

A1-AV8BB-NFM-700

**NATOPS
FUNCTIONAL
CHECKFLIGHT
CHECKLIST
NAVY MODEL
AV-8B/TAV-8B
161573 AND UP
AIRCRAFT**

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A1-AV8BB-NFM-700

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LIST OF EFFECTIVE PAGES

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

PAGE NO.	ISSUE
Title	0
A	0
1 thru 28	0

INTERIM CHANGE SUMMARY

*The following Interim Changes have been cancelled
or previously incorporated into this manual.*

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE

*The following Interim Changes have been incorporated into
this Change/Revision.*

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE

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

INTERIM CHANGE NUMBER(S)	ORIGINATOR/DATE (or DATE/TIME GROUP)	PAGES AFFECTED	REMARKS/ PURPOSE
1	102006Z DEC 2007	6, 7	Emergency DC wiring AFC-481

P 102006Z DEC 07
 FM COMNAVAIRSYS COM PATUXENT RIVER MD//4.0P//
 TO ALL HARRIER AIRCRAFT ACTIVITIES
 COMNAVAIRFOR SAN DIEGO CA//N421A//
 AIRTEVRON THREE ONE CHINA LAKE CA//51J000D/51J00MD//
 COMFLOAN MARISTAT
 INFO COMNAVSAFECEN NORFOLK VA//11//
 COMNAVAIRSYS COM PATUXENT RIVER MD//4.0P/4.1/5.0F/4.6.3.3//
 VMAT TWO ZERO THREE//CO/OPSO/NATOPS/MO//
 NAVAIRDEPOT CHERRY PT NC//AV8FST//
 PEOTACAIR PATUXENT RIVER MD//PMA-257/PMA-257SP/PMA-257IT//
 AJEMA//NINTHSQUADRON//
 GRUPAER GROTTAGLIE COMMARFORCOM//ALD/G-6/DSS//
 COMMAFORPAC//ALD/G-6/DSS//
 CG FIRST MAW//ALD/G-6/DSS//
 CG SECOND MAW//ALD/G-6/DSS//
 CG THIRD MAW//ALD/G-6/DSS//
 MAG TWELVE//CO/OPSO/MO/DSS//
 MAG THIRTEEN//CO/OPSO/MO/DSS//
 MAG FOURTEEN//CO/OPSO/MO/DSS//
 VMA 211//CO/OPSO/MO/DSS//
 VMA 214//CO/OPSO/MO/DSS//
 VMA 223//CO/OPSO/MO/DSS//
 VMA 231//CO/OPSO/MO/DSS//
 VMA 311//CO/OPSO/MO/DSS//
 VMA 513//CO/OPSO/MO/DSS//
 VMA 542//CO/OPSO/MO/DSS//
 MSGID/GENADMIN,USMTF,2007/COMNAVAIRSYS COM/4.0P//
 SUBJ/AV-8B AIRCRAFT PRELIMINARY NATOPS PUBLICATIONS INTERIM CHANGE
 /SAFETY OF FLIGHT//
 REF/A/MSGID:EML/COMMARFORCOM/27NOV2007//
 REF/B/MSGID:DOC/NAVAIR/30OCT2007//
 REF/C/MSGID:DOC/NAVAIR/01SEP2006//
 REF/D/MSGID:DOC/NAVAIR/01SEP2006//
 REF/E/MSGID:DOC/NAVAIR/01SEP2006//
 NARR/REF (A) IS COG CONCURRENCE. REF (B) IS AIRS 2007-235. REF (C) IS
 AV-8B A1-AV8BB-NFM-000 NATOPS FLIGHT MANUAL DTD 01 SEP 2006 WITH CH 1
 DTD 23 APR 2007. REF (D) IS AV-8B A1-AV8BB-NFM-500 NATOPS POCKET
 CHECKLIST DTD 01 SEP 2006. REF (E) IS AV-8B A1-AV8BB-NFM-700 NATOPS
 FUNCTIONAL CHECKFLIGHT CHECK LIST DTD 01 SEP 2006.//
 GENTEXT/REMARKS/1. THIS MESSAGE IS ISSUED IN RESPONSE TO REFS (A) AND
 (B). THIS MESSAGE ISSUES INTERIM CHANGE (IC) NUMBER 36 TO REF (C), IC
 NUMBER 21 TO REF (D), AND IC NUMBER 1 TO REF (E).
 2. SUMMARY.
 A. THIS MESSAGE:
 (1) ADDS NEW EMERGENCY 28 V DC BUS PROCEDURES TO REFS (C),
 (D), AND (E).
 (2) REVISES IMMEDIATE ACTIONS FOR EMERGENCY 28V DC BUS FAILURE
 PROCEDURES IN REFS (C) AND (D).
 B. REPLACEMENT PAGES CONTAINING THESE CHANGES FOR DOWNLOADING
 AND INSERTION INTO REFS (C), (D) AND (E) WILL BE ATTACHED TO
 THIS INTERIM CHANGE MESSAGE WHEN IT IS POSTED ON THE NATEC AND
 AIRWORTHINESS WEBSITES (SEE LAST PARA BELOW).
 3. THE REPLACEMENT PAGES IMPACT THE FOLLOWING NATOPS FLIGHT MANUAL.
 THE REPLACEMENT PAGE PACKAGE INCLUDES THE FOLLOWING PAGES:
 A. REF (C) (AV-8B NFM-000) PAGES 5/(6 BLANK), 2-31, 2-32, 7-17,

7-18, 10-5, 10-6, 13-1, 13-2, 15-17 THRU 15-26, 18-1, 18-2, 18-5, 18-6, F0-7 AND F0-8.

