NAVAIR 01-85ADF-1F

NATOPS FUNCTIONAL CHECKFLIGHT CHECKLIST

NAVY MODEL
A-6E TRAM/KA-6D
AIRCRAFT

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LIST OF EFFECTIVE PAGES

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 16 CONSISTING OF THE FOLLOWING:

Page No.	*Issue*
Title	Original
A	Original
1 – 13	Original
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INTERIM CHANGE SUMMARY

The following Interim Changes have been canceled or previously incorporated in this manual.

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE
1	Engine Performance Changes
2	Revised Max Power RPM Tolerance

The following Interim Changes have been incorporated in this Change/Revision

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE
3	Revise Full Power Max EGT

Interim Changes Outstanding. To be maintained by the custodian of this manual

INTERIM CHANGE NUMBER	ORIGINATOR/DATE (or DATE/TIME GROUP)	PAGES AFFECTED	REMARKS/PURPOSE

FUNCTIONAL CHECKFLIGHT CHECKLIST

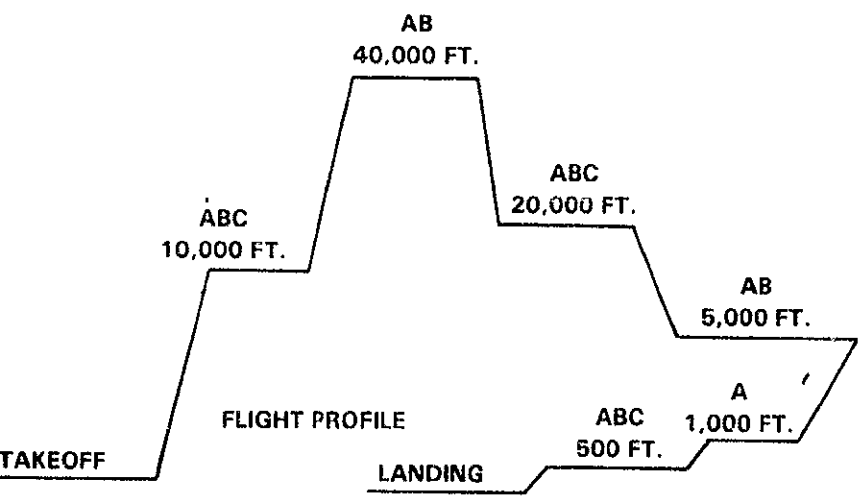
NAVY MODEL
A-6E TRAM/KA-6D
AIRCRAFT

AIRCRAFT SERIAL NUMBER _____

Check Pilot Signature Date of Flight

_____

Record time, temperature or pressure where indicated by a line _____.
Where a box ☐ is shown, use a ☑ for satisfactory or an ☒ for unsatisfactory.



Perform applicable flight profile and associated checks in accordance with the following checkflight conditions:

A. At the completion of aircraft rework and all acceptances. Minimum checks are required by letter A.

B. After the installation of an engine or engine fuel control, or any components which cannot be checked in ground operation. Minimum checks reuqired are prefixed by letter B.

C. When fixed or movable flight surfaces or flight control system components have been installed, reinstalled, adjusted or rerigged and improper adjustment or replacement of such components could cause an unsafe operating condition. Minimum checks required are prefixed by letter C.

Encoder check (is) (is not) required.

NOTE:

1. Do not velocity-correct, encoder-check, present-position-update, or check Doppler until after a thorough check of INS NAV accuracy.
2. Monitor INS alt. during all climbs and descents.
3. Check INS NAV error every 20 min. using the following method. (4 NM-1 hr., 10 NM (2-hr.))
   a. Enter coordinates of a well-defined checkpoint in any TGT KEY.
   b. Select steering mode used in step a.
   c. Select OP TGT.
   d. Go to expanded display and position cursors on checkpoint.
   e. Record coordinates in on-call window and elapsed time since going to operate.
   f. NAV error is difference between coordinates in on-call window and those typed in TGT KEY selected.

