# FLYING FRIES XF-11

## USER MANUAL

| | |
|---|---|
| VERSION | 2.0.0 |
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# A WORD FROM LORD FRITES

Damn, this took a lot of time to write and illustrate,... I really hope people open these PDF files and I'm not (again) writing books that nobody ends up reading 😊

Anyway, if you read this, thank you for your purchase!

How is it possible that you trusted the creator of the Scrapyard Monster, a crazy, fictional, plane, to make this much more serious replica of such an iconic and beautiful XF-11?

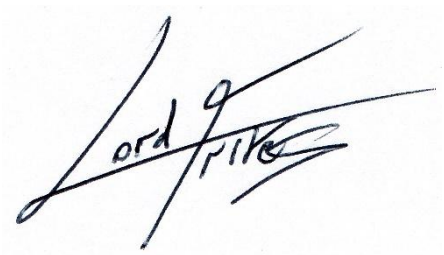
Hopefully you will see that this is not a scam add-on. I have spent so many hours working on this beauty. I literally fell in love with the XF-11 (rather quickly) and this love never faded during the entire development. I was afraid of getting bored at some point, but no. And I really hope this will be obvious to you when you will discover all the details and features, one after another, after another, ...

I have also been helped by the best people on Earth (some of their names are printed somewhere in the plane), and I am grateful that more and more people are now able to get to feel how we've been feeling for months, flying this beauty.

There will certainly be updates and additions. We will see what we can do, and that's the reason why it's critical that YOU join our Discord to share your feedback directly with me and tell me what you would like to change, what you would like to see happening.

Thanks again. If Flying Fries ever manages to take off someday, it will definitely be thanks to you!

See you in the skies (or on the ground, near the LA Country Club 😉)



# INDEX

# HISTORY OF THE XF-11

**DISCLAIMER:** We are already sorry about "any" shortcut or inaccuracy that we "may" have done, and we hope you understand that it's not to be disrespectful but to tell the story with a different and lighter tone.

The other sections of the manual are way more serious. So don't hesitate to skip this if you don't have the time and just want to fly!

***Once upon a time, in 1943…***

The XF-11 was a project of military reconnaissance plane which was supposed to fly high and fast (and therefore as stealthy as you could be in that day and age). The U.S. Army Air Force ordered 100 planes from the Hughes Aircraft Company. They fought each other regarding the design and materials, and the project struggled to really start…

**1945: World War II ends.**

The army said something like that to Hughes: "*Hey, Howie…*"

Hughes: "*Hey Army man!*"

The Army: "*Where are we with these expensive XF-11?*"

Hughes: "*Still working on the first prototype. Why the question?*"

The Army: *"Well… You're gonna laugh…"*

Hughes: *"I doubt it but try me anyway."*

The Army: *"We don't need all these toys anymore. What's your refund policy again?"*

It ended up that only two planes were going to be built, in addition to a third one, static.

**1946.**

This first prototype is complete. It looks futuristic. It is massive, super sleek and it promises some sort of performance unseen in any warbird ever built.

It was equipped with two Pratt & Whitney R-4360 "Wasp Major". 28-cylinder of pure power that Hughes was using at the same time on the development of the H-4 *"Spruce Goose"* Hercules. On

top of these, were four gigantic contra-rotating propellers... That must have been a fantastic machine to contemplate.

But let's not just look at it, it's time to fly this 6,000 horsepower monster!

**July 7th, 1946, 5:20 pm.**

Howard Hughes takes the pilot seat for what was supposed to be a 45-minute maiden flight from and back to Culver City. He is alone in the plane, he had put 1,200 gallons of fuel in the tanks, and so there is no way he was going to fly her for such a short time!

**July 7th, 1946, 6:35 pm.**

The right-rear propeller suffered a hydraulic leak which reversed its pitch (that's not something you would want!)

**July 7th, 1946, 7:20 pm.**

Hughes thought about maybe he could make a detour to the golf course he likes and try a "hole-in-one" on the 7... But the XF-11 decided to not go this far and crashed 300 feet before the green, on the roof of a house on Whittier Drive in Beverly Hills and didn't make any casualty. Some say that Hughes screamed *"Duff"* just before the impact.

The aviator was rescued from the burning wreckage by a brave US Marine passing by: Sergeant Durkin.

**April 5th, 1947.**

Hughes has fully recovered from his crash, nine months earlier. And the second (and last) unit of the XF-11 is finished. For safety reasons they decided not to go with the probably flawed contra-rotating propeller but use regular (and boring) propellers instead. Fair enough.

Hughes says to the Army: *"Alright... Hold my beer, I'll take her for a ride."*

The army says: *"Nope. That's not happening."*

Hughes says: *"Bro! You serious?"*

The army says: *"What? It's you, are you serious? You don't really expect that..."*

And there is the crazy Howard flying his beautiful (but let's be honest, a bit less impressive) XF-11 Mark 2 in the Californian sky, once again… and making it back safely to the ground for the first time ever!

Leaving the plane, he throws the keys at Mr. Army guy and says: *"She's all yours."*

This second prototype was never really used. The US Army kept it in some hangars until 1949 when it was just removed from their inventory.

And the mock-up one? Well, your guess is as good as mine.

**End of story.**

Isn't it crazy that this guy, who nearly died in his first prototype, wanted to try again a few months later with a barely changed iteration of the same plane? All jokes aside, Howard Hughes was seriously impressive.

If you are interested in some more serious writings or documentaries about this incredible story, you should look at these:

- YouTube video **(HIGHLY RECOMMENDED!)**: 13-minutes documentary on the XF-11 by Aviatrix: https://www.youtube.com/watch?v=wBI0kFZo1PM

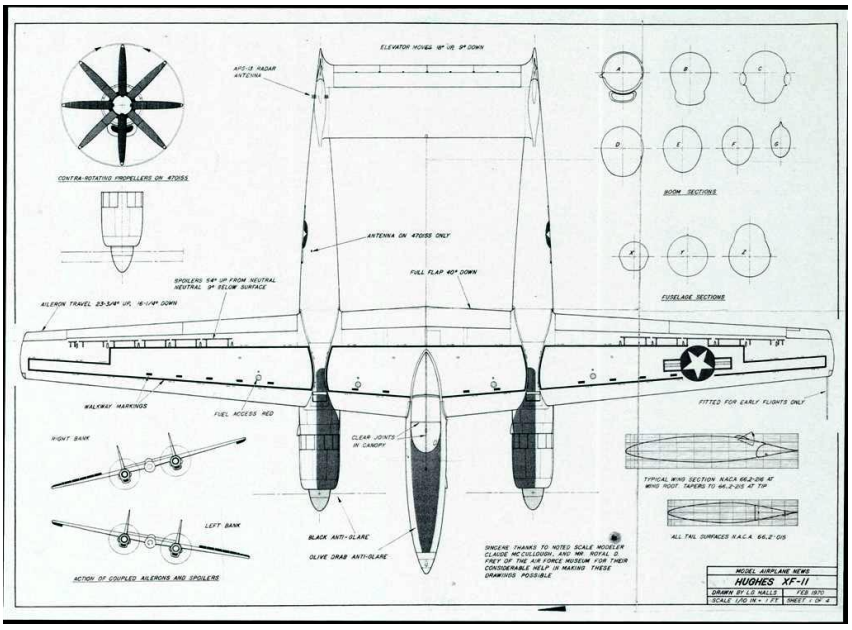
- Article: *Crash of the XF-11*: https://www.check-six.com/Crash_Sites/XF-11_crash_site.htm

- Article : *XF-11 Photo-Reconnaissance Aircraft:* https://oldmachinepress.com/2018/12/20/hughes-xf-11-photo-reconnaissance-aircraft/

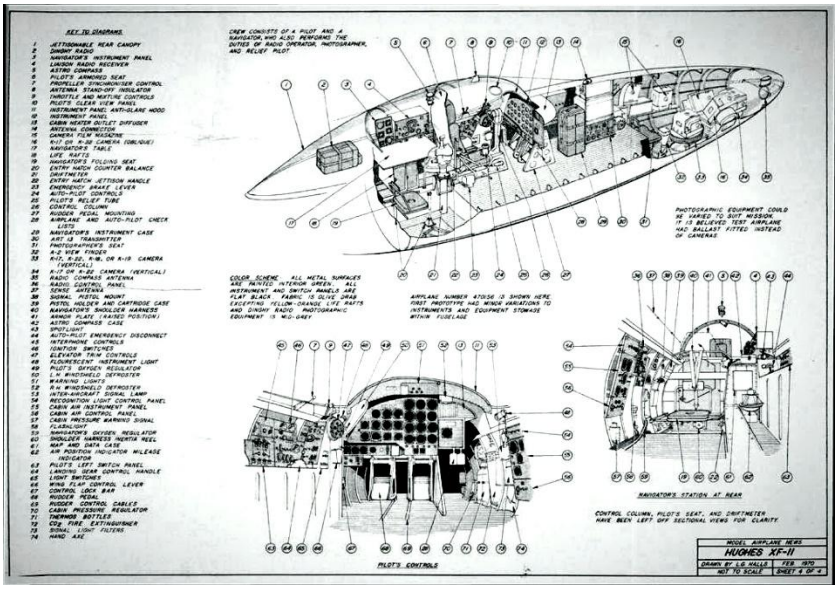
- Hughes Plane Crash (footage): https://footagefarm.com/reel-details/motion-picture/generic/hughes-plane-crash#/

# HOW ACCURATE IS THIS ADD-ON?

A short text about that. It is not a study level aircraft despite studying carefully and over weeks the few photographs, drawings, and interviews that we have found. Some of these documents were often extremely incomplete and sometimes in contradiction between themselves.




