

NORTH AMERICAN F-86E/F SABRE

PILOT'S CHECKLIST

IMPORTANT: CHECKLISTS HAVE BEEN SIMPLIFIED FOR USE IN FLIGHT SIMULATOR AND ARE NOT INTENDED FOR REAL AVIATION. PLEASE ALSO READ THE FLIGHT MANUAL AND OTHER REFERENCE MATERIALS.

1. FLIGHT PLANNING AND AIRPLANE STATUS

- Weather. Check for all stages of flight and at alternate airports.
- Gross Weight **CHECK** Assure takeoff weight is under maximum gross, landing weight will be under 15,475 lbs, and center of gravity is always within limits.
- Airplane serviced **CHECK**
- Flight Plan. File with air-traffic control authority and check for en route NOTAMS.

2. PREFLIGHT - EXTERIOR INSPECTION

- Landing and taxi lights **RETRACTED**
- Intake duct **CLEAR** (except nose screen installed)
- Slats **CHECK**
- Main gear wheels **CHOCKED**
- External loads **INSTALLATION AND MOUNTING**
- Position lights and wing tip **CHECK**
- Pitot head **UNCOVERED**
- Ailerons and flaps **CHECK**
- Speed brakes **CHECK**
- Tail-pipe cover **REMOVED**
- Tail cone and position lights **CHECK**

3. PREFLIGHT - INTERIOR CHECK

- Master armament switch **OFF**
- Throttle **OFF**
- Landing gear handle **DOWN**
- Parking brake handle **IN**
- Speed brake switch **NEUTRAL (HOLD)**
- Engine master switch **OFF**
- Emergency ignition switch **OFF**
- Battery-starter switch **OFF** [FS2004 only: Set to BATTERY]
- External power **CONNECTED**
[FS: For power cart, set switch to ON]
- Main instrument inverter switch **ON**
- Oxygen regulator **CHECK**
- Drop tank pressure shutoff valve **OFF**
- Cockpit pressure control switch **AS DESIRED**
- Rudder trim switch **OFF (NEUTRAL)**
- Lateral trim switch **NORMAL (NEUTRAL)**
- Longitudinal trim switch **NORMAL GRIP CONT. (NEUTRAL)**
- Flight control switch **NORMAL**
- Speed brake emergency lever **NORMAL**
- Wing flap lever **UP**
- Emergency fuel switch **OFF**

- Pitot heater switch **ON, THEN OFF**
- Landing and taxi lights switch **OFF (check lights retracted)**
- Clock, accelerometer, and altimeter **SET**
- Generator switch **ON**
- Position and fuselage lights switch **OFF**
- Communication equipment switches **AS DESIRED**
- Automatic pilot **CHECK OPERATIONS, SET, OFF**
- Cockpit lights switch **OFF**
- Canopy emergency jettison handle **IN**
- Fuel quantity **CHECK**
- Warning lights, indicators and test systems **CHECK**
- Attitude indicator **CHECK**
- Directional indicator against stand-by compass **CHECK**
- Vertical velocity indicator **CHECK, SET**
- Flight controls **CHECK**
- Normal trim switch **CHECK**
- Radio compass **CHECK**
- Interior and exterior lights **CHECK**
- Flashlight **CHECK**

4. STARTING ENGINE

- Parking brake handle **IN**
- External power **CONNECTED**
[FS: For power cart, set switch to ON]
- Throttle **OFF**
- Engine master switch **ON**
- Battery-starter switch **STARTER (momentarily), THEN BATTERY** (If there is no audible indication of engine rotation or if tachometer fails to register within a few seconds, depress the stop-starter button immediately to avoid burning out the starter) **3% rpm THROTTLE OUTBOARD FS:** Since outboard movement of the stick cannot be accomplished with controllers or keyboard, it is done automatically if throttle is advanced from **OFF** towards **IDLE** (drag with mouse, or hit Shift-Ctrl-F3, or use mixture lever on game controller (so equipped)). **6% rpm THROTTLE HALFWAY BETWEEN IDLE AND OFF** Throttle **ADJUST** (for proper exhaust temperature) (Exhaust temperature should peak between 550°C and 750°C)
- Oil pressure **CHECK**
- Engine instruments **CHECK**
- Drop tank pressure shutoff valve **ON** (drop tanks installed) **OFF** (drop tanks not installed)
- Fuel transfer pump switch **AS REQUIRED**
- External power **DISCONNECTED**
[FS: To remove power cart, set switch to OFF]
- Command radio **ON**



5. GROUND TESTS

- [] Throttle **IDLE**
- [] Hydraulic pressure gage selector switch **NORMAL**
- [] Flight control switch **RESET**
- [] Flight control normal hydraulic system **CHECK**
 - a. Flight control switch **NORMAL**
 - b. Control stick **MOVE AND VISUALLY CHECK** (for proper control surface movement)
 - c. Pressure 2900 TO 3200 PSI (after 5 seconds, control stick not in motion)
 - f. Flight control switch **RESET**
- [] Automatic return to normal hydraulic system **CHECK**
 - a. Flight control switch **NORMAL**
 - b. Control stick **MOVE RAPIDLY**
 - c. Alternate-on warning light **OUT**
 - d. Hydraulic pressure gage selector switch **NORMAL**
 - e. Pressure 2900 TO 3200 PSI
- [] Utility hydraulic system **CHECK**
 - a. Hydraulic pressure gage selector switch **UTILITY**
 - b. Speed brake switch **OUT, IN, THEN NEUTRAL (HOLD)**
 - c. Pressure APPROXIMATELY 3000 PSI
- [] Loadmeter and voltmeter **CHECK**

6. TAXIING

- [] Main gear wheel chocks **REMOVED**
- [] Parking brake handle **OUT**
- [] Throttle **ADVANCE, THEN RETURN TO IDLE**
[FS: Adjust for 70-75% RPM.]
- [] Nose wheel steering switch **DEPRESS** (for directional control) [FS: Not simulated. Use rudder pedals only]
- [] Gyro instruments **CHECK**

7. BEFORE TAKE-OFF

- [] Nose screen **REMOVED**
- [] Safety belt, shoulder harness **TIGHTEN AND ADJUST**
- [] Master armament switch **OFF**
- [] Trim for take-off **ELEVATOR TRIM 2° UP**
RUDDER TRIM AND AILERON TRIM CENTERED
- [] Take-off trim indicator light **CHECK ON**
- [] Wing flap lever **DOWN**
- [] Canopy switch **CLOSE**
- [] Oxygen regulator diluter lever **NORMAL OXYGEN** (100%, if carbon monoxide suspected)
- [] Take-off position **CHECK**
- [] Toe brakes **HOLD**
- [] Emergency fuel system **CHECK**
 - a. Throttle **80% RPM**
 - b. Emergency fuel switch **ON**
 - c. Throttle **FULL OPEN; CHECK RPM**
 - d. Emergency fuel switch **OFF**
 - e. Emergency fuel switch **ON; CHECK RPM**
 - f. Emergency fuel switch **OFF**
- [] Throttle **FULL OPEN**
- [] Engine instruments **CHECK**

8. TAKE-OFF

- [] Throttle **TAKE-OFF RPM**
- [] Wheel brakes **RELEASE**
- [] Nose wheel steering switch **DEPRESS** (to maintain directional control until rudder becomes effective above 50 Kts. IAS)
[FS: Not simulated. Use rudder pedals only]
- [] Nose wheel lift-off (Vr) **MAINTAIN NEAR-LEVEL ATTITUDE** (until take-off speed attained) (Vr is approx. 5 Kts. less than V2)
- [] Take-off (V2) **ASSUME NOSE-HIGH ATTITUDE** (V2 for various gross weights (normal take-off, airplane with slats): 105 Kts. IAS (15,000 lbs.), 115 Kts. IAS (18,000 lbs.), 125 Kts. IAS (20,000 lbs.). Refer to Flight Manual for cross-wind take-off)

9. AFTER TAKE-OFF AND CLIMB

- [] Landing gear handle **UP** (Vlo is 185 Kts. IAS)
- [] Wing flap lever **UP** (160 KNOTS IAS), **THEN HOLD**
- [] Horizontal tail **TRIM AS REQUIRED**
- [] Throttle **LEVEL OFF, ACCELERATE TO BEST CLIMB SPEED** (Refer to Flight Manual.)
- [] Oxygen regulator diluter lever **NORMAL OXYGEN** (100%, if carbon monoxide suspected)
- [] Drop tanks **CHECK FEEDING**
- [] IFF **CHECK**
- [] Altimeter **SET 29.92 In. Hg. ABOVE FL 180**

10. CRUISE

- [] Throttle **ADJUST FOR CRUISE SPEED** (Refer to Flight Manual)
- [] Fuel transfer pump switch **AS DESIRED** [FS: Set **ON** to burn fuel from Aft Fuselage Tank.]
- [] Engine instruments **MONITOR**

11. GLIDE AND AIRSTART

Flame-out landings should only be attempted by pilots who have satisfactorily completed simulated flame-out approaches in this airplane. If at any time during the flame-out approach, conditions do not appear ideal for successful completion of the landing, ejection should be accomplished. Eject no later than the "Low-Key" altitude.