4. Check OMEGA NAV error.

ENTERED COORD.		CORRECTED COORD.		TIME
LAT	LONG	LAT	LONG	

PROFILE

PRESTART

ABC 1. Air Start Igniters . . . . . ☐

PRETAKEOFF

TAXI CHECKS

Before Taxi

AB 2. Transfer Relay, Left Generator Phase and CSD/S Battery Relay
- a. R GEN sw . . . . . .OFF . . . . . ☐
- b. L GEN load . . . . . ☐
- c. VGI and Seat Adjust . . . . . ☐
- d. L GEN sw . . . . . .OFF . . . . . ☐
- e. L GEN sw . . . . . .ON . . . . . ☐
- f. L GEN load . . . . . ☐
- g. R GEN sw . . . . . .ON . . . . . ☐
  (caution light out)

A C 3. Wing-Fold System . . . . . .Spread 20 sec . . . . . ☐

A C 4. Flight Controls
- a. Flaperons . . . . . ☐
- b. Horizontal Stabilizer . . . . . ☐
- c. Rudder . . . . . ☐
- d. Assist-Spin . . . . . ☐
- e. Wing Flaps/Slats
  - Flaps . . . . . .9 to 11 sec . . . . . ☐
  - Slats . . . . . .8 to 10 sec . . . . . ☐
- f. Wing Flap/Slat Ind . . . . . ☐
- g. Flap/Slat Emerg Operation . . . . . ☐
- h. Speed Brakes . . . . . ☐

A C 5. AFCS . . . . . ☐

PROFILE		
AB	6. Air Conditioning	
	a. Temp/Airflow	☐
	b. Equip Cooling	☐
	c. Defog	☐
AB	7. Vent Suit/Cushion Airflow	☐
AB	8. Anti-g	☐
AB	9. Windshield Wash	☐
AB	10. Rain Removal	☐
AB	11. Lighting System	☐
A	12. Oxygen System	☐
A	13. CNI Equipment	
	a. ICS	☐
	b. UHF No. 1 and UHF No. 2	☐
	c. NAV Beacon Sidetone (KA-6D)	☐
	d. TACAN	☐
	e. Bomb Tone	☐
	f. ECM Warning Tone	☐
	g. IFF/SIF	☐
A	14. ADI	
	a. Contrast/Brightness	☐
	b. Impact Point (A-6E TRAM)	☐
	c. Target Symbol (A-6E TRAM)	☐
	d. Steering Symbol (A-6E TRAM)	☐
	e. Pullup Marker (A-6E TRAM)	☐
	f. Release Marker (A-6E TRAM)	☐
	g. Flight Path (A-6E TRAM)	☐
	h. Horizon	☐
	i. −30° Pitch Line	☐
	j. +30° Pitch Line	☐
	k. +60° Pitch Line	☐
	l. +90° Pitch Line	☐
	m. Ground Texture	☐

PROFILE

14. (CONT)
    - n. Electronic Roll Marker . . . . . ☐
    - o. Pitch Trim Markers. . . . . ☐
    - p. Command Heading Lines . . . . . ☐
    - q. Roll Index . . . . . ☐
    - r. KA-6D: MA-1 . . . . . ☐

A 15. KA-6D: VGI & ADI . . . . . ☐☐

A 16. SRTC Presentation . . . . . ☐

A 17. KA-6D: Int In-Flight Refuel . . . . . ☐

A 18. A-6E TRAM: Command Steering Bug on HSI . . . . . ☐

A 19. Optical Sight
    - a. Manual Mode
        - (1) Accuracy . . . . . ☐
        - (2) Controls . . . . . ☐
        - (3) Test . . . . . ☐
        - (4) Elevation Thumbwheel. . . . . ☐
        - (5) Parallax . . . . . ☐
    - b. Auto Mode
        - (1) Reticle on Radar Target . . . . . ☐
        - (2) COP Check — 3 Mils . . . . . ☐
        - (3) DRS FLIR — 3 Mils . . . . . ☐

A 20. Search Radar/Computer Turn-On and BIT Checks. . . . . ☐
(A-6E TRAM)

During Taxi

A 21. Brakes. . . . . ☐

A 22. Nosewheel Steering . . . . . ☐

A 23. Antiskid. . . . . ☐

A 24. Aux Brakes . . . . . ☐

PROFILE

A	25.	INS		
		a. Alt Holds Steady	+32 ft	☐
		b. Velocity when A/C Stops	0 to 3 kt	☐
		c. Heading		☐
		Velocity		☐
		Altitude		☐
A	26.	Doppler Radar		
		Groundspeed	121 ± 5 kt	☐
		Drift	0° ± 2°	☐
A	27.	Search Radar (A-6E TRAM)		
		a. ANT. PATT		☐
		b. MAG. FREQ.		☐
		c. MAG. CUR		☐
		d. XTAL CUR		
		Coarse Tuned		☐
		Stable and Locked After PRC Changed with AFC		☐
		e. AZ STAB.		☐
		f. XMIT/SIL.		☐
		Video Loss in SIL		☐
		g. Video Uniform Focus		☐
		h. DIFF GAIN		☐
		i. STC SLOPE/DEPTH		☐
		j. PPI Display		☐
		k. PPI-150 Range Marker	25, 50, 75, 100 125 NMI	☐
		Sweep Length	140 to 160 NMI	☐
		l. PPI-75 Range Marker	25 and 50 NMI	☐
		Sweep Length	70 to 80 NMI	☐
		m. Rudder Range	75 to 5 NMI	☐
		n. Expanded Displays		
		ARE-60 Auto Switching		☐
		ARE-30 Auto Switching		☐
		o. DVRI Indicator Lights		☐
		p. DVRI Bug	Dead Ahead ± 1/2°	☐
			Agrees with Electronic AZ Cursor ± 2°	☐
		q. RCVR SENS		☐

