Milviz F-15E Quick Start guide (for those who just can't wait).

Once you have installed the product, start FSX. You will be asked several times if you wish to allow this dll and that dll to install. Say yes to all. From now on, you will be asked to do this twice every time you start FSX. This is to prevent the Milviz F-15E from affecting other packages using similar technology. (other companies do this as well). If you do not wish this to happen further and would like to remove the offending dialogs, you can find an uninstaller in the Simobjects\Airplanes\Milviz F-15E\uninstaller directory. Run this and they will be gone. Should you wish to fly the Milviz F-15E again, merely run the installer.exe and it will be flyable again.

Weapons and radar systems are NOT included in this manual. To use those, you will need to access the video tutorials which will be available from our forums and from our Youtube site here: www.youtube.com/user/milvizinc

QUICK START:

1) **Press shift 3 to load weapons**
2) **Flip cover on Nuclear Consent switch**
3) **Flip switch on Nuclear Consent**
4) **Wait (do NOTHING) till both engines are at 68%**
5) **Should the left engine fail to start, please press and hold Ctrl E until it does so**
6) **Fly**

PREPARATION FOR FLIGHT

TAKEOFF AND LANDING DATA CARD

If the takeoff distance exceeds on-half the available runway, the takeoff and landing data card in the Aircrew's Checklist should be completed.

WEIGHT AND BALANCE

For maximum gross weight limitations, refer to section 5, Operating Limitations this POH. For weight and balance information, refer to the Aircraft Fuel & Stores Menu (AFSM) called up via Shift-4 from the keyboard.

PREFLIGHT CHECK

1. Set fuel and stores using the AFSM. Press Shift 3 to see the AFSM. Click on the green dot to add and or change weapons. If you added fuel tanks, make sure to slide the fuel slider to the left and then to the right.
2. Takeoff and landing data – COMPUTE (P)

EXTERIOR INSPECTION

1. Check general condition. Check aircraft exterior for abnormalities. Check all sensors (AOA, pitot/static, inlet ice, total temperature). Check all control surfaces for functionality and connection and all intakes for foreign objects.

FRONT COCKPIT INTERIOR CHECK

A thorough cockpit interior preflight shall be accomplished before each flight. The design features of the aircraft greatly simplify this task. Switch positions designated AS DESIRED allow pilot preference in switch/control positioning. AS REQUIRED indicates those switches that will differ with mission requirements. If no specific requirement exists, those avionics switches designed AS DESIRED or AS REQUIRED should be OFF for start.

CAUTION

Do not place any item on the glare shield, as scratching the windshield is probable.

1. Left Console Equipment – CHECK/SET
    a. Ground power panel – ALL SWITCHES AUTO
    b. Armament safety switch – SAFE
    c. Emergency air refueling switch guard – DOWN
    d. Communications controls – AS DESIRED
        1) Volume knobs – AS DESIRED
        2) UHF antenna switch – AUTO
        3) Tone switch – AS DESIRED
        4) IFF master switch – AS REQUIRED
    e. EWWS enable switch – OFF, GUARD DOWN

f. IFF antenna switch – BOTH
g. Sensor control panel – OFF
h. Exterior lights panel – AS REQUIRED
i. Flyup enable switch – OFF, GUARD DOWN
j. NCTR enable switch – AS REQUIRED
k. V-MAX switch – COVER CLOSED AND SAFETY WIRED
l. Flap switch – UP
m. Throttles – OFF (left click finger lifts in front of each throttle to set)
n. Fuel control panel – SET
    1) Fuel dump switch – NORM
    2) Wing switch – AS REQUIRED
    3) Center switch – AS REQUIRED
    4) Conformal tank switch – STOP TRANS
    5) Slipway switch – CLOSE
    6) Conformal tank emergency transfer switch – NORM
    7) External transfer switch WING/CTR
o. Nuclear consent switch – COVER CLOSED
p. CAS switches – ON
q. TF COUPLE switch – OFF
r. Miscellaneous control panel – SET
    1) Anti-skid switch – NORM
    2) Inlet ramp switches – AUTO
    3) Roll ratio switch – AUTO
    4) Landing/taxi light switch – OFF
s. Canopy jettison handle – FORWARD (left click to cycle to forward position)
t. Emergency landing gear handle – IN
u. Arresting hook switch – UP

