

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
- Wet runway: reduce by 5 kts

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 lts

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 'ORIDE' 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
- 13 FLAPS OFF
Record: Engine life, max JPT, fatigue life
Perform: SAAHS BIT, AUTO BIT, other failures, DP cycle

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/AAQ-28 Litening II

HUD: INS / MAV

Short: LTIP
Long: Select LMV2

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

Short: FOV
Long: LSS

Long:
HUD Scene Reject

2x:
TPOD HTS Mode

FLIR:
BHOT / WHOT

Short: BH / WH
Long: FLIR / CCD

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 Sidarm
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 LJDAM

LANDING XWIND LIMITS

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

Wet runway: reduce by 5 kts

MAX WEIGHT

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

TAKEOFF DATA					
		VTO*	RVTO	STO	CTO
1 Finger Checks	NRAS	–	–	VREST	Calc
	PC	14°	14°	14°	14°
	STO Stop	Clear	70°	VREST	Clear
	Trim**	0°,0°,2°ND	0°,0°,2°ND	0°,0°,2°ND	0°,0°,2°ND
	Flaps	STOL	STOL	STOL***	AUTO
	Wrn/Caut	Out	Out	Out	Out
2/5 Finger Checks	Noz 50° or STO: Flaps Check				
	Noz 10°: Engine ACCEL (2.4–3.1s), IGV 11–22° at 60%				
	Water: As required, reset to 60%				
	Noz 30°: Duct Pressure at 60% (45psi)				
Takeoff	Nozzles	82°	30°	10°	10°
	NWS	–	Engage	Engage	Engage
	Throttle	FULL	FULL	FULL	FULL
	Brakes	Hold	Release	Release	Release
	Noz Rot	–	RPM>110%	NRAS	–
	Aft Stick	–	–	–	NRAS
	Attitude	Accelerating Transition to PC			PC
*VTO Limit from VREST Page					
**Shore trim; LHA trim from Tote Board					
***AUTO permitted if FOD risk but VREST data invalid					

LANDING TYPES				
	Nozzles	Flaps	AoA	Attitude
VL	82°	STOL	<15°	WH: 0°
RVL	82°	STOL	<15°	WH: 0°
SFNSL	60°	STOL	10-12°	WH: +2°
AFNSL	60°	AUTO	10-12°	WH: +2°
SVNSL	40-60°	STOL	8-10°	WH: +2°
AVNSL	40-60°	AUTO	8-10°	WH: +2°
HSSL	82° 10-12ft	STOL	10-12°	WH: +2°
BSSL	98° 2-3ft	STOL	10-12°	WH: +2°
CL	0°	AUTO	10-12°	WH: +2°
PNB: 70% rpm at 98° noz to <60kt				

CTO ROT SPEED	
GWT	Rotate
18,000 lbs	135 kts
20,000 lbs	135 kts
22,000 lbs	135 kts
24,000 lbs	139 kts
26,000 lbs	146 kts
28,000 lbs	153 kts
30,000 lbs	160 kts
31,000 lbs	164 kts

RVL SPEED	
Speed	Max Weight
≤45kt	VL
50kt	VL + 2,300lb
55kt	VL + 2,700lb
60kt	VL + 3,100lb
65kt	VL + 3,500lb
70kt	VL + 4,000lb

VL Weight: VREST Page

VMC CLIMB	
300 KCAS Full Power to M	
250 KCAS FP to < 10,000 ft	
DI	Mach
0	0.80
10	0.77
20	0.74
30	0.71
40	0.68
50	0.65
60	0.63
70	0.60
80	0.59

DDI	HUD	L-AMPCD	R-AMPCD
Takeoff	VSTOL	EHSD-DCNTR	ENG (DAY) HUD / FLIR (NIGHT)
IMC	VSTOL	EHSD-DCNTR	AS REQ else HUD
En-Route / RTF	NAV	EHSD-DCNTR	EW / FLIR
Holding	NAV	EHSD-DCNTR	AS REQ
Apprch / Landing	VSTOL	EHSD-CNTR	AS REQ
Target Area	A/G	EHSD-CNTR	DMT / FLIR

VFR DESCENT
250 KCAS < 10,000 ft
Descent: 230 KCAS, AUTO flaps IDLE power
Overhead Arrival: 350 KCAS, 850 ft Level break

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 lts – TEST	12 P BRAKE – OFF