STUMP		LINK 11
4	USS BRADLEY		LINK 11
6	USS BRADLEY	BQM-74C	SAM
9,12	USS LUCE	BQM-74C	SAM
16	USS CARR	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS FARRAGUT	NGFS
6	US COMSOLANT/ALLIED CARIBE 85	MORTAR EXERCISES
8-10	USS BRUMBY	NGFS
13	VP-16	MINEX
13	USS MOOSBRUGGER	NGFS
15-16	USS LUCE	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2	USS FARRAGUT	TORPEX
3	VP-11	TORPEX
7	VP-8	TORPEX
11,20	VP-26	TORPEX
12	USS LUCE	TORPEX
16	VP-24	TORPEX
18	VP-23	TORPEX

DECEMBER 1985 (continued)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-2	USS FARRAGUT	EWX
2	USS STUMP	EWX
5-6	USS BRADLEY	EWX
8-9	USS BRUMBY	EWX
9,11	HNLMS VAN GALEN	EWX
12	USS LUCE	EWX
15	USS CARR	EWX
16	USS TAURUS	EWX

AFWTF CHRONOLOGY

JANUARY 1986

The Outer Range was active six days in January 1986. Operational support services were provided to four U.S. surface units, one U.S. air unit and one foreign surface unit.

The Inner Range was active 15 days in Jaunuary 1986. Operational support services were provided to three U.S. air units, three U.S. surface units, five Canadian surface units, the 10th Marines, a special warfare unit and one U.S. army unit.

The Underwater Tracking Range was active 13 days in January 1986. Operational support services were provided to six U.S. air units, two U.S. surface units and five foreign surface units.

The Electronic Warfare Range was active 17 days during January 1986. Operational support services were provided to five U.S. surface units and seven foreign surface units.

FEBRUARY 1986

The Outer Range was active 23 days in February 1986. Operational support services were provided to 23 U.S. surface units, three U.S. air units, three Canadian surface units, FLEET EXERCISE 1-86 and units from Standing Naval Forces Atlantic.

The Inner Range was active 21 days in February 1986. Operational support services were provided to four U.S. air units, 13 U.S. surface units, four Standing Naval Forces Atlantic and FLEET EXERCISE 1-86 units.

The Underwater Tracking Range was active 27 days in February 1986. Operational support services were provided to 19 U.S. surface units, four U.S. subsurface units, five U.S. air units, five foreign surface units and two foreign subsurface units.

The Electronic Warfare Range was active 26 days during February 1986. Operational support services were provided to 29 U.S. surface units, three U.S. air units, nine foreign surface units, FLEET EXERCISE 1-86 and Standing Naval Forces Atlantic.

MARCH 1986

The Outer Range was active 22 days in March 1986. Operational support services were provided to seven U.S. surface units and five foreign surface units.

The Inner Range was active 17 days in March 1986. Operational support services were provided to six U.S. surface units, two foreign surface units, two U.S. air units and two special warfare units.

The Underwater Tracking Range was active 24 days in March 1986. Operational support services were provided to one U.S. surface unit, one U.S. subsurface unit, seven U.S. air units, three foreign surface units and one foreign air unit.

The Electronic Warfare Range was active 19 days during March 1986. Operational support services were provided to nine U.S. surface units and five foreign surface units.

APRIL 1986

The Outer Range was active 17 days in April 1986. Operational support services were provided to 17 U.S. surface units, two U.S. air units and one foreign surface unit.

The Inner Range was active 22 days in April 1986. Operational support services were provided to three U.S. air units, ten U.S. surface units, a Special Warfare unit, one USMC unit and participants in FLEET EXERCISE 2-86.

The Underwater Tracking Range was active 19 days in April 1986. Operational support sevices were provided to FLEET EXERCISE 2-86, six U.S. air units, one U.S. subsurface unit and 18 U.S. surface units.

The Electronic Warfare Range was active 15 days in April 1986. Operational support services were provided to one U.S. air wing, two U.S. air units and 12 U.S. surface units from FLEET EXERCISE 2-86.

MAY 1986

The Outer Range was active 22 days in May. Operational support services were provided to ten U.S. surface units, one U.S. air unit and ESMC agency.

The Inner Range was active 27 days in May 1986. Operational support services were provided to eight U.S. surface units, seven U.S. air units and four U.S. ground units in support of OCEAN VENTURE 86.

The Underwater Tracking Range was active 24 days in May 1986. Operational support services were provided to nine U.S. air units, two U.S. subsurface units, three U.S. surface units and OCV SEACON.

The Electronic Warfare Range was active 29 days in May 1986. Operational support services were provided to 12 U.S. surface units and one U.S. air unit.

JUNE 1986

The Outer Range was active 18 days in June 1986. Operational support services were provided to four U.S. surface units, Pacific Missile Test Center (PMTC) and Eastern Space Missile Center (ESMC).

The Inner Range was operational 11 days in June 1986. Operational support services were provided to five U.S. surface units, one National Guard unit and U.S. Marine unit.

The Underwater Tracking range was active 11 days during June 1986. Operational support services were provided to one U.S. surface unit, seven U.S. air units and one U.S. subsurface unit.

The Electronic Warfare Range was active ten days in June 1986. Operational support services were provided to five U.S. surface ships and one U.S. air unit.

JULY 1986

The Outer Range was active 18 days in July 1986. Operational support services were provided to five U.S. surface units, two U.S. air units, Eastern Space Missile Center (ESMC) and UNITAS XXVII Task Force - 138.

The Inner Range was operational 30 days in July 1986. Operational services were provided to two U.S. surface units, three U.S. air units, the UNITAS XXVII and PRANG.

The Underwater Tracking Range was active 15 days during July 1986. Operational services were provided to three U.S. surface units, one U.S. subsurface unit and seven U.S. air units.

The Electronic Warfare Range was active ten days this report period. Operational services were provided to five U.S. surface units and the UNITAS XXVII/CTF 138.

AUGUST 1986

The Outer Range was active 18 days in August 1986. Operational support services were provided to five U.S. surface units, two U.S. air units, Eastern Space Missile Center (ESMC) and UNITAS XXVII.

The Inner Range was active 22 days in August 1986. Operational services were provided to seven U.S. surface units, three U.S. air units, one foreign unit (UNITAS) and one foreign artillery unit (UNITAS).

The Underwater Tracking Range was active 14 days during August 1986. Operational support services were provided to ten U.S. air units and one U.S. surface unit.

The Electronic Warfare Range was active 22 days in August 1986. Operational support services were provided to nine U.S. surface units, eight U.S. units and four foreign surface units from the UNITAS XXVII/CTF138.

SEPTEMBER 1986

The Outer Range was active 23 days in September 1986. Operational support services were provided to eight U.S. surface units and Eastern Space Missile Center (ESMC).

The Inner Range was active 12 days in Septmeber 1986. Operational support services were provided to four U.S. surface units, two U.S. air units and two SPEC Warfare units.

The Underwater Tracking Range was active 16 days in September 1986. Operational support services were provided to four U.S. surface units, one U.S. subsurface unit and nine U.S. air units.

The Electronic Warfare Range was active 23 days in September 1986. Operational support services were provided to seven U.S. surface units and seven U.S. air units.

OCTOBER 1986

The Outer Range was active 21 days in October 1986. Operational support services were provided to 19 U.S. surface units, two foreign surface units and Eastern Space Missile Center (ESMC).

The Inner Range was active 25 days in October 1986. Operational support services were provided to eight U.S. surface units, six U.S. air units, two foreign surface units, one SBU and the British CARIB CUTLASS PROJECT.

The Underwater Tracking Range was active 18 days during October 1986. Operational support services were provided to 17 U.S. surface units, two U.S. subsurface units, nine U.S. air units and two U.S. subsurface units, nine U.S. air units and two foreign units.

The Electronic Warfare Range was active 22 days in October 1986. Operational support services were provided to ten U.S. surface units, six U.S. air units, two foreign surface units, CASTEX 1-87/CCDG-8 and CARIB CUTLASS.

NOVEMBER 1986

The Outer Range was active 17 days in November 1986. Operational support services were provided to one U.S. surface unit, one U.S. subsurface unit, two U.S. air units, one foreign air unit, Eastern Space Missile Center (ESMC) and Naval Air Development Center (NAVAIRDEVCEN).

The Inner Range was active 24 days in November 1986. Operational support services were provided to three U.S. surface units, one foreign surface unit, seven U.S. air units, one foreign air unit and one SBU.

The Underwater Tracking Range was active 13 days during November 1986. Operational support services were provided to one U.S. surface unit, two U.S. subsurface units and nine U.S. air units.

The Electronic Warfare Range was active 21 days in November 1986. Operational support services were provided to three U.S. surface units, nine U.S. air units, one U.S. subsurface unit, one foreign surface unit and the BRITISH CARIB CUTLASS.

DECEMBER 1986

The Outer Range was active eight days in December 1986. Operational support services were provided to three U.S. surface units, one U.S. air unit and one USAF agency.

The Inner Range was active 13 days in December 1986. Operational support services were provided to two U.S. surface units, two U.S. ground units and six U.S. air units.

The Underwater Tracking range was active 18 days in December 1986. Operational support services were provided to five U.S. surface units, seven U.S. air units and one U.S. surface unit.

The Electronic Warfare Range was active 20 days in December 1986. Operational support services were provided to five U.S. surface units, eight U.S. air units and three U.S. subsurface units.

RANGE UTILIZATION CHRONOLOGY

JANUARY 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
6,7	AFWTF/VC-8	A4	AIC
21	USS NICHOLAS	QST-35	SSG
21	USS NICHOLAS		LINK 11
21-23,27	HNLMS VAN GALEN		LINK 11
21	USS JOHN KING	BQM-74C/AQM-37A	SAM
23	USS NICHOLAS	BQM-74C	SAM
27	USS CONNOLE	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
2-14	AFWTF	Range Refurb
14	VP-16	MINEX
17	VC-8	AGO
18-21	USS SIMS	NGFS
19-21	10TH MARINES	SPOTEX
22-23	USS JOHN KING	NGFS
23-24	VS-24	MINEX
24-26	448TH ENG BN	MANEUVERS
25	156TH TFG	AGO
25	NSWG DET 4	SMALL ARMS
28-29	USS CONNOLE	NGFS
29	HMCS NIPIGON	NGFS
29	HMCS SKEENA	NGFS
30	HMCS ATHABASKAN	NGFS

Encl (2)

JANUARY 1986 (continued)

INNER RANGE (Cont.)

Date	Exercise Unit	Type Exercise
30	HMCS HURON	NGFS
30-31	HMCS IROQUOIS	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
11	VP-5	TORPEX
11	VP-68	TORPEX
15,18	VP-26	TORPEX
17,21-22	VP-24	TORPEX
18	VP-62	TORPEX
20	USS JOHN KING	TORPEX
22-24	USS CONNOLE	WSAT
27	VP-8	TORPEX
29-30	HMCS OJIBWA	TORPEX
29-31	HMCS BLUETHROAT	TORPEX
29	HNLMS VAN GALEN	TORPEX
30-31	HMCS NIPIGON	TORPEX
31	HMCS SKEENA	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
7-8	HMS APOLLO	EWX
16-20	USS SIMS	EWX
17-18,23-25,28	USS CONNOLE	EWX
20-22,28-30	USS JOHN KING	EWX

JANUARY 1986 (continued)

ELECTRONIC WARFARE RANGE
(continued)

Date	Exercise Unit	Type Exercise
21,23	USS NICHOLAS	EWX
21-24,27	HNLMS VAN GALEN	EWX
27,29-31	HMCS ATHABASKAN	EWX
27,29-31	HMCS HURON	EWX
27,29-30	HMCS IROQUOIS	EWX
27,31	HMCS NIPIGON	EWX
27,29-30	HMCS SKEENA	EWX
29	USS GEMINI	EWX

FEBRUARY 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3	HMCS ATHABASKAN, HMCS HURON, HMCS IROQUOIS	A4	MSLX REHEARSAL
4	HMCS ATHABASKAN, HMCS HURON, HMCS IROQUOIS	BQM-74C	SAM
5-7	USS DALE		LINK 11
5-7	USS DALE	BQM-74C	CSSQT
10	AFWTF		QF-86 REHEARSAL
11-12	CVW-1	AQM-37A BQM-74C QF-86	AAM
12	USS AMERICA	A4/TDU	SAM
12	USS FARRAGUT	A4/TDU	SAG
12	USS TICONDEROGA	TWR/SLED QST-35	SSG
13	CVW-7		Flight Ops
15-16	USS S.E. MORRISON	BQM-74C	CSSQT
16	USS LAWRENCE	QST-35	SSG
17	USS SELLER, USS MACDONOUGH, USS NICHOLSON	QST-35	SSG
17	USAF	GORST	ASM
17-18,20-21,24-28	USS BELKNAP		LINK 11
17-21	COMMANDER TASK FORCE 88		LINK 11
18	USS BELKNAP	A4/TDU	SAG
19	USS LAWRENCE, USS NICHOLSON	BQM-74C	SAM
21	HMS BATTLEAXE, HMS BRISCOE, HMS TROMP	BQM-74C	SAM

FEBRUARY 1986 (continued)

OUTER RANGE
(continued)

Date	Exercise Unit	Target	Type Exercise
22	USS SEMMES, USS HAYLER, USS AUBREY FITCH, USS TALBOT, USS JOHN KING	BQM-74C	SAM
22	USS SIMS, USS LAWRENCE	TWR/SLED	SSG
23	USS AUBREY FITCH, USS SEMMES, USS TALBOT, USS MILLER, USS HART	QST-35	SSG
25	USS AQUILA	QST-35	SSG
28	USS JOHN RODGERS	QST-35	SSG
28	USS ELROD	AQM-37A	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
4,6,12,14,19	156th TFG	AGO
5	HMCS IROQUOIS	NGFS
8,10-12,14-15, 17,19,20-21	CVW-1	AGO
10	USS TICONDEROGA	NGFS
10	USS FARRAGUT	NGFS
10,12	USS VREELAND	NGFS
10,12,15-18, 20-21,24-25	CVW-7	AGO
11,12	USS KING	NGFS
11,13-14	USS PHARRIS	NGFS
11	USS PETERSON	NGFS
12-15,17-20	VC-8	AGO

INNER RANGE (continued)

16-17	USS DANIELS	NGFS
17	USS HAYLER	NGFS
18,19	USS LAWRENCE	NGFS
21	HNLMS TROMP, HMCS OTTOWA, FGS HESSEN.	NGFS
22	USS T. HART	NGFS
23	USS JOHN HANCOCK	NGFS
24-25	USS PATTERSON	NGFS
28	USS MILLER	NGFS

UNDERWATER TRACKING RANGE

1-4	USS PITTSBURGH	WSAT
5-7	HMCS ATHABASKAN	TORPEX
5-6	HMCS IROQUOIS, HMCS HURON	TORPEX
5-6,8	HMCS BLUETHROAT	TORPEX
7	HMCS OJIBWA	TORPEX
8	HMCS ONANDAGA, HMCS NIPIGON	TORPEX
9	VS-32	TORPEX
10-12	USS JACKSONVILLE	TORPEX
10	USS KING, USS PHARRIS	TORPEX
11	USS FARRAGUT, USS VREELAND, USS TICONDEROGA	TORPEX
11,13	USS MARSHALL	WSAT
12	USS DALE, USS HALYBURTON, USS AYLWING	TORPEX

UNDERWATER TRACKING RANGE (continued)

Date	Exercise Unit	Type Exercise
15-18	USS AUGUSTA	WSAT/ASW
19	USS R.E. BYRD	TORPEX
19,25	HS-5, VS-31	TORPEX
20	VP-24	TORPEX
21	HMCS OTTOWA, USS BRISCOE	TORPEX
22-25	USS MINN.-ST. PAUL	TORPEX
22	USS MACDONOUGH, USS J. DANIELS	TORPEX
23	USS SIMS, USS SEMMES	TORPEX
23,24	USS HAYLER	TORPEX
24	USS LAWRENCE	TORPEX
24,28	USS MILLER	TORPEX
25-27	USS JOHN RODGERS	WSAT

ELECTRONIC WARFARE RANGE

1,3-4,6-7	HMCS ATHABASKAN	EWX
1,3-4	HMCS HURON	EWX
1-3,5-7	HMCS NIPIGON	EWX
2,3,5-7	HMCS SKEENA	EWX
2	USS NICHOLAS	EWX
3-4	HMCS IROQUOIS	EWX
3,11	USS JOHN KING	EWX
3	USS TAURUS	EWX
3-4,10,12-13, 18,21,26	USS AQUILA	EWX
4-7,12	USS DALE	EWX
8,11-14	USS AMERICA	EWX

ELECTRONIC WARFARE RANGE
(continued)

Date	Exercise Unit	Type Exercise
10,13,16	CVW-7	EWX
10-11	USS VREELAND, USS PHARRIS	EWX
10-11,27	USS PETERSON	EWX
11	USS TICONDEROGA, USS FARRAGUT	EWX
12	USS AYLWIN, USS HALYBURTON	EWX
14-15	USS MORRISON	EWX
17-18,21-24,26-28	USS BELKNAP	EWX
12,23-24	USS HAYLER	EWX
18-21	CVW-1	EWX
19,22-23	USS NICHOLSON	EWX
19,22	USS LAWRENCE	EWX
19,20	VAQ-33	EWX
19	USS R.E. BYRD	EWX
22-23	USS SIMS	EWX
22,24	USS BRISCOE, HMS BATTLEAXE, HNLMS TROMP, FGS HESSEN	EWX
23	USS SEMMES, USS AUBREY FITCH, USS HART, USS SELLERS, USS HANCOCK, USS TALBOT	EWX
23,25-26	USS MILLER	EWX
24	HMCS OTTOWA	EWX
28	USS JOHN RODGERS	EWX

MARCH 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3	USS ELROD	QST-35, BQM-74C	SAM
3	USS ELROD	QST-35	SSG
3	USS ELROD		LINK 11
3	USS BELKNAP	BQM-74C	SAM
3	USS BELKNAP	SLED	SSG
3-7,12	USS BELKNAP		LINK 11
4	HMS INVINCIBLE	AQM-37A, TDU	SAM
4-5	HMS INVINCIBLE		LINK 11
4-5,11	USS BELKNAP		LINK 11
5,8	USS SIMPSON	QST-35	SSG
5	HMS APOLLO		LINK 11
6-7	USS SIMPSON	BQM-74C	SAM
6-7,9	USS SIMPSON	ASSP	ICSE
7	USS OBANNON	SLED	SSG
7	USS OBANNON	BQM-74C	SAM
7	USS OBANNON		LINK 11
8-9	USS W V PRATT	BQM-74C	CSSQT
10-11	FGS EMDEN, FGS KOELN	BQM-74C	SAM
10	USS E McDONNELL	SLED	SSG
12	FGS ROMMEL	BQM-74C	SAM
14	FGS ROMMEL, FGS EMDEN, FGS KOELN	ASSP	HARPOON EXERCISE

MARCH 1986

OUTER RANGE
(Cont.)

Date	Exercise Unit	Target	Type Exercise
16	USS E McDONNELL	SLED, TWR	SSG
17	FGS ROMMEL, FGS EMDEN, FGS KOELN	BQM-74C, TDU	SAM
17	FGS ROMMEL FGS EMDEN, FGS KOELN	ASSP	HARPOON REH
17-20	FGS KOELN, FGS EMDEN		LINK 11
17-21,24-28	USS THORN		LINK 11
18	FGS ROMMEL	QST-35	HARPOON EXERCISE
19	USS THORN	SLED	SSG
24	FGS ROMMEL	QST-35	SSG
25-26	USS THORN	A4	ICSE
25	USS THORN	SLED	SSG
26	USS THORN	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-2	USS J RODGERS	NGFS
3-6	NSWG-4	SMALL ARMS
5-6	USS BELKNAP	NGFS
5	HMS APOLLO	NGFS
5-6	USS OBANNON	NGFS
9	NSWG-2	SMALL ARMS
10-12	USS W V PRATT	NGFS

MARCH 1986 (continued)

INNER RANGE
(continued)

11-15	USS McDONNELL	NGFS
22	1ST SOCOM	AGO
25	FGS ROMMEL	NGFS
27-28	VS-22	MINEX

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-5	USS PHILADEPHIA	WSAT
3-9	FGS ROMMEL	WSAT
7-12	USS BELKNAP	WSAT
8,17	FGS ROMMEL	TORPEX
14	FGR PATROL AIRCRAFT	TORPEX
15,17	FGS EMDEN, FGS KOELN	TORPEX
18-19,22	VP-24	TORPEX
18	VP-49	TORPEX
21	VP-44, VP-26	TORPEX
22	VP-66	TORPEX
24,27	VP-8	TORPEX
25-28	VS-22	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-2	USS J RODGERS	EWX
2,5-6	USS BELKNAP	EWX
3	USS ELROD	EWX

MARCH 1986 (continued)

ELECTRONIC WARFARE RANGE
(continued)

4	HMS APOLLO, HMS MINERVA, USS PATTERSON	EWX
4-6	USS SIMPSON	EWX
7-11,12,14,17,20	FGS ROMMEL	EWX
7,14,17,19,20	FGS EMDEN	EWX
7-9	USS W V PRATT	EWX
11,14	USS McDONNELL	EWX
14,17,19-20	FGS KOELN	EWX
15-16	USS BAINBRIDGE	EWX
19-20,24,26	USS THORN	EWX

APRIL 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
4	USS THORN		Link 11
10-11	AFWTF/PMTC	QF-86	FLT. CHECKS
14	USS McCANDLESS, USS MONTGOMERY	TDU/SLED	SAG/SSG
14,16	USS FORRESTAL	TDU	SAG
14-16	USS FORRESTAL	QST-35	SSG
14-16	CVW-6	QF-86 BQM-34E/T BQM-74C	AAM
15,16	USS CONNOLE	TDU	SAG
15	HNLMS VAN GALEN	SLED	SSG
15	USS C SPRAGUE, USS MOOSBRUGGER	SLED/QST-35	SSG
15-17	CVW-7	QF-86/BQM-74C	AAM
16	USS E MONTGOMERY, USS McDONOUGH	TDU/QST-35	SAG/SSG
16	HNLMS VAN GALEN	TDU	SAG
16	USS CONNOLE	QST-35	SSG
16	USS J DANIELS, USS J RODGERS, USS T C HART	SLED/TWR	SSG
16,21,26, 28,30	ESMC	Satellite	Radar Tracking
17	USS J DANIELS	TDU	SAG
19-23	FLEETEX 2-86		Link 11
20-21	CVW-7	A4	DACM

OUTER RANGE
(Cont.)

Date	Exercise Unit	Target	Type Exercise
24	USS R G BRADLEY, USS J L HALL	SLED/QST-35	SSG
24	USS TALBOT, USS WAINWRIGHT, USS NICHOLAS	QST-35	SSG
25	USS WAINWRIGHT, USS NICHOLAS, USS R G BRADLEY, USS TALBOT USS SAVANNAH	BQM-74C	SAM
26	USS SAVANNAH	A4	SAG
30	USS SAIPAN		Link 11

INNER RANGE

Date	Exercise Unit	Type Exercise
1-3,8-10,16-19, 21-23,30	VC-8	AGO
4,7,14-18,21	CVW-6	AGO
14-15,23	USS T C HART	NGFS
14-15,17	USS MACDONOUGH	NGFS
16	USS J DANIELS	NGFS
16-17	USS J RODGERS, USS SELLERS	NGFS
16-17	USMC	SPOTEX
17	USS E MONTGOMERY	NGFS
19,23	USS WAINWRIGHT	NGFS
19-21	CVW-7	AGO
22,26	USS TALBOT	NGFS
23	USS McCANDLESS	NGFS
24-26	USS IOWA	NGFS
30	NSWG-4	Special Ops

APRIL 1986 (continued)

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-3	USS THORN	WSAT
7,12	VP-24	TORPEX
9	VP-10 VP-44	TORPEX
14,16	USS CONNOLE, USS J DANIELS USS MOOSBRUGGER USS CITY OF CORPUS CHRISTIE	TORPEX
15-17	HS-15 USS McCANDLESS, USS E MONTGOMERY, USS SELLERS, USS C SPRAGUE VS-28	TORPEX
16	USS BAINBRIDGE	TORPEX
17	USS MACDONOUGH	TORPEX
19	USS R G BRADLEY, USS NICHOLAS	
20-25	USS TRUETT	WSAT
23	USS TALBOT,WAINWRIGHT	TORPEX
27	USCGC LIPAN	TAC TRIALS
28	VP-49	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
13-23	CVW-6	EWX
15	USS MOOSBRUGGER, USS T C HART, USS CONNOLE, USS McCANDLESS	EWX
20	VAQ-33	EWX

ELECTRONIC WARFARE RANGE
(cont.)

Date	Exercise Unit	Type Exercise
21	VS-31	
23-26	USS TRUETT	EWX
25	USS WAINWRIGHT, USS TALBOT, USS SAVANNAH, USS J L HALL, USS R G BRADLEY	EWX
26	USCGC GALLATIN	EWX
30	USS GEMINI	EWX

MAY 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
2-3	USS CONYNGHAM	A4	ICSE
2-3	USS GEMINI	QST-35	SSG
3	USS CONYNGHAM	BQM-74C	SAM
8-9	PMTC	QF-86	Flight Ops
10	USS IWO JIMA, USS C F ADAMS, USS COONTZ	BQM-74C	SAM
10	USS IWO JIMA, USS C F ADAMS, USS COONTZ		Link 14
12,14-15, 28-29	CVW-3	BQM-74C/QF-86 AQM-37A	AAM
12-18,27-28	CVW-3	A4	DACM
12,16,18-21,28	CVW-3	QST-35	ASM
13,19	ESMC		Satellite Tracking
15,17-18,20	CVW-3	A4	AAG
15	USS RICKETTS	QST-35	SSG
16	USS CARR	QST-35	SSG
19	USS J F KENNEDY, USS CARR	BQM-74C/A4 AQM-37A	SAM
23	USS CARR	AQM-37A	SAM
27	USS O'BANNON	QST-35	SSG
28	USS DAHLGREN	AQM-37A BQM-74C	SAM
29-30	CVW-3	QST-35	ASM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-2,7-10,15-16, 20,22,30	VC-8	ATG
2	USS SAIPAN	NGFS
6-8	USS C F ADAMS	NGFS
6-10	OCEAN VENTURE 86	ATG
7-9,11	USS COONTZ	NGFS
7	ARMY, USMC	Mortar Fire/ Artillery
7-10	CVW-7	ATG
7-10	156-TFG	ATG
8-10	MAB-32	ATG
8	101st ARMY AIRBORNE	Artillery
8	USS NEWPORT	NGFS
10	SBU-20	NGFS
12-22,26-30	CVW-3	ATG
12	NSWG-4	Small Arms
14-16	USS RICKETTS	NGFS
21,28	VP-26	MINEX
23-24	USS DAHLGREN	NGFS
26	USS O'BANNON	NGFS
28	CVW-3	MINEX
31	USS DEWEY	NGFS

UNDERWATER TRACKING RANGE

1	USS LIPSCOMB	TORPEX
5-10	USS CONYNGHAM	WSAT
6	VP-8	TORPEX

UNDERWATER TRACKING RANGE
(continued)

Date	Exercise Unit	Type Exercise
6	VP-26	TORPEX
12,14	VP-24	TORPEX
14-19	USS W V PRATT	WSAT
14	VP-16	TORPEX
15-16,27	HS-7	TORPEX
17	VP-68	TORPEX
21	VP-10	TORPEX
23-31	USS BATON ROUGE	WSAT
26	USS DAHLGREN	TORPEX
27,29-30	VS-22	TORPEX
30	VP-44	TORPEX

ELECTRONIC WARFARE RANGE

1-3,8,10	USS CONYNGHAM	EWX
2	USS SAIPAN	EWX
3	USS GEMINI	EWX
6-10	USS IWO JIMA	EWX
8-9	USS C F ADAMS	EWX
11-23,26-30	USS KENNEDY	EWX
11-12	USS KLAKRING	EWX
11-21	USS C V RICKETTS	EWX
12-15,17-22,29	CVW-3	EWX
13-21	USS CARR	EWX
24-25	USS DAHLGREN	EWX
26	USS VIRGINIA	EWX
31	USS DEWEY	EWX

JUNE 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3-4,17-20, 23-26,28-29	USS VIRGINIA	BQM-34S BQM-74C AQM-37A AQM-37C A4	SAM
4,9,11	ESMC		Satellite Tracking
5	USS DEWEY	BQM-74C QST-35	SAM SSG
6	USS J A FURER	AQM-37A	SAM
12-13	USS BAINBRIDGE		Link 11
12	USS BAINBRIDGE	AQM-37A BQM-74C	SAM
25	USS VIRGINIA	QST-35	SSM
26	USS VIRGINIA	QST-35	SSG
26-27,30	PMTC	QF-86	Flight Test
27	AFWTF	A4	Radar Calibration

INNER RANGE

Date	Exercise Unit	Type Exercise
1-3	USS DEWEY	NGFS
2-4,18-20	U S MARINES	SPOTEX
5,7	P R NATIONAL GUARD	Infantry Ops.
5,7	USS J A FURER	NGFS
11	USS VIRGINIA	NGFS
16-17	USS TRUETT	NGFS
17-20	USS MONTGOMERY	NGFS

JUNE 1986 (continued)

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-2	USS BATON ROUGE	WSAT
3	NATC	Sonobuoy Test
5,10	VP-16	TORPEX
10,11	VP-26	TORPEX
13	USS BAINBRIDGE	TORPEX
14	VP-62, VP-24	TORPEX
19	VP-49,VP-10,VP-44	QAST
24	VP-44	TORPEX
27	VP-24	TORPEX
28	VP-10	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
5-7	USS J A FURER	EWX
5	USS DEWEY	EWX
11-12	USS BAINBRIDGE	EWX
11,24	VP-44	EWX
17,20	USS TRUETT	EWX
24-26	USS VIRGINIA	EWX

JULY 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-3	CVW-8	BQM-74C BQM-34S/T QF-86	AAM
3	USS VIRINIA	BQM-74C	SAM
9,14,21,27	ESMC	SATELLITE	CAPRI RADAR TRKX
15,25	USS FLATLEY	AQM-37A BQM-74C	SAM
16	USS FLATLEY	QST-35	SSG
17	AFWTF	UTR NEW AREA	RADAR TRACKING
18	USS DOYLE	BQM-74C	SAM
19	USS DOYLE	QST-35	SSG
22	USS SOUTH CAROLINA	BQM74C	SAM
23,25	USS SOUTH CAROLINA	QST-35	SSG
25-26	ESMC	SATELLITE	WAAS RADAR TRKX
29-30	USS STARK		LINK 11
29	USS STARK	BQM-74C	SAM
29-30	VFA-131	BQM-74C	AAM
29-31	UNITAS XXVII	SLED	SSG
29-31	UNITAS XXVII	QST-35	SSG
30-31	UNITAS XXVII	TDU	SAG

JULY 1986 (continued)

INNER RANGE

Date	Exercise Unit	Type Exercise
1-24	AFWTF	Range Refurbishment
1-24	AFWTF	Ordnance Demolition
22,25	VP-45	MINEX
25,26	USS.SOUTH CAROLINA	NGFS
28,29	VFA-131	AGO
28	USS KIDD	NGFS
28	VC-8	AGO
30,31	UNITAS XXVII/CTF 138	NGFS
31	UNITAS XXVII/CTF 138	AGO
31	PUERTO RICO AIR NATIONAL GUARD	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1,2	USS GRAYLING	PROFICIENCY TEST
3	VP-24	Torpex
8,9	VP-16	Torpex
10,19	VP-10	TORPEX
16	VP-11	TORPEX
17	TRB-5	UTR NORTH RNG COVERAGE
21	USS SOUTH CAROLINA	TORPEX
23	VP-49, USS DOYLE	TORPEX
25	VP-23	TORPEX
28,30	TRB-2	UTR NORTH RNG SOFTWARE CHECK OUT
29	VP-44	TORPEX

JULY 1986 (continued)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
16	USS FLATLEY	EWX
18,19	USS DOYLE	EWX
21,22,23	USS SOUTH CAROLINA	EWX
28	USS KIDD	EWX
29	USS STARK	EWX
30,31	UNITAS XXVII	EWX

AUGUST 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	UNITAS XXVII	W/SLED QST-35	SSG
1	UNITAS XXVII	BQM-74C	SAM
1-5,15	ESMC		Radar Tracking
2	UNITAS XXVII	AQM-37A	SAM
4-8	VFA 131		DACM
5-10	Code 32		Range Evaluation
10-11	USS TAURUS	W/SLED	SSG
18	VC8		ACM
22	VC8		DACM
23	USS J. A. FURER	BQM-74C	SAM
26	USS COMTE DE GRASSE USS J.A. FURER	QST-35	SSG
30	USS HAWES USS UNDERWOOD	AQM-37A BQM-74C	SAM
31	USS UNDERWOOD	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS J. L. HALL	NGFS
1	USS ARIES	NGFS
1	USS TAURUS	NGFS
1	ARV PADILLA	NFGS
2-8	VFA-131	AGO
2,3	UNITAS XXVII/CTF138	FIREX/ARTY
5	VC8	AGO
14,15,20	VS30	MINEX

AUGUST 1986 (continued)

INNER RANGE
(continued)

16,18-20	VS30	AGO
21,22,24,25	USS J. A. FURER	NGFS
28-29	USS COMTE DE GRASSE	NGFS
29-31	USS CARON	NFGS
31	USS A.W. RADFORD	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	VP11	TORPEX
4,15,16,28	VP49	TORPEX
7,21	VP10	TORPEX
9	VP64	TORPEX
9,23	VP94	TORPEX
14,15,18-20	VS30	TORPEX
15,28	VP16	TORPEX
18	VP44	TORPEX
23	VP62	TORPEX
25	VP23	TORPEX
29	USS UNDERWOOD	EM LOGS

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS ARIES	EWX
1-2	USS J. L. HALL	EWX
1-2	ARV SUCURE	EWX
1,2,4	USS LAWRENCE	EWX
1,2,4	USS HAYLER	EWX
1,2,4	ARV SOUBLETTE	EWX

AUGUST 1986 (continued)

ELECTRONIC WARFARE RANGE
(Cont.)

Date	Exercise Unit	Type Exercise
1,2,4	ARV PADILLA	EWX
2,4	ARV SALOM	EWX
7	VP-10	EWX
9	VP64	EWX
9	VP94	EWX
14-16,18-20	VS30	EWX
19,20,27	USS COMTE DE GRASSE	EWX
21	CPW5	EWX
21-22,24,25	USS J.A.FURER	EWX
23	VP62	EWX
25	VP23	EWX
26,29-31	USS UNDERWOOD	EWX
15,28	CPW11	EWX
29,30,31	USS CARON	EWX
31	USS RADFORD	EWX

SEPTEMBER 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-3	USS A W RADFORD USS CARON		LINK 11
1-5	USS COMTE DE GRASSE		LINK 11
1,9	USS ESTOCIN		TRACKEX
2-3	USS COMTE DE GRASSE	BQM-74C BQM-34S QST-35	SAM
2-3	USS A W RADFORD	QST-35	SSG
3-4	USS A W RADFORD	BQM-74C	SAM
5,15,24	ESMC		RADAR TRACKEX
8-9,13,15-16	USS ESTOCIN	BQM-74C AQM-37A	SAM
9-12,15-17	USS DEYO		LINK 11
10	USS ESTOCIN	HAYES TGT	SAG
10-11	USS DEYO	W/SLED	SSG
11	USS ESTOCIN	QST-35	SSG
12,14,16	USS ESTOCIN	W/SLED	SSG
16	USS DEYO	BQM-74C	SAM
16	USS ESTOCIN	QST-35	SURF TRKX
18-19,22-24	USS YORKTOWN		LINK 11
22-25	USS PREBLE		LINK 11
23	USS PREBLE	BQM-74C	CSSQT
24	USS YORKTOWN	BQM-74C AQM-37A	SAM
28	USS S B ROBERTS	BQM-74C	SAM
28	USS S B ROBERTS		LINK 11
30	USS S B ROBERTS	QST-35 W/SLED	SSG

SEPTEMBER 1986 (continued)

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS A W RADFORD	NGFS
17-19	VC-8	ATG
18	SEAL TEAM FOUR	AIA
22-23	USS YORKTOWN	NGFS
25	SPECBOAT 24	AIA
26	USS DEYO	NGFS
27-29	USS TRIPPE	NGFS
29-30	TF-160	ATG

UNDERWATER TRACKING RANGE

3	USS A W RADFORD	SSRNM
7,8	USS JOHN MARSHALL	TACTICAL DATA
8,26	VP-56	TORPEX
17-30	USS DEYO	WSAT
18	VP-16	TORPEX
18	VP-45	TORPEX
19	USS YORKTOWN	TORPEX
20	VP-64	TORPEX
20	VP-92	TORPEX
23,24	USS DEYO	TRACKEX/TORPEX
26	VP-49	TRACKEX
27-30	USS PREBLE	WSAT
28	VP-11	TORPEX
28	VP-23	TORPEX
30	VP-10	TORPEX

SEPTEMBER 1986 (continued)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS ESTOCIN	EWX
1-3	USS RADFORD	EWX
2-4	USS COMTE DE GRASSE	EWX
7-10-12,15-16	USS DEYO	EWX
8	VP16	EWX
8	VP56	EWX
18,26	VP16	EWX
18,26	VP49	EWX
18-19,22-24	USS YORKTOWN	EWX
20	CRPWL	EWX
22,24-25,30	USS PREBLE	EWX

OCTOBER 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS PREBLE		LINK 11
2,6,8,14	AFWTF		AIC
3	USS DE WERT	BQM-74C	SAM
3	USS DE WERT		LINK 11
3,14,20,30-31	ESMC		RADAR TRKX
6	USS SB ROBERTS		LINK 11
7	140 ACW		GCI
9-11	USS ESTOCIN	BQM-34S BQM-74C QST-35 AQM-37A	SAM
20	CASTEX 1-87/CCDG-8 USS COONTZ USS J DANIELS USS CLARK USS STARK USS TAYLOR USS CF ADAMS USS CONYNGHAM USS HAWES USS VIRGINIA USS SW GROVES USS BYRD	BQM-74C AQM-37A	SAM
21	CASTEX 1-87/CCDG-8 USS ELROD	BQM-74C	SAM
21	HMS FIFE		LINK 14
21-25	CASTEX 1-87/CCDG-8	W/SLED	SSG
23	CASTEX 1-87/CCDG-8 USS ELROD	BQM-74C	SAM
23,27	USS VIRGINIA	QST-35	CNO 731
25-27	CASTEX 1-87/CCDG-8	QST-35	SSG
27	CASTEX 1-87/CCDG-8 USS BARNEY USS SW GROVES	BQM-74C	SAM
29-31	CARIB CUTLASS	QST-35 GORST TGT	ASM/ASO

OCTOBER 1986

INNER RANGE

Date	Exercise Unit	Type Exercise
1-2,8-11	TF-160	ATG
4,27	VP-44	ATG
6,8	VP-16	ATG
7	2ND FORECOMCO	ATG
8-9,20-21 23-24,28-31	156TFG ANG	ATG
15-17,28	VC-8	ATG
17	SBU-24	SMALL ARMS
18-20	USS BARNEY	NGFS
21	HMS APOLLO HMS DIOMEDE	NGFS
22-23	USS CONYNGHAM	NGFS
23-24	USS COMTE DE GRASSE USS J DANIELS	NGFS
25	USS COONTZ USS CF ADAMS	NGFS
27	USS VIRGINIA	NGFS
28-29	USS KOELSCH	NGFS
28-31	CARIB CUTLASS/RAF	ATG

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-3	USS PREBLE	WSAT
2	USS PREBLE	SSRNM
4	USS DE WERT	TORPEX
6	VP-56	TORPEX/PACER
8	VP-10	TORPEX/PACER
9	VP-49	TORPEX/PACER

UNDERWATER TRACKING RANGE
(continued)

9	VP-16	TORPEX
16	VP-44	TORPEX
16	VP-44	PACER
18	VP-62 VP-68 VP-16	TORPEX
20	USS BARNEY	SSRNM
22	USS J DANIELS	TORPEX/PACER/ SSRNM
22	USS VIRGINIA	TORPEX/PACER
22	USS ELROD HNLMS VAN NES USS GROVES	TORPEX
22,25	USS GROVES	PACER
23	USS COMPTE DE GRASSE	TORPEX/PACER
23	USS HAWES	PACER
23	HMS ACHILLES	TORPEX
23,25	USS STARK	TORPEX/PACER
25-26	USS BYRD	TORPEX
23,26	USS HAWES	TORPEX
24	USS CLARK	SSRNM
24	USS TAYLOR	PACER
24	USS CF ADAMS	TORPEX/PACER/ SSRNM
24-25	USS CLARK	TORPEX/PACER
25	USS CONYNGHAM	TORPEX
24	USS TAYLOR USS DACE	TORPEX
25	USS CONYNGHAM	PACER

UNDERWATER TRACKING RANGE
(Cont.)

Date	Exercise Unit	Type Exercise
27	USS COONTZ	TORPEX/PACER
29	VP-11 VP-23	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-2,4	USS PREBBLE	EWX
2-3	USS DE WERT	EWX
6	CPW-11 USS VOGE	EWX
6,19	USS RADFORD	EWX
8	CPW-5	EWX
9	VP-49	EWX
15	VP-44	EWX
16	VP-23	EWX
18	VP-62	EWX
18-19	USS BARNEY	EWX
19,21-27	CCDG-8	EWX
20	USS J DANIELS USS VIRGINIA USS BYRD	EWX
21	HMS FIFE HMS APOLLO	EWX
22	HNLMS VAN NES	EWX
25	USS SCAMP	EWX
28-29	USS KOELSCH	EWX
28-30	CARIB CUTLASS	EWX
29	VP-25	EWX

NOVEMBER 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
3-6	CARIB CUTLASS	QST-35 GORST HULK	ASM/ASO
3,14,17,20	ESMC	SATELLITE	TRACKEX
3-4	USS OH PERRY		LINK-11
5	334 TFS		LONG-RANGE-STRIKE
5,9	USS OH PERRY	BQM-74C	SAM
6	NAVAIRDEVCEN	BQM-74C	AIR-LAUNCH-TEST
12-13	AFWTF		Radar Calibration
14	VC-8	A4	ACM
17-19	VC-8	A4	AIC
22-26	USS PITTSBURGH	HULK	CNO PROJECT 251/834

INNER RANGE

Date	Exercise Unit	Type Exercise
1	VP-10	ATG
3-7	CARIB CUTLASS	ATG
3-7,12-13 18-20,24-26	156TFG	ATG
4-6	USS E MCDONNELL	NGFS
5-8,10-12	VS-32	ATG
5,10,14	VC-8	ATG
5-6,10	334TFG	ATG
9-14,17-21	VA-204	ATG
13	SBU-24	SMALL ARMS
21	USS BOWEN	NGFS

INNER RANGE
(continued)

24-25	16TH SOS	ATG
25	HMS ACHILLES	NGFS
28-30	USS KING	NGFS

UNDERWATER TRACKING RANGE

5	VP-16	TORPEX/PACER
5,17	VP-5	TORPEX/PACER
6-7,10	VS-32	TORPEX/PACER
15	VP-92 VP-66	TORPEX
18,24	VP-11	TORPEX/PACER
19	VP-8	PACER
19,25	VP-8	TOPPEX
19,25	VP-23	TORPEX/PACER
20	VP-45	TORPEX/ PACER
20	USS BOWEN	SSRNM
29	USS PITTSBURGH	WSAT
29-30	USS CHICAGO	WSAT

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
3,6	CARIB CUTLASS	EWX
3-5,9	USS PERRY	EWX
3-7	USS E MCDONNELL	EWX
5,17,20	CPW-11	EWX
5	334TH TFW	EWX
6-8,10-11	VS-32	EWX
9-15,17-21	VA-204	EWX

NOVEMBER 1986 (continued)

ELECTRONIC WARFARE RANGE
(continued)

15	VP-92 VP-66	EWX
18	VP-11	EWX
19,25	VP-8	EWX
20	USS BOWEN	EWX
23	USS PITTSBURGH	EWX
24	CPW-5	EWX
25	HMS ACHILLES	EWX

DECEMBER 1986

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS LAWRENCE	AQM	SAM
2	USS KING	SSG	QST-35
2,3	USS KING		LINK 11
2	ESMC	SATELLITE	SATELLITE TRK
3	USS KING	AQM/BQM	SAM
3,4,5	MAG-31	BQM/AQM	AAM
9	USS FARRAGUT	AQM/BQM	SAM
11,12	USS FARRAGUT		LINK 11

INNER RANGE

Date	Exercise Unit	Type Exercise
2	NMCB-133	SMALL ARMS
2	VC-8	AGO
2-6,8-11	156 TFG	AGO
3,5	MAG 31	AGO
4,5	VS-31	MINE EXERCISE
5,7,12,13	USS FARRAGUT	NGFS
9-10	VS-28	AGO
13-14	VP-49	MINE EXERCISE
14	USS THORN	NGFS
14-31	EOD	RNG REFURB

DECEMBER 1986 (continued)

UNDERWATER TRACKING RANGE

1-2	USS CHICAGO	WSAT
1-10	USS SILVERSIDES	WSAT
2-4	VS-31	TORPEX
5-16	USS MEMPHIS	WSAT
6	VP-64	TORPEX
6	VP-92	TORPEX
7-8	USS PITTSBURGH	TORPEX
11	USS FARRAGUT	TORPEX
11,18	VP-56	TORPEX
11-12	VP-28	TOPPEX
16-17	USS JACKSONVILLE	TORPEX
18	VP-16	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS LAWRENCE	EWX
2-4	VS-31	EWX
2-3	USS KING	EWX
3-5	MAG-31	EWX
3,7-12	USS SILVERSIDES	EWX
5	USS MISSOURI	EWX
5,6,8,10	USS FARRAGUT	EWX
6	VP-64	EWX
7-8	USS PITTSBURG	EWX
9-10,16-17, 19-20,22-23	VP-5	EWX
10	VS-28	EWX

ELECTRONIC WARFARE RANGE
(continued)

11,18	CPW-11	EWX
14	USS THORN	EWX
16,22	VP-16	EWX
17	USS JACKSONVILLE	EWX
22	VP-45	EWX

HISTORICAL NARRATIVE

MISSION

The mission of the Atlantic Fleet Weapons Training Facility is: to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test and evaluation of weapons systems.

COMMAND RELATIONSHIP

The Atlantic Fleet Weapons Training Facility (AFWTF) is under the chain of command of Commander, Fleet Air Caribbean and receives primary support from Commander, Naval Air Force, U.S. Atlantic Fleet and technical and funding support from the Director of Naval Ranges (MAT-09T). (Commander, U.S. Naval Forces, Caribbean is assigned area coordination authority.

Echelon	Chain of Command
1	Chief of Naval Operations
2	Commander in Chief, U.S. Atlantic Fleet
3	Commander, Naval Air Force, U.S. Atlantic Fleet
4	Commander, FLeet Air Caribbean/ Commander Naval Activities Caribbean
5	Atlantic Fleet Weapons Training Facility

AFWTF is presently composed of 80 military, 40 civil service employees and approx 500 contractor employees.

AFWTF CHRONOLOGY
JANUARY 1987

The AFWTF Executive Officer, COMMANDER Wendell C. McHenry, Jr. relieved CAPTAIN Robert S. McFarland as Commanding Officer on 30 January 1987. Upon CDR McHenry's retirement, CDR Armando A. Wiley, AFWTF Operations Officer assumed the duties of Acting Executive Officer.

The Outer Range was active 17 days in January 1987. Operational support services were provided to 2 U.S. surface units, 1 U.S. subsurface unit, 4 U.S. air units and the Pacific Missile Test Center (PMTC).

The Inner Range was active 19 days in January 1987. Operational support services were provided to 5 U.S. air units and 2 U.S. surface units.

The Underwater Tracking Range was active 23 days in January 1987. Operational support services were provided to 8 U.S. air units, 2 U.S. subsurface units and 1 U.S. surface unit.

The Electronic Warfare Range was active 20 days in the month of January 1987. Operational support services were provided to 3 U.S. surface units, 3 U.S. subsurface units and 5 U.S. air units.

FEBRUARY 1987

The Outer Range was active 28 days in February 1987. Operational support services were provided to 7 U.S. surface units, 1 U.S. subsurface unit, 3 Major Task Force Groups (CSNFL, CANCARIBOPS, FLEETEX 1-87) and Eastern Space Missile Center.

The Inner Range was active 26 days in February 1987. Operational support services were provided to 3 U.S. surface units, 10 U.S. air units, 1 U.K. air unit, 2 U.S. ground units, 2 major Canadian Task Groups, 1 U.K. Task Group and FLEETEX 1-87.

The Underwater Tracking Range was active 23 days in February 1987. Operational support services were provided to 1 U.S. surface unit, 3 U.S. air units, 2 Canadian subsurface units and 3 Major Task Force Groups.

The Electronic Warfare Range was active 28 days in February 1987. Operational support was provided to 5 U.S. surface units, 2 U.S. air units and 4 Major Task Groups.

MARCH 1987

The Outer Range was active 17 days in the March 1987. Operational support services were provided to 10 U.S. surface units, 2 U.S. subsurface units, 1 U.S. air unit and the Eastern Space Missile Center (ESMC).

The Inner Range was active 19 days in March 1987. Operational support services were provided to 9 U.S. surface units, 4 U.S. air units, 2 U.S. subsurface units and 1 Netherland surface unit.

The Underwater Tracking Range was active 20 days in March 1987. Operational support services were provided to 8 U.S. surface units, 8 U.S. air units, 2 U.S. subsurface units and CANCARIB task force.

The Electronic Warfare Range was active 30 days in March 1987. Operational support services were provided to 13 U.S. surface units, 4 U.S. air units, 1 U.S. subsurface unit, 2 Canadian surface units and 6 Netherland surface units (COMNLTG).

APRIL 1987

Construction on the Range Operations Center St. Croix, U.S.V.I. (MILCON P-964) was started 30 April. The scheduled date of completion is 7 August 1988.

The Outer Range was active 28 days in April 1987. Operational support services were provided to 5 U.S. surface units, 5 U.S. air units, 2 foreign units and 2 agencies.

The Inner Range was active 21 days in April 1987. Operational support services were provided to 6 U.S. surface units, 7 U.S. air units, and 2 HMNLS surface units.

The Underwater Tracking Range was active 15 days in April 1987. Operational support services were provided to 2 U.S. surface units and 12 U.S. air units.

The Electronic Warfare Range was active 24 days in April 1987. Operational support services were provided to 7 U.S. surface units, 10 U.S. air units, 1 U.S. subsurface unit and 6 Netherland surface units from the Task Group (COMNLTG).

MAY 1987

CAPTAIN William S. Wojtkowski relieved COMMANDER Wendell C. McHenry, Jr. as Commanding Officer on 8 May 1987.

Construction of the AFWTF Office Annex (Special Projects C6-84W) was started 11 May. Scheduled date of completion is 15 August 1988.

Construction of the Marine Ocean Engineering Storage Building, Roosevelt Roads (Special Projects C13-86W) was started 11 May. Scheduled date of completion is 15 May 1988.

Construction of the Ready Magazines, Cerro Matias, Vieques, P.R. (Special Projects C1-80W) was started 20 May.

The Outer Range was active 25 days in May 1987. Operational support services were provided to 24 U.S. surface units, 2 U.S. air units, 3 U.S. subsurface units, 7 foreign surface units and 1 agency (PMTC).

The Inner Range was active 23 days in May 1987. Operational support services were provided to 13 U.S. surface units, 6 U.S. air units, 3 U.S. ground units and 1 U.K. surface unit.

The Underwater Tracking Range was active 24 days in May 1987. Operational support services were provided to 17 U.S. surface units, 4 U.S. subsurface units, 8 U.S. air units, 4 German surface units and 1 German air unit.

The Electronic Warfare Range was active 25 days in May 1987. Operational support services were provided to 17 U.S. surface units, 5 U.S. subsurface units, 4 U.S. air units, 6 German surface units and 1 Netherland surface unit.

JUNE 1987

Roof treatment and repairs, Range Operations Center, Bldg. 2804, Crown Mt., St. Thomas (MRP 157-85) was started 4 June.

The Outer Range was active 14 days in June 1987. Operational support services were provided to 11 U.S. surface units, 2 U.S. air units and to the Eastern Space Missile Center (EMSC).

The Inner Range was active 9 days in June 1987. Operational support services were provided to 6 U.S. surface units.

The Underwater Tracking Range was active 18 days in June 1987. Operational support services were provided to 10 U.S. surface units, 4 U.S. air units, 2 U.S. subsurface units and 2 AFWTF surface units.

The Electronic Warfare Range was active 18 days in June 1987. Operational services were provided to 10 U.S. surface units, 3 U.S. air units and 2 subsurface units.

JULY 1987

The Outer Range was active 22 days in July 1987. Operational support services were provided to 12 U.S. surface units, 4 U.S. air units, 1 U.S. subsurface unit, 9 foreign surface units and 1 foreign subsurface unit.

The Inner Range was active 8 days in July 1987. Operational services were provided to 9 U.S. surface units, 1 U.S. ground unit and 4 foreign surface units. The range was closed from 1 thru 15 July 1987 for refurbishment.

The Underwater Tracking Range was active 18 days in July 1987. Operational support services were provided to 5 U.S. surface units, 1 U.S. subsurface unit, 4 U.S. air units and 2 foreign surface units.

The Electronic Warfare Range was active 19 days in July 1987. Operational support services were provided to 15 U.S. surface units, 2 U.S. air units and 7 foreign surface units.

AUGUST 1987

Repairs to the CAPRI Radar Bldg 2803 Crown Mt, St. Thomas (MRP1XX-86) were started 10 August.

The Outer Range was active 23 days in August 1987. Operational support services were provided to 14 U.S. surface units, 2 U.S. subsurface units, 6 U.S. air units and HMNLS WITTE DE WITH.

The Inner Range was active 21 days in August 1987. Operational support services were provided to 8 U.S. surface units, 3 U.S. air units and 2 U.S. ground units.

The Underwater Tracking Range was active 24 days in August 1987. Operational support services were provided to 8 U.S. surface units, 9 U.S. air units and 6 U.S. subsurface units.

The Electronic Warfare Range was active 23 days in August 1987. Operational support services were provided to 19 U.S. surface units, 8 U.S. subsurface units, 7 U.S. air units and 3 Venezuelan surface ships.

SEPTEMBER 1987

Construction of a Septic Tank at Range Operations Center, Bldg. No.2804, Crown Mt., St. Thomas U.S.V.I. (Contract N62470-87-C-6319) was started 26 September.

Construction on the Range Operations Center Addition, Bldg 386 Roosevelt Roads (MILCON P-857) was started 28 September. The scheduled date of completion is 5 May 1989.

Repairs to the road to St. George Hill Radar site, St. Croix (MRP177-86) were started 28 September. The scheduled date of completion is 5 March 1988.

The Outer Range was active 21 days in September 1987. Operational support services were provided to 7 U.S. surface units, 5 U.S. subsurface units, 8 U.S. air units and 3 foreign units.

The Inner Range was active 20 days in September 1987. Operational support services were provided to 8 U.S. surface units, the HMS ARROW and 1 U.S. ground unit.

The Underwater Tracking Range was active 22 days in September 1987. Operational support services were provided to 9 U.S. surface units, 11 U.S. air units and 5 U.S. subsurface units.

The Electronic Warfare Range was active 24 days in September 1987. Operational support services were provided to 11 U.S. surface units, 4 U.S. subsurface units, 9 U.S. air units and 2 foreign surface units.

OCTOBER 1987

Roof treatment and repairs , Range Operations Center, Bldg 2804, Crown Mt., St. Thomas (MRP157-85) were completed 9 October.

The Outer Range was active 19 days in October 1987. Operational support services were provided to 7 U.S. surface units, 4 U.S. air units and 1 U.S. subsurface unit.

The Inner Range was active 14 days in October 1987. Operational support services were provided to 2 U.S. surface units, 4 U.S. air units and 2 U.S. ground units.

The Underwater Tracking Range was active 27 days in October 1987. Operational support service were provided to 2 U.S. surface units, 4 U.S. subsurface units and 12 U.S. air units.

The Electronic Warfare Range was active 23 days in October 1987. Operational support services were provided to 7 U.S. surface units, 3 U.S. subsurface units and 10 U.S. air units.

NOVEMBER 1987

The Outer Range was active 25 days in November 1987. Operational support services were provided to 7 U.S. surface units, 4 U.S. air units and 1 subsurface unit.

The Inner Range was active 23 days in November 1987. Operational support services were provided to 6 U.S. surface units, 7 U.S. air units, 2 U.S. ground units, the French surface unit Champlain, a French ground unit and a Dutch ground unit.

The Underwater Tracking Range was active 27 days in November 1987. Operational support services were provided to 4 U.S. surface units, 4 U.S. air units and 3 U.S. subsurface units.

The Electronic Warfare Range was active 20 days in November 1987. Operational support services were provided to 11 U.S. surface units, 1 U.S. subsurface unit and 4 U.S. air units.

DECEMBER 1987

Construction of a Septic Tank, Range Operations Center, Bldg 2804, Crown Mt., St. Thomas, U.S.V.I. (Contract N62470-87-C-6319) was completed 9 December.

Construction of Ready Magazines, Cerro Matias, Vieques, P.R. (Special Projects C1-80W) was completed 18 December.

Repairs to the CAPRI Radar, bldg. 2803, Crown Mt., St. Thomas (MRP1XX-86) were completed 30 December.

The Outer Range was active 10 days in December 1987. Operational support services were provided to 4 U.S. surface units and AFWTF.

The Inner Range was active 18 days in December 1987. Operational support services were provided to 2 U.S. surface units.

The Underwater Tracking Range was active 10 days in December 1987. Operational support services were provided to 2 U.S. surface units, 9 U.S. air units and the subsurface unit USS Sand Luce.

The Electronic Warfare Range was active 12 days in December 1987. Operational support services were provided to 4 U.S. surface units and 7 U.S. air units.

RANGE UTILIZATION CHRONOLOGY

JANUARY 1987

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
9	USS SCOTT		LINK 11
12,17	CVW-7		TM CHK
12-15,17, 19-22	CVW-7		DACM
12-13,15, 19-20	CVW-7		AIC
12,15,17	PMTC		QF-86
13,15,19-20	CVW-7	BQM-74C BQM-34S BQM-34T AQM-37A QF-86	AAM
13-14,16	CVW-7	HULK QST-35	ASO
19	93 TFS	GORST	ASM
19	CVW-7		LINK 11
20-23,26-29	USS STUMP		LINK 11
20-21	CVW-7	QST-35	SHRIKEX
27-28	USS STUMP	QST-35 GORST	SSG
28-29	156 TFG		DACM
28	USS STURGEON		LINK 11
29	AFWTF		ITCS TST
30	USS STUMP	BQM-74C	SAM
30	MAG 29	BQM-74C	AAM

INNER RANGE

Date	Exercise Unit	Type Exercise
12-17,19-22	CVW-7	AGO
17,21	CVW-7	MINEX
19,21-23	93 TFS	AGO
24-27	USS GLOVER	NGFS
24-25	USS STUMP	NGFS
27-29	VC-8	AGO
29-31	HMA 269	AGO
30	VP-45	MINEX

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
8	VP-8 VP-11	TORPEX PACER
10	VP-94	TORPEX
11-20	USS LOUISVILLE	WSAT
13-14	VS-31	PACER/ASW
15,17	HS-5	ASW
21-22	USS LOUISVILLE	TRIALS
21-24	USS STUMP	SSRNM
22-31	USS STURGEON	WSAT
24-29	VP-56	PACER/TORPEX
26	VP-45	PACER/TORPEX
28	VP-49	PACER/TORPEX

JANUARY 1987 (Cont)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
8	VP-8 VP-11	EWX
9-10	USS SCOTT	EWX
11-12,14	USS DALLAS	EWX
12-16,19-22	CVW-7	EWX
15-16,18-20	USS LOUISVILLE	EWX
24,26,28	CPW-11	EWX
24,26-27	USS STURGEON	EWX
26-29	USS STUMP	EWX
28-29,31	HMA 269	EWX
31	USS BRUMBY	EWX

FEBRUARY 1987

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS BLAKELY	BQM-74C	SAM
1,7,9,10	AFWTF	A4	ITCS CHK
2	CSNFL	BQM-74C	SAM
2-4	CSNFL	USS HOIST SLED	SSG
4,5,9,10	CANCARIBOPS	SLED HSPT	SSG
4	FGS RHEINLAND	AQM-37A TDU	SAM
4,5	USS YORKTOWN	AQM-37A BQM-74C	SAM
4-6	USS YORKTOWN		LINK 11

FEBRUARY 1987 (Cont)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
5	USS DEYO		LINK 11
5	USS YORKTOWN	SLED	SSG
7,8	CANCARIBOPS	A4 BQM-74C	MSLX
11	USS FAHRION	BQM-74C	SAM
12	USS GUAM	TDU	SAM
13,16-21,23	FLEETEX 1-87	QST-35 SLED	SSG
13,14	FLEETEX 1-87	AQM-31A BQM-74C PETREL	SAM
13,14	CVW-6	QST-35	ASM
14-16,22,26	FLEETEX 1-87		LINK-11
15	USS RAY	HULK	SLCM
16-18	CVW-17	AQM-37A BQM-74C BQM-34S QF-86	AAM
20	USS ELROD		LINK-11
18-22	CVW-6	BQM-74C QF-86 BQM-34S AQM-37A	AAM
23	ESMC		SLEWCHK
23-25	ESMC		RADAR TRKX
24,26	AFWTF		ITCS CHK
27	CVW-6	QST-35	SHRIKEX

FEBRUARY 1987 (Cont)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
28	USS DEYO	BQM-74C	SAM
28	USS DEYO	SLED	SSG
28	USS DEYO		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
1,18	CSNFL	NGFS
2-4	HMA-269	AGO
3-7	USS IOWA	NGFS
4,19,24	VC-8	AGO
4-5	USS DEYO	NGFS
5	VP-56	MINEX
6	USS YORKTOWN	NGFS
8,18,22	SPECWAR	SMALL ARMS
8	31 TFW	AGO
9-11,25,27	CANCARIBOPS	NGFS
10-12,16-19	MAG-46	AGO
11-12,17-18	156 TFG	AGO
12,16-17	CARIB TRNG	NGFS
14-22,24-26	FLEETEX 1-87	NGFS
15-18	10TH MARINE	SMALL ARMS
15-20,22-23, 25-26	CVW-17	AGO
16-18	CVW-17	MINEX
16-18	ARK ROYAL	AGO

INNER RANGE (Cont)

Date	Exercise Unit	Type Exercise
16-18	VMFA-333	AGO
16-18,20,22-25	CVW-6	AGO
18	VMO-4	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2	CSNFL	TORPEX
3-6	CANCARIBOPS	TORPEX
5	USS YORKTOWN	TORPEX
10	VP-64	TORPEX
12-26	HMCS OKANAGAN	WSAT
17-22	FLEETEX 1-87	TORPEX
20,23	VS-30	TORPEX
26-27	HMCS ONANDAGA	WSAT
28	VP-45	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,3,19,21-22	CSNFL	EWX
2	USS BLAKELY USS BRUMBY	EWX
2-3	HMA-269	EWX
2-12,14-28	CANCARIBOPS	EWX
4,6	USS YORKTOWN	EWX
4-6	USS IOWA	EWX

FEBRUARY 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
10-12	USS GUAM	EWX
13-22,24-27	FLEETEX 1-87	EWX
18-21	CARIB TRNG	EWX
24-26	VP-49	EWX

MARCH 1987

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
2	USS J KING USS VOGE USS FLATELY	QST-35,SLED	SSG
2	USS FLATELY		LINK-11
3	USS J KING USS FLATELY	BQM-74C	SAM
3	USS FLATELY		TRACKEX
3,12-13	VFA-87		DACM
9-13	USS AW RADFORD		LINK-11
9	AFWTF		ITCS CKS
10	USS CARON	QST-35	SSG
10	USS AW RADFORD		SAM
10-12	USS AW RADFORD	QST-35,SLED	SSG
10	USS DB BEARY	QST-35	SSG
11	AFWTF		LINK-4A TST
12	USS A FITCH	AQM-37A BQM-74C	SAM
13	USS A FITCH	QST-35	SSG

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
13,16,18 20,25,26	ESMC	SATELLITE	TRACKEX
14	USS BOONE	QST-35	SSG
15	USS BOONE	BQM-74C AQM-37A	SAM
15	USS LOUSIVILLE	TWR W/BEACON	LINK-11
16,18	VFA-87	BQM-74C BQM-34S AQM-37A	AAM
16	USS CLOVER	QST-35	SSG
20,23-26	USS CONOLLY		LINK-11
25	USS CONOLLY	BQM-74C	CSSQT
27	USS RAY		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
3	TFW-156	AGO
3,5,26-27,30	VC-8	AGO
3,5	3RD BN 75TH INF	NGFS
3-7,9-14	VFA-87	AGO
4-6	USS J KING	NGFS/SPOTEX
4-5	USS VOGE	NGFS
4	VP-23	MRCI
8-9	USS DB BEARY	NGFS
12	USS CARON	NGFS
13	USS AW RADFORD	NGFS

MARCH 1987 (Cont)

INNER RANGE (Cont)

Date	Exercise Unit	Type Exercise
14-15	USS GLOVER USS EDSON	NGFS
16-17	USS CARON 2ND ANGEL	NGFS/SPOTEX
26-27	USS PAUL	NGFS
30	HNLMS DE RUYTER CAPODANNO	NGFS

UNDER WATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
3,19	VP-56,VP-45	TORPEX
3	USS VOGE	SSRNM
3	USS VOGE	TORPEX
5-6,10	VP-8	TORPEX
10,16-17,27	VP-23	TORPEX
7-8,12	CANCARIBOPS	TORPEX
7	HMCS NIPIGON	SSRNM
10	USS DB BEARY	SSRNM
12	USS A FITCH	SSRNM
13	USS CARON	SSRNM
13 13-15	USS LOUISVILLE	BRD-7 CAL TORPEX
14	USS AW RADFORD	TORPEX
16,27	VP-11	
21	VP-66,VP-64	TORPEX
23-24	USCGC ESCAPE	TAC DATA SURVEY

UNDER WATER TRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
23	USS CONOLLY	SSRNM
29-30	USS POWHATTAN	DEEP DRONE OPS
29-30	USS RAY	PROFICIENCY TEST
31	VP-24	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	HMCS HURON HMCS ATHABASKIN	EWX
1-5	USS FLATELY	EWX
2-5	USS J KING	EWX
3,31	CPW-11	EWX
10,16	CPW-5	EWX
7	USS NORFOLK	EWX
8-9	USS DB BEARY	EWX
9-13	USS AW RADFORD	EWX
9-13,17	USS CARON	EWX
13-14,16	USS GLOVER	EWX
13-14	USS A FITCH USS EDSON	EWX
13,17, 19,28-29	USS RAY	EWX
14	HMCS NIPIGON	EWX
14-15	USS BOONE	EWX
20-24,26-27	USS CONOLLY	EWX

MARCH 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
21	VP-66	EWX
26-27	USS PAUL	EWX
30-31	USS CAPODANNO	EWX
31	COMNLTG	EWX

APRIL 1987

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,3,8	COMNLTG	TDU	SAG
1,2,7,9 14-16	USS ESTOCIN		TRACKEX
2	HNLMS DE RUYTER HNLMS BANCKERT	BQM-74C	SAM
2	USS ESTOCIN	SKED	SSG
7,13,21, 27,29,30	ESMC	SATELLITE	TRACKEX
8	USS ESTOCIN	TDU	SAG
8 11,27,28,30	AFWTF PMTC		ITCS CKS QF86 TST FLGT
12	USS BLAKELY	QSR-35	SSG
13	VAW-123		LINK-11
13	AFWTF		QF-86 FLT. CKS
13-16	CVW-1	BQM-34S BQM-74C QF-86 AQM-37A	AAM
16	VF-31	BQM-34S BQM-74C QF-86 AQM-37A	AAM

Encl (2)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
16-18	NOTU		WAAS RADAR
20,21	USS CARR		LINK-11
21-23	VS-27		LINK-11
21-25,27	VS-27		DACM
21-23,29	VFA-132	BQM-74C QF-86 AQM-37A	AAM
22	USS ESTOCIN		LINK-11
22	USS ESTOCIN	BQM-74C	CSSQT
22	USS CARR	BQM-74C	SAM
22-23	VFA-132		LINK-4A
27-29	USS ANTRIM		LINK-11
29	USS ANTRIM	QST-35	SSG
29	USS ANTRIM		TRACKEX
30	USS BRADLEY	AQM-37A BQM-74C	SAM
30	USS BRADLEY		LINK-11
30	USS BRADLEY		TRACKEX

INNER RANGE

Date	Exercise Unit	Type Exercise
3	HMNLS TROMP HMNLS DERUYTER	NGFS
6-8	156-TGF	AGO
13,14	USS BLAKELY	NGFS
13-17	CVW-1	AGO
15	VC-8	AGO
15,16,18,19	USS BEARY	NGFS

INNER RANGE (Cont)

Date	Exercise Unit	Type Exercise
18	USS MILLER	NGFS
19-22	USS KOELSCH	NGFS
20-21	EOD	MRCI
21	VFA-132	AGO
22-25,27,28	VS-27	AGO
23	VS-32	AGO
24,27	SUB-24	SUPPORTING ARMS
28-30	USS IOWA	NGFS
30	SOLID SHIELD VP-11	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1,2	VP-45 VP-8	JTA QAST
3	VP-5	TORPEX
7	VP-11 VP-23 VP-24	TORPEX
10	VP-56 USS ESTOCIN	TORPEX
11	VP-64 VP-93	TORPEX
13-14,17	VS-32	TORPEX
18	USS KOELSCH	TORPEX
23	USS ESTOCIN	SSRNM
22,24	VP-23 VP-27	TORPEX

UNDERWATER RANGE (Cont)

Date	Exercise Unit	Type Exercise
27	VP-8 VP-26	TORPEX
28	VP-5	TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,3,5-7	HMNLS BANCKERT	EWX
	HMNLS DE RUYTER	EWX
	HMNLS JAN VAN BAKEL	EWX
	HMNLS PIETER FLORIZE	EWX
	HMNLS PHILIPS VAN ALMONDE	EWX
1,6,8	HMNLS TROMP	EWX
5	VP-24	EWX
5,28	VP-5	EWX
7	VP-11	EWX
10	VP-56	EWX
13-17	CVW-1	EWX
16-19	USS BEARY	EWX
18-19	USS MILLER	EWX
19-22	USS KOELSCH	EWX
20-22	USS CARR	EWX
20,21,23	USS ESTOCIN	EWX
21-15,27	VS-27	EWX
22	VP-23	EWX
27	VP-8 VP-26	EWX
28	VP-25 USS ANTRIM	EWX
28-30	USS IOWA	EWX

MAY 1987

OUTER RANGE

Date	Exercise Unit	Type Exercise
1	AFWTF	RAMP TEST
1-2,4	PMTC	QF-86 TST FLIGHT
1,6	USS R.G. BRADLEY	LINKEX-11 EX
1	USS R.G. BRADLEY	SAM
1	AFWTF	ITCS TEST
2	USS R.G. BRADLEY	SSG
4	CVW 3/AFWTF	LINK-4 TEST
5-6	CVW-3	AAM
5	VAW-126	RANGE SURV
5	USS GUADALCANAL	SAG
5-7 5	USS BRISCOE FGS NIEDERSACHEN	LINK-11
6	USS IOWA USS ARTHUR W.RADFORD CVW-3	LINK-11
7	USS BRISCOE	SSG
7	USS BRISCOE	SAM
7	FGS BAYERN FGS LUETJENS	LINK-11
8,20	NGS NIEDERSACHSEN	SAM
8,20	FGS BRAUNSCHWEIG BAYERN USS R.G. BRADLEY	SAG
10	USS BOSTON	LINL-11
11-14	FGS NIEDERSACHSEN FGSD LUETJENS FGS BAYERN FGS MOELDERS	SSM

MAY 1987

OUTER RANGE

Date	Exercise Unit	Type Exercise
12	FGS NIEDERSACHSEN FGS LUETJENS	TRACKEX
13-14	FGS LUETJENS FGS RHOEN	ASO
14,18	FGS NIEDERSACHSEN FGS BAYERN FGS MOELDERS	LINK-11
15,17	FLEETEX 2-87	RIMEX
16	FLEETEX 2-87	SSG
17	USS YORKTOWN	TRACKEX
18-19	USS NASSAU	SSG
18	USS THORN (FLEETEX 2-87)	SAM
18,20-22, 5-26,28-29	USS PETERSON	LINK-11
20	FGS MOELDERS FGS RHON FGS LUETJENS FGS NIEDERSACHEN	TRACKEX
20	FGS MOELDERS FGS NIEDERSACHSEN	SAM
21	HNLMS PHILIPS VAN ALMONDE	SAG
22	USS PATTERSON	SSG
24	USS JESSE L. BROWN	SSG
25	USS ARIES USS GEMINI	TRACKEX
25-26	USS HYMAN G. RICKOVER USS BOSTON	TRACKEX
25	USS ARIES	SSG
26	USS PETERSON	SAM
28	AFWTF	ITCS CKS
29	USS MEMPHIS	LINK-11

MAY 1987 (Cont)

