

PREFLIGHT CHECK

1	Aircraft preparation / outside check	.....COMPLETED (according AFM)	.....1
2	Baggage & rear door	.....CLOSED & LATCHED	.....2
3	Tow bar	.....REMOVED & SECURED	.....3
4	Cabin	.....CHECKED	.....4
5	Aircraft papers & aircraft log	.....CHECKED	.....5
6	Load sheet	.....WITHIN LIMITS	.....6

PREFLIGHT CHECK COMPLETED

COCKPIT PREPARATION

1	Parking brake	.....SET	.....1
2	Rudder pedals	.....ADJUSTED & LOCKED	.....2
3	Seat belts & harness	.....FASTENED	.....3
4	Engine levers	.....IDLE / HIGH RPM / CUT OFF	.....4
5	Alternate air	.....CLOSED	.....5
6	Ignition	.....OFF	.....6
7	Master switch (BAT / ALT)	.....OFF	.....7
8	Avionic master	.....OFF	.....8
9	Essential bus	.....OFF	.....9
10	Alternate static	.....CLOSED	.....10
11	All lights	.....OFF	.....11
12	Emergency switch	.....OFF / GUARDED	.....12
13	ELT	.....ARMED	.....13
14	Circuit breakers	.....CHECKED	.....14
15	Flaps	.....UP	.....15
16	Pitot heat	.....OFF	.....16
17	Fuel pump	.....OFF	.....17

COCKPIT PREPARATION COMPLETED

CHECK BEFORE ENGINE START

- | | | | |
|----|---|---|----|
| 1 | Master switch (BAT)..... | ON | 1 |
| 2 | Trim | CHECKED | 2 |
| | • | Check trim manually for free movement forward and rearward set back to neutral | |
| 3 | Flight controls | FREE | 3 |
| | • | Check that no object is potentially blocking the free movement of the flight controls also no objects near or behind the pedals | |
| 4 | G1000..... | DATA CHECKED / ACKNOWLEDGE | 4 |
| | • | Check the validity of the data base required for the flight press “ENT” (right button of MFD) | |
| 5 | Annunciations / engine instrument | CHECKED | 5 |
| | • | Check PFD warnings for congruency, choose engine page on MFD and verify function of engines instruments | |
| 6 | Fuel quantity | CHECKED / RESET (if required)..... | 6 |
| 7 | Fuel selector | FULLER TANK | 7 |
| 8 | Oil temperature..... | CHECKED | 8 |
| | • | Be aware of oil temperature for the engine start; will dictate cold or hot start | |
| 9 | Rear door | CLOSED & LATCHED | 9 |
| 10 | Front canopy | POSITION 1 or 2 | 10 |

CHECK BEFORE ENGINE START COMPLETED

ENGINE START

- 1 Strobe.....ON1
- 2 Start key.....INSERT2
- 3 Throttle.....OPEN 3 cm3
- 4 RPM lever.....HIGH RPM4
- 5 Fuel pump.....ON5

Engine cold: (oil T < 120 °F)

- 6a Mixture.....OPEN 3-5 seconds then OFF6a
- 7a Throttle.....OPEN 1 cm7a

Engine warm: (oil T ≥ 120 °F)

- 6b Mixture.....OPEN 1-3 seconds then OFF6b
- 7b Throttle.....OPEN 3 cm7b

- 8 Propeller area.....CLEAR8
- 9 Starter.....ENGAGE9

- Starter limitation: do not operate the starter for more than 10 seconds. Let it cool off for 20 seconds before attempting subsequent start. After 6 attempts a cool down period of half an hour is required (AFM)

- 10 Mixture.....FULL RICH WHEN ENGINE FIRES10
- 11 Throttle.....1000 RPM11
- 12 Oil pressure.....GREEN SECTOR (max 15 seconds).....12

- If the oil pressure has not moved in the green sector within 15 seconds after engine start, shut down engine and investigate the problem

- 13 Fuel pump.....OFF / FUEL PRESSURE CHECK.....13
- 14 Master switch (ALT).....ON / AMMETER CHECK14

