A1-AV8BB-NFM-700

NATOPS
FUNCTIONAL
CHECKFLIGHT
CHECKLIST

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

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LIST OF EFFECTIVE PAGES

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

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<tbody>
<tr>
<td>Title</td>
<td>0</td>
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<tr>
<td>A</td>
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<td>1 thru 28</td>
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</tbody>
</table>

INTERIM CHANGE SUMMARY

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

<table>
<thead>
<tr>
<th>INTERIM CHANGE NUMBER(S)</th>
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The following Interim Changes have been incorporated into this Change/Revision.

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<thead>
<tr>
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Interim Changes Outstanding — To be maintained by the custodian of this manual.

<table>
<thead>
<tr>
<th>INTERIM CHANGE NUMBER(S)</th>
<th>ORIGINATOR/DATE (or DATE/TIME GROUP)</th>
<th>PAGES AFFECTED</th>
<th>REMARKS/PURPOSE</th>
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<tbody>
<tr>
<td>1</td>
<td>102006Z DEC 2007</td>
<td>6, 7</td>
<td>Emergency DC wiring AFC-481</td>
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A
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 F0-7 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 PUBLICATIONS(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 NAVAIR WEB SITE, 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

<table>
<thead>
<tr>
<th>BUNO</th>
<th>Checkflight Pilot’s Signature</th>
<th>Date of Flight</th>
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<tr>
<th>Barometric Pressure</th>
<th>OAT</th>
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Configuration

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

40,000' PA

ABC

C

25,000 - 20,000' MSL

TAKEOFF

LANDING

F-0102
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: __________________________________________ SIGNATURE ________________________________
## COCKPIT

### PREFLIGHT

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

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

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 ...................

10. HYD 1 and HYD 2 pressure — 3,000
    ±200 psi ................................

11. Brake accumulator pressure — 3,000
    ±200 psi ................................

12. Brake pressure —
    Check - 2,700 psi min  ....................

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 .................................
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 ..............

14. Warning and caution lights — TEST ............

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

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

BEFORE TAXIING

Night Attack aircraft:

1. FLIR switch — FLIR ..........................

Radar aircraft:

2. LST/FLIR switch — LST/FLIR .................

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:

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)
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 .............

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

*6. Water switch — CHECK, THEN OFF ...........

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

7. EVICS — CHECK.

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

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) ........
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:

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:

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 .............................
## BEFORE TAXIING (cont.)

<table>
<thead>
<tr>
<th></th>
<th>11. Standby attitude indicator — ERECT</th>
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<tbody>
<tr>
<td></td>
<td>12. Altimeter — CHECK</td>
</tr>
<tr>
<td></td>
<td>(set baro pressure and compare to field</td>
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<tr>
<td></td>
<td>elevation, HUD and standby altimeter</td>
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<td></td>
<td>within 75 ft. of field elevation)</td>
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<td>13. On-board O₂ system BIT — CHECK</td>
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<td>(press plunger - OXY light on; release</td>
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<td></td>
<td>plunger - OXY light out within 1 minute)</td>
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<td>14. Flaps emergency retract — CHECK.</td>
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<tr>
<td></td>
<td>a. Flaps — ON, RESET (lights out)</td>
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<tr>
<td></td>
<td>b. Flaps — STOL</td>
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<td></td>
<td>c. Flaps — OFF, THEN ON (ground</td>
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<tr>
<td></td>
<td>crew confirms flaps retract evenly to 0°)</td>
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<tr>
<td></td>
<td>15. Flaps IBIT — PERFORM IN AUTO.</td>
</tr>
<tr>
<td></td>
<td>a. STOL flaps — SELECT</td>
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<tr>
<td></td>
<td>(verify STO and DROOP light, DROOP</td>
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<tr>
<td></td>
<td>light out with full left and right stick)</td>
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<td>b. Flaps — CRUISE</td>
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<td>16. Flight controls — CHECK.</td>
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<td></td>
<td>a. Rudder pedals — FULL LEFT AND</td>
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<td></td>
<td>RIGHT (check proper direction)</td>
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<td></td>
<td>b. Stick — FULL FWD AND AFT</td>
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<td></td>
<td>(check proper direction and</td>
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<td></td>
<td>↑ 10° and ↓ 11° ON EDP)</td>
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<td></td>
<td>c. RPS/YAW switch — HOLD IN TEST.</td>
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<td>(1) Lateral stick — FULL LEFT</td>
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<td>(check aileron direction and</td>
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<td>rudder moves left)</td>
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<td>(2) Lateral stick — FULL RIGHT</td>
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<td>(check aileron direction and</td>
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<td>rudder moves right)</td>
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</table>
### 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)

---

**AC**

### PROFILE

**AC**

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)

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  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)
### BEFORE TAXIING (cont.)

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</tbody>
</table>
| **20. LIDS switch — CYCLE**  
   (LIDS caution light on with switch in RET position) |   |   |   |
| A |   |   |   |
| **21. Air refueling probe — CYCLE**  
   (if installed) |   |   |   |
| A |   |   |   |
| **22. Exterior lights — CHECK** |   |   |   |
| A |   |   |   |
| **23. Display Computer — CHECK**  
   *a. Set DP switch to PRIM then ALTER, record any failures* |   |   |   |
| A |   |   |   |
| **24. Inertial navigation system — CHECK** |   |   |   |
| 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°) |   |   |   |
| A |   |   |   |
| **26. VRS — CHECK**  
   (run in HUD and DDI/MPCD with HUD display selected, check both DDI/MPCD on radar and night attack aircraft) |   |   |   |
| A |   |   |   |
| **27. DMT/FLIR — BORESIGHT** |   |   |   |

### DURING TAXI

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<tbody>
<tr>
<td>A C</td>
<td></td>
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</tbody>
</table>
| **1. Antiskid — CHECK**  
   (press drops below 110 psi then returns to 2,800 psi within 12 seconds) |   |   |   |
| A C |   |   |   |
| **2. Nosewheel steering — CHECK** |   |   |   |

Before AFC-391:

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<tbody>
<tr>
<td>A C</td>
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</tr>
<tr>
<td><strong>3. Nosewheel caster (ashore) — CHECK</strong></td>
<td></td>
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</tr>
</tbody>
</table>
DURING TAXI (cont.)

All aircraft:

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

5. TACAN — FUNCTIONAL CHECK.
   a. Bearing pointer — ± 1° ......................
   b. Range counter — ± 0.2 miles +0.1%
      distance ......................................
   c. HUD steering symbol — CHECK ............

BEFORE TAKEOFF

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° ...........................

2. APU—START .................................

HOVER CHECKS AFLOAT

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

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<td>A</td>
<td>B</td>
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</tbody>
</table>

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

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<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>A</td>
</tr>
</tbody>
</table>

1. Aileron HSS — CHECK ENGAGED .................

2. Standby instruments — FUNCTIONAL CHECK.

   a. AOA indicator ........................................

   b. Altimeter ...........................................

---

14
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

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

<table>
<thead>
<tr>
<th>Altitude X 1,000 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
</tr>
<tr>
<td>*JPT</td>
</tr>
<tr>
<td>*RPM</td>
</tr>
</tbody>
</table>

(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

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

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

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

   200 knots/15° AOA (-406 engine)
   200 knots/19° AOA (-408 engine)
### 40,000 FEET (cont.)

