

ENGINE PRESTART CHECK

CHECKLIST

OY-HLA

A 109S

S/N 22088

From AFM/RFM revision N°6 (27 SEP 07)



EXTERIOR CHECK.....	COMPLETED
REQUIRED DOCUMENTS	ALL ON BOARD
SEATBELTS AND HARNESSSES.....	LOCKED
SEATS AND PEDALS	ADJUSTED
DOORS	SECURED
JETTISON HANDLES	LOCKED
EXTINGUISHER	ON BOARD
CYCLIC	CENTRAL POSITION
COLLECTIVE	FULLY DOWN
CIRCUIT BREAKERS	ALL IN
OVERHEAD CONSOLE (SWITCHES).....	SYSTEMATIC CHECK
STROBE LIGHTS.....	OFF
PITOT HEATER 1 & 2	OFF
CHIP BURNER.....	OFF
WIPERS.....	OFF
ANTI COLLISION LIGHT.....	ON
POSITION LIGHTS	OFF
LIGHTS SYSTEM.....	AS REQUIRED
CABIN LIGHTS.....	AS REQUIRED
INVERTER 1 & 2.....	OFF
GENERATOR BUS 1 & 2.....	OFF
PASSENGER WARNING LIGHT	OFF
FIRE EXTINGUISHER PANEL.....	CHECK
LOAD SHARE	TRQ (OR A/R)
ENTERTAINMENT	OFF
REFRIGERATOR.....	OFF
GENERATOR 1 & 2	OFF
BATTERY	OFF
ROTOR BRAKE	RELEASED
PLA 1 & 2	FLIGHT POSITION
VENTILATION.....	OFF
SHUT-OFF VALLVE 1 & 2	OFF
ECS	OFF
CLOCK	RESET
ALTIMETERS.....	SET
ADI/SBY	PULL & CAGE
XPDR	ALT
I/COM PNLs PILOt/COPilot	SET
ELT	ARMED
ALTN STATIC	NORM
LANDING GEAR	DOWN

USE FOR REFERENCE ONLY
THIS DOCUMENT DOES NOT REPLACE THE AFM/RFM

ENGINE RUN-UP

PITOT HEAT 1 & 2 AS REQUIRED
ON if visible moisture and in rain regardless of OAT
POSition LIGHT ON
CABIN LIGHTS AS DESIRED
PASSENGERS WARNING LIGHTS ON
ENTERTainment AS DESIRED
REFRIGERATOR AS DESIRED
RADIOs and SCREENs AS REQUIRED
HSI AS DESIRED
ADI/SBY UNLOCK
XPDR CODE AS REQUIRED
FLIGHT DIRECTOR PILOT FLYING
THREE ADIs CHECKED
EDU 1 & 2 CHECKED
RADIO MASTER ON
HELIPILOT PANEL ALL ON
(NOTE: see below)
ENGINE MODE 1 & 2 FLIGHT POSITION

NOTE: for the first flight of the day, proceed with the following tests:

SERVO SYTEM DONE
FUEL SYSTEM DONE
PITOT HEAT DONE
INVerter 1 & 2 DONE
EMERGENCY FLOATATION DONE if required
FLIGHT DIRECTOR DONE

TAXI CHECK (if required)

PARKING BRAKE RELEASED
NOSE WHEEL LOCK OFF
TAXI LIGHT ON
BRAKES TEST
COMPASSEs CHECK WHEN TURNING

BEFORE TAKEOFF CHECK

TAKEOFF BRIEFING DONE
ECS OFF
XPDR AS REQUIRED
ALTIMETERs SET
COMPASSes CROSSCHECK
THREE ADIs CROSSCHECK
FUEL QUANTITY CHECK ENDURANCE
PARKing BRAKE AS REQUIRED
NOSE WHEEL LOCK ON (UP)
WEATHER RADAR AS REQUIRED
NR SET 102%
LANDING LIGHT ON
EMERGENCY FLOATS AS REQUIRED
DEPARTURE CLEARANCE RECEIVED

- NO CAUTION – NO WARNING LIGHTS
- ALL IN GREEN (except NR 102%)

HOVER CHECK

STICK TIME START
POWER BOTH ENGINES
TRQ, TOT, N1 WITHIN LIMITS
EDU #1 NO WARNING LIGHTS
..... NO CAUTION LIGHTS
NR CHECK 102%
TAKEOFF SECTOR CLEAR

IN-FLIGHT OPERATION CHECK

POWER SET
NR SET 100% below 75 kts
LANDING GEAR UP (at 200ft AGL)
PARKING BRAKE OFF
NOSE WHEEL LOCK ON
LANDING LIGHT OFF
FLOATS OFF
ECS AS DESIRED
PITOT HEAT 1 & 2 AS REQUIRED