INNER RANGE

Date	Exercise Unit	Type Exercise
1,2,4	SOLID SHIELD	AGO
1,2,4,5	USS BRISCOE	NGFS
3	HMS GLASGOW	NGFS
4	CVW-17	AGO
4	156-TGF	AGO
4,5,6,8,9	USS IOWA	NGFS
5,6	MAU-24	ARTY
7,8,9	COMPHIBRON 6	ARTY
7,8,9	COMPHIBON 6	AGO
1,2,4	SOLID SHIELD	AGO
1,2,4,5	USS BRISCOE	NGFS
3	HMS GLASGOW	NGFS
4	CPW-17	AGO
4	156-TFG	AGO
4-6,8,9	USS IOWA	NGFS
5,6	MAU-24	ARTY
7-9	COMPHIBON 6	ARTY
7-9	COMPHIBON 6	AGO
8,9	USS ARTHUR W. RADFORD	NGFS
9	USS AUSTIN USS SAGINAW USS LA MOURE COUNTY USS GUADACANAL	NGFS
12	SBU-24	ARTY
14,15	VS-32	MINEX
13-16,18,19	VS-32	AGO

MAY 1987

INNER RANGE (Cont)

Date	Exercise Unit	Type Exercise
18	USS YORKTOWN	NGFS
19	USS THORN	NGFS
20	USS NASSAU	NGFS
22,25	USS BROWN	NGFS
28,29	CVW-3	AGO
30,31	USS THOMAS C. HART	NGFS

UNDERWATER RANGE

Date	Exercise Unit	Type Exercise
4	VP-24	PACER
4	VP-49	PACER
4,27,28	VP-24	TORPEX
4,23	VP-49	TORPEX
5,19	VP-56	TORPEX
5,23	VP-05	TORPEX
7-9	FGS LUETGENS	WSAT/TORPEX
10	USS ARTHUR W RADFORD	PACER/TORPEX
11	USS PHARRIS	PACER/TORPEX
12,18,20	FGS NIEDERSACHEN	PACER/TORPEX
13	USS MCDONNELL,EDWARD	SSRNM
13	FGS MOELDERS	PACER/TORPEX
14	FGS MPA	PACER
14,18,20	FGS NAW 3	TORPEX
15	USS MCDONNEL,EDWARD	PACER/TORPEX
15,17	USS YORKTOWN	PACER/TORPEX
15-17	USS ELROD	PACER/TORPEX

MAY 1987 (Cont)

UNDERWATER TRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
15	USS ELROD	SSRNM
15,18	USS AINSWORTH	PACER/TORPEX
16	USS THORN USS RICHMOND K. TURNER	PACER/TORPEX
16,17	USS DONALD B. BEARY	PACER/TORPEX
16,17	USS BARNEY	TORPEX
17	USS GALLERY	SSRNM
17	USS UNDERWOOD USS PATTERSON	TORPEX
18	USS NASSAU	SSRNM
18	USS GALLERY USS DEWART	PACER/TORPEX
18	FGS BAYERN	TRXX
19	USS THORN	TORPEX
19	VP-56	PACER
20	USS JESSE L. BROWN USS BOSTON	PACER
21	USS BOSTON	PROFICIENCY/ SEALANCE
21	USS NASSAU	TACTICAL DATA COLL
21	USS JESSE L. BROWN	SSRNM
22,23	USS PETERSON	ASW
22	USS FISHBACK	PROFICIENCY
23	VP-05	PACER
25,26	USS HYMAN RICKOVER USS BOSTON	ADCAP FIRINGS
27,28	VP-11	TORPEX
28	USS PETERSON	SSRNM

MAY 1987 (Cont)

UNDERWATERTRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
28,29	USS MEMPHIS	PROFICIENCY
30	VP-68 VP-94	TORPEX
31	VS-22	PACER/TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,2,4,5 7,8,12	USS BRISCOE	EWX/TRACKEX
1	USS R.G. BRADLEY	EWX
4	CPW-11	EWX
7	FGS BRAUNSCHWETG	EWX
7,15,20	FGS BAYERN	EWX
7,15,18,20	FGS NIEDERSACHEN	EWX
7,15	FGS RHOEN	EWX/TRKX
7,11,15 18,20	FGS MOELDERS	EWX/TRKX
7,11,12	FGS LUETJENS	EWX/TRKX
11-12	USS PHARRIS	EWX/TRKX
13,15,16,18	VS-32	EWX
14-15	USS MCDONNELL	EWX/TRKX
17	USS SEATTLE USS RICHMOND K.TURNER USS SHARK USS THORN USS DONALD B. BERAY	EWX/
18	USS YORKTOWN USS ELROD	EWX
18,20	USS BOSTON	EWX
19,26,27,28	CPW-5	EWX

MAY 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
19-22,25,27-29	USS PETERSON	EWX
20-21	USS NASSAU	EWX
20	USS BROWN	EWX
21	HMNLS PHILIPS VAN ALMONDE	EWX
22	USS FINBACK	EWX
23	USS GEMINI	EWX
23,25	USS ARIES	EWX
25,26	USS HYMAN G. RICKOVER	EWX
28,29	USS MEMPHIS	EWX
29	USS THOMAS C. HART	EWX
30	VP-68	EWX
30,31	USS PARGO	EWX

JUNE 1987

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
1	USS HYMAN G. RICKOVER		OTL-33
3	AFWTF		RAMP-TEST
3-4,8-10	USS WAINWRIGHT		LINK 11 EXERCISE
3	USS PETERSON E-2 (U.S. AIR UNIT)		LINK 11 EXERCISE
5	VC-8 AFWTF	QST-35	TRACKEX
9	FLEETEX 2-87	BQM-74C	SAM
10-12	ESMC	SATELLITE	RADAR TRACKEX
10-11	USS DEWEY	BQM-74C	CSSQT

JUNE 1987 (Cont)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
10	FLEETEX 2-87		LINK 11 EXERCISE
10-11, 15,18-19	USS NICHOLSON		LINK 11 EXERCISE
10-11	USS DEWEY		LINK 11 EXERCISE
12	USS PETERSON		SSG
15-16	USS NICHOLSON		TRACKEX
16	USS NICHOLSON	BQM-74C	CSSQT
23	USS S.B. MORISON	BQM-74C	SAM
29	USS J. WILLIAMS		LINK 11 EXERCISE

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS THOMAS C.HART	SPOTEX
1,2	USS THOMAS C. HART	NGFS
4	USS ALYWIN	NGFS
8,10	USS WAINWRIGHT	NGFS
10-11	USS BARBEY	NGFS
12-14	USS NICHOLSON	NGFS
13	USS PETERSON	NGFS
1-13	TAG P.R.	EMA

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS VOGE VS-22	TORPEX
1-7	USS PARGO	WSAT
3	USS HYMAN G. RICKOVER	PROFICIENCY TST

JUNE 1987 (Cont)

UNDERWATER TRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
3	USS PETERSON	PACER/TORPEX
3	USS AYLWIN	SSRNM
10	USS HALSEY	PACER/TORPEX
12	USS R.K. TURNER	PHOTO TRIAL/ TORPEX
12-18	USS DEWEY	WSAT
18	USS NICHOLSON	SSRNM
19	VP-24 VP-05	PACER/TORPEX
25	VP-44	PACER/TORPEX
25,26	TRB-4 TRB-3	SSRNM
26	VP-24	PACER/TORPEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS PARGO	EWX
8-9,20	USS WAINWRIGHT	EWX
9	CPW-3	EWX
9-10	USS DEWEY	EWX
12-14,19	USS NICHOLSON	EWX
13	USS PETERSON	EWX
14	USS PHARRIS	EWX
15	VP-05	EWX
10	DESRON 5	EWX
19	CPW-11	EWX

JUNE 1987

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
22,23	USS MCDONNELL	EWX
29,30	USS WILLIAMS	EWX
26	VP-24	EWX

JULY 1987

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
1	USS J. WILLIAMS	BQM-74C	SAM
1-2	USS J. WILLIAMS		LINK-11
6-9,14,15, 18,20	HMS GLASGOW		LINK-11
7,8	HMS GLASGOW HMNLS VAN ALMONDE	SLED	SSG LINK-11
7	HMNLS VAN ALMONDE		LINK-11
8	HMNLS VAN ALMONDE	SLED	SSG
12	USS O'BANNON	SLED	SSG
13-17	USS O'BANNON		LINK-11
20,21	USS ELROD		AAW
20,23	USS SPRAGUE CLIFTON		LINK-11
20,21	USS ELROD		LINK-11
21-23	USS ELROD	AQM-37A BQM-34A BQM-74C	SAM
22,23,31	AFWTF		ITCS RADAR TST
23	USS CLIFTON SPRAGUE	BQM-74C	CSSQT
23	USS CLIFTON SPRAGUE	SLED	SSG

JULY 1987 (Cont)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
24	USS CONNOLE		TRACKEX
28,29	USS MILWAUKEE		TRACKEX
29,30,31	TF 138 (UNITAS)	SLED	SSG
29,30,31	TF 138 (UNITAS)		TRACKEX
30	USS MILWAUKEE	BQM-74C	CSSQT

INNER RANGE

Date	Exercise Unit	Type Exercise
16-18	USS O'BANNON	NGFS
18-19	USS CONNOLE	NGFS
22	USS TICONDEROGA USS HAYLER	NGFS
29-31	UNITAS-28	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
7-8	USS JACK WILLIAMS	SENSOR TRIAL
7-12	USS JACK WILLIAMS	WSAT
8	VP-24	PACERS
9,15	HMS GLASGOW	TRACKEX
11	USS JACK WILLIAMS	TRACKEX
13	USS O'BANNON	TORPEX/PACERS
19-21	BNS LIBERAL	MINI-WSAT
20	BNS LIBERAL	SENSOR TRIAL
20-22	USS ELROD	CNOP/PACERS
21	BNS LIBERAL	SSRNM
21-22,31	USS HELENA	WSAT

JULY 1987 (Cont)

UNDERWATER TRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
22	USS CONNOLE	SSRNM
22-23	USS CONNOLE	TORPEX/PACERS
22-24	USS HELENA	SENSOR TRIAL
24	BNS LIBERAL	TORPEX/PACERS
24	USS DEWERT	TRACKEX
25	VP-68	TORPEX
27	VP-24 VP-05	TORPEX/PACERS
29	VP-8	TORPEX/PACERS

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
15	USS PHARRIS	EWX
7	HMS GLASGOW	EWX
8	HNLMS VAN ALMONDE	EWX
10	USS BRADLEY	EWX
15	USS O'BANNON	EWX
17	USS DEWEY	EWX
18,19,21,26	USS CONNOLE	EWX
19,21,23,24	BNS LIBERAL	EWX
20-22	USS ELROD	EWX
21,23,25	USS CLIFTON SPRAGUE	EWX
22	USS TICONDEROGA	EWX
22,24	USS HAYLER	EWX
24-26	USS HERCULES	EWX
24	USS SPRAGUE USS CONNOLE	ICSE

JULY 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
26-29	USS GEMINI	EWX
27	CPW-11	EWX
29	VP-8	EWX
29-30	UNITAS	EWX

AUGUST 1987

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
1	USS VOGE	WILLIAM SLED	SSG
4,6	TF 138 (UNITAS-28)	WILLIAM SLED	SSG
4	USS HELENA		LINK-11
4-6	USS KAUFFMAN		LINK-11
6	USS KAUFFMAN	BQM-74C	CSSQT
10	VP-05		LINK-11
12	AFWTF		RADAR CAL. TST
12-13	USS JOHN L.HALL		LINK-11
13	USS JOHN L. HALL	BQM-74C	SAM
14	USS JOHN L. HALL	QST-35	SSG
17,18	AFWTF	QF-86	FLT. CHECKS
18	CVW-8		MISSILE TM CHK
19-22	CVW-8	QF-86 BQM-74C BQM-34S	AAM
19-24	VAW-124 (E-2)		LINK-11
19,20 24-27,31	HMNLS WITTE DE WITH	BQM-74C	TRACKEX
20,22,23,25 27,28	VF-41 325 TTW		DACT

AUGUST 1987 (Cont)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
21,22	325 TTW		MISSILE TM CHK
21-23	VFA-15		MISSILE TM CHK
21	USS ATLANTA		LINK-11
21	325 TTW	AQM-37A	AAM
22	VAW124		LINK-11
22,26,27	VFA-15		DACT
23,24	VFA-84		DACT
24	VFA-15	QF-86 BQM-74 AQM-37A	AAM
24-27,31	HMNLS WITTE DE WITH		LINK-11
25	USS TATTNALL	BQM-74C	SAM
25,27	CVW-8		DACT
25,27	HMNLS WITTE DE WITH	BQM-74C	SAM
27	VFA-15		LINK-4A
28	USS PETERSON USS STUMP USS SAMUEL B ROBERTS USS TATTNALL USS LUCE USS THOMAS C.HART USS VREELAND USS JACK WILLIAM	BQM-74C	SAM
28	USS BAINBRIDGE		SAM
29-31	FLEETEX 4-87	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
1	UNITAS-28	SMALL ARMS
4-7,10,11, 13,14,27	VC-8	AGO

AUGUST 1987 (Cont)

INNER RANGE (Cont)

Date	Exercise Unit	Type Exercise
4,5	VP-05	MINEX
5	USS GEMINI USS HERCULES	NGFS
13	NSWV-4	SMALL ARMS
15-19	USS CHARLES F. ADAMS	NGFS
21	VF-84	AGO
26,27	USS TATTNALL	NGFS
28	USS PETERSON USS STUMP	NGFS
29	PRANG	SMALL ARMS
29-31	USS LUCE	NGFS
31	USS VREELAND	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS HELENA	WSAT
2-4	USS HELENA	TORPEX/PACER
4	VP-10	TORPEX/PACER
6	VP-10	PACER
6,10,11,31	VP-24	TORPEX
6,10,11	VP-24	PACER
7	USS VOGE	TORPEX/PACER
8	VP-66	TORPEX
10,13,31	VP-05	TORPEX/PACER
11,30	VP-08 VP-44	TORPEX/PACER
13	VP-16	TORPEX/PACER

UNDERWATER TRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
15	VP-64 VP-93	TORPEX
18-28	USS CINCINNATI	WSAT
27-31	USS CINCINNATI	PACER
18-20	USS ATLANTA	TORPEX/PACER
20	USS MEMPHIS	TORPEX
20-21	USS MEMPHIS	PACER
25,26	USS PHOENIX	PROFICIENCY/
27	USS JACK WILLIAMS	TORPEX
30	USS JACK WILLIAMS	ASW TRACKEX
27	USS JACK WILLIAMS	PACER
29,30	USS STUMP	TORPEX/PACER
29,30	USS PETERSON	TORPEX/PACER
30	USS STUMP	ASW TRACKEX
30	USS SAMUEL B. ROBERTS	TORPEX/PACER
30	USS SAMUEL B. ROBERTS	SSRNM
31	USS THOMAS C. HART	ASW TRACKEX
31	USS LUCE	TORPEX/PACER USS TATTNALL
31	USS LUCE	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,2	TF-138 (UNITAS 28-86)	EWX
1,4,5	USS GEMINI	EWX
4,5	USS KAUFMAN	EWX
4	VP-10	EWX

AUGUST 1987 (Cont)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
4	USS HELENA	EWX
6	VP-24	EWX
8,15	VP-94	EWX
10,13,31	VP-05	EWX
11,30	VP-44 VP-08	EWX
13,14	USS JOHN L. HALL	EWX
14	USS JOHN L. HALL	NJS
15,19	USS CHARLES F. ADAMS	EWX
18-20	SUBRON 8	EWX
18-21,24	VAQ 141	EWX
20,21	USS CICINNATI	EWX
24	USS CONNOLE	EWX
24,25	USS SELLERS	EWX
25-29,31	FLEETEX 4-87	EWX
29,30	USS LIPSCOMB	EWX

SEPTEMBER 1987

SEPTEMBER 1987
OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	HMNLS WITTE DE WITH		TRACKEX
1,3-4,8	HMNLS WITTE DE WITH	AQM-37A BQM-74C	SAM
1	HMNLS WITTE DE WITH USS J. WILLIAMS USS LUCE	QST-35	SSG

SEPTEMBER 1987 (Cont)

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
1,3-4,8 1-4,8	HMNLS WITTE DE WITH USS BAINBRIDGE		LINK-11
2	AFWTF		DRONE RECOVERY
2-4,8-10	USS SPRUANCE		LINK-11
2	USS SAMUEL B. ROBERTS		ASW
3	VP-24		LINK-11
3	USS BAINBRIDGE		TRACKEX
3	USS BAINBRIDGE		SAM
9-10	USS SPRUANCE		TRACKEX
10	USS SPRUANCE	BQM-74C	CSSQT
10	HMNLS VAN TRESLONG		LINK-11
10,14	HMNLS VAN TRESLONG		TRACKEX
12-18	USS AUGUSTA USS PROVIDENCE		ASW
14-18 21-23 28,29	USS MOBILE BAY		LINK-11
15	HMS ARROW		TRACKEX
15-18	MAG-41	BQM-34S BQM-74C	AAM
15	HMNLS VAN TRESLONG	TDU	SAM
15-18 21-23	MAG-41		DACT
15	VS-32	QST-35	ASO
17	HMS ARROW	TDU	SAM
17,21-22	VS-27		DACT
18-19	MAG-31	QF-86 BQM-74C BQM-34S	AAM

SEPTEMBER 1987 (Cont)

OUTER RANGE (Cont)

18	MAG-31		DACT
19-20	MAG-31	HULK	ASM
20	USS SUNFISH USS TECUMSEH		ASW
21-23	USS MOBILE BAY	QST-35 AQM-37C BQM-34S QF-86	CSSQT
21	VFA-132	GORST	ASM
23	PRANG		DACT
23	USS O'BANNON VAW-123		LINK-11
28-29	USS NICHOLAS	BQM-35	SAM
28-29	USS NICHOLAS		LINK-11
29	USS MOBILE BAY	QST-35	ICSE
29	USS NICHOLAS	SLED	SSG
29	USS MOBILE BAY		TRACKEX

INNER RANGE

Date	Exercise Unit	Type Exercise
1	USS VREELAND	NGFS
2	USS STUMP	NGFS
3,9	USS SPRUANCE	NGFS
4	156-TFG	AGO
4,5	USS THOMAS C. HART	NGFS
9	VP-24	MINEX
10-12 14-15	VS-32	AGO
12	VS-32	MINEX
15-16	USS MOBILE BAY	NGFS

SEPTEMBER 1987

INNER RANGE (Cont)

Date	Exercise Unit	Type Exercise
15-17	NMCB	SUPPORTING ARMS
16-17	HMS ARROW	NGFS
17,25,30	VC-8	AGO
18-19,21	VS-27	AGO
19	MAG-31	AGO
21-23	MAG-41	AGO
21-22	VS-27	MINEX
22-23	USS O'BANNON	NGFS
25	VP-26	MINEX

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1,22	VP-24	TORPEX/PACER
1	USS THOMAS C. HART USS LUCE	TORPEX/PACER
1	USS TATTNALL	SSRNM
1,2	USS MINNEAPOLIS USS VREELAND	TORPEX
2	USS SAMUEL B. ROBERTS	TORPEX/PACER
2	USS VREELAND	SSRNM
3,9	VP-16	TORPEX/PACER
3	VP-05	TORPEX
4	USS BAINBRIDGE	TORPEX/PACER
8	VP-08	TORPEX/PACER
8,30	VP-10	TORPEX/PACER
8,9	USS SPRUANCE	TRACKEX
9,22	VP-56	TORPEX

UNDERWATER TRACKING RANGE (Cont)

Date	Exercise Unit	Type Exercise
10,11	VS-32	TORPEX/PACER
13-17	USS PROVIDENCE USS AUGUSTA	ASW
15-17	USS PROVIDENCE USS MOBILE BAY	TRACKEX
19-22	USS SUNFISH USS TECUMSEH	ASW
22	VP-56	PACER
23-24	VS-27	TORPEX/PACER
26	VP-92	TORPEX
26-27	VP-93	TORPEX
30	USS MCCLOY	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS PETERSON USS TATTNAL USS LUCE USS VREELAND	EWX
1-3,8-10	USS SPRUANCE	EWX/NJS
2,3	USS BAINBRIDGE	EWX
3,9	VP-16	EWX
4-5,8	USS GLENARD P. LIPSCOMB	EWX
4	USS THOMAS C. HART	EWX
8	VP-08 VP-10	EWX
9,22	VP-56	EWX
12-17	VAW-123	EWX
12,18-19	USS AUGUST	EWX
12	USS PROVIDENCE	EWX

SEPTEMBER 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
14-16	HMS ARROW	EWX
14,17 21-24,29	USS MOBILE BAY	EWX
15,16	HMNLS BLOYS VAN TRESLONG	EWX
15-16, 19,23-24	MAG 41	EWX
17-19,21	VS-27	EWX
22-25	USS O'BANNON	EWX
22	VP-24	EWX
24	USS JOHN MARSHALL	EWX
28	USS NICHOLAS	EWX
30	USS MCCLOY	EWX

OCTOBER 1987

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	VP-30	QST-35	ASM
4-5,10	USS JOHN MARSHALL		ASW
5	USS HALYBURTON	BQM-34S	SAM
5	USS HALYBURTON		LINK-11
5	USS NICHOLAS		LINK-11
5	USS DOYLE	QST-35	SSG
5	USS DOYLE	BQM-34S	SAM
7,9,20	VC-8		DACT
8	AFWTF		RADAR CAL TEST
13-16	USS MOOSBRUGGER		LINK-11

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
14	BS-32		LINK-11
14	USS MOOSBRUGGER	QST-35	SSG
15-16,19	VS-32	QST-35	ASO
15-16	USS MOOSBURGGER	BQM-34S	SAM
26	USS THOMAS S GATES	SLED	SSG
26-27,29-30	USS THOMAS S GATES		LINK-11
26-29	USS MCINERNEY		LINK-11
27	USS MCINERNEY	BQM-34S	CSSQT
28	USS MCINERNEY		ICSE
29	USS SIMPSON		LINK-11
30	USS THOMAS S GATES	QST-35	ICSE
30	USS SIMPSON	BQM-34S	SAM
31	CVW-7		LONG RNG STRIKE
31	AFWTF		QF-86 TEST

INNER RANGE

Date	Exercise Unit	Type Exercise
1	MARINE CORPS SECURITY FORCE	SMALL ARMS
4	VP-08	MRCI
6,8	NAF SECURITY	SMALL ARMS
14	VS-32	MINEX
14-17,19	VS-32	AGO
15,19,21,24	VC-8	AGO
23-24	USS CHARLES F ADAMS	NGFS
28	USS THOMAS S GATES	NGFS
31	CVW-7	AGO

OCTOBER 1987 (Cont)

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
3,7,20,23	VP-44	TORPEX/PACER
4-6,10	USS JOHN MARSHALL	TORPEX
5	USS MCCLOY	TORPEX/PACER
6,30	VP-24	TORPEX/PACER
6	VP-56	TORPEX/PACER
9,22	VP-08	TORPEX/PACER
9,13	VP-10	TORPEX/PACER
10-14,18-21	USS HAMMERHEAD	TORPEX
16	VS-32	TORPEX/PACER
17	VP-93	TORPEX
18-28	USS KEY WEST	WSAT
22	VP-26	TORPEX/PACER
23	VP-16	TORPEX/PACER
23,30	VP-05	TORPEX/PACER
24	VP-68	TORPEX
29-31	USS GREENLING	WSAT
30	VP-49	TORPEX/PACER
30	USS THOMAS S GATES	ICSE/TRKEX

OCTOBER 1987 (Cont)

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
3,7,20,23	VP-44	EWX
4-5	USS JOHN MARSHALL	EWX
5	USS HALYBURTON	EW TRKEX

OCTOBER 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
5	USS MCCLOY	EWX
6	VP-24	EWX
6	VP-56	EWX
9,22	VP-08	EWX
9,13	VP-10	EWX
13-15	USS MOOSBRUGGER	EWX
14-15	USS MOOSBRUGGER	ICSE
14-16,19	VS-32	EWX
20-22	USS KEY WEST	EWX
22	VP-26	EWX
23-24	USS CHARLES F ADAMS	EWX
23	VP-05	EWX
25-28	USS MCINERNEY	EWX
26-29	USS THOMAS S GATES	EWX
29	USS SIMPSON	EWX
30	USS THOMAS S GATES	ICSE
30	USS GREENLING	EWX
31	CVW-7	EWX

NOVEMBER 1987

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-3	AFWTF		QF-86 REHEARSAL
1-2	USS HELENA		ASW
1-2,9-11,16	CVW-7	AQM-37A BQM-34S PARA FLARES	AAM
2-15	NADC		SOFTWARE DEVELOPMENT
2,4-5	USS JOHN HANCOCK		LINK-11
2	USS JOHN HANCOCK		LINK-14
2	USS JOHN HANCOCK		ICSE
3	USS JOHN HANCOCK	BQM-74C	CSSQT
3-7	USS THOMAS S GATES		LINK-11
4-6	USS THOMAS S GATES	AQM-37C BQM-34S QF-86 QST-35	CSSQT
6-7	USS DAHLGREN		LINK-11
7-8	USS DAHLGREN	AQM-37C	SAM
8	USS O'BANNON		LINK-11
8	USS O'BANNON		LINK-11
9-10,12-13	VS-28	GORST	ASO
9-13	NAVSEASYSCOM		CNO-547
11-12,14,18	CVW-7		DACT
12-15	CVW-7	QST-35	SHRIKEX
12-13,18-20	USS MAHAN		LINK-11
13-14	USS MAHAN	SLED	SSG
15-19	USS WAINWRIGHT	AQM-37C BQM-34S	SAM

OUTER RANGE (Cont)

Date	Exercise Unit	Target	Type Exercise
15-16	USS WAINWRIGHT		TELEMETRY CHECKS
16-18	CVW-6		AAM
16	VAW-122		LINK-11
17	USS WAINWRIGHT	QST-35	SSG
19	USS MAHAN	BQM-34S	SAM
20-21 23-25,30	USS LEYTE GULF		LINK-11
20	USS MAHAN		ICSE
30	USS LEYTE GULF	BQM-34S	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-5,9-19	CVW-7	AGO
2-5	3/75 RANGERS FRENCH BILATERAL	SUPPORTING ARMS
3-5	156-TFG	AGO
3,5	3/75 RANGERS	CAS
4-5	USS MILLER FRENCH BILATERAL	NGFS/SPOTEX
4	CHAMPLAIN (FRANCE) 2ND FORCE RECON DUTCH BATRAL	NGFS/SMALL ARMS
5-7,9	USS VALDEZ	NGFS/SPOTEX
6,8	1/75 RANGERS	CAS
8-12	VS-28	AGO
8,12-13	USS DAHLGREN	NGFS
9-10	USS SEMMES	NGFS
15-20	CVW-6	AGO
16-18	USS WAINWRIGHT	NGFS
19	VC-8	AGO
23-24-30	USS MAHAN	NGFS

NOVEMBER 1987 (Cont)

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-7	USS GREENLING	WSAT
1-2	USS HELENA	PROFICIENCY
3-4,9-13	CVW-7	TORPEX/PACER
4	USS DAHLGREN	TORPEX
9-13	VS-28	TORPEX/PACER
9	USS JACK WILLIAMS	TORPEX
13-16	USS LAPON	WSAT
13-20	USS LEYTE GULF	WSAT
14-15	USS LAPON	PROFICIENCY
18	USS LEYTE GULF	SSRNM
20-28	USS MAHAN	WSAT
23-24	VP-5	TORPEX
23	VP-24	TORPEX/PACER
28	USS MAHAN	SSRNM

ELECTRONIC WARFARE RANGE

2	USS GREENLING	EWX
2	USS JOHN HANCOCK	ICSE
2-5	USS JOHN HANCOCK	EWX
2,3	USS DWIGHT D EISENHOWER	EWX
5,6	1ST SOW	EWX
3-5	USS MILLER	EWX
3	USS JACK WILLIAMS	EWX
5-6,8	USS DAHLGREN	EWX
6,8-9	USS VALDEZ	EWX
9,11	USS SEMMES	EWX

NOVEMBER 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
10	USS O'BANNON	EWX
12,15,18	CVW-7	EWX
15-19	USS WAINWRIGHT	EWX
17-20,23-24	USS LEYTE GULF	EWX
20,24-25,30	USS MAHAN	EWX
23-24	VP-24, VP-5	EWX

DECEMBER 1987

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
1-2,4-7,9	USS LEYTE GULF	QST 35	LINK-11
1-2,11	USS LEYTE GULF	QST-35 AQM-37C QF-86	CSSQT
3	USS LEYTE GULF	SLED	SSG
7	AFWTF		LINK-4A
9	USS FAHRION	BQM-34S	SAM
9	USS FAHRION		LINK-11
9	USS MACDONOUGH	SLED	SSG
9,12	USS MACDONOUGH		LINK-11
14	USS MISSISSIPPI	BQM-74C BQM-34S	CSSQT
14-15	USS MISSISSIPPI		LINK-11
15	USS MISSISSIPPI		ICSE

INNER RANGE

Date	Exercise Unit	Type Exercise
8-9	USS LEYTE GULF	NGFS
14-15	USS MOOSBRUGGER	NGFS
16-24,26, 28-31	AFWTF	RANGE REFURBISHMENT

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2,11,14	VP-05	TORPEX/PACER
2	VP-24	TORPEX/PACER
3,9	VP-23	TORPEX/PACER
3	VP-10	TORPEX/PACER
3,9	VP-44	TORPEX/PACER
5	VP-64, VP-66	TORPEX
7	USS LEYTE GULF	TORPEX
10	USS LEYTE GULF	ICSE
10	USS MACDONOUGH	TORPEX
11	VP-16	TORPEX/PACER
13	USS SAND LUCE	TRACKEX
14	VP-49	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
2	USS GREENLING	EWX
2	USS JOHN HANCOCK	ICSE
2-5	USS JOHN HANCOCK	EWX
2,3	USS DWIGHT D EISENHOWER	EWX
5,6	1ST SOW	EWX

DECEMBER 1987 (Cont)

ELECTRONIC WARFARE RANGE (Cont)

Date	Exercise Unit	Type Exercise
3-5	USS MILLER	EWX
3	USS JACK WILLIAMS	EWX
5-6,8	USS DAHLGREN	EWX
6,8-9	USS VALDEZ	EWX
9,11	USS SEMMES	EWX
10	USS O'BANNON	EWX
12,15,18	CVW-7	EWX
15-19	USS WAINWRIGHT	EWX
17-20,23-24	USS LEYTE GULF	EWX

ATLANTIC FLEET WEAPONS TRAINING FACILITY

COMMAND BRIEF

DECEMBER 1988

Encl (1)

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1988

BACKGROUND

The paramount and most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target and maximum hits per missiles launched cannot be accomplished in classrooms. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment that can be provided. The unique capabilities of the Atlantic Fleet Weapons Training Facility (AFWTF) provide such an environment.

To achieve these goals we have four functional ranges: the Outer Range, Inner Range, Underwater Tracking Range, and Electronic Warfare Range. It should be remembered that the Electronic Warfare Range overlaps and services all of the ranges.

MISSION

The mission of the AFWTF is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test and evaluation of weapons systems. The mission is divided into the following functional areas for implementation:

a. Schedule and coordinate range activity and services.

b. Determine and enforce range safety criteria.

c. Provide target and range control functions for single and multi-ship/unit exercises, tests, and operational test and evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale, multi-ship fleet missile exercises.

e. Provide secure/voice communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercise/test for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

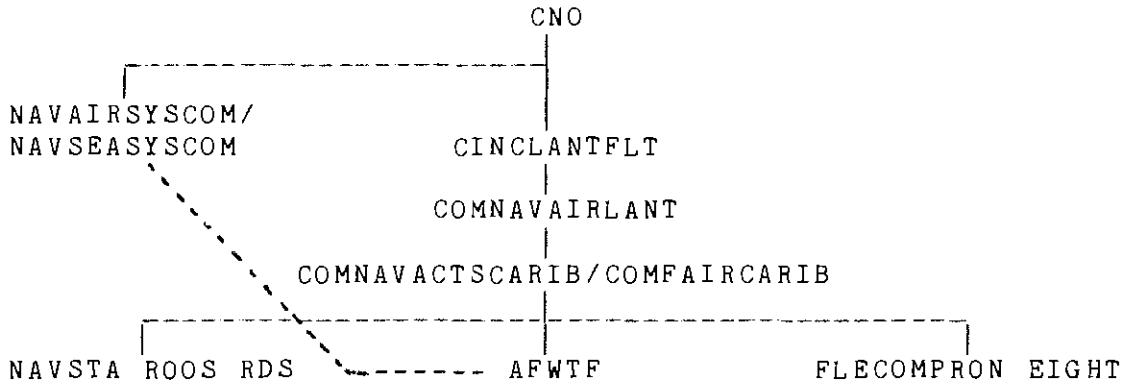
h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for Fleet Composite Squadron Eight for range support services.

j. Coordinate ship, submarine, and aircraft transits through the Puerto Rican operating areas.

3. ORGANIZATION.

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander, Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander, Fleet Air Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are depicted in the following simplified diagram:



AFWTF is comprised of military and civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are accomplished by contractor personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. GENERAL. The Outer Range provides support for all surface-to-surface, air-to-air, surface-to-air missile firings. The Outer Range consists of two open ocean ranges designated the alpha or north range and bravo or south range. The alpha range is an area of 120,000 square miles while the brave range is 74,000 square miles. The Outer Range utilizes several sites within the Roosevelt Roads complex, including the Range Operations Center (ROC), and the target control sites at Pico Del Este, Puerto Rico and St. Thomas in the U.S. Virgin Islands.

The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets.

During a mission, all drones are remotely controlled from the ROC utilizing data received from the Pico Del Este or St. Thomas target control sites. The system used for this control and data handling is the remote data and drone control system (RDDCS). The purpose of the RDDCS is to supply the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site provides positional data and drone telemetry information which is transmitted along with site status and command verify information to the ROC. These data signals are processed and converted to a usable computer format. Radars providing additional positional data are located at Roosevelt Roads, Vieques, St. Thomas, and St. Croix. After processing the data, the computer routes it to the appropriate instrumentation to display radar/command/telemetry and to the drone control plotters. These target control systems are used to provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, and HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system that is used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico Del Este and the ROC.

2. AERIAL TARGETS. The types of drone aircraft used at AFWTF are the subsonic BQM-34S, the supersonic BQM-34E/T, the subsonic BQM-74C, and the supersonic AQM-37C. The BQM-34S drone is flown at altitudes between 30 and 45,000 feet at speeds between 300 and 500 knots. Presently the ROC has the capability to control a maximum of six BQM-34S/BQM-74C drones simultaneously. After the drone aircraft is launched, it is flown to the specified range where it flies along a predetermined hot leg. It is during this period that surface units engage in firing/tracking or simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data pertaining to amount of fuel remaining, speed, altitude, angle of climb, etc. When the mission is completed, the drone is dropped by parachute into a sea recovery area. A specially rigged helicopter from VC-8 is used for recovery. Scoring is evaluated by the Fleet Analysis Center (FLTAC) field office on the basis of a calculated miss-distance.

a. The BQM-34S and BQM-34E/T provide realistic targets for both surface-air and air-air missile exercises. Various augmentation devices may be provided to meet specific operational test requirements.

b. The BQM-74C is used much the same but has very limited space for augmentation.

c. The AQM-37C is normally used for surface-to-air or air-to-air live warhead missile operations.

d. The TDU-34 towed target is a high performance, lightweight target designed for use with aircraft tow reels to provide a compatible target for infrared of semi-active homing missiles and various gun systems including CIWS. It is towed by TA-4J aircraft from VC-8.

3. Surface Targets.

a. The QST-35 SEPTAR is a 56 foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for SPAR. The boat is capable of remote control out to approximately 50 NM from AFWTF's control stations.

(1) Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. Surface-surface gunfire utilizing a 10 mile offset is authorized if the target is so allocated.

(2) Air-to-surface gunfire, missiles and bombs can be targeted against a SPAR streamed at approximately 1,000 feet.

(3) SEPTARS are normally only operated within AFWTF's bravo (south) range.

b. The QST-33 SEPTAR is an 18 foot high speed, remotely controlled target boat normally used at AFWTF for air-surface practice bombs and inert rockets. Operations are normally restricted to sheltered waters in Bahia Salina Del Sur in the Inner Range. Units desiring to use a QST-33 at sea must load, launch and recover the boat using ship's assets and embark an AFWTF control unit and team from Naval Station Roosevelt Roads.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE AND AIR TO GROUND TARGETS

1. General. The Inner Range consists of one tri-purpose target complex and the water areas associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, air-to-ground close air support range, (two air-to-ground bullseye targets, a strafing range, a mock airfield, other limited tactical targets utilized for air-to-ground ordnance drops and close air support training) and an artillery range.

b. Vieques is a hilly island approximately 18 miles long and four miles wide. It is located seven miles southeast of Roosevelt Roads. The eastern section of Vieques is devoted to landing beaches, maneuver areas, small arms and crew-served weapons range. Southern beaches and adjacent waters are used by amphibious forces. The eastern tip of Vieques is used for air-to-ground and naval gunfire exercises.

2. Vieques Naval Gunfire Target Complex.

a. General. The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias, a hill on the western side of Bahia Salina Del Sur, and the impact area where the direct/point fire targets and the area targets are located.

3. Vieques Air-to-Ground Target Complex.

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques Island. The targets are controlled from an observation post located on top of Cerro Matias Hill just west of the target area.

(1) Target Location and Description

(a) Air Impact Area and Close Air Support Zone. Located on the eastern end of Vieques Island. The terrain features of the AIA and CAS zone are quite varied and range from flat, level ground at sea level to hills and ridge-lines up to about 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain for the greatest realism. The CAS targets consist of a realistic mock-up of an airstrip, fuel farm, moter pool, ammo dump, SAM sites, and numerous smaller targets of opportunity. All targets in the CAS zone are stationary with the exception of the mobile land target, which normally operates in the airstrip north east of target one. These targets are radio controlled, and available during daylight hours only, for use with MK-76 bombs and 2.75 (inert ordnance) rockets.

(b) Target One is a bullseye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Laross T.V. bomb scoring system.

(c) Strafe Target. The targets are scored by the Delmar acoustic scoring system.

(d) Target Two. Is a bullseye about two statute miles west of target one. The target consists of three rings of tires. The first ring is 100 feet in diameter, the second ring is 200 feet in diameter, and the third ring is 300 feet in diameter. The target is scored by the Laross T.V. bomb scoring system.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range located in deep water off the western shore of St. Croix, is utilized for accurate three-dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square nautical miles. Water depths vary from 200 fathoms at the eastern or shoreward edge of over 500 fathoms at the outer extremity. Operations on the underwater range are controlled from a shore complex located on northwestern St. Croix. Consisting of a number of large inter-connected office-type industrial trailers, the complex is operated and maintained by a civilian contractor,

and no naval personnel are permanently stationed there. During periods of operations, however, a military range control officer from AFWTF is present. Shops for instrument maintenance and torpedo preparation are located at Roosevelt Roads, as are the administrative offices for the range. Construction of a new range operations center is in progress with an IOC estimated in the summer of 1991.

2. Services available. Operations may involve submarine, surface, or air units, with or without weapons, and may be either single ship or coordinated multi-ship ASW exercises. The Underwater Tracking Range provides precision tracking data obtained via optical, in-water three-dimensional, and radar tracking systems. A take-home, video taped product called post-analysis critique and exercise review (PACER) is made available to exercise units upon request. Pacer provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training product.

AFWTF CHRONOLOGY

JANUARY 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active seventeen (17) days this report period. Operational services were provided to thirteen (13) U.S. surface units, four (4) U.S. Air units, and four (4) foreign surface units.

b. Twelve (12) days of Link-11 exercises were supported this report period.

c. The USAF 475 Weapon Evaluation Group, conducted two (2) days of BQM-74C tracking exercises this report period.

d. Provided FPS-67 Surveillance Radar surface plot range safety for the USS Skipjack during two (2) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

e. A total of seven (7) BQM-34S, eight (8) BQM-74C, one (1) BQM-34T, three (3) QH-50, one (1) QF-86, three (3) AQM-37C and one (1) TDU 34A1 were launched in support of seven (7) surface-to-air and three (3) air-to-air missile exercises.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active thirteen (13) days during this report period. Operational services were provided to eighteen (18) U.S. surface units, eight (8) U.S. air units and four (4) U.S. ground units.

b. The Inner Range supported thirteen (13) days of NGFS, twelve (12) days of air-to-ground and one (1) day of mine exercises.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active fourteen (14) days this report period. Operational services were provided to nine (9) U.S. air units, two (2) U.S. submarine units and HNLMS Piet Heyn.

b. Seven (7) U.S. air units and five (5) U.S. surface units conducted eleven (11) days of Pacer in conjunction with torpedo exercises this report period.

c. The USS Thomas C. Hart and the USS William S. Sims conducted SSRNM this month.

d. A total of eighteen (18) MK-30's were lauched this report period.

e. Fifty two (52) MK-46's and eight (8) MK-48's were fired this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active seventeen (17) days this period. Operational services were provided to twenty seven (27) U.S. surface units, five (5) U.S. air units and four (4) foreign surface units.

b. Four (4) TPS's provided 202.5 hours of Electronic Warfare Support and the Noise Jammer site provided 26.0 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during January 1988.

Vessels	Type Exercise	Days
ASSP	ASO	1
USSC	PACER DIVER SUPPORT SSRNM	12
TRB	TORPEX PROFICIENCY	25
QST-35	SSG	6
PATROL BOATS	DRONE STANDBY LOGISTICS	8
YTM	SSG	5

b. The Marine Ocean Engineering (MOE) group launched eighteen (18) MK-30's. Seventeen (17) MK-30's, fifty three (53) MK-46's and eight (8) MK-48's were recovered by MOE crews.

FEBRUARY 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active nineteen (19) days this report period. Operational services were provided to five (5) U.S. surface units, three (3) U.S. air units, five (5) foreign surface units and one (1) U.S. subsurface unit.

b. Provided FPS-67 Surveillance Radar surface plot range safety for the USS Narwhal during three (3) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. Fourteen (14) days of Link-11 exercises were supported this report period.

d. A total of five (5) BQM-74C, three (3) BQM-34S and four (4) AQM-37C were launched in support of surface-to-air and air-to-air missile exercises.

e. The USAF OTH Radar Project used the Outer Range for target recovery services which were supported from the Range Operations Center.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-five (25) days during this report period. Operational services were provided to ten (10) U.S. surface units, four (4) U.S. air units and fourteen (14) foreign surface units.

b. The Inner Range supported twenty-one (21) days of NGFS, ten (10) days of air-to-ground and two (2) days of mine exercises.

c. The Inner Range supported Rapid Shot 88-5 and Federal Angel air-to-ground exercises for the U.S. Air Force during this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active fourteen (14) days this report period. Operational services were provided to nine (9) U.S. surface units, eight (8) U.S. air units, two (2) U.S. subsurface units and the HNLMS Piet Heyn.

b. Seven (7) U.S. air units and five (5) surface units conducted eleven (11) days of Pacer in conjunction with torpedo exercises this report period.

c. The USS Thomas C. Hart and the USS William S. Sims conducted SSRNM this month.

d. A total of twenty four (24) MK-30's were launched this report period.

e. Fifty two (52) MK-46's and eight (8) MK-48's were fired this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty eight (28) days this report period. Operational services were provided to seven (7) U.S. surface units, eight (8) U.S. air units two (2) U.S. subsurface units and thirteen (13) foreign units.

b. Three (3) TPS's provided 341.0 hours of Electronic Warfare Support and the Noise Jammer site provided 53.5 hours of support this report period

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during February 1988.

Vessels	Type Exercise	Days
ASSP	MRCI	2
USSC	DIVER SUPPORT	17
TRB	TORPEX PROFICIENCY	18
QST-35	SSG	5
PATROL BOATS	DRONE STANDBY	8
YTM	SSG	4

b. The Marine Ocean Engineering (MOE) group launched twenty three (23) MK-30's. Twenty four (24) MK-30's, forty seven (47) MK-46's and six (6) MK-48's were recovered by MOE crews.

MARCH 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty two (22) days this report period. Operational services were provided to five (5) U.S. surface units, four (4) U.S. air units, two (2) foreign units and the subsurface unit, USS Sturgeon.

b. The U.S. Air Force OTH Radar Project used the Range Operations Center for seven (7) days in support of BQM-34 target recovery operations in the Outer Range area.

c. Sixteen (16) days of Link-11 exercises were supported this report period.

d. Provided FPS-67 Surveillance Radar surface plot range safety for the USS Sturgeon during two (2) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty four (24) days during this report period. Operational services were provided to four (4) U.S. surface units, nine (9) U.S. air units and foreign surface unit, HMS Plymouth.

b. The Inner Range supported eight (8) days of NGFS, twenty one (21) days of air-to-ground and seven (7) days of mine exercises this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty (20) days during this report period. Operational services were provided to two (2) U.S. surface units, seven (7) U.S. air units and two (2) U.S. subsurface units.

b. Five (5) U.S. air units conducted eight (8) days of PACER in conjunction with torpedo exercises this report period.

c. The USS Mississippi conducted one day of Surface Ship Radiation Noise Measurement (SSRNM) this report period.

d. A total of twenty nine (29) MK-30's were launched in support of torpedo proficiency and tracking exercises this report period.

e. Seven (7) air units and two (2) surface units fired fifty one (51) MK-46's and two (2) subsurface units fired thirteen (13) MK-48's this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active thirty (30) days this report period. Operational services were provided to six (6) U.S. surface units, eight (8) U.S. air units two (2) U.S. subsurface units and the foreign surface unit HNLMS Piet Heyn.

b. Three (3) TPS's provided 361.0 hours of Electronic Warfare Support and the Noise Jammer site provided 34.5 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during March 1988.

Vessels	Type Exercise	Days
ASSP	MRCI ASM SSM	6
USSC	SSRNM DIVER SUPPORT WSAT	6
TRB	PINGER TEST TORPEX PROFICIENCY (OTH) WSAT	18

Vessels	Type Exercise	Days
QST-35	SSG ASO DIVE-SAFETY TRACKEX	8
PATROL BOATS	DRONE STANDBY LOGISTICS WSAT	5
YTM	SSG SSM	3

b. The Marine Ocean Engineering (MOE) group recovered fifty four (54) mines at Vieques in conjunction with MRCI. The TRB crew's launched twenty nine (29) MK-30's this report period. Fifty seven (57) MK-46's, thirteen MK-48's and twenty nine (29) MK-30's were recovered by the MOE crew.

APRIL 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty (20) days this report period. Operational services were provided to: seven (7) U.S. surface units, two (2) U.S. air units, and two (2) U.S. subsurface units.

b. Provided FPS-67 Surveillance Radar surface plot range safety for the USS Sculpin and USS Stark during three (3) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. AFWTF and PMTC personnel utilized the ITCS system seven (7) days in support of QF-4 Test Flights this report period.

d. A total of sixteen (16) BQM-74C's, three (3) BQM-34T's, Two (2) QF-4's, two (2) BQM-34's and eleven (11) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises for three (3) U.S. surface and one (1) U.S. air unit this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active nineteen (19) days during this report period. Operational services were provided to: twelve (12) U.S. surface units, three (3) U.S. air units and two (2) U.S. ground units.

b. Sixteen (16) days of NGFS, ten (10) days of air to ground and six (6) days of artillery fire were supported this report period.

c. The following surface units conducted naval-gun-fire exercises as part of Ocean Venture 88: The USS Austin, USS Boulder, USS Guadalcanal, USS John Rodgers, USS Sumter and the USS Truett.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active seventeen (17) days this report period. Operational services were provided to: ten (10) U.S. surface units, six (6) U.S. air units and two (2) U.S. subsurface units.

b. Eight (8) U.S. surface units, four (4) U.S. air units and two (2) U.S. subsurface units conducted thirteen (13) days of PACER exercises this report period.

c. Seven (7) surface units conducted seven (7) days of Surface Ship Radiated Noise Measurement Trials as part of FLEETEX 1-88 and this represents the highest trial concentration attempted at AFWTF-UTR.

d. A total of eighteen (18) MK-30 targets were launched in support of torpedo and proficiency exercises this report period.

e. Thirty eight (38) MK-46's and fifteen (15) MK-48's were fired on the Underwater Tracking Range this report period. Four (4) of the MK-46's were not issued from the AFWTF Torpedo Shop.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty two (22) days this report period. Operational services were provided to: fourteen (14) U.S. surface units, seven (7) U.S. air units, and two (2) U.S. subsurface units.

b. Three (3) TPS's provided 167.0 hours of Electronic Warfare Support. And the Noise Jammer site provided 3.0 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during April 1988.

Vessels	Type Exercise	Days
ASSP	MRCI	2
USSC	DIVER SUPPORT PACER SSRNM SATS III DEPLOYMENT SUPPORT	13
TRB	TORPEX PROFICIENCY	16

Vessels	Type Exercise	Days
QST-35	SSG ASO DIVE SAFETY	7
PATROL BOATS	DRONE STANDBY LOGISTICS	6
YTM	SSG ASO	7

b. The Marine Ocean Engineering (MOE) group launched eighteen (18) MK-30's this report period. Fifteen (15) MK-48's, eighteen (18) MK-30's, thirteen (13) MK-46's and twenty two mines were recovered by MOE crews.

MAY 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty four (24) days this report period. Operational services were provided to: six (6) U.S. surface units, three (3) U.S. air units, seven (7) U.S. subsurface units, three (3) foreign surface units and PMTC drone personnel.

b. Provided FPS-67 Surveillance Radar surface plot range safety for seven (7) U.S. subsurface units during eleven (11) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. Three (3) German surface units conducted surface-to-surface and surface to air missile exercises this report period.

d. Two (2) U.S. air units, three (3) U.S. surface units and three (3) foreign surface units conducted eleven (11) days of Link 11 exercises this report period.

e. A total of ten (10) BQM-74C's, twelve (12) BQM 34's, twelve (12) AQM-37C's and two (2) QF86's were launched in support of surface-to-air and air-to-air missile exercises for three (3) U.S. surface units, one (1) U.S. air unit and two (2) foreign surface units this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active sixteen (16) days during this report period. Operational services were provided to: six (6) U.S. surface units, four (4) U.S. air units, three (3) foreign surface units and one (1) ground unit the 3/75 Rangers.

b. Twelve (12) days of NGFS, nine (9) days of air to ground, two (2) days of mine exercises and four (4) days of artillery fire were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty seven (27) days this report period. Operational services were provided to: three (3) U.S. surface units, eight (8) U.S. subsurface units, ten (10) U.S. air units, five (5) foreign surface units and one (1) foreign air unit.

b. Seven (7) U.S. air units, three (3) foreign surface and one (1) foreign air unit conducted nine (9) days of PACER exercises this report period.

c. Three (3) U.S. surface units conducted three (3) days of Surface Ship Radiated Noise Measurement exercises this report period.

d. A total of thirty-six (36) MK-30 targets were launched in support of torpedo and proficiency exercises this report period.

e. Forty eight (48) MK-46's, eight five (85) MK-48's and four (4) MK-37's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty nine (29) days this report period. Operational services were provided to: ten (10) U.S. surface units, seven (7) U.S. air units, five (5) U.S. subsurface units and four (4) foreign surface units.

b. Four (4) TPS's provided 426.0 hours of Electronic Warfare Support and the Noise Jammer site provided 20.0 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during May 1988.

Vessels	Type Exercise	Days
ASSP	MRCI	2
USSC	DIVER SUPPORT PACER SSRNM TRACKEX SUPPORT	14
TRB	TORPEX PROFICIENCY PCO OPS QST 35 RECOVERY QST 35 TOW	25

Vessels	Type Exercise	Days
QST-35	SSG ASO DIVE SAFETY	6
PATROL BOATS	DRONE STANDBY LOGISTICS	5
YTM	SSG	7

b. The Marine Ocean Engineering (MOE) group launched thirty six (36) MK-30 targets this report period. Eighty five (85) MK-48's, forty eight (48) MK-46's, thirty six (36) MK-30's and thirty four (34) mines were recovered by MOE crews.

JUNE 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty one (21) days this report period. Operational services were provided to: seventeen (17) U.S. surface units, six (6) U.S. air units, two (2) U.S. subsurface units, two (2) U.S. ground units and two (2) foreign surface units.

b. Provided FPS-67 Surveillance Radar surface plot range safety for two (2) U.S. subsurface units during two (2) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. Three (3) U.S. air units, nine (9) U.S. surface units and the foreign surface unit, HNLMS Van Kinsbergen, conducted thirteen (13) days of Link-11 exercises this report period.

d. Five (5) surface units, from FLEETEX 2-88, participated in various activities this report period. These units were: USS Mobile Bay, USS Josephus Daniels, USS Aubrey Fitch, USS Doyle and USS Taylor.

e. A total of thirteen (13) BQM-74C's, two (2) BQM-34's, seven (7) AQM-37C, three (3) QF-86's and one (1) AQM-37A were launched in support of surface-to-air and air-to-air missile exercises for eight (8) U.S. surface units and two (2) U.S. air units this report period.

f. The foreign surface unit, HNLMS Van Kinsbergen, conducted one (1) surface-to-air missile exercise against a TDU-34 towed target this report period.

g. A total of eleven (11) QST-35 Septars were launched in support of surface-to-surface and air-to-surface exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-two (22) days during this report period. Operational services were provided to: sixteen (16) U.S. surface units, five (5) U.S. air units, two (2) U.S ground units and two (2) foreign surface units.

b. Fifteen (15) days of NGFS, twenty (20) days of air to-ground, three (3) days of mining and four (4) days of supporting arms exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty-one (21) days this report period. Operational services were provided to: twenty (21) U.S. surface units, four (4) U.S. submarine units and five (5) U.S. air units.

b. Nine (9) U.S. surface units, two (2) U.S. air units and two (2) U.S. subsurface units conducted nine (9) days of PACER exercises this report period.

c. Fourteen (14) U.S. surface units conducted fifteen (15) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

d. A total of twenty-one (21) MK-30 targets were launched in support of torpedo and proficiency exercises this report period.

e. Sixty-three (63) MK-46's, fourteen (14) MK-48's and two (2) SHAPES were fired on the U/W Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty three (23) days this report period. Operational services were provided to: twenty five (25) U.S. surface units, three (3) U.S. submarine units, one (1) U.S. air unit and the foreign surface unit HMS Ambuscade.

b. Four (4) TPS's provided 340.0 hours of Electronic Warfare Support and the Noise Jammer site provided 21.0 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during June 1988.

Vessel	Type Exercises	Days
ASSP	LOGISTICS SPART HULL IMPLANT TARGET DELTA AND FOXTOT IMPLANT	6
USSC	SSRNM FLEETEX PACER DIVER SUPPORT FORACS MOORNING IMPLANTS INSTALL SPART RADAR REFLECTOR	17
TRB	PROFICIENCY TORPEX FLEETEX	20
QST-35	SSG ASO LOGISTICS	17
PATROL BOATS	DRONE STANDBY PERSONNEL TRANSFERS	4
YTM	SSG	7

b. The Marine Ocean Engineering (MOE) group launched twenty one (21) MK-30 targets this report period. Fifty (50) MK-46's, fourteen (14) MK-48's, twenty one (21) MK-30's and one (1) Totem were recovered by the MOE crews.

JULY 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active eighteen (18) days this report period. Operational services were provided to: six (6) U.S. surface units, eight (8) U.S. air units, three (3) foreign surface units and the subsurface unit USS Providence.

b. Five (5) U.S. air units, three (3) U.S. surface units and the subsurface unit USS Providence conducted fourteen (14) days of Link-11 exercises this report period.

c. Two (2) U.S. air units conducted eight (8) days of Defensive Air Combat Manuevers (DACM) requireing AFWTF support this report period.

d. A total of twelve (12) BQM-34S's, three (3) BQM-74C's, two (2) BQM-34E's, one (1) BQM-34T and eight (8) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active thirty-one (31) days during this report period. Operational services were provided to: four (4) U.S. surface units, one (1) U.S. air unit, three (3) U.S. ground units and foreign surface unit ARV General Urdaneta.

b. The AFWTF team conducted its bi-annual range refurbishment with support from the EOD Group Two Ordnance Demolition team.

c. Three (3) days of naval gun fire and two (2) days of air-to-ground exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active sixteen (16) days this report period. Operational services were provided to: seven (7) U.S. surface units, eight (8) U.S. air units, two (2) U.S. subsurface units and two (2) foreign surface units.

b. Six (6) U.S. air units, six (6) U.S. surface units and two (2) foreign surface units conducted eleven (11) days of PACER exercises this report period.

c. Three (3) U.S. surface units and two (2) foreign surface units conducted five (5) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

d. A total of thirty-eight (38) MK-46's were fired against twenty four (24) MK-30 targets and one static target, in support of torpedo exercise this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty (20) days this report period. Operational services were provided to: eleven (11) U.S. surface units, two (2) U.S. subsurface units and two (2) foreign subsurface units.

b. Three (3) TPS's provided 212.4 hours of Electronic Warfare Support and the Noise Jammer site provided 21.5 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during July 1988.

Vessels	Type Exercise	Days
ASSP	LOGISTICS MRCI	2
USSC	DIVER SUPPORT PACER SSRNM WSAT TARGET DEPLOYMENT PERSONNEL TRANSFERS	12
TRB	TORPEX OTL-49 WSAT	23
QST-35	SSG DIVE SAFETY	3
PATROL BOATS	DRONE STANDBY WSAT	10

b. The Marine Ocean Engineering (MOE) group launched twenty four (24) MK-30 targets this report period. Thirty eight (38) MK-46's, twenty four (24) MK-30's, and six (6) mines were recovered by the MOE crew.

AUGUST 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active fourteen (14) days this report period. Operational services were provided to: three (3) U.S. surface units, three (3) U.S. air units, three (3) U.S. subsurface units and AFWTF.

b. Provided FPS-67 Surveillance Radar surface plot range safety for two (2) U.S. subsurface units during four (4) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. Five (5) days of Link-11 exercises were conducted this report period.

d. A total of two (2) BQM-34S's, two (2) BQM-34E's, one (1) BQM-34T and seven (7) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active thirteen (13) days during this report period. Operational services were provided to: three (3) U.S. surface units and five (5) U.S. air units.

b. Seven (7) days of NGFS, eight (8) days of air-to-ground and three (3) days of mine exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty one (21) days this report period. Operational services were provided to: six (6) U.S. subsurface units, five (5) U.S. air units and one (1) U.S. surface unit.

b. Three (3) U.S. air units and one (1) U.S. subsurface unit conducted five (5) days of PACER exercises this report period.

c. One (1) surface unit conducted one (1) day of Surface Ship Radiated Noise Measurement (SSRNM) exercise this report period.

d. A total of eighteen (18) MK-30's targets were launched in support of torpedo and WSAT exercises this report period.

e. Forty eight (48) MK-48's and nineteen (19) MK-46's were fired at the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty five (25) says this report period. Operational services were provided to: seven (7) U.S. surface units, eight (8) U.S. air units and three (3) U.S. subsurface units.

b. Two (2) TPS's provided 257.3 hours of Electronic Warfare Support and the Noise Jammer site provided 19.0 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENTS

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during August 1988.

Vessels	Type Exercise	Days
ASSP	MINE RECOVERY LOGISTICS	4
USSC	TORPEX PERSONNEL TRANSFERS SATS III DEPLOYMENT (WSAT) DIVER SUPPORT	14
TRB	ASW TORPEX WSAT SSN FOTO TRIALS	27

Vessels	Type Exercise	Days
QST-35	DIVE SAFETY LOGISTICS	3
PATROL BOATS	IN HARBOR WSAT	5

b. The Marine Ocean Engineering (MOE) group launched eighteen (18) MK-30 targets this report period. Nineteen (19) MK-46's, thirty eight (38) MK-48's, twenty (20) Programable Launch Vehicles, fifteen (15) mines and eighteen (18) MK-30's were recovered by MOE. VC-8 recovered ten (10) MK-48's.

SEPTEMBER 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twelve (12) days this report period. Operational support services were provided to: two (2) U.S. surface units, two (2) U.S. subsurface units and six (6) U.S. air units.

b. Provided FPS-67 Surveillance Radar surface plot range safety for two (2) U.S. subsurface units and one (1) U.S. surface unit during five (5) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. One (1) U.S. subsurface unit and one (1) U.S. air unit conducted two (2) days of Link-11 exercises this report period.

d. One (1) U.S. subsurface unit and one (1) U.S. air unit conducted two (2) days of cruise missile operations this report period.

e. A total of eight (8) BQM-34's, three (3) AQM-37C's and one (1) BQM-34T were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active ten (10) days this report period. Operational services were provided to: two (2) U.S. surface units and four (4) U.S. air units.

b. Five (5) days of NGFS, five (5) days of air-to-ground and three (3) days of mine exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty (20) days this report period. Operational support services were provided to: three (3) U.S. surface units, four (4) U.S. subsurface units and seven (7) U.S. air units.

b. Six (6) U.S. air units conducted seven (7) days of PACER exercises this report period.

c. Thirty four (34) MK-30 targets were launched in support of WSAT and torpedo exercises this report period.

d. A total of eighteen (18) MK-46's and forty one (41) MK-48's were fired at the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twelve (12) days this report period. Operational support services were provided to: four (4) U.S. surface units, six (6) U.S. air units and one (1) U.S. subsurface unit.

b. Two (2) TPS's provided 62.7 hours of Electronic Warfare Support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during September 1988.

Vessels	Type Exercises	Days
ASSP	MINEX	1
USSC	TARGET DEPLOYMENT SSRNM PERSONNEL TRANSFERS WSAT	15
TRB	WSAT TORPEX CNO PROJECT	21
QST-35	ASO LOGISTICS	1
PATROL BOATS	WSAT DRONE	5

b. The Marine Ocean Engineering (MOE) group recovered fourteen (14) mines at Vieques in conjunction with mine exercises. The TRB crew's launched thirty four (34) MK-30 targets this report period. Seventeen (17) MK-46's, forty (40) MK-48's, four (4) PRV's and thirty four (34) MK-30's were recovered by the MOE crews.

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active fourteen (14) days this report period. Operational services were provided to: nine (9) U.S. surface units, one (1) U.S. subsurface unit and one (1) foreign surface unit.

b. Provided FPS-67 Surveillance Radar surface plot range safety for the USS John Marshall during two (2) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

c. The HMS Active fired 1263 rounds of surface-to-air gun fire against two (2) TDU-34's towed by VC-8's A4 aircraft.

d. The surface units supported in MEF 1-89 were: USS Dewert, USS Hawes, USS O'Bannon and USS Klakring.

e. Eight (8) U.S. surface units conducted Link-11 exercises during this report.

f. A total of three (3) BQM-34's, two (2) TDU-34's and one (1) QST-35 were launched in support of surface-to-air and surface-to-surface missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active sixteen (16) days this report period. Operational services were provided to: eight (8) U.S. surface units, four (4) U.S. air units and one (1) foreign surface unit.

b. A total of eleven (11) days of NGFS, nine (9) days of air-to-ground and two (2) days of mine exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active sixteen (16) days this report period. Operational support services were provided to: six (6) U.S. air units, two (2) U.S. surface units, one (1) U.S. subsurface unit and one (1) foreign surface unit.

b. Six (6) U.S. air units and one (1) U.S. surface unit conducted five (5) days of PACER exercises this report period.

c. VC-8 launched and recovered one MK-30 target this report period.

d. A total of fourteen (14) MK-30 targets were launched in support of TORPEX, TRACKEX, WSAT and proficiency exercises, thirteen (13) by MOE and one (1) by VC-8 this report period.

e. A total of fifteen (15) MK-46's and six (6) MK-48's were fired on the Underwater Tracking Range this report period. One of the fifteen (15) MK-46's was not an AFWTF torpedo.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty three (23) days this report period. Operational services were provided to eight (8) U.S surface units, one (1) U.S. subsurface unit.

b. Three (3) TPS's provided 185.5 hours of Electronic Warfare Support and the Noise Jammer site provided 15.2 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during October 1988.

Vessels	Type Exercise	Days
ASSP	MINE RECOVERY	3
USSC	TARGET DEPLOYMENT PACER 3D TRACK CHECKOUT PERSONNEL TRANSFERS DIVE SUPPORT	5
TRB	TORPEX TRACKEX DIVE SAFETY PROFICIENCY WSAT SHIP ASSISTANCE	17
QST-35	SSMSLX DIVE SAFETY	3
PATROL BOATS	DRONE STANDBY WSAT	2
YTM	SSGEX TARGET IMPLANT	4

b. The Marine Ocean Engineering (MOE) group launched thirteen (13) MK-30's this report period. Six (6) MK-48's, fifteen (15) MK-46's, thirteen (13) MK-30's, five MK-46 dummies and thirty seven (37) mines were recovered by MOE crews.

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty (20) days this report period. Operational services were provided to: fifteen (15) U.S. surface units, five (5) U.S. air units, four (4) U.S. subsurface units, two (2) foreign surface units and the AFWTF team.

b. The units that participated in FLEETEX 1-89 were; USS Mobile Bay, USS San Jacinto, USS Kalamazoo, USS Nitro, USS Preble, USS Miller, USS Joseph Hewes, USS Dale, USS Boston and USS Atlanta.

c. Provided FPS-67 Surveillance Radar surface plot range safety for three (3) U.S. subsurface units during four (4) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

d. The HMS Active fired three (3) Seacat missiles and eight (8) rounds of surface-to-air gun fire against two (2) TDU-34's towed by VC-8's A4 aircraft.

e. Five (5) U.S. surface units, one (1) U.S. air unit and one (1) foreign surface unit conducted twelve (12) days of Link-11 exercises this report period.

f. Four (4) days of surface-to-surface gun fire and one (1) day of surface-launched-cruise-missile exercises were conducted using QST-35 Septars this report period.

g. A total of seven (7) BQM-34's, eleven (11) AQM-37C's, three (3) TDU-34's, two (2) QF-86's and one (1) Gorst trimaran target were launched in support of surface-to-air missile, air-to-air missile, air to surface ordnance and surface-to-air gun fire exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty four (24) days during this report period. Operational services were provided to: fourteen (14) U.S. surface units, ten (10) U.S. air units, two (2) foreign surface units and two (2) U.S. ground units.

b. Seventeen (17) days of NGFS, nineteen (19) days of air-to-ground, five (5) days of spotting and one (1) day of mine exercise were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty (20) days this report period. Operational services were provided to: eleven (11) U.S. surface units, seven (7) U.S. air units, four (4) U.S. subsurface units and one (1) foreign surface unit.

b. Six (6) U.S. air units, three (3) U.S. subsurface units and five (5) U.S. surface units conducted eleven (11) days of PACER exercises this report period.

c. VC-8 recovered seven (7) MK-30 targets this report period.

d. A total of twenty-five (25) MK-30 targets were launched in support of TORPEX, TRACKEX, WSAT, PCO OPS and anti-submarine-warfare exercises this report period.

e. A total of twenty-six (26) MK-46's and fifty five (55) MK-48's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty (20) days this report period. Operational services were provided to: thirteen (13) U.S. surface units, eight (8) U.S. air units and two (2) foreign surface units.

b. Three (3) TPS's provided 206.2 hours of Electronic Warfare Support and the Noise Jammer site provided 26.3 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENTS

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during November 1988.

Vessels	Type Exercises	Days
ASSP	SEPTAR TOW	1
USSC	SSRNM PERSONNEL TRANSFERS SATS III DEPLOYMENT (WSAT) DIVER SUPPORT	13
TRB	PCO TORPEX WSAT MK-30 TRACKEX TRACKEX	16
QST-35	SSG BOMBEX SLCM	6
PATROL BOATS	DRONE STANDBY WSAT	3
YTM	SSG BOMBEX USSC TOW	8

b. The Marine Ocean Engineering (MOE) group launched twenty five (25) MK-30's targets this report period. Twenty two (22) MK-46's, fifty (55) MK-48's, four (4) Programable Launch Vehicles (PLV), and eighteen (18) MK-30's were recovered by MOE. VC-8 recovered seven (7) MK-30's.

DECEMBER 1988

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active fourteen (14) days this report period. Operational services were provided to: ten (10) U.S. surface units, five (5) U.S. air units and three (3) U.S. subsurface units.

b. The units that participated in TCTT 1-89 were; USS Mississippi, USS John King, USS Richard E. Byrd, USS Lawrence, USS King, USS Semmes and USNS Mississinewa.

c. Provided FPS-67 Surveillance Radar surface plot range safety for three (3) U.S. subsurface units during seven (7) days of St. Croix Underwater Tracking Range (UTR) anti-submarine warfare exercises.

d. Eight (8) U.S. surface units and one (1) U.S. air unit conducted nine (9) days of Link-11 exercises this report period.

e. Three (3) days of surface-to-surface gun and four (4) days of air-to-surface-ordnance exercises were conducted using QST-35 Septars this report period.

f. A total of five (5) BQM-34's, two (2) BQM-74C, ten (10) AQM-37C's and two (2) QF-86's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty five (25) days this report period. Operational services were provided to: six (6) U.S. surface units, four (4) U.S. air units and one (1) day of maneuver exercises were supported this report period.

b. Seven (7) days of NGFS, eleven (11) days of air-to-ground, three (3) days of mine and one (1) day of maneuver exercises were supported this report period.

c. CVW-7 dropped thirty two (32) mines during its mine exercise this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active fifteen (15) days this report period. Operational services were provided to: two (2) U.S. surface units, seven (7) U.S. air units and three (3) U.S. subsurface units.

b. Five (5) U.S. air units conducted eight (8) days of PACER exercise this report period.

c. VC-8 recovered seven (7) MK-48 torpedoes this report period.

d. A total of thirteen (13) MK-30 targets were launched in support of torpedo exercises this report period.

e. A total of twenty-three (23) MK-46's and forty (40) MK-48's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active sixteen (16) days this report period. Operational services were provided to: fifteen (15) U.S. surface units and five (5) U.S. air units.

b. Three (3) TPS's provided 198.1 hours of Electronic Warfare Support and the Noise Jammer site provided 5.5 hours of support this report period.

c. CDS-2 units participated in a special project untilizing the AN/FSQ-154 for 9.0 hours this report period.

5. OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENTS

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during December 1988.

Vessels	Type Exercise	Days
ASSP	DRONE LAUNCH OPEN OCEAN TORPEX MINE RECOVERY	6
USSC		0
TRB	WSAT TORPEX PROFICIENCY DIVER SUPPORT	24
SEPTARS	ASO SSG	7
PATROL BOATS		0

Vessels	Type Exercise	Days
YTM-404	SSG NUSC SUPPORT ASO	5

b. The Marine Ocean Engineering (MOE) group launched thirteen (13) MK-30's this report period. Thirty four (34) MK-48's, twenty three (23) MK-46's and thirteen (13) MK-30's were recovered by MOE. VC-8 recovered seven (7) MK-48's.

