

BEFORE ENGINE START

Preflight Inspection COMPLETED

According to Handbook, Cpt. 4.3

Rudder Pedal Position SET

Seat belts TIGHTEN

Flight Controls CHECKED

Canopy LOCKED

Parking Break SET

Apply pressure and set, then 'pump'.

Use of ext. Power:

| See notes in Handbook Cpt. 4.4.2

ENGINE START

Circuit Breakers CHECKED

Backup Battery ON

GTN650Xi, MFD, EIS BOOTING

MFD

| Wait for boot sequence.

Check FUEL QTY!

Conf. amber "BACKUP BATT" msg.

Conf. CO value 255ppm, then decr.

Master Switch ON

MFD

| Conf. amber "BACKUP BATT" msg.

CAS message OFF

Backup Battery OFF

GEN A/B ON

Voltage M MIN. 12 V

(Batt/Alt-C Bus)

Fuel Selector MORE EMPTY TANK

Propeller Control FINE

Fully forward

Throttle CLOSED

Strobe Light ON

LANE A / LANE B ON

Main Fuel Pump ON

to be continued...

CONTINUE: ENGINE START

Start Power ON (HOLD!)

LANE A/B Lamps:

| wait till lamps turn OFF

MFD Engine Indication CHECKED

-> active and correct

-> Fuel Pressure in Limits

Throttle

| Coolant Tmp. <0°C Thrtl. >= 60%

Coolant Tmp. >0°C Thrtl. ca. 45%

Starter PRESSED

Hold "Start Power" and press "START"

until Eng. fires. Then release

Start-Button and "Start Power".

Oil Pressure CHECKED

Throttle IDLE

LANE A / B IND. LAMP OFF

Both switches remain ON!

The indicator lamps should go out.

Throttle 2500 RPM FOR 10 SEC

Voltage M / Voltage B . . . 13.4 / 14.0 V

AFTER ENGINE START

Avionics ON

ALT C ON

Voltage M CHECKED

Increaseing, nom. 13.8 V

EFIS ON

EFIS Power Source CHECKED

Verify NOT on internal Batt.

Baro PFD + MFD SET

ENGINE WARM-UP

Throttle

| 2500 RPM until oil temp > 50°C.

Then set throttle to IDLE.

BEFORE TAXIING

Nav Light (at night) . . . AS REQUIRED
 Landing-/Taxi-Light . . . AS REQUIRED
 A/C moving: Lights on!
 PFD, stby EFIS, MFD CHECKED
 ADHRS stabilised.

TAXIING

Keep RPM < 2500, taxiing with
 walking speed! Check breaks & steering.
 Ground Control CHECKED
 Brakes CHECKED
 Indications CHECKED
 Attitude/direction: PFD, MFD, stby EFIS

ENGINE RUN UP

Parking Brake SET
 Oil Temperature MIN 50°C
 Propeller Control FINE
 fully forward
 Landing-/Taxi-Light . . . AS REQUIRED
 A/C standing still: Lights off!

Pump and Fuel Supply Check

Throttle: 3000 RPM
 AUX Pump: ON, pressure in limits
 AUX Pump Light: ON
 Main Fuel Pump: OFF
 Pressure still within limits:
 CHECKED
 Mail Fuel Pump: ON

Fuel Tank SIDES SWITCHED
 Fuel Pressure CHECKED
 Fuel Tank FULLEST TANK
 to be continued...

CONTINUE: ENGINE RUN UP

Wastegate/PVC/Lane

Confirm BRAKES are fully set.
 Throttle: FULL THROTTLE
 RPM: min 5700, max 5800
 Manifold Pressure: within LIMITS
 Manifold Temp: Below 65°C
 Throttle: reduce to 4700 RPM
 LANE A: OFF
 Max drop 250 RPM (aft. 15 sec.)
 Check ENG Params in Limits!
 LANE A: ON (wait 3 sec.)
 LANE B: OFF
 Max drop 250 RPM (aft. 15 sec.)
 Check ENG Params in Limits!
 LANE B: ON (wait 3 sec.)
 Propeller Control CHECKED
 Cycle 3 times. Move lever slow
 backwards, fast forward.
 Throttle IDLE CHECK
 Throttle SET 3000 RPM