PROFILE

A — 28. Computer
UNSTAB (A-6E TRAM) . . . . . ☐

A — 29. Communications, Navigation, Identification Equipment
a. ICS — All Modes . . . . . ☐
b. Bomb Tone . . . . . ☐

A — 30. ECM Test . . . . . ☐

IN-FLIGHT

TAKEOFF CHECKS

Before Takeoff

A — 31. Compass System (A-6E TRAM)
a. STBY . . . . . ±5° . . . . . ☐
b. MA-1 . . . . . ±2° . . . . . ☐

ABC — 32. Complete Before Takeoff Checklist . . . . . ☐

AB — 33. Throttle Stagger – Stagger at 90%
MAX PWR Mismatch . . . . . Max 1/2 in. . . . . ☐

AB — 34. Engine Performance
a. RPM . . . . . 94 to 101.1% . . . . ☐☐
b. EGT . . . . . 605° to 677°C . . . ☐☐
c. Fuel Flow . . . . . 6,200 to 8,500 pph . . . . . ☐☐
d. Oil Press . . . . . 40 to 50 psi . . . . . ☐☐
e. Hyd Press . . . . . (In Band) . . . . . ☐☐

Note

EGT must stabilize at or below 650°C within 8 minutes following initiation of acceleration.

After Takeoff

AB — 35. Monitor Engines — RPM and EGT . . . . . ☐

PROFILE

A	36. Barometric Altimeter (STBY and RESET)	
	0 to 500 Feet . . . . . ±50 ft	☐
	500 to 1,000 Feet . . . . . ±75 ft	☐
	1,000 to 5,000 Feet . . . . . ±150 ft	☐
A C	37. Gear, Flaps, Slats, Stabilizer	
	Retraction	☐
	Lights and Indicators	☐
	10,000-FT CHECKS (LEVEL CRUISE)	
A	38. Flight Indicators	
	a. AOA (Clean) . . . . . .9.5 to 10 units/ 350 kt	☐
	b. Mach/Airspeed . . . . . .0.63 IMN/340 to 360 KIAS	☐
	c. Vertical Speed . . . . . (Include VDI display if so equipped)	☐
	d. Turn/Slip Needle Width . . . .360°/4 min.	☐
	e. g-Meter (B-6) Accel . . . . . ±10%	☐
	f. HSI	☐
A	39. IFF/SIF — All Modes	☐
AB	40. Pressurization . . . . . .8,000 ± 750 ft	☐
AB	41. Air Conditioning (Auto/Manual)	☐
A	42. Computer	
	a. Steering Pressurization	☐
	b. A-6E TRAM: (Computer operates with turret)	☐
	c. KA-6D: OMEGA NAV STEERING	☐
A	43. Search Radar (A-6E TRAM) — All Displays	☐

PROFILE

A	C	
		44. Control Trim Check a. Trim for level flight with AFCS off. Engage STAB AUG and check for undesirable transients. Ball widths off — 3/4 max 250 Kt . . . . . _____ 300 Kt . . . . . _____ 350 Kt . . . . . _____ 400 Kt . . . . . _____ 450 Kt . . . . . _____ b. Max Lateral Stick Force Wings Level . . . . . .3 pounds max . . . . . ☐ c. Trim checked (between 300 and 350 KIAS) . . . . . ☐ Note The DRS must be stowed for this check to prevent lateral/directional trim errors.
		40,000 FOOT CHECKS (LEVEL CRUISE)
AB		45. Pressurization . . . . . .15,850 to 17,690 ft . . . . . ☐
AB		46. Defog . . . . . ☐
AB		47. Engine a. Full power: (1) RPM. . . . . .94% to 98% _____ (2) EGT . . . . . .677 °C maximum _____ (3) Fuel Flow . . . . . .2,200 to 2,900 pph _____ b. Low power: (1) RPM. . . . . .75% (2) EGT . . . . . _____ (3) Fuel Flow. . . . . _____ Note EGT must stabilize at or below 650 °C within 8 minutes following initiation of acceleration.
A		48. Mach/Airspeed . . . . . .0.70 IMN/200 to 210 KIAS . . . . . ☐