RANGE UTILIZATION CHRONOLOGY

JANUARY 1988

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
13,14,18	CVW-8	QF-86 AQM-37C BQM-34S	AAM
13,14,18-21	VAW-142		LINK-11
14,15	AFWTF		QF-86 REHEARSAL
17,18	USS TATTNALL	QH-50	SAM
17,18	USS STUMP	QH-50	SAM
17	USS TATTNAL USS STUMP	QST-35	SSG
17	USS STUMP USS TATTNALL		LINK-11
19,21	475 WEAPON EVALUATION GROUP (USAF)	BQM-74C	TRACKEX
19,21,22,24	USS JOHN HANCOCK		LINK-11
19,20,24	USS NICHOLAS		LINK-11
20-22,24	USS HALYBURTON		LINK-11
20	VS-24	GORST	BOMBEX
22, 27	USS GEMINI USS ARIES USS TAURUS	QST-35	SSG
23	USS HALYBURTON USS ROBERT G. BRADLEY USS JOHN HANCOCK USS MCINERNEY	QST-35	SSG
24	USS MCINERNEY USS JOHN HANCOCK USS ROBERT G. BRADLEY USS HALYBURTON USS NICHOLAS	BQM-34T BQM-74C	SAM

Date	Exercise Unit	Target	Type Exercise
24,26	USS MAHAN	BQM-34S	SAM
26	USS MAHAN		LINK-11
26,27	USS SKIPJACK		ASW
27	USS NICHOLAS	QST-35	SSG
27	USS VIRGINIA		LINK-11
27	USS KING HMCS IROQUOIS HNLMS JACOB VAN HEEMSKERCK FGS BAYERN	QST-35	SSG
28	AFWTF	A4	RADAR CALIBRATION
28	USS MAHAN	QST-35	SSG
29	USS KING HNLMS JACOB VAN HEEMSKERCK		LINK-11
29,30	USS KING HMCS IROQUIS FGS BAYERN HMS PHOEBE	BQM-34S BQM-74C	SAM
29-31	HNLMS JACOB VAN HEEMSKERCK	BQM-74C TDU-34A	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
2-15	AFWTF	RANGE REFURBISHMENT
15,17,18	USS DEWEY	NGFS
15-18	26 MEU	SUPPORTING ARMS
16,18,22-25	USS ELMER MONTGOMERY	NGFS
16-18,20,28	VC-8	AGO
16-20	CVW-6	AGO
16-18,20	CVW-7	AGO
16-18	VMO-1	AGO

Date	Exercise Unit	Type Exercise
17,18	USS PETERSON	NGFS
17,18,22-24	USS VIRGINIA USS TATTNALL USS STUMP	NGFS NGFS NGFS
17-21,27, 29-30	156 TFG (PRANG)	AGO
17-18	COMPHIBRON-2	SPOTEX/AGO
18	VMA-542	AGO
19,21	CVW-8	AGO
19,20,22	VS-24	AGO
21	VS-24	MINEX
22,27	USS JOHN HANCOCK	NGFS
24-25	USS SPRUANCE	NGFS
26	USS ARIES USS GEMINI USS MCINERNEY USS TAURUS USS NICHOLAS	NGFS
27	USS ROBERT G. BRADLEY USS HALYBURTON USS MAHAN	NGFS
28-30	USS BRAKELY	NGFS
28,29	USS WILLIAM S. SIMS	NGFS
30,31	CDR 2ND RNG BN (U.S. ARMY)	SPOTEX/AGO
30	PRANG	SUPPORTING ARMS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2,11,14	VP-5	TORPEX/PACER
2	VP-24	TORPEX/PACER
3,9	VP-23	TORPEX/PACER

Date	Exercise Unit	Type Exercise
3	VP-10	TORPEX/PACER
3,9	VP-44	TORPEX/PACER
5	VP-64 VP-66	TORPEX
8,13	VP-56	TORPEX/PACER
8	VP-24	TORPEX/PACER
9	VP-68	TORPEX
16,17	VS-28	TORPEX/PACER
16-18	USS DALLAS	TORPEX
17	HS-15	TORPEX
17-18	USS ELMER MONTGOMERY	TORPEX
17	USS THOMAS C. HART	TORPEX
17	USS VREELAND	TORPEX
18	USS PHARRIS	TORPEX/PACER
22	USS ROBERT G. BRADLEY	TORPEX/PACER
22	USS HALYBURTON	TORPEX/PACER
22	USS NICHOLAS	TORPEX/PACER
22	USS THOMAS C. HART	SSRNM
23,24	VS-24	TORPEX/PACER
25	USS JOHN HANCOCK	TORPEX/PACER
25	HNLMS PIET HEYN	TORPEX
26,27	USS SKIPJACK	PROFICIENCY
29	VP-11 VP-23	TORPEX/PACER
30	USS WILLIAM S. SIMS	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
8	VP-56 VP-24	EWX
15,17,18	USS DEWEY	EWX
16,17	USS PAUL	EWX
17	USS SURIBACHI USS MOUNT BAKER USS SPRUANCE USS PETERSON USS CAPODANNO USS VREELAND USS THOMAS C. HART	EWX
17,18	USS SEMMES USS ELMER MONTGOMERY USS TATTNAL USS STUMP USS PHARRIS USS DAHLGREN	EWX
17,18,13	USS VIRGINIA	EWX
17,19	FLTEX 1-88	EWX
18	USS MILWAUKEE USS FORRESTAL	EWX
19	VS-24	EWX
20,21	FEWSG	NJS
22,23	USS GEMINI	EWX
24-26	USS JOHN HANCOCK USS ROBERT G. BRADLEY USS NICHOLAS USS HALYBURTON USS MCINERNEY	EWX
25	USS JOHN HANCOCK	NJS
26	USS MAHAN	EWX
26-31	HMCS IROQUOIS HMS PHOEBE HNLMS JACOB VAN HEEMSKERCK FGS BAYERN USS KING	EWX

Date	Exercise Unit	Type Exercise
29	VP-11	EWX
30	USS BLAKELY	EWX
30	CSNFL	NJS

FEBRUARY 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
3,4	CVW-3	BQM-34S BQM-74C AQM-37C	AAM
3,4	VAW-126		LINK-11
5-7	USS NARWHAL		LINK-11
5	USS NARWHAL		LINK-11
8	AFWTF		ROC DEMO
8,9	USS JOSEPHUS DANIELS		LINK-11
8	VC-8		DACM
8-11,25	USAF		OTH RADAR
8	HMCS ASSINIBOINE HMCS SAGUENAY		EW TRKX
9,10	USAF		FLIGHT FOLLOW
10	USAF	QST-35	SSG
15	HMS BRISTOL	BQM-74C	SAM
16-19,21, 23-26	USS JOHN RODGERS		LINK-11
19,25,26	USS KIDD		LINK-11
19	USS JOHN RODGERS	QST-35	SSG
20	HMCS ATHABASKAN	BQM-34T	SAM
23	USS EDWARD MCDONNELL	QST-35	SSG

Date	Exercise Unit	Target	Type Exercise
24	USS JOHN RODGERS	BQM-74C	SAM
25	USS KIDD	BQM-74C	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
2	USS KING	NGFS
2	FGS BAYERN	NGFS
3	HMCS IROQUOIS	NGFS
4	HMCS OTTAWA	NGFS
8,9,13	USS JOSEPHUS DANIELS	NGFS
9,10	USAF	AGO
11	HMS BRISTOL	NGFS
11,12	HMCS NIPIGON	NGFS
11	HMCS SKEENA	NGFS
12	VC-8	AGO
14,15	HMCS GATINEAU	NGFS
14,15	HMS ATHABASKAN	NGFS
15	HMS ROTHESAY	NGFS
16,17	VP-49	MINEX
16	USS GEMINI USS ARIES USS HERCULES	NGFS
18,21	USS JOHN RODGERS	NGFS
18	HMCS ASSINIBOINE	NGFS
18	HMCS SAGUENAY	NGFS
19-21	USS EDWARD MCDONNELL	NGFS
19	USS TAURUS	NGFS
22-27,29	VA-204	AGO

Date	Exercise Unit	Type Exercise
22-24	USS KIDD	NGFS
26-28	USS MOINESTER	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
5-7	USS NARWHAL	PROFICIENCY
7	HMCS OTTAWA	TORPEX/PACER
10,12,18	HMCS NIPIGON	TORPEX/PACER
12	HMCS SAGUENAY	TORPEX/PACER
12	HMCS ASSINIBOINE	TORPEX/PACER
14	USS JOSEPHUS DANIELS	TORPEX/PACER
14	USS JOSEPHUS DANIELS	SSRNM
16	HMCS PRESERVER	TORPEX
16,17	HMCS GATINEAU	TORPEX/PACER
16,17	HMCS ATHABASKAN	TORPEX/PACER
18,19	HMCS OKANAGAN	TORPEX
18-22	HMCS OKANAGAN	PACER
21	VP-32	TORPEX
21	VP-23	TORPEX/PACER
22	USS JOHN RODGERS	SSRNM
22,24	VP-49	TORPEX/PACER
22	VP-56	PACER
22,26	VP-16	TORPEX/PACER
25	USS JOHN RODGERS	TORPEX
26	VP-44	TORPEX
28	USS MOINESTER	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-4	HMCS OTTAWA	EWX
1-3	HMCS OTTAWA	NJS
1	USS SAN DIEGO	EWX
1	USS SAN DIEGO	NJS
1	USS PHOENIX	EWX
1-3	USS KING	EWX
2,7,9-12	HMCS NIPIGON	EWX
2-3	FGS BAYERN	EWX
2-3	HMCS IROQUOIS	EWX
2-3	HMS PHOEBE	EWX
2-3	HNLMS JACOB VAN HEEMSKERCK	EWX
5-6	USS NARWHAL	EWX
7-12	HMCS SKEENA	EWX
7-12,15, 17-19	HMCS SAGUENAY	EWX
7,9,15-18, 20	HMCS ATHABASKAN	EWX
8-12,15, 17-22	HMCS ASSINIBOINE	EWX
9-10,12	USAF	EWX
9	HMCS SKEENA	NJS
10,11	HMCS ASSINIBOINE	NJS
11	HMS BRISTOL	NJS
11	HMS BRISTOL	EWX
11	HMS ROTHESAY	EWX

Date	Exercise Unit	Type Exercise
15	HMCS ATHABASKAN	NJS
15-18, 20-21	HMCS GATINEAU	EWX
15,17,23,24	USS JOHN RODGERS	EWX
16	USS JOHN RODGERS	NJS
18-19	USS GEMINI	EWX
20,22	USS EDWARD MCDONNELL	EWX
20	VP-10	EWX
21	VP-23	EWX
22,24	VP-49	EWX
22-27,29	VA-204	EWX
24	VP-16	EWX
24	USS KIDD	EWX
26	VP-16	NJS
26	VP-44	NJS
27-28	USS MOINESTER	EWX
29	VS-30	EWX

MARCH 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
3	HMS PLYMOUTH	GORST	SSM
7-10,12,13	VS-22		LINK-11
7,9	USAF	GORST	ASO
8-12,14,16	USAF		OTH RADAR
8,9	HNLMS PIET HEYN	TDU-34A	SAM

Date	Exercise Units	Target	Type Exercise
8	USAF		DACT
	USS SAN JACINTO	TDU-34A	SAG
	USS SAN JACINTO		LINK-11
	VS-22	QST-35/ TRIMARAN	ASO
15	USS SAN JACINTO	QST-35	SSG
18	USS SAN JACINTO	QST-35	TRACKEX
19	AFWTF		QF-86 TEST FLT
21-23	USS SAN JACINTO	BQM-74C BQM-34T AQM-37C QF-86	CSSQT
25,26,28,30	USS PREBLE		LINK-11
27	USS MILLER		EW TRACKEX
28	VX-1		MISSILE TELEMETRY CHECKS
29,30	VX-1	HULK	ASM
29,30	USS STURGEON	MK-30	ASW
29	USS MISSISSIPPI	QST-35	SSG
30	AFWTF		QF-4 TEST FLT
30	USS TALBOT USS SAMPSON USS PREBLE	BQM-34S	SAM
31	VX-1	HULK	ASO

INNER RANGE

Date	Exercise Unit	Type Exercise
1-4	VA-204	AGO
2	HMS PLYMOUTH	NGFS
3	VP-10	MINEX

Date	Exercise Unit	Type Exercise
7-11	USAF	AGO
7-9	VS-22	MINEX
9-10	706 TFG (USAF)	AGO
12-14	VS-22	AGO
14-15	USS SAN JACINTO	NGFS
16	198 TFG (USAF)	AGO
21-24	VX-1	AGO
23,24	VP-16	MINEX
24-27	USS SAMPSON	NGFS
25	VX-1	MINEX
25,28,29	VC-8	AGO
25	USS MILLER	NGFS
26-28	USS MISSISSIPPI	NGFS
30	336 TFG (USAF)	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
6,24	VP-11	TORPEX
6	VP-66	TORPEX
7-10	VS-22	TORPEX/PACER
15-18	USS SAN JACINTO USS GLENARD P. LIPSCOMB	CSSQT TRACKEX
16-18,20-22	USS MISSISSIPPI	WSAT
17,25,28	VP-56	TORPEX/PACER
17,18	VP-49	TORPEX/PACER
18-19	USS GLENARD P. LIPSCOMB	PROFICIENCY
22	USS MISSISSIPPI	SSRNM

Date	Exercise Unit	Type Exercise
24	VP-10	TORPEX/PACER
24	VP-11	PACER
29,30	USS STURGEON	PROFICIENCY

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,3,4	VA-204	EWX
5,6	VP-11	EWX
7	HNLMS PIET HEYN	EWX
7-11	USAF	EWX
7-10,12-14	VS-22	EWX
12-14	VS-22	NJS
14-18,21-23	USS SAN JACINTO	EWX
15-19	USS GLENARD P. LIPSCOMB	EWX
17,19,28	USS MISSISSIPPI	EWX
18	USS SAN JACINTO	NJS
21-24	VX-1	EWX
24	VP-10	EWX
24-28,30	USS SAMPSON	EWX
25,29	USS PREBLE	EWX
17,25	VP-56	EWX
25-27	USS MILLER	EWX
27	USS MILLER	NJS
28	USS SAMPSON	NJS
28	VP-49	EWX
29	USS STURGEON	EWX
30,31	USS TALBOT	EWX

APRIL 1988

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,2,5-7,13	AFWTF/PMTC		QF-4 TEST FLIGHT
4-10,23	USS BIDDLE		LINK-11
5,6	USS BIDDLE		LINK-11
5-10,14,23	USS BIDDLE	BQM-74C AQM-37C QF-4	SAM
8-10	USS LEYTE GULF	BQM-34T BQM-74C	SAM
8-10	USS LEYTE GULF		LINK-11
13	USS BIDDLE		SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
5	USS PREBLE	NGFS
5-7	NMCB-4	SUPPORTING ARMS
7-9	USS WILLIAM S. SIMS	NGFS
8	VC-8	AGO
13-14	VMFA-333	AGO
14,16-22	OCEAN VENTURE 88	AGO
16-17	USS BIDDLE	NGFS
18-20,22	USS JOHN RODGERS	NGFS

Date	Exercise Unit	Type Exercise
18,21,27,28	USS TRUETT	NGFS
19-23	USS MCCANDLESS	NGFS
20-22	OCEAN VENTURE-88	SUPPORTING ARMS
22	USS GUADALCANAL	NGFS
22	USS BOULDER	NGFS
22	USS AUSTIN	NGFS
22	USS SUMTER	NGFS
24-25	USS VOGE	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS PREBLE	TORPEX/PACER
1	VP-49	TORPEX/PACER
7	VP-44	TORPEX/PACER
8,12	VP-11	TORPEX/PACER
8,11	VP-56	TORPEX/PACER
9	VP-68	TORPEX
12	VP-23	TORPEX/PACER
17	USS BIDDLE	TORPEX/PACER
18-19	USS SCULPIN	PROFICIENCY
18	USS SCULPIN	PACER
19-20	USS SCULPIN	WSAT
19-20	USS SHARK	PROFICIENCY
19	USS SHARK	PACER
22	USS CONNOLE	TORPEX/PACER
22	USS CONNOLE	SSRNM

Date	Exercise Unit	Type Exercise
23	USS MCINERNEY	TORPEX/PACER
23	USS MCINERNEY	SSRNM
24	USS MCCANDLESS	TORPEX/PACER
24	USS MCCANDLESS	SSRNM
25	USS JOHN RODGERS USS BAINBRIDGE	TORPEX/PACER
25	USS BAINBRIDGE	SSRNM
26	USS VOGE	SSRNM
27	USS SANTA BARBARA	SSRNM
30	USS TRUETT	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	VP-49	EWX
4	USS TALBOT	EWX
6	USS PREBLE	EWX
7	VP-44	EWX
8	VP-56	EWX
8,9	USS LEYTE GULF	EWX
12	VP-23	EWX
12	VP-11	EWX
13	MAG-31	EWX
14,16,21	USS BIDDLE	EWX
16	1ST SOW (USAF)	EWX
18,25	USS SANTA BARBARA	EWX

Date	Exercise Unit	Type Exercise
18-20	USS SHARK USS SCULPIN	EWX
20,25	USS SAMUEL E. MORISON	EWX
22	USS FARRAGUT	EWX
22	USS SELLERS	EWX
22,24,25	USS CONNOLE	EWX
22,24,25	USS JOHN RODGERS	EWX
23,24	USS MCCANDLESS	EWX
24,25	USS VOGE	EWX
24	USS TRUETT	NJS
25	USS JOHN RODGERS	NJS
25	USS MCINERNEY	EWX
27-30	USS TRUETT	EWX

MAY 1988

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
2-6,13	USS BIDDLE	QF-86 AQM-37C BQM-34S BQM-74C	SAM
2	USS BIDDLE		LINK-11
2-6	VAW-127		LINK-11
3,12-14	PMTC		QF-86 FLT TEST
4,5	USS GEMINI	QST-35	SSG
6,7	USS SKIPJACK	SUBMARINE	ASW
6,7,22,23	USS CITY OF CORPUS CHRISTI	USS KLAKRING	ASW

Date	Exercise Unit	Target	Type Exercise
8,9	USS NORFOLK USS PHILADELPHIA	SUBMARINE	ASW
10,11,15	FGN ROMMEL	AQM-37C BQM-74C BQM-34S	SAM
10,25	FGN KARLSRUHE	BQM-34S BQM-74C AQM-37C	SAM
10,19	FGN KARLSRUHE		LINK-11
10,19,25	FGN ROMMEL		LINK-11
12,13	VS-27	QST-35 TRIMARAN	ASO
13	CVW-1	QF-86 BQM-74C AQM-37C	AAM
16,17,25	USS KLAKRING		LINK-11
16-18,25	USS HAYLER	BQM-74C	SAM
17	USS KLAKRING	BQM-74C	SAM
17,19	CVW-1		LINK-11
18	USS HAYLER	BQM-74C	SAM
18	VS-27		LINK-11
19	USS YORKTOWN USS JOSEPHUS DANIELS	MISSILE	SSM
19	FGN HESSEN FGN ROMMEL FGN KARLSRUHE	MISSILE	SSM
24-28	USS ALBUQUERQUE USS AUGUSTA USS PHOENIX	SUBMARINE MK-30	ASW

INNER RANGE

Date	Exercise Unit	Type Exercise
6	USS GEMINI	NGFS
6	HMCS ANNAPOLIS	NGFS
10	USCGC VASHON	NGFS
11	FGN HESSEN FGN BRAUNSCHWEIG	NGFS
12,14,18,19	CVW-1	AGO
12,23,24,26	VC-8	AGO
16	USS COMTE DE GRASSE	NGFS
16-18	VS-27	AGO
17	VS-27	MINEX
18,19	USS MOINESTER	NGFS
18	CVW-1	MINEX
20-22,25,26	USS WILLIAM V. PRATT	NGFS
22,23	USS YORKTOWN	NGFS
23,24,26	156 TFS (USAF)	AGO
23-26	3/75 RANGERS (U.S. ARMY)	SUPPORTING ARMS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	VP-49	TORPEX/PACER
1,19	VP-23	TORPEX/PACER
1,19	VP-11	TORPEX/PACER
2,5	HMCS ANNAPOLIS	TORPEX/PACER
6	USS SKIPJACK	PROFICIENCY

Date	Exercise Unit	Type Exercise
6,7,22,23	USS CITY OF CORPUS CHRISTI	PROFICIENCY
8-9	USS NORFOLK USS PHILADELPHIA	PROFICIENCY
11	FGN HESSEN	TORPEX
11,13	FGN BRAUNSCHWEIG	TORPEX
12	FGN ROMMEL	TORPEX/PACER
12	FGN KARLSRUHE	TORPEX/PACER
14-16	VS-32	TORPEX/PACER
16	USS SAMPSON	SSRNM
17	FRG AIRCRAFT	TORPEX/PACER
19	VP-44	TORPEX/PACER
20	VP-56	TORPEX/PACER
20	VP-16	TORPEX
21	USS INCHON	SSRNM
21	VP MAU	TORPEX/PACER
21	VP-64 VP-92	TORPEX
23-28	USS ALBUQUERQUE USS AUGUSTA USS PHOENIX	ASW/PCO
24	USS ALBUQUERQUE USS AUGUSTA USS PHOENIX	PACER
29-30	USS PROVIDENCE	PROFICIENCY
31	USS DE WERT	EM LOGS
31	USS DE WERT	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	VP-49	EWX
1,19	VP-11	EWX

Date	Exercise Unit	Type Exercise
1,19	VP-23	EWX
2-4	USS BIDDLE	EWX
2-4	VAW-127	EWX
3,5	USS GEMINI	EWX
5	USS GEMINI	NJS
5-8	USS CITY OF CORPUS CHRISTI	EWX
6	USS NORFOLK	EWX
5-8	USS SKIPJACK	EWX
9-10,12, 16-18,24,25	FGN ROMMEL	EWX
9-11,13, 16-18,24,25	FGN KARLSRUHE	EWX
9-11,17,18, 24-25	FGN BRAUNSCHWEIG	EWX
9,11,17,18, 24-25	FGN HESSEN	EWX
10-12,16,17	VS-27	EWX
16-18	USS KLAKRING	EWX
16-18	USS HAYLER	EWX
16,17	USS SAMPSON	EWX
17,18	USS HAYLER	NJS
17	USS KLAKRING	NJS
18,19	USS MOINESTER	EWX
19-22	USS HAMMERHEAD	EWX
20	USS YORKTOWN	NJS
20	USS YORKTOWN	EWX
20-23,25,26	USS WILLIAM V. PRATT	EWX
21	VP-MAU	EWX

Date	Exercise Unit	Type Exercise
26	USS DE WERT	EWX
27	USS MCCLOY	EWX
28-29	USS PROVIDENCE	EWX

JUNE 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
2,3	USS ALBUQUERQUE USS AUGUSTA	Submarine	ASW
5-7	CVW-8	BQM-74C AQM-37C	AAM
6	USS T. ROOSEVELT	BQM-74C	SAM
6,11	USS CARR	QST-35	SSG
6,7	USS CARR		LINK-11
6,7	USS T. ROOSEVELT		LINK-11
6,14,22-24	E-2C		LINK-11
8,12,13	CVW-8	QST-35	ASO
12	COMPHIBRON-4	PARAFLARES	AAM
13,15,16	VAW-127		LINK-11
14	FLTX 2-88		TOMAHAWK RECOVERY
14	USS VOGE USS TRUETT USS CONNOLE	QST-35	SSG
14	VFA-1		LINK-11
15,17,22-24	CVW-13	BQM-74C AQM-37A QF-86	AAM
16	USS PEGASUS	QST-35	SSG
16,20	AFWTF/PMTC		QF-86 TEST FLIGHT

Date	Exercise Unit		Type Exercise
20-22	HNLMS VAN KINSBERGEN		LINK-11
21-27	FLTX 2-88		LINK-11
21,27	FLTX 2-88	AQM-37C BQM-74C BQM-34S	SAM
21	CVW-13	QST-35	ASO
22	HNLMS VAN KINSBERGEN	TDU-34A	SAM
22,23,26	FLTX 2-88	QST-35	SSG
24	USS KIDD USS SOUTH CAROLINA	QST-35	SSG
25	USS TICONDEROGA USS KIDD	BQM-74C	SAM
25	USS TICONDEROGA USS KIDD		LINK-11
28	HMS AMBUSCADE	TDU-34A	SAM
30	USS MACDONOUGH	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
5-11,13-15, 20-24	CVW-8	AGO
6-9	USS BRISCOE	NGFS
7,8,16-17	USS VOGE	NGFS
7	VC-8	AGO
8	PR NATIONAL GUARD	SUPPORTING ARMS
12	USS TRUETT	NGFS
12-16,18-24	CVW-13	AGO
13,15-17,19	CVW-3	AGO
13	COMPHIBRON 4	SUPPORTING ARMS
15-17	COMPHIBRON 4	AGO

Date	Exercise Unit	Type Exercise
15,23	CVW-13	MINEX
15	CVW-3	MINEX
17	USS WILLIAM S. SIMS	NGFS
19	USS MOBILE BAY	NGFS
20	CVW-8	MINEX
20	USS MOINESTER	NGFS
21	USS AUBREY FITCH	NGFS
21	USS TAYLOR	NGFS
21,22	USS MACDONOUGH	NGFS
22	USS CONNOLE	NGFS
22	USS DOYLE	NGFS
23	HMS AMBUSCADE	NGFS
23	HNLMS VAN KINSBERGEN	NGFS
23	USS SOUTH CAROLINA	NGFS
24	USS MOOSBRUGGER	NGFS
24,25	USS MAHAN	NGFS
25	USS THOMAS S. GATES	NGFS
26	USS SELLERS	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2	USS AUGUSTA	OTH
2	USS AUGUSTA	PACER
2,3	USS ALBUQUERQUE USS AUGUSTA	PROFICIENCY
3	USS ALBUQUERQUE	PACER
3	USS PHOENIX	RDF TESTING

Date	Exercise Unit	Type Exercise
7-9	VS-24	TORPEX
8,9,11	HS-9	TORPEX
12	VP-45	TORPEX/PACER
13	VP-56	TORPEX/PACER
15	USS PLATTE	SSRNM
15	USS VOGE	TORPEX
15	USS MCCANDLESS	TORPEX
16	USS BIDDLE	TORPEX
16	USS BIDDLE	SSRNM
16	USS MACDONOUGH	TORPEX
19	USS MEMPHIS	PROFICIENCY
19,21	USS MOINESTER	TORPEX
19	USS MOINESTER	SSRNM
20	USS MOBILE BAY	SSRNM
20	USS MOBILE BAY	TORPEX
21	USS MOINESTER	PACER
21	USS DOYLE	TORPEX/PACER
21	USS JOSEPHUS DANIELS	TORPEX
21,22	USS MOOSBRUGGER	SSRNM
22	USS SOUTH CAROLINA	TORPEX/PACER
22	USS TAYLOR	TORPEX/PACER
22	USS AUBREY FITCH	TORPEX
23	USS MAHAN	TORPEX/PACER
23	USS MOOSBRUGGER	TORPEX/PACER
23	USS MAHAN	SSRNM
24	USS SELLERS	TORPEX

Date	Exercise Unit	Type Exercise
24	USS DOYLE	SSRNM
24	USS SELLERS	SSRNM
25	USS DETROIT	SSRNM
25,27	USS COMTE DE GRASSE	SSRNM
26	USS COMTE DE GRASSE	TORPEX/PACER
26	USS THOMAS S. GATES	TORPEX/PACER
26	USS SOUTH CAROLINA	SSRNM
28	USS MACDONOUGH	SSRNM
30	USS CLIFTON SPRAGUE	TORPEX/PACER
30	USS CLIFTON SPRAGUE	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
2,3	USS ALBUQUERQUE USS AUGUSTA	EWX
3,4,	USS PHOENIX	EWX
5,6,8-10,25	USS T. ROOSEVELT	EWX
5,6	USS CARR	EWX
6-8	USS BRISCOE	EWX
13,14,21	USS CHARLESTON	EWX
13,14	USS PENSACOLA USS NASHVILLE USS GUAM	EWX
14	USS TRUETT USS MCCANDLESS USS VOGE	EWX
14,22	USS CONNOLE	EWX
14	VP-11	EWX
17,18	USS KIDD	EWX

Date	Exercise Unit	Type Exercise
17	USS MOUNT WHITNEY	EWX
19-21,23-27	USS MOBILE BAY	EWX
19-21,23,24	USS MOINESTER	EWX
20	USS WILLIAM V. PRATT	EWX
21	USS CHARLESTON	NJS
21,27	USS MAHAN USS MOBILE BAY	NJS
21,23-25,27	USS MAHAN	EWX
21,23,24,27	USS JOSEPHUS DANIELS	EWX
21,23,24,26 27	USS TAYLOR	EWX
22,25,26	USS THOMAS S. GATES	EWX
22-24,26	USS SOUTH CAROLINA	EWX
23-27	USS AUBREY FITCH	EWX
22-25	USS DOYLE	EWX
23-25	USS MOOSBRUGGER	EWX
24,25	USS SELLERS	EWX
26	USS EDWARD MCDONNELL	EWX
26	USS THOMAS S. GATES	NJS
27	USS TAYLOR USS AUBREY FITCH USS JOSEPHUS DANIELS	NJS
28	HMS AMBUSCADE	EWX

JULY 1988

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS CLIFTON SPRAGUE	QST-35	SSG
1	USS CLIFTON SPRAGUE		EW TRKX

Date	Exercise Unit	Target	Type Exercise
6,7	USS PROVIDENCE	HULK	OTL-49
6,7	USS PROVIDENCE		LINK-11
7	P-3		LINK-11
11,12	VAW-78		LINK-11
11,12	VF-201	BQM-34S AQM-37C	AAM
14	USS HAWES	BQM-34S	SAM
15,17,19-20	CVW-17	BQM-74C AQM-37C	AAM
15	VAW-17		LINK-11
16	VFA-131		DACM
17	E-2C		LINK-11
18,22,27,29	USS FARRAGUT		LINK-11
18-21,25-27	MAG-41		DACM
19,20	CVW-17		LINK-11
20-27	MAG-41	BQM-34S	AAM
22	USS FARRAGUT	BQM-34S	SAM
22	USS TRIPPE		EW TRKX
25,26	USS LEYTE GULF	BQM-34S BQM-34E BQM-34T	SAM
25,26	USS LEYTE GULF		LINK-11
26,27	USS OLIVER HAZARD PERRY		LINK-11
27	USS OLIVER HAZARD PERRY		SAM
29	USS FARRAGUT	BQM-34S	SAM
30	USS WILLIAM S. SIMS ARU GENERAL URDANETA BRZ DEFENSORA BRZ CONSTITUICAO	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
1-10, 12-27	EOD GROUP TWO/ AFWTF	RANGE REFURBISHMENT
27-31	UNITAS-29	MANUEVERS
28	USS PEGASUS USS SAMPSON	NGFS
28-30	UNITAS-29	SPOTEX
28-29	VC-8	AGO
29	USS WILLIAM S. SIMS	NGFS
29	ARV GENERAL URDANETA	NGFS
30	USS NICHOLSON	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
7	VP-24	TORPEX/PACER
7,20,21	VP-56	TORPEX/PACER
8,13	VP-11	TORPEX/PACER
8,20	VP-23	TORPEX/PACER
9	VP-93 VP-66	TORPEX
15	USS HAWES	SSRNM
15	USS HAWES	TORPEX/PACER
20,21,23,25	USS TRIPPE	WSAT
20	VP-26	TORPEX/PACER
21	VP-45	TORPEX/PACER
23	USS TRIPPE	DATA COLLECTION
24	USS TRIPPE	SSRNM
26	USS OLIVER HAZARD PERRY	TORPEX/PACER

Date	Exercise Unit	Type Exercise
26	USS OLIVER HAZARD PERRY	SSRNM
27	USS FARRAGUT	TORPEX/PACER
28	USS WILLIAM S. SIMS BRZ DEFENSORA	TORPEX/PACER
28	BRZ CONSTITUICAO	SSRNM
29	USS NICHOLSON BRZ CONSTITUICAO	TORPEX/PACER
29	BRZ DEFENSORA	SSRNM
30	USS SAMPSON	TORPEX/PACER
31	USS ATLANTA USS NORFOLK	ASW

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS CLIFTON SPRAGUE	EWX
1	USS CLIFTON SPRAGUE	NJS
7,20,21	VP-56	EWX
7	VP-24	EWX
8,13	VP-11	EWX
8	VP-22	EWX
16-20	VAW-125	EWX
20	VP-26 VP-23	EWX
21	VP-45	EWX
21-24	USS TRIPPE	EWX
22,28	USS SAMPSON	NJS
22,23,26, 28-30	USS SAMPSON	EWX
22,23,26, 28-29	USS WILLIAM S. SIMS	EWX

Date	Exercise Unit	Type Exercise
22,23	USS BOULDER	EWX
22,23,26 28-30	USS NICHOLSON	EWX
23,24,26,27, 29	USS FARRAGUT	EWX
23	USS FARRAGUT	NJS
25,26	USS LEYTE GULF	EWX
25-28	USS OLIVER HAZARD PERRY	EWX
26	UNITAS 29 USS PEGASUS USS SKIPJACK ARV GENERAL URDANETA ARV GENERAL SOUBLETTE BRZ CONSTITUICAO BRZ DEFENSORA BRZ RIACHUELO ARV SABALO	NJS
26,28-30	USS PEGASUS	EWX
26	USS SKIPJACK	EWX
26,28,29	ARV GENERAL URDANETA	EWX
26,28-30	ARV GENERAL SOUBLETTE	EWX
26,28-30	BRZ CONSTITUICAO	EWX
26,28-30	BRZ DEFENSORA	EWX
26,28	BRZ RIACHUELO	EWX
26,28	ARV SABALO	EWX
27	USS OLIVER HAZARD PERRY	NJS
28	USS AINSWORTH	EWX
31	USS NORFOLK	EWX

AUGUST 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
1-4	USS ATLANTA USS NORFOLK	SUBMARINE	ASW

Date	Exercise Unit	Target	Type Exercise
10	AFWTF	BQM-34E	DRONE TEST
15-17	USS BRISCOE		LINK-11
17,22	USS BRISCOE	BQM-34E TDU-34A	SAM
19	VFA-131	BQM-34S	AAM
24	USS THOMAS S. GATES		EW TRKEX
26	VC-8		DACM
30-31	P-3		LINK-11
30,31	USS DALE	AQM-37C	SAM
31	USS WHALE		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
1-12	USS FARRAGUT	NGFS
2-4,11,18	VC-8	AGO
3-5	USS AINSWORTH	NGFS
4	VP-11 VP-23	MINEX
15-17	VS-27	AGO
16	VS-27	MINEX
19	CVW-17	MINEX
22-23	USS THOMAS S. GATES	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1-4	USS ATLANTA USS NORFOLK	ASW
6	USS AINSWORTH	SSRNM
6	VP-94	TORPEX

Date	Exercise Unit	Type Exercise
10,14-16	USS BERGALL	WSAT
12,13	VS-27	TORPEX/PACER
16, 20-22	USS GROTON	WSAT
18	VP-56	TORPEX/PACER
19	VP-08 VP-11	TORPEX/PACER
22	USS GROTON	PACER
22,27-30	USS SAN JUAN	WSAT
28,31	USS WHALE	WSAT

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1	USS FARRAGUT	EWX
1	USS AINSWORTH	NJS
1-3,4	USS AINSWORTH	EWX
9-18	USS BERGALL	EWX
10,11	VS-27	EWX
11	USS BERGALL	NJS
18	USS BRISCOE	NJS
18,24,26	VP-56	EWX
19-23	USS GROTON	EWX
19-23	CVW-17	EWX
19	VP-8	EWX
19	VP-11	EWX
22	USS BRISCOE	EWX
22	USS INDEPENDENCE	EWX
23-26, 29-31	USS WHALE	EWX

Date	Exercise Unit	Type Exercise
24	USS WHALE	NJS
24-25	USS THOMAS S. GATES	EWX
24-25	USS THOMAS S. GATES	NJS
24,26	VP-45	EWX
26	VP-16	EWX
26	VP-24	EWX
26	VP-23	EWX
29-31	USS DALE	EWX
31	USS MCCLOY	EWX

SEPTEMBER 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
8	VFA-137	BQM-34S	AAM
9,10,12	USS JULIUS A. FURER		ASW
9-13	USS BOSTON USS PROVIDENCE	SUBMARINE	ASW
10	VFA-137	QST-35	ASO
15-16	USS PROVIDENCE		LINK-11
15-16	VP-26		LINK-11
15-16	USS PROVIDENCE VA-85	HULK	CRUISE MISSILE
19,20,23	MAG-31	BQM-34S AQM-37C	AAM
20	USS BRISCOE	BQM-34E	SAM
22	VFA-82 VFA-86	AQM-37C	AAM

INNER RANGE

Date	Exercise Unit	Type Exercise
1,4-6	USS CONOLLY	NGFS
1	VC-8	AGO
7-10	VFA-132	AGO
7,8	VFA-132	MINEX
7	VFA-137	AGO
15	VP-11	MINEX
26	USCGC MONHEGAN	NGFS

UNDERWATER RANGE

Date	Exercise Unit	Type Exercise
1	USS WHALE	WSAT
3,4	USS DALE	WSAT
4	USS DALE	SSRNM
7	USS CONOLLY	SSRNM
9,10,12	JULIUS A FURER	CNO-234-4
9-13	USS BOSTON USS PROVIDENCE	CNO-234-4
16,17,20,29	VP-26	TORPEX/PACER
17,21-24	USS OKLAHOMA CITY	ASW
17	VP-68	TORPEX
20	VP-11	TORPEX/PACER
20,29	VP-8	TORPEX/PACER
26,27	VP-24	TORPEX/PACER
26	VP-45	TORPEX/PACER
29-30	VP-56	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercises Unit	Type Exercise
1,5	USS DALE	EWX
1	USS MCCLOY	EWX
4,5	USS CONOLLY	EWX
11,12	USS JULIUS A. FURER	EWX
20,29	VP-26	EWX
20	VP-11	EWX
20,29	VP-8	EWX
21,22	USS OKLAHOMA CITY	EWX
26	VP-45	EWX
26,27	VP-24	EWX
29,30	VP-56	EWX

OCTOBER 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
2-4	USS KALAMAZOO		ICSE
4	USS KALAMAZOO	TDU-34A	SAM
4-6	USS DONALD B. BEARY		LINK-11
7,8	HMS ACTIVE	TDU-34A	SAM
12,13	USS JOHN MARSHALL	MK-30	ASW
17	MEF 1-89	BQM-34S	SAM
18	MEF 1-89		LINK-11
19	USS THORN		LINK-11
22	MEF 1-89	QST-35	SSM
31	USS BOONE USS STARK		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
4-6	156 TFS (USAF)	AGO
24-27		
4-7	USS DONALD B. BEARY	NGFS
5,28,29	VC-8	AGO
5	VP-23	MINEX
8	HMS ACTIVE	NGFS
12	VP-56	MINEX
18	USCGC OCRACOKE	NGFS
19-20,24	USS O'BANNON	NGFS
21,24	USS DE WERT	NGFS
21	USS HAWES	NGFS
21,24	USS KLAKRING	NGFS
21	USS PEGASUS	NGFS
28,29	USS MILLER	NGFS

UNDERWATER RANGE

7	HSL-24	TORPEX/PACER
8	HMS ACTIVE	ASW TRKX
11-13	USS JOHN MARSHALL	STANDARDIZATION TRIALS
12,13	USS JOHN MARSHALL	PROFICIENCY
14,26	VP-45	TORPEX/PACER
14,27	VP-11	TORPEX/PACER
15	USS O'BANNON	SSRNM
15	USS O'BANNON	TORPEX/PACER
19-25	USS AYLWIN	WSAT

Date	Exercise Unit	Type Exercise
24	USS AYLWIN	SSRNM
26	VP-56	TORPEX/PACER
26	VP-16	TORPEX/PACER
27	VP-8	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-4	USS KALAMAZOO	EWX
2-4	USS KALAMAZOO	ICSE
4-7	USS DONALD BEARY	EWX
7	HMS ACTIVE	EWX
12,26	VP-56	EWX
14,27	VP-11	EWX
14,26	VP-45	EWX
16,17, 22-24	USS O'BANNON	EWX
18,23,24	USS HAWES	EWX
18,19,21,24	USS JOHN MARSHALL	EWX
21	USS SIMPSON	EWX
24-26	USS FLATLEY	EWX
26	VP-8	EWX
27	VP-16	EWX
28,29	USS MILLER	EWX
31	USS BOONE	EWX

NOVEMBER 1988

OUTER RANGE

Date	Exercise Units	Target	Type Exercise
1,2,4,5	USS STARK		LINK-11
1,2,4	USS BOONE		LINK-11
2	HMS CALLENBURG		LINK-11
4	USS BOONE	AQM-37C	SAM
4,5	USS STARK	AQM-37C	SAM
4	VFA-81		AIC
5-9,11,12, 15,16	AFWTF		QF-86 TEST
6	USS KING	QST-35	SSG
7-10	CVW-17	QF-86 BQM-34S AQM-37C PARAFLARE	AAM
7	HMS ACTIVE	TDU-34A	SAM
8	FLTEX 1-89	AQM-37C BQM-34S	SAM
8-12	USS MINN. ST. PAUL USS ATLANTA USS PROVIDENCE	MK-30 SUBMARINE	ASW
9-10	FLTX 1-89	QST-35	SSG
11,15-17	CVW-8	QF-86 AQM-37C BQM-34S	AAM
12	USS MOBILE BAY USS SAN JACINTO	QST-35	SSG
12	USS SIMPSON		EWTRKX
13	USS GUADALCANAL	TDU-34A	SAM
14-18	USS UNDERWOOD		LINK-11

Date	Exercise Unit	Target	Type Exercise
14,15	USS KING		LINK-11
15	1ST SOW	GORST TRIMARAN	ASO
15	VAW-124		LINK-11
16	USS LEYTE GULF	QST-35	SLCM
16	USS LEYTE GULF		LINK-11
18	USS UNDERWOOD	AQM-37C	SAM
28-30	AFWTF		WAAS RFI TEST
28-30	USS IOWA		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
1-12	USS MILLER	NGFS
1-5,10	CVW-17	AGO
3,7-8,12	VMA-231	AGO
6-12,14-16	USAF	AGO
7-9	3/75 RGR	SPOTEX
7,9,16,29	156 TFG	AGO
7-9,11,12	VMO-1	AGO
8-9,14,15	USS KING	NGFS
8	HMS ACTIVE	NGFS
9	CVW-3	AGO
9	USS SAN JACINTO	NGFS
11,17,18	USS MOINESTER	NGFS
11-15	CVW-8	AGO
11,14,16	USS JOSEPH HEWES	NGFS
12-13	22 MEU	SPOTEX

Date	Exercise Unit	Type Exercise
12	USS AUSTIN USS GUADALCANAL USS NEWPORT USS SELLERS USS SPARTANBURG COUNTY	NGFS
12	22 MEU	AGO
14,16	USS CHARLES F. ADAMS	NGFS
15-16	USS PREBLE	NGFS
17	FOF-3	AGO
20	HMS NEWCASTLE	NGFS
22	VP-45	MINEX
22,23	USS TRIPPE	NGFS
28-30	USS IOWA	NGFS
30	VC-8	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1,22	AFWTF	RANGE TESTS
2	VP-95	TORPEX/PACER
2	VP-16	TORPEX/PACER
3	USS STARK USS BOONE	ASW
7	USS KING	SSRNM
7	HMS ACTIVE	ASW
8-12	USS MINN. ST. PAUL USS ATLANTA USS PROVIDENCE	PCO OPS.
8-12	USS MINN. ST. PAUL USS ATLANTA USS PROVIDENCE	PACER
12	USS PREBLE	SSRNM

Date	Exercise Unit	Type Exercise
12	USS MILLER	TORPEX/PACER
12,13	USS JOSEPH HEWES	TORPEX/PACER
13	USS PREBLE	TORPEX/PACER
13	USS KALAMAZOO	SSRNM
14	USS NITRO	SSRNM
14,15	VP-23	TORPEX/PACER
15	USS MOBILE BAY	TORPEX
16	USS SAN JACINTO	TORPEX/PACER
16	USS DALE	TORPEX/PACER
16,17	VS-24	TORPEX
21,22,25, 29-30	USS FLYING FISH	WSAT
28	VP-5	TORPEX/PACER
28	VP-56	TORPEX/PACER
28	VP-24	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1,3	USS BOONE USS STARK	EWX
1	USS MILLER	EWX
1,2	HMS CALLENBURGH	EWX
2	VP-45	EWX
2	VP-16	EWX
3	USS BOONE USS STARK	NJS
3,4,7,8	22 MEU	EWX
6,8,9,14	USS KING	EWX

Date	Exercise Unit	Type Exercise
6	USS KING	NJS
6-11,16	1ST SOW	EWX
7	HMS ACTIVE	EWX
8,15-18	USS UNDERWOOD	EWX
8-14	VS-30	EWX
9,10	USS MOBILE BAY	NJS
9,10	USS MOBILE BAY	EWX
9	USS SAN JACINTO	EWX
12	USS KALAMAZOO	EWX
12	USS SIMPSON	NJS
12	USS SIMPSON	EWX
13	USS GUADALCANAL	EWX
14	USS CHARLES F. ADAMS	EWX
15	USS NEWPORT	NJS
16-18	USS UNDERWOOD	NJS
28	VP-5	EWX
28	VP-24	EWX
28	VP-56	EWX
28-30	USS IOWA	EWX

DECEMBER 1988

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-2	VMFA-122	BQM-34S AQM-37C	AAM
1-2	USS IOWA		LINK-11
1-3	USS HARRY E. YARNELL		LINK-11

Date	Exercise Unit	Target	Type Exercise
1-2	USS FLYING FISH	TRB	ASW
3	USS HARRY E. YARNELL	BQM-74C AQM-37C	SAM
5-8	TCTT 1-89		LINK-11
5	TCTT 1-89	BQM-34S AQM-37C	SAM
6-7	CVW-1	QF-86 AQM-37C	AAM
6	TCTT 1-89	QST-35	SSG
7-10	CVW-1	QST-35	AGO
7-8	USS MAHAN	QST-35	SSG
8	CVW-8	AQM-37C BQM-74C	AAM
9-10	CVW-7	AQM-37C BQM-34S QF-86	AAM
9-10	VAW-121		LINK-11
9-13	USS BOSTON USS PHILADELPHIA	SUBMARINE	ASW
14-15	CVW-7	QST-35	ASO

INNER RANGE

Date	Exercise Unit	Type Exercise
1-12	USS IOWA	NGFS
1	FRENCH BILAT	Maneuvers
1-2,14	VC-8	AGO
2-12,14-16	CVW-1	AGO
4	156 TFG (USAF)	AGO
4	USS KING	NGFS
6	USS WISCONSIN	NGFS

Date	Exercise Unit	Type Exercise
7	USS RICHARD E. BYRD	NGFS
8-10,12-16	CVW-7	AGO
8-9	USS JOHN KING	NGFS
8-9,11	USS LAWRENCE	NGFS
12,15-16	CVW-7	MINEX
17-21,27, 29-31	AFWTF	RNG REFURBISHMENT

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
2	USS FLYING FISH	WSAT
4-8	VS-32	TORPEX/PACER
5-7	HS-11	TORPEX/PACER
7	USS JOHN KING	SSRNM
8	USS RICHARD E. BYRD	SSRNM
9-13	USS BOSTON USS PHILIDELPHIA	PROFICIENCY
14-16	VP-24	TORPEX/PACER
15-16	VP-56	TORPEX/PACER
17	VP-62 VP-92	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-2	USS IOWA	EWX
1,3	USS HARRY E. YARNELL	EWX
2-16	CVW-1	EWX
2	USS STUMP	EWX

Date	Exercise Unit	Type Exercise
5	USS THOMAS S. GATES	NJS
5	USS THOMAS S. GATES	EWX
5-6	USS WISCONSIN	EWX
6-12	USS AMERICA	EWX
6,9	USS LAWRENCE	EWX
6	USS JOHN KING	EWX
7,9	USS RICHARD E. BYRD	EWX
7	USS KING	NJS
7-9	USS KING	EWX
7	USS MISSISSIPPI	EWX
7	CDS-2	SPECIAL PROJECT
10-11	USS BUTTE	EWX
12	USS SEMMES	EWX
13-14	CVW-7	EWX
14,16	VP-24	EWX
15	VP-5	EWX
15-16	VP-56	EWX
16	USS BOWEN	EWX

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1989

BACKGROUND

The paramount and most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target and maximum hits per missiles launched cannot be accomplished in classrooms. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment that can be provided. The unique capabilities of the Atlantic Fleet Weapons Training Facility (AFWTF) provide such an environment.

To achieve these goals we have four functional ranges: the Outer Range, Inner Range, Underwater Tracking Range, and Electronic Warfare Range. It should be remembered that the Electronic Warfare Range overlaps and services all of the ranges.

MISSION

The mission of the AFWTF is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test and evaluation of weapons systems. The mission is divided into the following functional areas for implementation:

a. Schedule and coordinate range activity and services.

b. Determine and enforce range safety criteria.

c. Provide target and range control functions for single and multi-ship/unit exercises, tests, and operational test and evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale, multi-ship fleet missile exercises.

e. Provide secure/voice communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercise/test for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

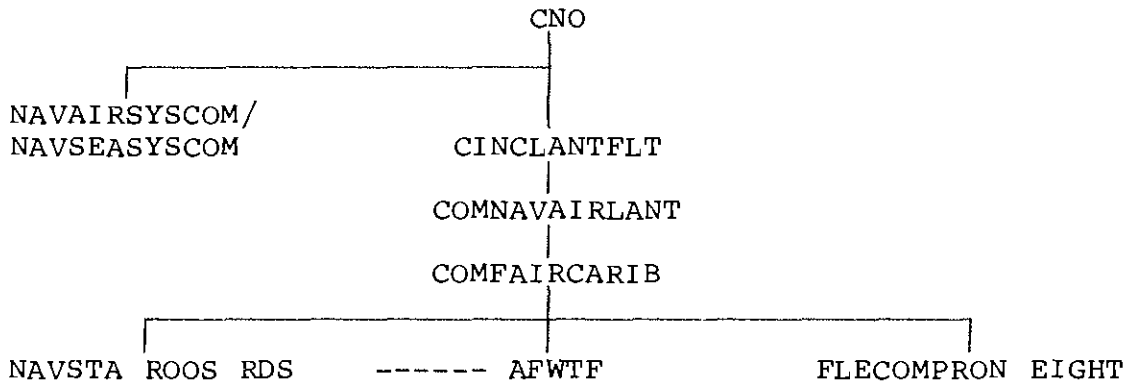
h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for Fleet Composite Squadron Eight for range support services.

j. Coordinate ship, submarine, and aircraft transits through the Puerto Rican operating areas.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander, Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander, Fleet Air Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are depicted in the following simplified diagram:



AFWTF is comprised of 83 military and 43 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are accomplished by contractor personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. GENERAL. The Outer Range provides support for all surface-to-surface, air-to-air, surface-to-air missile firings. The Outer Range consists of two open ocean ranges designated the alpha or north range and bravo or south range. The alpha range is an area of 120,000 square miles while the bravo range is 74,000 square miles. The Outer Range utilizes several sites within the Roosevelt Roads complex, including the Range Operations Center (ROC), and the target control sites at Pico Del Este, Puerto Rico and St. Thomas in the U.S. Virgin Islands.

The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets. During a mission, all drones are remotely controlled from the ROC utilizing data received from the Pico Del Este or St. Thomas target control sites. The system used for this control and data handling is the Remote Data and Drone Control System (RDDCS). The purpose of the RDDCS is to supply the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site provides positional data and drone telemetry information which is transmitted along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars providing additional positional data are located at Roosevelt Roads, Vieques, St. Thomas, and St. Croix. After processing the data, the computer routes it to the appropriate instrumentation to display radar/command/telemetry and to the drone control plotters. These target control systems are used to provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, and HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system that is used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico Del Este and the ROC.

2. AERIAL TARGETS. The types of drone aircraft used at AFWTF are the subsonic BQM-34S, the supersonic BQM-34E/T, the subsonic BQM-74C, and the supersonic AQM-37C. The BQM-34S drone is flown at altitudes between 30 and 45,000 feet at speeds between 300 and 500 knots. Presently the ROC has the capability to control a maximum of six BQM-34S/BQM-74C drones simultaneously. After the drone aircraft is launched, it is flown to the specified range where it flies along a predetermined hot leg. It is during this period that surface units engage in firing/tracking or simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data pertaining to amount of fuel remaining, speed, altitude, angle of climb, etc. When the mission is completed, the drone is dropped by parachute into a sea recovery area. A specially rigged helicopter from VC-8 is used for recovery. Scoring is evaluated by the Fleet Analysis Center (FLTAC) field office on the basis of a calculated miss-distance.

a. The BQM-34S and BQM-34E/T provide realistic targets for both surface-air and air-air missile exercises. Various augmentation devices may be provided to meet specific operational test requirements.

b. The BQM-74C is used much the same but has very limited space for augmentation.

c. The AQM-37C is normally used for surface-to-air or air-to-air live warhead missile operations.

d. The TDU-34 towed target is a high performance, light-weight target designed for use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. It is towed by TA-4J aircraft from VC-8.

3. Surface Targets.

a. The QST-35 SEPTAR is a 56 foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for SPAR. The boat is capable of remote control out to approximately 50 NM from AFWTF's control stations.

(1) Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. Surface-surface gunfire utilizing a 10 mil offset is authorized if the target is so allocated.

(2) Air-to-surface gunfire, missiles and bombs can be targeted against a SPAR streamed at approximately 1,000 feet.

(3) SEPTARS are normally operated within AFWTF's bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE AND AIR TO GROUND TARGETS

1. General. The Inner Range consists of one tri-purpose target complex and the water areas associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, air-to-ground close air support range, (two air-to-ground bull's-eye targets, a strafing range, a mock airfield, other limited tactical targets utilized for air-to-ground ordnance drops and close air support training), mining range and an artillery range.

b. Vieques is a hilly island approximately 18 miles long and four miles wide. It is located seven miles southeast of Roosevelt Roads. The eastern section of Vieques is devoted to landing beaches, maneuver areas, small arms and crew-served weapons range. Southern beaches and adjacent waters are used by amphibious forces. The eastern tip of Vieques is used for live fire air-to-ground and naval gunfire exercises.

2. Vieques Naval Gunfire Target Complex.

a. General. The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias, a hill on the western side of Bahia Salina Del Sur, and the impact area where the direct/point fire targets and the area targets are located.

3. Vieques Air-to-Ground Target Complex.

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques Island. The targets are controlled from an observation post located on top of Cerro Matias Hill just west of the target area.

(1) Target Location and Description

(a) Air Impact Area and Close Air Support Zone. Located on the eastern end of Vieques Island. The terrain features of the AIA and CAS zone are quite varied and range from flat, level ground at sea level to hills and ridge-lines up to about 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain for the greatest realism. The CAS targets consist of a realistic mock-up of an airstrip, fuel farm, moter pool, ammo dump, SAM sites, and numerous smaller targets of opportunity. All targets in the CAS zone are stationary with the exception of the mobile land target, which normally operates in the airstrip north east of target one. These targets are radio controlled, and available during daylight hours only, for use with MK-76 bombs and 2.75 (inert ordnance) rockets.

(b) Target One is a bull's-eye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Laross T.V. bomb scoring system.

(c) Strafe Target. The targets are scored by the Delmar acoustic scoring system.

(d) Target Two is a bull's-eye about two statute miles west of target one. The target consists of three rings of tires. The first ring is 100 feet in diameter, the second ring is 200 feet in diameter, and the third ring is 300 feet in diameter. The target is scored by the Laross T.V. bomb scoring system.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range located in deep water off the western shore of St. Croix, is utilized for accurate three-dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square nautical miles. Water depths vary from 200 fathoms at the eastern or shoreward edge to over 500 fathoms at the outer extremity. Operations on the underwater range are controlled from a shore complex located on northwestern St. Croix.

During periods of operations a military range control officer from AFWTF is present. Shops for instrument maintenance and torpedo preparation are located at Roosevelt Roads as are the administrative offices for the range.

2. Services available. Operations may involve submarine, surface, or air units, with or without weapons, and may be either single ship or coordinated multi-ship ASW exercises. The Underwater Tracking Range provides precision tracking data obtained via optical, in-water three-dimensional, and radar tracking systems. A take-home, video taped product called Post-Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. Pacer provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training product.

ELECTRONIC WARFARE RANGE

1. General. The Electronic Warfare Range (EWR) consists of four Threat Platform Simulator (TPS) sites and a Noise Jammer Simulator (NJS). Sites are located at Pico del Este in Puerto Rico, Mt. Pirata on Vieques Island and St. Georges Hill on St. Croix, U.S. Virgin Islands.

a. The EWR provides threat simulations to fleet users and provides a multi-axis threat arena for EW training.

b. The NJS provides a realistic jamming environment to train radar operators in electronic counter measures (ECM) and electronic counter counter measures (ECCM).

c. The EWR also has an Outboard Stimulator (OBS) which provides training to communications operators worldwide.

2. The addition of a threat radar simulator in FY90 will further enhance the EWR capability.

AFWTF CHRONOLOGY

JANUARY 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active seventeen (17) days this report period. Operational services were provided to thirteen (13) U.S. surface units, five (5) foreign surface units and two (2) U.S. subsurface units.

b. Two (2) U.S. subsurface units conducted six (6) days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules Radar.

c. A total of thirteen (13) U.S. surface units and four (4) foreign surface units conducted eighteen (18) days of Link-11 exercises.

d. The units that were supported for MEF-2-89 are: the USS ANTRIM, USS AQUILA, USS CONOLLY, USS ELROD, USS GALLERY, USS MONONGAHELA, USS TAURUS and the USS UNDERWOOD.

e. Commander Standing Naval Forces Atlantic (CSNFL) units supported were: the USS PREBLE, USS IOWA, USS JACK, FGS LUTJENS, HMS SCYLLA, HMCS MARGAREE and the HNLMS BLOYS VAN TRESLONG.

f. Four (4) days of surface-to-surface gun exercises were conducted for seven (7) U.S. surface units using QST-35 Septars this report period.

g. A total of three (3) BQM-34's, two (2) BQM-74C's and twelve (12) TDU's were launched in support of surface-to-air missile and surface-to-air gun exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active fifteen (15) days during this report period. Operational services were provided to ten (10) U.S. surface units, six (6) U.S. air units, three (3) foreign surface units and one (1) U.S. ground unit.

b. The Inner Range supported eleven (11) days of NGFS, nine (9) days of air-to-ground and two (2) days of mine exercises.

c. CVW-7 dropped thirty-two (32) mines during exercises this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active fifteen (15) days this report period. Operational services were provided to four (4) U.S. surface units, five (5) U.S. air units, eight (8) foreign surface units, the CANCARIB-89 helos and two (2) U.S. subsurface units.

b. Four (4) U.S. air units and six (6) foreign surface units conducted seven (7) days of PACER exercises this report period.

c. One (1) U.S. surface unit conducted one (1) day of Surface-Ship-Radiation-Noise-Measurement (SSRNM) exercise this report period.

d. Twenty-six (26) MK-30 targets were launched this report period. VC-8 recovered two (2) MK-30 targets.

e. Thirty-two (32) MK-46's, four (4) MK-48's and three (3) MK-57's were fired this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active seventeen (17) days this period. Operational services were provided to nineteen (19) U.S. surface units, seven (7) U.S. air units and two (2) foreign surface units.

b. Three (3) TPS's provided 150.6 hours of Electronic Warfare Support and the Noise Jammer site provided 11.6 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during January 1989.

Vessels	Type Exercise	Days
ASSP	MINE RECOVERY	5
USSC		0
TRB	TORPEX LOGISTICS PERSONNEL TRANSFERS PROFICIENCY	24
QST-35	DIVE SAFETY LOGISTICS SSG	11

b. The Marine Ocean Engineering (MOE) group launched twenty-six (26) MK-30's. Twenty-four (24) MK-30's, thirty-two (32) MK-46's, four (4) MK-48's, three (3) MK-57's, forty-nine (49) mines and one (1) BQM-74C were recovered by MOE crews.

FEBRUARY 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty-one (21) days this report period. Operational services were provided to sixteen (16) U.S. surface units, five (5) U.S. air units, four (4) U.S. subsurface units and five (5) foreign surface units.

b. A total of twelve (12) U.S. surface units, two (2) U.S. air units, one (1) U.S. subsurface unit and one (1) foreign surface unit conducted fourteen (14) days of Link-11 exercises.

c. Two (2) U.S. subsurface units conducted three (3) days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

d. Six (6) days of surface-to-surface gun exercises using QST-35 Septars were conducted for nine (9) U.S. surface units and two (2) foreign surface units.

e. A total of six (6) BQM-34S's, six (6) BQM-74C's and eight (8) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-three (23) days during this report period. Operational services were provided to twelve (12) U.S. surface units, eight (8) U.S. air units, three (3) U.S. ground units and six (6) foreign surface units.

b. The Inner Range supported seventeen (17) days of NGFS, twenty (20) days of air-to-ground, three (3) days of ground maneuvers and five (5) days of mine exercises.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty (20) days this report period. Operational services were provided to fifteen (15) U.S. surface units, four (4) U.S. air units, five (5) U.S. subsurface units and one (1) foreign subsurface unit.

b. Three (3) U.S. air units, nine (9) U.S. surface units and one (1) foreign surface unit conducted eight (8) days of PACER exercises this report period.

c. Five (5) U.S. surface units and one (1) foreign surface unit conducted six (6) days of SSRNM exercises this report period.

d. A total of twenty-three (23) MK-30 targets were launched this report period.

e. VC-8 recovered three (3) MK-30 targets and one (1) MK-48 torpedo.

f. Forty-one (41) MK-46's, nine (9) MK-48's, three (3) MK-57's and two (2) SHAPES were fired this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty-five (25) days this report period. Operational services were provided to seventeen (17) U.S. surface units, four (4) U.S. air units, two (2) U.S. subsurface units, seven (7) foreign surface units and one (1) USCG unit.

b. Four (4) TPS's provided 334.6 hours of Electronic Warfare Support and the Noise Jammer site provided 28.7 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during February 1989.

Vessels	Type Exercise	Days
ASSP	MINE RECOVERY	4
USSC	PACER SSRNM PERSONNEL TRANSFERS	17
TRB	MK-30 TRACKEX TORPEX OTH	25
QST-35(SEPTAR)	DIVE SAFETY SSG TRACKEX	14
PATROL BOATS	DRONE STANDBY	3
YTM-404	SSG GORST IMPLANT	8

b. The Marine Ocean Engineering (MOE) group launched twenty-three (23) MK-30's this report period. Eight (8) MK-48's, two (2) Totems, thirty-six (36) MK-46's, twenty (20) MK-30's, thirty-one (31) mines and three (3) MK-47's were recovered by MOE crews. VC-8 recovered three (3) MK-30's and one (1) MK-48.

MARCH 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active fourteen (14) days this report period. Operational services were provided to three (3) U.S. surface units, one (1) U.S. air unit, three (3) U.S. subsurface units and two (2) foreign surface units.

b. Three (3) U.S. subsurface units conducted four (4) days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. One (1) U.S. surface unit and one (1) U.S. air unit conducted five (5) days of Link-11 exercises this report period.

d. Three (3) U.S. surface units conducted five (5) days of surface tracking and surface-to-surface gun exercises using five (5) QST-35 Septars this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active thirteen (13) days during this report period. Operational services were provided to four (4) U.S. surface units, five (5) U.S. air units and one (1) USCG unit.

b. The Inner Range supported six (6) days of NGFS, ten (10) days of air-to-ground and three (3) days of mine exercises this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active nineteen (19) days during this report period. Operational services were provided to five (5) U.S. surface units, seven (7) U.S. air units and four (4) U.S. subsurface units.

b. Five (5) U.S. air units and two (2) U.S. surface units conducted seven (7) days of PACER exercises this report period.

c. Three (3) U.S. surface units conducted three (3) days of SSRNM exercises this report period.

d. A total of thirty-nine (39) MK-30's were launched in support of torpedo proficiency and WSAT exercises this report period.

e. Twenty-seven (27) MK-46's and twenty-five (25) MK-48's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty-one (21) days this report period. Operational services were provided to nine (9) U.S. surface units, five (5) U.S. air units, two (2) U.S. subsurface units and one (1) foreign surface unit.

b. Four (4) TPS's provided 194.9 hours of Electronic Warfare Support and the Noise Jammer site provided 5.0 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during March 1989.

Vessels	Type Exercise	Days
ASSP	MINE RECOVERY	2
USSC	PERSONNEL TRANSFERS SSRNM SATS III DEPLOYMENT PACER	6
TRB	PROFICIENCY TORPEX WSAT PINGER INSTALLATION	24
QST-35(SEPTAR)	SSG TRACKEX DIVE-SAFETY LOGISTICS	9
PATROL BOATS	WSAT	1
YTM-404	SSG	1

b. The Marine Ocean Engineering (MOE) group launched thirty (30) MK-30 targets this report period. Twenty-seven (27) MK-46's, twenty-five (25) MK-48's, forty-one (41) mines and thirty-nine (39) MK-30's were recovered by the MOE crew.

APRIL 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty-five (25) days this report period. Operational services were provided to: twenty (20) U.S. surface units, six (6) U.S. air units, one (1) U.S. subsurface unit and three (3) foreign surface units.

b. One (1) U.S. subsurface unit conducted one (1) day of anti-submarine-warfare exercise using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Three (3) U.S. air units and ten (10) U.S. surface units conducted eighteen (18) days of Link-11 exercises.

d. Thirteen (13) U.S. surface units conducted ten (10) days of surface-to-surface gunnery and one (1) day of surface tracking using eleven (11) QST-35 Septars. One (1) U.S. air unit conducted one (1) day of air-to-surface missile exercise using a QST-35 Septar.

e. A total of seven (7) BQM-74C's, five (5) BQM-34S's and twelve (12) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-seven (27) days during this report period. Operational services were provided to: eleven (11) U.S. surface units, six (6) U.S. air units, three (3) U.S. ground units and three (3) foreign surface units.

b. Twenty (20) days of NGFS, sixteen (16) days of air-to-ground, four (4) days of artillery firing, three (3) days of spotex and one (1) day of mine exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active nineteen (19) days this report period. Operational services were provided to: seventeen (17) U.S. surface units, seven (7) U.S. air units, three (3) U.S. subsurface units and two (2) foreign air units.

b. Thirteen (13) U.S. surface units and three (3) U.S. air units conducted thirteen (13) days of PACER exercises this report period.

c. Five (5) U.S. surface units conducted five (5) days of Surface Ship Radiated Noise Measurement Trials (SSRNM) exercises this report period.

d. A total of thirteen (13) MK-30 targets were launched in support of torpedo and proficiency exercises this report period.

e. Thirty-seven (37) MK-46's, six (6) MK-48's and five (5) MK-57's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty-three (23) days this report period. Operational services were provided to: thirteen (13) U.S. surface units and six (6) U.S. air units.

b. Four (4) TPS's provided 254.9 hours of Electronic Warfare Support and the Noise Jammer site provided 8.5 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during April 1989.

Vessels	Type Exercise	Days
ASSP		0
USSC	PACER SSRNM TARGET DEPLOYMENT	15
TRB	TORPEX	17
QST-35	TRACKEX SSG RANGE TESTS	12
PATROL BOATS	DRONE STANDBY	3
YTM-404	SSG QST HULK TOW HULK TOW	12

b. The Marine Ocean Engineering (MOE) group launched thirteen (13) MK-30's this report period. Nine (9) MK-48's, thirteen (13) MK-30's and thirty-four (34) MK-46's were recovered by MOE crews.

MAY 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty-eight (28) days this report period. Operational services were provided to: fourteen (14) U.S. surface units, six (6) U.S. air units, six (6) U.S. subsurface units, seven (7) foreign surface units, PMTC, USCG and three (3) CNO projects.

b. Six (6) U.S. subsurface units conducted eleven (11) days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Outer Range provided operational control support to the U.S. Coast Guard for a period of eight (8) days. Radar display, UHF and HF communications support were provided during this period.

d. Eleven (11) U.S. surface units, two (2) U.S. air units and four (4) foreign surface units conducted nineteen (19) days of Link-11 exercises this report period.

e. A total of four (4) QST-35 Septars were launched in support of two (2) surface-to-surface gun exercises and one (1) over the horizon (OTH) target exercise.

f. PMTC personnel utilized the ITCS system for four (4) days in support of three (3) QF-86 and three (3) QF-4 test flights.

g. Eleven (11) TDU's were launched by VC-8 in support of surface-to-air gunnery and surface-to-air missile exercises.

e. A total of fifteen (15) BQM-74C's, nineteen (19) AQM-37C's, two (2) BQM-34S's, two (2) BQM-34T's and three (3) QF86's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-one (21) days during this report period. Operational services were provided to: seven (7) U.S. surface units, six (6) U.S. air units, one (1) U.S. ground unit, one (1) foreign surface unit and one (1) foreign ground unit.

b. Six (6) days of NGFS, twelve (12) days of air to ground, six (6) days of mine exercises and three (3) days of supporting arms exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty-eight (28) days this report period. Operational services were provided to: six (6) U.S. surface units, six (6) U.S. subsurface units, seven (7) U.S. air units, four (4) foreign surface units and one (1) foreign air unit.

b. Two (2) U.S. surface units, five (5) U.S. air units and four (4) foreign surface units conducted eight (8) days of PACER exercises this report period.

c. One (1) U.S. surface unit conducted one (1) day of Surface Ship Radiated Noise Measurement exercise this report period.

d. A total of thirty-six (36) MK-30 targets were launched in support of torpedo and proficiency exercises this report period.

e. Thirty-six (36) MK-46's, eighty-one (81) MK-48's, three (3) SHAPES, one (1) TOTEM and two (2) MK-37's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty-four (24) days this report period. Operational services were provided to: fourteen (14) U.S. surface units, five (5) U.S. air units, two (2) U.S. subsurface units and five (5) foreign surface units.

b. Four (4) TPS's provided 281.0 hours of Electronic Warfare Support and the Noise Jammer site provided 27.5 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during May 1989.

Vessels	Type Exercise	Days
ASSP		0
USSC	SHAPE RECOVERY TARGET DEPLOYMENT PACER SUPPORT WSAT SSRNM	9
TRB	TORPEX PROFICIENCY ICSE SHAPE RECOVERY PCO OPS QST-35 TOWING OTH	31
QST-35	ICSE DIVE SAFETY ASM SSG LOGISTICS	11
PATROL BOATS	DRONE STANDBY WSAT	5
YTM	QST-35 GORST IMPLANT SSG	10
YFU-81	MINE RECOVERY MK-48 BACKHALL PCO OPS LOGISTICS	14

b. The Marine Ocean Engineering (MOE) group launched thirty-six (36) MK-30 targets this report period. Seventy-six (76) MK-48's, thirty-five (35) MK-46's, thirty-six (36) MK-30's, three (3) SHAPES, one (1) TOTEM and twenty-three (23) mines were recovered by MOE crews.

JUNE 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twelve (12) days this report period. Operational services were provided to: three (3) U.S. surface units, one (1) U.S. ground unit, two (2) foreign surface units and the USCG.

b. Two (2) U.S. surface units, one (1) foreign surface unit and the USCG conducted ten (10) days of Link-11 exercises this report period.

c. One (1) BQM-74C was launched in support of a surface-to-air missile exercise this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active eleven (11) days during this report period. Operational services were provided to: three (3) U.S. surface units, three (3) U.S. air units and two (2) U.S ground units.

b. Six (6) days of NGFS and two (2) days of air-to-ground exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active eleven (11) days this report period. Operational services were provided to: two (2) U.S. surface units, nine (9) U.S. air units and one (1) U.S. subsurface unit.

b. Seven (7) U.S. air units conducted five (5) days of PACER exercises this report period.

c. One (1) U.S. surface unit conducted one (1) day of Surface Ship Radiated Noise Measurement (SSRNM) exercise this report period.

d. A total of fifteen (15) MK-30 targets were launched in support of torpedo and WSAT exercises this report period.

e. Twenty-eight (28) MK-46's and four (4) MK-48's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active fourteen (14) days this report period. Operational services were provided to: three (3) U.S. surface units, four (4) U.S. air units, one (1) U.S. subsurface unit, one (1) U.S. ground unit and one (1) foreign surface unit.

b. Two (2) TPS's provided 95.5 hours of Electronic Warfare Support and the Outboard stimulator was used 24.0 hours this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during June 1989.

Vessel	Type Exercises	Days
ASSP		0
USSC	WSAT SSRNM	3
TRB	WSAT TORPEX LOGISTICS	13
QST-35	RADIO CHECKS LOGISTICS HARPOONEX	4
PATROL BOATS	WSAT DRONE STANDBY	3
YTM	SSG	5
YFU-81	MINE IMPLANT MINE RECOVERY LOGISTICS	8

b. The Marine Ocean Engineering (MOE) group launched fifteen (15) MK-30 targets this report period. Twenty-four (24) MK-46's, four (4) MK-48's, five (5) mines and fifteen (15) MK-30's were recovered by the MOE crews.

JULY 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active thirteen (13) days this report period. Operational services were provided to: six (6) U.S. surface units, three (3) U.S. air units, one (1) foreign surface unit and AFWTF.

b. Three (3) U.S. surface units conducted six (6) days of Link-11 exercises this report period.

c. Five (5) QST-35 Septars were launched in support of four (4) surface-to-surface gunnery and one (1) air-to-surface missile exercises this report period.

d. A total of one (1) BQM-34S and two (2) AQM-37C's were launched in support of air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-three (23) days during this report period. Operational services were provided to: six (6) U.S. surface units, five (5) U.S. air units, four (4) U.S. ground units and AFWTF.

b. The AFWTF team conducted its biannual range refurbishment with support from the EOD Group Two Ordnance Demolition team.

c. Thirteen (13) days of NGFS, thirteen (13) days of air-to-ground, three (3) days of mine and four (4) days of supporting arms exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active ten (10) days this report period. Operational services were provided to: four (4) U.S. surface units, one (1) U.S. air unit, one (1) foreign surface unit and AFWTF.

b. One (1) U.S. air unit, two (2) U.S. surface units and one (1) foreign surface unit conducted three (3) days of PACER exercises this report period.

c. One (1) U.S. surface unit and one (1) foreign surface unit conducted two (2) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

d. A total of seven (7) MK-30 targets were launched in support of torpedo exercises and Range tracking tests this report period.

e. Ten (10) MK-46's were fired on the Underwater Tracking Range this period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active eighteen (18) days this report period. Operational services were provided to: seven (7) U.S. surface units, two (2) U.S. air units, one (1) U.S. subsurface unit, one (1) foreign surface unit and one (1) USCG unit.

b. Three (3) TPS's provided 128.6 hours of Electronic Warfare Support and the Noise Jammer site provided 19.6 hours of support this report period.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during July 1989.

Vessels	Type Exercise	Days
ASSP		0
USSC		0
TRB	LOGISTICS TRACKEX RANGE CHECKOUT TORPEX	12
QST-35	SSG DIVE SAFETY LOGISTICS	8
PATROL BOATS		0
YTM		0
YFU-81	MINE RECOVERY LOGISTICS	3

b. The Marine Ocean Engineering (MOE) group launched seven (7) MK-30 targets this report period. Nine (9) MK-46's, seven (7) MK-30 targets and twenty-two (22) mines were recovered by the MOE crews.

AUGUST 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active twenty (20) days this report period. Operational services were provided to: twenty-three (23) U.S. surface units, four (4) U.S. air units, three (3) U.S. subsurface units and one (1) foreign surface unit.

b. Three (3) U.S. subsurface units conducted four (4) days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Ten (10) U.S. surface units and one (1) foreign surface unit conducted five (5) days of Link-11 exercises.

d. A total of three (3) BQM-34S's, five (5) BQM-74C's and five (5) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twenty-five (25) days during this report period. Operational services were provided to: ten (10) U.S. surface units, eight (8) U.S. air units, one (1) U.S. ground unit and one (1) foreign surface unit.

b. Fourteen (14) days of NGFS, sixteen (16) days of air-to-ground, three (3) days of mine and two (2) days of supporting arms exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active twenty-seven (27) days this report period. Operational services were provided to: five (5) U.S. surface units, nine (9) U.S. air units, five (5) U.S. subsurface units, one (1) foreign surface unit and AFWTF.

b. One (1) U.S. surface unit and seven (7) U.S. air units conducted seven (7) days of PACER exercises this report period.

c. Two (2) U.S. surface units conducted two (2) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

d. A total of twenty-nine (29) MK-30 targets were launched in support of torpedo, proficiency and WSAT exercises this report period.

e. Forty-eight (48) MK-46's, twenty-four (24) MK-48's, one (1) REX Torpedo, four (4) SHAPES, one (1) TOTEM and one (1) EHCTV were fired at the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twenty-three (23) days this report period. Operational services were provided to: nine (9) U.S. surface units, six (6) U.S. air units, one (1) U.S. subsurface unit, one (1) foreign surface unit, COMPHIBRON 6 and CINCLANTFLT.

b. Three (3) TPS's provided 172.1 hours of Electronic Warfare Support and the Noise Jammer site provided 11.7 hours of support this report period.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 75.0 hours of training to multiple surface and shore based units.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENTS

a. The O&M Marine Ocean Engineering (MOE) group provided the following support services during August 1989.

b. The Marine Ocean Engineering (MOE) group launched twenty-nine (29) MK-30 targets this report period. Forty-eight (48) MK-46's, twenty-three (23) MK-48's, seventy-eight (78) mines and twenty-nine (29) MK-30's were recovered by MOE.