Despite that, this is not a fantasy plane. We have really worked hard to make it as accurate as it might have been. Performance at high altitude and even fuel consumption are matching the rare data that we have. Terrible roll rate at low speed is also matching the rare testimony that we found.




Flying Fries really wants to be recognized for its light tone and its humor, but we are dedicated to applying these traits to even realistic and respectful products, such as this XF-11.

# AIRCRAFT PERFORMANCE

The following numbers are subject to change if/when we update the engines to match our reference data even better. This chapter would then be updated accordingly.

All these numbers have been measured at standard atmosphere with no wind and no clouds.

| | |
|---|---|
| Cruise Altitude | **40,000 feet** |
| Cruise Speed (ground speed) | **330 knots** |
| Service Ceiling | **45,000 feet** |
| Range | **5,000 Miles (4,300 NM)** |
| Rate of climb (above 15,000 feet) | **2,000 feet/min** |
| Max Altitude (best conditions) | **57,000 feet** |
| Max range (best conditions: jet stream) | **7,659 NM (screenshot on next page)** |

## REFERENCE SPEEDS

These speeds have been measured at sea level, in standard atmosphere, without wind.

| | | |
|---|---|---|
| **$V_{FE}$** / Max speed flaps extended | **250 MPH** | **220 knots** |
| **$V_{GE}$** / Max speed gears extended | **230 MPH** | **200 knots** |
| **$V_{NO}$** / Max normal operation speed | **390 MPH** | **340 knots** |
| **$V_{NE}$** / Max never exceed speed | **420 MPH** | **365 knots** |
| **$V_S$** / Stall speed flaps retracted | **105 MPH** | **95 knots** |
| **$V_{S1}$** / Stall speed flaps extended | **85 MPH** | **75 knots** |
| **$V_X$** / Best angle of climb | **140 MPH** | **120 knots** |
| **$V_Y$** / Best rate of climb | **185 MPH** | **160 knots** |

## MIXTURE MANAGEMENT

An easy approach to good mixture management is to keep your eyes on the fuel flow needles during climb (or descent). Some people would advise to monitor the EGT gauge (which you can do as well), but, by nature, the exhaust gas temperature has much more delay than the more precise fuel flow which tells you instantly how much fuel is getting burned by your engine.

The rule is: the higher you fly, the less air there is, so the less fuel you will inject in your mixture. The needles will then slowly decrease. But if you see them decreasing too much, this is because your mixture is either too low or even too rich and you are about to stall your engine.

By always monitoring these fuel flow needles and making sure they are as high as possible (as vertical as possible on the instrument), you will ensure an ideal combustion.


It's easy to do from sea level to 20,000 feet. Then it gets more delicate. And the higher you climb, the narrower this "ideal combustion" region will be.

In the end you will realize we rarely (or never?) fly radial piston engines with manual mixture to these heights and you will understand why!

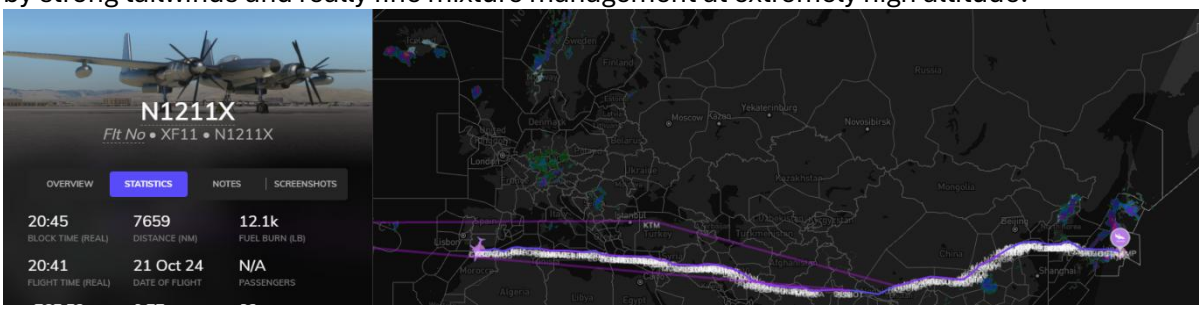
There is a real sense of danger and fragility when you know that every micro adjustment you make to keep your engine alive could also be a bit too much and cause a shutdown, forcing you to quickly restart it if you can before it loses too much altitude!

Finally, once you're set at your desired cruise altitude, after making sure your manifold pressure and prop RPM are not in the "red" zone, you can adjust your mixture by making it as lean as possible... You should be able to set the needle at about 70 GPH (just above the "60" marker on the gauges).

This way, without slowing down, you will be able to achieve the highest possible range.

As a reminder: At 44,000 ft, if you don't have head wind, you should be able to fly at 320 knots (Ground Speed) for at least14 hours, which translate in 4,500 NM range, minimum.

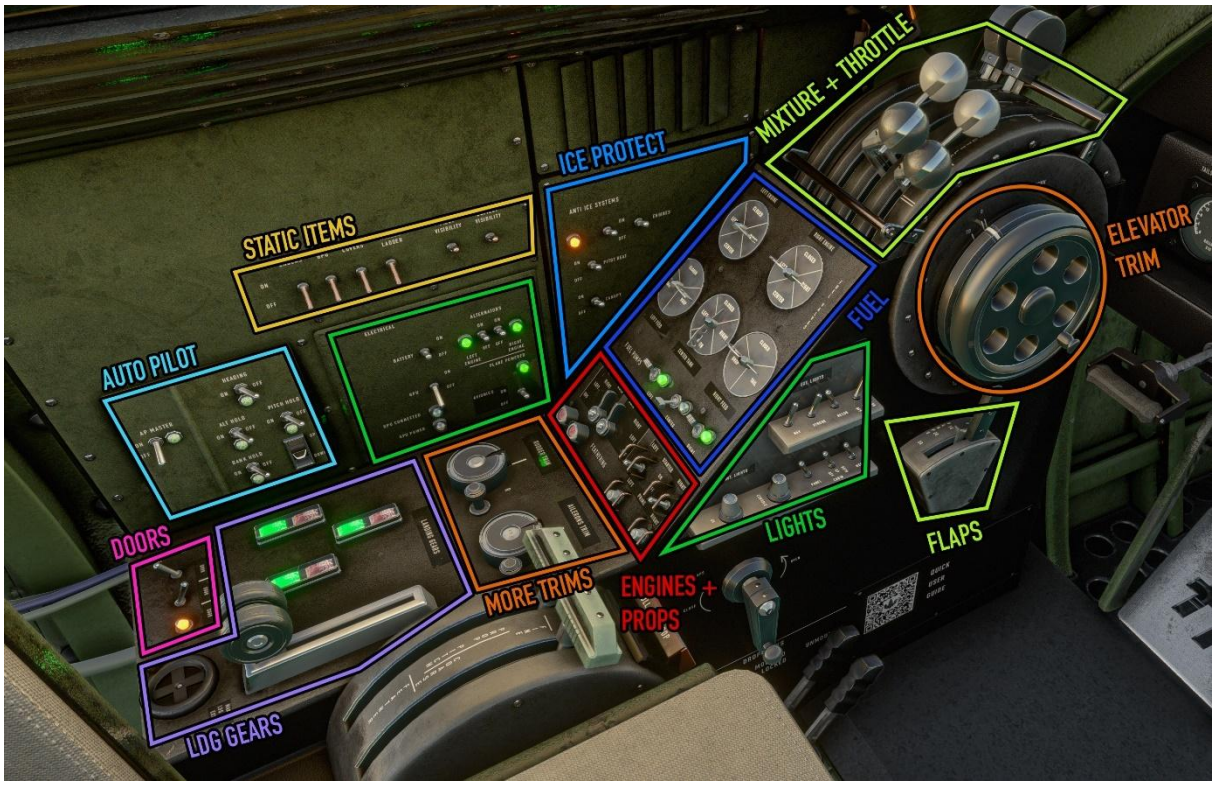
Our champion, *Otaku Gekko*, has even done a 20 hours and 41 minutes leg of 7,659 NM, helped by strong tailwinds and really fine mixture management at extremely high altitude!



# COCKPIT OVERVIEW

In front of you is the **main dashboard with all the gauges and instruments** you will need to monitor. They are all black and white. The artificial horizon is not easy to read (where is the ground, where is the sky?). That's how things were back then: rudimentary.


On the left of the pilot seat, **the left console has all the toggles, switches, knobs,** and thingies to operate your electric systems, fuel systems, anti-ice, power, doors, lights, flaps, autopilot, etc.

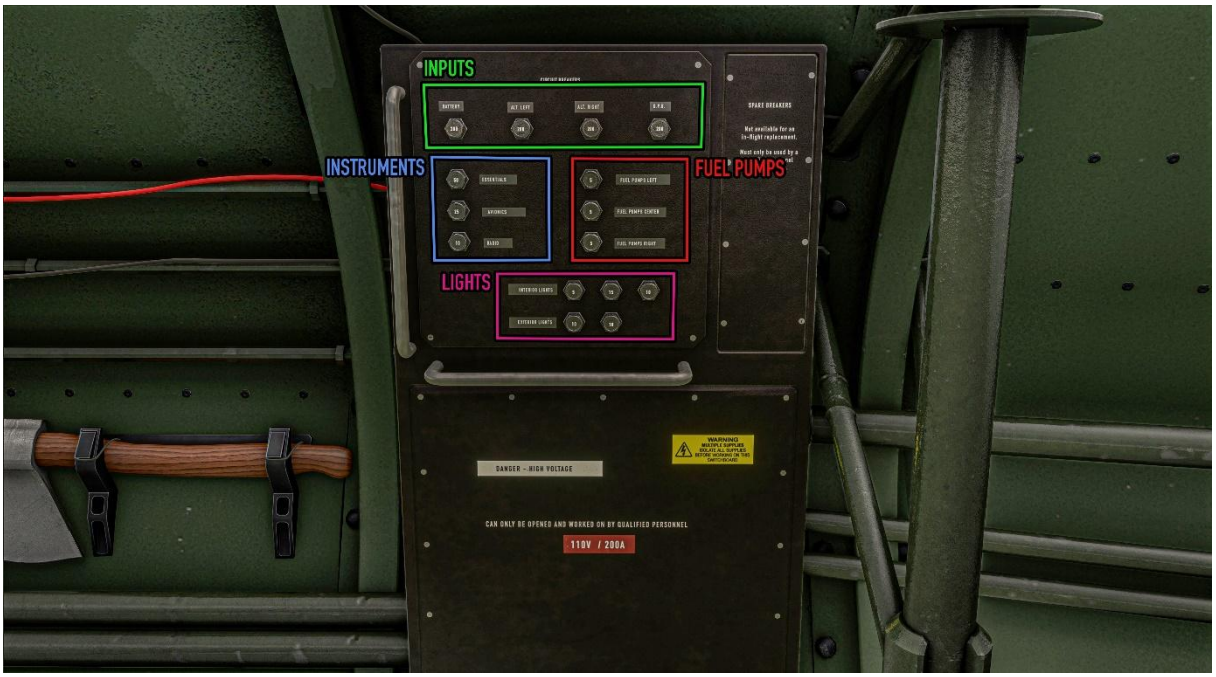


On the right side of the pilot seat is **the pressurization panel**. We will discuss it later, but it has an interesting gauge: your **ground speed**.

It also includes the **recognition light components** (red, amber, green) that you can select manually.

**BY THE WAY:** The recognition color(s) you select here are properly displayed in multiplayer. And they are also persistent across your flight sessions.


A bit behind, at the other end of the axe, is **the circuit breakers panel**. All the breakers are functional, and they are all subject to failures (if you enabled this feature).



**These two levers and the red handle on top are there to operate the drop tanks jettison system.** If your tanks are mounted, select the one (or both) you want to get rid of, with the appropriate lever and pull the red handle to trigger the jettison. It works on ground or in the air and doesn't require any system to be turned on.


This funny thing is **a drift meter**. It was used to measure the wind speed. Right now, it has no use at all, but we are thinking about something. Maybe in future updates! You can still turn it around and its position is persistent across your flight sessions.

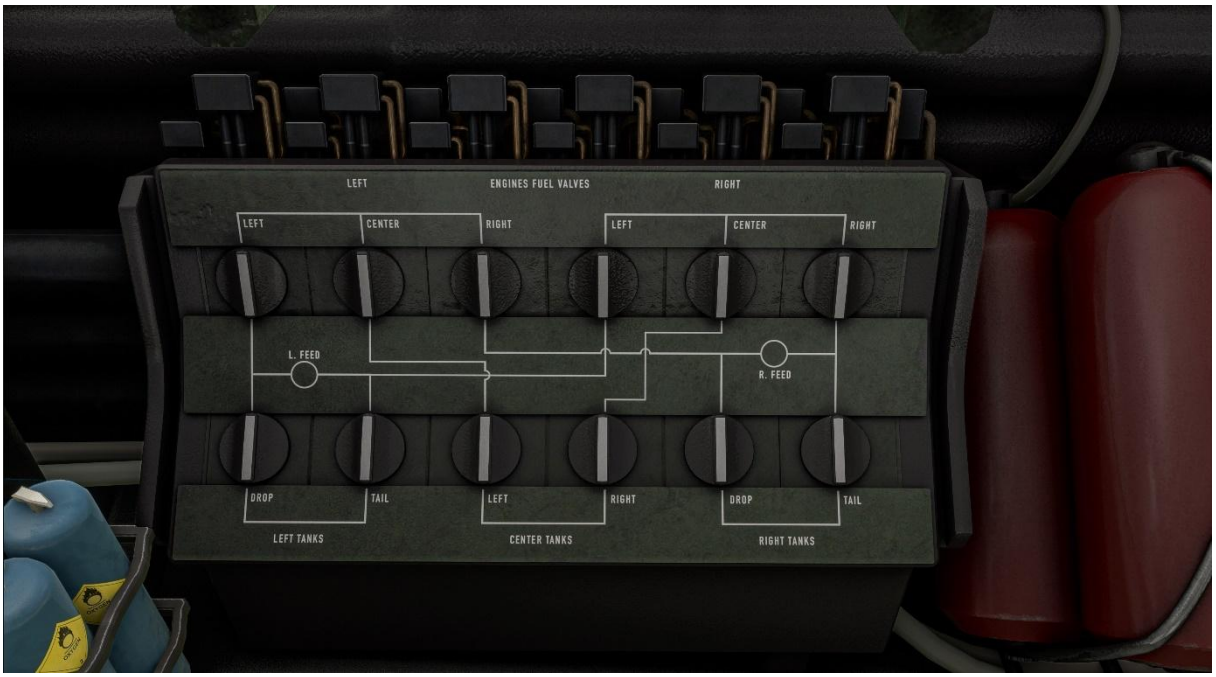
On the other side, **the radio operator area**. With a map of the USA, **a few instruments** useful for radio chat, the **main radio** (that you need to turn on before you can select your frequency), and an **audio recorder**, which doesn't record anything, but all the controls work so you can pretend it does!

And you can find **a basket of French specialties** under the desk if you need. Courtesy of Flying Fries!

On the only steel arch of the canopy, you will find the **canopy jettison controls**. You have to unscrew the safety first and then pull the handle.


**NOTE:** The canopy jettison system only works below 12,000 feet pressure altitude.

Now, let's move to the lower deck. The most prominent feature is the "**Piano Fuel Valves**". We will discuss it more when talking about the fuel system but remember that here are all the 12 fuel valves of the plane. You should keep them open (just like in the picture), but feel free to play with them. It's your toy after all!




The other important part of the lower deck is the **Ground Power Unit box**. From here you can connect the GPU. But rest assured, this operation can also be done with one switch from the pilot's comfortable seat. You decide how you want to operate this.

We didn’t discuss about the **nose section**. There are a few easter eggs here as well but nothing critical, so you can discover them by yourself.

# CHECKLISTS

You can find all these checklists in-game, with custom cameras and switches highlights. But here they are too if you prefer this format.

## BEFORE STARTING ENGINES

| | |
|---|---|
| Landing gears handle | **DOWN POSITION** |
| Parking brake | **SET** |
| Wheel chocks | **SET** |
| Throttle | **CLOSED** |
| Left engine magnetos | **OFF** |
| Right engine magnetos | **OFF** |
| Circuit breakers | **ALL IN** |
| Lights | **ALL OFF** |
| Battery switch | **ON** |
| Navigation lights | **ON** |
| Interior lights | **AS REQUIRED** |
| Access door | **OPENED** |
| Ground Power Unit | **PLUGGED-IN** |
| Ground Power Unit | **POWERED ON** |
| Drop tanks | **AS REQUIRED** |
| Fuel truck | **PRESENT** |
| Fuel level – each tank | **AS REQUIRED** |
| Fuel truck | **DISMISSED** |
| Engines covers | **REMOVED** |
| Wheel chocks | **REMOVED** |
| Fuel valves | **OPENED** |

## STARTING ENGINES

| | |
|---|---|
| Cowl flaps | **OPENED** |
| Failures | **CHECK – ALL GREEN** |
| Left propeller feather switch | **UNFEATHERED** |
| Left mixture | **FULL RICH** |
| Left propeller pitch | **FULL FINE** |
| Left throttle | **IDLE** |
| Left engine fuel selector | **LEFT** |
| Left feed fuel selector | **TAIL** |
| Left fuel pumps | **ON** |
| Left engine magnetos | **BOTH** |
| Left primer | **PRESS AND HOLD 2S** |
| Left starter | **ON** |
| Left generator/alternator | **ON** |
| Right propeller feather switch | **UNFEATHERED** |
| Right mixture | **FULL RICH** |
| Right propeller pitch | **FULL FINE** |
| Right throttle | **IDLE** |
| Right engine fuel selector | **LEFT** |
| Right feed fuel selector | **TAIL** |
| Right fuel pumps | **ON** |
| Right engine magnetos | **BOTH** |
| Right primer | **PRESS AND HOLD 2S** |
| Right starter | **ON** |
| Right generator/alternator | **ON** |

## AFTER STARTING ENGINES

| | |
|---|---|
| Avionics | **ON** |
| Ground Power Unit | **POWERED OFF** |
| Ground Power Unit | **UNPLUGGED** |
| Access ladder | **STOWED** |
| Access door | **CLOSED** |
| Doors' indicator | **CHECK – LIGHT OFF** |
| Left engine fuel selector | **AS REQUIRED** |
| Right engine fuel selector | **AS REQUIRED** |
| Left feed fuel selector | **AS REQUIRED** |
| Right feed fuel selector | **AS REQUIRED** |
| Center feed fuel selector | **AS REQUIRED** |
| Left fuel pumps | **AS REQUIRED** |
| Right fuel pumps | **AS REQUIRED** |
| Center fuel pumps | **AS REQUIRED** |
| Pressurization | **AS REQUIRED** |
| Rudders | **FREE AND RESPONSIVE** |
| Yoke | **FREE AND RESPONSIVE** |
| Recognition light | **AS REQUIRED** |
| Recognition color code | **AS REQUIRED** |

## TAXI

| | |
|---|---|
| Taxi light | **ON** |
| Pitot heat | **AS REQUIRED** |
| Anti-ice protections | **AS REQUIRED** |
| Ailerons and rudder trims | **NEUTRAL** |
| Elevator trim | **NEUTRAL** |
| Strobe lights | **ON** |
| Parking brake | **RELEASED** |

## TAKE OFF

| | |
|---|---|
| Flaps | **10 DEGREES** |
| Elevator trim | **TAKE OFF POSITION** |
| Landing lights | **ON** |
| Both mixtures | **FULL RICH** |
| All propellers pitch | **FULL FINE** |
| Both throttles | **MAX** |
| At 130 knots (150 MPH) | **PULL YOKE** |
| After take off | **LANDING GEARS UP** |
| At 200 knots (230 MPH) | **FLAPS UP** |
| Check landing gears indicator lights | **ALL OFF** |

## CRUISE

| | |
|---|---|
| Cowl flaps | **CLOSED** |
| Both mixtures | **AS REQUIRED** |
| Throttles | **48 INHG MAX** |
| All propellers pitch | **2500 RPM MAX** |

## APPROACH

| | |
|---|---|
| Cowl flaps | **OPENED** |
| Landing lights | **ON** |
| Both mixtures | **FULL RICH** |
| All propellers pitch | **FULL FINE** |
| Airspeed check | **200 KNOTS MAX** |
| Flaps | **10 DEGREES** |
| Landing gears | **DOWN** |
| Airspeed check | **160 KNOTS MAX** |
| Check landing gears indicator lights | **THREE GREEN** |
| Align with approach | **STRAIGHT LINE** |
| Flaps | **20 DEGREES** |
| Airspeed check | **140 KNOTS MAX** |

## LANDING

| | |
|---|---|
| Flaps | **30 DEGREES** |
| Airspeed check | **130 KNOTS MAX** |
| Vertical speed | **-500 FEET/MIN MAX** |
| Touchdown | **MAIN LDG GEAR** |
| Throttles | **CLOSED** |
| Touchdown | **NOSE LDG GEAR** |
| Propellers reversers | **AS REQUIRED** |
| Toe brakes | **AS REQUIRED** |
| Airspeed check | **BELOW 30 KNOTS** |

## ENGINES STOP

| | |
|---|---|
| Throttles | **CLOSED** |
| Parking brake | **SET** |
| Landing lights | **OFF** |
| Strobe lights | **OFF** |
| Recognition lights | **OFF** |
| Generators/Alternators | **OFF** |
| Avionics | **OFF** |
| Pitot heat | **OFF** |
| Anti-ice protections | **OFF** |
| Both mixtures | **LEANEST** |
| Propellers | **STOPPED** |
| Both engine’s magnetos | **OFF** |
| Cowl flaps | **CLOSED** |
| Access door | **OPENED** |
| Access ladder | **DEPLOYED** |
| Engines covers | **SET** |
| Wheel chocks | **SET** |
| All lights | **OFF** |
| All fuel selectors | **CLOSED** |
| All fuel pumps | **OFF** |
| Battery | **OFF** |

# UNIQUE FEATURES

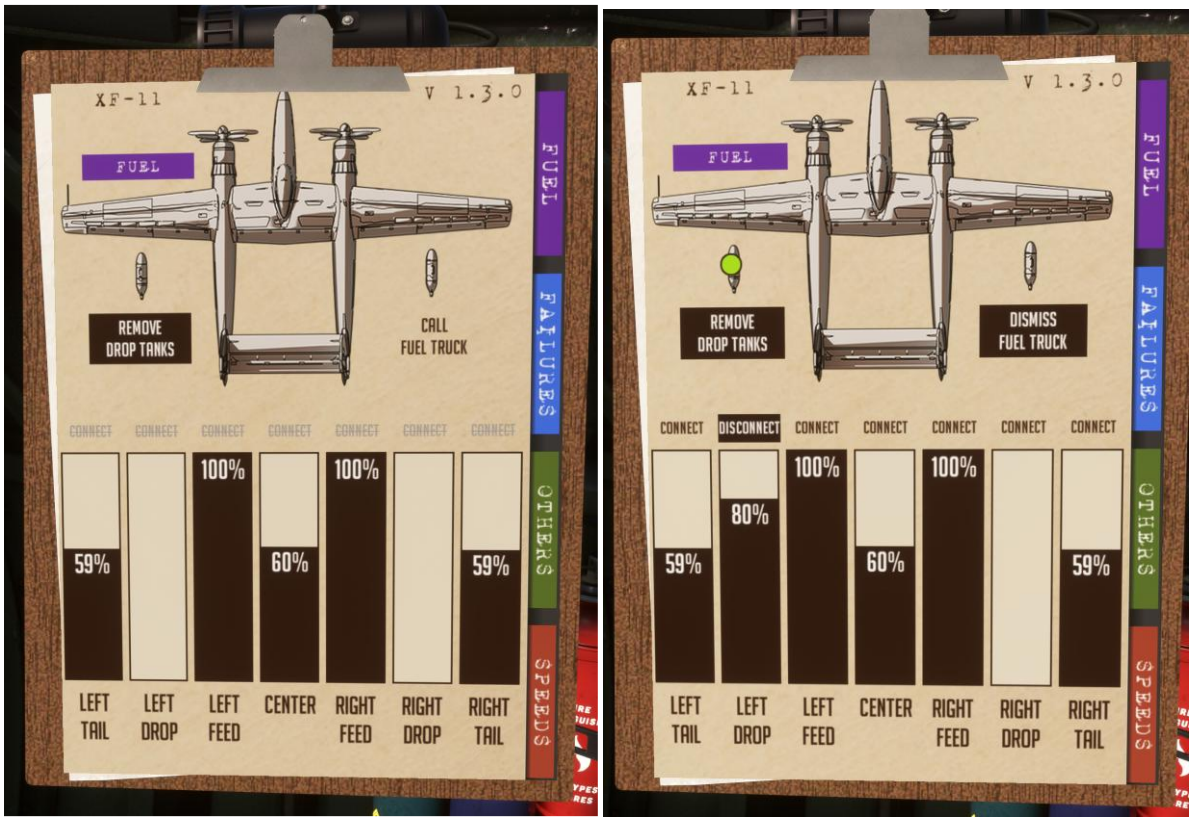
## CLIPBOARD

This is the era-correct equivalent of an EFB. You can grab it from the right side of your seat. It has the following four pages:

### Fuel

From this first page, you can see the fuel level in all of your tanks. If you are on the ground, with the parking brake set, you can attach or remove your drop tanks and refuel/adjust the fuel level of each individual tank.

You do not need to use the in-game fuel pop-up. Ever.

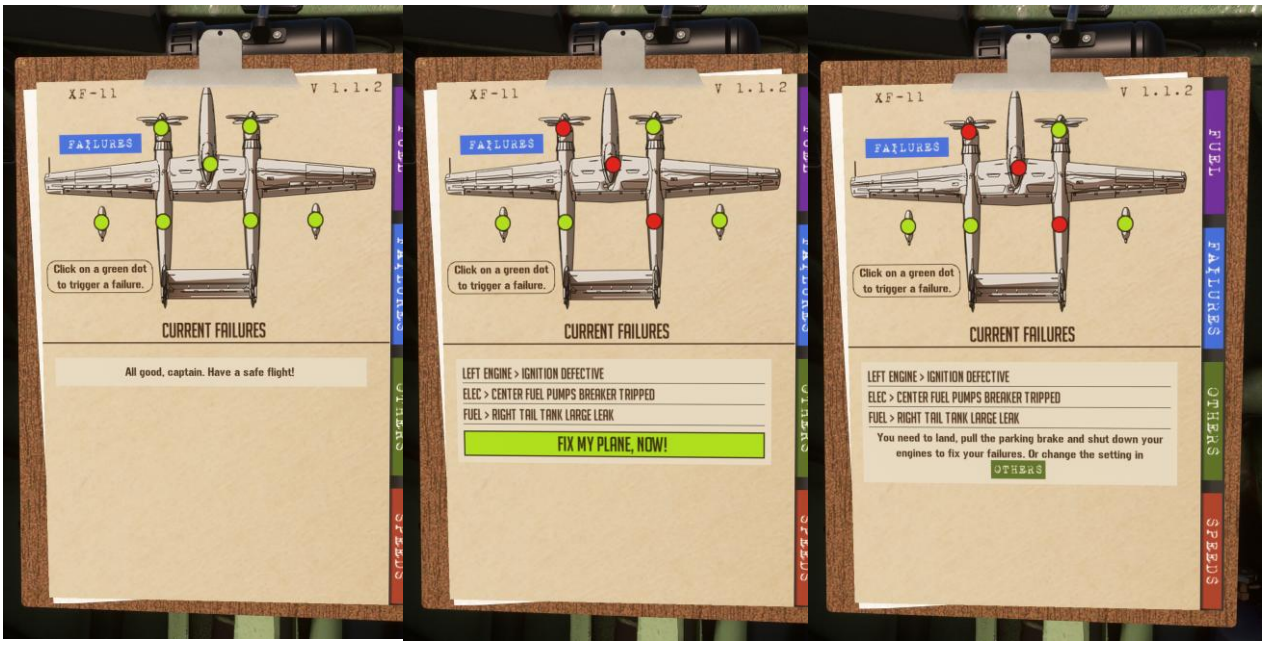



**The order of operation is:**

- Click **“Attach Drop Tanks” or “Remove Drop Tanks”** depending on what you want.
- **“Call Fuel Truck”** (the fuel truck will appear on the apron, behind your aircraft)
- Click on “**CONNECT**” above the tank you wish to adjust (the fuel line will appear between the fuel truck and your tank).
- Adjust the tank in 20% increments by clicking on the tank’s graph.
- Click on “DISCONNECT” or “CONNECT” to another tank if you’re not finished.
- **“Dismiss fuel truck”.**

## Failures

This second page offers you a reading of your current failures. You can also click on any green dot to generate a random failure in this area. There are different types and different severities that we will explore in detail in the Random failures section of this document.



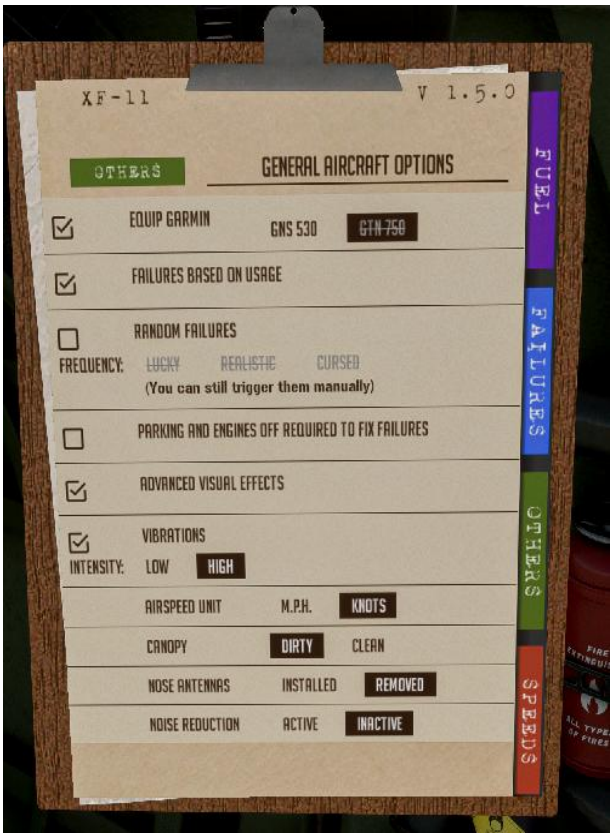

To fix all failures at once, click on the large green button “Fix my plane, now!”

It is important to note that, by default, you can only fix ANY failure, if you are sitting on the ground, with engines powered off, and parking brake set (see 3rd picture above).

But you can change this behavior at any time with an option on the next page.

## Others

This page shows various options for your aircraft. We won’t list them in detail as they are self-explanatory.




Just a few things to note:

- **All these options are state persistent throughout your flight sessions.**
- **The Garmin GTN 750 is the add-on from PMS50**. You can select it ONLY if you have either the free or the premium version installed. And its integration has been checked and validated by PMS50.

If you choose to equip a Garmin instrument, your main dashboard will change from this:

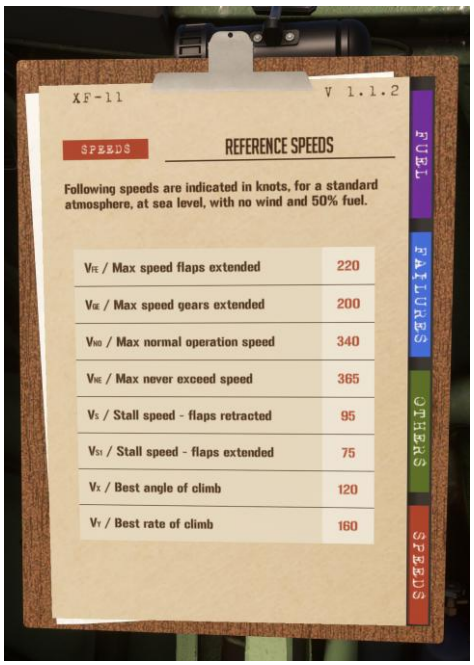
To this:

**The main differences between the two pictures are:**

- The basic compass with HDG selector is replaced by a complete HSI with VOR (+CRS knob) and Glide Slope support (and HDG selector as well).
- The EGT/CHT gauges have been moved to the bottom row, next to your fuel gauges.
- You no longer have a clock or a pitch indicator (but this one was redundant anyway).

### Speeds

This tab is not interactive, it's just an in-game reminder of the reference speeds already seen previously in this manual. These speeds are indicated in the unit you selected on "OTHERS" tab (knots or MPH).



## FUEL SYSTEM

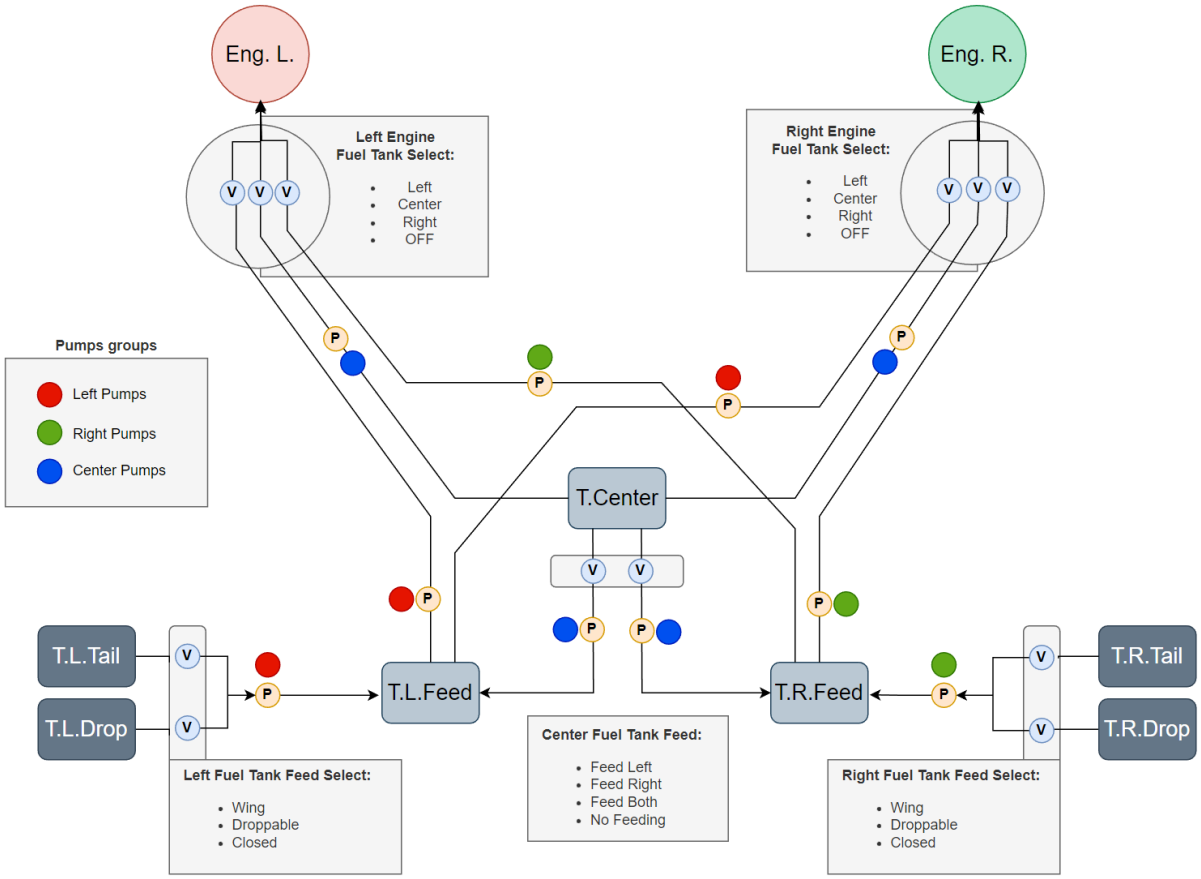
The XF-11 uses the complex and most realistic fuel system offered by the sim. It has:

- 7 tanks (including the wing drop tanks).
- 10 fuel pumps.
- 12 fuel valves.

But, to not require our pilots to be engineers to fly this machine**, we went for pumps and fuel valves grouping. So, you will be able to operate all this through:**

- 3 fuel pump groups.
- 5 fuel selectors (with multiple positions).

Let us show you our little diagram:

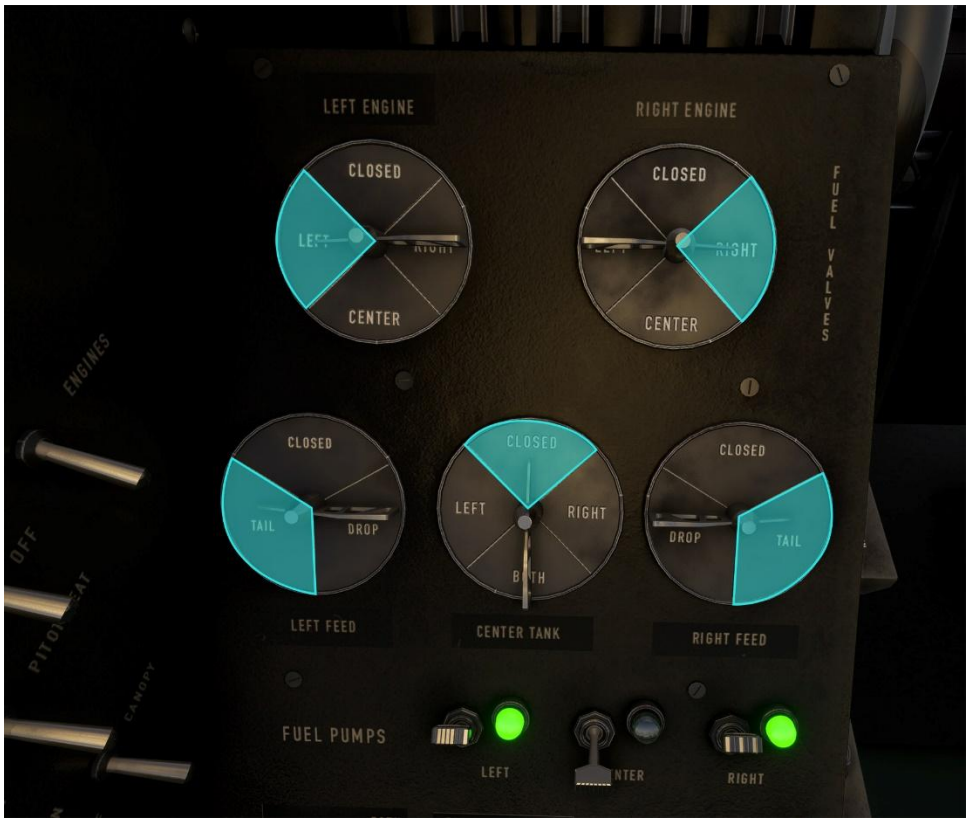



Take your time, go drink a coffee, or take some aspirin, and come back when you feel better!

All you have to know, is that each individual valve (labeled “V” on the schematic) is directly available on the “piano fuel valves” in the lower deck. **But if you leave them ALL OPEN, you can simply use the fuel selectors from the left console** to route the fuel from and toward the tanks/engines of your choice.

The fuel pumps (labeled “P”) are grouped under three switches: Left (red dot), Center (blue dot) and Right (green dot).

And the “ideal” position for a symmetrical, normal, usage of your tanks is this one:




## ELECTRICAL SYSTEM

The electrical system has also been modeled with as much accuracy as possible. Every device and instrument are connected to a relevant circuit and draws a realistic amount of current. If you forget to turn on your generators/alternators, the current will be drawn from the battery which will discharge itself.

If the alternators are on (or even just one, but that's not ideal) and the engines are providing power, the battery will be recharged, and your electrical system will remain safe.

Of course, you can monitor all this activity with these three gauges on the main dashboard:


1- *Both alternators are OFF (3rd gauge). The battery is providing current to all active systems (1st gauge). The battery is discharging (2nd gauge).*


2- One alternator is ON and providing a lot of current to all active systems (3rd gauge). The battery is receiving current (1st gauge). The battery is charging (2nd gauge).


3- Both alternators are ON and their effort is balanced (3rd gauge). The battery is receiving current (1st gauge). The battery is charging (2nd gauge).

Finally, **every circuit is linked to a circuit breaker, and they are all available on their dedicated panel, next to the navigator's seat**. If you enabled random failures, there are chances that any of these circuits could pop out, or even worse, it could fail until you fix your plane.

## CO-PILOT

If you set the payload for your co-pilot and toggle the co-pilot visibility ON (located in the "Static Items" section of your left console – see screenshot in "Cockpit Overview" section), your default MSFS co-pilot will appear.

If the navigator's seat is extended, the co-pilot will appear behind you, in the navigator's place. If the seat is folded, he/she will be moved to the photographer's seat at the nose of the plane.

## INTERACTIVE STATIC ELEMENTS

This plane is equipped with a few static elements. The access ladder, two wheel chocks, six engine covers for all intakes and exhausts, two canopy covers and the Ground Power Unit.

All of these items can be operated by using the **switches from the left console** or by clicking directly on them individually after crawling out of the plane.



To manually remove the canopy covers, you can click on their “Remove Before Flight” tags hanging under the fuselage.

