

PRE-START

- 1 BOOST PUMPS NORM
SET RUDDER SHAKER, ANTI-SKID, AFT BAY EQUIP
- 2 V/UHF RADIO TR / TR+G
- 3 EXT & INT LIGHTS SET

ENGINE START

- 1 BATT switch ON
- 2 ICS CHECK / SET
WRN / CAUT LTS TEST, BRAKES 1,500 PSI, LDG GEAR
- 3 THROTTLE CHECK
Brake off, full, JPT off, idle, off, JPT on, brake on
- 4 IGNITERS CHECK
Airstart, manual fuel switch
- 5 EDP / FUEL BIT TEST PERFORM
- 6 CANOPY CHECK / CLOSE
- 7 APU switch ON
- 8 DECS ENABLE switch ON
- 9 FUEL SHUTOFF handle ON
EFC CYCLE, BRAKE ON, THROTTLE OFF, NOZZLES 10°
- 10 ENGINE START switch ENG ST
- 11 THROTTLE ... (28.4–29.0%, JPT < 545°C) IDLE
WRN / CAUT LTS TEST, BRAKES > 2,700 PSI, LDG GEAR
- 12 DDI / HUD / COMM ON
ENG page → IGV angle 31–39° → RESET SORTIE JPT

BEFORE TAXI

EHSD page → SET LAT/LONG, MVAR, & SHIP DATA

- 1 INS switch SEA / FIELD: GND
Check, enter waypoints, optional: use SINS cable
- 2 DMT ON
- 3 RADALT / IFF / TCN / LASER SET
- 4 COMMS 1 & 2 SET
- 5 ALQ-164 / ALR-67 / ALE-39 SET
- 6 FLIR ON
- 7 T-R / BOOST PUMPS CHECK
*L/R BP off → DC (~27V), DC test sw MAIN (>25.5V)
DC test sw STBY (~25.5V), L/R BP NORM (+2V), DC ctr*
- 8 JPT LIMITERS CHECK
JPT off, EFC cycle, JPT on

BEFORE TAXI (CONT'D)

- 9 MANUAL FUEL switch CHECK
- 10 WATER switch CHECK
- 11 EVICS CHECK
Throttle 55% then IDLE, check IGV on BIT1
- 12 FUEL PROP CHECK / ON
- 13 TRIM CHECK / SET 4° ND
- 14 STANDBY INSTRUMENTS CHECK
- 15 SAI UNCAGE, ERECT
- 16 BARO ALTIMETER SET
- 17 OXYGEN switch ON
- 18 FLAPS BIT (1 finger) PERFORM
Flaps STOL → Cruise
- 19 FLIGHT CONTROLS (2 finger) CHECK
- 20 SAAHS BIT (3 finger) PERFORM
- 21 PADDLE switch PRESS
- 22 STORES / SMSFF / AUTO BIT ... TEST
- 23 STORES PROGRAM
- 24 TPOD ON
- 25 DP switch CYCLE
- 26 A/R PROBE switch (4 finger) CYCLE
- 27 DDI CHECK PERFORMANCE
*VRST (BAW, H2O, BDI), VL (OAT, FELV, GWT),
ODU, ENG (RJPT, JPTL, RHOV), Enter FDAT*
- 28 EHSD / FLIR / HUD / NVGs ... ADJUST
- 29 APU AS REQ
- 30 INS switch IFA or NAV (GPS deg'd)

TAXI

V/STOL, FLAPS Cruise, NOZZLES 10°, TRIM 0°,0°,4° ND

- 1 PRK BRAKE / CHOCKS OFF
- 2 ANTI-SKID (FIELD ONLY) CHECK
- 3 BRAKES / NWS CHECK

NIGHT EXT LTS	MSTR	FORM	POS	A-COL	AUX	LAND
FIELD – ST/TAXI	NORM	ON	BRT	ON	AS REQ	
FIELD – TO/LDG						
LHA – ST/TAXI	NORM	ON	OFF	OFF	OFF	OFF
LHA – TO/LDG	NVG		DIM	ON	OFF	OFF

TAKEOFF XWIND LIMITS

- CTO 20 kts
STO > 120 kts 15 kts
STO ≤ 120 kts 10 kts
(R)VTO 10 kts (5 kts night)