SEPTEMBER 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active fifteen (15) days this report period. Operational support services were provided to: fifteen (15) U.S. surface units, two (2) U.S. air units and three (3) U.S. subsurface units.

b. Two (2) U.S. air units conducted two (2) days of air-to-air missile exercises.

c. Eight (8) U.S. surface units conducted seven (7) days of surface-to-surface gunnery exercises.

d. A total of two (2) BQM-74C's, three (3) AQM-37C's, one (1) BQM-34T and one (1) BQM-34S were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active fourteen (14) days this report period. Operational services were provided to: thirteen (13) U.S. surface units, five (5) U.S. air units and one (1) U.S. ground unit.

b. Eleven (11) days of NGFS, eleven (11) days of air-to-ground, two (2) days of mine exercises and one (1) day of supporting arms were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active fifteen (15) days this report period. Operational support services were provided to: nine (9) U.S. surface units, two (2) U.S. air units and three (3) U.S. subsurface units.

b. Seven (7) U.S. surface units conducted seven (7) days of Surface Ship Noise Measurement (SSRNM) exercises.

b. Six (6) U.S. surface units conducted five (5) days of PACER exercises this report period.

c. Seven (7) MK-30 targets were launched in support of torpedo and proficiency exercises this report period.

d. A total of twenty-eight (28) MK-46's and eleven (11) MK-48's were fired at the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active twelve (12) days this report period. Operational support services were provided to: twelve (12) U.S. surface units, one (1) U.S. air unit and COMNAVAIRLANT.

b. Four (4) TPS's provided 217.2 hours of Electronic Warfare Support and the Noise Jammer site provided 7.7 hours of support this report period.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 48.0 hours of training to multiple surface and shore based units.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The TRB crew's launched seven (7) MK-30 targets this report period. Twenty-eight (28) MK-46's, eleven (11) MK-48's and seven (7) MK-30's were recovered by the MOE crews.

OCTOBER 1989

1. OUTER RANGE OPERATIONAL SUPPORT

"THERE WAS NO ACTIVITY IN THE OUTER RANGE IN OCTOBER 1989."

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active six (6) days this report period. Operational services were provided to: one (1) U.S. surface unit and one (1) U.S. air unit.

b. A total of one (1) day of NGFS and five (5) days of air-to-ground exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active ten (10) days this report period. Operational support services were provided to: two (2) U.S. surface units and one (1) foreign subsurface unit.

b. Two (2) U.S. surface units conducted two (2) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

c. VC-8 launched three (3) MK-30 targets in support of WSAT exercises this report period.

d. Eight (8) Mk-48's and four (4) MK-37's were fired on the Underwater Tracking Range this period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active four (4) days this report period. Operational services were provided to: CINCLANTFLT.

b. The AN/FSQ-154 Outboard Stimulator (OBS) provided 48.0 hours of training to multiple surface and shore based units.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENT

a. The Marine Ocean Engineering (MOE) group launched three (3) MK-30's this report period. Eight (8) MK-48's and four (4) MK-37's were fired and recovered this period.

NOVEMBER 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active seventeen (17) days this report period. Operational services were provided to: two (2) U.S. surface units, one (1) U.S. air unit, two (2) foreign surface units, PMTC and AFWTF.

b. One (1) U.S. surface unit conducted one (1) day of anti-submarine-warfare exercise using the FPS-67 surveillance radar.

c. Two (2) U.S. surface units and one (1) U.S. air unit conducted six (6) days of Link-11 exercises.

d. A total of two (2) BQM-74C's, ten (10) BQM-34S's and nine (9) AQM-37C's were launched in support of surface-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active fifteen (15) days during this report period. Operational services were provided to: five (5) U.S. surface units, two (2) U.S. air units, three (3) U.S. ground units, (2) foreign ground units and one (1) foreign air unit.

b. Eight (8) days of NGFS, four (4) days of air-to-ground, five (5) days of supporting arms and one (1) day of mine exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active seventeen (17) days this report period. Operational services were provided to: three (3) U.S. surface units, eight (8) U.S. air units, one (1) foreign surface unit and one (1) foreign subsurface unit.

b. Three (3) U.S. surface units conducted three (3) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

c. A total of fourteen (14) MK-30 targets were launched in support of TORPEX, WSAT and proficiency exercises. Seven (7) MK-30 targets were launched by VC-8.

d. Twenty-six (26) MK-46's and four (4) MK-48's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active nineteen (19) days this report period. Operational services were provided to: five (5) U.S. air units and CINCLANTFLT.

b. One (1) TPS provided 59.3 hours of Electronic Warfare Support this report period.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 120.0 hours of training to multiple surface and shore based units.

5. NON-OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENTS

a. The Marine Ocean Engineering (MOE) group launched seven (7) MK-30 targets this report period. Twenty-six (26) MK-46's, four (4) MK-48's and fourteen (14) MK-30's were recovered by MOE.

DECEMBER 1989

1. OUTER RANGE OPERATIONAL SUPPORT

a. The Outer Range was active fifteen (15) days this report period. Operational services were provided to: eleven (11) U.S. surface units, one (1) U.S. air unit and two (2) U.S. subsurface units.

b. Two (2) U.S. subsurface units conducted six (6) days of anti-submarine-warfare exercises using the FPS-67 surveillance radar.

c. One (1) U.S. surface unit conducted two (2) days of Link-11 exercises this report period.

d. A total of five (5) BQM-34S's, eight (8) BQM-74C's and ten (10) AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises this report period.

2. INNER RANGE OPERATIONAL SUPPORT

a. The Inner Range was active twelve (12) days this report period. Operational services were provided to: seven (7) U.S. surface units, three (3) U.S. air units and one (1) U.S. ground unit.

b. Seven (7) days of NGFS, five (5) days of air-to-ground, three (3) days of supporting arms and one (1) day of mine exercises were supported this report period.

3. UNDERWATER TRACKING RANGE OPERATIONAL SUPPORT

a. The Underwater Tracking Range was active nineteen (19) days this report period. Operational services were provided to: eight (8) U.S. surface units, nine (9) U.S. air units and two (2) U.S. subsurface units.

b. Three (3) U.S. surface units conducted five (5) days of PACER exercises this report period.

c. Four (4) U.S. surface units conducted four (4) days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of fifteen (15) MK-30 targets were launched in support of torpedo and proficiency exercises this report period. Twelve (12) MK-30's were launched by VC-8.

e. A total of twenty-nine (29) MK-46's and nineteen (19) MK-48's were fired on the Underwater Tracking Range this report period.

4. ELECTRONIC WARFARE RANGE OPERATIONAL SUPPORT

a. The Electronic Warfare Range was active fifteen (15) days this report period. Operational services were provided to: eleven (11) U.S. surface units and CINCLANTFLT.

b. One (1) TPS provided 62.2 hours of Electronic Warfare Support this report period.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 9.0 hours of training to multiple surface and shore based units.

5. OPERATIONAL SUPPORT AND SIGNIFICANT ACHIEVEMENTS

a. The Marine Ocean Engineering (MOE) group launched three (3) MK-30's this report period. Nineteen (19) MK-48's, twenty-nine (29) MK-46's, twenty-eight (28) mines and thirteen (13) MK-30's were recovered by MOE.

RANGE UTILIZATION CHRONOLOGY

JANUARY 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
13,17-19	USS THORN		LINK-11
16,20	USS HARRY E. YARNELL		LINK-11
18-19	USS KLAKRING		LINK-11
19,24, 27-28, 30-31	CSNFL		LINK-11
21	USS ELROD USS UNDERWOOD	QST-35	SSG
21-22,24 26-28, 30-31	MEF 2-89		LINK-11
23,25	USS GALLERY	QST-35	SSG
23	HMCS ATHABASKAN		LINK-11
24-25	USS PREBLE		LINK-11
25	USS PREBLE	QST-35	SSG
25	HNLMS BLOYS VAN TRESLONG	TDU-34A	SAM/SAG
25	USS CONOLLY USS UNDERWOOD HNLMS BLOYS VAN TRESLONG		LINK-11
26	MEF 2-89	BQM-34S	SAM
26	USS CONOLLY USS PREBLE	TRB HULK	SLCM
26	CSNFL	BQM-74C	SAM
26	USS TAURUS USS GEMINI USS IOWA	QST-35	SSG

Date	Exercise Unit	Target	Type Exercise
26-31	COMSUBGRU SIX USS FLYING FISH	SUBMARINE MK-30	ASW
27,30	HMS SCYLLA	TDU-34A	SAM
28	HNLMS BLOYS VAN TRESLONG FGS LUETJENS	QST-35	SSG
27	USS NICHOLAS	QST-35	SSG

INNER RANGE

	Date	Exercise Unit	Type Exercise
JAN	10	VC-8	AGO
	16	VP-45	MINEX
	17-18	USS THORN	NGFS
	18	363-TFW	AGO
	18-21,27	USS THOMAS C. HART	NGFS
	19-20,22 24-26,31	156 TFG	AGO
	20	4-TFW	AGO
	21,29	USS CONOLLY	NGFS
	23	NSWU-4	MANEUVERS
	23	USS TAURUS	NGFS
	24-29	USS GALLERY	NGFS
	24,29	USS UNDERWOOD	NGFS
	24-27	USS IOWA	NGFS
	25	HMS MARGAREE	NGFS
	27-28	USS PREBLE	NGFS
	29	USS ELROD	NGFS
	30	FGS LUETGENS	NGFS

Date	Exercise Unit	Type Exercise
30	HNLMS BLOYS VAN TRESLONG	NGFS
31	VS-27	AGO/MINEX

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
JAN 9	VP-5	TORPEX/PACER
10-11,21	VP-45	TORPEX/PACER
14,21	VP-8	TORPEX/PACER
14	VP-93	TORPEX
19	USS THORN	PACER
19	USS HARRY E. YARNELL	SSRNM/ SENSOR TEST
19-20	USS THORN	TORPEX
21	VP-26	TORPEX/PACER
24	HMCS SAGUENAY HMCS ATHABASKAN HMCS PRESERVER	TORPEX/PACER
25-26	CANCARIB-89 HELOS	TORPEX
25	USS ANTRIM	TORPEX
26	HMCS MARGAREE HMCS ANNAPOLIS HMCS FRAZER	TORPEX/PACER
26-31	COMSUBGRU SIX USS FLYING FISH	PROFICIENCY
27	HNLMS BLOYS VAN TRESLONG HMS SCYLLA	TRACKEX

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
JAN 9	VP-5	EWX
10-11,21	VP-45	EWX
13	USS KLAKRING	EWX/NJS
16,20	USS HARRY E. YARNELL	EWX
17-19	USS THORN	EWX
18-20	USS THOMAS C. HART	EWX
18	363-TFW	EWX
20	4-TFW	EWX
21,24-26,28	MEF 2-89	EWX
21	VP-26 VP-8	EWX
23-25	CSNFL	NJS
23-25 27-28,30	CSNFL	EWX
23-24	HMCS ATHABASKAN HMCS SAGUENAY	EWX
26	MEF 2-89	NJS
30	VS-27	EWX
31	USS CLARK	EWX

FEBRUARY 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	COMSUBGRU 6	SUBMARINE	ASW
2	HMS AVENGER HNLMS PHILIPS VAN ALMONDE	TDU-34A	SAM/SAG
2-3	USS YORKTOWN		LINK-11
3	USS YORKTOWN	QST-35	SSG
6-7,13,21	USS CORAL SEA		LINK-11
6-7,9	CVW-6	QST-35	ASO
7-8	CVW-6	BQM-34S AQM-37C	AAM
8	HMCS PRESERVER HMCS ATHABASKAN	ROBOTX	SAM/SAG
8-9	VAW-126		LINK-11
8,10	HMCS ATHABASKAN		LINK-11
9	USS MISSISSIPPI USS PROVIDENCE	HULK	OTL
9,11	USS MISSISSIPPI		LINK-11
9,14	VAW-127		LINK-11
11	USS THOMAS S. GATES	AQM-37C BQM-34S	SAM
11	USS VIRGINIA USS KAUFFMAN	BQM-34S	SAM
11	USS JOHN KING USS MISSISSIPPI	AQM-37C	SAM
11	USS THOMAS S. GATES USS SAN JACINTO USS VIRGINIA USS KAUFFMAN USS FLATLEY		LINK-11

Date	Exercise Unit	Target	Type Exercise
12	HNLMS PHILIPS VAN ALMONDE	QST-35	SSG
12	USS KLAKRING	QST-35	SSG
13	USS MISSISSIPPI ARV GENERAL URDANETA USS SAN JACINTO	QST-35	SSG
14,17,20	CVW-13	AQM-37C BQM-34S	AAM
14	USS THOMAS S. GATES USS KAUFFMAN	QST-35	SSG
19	CVW-13	GORST	ASO
20	USS VIRGINIA USS JOHN KING	QST-35	SSG
21-23	USS SCOTT	TA-4 BQM-74C	TRKEX
21	USS JOHN L. HALL	BQM-74C	SAM
22	USS BLAKELY	QST-35	SSG
23-24	906 TFG	GORST	ASO
23-24	USS SHARK		ASW
24-27	USS SILVERSIDES		LINK-11
26-27	USS WAINWRIGHT USS NICHOLAS USS AMERICA USS SCOTT		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
1	VS-27	AGO
1-3	USS YORKTOWN	NGFS
2,4-7,14	156 TFG	AGO
2-4	USS JOHN HANCOCK	NGFS
3,5	USS NASSAU	NGFS

Date	Exercise Unit	Type Exercise
4-5	3/75 RGR 10TH MEB	MANEUVERS
4-5,22-23	VC-8	AGO
4,11	HMCS FRAZER	NGFS
4	HMS AVENGER	NGFS
4-5	HMM 264 HMM 365	AGO
4-9,14-16, 18-21	CVW-13	AGO
6-11,13-21	CVW-6	AGO
7,9,11, 15-16	CVW-13	MINEX
7,22	HMCS ATHABASKAN	NGFS
9	HMCS SAGUENAY	NGFS
10-11	HMCS GATINEAU	NGFS
11,14, 18-20,24	CVW-1	AGO
12,14-15	USS AYLWIN USS VALDEZ	NGFS
13	USS JOHN KING USS VIRGINIA	NGFS
14,16	USS MISSISSIPPI	NGFS
15	USS SAN JACINTO USS THOMAS S. GATES	NGFS
16	ARV GENERAL URDANETA	NGFS
22-23,26	USS WAINWRIGHT	NGFS
23-24	USS BLAKELY	NGFS
23	NMCB-74	MANEUVERS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
FEB 1	COMSUBGRU SIX USS FLYING FISH	PROFICIENCY
2	USS CLARK	SSRNM
3,7	HMCS OKANAGAN	SENSOR TEST
3	USS YORKTOWN	SSRNM
4	HMCS OKANAGAN HMCS ANNAPOLIS	ASW
5-6	HMCS FRAZER	ASW
6-7	HMCS OKANAGAN HMCS ST. CHARLES	TORPEX
6	HMCS GATINEAU	ASW
9,22	HMCS GATINEAU	TORPEX/PACER
11-15	USS ATLANTA	ASW
11	USS AYLWIN USS VALDEZ	TORPEX/PACER
12	USS JOHN KING USS FLATLEY USS VIRGINIA USS MISSISSIPPI	TORPEX/PACER
13	USS THOMAS S. GATES USS KAUFFMAN	TORPEX/PACER
14	USS SAN JACINTO USS KLAKRING	TORPEX
14	USS VIRGINIA	SSRNM
15	ARV GENERAL URDANETA	SSRNM
20	AFWTF USSC	SYSTEM LOADING TEST
21	USS JOSEPH HEWES	SSRNM
21	VP-24	TORPEX/PACER
22	HS-17	TORPEX

Date	Exercise Unit	Type Exercise
22	USS BLAKELY	SSRNM
23-24	USS SHARK	PROFICIENCY
25	USS SILVERSIDES	PROFICIENCY
25	USS WILLIAM S. SIMS	TORPEX/PACER
28	VP-5 VP-16	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
FEB 1-11	HMCS ATHABASKAN	EWX
1,3-10	HMCS SAGUENAY	EWX
1-3	HMS AVENGER	EWX/NJS
1-2	USS CLARK	EWX/NJS
2-3	USS YORKTOWN USS JOHN HANCOCK	EWX
4-5,7-9	HMCS FRAZER	EWX
4-5,7	HMCS ANNAPOLIS	EWX
5,7-13	HMCS GATINEAU	EWX
5	HMCS SAGUENAY HMCS ATHABASKAN	NJS
6-7,10,15	VAW 122	EWX
7,17	USS CORAL SEA	NJS
7	HMCS FRAZER	NJS
7,14,17	USS CORAL SEA	EWX
8	USCG ESCANABA	EWX/NJS
8,13-14	CVW-6	NJS
8-10,13-15	CVW-6	EWX
9-10	USS PROVIDENCE	EWX
11	USS AYLWIN	EWX

Date	Exercise Unit	Type Exercise
11-12	USS VALDEZ USS ATLANTA	EWX
12,14,16	USS MISSISSIPPI	EWX
12-13	USS JOHN KING USS VIRGINIA	EWX
12	USS FLATLEY USS BUTTE	EWX
13	HMCS GATINEAU	NJS
13,21,23	USS SCOTT	EWX
15	USS SAN JACINTO	EWX
20,24	USS JOHN L. HALL	EWX
22	USS SCOTT	NJS
22	USS BLAKELY	EWX
22-23, 25-26	USS WAINWRIGHT	EWX
24-25	USS SAMPSON	EWX
28	VP-16 VP-5	EWX
26	VP-44	NJS

MARCH 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS SKIPJACK	MK-30	ASW
1-3	USS NICHOLAS		LINK-11
2,4	USS NICHOLAS	QST-35	SSG
7,9	USS ESTOCIN	QST-35	SSG
14-15	VS-31		LINK-11

Date	Exercise Unit	Target	Type Exercise
19	USS MCCLOY	QST-35	SSG
20-21	USS JOHN MARSHALL	MK-30	ASW
30	HNLMS PHILIPS VAN ALMONDE HMS AVENGER	TDU-34A	SAM/SAG
31	USS PITTSBURG	MK-30	ASW

INNER RANGE

Date	Exercise Unit	Type Exercise
MAR 2,13	VP-5	MINEX
2	USS DEYO	NGFS
2,5	MAG-32	AGO
3-4	USS JESSE L. BROWN	NGFS
5	USS SAMPSON	NGFS
8	USCG NANTUCKET	NGFS
10-11, 13-16	VS-31	AGO
13	VS-31	MINEX
13-16,21	VC-8	AGO
19	USS TICONDEROGA	NGFS
19	156 TFG	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS SKIPJACK	PROFICIENCY
3	VP-8	TORPEX/PACER
3,28	VP-5	TORPEX/PACER
4	USS DEYO	TORPEX

Date	Exercise Unit	Type Exercise
5	USS NICHOLAS	TORPEX
6	USS ESTOCIN	TORPEX/PACER SSRNM
7,12-15	USS PASADENA	WSAT
7-9	VS-31	TORPEX
8	USS JESSE L. BROWN	SSRNM
11	VP-45	TORPEX/PACER
11	VP-92	TORPEX
13	VS-31	ASW
18	USS MCCLOY	TORPEX/PACER SSRNM
20-21	USS JOHN MARSHALL	PROFICIENCY
28	VP-24	TORPEX/PACER
29	VP-16	TORPEX/PACER
31	USS PITTSBURGH	PROVICIENCY

ELECTRONIC WARFARE RANGE

	Date	Exercise Unit	Type Exercise
MAR	1-4	USS NICHOLAS	EWX
	3-4	USS JESSE L. BROWN	EWX
	3-6	USS SAMPSON	EWX
	3	VP-45	EWX
	3-4	USS DEYO	EWX
	6-10, 13-14,16	VP-31	EWX
	8	USS ESTOCIN	NJS
	8-9,14	USS ESTOCIN	EWX
	13,17-19	USS JOHN MARSHALL	EWX
	15	USS PASADENA	EWX

APRIL 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-2	USS WISCONSIN	TA-4	EW TRACKEX
1	USS PITTSBURGH	MK-30	ASW
3-7,10-14	USS WISCONSIN		LINK-11
3-6	VX-1		LINK-11
5-7,11	AFWTF	BQM-74C	TEST FLIGHT
5	USS WISCONSIN	QST-35	SURFACE TRACKEX
6	NADC	TA-4	TRACKEX
7-8,10-13	USS FAHRION		LINK-11
7	USS WISCONSIN	QST-35	SSG
8	USS DEWEY USS RICHARD E. BYRD USS FAHRION	AQM-37C	SAM
8,10-13	USS DEWEY		LINK-11
9	USS MCCLOY	QST-35	SSG
10	USS DEWEY	QST-35	SSG
10-11	USS RICHARD E. BYRD	QST-35	SSG
11-12	CVW-3	BQM-34S AQM-37C	AAM
12-13	VAW-126		LINK-11
14	NADC	QST-35	ASM
16	VMA-223	AQM-37C	AAM
18	USS NASSAU		LINK-11
19	USS NASSAU	QST-35	SSG

Date	Exercise Unit	Target	Type Exercise
19-20,25	CVW-13	AQM-37C BQM-34S	AAM
20	USS SAN JACINTO USS THOMAS S. GATES USS MISSISSIPPI USS JOHN KING USS KLAKRING USS KAUFFMAN	BQM-74C AQM-37C	SAM
20	CVW-13	HULK	ASM
20	USS MISSISSIPPI	HULK	SSM
20	USS THOMAS S. GATES VAW-127		LINK-11
23,28	USS WAINWRIGHT		LINK-11
24	USS STUMP	QST-35	SSG
25-26	USS YORKTOWN USS BOWEN	QST-35	SSG
25,28	USS YORKTOWN		LINK-11
26-27	USS SCOTT ARV GENERAL SALOM	QST-35	SSG
26	BRA CONSTITUCIO USS WAINWRIGHT	QST-35	SSG
26,30	USS THORN		LINK-11
27,29	USS THORN USS AINSWORTH ARV GENERAL URDANETA	QST-35	SSG
28	USS YORKTOWN USS HARRY E. YARNELL USS WAINWRIGHT	BQM-74C	SAM
28	USS HARRY E. YARNELL		LINK-11
29-30	USS STUMP USS THORN	TDU-34A	SAM
30	USS STUMP		LINK-11

INNER RANGE

Date	Exercise Unit	Type Exercise
1-6	VX-1	AGO
3-5	2ND ASLTPHIBBN	NGFS
7	USS RICHARD E. BYRD	NGFS
8,10-14	USS WISCONSIN	NGFS
10-12	USS DEWEY	NGFS
17-23	CVW-3	AGO
18-24	CVW-13	AGO
18-21	26TH MEU	AGO/ARTY
19	42 BMW	AGO
20	USS AINSWORTH	NGFS
20-21	26TH MEU	SPOTEX
20	USS NASSAU	NGFS
21	CVW-13	MINEX
23	BRZ CONSTITUCIO	NGFS
23-24	USS WAINWRIGHT	NGFS
25-26,30	USS STUMP	NGFS
26,28	ARV GENERAL SALOM	NGFS
26-27	VC-8	AGO
27	USS BOWEN	NGFS
27	2ND ANGLICO	SPOTEX
28	USS THORN ARV URDANETA	NGFS
29-30	USS SCOTT	NGFS
29	USS YORKTOWN	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
APR 1	USS PITTSBURGH	PROFICIENCY
3	VP-5	TORPEX/PACER
5	VP-10	TORPEX/PACER
6	VP-24	TORPEX/PACER
7	USS LAWRENCE	TORPEX/PACER
8	USS MCCLOY	TORPEX/PACER
9	USS DEWEY USS RICHARD E. BYRD	TORPEX/PACER
10	USNS APACHE	SALVAGE OPS
10-11	USS FAHRION	SSRNM
11	USS FAHRION	TORPEX/PACER
19,23-24	VS-22	TORPEX
20	USS AYLWIN USS AUGUSTA HS-17 VP-24 ITA-88TH SQ HNLMS 321 SQ	QAST
21-24, 26-27	USS EDENTON	QAST RECOVERY
23	USS VIRGINIA	SSRNM
25,28	USS WAINWRIGHT	TORPEX/PACER
25	USS WAINWRIGHT	SSRNM
25-29	USS ALBUQUERQUE	ASW
26,29	USS HARRY E. YARNELL	TORPEX/PACER
26	USS AINSWORTH	TORPEX/PACER
26	USS THORN	SSRNM
26,29	USS THORN	TORPEX/PACER

Date	Exercise Unit	Type Exercise
26	HSL-34	TORPEX
27	USS AINSWORTH	SSRNM
27,29	USS YORKTOWN	TORPEX/PACER
27	USS STUMP	TORPEX/PACER
28	USS SCOTT USS BOWEN	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
APR 1-6,8, 11-12,14	USS WISCONSIN	EWX
1-6	VX-1	EWX
3	VP-5	EWX
5	USS WISCONSIN	NJS
5	VP-10	EWX
6	VP-24	EWX
7-8,12,16	USS MCCLOY	EWX
11	USS DEWEY	EWX
16	USS NASSAU USS SHREVEPORT	EWX
17-19	NATC	EWX
18-19, 21-22,245	VS-22	EWX
23,27	USS STUMP	EWX
23,25,30	USS WAINWRIGHT	EWX
23,26-27,29	USS YORKTOWN	EWX
25-28	USS AINSWORTH	EWX
27	USS MOUNT BAKER	EWX
28	USS BOWEN USS TRIPPE	EWX
30	USS SCOTT	EWX

MAY 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-2	USS YORKTOWN	HULK	SSM
2-3	USS YORKTOWN	BQM-74C	SAM
2-3	USS YORKTOWN		LINK-11
2,11-12, 14,16-17	USS HARRY E. YARNELL		LINK-11
2,4,11-12, 14,16-18	USS SCOTT		LINK-11
4-6	USS JACK	MK-30/TRB	ASW
6	USS PHILIPPINE SEA	QST-35	OTH-T
6	VP-16		LINK-11
6,8,11-16 19	USS PHILIPPINE SEA		LINK-11
9,15,17, 22-23	FGN ROMMEL	TDU-34A BQM-74C AQM-37C BALLOON	SAM
9,17,22	FGN NIEDERSACHSEN FGN KOELN	TDU-34A AQM-37C BQM-74C	SAM
9,15,19,23	FGN ROMMEL		LINK-11
9,17	FGN NIEDERSACHSEN		LINK-11
9,11,15-16 19	FGN KOELN		LINK-11
9,11,19	FGN SCHIESWIG HOLSTEIN		LINK-11
10-13,17	USS SCOTT	BQM-34E AQM-37C BQM-74C	SAM
10,14,17	USS HARRY E YARNELL	BQM-74C AQM-37C	SAM

Date	Exercise Unit	Target	Type Exercise
10,13-14,	USS SCOTT	QF-86 QF-4 QST-35	TRACKEX
11-17	USS PHILIPPINE SEA	QF-86 BQM-74C AQM-37C	SAM
11-12	301 TFW	GORST	ASM
12,14-16	PMTC	QF-86 QF-4	TEST FLIGHT
13-20	USCG		DRUG INTERDICTION
14	USS PHILIPPINE SEA	FA-18	TRACKEX
15-18	USS TICONDEROGA		LINK-11
15-18	VAW 125		LINK-11
16,18-20	CVW-3 CVW-7 CVW-17	QF-86 BQM-34S	AAM
16	USS PETERSON USS STUMP		LINK-11
16-18	USS JOHN L. HALL		LINK-11
17	USS TICONDEROGA	AQM-37C BQM-74C	SAM
17	USS SCOTT USS JOHN L. HALL USS TICONDEROGA USS PETERSON USS HARRY E. YARNELL USS PHILIPPINE SEA FGN NIEDERSACHSEN FGN ROMMEL FGN KOELN FGN SCHIEWIG HOLSTEIN	HULK AQM-37C BQM-74C	SSM/SAM
17-22	USS ALBUQUERQUE USS PITTSBURGH USS CINCINNATI	SUBMARINE	ASW
20	USS PHILIPPINE SEA	QST-35	SSG
20-22	USS MINNEAPOLIS-ST. PAUL	MK-30/TRB	ASW

Date	Exercise Unit	Target	Type Exercise
21	USS JACK WILLIAMS USS ARIES USS BOONE USS DEYO	QST-35	SSG
22	USS SAVANNAH USS DEYO USS JACK WILLIAMS	AQM-37C TDU-34A	SAM
22	USS DEYO USS BOONE USS JACK WILLIAMS FGN ROMMEL FGN NIEDERSACHSEN FGN KOELN FGN SPESSART FGN COBERG	AIRCRAFT	TRACKEX
22-24,26	USS BOONE	BQM-74C AQM-37C	SAM
23	USS DEYO		LINK-11
23-24	AFWTF	SHAPE	TARGET RECOVERY
24-25, 30-31	USS STEPHEN W. GROVES		LINK-11
25	USS STEPHEN W. GROVES	AQM-37C	SAM
25-26	HMS INTREPID	TDU-34A	SAM
26	USS BOONE		LINK-11
28-29	USS TINOSA	MK-30	ASW

INNER RANGE

Date	Exercise Unit	Type Exercise
MAY 1	VP-45	MINEX
4-5	USS STUMP	NGFS
7-8,10	VS-27	MINEX/AGO
8-12,15-19	301 TFW	AGO
10	FGN SCHIESWIG HOLSTEIN	NGFS

Date	Exercise Unit	Type Exercise
16	VP-16	MINEX
17	USS BARNEY	NGFS
17	VP-24	MINEX
21	NMCB-7	SUPPORTING ARMS
22	USS PETERSON USS BOONE	NGFS
23	USS PETERSON	NGFS
24	USS DEYO	NGFS
25	USS JACK WILLIAMS	NGFS
25-26	ROYAL MARINES	SUPPORTING ARMS
30	156 TFW	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
MAY 1	AFWTF	RANGE TEST
3,13	VP-24	TORPEX/PACER
4,6,8	VS-28	TORPEX
4-6	USS JACK	PROFICIENCY
7	VP-10 VP-45	TORPEX/PACER
9	FGN SCHIESWIG HOLSTEIN	TORPEX/PACER
10	FGN NIEDERSACHSEN FGN ROMMEL	TORPEX/PACER
11	FGN KOELN	TORPEX/PACER
13	VP-62 VP-93	TORPEX
14	USS PHILIPPINE SEA	CSSQT
16	MPA ATLANTIQUE	TORPEX

Date	Exercise Unit	Type Exercise
17-20	USS ALBUQUERQUE USS PITTSBURGH USS CINCINNATI	PCO
20-22	USS MINNEAPOLIS ST. PAUL	PROFICIENCY
21-22	USS CINCINNATI USS PITTSBURGH	PROFICIENCY
22	VP-44	TORPEX/PACER
23-24	AFWTF	SHAPE/RECOVERY
24	USS PETERSON	SSRNM
24	USS STEPHEN W. GROVES	CSSQT
25	USS DEYO	WSAT
25	USS WAINWRIGHT USS BOONE USS JACK WILLIAMS	SSRNM
25	USS JACK WILLIAMS USS BOONE	PACER
26-27, 30-31	USS STEPHEN W. GROVES	WSAT
28-29	USS TINOSA	PROFICIENCY

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
MAY 2-7	USS SCOTT	EWX
4,6	VS-28	EWX
4	VS-27	EWX
5-7,17-18	USS BARNEY	EWX
7	VP-10 VP-45	EWX
8-10,15-17, 22	FGN ROMMEL	EWX
8-10,22	FGN KOELN	EWX

Date	Exercise Unit	Type Exercise
8-11,16,22	FGN NIEDERSACHSEN	EWX
9-14,17-19	USS PHILIPPINE SEA	EWX
11,16,22	FGN SCHIESWIG HOLSTEIN	EWX
13	VP-24	EWX
14	USS PHILIPPINE SEA	NJS
16,22	FGN ROMMEL FGN SCHIESWIG HOLSTEIN FGN NIEDERSACHSEN	NJS
16	USS TICONDEROGA USS JOHN L. HALL	NJS/EWX
17,21	USS CINCINNATI	EWX
19	USS HARRY E. YARNELL USS THORN	EWX
21,23-24	USS BOONE USS DEYO USS JACK WILLIAMS USS SAVANNAH	EWX
22	USS MINNEAPOLIS ST. PAUL	EWX
24	USS STEPHEN W. GROVES	NJS/EWX
24	USS BOONE USS DEYO USS JACK WILLIAMS USS SAVANNAH	NJS
24,26	USS PETERSON	EWX
25	HMS INTREPID	EWX
30	USS NICHOLSON	EWX

JUNE 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	USS STEPHEN W. GROVES		LINK-11
1-2	USS NICHOLSON		LINK-11
7	USS STEPHEN W. GROVES	QST-35	SSG
8	NADC		RAMP TEST
21,23	SNS SANTA MARIA		LINK-11
21-22	SNS SANTA MARIA	BQM-74C	SAM
22-28	USCG		LINK-11
23	SNS SANTA MARIA	HULK	SSM
28	HNLMS CALLENBURGH	HULK	SSM

INNER RANGE

Date	Exercise Unit	Type Exercise
1-30	156 TFG	AGO
1-3,7	82ND ABN DIVISION	SPOTEX
1-3	USS NICHOLSON	NGFS
5-6	USS CAPODANNO	NGFS
7-9,14	VC-8	AGO
8	USS STEPHEN W. GROVES	NGFS
8	CJSOC	ARTY
23	VP-16	MINEX

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
1	USS STEPHEN W. GROVES	WSAT/SSRNM
2	USS CAPODANNO	TORPEX

Date	Exercise Unit	Type Exercise
3,7	VP-24	TORPEX/PACER
3,7,9	VP-16	TORPEX/PACER
5	VP-49 VP-45	TORPEX/PACER
7	VP-5	TORPEX/PACER
8	VP-44 VP-10	TORPEX/PACER
9,13-15	USS SPADEFISH	WSAT
10	VP-64 VP-68	TORPEX

ELECTRONIC WARFARE RANGE

	Date	Exercise Unit	Type Exercise
JUN	1-2,5	USS CAPODANNO	EWX
	1-3	USS NICHOLSON	EWX
	3,7,9	VP-16	EWX
	5,10	VP-45	EWX
	5-6	USS WILLIAM S. SIMS	EWX
	7	VP-5	EWX
	8	VP-44	EWX
	12	USS SPADEFISH	EWX
	14-15	NAVSECGRU	OBS
	21-22	HNLMS JAN VAN BRAKEL	EWX

JULY 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
5-8	AFWTF	QF-86	TEST FLIGHT
8-10	VMFA 312	AQM-37C TALD BQM-34S	AAM

Date	Exercise Unit	Target	Type Exercise
11	MAG-31	QF-86	AAM
13-14	USS SAIPAN		LINK-11
13	USS SAIPAN	QST-35	SSG
23	USS BRISCOE USS JESSE L. BROWN USS RICHARD E. BYRD	QST-35	SSG
23-24	USS CALOOSAHATCHEE	QST-35	SSG
23,25	USS AQUILA	QST-35	SSG
24-25,31	USS BRISCOE		LINK-11
25	BNS INDEPENDENCIA	QST-35	SSG
31	CVW-6	QST-35 W/SPLASH TARGET	ASO

INNER RANGE

Date	Exercise Unit	Type Exercise
JUL 5-7,10, 12-14	AFWTF	RANGE REFURBISHMENT
16-17	VS-27	MINEX/AGO
16-18	USS SAIPAN	NGFS
17-19	USS JOSEPHUS DANIELS	NGFS
18-19	156 TFG	AGO
18-19	COMJSOC	SPOTEX
19-25,31	CVW-6	AGO
20	USS ELMER MONTGOMERY	NGFS
22	VP-24	MINEX
23-26	MAR DET	SUPPORTING ARMS
23-25	MAR DET	SPOTEX
24-25	USS BRISCOE	NGFS
25-26	USS RICHARD E. BYRD	NGFS

Date	Exercise Unit	Type Exercise
27-28	VC-8	AGO
27-28	CDR 82ND ABN DIV	SPOTEX
27-31	USS SEMMES	NGFS
30-31	10TH MARINES	SPOTEX

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
JUL 13,17-19, 21-22	AFWTF	TRACKING TEST
24	USS BRISCOE	SSRNM
25	USS BRISCOE	TORPEX/PACER
25	BNS INDEPENDENCIA	SSRNM
26	USS RICHARD E. BYRD BNS INDEPENDENCIA USS JESSE L. BROWN	TORPEX/PACER
28	VP-5	TORPEX/PACER

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
3	USCG CAMPBELL	EWX
12-13	VS-27	EWX
13-15	USS SAIPAN	EWX
14-15	USS SAIPAN	NJS
17,19	USS JOSEPHUS DANIELS	EWX
20-21, 25-26	BNS INDEPENDENCIA	EWX
20-25,31	CVW-6	EWX
20,22, 25,31	CVW-6	NJS
21,24-25	USS BRISCOE	EWX

Date	Exercise Unit	Type Exercise
21	USS RICHARD E. BYRD USS JESSE L. BROWN	EWX
21	BNS INDEPENDENCIA USS BRISCOE	NJS
21,26	USS RICHARD E. BYRD USS JESSE L. BROWN	NJS
23,25	USS AQUILA	EWX
28-30	USS SEMMES	EWX
29-30	USS NEWPORT NEWS	EWX

AUGUST 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1,8	CVW-6	GORST QST-35	ASO
3-7	USS ALBUQUERQUE USS CITY OF CORPUS CHRISTI		ASW
8-10	HMS GLOUCESTER		LINK-11
8-9	USS FORRESTAL USS SAMUEL E. MORISON		LINK-11
9	HMS GLOUCESTER	QST-35	SSG
9-10	USS TATTNALL		LINK-11
10	CLAW-1	BQM-34S	AAM
12-13	USS ATLANTA		ASW
16	USS PATTERSON	QST-35	SSG
17	VS-22	TRIMARAN	ASO
19-20,22	USS PATTERSON	TDU-34A	SAM
19-20	USS CARR USS DEWEY USS SIMPSON	AQM-37C	SAM

Date	Exercise Unit	Target	Type Exercise
19	USS CARR USS DEWEY USS SIMPSON		LINK-11
20	USS HARRY E. YARNELL	AQM-37C	SAM/LINK-11
21	USS SIMPSON USS DEWEY USS AQUILA USS ARIES	QST-35	SSG
22	USS SAMUEL E. MORISON	QST-35	SSG
28-29	CVW-8	AQM-37C	AAM
30	USS LEYTE GULF	HULK	OTL
30	USS BARNEY USS DONALD B. BERRY USS JOHN L. HALL USS MILWAUKEE USS OBANNON USS PAUL USS THORN USS WAINWRIGHT USS HARRY E. YARNELL USS YORKTOWN USS TICONDEROGA	BQM-34S BQM-74C	SAM
30	CVW-6	BQM-34S AQM-37C	AAM
30	USS YORKTOWN USS LEYTE GULF USS HARRY E. YARNELL		LINK-11
30-31	USS MOUNT WHITNEY		LINK-11
31	USS WILLIAM S. SIMS	QST-35	SSG
31	USS MOUNT WHITNEY	TDU-34A	SAM

INNER RANGE

Date	Exercise Unit	Type Exercise
AUG 1,4-7,26, 29-20	CVW-6	AGO
8	VP-49	MINEX
8,10	HMS GLOUCESTER	NGFS

Date	Exercise Unit	Type Exercise
9-10,12	USS TATTNALL	NGFS
10	VP-16	MINEX
14	VS-22	MINEX
15-17	VS-22	AGO
20	USS CARR USS AQUILA	NGFS
21-25 28-30	HMM-365	AGO
22	USS SIMPSON USS DEWEY	NGFS
23-24	USS PATTERSON	NGFS
23-24	VC-8	AGO
26-28	USS BIDDLE	NGFS
26	VM-1	AGO
28-30	CVW-8	AGO
29-30	USS WILLIAM S. SIMS	NGFS
30-31	MEU-24	SUPPORTING ARMS
31	USS WAINWRIGHT USS BARNEY	NGFS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
AUG 1	USS HAWES	TORPEX/PACER
3,8-10	USS NEWPORT NEWS	WSAT
5-6	USS CITY OF CORPUS CHRISTI USS ALBUQUERQUE	PROFICIENCY
7	HMS GLOUCESTER	TORPEX
9-13	USS PATTERSON	WSAT
12	USS ATLANTA	OTH
12	USS PATTERSON	SSRNM

Date	Exercise Unit	Type Exercise
15,18,23-25	USS SEAHORSE	WSAT
15-17	VS-22	TORPEX
18	VP-23 VP-94	TORPEX/PACER
19	USS CARR	SSRNM
20	USS SIMPSON	TORPEX/SSRNM
20	USS DEWEY	TORPEX
21	VP-44 VP-10 VP-11	TORPEX/PACER
22	USS SAMUEL E. MORISON	TORPEX
26-27	VP-16	TORPEX/PACER
27	VP-49	TORPEX/PACER
28-29	VS-24	TORPEX/PACER
31	AFWTF	RANGE TEST

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
AUG 4	USS FORRESTAL	NJS/EWX
7-9	HMS GLOUCESTER	EWX
9-12,15-16, 18-19,23-25	USS PATTERSON	EWX
9-10,16-17, 30-31	CINCLANTFLT	OBS
10,12	USS TATTNALL	EWX
12-13	USS OLIVER HAZARD PERRY	NJS/EWX
15-16	USS PATTERSON	NJS
18	VP-23	EWX
19-22	USS SIMPSON	EWX

Date	Exercise Unit	Type Exercise
19,21-22	USS DEWEY USS CARR	EWX
21	VP-44 VP-10 VP-11	EWX
21-22	USS SAMUEL E. MORISON	NJS/EWX
21	USS SIMPSON USS DEWEY USS CARR	NJS
21,23	USS SEAHORSE	EWX
26-27	VP-16	EWX
27	VP-49	EWX
28-30	USS WILLIAM S. SIMS	EWX
30-31	COMPHIBRON 6	EWX

SEPTEMBER 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1	CVW-8	AQM-37C	AAM
2	USS ESTOCIN	QST-35	SSG
5	CVW-6	AQM-37C	AAM
6	USS PETERSON	QST-35	SSG
6,8	USS JOHN L. HALL	QST-35	SSG
7	USS TATTNALL USS JOHN RODGERS USS SCOTT USS DONALD B. BERRY	QST-35	SSG
8,10	USS PAUL	QST-35	SSG
9	USS JOHN L. HALL USS JOHN RODGERS	TDU-34A	SAM
9	USS KALAMAZOO USS PETERSON	BQM-34S BQM-34T	SAM

Date	Exercise Unit	Target	Type Exercise
10	USS TATTNALL USS TICONDEROGA USS LEYTE GULF USS JOHN L. HALL	BQM-74C BQM-34S	SAM
10	USS SCOTT	AQM-37C BQM-34S	SAM
11	USS WHALE		ASW
11	USS SCOTT	BQM-74C	TRACKEX
12-17	LSAW 5-89		ASW

INNER RANGE

Date	Exercise Unit	Type Exercise
SEP 1	USS PORTLAND USS IWO JIMA USS BARNEY USS SAGINAW USS TRENTON	NGFS
1	SACEX-89	SUPPORTING ARMS
2-4	CVW-6	AGO
2	CVW-8	AGO
2-3,5,8	USS JOHN RODGERS	NGFS
4	USS SCOTT USS TICONDEROGA USS PAUL	NGFS
4-14	NSWU-4	FIELD TRAINING
5-6	USS DONALD B. BERRY	NGFS
6	USS PAUL USS TATTNALL	NGFS
7	USS PAUL USS PETERSON	NGFS
7-8	VP-49	MINEX
8,10-13	VMO-1	AGO
9-12	USS SAMPSON	NGFS
11-13	160TH SOAG	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
SEP 1	VS-24	TORPEX
2	USS SURIBACHI	SSRNM
3	USS JOHN RODGERS	SSRNM
4	USS DONALD B. BERRY	SSRNM
5	USS CAPODANNO USS SCOTT	SSRNM
6	USS DONALD B. BERRY	TORPEX/PACER
7	USS JOHN L. HALL	TORPEX/PACER
7-8	USS TATTNALL	TORPEX/PACER
7-9	USS TICONDEROGA	TORPEX/PACER
8	USS TATTNALL	SSRNM
8,10	USS PETERSON	TORPEX/PACER
9	USS PAUL	TORPEX/PACER
11,13	USS WHALE	PROFICIENCY
12-14	USS CITY OF CORPUS CHRISTI	CNO
12-14	VX-1	TRACKEX
15	USS NORFOLK USS CITY OF CORPUS CHRISTI	PROFICIENCY

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
2-7,9	USS JOHN RODGERS	EWX
3-4,6-8	USS PETERSON	EWX
3,6	USS KALAMAZOO	EWX
4,6-9	USS SCOTT	EWX
5-7	USS DONALD B. BERRY USS PAUL	EWX
5-6	USS WAINWRIGHT	EWX

Date	Exercise Unit	Type Exercise
5-7	USS PAUL	EWX
6-7,13-14	COMNAVAIRLANT	OBS
6	USS TICONDEROGA USS JOHN L. HALL	NJS
6-9	USS TICONDEROGA USS JOHN L. HALL	EWX
7	USS BARNEY	EWX
7	USS JOHN RODGERS	NJS
8	USS PETERSON	NJS
8-9	USS TATTNALL	EWX
9-10	USS SAMPSON	EWX
13-15	VX-1	EWX

OCTOBER 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise

"THERE WAS NO ACTIVITY IN THE OUTER RANGE IN OCTOBER 1989"

INNER RANGE

Date	Exercise Unit	Type Exercise
21	USS LEYTE GULF	NGFS
23-27	VC-8	AGO

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
17-18,23-26, 28-29	HMCS OKANAGAN	WSAT
19	USS SAMPSON	SSNRM
20	USS LEYTE GULF	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
18-19, 25-26	CINCLANTFLT	OBS

NOVEMBER 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
8,21	AFWTF		RAMP TEST
9	HMS ALACRITY	TDU-34A	SAM
9-11,13,17	PMTC	QF-4	TEST FLIGHT
9-11,17, 24-25,27-30	PMTC	QF-86	TEST FLIGHT
13-14, 17,30	USS KIDD		LINK-11
13-14,17, 19-20,30	USS SCOTT		LINK-11
13-14, 17-21,30	USS SCOTT	AQM-37C QF-4 BQM-34S QF-86	SAM
17,30	USS SCOTT	QST-35	SSG/SSM
17,30	USS KIDD	BQM-34S BQM-74C	SAM
26	USS KIDD	MK-30	ASW
27	HMS INVINCIBLE	TDU-34A	SAM
29	USS KIDD	QST-35	SSG

INNER RANGE

Date	Exercise Unit	Type Exercise
1-3	USS CHARLES F. ADAMS	NGFS
1-3	82ND AIRBN DIVISION	CAS

Date	Exercise Unit	Type Exercise
1-3,8	VC-8	AGO
2-5	USS HAYLER	NGFS
2	82ND AIRBN DIVISION	SPOTEX
4	4TH ANGLICO	SPOTEX
5	VP-49	MINEX
6	USS TRIPPE	NGFS
6	TENTH MAR	SPOTEX
8-11	FRENCH BILAT	SMALL ARMS/ SUPPORTING ARMS
8	FRENCH BILAT	CAS
11	USS PHARRIS	NGFS
13-14, 16-17	NETHERLANDS BILAT	SMALL ARMS
16	NETHERLANDS BILAT	SUPPORTING ARMS
27	HMS AIRCRAFT FROM HMS INVINCIBLE	AGO
28	USS KIDD	NGFS

UNDERWATER RANGE

Date	Exercise Unit	Type Exercise
NOV 3-4,9	HMCS OKANAGAN	PROFICIENCY
6-7	VP-10 VP-44	TORPEX
8	HMS ALACRITY	TORPEX
8-9,12-14	USS DOYLE	WSAT
13	USS DOYLE	SSRNM
17-18	VX-1	ASW TRACKEX
18	VP-5 VP-66	TORPEX
20	VP-49	TORPEX

Date	Exercise Unit	Type Exercise
21	VP-10 VP-11 VP-23	TORPEX
21-22. 25-26	USS KIDD	WSAT
26	USS KIDD	SSRNM
30	USS VALDEZ	SSRNM

ELECTRONIC WARFARE RANGE

Date	Exercise Unit	Type Exercise
1-2,8-9, 15-16,22-23, 29-30	CINCLANTFLT	OBS
6	USS CHARLES F. ADAMS USS TRIPPE	EWX
8,13	HMS ALACRITY	EWX
11-14	USS DOYLE	EWX
12,21	USS KIDD	EWX
13-14, 17-18,20	VX-1	EWX
18	USS AUSTIN	EWX
27	HMS BRILLIANT HMS INVINCIBLE	EWX

DECEMBER 1989

OUTER RANGE

Date	Exercise Unit	Target	Type Exercise
1-2	USS SCOTT	AQM-37C BQM-34S QF-86	SAM
2-3	USS KIDD	AQM-37C	SAM
3	USS DAHLGREN USS ROBERT G. BRADLEY	QST-35	SSM

Date	Exercise Unit	Target	Type Exercise
3	USS ROBERT G. BRADLEY USS DAHLGREN USS NICHOLSON	BQM-74C	SAM
3,7	USS DAHLGREN USS ROBERT G. BRADLEY USS NICHOLSON	QST-35	SSG
5-9	CVW-17	BQM-34S BQM-74C TDU-34A TALD AQM-37C	AAM
7	USS MOBILE BAY	QST-35	SSG
7-8	USS MOBILE BAY		LINK-11
10-16	USS OKLAHOMA CITY	MK-30	ASW
11	USS JOSEPHUS DANIELS USS WILLIAM V. PRATT USS AUBREY FITCH USS NICHOLAS USS KING	BQM-74C	SAM
12	USS WILLIAM V. PRATT USS NICHOLAS	QST-35	SSG
13-16	USS SEAHORSE	SUBMARINE	ASW

INNER RANGE

Date	Exercise Unit	Type Exercise
DEC 3	VP-49	MINEX
4-5	USS DAHLGREN	NGFS
4	VC-8	AGO
4	USS ROBERT G. BRADLEY	NGFS
5	USS NICHOLSON	NGFS
5-6	USS MOBILE BAY	NGFS
5-8	CVW-17	AGO
7	97 BMW	AGO
8-9,12	USS KING	NGFS

Date	Exercise Unit	Type Exercise
10,12	USS NICHOLAS USS WILLIAM V. PRATT	NGFS
13-15	NSWU-4	SUPPORTING ARMS

UNDERWATER TRACKING RANGE

Date	Exercise Unit	Type Exercise
DEC 1	VP-10	TORPEX
2	USS KING	TORPEX/PACER/ SSRNM
3	USS MCCLOY	TORPEX
5	USS MILLER	SSRNM
5	USS NICHOLSON	TORPEX
5-6	USS ROBERT G. BRADLEY	TORPEX/PACER
5-6	HSL-36	TORPEX
6	USS SAMUEL B. ROBERTS	SSRNM
7	USS DAHLGREN	TORPEX/PACER
8	USS MOBILE BAY	SSRNM
8-9	USS MOBILE BAY	TORPEX
10-16	USS OKLAHOMA CITY	PROFICIENCY
13-16	USS SEAHORSE	PROFICIENCY
17	VP-64 VP-62	TORPEX
18	VP-11 VP-23	TORPEX
19	VP-16 VP-49	TORPEX
21	VP-45 VP-49	TORPEX

ELECTRONIC WARFARE RANGE

	Date	Exercise Unit	Type Exercise
DEC	2	USS MCCLOY	EWX
	3-5	USS DAHLGREN USS ROBERT G. BRADLEY	EWX
	3-6	USS NICHOLSON	EWX
	6,8	USS MOBILE BAY	EWX
	6	USS SCOTT	EWX
	6-9,13-14, 20-21,27-28	CINCLANTFLT	OBS
	10,12	USS WILLIAM V. PRATT USS AUBREY FITCH USS NICHOLAS USS KING	EWX
	10	USS JOSEPHUS DANIELS	EWX

GLOSSARY OF TERMS

AAM - Air to Air Missile Exercise
AGO - Air to Ground Ordnance
ARV - Armada Republica Venezuela - Venezuela Navy Ship
ASO - Air to Surface Ordnance
ASSP - At Sea Simulator Platform
BRZ - Brazilian Navy Ship
CSNFL - Commander, Standing Naval Forces Atlantic
FEWSG - Fleet Electronic Warfare Support Group
FRG - Federal Republic of Germany
HNLMS - His/Her Netherlands Majesty's Ship
MAU - Marine Assault Unit
MEF - Mid-East Force
MEU - Marine Expeditionary Amphibious Unit
MK-30 - Mobile Target
MK-46/48 - Torpedo
NGFS - Naval Gunfire Support
NJS - Noise Jammer Simulator
OTH - Over the Horizon
PACER - Post Analysis Critique and Exercise Review
PCO - Prospective Commanding Officer
PMTC - Pacific Missile Test Center
PRANG - Puerto Rico Air National Guard
QST-35 - SEPTAR (Seaborne Powered Target)
ROC - Range Operations Center
SAM - Surface to Air Missile
SATS - Systems Accuracy Trials
SOW - Special Operations Wing (USAF)
SSG - Surface to Surface Gunnery
SSRNM - Surface Ship Radiated Noise Measurement
TCTT - Type Commanders Type Training
TDU - Towed Drone Unit
TPS - Threat Platform Simulator
TRB - Torpedo Recovery Boat
USSC - Converted LCM-8 for Range Support/Surveillance
WSAT - Weapons System Accuracy Trials
YTM - Tug

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1990

BACKGROUND: The paramount and most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment that can be provided. The unique capabilities of the Atlantic Fleet Weapons Training Facility (AFWTF) provide just such an environment.

To achieve these goals we have four functional ranges: the Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. It should be remembered that the Electronic Warfare Range overlaps and services all of the ranges.

MISSION: The mission of the AFWTF is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test and evaluation of weapons systems. The mission is divided into the following functional areas for implementation:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multi-ship/unit exercises, tests, and operational test and evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide secure/voice communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises/tests for reconstruction.

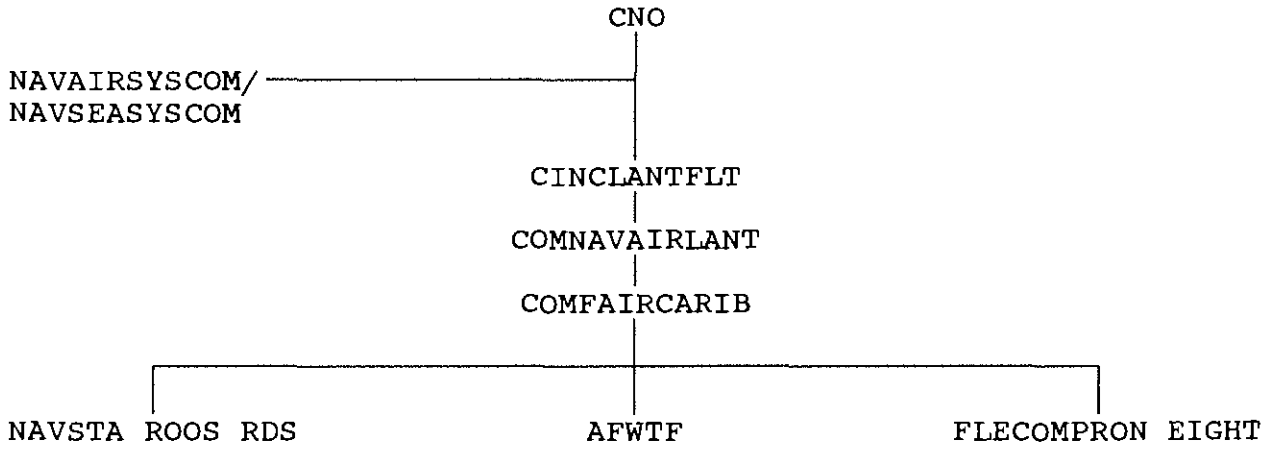
g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for Fleet Composite Squadron Eight (VC-8) for range support services.

j. Coordinate ship, submarine and aircraft transits through the Puerto Rican operating areas.

ORGANIZATION: AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander, Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander Fleet Air, Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are depicted in the diagram that follows:



AFWTF is comprised of 98 military and 43 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are accomplished by contractor personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for all surface-to-surface, air-to-air and surface-to-air missile firings. The Outer Range consists of two open ocean ranges designated the alpha or north and bravo or south range. The alpha range encompasses an area of 120,000 square miles while the bravo range encompasses 74,000 square miles. The Outer Range utilizes several sites within the Roosevelt Roads complex, which include the Range Operations Center (ROC), and the target control sites at Pico del Este, Puerto Rico and on St. Thomas in the U.S. Virgin Islands.

The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets. During a mission, all drones are remotely controlled from the ROC utilizing data received from the Pico del Este or St. Thomas target control sites. The system used for this control and data handling is the Remote Data and Drone Control System (RDDCS). The purpose of the RDDCS is to supply the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site provides positional data and drone telemetry information which is transmitted along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars providing additional positional data are located at Roosevelt Roads, Vieques, St. Thomas and St. Croix. After processing the data, the computer routes it to the appropriate instrumentation to display radar/command/telemetry and to the drone control plotters.

These target control systems are used to provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system that is used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico del Este and the ROC.

2. Aerial Targets. The types of drone aircraft used at AFWTF are the subsonic BQM-34S, the supersonic BQM-34E/T, the subsonic BQM-74C, and the supersonic AQM-37C. The BQM-34S drone is flown at altitudes between 30,000 and 45,000 feet at speeds between 300 and 500 knots. Presently, the ROC has the capability to control a maximum of six BQM-34S/BQM-74C drones simultaneously. After the drone is launched, it is flown to the specified range where it flies along a predetermined hot leg. It is during this period that surface units engage in firing/tracking/simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data pertaining to the amount of fuel remaining, speed, altitude, angle of climb, etc. When the mission is completed, the drone drops into the sea recovery area by parachute and is recovered by a specially configured helicopter from VC-8. Scoring is evaluated by the Naval Warfare Assessment Center (NWAC) field office on the basis of calculated miss-distance.

a. The **BQM-34S and BQM-34E/T** provide realistic targets for both surface-to-air and air-to-air missile exercises. Various augmentation devices may be provided to meet specific operational test requirements.

b. The **BQM-74C** is used in much the same manner, but has very limited space for augmentation gear.

c. The **AQM-37C** is normally used for surface-to-air or air-to-air live warhead missile operations.

d. In addition to the self-powered aerial targets, the **TDU-34** towed target is a high-performance, lightweight target designed for use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. The TDU-34 is towed by TA-4J aircraft from VC-8.

3. Surface Targets.

a. The **QST-35 SEPTAR** is a 56 foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for SPAR. The boat is capable of being remotely controlled out to approximately 50 NM from AFWTF control stations.

(1) Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. Surface-to-surface gunfire utilizing a 10 mil offset is authorized if the target is so allocated.

(2) Air-to-surface gunfire, missiles and bombs can be targeted against a SPAR streamed at approximately 1,000 feet.

(3) SEPTARs normally operate in bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one tri-purpose target complex and the water areas associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, an air-to-ground close air support (CAS) range consisting of two air-to-ground bull's eye targets, a strafing range, a mock airfield and other limited tactical targets utilized for air-to-ground ordnance and CAS training; a mining range, and an artillery range.

b. Vieques is a hilly island approximately 18 miles long and 4 miles wide. It is located 7 miles southeast of Roosevelt Roads. The eastern section of Vieques is devoted to landing beaches, maneuver areas, small arms and crew-served weapons ranges. Southern beaches and adjacent waters are used by amphibious forces. The eastern tip of Vieques is used for live fire air-to-ground and naval gunfire exercises.

2. Vieques Naval Gunfire Target Complex.

a. **General.** The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias, a hill on the western side of Bahia Salina del Sur, and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex.

a. **General.** The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The targets are controlled from an observation post located on top of Cerro Matias Hill west of the target area.

(1) Target Location and Description.

(a) Air Impact Area (AIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the terrain of the AIA and CAS zone is varied and ranges from flat, level ground at sea-level beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide the greatest realism. The CAS targets consist of a realistic mock-up of an airstrip, fuel farm, motor pool, ammo dump, SAM sites, and numerous smaller targets of opportunity. All targets in the CAS zone are stationery with the exception of the mobile land target which operates in the mock airstrip northeast of target one. These targets are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Target One. A bull's eye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Laross T.V. bomb scoring system.

(c) Strafe Target. The targets are scored by the Delmar acoustic scoring system.

(d) Target Two. A bull's eye approximately 2 miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the Laross T.V. bomb scoring system.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep water off the west coast of St. Croix, is utilized for accurate three dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square miles. Water depths vary from 200 fathoms nearest the St. Croix

coast to over 500 fathoms in the outer areas of the range. Operations on the Underwater Range are controlled from a shore complex located on the northwestern shore of St. Croix. During periods of operations a military range control officer from AFWTF is present. Shops for instrument maintenance and torpedo preparation are located at Roosevelt Roads as are the administrative offices for the range.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, with or without live ordnance can be conducted on the range. The range provides precision tracking data obtained via optical, in-water three dimensional, and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training product.

ELECTRONIC WARFARE RANGE

1. General. The Electronic Warfare Range (EWR) consists of four Threat Platform Simulator (TPS) sites and a Noise Jammer Simulator (NJS). Sites are located at Pico del Este in Puerto Rico, Mt. Pirata on Vieques and St. Georges Hill on St. Croix.

a. The EWR provides threat simulations to fleet users and provides a multi-axis threat arena for EW training.

b. The NJS provides a realistic jamming environment to train radar operators in electronic-counter-measures (ECM) and electronic-counter-counter-measures (ECCM).

c. The EWR also has an Outboard Stimulator (OBS) which provides training to communications operators worldwide.

2. The capability of the EWR will be greatly enhanced when the threat radar simulator received in FY-90 is brought into operation.

AFWTF CHRONOLOGY

JANUARY 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 13 days this report period. Operational services were provided to: five U.S. surface units, four U.S. air units, five foreign surface units, one U.S. subsurface unit and FLEETEX 1-90.

b. The units that participated in FLEETEX 1-90 were: the USS Biddle, USS Conyngham, USS Elmer Montgomery, USS Philippine Sea, USS South Carolina, USS Spruance and the USS Topeka.

c. One U.S. subsurface unit conducted 1 day of antisubmarine warfare exercises using the FPS-67 Surveillance radar.

d. Four U.S. surface units, three U.S. air units and five foreign surface units conducted 12 days of Link-11 exercises.

e. A total of four BQM-34Ss, one BQM-74C, one BQM-34E, one BQM-34T and two AQM-37Cs were launched in support of surface-to-air and air-to-air missile exercises.

2. **Inner Range Operational Support**:

a. The Inner Range was active 15 days this report period. Operational services were provided to: two U.S. surface units, seven U.S. air units, two foreign surface units and one U.S. ground unit.

b. Nine days of Naval Gunfire, 15 days of air-to-ground, 6 days of Mine and 2 days of supporting arms exercises were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 11 days this report period. Operational services were provided to: three U.S. surface units, six U.S. air units, one U.S. subsurface unit and three foreign surface units.

b. Three PACER data products will be provided to: one U.S. surface unit, one U.S. subsurface unit and one foreign surface unit.

c. Two U.S. surface units conducted 2 days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 17 MK-30 targets were launched in support of torpedo and proficiency exercises.

e. Thirty MK-46s and two MK-48s were fired on the St. Croix, Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 19 days this report period. Operational services were provided to: ten U.S. surface units, four U.S. air units, five foreign surface units and CINCLANTFLT.

b. One TPS provided 138.6 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 118.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering section provided support for the recovery of 44 torpedoes and 17 MK-30 ASW targets. Thirteen MK-30 targets were launched by MOE and four by VC-8.

b. The Torpedo Shop prepared 50 MK-46s and flushed 2 MK-48s torpedoes of which 30 MK-46s and 2 MK-48s were fired.

c. The MK-30 Shop prepared 31 MK-30 targets of which 17 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 26 chassis.

e. The PMEL Shop calibrated 91 pieces of test equipment and repaired 23 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Five hundred and twenty-seven requisitions were processed through the Naval Station Supply Support Activity.

(2) Six hundred and seventy-eight issues were received from the Naval Station, processed and issued to the requesting activities.

(3) Two hundred and fifteen turn-ins were made to the local DRMO.

(4) Eighteen shipments were made this month as follows: 1 Depot Level Repairable was shipped through the U.S. Postal

Service, 1 Depot Level Repairable and 16 shipments were processed through the Naval Station Supply Support Activity.

(5) Sixty-nine issues were made from the Command MICS stocks, 21 were RSS replenishment and the remaining 48 were non-RSS issues. A total of 317 issues were made from sites ready service spares.

(6) Forty-six open purchases were made requiring 20 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Twenty-nine Report of Survey (DD Form 200) were processed.

FEBRUARY 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 20 days this report period. Operational services were provided to: 14 U.S. surface units, four U.S. air units, four foreign surface units, one U.S. subsurface unit and PMTC.

b. One subsurface unit conducted 3 days of antisubmarine warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules Radar.

c. Five U.S. surface units, two foreign surface units and one U.S. air unit conducted 8 days of Link-11 exercises.

d. A total of seven BQM-34Ss, four BQM-74Cs and seven AQM-37Cs were launched in support of surface-to-air and air-to-air missile exercises.

2. **Inner Range Operational Support**:

a. The Inner Range was active 24 days this report period. Operational services were provided to: 17 U.S. surface units, 5 U.S. air units, 5 U.S. air units, 4 foreign surface units and 1 U.S. ground units.

b. Twenty-two days of Naval Gunfire, 13 days of air-to-ground and 1 day of supporting arms exercise were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 28 days this report period. Operational services were provided to: 18 U.S. surface units, 4 U.S. air units, 1 U.S. subsurface unit, 3 foreign surface unit and 1 foreign subsurface.

b. Ten U.S. surface units and three foreign surface units conducted 12 days of PACER exercises this report period.

c. Thirteen U.S. surface units conducted 10 days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

d. A total of 24 MK-30 targets were launched in support of torpedo and proficiency exercises. One MK-30 was helo launched and two were recovered by VC-8.

e. Forty-six MK-46s, 18 MK-48s and 4 MK-37s were fired on the Underwater Tracking Range this report period.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 22 days this report period. Operational services were provided to: 20 U.S. surface units, one U.S. subsurface unit and five foreign surface units.

b. One TPS provided 152.0 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering section provided support for the recovery of 58 torpedoes, 22 MK-30 ASW targets and 42 mines. Twenty-three MK-30 targets were launched by MOE. VC-8 recovered one MK-30 target.

b. The Torpedo Shop prepared 53 MK-46s and flushed 21 MK-48s of which 42 MK-46s and 18 MK-48s were fired.

c. The MK-30 Shop prepared 44 targets of which 24 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 17 chassis.

e. The PMEL Shop calibrated 82 pieces of test equipment and repaired 17 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Nine hundred and thirteen requisitions were processed through the Naval Station Supply Support Activity.

(2) Four hundred and ninty-eight issues were received from the Naval Station, processed and issued to the requesting activities.

(3) One hundred and seventeen turn-ins were made to the local DRMO.

(4) Ninety-two shipments were made this month as follows: 67 DLRs were shipped through the U.S. Postal Service, 15 DLRs and 10 shipments were processed through the Naval Station Supply Support Activity.

(5) Seventy-five issues were made from the Command MICS stocks, 35 were RSS Replenishment and the remaining 40 were non-

RSS issues. A total of 285 issues were made from the sites ready service spares.

(6) Thirty-four open purchases were picked up at the local market requiring 16 trips to the San Juan Metropolitan Area and adjacent localities.

(7) One report of survey DD Form 200 was processed.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

MARCH 1990

1. **Outer Range Operational Support:**

a. The Outer Range was active 10 days this report period. Operational services were provided to: nine U.S. surface units, two U.S. air units, one U.S. subsurface unit and PMTC.

b. One U.S. subsurface unit conducted 3 days of antisubmarine warfare exercises using the FPS-67 surveillance and the Vieques Nike Hercules Radar.

c. Seven U.S. surface units conducted 9 days of Link-11 exercises.

d. One air unit conducted 1 day of air-to-surface ordnance exercises using two Gorst targets.

e. Five U.S. surface units conducted 4 days of surface-to-surface gun exercises using four QST-35 remote mobile sea targets.

f. A total of nine AQM-37Cs, eight BQM-74Cs and one BQM-34S were launched in support of surface-to-air and air-to-air missile exercises.

2. **Inner Range Operational Support:**

a. The Inner Range was active 24 days this report period. Operational services were provided to: seven U.S. surface units, six U.S. air units and two ground units.

b. Fourteen days of Naval Gun Fire, 16 days of air-to-ground, 4 days of mine, 5 days of supporting arms and 1 day of small arms were supported this report period.

3. **Underwater Tracking Range Operational Support:**

a. The Underwater Tracking Range was active 25 days this report period. Operational services were provided to: 7 U.S. surface units, 11 U.S. air units, 4 U.S. subsurface units, and AFWTF.

b. Three U.S. surface units and five U.S. air units conducted 6 days of PACER exercises.

c. Three U.S. surface units conducted 3 days of Surface Ship Radiated Noise Measurement (SSRNM) exercises this report period.

d. A total of 25 MK-30 targets were launched in support of torpedo and WSAT exercises this report period.

e. Sixty-four MK-46s and 26 MK-48s were fired on the Underwater Tracking Range this report period.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 25 days this report period. Operational services were provided to: 12 U.S. surface units, 2 U.S. subsurface, 1 U.S. subsurface unit, CINCLANTFLT and AFWTF.

b. One TPS provided 153.0 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 108.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 80 torpedoes, 25 MK-30 ASW targets, 12 PLVs, 1 BQM-74C and 62 mines. Twenty-four MK-30 targets were launched by MOE. VC-8 launched one MK-30 target.

b. The Torpedo Shop prepared 89 MK-46s and flushed 26 MK-48s of which 64 MK-46s and 26 MK-48s were fired.

c. The MK-30 Shop prepared 44 targets of which 25 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 18 chassis.

e. The PMEL Shop calibrated 100 pieces of test equipment and repaired 25 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Nine hundred and seventeen requisitions were processed through the Naval Station Supply Support Activity.

(2) Eight hundred and eighty-two issues were received from the Naval Station (NAVSTA), processed and issued to the requesting activities.

(3) Twenty-one turn-ins were made to the local DRMO, and 113 excess line items were turned in through the NAVSTA Supply Support Activity.

(4) Eighty-four shipments were made this month as follows: 67 DLRs were shipped through the U.S. Postal Service. Fourteen shipments were processed through the NAVSTA Supply Support Activity, and 3 through the U.S. Postal Service.

(5) Eighty-six issues were made from the Command MICS stocks, 31 were RSS Replenishment and the remaining 55 were non-RSS issues. A total of 297 issues were made from site ready service spares.

(6) Two hundred and twenty-two open purchases were picked up at the local market requiring 28 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Eight report of survey DD Form 200 were processed.

APRIL 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 14 days this report period. Operational services were provided to: nine U.S. surface units, two U.S. air units, one U.S. subsurface unit and four foreign surface units.

b. One U.S. subsurface unit conducted 3 days of antisubmarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules Radar.

c. One U.S. surface unit, one U.S. air unit and three foreign surface units conducted 7 days of Link-11 exercises.

d. A total of five QST-35 Septars were launched in support of five surface-to-surface gun exercise for eight U.S. surface units.

e. A total of nine BQM-74Cs, two BQM-34Ss, six AQM-37Cs and one BQM-34E were launched in support of surface-to-air and air-to-air missile exercises.

2. **Inner Range Operational Support**:

a. The Inner Range was active 22 days this report period. Operational services were provided to: eight U.S. surface units, seven U.S. air units, one U.S. ground unit and three foreign surface units.

b. Thirteen days of Naval Gunfire, 17 days of air-to-ground, 3 days of mine and 1 day of supporting arms were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 25 days this report period. Operational services were provided to: 12 U.S. surface units, 4 U.S. subsurface units and 9 U.S. air units.

b. Five U.S. air units conducted 5 days of PACER exercises.

c. Eight U.S. surface units conducted 8 days of surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 29 MK-30 targets were launched in support of torpedo, proficiency and WSAT exercises.

e. Fifty MK-46s, 14 MK-48s and 2 SHAPEs were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 20 days this report period. Operational services were provided to: 14 U.S. surface units, 3 foreign surface units and CINCLANTFLT.

b. One TPS provided 140.6 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering section provided support for the recovery of 90 torpedoes, 28 MK-30 ASW targets and 49 mines. Twenty-nine MK-30 targets were launched by MOE. VC-8 recovered one MK-30 target.

b. The Torpedo Shop prepared 50 MK-46s and flushed 15 MK-48s of which 50 MK-46s and 14 MK-48s were fired.

c. The MK-30 Shop prepared 51 targets of which 29 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 25 chassis.

e. The PMEL Shop calibrated 113 pieces of test equipment and repaired 24 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Six hundred and ninety-two requisitions were processed through the Naval Station Supply Support Activity.

(2) Six hundred and sixty-nine issues were received from the Naval Station, processed and issued to the requesting activities.

