

BEFORE ENGINE START

RH BAT CB	OFF
RH GEN CB	ON
SHUTOFF VALVE	CLOSED
WHEELCHOCKS	PLACED

ENGINE START

Ground Power	ON
RH Panel CBs	ON
LH Panel CBs	ON
THROTTLE	IDLE
Engine Start Cover	OPEN
Engine Start Button	PRESS 1-2 SEC to Ignite
RPM 600 reached	SHUTOFF VALVE ½ (HOME)
RPM 900-1200 reached	SHUTOFF VALVE Gradual Full OPEN (RShift + HOME)
RPM 2500 reached	Throttle up to RPM 4500
Ground Power	OFF
RH BAT CB	ON
(If Cold Start) RPM 6000-7000	SET

***ENGINE OPERATION CHECK**

RPM 6500-7500	SET
ISOLATING VALVE	ON
RPM drop <250	CHECK
RPM 5000	SET
THROTTLE	FULL in 1.5-2 SEC
RPM 11560	CHECK
EGT < 690 °C	CHECK
Fuel Pressure 45 kg/cm2	CHECK
Oil Pressure 1.4-3.5 kg/cm2	CHECK
Oil Temperature -40 to +90 °C	CHECK
ISOLATING VALVE	ON
RPM – Const. OR +50 OR -200	CHECK
THROTTLE	SET IDLE
RPM 2500	CHECK
EGT < 510 °C	CHECK
Fuel Pressure 7-12 kg/cm2	CHECK
Oil Pressure > 0.2 kg/cm2	CHECK

***HYDRAULIC SYSTEMS CHECK**

RPM 8000	SET
Hydraulic Pressure 80-140 kg/cm2	CHECK
FLAPS	CHECK
AIRBRAKES	CHECK

PRE-TAXI

Cockpit	CLOSE
OXYGEN VALVE	OPEN
CONTROL VALVE	SET TEMPERATURE
WHEELCHOCKS	REMOVE
GEAR LEVER LOCK	UNLOCK
*FLAPS	20 °
*PITOT HEATER	ON

TAKEOFF

BRAKES	SET
RPM 8000-9000	SET
BRAKES	RELEASE
THROTTLE	FULL
NOSE LIFT	150-160 kph
TAKEOFF	220-240 kph
GEAR LEVER	UP -> NEUTRAL

CLIMB

Climb to Circuit	500 kph IAS, 7-8 m/s
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PRE-LANDING

AIRSPEED	SET 400-450 kph
GEAR LEVER	DOWN-> NEUTRAL
AIRSPEED	SET 320-350 kph
FLAPS	FULL-> NEUTRAL

LANDING

GLIDE SPEED	260-270 kph
Vertical Speed	7-8 m/s
RPM	MAINTAIN ABOVE 6000
Touchdown	IDLE THROTTLE, 200 kph
Flare Attitude	MAINTAIN

GO-AROUND

THROTTLE	FULL
Stick control	LEVEL FLIGHT
AIRSPEED	>260 kph
280-300 kph	CLIMB & GEAR UP
>100m, >300kph	RETRACT FLAPS

ENGINE SHUTDOWN

THROTTLE	IDLE & WAIT 30 SEC
SHUTOFF VALVE	CLOSE
LH & RH CBs	OFF EXCEPT: BAT & BOOST
Compressor Stop	CHECK
BAT, BOOST CBs	OFF

BEST RATE CLIMB	710 kph TAS, 11560 RPM
STALL SPEED WITHOUT FLAPS	200-220 kph IAS (<10k), 230-240 kph IAS (>10k)
CRUISE SPEED	450-470 kph IAS (10k)
MAX LEVEL SPEED	1076 kph TAS (SL) 990 kph TAS (10k)