(1) PEN AND INK CHANGES ARE AUTHORIZED TO EXISTING FO-7 AND F0-8 IF UNABLE TO PRINT OUT PROPERLY DUE TO PAGE LENGTH.

B. REF (D) (AV-8B NFM-500) PAGES B, C, 19, 20, E1, E2, E35 THRU E38.

C. REF (E) (AV-8B NFM-700) PAGES COVER, A, 6 AND 7.

4. POINTS OF CONTACT:

A. AV-8B NATOPS PROGRAM MANAGER:

(1) MAJ FREEDOM CARLSON, VMAT-203, (252) 466-2638, DSN 582-2638, E-MAIL FREEDOM.CARLSON(AT)USMC.MIL

B. NAVAIR POCs:

- (1) MARTY SCANLON, NATOPS IC COORDINATOR, TEL DSN 757-6045 OR COMM (301) 757-6045, EMAIL: MARTIN.SCANLON(AT)NAVY.MIL
- (2) MAJ JAMES COPPERSMITH, PMA-257 APMSE, (301) 757-5446, DSN 757-5446, E-MAIL JAMES.COPPERSMITH(AT)NAVY.MIL
- (3) KRISTIN SWIFT, AIR-4.0P, NATOPS CHIEF ENGINEER, (301) 995-4193, DSN 995-4193, E-MAIL KRISTIN.SWIFT(AT)NAVY.MIL.
- (4) AIRWORTHINESS GLOBAL CUSTOMER SUPPORT TEAM, TEL: 301-757-0187, EMAIL: AIRWORTHINESS(AT)NAVY.MIL.

5. THIS MESSAGE WILL BE POSTED ON THE NATEC WEBSITE, WWW NATEC.MIL WITHIN 48 HOURS OF RELEASE. NEW NATOPS IC MESSAGES MAY BE FOUND IN TWO PLACES ON THIS WEBSITE:

A. IN THE NATOPS IC DATABASE FOUND UNDER THE TMAPS OPTION.

B. IN THE AFFECTED PUBLICATION(S) JUST AFTER THE IC SUMMARY PAGE. IF THE IC MESSAGE INCLUDES REPLACEMENT PAGES, THEY WILL BE ADDITIONALLY PLACED WITHIN THE MANUAL AND REPLACED PAGES DELETED. MESSAGES ARE NORMALLY POSTED IN THE DATABASE BEFORE APPEARING IN THE PUBLICATION. THIS MESSAGE WILL ALSO BE POSTED ON THE NATOPS WEBSITE, AIRWORTHINESS.NAVAIR.NAVY.MIL. IF UNABLE TO VIEW THIS MESSAGE ON EITHER THE NATEC OR NATOPS WEBSITES, INFORM THE NATOPS GLOBAL CUSTOMER SUPPORT TEAM AT (301) 342-3276, DSN 342-3276, OR BY EMAIL AT NATOPS(AT)NAVY.MIL.

C. INFORMATION REGARDING THE AIRWORTHINESS PROCESS, INCLUDING A LISTING OF ALL CURRENT INTERIM FLIGHT CLEARANCES, NATOPS AND NATIP PRODUCTS ISSUED BY NAVAIR 4.0P, CAN BE FOUND AT OUR WEBSITE: AIRWORTHINESS.NAVAIR.NAVY.MIL.

D. EPOWER FOLDER NUMBER 434740, TRACKING NUMBER 28987.//

**NATOPS
FUNCTIONAL CHECKFLIGHT CHECKLIST**

**NAVY MODEL
AV-8B/TAV-8B 161573 AND UP
AIRCRAFT**

BUNO

Checkflight Pilot's Signature

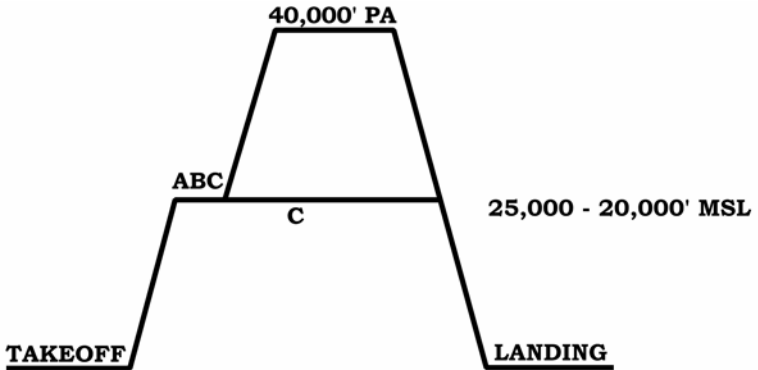
Date of Flight

Barometric Pressure

OAT

Configuration

Record time, temperature or pressure when applicable. Where a box is shown, use for satisfactory or an for unsatisfactory. All steps marked with an asterisk (*) require actual reading to be recorded.



F-0102

A1-AV8BB-NFM-700

FLIGHT PROFILES

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

- A. At the completion of aircraft rework and all calendar inspections.**
- B. After the installation of an engine, or engine fuel control, or any FMU components which cannot be checked in ground operation (DECUs are excluded).**
- C. When fixed or movable flight surfaces, or flight control system components have been installed, reinstalled, adjusted or re-rigged and improper adjustment or replacement of such components could cause an unsafe operating condition.**

FUNCTIONAL CHECKFLIGHT BRIEF

MAINT CONTROL: _____ AIRCRAFT: _____

QAR BRIEF: _____ DATE: _____

WORK CENTER: _____ PILOT: _____

FLIGHT PROFILE: A B C D (CIRCLE AS APPROPRIATE)

REASON FOR FCF: _____

JCN: _____ GRIPE: _____

CORRECTIVE ACTION: _____

POST FLIGHT DEBRIEF

ACFT STATUS:



QA BRIEF: _____ WORK CENTER: _____

DISCREPANCIES: _____

QAO: _____ MC: _____

MA: _____

PRINT NAME

SIGNATURE

A1-AV8BB-NFM-700

DATE _____ **PILOT** _____

DISCREPANCIES NOTED:

Card: **OPEN** **CLOSED** **PILOT** _____
(circle one)

PROFILE

COCKPIT

PREFLIGHT

- A B C 1. Exterior inspection per
A1-AV8BB-NFM-000
- A B C 2. Before entering cockpit checks per
A1-AV8BB-NFM-000
- A 3. Ordnance sim codes loaded
- A B C 4. After entering cockpit checks per
A1-AV8BB-NFM-000
- A B C 5. Auxiliary power unit — START
- A B C 6. DDI, HUD, COMM, and UFC — ON
- A 7. UHF/VHF RSC — CHECKS
- A B C 8. Warning and caution lights — CHECK

STARTING ENGINE

- A B C 1. DECS power — CHECK
- A B C 2. Fuel shutoff handle — CHECK
- A B C 3. Parking brake — ON
- A B C 4. Throttle — OFF
- A B C 5. Nozzles — AFT to 10°
- A B C 6. Engine start switch — ENG ST
- A B C 7. Throttle — IDLE.
 - *a. JPT — CHECK
 - 475 °C MAX
 - *b. Accel to 20% rpm — 35 SEC MAX
(after selecting IDLE)
- A B C 8. Engine start switch —
OFF BY 15% RPM

PROFILE

STARTING ENGINE (cont.)

A B

9. At idle check the following:

*a. RPM — CHECK

25.8 to 26.2% (-406 engine)

28.4 to 29.0% (-408 engine)

*b. JPT — CHECK

535 °C MAX (-406 engine)

545 °C MAX (-408 engine)

*c. IGV — 31° TO 39° *d. Fuel flow — 18 TO 24 PPM e. Sortie JPT — RESET

A B C

*10. HYD 1 and HYD 2 pressure — 3,000

±200 psi

A B C

*11. Brake accumulator pressure — 3,000

±200 psi

A B C

12. Brake pressure —

Check - 2,700 psi min

A B

13. Boost pumps — CHECK.

a. Pump switches — OFF.

(1) Check pump lights on

b. Pump switches — DC.

(1) Check pump lights off (2) Check voltmeter stable at
approximately 27 volts

c. DC TEST switch — SET TO MAIN.

(1) Check STBY TR caution on at
approximately 24.75 volts (2) Check voltage returns above 25.5
volts

PROFILE

STARTING ENGINE (cont.)

d. DC TEST switch — SET TO STBY.

(1) Check voltage drops to approximately 25.5 volts

(2) Set pump switches to NORM, check for a 1 volt increase

e. DC TEST switch, SET TO CENTER POSITION

A B C 14. Warning and caution lights — TEST

A 15. Landing gear position indicators — GREEN.....

A B C 16. DDI — MSC BIT.
a. On BIT display — press MSC
b. Record all failures

BEFORE TAXIING

Night Attack aircraft:

A B C 1. FLIR switch — FLIR

Radar aircraft:

A B C 2. LST/FLIR switch — LST/FLIR

A 3. Radar — CHECK
Radar switch to OPR. TEST, test number, and after 1 minute a time-out cross is displayed on DDI, after 3 minutes a Maltese cross displayed

All aircraft:

A B 4. JPT limiters switch — CHECK.
*a. JPT limiters switch — OFF

RPM increases 3.3 to 4.3%(-406 engine)
RPM increases 6.0 to 7.0%(-408 engine)

PROFILE

BEFORE TAXIING (cont.)

b. JPTL warning light — CHECK ON

c. EFC switch — SET TO POS 2
(check EFC caution light comes on
momentarily and goes out)

*d. JPT limiters switch — ON

RPM drop 3.3 to 4.3% (-406 engine)

RPM drop 6.0 to 7.0% (-408 engine)

e. JPTL warning light — CHECK OFF

f. EFC switch — SET TO POS 1

A B *5. Manual fuel — CHECK, THEN OFF
(MFS caution light on, maintain idle limits)

A B C *6. Water switch — CHECK, THEN OFF

RPM increases 3.3 to 4.3% (-406 engine)

RPM increases 6.0 to 7.0% (-408 engine)

A B 7. EVICS — CHECK.

a. Throttle — ADJUST TO 55%
CORRECTED HP COMPRESSOR
SPEED (ENGINE PAGE ON THE
DDI/MCPD) AND RETURN TO IDLE

A B 8. Fuel proportioner — CHECK, THEN ON.

a. FUEL PROP switch — OFF
(PROP caution light on)

b. FUEL PROP switch — ON
(PROP caution light off)

TAV-8B aircraft:

c. FUEL PROP switch — DL
(check R FEED warning, PROP
caution and R FEED advisory lights off)

PROFILE

BEFORE TAXIING (cont.)