(3) Five turn-ins were made to the Local DRMO and two excess line items were turned in through the NAVSTA Supply Support Activity.

(4) Seventy-seven shipments were made this month as follows: 39 DLRs were shipped through the U.S. Postal Service. 38 shipments were processed through the Naval Station Supply Support Activity, and 3 through the U.S. Postal Service.

(5) One hundred and fifteen issues were made from the Command MICS stocks, 59 were RSS Replenishment and the remaining

56 were non-RSS issues. A total of 346 issues were made from sites ready service spares.

(6) Ninety-seven open purchases were picked up at the local market requiring 22 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Four Report of Survey DD Form 200 were processed.

MAY 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 13 days this report period. Operational services were provided to: six U.S. surface units, two U.S. subsurface units, three foreign surface units and CJTF.

b. Outer Range provided detection and monitoring support to CJTF for 1 day this report period as a trial to test the future utilization of AFWTF's resources.

c. Three U.S. surface units and two foreign surface units conducted 9 days of Link-11 exercises.

d. A total of ten BQM-74Cs, two AQM-37Ss and one BQM-34S were launched in support of surface-to-air missile exercises.

2. **Inner Range Operational Support**:

a. The Inner Range was active 15 days this report period. Operational services were provided to: six U.S. surface units, five U.S. air units, two U.S. ground units, five foreign surface units, one foreign air unit and one USCG unit.

b. Eleven days of Naval Gunfire, 7 days of air-to-ground and 3 days of supporting arms were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 15 days this report period. Operational services were provided to: three U.S. surface units, two U.S. subsurface units, six U.S. air units and three foreign surface units.

b. Five U.S. air units, one U.S. surface unit and two foreign surface units conducted 7 days of PACER exercises.

c. One U.S. surface unit conducted 1 day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 18 MK-30 targets were launched in support of torpedo and PCO exercises.

e. Nineteen MK-46s, 10 MK-46 REXTORPS, 40 MK-48s and 2 MK-37s were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support:**

a. The Electronic Warfare Range was active 20 days this report period. Operational services were provided to: 11 U.S. surface units, 4 foreign surface units and CINCLANTFLT.

b. One TPS provided 84.4 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 125.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements:**

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 62 torpedoes, 18 MK-30 ASW targets and 6 mines. Seventeen MK-30 targets were launched by MOE. VC-8 launched one MK-30 target.

b. The Torpedo Shop prepared 31 MK-46s, 21 MK-46 REXTORPS and flushed 40 MK-48s of which 19 MK-46s, 10 MK-46 REXTORPS and 40 MK-48s were fired.

c. The MK-30 Shop prepared 32 targets of which 18 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 27 chassis.

e. The PMEL Shop calibrated 186 pieces of test equipment and repaired 41 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Six hundred and ninety-three requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Seven hundred and thirty-four issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) Seven turn-ins were made to the Local DRMO.

(4) Thirty-two shipments were made this report period as follows: nine DLRs were shipped through the U.S. Postal Service. One DLR and 22 shipments were processed through the NAVSTA Supply Support Activity.

(5) Sixty-two issues were made from the Command MICS stocks, 9 were RSS Replenishment and the remaining 53 were non-

RSS issues. A total of 260 issues were made from sites ready service spares.

(6) Thirty-four open purchases were picked up at the local market requiring 17 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Two Reports of Survey DD Form 200 were processed.

6. CDR Larry R. Fowler, USN, relieved CDR Virgil A. Spicer, USN, as Executive Officer on 25 May 1990.

JUNE 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 23 days this report period. Operational services were provided to: 15 U.S. surface units, six U.S. air units, one foreign subsurface unit and two U.S. ground units.

b. Outer Range provided detection and monitoring support to CJTF for 18 days this report period.

c. Six U.S. surface units and three U.S. air units conducted 8 days of Link-11 exercises.

d. One foreign subsurface unit conducted 2 days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

e. A total of six BQM-74Cs, one AQM-37C and five BQM-34Ss were launched in support of surface-to-air missile exercises.

2. **Inner Range Operational Support**:

a. The Inner Range was active 27 days this report period. Operational services were provided to: ten U.S. surface units, nine U.S. air units and four U.S. ground units.

b. Thirteen days of Naval Gunfire, 24 days of air-to-ground, 13 days of supporting arms and 4 days of mine exercises were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 25 days this report period. Operational services were provided to: eight U.S. surface units, two U.S. subsurface units, ten U.S. air units, one foreign subsurface unit, one foreign surface unit and AFWTF.

b. Ten U.S. air units, seven U.S. surface units and one foreign subsurface unit conducted 18 days of PACER exercises.

c. Three U.S. surface units conducted 3 days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 28 MK-30 targets were launched in support of torpedo and WSAT exercises.

e. Seventeen MK-46s, 34 MK-46 REXTORPS and 7 MK-48s were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 20 days this report period. Operational services were provided to: nine U.S. surface units, two U.S. air units and CINCLANTFLT.

b. One TPS provided 74.2 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 54 torpedoes, 28 MK-30 ASW targets and 8 mines. Twenty-seven MK-30 targets were launched by MOE. VC-8 launched one MK-30 target.

b. The Torpedo Shop prepared 24 MK-46s, 43 MK-46 REXTORPS of which 17 MK-46s and 34 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 54 targets of which 28 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 31 chassis.

e. The PMEL Shop calibrated 63 pieces of test equipment and repaired 30 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Six hundred and nine requisitions were processed through the Naval Station Supply Support Activity.

(2) Five hundred and sixty-six issues were received from the Naval Station (NAVSTA), processed and issued to the requesting activities.

(3) Sixty-one turn-ins were made to the Local DRMO.

(4) Forty-one shipments were made this month as follows: 25 DLRs and 5 shipments were shipped through the U.S. Postal Service. Eleven shipments were processed through the NAVSTA Supply Support Activity.

(5) One hundred and twenty issues were made from the Command MICS stocks, 120 were non-RSS issues. A total of 226 issues were made from sites ready service spares.

(6) Forty-three open purchases were picked up at the local market requiring 15 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Three hundred and fifty-three requisitions for MOE COSAL were prepared.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

6. Captain Thomas S. Lagomarsino, USN, relieved Captain William S. Wojtkowski, USN, as Commanding Officer on 6 June 1990.

JULY 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 25 days this report period. Operational services were provided to: 12 U.S. surface units, 3 U.S. air units, 1 foreign subsurface unit, AFWTF and CJTF.

b. Outer Range provided detection and monitoring support to CJTF for 17 days this report period.

c. Three U.S. surface units, one U.S. air unit and one foreign surface unit conducted 13 days of Link-11 exercises.

d. A total of 15 BQM-74Cs, 8 AQM-37Cs and 3 BQM-34S were launched in support of surface-to-air missile exercises.

2. **Inner Range Operational Support**:

a. The Inner Range was active 19 days this report period. Operational services were provided to: ten U.S. surface units, three U.S. air units, two U.S. ground units and four foreign surface units.

b. Fifteen days of Naval Gunfire, 11 days of air-to-ground, 3 days of supporting arms and 2 days of mine exercises were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 26 days this report period. Operational services were provided to: seven U.S. surface units, four U.S. subsurface units, eight U.S. air units, two foreign surface units, and AFWTF.

b. Eight U.S. air units, four U.S. surface units and two foreign surface units conducted 9 days of PACER exercises.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 21 days this report period. Operational services were provided to: 15 U.S. surface units, 1 U.S. air unit, 1 foreign surface unit and CINCLANTFLT.

b. One TPS provided 110.6 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 53 torpedoes, 27 MK-30 ASW targets and 31 mines. Twenty-six MK-30 targets were launched by MOE. VC-8 launched one MK-30 target.

b. The Torpedo Shop prepared 10 MK-46s and 34 MK-46 REXTORPS of which 9 MK-46s and 18 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 45 targets of which 27 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 25 chassis.

e. The PMEL Shop calibrated 71 pieces of test equipment and repaired 21 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Seven hundred and thirty requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Four hundred and seventy-eight issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) One turn-in was made to the Local DRMO.

(4) Thirty-two shipments were made this report period as follows: 3 shipments were shipped through the U.S. Postal Service. Eighteen DLRs and 11 shipments were processed through the NAVSTA Supply Support Activity.

(5) Eighty-five issues were made from the Command MICS stocks, 25 were RSS Replenishment and the remaining 60 were non-RSS issues. A total of 177 issues were made from sites ready service spares.

(6) Twenty-seven open purchases were picked up at the local market requiring 18 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Three Reports of Survey DD Form 200 were processed.

AUGUST 1990

1. **Outer Range Operational Support:**

a. The Outer Range was active 12 days this report period. Operational services were provided to: nine U.S. surface units, one U.S. air units and AFWTF.

b. Three U.S. surface units conducted 6 days of Link-11 exercises.

c. Five QST-35 SEPTARS were launched in support of surface-to-surface gun exercises for eight U.S. surface units.

2. **Inner Range Operational Support:**

a. The Inner Range was active 5 days this report period. Operational services were provided to: seven U.S. surface units, one U.S. air unit and one U.S. ground unit.

b. Four days of Naval Gunfire, one day of air-to-ground and one day of supporting arms exercises were supported this report period.

3. **Underwater Tracking Range Operational Support:**

a. The Underwater Tracking Range was active 19 days this report period. Operational services were provided to: six U.S. surface units, one U.S. subsurface unit, seven U.S. air units, two U.S. ground units and AFWTF.

b. Four U.S. air units and one U.S. surface unit conducted 3 days of PACER exercises.

c. One U.S. surface unit conducted 1 day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 13 MK-30 targets were launched in support of torpedo and WSAT exercises.

e. Eight MK-46s, 28 MK-46 REXTORPS and four MK-48s were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support:**

a. The Electronic Warfare Range was active 17 days this report period. Operational services were provided to: ten U.S. surface units and CINCLANTFLT.

b. One TPS provided 61.4 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 125.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 40 torpedoes, 4 PLVs and 13 MK-30 ASW targets. Thirteen MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 1 MK-46s, 19 MK-46 REXTORPS and flushed four MK-48s of which 8 MK-46s, 28 MK-46 REXTORPS and 4 MK-48s were fired.

c. The MK-30 Shop prepared 29 targets of which 13 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 34 chassis.

e. The PMEL Shop calibrated 100 pieces of test equipment and repaired 19 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Seven hundred and seventy-eight requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Six hundred and ninety issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) One turn-in was made to the Local DRMO.

(4) Eighty-one shipments were made this report period as follows: 11 shipments were shipped through the U.S. Postal Service. Sixty-six DLRs and 20 shipments were processed through the NAVSTA Supply Support Activity.

(5) Fifty-nine issues were made from the Command MICS stocks, 9 were RSS Replenishment and the remaining 50 were non-RSS issues. A total of 176 issues were made from sites ready service spares.

(6) Ninety-five items were picked up at the local market requiring 18 trips to the San Juan Metropolitan Area and adjacent localities.

(7) One hundred and sixteen excess were prepared and 63 were shipped through the NAVSTA.

(8) Eighteen COSAL items were diverted to open purchases.

SEPTEMBER 1990

1. **Outer Range Operational Support**:

a. The Outer Range was active 8 days this report period. Operational services were provided to: two U.S. surface units, one U.S. air unit, one U.S. subsurface unit and two foreign surface units.

b. Two foreign units conducted 2 days of Link-11 exercises.

c. Three QST-35 SEPTARS were launched in support of surface-to-surface gun exercises for two U.S. surface units and one foreign surface unit.

d. One BQM-74C was launched in support of one air-to-air missile exercise.

2. **Inner Range Operational Support**:

a. The Inner Range was active 9 days this report period. Operational services were provided to: three U.S. surface units, five U.S. air unit and one foreign surface unit.

b. Three days of Naval Gunfire, 7 days of air-to-ground and 3 days of mine exercises were supported this report period.

3. **Underwater Tracking Range Operational Support**:

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: five U.S. surface units, one U.S. subsurface unit and ten U.S. air units.

b. Nine U.S. air units conducted 7 days of PACER exercises.

c. Two U.S. surface unit conducted 2 days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 16 MK-30 targets were launched in support of torpedo and WSAT exercises.

e. Thirteen MK-46s and 39 MK-46 REXTORPS were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support**:

a. The Electronic Warfare Range was active 18 days this report period. Operational services were provided to: nine U.S. surface units, one U.S. air unit, one U.S. subsurface unit, two foreign surface units and CINCLANTFLT.

b. One TPS provided 91.7 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 52 torpedoes, 4 PLVs, 16 MK-30 ASW targets and 14 mines. Sixteen MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 13 MK-46s and 56 MK-46 REXTORPS of which 13 MK-46s and 39 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 27 targets of which 16 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 33 chassis.

e. The PMEL Shop calibrated 124 pieces of test equipment and repaired 15 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Two hundred and forty-six requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Six hundred and seven issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) One hundred and thirty turn-ins were made to the Local DRMO.

(4) Seventy-four shipments were made this report period as follows: one shipment was shipped through the U.S. Postal Service. 53 DLRs and 20 shipments were processed through the NAVSTA Supply Support Activity.

(5) Fifty-two issues were made from the Command MICS stocks, 10 were RSS Replenishment and the remaining 42 were non-RSS issues. A total of 45 issues were made from sites ready service spares.

(6) Sixty-five items were picked up at the local market requiring 15 trips to the San Juan Metropolitan Area and adjacent localities.

(7) An inventory of Warehouse 2052 was made.

OCTOBER 1990

1. **Outer Range Operational Support:**

a. The Outer Range was active 16 days this report period. Operational services were provided to: eight U.S. surface units, one U.S. air unit, and four U.S. subsurface units.

b. One U.S. surface unit conducted 1 day of Link-11 exercise.

c. Three U.S. subsurface units conducted, 9 days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

d. A total of 11 BQM-74Cs, 5 AQM-37Cs and 1 BQM-34S were launched in support of air-to-air and surface-to-air missile exercises.

2. **Inner Range Operational Support:**

a. The Inner Range was active 18 days this report period. Operational services were provided to: three U.S. surface units and three U.S. air units.

b. Four days of Naval Gunfire and 14 days of air-to-ground exercises were supported this report period.

3. **Underwater Tracking Range Operational Support:**

a. The Underwater Tracking Range was active 20 days this report period. Operational services were provided to: two U.S. surface units, four U.S. subsurface unit and six U.S. air units.

b. Six U.S. air units and one U.S. surface unit conducted 8 days of PACER exercises.

c. One U.S. surface unit conducted 1 day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 21 MK-30 targets were launched in support of torpedo and WSAT exercises.

e. Sixteen MK-46s, 14 MK-46 REXTORPS and 14 MK-48s were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support:**

a. The Electronic Warfare Range was active 20 days this report period. Operational services were provided to: ten U.S. surface units and CINCLANTFLT.

b. One TPS provided 72.5 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 117.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements:**

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 49 torpedoes, 20 MK-30 ASW targets and 12 mines. Twenty-one MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 28 MK-46s and 29 MK-46 REXTORPS of which 16 MK-46s and 14 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 35 targets of which 21 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 25 chassis.

e. The PMEL Shop calibrated 167 pieces of test equipment and repaired 23 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command.

(1) Six hundred and seven requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Four hundred and thirteen issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) Thirty-three turn-ins were made to the Local DRMO.

(4) Thirty-five shipments were made this report period as follows: 6 shipments were shipped through the U.S. Postal Service. Twenty-five DLR and 4 shipments were processed through the NAVSTA Supply Support Activity.

(5) Eighty-seven issues were made from the Command MICS stocks, 4 were RSS Replenishment and the remaining 82 were non-RSS issues. A total of 258 issues were made from sites ready service spares.

(6) 36 items were picked up at the local market requiring 13 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Significant clean out of warehouse 1980 was done.

NOVEMBER 1990

1. **Outer Range Operational Support:**

a. The Outer Range was active 17 days this report period. Operational services were provided to: two U.S. task groups, three U.S. surface units, and two U.S. air units.

b. Outer Range supported the Radar Accuracy Measurement Program (RAMP) flights this period.

c. Link-11 services were conducted on 11 days during the period for two air units and multiple surface unit operations.

d. Marine Ocean Engineering (MOE) provided a multiship manned septar fleet in support of CTF-88 hostile phase operations from the 10th through the 14th of the month.

e. A total of 18 aerial targets were launched consisting of: eight BQM-74Cs, three BQM-34Ss and seven AQM-37Cs.

2. **Inner Range Operational Support:**

a. Inner Range was active 20 days this report period. Operational services were provided to: three U.S. air units, eight U.S. surface units and one marine ground unit.

b. Inner Range provided 11 days of Naval Gunfire and 19 days of air-to-ground support this period.

3. **Underwater Tracking Range Operational Support:**

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: seven U.S. surface units, two U.S. subsurface units and six U.S. air units.

b. Six U.S. surface units, five U.S. air units and two sub-surface units conducted 15 days of PACER exercises.

c. A total of 22 MK-30 targets were launched, 20 surface and 2 air, and recovered during this period on the Underwater Tracking Range.

d. Six MK-46s, 28 MK-46 REXTORPS and 34 torpedoes were fired on the range this period.

4. **Electronic Warfare Range Operational Support:**

a. The Electronic Warfare Range was active 19 days this report period. Operational services were provided to: one U.S. task force, two U.S. task groups, two U.S. air units and three U.S. surface units.

b. One TPS provided 111.2 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 108.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The MOE section provided support for the recovery of 68 torpedoes, 22 MK-30 ASW targets and 50 mines during this period.

b. The Torpedo Shop prepared 8 MK-46s of which 6 were fired and 65 MK-46 REXTORPS were prepared of which 33 were fired. An additional 38 MK-48 torpedoes, 4 EHCTVS and 2 Totems for PCO Ops brought the total weapon requirements to 119.

c. The MK-30 Shop prepared 38 targets of which 22 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 26 radar chassis.

e. The PMEL Shop calibrated 67 pieces of test equipment and repaired 21 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Five hundred and sixty-two requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Four hundred and twenty-seven issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) Forty-three turn-ins were made to the Local DRMO.

(4) Thirty-one shipments were made this period as follows: 8 shipments were shipped through the U.S. Postal Service. Eleven DLRs and 12 shipments were processed through the NAVSTA Supply Support Activity.

(5) Five hundred and seventeen issues were made from the Command MICS stocks, 59 were RSS Replenishment and the remaining 458 were non-RSS issues. A total of 262 issues were made from sites ready service spares.

(6) Fifty-seven items were picked up at the local market requiring 15 trips to the San Juan Metropolitan Area and adjacent localities.

DECEMBER 1990

1. **Outer Range Operational Support:**

a. The Outer Range was active 6 days this report period. Operational services were provided to: five U.S. surface units and two U.S. subsurface units.

b. Two U.S. surface unit conducted 3 days of Link-11 exercises.

c. Two U.S. subsurface units conducted, 2 days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

d. A total of four BQM-74Cs, one AQM-37Cs and two BQM-34S were launched in support of surface-to-air missile exercises.

2. **Inner Range Operational Support:**

a. The Inner Range was active 7 days this report period. Operational services were provided to: three U.S. surface units, two U.S. ground units and one foreign ground unit.

b. Two days of Naval Gunfire and 4 days of supporting arms were supported this report period.

3. **Underwater Tracking Range Operational Support:**

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: eight U.S. surface units, two U.S. subsurface units and six U.S. air units.

b. Four U.S. air units and two U.S. surface units conducted 5 days of PACER exercises.

c. A total of 22 MK-30 targets were launched in support of torpedo and WSAT exercises.

d. Twenty-five RT-46s, 9 MK-46s and 14 MK-48s were fired on the Underwater Tracking Range.

4. **Electronic Warfare Range Operational Support:**

a. The Electronic Warfare Range was active 10 days this report period. Operational services were provided to: three U.S. surface units and CINCLANTFLT.

b. One TPS provided 23.5 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. **Non-Operational Support and Significant Achievements**:

a. The Marine Ocean Engineering (MOE) section provided support for the recovery of 41 torpedoes, 22 MK-30 ASW targets and 10 mines. Twenty-one MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared one MK-46s and 21 MK-46 REXTORPS of which 9 MK-46s and 25 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 40 targets of which 22 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 18 chassis.

e. The PMEL Shop calibrated 65 pieces of test equipment and repaired 7 units.

f. The Supply/Logistic Support section provided the following support to the AFWTF Command:

(1) Three hundred and five requisitions were processed through the Naval Station (NAVSTA) Supply Support Activity.

(2) Four hundred and forty-three issues were received from the NAVSTA, processed and issued to the requesting activities.

(3) Eight turn-ins were made to the Local DRMO.

(4) Thirty-one shipments were made this period as follows: 9 shipments were shipped through the U.S. Postal Service. Seventeen DLR and five shipments were processed through the NAVSTA Supply Support Activity.

(5) Forty-seven issues were made from the Command MICS stocks, 0 were RSS Replenishment and the remaining 47 were non-RSS issues. A total of 69 issues were made from sites ready service spares.

(6) Eighteen items were picked up at the local market requiring seven trips to the San Juan Metropolitan Area and adjacent localities.

(7) Three Reports of Survey DD Form 200 were processed.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venezuela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
MAU	- Marine Assault Unit
MEF	- Mid East Force
MEU	- Marine Expeditionary Amphibious Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over the Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface to Air Missile
SATS	- Systems Accuracy Trials
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1991

BACKGROUND: The paramount and most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment that can be provided. The unique capabilities of the Atlantic Fleet Weapons Training Facility (AFWTF) provide just such an environment.

To achieve these goals we have four functional ranges: the Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. It should be remembered that the Electronic Warfare Range overlaps and services all of the ranges.

MISSION: The mission of the AFWTF is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test and evaluation of weapons systems. The mission is divided into the following functional areas for implementation:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multi-ship/unit exercises, tests, and Operational Test and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide secure/voice communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises/tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

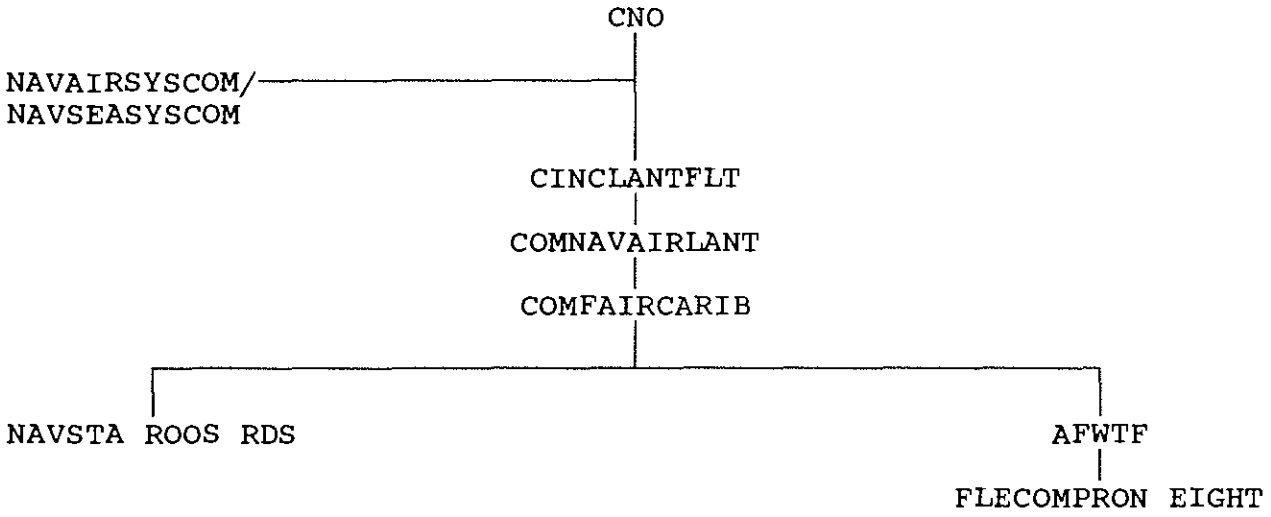
h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for Fleet Composite Squadron Eight (VC-8) for range support services.

j. Coordinate ship, submarine and aircraft transits through the Puerto Rican operating areas.

k. Serve as Search and Rescue (SAR) Coordinator for Viequez, U.S. Virgin Islands and Puerto Rico Operating Areas in the Caribbean.

ORGANIZATION: AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander, Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander Fleet Air, Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are depicted in the diagram that follows:



AFWTF is comprised of 98 military and 43 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are accomplished by contractor personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for all surface-to-surface, air-to-air and surface-to-air missile firings. The Outer Range consists of two open ocean ranges designated the alpha or north and bravo or south range. The alpha range encompasses an area of 120,000 square miles while the bravo range encompasses 74,000 square miles. The Outer Range utilizes

several sites within the Roosevelt Roads complex, which include the Range Operations Center (ROC), and the target control sites at Pico del Este, Puerto Rico and on St. Thomas in the U.S. Virgin Islands.

The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets. During a mission, all drones are remotely controlled from the ROC utilizing data received from the Pico del Este or St. Thomas target control sites. The system used for this control and data handling is the Remote Data and Drone Control System (RDDCS). The purpose of the RDDCS is to supply the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site provides positional data and drone telemetry information which is transmitted along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars providing additional positional data are located at Roosevelt Roads, Vieques, St. Thomas and St. Croix. After processing the data, the computer routes it to the appropriate instrumentation to display radar/command/telemetry and to the drone control plotters.

These target control systems are used to provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system that is used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico del Este and the ROC.

2. Aerial Targets. The types of drone aircraft used at AFWTF are the subsonic BQM-34S, the supersonic BQM-34E/T, the subsonic BQM-74C, and the supersonic AQM-37C. The BQM-34S drone is flown at altitudes between 30,000 and 45,000 feet at speeds between 300 and 500 knots. Presently, the ROC has the capability to control a maximum of six BQM-34S/BQM-74C drones simultaneously. After the drone is launched, it is flown to the specified range where it flies along a predetermined hot leg. It is during this period that surface units engage in firing/tracking/simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data pertaining to the amount of fuel remaining, speed, altitude, angle of climb, etc. When the mission is completed, the drone drops into the sea recovery area by parachute and is recovered by a specially configured helicopter from VC-8. Scoring is evaluated by the Naval Warfare Assessment Center (NWAC) field office on the basis of calculated miss-distance.

a. The **BQM-34S and BQM-34E/T** provide realistic targets for both surface-to-air and air-to-air missile exercises. Various

augmentation devices may be provided to meet specific operational test requirements.

b. The **BQM-74C** is used in much the same manner, but has very limited space for augmentation gear.

c. The **AQM-37C** is normally used for surface-to-air or air-to-air live warhead missile operations.

d. In addition to the self-powered aerial targets, the **TDU-34** towed target is a high-performance, lightweight target designed for use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. The TDU-34 is towed by TA-4J aircraft from VC-8.

3. Surface Targets.

a. The **QST-35 SEPTAR** is a 56 foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for SPAR. The boat is capable of being remotely controlled out to approximately 50 NM from AFWTF control stations.

(1) Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. Surface-to-surface gunfire utilizing a 10 mil offset is authorized if the target is so allocated.

(2) Air-to-surface gunfire, missiles and bombs can be targeted against a SPAR streamed at approximately 1,000 feet.

(3) SEPTARs normally operate in bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one tri-purpose target complex and the water areas associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, an air-to-ground close air support (CAS) range consisting of two air-to-ground bull's eye targets, a strafing range, a mock airfield and other limited tactical targets utilized for air-to-ground ordnance and CAS training; a mining range, and an artillery range.

b. Vieques is a hilly island approximately 18 miles long and 4 miles wide. It is located 7 miles southeast of Roosevelt Roads. The eastern section of Vieques is devoted to landing beaches, maneuver areas, small arms and crew-served weapons

ranges. Southern beaches and adjacent waters are used by amphibious forces. The eastern tip of Vieques is used for live fire air-to-ground and naval gunfire exercises.

2. Vieques Naval Gunfire Target Complex.

a. **General.** The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias, a hill on the western side of Bahia Salina del Sur, and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex.

a. **General.** The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The targets are controlled from an observation post located on top of Cerro Matias Hill west of the target area.

(1) Target Location and Description.

(a) Air Impact Area (AIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the terrain of the AIA and CAS zone is varied and ranges from flat, level ground at sea-level beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide the greatest realism. The CAS targets consist of a realistic mock-up of an airstrip, fuel farm, motor pool, ammo dump, SAM sites, and numerous smaller targets of opportunity. All targets in the CAS zone are stationery with the exception of the mobile land target which operates in the mock airstrip northeast of target one. These targets are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Target One. A bull's eye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Laross T.V. bomb scoring system.

(c) Strafe Target. The targets are scored by the Delmar acoustic scoring system.

(d) Target Two. A bull's eye approximately 2 miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the Laross T.V. bomb scoring system.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep water off the west coast of St. Croix, is utilized for accurate

three dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square miles. Water depths vary from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations on the Underwater Range are controlled from a shore complex located on the northwestern shore of St. Croix. During periods of operations a military range control officer from AFWTF is present. Shops for instrument maintenance and torpedo preparation are located at Roosevelt Roads as are the administrative offices for the range.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, with or without live ordnance can be conducted on the range. The range provides precision tracking data obtained via optical, in-water three dimensional, and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training product.

ELECTRONIC WARFARE RANGE

1. General. The Electronic Warfare Range (EWR) consists of four Threat Platform Simulator (TPS) sites and a Noise Jammer Simulator (NJS). Sites are located at Pico del Este in Puerto Rico, Mt. Pirata on Vieques and St. Georges Hill on St. Croix.

a. The EWR provides threat simulations to fleet users and provides a multi-axis threat arena for EW training.

b. The NJS provides a realistic jamming environment to train radar operators in electronic-counter-measures (ECM) and electronic-counter-counter-measures (ECCM).

c. The EWR also has an Outboard Stimulator (OBS) which provides training to communications operators worldwide.

2. The capability of the EWR will be greatly enhanced when the threat radar simulator received in JAN 92 is brought into operation.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 1991

1. Outer Range Operational Support:

a. The Outer Range was active 11 days this report period. Operational services were provided to: two U.S. surface units, three U.S. subsurface units, one foreign surface unit and AFWTF.

b. Two U.S. subsurface units conducted six days of anti submarine warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Four QST-35 SEPTARS were launched in support of surface-to-surface gun exercises for one U.S. surface unit and one foreign surface unit.

d. One BQM-74C was launched in support of one surface-to-air missile exercise.

2. Inner Range Operational Support:

a. The Inner Range was active five days this report period. Operational services were provided to: one U.S. surface unit, three U.S. air units and two foreign surface units.

b. Two days of naval-gunfire, three days of air-to-ground and one day of mine exercises were supported this report period.

c. Completed 1990/1991 30 day Range refurbishment.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 15 days this report period. Operational services were provided to: one U.S. surface unit, two U.S. subsurface units and nine U.S. air units.

b. Two U.S. air units and one U.S. surface unit conducted four days of PACER exercises.

c. A total of 16 MK-30 targets were launched in support of torpedo exercises.

d. 27 RT-46s, one MK-46, two EHCTVs, one TOTEM and 24 MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eight days this report period. Operational services were provided to: two U.S. surface units, one U.S. air unit, one U.S. subsurface unit, two foreign surface units and CINCLANTFLT.

b. One TPS provided 36.9 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 50.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 52 torpedoes, 16 MK-30 ASW targets and three PLVs. 12 MK-30 targets were launched by MOE. VC-8 launched four MK-30s and recovered one MK-30.

b. The Torpedo Shop prepared ten MK-46s and 42 MK-46 REXTORPS of which one MK-46 and 27 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 23 targets of which 16 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 19 chassis.

e. The PMEL Shop calibrated 41 pieces of test equipment and repaired 15 units.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 393 requisitions were processed through the Naval Station Supply Support Activity.

(2) 462 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 63 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 13 shipments were made this month as follows: One shipment was shipped through the U.S. Postal Service, 0 DLR and 12 shipments were processed through the Naval Station Supply Support Activity.

(5) 72 issues were made from the command MICS stocks at Bldg. 2052, 10 were RSS Replenishments and the remaining 66 were non-RSS issues. A total of 133 issues were made from sites ready service spares.

(6) 25 items were picked up at the local market requiring 15 trips to the San Juan Metropolitan Area and adjacent localities.

(7) One Report of Survey, DD form 200, was processed.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 1991

1. Outer Range Operational Support:

a. The Outer Range was active three days this report period. Operational services were provided to: one U.S. surface unit and one U.S. subsurface unit.

b. One QST-35 SEPTAR was launched in support of a surface-to-surface gun exercise for one U.S. surface unit.

c. One U.S. subsurface unit conducted one day of Link-11 exercise.

2. Inner Range Operational Support:

a. The Inner Range was active five days this report period. Operational services were provided to: two U.S. surface units and one U.S. air unit.

b. Three days of naval gunfire and two days of air-to-ground were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 25 days this report period. Operational services were provided to: one U.S. surface unit, six U.S. subsurface units, seven U.S. air units, two foreign surface units and two foreign subsurface units.

b. Five U.S. air units, one U.S. surface unit and one foreign surface unit conducted 10 days of PACER exercises.

c. A total of 23 MK-30 targets were launched in support of torpedo exercises.

d. 18 RT-46s, six MK-46s, four EHCTVs, one TOTEM, 36 MK-48s and six MK-37s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active three days this report period. Operational services were provided to: one U.S. surface unit, two foreign surface units and one foreign subsurface unit.

b. One TPS provided 22.0 hours of Electronic Warfare Support.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 71 torpedoes, 22 MK-30 ASW targets and four PLVs.

23 MK-30 targets were launched by MOE. VC-8 recovered one MK-30 and four MK-48s.

b. The Torpedo Shop prepared six MK-46s and 19 MK-46 REXTORPS of which six MK-46s and 18 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 36 targets of which 23 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 41 chassis.

e. The PMEL Shop calibrated 104 pieces of test equipment and repaired 31 units.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 564 requisitions were processed through the Naval Station Supply Support Activity.

(2) 321 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 182 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 14 Shipments were made this month as follows: two shipments were shipped through the U.S. Postal Service, 0 DLR and 12 shipments were processed through the Naval Station Supply Support Activity.

(5) 93 issues were made from the command MICS stocks at Bldg. 2052, seven were RSS Replenishments and the remaining 86 were non-RSS issues. A total of 76 issues were made from sites ready service spares.

(6) 15 items were picked up at the local market requiring 9 trips to the San Juan Metropolitan Area and adjacent localities.

(7) Two Reports of Survey, DD Form 200, were processed.

(8) All incoming and outgoing air and surface logistics support shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 1991

1. Outer Range Operational Support:

a. The Outer Range was active nine days this report period. Operational services were provided to: nine U.S. surface units, and one foreign surface unit.

b. Eight U.S. surface units conducted five days of LINK-11 exercise.

c. One foreign surface unit conducted two days of LINK-14 exercise.

d. Two BQM-74Cs and one AQM-37C were launched in support of surface-to-air missile exercise.

2. Inner Range Operational Support:

a. The Inner Range was active 16 days this report period. Operational services were provided to: six U.S. surface units, two U.S. air units and one foreign surface unit.

b. Nine days of naval gunfire, six days of air-to-ground and two days of mine exercises were supported this report period.

c. Conducted MK-91 Illumation Round Testing with the USS VALDEZ and NWHC Dahlgren.

d. HMS active utilized the range for naval gunfire.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 15 days this report period. Operational services were provided to: five U.S. surface units, eight U.S. air units and one foreign unit.

b. Six U.S. air units and two U.S. surface units conducted 11 days of PACER exercises.

c. One U.S. surface unit conducted one day of Surface Ship Radiated Noise Measurement (SSRNM).

d. A total of 25 MK-30 targets were launched in support of torpedo exercises.

e. 40 RT-46s and six MK-46s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seven days this report period. Operational services were provided to: three U.S. surface units, one U.S. air unit and CINCLANTFLT.

b. One TPS provided 19.5 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 24.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 40 MK-46 torpedoes, 25 MK-30 ASW targets and 15 mines. 25 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 13 MK-46s and 55 MK-46 REXTORPS of which seven MK-46 and 40 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 46 targets of which 25 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 42 chassis.

e. The PMEL Shop calibrated 96 pieces of test equipment and repaired four units.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 358 requisitions were processed through the Naval Station Supply Support Activity.

(2) 530 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 69 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) Eight shipments were made this month as follows: one shipment was shipped through the U.S. Postal Service and seven shipments were processed through the Naval Station Supply Support Activity.

(5) 76 issues were made from the command MICS stocks at Bldg. 2052, all were non-RSS issues. A total of 63 issues were made from sites ready service spares.

(6) 13 items were picked up at the local market requiring three trips to the San Juan Metropolitan Area and adjacent localities.

(7) One Report of Survey, DD Form 200, was processed.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 1991

1. Outer Range Operational Support:

a. The Outer Range was active 13 days this report period. Operational services were provided to: eight U.S. surface units, one U.S. subsurface unit, two U.S. air units and one foreign surface unit.

b. Six U.S. surface units, one U.S. air unit, one U.S. subsurface unit and one foreign surface unit conducted nine days of LINK-11 exercises.

c. One foreign surface unit conducted two days of LINK-14 exercise.

d. Two BQM-74Cs and one AQM-37C were launched in support of surface-to-air missile exercise.

2. Inner Range Operational Support:

a. The Inner Range was active 12 days this report period. Operational services were provided to: four U.S. surface units , three U.S. air units and one U.S. ground unit.

b. Five days of naval gunfire, nine days of air-to-ground, two days of mine exercises and one day of supporting arms were supported this report period.

c. Conducted Type Commander Core Training, TCCT 4-91.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 19 days this report period. Operational services were provided to: eight U.S. surface units, 11 U.S. air units, two U.S. subsurface units and one foreign surface unit.

b. Nine U.S. air units conducted eight days of PACER exercises.

c. Seven U.S. surface units conducted seven days of Surface Ship Radiated Noise Measurement (SSRNM).

d. A total of 25 MK-30 targets were launched in support of torpedo exercises.

e. 40 RT-46s and six MK-46s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 12 days this

report period. Operational services were provided to: seven U.S. surface units, one U.S. air unit and CINCLANTFLT.

b. Two TPS provided 32.4 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 57 torpedoes, 21 MK-30 ASW targets and three mines. 21 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 15 MK-46s and 52 MK-46 REXTORPS of which 14 MK-46 and 47 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 41 targets of which 21 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 24 chassis.

e. The PMEL Shop calibrated 69 pieces of test equipment, repaired four units and rejected seven.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 695 requisitions were processed through the Naval Station Supply Support Activity.

(2) 491 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 11 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 11 shipments were made this month as follows: four shipments were shipped through the U.S. Postal Service and seven shipments were processed through the Naval Station Supply Support Activity.

(5) 47 issues were made from the command MICS stocks at Bldg. 2052, 17 were RSS Replenishments and the remaining 30 were non-RSS issues. A total of 0 issues were made from sites ready service spares.

(6) Four items were picked up at the local market requiring four trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 1991

1. Outer Range Operational Support:

a. The Outer Range was active five days this report period. Operational services were provided to: two U.S. surface units and two foreign surface units.

b. One U.S. surface unit and one foreign surface unit conducted two days of LINK-11 exercises.

c. One U.S. surface unit conducted one day of surface to surface gun exercise with one QST-35 SEPTAR.

d. One BQM-74C was launched in support of one surface-to-air missile exercise.

2. Inner Range Operational Support:

a. The Inner Range was active ten days this report period. Operational services were provided to: two U.S. surface units, three U.S. air units and one U.S. ground unit.

b. Two days of naval gunfire, eight days of air-to-ground, one day of mine exercises and one day of supporting arms were supported this report period.

c. Completed limited range refurbishment of 26 days.

d. Conducted second MK-91 Illumation Round Testing with the USS VALDEZ and representatives from NHWC Crane and Dalhgren.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 13 days this report period. Operational services were provided to: three U.S. surface units, six U.S. air units and two U.S. subsurface units.

b. Three U.S. air units conducted three days of PACER exercises.

c. A total of eight MK-30 targets were launched in support of torpedo exercises.

d. 18 RT-46s and 12 MK-46s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 18 days this report period. Operational services were provided to: four U.S. surface units, one U.S. air unit, one foreign surface unit and

CINCLANTFLT.

b. One TPS provided 50.6 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 120.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 88 torpedoes, eight MK-30 ASW targets and 16 mines. Eight targets were launched by MOE. VC-8 recovered 12 MK-48s.

b. The Torpedo Shop prepared 16 MK-46s and 33 MK-46 REXTORPS of which 12 MK-46s and 18 MK-46 REXTORPS were fired.

c. The MK-30 shop prepared 10 targets of which eight were launched in support of torpedo exercises.

d. The ORD-6 shop repaired and calibrated 33 chassis.

e. The PMEL Shop calibrated 67 pieces of test equipment, repaired 15 units and rejected nine.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 414 requisitions were processed through the Naval Station Supply Support Activity.

(2) 653 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 74 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 19 shipments were made this month as follows: seven shipments were shipped through the U.S. Postal Service and 12 shipments were processed through the Naval Station Supply Support activity.

(5) 40 issues were made from the command MICS stocks at Bldg. 2052, seven were RSS Replenishments and the remaining 33 were non-RSS issues. A total of 16 issues were made from sites ready service spares.

(6) 16 items were picked up at the local market requiring six trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 1991

1. Outer Range Operational Support:

a. The Outer Range was active 19 days this report period. Operational services were provided to: 13 U.S. surface units, four U.S. air units and one foreign surface unit.

b. Seven U.S. surface units and one U.S. air unit conducted eight days of LINK-11 exercises.

c. Two U.S. air units conducted 11 days of air-to-surface ordnance drop exercise using QST-35 SEPTAR with Trimarans.

d. 18 BQM-74Cs, two BQM-34Ss and one AQM-37C were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 24 days this report period. Operational services were provided to: six U.S. surface units, five U.S. air units and one U.S. ground unit.

b. Five days of naval gunfire, 23 days of air-to-ground, four days of mine and one day of supporting arms exercises were supported this period.

c. Conducted MEFEX/TCCT 3-91 training.

3. Underwater Range Operational Support:

a. The Underwater Range was active 16 days this report period. Operational services were provided to 10 U.S. surface units, 18 U.S. air units and 2 U.S. subsurface units.

b. Six U.S. air units conducted five days of PACER exercises.

c. A total of ten MK-30 targets were launched in support of torpedo exercises.

d. 45 RT-46s, four MK-46s and four MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 23 days this report period. Operational services were provided to: 13 U.S. surface units, four U.S. air units and CINCLANTFLT.

b. Two TPS provided 207.0 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

4. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 50 torpedoes, ten MK-30 ASW targets and 15 mines. Ten MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 15 MK-46s and 65 MK-46 REXTORPS of which four MK-46s and 45 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 12 targets of which ten were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 36 chassis.

e. The PMEL Shop calibrated 81 pieces of test equipment, repaired seven nits and rejected nine.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 495 requisitions were processed through the Naval Station Supply Support Activity.

(2) 410 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 25 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 24 shipments were made this month as follows: two shipments were shipped through the U.S. Postal Service and 22 shipments were processed through the Naval Station Supply Support Activity.

(5) 36 issues were made from the Command MICS stocks at Bldg. 2052. All were non-RSS issues. A total of 114 issues were made from sites ready service spares.

(6) Seven items were picked up at the local market requiring three trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 1991

1. Outer Range Operational Support

a. The Outer Range was active 15 days this report period. Operational services were provided to: 11 U.S. surface units, two U.S. air units and five foreign surface units.

b. Two U.S. air units and one foreign surface unit conducted four days of LINK-11 exercises.

c. Two BQM-74Cs, five BQM-34Ss and one AQM-37C were launched in support of surface-to-air and air-to air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 23 days this report period. Operational services were provided to: eight U.S. surface units, five U.S. air units, two U.S. ground units and four foreign surface units.

b. Nine days of naval gunfire, 21 days of air-to-ground, three days of mine exercises and six days of supporting arms were supported this report period.

c. Completed FLTEX 4-91 and major weapons DET with COMCARAIRWING 3.

d. Completed TCCT 1-92 and UNITOS 32-91.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 25 days this report period. Operational services were provided to: 11 U.S. surface units, 13 U.S. air units, five U.S. subsurface units and three foreign surface units.

b. Six U.S. air units conducted five days of PACER exercises.

c. Seven U.S. surface units conducted seven days of Surface Ship Radiated Noise Measurement (SSRNM).

d. A total of 11 MK-30 targets were launched in support of torpedo exercises.

e. 34 RT-46s, 16 MK-46s and 13 MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 19 days this report period. Operational services were provided to: 12 U.S.

surface units, one U.S. air unit, four foreign surface units and CINCLANTFLT.

b. Two TPS provided 104.7 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 117.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. HUGO (NS 8201) and HUNTER (NS 8202) were christened on 30 July 1991 pierside at Naval Station Roosevelt Roads, Puerto Rico.

b. The Marine Ocean Engineering section provided support for the recovery of 63 torpedoes, 11 MK-30 ASW targets and 49 mines. 11 MK-30 targets were launched by MOE.

c. The Torpedo Shop prepared 16 MK-46s and 50 MK-46 REXTORPS of which 16 MK-46s and 34 MK-46 REXTORPS were fired.

d. The MK-30 Shop prepared 17 targets of which 11 were launched in support of torpedo exercises.

e. The ORD-6 Shop repaired and calibrated 21 chassis.

f. The PMEL Shop calibrated 79 pieces of test equipment, repaired 23 units and rejected 27.

g. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 795 requisitions were processed through the Naval Station Supply Support Activity.

(2) 133 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 160 materials Turn-Ins to stock (NAVSTA).

(4) 47 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(5) 22 shipments were made this month as follows: eight shipments were shipped through the U.S. Postal Service and 14 shipments were processed through the Naval Station Supply Support Activity.

(6) 55 issues were made from the command MICS stocks at Bldg. 2052, three were RSS Replenishments and the remaining 52 were non-RSS issues. A total of 115 issues were made from sites ready service spares.

(7) 14 items were picked up at the local market requiring six trips to the San Juan Metropolitan Area and adjacent

localities.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 1991

1. Outer Range Operational Support:

a. The Outer Range was active 18 days this report period. Operational services were provided to: 13 U.S. surface units, four U.S. air units and one foreign surface unit.

b. Two U.S. air units, five U.S. surface units and one foreign surface unit conducted 16 days of LINK-11 exercises.

c. Nine BQM-74Cs, three BQM-34Ss and one AQM-37C were launched in support of surface-to-air and air-to air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 19 days this report period. Operational services were provided to: four U.S. surface units, five U.S. air units and two U.S. ground units.

b. Seven days of naval gunfire, 14 days of air-to-ground and three days of supporting arms were supported this report period.

c. VFA-105 and VF-37 completed weapon DET. Lost one FA-18 aircraft on the range.

d. Completed long range strike by the 19th Tactical Fighter Squadron, U.S. Air Force.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 23 days this report period. Operational services were provided to: four U.S. surface units, four U.S. air units and five U.S. subsurface units.

b. Three U.S. air units conducted five days of PACER exercises.

c. Two U.S. surface units conducted two days of Surface Ship Radiated Noise Measurement (SSRNM).

d. A total of nine MK-30 targets were launched in support of torpedo exercises.

e. Two MK-46s, 17 RT-46s, 27 MK-48s, three EHCTVs and four TOTEMs were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 14 days this report period. Operational services were provided to: five U.S.

surface units, two U.S. air units and CINCLANTFLT.

b. Two TPS provided 80.4 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 50.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 53 torpedoes, nine MK-30 ASW targets and six mines. Nine MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared ten MK-46s and 34 MK-46 REXTORPS of which two MK-46s and 17 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 11 targets of which nine were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 40 chassis.

e. The PMEL Shop calibrated 107 pieces of test equipment, repaired seven units and rejected seven.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 770 requisitions were processed through the Naval Station Supply Support Activity.

(2) 696 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 42 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 13 shipments were made this month as follows: seven shipments were shipped through the U.S. Postal Service, six shipments and 57 DLRs were processed through the Naval Station Supply Support Activity.

(5) 25 issues were made from the command MICS stocks at Bldg. 2052, all were non-RSS issues. A total of 80 issues were made from sites ready service spares.

(6) Ten items were picked up at the local market requiring three trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 1991

1. Outer Range Operational Support:

a. The Outer Range was active 19 days this report period. Operational services were provided to: five U.S. surface units, one U.S. air unit, two U.S. subsurface units and one foreign surface unit. Included in the surface unit operations was three days of Development and Test Evaluation Support as the USS ARLEIGH BURKE (DDG-51) conducted Combat Systems Ship's Qualification trials.

b. One U.S. air unit and five U.S. surface units conducted 17 days of LINK-11 exercises.

c. One foreign surface unit conducted two days of LINK-14 exercises.

d. 12 BQM-74Cs, 11 BQM-34Ss and four AQM-37C were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 16 days this report period. Operational services were provided to: two U.S. surface units, four U.S. air units, one foreign surface unit and one U.S. ground unit.

b. Nine days of naval gunfire, seven days of air-to-ground, one day of supporting arms, and one day of minex were supported this report period.

c. USS ARLEIGH BURKE (DDG-51) conducted Naval Gunfire Support (NGFS) validation and qualification.

d. HMS Amazon conducted Naval Gunfire support.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 24 days this report period. Operational services were provided to: three U.S. surface units, seven U.S. air units, five U.S. subsurface units and one foreign surface unit.

b. Three U.S. air units conducted two days of PACER exercises.

c. A total of 13 MK-30 targets were launched in support of torpedo exercises.

d. 12 MK-46s, 27 RT-46s, two MK-48s, one EHCTVs and two EHCTVs were fired on the Underwater Tracking Range.

e. USS ARLEIGH BURKE (DDG-51) conducted eight days of testing and trials on the UTR. Testing included MK-46 firings, submarine detection track and evasion.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 21 days this report period. Operational services were provided to: four U.S. surface units, one U.S. air unit, one U.S. foreign surface unit and CINCLANTFLT.

b. Two TPS provided 182.7 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

d. USS ALREIGH BURKE (DDG-51) conducted nine days of testing and trials on the EWR. Operations included TRS Acceptance Testing.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 44 torpedoes, 13 MK-30 ASW targets and 18 mines. 13 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 12 MK-46s and 29 MK-46 REXTORPS of which 12 MK-46s and 27 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 20 targets of which 13 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 23 chassis.

e. The PMEL Shop calibrated 107 pieces of test equipment, repaired 14 units and rejected 17.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 276 requisitions were processed through the Naval Station Supply Support Activity.

(2) 501 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 46 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 30 shipments were made this month as follows: 10 shipments were shipped through the U.S. Postal Service, 20 shipments and seven DLRs were processed through the Naval Station Supply Support Activity.

(5) 23 issues were made from the command MICS stocks at Bldg. 2052, all were non-RSS issues. A total of 91 issues were made from sites ready service spares.

(6) 17 items were picked up at the local market requiring 5 trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 1991

1. Outer Range Operational Support:

a. The Outer Range was active 19 days this report period. Operational services were provided to: nine U.S. surface units and four U.S. subsurface units. The USS ARLEIGH BURKE (DDG-51) continued developmental testing/CSSQT utilizing the Outer Range five days.

b. Six U.S. surface units conducted 12 days of LINK-11 exercises.

c. Five U.S. subsurface units conducted eight days of anti-submarine warfare exercises using the FPS-67 surveillance radar and the Viequez Nike Hercules radar.

d. Seven BQM-74Cs, five BQM-34Ss and eight AQM-37Cs were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 19 days this report period. Operational services were provided to: nine U.S. surface units, six U.S. air units and two U.S. ground units.

b. Nine days of naval gunfire, six days of air-to-ground, two days of supporting arms, and one day of mine were supported this report period.

c. Completed Operation Equal Value and major COMJSOC exercise.

d. USS GETTYSBURG fired Naval Gunfire Support during CSSQT.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 20 days this report period. Operational services were provided to: three U.S. surface units, seven U.S. air units and six U.S. subsurface units.

b. Six U.S. air units conducted seven days of PACER exercises.

c. A total of 14 MK-30 targets were launched in support of torpedo exercises.

d. Two MK-46s, 29 RT-46s, 32 MK-48s, six TOTEMs and eight EHCTVs were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 15 days this report period. Operational services were provided to: two U.S. surface units and CINCLANTFLT.

b. One TPS provided 62.3 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 125.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 76 torpedoes and 14 MK-30 ASW targets. 14 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared eight MK-46s and 50 MK-46 REXTORPS of which two MK-46s and 29 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 24 targets of which 14 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 31 chassis.

e. The PMEL Shop calibrated 90 pieces of test equipment, repaired 25 units and rejected 11.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 960 requisitions were processed through the Naval Station Supply Support Activity.

(2) 307 issues were received from the Naval Station and processed and issued to the requesting activities.,

(3) 12 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 12 shipments were made this month as follows: four shipments were shipped through the U.S. Postal Service, eight shipments and nine DLRs were processed through the Naval Station Supply Support Activity.

(5) 12 issues were made from the command MICS stocks at Bldg. 2052, all were non-RSS issues. A total of 13 issues were made from sites ready service spares.

(6) 13 items were picked up at the local market requiring seven trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 1991

1. Outer Range Operational Report:

a. The Outer Range was active 17 days this report period. Operational services were provided to: two U.S Task groups, three U.S. Surface units, two U.S Air units.

b. The Outer Range supported the Radar Accuracy Measurement Program (RAMP) this period.

c. Two U.S. air units and multiple U.S. surface units conducted 11 days of Link 11 exercises.

d. Marine Ocean Engineering provided a multiship manned septar fleet in support of CTF 88 hostile phase operations from the 10th thru the 14th of the month.

e. Eight BQM 74Cs, three BQM 34Ss and seven AQM 37Cs were launched in support of surface-to-ari missile exercises.

2. Inner Range Operations Support:

a. The Inner Range was active 20 days this report period. Operational services were provided to: three U.S. air units, eight U.S. surface units and one marine ground unit.

b. 11 days of naval gunfire and 19 days of air-to-ground were supported this report period.

c. USS HUE CITY conducted Naval Gunfire Support validation and qualification as aprt of CSSQT.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: seven U.S. surface units, two U.S. subsurface units and six U.S. air units.

b. Six U.S. surface units, five U.S. air units and two subsurface units conducted 15 days of PACER exercises.

c. A total of 22 MK 30 targets were launched in support of torpedo exercises.

d. Six MK 46s, 28 MK 46 Rextorps and 34 MK 48 torpedoes were fired on the range Underwater Tracking range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 19 days this report period. Operational services were provided to: one U.S. Task Force, two U.S. Task Groups, two U.S. air units and three

U.S. surface units.

b. One TPS provided 111.2 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 108.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 68 torpedoes, 22 MK-30 ASW targets and 50 mines during this period.

b. The Torpedo Shop prepared eight MK-46s of which six MK-46s and 33 MK-46 REXTORPS were fired. Additionally 38 MK 48 torpedoes, four EHCTVs and two Totems were prepared.

c. The MK-30 Shop prepared 38 targets of which 22 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 26 radar chassis.

e. The PMEL Shop calibrated 67 pieces of test equipment and repaired 21 units.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 562 requisitions were processed through the Naval Station Supply Support Activity.

(2) 427 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 43 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 31 shipments were made this month as follows: 0 DLRs and eight shipments were shipped through the U.S. Postal Service, 11 DLRs and 12 shipments were processed through the Naval Station Supply Support Activity.

(5) 517 issues were made from the command MICS stocks at Bldg. 2052, 59 were RSS Replenishments and the remaining 458 were non-RSS issues. A total of 262 issues were made from sites ready service spares.

(6) 57 items were picked up at the local market requiring 15 trips to the San Juan Metropolitan Area and adjacent localities.

(7) All incoming and outgoing air and surface logistics support shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 1991

1. Outer Range Operational Support:

a. The Outer Range was active six days this report period. Operational services were provided to: five U.S. surface units and two U.S. subsurface units. The USS ARLEIGH BURKE (DDG-51) developemental testing/CSSQT utilizing the Outer Range five days.

b. Two U.S. surface units conducted three days of Link-11 exercises.

c. Two U.S. subsurface units conducted two days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

d. A total of four BQM-74Cs, one AQM-37C and two BQM-34S were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active seven days this report period. Operational services were provided to: three U.S. surface units, two U.S. ground units and one foreign ground unit.

b. Two days of naval gunfire and four days of supporting arms were supported this report period.

c. USS SARATOGA (CV-60) and COMCARAIRWING 17 conducted extensive air-to-ground bombing.

d. Started the year end range refurbishment.

e. Satisfactory completed the NAVOSH inspection.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: eight U.S. surface units, two U.S. subsurface units and six U.S. air units.

b. Four U.S. air units and two U.S. surface units conducted five days of PACER exercises.

c. A total of 22 MK-30 targets were launched in support of torpedo and WSAT exercises.

d. 25 RT-46s, nine MK-46s and 14 MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active ten days this report period. Operational services were provided to: three U.S. surface units and CINCLANTFLT.

b. One TPS provided 23.5 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 100.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 41 torpedoes, 22 MK-30 ASW targets and 10 mines. 21 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared one MK-46 and 21 MK-46 REXTORPS of which nine MK-46s and 25 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 40 targets of which 22 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 18 chassis.

e. The PMEL Shop calibrated 65 pieces of test equipment and repaired seven units.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 305 requisitions were processed through the Naval Station Supply Support Activity.

(2) 443 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) Eight Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 31 shipments were made this month as follows: 0 DLRs and nine shipments were shipped through the U.S. Postal Service and 17 DLR and five shipments were processed through the Naval Station Supply Support Activity.

(5) 47 issues were made from the Command MICS stocks at Bldg. 2052, all were non-RSS issues. A total of 69 issues were made from sites ready service spares.

(6) 18 items were picked up at the local market requiring seven trips to the San Juan Metropolitan Area and adjacent localities.

(7) Three Reports of Survey, DD Form 200, were processed.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venezuela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
MAU	- Marine Assault Unit
MEF	- Mid East Force
MEU	- Marine Expeditionary Amphibious Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over the Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface to Air Missile
SATS	- Systems Accuracy Trials
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY (AFWTF) - 1992

BACKGROUND: The paramount and most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment that can be provided. The unique capabilities of the AFWTF provide just such an environment.

To achieve these goals we have four functional ranges: the Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. It should be remembered that the Electronic Warfare Range overlaps and services all of the ranges.

MISSION: The mission of the AFWTF is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test and evaluation of weapons systems. The mission is divided into the following functional areas for implementation:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multi-ship/unit exercises, tests, and Operational Test and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide secure/voice communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises/tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

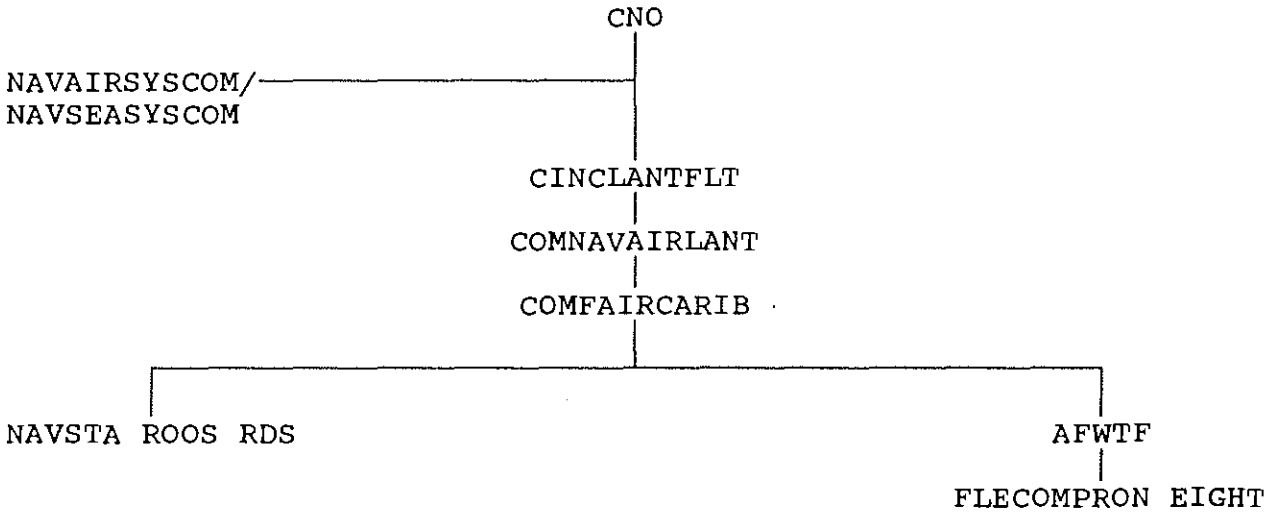
h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for Fleet Composite Squadron Eight (VC-8) for range support services.

j. Coordinate ship, submarine and aircraft transits through the Puerto Rican operating areas.

k. Serve as Search and Rescue (SAR) Coordinator for Vieques, U.S. Virgin Islands and Puerto Rico Operating Areas in the Caribbean.

ORGANIZATION: AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander, Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander Fleet Air, Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are depicted in the diagram that follows:



AFWTF is comprised of 98 military and 43 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are accomplished by contractor personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for all surface-to-surface, air-to-air and surface-to-air missile firings. The Outer Range consists of two open ocean ranges designated the alpha or north and bravo or south range. The alpha range encompasses an area of 120,000 square miles while the bravo range encompasses 74,000 square miles. The Outer Range utilizes

several sites within the Roosevelt Roads complex, which include the Range Operations Center (ROC), and the target control sites at Pico del Este, Puerto Rico and on St. Thomas in the U.S. Virgin Islands.

The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets. During a mission, all drones are remotely controlled from the ROC utilizing data received from the Pico del Este or St. Thomas target control sites. The system used for this control and data handling is the Remote Data and Drone Control System (RDDCS). The purpose of the RDDCS is to supply the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site provides positional data and drone telemetry information which is transmitted along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars providing additional positional data are located at Roosevelt Roads, Vieques, St. Thomas and St. Croix. After processing the data, the computer routes it to the appropriate instrumentation to display radar/command/telemetry and to the drone control plotters.

These target control systems are used to provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system that is used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico del Este and the ROC.

2. Aerial Targets. The types of drone aircraft used at AFWTF are the subsonic BQM-34S, the supersonic BQM-34E/T, the subsonic BQM-74C, and the supersonic AQM-37C. The BQM-34S drone is flown at altitudes between 30,000 and 45,000 feet at speeds between 300 and 500 knots. Presently, the ROC has the capability to control a maximum of six BQM-34S/BQM-74C drones simultaneously. After the drone is launched, it is flown to the specified range where it flies along a predetermined hot leg. It is during this period that surface units engage in firing/tracking/simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data pertaining to the amount of fuel remaining, speed, altitude, angle of climb, etc. When the mission is completed, the drone drops into the sea recovery area by parachute and is recovered by a specially configured helicopter from VC-8. Scoring is evaluated by the Naval Warfare Assessment Center (NWAC) field office on the basis of calculated miss-distance.

a. The **BQM-34S and BQM-34E/T** provide realistic targets for both surface-to-air and air-to-air missile exercises. Various

augmentation devices may be provided to meet specific operational test requirements.

b. The **BQM-74C** is used in much the same manner, but has very limited space for augmentation gear.

c. The **AQM-37C** is normally used for surface-to-air or air-to-air live warhead missile operations.

d. In addition to the self-powered aerial targets, the **TDU-34** towed target is a high-performance, lightweight target designed for use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. The TDU-34 is towed by TA-4J aircraft from VC-8.

3. Surface Targets.

a. The **QST-35 SEPTAR** is a 56 foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for SPAR. The boat is capable of being remotely controlled out to approximately 50 NM from AFWTF control stations.

(1) Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. Surface-to-surface gunfire utilizing a 10 mil offset is authorized if the target is so allocated.

(2) Air-to-surface gunfire, missiles and bombs can be targeted against a SPAR streamed at approximately 1,000 feet.

(3) SEPTARs normally operate in bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one tri-purpose target complex and the water areas associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, an air-to-ground Close Air Support (CAS) Range consisting of two air-to-ground bull's eye targets, a strafing range, a mock airfield and other limited tactical targets utilized for air-to-ground ordnance and CAS training; a mining range, and an artillery range.

b. Vieques is a hilly island approximately 18 miles long and four miles wide. It is located seven miles southeast of Roosevelt Roads. The eastern section of Vieques is devoted to landing beaches, maneuver areas, small arms and crew-served

weapons ranges. Southern beaches and adjacent waters are used by amphi- bious forces. The eastern tip of Vieques is used for live fire air-to-ground and naval gunfire exercises.

2. Vieques Naval Gunfire Target Complex.

a. **General.** The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias, a hill on the western side of Bahia Salina del Sur, and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex.

a. **General.** The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The targets are controlled from an observation post located on top of Cerro Matias Hill west of the target area.

(1) Target Location and Description.

(a) Air Impact Area (AIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the terrain of the AIA and CAS zone is varied and ranges from flat, level ground at sea-level beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide the greatest realism. The CAS targets consist of a realistic mock-up of an airstrip, fuel farm, motor pool, ammo dump, SAM sites, and numerous smaller targets of opportunity. All targets in the CAS zone are stationery with the exception of the mobile land target which operates in the mock airstrip northeast of target one. These targets are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Target One. A bull's eye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Laross T.V. bomb scoring system.

(c) Strafe Target. The targets are scored by the Delmar acoustic scoring system.

(d) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and con- sists of three concentric rings of tires 100 feet apart. The target is scored by the Laross T.V. bomb scoring system.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep water off the west coast of St. Croix, is utilized for accurate

three dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square miles. Water depths vary from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations on the Underwater Range are controlled from a shore complex located on the northwestern shore of St. Croix. During periods of operations a military range control officer from AFWTF is present. Shops for instrument maintenance and torpedo preparation are located at Roosevelt Roads as are the administrative offices for the range.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, with or without live ordnance can be conducted on the range. The range provides precision tracking data obtained via optical, in-water three dimensional, and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training product.

ELECTRONIC WARFARE RANGE

1. General. The Electronic Warfare Range (EWR) consists of four Threat Platform Simulator (TPS) sites and a Noise Jammer Simulator (NJS). Sites are located at Pico del Este in Puerto Rico, Mt. Pirata on Vieques and St. Georges Hill on St. Croix.

a. The EWR provides threat simulations to fleet users and provides a multi-axis threat arena for EW training.

b. The NJS provides a realistic jamming environment to train radar operators in Electronic-Counter-Measures (ECM) and Electronic-Counter-Counter-Measures (ECCM).

c. The EWR also has an Outboard Simulator (OBS) which provides training to communications operators worldwide.

2. The capability of the EWR will be greatly enhanced when the threat radar simulator received in JAN 92 is brought into operation.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 1992

1. Outer Range Operational Support:

a. The Outer Range was active 16 days this report period. Operational services were provided to: thirteen U.S. surface units, one U.S. ground unit and five foreign surface units.

b. Ten U.S. surface units and two foreign surface units conducted eleven days of LINK-11 exercise.

c. Nine BQM-74C's, five BQM-34S's, one BQM-34T and eight AQM-37C's were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active ten days this report period. Operational services were provided to: seven U.S. surface units, one U.S. air unit and five foreign surface units.

b. Nine days of naval-gunfire and two days of air-to-ground were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: ten U.S. surface units, eleven U.S. air units, two U.S. subsurface units, one U.S. ground unit, four foreign surface units and one foreign air unit.

b. Three U.S. air units conducted three days of PACER exercises.

c. Three U.S. surface units conducted three days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 17 MK-30 targets were launched in support of torpedo exercises.

e. Six MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seventeen days this report period. Operational services were provided to: eight U.S. surface units, one U.S. air unit, six foreign surface units and CINCLANTFLT.

b. Two TPS provided 70.7 hours of Electronic Warfare Support.

ENCLOSURE (2)

c. The AN/FSQ-154 Outboard Simulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of six torpedoes and 17 MK-30 ASW targets. 17 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 27 MK-46s and 46 MK-46 REXTORPS of which 32 MK-46s and 48 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 32 targets of which 17 were launched in support of torpedo exercises.

d. The ORD-6 Shop repaired and calibrated 38 chassis.

e. The PMEL Shop calibrated 170 pieces of test equipment, repaired 17 units and rejected 3.

f. The Supply/Logistic Support section provided the following support to AFWTF:

(1) 393 requisitions were processed through the Naval Station Supply Support Activity.

(2) 462 issues were received from the Naval Station and processed and issued to the requesting activities.

(3) 63 Turn-Ins were made to the local Defense Reutilization Marketing Office.

(4) 13 shipments were made this month as follows: One shipment was shipped through the U.S. Postal Service, 0 DLR and 12 shipments were processed through the Naval Station Supply Support Activity.

(5) 72 issues were made from the command MICS stocks at Bldg. 2052, 10 were RSS Replenishments and the remaining 66 were non-RSS issues. A total of 133 issues were made from sites ready service spares.

(6) 25 items were picked up at the local market requiring 15 trips to the San Juan Metropolitan Area and adjacent localities.

(7) No Report of Survey, DD form 200, was processed.

(8) All incoming and outgoing air and surface Logistics Support Shipments were met.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 1992

1. Outer Range Operational Support:

a. The Outer Range was active 16 days this report period. Operational services were provided to : 12 U.S. surface units, two U.S. air units and one foreign surface unit.

b. Four U.S. surface units and one U.S. air unit conducted nine days of LINK-11 exercises.

c. 13 BQM-74C's and six AQM-37C's were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 23 days this report period. Operational services were provided to: nine U.S. surface units, five U.S. air units, two U.S. ground units and two foreign surface units.

b. 13 Days of naval-gunfire, 17 days of air-to-ground, one day of mine exercises and six days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 19 days this report period. Operational services were provided to: seven U.S. surface units, seven U.S. air units, one foreign subsurface unit, for foreign surface units and one foreign air unit.

b. Five U.S. air units conducted six days of PACER exercises.

c. A total of 23 MK-30 targets were launched in support of torpedo exercises.

d. 12 MK-48's, 43 RT-46's and nine MK-46's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 20 days this report period. Operational services were provided to: six U.S. surface units, one U.S. air unit, two foreign surface units and CINCLANTFLT.

b. Two TPS provided 83.1 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 1992

1. Outer Range Operational Support:

a. The Outer Range was active 12 days this report period. Operational services were provided to: two U.S. subsurface units and two foreign surface units.

b. Two U.S. subsurface units conducted nine days of anti-submarine warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Four TDU targets were towed by VC-8 aircraft in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 16 days this report period. Operational services were provided to: three U.S. surface units, three U.S. air units, one U.S. ground unit and two foreign surface units.

b. Nine days of naval-gunfire, 12 days of air-to-ground, one day of mine exercises and two days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 15 days this report period. Operational services were provided to: two U.S. surface units, three U.S. air units, two U.S. subsurface units and three foreign surface units.

b. A total of 13 MK-30 targets were launched in support of torpedo exercises.

c. 11 MK-48's, two EHCTV's, one TOTEM, 11 RT-46's and seven MK-46's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 12 days this report period. Operational services were provided to: two U.S. surface units, one foreign surface unit and CINCLANTFLT.

b. One TPS provided 20.9 hours of Electronic Warfare Support.

c. The TRS provided 24.8 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 96.0 hours of training to multiple surface and shore base units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 1992

1. Outer Range Operational Support:

a. The Outer Range was active 12 days this report period. Operational services were provided to: three U.S. surface units, three U.S. subsurface units and two U.S. air units.

b. Three U.S. subsurface units conducted nine days of anti-submarine warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Four TDU targets were towed by VC-8 aircraft in support of surface-to-air missile exercises.

d. One air unit conducted one day of air-to-surface missile exercises expending one GORST target.

e. Two surface units conducted two days of surface-to-surface gunnery exercises utilizing two QST-35 SEPTARS.

