<table>
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<th><strong>Title:</strong></th>
<th>A-12 MANUAL - PILOT'S ABBREVIATED CHECKLIST - MODIFIED AIRCRAFT</th>
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<td>0018</td>
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PILOT'S

ABBREVIATED CHECKLIST

MODIFIED AIRCRAFT

7 September 1965
**LIST OF EFFECTIVE PAGES**

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*The asterisk indicates pages changed*
3. **Crossfeed & boost pumps - Press on**
4. **Pump release - Actuate**
5. **Tanks 1, 2, & 6 - Check on**
6. **Crossfeed - Press off**
7. **Fuel quantity - Check**
8. **Gear warning lights - Test**
9. **Ind. test - Press**
10. **Headset and mask - Connect (if suit not used).**
11. **Oxygen systems - ON (if suit not used).**
12. **Tape and flight recorders - ON**

**STARTING ENGINES**

1. **Check with INS crew**
2. **Fuel low pressure lights - Off**
3. **Engine instruments - Check**
4. **Starter - Call ready for start**
5. **Throttle - IDLE at rpm rise**
6. **Fuel flow - Check**
7. **Verify ignition within 15 seconds by continuous rpm and EGT increase**
8. **EGT - Check for 540° C max**
9. **Starter - Call off at 3300 rpm**
10. **Idle rpm - Check 3550-3650 rpm**
11. **Engine and hydraulic instruments - Normal**
12. **UHF - BOTH**
13. **Other engine - Use same procedure**
14. **TEB counter - Check**
15. **INS mission only**
CLEARING ENGINE

1. Throttle - OFF
2. Starter - Crank 15 sec, then call OFF

BEFORE TAXIING

1. UHF and IFF/SIF - Check
2. IFF - As required
3. Generators - RESET at idle rpm
   (Check with INS crew before resetting)
4. Battery - BAT (within 3 sec)
5. Generator Out lights - Check off
6. INS DEST/FIX - VARIABLE DEST
7. INS Mode - NAV (Check with INS crew prior to actuating switch.) Press STORE button and check BDHI No. 2 needle for $10^\circ$ Rt. DTG 122 N Mi.
8. INS - Report data when slew complete
9. INS DEST/FIX - VARIABLE FIX and STORE-FIX REJECT light on
10. INS DEST/FIX - VARIABLE DEST and STORE-FIX REJECT light off
11. INS umbilical cord - Disconnected (Confirmed by INS crew.)
12. External power - Disconnect
13. Forward bypass - Confirm both open
14. HF radio - ON
15. SAS channel switches - ON
16. SAS recycle lights - Press off
17. SAS light test switch - Press
18. Autopilot pitch and roll - Engage
20. SAS channel switches - OFF
21. Surface trim - Check & set to zero
22. Control system - Check
23. Packages - As required
24. Canopy & seat pins - Remove & stow
25. Canopy - Close and lock
26. Canopy seal pressure - ON
27. Rear view mirror - Check
28. Taxi clearance - Obtain
29. Chocks and gear pins - Removed
30. Steering - Engage and check

**TAXIING**

1. Brakes - Check
2. Flight instruments - Check
3. Nav eq'pt - Check TAGAN, ADF, INS

**BEFORE TAKEOFF**

1. Engine trim - As required
2. SAS channels - Engage
3. SAS lights - Check off
4. Surface trim - Check zero
5. Tanks 1, 2, & 6 - ON
6. INS - Check and fix as required
7. Compasses - Check and sync FRS
8. Pitot heat - On
10. Shoulder harness - Lock
11. BCN lights - As required
12. Flight controls - Cycle & check hydro pressure
13. Suit vent boost - NORM
14. B-W - ON

TAKEOFF

1. Brakes - Hold
2. Elapsed time clock - Start
3. Steering - Check engaged
4. Throttles - Advance
5. Brakes - Release at 6000 rpm
6. Engine instr. - Check at MILITARY
7. Throttles - Afterburner mid-range
8. Throttles - MAX THRUST
9. Engine instr. - Check at MAX THRUST
10. Acceleration - Check
11. Rotation - Begin at computed KIAS

AFTER TAKEOFF

1. Gear - UP
2. Throttles - Climb power
3. Engine instr. - Check
4. Surface limiter - In
5. Fuel derich - ARM

NORMAL CLimb

1. Airspeed - Establish climb schedule
2. Altimeter - Set 29.92 at FL 180
4. Canopy - Open
5. Igniter purge - DUMP
6. Recorders - OFF
7. Appropriate electrical switches - Off
8. Inverters - OFF
9. Battery - OFF
10. Generators - TRIP
11. Throttles - OFF
12. Seat and canopy pins - Installed

