Appendix C

SOW 6643-A-0398

E-2C HAWKEYE 2000 ENHANCED DISTRIBUTED READINESS TRAINER (EDRT)
Device 15F16 Serial Number 004

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Appendix C

SOW 6643-A-0398

TRAINER DESCRIPTION FOR DEVICE 15F16 S/N 4,
E-2C HAWKEYE 2000 ENHANCED DISTRIBUTED READINESS TRAINER (EDRT)
LOCATED AT
NAF ATSUGI, JAPAN

1.1 TRAINER DESCRIPTION

1.1.1 Function and General Description. The EDRT was built by Manned Flight Simulator (MFS) at NAS Patuxent River, Maryland. The EDRT is a portable Part Task Trainer (PTT) for the Combat Information Center (CIC) in the E-2C Hawkeye 2000 (HE2K). It provides the aircrew with the capability to train within a simulated environment using the software interface that would be used during an actual mission. The system can be configured in either a “standalone” mode for customizable crew training or “exercise” mode for participation in virtual exercises.

The EDRT consists of one equipment rack, three (3) crew stations and one (1) instructor control station comprised of nine (9) commercial-off-the-shelf (COTS) computer workstations connected together through Transmission Control Protocol / Internet Protocol (TCP/IP) networks. The system utilizes dual-homed hosts, with IP forwarding turned-off, and a Cisco Catalyst 3560G Ethernet switch to act as a firewall between the EDRT and other information technology (IT) platforms/integrated system (IS) based simulators.

The EDRT includes the E-2C Mission Computer Operational Flight Program (MC-OFP), Advanced Control Indicator Set-Operational Flight Program (ACIS-OFP), Blue Ridge Radar Simulation (BRRS), Joint Live Virtual Constructive Data Translator (JLVCDT), and the Weapons System Trainer (WST) software (simulated AVECS): APS-145 Radar Tracker, Identification Friend or Foe (IFF) System, and the Link-16 Joint Tactical Information Distribution System (JTIDS). The WST software was developed by Rockwell Collins and modified by Manned Flight Simulator (MFS).

The EDRT system also includes the ASTI Digital Audio Communications System (DACS). The ASTI DACS is a Digital Signal Processor (DSP) based system that provides radio communication simulation in a Distributed Interactive Simulation (DIS) environment. The system includes a Windows personal computer (PC) that supports the System Control Interface (SCI) for the main instructor to configure, start, and stop the simulator. The SCI also displays and permits control of simulated radios. A separate PC provides a Joint Semi-Automated Force (JSAF) to provide the Own-ship and to generate entities in stand-alone mode.

1.1.2 Trainee Area. The trainee area contains a simulated Combat Information Center (CIC) console that provides the appearance of a limited functioning CIC. The console contains three (3) aircrew member stations (ACO, CICO, and RO).
Each station contains the following major equipment components.

- 20-inch liquid crystal diode (LCD) monitor
- 19-inch Touch Screen monitor
- Bullnose

- Aviation headset
- Foot switches

1.1.3 Master Instructor System Control Interface (SCI). The EDRT Master SCI provides simulated radio communications to the Master Instructor as well as controls for configuring, starting and monitoring the EDRT and is composed of the following major equipment components

- (2) 20-inch LCD monitors
- 19-inch Touch Screen monitor
- Keyboard
- Aviation headset
- Foot switches
- Mouse
- ICS select box—used to select which student the instructor is monitoring

1.1.4 Maintenance Station. The EDRT Maintenance Station provides Keyboard Video Mouse (KVM) access to the system Personal Computers (PCs) and is composed of the following major equipment components:

- 20-inch LCD monitor
- Keyboard
- Mouse

1.1.5 Electronics Equipment Rack. The electronic circuit component parts that make up the trainer are housed within the electronics rack/cabinet and are composed of the following items:

- Rack fans
- ACIS computers
- Radar computer
- Host computer
- Mission computer
- JSAF computer
- ASTI computer
- Communications computer
- Uninterruptible power supplies
- Terminal block
- KVM switch
- Video Matrix Switch
- Ethernet switch
- (2) Power outlet strips
- Patch panel
- Equipment tray

1.1.6 Physical Location. The EDRT is located at NAF Atsugi, Japan, Hangar 183N.

1.1.7 System Power. All systems are supplied conditioned power from the three (3) Uninterrupted Power Supplies (UPS) contained in the equipment rack. If power is lost to the facility, under a full load the three (3) UPSs will supply power to the trainer for approximately (fifteen) 15 minutes, providing enough time to shut the system down correctly.

2.1 Illustrations. Available at training site.

3.1 Mission Essential Subsystem Matrix (MESM). N/A.

4.1 Maintenance Support Approach:

DEVICE: 15F16 EDRT S/N 0004
LOCATION: NAF Atsugi, Japan

NOTE:

1) The 15F16 has no recurring maintenance requirement. The users will perform all power on/off and operational activities. In the event of a training device failure or other Government identified need that may require COMS contractor services, the COR will initiate an Over & Above Work Request (OAWR) to document the need. The Government will make a determination on funding availability and a tasking description for the COMS Contractor. The standard contract OAWR processes will apply.

5.1 Aircraft Common Equipment (ACE). N/A

5.1.1 Trainer Support Package (TSP). N/A

6.1 Partial Mission Capability (PMC) Standard. N/A.