2. Inner Range Operational Support:

a. The Inner Range was active 21 days this report period. Operational services were provided to: four U.S. surface units, five U.S. air units and two U.S. ground units.

b. Seven days of naval-gunfire, 16 days of air-to-ground, six days of mine exercises and four days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 11 days this report period. Operational services were provided to: three U.S. surface units and three U.S. subsurface units.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

c. 18 MK-48's, three EHCTV's, two TOTEM's, seven RT-46's and ten MK-67's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 17 days this report period. Operational services were provided to: three U.S. surface units, one U.S. subsurface unit and CINCLANTFLT.

b. Two TPS's provided 44.4 hours of Electronic Warfare Support.

c. The TRS provided 17.1 hours of Electronic Warfare Support.

e. The AN/FSQ-154 Outboard Simulator (OBS) provided 112.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 1992

1. Outer Range Operational Support:

a. The Outer Range was active 17 days this report period. Operational services were provided to: ten U.S. surface units, three U.S. subsurface units, five U.S. air units and nine foreign surface units.

b. Three U.S. subsurface units conducted 11 days of anti-submarine warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

c. Five U.S. surface units, one U.S. air unit and five foreign surface units conducted six days of Link-11 exercises.

d. One air unit conducted one day of air-to-surface missile exercises expending one GORST target.

e. Eight BQM-74C's and four AQM-37C were launched in support of surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 23 days this report period. Operational services were provided to: six U.S. surface units, five U.S. air units, two U.S. ground units, one USCG unit and four foreign surface units.

b. 14 days of naval-gunfire, 17 days of air-to-ground, four days of mine exercises and four days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 19 days this report period. Operational services were provided to: seven U.S. surface units, three U.S. subsurface units, nine U.S. air units, four foreign surface units and one foreign air unit.

b. A total of 14 MK-30 targets were launched in support of torpedo exercises.

c. Five U.S. surface units conducted five days of Surface Ship Radiated Noise Measurement (SSRNM) exercise.

d. 82 MK-48's, two EHCTV's, two TOTEM's, 28 RT-46's and 27 MK-46's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 19 days this report period. Operational services were provided to: nine U.S. surface units, one U.S. air unit, six foreign surface units and CINCLANTFLT.

b. Two TPS's provided 108.4 hours of Electronic Warfare support.

c. The TRS provided 47.8 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 1992

1. Outer Range Operational Support:

a. The Outer Range was active 13 days this report period. Operational services were provided to: three U.S. surface units, two U.S. air units and two U.S. ground units.

b. Three U.S. surface units and one U.S. air unit conducted 11 days of Link-11 exercises.

c. Four BQM-74C's, two BQM-34S's and two AQM-37C's were launched in support of surface-to-surface and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 16 days this report period. Operational services were provided to: four U.S. surface units, four U.S. air units and one U.S. ground unit.

b. Six days of naval-gunfire, nine days of air-to-ground, four days of mine exercises and one day of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 15 days this report period. Operational services were provided to: two U.S. surface units and nine U.S. air units.

b. A total of 14 MK-30 targets were launched in support of torpedo exercises.

c. One U.S. surface unit conducted five days of Combat System Ship Qualification Trials (CSSQT) exercise.

d. Nine MK-46's and 33 RT-46's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 21 days this report period. Operational services were provided to: four U.S. surface units, one U.S. air unit, one U.S. subsurface unit, one foreign surface unit and CINCLANTFLT.

b. Two TPS's provided 115.4 hours of Electronic Warfare Support.

c. The TRS provided 154.2 hours of Electronic Warfare support.

b. Two TPS's provided 21.4 hours of Electronic Warfare support.

c. The TRS provided 48.6 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 121.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 1992

1. Outer Range Operational Support:

a. The Outer Range was active 11 days this report period. Operational services were provided to: nine U.S. surface units and one U.S. air unit.

b. Two U.S. surface units conducted two days of Link-11 exercises.

c. Four BQM-34S's, 13 BQM-74C's and eight AQM-37C's were launched in support of surface-to-surface and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 15 days this report period. Operational services were provided to: six U.S. surface units, four U.S. air units, three U.S. ground units, one USCG unit and two foreign surface units.

b. Nine days of naval-gunfire, 11 days of air-to-ground, one day of mine exercises and four day of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 16 days this report period. Operational services were provided to: eight U.S. surface units, 11 U.S. air units, two U.S. subsurface unit, one foreign surface unit and one foreign subsurface unit.

b. Two U.S. surface units conducted two days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

c. Six U.S. air units and one U.S. surface unit conducted eight days of PACER exercises.

d. A total of 21 MK-30 targets were launched in support of torpedo exercises.

e. 16 MK-46's, 28 RT-46's and five MK-48's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 19 days this report period. Operational services were provided to: 13 U.S. surface units, one U.S. air unit, three foreign surface units and CINCLANTFLT.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 95.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 1992

1. Outer Range Operational Support:

a. The Outer Range was active eight days this report period. Operational services were provided to: eight U.S. surface units, four U.S. subsurface units and one U.S. air unit.

b. Seven U.S. surface units conducted four days of Link-11 exercises.

c. Four U.S. subsurface units conducted three days of anti-submarine-warfare exercises using the FPS-67 surveillance radar and the Vieques Nike Hercules radar.

d. One QST-35 SEPTAR was launched in support of surface-to-surface gun exercise for two U.S. surface units.

e. Four BQM-74C's were launched in support of surface-to-surface and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 21 days this report period. Operational services were provided to: seven U.S. surface units, and eight U.S. air units.

b. Five days of naval-gunfire, 20 days of air-to-ground and three days of mine exercises were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 15 days this report period. Operational services were provided to: six U.S. surface units, 11 U.S. air units and four U.S. subsurface units.

b. One U.S. surface unit conducted one day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

c. Six U.S. air units conducted four days of PACER exercises.

d. A total of 13 MK-30 targets were launched in support of torpedo exercises.

e. 19 MK-46's, 27 RT-46's, 17 MK-48's, three EHCTV's and four TOTEM's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 16 days this report period. Operational services were provided to: seven U.S. surface units, two U.S. air units, one U.S. subsurface unit and CINCLANTFLT.

b. Two TPS's provided 75.8 hours of Electronic Warfare support.

c. The TRS provided 31.5 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 56.0 hours of training to multiple surface and shore base units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 1992

1. Outer Range Operational Support:

a. The Outer Range was active 28 days this report period. Operational services were provided to: four U.S. surface units, two U.S. air units and one foreign surface unit.

b. Three U.S. surface units and two U.S. air units conducted 22 days of Link-11 exercises.

c. One QST-35 SEPTAR was launched in support of surface-to-surface gun exercise for one U.S. surface unit.

d. 14 BQM-74C's, six AQM-37C's and three BQM-34S's were launched in support of surface-to-surface and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 17 days this report period. Operational services were provided to: two U.S. surface units, six U.S. air units and one foreign surface unit.

b. Four days of naval-gunfire and 16 days of air-to-ground were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this report period. Operational services were provided to: two U.S. surface units, six U.S. air units and one foreign surface unit.

b. One U.S. surface unit conducted one day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

c. Six U.S. air units conducted seven days of PACER exercises.

d. A total of 15 MK-30 targets were launched in support of torpedo exercises.

e. Ten MK-46's and 14 RT-46's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 16 days this report period. Operational services were provided to: five U.S. surface units, one U.S. air unit, one foreign surface unit and CINCLANTFLT.

b. Two TPS's provided 3.6 hours of Electronic Warfare support.

c. The TRS provided 145.0 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 88.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 1992

1. Outer Range Operational Support:

a. The Outer Range was active six days this report period. Operational services were provided to: two U.S. surface units, one U.S. air unit and AFWTF.

b. Two U.S. surface units and one U.S. air unit conducted four days of Link-11 exercises.

c. One QST-35 SEPTAR was launched in support of surface-to-surface gun exercise for one U.S. surface unit.

d. Three BQM-74C's and one BQM-34S's were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 16 days this report period. Operational services were provided to: one U.S. surface unit, three U.S. air units, one USCG surface unit, and one U.S. ground unit.

b. Three days of naval-gunfire, 14 days of air-to-ground, one day of minex and one day of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 21 days this report period. Operational services were provided to: five U.S. subsurface units and five U.S. air units.

b. Two U.S. subsurface units conducted four days of Tactical Readiness Evaluation (TRE) exercises.

c. Seven U.S. air units conducted seven days of PACER exercises.

d. A total of 17 MK-30 targets were launched in support of torpedo exercises.

e. Two MK-46's, 27 RT-46's and 19 MK-48's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 18 days this report period. Operational services were provided to: two U.S. surface units, one U.S. air unit, three U.S. subsurface units, one foreign surface unit and CINCLANTFLT.

b. Two TPS's provided 155.3 hours of Electronic Warfare support.

c. The TRS provided 94.9 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 72.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 1992

1. Outer Range Operational Support:

a. The Outer Range was active 13 days this report period. Operational services were provided to: 16 U.S. surface units, three U.S. air units, one U.S. subsurface unit and AFWTF.

b. Seven U.S. surface units, one U.S. subsurface unit and one U.S. air unit conducted six days of Link-11 exercises.

c. Five QST-35 SEPTARS were launched in support of surface-to-surface gun and air-to-surface ordnance exercises for five U.S. surface units and two U.S. air units.

d. 12 BQM-74C's and six AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 23 days this report period. Operational services were provided to: ten U.S. surface units, three U.S. air units and four U.S. ground units.

b. Eight days of naval-gunfire, 15 days of air-to-ground, four days of minex and nine days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 20 days this report period. Operational services were provided to: nine U.S. surface units, eight U.S. air units and four U.S. subsurface units.

b. Two U.S. subsurface units conducted one day of Tactical Readiness Evaluation (TRE) exercises.

c. Two U.S. air units conducted three days of PACER exercises.

d. Four U.S. surface units conducted four days of Surface Ship Radiated Noise Measurement exercises.

e. A total of eight MK-30 targets were launched in support of torpedo exercises.

f. 23 MK-46's, five RT-46's and 50 MK-48's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 20 days this report period. Operational services were provided to: seven U.S. surface units, one U.S. subsurface unit, one foreign surface unit and CINCLANTFLT.

b. Two TPS's provided 77.9 hours of Electronic Warfare support.

c. The TRS provided 49.2 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 1992

1. Outer Range Operational Support:

a. The Outer Range was active nine days this report period. Operational services were provided to: eight U.S. surface units, two U.S. air units and AFWTF.

b. One U.S. surface unit and one U.S. air unit conducted three days of Link-11 exercises.

c. Four QST-35 SEPTARS were launched in support of surface-to-surface gun exercises for five U.S. surface units.

d. Nine BQM-74C's and three AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active nine days this report period. Operational services were provided to: four U.S. surface units and four U.S. air units.

b. Six days of naval-gunfire, nine days of air-to-ground and one days of minex exercises were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seven days this report period. Operational services were provided to: four U.S. surface units, four U.S. air units and two U.S. subsurface units.

b. Two U.S. air units conducted four days of PACER exercises.

c. A total of six MK-30 targets were launched in support of torpedo exercises.

d. Nine MK-46's, 13 RT-46's and five MK-48's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 16 days this report period. Operational services were provided to: eight U.S. surface units and CINCLANTFLT.

b. One TPS's provided 22.6 hours of Electronic Warfare support.

c. The TRS provided 30.0 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 171.0 hours of training to multiple surface and shore based units.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venezuela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
MAU	- Marine Assault Unit
MEF	- Mid East Force
MEU	- Marine Expeditionary Amphibious Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over the Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface to Air Missile
SATS	- Systems Accuracy Trials
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY (AFWTF) - 1993

BACKGROUND: The paramount and most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are acquired best in the most realistic tactical environment that can be provided. The unique capabilities of the AFWTF provide just such an environment.

To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION: AFWTF's mission is to operate, maintain, and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, test, and evaluation of weapons systems. The mission is divided into the following functional areas for implementation:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multi-ship/unit exercises, tests, and Operational Test and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises/tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

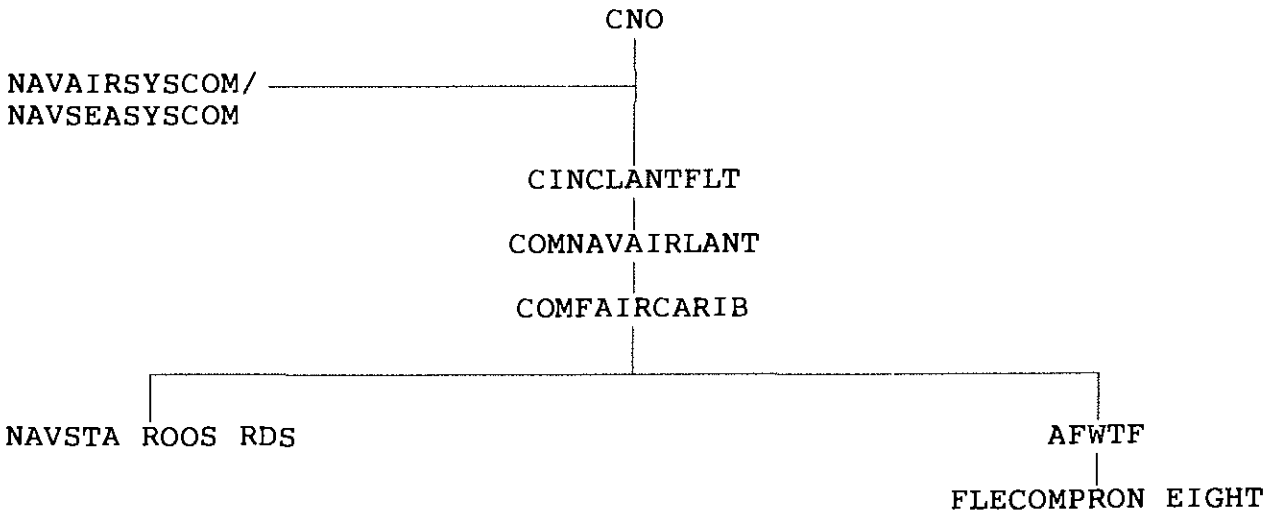
h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON Eight (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit through the Puerto Rican operating areas.

k. Serve as Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico Operating Areas in the Caribbean.

ORGANIZATION: AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander Fleet Air, Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are depicted in the diagram that follows:



AFWTF consists of 90 military and 37 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are accomplished by contractor personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for all surface-to-surface, air-to-air, surface-to-air and air-to-surface missile firings. The Outer Range consists of two open ranges designated the alpha or north and bravo or south range. The alpha range encompasses an area of 120,000 square miles while the bravo range encompasses 74,000 square miles. The Outer Range uses several sites within the Roosevelt Roads complex, which include the Range Operations Center (ROC), and the target control sites at Pico del Este, Puerto Rico and on St. Thomas in the U.S. Virgin Islands.

The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets. During a

mission, all drones are remotely controlled from the ROC utilizing data received from the Pico del Este or St. Thomas target control sites. The system used for this control and data handling is the Remote Data and Drone Control System (RDDCS). The purpose of the RDDCS is to supply the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site transmits positional data and drone telemetry information along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars that provide additional positional data are at Roosevelt Roads, Vieques, St. Thomas, and St. Croix. After processing the data, the computer routes it to the appropriate instrumentation to display radar/command/telemetry and to the drone control plotters.

These target control systems provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, and HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico del Este, and the ROC.

2. Aerial Targets. The types of drone aircraft used at AFWTF are the subsonic BQM-34S, the supersonic BQM-34E/T, the subsonic BQM-74C, and the supersonic AQM-37C. The BQM-34S drone is flown at altitudes between 30,000 and 45,000 feet at speeds between 300 and 500 knots. Presently, the ROC can control a maximum of six BQM-34S/BQM-74C drones simultaneously. After the drone is launched, it is flown to the specified range where it flies along a predetermined hot leg. During this period, the surface units engage in firing/tracking/simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data on the amount of fuel remaining, speed, altitude, angle of climb, etc. When the mission is completed, the drone drops into the sea recovery area by parachute and recovered by a specially configured helicopter from VC-8. The Naval Warfare Assessment Center (NWAC) Field Office evaluates scoring based on calculated miss-distance.

a. The **BQM-34S and BQM-34E/T** provide realistic targets for both surface-to-air and air-to-air missile exercises. Various augmentation devices may be provided to meet specific operational test requirements.

b. The **BQM-74C,** used in much the same manner, has very limited space for augmentation gear.

c. The **AQM-37C** is normally used for surface-to-air or air-to-air live warhead missile operations.

d. Besides the self-powered aerial targets, the **TDU-34** towed target is a high-performance and lightweight target. The TDU-34

is designed to use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. TA-4J aircraft from VC-8 tow the TDU-34.

3. Surface Targets.

a. The **QST-35 SEPTAR** is a 56-foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for ISTT or TRIMARAN. The boat is capable of being remotely controlled out to approximately 50 NM from AFWTF control stations.

(1) Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. The target is allocated surface-to-surface gunfire using a 10-mil offset.

(2) Air-to-surface gunfire, missiles, and bombs can be targeted against a SPAR streamed at approximately 1,000 feet.

(3) SEPTARs normally operate in bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi purpose target complex and the surrounding water areas and airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, an air-to-ground Close Air Support (CAS) range consisting of two air-to-ground bull's eye targets, a strafing range, a mock airfield and other limited tactical targets used for air-to-ground ordnance and CAS training, a mining range, and artillery range, a grenade range, a demolition range and small arms ranges.

b. Vieques is a hilly island located seven miles Southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The Eastern section of Vieques has landing beaches, maneuver areas, small arms, and weapon ranges. The amphibious forces use the Southern beaches and adjacent waters. Live fire air-to-ground, artillery, and naval gunfire exercises are conducted at the Eastern tip of Vieques.

2. Vieques Naval Gunfire Target Complex.

a. General. The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias, a hill on the western side of Bahia Salina del Sur, and the impact area where the direct/point fire targets and the sea targets are found.

3. Vieques Air-to-Ground Target Complex.

a. **General.** The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias Hill west of the target area.

(1) Target Location and Description.

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the terrain of the LIA and CAS zone is varied and ranges from flat, level ground at sea-level beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide the greatest realism. The CAS targets consist of a realistic mock-up of an airstrip, fuel farm, motor pool, ammo dump, SAM sites, and many smaller targets of opportunity. All targets in the CAS zone are stationary except the Mobile Land Target (MLT) which operates in the mock airstrip northeast of target one. The MLT targets are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Target One. A bull's eye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Weapons Impact Scoring System (WISS).

(c) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

(d) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the WISS.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep water off the west coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square miles. Water depths vary from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations on the Underwater Range are controlled from a shore complex located on the Northwestern shore of St. Croix. During periods of operations a military range control officer from AFWTF is present. Shops for instrument maintenance MK-30 target preparation, and torpedo preparation are at Roosevelt Roads as are the administrative offices for the range.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, can be conducted on the range. The range provides precision tracking

data obtained via in-water three dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training product.

ELECTRONIC WARFARE RANGE

1. General. The Electronic Warfare Range (EWR) consists of two Threat Platform Stimulator (TPS) sites, a Threat Radiation Simulator (TRS), and a Noise Jammer Simulator (NJS). Sites are located at Pico del Este in Puerto Rico, Mt. Pirata on Vieques and St. George Hill on St. Croix.

a. The EWR provides threat stimulations to fleet users and provides a multi-axis threat arena for EW training.

b. The NJS provides a realistic jamming environment to train radar operators in Electronic-Counter-Measures (ECM) and Electronic-Counter-Counter-Measures (ECCM).

c. The EWR also has an Outboard Stimulator (OBS) which provides training to communications operators worldwide.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 1993

1. Outer Range Operational Support:

a. The Outer Range was active seven days this reporting period. Operational services were provided to: one U.S. surface unit, one U.S. subsurface unit and four foreign surface units.

b. One U.S. surface unit, three foreign surface units and one subsurface unit conducted five days of Link-11 exercises.

c. Four BQM-74Cs, five BQM-34Ss, three BQM-34Ts were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active seven days this reporting period. Operational services were provided to: three U.S. surface units, one U.S. Naval air unit and four foreign surface units. One MEU was supported (24-MEU).

b. Seven days of naval-gunfire and seven days of air-to-ground and six days of supporting arms exercises were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to: one U.S. surface unit, two U.S. air units, six foreign surface units and CINCLANFLT.

b. One U.S. air unit conducted three days of PACER exercises.

c. One foreign surface unit conducted one day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 13 MK-30 targets were launched in support of torpedo exercises.

e. Six MK-48s and 10 MK-46s (REXTORPS) were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 14 days this reporting period. Operational services were provided to: four U.S. surface units, one U.S. subsurface, eight foreign surface units and CINCLANTFLT.

b. One TPS provided 58.0 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 93.3 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 13 torpedoes and 13 MK-30 ASW targets. 13 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared six MK-46s and 46 MK-46 REXTORPS of which 13 MK-46s and eight MK-46 REXTORPS were fired. Also fired were five MK-48s.

c. The MK-30 Shop prepared 19 targets of which 13 were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 1993

1. Outer Range Operational Support:

a. The Outer Range was active ten days this reporting period. Operational services were provided to: three U.S. surface units, and one air unit and seven foreign surface units.

b. Two U.S. surface units and one U.S. air unit conducted six days of Link-11 exercises.

c. Four BQM-74Cs were launched in support of surface-to-air missile and surface-to-air tracking exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 11 days this reporting period. Operational services were provided to: five U.S. Naval air units, one U.S. Army air unit and U.S. SEAL Team.

b. Nine days of air-to-ground, one day of MINEX and three days of supporting arms exercises were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 10 days this reporting period. Operational services were provided to: two U.S. surface units, one U.S. subsurface unit, one U.S. air unit, eight foreign surface units and CINCLANFLT.

b. One U.S. air unit conducted two days of ASW exercises.

c. A total of 13 MK-30 targets were launched in support for torpedo exercises.

d. Seven MK-46s, 12 MK-46s REXTORPS were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 19 days this reporting period. Operational services were provided to: one U.S. surface unit, one U.S. subsurface unit, one U.S. air unit, eight foreign surface units and CINCLANTFLT.

b. Two TPSs provided 177.9 hours of Electronic Warfare Support.

c. The TRS provided 114.4 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 19 torpedoes, 13 MK-30 ASW targets. 13 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared eight MK-46s and 12 MK-46 REXTORPS of which seven MK-46s and 12 MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared 16 targets of which 13 were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 1993

1. Outer Range Operational Support:

a. The Outer Range was active 17 days this reporting period. Operational services were provided to: three U.S. surface units and one U.S. air unit and one foreign surface unit.

b. Two U.S. surface units, one U.S. air unit and one foreign surface unit conducted 16 days of Link-11 exercises.

c. Nine BQM-74Cs, three BQM-34Ss and three AQM-37Cs were launched in support of surface-to-air missile and surface-to-air tracking exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 15 days this reporting period. Operational services were provided to: four U.S. surface units, three U.S. Naval air units, and one U.S. SEAL Team.

b. Seven days of naval-gunfire, 11 days of air-to-ground, one day of supporting arms were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 12 days this reporting period. Operational services were provided to: four U.S. surface units, one U.S. air unit, one U.S. subsurface unit and one foreign surface unit.

b. Three U.S. air units conducted six days of ASW exercises.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 12 days this reporting period. Operational services were provided to: two U.S. surface units, one foreign surface unit and CINCLANTFLT.

b. One TPS provided 20.9 hours of Electronic Warfare Support.

c. The TRS provided 24.8 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore base units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 1993

1. Outer Range Operational Support:

a. The Outer Range was active 20 days this reporting period. Operational services were provided to: 11 U.S. surface units, four U.S. air units, and AFWTF.

b. Four U.S. subsurface units and two U.S. air units conducted 12 days of Link-11 exercises.

c. Six QST-35 SEPTARS were launched in support of five surface-to-surface exercises and five air-to-surface ordnance exercises in support of nine U.S. surface units and two U.S. air units.

d. Nine BQM-74Cs, three BQM-34s and three AQM-37Cs were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 22 days this reporting period. Operational services were provided to: 10 U.S. surface units, eight U.S. Naval air units and one U.S. SEAL Team.

b. 10 days of naval-gunfire, 21 days of air-to-ground, four days of MINEXs and one day of supporting arms were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 10 days this reporting period. Operational services were provided to: 10 U.S. surface units and eight U.S. air units.

b. Three U.S. surface units and seven U.S. air units conducted seven days of ASW exercises.

c. A total of 18 MK-30 targets were launched in support of torpedo exercises.

d. 41 MK-46 REXTORPs and 13 MK-46s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 22 days this reporting period. Operational services were provided to: 17 U.S. surface units, two U.S. air units and CINCLANTFLT.

b. Three TPSs provided 25.2 hours of Electronic Warfare Support.

c. The TRS provided 121.5 hours of Electronic Warfare Support.

e. The AN/FSQ-154 Outboard Stimulator (OBS) provided 118.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 54 torpedoes and 18 MK-30 ASW targets. 18 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 52 MK-46 REXTORPS and 23 MK-46s of which 41 MK-46 REXTORPS and 13 MK-46s were fired.

c. The MK-30 Shop prepared 26 targets of which 18 were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 1993

1. Outer Range Operational Support:

a. The Outer Range was active 16 days this reporting period. Operational services were provided to: ten U.S. surface units and eight foreign surface units.

b. Four U.S. surface-surface units, six foreign surface units conducted 14 days of Link-11 exercises.

c. 10 BQM-74Cs and two BQM-34Ss, and two AQM-37Cs were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 22 days this reporting period. Operational services were provided to eight U.S. surface units, six U.S. Naval air units, one U.S. Marine air unit, one U.S. Army air unit, and several U.S. Air Force units in support of OCEAN VENTURE 93.

b. Ten days of Naval gunfire, 20 days of air-to-ground and five days supporting arms were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 13 days this reporting period. Operational services were provided to: four U.S. surface units, four U.S. air units, one U.S. subsurface unit, two foreign surface units and two foreign air units.

b. Four U.S. air units conducted two days of ASW exercises.

c. Two U.S. surface units conducted two days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 17 MK-30 targets were launched in support of torpedo exercises.

e. 12 MK-46s and nine MK-46 REXTORPs were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 13 days this reporting period. Operational services were provided to: five U.S. surface units, six foreign surface units and CINCLANTFLT.

b. One TPS provided 4.5 hours of Electronic Warfare support.

c. The TRS provided 28.1 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 112.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery for 23 torpedoes, 44 mines and 17 MK-30 ASW targets. 17 MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared 14 MK-46 REXTORPS and 12 MK-46s of which nine MK-46 REXTORPS and 12 MK-46s were fired.

c. The MK-30 Shop prepared 27 targets of which 17 were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 1993

1. Outer Range Operational Support:

a. The Outer Range was active 13 days this reporting period. Operational services were provided to: three U.S. surface units, two U.S. air units and two U.S. ground units.

b. Three U.S. surface units and one U.S. air unit conducted 11 days of Link-11 exercises.

c. Four BQM-74Cs, two BQM-34Ss and two AQM-37Cs were launched in support of surface-to-surface and air-to-air missile exercises.

2. Inner Range Operational Support: The Inner Range was not active this reporting period do to range refurbishment.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 15 days this reporting period. Operational services were provided to: two U.S. surface units and nine U.S. air units.

b. A total of 14 MK-30 targets were launched in support of torpedo exercises.

c. One U.S. surface unit conducted five days of Combat System Ship Qualification Trials (CSSQT) exercise.

d. Nine MK-46s and 33 MK-46 REXTORPs were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 21 days this reporting period. Operational services were provided to: four U.S. surface units, one U.S. air unit, one U.S. subsurface unit, one foreign surface unit and CINCLANTFLT.

b. Two TPSs provided 115.4 hours of Electronic Warfare support.

c. The TRS provided 154.2 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 95.0 hours of training to multiple surface and shore based units.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 1993

1. Outer Range Operational Support:

a. The Outer Range was active eight days this reporting period. Operational services were provided to: five U.S. surface units, one U.S. air unit and seven foreign surface units.

b. Three U.S. surface units and two foreign surface units conducted five days of Link-11 exercises.

c. Five BQM-74Cs, six BQM-34Ss and five AQM-37Cs were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 10 days this reporting period. Operational services were provided to: three U.S. surface units, three U.S. Naval air units, three foreign surface units and one U.S. Air Force National Guard unit.

b. Six days of naval-gunfire and six days of air-to-ground were supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 12 days this reporting period. Operational services were provided to: four U.S. surface units, four U.S. air units, two U.S. subsurface units, and four foreign surface units.

b. Three U.S. air units and one foreign surface unit conducted four days of ASW exercises.

c. Three U.S. surface units conducted three days of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of six MK-30 targets were launched in support of torpedo exercises.

e. 16 MK-46s, 28 MK-46 REXTORPs and 10 MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 16 days this reporting period. Operational services were provided to: two U.S. surface units, one U.S. air unit, one U.S. subsurface unit, three foreign surface units and CINCLANFLT.

b. One TPS provided 21.6 hours of Electronic Warfare support.

c. The TRS provided 37.1 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 104.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 21 torpedoes and six MK-30 ASW targets. Six MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared 16 MK-46 REXTORPS and 11 MK-46s of which 10 MK-46 REXTORPS and six MK-46s were fired.

c. The MK-30 Shop prepared 17 targets of which six were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 1993

1. Outer Range Operational Support:

a. The Outer Range was active four days this reporting period. Operational services were provided to: one U.S. surface unit.

b. One U.S. surface unit conducted four days of Link-11 exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 11 days this reporting period. Operational services were provided to: three U.S. surface units, two U.S. Naval air units, two Air Force units and two U.S. ground units.

b. Four days of naval-gunfire, five days of air-to-ground, one day of MINEX and one day of supporting arms exercises were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to: two U.S. surface units, six U.S. air units and one U.S. subsurface unit.

b. Two U.S. surface units and six U.S. air units conducted six days of PACER exercises.

c. One U.S. surface unit conducted one day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of 11 MK-30 targets were launched in support of torpedo exercises.

e. 10 MK-46s, 18 MK-46 REXTORPs, and four MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 10 days this reporting period. Operational services were provided to: one U.S. surface unit, one U.S. air unit, and CINCLANTFLT.

b. One TPS provided 6.3 hours of Electronic Warfare support.

c. The TRS provided 0.0 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore base units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided for the recovery of 32 torpedoes, eight mines and 11 MK-30 ASW targets. 11 MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared 20 MK-46 REXTORPS and 12 MK-46s of which 18 MK-46 REXTORPS and 10 MK-46s were fired.

c. The MK-30 Shop prepared 20 targets of which 11 were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 1993

1. Outer Range Operational Support:

a. The Outer Range was active 16 days this reporting period. Operational services were provided to: five U.S. surface units, three U.S. air units, one foreign surface unit and AFWTF.

b. Four U.S. surface units and one U.S. air unit conducted 14 days of Link-11 exercises.

c. 14 BQM-74C/Es, seven BQM-34Ss and seven AQM-37Cs were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 14 days this reporting period. Operational services were provided to: two U.S. surface units, four U.S. air units and two ground units.

b. Six days of naval-gunfire, nine days of air-to-ground, and five days of supporting arms exercises were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 13 days this reporting period. Operational services were provided to: two U.S. surface units, six U.S. air units and one subsurface unit.

b. One U.S. surface unit and four U.S. air units conducted six days of PACER exercises.

c. One U.S. surface unit conducted one day of Surface Ship Radiated Noise Measurement (SSRNM) exercises.

d. A total of six MK-30 targets were launched in support of torpedo exercises.

e. Seven MK-46s and nine RT-46s and eight MK-67s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 14 days this reporting period. Operational services were provided to: four U.S. surface units and CINCLANTFLT.

b. Two TPSs provided 17.7 hours of Electronic Warfare support.

c. The TRS provided 37.4 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Simulator (OBS) provided 123.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 16 torpedoes, seven mines and six MK-30 ASW targets. Six MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared 41 MK-46 REXTORPS and 15 MK-46s of which nine MK-46 REXTORPS and seven MK-46s were fired.

c. The MK-30 Shop prepared 10 targets of which six launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 1993

1. Outer Range Operational Support:

a. The Outer Range was active six days this reporting period. Operational services were provided to: two U.S. surface units, one U.S. air unit and AFWTF.

b. Two U.S. surface units and one U.S. air unit conducted four days of Link-11 exercises.

c. One QST-35 SEPTAR was launched in support of surface-to-surface gun exercise for one U.S. surface unit.

d. Three BQM-74Cs and one BQM-34Ss were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 21 days this reporting period. Operational services were provided to: eight U.S. surface units, three U.S. air units and one U.S. SEAL Team.

b. Seven days of naval-gunfire, 17 days of air-to-ground, two days of MINEX and one day of supporting arms were supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 21 days this reporting period. Operational services were provided to: five U.S. subsurface units and five U.S. air units.

b. Two U.S. subsurface units conducted four days of Tactical Readiness Evaluation (TRE) exercises.

c. Seven U.S. air units conducted seven days of ASW exercises.

d. A total of 17 MK-30 targets were launched in support of torpedo exercises.

e. Two MK-46s, 27 MK-46 REXTORPs and 19 MK-48s were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 18 days this reporting period. Operational services were provided to: two U.S. surface units, one U.S. air unit, three U.S. subsurface units, one foreign surface unit and CINCLANTFLT.

b. Two TPSs provided 155.3 hours of Electronic Warfare support.

c. The TRS provided 94.9 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 72.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:
The Marine Ocean Engineering section provided support for the recovery of 51 torpedoes and 29 MK-30 ASW targets. 29 MK-30 ASW targets were launched by MOE.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 1993

1. Outer Range Operational Support:

a. The Outer Range was active four days this reporting period. Operational services were provided to: One U.S. surface unit and AFWTF.

b. One U.S. surface unit conducted three days of Link-11 exercises.

c. Five QST-35 SEPTARS were launched in support of surface-to-surface gunnery and air-to-surface ordnance exercises for five U.S. surface units and two U.S. air units.

d. Three BQM-34Ss were launched in support of surface-to-air exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 23 days this reporting period. Operational services were provided to: five U.S. Naval air units, one Air Force National Guard unit, one NMCB unit and one U.S. SEAL Team.

b. Eight days of Naval gunfire, 15 days of air-to-ground and four days of supporting arms were supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active two days this reporting period. Operational services were provided to: two U.S. surface units.

b. One MK-30 target was launched in support of a torpedo exercise.

c. Two MK-46s and one MK-46 REXTORP was fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 15 days this reporting period. Operational services were provided to: One U.S. surface unit and CINCLANTFLT.

b. One TPS provided 5.4 hours of Electronic Warfare support and the Noise Jammer site provided 8.0 hours of support this report period.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 112.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of three torpedoe mines and one MK-30 ASW target. One MK-30 ASW target was launched by MOE.

b. The Torpedo Shop prepared nine MK-46 REXTORPS and two MK-46s. One MK-46 REXTORPS and two MK-46s were fired.

c. The MK-30 Shop prepared two targets of which one was launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 1993

1. Outer Range Operational Support:

a. The Outer Range was active four days this reporting period. Operational services were provided to: One U.S. surface unit and AFWTF.

b. One U.S. surface unit conducted three days of Link-11 exercises.

c. Three BQM-34Ss were launched in support of surface-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active five days this reporting period. Operational services were provided to: three U.S. Naval air units, one U.S. Army air unit, and U.S. Marine Corps Air units off USS NASSAU (LHA-4) supported operation MARFORCARIB.

b. Five days of air-to-ground and one day of supporting arms exercises were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active two days this reporting period. Operational services were provided to: Two U.S. surface units.

b. One MK-30 target was launched in support of a torpedo exercise.

c. Two MK-46s and one MK-46 REXTORP were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 15 days this reporting period. Operational services were provided to: One U.S. surface unit and CINCLANTFLT.

b. One TPS provided 5.4 hours of Electronic Warfare support and the Noise Jammer site provided 8.0 hours of support this report period.

c. The TRS provided 48.1 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 112.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of three torpedoe mines and one MK-30 ASW target. One MK-30 ASW target was launched by MOE.

b. The Torpedo Shop prepared nine MK-46 REXTORPS and two MK-46s. One MK-46 REXTORPS and two MK-46s were fired.

c. The MK-30 Shop prepared two targets of which one was launched in support of torpedo exercises.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venezuela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface to Air Missile
SATS	- Systems Accuracy Trials
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY (AFWTF) - 1994

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are acquired best in the most realistic tactical environment available. The unique capabilities of the AFWTF provide just such an environment.

To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain, and develop weapons training facilities and services in direct support of the training of fleet forces and other activities and for the development, testing, and evaluation of weapons systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and mult-ship/unit exercises, tests, and Operational Test and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

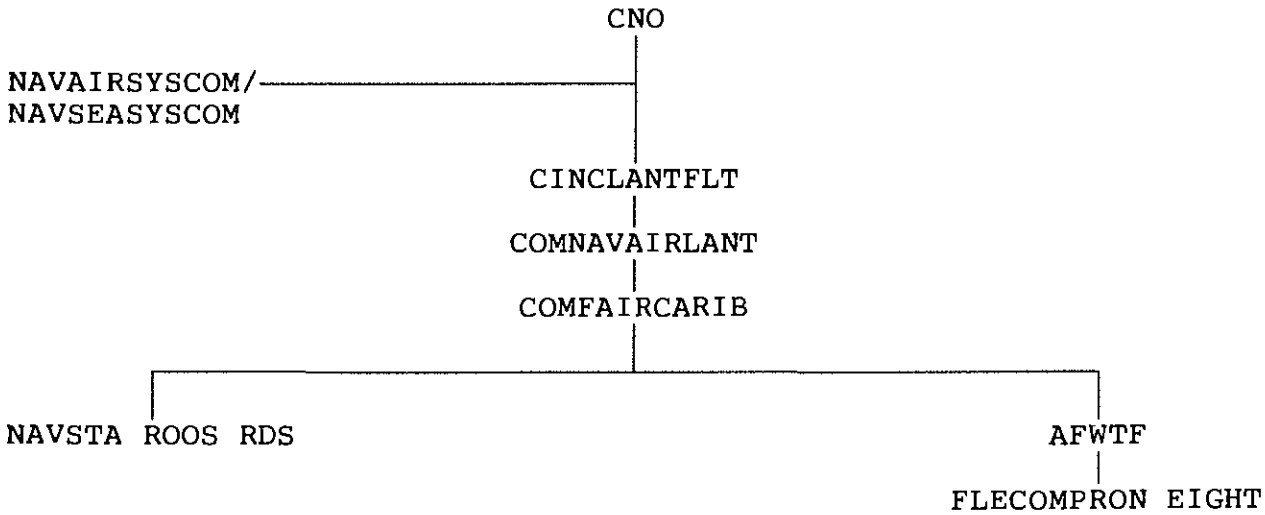
i. Act as scheduling authority for FLECOMPROM EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit through the Puerto Rica operating areas.

k. Serve as Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico Operating Areas in the Caribbean.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM) and Commander Fleet Air, Caribbean (ISIC). Operations and Maintenance Funds (O&MN) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagramed below:



AFWTF consists of 93 military and 37 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are performed by contract personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for all surface-to-surface, air-to-air, surface-to-air, and air-to-surface missile firings. The Outer Range consists of two open ranges designated alpha or north and bravo or south ranges. The alpha range encompasses an area of 120,000 square miles while the bravo

range is situated within the Roosevelt Roads complex and includes the Range Operations Center (ROC) and various target control sites at Pico del Este, Puerto Rico and ST. Thomas, U.S. Virgin Islands. The principal types of target presentations for missile firing practice by air and surface units are that of remote controlled drone aircraft flights and surface drone targets.

All drones are remotely controlled from the ROC via Remote Data and Drone Control System (RDDCS). The RDDCS supplies the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site transmits positional data and drone telemetry information along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars that provide additional positional data are at Roosevelt Roads, Vieques, St. Thomas, and St. Croix.

The target control systems provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, and HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico del Este, and the ROC.

2. Aerial Targets. AFWTF utilizes both subsonic, BQM-74S and BQM-74C, and supersonic, BQM-34E/T and AQM-37C, drone aircraft. The BQM-34S drone is flown at altitudes between 30,000 and 45,000 feet at speeds between 300 and 500 knots. Presently, the ROC can control a maximum of six BQM-34S/BQM-74C drones simultaneously. After a drone is launched, it is flown to the specified range where it flies along a predetermined hot leg. During this period, the surface units engage in firing/tracking/simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data on the amount of fuel remaining, speed, altitude, angle of climb back to the ROC.

When the mission is completed, the drone drops into the sea recovery area by parachute and recovered by a specially configured helicopter from VC-8. The Naval Warfare Assessment Center (NWAC) Field Office evaluates scoring based upon calculated miss-distance.

a. The BQM-34S and BQM-34E/T provide realistic targets for both surface-to-air and air-to-air missile exercises. Various augmentation devices may be provided to meet specific operational test requirements.

b. The BQM-74C provides a target for surface to air and air to air missile excercises; however, it has very limited capacity for augmentation gear.

c. The AQM-37C is normally used for surface-to-air or air-to-air live warhead missile operations.

d. Besides the self-powered aerial targets, the TDU-34 towed target is a high-performance and lightweight target. The TDU-34 is designed to use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. TA-4J aircraft from VC-8 tow the TDU-34.

3. Surface Targets. The QST-35 SEPTAR is a 56-foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for ISTT or TRIMARAN. The boat is capable of being remotely controlled out to approximately 50 NM from AFWTF control stations.

a. Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. The target is allocated surface-to-surface gunfire using a 10-mil offset.

b. Air-to-surface gunfire, missiles, and bombs can be targeted against a SEPTAR streamed at approximately 1,000 feet.

c. SEPTARs normally operate in bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex and the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range, an air-to-ground Close Air Support (CAS) range consisting of two air-to-ground bull's eye targets; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and CAS training; a mining range; an artillery range; a grenade range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles Southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The Eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the Southern beaches and adjacent waters and live fire air-to-ground, artillery, and naval gunfire exercises are conducted at the Eastern tip of Vieques.

2. Vieques Naval Gunfire Target Complex. The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets and the sea targets are found.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias Hill west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide the optimum realism. The CAS targets consist of mok-ups of an airstrip, a fuel farm, a motor pool, an ammunitions dump, SAM sites, and many smaller targets of opportunity.

All targets in the CAS zone are stationary except for the Mobile Land Target (MLT) which operates on the mock airstrip northeast of target one. The MLT targets are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Target One. A bull's eye on the western boundary of the CAS zone. The target is 400 feet in diameter and consists of four concentric rings of tires 50 feet apart. The target is scored by the Weapons Impact Scoring System (WISS).

(c) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

(d) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the WISS.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the west coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square

miles. Water depths vary from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations on the Underwater Range are controlled from a shore complex located on the Northwestern shore of St. Croix.

During all operations a military range control officer from AFWTF is present. Shops for instrument maintenance, the range adminstrative office, MK-30 target preparation, and torpedo preparation are all located on the Roosevelt Roads complex.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, can be conducted on the range. The range provides precision tracking data obtained via in-water three dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training device.

ELECTRONIC WARFARE RANGE

1. General. The Electronic Warfare Range (EWR) consists of two Threat Platform Stimulator (TPS) sites, a Threat Radiation Simulator (TRS), and a Noise Jammer Simulator (NJS). Sites are located at Pico del Estem, Puerto Rico; Mt. Pirata, Vieques; and St. George Hill, St. Croix U.S. Virgin Islands.

a. The EWR provides threat stimulations to fleet users and provides a multi-axis threat arena for EW training.

b. The NJS provides a realistic jamming environment to train radar operators in Electronic-Counter-Measures (ECM) and Electronic-Counter-Counter-Measures (ECCM).

c. The EWR also has an Outboard Stimulator (OBS) which provides training to communications operators worldwide.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR CALENDAR YEAR 1994

1. Outer Range Operational Support:

a. The Outer Range was active 137 days, providing operational services to 25 USN air units, 75 USN surface units, 3 USN subsurface units, 25 Foreign surface units, and CNAWCADIV.

b. 8 USN air units, 40 USN surface units, and 16 Foreign surface units conducted 63 days of link-11 exercises.

c. 44 BQM-34's, 119 BQM-74C/E, and 49 AQM-37C were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 184 days, operational service to 44 USN air units, 41 USN surface units, 3 USAF air units, 1 USA air unit, 1 USMC air unit, 7 ground units, 1 SpecOPs unit, and 3 Foreign surface units. Additional support was provided to Operation "Ocean Venture."

b. 55 days of naval gun fire, 132 days of air-to-ground exercises, 7 MINEX days, and 23 days of Supp arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 123 days, providing operational services to 48 USN air units, 71 USN surface units, 14 USN subsurface units, 3 Foreign air units, and 2 Foreign surface units.

b. 103 MK-30 targets were launched in support of torpedo exercises.

c. 45 RT-46s, 78 MK-46s, 66 MK-48s, 4 EHCTVs, 17 MK-30 REXTORPs, and 9 MK-46 REXTORPS were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 164 days, providing operational services to 3 USN air units, 50 USN surface units, 1 USN subsurface unit, 17 Foreign surface units, 1 Foreign subsurface unit, and CINCLANTFLT.

b. TPS provided 461.5 hours of Electronic Warfare Support and the Noise Jammer site provided 44.5 0.0 hours support.

c. The TRS provided 731.6 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 1054.7 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 33 torpedoes mines, 447 torpedoes, and 136 MK-30 ASW targets. 122 MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared 147 MK-46s and 179 MK-46Rs; launching 127 MK-46s, 139 MK-46Rs, 65 MK-48s, and 2 EHCTVs.

c. The MK-30 shop prepared 252 targets, of which 186 were launched in support of torpedo exercises.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venequela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
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DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
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NGFS	- Naval Gunfire Support
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d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area withinn 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPROM EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit through the Puerto Rico operating areas.

k. Serve as Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico Operating Areas in the Caribbean.

l. Naval Air Component Commander for Commander JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR training operations.

ORGANIZATION

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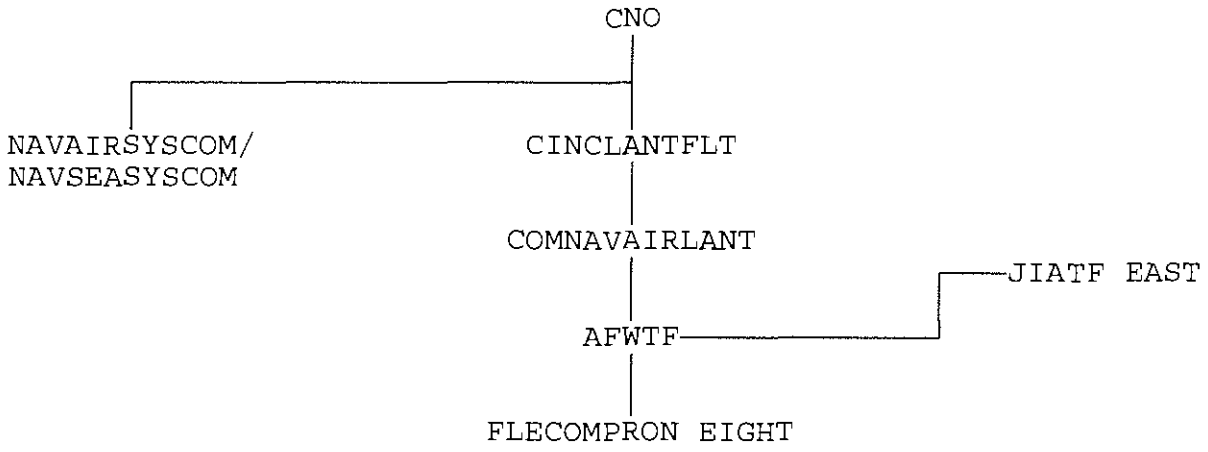

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OUTER RANGE

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All drones are remotely controlled from the ROC via Remote Data and Drone Control System (RDDCS). The RDDCS supplies the range with a method of presenting target drone aircraft and seacraft that realistically simulate hostile units. The ROC uses the RDDCS for central command and control of drone targets. Each target control site transmits positional data and drone telemetry information along with site status and command verification information to the ROC. These data signals are processed and converted to a usable computer format. Radars that provide additional positional data are at Roosevelt Roads, Pico Del Este, Vieques, St. Thomas, and St. Croix.

The target control systems provide positional and other information necessary to enable remote control of acquisition radar, automatic tracking radar, and HF and UHF communications. The Data Transmission and Communication System (DTCS) is a microwave system used to carry information between the sites at Vieques, St. Thomas, St. Croix, Pico del Este, and the ROC.

2. Aerial Targets. AFWTF utilizes both subsonic, BQM-34S and BQM-74E, and supersonic AQM-37C, drone aircraft. The BQM-34S drone is flown at altitudes between 10 and 55,000 feet at speeds between 300 and 500 knots. The BQM-74E is employed from 30 to 40,000 feet at approximately 450 knots. The AQM-37C operates from 1,000 to 100,000 feet at 2.0 to 4.0 mach. Presently, the ROC can simultaneously control a maximum of six BQM-34S/BQM-74E drones.

After a drone is launched, it is flown to the specified range where it flies along a predetermined course, speed and altitude. During this period, the surface units engage in firing/tracking/simulated surface-to-air exercises. As the drone flies, a telemetry package within the drone transmits data on the amount of fuel remaining, speed, altitude, and angle of climb back to the ROC.

When the mission is completed, the drone drops into the sea recovery area by parachute and is recovered by a specially configured helicopter from VC-8. The Naval Warfare Assessment Detachment (NWAD) Field Office evaluates scoring based upon calculated miss distance.

a. The BQM-34S provides a realistic target for both surface-to-air and air-to-air missile exercises. Various augmentation devices may be provided to meet specific operational test requirements.

b. The BQM-74E provides a target for surface-to-air and air-to-air missile excercises; however, it has limited capacity for augmentation gear.

c. The AQM-37C is normally used for surface-to-air or air-to-air live warhead missile operations.

d. Besides the self-powered aerial targets, the TDU-34 towed target is a high-performance and lightweight target. The TDU-34 is designed to use with aircraft tow reels to provide a compatible target for semi-active homing missiles and various gun systems including CIWS. TA-4J aircraft from VC-8 tow the TDU-34.

3. Surface Targets. The QST-35 SEPTAR is a 56-foot target boat configured to simulate a PGM and is normally used as a target for surface-to-surface missile firings or as a tow craft for ISTT or TRIMARAN. The boat is capable of being remotely controlled out to approximately 50 NM from AFWTF control stations.

a. Direct gunfire, fuzed warheads, or bombing against the SEPTAR requires special permission from CNO. The target is allocated for surface-to-surface gunfire using a 10-mil offset.

b. Air-to-surface gunfire, missiles, and bombs can be targeted against a Williams Sled or improved surface tow target (ISTT) streamed approximately 1,000 feet astern a SEPTAR.

c. SEPTARs normally operate in bravo (south) range.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Gunfire Range and an air-to-ground Close Air Support (CAS) range including air-to-ground bull's eye targets; strafing; mock airfield and other limited tactical targets. The complex also includes mining, artillery, grenade, demolition and small arms ranges.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted on the eastern tip of Vieques.

2. Vieques Naval Gunfire Target Complex. The Vieques NGFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct and point fire targets are located.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone are located on the eastern end of Vieques. The LIA and CAS zone terrains vary from beaches to hills with ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunitions dump, SAM sites, and many other smaller targets.

All targets in the CAS zone are stationary except for the Mobile Land Target (MLT) which operates on the mock airstrip northeast of target one. The MLT's are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System. A microphone is located near the target, to provide input to the acoustic scoring system.

(c) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the Weapons Impact Scoring System (WISS).

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the west coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumented area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix.

During all operations a military range control officer from AFWTF is present. Shops for instrument maintenance, MK-30 target preparation, exercise torpedo preparation, and the range adminstrative office are located within the Roosevelt Roads complex.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, can be conducted on the range. The range provides precision tracking data obtained via in-water three dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumented range and has proven itself a highly effective training device.

ELECTRONIC WARFARE RANGE

1. General. The purpose of the Electronic Warfare Range (EWR) is to provide a realistic electronic environment for the combat readiness training of air, surface and submarine units and the evaluation of combat systems in development and operational testing.

a. The EWR consists of a system of EW devices located in Puerto Rico, its adjacent islands, U.S. Virgin Islands, and on organic aircraft and range support craft. All fixed sites are controlled from an EW Range Operations Center (EWROC) located in the AFWTF headquarters building at Roosevelt Roads. Primary elements are:

(1) Threat Radiation Simulator (TRS). Located at Pico Del Este, PR. The TRS is a computer controlled system designed to radiate realistic EW scenarios with multiple emitters on one or more axis.

(2) Threat Platform Simulators (TPS). One located on Mt. Pirata on the western end of Vieques, PR and one on St. Georges Hill, St. Croix, USVI. The TPS's provide realistic single emitter or complex scenarios of air, surface or subsurface threats.

(3) Noise Jammer Simulator (NJS). Positioned at Monte Pirata, Vieques Island PR. The NJS is a generic noise jammer which can simulate most types of air and shipboard jamming threats from single or multiple platforms.

(4) OUTBOARD Stimulator (OBS). Located at Roosevelt Roads. OBS is designed to test the OUTBOARD system on USN ships by HF transmissions of morse code (CW), radio teletype (RATT) and pre-recorded voice.

(5) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS). Installed on the 180 foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(6) AN/UPQ-8 Triple Ground Threat Emitter (TGTE). Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operating on the Inner Range.

(7) AN/ALQ-167 Jammer/deception device. Airborne jammer carried aboard TA-4J aircraft at AFWTF.

2. OPERATIONS. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range if within line-of-sight of an EWR location. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiations may be selected from an established library of radars and platforms or with sufficient lead time, tailored programs may be created to meet specific training or test requirements.

AFWTF/RANGE UTILIZATION
FOR CALENDAR YEAR 1995

1. Outer Range Operational Support:

a. The Outer Range was active 165 days, providing operational services to 21 USN air units, 64 USN surface units, 1 USN subsurface unit, 18 Foreign surface units, 2 Foreign air units and CNAWCADIV.

b. 87 days of Link-11 services were conducted by 8 USN air units, 16 USN surface units, and 6 Foreign surface units, and 1 subsurface unit.

c. 33 BQM-34's, 135 BQM-74E's, and 46 AQM-37C were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active 199 days, operational service to 30 USN air units, 49 USN surface units, 30 US air units, 20 ground units, 7 Foreign surface units, and 3 Foreign air units.

b. 87 days of naval gun fire, 141 days of air-to-ground exercises, 4 MINEX days, 3 days of small arms,and 49 days of Supp arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active 133 days, providing operational services to 55 USN air units, 56 USN surface units, 15 USN subsurface units, 3 Foreign air units, and 9 Foreign surface units.

b. 123 MK-30 targets were launched in support of torpedo exercises.

c. 124 RT-46s, 73 MK-46s, 116 MK-48s, and 7 MK-50s, were fired on the Underwater Tracking Range.

d. Conducted 4 EHCTV exercises.

e. Performed SSRNM operations with 8 ships, 1 day per ship.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active 130 days, providing operational services to 8 USN air units, 55 USN surface units, 1 USN subsurface unit, 14 Foreign surface units, and CINCLANTFLT.

b. TPS provided 244.6 hours of Electronic Warfare Support and the Noise Jammer site provided 68.0 hours support.

c. The TRS provided 677.2 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 74.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 135 MK-30s, 384 torpedoes, and 34 torpedo mines. 129 MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared 109 MK-46s, 205 MK-46Rs, and 8 MK-50s; launching 89 MK-46s, 91 MK-46Rs, 76 MK-48s, and 7 MK-50s.

c. The MK-30 shop prepared 126 targets, of which 197 were launched in support of torpedo exercises.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venequela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CAS	- Close Air Support
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
EWR	- Electronic Warfare Range
EWROC	- Electronic Warfare Range Operations Center
FEWSG	- Fleet Electronic Warfare Support Group
FLECOM	- Fleet Composite Squadron 8
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
JIATF	- Joint Inter Agency Task Force
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
MLT	- Mobile Land Target
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface To Air Missile
SATS	- Systems Accuracy Trials
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials
WISS	- Weapons Impact Scoring System

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1996
COMMAND BRIEF

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment available. The unique capabilities of AFWTF provide just such an environment. To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain, and develop weapons training facilities and services in direct support of the training of fleet forces and other activities; and for the development, testing, and evaluation of weapons systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multi-ship/unit exercises, tests, and Operational Test and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide communications facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit through the Puerto Rico operating areas.

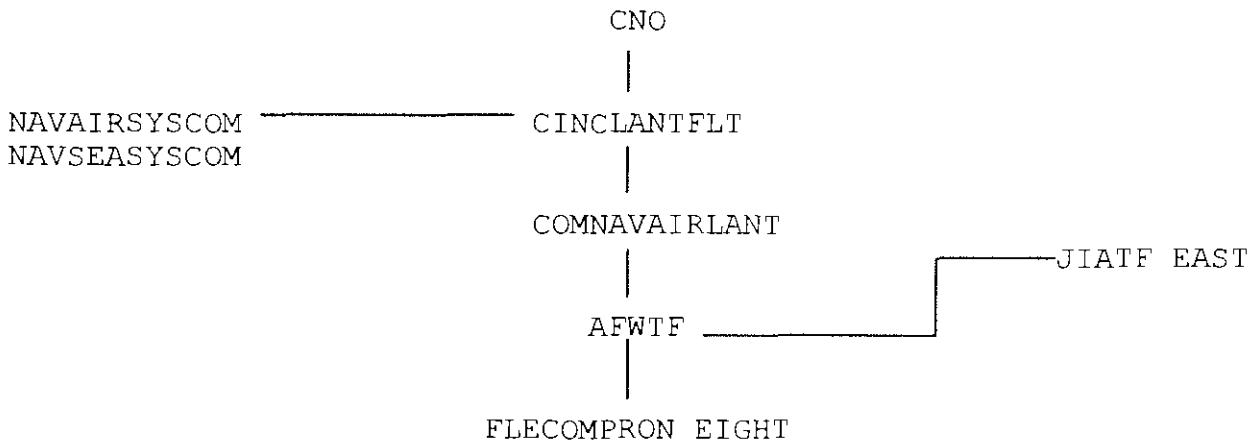
k. Serve military as Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico Operating Areas in the Caribbean.

l. Naval Air Component Commander for Commander JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR/TRAINING operations.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM). Operations and Maintenance Funds (O&M) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagrammed below:



AFWTF consists of 115 military and 37 civilian personnel working as a team. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are performed by contract personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General The Outer Range provides support for surface-surface, air-air, surface-air and air-surface missile and gunfire exercises. Operations are conducted in two ranges designated North/Alpha (encompassing 120,000 square miles) and South/Bravo (encompassing 74,000 square miles), consisting of seven offshore Warning Areas. Additionally, the Range utilizes several land-based facilities, including the Range Operations Center ROC (located within the Roosevelt Roads complex) and remote radar sites at Crown Mountain, St. Thomas, St. George's Hill, St. Croix, Mount Pirata, Vieques, and Pico del Este. Target services consist of two primary types: surface targets and remote controlled aerial targets. Surface targets may be either remotely controlled or towed by another surface craft. All aerial targets are controlled from the ROC via the Remote Data and Drone Control System (RDDCS), which collates positional data and radar telemetry from the remote sites, allowing the ROC to realistically simulate hostile units.

Presently, the ROC can control a maximum of six drones simultaneously. After launch, drones are flown into the designated range and presented to the firing unit on a predetermined course. During this period, the units engage in tracking and firing exercises, while telemetry equipment onboard the drone and missile evaluate the success of the engagement. Following completion of the exercise, a parachute is released allowing the target to land without damage and be recovered for future re-use.

2. Aerial Targets. AFWTF utilizes three subscale drone aircraft. The BQM-74E and BQM-34S are both subsonic, re-usable targets, capable of speeds in excess of 500 knots and altitudes from 10 to over 40,000 feet. Both can be ground-launched from AFWTF's Cabras Island facility with the assistance of JATO bottles. In addition, the BQM-74E may be air-launched from TA-4J aircraft when outfitted with a special adapter kit. Each drone simulates real-world threats for surface-air and air-air missile exercises and may be fitted with a variety of augmentation devices to meet specific operational test requirements.
The AQM-37C is a supersonic, non-recoverable target capable of speeds up to Mach 4.0 and altitudes of 100,000 feet. It may be air-launched from either the TA-4J (normal performance) or the F-4 (high performance). The drone is used primarily to simulate ballistic missile profiles. AFWTF also provides unpowered TDU-34A aerial tow targets. Towed by TA-4J aircraft, the shape provides an inexpensive target for semi-active homing missiles and various gun systems, including CIWS.

3. Surface Targets. Through the Marine/Ocean Engineering division, AFWTF controls a variety of powered and unpowered surface craft. These are used to provide targets for air-surface and surface-surface missile and gunnery exercises.
The QST-35 SEPTAR is the most capable surface target utilized at AFWTF. A 56-foot long, powered craft, it acts both as a target and as a tow vehicle for unpowered shapes. When acting as a target, it is remotely controlled from another SEPTAR. Direct gunfire, fused warheads, or bombing against the SEPTAR require special permission from CNO, this is not the case, however, when using a 10-mil offset. Other surface targets include: ISTTs, trimarans, GORSTs, and FASTs.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorage's on the island of Vieques.

a. The Vieques complex consists of a Naval Surface Fire Support Range, an air-to-ground Close Air Support (CAS) range consisting of one air-to-ground bull's eye target; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and CAS training; a mining range; an artillery range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted at the eastern tip of Vieques.

2. Vieques Naval Surface Fire Support Target Complex. The Vieques NSFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed in various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunition dump, SAM sites, and many smaller targets. All targets in the CAS zone are stationary except for the Mobile Land Target (MLT) which operates on the mock airstrip northeast of target one. The MLT's are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

(c) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the WISS.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the west coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumental area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix. During all operations a military range control officer from AFWTF is present. Shops for instrument maintenance, MK-30 target preparation, exercise torpedo preparation, and the range administrative office are located at the Roosevelt Roads complex.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units, can be conducted on the range. The range provides precision tracking data obtained via in-water three dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumental range and has proven itself a highly effective training device.

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(5) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS): Installed on the 180 foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(6) AN/UPQ-8 Triple Ground Threat Emitter (TGTE): Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operating on the Inner Range.

(7) AN/ALQ-167 Jammer/deception device: Airborne jammer carried aboard TA-4J aircraft at AFWTF.

2. Operations. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiation's may be selected from an established library of radar's and platforms or with sufficient lead time, tailored programs may be created to meet specific training or test requirements.

AFWTF/RANGE CHRONOLOGICAL NARRATIVE CALENDAR YEAR 1996

FIRST QUARTER

JANUARY. Began with carry over December operations and the opstempo increased culminating with COMPTUEX JTG 96-2. USS ESTOCIN (FFG 15) conducted a SAMEX against a BQM-74E. MAG 42 F/A18's completed both an AAMEX and ground controlled intercept training. VP-64 and VP-26 launched MK-46 exercise torpedoes against our MK-30 mobile ASW targets. Triple Ground Threat Emitter(TGTE) EW services were provided to HH-60's from the 8th Special Operations Squadron, and the AN/FSQ-154 Outboard Stimulator (OBS) was activated, providing over 120 hours of training to multiple surface and shore based units.

FEBRUARY. Commenced with all ranges heavily tasked. AMPHIBEX 1-96, a supporting arms coordination exercise involving 5th battalion 10th Marines, VMA-542, USS SPRUANCE (DD-963) and USS AUSTIN (LPD 4) incorporated an amphibious landing and simultaneous engagement of multiple targets employing artillery, motars, fixed wing aircraft, and NGFS in support of ground forces. USS O'BANNON (DD-981), USS SPADEFISH (SSN-668) and USS SPRUANCE (DD-963) conducted ASW training on the UTR. USS O'BANNON (DD-981) also qualified in NFGS and received EW mode services from our Threat Radiation Stimulator (TRS). USS SPRUANCE (DD-963) utilized the Surface Ship Radiated Noise Measurement (SSRNM) array at ST. Croix and conducted Surface-to-Surface Gunex against one of the SEPTARS. USS AUSTIN (LPD 4) was on range to fire CIWS against a TDU towed by a VC-8 aircraft. OPTEVFOR conducted an operational test of a harpoon launched from a submerged submarine against EX-USCG CHILULA. USS CARR (FFG-52) successfully engaged a low altitude BQM-74E and high altitude supersonic AQM-37C.
Intermediate phase training and intermediate phase training assessment (Phase 1 and Phase 2) of COMPTUEX JTG 96-2 were conducted in the PROA from 21Feb-16 Mar.

MARCH. (Phase 1 and Phase 2 continue) During this period, AFWTF hosted COMCARGRU FOUR, the USS ENTERPRISE (CVN 65) Battle Group and opposition forces. The Combined U.S. Naval forces operating in the PROA consisted of 2 aircraft carriers (Enterprise and Stennis), 2 Carrier Air Wings, 3 Cruisers, 3 Destroyers, 5 Frigates, 4 Submarines, and 1 AOE. Additionally, AFWTF provided a full range of services to 5 Canadian warships, 1 British Frigate, and 1 Dutch Frigate. During this 25 day period, AFWTF and VC-8 surged to meet all customer requests.

The completion of USS ENTERPRISE (CVN 65) battle group's ITA on 16 March hardly allowed a moment for AFWTF to reflect and take pride for providing range services that resulted in COMPTUEX JTG 96-2 being the most successful COMPTUEX in memorable history.

On 17 March AFWTF launched eight BQM-74E targets for a SAMSLX conduced by HMCS MONTREAL, HMCS VILLE DE QUEBBEC, and HMCS IROQUOIS.

17 March also saw VP-45 conducting a TORPEX and CVW-8, operating off USS JOHN C. STENNIS (CVN 74), conducting air-to-ground training at Vieques. To support the USS JOHN C. STENNIS (CVN 74) CSSQT and airwing training which continued through 24 March, AFWTF provided its arsenal of airborne targets (AQM-37, BQM-34, and BQM-74), MK-30 Mobile ASW Targets, MK-46 Exercise Torpedoes, and SEPTAR, ISTT, and GORST Surface Targets. On 20 March, AFWTF provided a single AQM-37C, launched by a VC-8 "REDTAIL" A-4, for VFA-204's AAMSLX. The end of March saw VS-22 conducting a BOMBEX against an ISTT towed by a SEPTAR, USS HUE CITY (CG 66) qualifing in NGFS, and the arrival of USS ARCTIC for her CSSQT. AFWTF provided the USS ARTIC with A-4's carrying TDU-34A's and ALQ-167 and AST-4 pods.

April. Opened with USS ARCTIC firing two rim-7 Sea Sparrows against two BQM-74's, USCG ATTU conducting NGFS with her 25mm guns, and VP-10 conducting a trackex against a MK-30 target. During the week of 8 April F-16's from the Puerto Rico Air National Guard utilized the live impact area at Vieques extensively to conduct their annual live fire training. That same week the RAM program office successfully completed AOTD tests utilizing a specially configured configured Septar and BQM-34. Additionally, VP-10 and VP-16 launched two harpoons against a single Septar and VP-8 launched a Maverick against two gorst targets (tied together and augmented with an IR source), sinking the gorsts. Cyclone class coastal patrol craft USS WHIRLWIND (PC 11) and USS THUNDERBOLT (PC 12) trained in the PROA between 15 April and 18 May. They participated in numerous operations with the seals at Vieques including insert and extraction training, noncombat evacuation operations, and spotting exercises. Additionally, USS WHIRLWIND (PC 11) and USS THUNDERBOLT (PC 12) conducted stinger missile exercises, NGFS, CAS with VC-8, Kingfisher minefield operations, and received EW services from AFWTF's Threat Radiation Stimulator (TRS). The lull in ops at the end of April on the Underwater Tracking Range allowed time to upgrade software to their twelve target track system, complete final preps for May's PCO OPs, and conduct a safety range review. April closed with USS THORN (DD 988) arriving for her CSSQT. She conducted multiple EW tracking exercises, received TRS services, and fired her CIWS against TDU-34's.

May. Opened with VP-45 firing a Maverick against a USS GORST and USS THORN (DD 988) conducting a PACFIRE, SAGUNEX, NGFS, and SAMSLX. The ASW portion of PCO OPs 2-96, Phase One, was conducted from 7-10 & 13 May on the UTR. Ops ran for 15 hours each day and USS MIAMI (SSN 755) and USS ATLANTA (SSN 712) fired 30 MK-48 ADCAPS against each other. The PCO "mini-war" (Phase Two/ASUW) followed 14-16 May and was continuous for 54 hours; the subs fired 25 MK-48 ADCAPS against USS MOOSBRUGGER (DD 980), USS JOHN L. HALL (FFG 32); and USS JOHN LENTHALL; the surface units returned fire with 10 MK-46 EXTORPS. During Phase Two, USS MOOSBRUGGER (DD 980) fired the first VLA ASROC in the Atlantic Fleet. AFWTF colrdinated with the FAA for additional airspace and provided range safety. The shot was fired at Atlanta in the Northern UTR. AFWTF range boats and VC-8 H-3's retrieved all 65 training torpedos fired during PCO OPs.

From 9-20 May AFWTF hosted COMDESRON TWO, USS MOOSEBRUGGER (DD 980), USS JOHN L. HALL (FFG 32) for INDEX 96-1. USS MOOSEBRUGGER (DD 980) qualified in NGFS, USS JOHN L. HALL (FFG 32) conducted multiple NGFS familization with AFWTF providing spotter services and both units conducted surface-to-surface and surface-to-air gunnery and missile exercises. Additionally, EW services were provided by AFWTF's TRS and VC-8 A-4's. VS-24 conducted a weapons det out of Roosevelt Roads between 13-19 May. The S-3's dropped MK-50 REXTORPS on MK-30 targets as well as inert and MK-80 series bombs on the Vieques LIA and on floating at-sea targets. Coordinating with EOD Mobile Unit Two, we closed the LIA between 20-24 May (no ops were scheduled) to perform an ordnance sweep of cluster munitions in "SAM EAST". This move allowed us to shorten the scheduled June range refurbishment which is now scheduled from 3-23 June. Operation "RUM PUNCH" was conducted at the Vieques range complex from 27-31 May. Elements involved were HMS ARGYLE, HMS FEARLESS, RFA SIR GALAHAD, Lima company 42nd Royal Marine Commando, 79th Battery Royal Artillery, 148 Royal Artillery Foward Observers, 2nd Anglico, VMFA-122, VC-8, HMLA-269, and 846th and 847th Royal Marine helicopter squadrons. The exercise opened with amphibious landings with vertical envelopment, supported initially by CAS and NGFS. Once ashore, troop movement was given additional support by motors and artillary. Finally, platoon level raids were conducted utilizing all supporting arms to destroy a clandestine airfield. AFWTF Range Control Officers provided round-the-clock range safety. We are currently supporting USS CARNEY (DDG 64) CSSQT. The Outer Range rounded out May by supporting three different aviation squadrons. CVW-7 (VFA-81 and VA-75) successfully engaged an augmented Williams sled with three Harm Missles. HMLA-269, Marine Cobra and Huey helicopters splashed two of three BQM-74's and VMFA-122 Hornets completed air-to-air Missile exercises opposing BQM-74's and an AQM-37.

June. AFWTF supported HMLA 69, Puerto Rico National Guard units, and numerous surface combatants, including USS CARNEY (DDG 64), USS T.S. GATES (CG 51), USS KIDD (DDG 993), USS KAUFFMAN (FFG 59), and Standing Naval Forces Atlantic (SNFL). SNFL had not operated in the Puerto Rico Operating Area (PROA) since 1993. Participants this year were HMS CAMPBELTOWN, HMCS HALIFAX, HMNLS VAN TRESLONG, FGS BREMEN, and USS MCINERNEY (FFG 8). Of OPS in The Outer Range supported five major exercises. USS KAUFFMAN (FFG 59) successfully qualified their upgraded fire control system by engaging an AQM-37c and BQM-74e. Kidd followed by launching nine standard missiles at two BQM-74e's and an Improved Surface Tow Target (ISTT). By mid month AFWTF's Aerial Targets Shop had demonstrated unparalleled drone preparation prowess by presenting four scheduled and then three unscheduled flights for Nato surface combatants participating in SNFL work-ups. Next, the recently commissioned AEGIS destroyer, USS CARNEY (DDG 64), and post-overhauled AEGIS cruiser, USS T.S. GATES (CG 51), combined to execute their combat system trials. USS CARNEY (DDG 64) launched nine missiles while gates fired two at a mix of BQM's and AQM's in challenging scenarios with jamming and chaff. Late June saw the Rolling Airframe Missile (RAM) project office successfully engage a BQM-74e with an advanced target detection seeker. A noteworthy milestone for AFWTF and VC-8 has been the reconstitution of a BQM-74e air-launch capability in the PROA. Both single target and dual target launches were completed, helping to ease the fleet wide jato shortage. "Redtail" A-4's, VP P-3's and a FIWC contracted Lear jet provided AAW realism for SNFL units by flying various air raid profiles. On the Underwater Tracking Range (UTR), June opened with USS CARNEY (DDG 64) successfully launching the Atlantic Fleets second and third Vertical Launch Asrocs (VLA) in area 6a (NW of ST. Croix). AFWTF is the only Atlantic Fleet Range that has conducted operational VLA firings. USS KIDD (DDG 993) fired a MK-46 EXTORP and an ASROC against a single MK-30 mobile ASW target on 6 June. Mid-month saw SNFL on range for four days of intensive ASW operations that included 8 MK-46 firings against 4 MK-30's and a U.S. Submarine. The Vieques range completed range refurbishment in just three weeks, opening the range to Atlantic Fleet units two weeks earlier than the historic average. During June the Inner range hosted USS KIDD (DDG 993) for NSFS, USS CARNEY (DDG 64) for King Fisher OPS, and the PRANG for Close Air Support and high altitude bombing. In the future, aircrew will see Sheridan tanks as target hulks; twenty nine were received. Over 110 hours of EW mode and pod services were provided in June. USS CARNEY (DDG 64) utilized sites 1 and 3 to assist in training their new EW team. HMLA-269 received Triple Threat Ground Emitter services, and USS KIDD (993), USS KAUFMANN (FFG 59), and SNFL received both mode and VC-8 A-4 pod services.

July. Opened with the 92nd Infantry Brigade conducting small arms, mortars, and company level unit tactics at Vieques. Index 96-2 range briefs for DESRON 24, USS STUMP (DD 978), USS AUBREY FITCH (FFG 34), and USS STEPHEN W. GROVES (FFG 29) occurred on the 3rd, followed by ASW training on the UTR on the 4th and 5th. For those not directly supporting INDEX 96-2 the much anticipated July 4th long weekend never materialized due to preparations for hurricane Bertha. INDEX events were supported as long as possible. Unitas, an annual exercise conducted to enhance inter-operability between U.S. and allied South American Navies, was slightly delayed as Bertha's eye passed 35 miles ENE of Roosevelt Roads on 8 July. A new schedule for INDEX, SNFL and Unitas was rapidly promulgated. The Vieques range was opened 9 July for USS STUMP (DD 978) NSFS Spotex; she qualified on the 10th. By 10 July, AFWTF was fully up, conducting INDEX "WAGON WHEEL" events and a SAMEX in the north PROA on 12 July. SNFL completed her deployment to the PROA on 19 July after conducting NSFS. In the midst of these exercises, the Outer range supported PEO TAD RAMPO for testing of the Rolling Airframe Missile (RAM). AFWTF's Marine Ocean Engineering division coordinated the RAM upload onto M/V Hugo and transported it to the south range for launch. The modified RAM targets were built by the aerial targets shop with the assistance of NAWC PT MUGU. Despite a rising sea state, the RAM successfully tracked and engaged the target, scoring a direct hit. Unitas 37-96 (phase zero) opened with an amphibious landing onto the Vieques eastern maneuvering area; exercise participants were USS LA MOURE COUNTY (LST 1194), 2nd Marine Expeditionary Force, Dutch Marines, and Venezuelan Marines. Naval surface fire support was provided by USS MOOSEBRUGGER (DD 980) and eight South American Navy ships. USS MOOSEBRUGGER (DD 980)also provided coordinated illumination for the night time fire missions. Close air support was provided by VC-8, HM-261 and the Puerto Rico Air National Guard. Marking rounds for the aircraft were provided by USMC and Venezuelan mortar teams. On the Underwater range, Unitas ASW platforms cycled through, expending MK-46 EXTORPS or conducting trackex's against MK-30 mobile ASW targets. Additionally, phase zero units engaged two AQM-37C's and three BQM-74E's with RIM-66E/B; RTM-7Mm, SEACAT, and Aspide SAM's. RADM Ferguson, Comsolant and Unitas Commander , summed up the period in his BZ: "Unitas Phase Zero was a huge success this year due in large measure to the exceptional efforts and professionalism of AFWTF personnel." Hard on the heels of Unitas came MAG-31. Over a four day period 25 F/A-18 aircrew received real-world training against nine Aerial Targets, firing fourteen missiles. on their final day, they successfully launched four harm against two Emitter-equipped Williams Sled Targets positioned in the north range by MOE.