ON if visible moisture and in rain regardless of OAT

ENROUTE CHECK

OAT / ICE CHECKED
PITOT HEAT 1 & 2 AS REQUIRED
ON if visible moisture and in rain regardless of OAT
THREE ADIs CROSSCHECK
COMPASSES CORSSCHECK
ALTIMETERS SET
EDU #1 & #2 CHECKED
FUEL QUANTITY REMAINING ENDURANCE
WEATHER RADAR AS REQUIRED

DESCEND AND LANDING CHECK

NOTE: for IFR approach see the appropriate check

LANDING BRIEFING DONE
LANDING LIGHT ON
EDU #1 & #2 CHECK
RADIO ALTIMETER SET DH
LANDING GEAR LIGHTS TEST
LANDING GEAR DOWN (below 140 kts)
..... THREE GREEN
PARKING BRAKE AS REQUIRED
WEATHER RADAR OFF
NOSE WHEEL LOCK ON
NR SET 102% (below 75 kts)
EMERGENCY FLOATS AS REQUIRED
ECS OFF

- NO CAUTION – NO WARNING LIGHTS
- ALL IN GREEN (except NR 102%)

AFTER LANDING CHECK

COLLECTIVE FULL DOWN
NR SET 100%
LANDING LIGHT OFF
EMERGENCY FLOATS OFF
STICK TIME STOP
STEPS AS DESIRED

IFR INITIAL APPROACH CHECK

BRIEFING REVIEW
ATIS COPY
ALTIMETERs..... SET & CROSSCHECK
RADio ALTimeter..... SET DH/MDH
COMM & NAV..... SET (M/APP ready!)
HSI 1 & 2 SET
 PILOT NAV #1
 COPILOT NAV #2
COURSE SELECTOR SET
MARKERS AS REQUIRED
EDU #1 & #2..... CHECKED
PARKING BRAKE RELEASED
NOSE WHEEL LOCK ON

REVIEW:

- FINAL COURSE
- MSA
- G/P FAP
- M/APP

IFR FINAL APPROACH CHECK

LANDING GEAR LIGHTS..... TEST
LANDING GEAR..... DOWN (below 140kts)
ALTIMETERs & RADio ALTimeter..... CROSSCHECK
NAV S/BY MISSED APP READY
HDG SELECTOR SET
LANDING LIGHT ON
ROTOR RPM..... SET 102% (below 75Kts)
ECS OFF
 • NO CAUTION – NO WARNING LIGHTS
 • ALL IN GREEN (except NR 102%)

NOTE: proceed with the “AFTER LANDING CHECK”

ENGINE SHUTDOWN

CYCLIC AND PEDALS..... CENTRAL POSITION
PARKING BRAKE ON
NOSE WHEEL LOCK..... ON
ENGINE MODE IDLE 30 seconds
OVERHEAD CONSOLE (SWITCHES)..... SYSTEMATIC CHECK
 PITOT HEATER 1 & 2 OFF
 CHIP BURNER..... OFF
 WIPERS..... OFF
 STROBE LIGHTS..... OFF
 INVERTER 1 & 2 OFF
 LIGHTS SYSTEM..... AS REQUIRED
 POSITION LIGHTS OFF
 ANTI COLLISION LIGHT..... ON
 PASSENGER WARNING LIGHT .. OFF
 ENTARTEINMENT OFF
 REFRIGERATOR..... OFF
ADI/SBY LOCKED
RADIO MASTER OFF
HELIPLOT PANEL ALL OFF
FUEL PUMP 1-2..... OFF
ENGINE MODE OFF
ENGINes DECELERATION MONITOR
ROTOR BRAKE APPLY below 40% NR
ENGINE FUEL 1-2 OFF – INDICATOR HORIZONTAL
FUEL QUANTITY & BLOCK TIME WRITE DOWN
FUEL VALVE 1-2 OFF – INDICATOR VERTICAL
BATTERY OFF – RED BUS

Pilot should remain at flight controls until rotor has come to a complete stop!!!

ENG 1(2) OUT

COLLECTIVE ADJUST NRWITHIN LIMITS

ON AFFECTED ENGINE

ENGINE MODEIDLE, CONFIRM
.....OFF
PLAOFF
FUEL PUMPOFF (caution light on)
ENGINE FUEL VALVECLOSED (fuel valve indicator
.....bar horizontal)
CROSSFEED CLOSED (bar vertical)
GENERATOROFF

LAND AS SOON AS PRACTICABLE
IF TERRAIN PERMITS MAINTAIN SOME FORWARD SPEED

ENG 1(2) FIRE

COLLECTIVE ADJUST NRWITHIN LIMITS

ON AFFECTED ENGINE

ENGINE MODE IDLE, CONFIRM FIRE
PLAOFF
FIRE EXTINGUISHERPRESS S/OFF FIRE
.....SWITCH BTL 1

ON AFFECTED ENGINE

FUEL PUMPOFF
ENGINE FUEL VALVECLOSED
CROSSFEED VALVECLOSED
GENERATOROFF
ECSOFF
SHUT-OFF VALVE 1 & 2OFF

IF FIRE WARNING PERSISTS

FIRE EXTINGUISHERSWITCH BTL 2

IF FIRE WARNING STILL PERSISTS

LAND IMMEDIATELY

#1(2) OIL PRES

TEMPERATURE AND PRESSURE.....CHECK

**ON AFFECTED ENGINE
IF ENGINE OIL PRESSURE OUTSIDE LIMITS**

ENGINE MODEIDLE

**IF ENGINE OIL PRESSURE OUTSIDE LIMITS
PROCEED WITH THE ENGINE SHUTDOWN PROCEDURE**

LAND AS SOON AS PRACTICABLE

#1(2) ECU FAIL

Critical hardware failure of the engine electronic control unit (ECU).
Automatic reversion to manual mode of the affected engine.

EDU #2CHECK MANUAL MODE
ENGINE GOVERNORMAN then AUTO

IF WARNING MESSAGE PERSISTS

ENGINE TRIM or PLA.....MANUAL CONTROL

LAND AS SOON AS PRACTICABLE

XMSN OIL PRES

TRANSMISSION OIL PRESSURECHECK

IF OIL PRESSURE BELOW 30 PSI

POWERREDUCE as operational
.....conditions permit

LAND AS SOON AS POSSIBLE

XMSN OIL HOT

TRANSMISSION OIL TEMPERATURECHECK

IF OIL TEMPERATURE ABOVE 120°C

POWERREDUCE as operational
.....conditions permit

LAND AS SOON AS POSSIBLE

ROTOR BRK ON

Rotor brake in operation.
Braking pads of rotor brake not in fully retracted position.

IN FLIGHT

ROTOR BRAKEOFF, FULLY FORWARD

LAND IMMEDIATELY

WARNING

When landing gear is extended in flight don not move rotor brake lever aft.

NOTE: When the landing gear is retracted a locking pin is automatically engaged to prevent the rotor brake lever moving aft.

ELECTRICAL + BATT DISCH

BOTH GENERATORS FAILED

POWERREDUCED
AIRSPEEDREDUCE 128 KTS
RATE OF CLIMB.....REDUCE TO 1000 FT/MIN

CAUTION

Both SAS 1 and SAS 2 may be momentarily lost as a result of GEN BUS 1 & 2 switches disconnection. Immediate SAS 1 re-engagement is possible.

GENERator BUS 1 & 2OFF
BUS TIECAUTION LIGHT ON
SAS 1ON
GEN 1 & 2RESET, THEN SET TO ON

IF BOTH GENERATORS SWITCH TO OFF

#1(2) DC GENCAUTION LIGHT ON
ELECTRICALMESSAGE STILL ON
GEN 1 & 2OFF

LANDING AS SOON AS POSSIBLE WITHIN 30 MINUTES MAXIMUM
CONTINUE FLIGHT WITH ONE SAS ONLY

WARNING

With a double generator failure, if the generator busses are not disconnected, the battery is capable of supplying power for only 10 minutes maximum, providing that VHF radio is not used in transmission for more than 3 minutes.

ELECTRICAL + BATT DISCH

BATTERY BUS

EDU 1
DAU-CH#A
NAV/COMM/GPS 1 (Pilot)
ICS PILOT
EFIS FANS

<p>EMERGENCY BUS 1</p> <p>INVERTER 1 SAS 1 ATT ENGAGED LANDING GEAR HYD. CNTR LANDING GEAR CNTR PNL LANDING LIGHTS TRANSPONDER</p>	<p>EMERGENNCY BUS 2</p> <p>SEARCH LIGHT CKPT PLT UTILITY LIGHT ADI STANDBY PITOT HEAT 2</p>
<p>DC ESSENTIAL BUS 1</p> <p>ENG 1 FIRE DETECT and FIRE EXTINGUISHER SYSTEMS FUEL PUMP 1 FUEL XFEED VALVE FUEL SHUT-OFF VALVE 1 ICS CO-PILOT FORCE TRIM EHSI PILOT</p>	<p>DC ESSENTIAL BUS 2</p> <p>ENG 2 FIRE DETECT and FIRE EXTINGUISHER SYSTEMS FUEL PUMP 2 FUEL SHUT-OFF VALVE 2 HYDRAULIC SYSTEM GOV CTL SPEAKER AMPLIFIER EADI PILOT EDU 2 DAU-CH#B</p>

BATT HOT

BATTery OFF

LANDING AS SOON AS POSSIBLE