## GROUND POWER UNIT

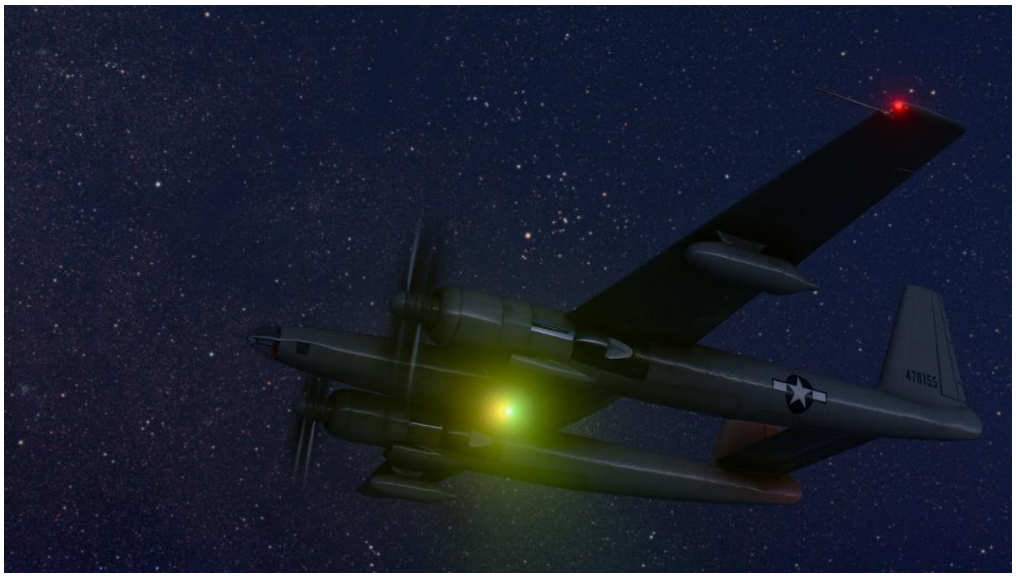
The Ground Power Unit is one of the static items that you can plug in/out and turn on/off from the left console’s switches or by opening the GPU box in the lower deck, clicking on the plug to make it appear and connect it.

Then you can go next to the GPU and turn it on or off by using the green and red buttons directly on it. How deep do you want to be immersed in your flight?

## RECOGNITION LIGHTS

The recognition lights are composed of three colored lights: Red, Amber and Green. You can select which one you want to turn on, and even make combinations.

The best thing about this is that **the color/combination you picked will be accurately seen by other XF-11 owners in multiplayer.**



The main power switch is located with the lights toggles on the left console, and the three color components are located on the pressurization panel.

## PRESSURIZATION SYSTEM

The pressurization system is fully automated. **You only have to enable or disable it with one switch.** If enabled, and if the cabin is closed (access door closed and canopy still present), it will maintain a cabin altitude inferior to or equal to 10,000 feet.


On the picture above, we can see that the pressure altitude is just above 30,000 feet but the cabin altitude is just under 10,000 feet.

## CANOPY JETTISON

As explained in section "Cockpit overview", the canopy jettison works by unscrewing the safety bolt and then pulling on the red handle on the canopy's steel arch, behind the navigator's seat. **It works only below 12,000 feet** and the canopy can be remounted from the clipboard, with the "*Fix my plane*" button.

## RANDOM FAILURES

**Random failures are disabled by default when you first install and launch the plane**. Then, their status and frequency are saved and persistent between your flight sessions.

Here is the logic applied...

**First dice roll. All the outcomes have an equal chance of happening:**

- Left engine failure (ONLY IF the engine is running).
- Right engine failure (ONLY IF the engine is running).
- Electrical failure (ONLY IF the plane is powered).
- Fuel leak.

**Additional rules that might cause to re-roll the dice:**

- If you already have ONE engine failure, you can't have another one (not even on the other engine – we are not monsters!).
- If you already have ONE electrical failure, you can't have another one.
- If you already have TWO fuel leaks, you can't have a third one.

**The second dice roll will decide in detail the severity and exact system failing.** For each target, all the possibilities have the same odd of happening:

If it's an engine failure, it can:

- Have a left magneto failure (you will lose some power).
- Have a right magneto failure (you will lose some power).
- Have a complete engine failure (engine is dead. You should feather it and fly with the second one to the nearest airfield).
- Have a prop stuck in feathered position.

If it's an electrical failure, ANY electrical circuit breaker can:

- Trip (it's fine, just put it back in).
- Fail (hopefully it's not a critical system!)

If it's a fuel leak, any tail tank or drop tanks (if mounted) can have:

- A small leak.
- A large leak.

**Fuel leaks are visible outside of your plane (on the ground and in-flight):**

## REALISTIC FAILURES

Since version 1.3, the XF-11 also comes with realistic engine failures, based on the way the engines are being used. The option is disabled by default and can be enabled with the clipboard.

If enabled, you will need to monitor your engine RPM to prevent "stress" build-up:

- **Engine RPM is higher than 2600** ➔ The engine will either die or you will have a hydraulic leak in about 6 minutes.
- **Engine RPM is higher than 1300, while on the ground, cowl flaps closed** ➔ The engine will either die or you will have a hydraulic leak in about 3 minutes.
- **If both conditions are cumulated** (RPM higher than 2600 on the ground, cowl flaps closed) ➔ The engine will either die or you will have a hydraulic leak in about 2 minutes.

If your engines are not overstressed, the "stress" gauge will gradually decrease. It can take up to 3 minutes to bring the gauge back to zero. **You have no visibility on this "engine stress gauge".**

Another "stress" failure is with your drop tanks:

- **Above 46,000 ft (pressure altitude)** ➔ Your drop tanks — if mounted — will have high risks of triggering a fuel leak (small or large).

## EMERGENCY LANDING GEAR EXTENSION

If your two hydraulic circuits are no longer pressurized (hydraulic leak or engine failure), you will not be able to operate your ailerons or elevator. You can still use your rudder and elevator trim to find a safe place to crash.


But without hydraulic pressure, the landing gear won't work as normal. That's why you need to press and hold the small wheel just below the landing gear lever. It will manually and slowly extend your landing gear. Check the 3 indicators and keep turning the wheel until they are all green.

## SOUND PACK

**Since version 2.0, the XF-11 has a custom sound pack made in-house, by Flying Fries.** We no longer use the Spruce Goose sounds and we have managed to create a rich sound, with a deep texture, a lot of variations throughout all the engine's RPM range, a clear separation between the engine and propeller sounds and a precise 3D doppler effect.

At the moment, **this is stage 1 of the sound pack, so you can expect it to be enriched with new features and life over time,** as we gain experience in this area.

## /AXE THROWING GAME

That's a simple but fun mini game: Grab the axe/hatchet, and throw it at the map (do you see the painted target on the map?)

Here are the odds:

| | |
|---|---|
| *"Meh!"* shot | **65% chance** |
| Missed the map entirely | **20% chance** |
| Bull's eye in the target | **10% chance** |
| Stab the radio (it won't break it, don't worry!) | **5% chance** |

*Bull's eye!*

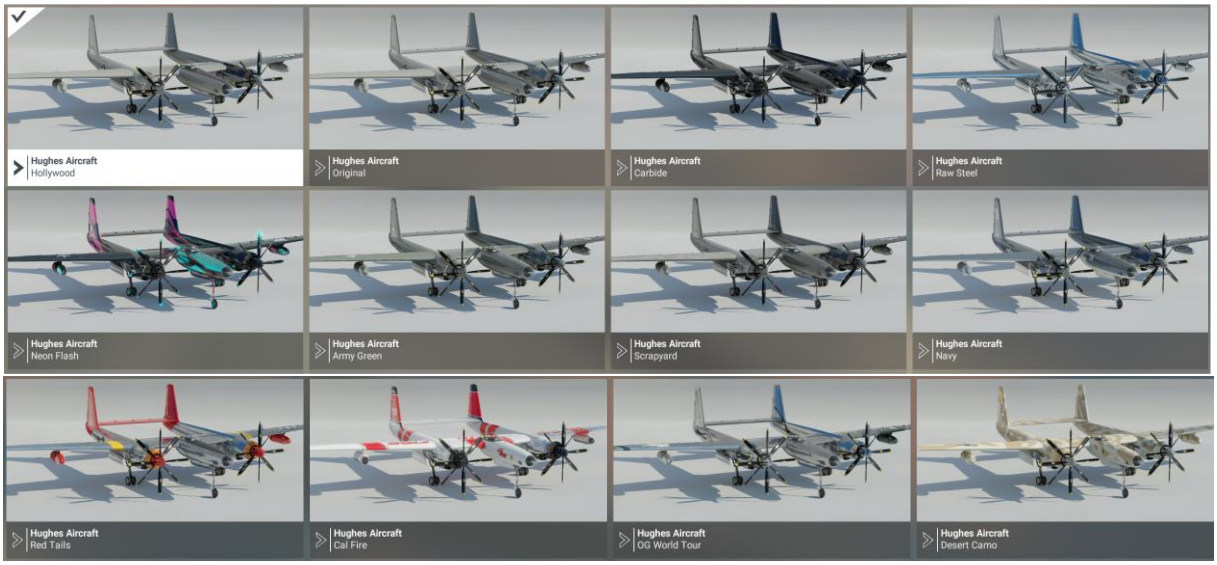
## HUNGRY?

Of course, as with any Flying Fries product (yet and hopefully to come), this XF-11 has some fries in there, and you can eat them. We will let you find them by yourself, though.

And you can obviously restock them if you are on the ground, parking brake set.

# LIVERIES

The XF-11 comes with twelve liveries:




## HOLLYWOOD

The livery you have seen in the movie “The Aviator”. It is the livery that was really chosen for this plane (but never applied to it) in real life and that was applied to the Mark II, later.

## ORIGINAL

**The real livery that was applied to this Mark I prototype.** No anti-glare brown painting had been applied on the engines, only on the nose.

## CARBIDE (FICTIONAL)

A shiny black painting with a galvanized texture and a more modern version of the USAF insignia.

## RAW STEEL (FICTIONAL)

Entirely reflective, not a single decal, the XF-11 in its purest form with a very subtle hammered finish to prevent a complete mirror look.

## NEON FLASH (FICTIONAL)

Complete opposite of the previous one: a flashy variant with vibrant colors, flakes in the paint, a bold name and a racing number (and not any number)!

## ARMY GREEN (FICTIONAL)

What if the XF-11 was a ground vehicle which has been seeing some battle?

## SCRAPYARD (FICTIONAL)

A little wink to our first product. It’s the “Hollywood” livery, as if it were abandoned in a hangar for decades.

## NAVY (FICTIONAL)

A livery based on 1943 US Navy paint schemes with accurate colors and pattern.

## RED TAILS (FICTIONAL)

A livery based on the color scheme of WWII Tuskegee Airmen squadrons.

## CAL FIRE (FICTIONAL)

Inspired by the livery of the Hercules HC-130H, Cal Fire tanker 119.

## OTAKU GEKKO WORLD TOUR (FICTIONAL)

To celebrate the world tour achieved by one of our Discord members, in this aircraft, over a short period of time and through only eleven legs... the eleventh livery of the XF-11 has been created as an award. Feel free to follow his flight plan (tattooed on the fuselage) and see what kind of commitment such a world tour requires! Congratulations again to Otaku Gekko.

## DESERT CAMO (FICTIONAL)

Inspired by modern military desert camouflage liveries. It is also a very small tribute to two people within the MS Marketplace team who always work super fast and have been very helpful to me: Steve and Rachel. Thank you guys!

# KNOWN ISSUES

In its current state, the XF-11 has a few known bugs/issues. Some are related to the sim itself, some are due to third party system behavior and inter-compatibility and for some others, we don't have much excuse, it's due to Flying Fries being a young company and we don't have all the knowledge in the world (yet). But we're working on it, it won't be abandoned in this state.

## GARMIN GNS 530 HOT SWAP

If you swap to the Garmin GNS 530 (either from classic or GTN 750 configuration), the 530 will not be able to follow the HDG HOLD autopilot functionality.

If you want to use the GNS 530, you have to plan it before and start/restart your flight after selecting it. This is a *Working Title* limitation. Hopefully it will be patched.

# ADDITIONAL INFORMATION

## LOCAL VARIABLES

The XF-11 uses a lot of Local variables (LVARS) for a bunch of stuff. If you want to improve your flight experience thanks to Spad, AxisAndOhs (AAO), FSUIPC, or anything like these, here is the list of the variables available to you:

| *Description* | *Name* | *Type* | *Range* | *Persistent* |
|---|---|---|---|---|
| *Clipboard status* | **Clipboard** | Bool | 0-1 | NO |
| *Clipboard page* | **Clip_Page** | Number | 0-3 | NO |
| *Portions of fries remaining* | **Fries_Left** | Number | 0-4 | NO |
| *GPU connection box opened* | **GPU_Box_Open** | Bool | 0-1 | NO |
| *GPU plugged-in* | **GPU_Connected** | Bool | 0-1 | NO |
| *GPU power switch* | **GPU_Switch** | Bool | 0-1 | NO |
| *Yoke hidden* | **XF11_YOKE_HIDDEN** | Bool | 0-1 | NO |
| *Utility door switch* | **Utility_Door_interact** | Bool | 0-1 | NO |
| *Fuel Truck present* | **Fuel_Truck** | Bool | 0-1 | NO |
| *Fuel Truck tank connection* | **Fuel_Truck_Conn** | Number | 0-6 | NO |
| *Pressurization switch* | **XF11_Pressurization_System** | Bool | 0-1 | NO |
| *Fuel Gauge selector* | **XF11_Fuel_TD_Select** | Bool | 0-1 | NO |
| *Mug visibility* | **XF11_Mug_Visibility** | Bool | 0-1 | NO |
| *Coffee in the mug* | **XF11_Coffee** | Bool | 0-1 | NO |
| *Hat visibility* | **XF11_Hat_Visibility** | Bool | 0-1 | NO |
| *Headset equipped* | **XF11_Headset_Equipped** | Bool | 0-1 | NO |
| *Food basket position* | **XF11_Basket_Nav** | Bool | 0-1 | NO |
| *Canopy Jettison Safety* | **Canopy_Jettison_Arm** | Bool | 0-1 | NO |
| *Canopy Jett. pull handle* | **Canopy_Jettison_interact** | Bool | 0-1 | NO |
| *Feather prop left* | **XF11_PropFeather1** | Bool | 0-1 | NO |
| *Feather prop right* | **XF11_PropFeather2** | Bool | 0-1 | NO |
| *Engine cover #1* | **Covers_L1** | Bool | 0-1 | NO |
| *Engine cover #2* | **Covers_L2** | Bool | 0-1 | NO |
| *Engine cover #3* | **Covers_L3** | Bool | 0-1 | NO |
| *Engine cover #4* | **Covers_R1** | Bool | 0-1 | NO |
| *Engine cover #5* | **Covers_R2** | Bool | 0-1 | NO |

| | | | | |
|---|---|---|---|---|
| *Engine cover #6* | **Covers_R3** | Bool | 0-1 | NO |
| *Access door switch* | **Access_Door_interact** | Bool | 0-1 | NO |
| *Access ladder deployed* | **Ladder_deployed** | Bool | 0-1 | NO |
| *Wheel chocks #1* | **XF11_Chocks_L** | Bool | 0-1 | NO |
| *Wheel chocks #2* | **XF11_Chocks_R** | Bool | 0-1 | NO |
| *Radio master switch* | **XF11_RADIDO_MASTER** | Bool | 0-1 | NO |
| *Radio ON/OFF switch* | **XF11_RADIO_ONOFF** | Bool | 0-1 | NO |
| *Garmin equipped* | **XF11_Garmin** | Bool | 0-1 | YES |
| *Realistic failures enabled* | **FAIL_Real** | Bool | 0-1 | YES |
| *Random failures enabled* | **FAIL_Random** | Bool | 0-1 | YES |
| *Random failures frequency* | **FAIL_Frequency** | Number | 1-3 | YES |
| *Ground required to fix failures* | **FAIL_FixOnGround** | Bool | 0-1 | YES |
| *Advanced VFX* | **XF11_VFX** | Bool | 0-1 | YES |
| *Visible vibrations* | **XF11_Vibrations** | Bool | 0-1 | YES |
| *Vibrations intensity* | **XF11_Vibrations_Intensity** | Number | 1-2 | YES |
| *Left Drop tank status* | **Drop_Tank_Left + Drop_Visible_Left** | Bool | 0-1 | YES |
| *Right Drop tank status* | **Drop_Tank_Right + Drop_Visible_Right** | Bool | 0-1 | YES |
| *Navigator seat unfolded* | **NAV_Seat** | Bool | 0-1 | YES |
| *Interior door closed* | **XF11_Interior_Door_Closed** | Bool | 0-1 | YES |
| *Pilot visibility (only from ext.)* | **Pilot_Visible** | Bool | 0-1 | YES |
| *Co-pilot visibility* | **Copilot_Visible** | Bool | 0-1 | YES |
| *Recognition color Red* | **XF11_Recog_Red** | Bool | 0-1 | YES |
| *Recognition color Amber* | **XF11_Recog_Amber** | Bool | 0-1 | YES |
| *Recognition color Green* | **XF11_Recog_Green** | Bool | 0-1 | YES |
| *Display MPH or Knots* | **XF11_Airspeed_Unit** | Bool | 0-1 | YES |
| *GTN 750 instead of GNS 530* | **XF11_GTN_750** | Bool | 0-1 | YES |
| *Show clean or dirty canopy* | **XF11_Canopy_Clean** | Bool | 0-1 | YES |
| *Antennas on nose canopy* | **XF11_Antennas** | Bool | 0-1 | YES |
| *Headphone noise reduction* | **Fries_Headphones** | Bool | 0-1 | YES |

# STAY IN TOUCH

If you want to get involved with any new updates for this airplane or regarding any of our other/future projects at Flying Fries, the best way is to join our Discord server and search through the various channels. You will see that this company is really community focused. We have an open and transparent communication and take into consideration all the ideas that are thrown at us.

Join us on **Discord**: https://discord.gg/VNdrSgTWYZ
Follow us on **YouTube**: https://www.youtube.com/@flyingfries1027