AUGUST. Phases two and three of Comptuex 97-1 were conducted in the PROA from 09AUG to 03SEP96. During this concentrated period of services, AFWTF not only hosted COMCARGRUFOUR and the USS THEODORE ROOSEVELT (CVN 71) battle group, but also supported CSSQT's for USS KEARSARGE (LHD 3) and USS COLE (DDG 67), Naval Surface Fire Support qualifications for USS TICONDEROGA (CG 47) and USS YORKTOWN (CG 48), and Air-To-Ground and CAS training for Carrier Air Wing One (Orange Air). The Outer Range was active 20 of 26 days launching 18 BQM-74e, four BQM-34s, and four AQM-37C aerial drones. CVW-3 responded with 1XAIM-120, 2XAIM-7, and 3XAIM-54; "TR" fired a single AIM-7; C2X RIMEX participants (eight ships) launched 7XSM-2, 5XSM-1, and 4XRIM-7; USS KEARSARGE (LHD 3) fired 4XRIM-116 (RAM) and 2XRIM-7. Additionally, all surface units were provided "WAGON WHEEL" services consisting of Williams Sleds, Septars and TDU's for SS/SA gunnery training. The Vieques range was operational 26 of 31 days. In excess of 15,000 tons of ordnance were fired from ships and aircraft into the LIA target complex. The range saw 1,300 sorties and supported over 5,500 aircraft bombing runs. Six ships qualified inngs, four others conducted NGFS familiarization exercises. Additionally, Combat SAR exercises were conducted on range. AFWTF's Underwater tracking range supported a total of 12 ships, three subs, embarked lamps H-60's, VS/HS squadrons from CVW-3/CVW-1 and VP. Our MK-30 IMA prepared 26 subsurface targets and our torpedo shop prepared 26 MK-46 EXTORPS and 22 MK-46 REXTORPS. These targets, exercise weapons, and an additional nine organic range boats. Additionally, five ships conducted SSRNM trials and a LANTFLT sub launched four MK-67 SLMM (mines). The Electronic Warfare range provided services as follows: Threat Radiation Simulator (TRS) - 97hr, Triple Ground Threat Emitter (TGTE) - 20hrs, Oubtboard Stimulator (OBS) - 96hr, Noise Jammer Simulator (NJS) - 16hr, and the I band simulator on our range boat "Hugo" - 09hr. VC-8 conducted daily flight ops, logging 99 A-4 sorties and 57 H-3 sorties for 148 hours and 167 hours respectively. Redtail A-4's launched six AQM's, five BQM's, streamed 19 TDU's and flew 39 missile simulator/jamming pod/cap missions. The MK-30 IMA Bldg Rehab was completed. The HGR 200 quality of life project was completed.

September. Opened with AFWTF heavily tasked, hosting COMCARGRU FOUR's ITA for COMCARGRU EIGHT and the USS THEODORE ROOSEVELT (CVN 71) battle group, followed by Carrier Air Wing One's weapons det, USS COLE (DDG 67) CSSQT, VP-5 ASW training, and hurricane Hortense. Already present in the PROA as aggressors for Roosevelt's Comptuex, CVW-1 remained for an additional week to continue Air-To-Ground (A/G) training at Vieques and an Air-To-Air MSLX against a mixture of BQM-74e, BQM-34s, and AQM-37C drones,

a total of 11 targets in all. CVW-1 completed their training with a Harmex against a modified Williams Sled, a challenging exercise hampered by the rising sea state caused by the approach of hurricane Hortense. USS COLE (DDG 67) was busy during early September conducting an over-the-horizon Trackex utilizing AFWTF range boats, Hugo and Hunter. Additionally, both USS COLE (DDG 67) and VP-5 conduced multiple ASW trackex's and a torpex against USS ATLANTA (SSN 712) on the Underwater Tracking Range (UTR) and EW training with our Threat Radiation Simulator (TRS).

Initially forecast to pass well south of Roosevelt Roads on a westerly track, hurricane Hortense instead changed to a northwest track and crossed the western side of Puerto Rico, depositing 20 inches of rain and sustaining winds of over 50 kts at Roosevelt Roads. Thanks to well rehearsed preparations, AFWTF received little damage, although the road to our site at the top Pico Del Este was washed out in multiple places. The greatest impact of Hortense was the delay of the start of a FMS event that had been in planning for nearly three years; the British Sea Harrier AMRAAM tests. Scheduled to begin the day Hortense struck (10 SEP), the exercise was pushed back two days. When the weather cleared, AFWTF's Outer Range worked non-stop through the weekend to make up for lost time. The UK AMRAAM tests were conducted between 12-19 SEP. AFWTF supported the tests with six VC-8 TA-4j sorties, five BQM-74 and two BQM-34 drones. Concurrent with the AMRAAM tests, AFWTF presented Cole with nine aerial targets for her CSSQT SAMSLX over a two day period (16-17 Sep). USS COLE (DDG 67) completed her NSFS qualification on 18 SEP and received Threat Platform Simulator (TPS) services and surface target services until 23 Sept. VP-10 rounded off the month with a torpex against a MK-30 target. September also saw AFWTF's 185 ft range boat, NS Hunter, heading for Charleston for overhaul. Hunter is scheduled to return on 30Jan97.

October. Saw USS NORMANDY (CG 60) on range receiving EW mode services, VC-8 TDU services, and conducting a NSFS Spotex and Torpex. Next, Seal Team One conducted an operational readiness evaluation and small arms training at Vieques. USS SHAMAL (PC 13) utilized our services from 21Oct to 5Nov, conducting CAS, S/S Gunex, NSFS, NEO OPs, and a Stingerex. Also beginning 21 October, AFWTF hosted COMDESRON FOURTEEN, USS NICHOLSON (DD 982) and USS HALYBURTON (FFG 40) for INDEX 97-1, which encompassed two weeks of intense training on all ranges. USS NICHOLSON (DD 982) and USS HALYBURTON (FFG 40) received numerous VC-8 TDU and AST-4 pod service flights, utilized our Septars for multiple surface-to-surface gunnery exercises, and conducted ASW training on the UTR against MK-30 targets. USS NICHOLSON (DD 982) also conducted a NSFS Spotex. Both ships were provided BQM-74 and AQM-37 targets for their AAW-18 and AAW-11 qualifications.

November/December. AFWTF was heavily tasked throughout November and into mid-December supporting VX-1 S-3 "Viking" aircraft, PCO/mini war ops, a german "Atlantique" aircraft, COMPTUEX 97-1 (COMCARGRU Four and the USS JOHN F. KENNEDY'S (CVN 71) battle), CVW-7 (Orange Air) MSLX and ATG, and USS O'BANNON (DD 987) CSSQT. November was also the turnover month of AFWTF's O&M contract from Lockheed-Martin to ITT.

On the Outer Range, November began with the completion of INDEX 97-1, with USS NICHOLSON (DD 980) and USS HALYBURTON (FFG 40) successfully engaging additional targets. VX-1 was next, executing a S-3 successful bombing exercise against an ISTT augmented with FAST and IR emitters. Over a two day period S-3's flew numerous sorties. CVW-8 arrived with the USS JOHN F. KENNEDY (CVN 71) battle group on 14 November and on 15 November her fighters launched a total of seven Sparrow and six Phoenix missiles against a variety of single and multiple-74's and -34's. Two days later, the JFK conducted her CSSQT. The Outer Range presented two BQM-74's at low altitude, one equipped with a DPT-2 emitter. JOHN F. KENNEDY (CVN 71) completed the exercise successfully, launching six NATO Sea Sparrows. The last major event of November, following the cancellation of USS GONZALES CSSQT, was the COMPTUEX RIMEX, with participation from all battle group surface units. Six SM-2's and three sea Sparrows were launched against two AQM-37's and three BQM-74E drones. Two FFG's were unable to complete their portions of the exercise and had to be rescheduled for a later date. Finally, an SH-60B attempted to engage a remote controlled Septar with a Penguin missile; the first attempt to employ this weapon from this platform in a tactical mode.

The Inner Range opened the month with a "BANG" on the LIA of Vieques. VX-1 conducted ATG bombing iso their software tests of an upgraded weapons system. Shamal conducted TSTA III and NEO training in the LIA. Special boat squadron Royal Marines conducted troop and squadron level attacks in the LIA which culminated in a squadron level combined arms exercise. The remainder of the month and into December was dedicated to supporting COMPTUEX. Our range control officers ensured that all CAS, ATG, TGTE, Overland Training, CSAR, and small arms training was conducted safely. Spotter services and/or NSFS qualifications were provided to USS VICKSBURG (CG 69), USS SPRUANCE (DD 963), USS HAYLER (FFG 40), USS GATES (CG-51), USS HUE CITY (CG-66) and USS JOHN HANCOCK (DD 981). EOD mobile unit two conducted unexploded ordnance drills for battle group EOD detachments. CVW-7 arrived 28 Nov as Orange Air and, over the next two weeks, conducted day and night ATG training and performed a MINEX. Joint Special Operations Command (JSOC) in conjunction with USS ARLEIGH BURKE (DDG 51) and the Puerto Rico Air National Guard (PRANG) conducted NSFS and CAS training.

USS ARLEIGH BURKE (DD 51) qualified on her final day of training. Range refurbishment started 16 Dec with EODMU TWO DET conducting range sweeps.

In keeping with all of AFWTF's ranges, the Underwater Tracking range was exceptionally busy. Five major training events were supported beginning with the USS GONZALES CSSQT (2-4 Nov). Her intense three day exercise involved two days of tracking with the final day devoted to the firing of two MK-46 EXTORPS at USS HAMPTON (SSN-767). USS GONZALES had the tracking support of VP-10 P-3 aircraft (VP-10 also supported COMPTUEX). From 5-15 Nov, 13 Prospective Commanding Officers (PCO) on USS HAMPTON (SSN-767) and USS BALTIMORE (SSN-704) fired a total of 47 MK-48 ADCAP torpedoes at each other, a SSBN, and USS O'BANNON (DD 987) and USS ARTHUR W. RADFORD (DD-968). Three MK-30 targets were used and USS O'BANNON (DD 987) and USS ARTHUR W. RADFORD (DD-968) fired nine MK-46 EXTORPS. During PCO OPs 58 hours of non-stop training (mini-wars) were conducted with the three subs, two ships, and two aircraft squadrons (HS-11 and HSL-48 DET 7). All players received realistic real world ASW training. Immediatelly following PCO OPs, a single german "Atlantique" aircraft received two days of ASW training. The Atlantique, dropping one MK-46 dropped four MK-46 EXTORPS at two MK-30's, scoring a successful attack each time. COMPTUEX 97-1 events at the UTR included seven ships conducting individual torpedo exercises, one MRCI three TRE's, and three SSRNM's. During COMPTUEX, a total of 13 MK-46 EXTORPS, 50 MK-46 REXTORPS, and 17 MK-50 REXTORPS were fired at 22 MK-30 targets. The AFWTF torpedo IMA prepared and retrieved more weapons during the month of November 1996 than it had for any given month in the last ten years, a tribute to a great effort and teamwork. Following COMPTUEX, the UTR hosted VS-31. The S-3's dropped ten REXTORPS over a three day period. USS CLARK (FFG-11) fired two MK-46 EXTORPS at one MK-30 target on the 9th of Dec and VP-10 conducted a TORPEX on the 16th of Dec. This completed all operations on the Underwater Tracking Range for the year. The electronic range began November with three days of TRS and TPS services for VX-1 and USS GONZALES. USS O'BANNON (DD 987) and USS ARTHUR W. RADFORD (DD 968) also received TRS and TPS services during their participation in PCO OPs. CVW-8 aircraft off the JFK utilized both the Triple Ground Threat Emitter (TGTE) and TRS. The COMPTUEX surface units utilized AFWTF's TRS, TPS, Noise Jammer Simulator (NJS), Outboard Stimulator (OBS) and AST-4 pods carried by VC-8, for a total of 299 hours of training. Critiques continue to stress the need for an improved sead simulation, expecially for COMPTUEX ITA. Beginning 11 December, USS ARLEIGH H. BURKE (DD 51) conducted mode services with the EW range and USS O'BANNON (DD 987) completed a rigorous four day EW training program in conjunction with her CSSQT. USS O'BANNON (DD 987) signal evaulation times averaged a mere 26 seconds; as good as it ever gets! BZ!

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venezuela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface To Air Missile
SATS	- Systems Accuracy Trials
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1997

COMMAND BRIEF

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment available. The unique capabilities of AFWTF provide just such an environment. To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities; and for the development, testing, and evaluation of weapons and weapon systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multiple ship/unit exercises, tests, and Operational Tests and Evaluation (OT&E) projects

d. Act as deputy safety observer for large scale multi-ship fleet missile exercises.

e. Provide communication facilities for test directors of spiel projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit throughout the Puerto Rico operating areas.

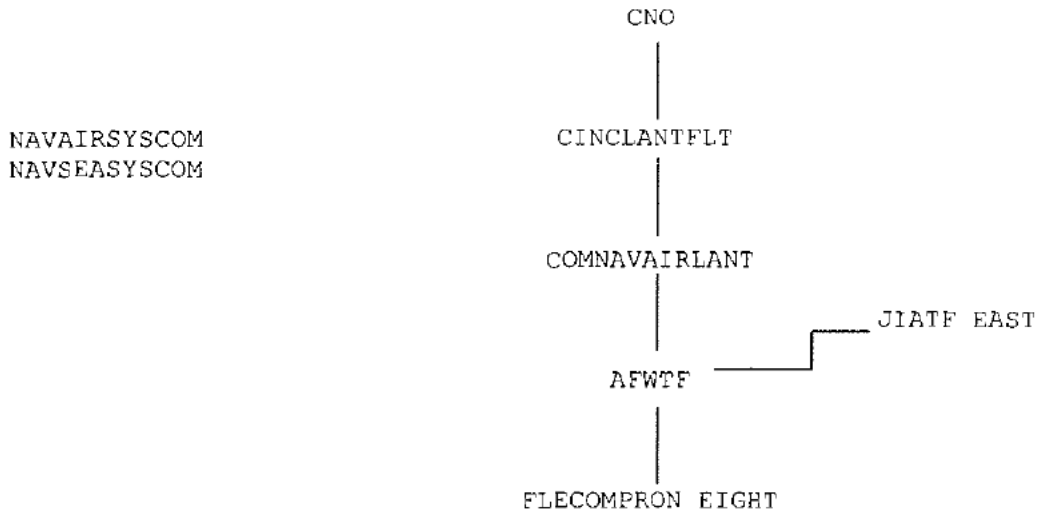
k. Serve as military Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico operating areas in the Caribbean.

l. Naval Air Component for Commander, JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR/TRAINING operations.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM). Operations and Maintenance Funds (O&M) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagrammed below:



AFWTF consists of 100 military and 34 civilian government service personnel overseeing 250 contractors. Management is accomplished by the military. The technical operations and maintenance of range facilities and drone targets are performed by contract personnel. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for surface-to-surface, air-to-air, surface-to-air, and air-to-surface missile and gunfire exercises. Operations are conducted in two ranges designated North/Alpha (encompassing 120,000 square miles) and South/Bravo (encompassing 74,000 square miles), consisting of seven offshore Warning Areas. Additionally, the range utilized severs land based facilities, including the Range Operations Center (ROC) located within the Roosevelt Roads complex) and remote radar sites at crown Mountain, St. Thomas, St. George's Hill, St. Croix, Mount Pirata, Vieques, and Pico del Este. Target services consists of two primary types: surface targets and remote controlled aerial targets. Surface targets may be either remotely controlled or towed by another surface craft. All aerial targets are controlled from the ROC via the Remote Data and Drone Control System (RDDCS), which collates positional data and radar telemetry from the remote sites,

allowing the ROC to realistically simulate hostile units. Presently the ROC can control a maximum of six drones simultaneously. After launch, drones are flown into the designated range and presented to the firing unit on a predetermined course. During this period, the units engage in tracking and firing exercises, while telemetry equipment onboard the drone and missile evaluate the success of the engagement. Following completion of the exercise, a parachute is released allowing the target to land without damage and be recovered for future reuse.

2. Aerial Targets. AFWTF utilizes three sub-scale drone aircrafts. The BQM-74E and BQM-34S both subsonic, reusable targets, capable of speeds in excess of 500 knots and altitudes from 10 to over 40,000 feet. Both can be ground-launched from AFWTF's Cabras Island facility with the assistance of JATO bottles. In addition, the BQM-74E may be air-launched from TA-4J aircraft when outfitted with a special adapter kit. Each drone simulates real-world threats for surface-to-air and air-to-air missile exercises and may be fitted with a variety of augmentation devices to meet specific operational requirements. The AQM-37C is a supersonic, non-recoverable target capable of speeds up to Mach 4.0 and altitudes of 100,000 feet. It may be air-launched from either the TA-4J (normal performance) or the F4 (high performance). The drone is used primarily to simulate ballistic missile profiles. AFWTF also provides unpowered TDU-34A aerial tow targets. Towed by TA-4J aircraft, the shape provides an inexpensive target for semi-active homing missiles and various gun systems, including CIWS.

3. Surface Targets. Through the Marine/Ocean Engineering division, AFWTF controls a variety of powered and unpowered surface craft. These are used to provide targets for air-to-surface and surface-to-surface missile and gunnery exercises. The QST-35 SEPTAR is the most capable surface target utilized at AFWTF. A 56-foot long, powered craft, it acts both as a target and a tow vehicle for unpowered shapes. When acting as a target, it is remotely controlled from another SEPTAR. Direct gunfire, fused warheads, or bombing against the SEPTAR require special permission from CNO, this is not the case, however, when using a 10-mil offset. Other surface targets include: ISTTs, trimarans, GORSTs, and FASTs.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorage's on the island of Vieques.

a. The Vieques complex consists of a Naval Surface Fire Support Range, an air-to-ground bull's eye target; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and Close Air Support (CAS) training; a mining range; an artillery range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted at the eastern tip of Vieques.

2. Vieques Naval Surface Fire Support Target Complex. The Vieques NSFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridge lines up to 300 feet in height. Targets and impact areas have been constructed and installed on various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunition dump, SAM sites, and many smaller targets. All targets in the CAS zone are stationary except for the Mobile Land Target (MLT) which operates on the mock airstrip, northeast of target one. The MLT's are radio controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75 inch rockets.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

(c) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the Weapons Impact Scoring Set (WISS).

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the west coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumental area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix. During all operations, a military range control officer from AFWTF is present. Shops for instrument maintenance, MK-30 target preparation, exercise torpedo preparation, and the range administrative office are located at the Roosevelt Roads complex.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units can be conducted on the range. The range provides precision tracking data obtained via in-water three dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumental range and has proven itself a highly effective training device.

ELECTRONIC WARFARE RANGE

1. General. The purpose of the Electronic Warfare Range (EWR) is to provide a realistic electronic environment for the combat readiness training of air, surface and submarine units and the evaluation of combat systems in development and operational testing.

a. The EWR consists of a system of EW devices located in Puerto Rico, its adjacent islands, U.S. Virgin Islands, and on organic aircraft and range support craft. All fixed sites are controlled from an EW Range Operations Center (EWROC) located in the AFWTF headquarters building at Roosevelt Roads. Primary elements are:

(1) Threat Radiation Simulator (TRS): Located at Pico Del Este, PR. The TRS is a computer controlled system designed to radiate realistic EW scenarios with multiple emitters on one or more axis.

(2) Threat Platform Simulators (TPS): One located on Mt. Pirata on the western end of Vieques, PR and one on St. Georges Hill, St. Croix, USVI. The TPS's provide realistic single emitter or complex scenarios of air, surface or subsurface threats.

(3) Noise Jammer Simulator (NJS): Positioned at Mt. Pirata, Vieques, PR. The NJS is a generic noise jammer which can simulate most types of air and shipboard jamming threats from single or multiple platforms.

(4) Outboard Simulator (OBS): Located in the EWROC. OBS is designed to test the OUTBOARD system on USN ships by HF transmissions of Morse Code (CW), radio teletype (RATT) and prerecorded voice.

(5) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS): Installed on the 180 foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(6) AN/UPQ-8 Triple Ground Threat Emitter (TGTE): Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operation on the Inner Range.

(7) AN/ALQ-167 Jammer/deception device: Airborne jammer carried aboard TA-4J aircraft at AFWTF.

2. Operations. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiation's may be selected from an established library of radars and platforms or with sufficient lead time, tailored programs may be created to meet specific training or test requirements.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 1997

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to: one U.S. surface unit, three U.S. air units, zero foreign surface units and zero foreign air units.

b. Two days of Link-11 exercises were conducted by three U.S. surface units, zero foreign units. Zero days of Link-11 exercises were conducted by U.S. air units.

c. Zero BQM-34's, BQM-74C/E's and AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twelve days this reporting period. Operational services were provided to: One U.S. surface Unit, two U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, one U.S. ground unit, and zero foreign surface units.

b. Three days of naval gunfire, ten days of air-to-ground and one day of supporting arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active six days this reporting period. Operational services were provided to: zero U.S. Surface units, two U.S. air units, two U.S. subsurface units and zero foreign units.

b. A total of two MK-30 targets were launched in support of torpedo exercises.

c. A total one MK-46, zero MK-50's, zero MK-48's and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active four days this reporting period. Operational services were provided to: one U.S. surface unit, two U.S. air units and zero foreign units and CINCLANTFLT.

b. The TRS provided 02 hours of Electronic Warfare support.

c. The TGTE provided 46 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of three torpedoes and two MK-30 ASW targets. Two MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared six MK-46 EXTORPS and seven MK-46 REXTORPS. One MK-46 REXTORP and ten MK-50 REXTORPS were fired.

c. The MK-30 prepared four targets of which two were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 1997

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to: two U.S. surface units, two U.S air units zero foreign surface units, and zero foreign air units.

b. One day of Link-11 exercises were conducted by two U.S. surface units, and zero foreign surface units. Zero days of Link-4A exercises were conducted by U.S. air units.

c. Three BQM-74E's, and zero BQM-34S's and one AQM-37C were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active seven days this reporting period. Operational services were provided to: one U.S. surface unit, zero U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, zero U.S. ground and zero foreign units.

b. Two days of naval gunfire, six days of air-to-ground, and zero days of supporting arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active six days this reporting period. Operational services were provided to three U.S. surface units, one U.S. air unit, zero U.S. subsurface units and zero foreign units. Also supported two SSRNM's.

b. A total of four MK-30 targets were launched in support of torpedo exercises.

c. A total of twelve MK-46's, zero MK-50 REXTORPS, zero MK-48's and zero ASROC's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active ten days this reporting period. Operational services were provided to: three U.S. surface units, one U.S. air unit and zero foreign surface units and CINCLANTFLT.

b. The TRS provided 51.5 hours of Electronic Warfare support.

c. The TGTE provided 32.5 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of four torpedoes, and five MK-30 ASW targets. Five MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared five MK-46 EXTORPS, twenty MK-46 REXTORPS, and one MK-50 REXTORPS. Six MK-46 EXTORPS and six MK-46 REXTORPS were fired.

c. The MK-30 shop prepared fourteen targets of which four were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 1997

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to: three U.S. surface units, zero U.S. air units, seven foreign surface units and zero foreign air units.

b. Four days of Link-11 exercises were conducted by three U.S. surface units and four foreign surface units. Zero days of Link-4A exercises were conducted by U.S. air units.

c. Three BQM-74E's, zero BQM-34S's and one AQM-37C were launched in support of surface-to-air or air-to-air missile exercises and one BQM OPEVAL.

2. Inner Range Operational Support:

a. The Inner Range was active eleven days this reporting period. Operational services were provided to: three U.S. Surface units, three U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, zero U.S. ground units and zero foreign units.

b. Zero days of naval gunfire, eight days of air-to-ground and three days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active six days this reporting period. Operational services were provided to: one U.S. surface unit, two U.S. air units, zero U.S. subsurface units and six foreign surface units. Also supported one SSRNM.

b. A total of twelve MK-30 targets were launched in support of torpedo exercises.

c. A total of twenty three MK-46's, zero MK-50 REXTORPS, zero MK-48's, and zero ASROC's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fifteen days this reporting period. Operational services were provided to: three U.S. surface units, two U.S. air units, six foreign surface units, and CINCLANTFLT.

b. The TRS provided 54.5 hours of Electronic Warfare support.

c. The TGTE provided 44.5 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 92 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of twenty-one torpedoes and twelve MK-30 ASW targets. Twelve MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared twelve MK-46 EXTORPS, twenty-two MK-46 REXTORPS and one MK-50 REXTORP. Five MK-46 EXTORPS, and eighteen MK-46 REXTORPS were fired.

c. The MK-30 shop prepared nineteen targets of which twelve were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 1997

1. Outer Range Operational Support:

a. The Outer Range was active four days this reporting period. Operational services were provided to: four U.S. surface units, zero U.S. air units, six foreign surface units, and zero foreign air units.

b. Two days of Link-11 exercises were conducted by zero U.S. surface units, and five foreign surface units. Zero days of Link-4A exercises were conducted by U.S. air units.

c. Six BQM-74E's, zero BQM-34S's and zero AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises. A RAMP Test was also conducted.

2. Inner Range Operational Support:

a. The Inner Range was active twelve days this reporting period. Operational services were provided to: three U.S. surface units, four U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, one U.S. ground unit, and one foreign air unit.

b. Three days naval gunfire, twelve days of air-to-ground, and three days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eight days this reporting period. Operational services were provided to: zero U.S. surface units, two U.S. air units, one U.S. subsurface unit and zero Foreign units.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

c. A total three MK-46's, zero MK-50 REXTORPS, four MK-48's and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twelve days this reporting period. Operational services were provided to: seven U.S. surface units, zero U.S. air units, five foreign surface units and CINCLANTFLT.

b. The TPS provided 15 hours of Electronic Warfare support.

c. The TGTE provided 0 hours of triple ground threat.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 112 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of four torpedoes and eight MK-30 ASW targets. Eight MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared twenty-six MK-46 EXTORPS, forty MK-46 REXTORPS, five MK-50 REXTORPS and two ASROC's. One MK-46 REXTORP was fired.

c. The MK-30 shop prepared fourteen targets of which eight were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 1997

1. Outer Range Operational Support:

a. The Outer Range was active twenty days this reporting period. Operational services were provided to: sixteen U.S. surface units, four U.S. air units, six foreign surface units, and one foreign air unit.

b. Eight days of Link-11 exercises were conducted by fifteen U.S. surface units, six days by foreign surface units and four days of Link-11 by two U.S. air units. Zero days of Link-4A exercises by U.S. air units..

c. Thirty-three BQM-74E's, eight BQM-34S's, and nine AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-seven days this reporting period. Operational services were provided to: seven U.S. surface units, five U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, three U.S. ground units, seven foreign surface units, and one foreign air unit.

b. Seven days of naval gunfire, twenty-two days of air-to-ground, three days supporting arms and one day of Mobile Land Target (MLT) support were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twenty days this reporting period. Operational services were provided to: eight U.S. surface units, eight U.S. air units, five U.S. subsurface units, and four foreign surface units. Also supported five SSRNM's.

b. A total of thirty MK-30 targets were launched in support of torpedo exercises.

c. A total of sixty-one MK-46's, zero MK-50 REXTORPS, four MK-48's, and one ASROC were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twenty-four days this reporting period. Operational services were provided to: nine U.S. surface units, four U.S. air units, twelve foreign surface units and CINCLANTFLT.

b. One TRS provided 59 hours of Electronic Warfare support.

c. The TGTE provided 14 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 104 hours of

training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of ninety-two torpedos and nine MK-30 ASW targets. Thirteen MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared twenty-two MK-46 EXTORPS, six MK-46 REXTORPS, five MK-50 REXTORPS, and two ASROC's. Forty MK-46 EXTORPS, twenty-one MK-46 REXTORPS four MK-48 EXTORPS and one ASROC were fired.

c. The MK-30 shop prepared thirty targets of which fourteen were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 1997

1. Outer Range Operational Support:

a. The Outer Range was active twenty-two days this reporting period. Operational services were provided to: eleven U.S. surface units, two U.S. air units, zero foreign surface units, and zero foreign air units.

b. Twenty-one days of Link-11 exercises were conducted by four U.S. surface units, five days of Link-11 exercises were conducted by two U.S. air units, and zero exercises by foreign units.

c. Ten BQM-74E's, sixteen BQM-34S's and eight AQM-37C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-two days this reporting period. Operational services were provided to: ten U.S. surface units, three U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, and zero foreign units.

b. Eleven days of naval gunfire, twenty days of air-to-ground, and six days of supporting arms were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eleven days this reporting period. Operational services were provided to: eight U.S. surface units, three U.S. air units, two U.S. subsurface units, and zero foreign surface units. Also supported six SSRNM's.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

c. A total of twenty-eight MK-46's, two MK-50 REXTORPS, zero MK-48's, and one ASROC were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twenty-one days this reporting period. Operational services were provided to: fifteen U.S. surface units, three U.S. air units, zero foreign units, and CINCLANTFLT.

b. Two TRS provided 66.5 hours of Electronic Warfare support
c. The TGTE provided 51.5 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of forty-nine torpedoes and eight MK-30 ASW targets.

b. The Torpedo Shop prepared nine MK-46 EXTORPS, nineteen MK-46 REXTORPS, two MK-50 REXTORPS, and one ASROC. Eleven MK-46 EXTORPS, seventeen MK-46 REXTORPS, two MK-50 REXTORPS, and one ASROC and twenty-four MK-46's were fired. Forty four MK-48's were fired.

c. The MK-30 shop prepared sixteen targets of which eight were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 1997

1. Outer Range Operational Support:

a. The Outer Range was active fifteen days this reporting period. Operational services were provided to: four U.S. surface units, two U.S. air units, nine foreign surface units, and zero foreign air units.

b. Seven days of Link-11 exercises were conducted by four U.S. surface units, seven days by six foreign surface units, and two days of Link-11 exercises were conducted by one U.S. air unit.

c. Fourteen BQM-74E's, two AQM-37C's, and zero BQM-34S's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active sixteen days this reporting period. Operational service were provided to: six U.S. surface units, two U.S. air units, one Puerto Rican Air National Guard unit, one U.S. ground unit, ten foreign surface units, and zero foreign air units.

b. Eleven days of naval gunfire, twenty days of air-to-ground, and six days of supporting arms were supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active five days this reporting period. Operational services were provided to: three U.S. surface units, one U.S. air unit, one U.S. subsurface unit, and five foreign surface units.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

d. A total of seventeen MK-46's, zero MK-50 REXTORPS, four MK-48's, and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active nine days this reporting period. Operational services were provided to: three U.S. surface units, zero U.S. air units, twelve foreign surface units, and CINCLANTFLT.

b. The TRS provided 29.5 hours of Electronic Warfare support.

c. The TGTE provided 0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 120 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of twenty-one torpedoes and eight MK-30 ASW targets. MOE launched eight MK-30 ASW targets.

b. The Torpedo Shop prepared sixteen MK-46 EXTORPS, five MK-46 REXTORPS, and one MK-50 REXTORP. Twelve MK-46 EXTORPS, five MK-46 REXTORPS, and four MK-50 REXTORPS were fired.

c. The MK-30 shop prepared sixteen targets of which eight were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 1997

1. Outer Range Operational Support:

a. The Outer Range was active eight days this reporting period. Operational services were provided to: two U.S. surface units, two U.S. air units, zero foreign surface units and zero foreign air units.

b. One day of Link-11 exercises were conducted by one U.S. surface unit. Five days of Link-11 exercises were conducted by one U.S. air unit. Zero days of exercises by foreign units.

c. Two BQM-74E's, zero BQM-34s and zero AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active fourteen days this reporting period. Operational services were provided to: zero U.S. surface units, zero U.S. air units, zero Puerto Rican Air National Guard units, zero Puerto Rican Army National Guard units, one U.S. ground unit and zero foreign units.

b. Zero days of naval gunfire, zero days of air-to-ground and six days of supporting arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active one day this reporting period. Operational services were provided to: zero U.S. surface units, one U.S. air units and zero foreign units.

b. A total of one MK-30 target was launched in support of torpedo exercises.

c. A total of one MK-46, zero MK-50's and zero ASROC's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eight days this reporting period. Operational services were provided to: zero U.S. and foreign units and CINCLANTFLT.

b. The TRS provided 0.0 hours of Electronic Warfare Support.

c. The TGTE provided 0.0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of one torpedo and one MK-30 ASW target.

b. The Torpedo Shop prepared six MK-46 EXTORPS, six MK-46 REXTORPS and three MK-50 REXTORPS. One MK-46 REXTORP was fired.

c. The MK-30 shop prepared one target which was launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 1997

1. Outer Range Operational Support:

a. The Outer Range was active four days this reporting period. Operational services were provided to: three U.S. surface units, zero U.S. air units and zero foreign units.

b. Two days of Link-11 exercises were conducted by three U.S. surface units, zero days by U.S. air units and zero days by foreign units.

c. Three BQM-74E's, two BQM-34S's and three AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active sixteen days this reporting period. Operational services were provided to: four U.S. surface units, five U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, one U.S. ground unit, one foreign surface unit and zero foreign air units.

b. Three days of naval gunfire, eleven days of air-to-ground and one days of supporting arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seven days this reporting period. Operational services were provided to: two U.S. surface units, two U.S. air units, one U.S. subsurface unit and zero foreign units. Also supported two SSRNM's.

b. A total of six MK-30 targets were launched in support of ASW tracking exercises.

c. A total of eleven MK-46's, zero MK-50's, five MK-48's and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fifteen days this reporting period. Operational services were provided to: four U.S. surface units, one U.S. air unit zero foreign units and CINCLANTFLT.

b. One TRS provided 16.5 hours of Electronic Warfare Support.

c. The TGTE provided 14 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of seventeen torpedoes and ten MK-30 ASW targets.
MOE launched ten MK-30 ASW targets.

b. The Torpedo Shop prepared thirteen MK-46 EXTORPS, ten MK-46 REXTORPS and nine MK-50 REXTORPS. Eight MK-46 EXTORPS, three MK-46 REXTORPS and five MK-48 EXTORPS were fired.

c. The MK-30 Shop prepared twenty-one targets of which ten were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 1997

1. Outer Range Operational Support:

a. The Outer Range was active fifteen days this reporting period. Operational services were provided to: four U.S. surface unit, three U.S. air units, zero foreign surface units and one foreign air unit.

b. Nine days of Link-11 exercises were conducted. One day by one U.S. surface unit, five days by one foreign surface unit, and three days by one U.S. air unit.

c. Three BQM-74E's and zero BQM-34S's and AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-one days this reporting period. Operational services were provided to: four U.S. surface units, four U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, one U.S. ground unit and zero foreign units.

b. Four days of naval gunfire, twenty-one days of air-to-ground, one day of supporting arms and four MLT days were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seven days this reporting period. Operational services were provided to: two U.S. surface units, two U.S. air units, one U.S. subsurface unit and zero foreign units. Also supported one SSRNM.

b. A total of ten MK-30 targets were launched in support of ASW tracking exercises.

c. A total of zero MK-46's, zero MK-50's REXTORPS, four MK-48's and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fourteen days this reporting period. Operational services were provided to: three U.S. surface units, four U.S. air units, zero foreign units and CINCLANTFLT.

b. The TRS provided 37.0 hours of Electronic Warfare.

c. The TGTE provided 15.0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 120.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of twenty torpedoes and ten MK-30 ASW targets.

b. The Torpedo Shop prepared twenty-four MK-46 EXTORPS, seventeen MK-46 REXTORPS and two MK-50 REXTORPS. Four MK-50 REXTORPS were fired.

c. The MK-30 Shop prepared fourteen targets of which ten were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 1997

1. Outer Range Operational Support:

a. The Outer Range was active fifteen days this reporting period. Operational services were provided to: twelve U.S. surface units, two U.S. air units, two foreign surface units and one foreign air unit.

b. Twelve days of Link-11 exercises were conducted by ten U.S. surface units, three days by one foreign surface unit and one day by one U.S. subsurface unit.

c. Twelve BQM-74E's, eight BQM-34S's and eight AQM-37C's were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-one days this reporting period. Operational services were provided to: eight U.S. surface units, two U.S. air units, one Puerto Rican Air National Guard unit, zero Puerto Rican Army National Guard units, six U.S. ground units, two foreign surface unit and zero foreign air units.

b. Eleven days of naval gunfire, nineteen days of air-to-ground and five days of supporting arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eighteen days this reporting period. Operational services were provided to: three U.S. surface units, three U.S. air units, two U.S. subsurface units and one foreign surface unit. Also supported eight SSRNM's.

b. A total of sixteen MK-30 targets were launched in support of ASW tracking exercises.

c. A total of fifty-six MK-46's, six MK-50's, four MK-48's and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eighteen days this reporting period. Operational services were provided to: twelve U.S. surface units, two U.S. air units, one U.S. subsurface unit, one foreign surface unit and CINCLANTFLT.

b. The TRS provided 66.0 hours of Electronic Warfare Support.

c. The TGTE provided 16.0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of

training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of ninety six torpedoes and sixteen MK-30 ASW targets.

b. The Torpedo Shop prepared two MK-46 EXTORPS and seven MK-46 REXTORPS. Thirty MK-46 EXTORPS, twenty-six MK-46 REXTORPS and six MK-50 REXTORPS were fired.

c. The MK-30 Shop prepared twenty targets of which sixteen were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 1997

1. Outer Range Operational Support:

a. The Outer Range was active zero days this reporting period. Operational services were provided to; zero U.S. and foreign units.

b. Zero days of Link-11 exercises were conducted by zero U.S. and foreign units.

c. A total of zero BQM-34S's, AQM-37C's and BQM-74E's were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active four days this reporting period. Operational services were provided to: zero U.S. surface units, one U.S. air unit, zero Puerto Rican Air National Guard units, zero Puerto Rican Army National Guard units, zero U.S. ground units and zero foreign units.

b. Zero days of naval gunfire, four days of air-to-ground and zero days of supporting arms were supported.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active three days this reporting period. Operational services were provided to: zero U.S. surface units, one U.S. air unit, zero U.S. subsurface units and one foreign surface unit.

b. A total of five MK-30 targets were launched in support of ASW exercises.

c. A total of three MK-46's, zero MK-50's, zero MK-48's and zero ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active ten days this reporting period. Operational services were provided to: zero U.S. surface units, zero U.S. air units, zero U.S. subsurface units, one foreign surface unit and CINCLANTFLT.

b. The TRS provided 4.0 hours of Electronic Warfare Support.

c. The TGTE provided 0.0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 137.0 hours of training to multiple surface and shore based units.

5. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of three torpedoes and four MK-30 ASW targets.

b. The Torpedo Shop prepared one MK-46 EXTORP and two MK-50 REXTORPS. Three MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared four targets of which four were launched in support of torpedo exercises.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venequela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface To Air Missile
SATS	- Systems Accuracy Trials
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1998

COMMAND BRIEF

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment available. The unique capabilities of AFWTF provide just such an environment. To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities; and for the development, testing, and evaluation of weapons and weapon systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multiple ship/unit exercises, tests, and Operational Tests and Evaluation (OT&E) projects

d. Act as deputy safety observer for large-scale, multi-ship fleet missile exercises.

e. Provide communication facilities for test directors of spiel projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit throughout the Puerto Rico operating areas.

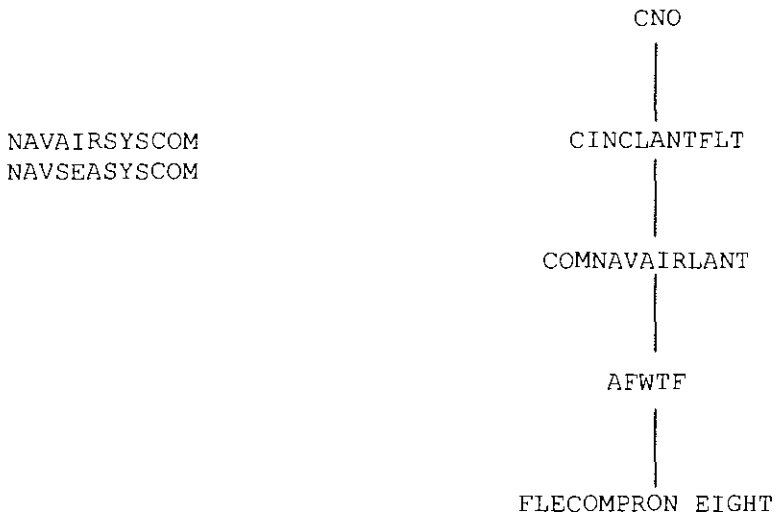
k. Serve as military Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico operating areas in the Caribbean.

l. Naval Air Component for Commander, JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR/TRAINING operations.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM). Operations and Maintenance Funds (O&M) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagrammed below:



AFWTF consists of 80 military and 35 civilian government service personnel overseeing 250 contractors. Management is accomplished by the military. Contract personnel perform the technical operations and maintenance of range facilities and drone targets. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for surface-to-surface, air-to-air, surface-to-air, and air-to-surface missile and gunfire exercises. Operations are conducted in two ranges designated North/Alpha (encompassing 120,000 square miles) and South/Bravo (encompassing 74,000 square miles), consisting of seven offshore Warning Areas. Additionally, the range utilized severs land based facilities, including the Range Operations Center (ROC) located within the Roosevelt Roads complex) and remote radar sites at crown Mountain, St. Thomas, St. George's Hill, St. Croix, Mount Pirata, Vieques, and Pico del Este. Target services consists of two primary types: surface targets and remote controlled aerial targets. Surface targets may be either remotely controlled or towed by another surface craft. All aerial targets are controlled from the ROC via the Remote Data and Drone Control System (RDDCS), which collates positional data and radar telemetry from the remote sites, allowing the ROC to realistically simulate hostile units. Presently the ROC can control a maximum of six drones simultaneously. After launch, drones are flown into the designated range and presented to the firing unit on a predetermined course. During this period, the units engage in tracking and firing exercises, while telemetry equipment onboard the drone and missile evaluate the success of the engagement. Following completion of the exercise, a parachute is released allowing the target to land without damage and be recovered for future reuse.

2. Aerial Targets. AFWTF utilizes three types of sub-scale drone aircraft. The BQM-74E and BQM-34S both subsonic, reusable targets, capable of speeds in excess of 500 knots and altitudes from 10 to over 40,000 feet. Both can be ground-launched from AFWTF's Cabras Island facility with the assistance of JATO bottles. In addition, the BQM-74E may be air-launched from TA-4J aircraft when outfitted with a special adapter kit. Each drone simulates real-world threats for surface-to-air and air-to-air missile exercises and may be fitted with a variety of augmentation devices to meet specific operational requirements. The

AQM-37C is a supersonic, non-recoverable target capable of speeds up to Mach 4.0 and altitudes of 100,000 feet. Enclosure (1) It may be air-launched from either the TA-4J (normal performance) or the F4 (high performance). The drone is used primarily to simulate ballistic missile profiles. AFWTF also provides unpowered TDU-34A aerial tow targets. Towed by TA-4J aircraft, the shape provides an inexpensive target for semi-active homing missiles and various gun systems, including CIWS.

3. Surface Targets. Through the Marine/Ocean Engineering division, AFWTF controls a variety of powered and unpowered surface craft. These are used to provide targets for air-to-surface and surface-to-surface missile and gunnery exercises. The QST-35 SEPTAR is the most capable surface target utilized at AFWTF. A 56-foot long, powered craft, it acts both as a target and a tow vehicle for unpowered shapes. When acting as a target, it is remotely controlled from another SEPTAR. Direct gunfire, fused warheads, or bombing against the SEPTAR require special permission from CNO, this is not the case, however, when using a 10-mil offset. Other surface targets include: ISTTs, trimarans, GORSTs, and FASTs.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Surface Fire Support Range, an air-to-ground bull's eye target; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and Close Air Support (CAS) training; a mining range; an artillery range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted at the eastern tip of Vieques.

2. Vieques Naval Surface Fire Support Target Complex. The Vieques NSFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridgelines up to 300 feet in height. Targets and impact areas have been constructed and installed on various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunition dump, SAM sites, and many smaller targets. All targets in the CAS zone are stationary except for the Mobile Land Target (MLT) which operates on the mock airstrip, northeast of target one. The MLT's are radio-controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75-inch rockets.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

(c) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the Weapons Impact Scoring Set (WISS).

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the West Coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumental area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix. During all operations, a military range control officer from AFWTF is present. Shops for instrument maintenance, MK-30 target preparation, exercise torpedo preparation, and the range administrative office are located at the Roosevelt Roads complex.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units can be conducted on the range. The range provides precision-tracking data obtained via in-water three-dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumental range and has proven itself a highly effective training device.

ELECTRONIC WARFARE RANGE

1. General. The purpose of the Electronic Warfare Range (EWR) is to provide a realistic electronic environment for the combat readiness training of air, surface and submarine units and the evaluation of combat systems in development and operational testing.

a. The EWR consists of a system of EW devices located in Puerto Rico, its adjacent islands, U.S. Virgin Islands, and on organic aircraft and range support craft. All fixed sites are controlled from an EW Range Operations Center (EWROC) located in the AFWTF headquarters building at Roosevelt Roads. Primary elements are:

(1) Threat Radiation Simulator (TRS): Located at Pico Del Este, PR. The TRS is a computer controlled system designed to radiate realistic EW scenarios with multiple emitters on one or more axis.

(2) Threat Platform Simulators (TPS): One located on Mt. Pirata on the western end of Vieques, PR and one on St. Georges Hill, St. Croix, USVI. The TPS's provide realistic single emitter or complex scenarios of air, surface or subsurface threats.

(3) Noise Jammer Simulator (NJS): Positioned at Mt. Pirata, Vieques, PR. The NJS is a generic noise jammer, which can simulate most types of air and shipboard jamming threats from single or multiple platforms.

(4) Outboard Simulator (OBS): Located in the EWROC. OBS is designed to test the OUTBOARD system on USN ships by HF transmissions of Morse Code (CW), radio teletype (RATT) and prerecorded voice.

(5) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS): Installed on the 180-foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(6) AN/UPQ-8 Triple Ground Threat Emitter (TGTE): Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operation on the Inner Range.

(7) AN/ALQ-167 Jammer/deception device: Airborne jammer carried aboard TA-4J aircraft at AFWTF.

2. Operations. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiation's may be selected from an established library of radars and platforms or with sufficient lead time, tailored programs may be created to meet specific training or test requirements.

FLEET AREA CONTROL AND SURVEILLANCE FACILITY

1. General. The Fleet Area Control and Surveillance Facility (FACSFAC) is a certified Air Traffic Control facility within AFWTF that is equipped and staffed to manage Special Use Airspace, OPAREAS, and other oceanic airspace in support of air, surface, and subsurface operations.

a. FACSFAC Caribbean is a certified Class VI Air Traffic Control facility (callsign SEAWITCH) which is responsible for:

(1) Providing enroute ATC services, including positive control of IFR aircraft arriving and departing the Puerto Rico Operating Area.

(2) Area containment services within assigned airspace and Radar coverage.

(3) Radar surveillance services to participating military units, governmental contract aircraft and civil aircraft on a strictly not-to-interfere basis defined by letter of agreement with applicable FAA and military facilities.

(4) Assisting during search and rescue, and medical evacuation operations.

(5) Coordination and monitoring of surface and airborne units operating in and transiting to/from assigned OPAREAS.

b. FACSFAC Caribbean (SEAWITCH) is assigned airspace management responsibilities for over 35,000 square miles of Special Use Airspace (SUA) as follows:

(1) Northern Warning Areas:

(a) W-429 Surface to unlimited
(b) W-368 Surface to unlimited
(c) W-369 Surface to unlimited

(2) Vieques Range:

(a) R-7104 Surface to FL500
(b) W-428 Surface to FL500

(3) Southern Warning Areas:

(a) W-370 Surface to unlimited
(b) W-372 Surface to unlimited
(c) W-373 Surface to unlimited
(d) W-374 Surface to 6,000 ft
(e) W-375 Surface to 6,000 ft
(f) W-376 17,000 ft to FL210
(g) W-377 Surface to unlimited

(4) Controlled Firing Areas:

(a) OPAREA 6A Surface to 1,000 ft
(b) OPAREA 11 Surface to 1,000 ft

(5) Military Training Routes:

(a) IR-026
(b) IR-027

c. FACSFAC Caribbean is equipped with various ATC systems to facilitate the safe and efficient handling of air traffic. Primary elements are:

(1) Integrated Voice Communications Switching System (IVCSS). The IVCSS is a digital non-blocking 480 channel controlled Air Traffic Control communications switching network. It provides operators with access to multiple radiophone, interphone, and landline channels in any combination.

(2) Fleet Area Control and Surveillance Air Control Tracking System (FACTS). The FACTS is the Radar display system used by SEAWITCH. It displays radar inputs from four remote sites for complete coverage of all assigned SUA. The remote radar sites are as follows:

(a) Naval Station Roosevelt Roads ASR-8
(b) San Juan, PR ASR-8
(c) St. Thomas, VI ASR-8
(d) Pico Del Este FPS-67

(3) Flight Data Inout/Output (FDIO). The FDIO provides the means to receive flight plan notification and clearances associated with the National Airspace System.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 1998

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to U.S. surface and U.S. air units.

b. Eight days of Link-11 exercises were conducted by U.S. surface and U.S. air units.

c. Three BQM-34's and one AQM-37C were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active thirteen days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, and U.S. ground units.

b. Six days of naval gunfire, six days of air-to-ground, and six days of supporting arms were supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active three days this reporting period. Operational services were provided to U.S. air and U.S. subsurface units.

b. A total of two MK-30 targets were launched in support of torpedo exercises.

c. A total of zero MK-46's, MK-50's, MK-48's, and ASROC's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eight days this reporting period. Operational services were provided to U.S. surface units and CINCLANTFLT.

b. The AN/FSQ-154 Outboard Stimulator (OBS) provided 104 hours of training to multiple surface and shore based units.

5. FACSFAC Military Radar Unit (MRU):

a. The MRU was active twenty days this reporting period. MRU support services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The MRU provided services in support of 799 Navy/Marine Corps operations.

c. The MRU provided services in support of 68 Other Military operations.

d. The MRU provided services in support of 2 Air Carrier operations.

e. The MRU provided services in support of 152 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of zero torpedoes and one MK-30 ASW targets. Two MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared 12 MK-46 EXTORPS, 33 MK-46 REXTORPS, and four MK-50 REXTORP.

c. The MK-30 shop prepared five NK-30 targets of which two were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 1998

1. Outer Range Operational Support:

a. The Outer Range was active eighteen days this reporting period. Operational services were provided to eight U.S. surface units and two U.S air units.

b. U.S. surface units conducted One day of Link-11 exercises.

c. Three BQM-74E's and one AQM-37C were launched in support of surface-to-air and air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-one days this reporting period. Operational services were provided to eight U.S. surface units, two U.S. air units, and two U.S. ground units.

b. Nine days of naval gunfire, sixteen days of air-to-ground, eight days of supporting arms and one MLT day was supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active fifteen days this reporting period. Operational services were provided to nine U.S. surface units, two U.S. air units, and three U.S. subsurface units.

b. A total of nineteen MK-30 targets were launched in support of torpedo exercises.

c. A total of forty-six MK-46's, three MK-50 REXTORPS, ten MK-48's and zero ASROC's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seventeen days this reporting period. Operational services were provided to eleven U.S. surface units, one U.S. air unit, one U.S. subsurface unit, two foreign surface units and CINCLANTFLT.

b. The TRS provided 10.0 hours of Electronic Warfare support.

c. The TGTE provided 34.0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. FACSFAC Military Radar Unit (MRU):

a. The ATC Facility was active twenty-two days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The MRU provided services in support of 9,656 Navy/Marine Corps operations.

c. The MRU provided services in support of 49 Other Military operations.

d. The MRU provided services in support of zero Air Carrier operations.

e. The MRU provided services in support of 143 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of fifty-eight torpedoes and sixteen MK-30 ASW targets. Nineteen MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared six MK-46 EXTORPS, four MK-46 REXTORPS, and four MK-50 REXTORPS. Fifteen MK-46 EXTORPS, thirty-one MK-46 REXTORPS, ten MK-48 EXTORPS, and three MK-50 RETORPS were fired.

c. The MK-30 shop prepared twenty-seven targets of which nineteen were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 1998

1. Outer Range Operational Support:

a. The Outer Range was active eleven days this reporting period. Operational services were provided to three U.S. surface units, two U.S. air units, and one foreign surface unit.

b. Nine days of Link-11 exercises were conducted by U.S. surface units, two foreign surface units, and two U.S. air units.

c. Nine BQM-74E's and five BQM-34S's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active sixteen days this reporting period. Operational services were provided to five U.S. Surface units, four U.S. air units, and one U.S. ground unit.

b. Seven days of naval gunfire, twelve days of air-to-ground, and four days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twelve days this reporting period. Operational services were provided to two U.S. surface units, two U.S. air units, and one U.S. subsurface unit.

b. A total of fourteen MK-30 targets were launched in support of torpedo exercises.

c. A total of seven MK-46's and two MK-50 REXTORPS ASROC's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fourteen days this reporting period. Operational services were provided to seven U.S. surface units, three U.S. air units, one U.S. subsurface unit, one foreign surface unit, and CINCLANTFLT.

b. The TRS provided 57.5 hours of Electronic Warfare support.

c. The TGTE provided 20.0 hours of triple ground threat support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96 hours of training to multiple surface and shore based units.

5. FACSFAC Military Radar Unit (MRU):

a. The MRU was inspected and re-designated as a Fleet Area Control and Surveillance Facility (FACSFAC) on 26 March 1998. The inspection/certification team was comprised of representatives from CNO (N885F), COMNAVAIRSYSCOM (PMA-213), COMNAVAIRLANT (N37), SPAWARSYSCEN, and NAWC AD.

b. The MRU was active eighteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

c. The MRU provided services in support of 468 Navy/Marine Corps operations.

d. The MRU provided services in support of 8 Other Military operations.

e. The MRU provided services in support of zero Air Carrier operations.

f. The ATC facility provided ATC services in support of zero General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of eight torpedoes and eleven MK-30 ASW targets. Fourteen MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared six MK-46 EXTORPS, eleven MK-46 REXTORPS and eleven MK-50 REXTORP. Two MK-46 EXTORPS, five MK-46 REXTORPS, and two MK-50 REXTORPS were fired.

c. The MK-30 shop prepared eighteen targets of which fourteen were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 1998

1. Outer Range Operational Support:

a. The Outer Range was active thirteen days this reporting period. Operational services were provided to eight U.S. surface units, two U.S. air units, and one foreign surface unit.

b. Twelve days of Link-11 exercises were conducted. U.S. surface units conducted Eight days of Link-11 exercises. Eight U.S. air units conducted Twelve days of Link-11 exercises.

c. Nine BQM-74E's, and two AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active fourteen days this reporting period. Operational services were provided to seven U.S. surface units, two U.S. air units, one U.S. ground unit, and one foreign air unit.

b. Nine days naval gunfire, twelve days of air-to-ground, two days of supporting arms were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eight days this reporting period. Operational services were provided to nine U.S. surface units and one U.S. air unit.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

c. Fifteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fourteen days this reporting period. Operational services were provided to ten U.S. surface units.

b. The TPS provided 91.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 120.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twelve days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 65 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 7 Other Military operations.

d. The ATC facility provided ATC services in support of one Air Carrier operation.

e. The ATC facility provided ATC services in support of 34 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of ten torpedoes and eight MK-30 ASW targets. Eight MK-30 ASW targets were launched by MOE.

b. The Torpedo Shop prepared sixteen MK-46 EXTORPS, fourteen MK-46 REXTORPS, eleven MK-50 REXTORPS. Eight MK-46 EXTORPS and seven MK-46 REXTORPS were fired.

c. The MK-30 shop prepared eleven targets of which eight were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 1998

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to three U.S. surface units and four U.S. air units.

b. U.S. surface units and U.S. air units conducted Four days of Link-11 exercises.

c. Six BQM-34S's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active thirteen days this reporting period. Operational services were provided to two U.S. surface units, three U.S. air units, and one U.S. ground unit.

b. Three days of naval gunfire, eight days of air-to-ground, three days supporting arms and one day of Mobile Land Target (MLT) support were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eight days this reporting period. Operational services were provided to nine U.S. surface units and two U.S. air units.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

c. Fifteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fifteen days this reporting period. Operational services were provided to two U.S. surface units, three U.S. air units, and four subsurface units.

b. One TRS provided 3.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 96.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fifteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 224 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 69 Other Military operations.

d. The ATC facility provided ATC services in support of 12 Air Carrier operations.

e. The ATC facility provided ATC services in support of 43 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of sixty-two torpedos and four MK-30 ASW targets. Four MK-30 targets were launched by MOE.

b. The Torpedo Shop prepared eighteen MK-46 EXTORPS, five MK-46 REXTORPS, and eleven MK-50 REXTORPS. Thirteen MK-46 EXTORPS, two MK-46 REXTORPS, and eleven MK-50 REXTORPS.

c. The MK-30 shop prepared seven targets of which four were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 1998

1. Outer Range Operational Support:

a. The Outer Range was active thirteen days this reporting period. Operational services were provided to U.S. surface and air units.

b. Ten days of Link-11 exercises were conducted. Nine days by U.S. surface units and one day by U.S. air units.

c. Eight BQM-74E's, ten BQM-34S's, and two AQM-37C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-two days this reporting period. Operational services were provided to two U.S. surface units, two U.S. air units, and two U.S. ground units.

b. Three days of naval gunfire, eight days of air-to-ground, and eight days of supporting arms were conducted this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twelve days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. subsurface units, and foreign units. Also supported SSRNM's.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

c. A total of seven MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twelve days this reporting period. Operational services were provided to two U.S. surface units.

b. Two TRS provided 10.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 98.5 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-three days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 96 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 6 Other Military operations.

d. The ATC facility provided ATC services in support of 2 Air Carrier operations.

e. The ATC facility provided ATC services in support of 123 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of 9 torpedoes and eight MK-30 ASW targets.

b. The Torpedo Shop prepared twelve MK-46 EXTORPS, twenty-six MK-46 REXTORPS, and five MK-50 REXTORPS. Seven MK-46 EXTORPS were launched.

c. The MK-30 shop prepared sixteen targets of which eight were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 1998

1. Outer Range Operational Support:

a. The Outer Range was active nineteen days this reporting period. Operational services were provided to U.S. surface units and U.S. air units.

b. Five days of Link-11 exercises were conducted.

c. Twenty-two BQM-74E's and one BQM-34S were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active twenty-nine days this reporting period. Operational service were provided to U.S. surface units, U.S. air units, U.S. ground units, foreign surface units, and foreign air units.

b. The Inner Range supported naval gunfire, air-to-ground, and supporting arms exercises during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to U.S. surface units, U.S. air unit, U.S. subsurface unit, and foreign units.

b. A total of seven MK-30 targets were launched in support of torpedo exercises.

d. A total of sixteen MK-46's and two MK-50 REXTORPS were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eighteen days this reporting period. Operational services were provided to ten U.S. surface units, ten U.S. air units, ten foreign surface units, and one A-4 services flown.

b. The TRS provided 37.0 hours of Electronic Warfare support.

c. The TGTE provided 63.5 hours of triple ground threat support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-five days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 3,296 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 16 Other Military operations.

d. The ATC facility provided ATC services in support of 6 Air Carrier operations.

e. The ATC facility provided ATC services in support of 4 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for the recovery of eight torpedoes and seven MK-30 ASW targets. MOE launched seven MK-30 ASW targets.

b. The Torpedo Shop prepared fourteen MK-46 EXTORPS, twenty-two MK-46 REXTORPS, and three MK-50 REXTORP. Eleven MK-46 EXTORPS, five MK-46 REXTORPS, and two MK-50 REXTORPS were fired.

c. The MK-30 shop prepared seven targets of which seven were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 1998

1. Outer Range Operational Support:

a. The Outer Range was active nineteen days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, and foreign air units.

b. U.S. surface units and U.S. air units conducted Fourteen days of Link-11 exercises.

c. Twenty-eight BQM-74E's, fifteen BQM-34s, four AQM-37C's, ten SEPTAR, four Surface GORST, nine A-4 w/TDU, six W-SLED, and ten assorted targets were launched in support of surface-to-air, surface-to-air, air-to-air missile, and gunnery exercises.

2. Inner Range Operational Support:

a. The Inner Range was active sixteen days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. ground units, and foreign surface and foreign air units.

b. The Inner Range supported naval gunfire, air-to-ground, and supporting arms exercises.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twelve day this reporting period. Operational services were provided to U.S. surface units and U.S. subsurface units. Also supported four SSRNM's.

b. A total of sixteen MK-30 target was launched in support of torpedo exercises.

c. A total of fifty-one MK-46 and six MK-50's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seventeen days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, and foreign surface units.

b. The TRS provided 37.0 hours of Electronic Warfare Support.

c. The TGTE provided 128.0 hours of triple ground threat support.

d. The TPS provided fifteen days of support

e. The NJS provided nine days of support.

f. The I-Band provided 3 days of support.

g. The EWPODS provided 3 days of support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-one days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 4,366 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 49 Other Military operations.

d. The ATC facility provided ATC services in support of 23 Air Carrier operations.

e. The ATC facility provided ATC services in support of 250 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for sixty-nine scheduled events. Sixteen were surface-to-surface gunnery exercises supported by seaborne powered targets and/or Williams sled targets.

b. The Torpedo Shop prepared three MK-46 EXTORPS and eight MK-46 REXTORPS. Nine MK-46 EXTORPS, forty-two MK-46 REXTORPS, six MK-50 REXTORPS were fired.

c. The MK-30 shop prepared sixteen targets of which sixteen were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 1998

On September 21, Hurricane Georges passed over St. Croix and Puerto Rico.

1. Outer Range Operational Support:

a. The Outer Range was active six days this reporting period with operational services being provided to U.S. surface and U.S. air units.

b. Link-11 exercises were not conducted this reporting period.

c. Five BQM-74E's, one BQM-34S, three AQM-37C's, four SEPTAR, six A-4 w/TDU targets were provided during this reporting period in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active nine days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. ground units, foreign surface units, and foreign air units.

b. The Inner Range supported naval gunfire, air-to-ground, and supporting arms exercises.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active four days this reporting period. Operational services were provided to U.S. surface units and U.S. subsurface units.

b. A total of five MK-30 targets were launched in support of ASW tracking exercises.

c. A total of seven MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active ten days this reporting period. Operational services were provided to four U.S. surface units.

b. One TRS provided 52.0 hours of Electronic Warfare Support.

c. The TGTE provided 0.0 hours of triple ground threat support.

d. The AST/ALQ PODS provided nine hours of training to U.S. surface units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-one days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 81 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of zero Other Military operations.

d. The ATC facility provided ATC services in support of zero Air Carrier operations.

e. The ATC facility provided ATC services in support of 3 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported twenty-two scheduled events; two of which were surface-to-surface gunnery exercise events supported by seaborne powered targets and/or Williams Sled targets. MOE recovered five torpedoes, five MK-30 ASW targets and launched five MK-30 ASW targets.

b. The Torpedo Shop prepared two MK-46 EXTORPS and twelve MK-46 REXTORPS. Two MK-46 EXTORPS and five MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared five targets of which five were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 1998

1. Outer Range Operational Support: The Outer Range was not active during this reporting period. No operational services were requested due to the passage of Hurricane Georges.

2. Inner Range Operational Support: The Inner Range was not active during this reporting period. No operational services were requested due to the passage of Hurricane Georges.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active two days this reporting period. Operational services were provided to two U.S. surface units.

b. One MK-30 target was launched in support of ASW tracking exercises.

c. A total of twenty-six MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active four days this reporting period. Operational services were provided to one U.S. surface unit.

b. The TRS provided 11.0 hours of Electronic Warfare.

c. The AST/ALQ PODS provided 3.0 hours of training to U.S. based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active ten days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 25 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of zero Other Military operations.

d. The ATC facility provided ATC services in support of zero Air Carrier operations.

e. The ATC facility provided ATC services in support of zero General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported eighteen scheduled events.

b. The Torpedo Shop prepared ten MK-46 EXTORPS, sixteen MK-46 REXTORPS and eleven MK-50 REXTORPS. Ten MK-46 EXTORPS, sixteen MK-46 REXTORPS and eleven MK-50 REXTORPS were fired.

c. The MK-30 Shop prepared two targets of which one was launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 1998

1. Outer Range Operational Support:

a. The Outer Range was active eleven days this reporting period. Operational services were provided to U.S. surface units and U.S. air units.

b. U.S. surface units conducted ten days of Link-11 operations.

c. Fifteen BQM-74E's, one BQM-34S's, four A-4 w/TDU, and two A-4 w/ITCS PODS were provided during this reporting period to support surface-to-air, air-to-air missile, and gunnery exercises.

2. Inner Range Operational Support:

a. The Inner Range was active seventeen days this reporting period. Operational services were provided to U.S. surface units, two U.S. air units, U.S. ground units, foreign surface units, and foreign air units.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eighteen days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. subsurface units and foreign units. Also supported two SSRNM's.

b. A total of seven MK-30 targets were launched in support of ASW tracking exercises.

c. A total of twenty-eight MK-46's and five MK-50's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twenty-two days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. subsurface unit, and foreign units.

b. The TRS provided 56.0 hours of Electronic Warfare Support.

c. The TGTE provided 19.0 hours of triple ground threat support.

d. The Threat Platform Simulator (TPS) provided 36.0 hours of support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active seventeen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 5,832 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 3 Other Military operations.

d. The ATC facility provided ATC services in support of zero Air Carrier operations.

e. The ATC facility provided ATC services in support of 8 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering successfully supported forty-eight scheduled events.

b. The Torpedo Shop prepared eight MK-46 EXTORPS, twenty-one MK-46 REXTORPS, and eighteen MK-50 REXTORPS. Twelve MK-46 EXTORPS, sixteen MK-46 REXTORPS, and five MK-50 REXTORPS were fired.

c. The MK-30 Shop prepared eight targets of which seven were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 1998

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to U.S. surface and air units.

b. U.S. surface and air units conducted Three days of Link-11 exercises.

c. Thirteen BQM-74E's, three AQM-37C's, three SEPTAR, four A-4 w/TDU, four Williams Sled targets, seven Lear w/TDU, and two assorted series of targets were launched in support of surface-to-air, air-to-air missile, and gunnery exercises.

2. Inner Range Operational Support:

a. The Inner Range was active seventeen days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. ground units, foreign surface units, and foreign air units.

b. Naval gunfire, air-to-ground, and supporting arms services were provided.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to: U.S. surface units, U.S. air unit, and U.S. subsurface units.

b. A total of ten MK-30 targets were launched in support of ASW exercises.

c. A total of thirty-five MK-46's and seven MK-50's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active four days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. subsurface units, foreign surface units.

b. The TRS provided 64.0 hours of Electronic Warfare Support.

c. The TGTE provided 5.0 hours of triple ground threat support.

d. The AST/ALQ PODS provided 2.0 hours of training U.S. based units.

e. The Threat Platform Simulator (TPS) provided 8.0 hours of support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-four days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 9,768 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 124 Other Military operations.

d. The ATC facility provided ATC services in support of 50 Air Carrier operations.

e. The ATC facility provided ATC services in support of 290 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported twenty-two scheduled events.

b. The Torpedo Shop did not prepare any torpedoes during this reporting period. Four MK-46 EXTORPS, thirty-one MK-46 REXTORPS, and seven MK-50 REXTORPS were fired.

c. The MK-30 Shop prepared eleven targets of which ten were launched in support of torpedo exercises.

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 1999

COMMAND BRIEF

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment available. The unique capabilities of AFWTF provide just such an environment. To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities; and for the development, testing, and evaluation of weapons and weapon systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multiple ship/unit exercises, tests, and Operational Tests and Evaluation (OT&E) projects

d. Act as deputy safety observer for large-scale, multi-ship fleet missile exercises.

e. Provide communication facilities for test directors of spiel projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit throughout the Puerto Rico operating areas.

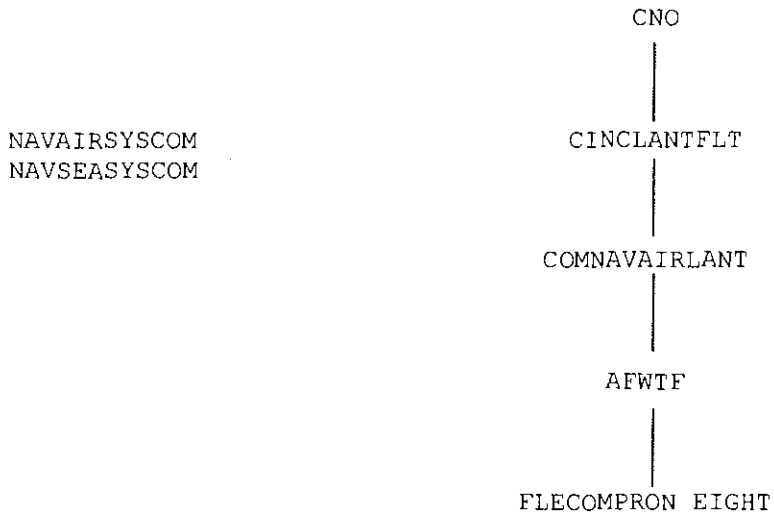
k. Serve as military Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico operating areas in the Caribbean.

l. Naval Air Component for Commander, JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR/TRAINING operations.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM). Operations and Maintenance Funds (O&M) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagrammed below:



AFWTF consists of 70 military and 35 civilian government service personnel overseeing 271 contractors. Management is accomplished by the military. Contract personnel perform the technical operations and maintenance of range facilities and drone targets. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for surface-to-surface, air-to-air, surface-to-air, and air-to-surface missile and gunfire exercises. Operations are conducted in two ranges designated North/Alpha (encompassing 120,000 square miles) and South/Bravo (encompassing 74,000 square miles), consisting of seven offshore Warning Areas. Additionally, the range utilized severs land based facilities, including the Range Operations Center (ROC) located within the Roosevelt Roads complex) and remote radar sites at Crown Mountain, St. Thomas, St. George's Hill, St. Croix, Mount Pirata, Vieques, and Pico del Este. Target services consists of two primary types: surface targets and remote controlled aerial targets. Surface targets may be either remotely controlled or towed by another surface craft. All aerial targets are controlled from the ROC via the Remote Data and Drone Control System (RDDCS), which collates positional data and radar telemetry from the remote sites, allowing the ROC to realistically simulate hostile units. Presently the ROC can control a maximum of six drones simultaneously. After launch, drones are flown into the designated range and presented to the firing unit on a predetermined course. During this period, the units engage in tracking and firing exercises, while telemetry equipment onboard the drone and missile evaluate the success of the engagement. Following completion of the exercise, a parachute is released allowing the target to land without damage and be recovered for future reuse.

2. Aerial Targets. AFWTF utilizes three types of sub-scale drone aircraft. The BQM-74E and BQM-34S both subsonic, reusable targets, capable of speeds in excess of 500 knots and altitudes from 10 to over 40,000 feet. Both can be ground-launched from AFWTF's Cabras Island facility with the assistance of JATO bottles. In addition, the BQM-74E may be air-launched from TA-4J aircraft when outfitted with a special adapter kit. Each drone simulates real-world threats for surface-to-air and air-to-air missile exercises and may be fitted with a variety of augmentation devices to meet specific operational requirements. The

AQM-37C is a supersonic, non-recoverable target capable of speeds up to Mach 4.0 and altitudes of 100,000 feet. Enclosure (1) it may be air-launched from either the TA-4J (normal performance) or the F4 (high performance). The drone is used primarily to simulate ballistic missile profiles. AFWTF also provides unpowered TDU-34A aerial tow targets. Towed by TA-4J aircraft, the shape provides an inexpensive target for semi-active homing missiles and various gun systems, including CIWS.

3. Surface Targets. Through the Marine/Ocean Engineering division, AFWTF controls a variety of powered and unpowered surface craft. These are used to provide targets for air-to-surface and surface-to-surface missile and gunnery exercises. The QST-35 SEPTAR is the most capable surface target utilized at AFWTF. A 56-foot long, powered craft, it acts both as a target and a tow vehicle for unpowered shapes. When acting as a target, it is remotely controlled from another SEPTAR. Direct gunfire, fused warheads, or bombing against the SEPTAR require special permission from CNO, this is not the case, however, when using a 10-mil offset. Other surface targets include: ISTTs, trimarans, GORSTs, and FASTs.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Surface Fire Support Range, an air-to-ground bull's eye target; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and Close Air Support (CAS) training; a mining range; an artillery range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted at the eastern tip of Vieques.