MAX WEIGHT

- CTO: 32,000 lbs
VTO: 20,500 lbs

PRE-POSITIONING CHECKS

- 1 CWAIVER checks PERFORM
- 2 CANOPY CHECK / CLOSED
- 3 SEAT ARMED
- 4 INSTRUMENTS CHECK
- 5 APU OFF / NIGHT: ON
- 6 ANTI-SKID switch (LHA: NWS) ON
- 7 ABORT #'s CHECK
- 8 ALTITUDE switch AS DESIRED
- 9 INS knob IFA / NAV
- 10 APPROACH LIGHT ON
- 11 RPS (FIELD ONLY) CHECK

TAKEOFF CHECKS

- 1 CONFIGURATION CHECKS (1 finger)
Canopy, Seat, NRAS, PC, STO stop, Trim, Flaps, Wrn/caut Its
- 2 ENGINE / H2O / CONTROLS (2 / 5 finger)
ENG page → box Accel (60%): 2.4–3.1s, IGVs 10–21°
H2O → TO: note RPM rise, reset RPM 60%
Nozzles: 30° (RPM 60%), duct pres. ~45psi, nozzles: TO

AFTER TAKEOFF

- 1 GEAR / FLAPS / NOZZLES SET
- 2 WATER switch OFF
- 3 STO stop CLEAR
- 4 5,000 FT(msl) IGV CHECK .. 80% RPM
- 5 10,000 FT CHECK PERFORM
Fuel transfer / quantity, Cabin pressure
- 6 18,000 FT CHECK PERFORM
Altimeter: 29.92, Cabin pressure, APU secure
- 7 CRUISE ALT..... AOA / ALT X-CHECK

AIR REFUELING

- 1 MASTER ARM OFF
- 2 A/R switch OUT
- 3 PROBE LIGHT AS DESIRED

AIRSPEED 190–300 IAS, AoA <13 UNITS

- 4 FLAPS CRUISE
- 5 AFC AS DESIRED

IF FUEL LEVEL IS CRITICAL, SWITCH EXT TANKS TO 'STOP' OR 'ON' TO ENSURE THE FASTEST TRANSFER OF FUEL TO THE ENGINE FEED TANKS

DROGUE KC-135 MPRS • S-3B • KC-130 • IL-78

CWAIVER

- c Clock ZULU
- Combat Thrust AS DESIRED
- w Weapons PROGRAMMED
Box TONE, SITE/DIR, fuze/Q/M/I, PGMs, IR cool
- A Avionics / ARBS and FLIR ... SET
*TPOD: Yardstick (m), designator, FOV (nar-2)
ARBS: BST, FLTR/GRAY SCALES/NITE
FLIR: FLRM on, cuer prg, BRT/CNT, REJ → MAN off
TACAN: Set
Displays: BRT/CONT/NAVFLIR*
- I IFF SET
Verify 3C code, Mode I program, Mode 4 selected
- V VRS LOCAL, RECORD
- E ECM SET
*ALE-39: Set to S, verify programs for C, F, A
ALR-67: BIT, OFST/LIM unboxed, PRI – N
ALQ-164: As required*
- R RADALT SET
*LAW on and set, program PUC, GPS on,
Bomb off (if rel alt. > 2000), GPWS as desired*
- MISC
*WYPTs, NSEQ string, MAP defaults, design eye
Lights check, APU as required, A/A TACAN PROX
TOT, Bingo bug to TIGER*

TACADMIN (FELPG-F)

- F Flight Environmental Assessment
- E Expendables SET / CHECK
- L LAW/PUC SET / CHECK
- P PLACE Checks PERFORM
Pod, Lights, Armament, C-measures, Emitters
- G G-WARM PERFORM
90° 4G, 90° max anticipated G
- F "FENCED in, Tapes on"

IP (MWSS)

- M MASTER ARM switch ARM
- w Weapon Q/M/I, FUZE
- s System A/G
STP, DESG/STP, Map scale, Course, HERRS/VERRS
- s Sensors DMT / FLIR / TPOD
Cascade plan (CCIP>RCIP>GCIP>BCIP)
- WOF Update (optional)

ECP

- 1 MASTER ARM switch OFF
- 2 Battle Damage Assessment
- 3 PLACE Checks.... AS REQUIRED

RTF

- 1 Route / Profile / ATC procedures

DESCENT CHECKS

- 1 STO Stop CLEAR**
 - 2 WEATHER . . . WIND / VIS / LDG TYPE**
 - 3 INSTRUMENTS CHECK
*STP, TCN, CRS, NAVFLIR, HUD, RADALT***
 - 4 FUEL CHECK / BALANCE / BINGO**
 - 5 TEMP PREHEAT / DEFOG (*as required*)**
 - 6 APU AS REQUIRED**