- [] Throttle **OFF**
- [] Establish glide **185 KNOTS IAS** (For maximum glide distance, the optimum gliding speed is 185 Kts. IAS with gear and flaps up, speed brakes in, and no external load)
- [] Engine master switch **CHECK ON**
- [] Generator switch **CHECK ON**
- [] Battery-starter switch **CHECK ON (BATTERY)**
- [] Engine RPM for airstart **CHECK WITHIN LIMITS** (23% TO 34%)
[FS: Engine windmilling is not simulated. Minimum airspeed needed for airstart is 185 Kts. IAS.]
 - a. Throttle **OFF**
 - b. Emergency ignition switch **ON**
 - c. Emergency fuel switch **ON**



(Do not turn on emergency fuel system unless main system has actually failed. Emergency system should be used, if fuel pressure remains low with throttle stick shifted outboard, ie. indicating fuel pump failure.)

- d. Throttle **OUTBOARD, THEN ADVANCE** (Advance smoothly to maintain exhaust temperature within limits)
- e. Exhaust temperature **CHECK** (for rise in temperature)
- f. Emergency ignition switch **OFF** (Ignition system may be damaged if left **ON** more than 3 minutes per start. If engine fails to start, and time and altitude permit, attempt further airstarts using procedures a to f)

12. DESCENT

- IFF **CHECK**
- Throttle **IDLE** (Descent at 0.80 true Mach number or 280 Kts. CAS, whichever is less.)
- Speed brake switch **OUT (OR AS REQUIRED)**
- Altimeter **RESET ON PASSING FL 180** (to local pressure)

13. PRE-TRAFFIC-PATTERN CHECK

- Safety belt, shoulder harness **TIGHTEN**
- Master armament switch **OFF**
- Hydraulic pressure **NORMAL**
- Oxygen regulator diluter lever **NORMAL OXYGEN OR AS REQUIRED**
- Engine anti-ice and screen switch **EXTEND, OR ANTI-ICE** (if icing conditions anticipated)

14. TRAFFIC-PATTERN CHECK AND LANDING

- Speed brake switch **OUT**
- Gear handle **DOWN, CHECK POSITION INDICATORS** (Vle is 185 Kts. IAS)
- Wing flap lever **DOWN** (Vfe is 185 Kts. IAS)
- Utility hydraulic pressure **CHECK**
- Downwind leg **HOLD RECOMMENDED SPEED (170 KNOTS IAS)**
- Final approach **HOLD RECOMMENDED SPEED (135 KNOTS IAS)**
- Throttle **IDLE** (when landing ensured)
- Touchdown **HOLD RECOMMENDED SPEED (120 KNOTS IAS)**
- Nose wheel **LOWER TO RUNWAY BEFORE APPLYING BRAKES**
- Wing flap lever **UP**
- Brakes **AS REQUIRED**
- Speed brake switch **IN** (after clearing runway)

15. GO-AROUND

- Throttle **FULL OPEN**
- Speed brake switch **IN**
- Gear handle **UP**
- Wing flap lever **UP (160 KNOTS IAS), THEN HOLD**
- Clear traffic **ESTABLISHED NORMAL CLIMB**

16. AFTER LANDING

- Nose wheel steering switch **DEPRESS (BELOW 50 KNOTS IAS)** (to maintain directional control) [FS: Not simulated. Use rudder pedals only]
- Speed brake switch **NEUTRAL (HOLD)**
- Nose screen **INSTALLED**

17. STOPPING ENGINE

- Toe brakes **HOLD**
- Engine **65% TO 70% RPM** (for 2 minutes)
- Throttle **OFF**
- Engine master switch **OFF**
- Speed brake switch **OUT**
- Battery-starter switch **OFF**
- All switches except generator switch **OFF**

18. BEFORE LEAVING AIRPLANE

- Drop tank pressure shutoff valve **OFF**
- Main gear wheels **CHOCKED**
- Parking brake handle **IN**
- Canopy **CLOSED**