ENGINE FAILURE IN FLIGHT	
SHUTOFF VALVE	CLOSE
THROTTLE	SET IDLE
*RH CBs	OFF EXCEPT: BAT, GEN, RADIO, TRIM
ALTITUDE	QUICKLY DESCEND to BELOW 11000 m
If >2000 m	ENGINE RESTART
If <2000 m	LAND or BAIL OUT

ENGINE RESTART	
ALTITUDE	BELOW 6000 m
AIRSPEED	300-320 kph
AIR IGNITION	ON
SHUTOFF VALVE	OPEN in 10-15 SEC
(If No Start)	FORWARD in 15 SEC ->
THROTTLE	BACKWARD
Increase in RPM	SET IDLE THROTTLE
AIR IGNITION	OFF
RPM	SET
RH CBs	ON
(If No Start in 40-45 SEC)	
SHUTOFF VALVE	CLOSE
AIR IGNITION	ON
Engine Restart	REATTEMPT 20-30 SEC LATER
If <2000 m	LAND or BAIL OUT

ENGINE STALL	
THROTTLE	IDLE
Normal RPM and Temperature	CHECK
THOTTLE	SMOOTH FORWARD

ENGINE FIRE	
THROTTLE	IDLE
SHUTOFF VALVE	CLOSE
BOOST CB	OFF
FIRE BUTTON	PRESS
AIRSPEED	CLIMB & SLOW TO 300-350 kph
Fire Stopped	NO ENGINE RESTART, LAND or BAIL OUT

COCKPIT DECOMPRESSION	
(If Cockpit Breach)	PROMPTLY REDUCE ALTITUDE & AIRSPEED
(Else)	EMERGENCY OXYGEN SUPPLY ON & REDUCE ALTITUDE

(* = Optional)

CB = Circuit Breaker

INTERNAL FUEL CAPACITY	1172kg = 1412 l
FUEL CONSUMPTION RATE (air patrol 10k, 350 kph IAS, 0.83 kg/l)	664 kg/h = 800 l/h
MAX ENDURANCE (330-350 kph IAS, 10k / 5k)	2.05 h / 1.45 h
MAX RANGE (10K, 450-470 kph IAS, w/o tank / 2x300 l / 2x600 l)	1200 km / 1749 km / 2220 km
SERVICE SEILING	15500 m

GENERATOR FAILURE	
LH & RH CBs	OFF EXCEPT: RADIO, COMPASS, HORIZON, PITOT, ENGINE INSTR.
>9000 m	KEEP BOOST ON
FLIGHT TIME	24-26 MIN DAY 20-23 MIN NIGHT

EMERGENCY GEAR & FLAPS EXTENSION	
GEAR LEVER	NEUTRAL
GEAR EMRGENCY EXTEND HANDLES	PULL
GEAR LEVER	DOWN
EMERGENCY GEAR EXTEND VALVE	OPEN
FLAPS LEVER	55°
EMERGENCY FLAPS EXTEND VALVE	OPEN

FORCED LANDING	
LANDING GEAR	DO NOT EXTEND
FLAPS	55°
GLIDE SPEED	260-270 kph
(Good Trajectory) ENGINE	SWITCH OFF

ARMING CANNONS	
GUNS & SIGHT CBs	CHECK ON
GUNS RELOAD BUTTONS	PRESS

ARMING BOMBS	
BOMB & EMERGENCY RELEASE CBs	CHECK ON
TACTICAL RELEASE	ARM

FLYING WITH DROPTANK	
(Pre-Flight)	
BOMB & EMERGENCY TANK RELEASE CBs	CHECK ON
TACTICAL RELEASE	ARM
TANK SIGNAL	ON
FLAPS	20°
(Releasing Drop Tank)	
BOMB RELEASE	PRESS
*BOMB PANEL & RH	OFF
BOMB CBs	

NIGHT FLYING	
RH UV LIGHT RHEOSTAT	FULL for 2-3 SEC -> REDUCE SLIGHTLY
WHITE LIGHT RHEOSTAT	FULL (On LH Side)
NAV & NOSE LIGHT	ON