

FNPT II MEP IFR STANDARD OPERATIONAL PROCEDURES

Prepared by: Cpt. Tihamer Gyurkovits

Version: FNPT II SOP 2.1

Last updated: 05/11/2017

Notes:

-These SOP's and Checklists were developed for FNPT II training only.
Approved aircraft manuals always take precedence over this training manual.

-Take-off only with flaps 0

-Operation in IFR only approved on 1500 m paved runway or longer.

-Normal procedures shall be completed by memory as a „flow“ followed by reading the appropriate normal checklist. Normal checklists can be found in laminated form on board. Additionally, After takeoff, Approach and Landing normal checklists are placed on the instrument panel as well.

-During emergency situations non-normal checklists shall be completed when aircraft and flight path is under positive control and above minimum sector altitude. It is permissible to read non-normal checklists below MSA only when the aircraft is under radar vectors or PIC can maintain positive visual contact with the ground.

-When emergency situation requires imminent action pilot shall complete non-normal checklist by memory. These checklists are: Engine failure (Feathering procedure), Engine fire, Propeller overspeed. Memory items regarding one engine operation finish when affected engine's mixture is idle cutoff, aircraft is trimmed and 5 degrees bank toward operating engine is established.

-In the following procedures „Check“ means item is checked according to Pilot's Operating Handbook

-When „As required“ is indicated in the checklist corresponding item or system status should be called out.

NORMAL PROCEDURES

Preflight procedures:

Action	Call
-Weather	Check
-Notams	Check
-Aircraft status	Check
-Crew documents	Check
-Flight plan	Create and file
-Minimum Block fuel	Calculate
-W and B	Check
-ASDR, TODR, Decision point	Calculate

Walk-around inspection procedure:

Note: Before every first take-off a day or after crewchange a walk-around inspection should be completed.

Action	Call
In Cabin:	
-Landing gear position	Down
-Avionics	Off
-Master switch	On
-Landing gear lights	Check
-Fuel Quantity	Check
-Cowl flaps	Open
After successful completion of the items above:	
-Master switch	Off
-Ignition switches	Off
-Mixture controls	Idle cut-off
-Trim	Neutral
-Flaps	Check
-Flight controls	Unlocked, Check
-Empty seats	Secure
-Bags	Secure
-Pitot and static system	Drain
-Aircraft documents	Check

Action	Call
Outside Airplane:	
-Right wing, aileron and flap	Check
-Right main gear	Check
-Right wing tip	Check
-Right leading edge	Check
-Right fuel cup	Check and secure
-Right engine nacelle	Check
-Right propeller	Check
-Cowl flap	Open and secure
-Fuel drains	Drain
-Nose section	Check
-Nose gear	Check
-Forward baggage door	Secure and lock
-Windshield	Clean and secure
-Left propeller	Check
-Left engine nacelle	Check
-Left fuel cup	Check
-Left leading edge	Check
-Left wing tip	Check
-Left main gear	Check
-Left wing, aileron and flap	Check
-Pitot tube	Check
-Stall warning vanes	Check
-Rear door	Close
-Left static vent	Check
-Dorsal fin air scoop	Check
-Empennage	Check
-Stabilator	Check
-Right static vent	Check
-Antennas	Check
-Nav and landing lights	Check
	<i>„Walk around inspection complete“</i>

Engine start procedure:

Action	Call
<p>Before engine start:</p> <ul style="list-style-type: none"> -Seats Adjust -Seat belts Fasten -Aircraft door Close and secure -Parking brake Set -Circuit breakers Check -Avionics Off -Cowl flaps Open -Alternate air Off -Alternators (Generators) On 	
<ul style="list-style-type: none"> -Passenger emergency briefing Complete 	<p><i>„In case of evacuation I will announce EVACUATE NOW, USE LEFT OR RIGHT DOORS. Passengers will be required to open the assigned door and leave the aircraft as quick as possible leaving all belongings on board. In case of pilot incapacitation passengers may start evacuation without pilot’s call”</i></p> <p>„Before engine start checklist”</p>
<ul style="list-style-type: none"> -Before engine start checklist Complete 	
<p>In case of at Controlled Airport:</p> <ul style="list-style-type: none"> -Master switch On -COM Radios On -Start-up clearance Obtain -COM Radios Off -Master switch Off 	

Starting engines:		
-Mixture controls	Idle cut-off	
-Throttle	Open ½ inch	
-Propellers	Full forward	
-Master switch	On	
-Ignition switch	On	
-Electric fuel pums	On	
-Mixture control	Move to rich position until a fuel flow is indicate and stabilized then move it idle cut-off.	
-Propeller area clearance	Verify	„Prop clear“
-Starter	Engage	
-Mixture control	Advance as engine starts	
-Oil pressure	Check	
 <i>Note: Oil pressure should come within 30 sec may be longer in very cold weather</i>		
Repeat steps with the other engine.		
After both engines are running on idle:		
-Fuel pumps	Off	
-Fuel pressure	Check	
-Vacuum gauge	Check	
-Attitude indicator	Set	
-Avionics	On	
-Alternators (Generators)	On, Output check	
-Clock	Set	
-Anticollision	On	
-Navlights (at night only)	On	
		„After engine start checklist“
-After engine start checklist	Complete	

Taxi procedure:

Action	Call
<p>Before start to taxi:</p> <p>-ATIS Record</p> <p>-Altimeters (Both) Set</p> <p><i>Note: Confirm planned take-off performance and decision point match present weather and runway status.</i></p> <p>-Emergency departure briefing Complete</p>	<p>„Altimeters set and crosschecked“</p> <p><i>If I decide to abort the take-off I will call REJECT. If I reject before rotation I will close power levers immediately and apply maximum braking. If I reject after rotation I will check landing gear down 3 greens, set full flaps and land straight ahead.</i></p> <p><i>Stop the aircraft and set the parking brake. I will announce evacuation if needed. After decision point I will call CONTINUE. Set full power, maintain rw heading and adjust speed to Vyse. Check speed and verify flaps up. Retract the gear with positive rate of climb. Identify the malfunction and start memory items when positive climb and aircraft control achieved. In case of VMC I will join visual pattern of rw XX and land/ in IMC I will follow IFR escape route or ATC instructions for landing“</i></p> <p>„Emergency briefing complete“</p>
-ATC departure clearance	Obtain

<p>If ATC provides departure clearance during taxi:</p> <ul style="list-style-type: none"> -Aircraft Stop -Parking brake Set -Departure briefing Complete -NAVAIDS Set, tune , identify <p>After taxi clearance received:</p> <ul style="list-style-type: none"> -Taxi light On <p><i>Note: During taxi the pilot should check the following:</i></p> <ul style="list-style-type: none"> -Operation of turn indicator, directional gyro and coordination ball instruments. -Heater and defroster -Fuel selector -Brakes 	<p>„Departure briefing complete”</p>
--	---

Pretake-off procedure:

Action	Call
<p>Run-Up check:</p> <p><i>Note: Verify local regulations and the area behind the aircraft and complete RUN-UP check before every first take-off a day or after crewchange.</i></p> <ul style="list-style-type: none"> -Parking brake Set -Engine parameters Check -Mixture Forward -Propellers Forward -Throttle Set 1500 RPM -Feather control Check -Throttle Set 2000 RPM 	

-Governor control	Check	
-Propellers	Forward	
-Alternate air	Check	
-Magnetos	Check	
-Alternator output	Check	
Approaching holding point:		
-Parking brake	Set	
-Fuel selectors	On	
-Electric fuel pums	On	
-Engine parameters	Check	
-Propellers	Full forward	
-Mixture contols	Full forward	
-Quadrant friction	Adjust	
-Alternate air	Off	
-Cowl flaps	Set	
-Wing flaps	Set for take-off	
<i>Note: Set Flaps 0 for IFR Departures</i>		
-Trim	Set for take-off	
<i>Note: Set trim 6 unit UP in the simulator</i>		
-Flight controls	Check	
„Pretake-off checklist“		
-Pretake-off checklist	Complete	
Line-up clearance received:		
-Clearance at left and right	Check	
-Transponder	Set alt mode	
-Pitot heat	On	
„Clear left and right lining up rw XX“		
Take-off clearance received:		
- Landing lights	On	

Take-off procedure:

Action	Call
<p>When lined up with the runway:</p> <p>-Manual brake Set</p> <p>-Take-off power Set</p> <p>39,5/2750 (SIM), Full forward (A/C)</p> <p>Release the brakes and start rolling.</p> <p><i>Note: Right hand remains on power levers until decision point. Should aircraft handling become difficult it is allowed to use both hands during rotation until established in trimmed climb.</i></p> <p>At speed indicator first movement:</p> <p>At 75 KTS (SIM), 85MPH (A/C)</p> <p>Rotate the aircraft and accelerate to Vyse. When passing decision point and reland not possible:</p> <p>-Landing gear UP</p> <p><i>Note: Select gear up with positive rate of climb and verify retraction.</i></p> <p>At 400' AGL accelerate to 105 KTS (SIM), 120 MPH (A/C) then:</p> <p>-Flaps 1 notch UP</p> <p>-Max. continuous power Set</p> <p>38/2500 (SIM), 24/2400 (A/C)</p> <p>-Electric fuel pumps Off</p> <p>-Landing- and taxi lights Off</p> <p>-At 1000' AGL</p> <p>-After take-off checklist Complete</p>	<p>„Take-off power set“</p> <p>„Speed alive“</p> <p>„Rotate“</p> <p>„Reland not possible“</p> <p>„Gear up, no lights“</p> <p>„After take-off checklist“</p>

Cruise procedure:

Action	Call
-Power As required -COM 2 Monitor <i>Note: Normal cruise power is 30/2100 (SIM),21/2100 (A/C). Adjust manifold pressure according to cost index and altitude. It is mandatory to listen out on 121,5 Mhz on second box during cruise.</i>	

Descent procedure:

Action	Call
<i>Note: Record ATIS and plan the approach before top of descent. Calculate landing performance. Set, tune , identify NAVAIDS during the briefing. It is permissible to continue the brief during descent but it has to be completed before starting an approach at latest.</i>	
-Approach briefing Complete -NAVAIDS Set, Tune, Identify -Mixture Rich -Seats and belts Set -Descent power Set 15/2100 (SIM) and (A/C)	

Approach procedure:

Action	Call
<p>When passing intermediate fix or on intercept heading or on downwind leg:</p> <p>-Fuel tanks On</p> <p>-Cowl flaps As required</p> <p>Reduce the speed to 100 KTS (SIM), 115 MPH (A/C)</p> <p>-Flaps 10</p> <p>Approach checklist Complete</p> <p>1 NM before FAF or 1 dot below GS or shortly before turning base:</p> <p>-Gear Down</p> <p>-Electric fuel pums On</p> <p>At FAF or GS intercept verify distance and altitude.</p> <p>Reduce speed to Vyse on final.</p> <p>At 1000' AGL (IMC), 500' AGL (VMC)</p> <p>-Propellers Full forward</p> <p>If RW becomes visual before 500' AGL:</p> <p>-Flaps 25</p> <p><i>Note: In VMC set flaps according to landing performance when landing is assured. If it remains IMC (IFR) after passing 500'AGL land with flaps 10.</i></p> <p>Passing 500' AGL:</p> <p>-Landing checklist Complete</p>	<p>„Approach checklist“</p> <p>„FAF/Glideslope xxxx feet checked“</p> <p>„Landing Checklist“</p>

Landing procedure:

Action	Call
<p>When visual at minima:</p> <p>Reduce the speed in order to overfly the threshold with 80 KIAS(SIM) 90 MPH(A/C). Land with two hands on the controls. Use gradual manual braking. Delay the flap retraction on the ground until vacating the runway unless strong crosswind or gusty air conditions exist or maximum braking required.</p>	<p>„Landing“</p>

Taxi in procedure:

Action	Call
<p>After vacating the runway:</p> <p>-Landing lights Off</p> <p>-Taxi light On</p> <p>-Flaps UP</p> <p>-Cowl flaps Fully open</p> <p>-Electric fuel pumps Off</p>	

Shut down procedure:

Action	Call
<p>-Avionics Off</p> <p>-Mixture controls Idle-cutoff</p> <p>-Magnetos Off</p> <p>-Master switch Off</p> <p>-Parking brake Set</p>	
<p>-Shutdown checklist Complete</p>	<p>„Shutdown checklist“</p>