BEFORE TAKE-OFF

Instruments CHECKED
 Pitot-heat AS REQUIRED
 Flight Controls CHECKED
 Cockpit Canopy CLOSED & LOCKED
 Seat Belts TIGHTENED
 AEPS System UNLOCKED
 store pin in middle compartment
 Engine Instruments CHECKED
 Flaps FLAPS 1

Autopilot

Autopilot Switch: ON
 Engage, for each test
 Check if AP can be overpowered!
 Check AP Disconnect by:
 Any Trim input, AP-Disc. button.
 Trim T/O POSITION
 Autopilot Switch OFF
 Autopilot Panel LEDs ALL OFF

TAKE-OFF

Landing-/Taxi-Light . . . AS REQUIRED
 A/C moving: Lights on!
 Brakes RELEASED
 Propeller Control FULL FORWARD
 Throttle FULL POWER
 Airspeed Indication ALIVE

TAKE-OFF SPEEDS

Nosewheel Unstick 50 KIAS
 Lift-Off 60 KIAS
 Initial Climb 70 KIAS
 Flaps retract 75 KIAS
 Not less than 150 ft AGL
 Climb V_Y 78 KIAS

CLIMB**Climbing Speeds**

v_y best ROC 78 KIAS
 v_x best AOC 63 KIAS
 Throttle FULL FORWARD

Prop Control

Set Engine Speed
 max. 5800 RPM for 5 min
 max continuous 5500 RPM
 instruments T & P IN LIMITS
 AUX Pump OFF
 Fuel Pressure CHECKED
 Landing Light AS REQUIRED

CRUISE**Fuel Selector**

Switch every 25min, latest.
 Check for balanced quantity!
 See notes in AFM Cpt. 4.4.13.
 Throttle AS REQUIRED
 Prop Control MAX. 5500 RPM
 Fuel Flow CHECKED
 Pitot Heat AS REQUIRED

Changes in PWR:

PWR↑ 1. RPM - 2. MAP
PWR↓ 1. MAP - 2. RPM

PWR	RPM	MAP
100 %	5500 RPM	40.5 inHg
75 %	5000 RPM	33.0 inHg
59 %	4500 RPM	25.5 inHg

DECENT

Throttle 15...17 INHG
 Prop Control MAX 5000 RPM
 Airspeed 90...100 KIAS
 Pitot-Heat AS REQUIRED
 Do NOT reduce to IDLE in
 cold OAT environments!

BEFORE LANDING

Seat Belt TIGHTENED
 Cockpit PREPARED
 Autopilot DISENGAGED
 Autopilot Switch OFF
 Throttle AS REQUIRED
 Speed 83 KIAS
 Flaps FLAPS 1
 Trim AS REQUIRED
 Landing Light ON
 AUX Pump ON
Final Approach
 Flaps FLAPS 2
 Speed 65 KIAS
 Trim AS REQUIRED
 Prop Control FINE (FORWARD)
 Throttle SET
 | Approx. 7 inHG,
 | Maint. RPM > 2600

BALKED LANDING / GO-AROUND

Throttle FULL FORWARD
 Speed 70 KIAS
 Flaps FLAPS 1
 Trim ADJUSTED
 Climb V_Y 78 KIAS
 Follow T/O Procedures

LANDING

Throttle CLOSED
 Touch-down MAIN WHEELS
 Brakes AS NEEDED
 Flaps RETRACT

AFTER LANDING

Flaps RETRACTED
 Engine Speed SET
 Taxi with walking speed!
 Landing-/Taxi-Light ON
 Pitot Heat OFF
 AUX Fuel Pump OFF

SHUTDOWN

Parking Brake SET
 Landin-/Taxi-Light OFF
 Propeller Control FINE
 Engine Speed IDLE
 Instruments ALL IN LIMITS
 ALT-C OFF
 Check Volts M >= 13.4 V!
min. 2min COOL-DOWN!
 | Use timer in EFIS!
 Line A OFF
 after 2 sec, LAMP: ON
 Line B OFF
 Main Fuel Pump OFF
 Avionics OFF
 EFIS OFF
 GEN A/B OFF
 Master OFF
 AEOS Locking Pin INSERTED
 Parking Brake AS REQUIRED

PARKING AND TIE-DOWN

LANE Switches Checked ALL OFF

Master Switch Checked OFF

Parking Brake SET

| For short time parking only,
| for long time, use chocks!

Canopy CLOSED & LOCKED

Aircraft SECURED