- d. FUEL PROP switch — RT
(check R FEED advisory light on,
check R FEED warning light on after
short delay)
- e. FUEL PROP switch — AUTO
(check R FEED warning, PROP
caution, and R FEED advisory lights off)

All aircraft:

A C

- 9. Trim — CHECK, THEN SET.
 - a. Rudder full left and right — CHECK
PROPER INDICATION AND
TRAVEL (trim neutral)
 - b. Ailerons full left and right — CHECK
PROPER INDICATION AND
TRAVEL (trim neutral)
 - c. Stabilator full up and down — CHECK ↓
7° - 8° TO ↑ 4° ON EDP
(trim min 2°ND)

TAV-8B aircraft after AFC-391:

A B C

- 10. Aft seat high gain over-ride — CHECK.
 - a. ANTISKID switch — NWS
 - b. Front C/P NWS/undesignate switch —
PRESS & HOLD (NWS HI in HUD)
 - c. Rear C/P NWS/Undesignate Switch —
PRESS.
 - (1) NWS HI in HUD changes to NWS
 - (2) Both C/Ps NWS/Undesignate
Switch — RELEASE
 - d. ANTISKID switch — ON

PROFILE

PROFILE		BEFORE TAXIING (cont.)
A		11. Standby attitude indicator — ERECT <input type="checkbox"/>
A		12. Altimeter — CHECK (set baro pressure and compare to field elevation, HUD and standby altimeter within 75 ft. of field elevation) <input type="checkbox"/>
A		13. On-board O ₂ system BIT — CHECK (press plunger - OXY light on; release plunger - OXY light out within 1 minute) <input type="checkbox"/>
A	C	14. Flaps emergency retract — CHECK. a. Flaps — ON, RESET (lights out) <input type="checkbox"/> b. Flaps — STOL <input type="checkbox"/> c. Flaps — OFF, THEN ON (ground crew confirms flaps retract evenly to 0°) <input type="checkbox"/>
A	C	15. Flaps IBIT — PERFORM IN AUTO. a. STOL flaps — SELECT (verify STO and DROOP light, DROOP light out with full left and right stick) <input type="checkbox"/> b. Flaps — CRUISE <input type="checkbox"/>
A	C	16. Flight controls — CHECK. a. Rudder pedals — FULL LEFT AND RIGHT (check proper direction) <input type="checkbox"/> b. Stick — FULL FWD AND AFT (check proper direction and ↑ 10° and ↓ 11° ON EDP) <input type="checkbox"/> c. RPS/YAW switch — HOLD IN TEST. (1) Lateral stick — FULL LEFT (check aileron direction and rudder moves left) <input type="checkbox"/> (2) Lateral stick — FULL RIGHT (check aileron direction and rudder moves right) <input type="checkbox"/>

PROFILE

A	C
A	
A	C

BEFORE TAXIING (cont.)

17. SAAHS BIT — INITIATE.

a. On BIT display — PRESS SAAHS.

(1) TEST displayed next to SAAHS legend

(2) AFC, PITCH, ROLL AND YAW caution lights flash until MASTER CAUTION is pressed

(3) 40 seconds after BIT initiate, stick shakes in pitch axis

b. BIT page — CHECK (if IGV 1 is present, abort mission)

c. Plane Captain — CHECK THE DOLLS EYES IN THE AIRCRAFT REFUELING PANEL (DOOR 22L) (if Dolls Eyes are popped, abort mission)

*d. Record all failures

e. After successful BIT — ALL LIGHTS OUT

18. DDI — AUTO BIT

a. On display — PRESS AUTO.

(1) Tones for 6 seconds (On TAV-8B 163856 and up, AV-8B 163519 and up - voice)

