# TO 1A-10X-1CL-1 FLIGHT CREW CHECKLIST

# BMS SERIES A-10X

# **LIST OF EFFECTIVE PAGES**

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#### **NOTE**

This publication is designed for use ONLY with FALCON BMS.

#### **NOTE**

The following diagram depicts the general locations of each switch or knob referenced in this document.

# **Cockpit Diagram**

HUD, HUD Alt Sw, HUD Scale, Drift C/O, FPM Sw

SMS Power, Aim9 Mode, Emer Jett, Mech Fuzing, Gun Rate, EO Power, Master Arm, HUD Controls, Gear

HSI Mode, Laser ARM, TISL Power FUEL QTY Indicator, FTIT, HYD PRESS, FUEL FLOW, NOZ POS ind, RPM, Fuel Select Sw

Parking Brake, Fuel Transfer, Fuel Pumps, Master Fuel, AR Door, Lights Test, CAT I/III, Trim Controls, AP On/Off, JFS, Idle Det.

GPS Power, MFD Power, Comm1 & Comm2 Controls, Radio Channel & Mode Sel, AP Control Panel Battery Power, Main Power, EWS/CMDS Controls, ICP Controls, DED, DL Power, Display Power, INS Control, Bleed Air Control

TACAN Mode and Channel, CNI Sw, EWS Mode, EWS PRGM, Int/Ext Light Panel

# **NORMAL PROCEDURES**

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#### **COCKPIT INTERIOR CHECK**

- 1. Personal Gear SECURED
- 2. Mission Documentation CHECKED/VERIFIED

#### **Left Console**

- 1. CCTVS/DVADR OFF
- 2. Radios Set as Required
  - a. UHF Full
  - b. VHF Full
  - c. MSL Full
  - d. THREAT Full
  - e. INTERCOM As Required
- 3. Emergency Flight Controls SET
- 4. Throttles OFF
- 5. Flaps UP
- 6. APU Switch OFF (Visual Check Only)
- 7. Fuel System Controls SET
  - a. Boost Pumps ON
  - b. Tank Gate OPEN
  - c. Cross feed OFF
  - d. Air Refueling Control CLOSED
- 8. Parking Brake SET
- 9. TRIM/AP DISC switch NORM
- 10. ROLL, YAW, PITCH TRIM Centered

#### **NOTE**

The following steps cannot be performed in the BMS A-10 Cockpit but should be performed using Keyboard commands to ensure the SIM aircraft is correctly configured.

- 11. PROBE HEAT OFF (Shift-F4)
- 12. DIGITAL BACKUP OFF (Shift-Ctrl-F1)
- 13. ALT FLAPS NORM (Shift-Ctrl-F4)
- 14. MANUAL TF FLY UP ENABLE (Ctrl-Alt-F3)
- 15. LE FLAPS AUTO (Shift-Ctrl-F6)
- 16. EPU NORM (Ctrl-Alt-E)

#### **Instrument Panel**

- 1. Landing Gear Handle Down
- 2. Taxi Lights OFF
- 3. AHCP SET
  - a. Master Arm SAFE
  - b. EO Power OFF
  - c. Gun Rate LOW
  - d. AIM-9 Mode OFF
  - e. Release Mode SGL
  - f. Mech Fuzing NOSE
- 4. Laser Mode Knob OFF
- 5. TSL PWR OFF

#### **NOTE**

To prevent aircraft battery from being depleted, MAIN PWR switch should not be left in BATT or AC Gen switch in the PWR position for longer than 5 minutes when aircraft is not connected to ground or external power. Doing so may prevent aircraft from properly starting.

#### **Right Console**

- 1. Electrical Power Controls SET
  - a. Generator Switch OFF
  - b. Battery Switch OFF
- 2. CMSP/EWMU
  - a. MODE OFF
  - b. SYSTEM Switches OFF
- 3. ILS Controls OFF
- 4. AAP
  - a. CDU OFF
  - b. DEST PWR OFF
- 5. Environmental Controls SET
  - a. MAIN AIR SUPPLY
- 6. TACAN Controls OFF/Set

#### **WARNING**

Ensure MASTER ARM switch is in the OFF position prior to starting engine. Improperly loaded or malfunctioning armament may inadvertently fire during aircraft power up sequence.

#### **WARNING**

Ensure Landing Gear Handle is locked in the DOWN position prior to starting engine.