PROFILE

A	49. Search Radar Maximum Range (A-6E TRAM)	_____
	20,000-FOOT CHECKS (LEVEL CRUISE)	
A	50. TACAN	☐
A C	51. AFCS	
	a. Stab Aug (300 KIAS)	☐
	b. Roll Attitude Hold . . . . . ± 1°	☐
	c. Pitch Attitude Hold . . . . . ± 1°	☐
	d. Heading Hold . . . . . ± 1/2°	☐
	e. Altitude Hold . . . . . ± 45 ft	☐
	f. Mach Hold . . . . . ± 0.02 mach	☐
	g. Roll Command	☐
	h. ACLS	☐
A	52. Mach Airspeed . . . . . 0.54 IMN/245 to 255 KIAS	☐
AB	53. Anti-g	☐
A	54. Search Radar (A-6E TRAM)	
	a. Search Radar	☐
	b. RNG	☐
A	55. Fuel System	
	a. Fuel Quantity Gauge	☐
	b. Transfer	☐
	c. Fuel Dump	☐
A	56. Complete ARA-63 and ASW-25 BIT checks. (If installed, include check of ADI cross pointer display.)	

PROFILE

5,000-FOOT CHECKS (LEVEL CRUISE)

A — 57. KA-6D: Int In-Flight Refuel System . . . . . ☐

A — 58. AOA . . . . . ☐
(Include ADI display if so equipped)

A — 59. Computer

- a. Attacks + COP . . . . . ☐
- b. Bomb Tone . . . . . ☐
- c. PPI Displays . . . . . ☐
- d. Expanded Displays . . . . . ☐
- e. Lock-Ons . . . . . ☐
- f. Data Replacement . . . . . ☐

A — 60. AMTI
- Max Range . . . . . ☐
- Tracking . . . . . ☐

AB — 61. A-6E TRAM: DRS
- a. FLIR . . . . . ☐
- b. Turret . . . . . ☐
- c. Laser and Laser Receiver (as applicable) . . . . . ☐

AB — 62. Approach Power Compensator
- a. System Engagement . . . . . ☐
- b. System Disengage . . . . . ☐
- c. Override Check . . . . . ☐
- d. Off Speed Engagement . . . . . ☐
- e. Limit Checks . . . . . ☐
- f. Approach . . . . . ☐

PROFILE

1,000-FOOT AGL CHECK

A 63. SRTC
- a. Analog RDC ..... ☐
  - (1) Ten Shades Grey ..... ☐
  - (2) Ten Range Contours ..... ☐
  - (3) Clearance Accuracy ..... ☐
  - (4) Selectable Range Coding (bins 3 through 6) ..... ☐
  - (5) Radar Altimeter Curtain Present ..... ☐
- b. Digital RDC ..... ☐
  - (1) Eight Shades of Grey ..... ☐
  - (2) Eight Range Contours ..... ☐
  - (3) Clearance Accuracy ..... ☐
  - (4) Selectable Range Coding (bins 3 through 6) ..... ☐
  - (5) Radar Altimeter Curtain Present ..... ☐
  - (6) TAD Symbols Present ..... ☐

A 64. INS
- a. INS VEL ..... ☐
- b. MVC VEL ..... ☐
- c. AVC VEL ..... ☐
- d. DOPPLER VEL ..... ☐

A 65. Present Position Update ..... ☐

A 66. Landing Mode
- a. Steering ..... ☐
- b. OAP ..... ☐

500-FOOT AGL CHECK

A 67. AAU-19 Altimeter and Radar Altimeter ..... ☐

PROFILE		
A	68. LAWS	☐
ABC	69. AOA: At 20 to 24 units check accuracy (ADI vs AOA indicator)	☐
A	70. During ACLS/ILS check accuracy of ADI cross pointers vs VGI	☐
A	71. Combined Hydraulic Isolation Valve	☐
	LANDING	
	LANDING CHECKS	
A C	72. Landing Gear	
	a. Warning Lights	☐
	b. Position Indicator	☐
	c. Arresting Gear	☐
	d. Flaperon Pop-Up	☐
	e. Wing Flaps and Slats	☐
	f. Wing Tip Speed Brakes	☐
	g. Antiskid	☐
	h. RAT	☐