(2) TEST displayed next to equipment that is on

(3) Fail codes (if any) displayed next to failed equipment

*b. Failures — RECORD

19. Paddle switch — PRESS (check all three SAAHS axis disengage, lights on)

PROFILE

	BEFORE TAXIING (cont.)	
A	20. LIDS switch — CYCLE (LIDS caution light on with switch in RET position)	<input type="checkbox"/>
A	21. Air refueling probe — CYCLE (if installed)	<input type="checkbox"/>
A	22. Exterior lights — CHECK	<input type="checkbox"/>
A	23. Display Computer — CHECK.	
	*a. Set DP switch to PRIM then ALTER, record any failures	<input type="checkbox"/>
	b. Set DP switch to AUTO	<input type="checkbox"/>
A	24. Inertial navigation system — CHECK	<input type="checkbox"/>
A B C	*25. Nozzles — FUNCTIONAL CHECK (check at idle; if stiffness present check at 36 to 40% then recheck at 29% rpm maximum; check hover stop nozzle position within 81° to 83° at idle or 50% rpm maximum, check aft nozzle position at 0°, ±1°)	<input type="checkbox"/>
A	26. VRS — CHECK (run in HUD and DDI/MPCD with HUD display selected, check both DDI/MPCD on radar and night attack aircraft)	<input type="checkbox"/>
A	27. DMT/FLIR — BORESIGHT	<input type="checkbox"/>
	DURING TAXI	
A C	1. Antiskid — CHECK (press drops below 110 psi then returns to 2,800 psi within 12 seconds)	<input type="checkbox"/>
A C	2. Nosewheel steering — CHECK	<input type="checkbox"/>
	Before AFC-391:	
A C	3. Nosewheel caster (ashore) — CHECK	<input type="checkbox"/>

PROFILE

DURING TAXI (cont.)

All aircraft:

A C

4. Rudder shaker — CHECK
(at HUD side force limit line)

A

5. TACAN — FUNCTIONAL CHECK.
- a. Bearing pointer — $\pm 1^\circ$
 - b. Range counter — ± 0.2 miles +0.1%
distance
 - c. HUD steering symbol — CHECK

BEFORE TAKEOFF

A B

1. Engine — CHECK.
- *a. Acceleration — CHECK
 - 406 engine (27 to 55%) - 3.7 to 4.3
seconds
 - 408 engine (35 to 60%) - 2.4 to 3.1
seconds
 - b. IGV and DUCT pressure — CHECK
(with engine stabilized at 55% with
406 engine or 60% with a 408
engine).
 - * (1) IGV angle
 - * (2) Nozzles — AFT (0 - 3 psi)
 - * (3) Nozzles — 50°

A B

2. APU — START

HOVER CHECKS AFLOAT

A B

1. VTO and hover checks — PERFORM
(fuel low lights ON)

PROFILE

A B

TAKEOFF

1. CTO (ashore) or STO (afloat) — PERFORM
(ensure CMBT deselected).

*a. RPM — CHECK

103.0% MAX (-406 engine)

113.5% MAX (-408 engine)

*b. 15 SEC light — CHECK

684 °C JPT (Night Attack with -406 engine and TAV-8B 164113 and up)

687 °C JPT (Day Attack with -406 engine and TAV-8B 162747 thru 163861)

765 °C JPT (-408 engine)

*c. JPT — CHECK

703 ± 5 °C (-406 engine)

780 ± 5 °C (-408 engine)

*d. JPT cutback — CHECK

625 ± 5 °C (-406 engine)

710 ± 5 °C (-408 engine)

*e. RPM cutback — CHECK

98.4 to 99% (-406 engine)

108.8 to 109.2% (-408 engine)

f. APU auto shutdown — 325 KNOTS

CLIMB

A B C

1. Aileron HSS — CHECK ENGAGED

A

2. Standby instruments — FUNCTIONAL CHECK.

a. AOA indicator

b. Altimeter

PROFILE

CLIMB (cont.)

- c. Attitude indicator
- d. Vertical velocity indicator
- e. Airspeed indicator
- f. Turn and slip
- g. HSI (if applicable)
- h. Clock and second hand

A B

- 3. Full throttle climb — PERFORM
(300 knots/0.8 IMN)

Altitude X 1,000 feet			
	10	30	40
*JPT			
*RPM			
(monitor JPT and RPM for corrected RPM cutback) (-406 engine, corrected fan speed is limited to 106.5 ± 0.5% below 10,000 feet MSL and 102.5 ± 0.5% above 30,000 feet) (-408 engine, corrected fan speed is limited to 116.8 ± 0.5% below 10,000 feet MSL and 110.5 ± 0.5% above 30,000 feet)			

40,000 FEET

A

- 1. Cabin pressure — CHECK
(16,800 ft nominal, 15,000 ft min, 17,200 ft max)

A B

- 2. Max power pushover — PERFORM
(0.8 IMN to 0g)

A B

- 3. Windup turn — PERFORM
(observe rpm cutback, -406 and -408 engines)

200 knots/15° AOA (-406 engine)
200 knots/19° AOA (-408 engine)

A1-AV8BB-NFM-700

PROFILE

	40,000 FEET (cont.)
A B	4. Throttle slam — PERFORM (200 knots, 15° AOA, 5 sec IDLE to MAX) <input type="checkbox"/>
A B	5. Hot throttle reslam — PERFORM (200 knots, full throttle 1 minute; 15° AOA, IDLE 2 seconds then smoothly to MAX in less than 5 seconds) <input type="checkbox"/>
	25,000 TO 20,000 FEET
A C	1. SAAHS/departure resistance — CHECK. a. Maneuvering tone — CHECK (240 KIAS, full power, 21.5° AOA) <input type="checkbox"/> b. Roll coordination — CHECK (maneuvering tone, aileron to HSS opposite direction of turn) <input type="checkbox"/>
	17,000 TO 10,000 FEET
A	1. Fuel dump BINGO — CHECK <input type="checkbox"/>
A	2. IFF — FUNCTIONAL CHECK (Include mode C and emergency function) <input type="checkbox"/>
	Radar aircraft:
A	3. Radar — FUNCTIONAL CHECK ALL MODES <input type="checkbox"/>
	All aircraft:
A	4. Windshield defog — CHECK <input type="checkbox"/>
A B	5. APU — CHECK (APU on, check green light, APU off) <input type="checkbox"/>

PROFILE

17,000 TO 10,000 FEET (cont.)