#### WARNING

Ensure ANTI SKID/BRAKE switch is set to PARKING BRAKE prior to starting engines. Failure to do so may allow the aircraft to roll during engine start.

#### NOTE

To prevent aircraft battery from being depleted, MAIN PWR switch should not be left in BATT or AC Gen switch in the PWR position for longer than 5 minutes when aircraft is not connected to ground or external power.

#### **Before Starting Engines**

- 1. BATT PWR PWR
- 2. Fire Detect / Light Test Button Depressed
- 3. Gear Lights Checked (three green, no red)
- AC GEN PWR MAIN PWR
- 5. Fuel Quantity Check
- 6. External Lights SET

#### **NOTE**

Canopy may remain open until completion of the BEFORE TAXI checklist

#### **Starting Engines**

- 1. APU Switch START
- 2. IDLE OPER SET (AS REQ'D)
  - a. Engines Must Spool to 20% prior to setting IDOL OPER
- 3. ENGINE START light Extinguished at 55% RPM
- 4. APU switch Verify OFF
- 5. FUEL FLOW 500-2500
- 6. Throttles 70%
- 7. Flight Controls Check

#### **Before Taxi**

- 1. Radios As required
  - a. FUNCTION MANUAL/PRESET (AS REQ'D)
  - b. Mode Switch MAIN or BOTH (AS REQ'D)
  - c. COMM1 Mode SQ
  - d. COMM2 Mode SQ
- 2. Air Refueling Door CHECKED (AS REQ'D)
  - a. A/R Door OPENED
  - b. A/R Ready light Illuminated
  - c. A/R Door CLOSED
- 3. CMSP/EWMU SET
  - a. Subsytem Switches ON
- 4. ILS ON
- 5. TACAN mode selector T/R
- 6. Flaps Cycled
- 7. Speed Brakes Checked
- 8. INS Align
- 9. DEST PWR ON
- 10. Datalink Power ON

#### NOTE

INS alignment may take up to 8 minutes to complete. HUD and DED will flash ALIGN when alignment is complete.

- 11. Gun Rate High
- 12. AIM9 Selector Stage 1
- 13. Release Mode Rotary On
- 14. Mech Fuzing Tail Selected
- 15. TISL Mode Knob Selected
- 16. TISL Power ON
- 17. EO Power ON
- 18. EAC ARM On
- 19. UFP Power ON
- 20. HUD Configured
  - a. Intensity SET
  - b. DAY/NIGHT SET
  - c. DEPR SET
- 21. Trim Checked
  - a. ROLL/YAW/PITCH trim Checked
  - b. Trim Reset
  - c. Trim SET (AS REQ'D)

#### **NOTE**

Trim must be centered prior to Takeoff

- 22. Probe Heat AS REQ'D (Shift-F4/F5)
- 23. Avionics Programmed
  - a. Test Page Warnings Cleared
  - b. DTC Loaded
  - c. Multifunction Displays Configured

- 24. Ejection Seat Handle ARMED
- 25. CNI switch UFC
- 26. ICP COMM Page SET
- 27. Taxi Lights-ON
- 28. Altimeter SET (PgUp/PgDn)
- 29. ICP Configured
  - a. T-ILS SET
  - b. BINGO SET
  - c. A-LOW SET
  - d. DINK SFT

#### **NOTE**

TACAN will be configured IAW briefed procedures. 63 Channel offset will be used to coordinate flight member separation. Flight Lead may dictate alternate settings to accommodate AR, Multi-Flight Packages, or Element Separation AS REQ'D.

- 30. SMS Configured
  - a. AGM/HARM PWR ON (AS REQ'D)
  - b. AG DROP STORES Configured (AS REQ'D)
    - i. RIPPLE SET
    - ii. INTFRVAI SFT
    - iii. REL ANG SET
    - iv. CBU BURST SET
    - v. ARMING FUSE SET
    - vi. RELEASE PROFILE Configured
- INS NAV
  - a. Verify Alignment is complete prior to setting NAV

#### **WARNING**

DO NOT Taxi prior to INS Alignment completion.

#### TAXI

- 1. Nose Wheel System Activated
- 2. Exterior Lights SET
- 3. Chocks Removed
- 4. DVDR As Required
- 5. Brakes Released
- 6. Warning Lights Checked/Reset

#### BEFORE TAKEOFF

- 1. Flaps SET
  - a. ALT FLAPS NORM (Shift-Ctrl-F4)
- 2. Speed Brake Closed
- 3. Trim Centered
- 4. RWR ON/Set
- 5. External Light Panel SET
- 6. AIM9 Selector Stage 2
- 7. HMCS SET
- 8. CANOPY CLOSED

#### WARNING

Damage may occur to Landing Gear if speeds exceed 200 KIAS before gear are retracted.