TAKEOFF AND LANDING DATA CARD

(Refer to front flap of checklist)
DOUBLE ENGINE FAILURE
IMMEDIATELY AFTER TAKEOFF

1. IF GEAR IS DOWN AND CONDITIONS
PERMIT - LAND STRAIGHT AHEAD.
2. IF GEAR RETRACTION HAS BEEN
INITIATED OR CONDITIONS
DICTATE - EJECT

AFTERBURNER NOZZLE FAILURE

Nozzle Failed Open Immediately After
Takeoff

1. Throttle - AB range
2. Monitor rpm and EGT
3. Land as soon as possible

Nozzle Failed During Cruise

1. Throttle - MILITARY or below
2. Monitor rpm and EGT
3. Land as soon as possible

AFTERBURNER FLAMEOUT

1. Throttle - MILITARY
2. Throttle - AB midrange (note TEB)
3. Nozzle position - Check
   If start not successful:
4. Throttle - MILITARY

6-10-66
INLET DUCT UNSTART

1. SIMULTANEOUSLY REDUCE ANGLE OF ATTACK, BOTH RESTARTS ON
2. BOTH THROTTLES - MILITARY
3. MAINTAIN ATTITUDE CONTROL - OPTIMIZE PITCH AND ROLL
4. AIRSPEED - ADJUST TOWARD 350 KEAS & DO NOT EXCEED MACH 3.1

If roughness not clear in 10 seconds:
5. AFT BYPASS - OPEN

When roughness clears:
6. Aft bypass - Normal schedule
7. Fwd bypass - Both Open
8. Restart - Both OFF

After inlet starts:
10. Throttles - As required
11. Fwd bypass - Both AUTO

If unstarts repeat or inlet doesn't clear:
12. Engine, inlet instr, hyd press - Check
13. Repeat procedure

If unstarts persist:
14. Attempt restart and operation using manual inlet operating schedule
MANUAL INLET OPERATING SCHEDULE

Manual Spike Schedule

Accelerating - Lag Mach by 0.1
Cruising - Match Mach number
Decelerating - Lead Mach by 0.1

Manual Bypass Schedule

Mandatory with manual spike.
Optional with auto spike and other inlet operating normally.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mach</th>
<th>Fwd Bypass</th>
<th>Aft Bypass</th>
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<tbody>
<tr>
<td>Accel. &amp; cruise</td>
<td>Above 1.7</td>
<td>Pos. 7</td>
<td>Pos. B</td>
</tr>
<tr>
<td>Accel. &amp; cruise</td>
<td>Above 2.8</td>
<td>Pos. 8</td>
<td>CLOSED</td>
</tr>
<tr>
<td>Decel</td>
<td>ALL</td>
<td>OPEN</td>
<td>CLOSED</td>
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</tbody>
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E-5
AIR INLET CONTROL FAILURE

SPIKE NOT FWD light not on with SPIKE FWD selected

1. Check L or R hydro press normal & MANUAL INLET light on
   If hydraulic failure has occurred and flight and mission conditions dictate:
2. Emergency spike switch - FWD.

Spike not scheduling or inlet spike unstable

1. Spike position ind. - Check
2. Spike - Cycle FWD then return to AUTO

If condition continues:

3. Forward bypass - Manual schedule
4. Spike - Manual schedule

As higher Mach number is reached:

5. Spike and forward bypass - AUTO.

If condition recurs or continues:

6. Operate per spike and bypass manual schedule

E-6 6-10-66
ELECTRICAL POWER SYSTEM FAILURE

SINGLE AC GENERATOR FAILURE

1. Generator - RESET
2. Generator - TRIP.
3. Land as soon as possible

If flight continued:
4. Affected generator - TRIP

If EWS is operating:
5. TACAN - OFF

DOUBLE AC GENERATOR FAILURE

1. Battery - BAT
2. Generators - RESET
3. If only one generator resets - Land
4. If neither generator resets - Conserve batteries and land as soon as possible

INVERTER FAILURE

1. Failed inverter - EMER
2. Illuminated SAS lights - Press

HYDRAULIC POWER SYSTEM FAILURE

L-HYDRAULIC SYSTEM FAILURE

a. Be prepared to use L EMER SPIKE FWD SWITCH
b. Emergency gear extension required
c. Use alternate brakes & NWS
R-HYDRAULIC SYSTEM FAILURE

a. Be prepared to use R EMER SPIKE FWD SWITCH

FLIGHT CONTROL SYSTEM FAILURE

FLIGHT CONTROL SYSTEM EMERGENCY OPERATION

If control difficulties are encountered:

1. Check A and B hydraulic pressures

If neither A or B hydraulic system has failed:

2. Disengage autopilot, check control
3. Check SAS warning lights. If SAS failure has occurred, see SAS Emergency Operation

A OR B HYDRAULIC SYSTEM FAILURE

1. Reduce KEAS to less than 350
2. Affected SAS yaw and pitch channels - OFF
3. SAS roll channels - Both Off
4. Operative roll channel - ON
5. Hyd. Res. oil - Operative system A or B.

A AND B HYDRAULIC SYSTEMS BOTH FAILED

1. EJECT
SAS EMERGENCY OPERATION

1. Check A and B hydraulic pressures - Normal
2. Check INVERTER OUT warning lights not illuminated
3. Proceed to appropriate Roll Axis or Pitch or Yaw Axis Failure procedure

ROLL AXIS FAILURE

1. A or B channels - OFF then ON
   If light extinguished a transient probably existed and both roll channels are engaged:
   2. After light extinguishes establish momentary roll transients
      If light does not extinguish or reilluminates:
3. A and B channels - OFF
4. A channel engage - ON
   If no improvement is noted:
5. A channel engage - OFF
6. B channel engage - ON

PITCH OR YAW AXIS FIRST FAILURE

1. Refer to SAS Failure Warning Lights chart
2. Recycle indicator light - Press and release
   If light extinguishes:
3. Duplicate maneuver which caused light to illuminate
If light remains on or reilluminates:

4. Faulty channel switch - OFF
5. Decelerate to pitch or yaw axis second failure limit speed if conditions permit.
6. Evaluate damping on remaining channel

PITCH AXIS SECOND FAILURE

1. Airspeed - 350 KEAS maximum
2. Remain supersonic and use logic override procedures if appropriate

If conditions permit:

3. Descend
4. Forward fuel transfer - ON
   Maintain 4000 pounds in tank 1
5. Airspeed - Maintain Mach 1.3 min.
   until fuel forward transfer is complete
6. Airspeed - Slow to best subsonic cruise speed and altitude
7. Refer to BUPD emergency procedure

If BUPD cannot be used:
8. Use caution to avoid abrupt maneuvers during landing approach

YAW AXIS SECOND FAILURE

1. Max. airspeeds - Mach 2.5
2. Remain supersonic and use logic override procedure if appropriate

Or if conditions permit:

3. Descend
4. Airspeed - Slow to best subsonic speed
LANDING GEAR SYSTEM EMERGENCY OPERATION

RETRACTION
1. Ground retract button - Press and hold
2. Gear lever - UP

EXTENSION
1. Gear lever - DOWN
2. Emergency gear handle - PULL
3. Verify gear down and locked

If landing gear remains retracted:
4. Gear CONT c/b - PULL
5. Repeat steps 2 and 3

WHEEL BRAKE SYSTEM FAILURE

BRAKE SYSTEM EMERGENCY OPERATION
1. Brake switch - ALT STEER & BRAKES

AIR DATA COMPUTER FAILURE
1. Check TDI, airspeed and altimeter
If cross check shows TDI to be inaccurate:
2. Revert to pitot-static instruments
3. Pull MACH TRIM c/b
4. Autopilot - OFF

PITOT-STATIC SYSTEM FAILURE
1. Attempt operation on alternate source
2. Maintain control by use of attitude and power indicating instruments
3. Request escort aircraft

AIR CONDITIONING & PRESSURIZATION FAILURE

LEFT ENGINE INOPERATIVE
1. Cockpit system - CROSSOVER

COCKPIT AND SUIT OVERTEMPERATURE
1. Defog - OFF
2. Cockpit temp ind. - Check
   If temp ind is too high:
   3. Cockpit auto temp - Rotate to COLD
   If cockpit temp remains high:
   4. Cockpit temp switch - Hold in COLD
   If no temperature decrease:
   5. Cockpit system - CROSSOVER
   6. Q-Bay system - Check ON
   If suit temperature cannot be controlled:
   7. Suit flow valves - OFF
   8. Reduce altitude and speed

Q-BAY OVERTEMPERATURE
1. Q-Bay auto temp - Rotate to COLD
   If not effective:
   2. Q-bay temp control - Hold in COLD

COCKPIT DEPRESSURIZATION
If suit inflates: