Pocket Rocket Operation Manual

1.0 General

1.1 Warnings, Cautions, and Notes

Warnings

When Warnings are mentioned in this manual, they refer to a condition when the non-following of manual procedure my result in immediate damage or danger. This can lead to a serious degradation of flight safety.

Cautions

When Cautions are mentioned in this manual, they refer to a condition that may lead to a minor impact on flight safety, or an issue that when combined with other situations may lead to a serious degradation of flight safety.

Notes

When Notes are mentioned in this manual, pay additional attention to these items. This may not lead to a degradation of flight safety, but they may contribute to the performance and longevity of the aircraft. They may also note unusual conditions that are specific to this aircraft.

1.2 Dimensions

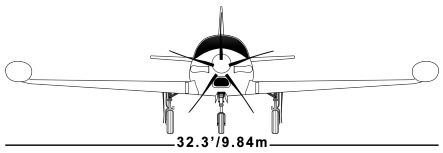
Wingspan: 32.3' / 9.84m

Length: 27.6' / 8.41m

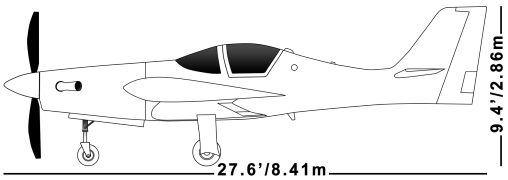
Height: 9.4' / 2.86m (Retract); 7.34' / 2.32m (Tail Wheel)

1.3 Three-View Diagram

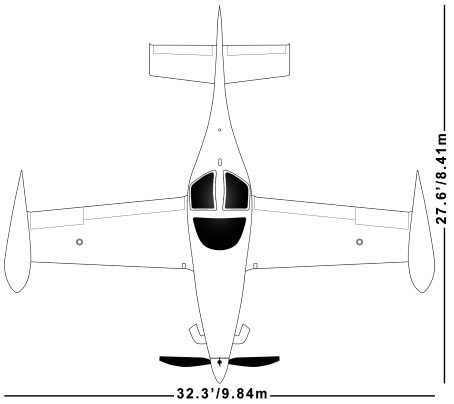
1.3.1 Retractable Variant:



Front View

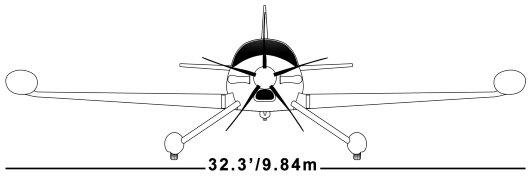


Side View

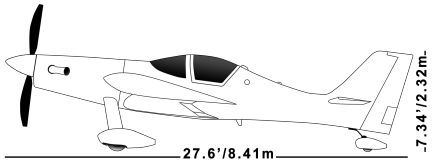


Top View

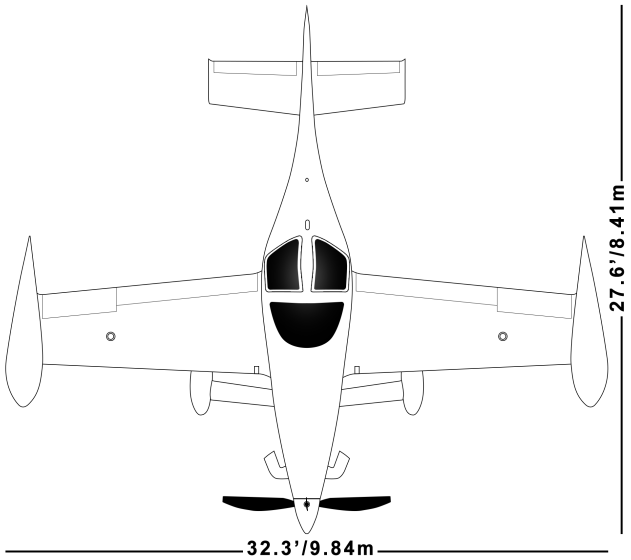
1.3.2 Tailwheel Variant:



Front View



Side View



Top View

1.4 Credits

The Pocket Rocket aircraft is developed by TorqueSim, a joint venture of Advanced Flight Modeling Simulation, LLC. and Attitude Simulations

Chief 3D Artist: Steaven McKenzie

Chief Systems Developer: Cooper LeComp

Flight Model: Richmond Forsen and Cooper LeComp

Integration Assistance, Synthetic Vision, Rain Effects, and More: Saso Kiselkov

We would like to thank our wonderful testing team:

- Grau Adler
- Roosevelt Anderson
- Chris Beckett
- Jon Fly

- Johnny Kaercher
- Magnus Lorvik
- Hampus Murling
- Filippo Nesi
- Max Weldon

Libraries Used:

- Libacfutils by Saso Kiselkov: https://github.com/skiselkov/libacfutils
- Librain by Saso Kiselkov: https://github.com/skiselkov/librain
- OpenGPWS by Saso Kiselkov: https://github.com/skiselkov/opengpws
- LibSvs by Saso Kiselkov : (Licensed)

Textures:

- Textures.com
- www.maxpixel.net
- Substance Materials from https://www.poliigon.com/
- Menu background vector by starline at https://www.freepik.com/free-photos-vectors/background

Sounds:

- fmod.com
- SkyHigh Audio Simulations audio samples By Adam Murphy
- Sound clips https://freesound.org by Pachoba & InspectorJ
- Licensed promotional video song "Horizons" by Theevs

2.0 Limitations

2.1 Airspeed

Airspeed Information Table

Airspeed	IAS	Remarks
Va | Maneuvering Speed	250 KIAS	Do not make full or abrupt control deflections above this speed.
Vfe | Max. flaps extended speed	10º - 175 KIAS 20º - 165 KIAS 30º - 155 KIAS	Do not exceed this speed with flaps extended.
Vle | Max. gear extended speed	200 KIAS	***Applies to Retractable Variant Only*** Do not exceed this speed with gear extended.
Vlo | Max. gear operating speed	180 KIAS	***Applies to Retractable Variant Only*** Do not operate landing gear when exceeding this speed.
Vmo | Max. operating speed	320 KIAS	Do not exceed this speed unless in smooth air.
Mmo | Max. operating mach number	M0.62	Do not exceed this mach number.
Vne | Never exceed speed	350 KIAS	Do not ever exceed this speed.

2.2 Power Plant

a) Engine manufacturer : Pratt and Whitney Canada

b) Engine designation : PT6A-28

c) RPM Limitations

Maximum Continuous RPM : 2200 RPM

Minimum Continuous RPM (Cruise) : 1800 RPM

d) Torque Limitations

Maximum : 1628 ft/lbs

e) Oil Pressure

Minimum	: 40 PSI
Maximum	: 100 PSI
Normal Operating Range	: 70 - 95 PSI

f) Oil Quantity

Minimum	: 8 qts
Maximum	: 14 qts

g) Oil Temperature

Maximum	: 90º C

h) Propeller manufacturer	: mt-Propeller
i) Propeller designation	: MTV-27-1-E-C-F-R(p)
j) Propeller diameter	: 250 cm
k) Propeller pitch angle	: 78º to -30º

2.3 Weight and Balance

Maximum take-off mass	: 2600 lbs / 1180 kg
Maximum landing mass	: 2500 lbs / 1135 kg
Maximum zero-fuel mass	: 2100 lbs / 953 kg
Max. load in baggage compartment	: 300 lbs / 136 kg
Maximum fuel load	: 1155 lbs / 524 kg

WARNING

Exceeding Weight and Balance limits will lead to over-stressing the aircraft and will cause degradation to flight performance. Do not exceed these limitations.

NOTE

The maximum landing weight is determined based on loads inflicted upon landing gear upon a hard landing. With a typical landing, the landing gear can withstand a landing up to Maximum take-off mass. In case of emergency, disregard the Maximum landing mass value.

2.4 Maneuvers

This is an experimental aircraft designed for various flight categories. This aircraft is designed for use within Normal, and Aerobatics categories at all weights.

a) Normal Category

1) All normal flight maneuvers

2) Stalling

3) Lazy-eights, steep turns, etc. Do not exceed 60º angle of bank.

b) Aerobatics Category

1) All flight maneuvers

2) Sustained inverted flights

3) Loops, rolls, and angle of bank exceeding 60º angle of bank.

CAUTION

Exceeding 60º angle of bank requires operation within the Aerobatics Category

NOTE

Operating in the aerobatics category requires all pilots and passengers on-board the aircraft to be equipped with a parachute.

2.5 Operating Altitude

The Maximum demonstrated operating altitude of the Pocket Rocket is 25,000 feet (FL250, 7620 m)

WARNING

Do not exceed the maximum demonstrated operating altitude. Above FL250, the oxygen system would no longer be effective and hypoxia would set in.

WARNING

For all flights operating about 14,000 feet MSL, it is required to don oxygen masks/cannulas

2.6 Flight Crew

Minimum crew number	: 1 (one person)
Maximum number of occupants:	: 2 (2 persons)

2.7 Fuel

a) Fuel Grade	: JET A / JET A-1 / JET B
b) Fuel Quantity	
Wing Tanks	: 49 gallons (per side)
Tip Tanks	: 33 gallons (per side)
Center Tank	: 27 gallons
Total Fuel Quantity	: 191 gallons
Unusable Fuel	: 0.4 gallons (per tank) / 2.0 gallons (total)
Max. Difference (Tip Tanks)	: 8 gallons (Normal Category) / 6 gallons (Aerobatic Category)
Max. Difference (Wing Tanks)	: 12 gallons (Normal Category) / 8 gallons (Aerobatic Category)

2.8 Warning and Caution Lights

The Pocket Rocket is equipped with a Master Caution and Master Warning system, integrated into the G1000 system with additional warning lights.

When a Master Warning is triggered, a warning sound will play and the light will illuminate. Pushing the button will dismiss the warning, silence the alarm, and

extinguish the warning light. The triggering condition will display on the G1000 until resolved.

When a Master Caution is triggered, a warning sound will play once and the light will illuminate. Pushing the button will dismiss the warning, and extinguish the warning light. The triggering condition will display on the G1000 until resolved.

NOTE

If a Master Caution was previously triggered and the light is still illuminated, the Master Caution sound will not be triggered.

Master Warning and Caution Lights are located to the left side of the G1000 Primary Flight Display.

2.9 Other Limitations

Temperature

The aircraft may only be operated in temperatures less than 50° C (122° F) and greater than -75° C (-103° F)

Battery Charge

The aircraft may only be operated in IFR conditions when both batteries are fully charged. The aircraft may be operated in VFR conditions with only 1 battery fully charged.

Oxygen Fill

The aircraft's oxygen tank must be filled at least every six hours of operation of oxygen system, or every 30 days, which ever occurs first. Refilling of oxygen system after each flight with significant use is recommended.

3.0 Emergency Procedures

3.1 Engine Problems

1. Landing site - Identify
2. Fuel control - Full
3. Prop control - Max RPM
4. Throttle - Cycle slowly
5. Radio / Transponder - Contact ATC 121.5 / Squawk 7700

3.2 Smoke and Fire (Engine)

1. Oxygen - Off (Below 14,000 feet)
2. Inertial Seperator - Open
3. Landing site - Identify
4. Fuel control - Cutoff
5. Perform Emergency Landing 3.4 Checklist

3.3 Gliding

1. Best glide - Established 100 kts
2. Landing site - Identify

3.4 Emergency Landings away from Airport

1. Gear - Down (Land) or Up (Water)

2. Inertial seperator - open
3. Doors - Open
4. Items - Stowed
5. Flaps - Max
6. Generator - Off
7. Fuel Selector - Both
8. After stopping:
    1. Fuel Control - Cutoff
    2. Battery - Off

3.5 Spin Recovery

1. Power - Idle
2. Ailerons - Neutral
3. Rudder - Opposite spin
4. Elevator - Forward
5. Positive Control Established - Slowly climb out of spin

4.0 Normal Procedures

4.1 Normal Airspeeds

- Recommended Taxi Speed | < 20 kts
- Recommended Take-off Speed | 70 kts
- Recommended Initial Climb Speed | 95 kts
- Recommended Cruise-Climb Speed | 130 kts
- Recommended Cruise Speed (Max. Performance) | Mach 0.6 (retract) / Mach 0.5 (tail)

- Recommended Cruise Speed (Max. Endurance) | Mach 0.53 (retract) / Mach 0.45 (tail)
- Recommended Descent Speed | 220 kts
- Recommended Approach Speed | 140 kts
- Recommended Landing Speed | 70 kts

4.2 Checklists for Normal Procedures

4.2.1 Pre-Flight Inspection

1. Examine Exterior Integrity

4.2.2 Starting Engine

1. Doors - Latched
2. Battery - On
3. Fuel Select - Auto
4. Fuel Pump - On
5. Nav Lights - On
6. Beacon Lights - On
7. Igniter - Auto
8. Prop Control - Forward
9. Inertial Seperator - Open
10. Engine - Verify Propeller and Exhaust Areas Clear
11. Engine Starter - Engage (Hold for 2 seconds)
12. Verify Ng > 16% and Stable
13. Fuel Control - Low Idle
14. Verify ITT < 1060º C; Verify ITT stabilizes < 750º C
15. Generator - Verify Standby

16. Generator - Gen
17. Avionics - On
18. Radios/FMS/Transponder - Set

4.2.3 Before Taxi

1. Fuel Control - Flight Idle
2. Throttle - Beta (if needed to manage taxi speed)

4.2.4 Before Take-Off.

1. Strobe Light - On
2. Landing Light - On
3. Fuel Pump - Verify On
4. Flaps - 10º
5. Igniters - Verify Auto
6. Pitot Heat - On
7. Rudder/Aileron/Elevator Trim - Set

4.2.5 Take-Off

1. Throttle - Raise slowly
2. Verify TRQ < 1600 ft-lbs
3. Verify ITT within limits
4. Verify engine instruments

4.2.6 Climb

1. Climb at airspeed > 90 kts
2. Gear - Up (Retract version only)
3. Flaps - Up

4. RPM - 2000 RPM
5. Inertial seperator - Closed
6. Monitor engine instruments
7. Climbing though 10,000 feet
    1. Oxygen Masks - Don
    2. Landing Lights - Off
    3. Fuel pump - Off

4.2.7 Cruise

1. RPM / TRQ - Set
2. Monitor Engine Instruments

4.2.8 Descent

1. Engine RPM / TRQ - Set
2. Descending through 10,000 feet
    1. Oxygen Masks - Doff
    2. Landing Lights - On
    3. Fuel Pump - On
3. Approach Details - Set
4. Fuel Select - Auto
5. Pitot Heat - On
6. Igniters - Auto
7. Inertial Seperator - Open

4.2.9 Approach

1. Clearance - Received
2. Recommended Approach Speed - 140 kts

3. Flaps - 10

4.2.10 Landing

1. Flaps - 20
2. Gear - Down (Retract Version)
3. Approach - Stabilize
4. Flaps - Full
5. Landing Speed - 70 kts

4.2.11 Go-Around

1. Torque - 1600 ft-lbs
2. Prop Lever - Full
3. Gear - Up
4. Flaps - Up

4.2.12 After Landing

1. Strobe lights - Off
2. Landing Lights - Off (Unless Night)
3. Flaps - Up
4. Fuel Pump - Off
5. Transponder - Stby
6. Pitot Heat - Off