2. Instrument Panel – CHECK/SET
    a. Landing gear handle – DOWN
    b. Pitch ratio switch – AUTO
    c. Master arm switch – SAFE
    d. Select jettison knob – OFF, BUTTON NOT PRESSED
    e. Fire lights – NOT PRESSED
    f. Fire test/extinguisher switch – OFF
    g. HUD control panel – AS REQUIRED
    h. Emergency jettison button – NOT PRESSED
    i. Circuit breakers – IN
    j. JFS handle – IN

k. Holding brake switch – OFF

3. Right Console Equipment – CHECK/SET
    a. Emergency vent handle – IN AND VERTICAL
    b. Oxygen system – CHECK AND SET
        1) Oxygen supply lever – FULLY ON
        2) Emergency lever – NORMAL
        3) Indicator – CHECK
        4) Diluter lever – 100%
        5) Emergency lever – EMERGENCY
        6) Oxygen flow – CHECK
        7) Emergency lever – NORM
        8) Diluter lever – NORM
    c. Anti-ice switches – SET
    d. Engine control panel – SET
        1) Generator switches – ON
        2) Emergency generator switch – AUTO
        3) ENG CONTR switches – ON
        4) JFS starter switch – ON
        5) Engine master switches – ON
        6) EXT PWR switch – AS REQUIRED
    e. Air conditioning control panel – SET
        1) Temperature control switch – AUTO
        2) Air source knob – NORM
        3) Air flow selector switch – BOTH
    f. Interior lights controls – AS DESIRED
    g. Compass control panel – AS REQUIRED
        1) Latitude – SET
        2) Hemisphere – SET

3) STARTING ENGINES

Normal engine start procedure does not use external power. (Note: external power for the MilViz F-15E is not modeled). With the JFS running, power is available to operate the AMAD fire warning system, the intercom system between the aircrew and ground personnel, and the cockpit utility light. Engine RPM and FTIT indications on the EMD are inoperative until the emergency generator comes on the line at 15-17% RPM during engine start. The rest of the engine instruments are inoperative until a main generator comes on the line at 56-58% RPM during the first engine start.

The ENGINE category light will come on and remain on until the second engine starts and no engine faults exist. It will come on again momentarily, between 15-29% RPM, indicating that the IDEEC is automatically performing a self test. If engine is started with the ENG CONTR switch in OFF, the ENGINE category stays on throughout the start cycle, indicating the engine is in SEC mode. During engine starts, the engine anti-ice switch will be placed in the ON position for all starts, to provide additional starting stall margin. Test cell data has shown a hot start may occur on warm engine restarts if the engine is started without anti-ice flow. The engine anti-ice switch should be set as required for ambient conditions.

Because a JFS accumulator was discharged to start the JFS, the JFS LOW caution light will come on when power is available to display the caution. It will go out when accumulators are recharged by a running engine.

When the fingerlift is raised, the JFS will engage and accelerate the engine. JFS engagement is indicated by an audible decrease in JFS whine when the JFS clutch engages. JFS whine decrease is followed immediately by an increase to a higher pitch than before engagement. Engine rotation is apparent within approximately 5 seconds. If electrical power is not available, rotation can be felt and heard. If electrical power is available, rotation can be felt and heard. If electrical power is available, RPM increase can be seen on the EMD. The JFS will continue to smoothly accelerate engine rotation without hesitation until light-off occurs or steady-state windmill (23-30%) is reached . A normal start is indicated by RPM acceleration occurring before initial FTIT movement.

Monitor engine indications on the EMD and compare against the operating limitations listed in Section 5 of this POH. After first engine start, the JFS automatically decouples from that engine and is ready for the second engine start. After second engine start, the JFS shuts down automatically.

The following procedure is applicable to either engine. The right engine is normally started first to permit checking utility hydraulic pressure with only the right pump operating.

JFS START

1. Engine master switches – CHECK ON
2. JFS switch – CHECK ON
3. JFS handle – PULL AND RELEASE

NOTE

If JFS does not start, starter switch should be set OFF. Wait 30 seconds after cycling switch to OFF before trying second

start so JFS can decelerate, and start sequence relay de-energize. Failure to wait 30 seconds may result in a JFS no start.