ENGINE START COMPLETED

CHECK AFTER ENGINE START

- | | | | |
|----|--|---------------------------|----|
| 1 | Annunciations | CHECK | 1 |
| 2 | Avionics master | ON | 2 |
| 3 | Flood light | AS REQUIRED | 3 |
| 4 | Position light | ON | 4 |
| 5 | Ammeter | CHECK | 5 |
| | • If required increase RPM | | |
| 6 | Flaps..... | UP - T/O - LDG - T/O..... | 6 |
| | • Check indicator and visual position of flaps | | |
| 7 | Pitot heat | CHECK | 7 |
| | • Ammeter must show a rise when switching pitot ON | | |
| 8 | Cabin heat & defroster | AS REQUIRED | 8 |
| 9 | Fuel tank selector | SWITCH TANK..... | 9 |
| 10 | Flight instruments | SET & CHECK..... | 10 |
| | • Check for correct indication and no flags, set actual QNH and appropriate speeds. Note: HSI might need distance to hangar or fuel station for proper function. | | |
| | • Check STBY instruments set QNH and compare | | |
| 11 | Autopilot / trim | TEST..... | 11 |
| | • Autopilot: switch on autopilot, verify engaged, switch off autopilot with yoke disconnect button on the yoke, verify disconnection, switch off FD if present | | |
| | • Trim: verify trim function UP / DN, verify disconnect function with yoke disconnect button | | |

CHECK AFTER ENGINE START COMPLETED

TAXI CHECK

- | | | | |
|---|---|---------------|---|
| 1 | Brakes and steering | CHECKED | 1 |
| | • Check braking function of both pilots | | |
| 2 | Flight instruments | CHECKED | 2 |
| | • Check for consistency and stability in turns left and right; ADI, HSI and compass | | |

TAXI CHECK COMPLETED

RUN-UP

1	Parking brake.....	SET	1
2	Fuel selector.....	FULLER TANK	2
3	Circuit breakers.....	CHECK.....	3
4	Engine instruments	GREEN / WARM UP TEMP > 120 °F.....	4
5	Zone behind aircraft	CLEAR	5
6	Throttle	2000 RPM	6
7	RPM lever	CYCLE 3x (max drop 250-500 RPM)	7
8	Magnetos (L-B-R-L-B).....	CHECK (max -175 / Δ 50 RPM)	8
9	Voltmeter.....	CHECK.....	9
10	Mixture	CHECK.....	10
11	Throttle.....	IDLE (500-700 RPM).....	11
12	Throttle	1000 RPM	12

RUN-UP COMPLETED

CHECK BEFORE DEPARTURE

- | | | | |
|---|----------------------|-------------------------------------|---|
| 1 | Magnetos..... | BOTH..... | 1 |
| 2 | Alternate air..... | CLOSED..... | 2 |
| 3 | Flight controls..... | FREE & CORRECT L / R / UP / DN..... | 3 |
| 4 | Trim..... | SET FOR T/O..... | 4 |
| 5 | Flaps..... | SET T/O..... | 5 |
| 6 | Avionics..... | SET..... | 6 |
- COM: set / verify active and STBY frequencies
 - GNS: insert flight plan and procedures according to expected routes, store if required
Verify RAIM prediction for possible GPS approaches
Verify active flight plan to be correct, from take-off to missed approach
 - NAV: set required navigation aids according to expected route
For departure: if possible one navigation aid to be set for the SID and one navigation aid to be set for possible contingency and inflight return
Check ID if possible, set course navigation 1 & 2, choose bearing pointers and display DME window
 - Standby navigation aid: according to expected use for main or back-up navigation
 - Verify desired display on PFD and MFD (insets / track up / MAP DCLTR)
- | | | | |
|---|--------------------|----------------------|---|
| 7 | Fuel quantity..... | L+R / ENDURANCE..... | 7 |
|---|--------------------|----------------------|---|
- Note taxi fuel used / double check quantity & resulting endurance
- | | | | |
|---|-----------------|------------------|---|
| 8 | Fuel pump..... | ON..... | 8 |
| 9 | Pitot heat..... | AS REQUIRED..... | 9 |
- Switch pitot heat on when OAT < 5 °C and visibility less than 5 km
- | | | | |
|----|--------------|--------------------------|----|
| 10 | Mixture..... | RICH or AS REQUIRED..... | 10 |
|----|--------------|--------------------------|----|
- At density altitudes higher than 5000 ft or at high ambient temperature a fully rich mixture can cause rough running engine of or a loss of performance. The mixture should be set for smooth running of engine.
- | | | | |
|----|--------------------|---------------|----|
| 11 | RPM lever..... | HIGH RPM..... | 11 |
| 12 | Cabin and pax..... | SECURED..... | 12 |
| 13 | ATC clearance..... | VERIFIED..... | 13 |
- Review SID / cleared altitude selected and squawk set
- | | | | |
|----|-------------------------|----------------|----|
| 14 | Departure briefing..... | COMPLETED..... | 14 |
|----|-------------------------|----------------|----|
- Briefing for take-off abortion and contingencies after take-off done