#### LINEUP CHECK

- 1. Probe Heat PROBE HEAT (Shift-F4)
- 2. Throttles 90%
- 3. Engine Instruments Check
- 4. Warning Lights Extinguished

#### **TAKEOFF**

- 1. NWS As Desired
- 2. Brakes Released
- 3. Throttles MAX

#### **AFTER TAKEOFF**

- 1. Landing Gear UP
  - a. Wheel Indicator Lights Extinguished
  - b. Landing Gear Handle UP/LOCKED
- 2. Flaps UP (10 Knots above takeoff speed)

#### COMBAT ENTRY

- 1. Master Arm ARMED
- 2. MFD Configuration SET
- 3. Stores Configuration SET
- 4. Target Package Reviewed
- 5. Aircraft Lighting SET
- 6. CMSP/EWMU SET

#### **COMBAT EXIT**

- 1. Aircraft Lighting SET
- 2. Master Arm SAFE
- 3. Laser Arm OFF

#### **DESCENT/BEFORE LANDING**

- Altimeter SET
- 2. Landing Lights As Required
- 3. Fuel Quantity Checked
- 4. HUD Indicated Airspeed
- 5. Landing Lights ON
- 6. T-ILS SET
  - a. TACAN Channel SET
  - b. TACAN Mode T/R
  - c. ILS FREQ SET (AS REQ'D)
  - d. CRS SET
- 7. TACAN Backup Control SET

#### TACAN APPROACH

- 1. HSI ILS TCN
- 2. Approach Speed SET
  - a. Maintain minimum 150 KIAS until final configuration

For Normal Approaches use 140 KIAS plus 2 knots per additional 1,000 lbs of fuel and armament.

3. Flaps - SET

#### WARNING

Damage may occur to Landing Gear if speeds exceed 200 KIAS while gear are extended

- 4. Speed Brakes 40%
- 5. Landing Gear DOWN
- 6. Final Approach Speed SET

For Normal Approaches fly ON SPEED AOA but no slower than computed speed: Flaps Down – 130 KIAS, Flaps Up – 140 KIAS.

#### ILS APPROACH

- 1. HSI ILS TCN
- 2. Optimum ILS Intercept 30-45 DEGRESS
- 3. Approach Speed SET
  - a. Maintain minimum 150 KIAS until final configuration

For Normal Approaches use 140 KIAS plus 2 knots per additional 1,000 lbs of fuel and armament.

4. Flaps - SET

#### WARNING

Damage may occur to Landing Gear if speeds exceed 200 KIAS while gear are extended

- 5. Speed Brakes 40%
- 6. Landing Gear DOWN
- 7. Final Approach Speed SET

For Normal Approaches fly ON SPEED AOA but no slower than computed speed: Flaps Down – 130 KIAS, Flaps Up – 140 KIAS.

#### RADAR APPROACH

- 1. HSI ILS TCN (As REQ'D)
- 2. Downwind Leg
  - a. Landing Gear UP
  - b. Flaps UP
  - c. Airspeed 200-250 KIAS
- 3. Base Leg
  - a. Airspeed 150 KIAS until established
- 4. Final Approach Turn
  - a. Speed Brakes 40%
  - b. Landing Gear Down
  - c. Flaps SET
- 5. Final Approach Speed SET

For Normal Approaches fly ON SPEED AOA but no slower than computed speed: Flaps Down – 130 KIAS, Flaps Up – 140 KIAS.

6. Establish Approximately 500 fpm descent

### **OVERHEAD / VISUAL APPROACH**

- 1. Initial Approach
  - a. Normal Traffic Pattern Altitude 1500 feet AGL
  - b. Airspeed 250-300 KIAS
  - c. Landing Gear UP
  - d. Flaps UP
- 2. Break at midfield
- 3. Downwind Leg
  - a. Maintain minimum 150 KIAS until final configuration
- 4. Base Turn
  - a. Speed Brakes 40%
  - b. Landing Gear DOWN
  - c. Flaps FULL
- 5. Final Turn
  - a. Airspeed SET

For Normal Approaches fly ON SPEED AOA but no slower than computed speed: 145 KIAS plus 2 knots per additional 1,000 lbs of fuel and armament.