4.2.13 Engine Shut-Down

1. Avionics - Off
2. Generator - Off
3. Fuel Select - Off

4. Igniter - Off
5. Throttle - Idle
6. Fuel Control - Cutoff
7. Prop Lever - Feather
8. Lights - Off
9. Battery - Off

5.0 Performance

5.1 Maximum Power Performance

Max Power Performance Table

Altitude (ft)	Torque (ft-lbs)	RPM	Fuel Flow (lbs/hr)	Cruise Speed (TAS)
4000	1628	2000	422	297
4000	1628	1800	366	289
8000	1628	2000	355	308
8000	1628	1800	307	299
12000	1628	2000	333	322
12000	1628	1800	287	313
16000	1628	2000	327	332
16000	1628	1800	289	326
20000	1628	2000	329	342
20000	1628	1800	287	338
25000	1628	2000	330	353
25000	1628	1800	287	355

5.2 Maximum Endurance Performance

Max Endurance Performance Table

Altitude (ft)	Torque (ft-lbs)	RPM	Fuel Flow (lbs/hr)	Cruise Speed (TAS)
4000	1450	2000	420	288
4000	1450	1800	301	277
8000	1450	2000	315	297
8000	1450	1800	252	289
12000	1450	2000	285	310
12000	1450	1800	230	301
16000	1450	2000	282	322
16000	1450	1800	229	314
20000	1450	2000	285	332
20000	1450	1800	231	326
25000	1450	2000	285	344
25000	1450	1800	234	345

5.3 Range

5.3.1 Range (Maximum Performance)

Range Table (Max Performance, max fuel, with reserves)

Altitude (ft)	Range (nm)	Range (time)
4000	812 nm	2:50
8000	1000 nm	3:15
12000	1130 nm	3:38
16000	1200 nm	3:45
20000	1260 nm	3:50
25000	1310 nm	3:50

5.3.2 Range (Maximum Endurance)

Range Table (Max Endurance, max fuel, with reserves)

Altitude (ft)	Range (nm)	Range (time)

Altitude (ft)	Range (nm)	Range (time)
4000	907 nm	3:10
8000	1180 nm	4:00
12000	1340 nm	4:22
16000	1430 nm	4:32
20000	1520 nm	4:35
25000	1580 nm	4:35

6.0 Weight and Balance

6.1 Sample Report

Sample Report

Item	Arm (in)	Mass (lbs)	Moment (in lb)
Empty Mass	8.2	1060	8692
Pilot	14.2	150	2130
Copilot	14.2	125	1775
Cargo	21.4	75	1605
Fuel	14.9	350	5215

6.2 Empty Report

Empty Report

Item	Arm (in)	Mass (lbs)	Moment (in lb)
Empty Mass	8.2	1060	0
Pilot	14.2		
Copilot	14.2		
Cargo	21.4		
Fuel	14.9		

6.3 Moment Arms

- Pilot and Copilot - 6"
- Cargo Area - 13.2"
- Fuel 6.7"

  NOTE

  Currently the aircraft center tank C/G range is not simulated to push it back further. This is a feature near the top of our dev list.

6.4 Permissible Center of Gravity Range

Permissible C/G Range is:

- > 8.2"
- < 14"
- Weight > 1200 lbs
- Weight < 2500 lbs

7.0 Airplane and Systems Descriptions

7.1 Airframe

7.1.1 Fuselage

The fuselage is made of a mix of GFRP (Glass Fiber Reinforced Plastics) and CFRP (Carbon Fiber Reinforced Plastics). It is constructed in a semi-monocoque style.

Fire-protection at the firewall is provided by stainless steel.

7.1.2 Empennage

The empennage is constructed similarly to the fuselage of GFRP and CFRP.

7.2 Flight Controls

The aircraft is equipped with ailerons, elevators, rudder, aileron trim, elevator trim, rudder trim, and electric flaps.

7.2.1 Ailerons

2 hinges, CFRP material. Control rod actuated. 1 Aileron per wing.

7.2.2 Elevators

3 hinges, CFRP material. Control rod actuated.

7.2.3 Rudder

3 hinges, CFRP material. Control cable actuated.

7.2.4 Aileron Trim

1 hinge, GFRP material. Electrically actuated. Located on right aileron.

7.2.5 Elevator Trim

2 hinges, GFRP material. Control rod actuated. Located on left elevator.

7.2.6 Rudder Trim

2 hinges, GFRP material. Control cable actuated.

7.2.7 Electric Flaps

3 hinges, CFRP material. Electrically actuated with control rods. Located on each wing.

7.3 Instrumentation & Avionics

7.3.1 G1000

The G1000 is a highly-advanced avionics suite. We are using a highly modified variant of the Laminar Research G1000. All default features can be found in the manual here. All customized features are described in this section.

Synthetic Vision

Synthetic Vision provides a 3D view of the space around you. You can control features of the synthetic vision through the "PFD" button (Softkey 4) and navigating into the "SYN VIS" menu (Softkey 1).

Once there you can control the following settings

- Pathway - Shows "Pathway in the sky" for flightplan.
- Syn Terr - Shows or hides synthetic vision
- Hrzn Hdg - Draws heading bars and values onto the horizon
- Aptsigns - Draws labels with airport codes onto the terrain

Annunciators

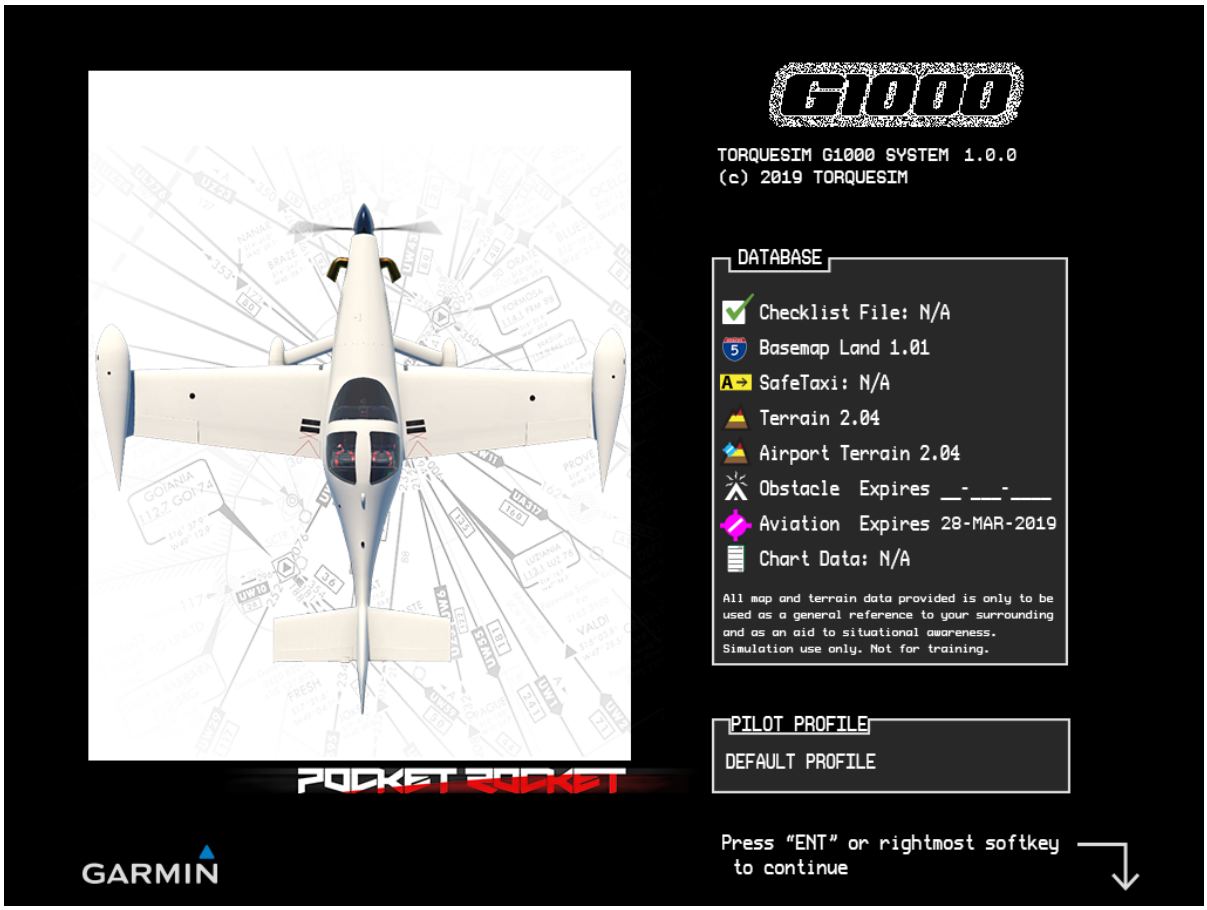
Annunciators are made up in 3 categories:

- Master Warning (Red): These signify most significant issues. Will sound master warning aural alarm until silenced through pushing physical "MASTER WARNING" button Button will illuminate when alarm triggered.

- Master Caution (Amber): These signify potential issues. Will sound master caution aural alert when first master caution is triggered. This one-time alarm will not be triggered by other master caution alerts except if "MASTER CAUTION" light has been extinguished by pushing the button.
- Advisory: These are used to convey a message that may be applicable to the flight. These do not trigger any alarms.

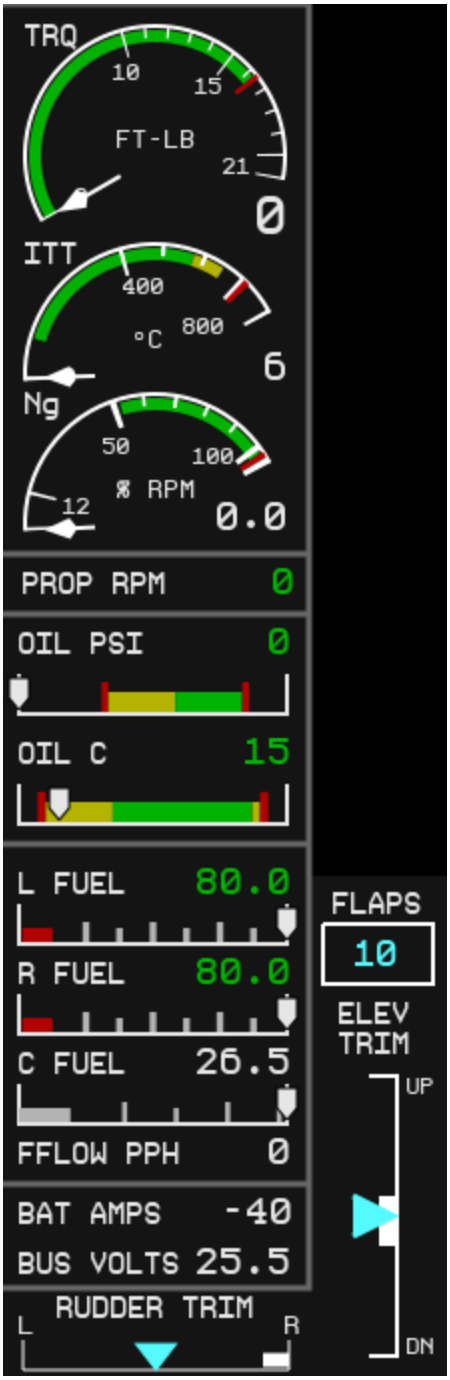
MFD Boot Screen

The MFD boot screen is shown when the MFD is turned on, after going through the power up process.



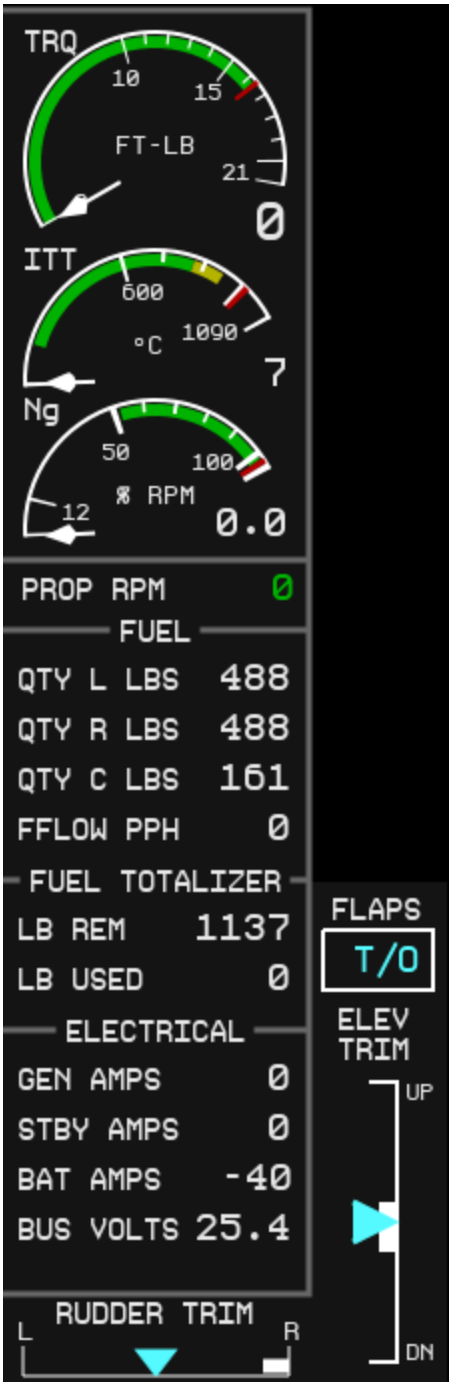
The screen shows the current expiration date for your Navigation Database, and the current version of the aircraft. Pressing Softkey 12 or the ENT key on the MFD will move to the G1000 moving map.

Engine Sidebar



The engine sidebar presents the Torque, ITT, Ng, Prop RPM, Oil PSI, Oil Temp, L/R/C fuel (in gallons), Fuel Flow, Bat Amps, Bat Volts, Rudder Trim, Flaps, and Elevator Trim.

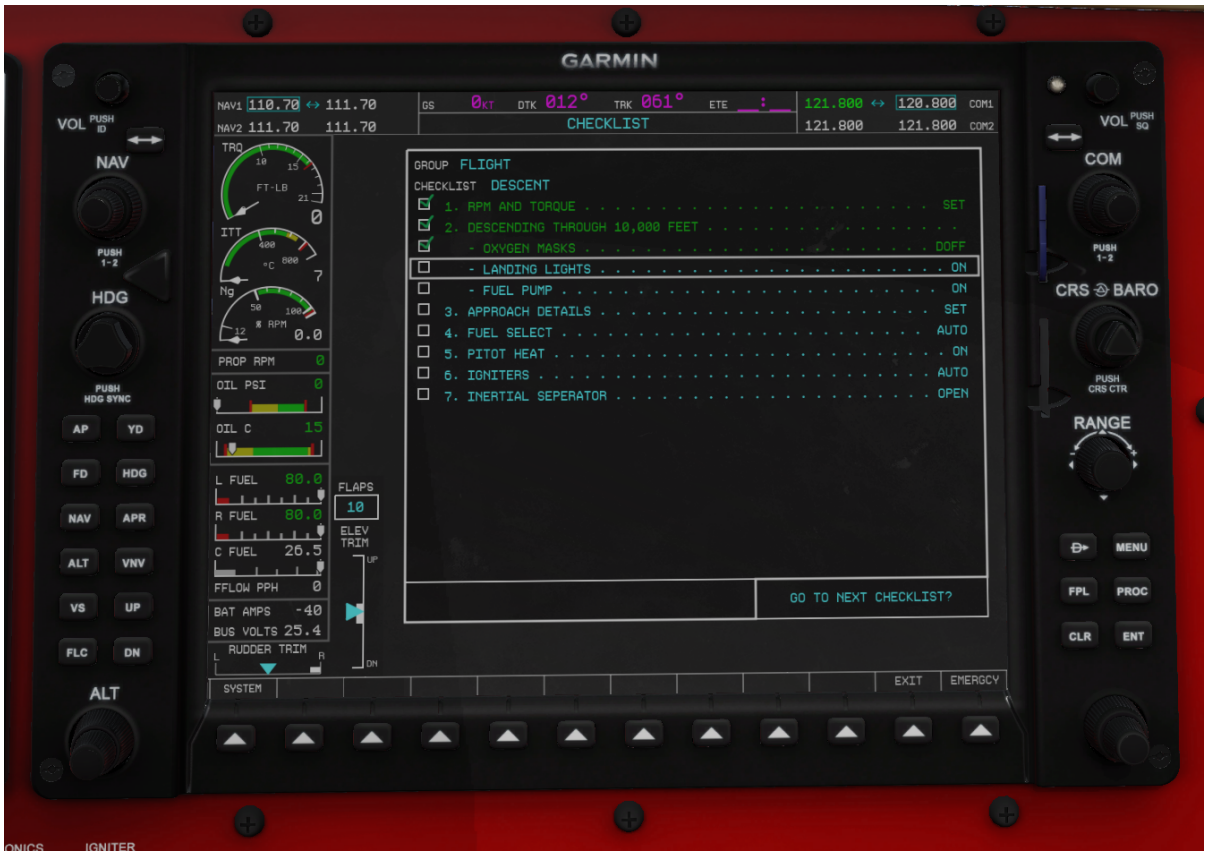
System Sidebar



The System sidebar can be reached by pushing Softkey 1 on the MFD labeled "SYSTEM"

The System sidebar presents the Torque, ITT, Ng, Prop RPM, L/R/C fuel (in pounds), Fuel Flow, Fuel Totalizer (pounds used, pounds remaining), Generator Amps, Standby Generator Amps, Battery Amps, Bus Volts (Essential Avionics), Rudder Trim, Flaps, and Elevator Trim.

Checklists



Checklists can be reached through softkey 11 on the MFD, labeled "CHKLIST". Clicking this will reach the checklist page. The outer FMS knob can be used to move the box cursor up and down. The inner FMS knob is used to control variable settings. The "ENT" key will check/uncheck the selected item and move to the next item on the list. The "CLR" key will clear the current checklist.

To cycle groups, move the box cursor over the Group box at the top using the outer FMS knob and use the inner FMS knob to cycle.

To cycle checklists, move the box cursor over the Checklist box at the second to top using the outer FMS knob and use the inner FMS knob to cycle.

Clicking the "EMERGCY" button (Softkey 12) will instantly switch you to the Emergency checklist group.

7.3.2 G5

The G5 simulation is fully custom for the Pocket Rocket. It displays an airspeed tape on the left, magnetic compass at the top, altitude and vertical speed on the right, turn/slip indicator at the bottom, ground speed at the bottom left, baro pressure at the bottom right, altitude pre-select at the top right, and an attitude indicator in the middle.

Our simulation currently only supports the PFD mode of the G5.

To turn on, push the power button at the bottom left of the unit and let boot. To turn off, press and hold the power button.

To change settings, click the right knob to display the menu. Use the knob to choose which preference you would like the knob to control in regular use (Baro pressure or Altitude preselect)

7.3.3 AviTab

AviTab is fully integrated. If you have the plugin installed, simply check the "AviTab Tablet" setting on in the Aircraft menu.

7.4 Landing Gear

7.4.1 Retract Tricycle Variant:

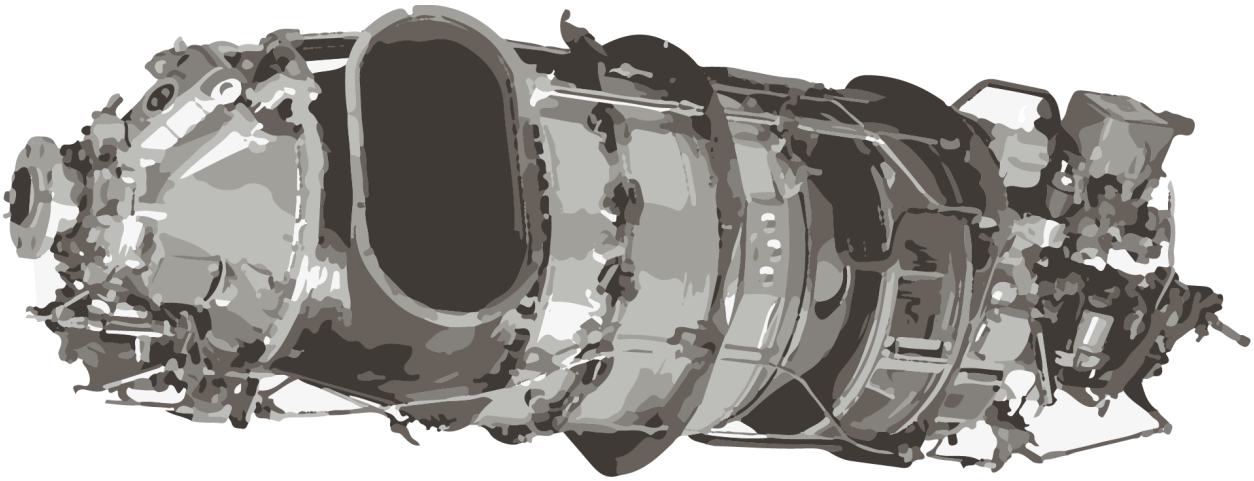
The landing gear consists of a steerable, retractable nose-wheel, and 2 retractable main gears. The nose-wheel retracts into the fuselage, the main gear retracts into the wing and fuselage underbelly.

7.4.2 Tailwheel Variant:

The landing gear consists of two fixed main gear located in front of the wings and one spring loaded, steerable tail wheel located beneath the empennage.

7.5 Power Plant

The aircraft is equipped with a PT6A-28 engine. This engine provides 680 shaft horsepower (715 Equivalent Shaft Horsepower).

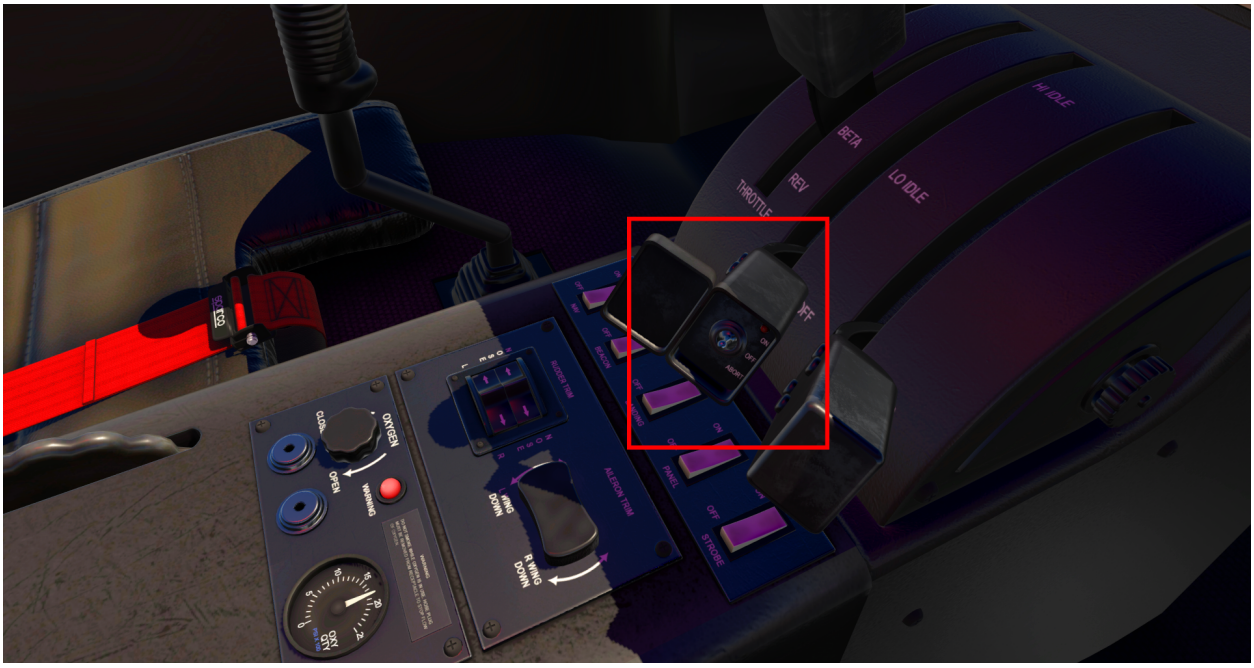


There are multiple control modes for the engine:

- Regular Thrust - RPM is determined by Propeller Control Lever, Power is controlled by Power lever
- Beta Mode - RPM is determined by Power Lever in Beta mode (by actuating blade pitch).
- Reverse Mode - Power is controlled by Power lever, Blade pitch is at maximum reverse

7.5.1 Starter

The starter switch is located on top of the fuel control lever under a cap.



Clicking the switch up will engage the starter. The middle position is default. The down position will abort the start.

7.5.2 Igniters

The Igniter is equipped with 3 modes: Off, On, and Auto.

- OFF: Igniters will never run
- ON: Igniters will always run

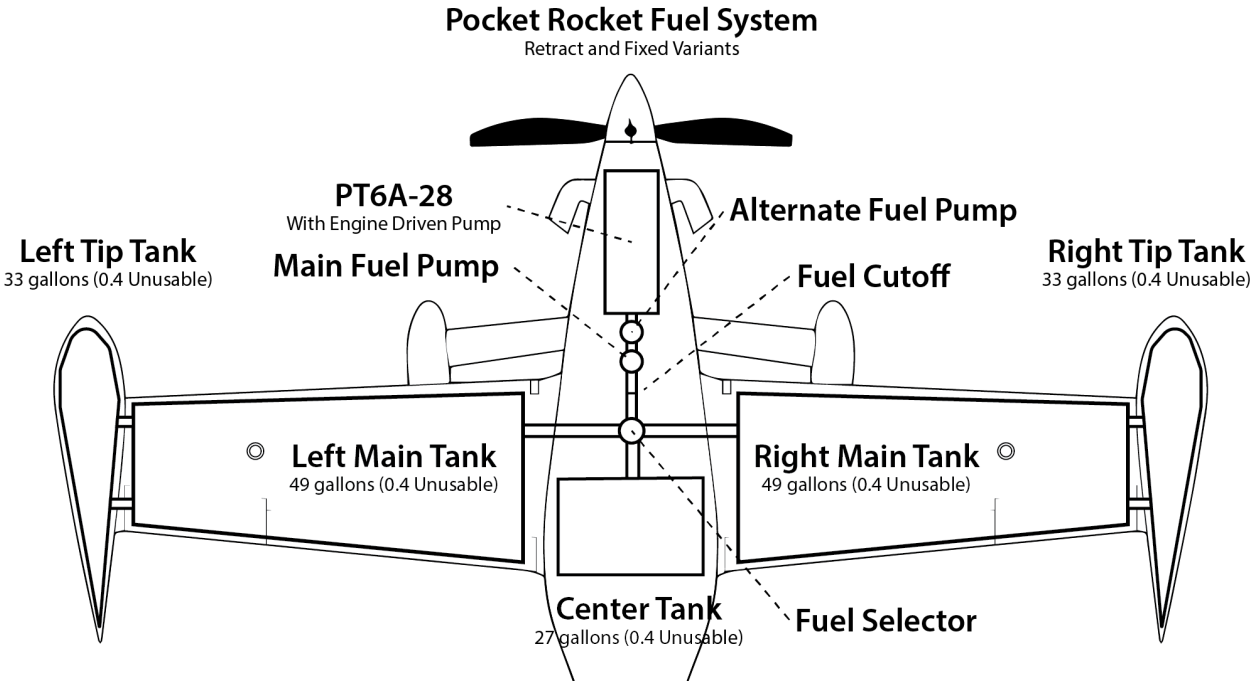
- AUTO: Igniters will run when torque is below a auto-detect threshold.

7.5.3 Fuel Pumps

The aircraft is equipped with two electric fuel pumps in addition to the engine driven pump. The two pumps are installed for redundancy. One pump should be on for engine start and other flight-critical phases. The two pumps are on different electrical busses.

7.6 Fuel System

The aircraft is equipped with a very large fuel system, with 191 gallon total capacity.