LANDING CHECKLIST

- 1 GEAR** DOWN
 - 2 FLAPS** AS REQUIRED
Nozzles > 25° prior to selecting STOL flaps
 - 3 STO Stop** CLEAR
 - 4 DUCT PRESSURE** CHECK
 - 5 BRAKE PRESSURE** CHECK
 - 6 WATER** AS REQUIRED
H2O → T/O, full throttle, check RPM rise, H2O as required
 - 7 WARNING / CAUTION LTS** CHECK
 - 8 LIGHTS** AS REQUIRED
 - 9 ANTI-SKID switch**..... (LHA: NWS) ON

AFTER LANDING CHECKS

WHEN CLEAR OF ACTIVE RUNWAY:

- 1 TRIM (LHA: 2° ND) 4° ND**
 - 2 FLAPS (LHA: STOL) CRUISE**
 - 3 WATER OFF**
 - 4 IFF . . . HOLD, WAIT 10s, AS DESIRED**
 - 5 MASTER ARM switch SAFE**
 - 6 SEAT (LHA: ARMED) SAFE**
 - 7 OXYGEN switch OFF**
 - 8 APU OFF**
 - 9 LANDING LIGHT OFF**

WHEN PARKED:

- 10 NOZZLES** 0° to 10°
 - 11 PARKING BRAKE** SET
 - 12 ANTI-SKID switch** (*LHA: NWS*) ON

FLAPS

Record: Engine life, max JPT, fatigue life

AFTER LANDING CHECKS (CONT'D)

- | | | | |
|----|---------------------|-------|------------------|
| 14 | INS UPDATE | | PERFORM / ACCEPT |
| 15 | FLIR / DMT switches | | OFF |
| 16 | TPOD | | OFF |
| 17 | SAI | | CAGE |
| 18 | INS switch | | OFF |
| 19 | DDI / HUD / COMM | | AS DESIRED |
| 20 | SDAT | | ERASE |
| 21 | ODU | | ACPT |
| 22 | THROTTLE | | OFF |
| 23 | BOOST PUMPS | | NORM |
| 24 | DECS ENABLE switch | | OFF |
| 25 | FUEL SHUTOFF handle | | OFF |
| 26 | BATTERY switch | | OFF |

RATING	NOTES	MAX % RPM	MAX °C JPT	COMBINED TIME LIMITS					
SHORT LIFT WET	1	120.0	800	A B C D E					
SHORT LIFT DRY		113.5	780						
NORMAL LIFT WET	1, 2	116.0	780						
NORMAL LIFT DRY	2	111.0	765						
COMBAT		111.0	750						
MAX THRUST		109.0	710						
MAX CONTINUOUS	2	102.0	645		UNLIMITED				
IDLE	5	28.4–29.0	545		UNLIMITED				
STARTING	2, 4		475		MOMENTARILY				
1. Do not use H2O when OAT < 5°C or > 10,000 ft					A.	15 Seconds			
2. Requires pilot action to maintain limit					B.	1.5 Minutes			
3. 2.5/10.0 min at lift/cbt sep. by > 1 min below max					C.	2.5 Minutes			
4. Slow/abortive starting discontinued before 475°C					D.	10.0 Minutes			
5. Minimum allowable sub-idle RPM: 22%					E.	15.0 Minutes			

SSS / STORES

Equipment
TANK 300lb Fuel Tank
GUN GAU-12 Gunpod
DECM AN/ALQ-164 DECM
TPOD AN/AQ-28 Litening II

HUD: INS / MAV

Unguided Bombs	
81	Mk-81
82	Mk-82
82HL	Mk-82 SE
82HL	Mk-82 AIR
83	Mk-83
20	Mk-20 Rockeye

EHSD:
CTR / DCTR / EW

Long:
HUD Scene Reject
2x:
TPOD HTS Mode

FLIR:
BHOT / WHOT

Rockets & Missiles	
10S	4 x ZUNI
68S	7 x 2.75" Hydra
20S	7 x 2.75" APKWS
25S	8 x SUU-25/LUU-2
LMAV	AGM-65E LMAV
LMV2	AGM-65E2/L LMAV
IRMV	AGM-65F IRMAV
SA	AGM-122 Sidewarm
9M	AIM-9M Sidewinder