4. Starter READY light – ON (within 10 sec, 15 sec if temp below -18C/0F)
5. Fire extinguisher switch – TEST (observe the AMAD fire warning light on with voice)
6. Ensure that Parking Brake is ON

ENGINE START

CAUTION

To prevent possible failure of the CGB shear section and to prevent the DEEC from going into the secondary mode, do not cycle the ENG CONTROL switches until 1 minute after engine start.

NOTE

Ensure engine anti-ice switch is ON prior to engine start.

1. Finger lift RIGHT ENGINE THROTTLE – RAISE AND RELEASE (left click FUEL CUTOFF to put throttle into IDLE)
2. EMD RPM display – OBSERVE INDICATING
3. Fire extinguisher switch – TEST (check all fire light and voice warnings)
4. Throttle – IDLE (18% RPM)

5. Engine instruments – CHECK
6. Repeat for LEFT ENGINE
7. Switch ALL Generator switches to ON

CAUTION

Abort the start if no oil pressure occurs within one minute.

8. JFS deceleration – CONFIRM
9. Warnings and caution lights – TEST (check AB BURN THRU warning light)
10. VHF #2 – ON
11. EMER BST ON caution – OBSERVE ON

NOTE

If automatic avionics shutdown occurs due to low ECS cooling airflow only VHF #2 will be available. All major caution lights will be inoperable. In addition, the right engine ramp may move to the full up position. Start other engine as soon as possible to obtain sufficient ECS airflow. If two engine operation is not possible, single engine operation at 71-73% RPM will provide sufficient ECS airflow.

12. Total fuel quantity – CHECK
13. Hydraulic caution light – CHECK

NOTE

At idle RPM the left engine fuel flows displayed on the EMD and MPD]MPCD may oscillate between 200 and 1,600 PPH, may momentarily drop to zero, and may differ between EMD and MPD/MPCD displays. The fuel flow displays should all stabilize when the left engine RPM is increased above idle.

14. Engine instruments – CHECK
15. JFS – CONFIRM OFF; JFS SWITCH ON
16. ECS – CHECK (ensure ECS caution off and airflow present)
17. Inlet ramp switches – CHECK AUTO (observe ramps down)

18. Engine anti-ice switch – AS REQUIRED

WARNING

If access to door 10L or 10R is required by maintenance personnel, both engines must be shut down to prevent possible inlet ramp activation with could cause ramp/door collision with resulting personnel injury.

BEFORE TAXIING (FRONT COCKPIT)

1. Canopy – CLOSE IF DESIRED (wait 10 sec before locking)
2. MPDs/MPCDs – ON
3. HUD – ON
4. Brakes – CHECK
5. Holding Brake – ON
6. Sensor control panel – SET
    a. NAV FLIR power switch – STBY
    b. Radar power switch – STBY
    c. Radar altimeter power switch – ON
    d. INS – ALIGN
7. Flight Controls – CHECK (CAS OFF)
    a. AFCS BIT – NOT IN TEST
    b. CAS PITCH, CAS ROLL, CAS YAW – OFF
    c. Anti-skid – CHECK NORM
    d. Stick full aft and left – OBSERVE CONTROLS
    e. Stick full left and forward – OBSERVE CONTROLS
    f. Stick full right and forward – OBSERVE CONTROLS
    g. Stick full right and aft – OBSERVE CONTROLS
8. Trim – CHECK AND SET
    a. Trim pitch, roll, and yaw off neutral
    b. T/O TRIM button – PUSH (to set normal takeoff trim)