7.6.1 Tip Tanks

The tip tanks gravity feed the main tanks with backfill protection

7.6.2 Fuel Cutoff

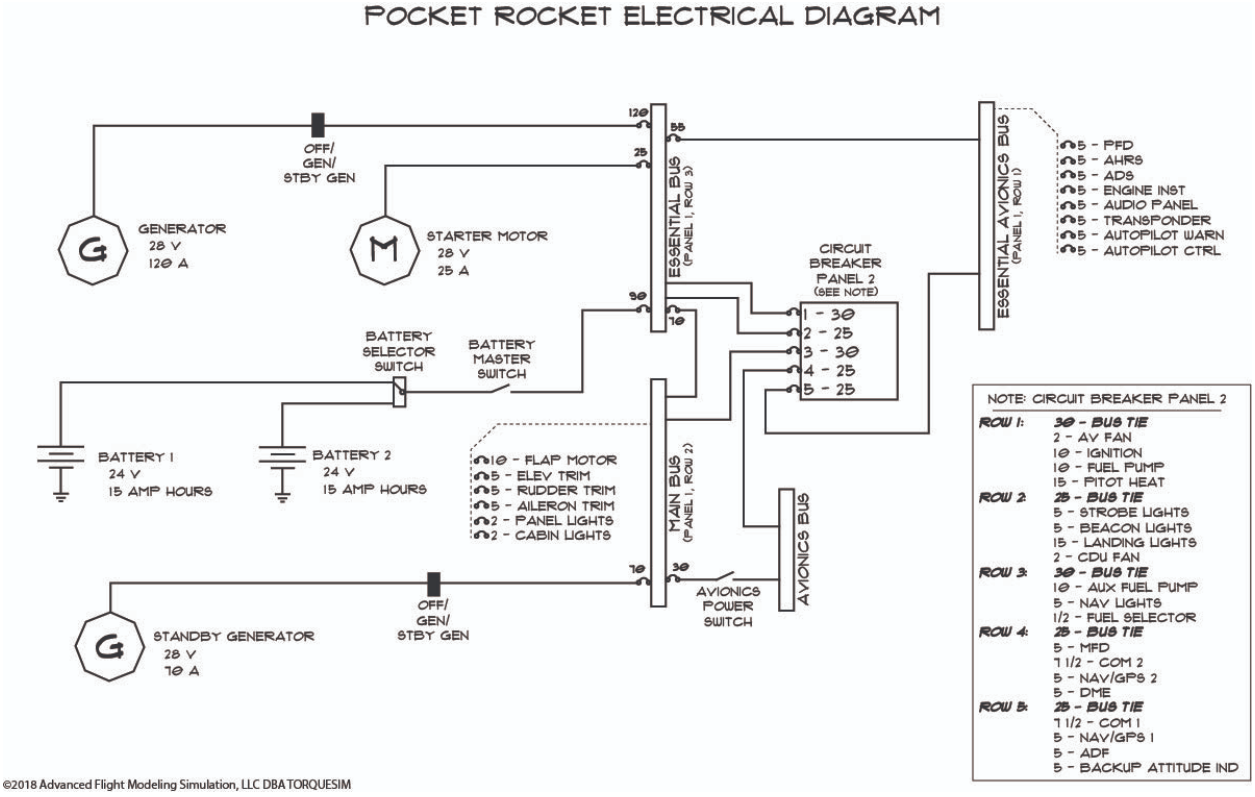
The fuel cutoff is integrated into the Fuel Control lever. Moving the fuel control lever will also initiate fuel cutoff.

7.6.3 Fuel Selector

The fuel selector is controlled electronically through a Off/Auto/Both switch.

- Off → Both Left and Right tanks (also when power off)
- Auto → Uses center tank first, then automatically switches between the left and right wing. Use this for aerobatics.
- Both → Uses both left and right tanks at the same time.

7.7 Electrical System



The electrical system consists of four electrical busses, the Essential Bus, the Main Bus, the Essential Avionics Bus, and Avionics Bus.

7.7.1 Essential Bus

- Bat 1/Bat 2
- Generator

- Starter
- Avionics Fan
- Igniters
- Fuel Pump
- Pitot Heat
- Strobe Light
- Beacon Lights
- Landing Lights
- CDU Fan

7.7.2 Main Bus

- BUS TIE to ESSENTIAL BUS
- Emergency/Standby Generator
- Flap Motor
- Elevator Trim
- Rudder Trim
- Aileron Trim
- Panel Lights
- Cabin Lights
- Auxillary Fuel Pump
- Nav Lights
- Taxi Lights
- Fuel Selector

7.7.3 Essential Avionics Bus

- BUS TIE to ESSENTIAL BUS
- PFD

- AHRS
- Engine Instruments
- Audio Panel
- Transponder
- Autopilot Warn
- Autopilot Control
- COM 1
- NAV/GPS 1
- ADF
- Backup Attitude Indicator

7.7.4 Avionics Bus

- BUS TIE to MAIN BUS
- MFD
- COM2
- NAV/GPS 2
- DME

7.8 Oxygen System

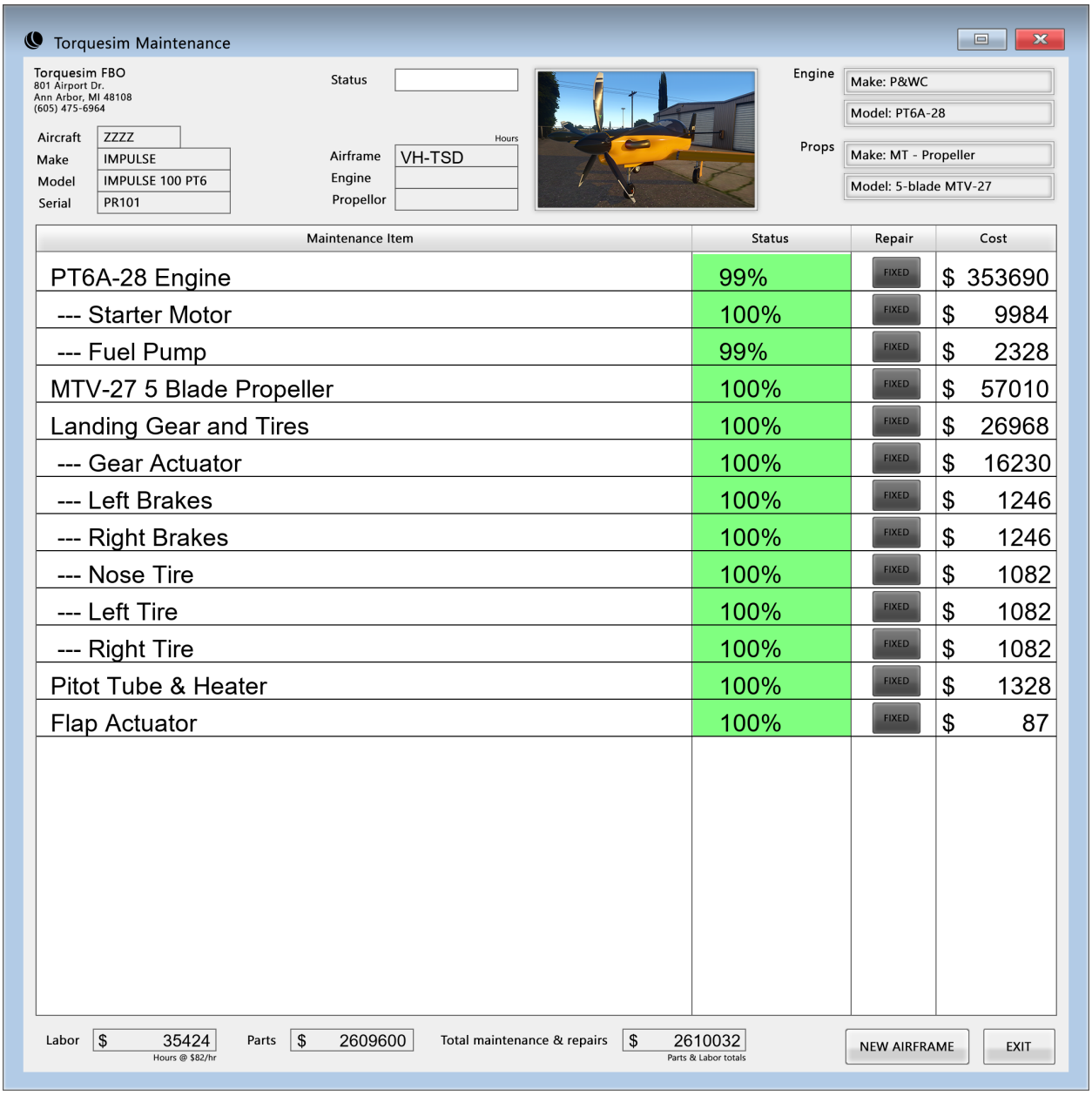
The oxygen system consists of a 2200 PSI oxygen bottle capable of dual operation for flights up to FL250. The oxygen bottle provides over 70 cubic feet of Oxygen storage. Turning the knob will enable the oxygen system. The red warning light is on whenever oxygen pressure is below limits or when the oxygen system is not delivering oxygen.