<table>
<thead>
<tr>
<th>A B</th>
<th></th>
</tr>
</thead>
</table>
|     | 4. Throttle slam — PERFORM (200 knots, 15° AOA, 5 sec IDLE to MAX) ...........................................  
     | 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) ........................................... |

### 25,000 TO 20,000 FEET

<table>
<thead>
<tr>
<th>A C</th>
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</thead>
</table>
|     | 1. SAAHS/departure resistance — CHECK.  
     | a. Maneuvering tone — CHECK (240 KIAS, full power, 21.5° AOA) ............  
     | b. Roll coordination — CHECK (maneuvering tone, aileron to HSS opposite direction of turn) ................ |

### 17,000 TO 10,000 FEET

<table>
<thead>
<tr>
<th>A</th>
<th></th>
</tr>
</thead>
</table>
|    | 1. Fuel dump BINGO — CHECK  
|    | 2. IFF — FUNCTIONAL CHECK (Include mode C and emergency function) ...........  
|    | Radar aircraft:  
|    | 3. Radar — FUNCTIONAL CHECK ALL MODES ...........................................  
|    | All aircraft:  
|    | 4. Windshield defog — CHECK  
| A B| 5. APU — CHECK (APU on, check green light, APU off) ................... |
17,000 TO 10,000 FEET (cont.)

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) ....................

*7. Auto flap — CHECK AND RECORD
   (at 200 knots record IMN, AOA and flap angle) ...........................

After AFC-391:

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

10. Rudder pedal shaker — CHECK

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) ......................................

12. HUD sideslip — CHECK
   (120 knots, dirty, AUTO flaps, within 1/4
   width with vane centered) .................

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

*1. Trim — CHECK
   (450 knots, SAS on, aileron ± 10% rudder
   ± 20%. If tolerance exceeded, note trim
   position, SAS off, note trim position) .........
2. Q-feel — CHECK
   (4g turn, Q FEEL sw OFF and ON, note
   stick movement) .......................... □

3. G-suit — CHECK .......................... □

4. Combat thrust — CHECK.
   a. Press CMBT sw/light — SEL LIGHT
      ON ................................... □
   b. Throttle — FULL ........................ □
   c. CMBT light — ON ........................ □
      630 ± 5 °C (-406 engine)
      715 ± 5 °C (-408 engine)
   d. RPM — CHECK .......................... □
      98.4 to 99% (-406 engine)
      110.8 to 111.2% (-408 engine)
   e. JPT — CHECK .......................... □
      665 ± 5 °C (-406 engine)
      750 ± 5 °C (-408 engine)
   f. Nozzles — CHECK CREEP ................. □
   g. Press CMBT sw/light — SEL AND
      CMBT LIGHTS OUT ........................ □

5. HUD displays — CHECK (A/G, A/A,
   NAV, VSTOL) ................................ □

6. Weapon systems — FUNCTIONAL
   CHECK ..................................... □

7. IGV check — PERFORM
   Check the IGV angle against the
   provided charts with the engine fans
   speed set to 65% (-406)/ 80% (-408) ............ □
IGV CHECK CARD