A C

6. AFC — CHECK.

a. AFC — SELECT

(captures pitch and roll attitude,
and heading hold)

b. ALT HOLD — SELECT

(AFC and ALT HOLD disengage
with paddle switch)

A C

*7. Auto flap — CHECK AND RECORD

(at 200 knots record IMN, AOA and flap
angle)

After AFC-391:

A B

8. NWS steering mode — CHECK

(200 knots dirty, nozzles as required).

a. Antiskid switch — NWS

(Slowly advance throttle from below
65% while pressing the NWS
steering button. NWS HI changes to
NWS between 72-83% (-406 engine)
or 83-89% (-408 engine)

All aircraft:

A C

9. SAS — CHECK (200 knots dirty, AUTO
flaps).

a. Pitch — TRIM ADJUSTS

(SAS pitch OFF and ON)

b. Roll — DAMPING

(SAS roll OFF and ON)

c. Yaw — DAMPING (SAS yaw OFF

and ON); RUDDER FREE TURN
(SAS yaw OFF - sideslip symbol
deflects; SAS yaw ON - sideslip
symbol centers)

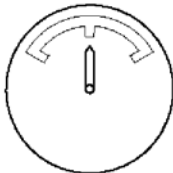
PROFILE

17,000 TO 10,000 FEET (cont.)

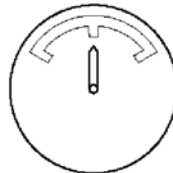
- A C 10. Rudder pedal shaker — CHECK
- A B C 11. Nozzle trim — CHECK SAS OFF
(gear down, AUTO flaps, 90% rpm -406 engine or 100% rpm -408 engine, 150 knots - trim aircraft; select hover stop - nozzles 81° to 83°, trim change 1 ball max; maintain 90% rpm -406 engine or 100% rpm -408 engine as applicable and 150 knots; select braking stop - nozzles 95° to 98°, trim change 1 ball max)
- A C 12. HUD sideslip — CHECK
(120 knots, dirty, AUTO flaps, within 1/4 width with vane centered)
- A B C 13. Inverted flight — PERFORM
(85% rpm, 15 seconds max, less than zero g, fuel pump lights OUT, oil light ON, FOD, controls free)

5,000 FEET

- A C *1. Trim — CHECK
(450 knots, SAS on, aileron ± 10% rudder ± 20%. If tolerance exceeded, note trim position, SAS off, note trim position)



AILERON



RUDDER

AV8BB-NFM-70-(2-1)17-CAT1

PROFILE

		5,000 FEET (cont.)	
A	C	2. Q-feel — CHECK (4g turn, Q FEEL sw OFF and ON, note stick movement)	<input type="checkbox"/>
A	B	3. G-suit — CHECK	<input type="checkbox"/>
A	B	4. Combat thrust — CHECK.	
		a. Press CMBT sw/light — SEL LIGHT ON	<input type="checkbox"/>
		b. Throttle — FULL	<input type="checkbox"/>
		*c. CMBT light — ON	<input type="checkbox"/>
		630 ± 5 °C (-406 engine) 715 ± 5 °C (-408 engine)	
		*d. RPM — CHECK	<input type="checkbox"/>
		98.4 to 99% (-406 engine) 110.8 to 111.2% (-408 engine)	
		*e. JPT — CHECK	<input type="checkbox"/>
		665 ± 5 °C (-406 engine) 750 ± 5 °C (-408 engine)	
		f. Nozzles — CHECK CREEP	<input type="checkbox"/>
		g. Press CMBT sw/light — SEL AND CMBT LIGHTS OUT	<input type="checkbox"/>
A		5. HUD displays — CHECK (A/G, A/A, NAV, VSTOL)	<input type="checkbox"/>
A		6. Weapon systems — FUNCTIONAL CHECK	<input type="checkbox"/>
A	B	7. IGV check — PERFORM Check the IGV angle against the provided charts with the engine fans speed set to 65% (-406)/ 80% (-408)	<input type="checkbox"/>