    c. T/O trim light – ON
    d. T/O trim button – RELEASE
9. AFCS preflight BIT – INITIATE
10. Engine control switches – CHECK
11. Avionics – AS REQUIRED (AAI, IFF, ILS/TACAN)
12. Slipway door – CHECK (if AAR is planned)
13. Oxygen – CHECK
    a. Emergency lever – NORMAL
    b. Pressure – 10 to 60 psi
    c. Indicator – CHECK
    d. Connection – CHECK
    e. Emergency Oxygen – CHECKED AND SET NORMAL
14. Fuel quantity gauge – CHECK
15. Bleed air – CHECK
16. Radar STBY BIT – INITATE
    a. GND indication – CONFIRM
    b. Previous matrix – CHECK
17. Radar power switch – ON
18. Auto BIT – INTIATE
19. Radar Track Test and Operate BIT – INITIATE
20. Flaps – DOWN
21. Speed brake – CYCLE
22. JFS LOW caution – OUT
23. INS mode knob – NAV (when aligned)
24. MPD – BIT CHECK
25. AAI BIT – INITIATE
26. Avionics/BIT – CHECK BIT FOR CODES
27. Cautions/Warnings – CHECK OFF
28. Standby attitude indicator – CAGED THEN UNCAGED
29. Altimeter – SET AND CHECK (should be within 75 feet of known field elevation)
30. Radar – SET STBY
31. MPDs/MPCDs – SET AS DESIRED
32. UFC – SET AS DESIRED

REAR COCKPIT INTERIOR CHECK

A thorough cockpit interior preflight shall be accomplished before each flight. Switch positions in response to AS DESIRED and/or AS REQUIRED actions are the same as for the front cockpit.

1. Left Console Equipment – CHECK/SET
    a. Intercom set control panel -- SET
        1) Volume knobs – AS DESIRED
        2) Tone switch – OFF
    b. EW control panel – SET AS REQUIRED
    c. Sensor control panel – SET
    d. Nuclear consent switch – SAFE (cover closed)
2. Instrument Panel Equipment – CHECK/SET
    a. Emergency landing gear handle – IN
    b. Arresting hook switch – UP
    c. Emergency brake/steer handle – IN
3. Right Console Equipment – CHECK/SET
    a. Command selector valve – NORM (vertical)
    b. Oxygen system – CHECK AND SET
        1) Oxygen supply lever – FULLY ON
        2) Emergency lever – NORMAL
        3) Indicator – CHECK
        4) Connections – CHECK
        5) Emergency oxygen – CHECKED AND NORMAL
    c. TEWS control panel – SET
        1) ICS switch – OFF
        2) RWR switch – OFF
        3) EWWS switch – OFF
    d. Countermeasure dispenser control panel – SET
        1) Mode switch – OFF
        2) Flare switch – OFF
    e. Circuit breakers – IN
    f. Interior lights controls – AS DESIRED

BEFORE TAXIING (REAR COCKPIT)

1. Warning and caution lights – TEST
2. MPD's/MPCDs – ON
3. INS – CONFIRM ALIGN
4. Avionics – AS REQUIRED (AAI, ILS, VHF, TACAN, TEWS, CMD)
5. Sensor control panel – SET
    a. TGT FLIR – STBY
    b. LASER switch – SAFE
6. Avionics systems – CHECK and SET

7. Radar – STBY
8. PACS – SET AS REQUIRED
9. Oxygen – CHECK
10. Standby attitude indicator – CAGE THEN UNCAGE
11. Altimeter – SET AND CHECK

NOTE

If the altimeter is not within tolerances, the aircraft may be flown provided that the altimeter checks within plus/minus 75 feet of field elevation. The plus/minus 75 feet of field elevation is an operational restriction and does not necessarily reflect instrument tolerance.

TAXIING

As the throttles are moved out of idle, confirm that the holding brake is released. As aircraft starts to roll, apply brakes to check operation. When clear, actuate nose gear steering in both directions to ensure proper operation. During taxi, check all flight instruments. At high gross weights, make all turns at minimum practicable speed and maximum practicable radius. At low gross weight, taxi speed requires continual attention due to excess thrust at IDLE.

CAUTION

Nose gear damage can result during turns at high gross weight when using asymmetric thrust and/or asymmetric braking. At heavy gross weights, avoid abrupt nose gear steering inputs. Make turns at minimum practical speed and maximum practical radius, and avoid operations on rough and uneven taxiways or runways. Failure to do so may result in tire damage.

1. Holding brake – OFF
2. Brakes – CHECK
3. Nose gear steering – CHECK
4. Flight instruments – CHECK

If taxiing is required before INS alignment is complete and the aircraft is stationary again before takeoff, place the holding brake ON to continue the alignment.

CAUTION

To prevent a skid and possible tire failure, the aircraft must be completely stopped before placing the holding brake ON.