- 6. Final Approach
  - a. Final Approach Airspeed SET

For Normal Approaches use 130 KIAS plus 2 knots per additional 1,000 lbs of fuel and armament.

#### LANDING

- 1. Landing Gear Checked
  - a. Landing Gear Handle Down
  - b. Wheel Indicator Lights 3 Green
- 2. Final Landing Speed SET

For Normal Landing use 10 Knots below Final Approach Speed.

#### **CAUTION**

Excessive use of wheel brakes may cause brake failure. Air Brakes should be used to maximum extent possible. NWS system should not be activated above 60 knots

#### AFTER LANDING

- 1. Throttles As Required
- 2. Speed Brakes As Required
- 3. Wheel Brakes As Required
- 4. Nose Wheel System Activated below 60 knots
- 5. Canopy As Required

#### **ENGINE SHUTDOWN**

- 1. Parking Brake SET
- 2. Chocks Inserted
- 3. RWR PWR OFF
- 4. DVDR OFF
- 5. CMSP/EWMU OFF
- 6. Avionics Power OFF
- 7. Probe Heat OFF (Shift-F5)
- 8. Ejection Seat Handle Disarmed
- 9. Throttle IDLE
- 10. Fuel Pumps Master OFF
- 11. MAIN AIR OFF
- 12. AC GEN OFF
- 13. Battery OFF

#### **HOT FUELING**

- 1. Master Arm SAFE
- 2. Parking Brake SET
- 3. A/R DOOR Opened
- 4. Hot Fuel Requested
- 5. Fuel Transfer Monitored
- 6. A/R DOOR Closed
- 7. Parking Brake Released

#### AIR REFUELING

- 1. Master Arm SAFE
- Laser Arm OFF
- 3. CMSP/EWMU STDBY
- 4. Airspeed Display CAS
- 5. TACAN, PRIMARY/BACKUP SET
  - a. TCN MODE AA T/R
  - b. TACAN CHANNEL SET
  - c. INSTR MODE knob TCN NAV
- PRF CONTACT
  - a. A/R DOOR OPEN
    - i. AR READY Light Illuminated
  - PRE CONTACT POSITION Established
    - i. Maintain altitude 60-75 ft below tanker
    - ii. Maintain position aft of tanker centerline
  - c. FUEL Requested
- CONTACT
  - a. Maintain maximum overtake speed of 3 knots
  - b. Maintain altitude 40-60 ft below tanker
  - c. Verify AR Light Illuminated during fueling
- 8. DISCONNECT
  - a. A/R DISC Button Pressed
  - b. Re-establish CONTACT (As Required)
- 9. REFUELING COMPLETE
  - a. A/R DISC button Pressed
  - b. Observation Position As Required

#### **POST AIR REFUELING**

- 1. A/R DOOR CLOSED
- 2. Master Arm As Required
- 3. Laser Arm As Required
- 4. CMSP/EWMU As Required
- 5. Airspeed Display As Required
- 6. INSTR MODE knob As Required
- 7. Fuel Quantity Checked
- 8. TACAN As Required
- 9. Exterior Lights As Required

#### **Takeoff Speeds**

Gross Weight	25000	30000	35000	40000	45000	50000
Flaps 0	113	123	133	142	150	158
Flaps 7	109	119	129	138	146	153

#### **Rotate Speeds**

Gross Weight	25000	30000	35000	40000	45000	50000
Flaps 0	102	114	123	133	140	149
Flaps 7	99	109	118	129	136	142

#### Single Engine Rate of Climb (Best)

Gross Weight	25000	30000	35000	40000	45000	50000
	123	132	141	148	154	163

#### **Final Approach Speed**

Gross Weight	25000	30000	35000	40000	45000	50000
Flaps 0	131	139	149	158	166	177
Flaps 20	117	125	133	141	148	156
Flaps 20 Min Run	106	115	123	132	141	149

#### **Touchdown Speed**

Gross Weight	25000	30000	35000	40000	45000	50000
Flaps 0	121	128	139	149	156	166
Flaps 20	106	117	123	130	138	147
Flaps 20 Min Run	95	106	113	123	131	138

#### **Airspeed Limitations**

Condition	KIAS
Gear or Flaps Extended	200
Main Gear in Contact	165
Nose Gear in Contact	217

#### **Weight Limitations**

Condition	Max Weight
In-Flight Gross	51000
Takeoff Gross	46000