CHECK BEFORE DEPARTURE COMPLETED

LINE UP CHECK

1	Canopy / rear door.....	CLOSED & LOCKED.....	1
2	Time.....	NOTED.....	2
3	Transponder.....	CODE / MODE CHECKED.....	3
4	Approach sector & runway.....	CLEAR.....	4
5	Landing light.....	ON.....	5

LINE UP CHECK COMPLETED

Before brake release: available power check

CLIMB CHECK

1	Flaps.....	UP.....	1
2	Climb power.....	SET (FULL / 2400 RPM).....	2
3	Fuel pump.....	OFF, PRESSURE CHECKED.....	3
4	Engine instruments.....	CHECKED.....	4
5	Alternate air.....	AS REQUIRED.....	5
6	Landing light.....	AS REQUIRED.....	6

CLIMB CHECK COMPLETED

Lean according to AFM above 5000 ft MSL

Fuel pump ON above 8000 ft MSL

CRUISE CHECK

1	Altimeters.....	CHECKED (STD / QNH).....	1
2	Cruise power.....	SET.....	2
3	Mixture.....	SET.....	3
4	Engine instruments.....	CHECKED.....	4
5	Fuel quantity.....	L+R / ENDURANCE.....	5
6	Fuel selector.....	AS REQUIRED.....	6

CRUISE CHECK COMPLETED

DESCENT CHECK

1	ATIS or AD information.....	RECEIVED.....	1
2	Approach briefing.....	COMPLETED.....	2
3	Avionics.....	SET.....	3
4	Circuit breakers.....	CHECKED.....	4
5	Cabin & pax.....	SECURED.....	5

DESCENT CHECK COMPLETED

Adjust mixture and RPM lever during descent

Fuel pump off below 8000 ft MSL

APPROACH CHECK

1	Altimeters	QNH SET	1
2	Fuel pump	ON	2
3	Fuel quantity	L+R / ENDURANCE	3
4	Fuel selector	FULLER TANK.....	4
5	Mixture	RICH or AS REQUIRED	5
6	Landing light.....	ON.....	6

APPROACH CHECK COMPLETED

LANDING CHECK

1	Flaps	SET FOR LANDING.....	1
2	Park brake.....	RELEASED	2
3	Mixture	RICH	3
4	RPM lever	HIGH RPM	4

LANDING CHECK COMPLETED

AFTER LANDING CHECK

1	Time	NOTE	1
2	Alternate air.....	CLOSE	2
3	Pitot heat.....	OFF	3
4	Fuel pump	OFF	4
5	Flaps	UP	5
6	Landing light.....	OFF	6

AFTER LANDING CHECK COMPLETED

ENGINE SHUT DOWN AND PARKING

1	Parking brake.....	SET	1
2	Throttle.....	1000 RPM	2
3	Engine instruments	CHECK.....	3
4	Remaining fuel / time counter	NOTE	4
5	121.500	CHECK.....	5
6	Avionic master	OFF	6
7	Electrical consumers (except strobe light)	OFF	7
8	Magnetos	OFF RPM DROP / BOTH.....	8
	• Ignition OFF until RPM drops, then immediately both again		
9	Mixture	LEAN, CUT OFF	9
	• Pull back mixture control and hold it back until propeller stands still		
10	Magnetos	OFF, REMOVE KEY	10
11	Strobe light.....	OFF	11
12	Master switch (BAT / ALT).....	OFF	12
13	Flight data and documents.....	NOTE and COMPLETE	13
	• Note block time, flight time and landings		
	• Compare actual fuel consumed versus planned burn off		
14	Aircraft.....	TO BE SECURED.....	14

PARKING CHECK COMPLETED