8.0 Handling and Maintenance

8.1 Guide to Handling Aircraft

These aircraft are high powered and very light weight. Expect this aircraft to be tricky to handle both on the ground and in the air. Once you get the hang of it, these planes are a total joy to fly!

8.2 Maintenance Manager



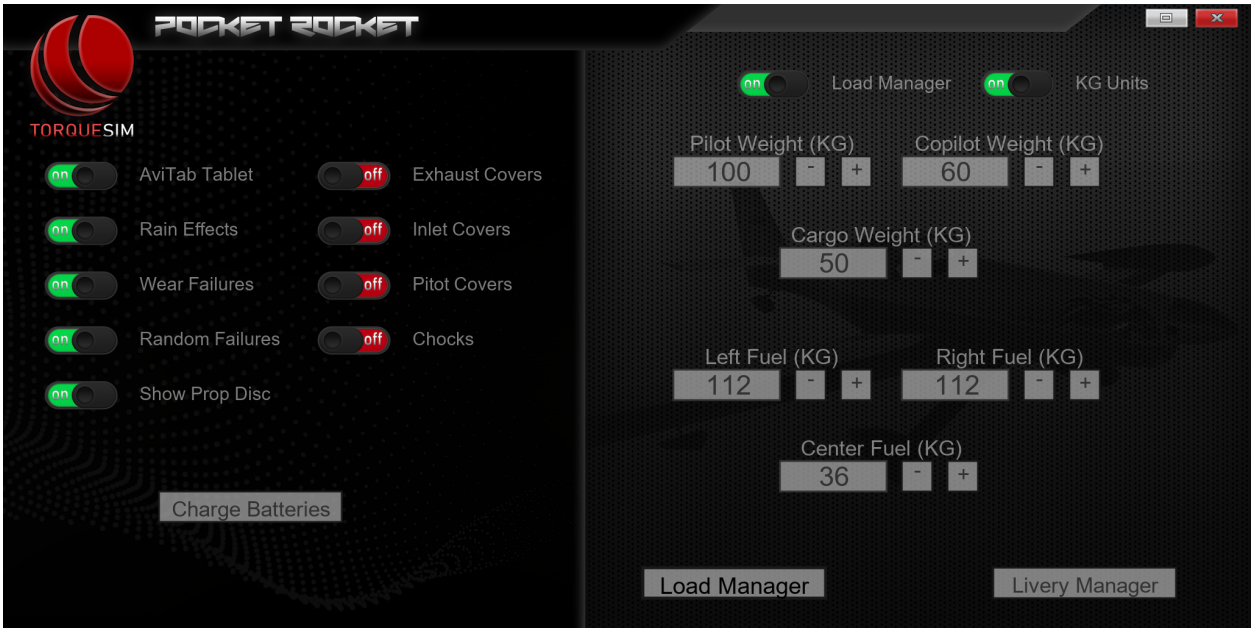
The maintenance menu can be brought up from the sidebar. (To access the sidebar, hover your mouse on the left edge near the X-Plane window, and a red tab will appear. Click that to show the menu)

Status will show the percent status of any part, if the system is enabled (enable/disable from the Aircraft Menu - see section 8.3). Clicking the repair button, if an item is damaged will repair it. If you want a new airframe entirely, click New Airframe in the bottom right.

Some failures are brought about by X-Plane, not us (specifically prop-strikes). In those cases, click Repair All in the X-Plane failure menu.

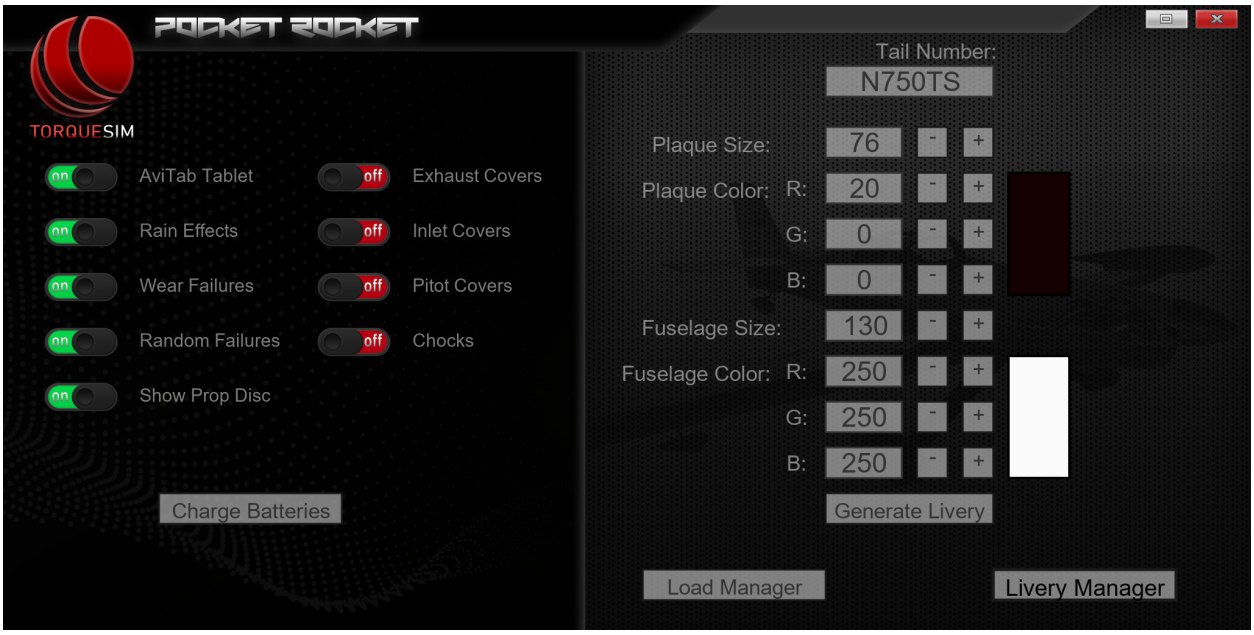
8.3 Aircraft Menu

8.3.1 Settings and Load Manager



The settings are toggle switches on the left side of the menu. They can toggle AviTab, Rain Effects, Failures, and the Prop Disc in addition to hiding and showing ground equipment.

8.3.2 Custom Tail Number Menu



You can change the tail number on most liveries included! Simply click on "Tail Number" and enter your desired tail number. Note, on some keyboards, you must use the "-" key on the Numpad to be recognized. You can change the RGB of both the plaque in the cockpit and on the fuselage. Click "Generate Livery" and wait for approximately 30 seconds while the new livery is created and loaded.

More settings are available through the livery config file system (See section 8.4)

8.4 Custom Tail Number

How to Run

Assign the command "afm/pr/cmd/func/regenLivery" to a keyboard button. Push the command and wait. The sim will pause for a few seconds while it draws and cycles liveries. You can also use the Generate Livery button in the TorqueSim Aircraft menu. You can also use the in-sim interface (see section 8.3.2).

Files Required

This liveryConfig.cfg file should be located inside the **liveries**/***yourliveryhere***/ folder for the livery you are creating/using. This file contains the necessary information to configure the custom tail number generator.

Additionally, inside the **liveries**/*__yourliveryhere__*/**custom** folder, 4 files are needed:

- fuse_font.ttf - Font used to draw tail number on fuselage.
- fuse_original.png - Fuselage texture **without** tail number on it already. This is the template that is copied for drawing the tail number onto it
- panel_font.ttf - Font used to draw tail number plaque in cockpit
- panel_original.png - Panel texture **without** tail number on it already. This is the template that is copied for drawing the tail number onto it

Config file settings

See liveryConfigDetails.txt in this folder for more details.