2. Vieques Naval Surface Fire Support Target Complex. The Vieques NSFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets and the sea targets are located.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridgelines up to 300 feet in height. Targets and impact areas have been constructed and installed on various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunition dump, SAM sites, and many smaller targets. All targets in the CAS zone are stationary except for the Mobile Land Target (MLT) which operates on the mock airstrip, northeast of target one. The MLT's are radio-controlled vehicles available during daylight hours for use with inert MK-76 bombs and inert 2.75-inch rockets.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

(c) Target Two. A bull's eye approximately two miles west of target one. The target is 300 feet in diameter and consists of three concentric rings of tires 100 feet apart. The target is scored by the Weapons Impact Scoring Set (WISS).

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the West Coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumental area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 500 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix. During all operations, a military range control officer from AFWTF is present. Shops for instrument maintenance, MK-30 target preparation, exercise torpedo preparation, and the range administrative office are located at the Roosevelt Roads complex.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units can be conducted on the range. The range provides precision-tracking data obtained via in-water three-dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumental range and has proven itself a highly effective training device.

ELECTRONIC WARFARE RANGE

1. General. The purpose of the Electronic Warfare Range (EWR) is to provide a realistic electronic environment for the combat readiness training of air, surface and submarine units and the evaluation of combat systems in development and operational testing.

a. The EWR consists of a system of EW devices located in Puerto Rico, its adjacent islands, U.S. Virgin Islands, and on organic aircraft and range support craft. All fixed sites are controlled from an EW Range Operations Center (EWROC) located in the AFWTF headquarters building at Roosevelt Roads. Primary elements are:

(1) Threat Radiation Simulator (TRS): Located at Pico Del Este, PR. The TRS is a computer-controlled system designed to radiate realistic EW scenarios with multiple emitters on one or more axis.

(2) Threat Platform Simulators (TPS): One located on Mt. Pirata on the western end of Vieques, PR and one on St. Georges Hill, St. Croix, USVI. The TPS's provide realistic single emitter or complex scenarios of air, surface or subsurface threats.

(3) Noise Jammer Simulator (NJS): Positioned at Mt. Pirata, Vieques, PR. The NJS is a generic noise jammer, which can simulate most types of air and shipboard jamming threats from single or multiple platforms.

(4) Outboard Simulator (OBS): Located in the EWROC. OBS is designed to test the OUTBOARD system on USN ships by HF transmissions of Morse code (CW), radio teletype (RATT) and prerecorded voice.

(5) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS): Installed on the 180-foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(6) AN/UPQ-8 Triple Ground Threat Emitter (TGTE): Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operation on the Inner Range.

(7) AN/ALQ-167 Jammer/deception device: Airborne jammer carried aboard TA-4J aircraft at AFWTF.

2. Operations. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiations may be selected from an established library of radars and platforms or with sufficient lead-time, tailored programs may be created to meet specific training or test requirements.

FLEET AREA CONTROL AND SURVEILLANCE FACILITY

1. General. The Fleet Area Control and Surveillance Facility (FACSFAC) is a certified Air Traffic Control facility within AFWTF that is equipped and staffed to manage Special Use Airspace, OPAREAS, and other oceanic airspace in support of air, surface, and subsurface operations.

a. FACSFAC Caribbean is a certified Class VI Air Traffic Control facility (callsign SEAWITCH) which is responsible for:

(1) Providing enroute ATC services, including positive control of IFR aircraft arriving and departing the Puerto Rico Operating Area.

(2) Area containment services within assigned airspace and radar coverage.

(3) Radar surveillance services to participating military units, governmental contract aircraft and civil aircraft on a strictly not-to-interfere basis defined by letter of agreement with applicable FAA and military facilities.

(4) Assisting during search and rescue, and medical evacuation operations.

(5) Coordination and monitoring of surface and airborne units operating in and transiting to/from assigned OPAREAS.

b. FACSFAC Caribbean (SEAWITCH) is assigned airspace management responsibilities for over 35,000 square miles of Special Use Airspace (SUA) as follows:

(1) Northern Warning Areas:

(a) W-429 Surface to unlimited
(b) W-368 Surface to unlimited
(c) W-369 Surface to unlimited

(2) Vieques Range:

(a) R-7104 Surface to FL500
(b) W-428 Surface to FL500

(3) Southern Warning Areas:

(a) W-370 Surface to unlimited
(b) W-372 Surface to unlimited
(c) W-373 Surface to unlimited
(d) W-374 Surface to 6,000 ft
(e) W-375 Surface to 6,000 ft
(f) W-376 17,000 ft to FL210
(g) W-377 Surface to unlimited

(4) Controlled Firing Areas:

(a) OPAREA 6A Surface to 1,000 ft
(b) OPAREA 11 Surface to 1,000 ft

(5) Military Training Routes:

(a) IR-026
(b) IR-027

c. FACSFAC Caribbean is equipped with various ATC systems to facilitate the safe and efficient handling of air traffic. Primary elements are:

(1) Integrated Voice Communications Switching System (IVCSS). The IVCSS is a digital non-blocking 480 channel controlled Air Traffic Control communications switching network. It provides operators with access to multiple radiophone, interphone, and landline channels in any combination.

(2) Fleet Area Control and Surveillance Air Control Tracking System (FACTS). The FACTS is the Radar display system used by SEAWITCH. It displays radar inputs from four remote sites for complete coverage of all assigned SUA. The remote radar sites are as follows:

(a) Naval Station Roosevelt Roads ASR-8
(b) San Juan, PR ASR-8
(c) St. Thomas, VI ASR-8
(d) Pico Del Este FPS-67

(3) Flight Data Input/Output (FDIO). The FDIO provides the means to receive flight plan notification and clearances associated with the National Airspace System.

SUMMARY OF CY99

During CY99, AFWTF'S motto "Scheduled as Requested" was revalidated by the enormous training effort supported by AFWTF, VC-8, and the units operating in the Puerto Rico OPAREA. Decrease in reported operations is a direct result of the controversy surrounding Vieques and USN assets not being able to use our live impact and eastern maneuver areas since the bombing accident on 19 Apr 99. The effects continue to reverberate its effect on AFWTF'S mission to provide robust operational training and readiness capabilities to the fleet. C2X/JTFEX exercises are going elsewhere until AFWTF live impact area and eastern maneuver areas can again be used. AFWTF stands by to meet the needs of the fleet.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 1999

1. Outer Range Operational Support:

a. The Outer Range was active eight days this reporting period. Operational services were provided to U.S. surface units, foreign surface units, and U.S. aircraft.

b. Three days of Link-11 exercises were conducted during this reporting period by U.S. and foreign surface units.

c. One AQM-37C, seven BQM-74E, two Harpoon SEPTAR, two A-4 w/TDU, sixteen A-4 w/AIC services, and several assorted targets were provided during the reporting period in support of surface to air, air to surface, and air to air missile or gunnery operations.

2. Inner Range Operational Support:

a. The Inner Range was undergoing range refurbishment for twenty-six days and was active thirteen days this reporting period. Operational services were provided one Joint Special Operations Command, to include air and ground forces, one U.S. air squadron and one foreign ship.

b. Thirteen days of air-to-ground, one day of naval surface fire support and eight days of supporting arms were supported this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active one day this reporting period. Operational services were provided for a SNFL Torpex involving one U.S. warship and two foreign warships.

b. A total of two MK-30 targets were launched in support of torpedo exercises.

c. A total of eight MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period. Operational services were provided to one U.S. surface unit, and three foreign surface units.

b. The TPS provided 10.0 hours of Electronic Warfare support.

c. The TRS provided 2.0 hours of Electronic Warfare support.

d. The AST/ALQ PODS provided 6.0 hours of training to U.S. based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The FACSFAC was active twenty days this reporting period. FACSFAC support services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. FACSFAC provided services in support of 1195 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 98 Other Military operations.

d. FACSFAC provided services in support of 44 Air Carrier operations.

e. FACSFAC provided services in support of 19 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported seven scheduled events.

b. The Torpedo Shop prepared 6 MK-46 EXTORPS, 2 MK-46 REXTORPS.

c. The MK-30 shop prepared five MK-30 targets of which two were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 1999

1. Outer Range Operational Support:

The Outer Range conducted range briefs in preparation for upcoming events. There was no activity on the Outer Range.

2. Inner Range Operational Support:

The Inner Range conducted range briefs in preparation for upcoming events. Training was also conducted in preparation for upcoming exercises. There was no activity on the Inner Range.

3. Underwater Tracking Range Operational Support:

The Underwater Tracking Range was active one day this reporting period. Operational services were provided to one U.S. surface unit of which was cancelled due to weather.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active nine days this reporting period. Operational services were provided to seven U.S. surface units.

b. The TPS provided 33.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 30.0 hours of training to multiple surface and shore based units.

e. The AST/ALQ PODS provided 6.0 hours of training to U.S. based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-two days this reporting period. Air Traffic Control services were provided to U.S. military aircraft and U.S. civilian aircraft.

b. FACSFAC provided services in support of 894 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 68 Other Military operations.

d. FACSFAC provided services in support of 32 Air Carrier operations.

e. FACSFAC provided services in support of 13 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for seven events.

b. The Torpedo Shop prepared five MK-46 EXTORPS, thirteen MK-46 REXTORPS.

c. The MK-30 shop prepared two MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 1999

1. Outer Range Operational Support:

There were no events scheduled on the Outer Range this reporting period.

2. Inner Range Operational Support:

There were no events scheduled on the Inner Range this reporting period.

3. Underwater Tracking Range Operational Support:

There were no events scheduled on the Underwater Tracking Range this reporting period.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active four days this reporting period. Operational services were provided to five foreign surface units.

b. The TPS provided 24.5 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 30 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. FACSFAC was active eighteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. FACSFAC provided services in support of 594 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 38 Other Military operations.

e. FACSFAC provided services in support of 20 Air Carrier operations.

f. The ATC facility provided ATC services in support of 7 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for two scheduled events.

b. The Torpedo Shop prepared thirty MK-46 EXTORPS, seventeen MK-46 REXTORPS and three MK-50 REXTORP.

c. The MK-30 prepared zero MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 1999

1. Outer Range Operational Support:

a. The Outer Range was active fourteen days this reporting period. Operational services were provided to U.S. air squadrons, U.S. surface units, foreign air squadron and foreign ships.

b. There were eight days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. A total of eighteen BQM-74E's/AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active fifteen days this reporting period. Operational services were provided to five U.S. surface units, two U.S. air squadrons, two foreign ships, and one foreign air unit.

b. Twelve days air to ground, seven days naval surface fire support (NSFS), and one day small arms training were supported this report period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seventeen days this reporting period. Operational services were provided to nineteen U.S. surface units, five subsurface units and three U.S. air units. Also supported SSRNM's.

b. A total of twenty-two MK-30 targets were launched in support of torpedo exercises.

c. Forty-one MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period. Operational services were provided to four U.S. surface units, one subsurface unit, and two foreign surface units.

b. The TPS provided 28.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 0 hours of training.

d. The AST/ALQ PODS provided 2.5 hours of training to U.S. based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-three days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 2120 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 300 Other Military operations.

d. The ATC facility provided ATC services in support of 50 Air Carrier operation.

e. The ATC facility provided ATC services in support of 33 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for sixty-two scheduled events.

b. The Torpedo Shop prepared twenty MK-46 EXTORPS, eight MK-46 REXTORPS, and two MK-50 REXTORPS. Forty-one MK-46 EXTORPS and twenty-eight MK-46 REXTORPS and three MK-50 REXTORPS were fired.

c. The MK-30 shop prepared twenty-three targets of which twenty-two were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 1999

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to one U.S. surface unit and one U.S. air units.

b. Two days were scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. Thirteen BQM-74/AQM-37's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to five U.S. surface units, five U.S. air units and three subsurface units. Also supported SSRNM's.

b. A total of zero MK-30 targets were launched in support of torpedo exercises.

c. Sixteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period. Operational services were provided to two U.S. surface units, one subsurface unit and one foreign surface unit.

b. One TPS provided 16.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided no hours of training.

d. The AST/ALQ PODS provided 4.75 hours of training to U.S. based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fifteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 620 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 129 Other Military operations.

d. The ATC facility provided ATC services in support of 31 Air Carrier operations.

e. The ATC facility provided ATC services in support of 32 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for fifty-three

events.

b. The Torpedo Shop prepared zero MK-46 EXTORPS and one MK-46 REXTORP and fired sixteen MK-46 EXTORPS and two MK-46 REXTORPS.

c. The MK-30 shop prepared two targets of which none were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 1999

1. Outer Range Operational Support:

a. The Outer Range was active seventeen days this reporting period. Operational services were provided to U.S. surface and air units.

b. Six BQM-74E's, thirteen BQM-34S's, and four AQM-37C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active ten days this reporting period. Operational services were provided to U.S. surface units, U.S. air units, U.S. subsurface units, and foreign units. Also supported SSRNM's.

b. A total of sixteen MK-30 targets were launched in support of torpedo exercises.

c. A total of eighteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active sixteen days this reporting period. Operational services were provided to three U.S. surface units.

b. Two TPS provided 43.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 50.0 hours of training to multiple surface and shore based units.

d. The AST/ALQ PODS provided 7 hours of training to U.S. based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active sixteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 621 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 129 Other Military operations.

d. The ATC facility provided ATC services in support of 30 Air Carrier operations.

e. The ATC facility provided ATC services in support of 32 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for thirty scheduled events.

b. The Torpedo Shop prepared thirty-four MK-46 EXTORPS, sixteen MK-46 REXTORPS, and three MK-50 REXTORPS. Eighteen MK-46 EXTORPS eight MK-46

REXTORPS and seventeen MK-50 REXTORPS were launched.

c. The MK-30 shop prepared sixteen targets of which sixteen were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 1999

1. Outer Range Operational Support:

a. The Outer Range was active seven days this reporting period. Operational services were provided to U.S. surface units and U.S. air units.

b. Six days of scheduled SEPTAR events were conducted in support of surface-to-surface and air-to-surface exercises.

c. Twenty-one BQM-74E's/BQM-34's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eight days this reporting period. Operational services were provided to U.S. surface units, U.S. air unit, U.S. subsurface unit, and foreign units. Also supported SSRNM's.

b. A total of eight MK-30 targets were launched in support of torpedo exercises.

d. A total of sixteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active five days this reporting period. Operational services were provided to U.S. surface units.

b. The TPS provided 18.0 hours of Electronic Warfare support.

c. The TGTE provided zero hours of triple ground threat support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active sixteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 417 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 20 Other Military operations.

d. The ATC facility provided ATC services in support of 41 Air Carrier operations.

e. The ATC facility provided ATC services in support of 16 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twenty scheduled events.

b. The Torpedo Shop prepared sixteen MK-46 EXTORPS and nine MK-46

REXTORPS. Eleven MK-46 EXETORPS and five MK-46 REXTORPS were fired.

c. The MK-30 shop prepared eleven targets of which eight were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 1999

1. Outer Range Operational Support:

a. The Outer Range was active one day this reporting period. Operational services were provided to two U.S. surface units.

b. Three BQM-74E's/BQM-34s were launched in support of surface-to-air, surface-to-air, air-to-air missile, and gunnery exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active five day this reporting period. Operational services were provided to one air unit.

b. A total of seven MK-30 targets were launched in support of torpedo exercises.

c. A total of eleven MK-46's were fired on the Underwater Tracking Range.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period. Operational services were provided to U.S. surface units and U.S. air units.

b. The TPS provided 12.0 hours of Electronic Warfare Support.

c. The TGTE provided no hours of triple ground threat support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active seventeen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 410 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 15 Other Military operations.

d. The ATC facility provided ATC services in support of 30 Air Carrier operations.

e. The ATC facility provided ATC services in support of 10 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for sixteen scheduled events.

b. The Torpedo Shop prepared two MK-46 EXTORPS and seven MK-46 REXTORPS. No MK-46 EXTORPS and two MK-46 REXTORPS were fired.

c. The MK-30 shop prepared seven targets of which seven were launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 1999

1. Outer Range Operational Support:

a. The Outer Range was active two days this reporting period with operational services being provided to U.S. surface and U.S. air units.

b. One SEPTAR event was conducted to support a surface-to-surface exercise.

2. Inner Range Operational Support:

The Inner Range was not operational during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active three days this reporting period. Operational services were provided to one U.S. air unit. Also supported SSRNM's.

b. One MK-30 target was launched in support of an ASW tracking exercise.

c. No MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

The Electronic Warfare Range was not active this reporting period.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fourteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 422 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 25 Other Military operations.

d. The ATC facility provided ATC services in support of 50 Air Carrier operations.

e. The ATC facility provided ATC services in support of 20 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported thirteen scheduled events.

b. The Torpedo Shop prepared twenty-five MK-46 EXTORPS and fifty-three MK-46 REXTORPS. One MK-46 REXTORP was fired.

c. The MK-30 Shop prepared two targets of which one was launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 1999

1. Outer Range Operational Support:

a. The Outer Range was active eleven days during this reporting period. Operational services were provided to twelve surface units and one air unit.

b. There were twelve days scheduled for SEPTAR events in support of surface-to-surface and air-to-surface operations.

c. Eleven BQM-34's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was not active during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seventeen days this reporting period. Operational services were provided to eighteen U.S. surface units, two subsurface units and two air units. Also supported SSRNM's.

b. Four MK-30 targets were launched in support of ASW tracking exercises.

c. A total of twenty-two MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eighteen days this reporting period. Operational services were provided to U.S. surface and air units.

b. The TPS provided 11.0 hours of Electronic Warfare.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active eighteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 710 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 86 Other Military operations.

d. The ATC facility provided ATC services in support of 16 Air Carrier operations.

e. The ATC facility provided ATC services in support of 6 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported eighteen scheduled events.

b. The Torpedo Shop prepared seven MK-46 EXTORPS and seventeen MK-46 REXTORPS. Twenty-two MK-46 EXTORPS and forty-five MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared seven targets of which two were launched.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 1999

1. Outer Range Operational Support:

a. The Outer Range was active three days this reporting period. Operational services were provided to U.S. surface units.

b. Three days of SEPTAR events were scheduled in support of surface-to-surface operations.

2. Inner Range Operational Support:

The Inner Range was not active during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to seven surface units, three air units, and four subsurface units.

b. One MK-30 target was launched in support of ASW tracking exercises.

c. A total of twelve MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period. Operational services were provided to U.S. surface units.

b. The TPS provided 14.5 hours of Electronic Warfare Support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active seventeen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 603 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 86 Other Military operations.

d. The ATC facility provided ATC services in support of 15 Air Carrier operations.

e. The ATC facility provided ATC services in support of 5 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering successfully supported nineteen scheduled events.

b. The Torpedo Shop prepared no MK-46 EXTORPS and one MK-46 REXTORPS. Twelve MK-46 EXTORPS and one MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared four targets of which one was launched in support of torpedo exercises.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 1999

1. Outer Range Operational Support:

a. The Outer Range was active one day this reporting period. Operational services were provided to one surface unit.

b. One BQM-74E was launched in support of surface-to-air exercises.

2. Inner Range Operational Support:

The Inner Range was not active during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active two days this reporting period. Operational services were provided to one air unit.

b. No MK-46's or MK-50's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

The Electronic Warfare Range was not active during this reporting period.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active sixteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 405 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 86 Other Military operations.

d. The ATC facility provided ATC services in support of 15 Air Carrier operations.

e. The ATC facility provided ATC services in support of 5 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported twelve scheduled events.

b. The Torpedo Shop prepared eight MK-46 REXTORPS during this reporting period. Two MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared six targets of which one was launched in support of torpedo exercises.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venequela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface To Air Missile
SATS	- Systems Accuracy Trials
SEPTAR	- Seaborne Powered Target
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
TRS	- Threat Radiation Simulator
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 2000

COMMAND BRIEF

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment available. The unique capabilities of AFWTF provide just such an environment. To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities; and for the development, testing, and evaluation of weapons and weapon systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multiple ship/unit exercises, tests, and Operational Tests and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large-scale, multi-ship fleet missile exercises.

e. Provide communication facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit throughout the Puerto Rico operating areas.

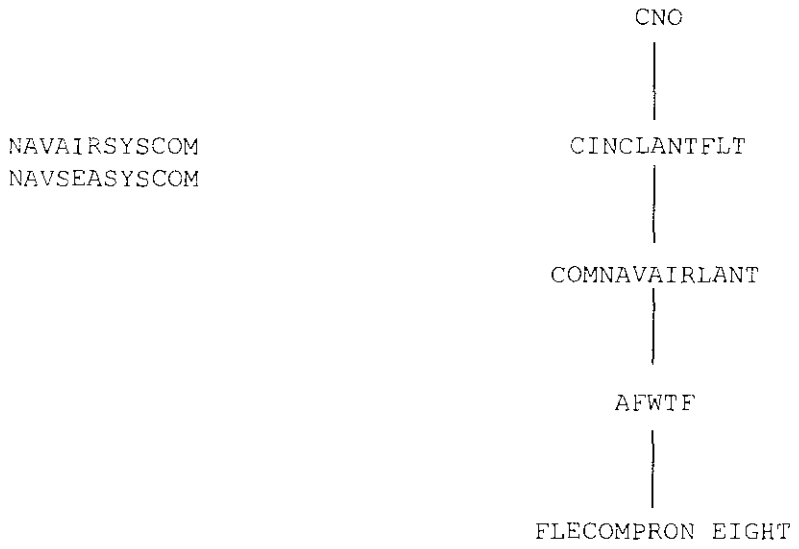
k. Serve as military Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico operating areas in the Caribbean.

l. Naval Air Component for Commander, JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR/TRAINING operations.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet (TYCOM). Operations and Maintenance Funds (O&M) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagrammed below:



AFWTF consists of 84 military and 35 civilian government service personnel overseeing 271 contractors. Management is accomplished by the military. Contract personnel perform the technical operations and maintenance of range facilities and drone targets. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for surface-to-surface, air-to-air, surface-to-air, and air-to-surface missile and gunfire exercises. Operations are conducted in two ranges designated North/Alpha (encompassing 120,000 square miles) and South/Bravo (encompassing 74,000 square miles), consisting of seven offshore Warning Areas. Additionally, the range utilized several land based facilities, including the Range Operations Control Center (ROCC located within the Roosevelt Roads complex) and remote radar sites at Crown Mountain, St. Thomas, St. George's Hill, St. Croix; Mount Pirata, Vieques, and Pico del Este. Target services consists of two primary types: surface targets and remote controlled aerial targets. Surface targets may be either remotely controlled or towed by another surface craft. All aerial targets are controlled from the ROCC via the Remote Data and Drone Control

System

(RDDCS), which collates positional data and radar telemetry from the remote sites, allowing the ROCC to realistically simulate hostile units. Presently the ROCC can control a maximum of six drones simultaneously. After launch, drones are flown into the designated range and presented to the firing unit on a predetermined course. During this period, the units engage in tracking and firing exercises, while telemetry equipment onboard the drone and missile evaluate the success of the engagement. Following completion of the exercise, a parachute is released allowing the target to land without damage and be recovered for future reuse.

2. Aerial Targets. AFWTF utilizes three types of sub-scale drone aircraft. The BQM-74E and BQM-34S are both subsonic, reusable targets, capable of speeds in excess of 500 knots and altitudes from 10 to over 40,000 feet. Both can be ground-launched from AFWTF's Cabras Island facility with the assistance of JATO bottles. In addition, the BQM-74E may be air-launched from TA-4J aircraft when outfitted with a special adapter kit. Each drone simulates real-world threats for surface-to-air and air-to-air missile exercises and may be fitted with a variety of augmentation devices to meet specific operational requirements. The AQM-37C is a supersonic, non-recoverable target capable of speeds up to Mach 4.0 and altitudes of 100,000 feet. It may be air-launched from either the TA-4J (sub-sonic launch) or the F4 (super-sonic launch). The drone is used to simulate high altitude diving or ballistic missile profiles. AFWTF also provides unpowered TDU-34A aerial tow targets. Towed by TA-4J aircraft, the shape provides an inexpensive target for semi-active homing missiles and various gun systems, including CIWS.

3. Surface Targets. Through the Marine/Ocean Engineering division, AFWTF controls a variety of powered and unpowered surface craft. These are used to provide targets for air-to-surface and surface-to-surface missile and gunnery exercises. The QST-35A SEPTAR is the most capable surface target utilized at AFWTF. A 56-foot long, powered craft, it acts both as a target and a tow vehicle for unpowered shapes. When acting as a target, it is remotely controlled from the ROCC. Other surface targets include: William Sleds, ISTTs, trimarans, GORSTs, and FASTs.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Surface Fire Support Range, an air-to-ground bull's eye target; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and Close Air Support (CAS) training; a mining range; an artillery range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small

arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted at the eastern tip of Vieques.

2. Vieques Naval Surface Fire Support Target Complex. The Vieques NSFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridgelines up to 300 feet in height. Targets and impact areas have been constructed and installed on various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunition dump, SAM sites, and many smaller targets. All targets in the CAS zone are stationary.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the West Coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumental area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 2000 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix. During all operations, a military range safety officer from AFWTF is present. Shops for instrument maintenance, MK-30 target preparation, exercise torpedo preparation, and the range administrative office are located at the Roosevelt Roads complex. The Range also has Mod One Expendable Mobile Antisubmarine Training Target's (EMATT's). These targets can be tracked on the range providing post run or tracking range data to the customers.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units can be conducted on the range. The range provides precision-tracking data obtained via in-water three-dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumental range and has proven itself a highly effective training device. A printed copy of plots from the exercise is also available. A diskette with the data, in ASCII format, is also provided with the printed copy.

ELECTRONIC WARFARE RANGE

1. General. The purpose of the Electronic Warfare Range (EWR) is to provide a realistic electronic environment for the combat readiness training of air, surface and submarine units and the evaluation of combat systems in development and operational testing.

a. The EWR consists of a system of EW devices located in Puerto Rico, its adjacent islands, U.S. Virgin Islands, and on organic aircraft and range support craft. All fixed sites are controlled from an EW Range Operations Center (EWROC) located in the AFWTF headquarters building at Roosevelt Roads. Primary elements are:

(1) Threat Radiation Simulator (TRS): Located at Pico Del Este, PR. The TRS is a computer-controlled system designed to radiate realistic EW scenarios with multiple emitters on one or more axis.

(2) Threat Platform Simulators (TPS): One located on Mt. Pirata on the western end of Vieques, PR and one on St. Georges Hill, St. Croix, USVI. The TPS's provide realistic single emitter or complex scenarios of air, surface or subsurface threats.

(3) Outboard Simulator (OBS): Located in the EWROC. OBS is designed to test the OUTBOARD system on USN ships by HF transmissions of Morse code (CW), radio teletype (RATT) and prerecorded voice.

(4) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS): Installed on the 180-foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(5) AN/UPQ-8 Triple Ground Threat Emitter (TGTE): Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operation on the Inner Range.

(6) AN/ALQ-167 Jammer/deception device: Airborne jammer carried aboard TA-4J aircraft at AFWTF.

(7) AN/AST-4 Radar Simulator Pod: Airborne Radar simulator carried aboard TA-4J aircraft or fitted to BQM-34S drone.

2. Operations. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiations may be selected from an established library of radars and platforms or with sufficient lead-time or tailored programs may be created to meet specific training or test requirements.

FLEET AREA CONTROL AND SURVEILLANCE FACILITY

1. General. The Fleet Area Control and Surveillance Facility (FACSFAC) is a certified Air Traffic Control facility within AFWTF that is equipped and staffed to manage Special Use Airspace, OPAREAS, and other oceanic airspace in support of air, surface, and subsurface operations.

a. FACSFAC Caribbean is a certified Class VI Air Traffic Control facility (callsign SEAWITCH) which is responsible for:

(1) Providing enroute ATC services, including positive control of IFR aircraft arriving and departing the Puerto Rico Operating Area.

(2) Area containment services within assigned airspace and radar coverage.

(3) Radar surveillance services to participating military units, governmental contract aircraft and civil aircraft on a strictly not-to-interfere basis defined by letter of agreement with applicable FAA and military facilities.

(4) Assisting during search and rescue, and medical evacuation operations.

(5) Coordination and monitoring of surface and airborne units operating in and transiting to/from assigned OPAREAS.

b. FACSFAC Caribbean (SEAWITCH) is assigned airspace management responsibilities for over 35,000 square miles of Special Use Airspace (SUA) as follows:

(1) Northern Warning Areas:

(a) W-429 Surface to unlimited
(b) W-368 Surface to unlimited
(c) W-369 Surface to unlimited

(2) Vieques Range:

(a) R-7104 Surface to FL500
(b) W-428 Surface to FL500

(3) Southern Warning Areas:

(a) W-370 Surface to unlimited
(b) W-372 Surface to unlimited
(c) W-373 Surface to unlimited
(d) W-374 Surface to 6,000 ft
(e) W-375 Surface to 6,000 ft
(f) W-376 17,000 ft to FL210
(g) W-377 Surface to unlimited

(4) Controlled Firing Areas:

(a) OPAREA 6A Surface to 1,000 ft
(b) OPAREA 11 Surface to 1,000 ft

(5) Military Training Routes:

(a) IR-026
(b) IR-027

c. FACSFAC Caribbean is equipped with various ATC systems to facilitate the safe and efficient handling of air traffic. Primary elements are:

(1) Integrated Voice Communications Switching System (IVCSS). The IVCSS is a digital non-blocking 480 channel controlled Air Traffic Control communications switching network. It provides operators with access to multiple radiophone, interphone, and landline channels in any combination.

(2) Fleet Area Control and Surveillance Air Control Tracking System (FACTS). The FACTS is the Radar display system used by SEAWITCH. It displays radar inputs from four remote sites for complete coverage of all assigned SUA. The remote radar sites are as follows:

(a) Naval Station Roosevelt Roads ASR-8
(b) San Juan, PR ASR-8
(c) St. Thomas, VI ASR-8
(d) Pico Del Este FPS-67

(3) Flight Data Input/Output (FDIO). The FDIO provides the means to receive flight plan notification and clearances associated with the National Airspace System.

SUMMARY OF CY00

During CY00, AFWTF'S motto " Scheduled as Requested" was revalidated by the enormous training effort supported by AFWTF, VC-8, and the units operating in the Puerto Rico OPAREA. Decrease in reported operations is a direct result of the controversy surrounding Vieques and USN assets not being able to use our live impact and eastern maneuver areas since the bombing accident on 19 Apr 99. Vieques LIA/EMA opened on 08 May 00 for two Carrier Battlegroup C2X/SACEX training exercises and elements from a third Carrier Battlegroup for NSFS FIREX I qualifications. The USS Harry S. Truman Battlegroup, ARG and MEU 22 successfully conducted the first SACEX on range since Feb 99. Nineteen ships qualified NSFS FIREX I qualification. Two completed PCO operations with 285 of 285 torpedoes successfully fired. One VLA event was fully completed. Two CEC events, six CSSQT operations, twenty-one SAMSLX and five AAMSLX completed.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 2000

1. Outer Range Operational Support:

a. The Outer Range was active three days this reporting period. Operational services were provided to one U.S. surface unit and three Foreign Military Service Units.

b. There were four days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. Ten BQM-34E/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eight days this reporting period. Operational services were provided for one U.S. surface unit, four U.S. air units and three Foreign Military Service Units.

b. A total of nine MK-30 targets were launched in support of torpedo exercises.

c. A total of eleven MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active nine days this reporting period.

b. The TPS provided 32.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 72.0 hours of Training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The FACSFAC was active eighteen days this reporting period. FACSFAC support services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. FACSFAC provided services in support of 202 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 17 Other Military operations.

d. FACSFAC provided services in support of 23 Air Carrier operations.

e. FACSFAC provided services in support of 5 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported twenty-three events.

b. The Torpedo Shop prepared twelve MK-46 EXTORPS and eleven MK-46 REXTORPS of which seven MK-46 REXTORPS were fired.

c. The MK-30 shop prepared nine MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 2000

1. Outer Range Operational Support:

a. The Outer Range was active three days this reporting period. Operational services were provided to four U.S. surface units and three Foreign Military Service Units.

b. There were five days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. Seventeen BQM-34E/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was active for one day this reporting period. Operational services were provided to one U.S. air unit with no ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active four days this reporting period. Operational services were provided for one U.S. air unit.

b. A total of three MK-30 targets were launched in support of torpedo exercises.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twelve days this reporting period.

b. The TPS provided 2.0 hours of Electronic Warfare support.

c. The TRS provided 8.0 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 150.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active sixteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft and U.S. civilian aircraft.

b. FACSFAC provided services in support of 74 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 8 Other Military operations.

d. FACSFAC provided services in support of 20 Air Carrier operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for nineteen events.

b. The Torpedo Shop prepared one MK-46 EXTORPS and four MK-46 REXTORPS of which one MK-46 REXTORP was fired.

c. The MK-30 shop prepared three MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 2000

1. Outer Range Operational Support:

a. The Outer Range was active five days this reporting period. Operational services were provided to three U.S. surface units and five Foreign Military Service Units.

b. There was one day of scheduled SEPTAR use for a surface-to-surface exercise.

c. Seventeen BQM-34E/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

There were no events scheduled on the Inner Range this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twelve days this reporting period. Operational services were provided for two U.S. subsurface, two U.S. air units and one Foreign Military Service Unit.

b. A total of ten MK-30 targets were launched in support of torpedo exercises.

4. Electronic Warfare Range Operational Support:

a. The EW Range was active six days this reporting period.

b. The TRS provided 16.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 3.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. FACSFAC was active fifteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. FACSFAC provided services in support of 67 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 2 Other Military operations.

d. FACSFAC provided services in support of 16 Air Carrier operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twenty-one events.

b. The Torpedo Shop prepared twenty MK-46 EXTORPS and fourteen MK-46 REXTORPS of which one MK-46 REXTORP was fired.

c. The MK-30 prepared nine MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 2000

1. Outer Range Operational Support:

a. The Outer Range was active one day this reporting period. Operational services were provided to one U.S. surface unit.

b. There were two days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. A total of two BQM-74E/AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was active one day this reporting period. Operational services were provided to one U.S. air unit in which no ordnance was expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seven days this reporting period. Operational services were provided to three U.S. surface units and five U.S. air units.

b. A total of seven MK-30 targets were launched in support of torpedo exercises.

c. Twenty-one MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seventeen days this reporting period.

b. The TPS provided 48.0 hours of Electronic Warfare support.

c. The TRS provided 148.0 hours of Electronic Warfare support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active seventeen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 143 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 5 Other Military operations.

d. The ATC facility provided ATC services in support of 28 Air Carrier

operations.

e. The ATC facility provided ATC services in support of 5 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twenty-six events.

b. The Torpedo Shop prepared twenty-three MK-46 EXTORPS and two MK-46 REXTORPS of which twelve MK-46 REXTORPS were fired.

c. The MK-30 shop prepared twelve MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 2000

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to three U.S. surface unit and two U.S. air units.

b. Four days were scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. Eight BQM-74E/AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active two days this reporting period. Operational services were provided to one U.S. surface unit and one U.S. air unit.

b. There were twelve rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active nine days this reporting period. Operational services were provided to two U.S. surface units, two U.S. air units and four U.S. subsurface units.

b. A total of four MK-30 targets were launched in support of torpedo exercises.

c. Sixteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fourteen days this reporting period.

b. The TPS provided 34.0 hours of Electronic Warfare support.

c. The TRS provided 14.0 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 92.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-two days this reporting period. Air traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 1,063 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 154 Other Military operations.

d. The ATC facility provided ATC services in support of 30 Air Carrier operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for fifty-seven events.

b. The Torpedo Shop prepared eleven MK-46 EXTORPS.

c. The MK-30 shop prepared fourteen MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 2000

1. Outer Range Operational Support:

a. The Outer Range was active four days this reporting period. Operational services were provided to twelve U.S. surface units.

b. Nine days were scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. Twenty BQM-74E/AQM-37C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active three days this reporting period. Operational services were provided to six U.S. surface units and one U.S. air unit.

b. There were seven hundred eighty-nine rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seven days this reporting period. Operational services were provided to three U.S. surface units. Also supported SSRNM's for seven days.

b. A total of three MK-30 targets were launched in support of torpedo exercises.

c. A total of twelve MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eight days this reporting period.

b. The TPS provided 42.0 hours of Electronic Warfare support.

c. The TRS provided 8.0 hours of Electronic Warfare support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-one days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 810 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 17 Other

Military operations.

d. The ATC facility provided ATC services in support of 23 Air Carrier operations.

e. The ATC facility provided ATC services in support of 7 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for eight events.

b. The Torpedo Shop prepared eight MK-46 EXTORPS.

c. The MK-30 shop prepared two MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 2000

1. Outer Range Operational Support:

a. The Outer Range was active two days this reporting period. Operational services were provided to one U.S. surface unit.

b. No SEPTAR events were conducted.

c. No BQM-74E/AQM-34C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active two days this reporting period. Operational services were provided to one U.S. air unit.

b. A total of three MK-30 targets were launched in support of torpedo exercises.

d. There were no MK-46's fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

The Electronic Warfare Range was not operational during this reporting period.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fourteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 85 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 2 Other Military operations.

d. The ATC facility provided ATC services in support of 12 Air Carrier operations.

e. The ATC facility provided ATC services in support of 8 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for eleven events.

b. The Torpedo Shop prepared seventeen MK-46 EXTORPS and fifteen MK-46 REXTORPS of which one MK-46 REXTORP was fired.

c. The MK-30 shop prepared five MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 2000

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to three U.S. surface units and two U.S. air units.

b. Six days were scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. Twenty-nine BQM-74E/AQM-34C's were launched in support of surface-to-air, surface-to-air, air-to-air missile, and gunnery exercises.

2. Inner Range Operational Support:

a. The Inner Range was active seventeen days this reporting period. Operational services were provided to eight U.S. surface units and two U.S. air units.

b. There were one thousand three hundred and forty-six rounds of heavy ordnance and five rounds of light ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active thirteen days this reporting period. Operational services were provided to nine U.S. surface units, seven U.S. air units and two U.S. subsurface units. Also supported seven SSRNM's.

b. A total of seventeen MK-30 targets were launched in support of torpedo exercises.

c. There were no MK-46's fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active nineteen days this reporting period.

b. The TPS provided 8.0 hours of Electronic Warfare Support.

c. The TRS provided 27.0 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 142.0 hours of training to multiple surface and shore based units.

e. The TGTE provided 16.0 hours of training.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-six days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 3,472 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 160 Other Military operations.

d. The ATC facility provided ATC services in support of 163 Air Carrier operations.

e. The ATC facility provided ATC services in support of 160 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for fifty-nine events.

b. The Torpedo Shop prepared no MK-46 EXTORPS or MK-46 REXTORPS but twenty MK-46 REXTORPS were fired.

c. The MK-30 shop prepared twenty MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 2000

1. Outer Range Operational Support:

a. The Outer Range was active twelve days this reporting period with operational services being provided to six U.S. surface, three U.S. air units and one Foreign Military Service Unit.

b. Six SEPTAR events were conducted to support surface-to-surface exercises.

c. Fifteen BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active one day this reporting period. Operational services were provided to two U.S. surface units.

b. There were one hundred seventy-seven rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active ten days this reporting period. Operational services were provided to one Foreign Military Service Unit.

b. One MK-30 target was launched in support of an ASW tracking exercise.

c. Two MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active three days this reporting period.

b. The TRS provided 7.0 hours of Electronic Warfare Support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 2.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fourteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 98 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 3 Other Military operations.

d. The ATC facility provided ATC services in support of 3 Air Carrier operations.

e. The ATC facility provided ATC services in support of 87 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported forty events.

b. The Torpedo Shop prepared nine MK-46 EXTORPS and twenty MK-46 REXTORPS. No MK-46 REXTORP were fired.

c. The MK-30 Shop prepared thirty MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 2000

1. Outer Range Operational Support:

a. The Outer Range was active twelve days during this reporting period. Operational services were provided to four U.S. surface units and three U.S. air units.

b. There were three days scheduled for SEPTAR events in support of surface-to-surface and air-to-surface operations.

c. Twenty-six BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active five days during this reporting period. Operational services were provided to eight U.S. surface units and three U.S. air units.

b. There were one thousand two hundred seventy-three rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eleven days this reporting period. Operational services were provided to two U.S. subsurface units and eight U.S. surface units.

b. Six MK-30 targets were launched in support of ASW tracking exercises.

c. A total of eight MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period.

b. The TPS provided 6.0 hours of Electronic Warfare.

c. The TRS provided 20.0 hours of Electronic Warfare.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 36.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active eighteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 696 Navy/Marine

Corps operations.

c. The ATC facility provided ATC services in support of 50 Other Military operations.

d. The ATC facility provided ATC services in support of 22 Air Carrier operations.

e. The ATC facility provided ATC services in support of 74 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported fifty-five events.

b. The Torpedo Shop prepared nineteen MK-46 EXTORP and five MK-46 REXTORPS and eight MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared seven MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 2000

1. Outer Range Operational Support:

a. The Outer Range was active fifteen days this reporting period. Operational services were provided to two U.S. surface units and one Foreign Military Service Unit.

b. Four days of SEPTAR events were scheduled in support of surface-to-surface operations.

c. Twenty-five BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was not active during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seventeen days this reporting period. Operational services were provided to four U.S. surface units, seven U.S. air units, and five U.S. subsurface units.

b. Three MK-30 targets were launched in support of ASW tracking exercises.

c. A total of four MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seventeen days this reporting period.

b. The TPS provided 68.0 hours of Electronic Warfare Support.

c. The TRS provided 22.0 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 42.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fourteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 181 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 68 Other Military operations.

d. The ATC facility provided ATC services in support of 17 Air Carrier operations.

e. The ATC facility provided ATC services in support of 80 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering successfully supported seventy-five events.

b. The Torpedo Shop prepared four MK-46 EXTORPS and two MK-46 REXTORPS and no MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared two MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 2000

1. Outer Range Operational Support:

a. The Outer Range was active six days this reporting period. Operational services were provided to two U.S. air units.

b. Four days of SEPTAR events were scheduled in support of surface-to-surface operations.

c. Six BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active four days during this reporting period. Operational services were provided to six U.S. surface units.

b. There were five hundred thirty-four rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active five days this reporting period. Operational services were provided to two U.S. air units and one U.S. subsurface unit.

b. Seven MK-30 targets were launched in support of ASW tracking exercises

c. Two MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days during this reporting period.

b. The TPS provided 4.0 hours of Electronic Warfare Support.

c. The TRS provided 8.0 hours of Electronic Warfare Support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active fourteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 146 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 18 Other Military operations.

d. The ATC facility provided ATC services in support of 12 Air Carrier operations.

e. The ATC facility provided ATC services in support of 10 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported twenty-one events.

b. The Torpedo Shop prepared one MK-46 EXTORP and six MK-46 REXTORPS during this reporting period. Two MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared nine MK-30 targets.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venequela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface To Air Missile
SATS	- Systems Accuracy Trials
SEPTAR	- Seaborne Powered Target
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
TRS	- Threat Radiation Simulator
WSAT	- Weapons System Accuracy Trials

ATLANTIC FLEET WEAPONS TRAINING FACILITY - 2001

COMMAND BRIEF

BACKGROUND

The most critical objective of the U.S. Atlantic Fleet is to achieve and maintain an optimum condition of battle readiness. To be battle ready, fleet units must be highly skilled in all aspects of tactical warfare, including live ordnance delivery. The fleet commander's goal to achieve maximum guns on target, maximum hits per gun, maximum missiles on target, and maximum hits per missile launched cannot be accomplished in the classroom. These naval warfare skills and the battle readiness they represent are best acquired in the most realistic tactical environment available. The unique capabilities of AFWTF provide just such an environment. To achieve these goals, we have four functional ranges: Outer Range, Inner Range, Underwater Tracking Range, and the Electronic Warfare Range. The Electronic Warfare Range overlaps and services all of the ranges.

MISSION

AFWTF's mission is to operate, maintain and develop weapons training facilities and services in direct support of the training of fleet forces and other activities; and for the development, testing, and evaluation of weapons and weapon systems. Our mission is divided into the following functional areas:

a. Schedule and coordinate range activities and services.

b. Determine and enforce range safety criteria.

c. Provide target and control functions for single and multiple ship/unit exercises, tests, and Operational Tests and Evaluation (OT&E) projects.

d. Act as deputy safety observer for large-scale, multi-ship fleet missile exercises.

e. Provide communication facilities for test directors of special projects.

f. Provide real time and pseudo-real time digital and analog products from exercises or tests for reconstruction.

g. Provide command and control support to opposition force commanders for fleet exercises.

h. Serve as the eastern sub-area frequency coordinator for the area within 200 NM of Roosevelt Roads.

i. Act as scheduling authority for FLECOMPRON EIGHT (VC-8) for range support services.

j. Coordinate ship, submarine, and aircraft in transit throughout the Puerto Rico operating areas.

k. Serve as military Search and Rescue (SAR) coordinator for Vieques, U.S. Virgin Islands, and Puerto Rico operating areas in the Caribbean.

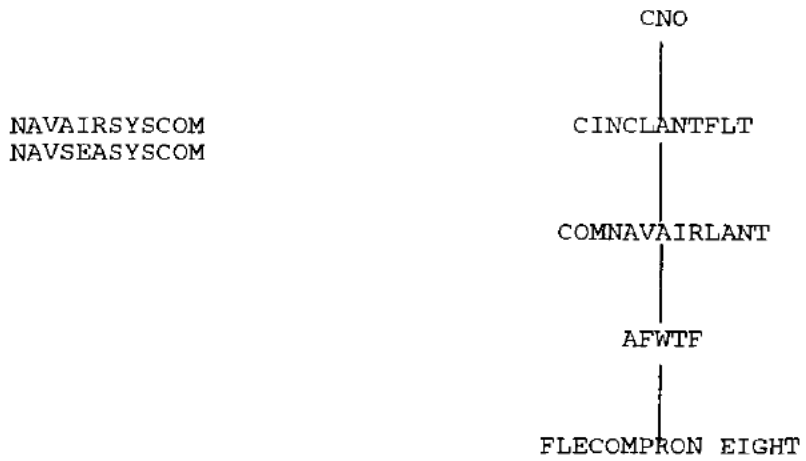
l. Naval Air Component for Commander, JIATF EAST.

m. (CTG 84.7) Assume operational tactical control over maritime patrol aircraft ISO CINCLANTFLT Caribbean Sector ASW/ASUW/SAR/TRAINING operations.

ORGANIZATION

AFWTF is a shore facility under the Commander in Chief, U.S. Atlantic Fleet. Command is exercised through Commander Naval Air Force, U.S. Atlantic Fleet

(TYCOM). Operations and Maintenance Funds (O&M) are apportioned by CINCLANTFLT and administered by COMNAVAIRLANT. Command relationships are diagrammed below:



AFWTF consists of 84 military and 35 civilian government service personnel overseeing 271 contractors. Management is accomplished by the military. Contract personnel perform the technical operations and maintenance of range facilities and drone targets. The range planning and development engineers are civil service employees.

OUTER RANGE

1. General. The Outer Range provides support for surface-to-surface, air-to-air, surface-to-air, and air-to-surface missile and gunfire exercises. Operations are conducted in two ranges designated North/Alpha (encompassing 120,000 square miles) and South/Bravo (encompassing 74,000 square miles), consisting of seven offshore Warning Areas. Additionally, the range utilized several land based facilities, including the Range Operations Control Center (ROCC located within the Roosevelt Roads complex) and remote radar sites at Crown Mountain, St. Thomas, St. George's Hill, St. Croix; Mount Pirata, Vieques, and Pico del Este. Target services consists of two primary types: surface targets and remote controlled aerial targets. Surface targets may be either remotely controlled or towed by another surface craft. All aerial targets are controlled from the ROCC via the Remote Data and Drone Control System

(RDDCS), which collates positional data and radar telemetry from the remote sites, allowing the ROCC to realistically simulate hostile units. Presently the ROCC can control a maximum of six drones simultaneously. After launch, drones are flown into the designated range and presented to the firing unit on a predetermined course. During this period, the units engage in tracking and firing exercises, while telemetry equipment onboard the drone and missile evaluate the success of the engagement. Following completion of the exercise, a parachute is released allowing the target to land without damage and be recovered for future reuse.

2. Aerial Targets. AFWTF utilizes three types of sub-scale drone aircraft. The BQM-74E and BQM-34S are both subsonic, reusable targets, capable of speeds in excess of 500 knots and altitudes from 10 to over 40,000 feet. Both can be ground-launched from AFWTF's Cabras Island facility with the assistance of JATO bottles. In addition, the BQM-74E may be air-launched from TA-4J aircraft when outfitted with a special adapter kit. Each drone simulates real-world threats for surface-to-air and air-to-air missile exercises and may be fitted with a variety of augmentation devices to meet specific operational requirements. The AQM-37C is a supersonic, non-recoverable target capable of speeds up to Mach 4.0 and altitudes of 100,000 feet. It may be air-launched from either the TA-4J (sub-sonic launch) or the F4 (super-sonic launch). The drone is used to simulate high altitude diving or ballistic missile profiles.

AFWTF also provides unpowered TDU-34A aerial tow targets. Towed by TA-4J aircraft, the shape provides an inexpensive target for semi-active homing missiles and various gun systems, including CIWS.

3. Surface Targets. Through the Marine/Ocean Engineering division, AFWTF controls a variety of powered and unpowered surface craft. These are used to provide targets for air-to-surface and surface-to-surface missile and gunnery exercises. The QST-35A SEPTAR is the most capable surface target utilized at AFWTF. A 56-foot long, powered craft, it acts both as a target and a tow vehicle for unpowered shapes. When acting as a target, it is remotely controlled from the ROCC. Other surface targets include: William Sleds, ISTTs, trimarans, GORSTs, and FASTs.

INNER RANGE AMPHIBIOUS BEACHES, ARTILLERY, NAVAL GUNFIRE, AND AIR-TO-GROUND TARGETS

1. General. The Inner Range consists of one multi-purpose target complex, the surrounding water areas and the airspace associated with the amphibious landing beaches and anchorages on the island of Vieques.

a. The Vieques complex consists of a Naval Surface Fire Support Range, an air-to-ground bull's eye target; a strafing range; a mock airfield and other limited tactical targets used for air-to-ground ordnance and Close Air Support (CAS) training; a mining range; an artillery range; a demolition range; and a small arms range.

b. Vieques is a hilly island located seven miles southeast of Roosevelt Roads. The island is approximately 18 miles long and four miles wide. The eastern section of Vieques has landing beaches, maneuver areas, and small arms and weapons ranges. Amphibious forces utilize the southern beaches and adjacent waters, and live air-to-ground, artillery, and naval gunfire exercises are conducted at the eastern tip of Vieques.

2. Vieques Naval Surface Fire Support Target Complex. The Vieques NSFS complex consists of the observation post on the crest of Cerro Matias and the impact area where the direct/point fire targets.

3. Vieques Air-to-Ground Target Complex

a. General. The Inner Range of AFWTF has an air-to-ground target complex located on the eastern tip of Vieques. The aircraft are controlled from an observation post located on top of Cerro Matias west of the target area.

(1) Target Location and Description

(a) Live Impact Area (LIA) and Close Air Support (CAS) Zone. Located on the eastern end of Vieques, the LIA and CAS zone terrain varies from beaches to hills and ridgelines up to 300 feet in height. Targets and impact areas have been constructed and installed on various types of terrain to provide optimum realism. The CAS targets consist of mock-ups of an airstrip, a fuel farm, a motor pool, an ammunition dump, SAM sites, and many smaller targets. All targets in the CAS zone are stationary.

(b) Strafe Target. The targets are scored by the EON Acoustic Scoring System.

UNDERWATER TRACKING RANGE

1. General. The Underwater Tracking Range, located in deep waters off the West Coast of St. Croix, is used for accurate three dimensional tracking of surface and underwater objects. The instrumental area of the range encompasses over 400 square nautical miles. Water depth varies from 200 fathoms nearest the St. Croix coast to over 2000 fathoms in the outer areas of the range. Operations are controlled from a shore complex located on the northwestern shore of St. Croix. During all operations, a military range safety officer from AFWTF is present. Shops for instrument maintenance, MK-30

target preparation, exercise torpedo preparation, and the range administrative office are located at the Roosevelt Roads complex. The Range also has Mod One Expendable Mobile Antisubmarine Training Target's (EMATT's). These targets can be tracked on the range providing post run or tracking range data to the customers.

2. Services Available. Single unit or coordinated multi-unit ASW exercises involving submarine, surface, or air units can be conducted on the range. The range provides precision-tracking data obtained via in-water three-dimensional and radar tracking systems. A take-home video taped product called Post Analysis Critique and Exercise Review (PACER) is made available to exercise units upon request. PACER provides a narrated digital-video presentation of a unit's tactical performance on the instrumental range and has proven itself a highly effective training device. A printed copy of plots from the exercise is also available. A diskette with the data, in ASCII format, is also provided with the printed copy.

ELECTRONIC WARFARE RANGE

1. General. The purpose of the Electronic Warfare Range (EWR) is to provide a realistic electronic environment for the combat readiness training of air, surface and submarine units and the evaluation of combat systems in development and operational testing.

a. The EWR consists of a system of EW devices located in Puerto Rico, its adjacent islands, U.S. Virgin Islands, and on organic aircraft and range support craft. All fixed sites are controlled from an EW Range Operations Center (EWROC) located in the AFWTF headquarters building at Roosevelt Roads. Primary elements are:

(1) Threat Radiation Simulator (TRS): Located at Pico Del Este, PR. The TRS is a computer-controlled system designed to radiate realistic EW scenarios with multiple emitters on one or more axis.

(2) Threat Platform Simulators (TPS): One located on Mt. Pirata on the western end of Vieques, PR and one on St. Georges Hill, St. Croix, USVI. The TPS's provide realistic single emitter or complex scenarios of air, surface or subsurface threats.

(3) Outboard Simulator (OBS): Located in the EWROC. OBS is designed to test the OUTBOARD system on USN ships by HF transmissions of Morse code (CW), radio teletype (RATT) and prerecorded voice.

(4) AN/ULQ-13 I-band Seagoing Radar Simulator (SRS): Installed on the 180-foot range craft Hugo. The system can be used to support OTH/T, shipboard drone launches, and other at-sea exercises.

(5) AN/UPQ-8 Triple Ground Threat Emitter (TGTE): Located in the Inner Range complex. Replicates land surface-to-air threats for aircraft operation on the Inner Range.

(6) AN/ALQ-167 Jammer/deception device: Airborne jammer carried aboard TA-4J aircraft at AFWTF.

(7) AN/AST-4 Radar Simulator Pod: Airborne Radar simulator carried aboard TA-4J aircraft or fitted to BQM-34S drone.

2. Operations. EWR operations can be conducted as stand-alone exercises or in conjunction with operations on any other AFWTF range. Exercises originated from land sites may be provided to ships in harbor at Roosevelt Roads or the Virgin Islands. EW scenarios or single radiations may be selected from an established library of radars and platforms or with sufficient lead-time or tailored programs may be created to meet specific training or test requirements.

FLEET AREA CONTROL AND SURVEILLANCE FACILITY

1. General. The Fleet Area Control and Surveillance Facility (FACSFAC) is a certified Air Traffic Control facility within AFWTF that is equipped and staffed to manage Special Use Airspace, OPAREAS, and other oceanic airspace in support of air, surface, and subsurface operations.

a. FACSFAC Caribbean is a certified Class VI Air Traffic Control facility (callsign SEAWITCH) which is responsible for:

(1) Providing enroute ATC services, including positive control of IFR aircraft arriving and departing the Puerto Rico Operating Area.

(2) Area containment services within assigned airspace and radar coverage.

(3) Radar surveillance services to participating military units, governmental contract aircraft and civil aircraft on a strictly not-to-interfere basis defined by letter of agreement with applicable FAA and military facilities.

(4) Assisting during search and rescue, and medical evacuation operations.

(5) Coordination and monitoring of surface and airborne units operating in and transiting to/from assigned OPAREAS.

b. FACSFAC Caribbean (SEAWITCH) is assigned airspace management responsibilities for over 35,000 square miles of Special Use Airspace (SUA) as follows:

(1) Northern Warning Areas:

(a) W-429 Surface to unlimited
(b) W-368 Surface to unlimited
(c) W-369 Surface to unlimited

(2) Vieques Range:

(a) R-7104 Surface to FL500
(b) W-428 Surface to FL500

(3) Southern Warning Areas:

(a) W-370 Surface to unlimited
(b) W-372 Surface to unlimited
(c) W-373 Surface to unlimited
(d) W-374 Surface to 6,000 ft
(e) W-375 Surface to 6,000 ft
(f) W-376 17,000 ft to FL210
(g) W-377 Surface to unlimited

(4) Controlled Firing Areas:

(a) OPAREA 6A Surface to 1,000 ft
(b) OPAREA 11 Surface to 1,000 ft

(5) Military Training Routes:

(a) IR-026
(b) IR-027

c. FACSFAC Caribbean is equipped with various ATC systems to facilitate the safe and efficient handling of air traffic. Primary elements are:

(1) Integrated Voice Communications Switching System (IVCSS). The IVCSS is a digital non-blocking 480 channel controlled Air Traffic Control communications switching network. It provides operators with access to multiple radiophone, interphone, and landline channels in any combination.

(2) Fleet Area Control and Surveillance Air Control Tracking System (FACTS). The FACTS is the Radar display system used by SEAWITCH. It displays radar inputs from four remote sites for complete coverage of all assigned SUA. The remote radar sites are as follows:

(a) Naval Station Roosevelt Roads ASR-8
(b) San Juan, PR ASR-8
(c) St. Thomas, VI ASR-8
(d) Pico Del Este FPS-67

(3) Flight Data Input/Output (FDIO). The FDIO provides the means to receive flight plan notification and clearances associated with the National Airspace System.

SUMMARY OF CY01

During CY01, AFWTF'S motto "Scheduled as Requested" was revalidated by the enormous training effort supported by AFWTF, VC-8, and the units operating in the Puerto Rico OPAREA. Vieques LIA/EMA opened up for five CVBG C2X/SACEX training exercises for NSFS FIREX I qualified. Fourteen U.S. surface units qualified NSFS I qualification. Two completed PCO operations with ninety-four of ninety-nine torpedoes successfully fired. Five VLA events fully completed. Six CEC events completed, four CSSQT operation and SAMSLX/AASLX fourteen of fifteen respectfully.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JANUARY 2001

1. Outer Range Operational Support:

a. The Outer Range was active eight days this reporting period. Operational services were provided to one U.S. air unit, six U.S. surface units and seven Foreign Military Service Units.

b. There were two days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. Eleven BQM-34E/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active six days this reporting period. Operational services were provided for four U.S. surface units, four U.S. air units and five Foreign Military Service Units.

b. A total of six MK-30 targets were launched in support of torpedo exercises.

c. A total of thirteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active six days this reporting period.

b. The TPS provided 19.0 hours of Electronic Warfare support.

c. The AN/FSQ-154 Outboard Stimulator (OBS) provided 00.0 hours of Training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The FACSFAC was active fourteen days this reporting period. FACSFAC support services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. FACSFAC provided services in support of 78 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 0 Other Military operations.

d. FACSFAC provided services in support of 10 Air Carrier operations.

e. FACSFAC provided services in support of 5 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported thirteen events.

b. The Torpedo Shop prepared twenty-one MK-46 EXTORPS and eleven MK-46 REXTORPS of which seven MK-46 REXTORPS were fired.

c. The MK-30 shop prepared five MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF FEBRUARY 2001

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to eighteen U.S. surface units, one U.S. air unit and nine Foreign Military Service Units.

b. There were nine days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. Thirty-two BQM-34E/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was not active for this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active five days this reporting period. Operational services were provided for three U.S. surface units and four U.S. air units.

b. A total of four MK-30 targets were launched in support of torpedo exercises.

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active twelve days this reporting period.

b. The TPS provided 8.0 hours of Electronic Warfare support.

c. The TRS provided 24.5 hours of Electronic Warfare support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 0.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active eighteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft and U.S. civilian aircraft.

b. FACSFAC provided services in support of 732 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 59 Other Military operations.

d. FACSFAC provided services in support of 78 Air Carrier operations.

e. FACSFAC provided services in support of 142 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twenty-eight events.

b. The Torpedo Shop prepared thirty-four MK-46 EXTORPS and twenty MK-46 REXTORPS of which five MK-46 REXTORP was fired.

c. The MK-30 shop prepared two MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MARCH 2001

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to five U.S. surface units and fourteen Foreign Military Service Units.

b. There was three days of scheduled SEPTAR use for a surface-to-surface exercise.

c. Eighteen BQM-34E/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

There were no events scheduled on the Inner Range this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active sixteen days this reporting period. Operational services were provided for ten U.S. surface units, three U.S. subsurface, two U.S. air units and two Foreign Military Service Units.

b. A total of eighteen MK-30 targets were launched in support of torpedo exercises.

4. Electronic Warfare Range Operational Support:

a. The EW Range was active eighteen days this reporting period.

b. The TRS provided 42.0 hours of Electronic Warfare support.

c. The TPS provided 9.0 hours of Electronic Warfare support..

5. FACSFAC Caribbean Air Traffic Control Facility:

a. FACSFAC was active nineteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. FACSFAC provided services in support of 457 Navy/Marine Corps operations.

c. FACSFAC provided services in support of 182 Other Military operations.

d. FACSFAC provided services in support of 36 Air Carrier operations.

e. FACSFAC provided services in support of 79 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twenty-seven events.

b. The Torpedo Shop prepared thirty-four MK-46 EXTORPS and seventeen MK-46 REXTORPS of which one MK-46 REXTORP was fired.

c. The MK-30 prepared twenty-three MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF APRIL 2001

1. Outer Range Operational Support:

a. The Outer Range was active nine days this reporting period. Operational services were provided to five U.S. surface unit and two U.S. air units.

b. There were three days of scheduled SEPTAR use for surface-to-surface and air-to-surface exercises.

c. A total of thirty-one BQM-74E/AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was not active this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active five days this reporting period. Operational services were provided to four U.S. surface units, one U.S. subsurface unit and four U.S. air units.

b. A total of eleven MK-30 targets were launched in support of torpedo exercises.

c. Twelve MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active fifteen days this reporting period.

b. The TPS provided 13.0 hours of Electronic Warfare support.

c. The TRS provided 19.5 hours of Electronic Warfare support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active nineteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 516 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 50 Other Military operations.

d. The ATC facility provided ATC services in support of 34 Air Carrier operations.

e. The ATC facility provided ATC services in support of 129 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twenty-eight events.

b. The Torpedo Shop prepared nineteen MK-46 EXTORPS and four MK-46 REXTORPS of which two MK-46 REXTORPS were fired.

c. The MK-30 shop prepared twelve MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF MAY 2001

1. Outer Range Operational Support:

a. The Outer Range was active one day this reporting period. Operational services were provided to two U.S. air units.

b. One day was scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. No BQM-74E/AQM-37C's were launched in support of surface-to-air or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was not active this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twelve days this reporting period. Operational services were provided to three U.S. surface units, four U.S. air units and three U.S. subsurface units.

b. A total of five MK-30 targets were launched in support of torpedo exercises.

c. Fourteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was not active this reporting period.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active thirteen days this reporting period. Air traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 305 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 0 other military operations.

d. The ATC facility provided ATC services in support of 11 Air Carrier operations.

e. The ATC facility provided ATC services in support of 4 General Aviation operations

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for fifteen events.

b. The Torpedo Shop prepared eighteen MK-46 EXTORPS.

c. The MK-30 shop prepared five MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JUNE 2001

1. Outer Range Operational Support:

a. The Outer Range was active six days this reporting period. Operational services were provided to ten U.S. surface units, two U.S. air units and one Foreign unit.

b. Six days were scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. Twenty-two BQM-74E/AQM-37C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active thirteen days this reporting period. Operational services were provided to four U.S. air units.

b. There were five hundred and four rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active eleven days this reporting period. Operational services were provided to seven U.S. surface units, three U.S. subsurface units and seven U.S. air units. Also supported SSRNM's for seven days.

b. A total of eleven MK-30 targets were launched in support of torpedo exercises.

c. A total of fourteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eight days this reporting period.

b. The TPS provided 0.0 hours of Electronic Warfare support.

c. The TRS provided 25.5 hours of Electronic Warfare support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-three days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 3,900 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 132 Other Military operations.

d. The ATC facility provided ATC services in support of 80 Air Carrier operations.

e. The ATC facility provided ATC services in support of 310 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for thirty-one events.

b. The Torpedo Shop prepared nineteen MK-46 EXTORPS.

c. The MK-30 shop prepared one MK-30 target.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF JULY 2001

1. Outer Range Operational Support:

a. The Outer Range was not active this reporting period.

b. No SEPTAR events were conducted.

c. No BQM-74E/AQM-34C's were launched in support of surface-to-air missile or air-to-air missile exercises.

2. Inner Range Operational Support:

The Inner Range was not operational during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active four days this reporting period. Operational services were provided to one U.S. air unit.

b. A total of three MK-30 targets were launched in support of torpedo exercises.

d. There were no MK-46's fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active for eight days during this reporting period.

b. The TPS provided 30.0 hours of Electronic Warfare support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twelve days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 26 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 0 Other Military operations.

d. The ATC facility provided ATC services in support of 5 Air Carrier operations.

e. The ATC facility provided ATC services in support of 1 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for eight events.

b. The Torpedo Shop prepared ten MK-46 EXTORPS and two MK-46 REXTORPS of which two MK-46 REXTORP was fired.

c. The MK-30 shop prepared three MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF AUGUST 2001

1. Outer Range Operational Support:

a. The Outer Range was active three days this reporting period. Operational services were provided to three U.S. surface units and one U.S. air unit.

b. Three days were scheduled for SEPTAR use in surface-to-surface and air-to-surface operations.

c. Seven BQM-74E/AQM-34C's were launched in support of surface-to-air, surface-to-air, air-to-air missile, and gunnery exercises.

2. Inner Range Operational Support:

a. The Inner Range was active six days this reporting period. Operational services were provided to seventeen U.S. surface units and one U.S. air unit.

b. There were one thousand three hundred and fifty-three rounds of heavy ordnance and five hundred rounds of light ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active seven days this reporting period. Operational services were provided to four U.S. surface units and three U.S. air units. Also supported four SSRNM's.

b. A total of six MK-30 targets were launched in support of torpedo exercises.

c. There were eleven MK-46's fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eleven days this reporting period.

b. The TPS provided 20.0 hours of Electronic Warfare Support.

c. The TRS provided 16.6 hours of Electronic Warfare Support.

d. The AN/FSQ-154 Outboard Stimulator (OBS) provided 26.0 hours of training to multiple surface and shore based units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active seventeen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 666 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 52 Other Military operations.

d. The ATC facility provided ATC services in support of 18 Air Carrier operations.

e. The ATC facility provided ATC services in support of 9 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section provided support for twelve events.

b. The Torpedo Shop prepared fifteen MK-46 EXTORPS, No MK-46 REXTORPS were prepared and No MK-46 REXTORPS were fired.

c. The MK-30 shop prepared five MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF SEPTEMBER 2001

1. Outer Range Operational Support:

a. The Outer Range was active one day this reporting period with operational services being provided to nine U.S. surface units.

b. Five SEPTAR events were conducted to support surface-to-surface exercises.

c. Ten BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active six days this reporting period. Operational services were provided to nine U.S. surface units and two U.S. air units.

b. There were nine hundred thirty rounds of heavy ordnance expended and five thousand five hundred and fifty light ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active ten days this reporting period. Operational services were provided to eight U.S. surface units, two U.S. subsurface units and seven Foreign Military Service Units.

b. Twelve MK-30 targets was launched in support of an ASW tracking exercise.

c. Sixteen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active thirteen days this reporting period.

b. The TPS provided 19.0 hours of Electronic Warfare Support.

b. The TRS provided 12.5 hours of Electronic Warfare Support.

c. The TGTE provided 28.0 hours of training to multiple U.S. air units.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active sixteen days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 2,836 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 6 Other Military operations.

d. The ATC facility provided ATC services in support of 47 Air Carrier operations.

e. The ATC facility provided ATC services in support of 117 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported thirty-three events.

b. The Torpedo Shop prepared seven MK-46 EXTORPS and twenty-five MK-46 REXTORPS. No MK-46 REXTORP were fired.

c. The MK-30 Shop prepared twelve MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF OCTOBER 2001

1. Outer Range Operational Support:

a. The Outer Range was active five days during this reporting period. Operational services were provided to five U.S. surface units and one U.S. air unit.

b. There were two days scheduled for SEPTAR events in support of surface-to-surface and air-to-surface operations.

c. Twelve BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

a. The Inner Range was active eleven days during this reporting period. Operational services were provided to four U.S. surface units and two U.S. air units.

b. There were five hundred eighty-nine rounds of heavy ordnance expended.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active twelve days this reporting period. Operational services were provided to five U.S. surface units, four U.S. subsurface units and five U.S. air units.

b. Nine MK-30 targets were launched in support of ASW tracking exercises.

c. A total of three MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active eleven days this reporting period.

b. The TPS provided 4.8.0 hours of Electronic Warfare.

c. The TRS provided 13.5.0 hours of Electronic Warfare.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twenty-six days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 2,666 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 58 Other Military operations.

d. The ATC facility provided ATC services in support of 61 Air Carrier operations.

e. The ATC facility provided ATC services in support of 230 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported thirty-four events.

b. The Torpedo Shop prepared twenty-six MK-46 EXTORP and four MK-46 REXTORPS and six MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared thirteen MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF NOVEMBER 2001

1. Outer Range Operational Support:

a. The Outer Range was active two days this reporting period. Operational services were provided to one U.S. surface unit.

b. Four days of SEPTAR events were scheduled in support of surface-to-surface operations.

c. Seven BQM-34E's/AQM-37C's were launched in support of surface-to-air and surface-to-surface missile exercises.

2. Inner Range Operational Support:

The Inner Range was not active during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active thirteen days this reporting period. Operational services were provided to four U.S. surface units, three U.S. air units, and two U.S. subsurface units.

b. Two MK-30 targets were launched in support of ASW tracking exercises.

c. A total of seventeen MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active seventeen days this reporting period.

b. The TPS provided 68.0 hours of Electronic Warfare Support.

c. The TRS provided 22.0 hours of Electronic Warfare Support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twelve days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 44 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 46 Other Military operations.

d. The ATC facility provided ATC services in support of 6 Air Carrier operations.

e. The ATC facility provided ATC services in support of 9 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering successfully supported twenty-four events.

b. The Torpedo Shop prepared two MK-46 EXTORPS and four MK-46 REXTORPS and two MK-46 REXTORPS were fired.

c. The MK-30 Shop prepared three MK-30 targets.

AFWTF/RANGE UTILIZATION CHRONOLOGY
FOR THE MONTH OF DECEMBER 2001

1. Outer Range Operational Support:

a. The Outer Range was Not active this reporting period.

2. Inner Range Operational Support:

a. The Inner Range was Not active during this reporting period.

3. Underwater Tracking Range Operational Support:

a. The Underwater Tracking Range was active two days this reporting period. Operational services were provided to one U.S. air unit.

b. Two MK-30 targets were launched in support of ASW tracking exercises

c. NO MK-46's were fired on the Underwater Tracking Range (UTR).

4. Electronic Warfare Range Operational Support:

a. The Electronic Warfare Range was active two days during this reporting period.

b. The TPS provided 4.0 hours of Electronic Warfare Support.

c. The TRS provided 8.0 hours of Electronic Warfare Support.

5. FACSFAC Caribbean Air Traffic Control Facility:

a. The ATC Facility was active twelve days this reporting period. Air Traffic Control services were provided to U.S. military aircraft, U.S. civilian aircraft, and foreign aircraft.

b. The ATC facility provided ATC services in support of 13 Navy/Marine Corps operations.

c. The ATC facility provided ATC services in support of 0 Other Military operations.

d. The ATC facility provided ATC services in support of 4 Air Carrier operations.

e. The ATC facility provided ATC services in support of 1 General Aviation operations.

6. Operational Support and Significant Achievements:

a. The Marine Ocean Engineering section successfully supported four events.

b. The Torpedo Shop prepared five MK-46 EXTORP and four MK-46 REXTORPS during this reporting period. One MK-46 REXTORP was fired.

c. The MK-30 Shop prepared five MK-30 targets.

GLOSSARY OF TERMS

AAM	- Air to Air Missile Exercise
AGO	- Air to Ground Ordnance
ARV	- Armada Republica de Venequela - Venezuela Navy Ship
ASO	- Air to Surface Ordnance
BRZ	- Brazilian Navy Ship
CSNFL	- Commander, Standing Naval Forces Atlantic
DRMO	- Defense Reutilization and Marketing Office
FEWSG	- Fleet Electronic Warfare Support Group
FRG	- Federal Republic of Germany
HNLMS	- His/Her Netherlands Majesty's Ship
ISTT	- Improved Surface Towed Target
MEU	- Marine Expeditionary Unit
MEF	- Marine Expeditionary Force
MK-30	- Mobile Target
MK-46/48	- Torpedo
NGFS	- Naval Gunfire Support
NJS	- Noise Jammer Simulator
OTH	- Over The Horizon
PACER	- Post Analysis Critique and Exercise Review
PCO	- Prospective Commanding Officer
PMTC	- Pacific Missile Test Center
PRANG	- Puerto Rico Air National Guard
QST-35	- SEPTAR
ROC	- Range Operations Center
SAM	- Surface To Air Missile
SATS	- Systems Accuracy Trials
SEPTAR	- Seaborne Powered Target
SPMASTF	- Special Purpose Marine Air Ground Task Force
SSG	- Surface to Surface Gunnery
SSRNM	- Surface Ship Radiated Noise Measurement
TCTT	- Type Commander's Type Training
TDU	- Towed Drone Unit
TPS	- Threat Platform Simulator
TRB	- Torpedo Recovery Boat
TRS	- Threat Radiation Simulator
WSAT	- Weapons System Accuracy Trials