DMT: TV / LST

Short: AR / PT / MT

Long: INR Track

Precision Guided Munitions

12	GBU-12 LGB
16	GBU-16 LGB
J82	GBU-38 JDAM
J83	GBU-32(V)2/B JDAM
J82L	GBU-54B LJ DAM

LANDING XWIND LIMITS

LANDING XWIND LIMITS

App \geq 140 kts	20 kts (15 kts night)
App < 140 kts	15 kts (10 kts night)
GWt > 19,550 lbs	10 kts

MAX WEIGHT

CL:	26,000 lbs
VL:	20,500 lbs
PVI:	24,500 lbs

Wet runway: reduce by 5 kts

TAKEOFF DATA						LANDING TYPES						
	VTO*	RVTO	STO	CTO		Nozzles	Flaps	AoA	Attitude			
1 Finger Checks	NRAS	-	-	VREST	Calc	VL	STOL	<15°	WH: 0°			
	PC	14°	14°	14°	14°	RVL	STOL	<15°	WH: 0°			
	STO Stop	Clear	70°	VREST	Clear	SFNSL	STOL	10-12°	WH: +2°			
	Trim**	0°,0°,2°ND	0°,0°,2°ND	0°,0°,2°ND	0°,0°,2°ND	AFNSL	AUTO	10-12°	WH: +2°			
	Flaps	STOL	STOL	STOL***	AUTO	SVNSL	STOL	8-10°	WH: +2°			
	Wrn/Caut	Out	Out	Out	Out	AVNSL	AUTO	8-10°	WH: +2°			
2/5 Finger Checks	Noz 50° or STO: Flaps Check					HSSL	STOL	10-12°	WH: +2°			
	Noz 10°: Engine ACCEL (2.4–3.1s), IGV 11–22° at 60%					BSSL	STOL	10-12°	WH: +2°			
	Water: As required, reset to 60%					CL	AUTO	10-12°	WH: +2°			
	Noz 30°: Duct Pressure at 60% (45psi)					PNB: 70% rpm at 98° noz to <60kt						
Takeoff	Nozzles	82°	30°	10°	10°	CTO ROT SPEED		RVL SPEED				
	NWS	-	Engage	Engage	Engage	GWT	Rotate	Speed	Max Weight			
	Throttle	FULL	FULL	FULL	FULL	18,000 lbs	135 kts	≤45kt	VL			
	Brakes	Hold	Release	Release	Release	20,000 lbs	135 kts	50kt	VL + 2,300lb			
	Noz Rot	-	RPM>110%	NRAS	-	22,000 lbs	135 kts	55kt	VL + 2,700lb			
	Aft Stick	-	-	-	NRAS	24,000 lbs	139 kts	60kt	VL + 3,100lb			
	Attitude	Accelerating Transition to PC			PC	26,000 lbs	146 kts	65kt	VL + 3,500lb			
*VTO Limit from VREST Page					28,000 lbs			70kt	VL + 4,000lb			
**Shore trim; LHA trim from Tote Board					30,000 lbs			VL Weight: VREST Page				
***AUTO permitted if FOD risk but VREST data invalid					31,000 lbs							

VMC CLIMB		DDI	HUD	L-AMPCD	R-AMPCD	VFR DESCENT	
300 KCAS Full Power to M		Takeoff	VSTOL	EHSD-DCNTR	ENG (DAY) HUD / FLIR (NIGHT)	250 KCAS < 10,000 ft	
250 KCAS FP to < 10,000 ft		IMC	VSTOL	EHSD-DCNTR	AS REQ else HUD	Descent:	
		En-Route / RTF	NAV	EHSD-DCNTR	EW / FLIR	230 KCAS, AUTO flaps IDLE power	
		Holding	NAV	EHSD-DCNTR	AS REQ	Overhead Arrival:	
		Apprch / Landing	VSTOL	EHSD-CNTR	AS REQ	350 KCAS, 850 ft Level break	
		Target Area	A/G	EHSD-CNTR	DMT / FLIR		
SCRAMBLE							
1 CANOPY – CLOSE		5 DECS switch – ON		9 INS – ALIGN			
2 SEAT – ARMED		6 ENG ST – ON		10 INS – IFA/NAV			
3 BATT – ON		7 THROTTLE – IDLE		11 FLAPS – ON			
4 FUEL S/O – ON		8 W&C Its – TEST		12 P BRAKE – OFF			