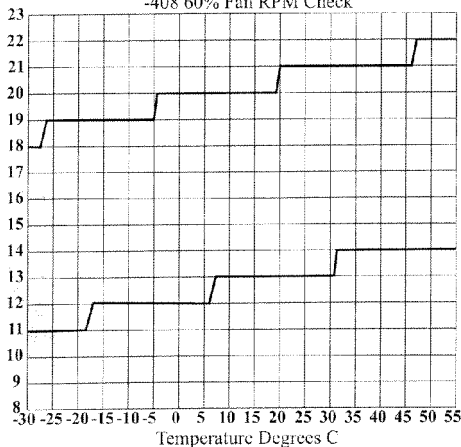
PROFILE

IGV CHECK CARD

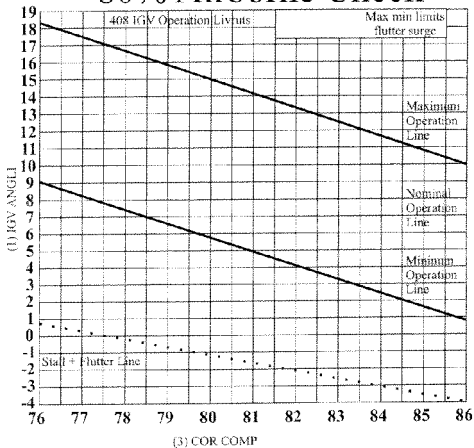
Pilot: _____ Date: _____ Side #: _____

60% Ground Check

-408 60% Fan RPM Check



80% Airborne Check



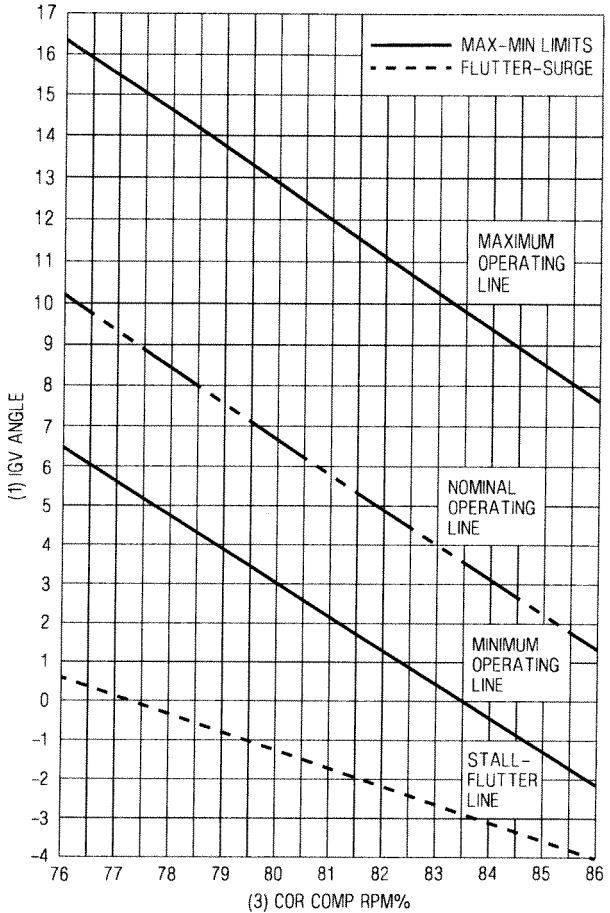
MODEX _____
 60% RUN UP CHECK _____
 TEMP _____
 IGV ANGLE _____

SET FAN RPM TO 80% AND RECORD
 _____ # (1) IGV
 _____ # (2) COMP RPM
 _____ # (3) COR COMP

A1-AV8BB-NFM-700

PROFILE

-406 IGV OPERATING LIMITS



SET FAN RPM TO 65%

- # (1) IGV
- # (2) COMP RPM
- # (3) COR COMP

AHR606-3-2-023

PROFILE

3,000 TO 1,000 FEET

- A 1. LAWS — CHECK (light and audio)
- A B 2. Water injection — CHECK
(200 knots, nozzles as required, ALT HOLD as desired)
 - *a. Set 88% rpm, water switch TO — Slowly advance throttle - WATER FLOW LIGHT ON AND OFF AT
94% to 96% rpm (-406 engine)
103% to 105% rpm (-408 engine)
 - *b. Set rpm — RECORD STABILIZED JPT
Set 97% rpm (-406 engine)
Set 106% rpm (-408 engine)
 - *c. Water OFF, reset rpm (97% or 106% as applicable) — RECORD STABILIZED JPT
Temp rise at least 25 °C (-406 engine)
Temp rise at least 15 °C (-408 engine)
 - *d. Water switch LDG — FLOW
684 °C JPT (Night Attack with -406 engine and TAV-8B 164113 and up)
687 °C JPT (Day Attack with -406 engine and TAV-8B 162747 thru 163861)
765 °C JPT (-408 engine)
 - *e. 15 SEC light — CHECK
702 °C JPT (Night Attack with -406 engine and TAV-8B 164113 and up)
705 °C JPT (Day Attack with -406 engine and TAV-8B 162747 thru 163861)
780 °C JPT (-408 engine)

PROFILE

3,000 TO 1,000 FEET (cont.)

- *f. Maximum rpm — CHECK
- 107% rpm (-406 engine)
- 120.2% rpm (-408 engine)
- *g. Maximum stabilized JPT — CHECK
- 727 ± 5 °C (-406 engine)
- 800 ± 5 °C (-408 engine)

- A 3. Landing gear warning — CHECK
(below 160 knots, below 6,000 feet, gear up, sink rate above 250 fpm - handle light flashes, audio)

LANDING

- A C 1. AOA — CHECK
(gear down, AUTO flaps, nozzles aft, level flight, 15,000 pounds and 10° AOA - airspeed 138 knots ± 1 knot for each ± 250 pounds)

- A C 2. Aileron HSS — CHECK DISENGAGED

Ashore:

- A C 3. Slow landing characteristics — CHECK

- A 4. Antiskid — CHECK

- A C 5. STO — PERFORM (check for normal handling characteristics)

- A C 6. Deceleration to hover characteristics — CHECK (select water - H₂O light on at 100 ± 20 pounds)

Afloat:

- A C 7. Slow landing approach/waveoff characteristics — CHECK

- A C 8. VL — PERFORM (select water - H₂O light on at 100 ± 20 pounds)

PROFILE

A B

HOVERS FROM A VTO

1. Hover — PERFORM

T/AV-8B HOVER CARD

Pilot:	Date:
BuNo:	Side No:
Station Press:	Wind:
OWT:	

	1	2	3	4
Stab				
RPM				
JPT				
Fuel				
HWT				
OATC				
BALT				
ALTM				
RALT				
STPR				
Water				
	W or D	W or D	W or D	W or D

RHOV				
RJPT				

1. Update ALTM, OAT before each hover.
2. Update H2O Qty before each hover.

Notes:

PROFILE

HOVERS FROM A VTO (cont.)

- A 2. Fuel low lights — CHECK
- a. Fuel quantity selector switch — INT
- b. Lights steady — 750 ± 250 POUNDS
- c. Fuel quantity selector switch — FEED
- d. Lights flashing — 250 ± 100 POUNDS

AFTER LANDING

- A B 1. APU — START
- A B 2. Water switch — DUMP, THEN OFF
- A 3. After landing checks per
A1-AV8BB-NFM-000
- A 4. Probe heat — PRB HT
(check probe heat switch automatically
resets to AUTO position after engine
shutdown)

ENGINE SHUTDOWN

- A B 1. Engine RPM switch — HI
- A B 2. Throttle — OFF
- a. Decel from 50% to 5% — 20 SEC MIN
- A 3. Brake application — 25 MIN
- A 4. OXY light — CHECK
- A 5. AOA and pitot heaters — CHECK

PROFILE

REAR COCKPIT

PREFLIGHT

- A 1. Before entering rear cockpit checks per A1-AV8BB-NFM-000
- A 2. After entering rear cockpit checks per A1-AV8BB-NFM-000
- A 3. Warning and caution lights — CHECK
- A 4. Throttle/Limiter, Trip/Ignitors — CHECK
- A 5. Auxiliary power unit — MONITOR START

STARTING ENGINE

(Monitor JPT and RPM during start and compare with front cockpit)

- A 1. At idle check the following:
 - *a. RPM — CHECK
 25.8 to 26.2% rpm (-406 engine)
 28.4 to 29.0% rpm (-408 engine)
 - *b. JPT — CHECK
 535 °C MAX (-406 engine)
 545 °C MAX (-408 engine)
 - *c. IGV — 31° TO 39°
 - *d. Fuel Flow — 18 to 24 PPM
- A 2. Landing gear position indicators — GREEN
- A 3. Select approach light from rear cockpit — CHECK

PROFILE

BEFORE TAXIING

- A 1. Manual fuel — CHECK, THEN OFF
(MFS caution light on, maintain idle limits)
- A *2. Water system — CHECK, THEN FWD
RPM increases 3.3 to 4.3% (-406 engine)
RPM increases 6.0 to 7.0% (-408 engine)
- A 3. Fuel proportioner — CHECK, THEN
FWD
- A 4. Trim — CHECK, THEN SET
- A 5. Standby Attitude Indicator — ERECT
- A 6. Altimeter — SET (check ± 75 feet of field
elevation)
- A 7. DDI cue function — CHECK

DURING TAXI

- A 1. Antiskid — CHECK
(SKID light on when switch is off)
- A 2. STO stop indicator — CHECK

TAKEOFF (ASHORE)

- A 1. CTO — MONITOR.
 - *a. RPM — CHECK
103.0% MAX (-406 engine)
113.5% MAX (-408 engine)
 - *b. 15 SEC light — CHECK
684 °C JPT (TAV-8B 164113 and up with
-406 engine)
687 °C JPT (TAV-8B 162747 thru 163861
with -406 engine)
765 °C JPT (-408 engine)

PROFILE

A

A

A

A

A

A

A

TAKEOFF (ASHORE) (cont.)

- *c. JPT — CHECK
- 703 ± 5 °C (-406 engine)
- 780 ± 5 °C (-408 engine)
- *d. JPT cutback — CHECK
- 625 ± 5 °C (-406 engine)
- 710 ± 5 °C (-408 engine)
- *e. RPM cutback — CHECK
- 98.4 to 99% (-406 engine)
- 108.8 to 109.2% (-408 engine)

CLIMB

1. Standby instruments — FUNCTIONAL CHECK.

- a. AOA indicator
- b. Altimeter
- c. Attitude indicator
- d. Vertical velocity indicator
- e. Airspeed indicator
- f. Turn and slip indicator

17,000 TO 10,000 FEET

1. Ensure AFC can be disengaged from the rear cockpit

2. Inverted flight — CHECK COCKPIT FOR FOD

LANDING

1. AOA — CHECK (± 4 knots of front cockpit)

2. Braking stop — CHECK

3. Hover stop — CHECK

ENGINE SHUTDOWN

1. Secure engine from rear cockpit