Pilot:___________ Date:_______ Side #:_____

60% Ground Check

80% Airborne Check

MODFX: 60% RPM CHECK
TEMP
IGV ANGLE
## 3,000 TO 1,000 FEET

<table>
<thead>
<tr>
<th>A</th>
<th>1. LAWS — CHECK (light and audio)</th>
<th>☐</th>
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<tbody>
<tr>
<td>A B</td>
<td>2. Water injection — CHECK</td>
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<tr>
<td></td>
<td>(200 knots, nozzles as required, ALT HOLD as desired)</td>
<td>☐</td>
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<tr>
<td></td>
<td>*a. Set 88% rpm, water switch TO — Slowly advance throttle — WATER FLOW LIGHT ON AND OFF AT</td>
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<tr>
<td></td>
<td>94% to 96% rpm (-406 engine)</td>
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<tr>
<td></td>
<td>103% to 105% rpm (-408 engine)</td>
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<td></td>
<td>*b. Set rpm — RECORD STABILIZED JPT</td>
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<tr>
<td></td>
<td>Set 97% rpm (-406 engine)</td>
<td>☐</td>
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<tr>
<td></td>
<td>Set 106% rpm (-408 engine)</td>
<td>☐</td>
</tr>
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<td></td>
<td>*c. Water OFF, reset rpm (97% or 106% as applicable) — RECORD STABILIZED JPT</td>
<td>☐</td>
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<tr>
<td></td>
<td>Temp rise at least 25 °C (-406 engine)</td>
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<tr>
<td></td>
<td>Temp rise at least 15 °C (-408 engine)</td>
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<tr>
<td></td>
<td>*d. Water switch LDG — FLOW</td>
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<tr>
<td></td>
<td>684 °C JPT (Night Attack with -406 engine and TAV-8B 164113 and up)</td>
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<tr>
<td></td>
<td>687 °C JPT (Day Attack with -406 engine and TAV-8B 162747 thru 163861)</td>
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<td></td>
<td>765 °C JPT (-408 engine)</td>
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<td></td>
<td>*e. 15 SEC light — CHECK</td>
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<tr>
<td></td>
<td>702 °C JPT (Night Attack with -406 engine and TAV-8B 164113 and up)</td>
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<tr>
<td></td>
<td>705 °C JPT (Day Attack with -406 engine and TAV-8B 162747 thru 163861)</td>
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<tr>
<td></td>
<td>780 °C JPT (-408 engine)</td>
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<tr>
<td>PROFILE</td>
<td>3,000 TO 1,000 FEET (cont.)</td>
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<tr>
<td></td>
<td>*f. Maximum rpm — CHECK ........................................... □</td>
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<tr>
<td></td>
<td>107% rpm (-406 engine)</td>
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<td></td>
<td>120.2% rpm (-408 engine)</td>
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<td></td>
<td>*g. Maximum stabilized JPT — CHECK .................. □</td>
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<td></td>
<td>727 ±5 °C (-406 engine)</td>
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<td></td>
<td>800 ±5 °C (-408 engine)</td>
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<tr>
<td>A</td>
<td>3. Landing gear warning — CHECK (below 160 knots, below 6,000 feet, gear up, sink rate above 250 fpm - handle light flashes, audio) ............................... □</td>
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<tr>
<td>LANDING</td>
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<tr>
<td>A</td>
<td>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) ............................. □</td>
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<tr>
<td>A</td>
<td>2. Aileron HSS — CHECK DISENGAGED ................ □</td>
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<td>Ashore:</td>
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<td>A</td>
<td>3. Slow landing characteristics — CHECK ............... □</td>
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<td>A</td>
<td>4. Antiskid — CHECK ............................................. □</td>
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<td>A</td>
<td>5. STO — PERFORM (check for normal handling characteristics) ............................ □</td>
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<tr>
<td>A</td>
<td>6. Deceleration to hover characteristics — CHECK (select water - H2O light on at 100 ±20 pounds) ................................ □</td>
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<td>Afloat:</td>
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<td>A</td>
<td>7. Slow landing approach/waveoff characteristics — CHECK ................................ □</td>
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<tr>
<td>A</td>
<td>8. VL — PERFORM (select water - H2O light on at 100 ±20 pounds) ........................... □</td>
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</tbody>
</table>
HOVERS FROM A VTO

1. Hover — PERFORM .......................... □

<table>
<thead>
<tr>
<th>T/AV-8B HOVER CARD</th>
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<tbody>
<tr>
<td>Pilot:</td>
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<tr>
<td>BuNo:</td>
</tr>
<tr>
<td>Station Press:</td>
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<tr>
<td>OWT:</td>
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<th>1</th>
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<tbody>
<tr>
<td>Stab</td>
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<td>RPM</td>
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<td>JPT</td>
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<td>Fuel</td>
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<td>BALT</td>
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<td>ALTM</td>
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<td>RALT</td>
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<td>STPR</td>
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<tr>
<td>Water</td>
<td>W or D</td>
<td>W or D</td>
<td>W or D</td>
<td>W or D</td>
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</tbody>
</table>

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

Notes:
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 ..................... □
A1-AV8BB-NFM-700

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 ............................ □
A1-AV8BB-NFM-700

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)
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

A

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

A

1. Ensure AFC can be disengaged from the rear cockpit ..............................

LANDING

A

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

ENGINE SHUTDOWN

A

1. Secure engine from rear cockpit ..........................