BEFORE ENGINE START

Familiarise with HANDBOOK first!
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'.
For usage of external Power,
see notes in Handbook Cpt. 4.4.2

ENGINE START

Circuit Breakers ..... CHECKED
Backup Battery ..... ON
GTN650Xi, MFD, EFIS ..... BOOTING
MFD
- Wait for boot sequence.
- Check FUEL QTY!
- Conf. amber "BACKUP BATT" msg.
- Conf. CO value 255 ppm, 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
– Continues next column!

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 Lever:
- Coolant/Oil Tmp. <10 °C >= 55 %
- Coolant/Oil Tmp. >10 °C ca. 45 %

% as indicated as "T" on MFD.
See HINT and Start Performance Chart
in Handbook Cpt. 4.4.3 on P. 4-8!
ENGINE START:
Hold "Start Power", THEN press "START"
until Engine fires. Then release
Start-Button and "Start Power".
Throttle ..... 1700 - 2000 RPM
Oil Pressure ..... CHECKED
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
Increasing, nom. 13.8 V
EFIS ..... ON
EFIS Power Source ..... CHECKED
Verify NOT on internal Battery
Baro PFD + MFD ..... SET
StbyEFIS, GTN are synced. MFD isn't!
Engine Warm-Up:
- 2500 RPM until oil temp > 50 °C.
- Then set throttle to IDLE.

BEFORE TAXIING

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

TAXIING

Keep RPM < 2500, taxiing with walking speed! Check BRAKES & 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 forwaard
Landing-/Taxi-Light . . . AS REQUIRED
A/C standing still: Lights off!

Pump and Fuel Supply Check

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

Fuel Tank . . . . . SIDES SWITCHED
Fuel Pressure . . . . . CHECKED
Fuel Tank . . . . . FULLEST TANK
– Continues next column!

CONTINUE: ENGINE RUN UP

Wastegate/PVC/Lane

Verify BRAKES are FULLY set!
Throttle: FULL THROTTLE
RPM: min 5700, max 5800
Manifold Pressure: within LIMITS
Manifold Temp: Below 65 °C
Throttle: reduce to 2500 RPM
LANE A: OFF
Max vary ±250 RPM (aft. 15 sec.)
Check Engine Params in Limits!
LANE A: ON (wait 3 sec.)
LANE B: OFF
Max vary ±250 RPM (aft. 15 sec.)
Check Engine Params in Limits!
LANE B: ON (wait 3 sec.)

Propeller Control . . . . . CHECKED
Cycle 3 times. Move lever SLOWLY backwards, but fast forward.
Throttle . . . . . IDLE CHECK
Trhottle . . . . . 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
– Continues next page!

CONTINUE: BEFORE TAKE-OFF

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 . . . . . ON
Brakes . . . . . RELEASED
Propeller Control . . . . FULL FORWARD
Throttle . . . . . FULL POWER
Airspeed Indication . . CHECKED: ALIVE
TAKE-OFF SPEEDS
Nosewheel Unstick . . . . . 50 KIAS
Lift-Off . . . . . 60 KIAS
Initial Climb . . . . . 70 KIAS
Flaps retract . . . . . 75 KIAS
Not below 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 PM 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 25 min, 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:
Increase Power ⇑ . . 1. RPM - 2. MAP
Decrease Power ⇓ . . 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 Throttle 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
Landing-/Taxi-Light . . . . . OFF
Propeller Control . . . . . FINE
Engine Speed . . . . . IDLE
Instruments . . . . . ALL IN LIMITS
ALT-C . . . . . OFF
Check Volts M >= 13.4 V!

min. 2 min COOL-DOWN!
| Use timer in EFIS!

Lane A . . . . . OFF
after 2 sec, LAMP: . . . . . CHECKED ON
Lane B . . . . . OFF
Main Fuel Pump . . . . . OFF
Avionics . . . . . OFF
EFIS . . . . . OFF
GEN A/B . . . . . OFF
Master . . . . . OFF
AEPS 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