

Pasped Skylark

Pilots
Operating
Manual



Pasped Skylark

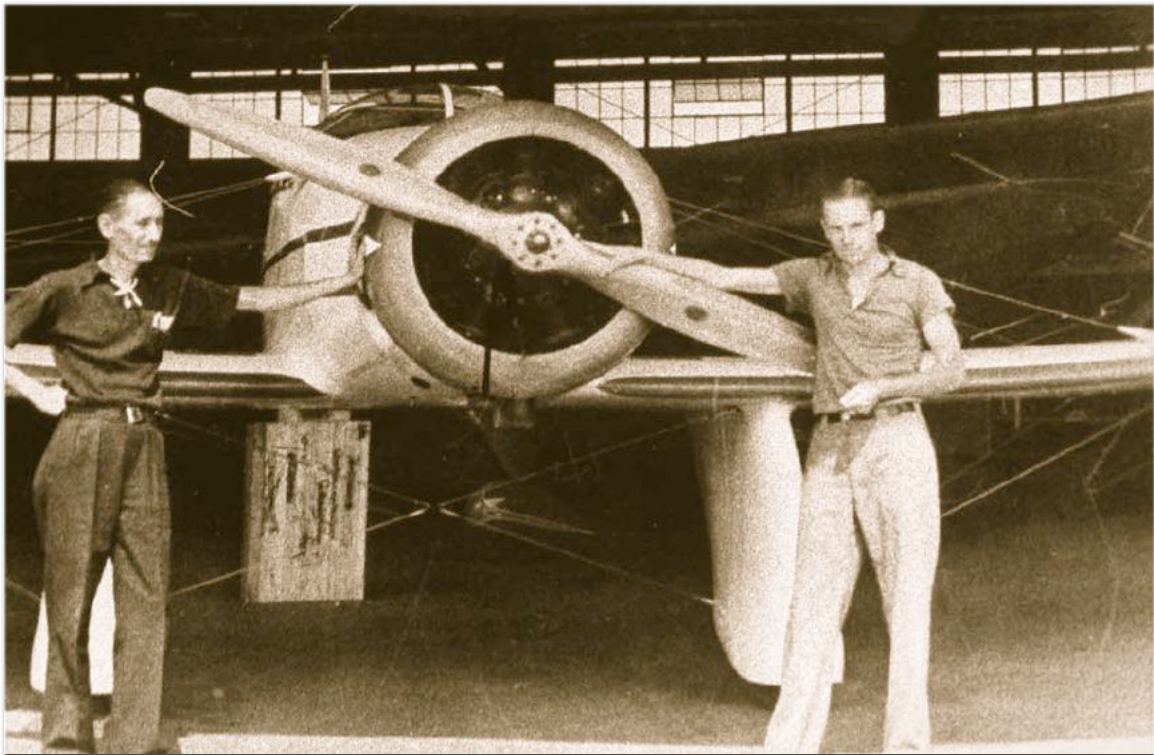
Owners Manual

By Lionheart Creations Ltd.

Pasped Skylark

Introduction

In 1936, the Pasped Aircraft Co. of Glendale, California, introduced a two-seat side-by-side cabin monoplane called the Skylark. Its engine was a 125-hp Warner Scarab radial engine housed in a low-drag cowling. The fuselage was a rectangular steel-tube welded structure covered with Duralumin metal panels forward and fabric aft. The wings were wire-braced from above, had plywood leading edges, and were covered with both fabric and Duraluminum (the latter only at the center section). The single surviving example still flying is fitted with a 165-hp Warner Super Scarab.



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Performance and Specifications

- **Crew:** 2
- **Length:** 25 ft 0 in (7.62 m)
- **Wingspan:** 35 ft 11 in (10.95 m)
- **Height:** 7 ft 11 in (2.41 m)
- **Wing area:** 187 sq ft (17.4 m²)
- **Empty weight:** 1,288 lb (584 kg)
- **Max takeoff weight:** 1,885 lb (855 kg)
- **Powerplant:** 1 × Warner Scarab radial engine, 125 hp (93 kW)

Performance

- **Maximum speed:** 139 mph (224 km/h; 121 kn)
- **Cruise speed:** 125 mph (109 kn; 201 km/h)
- **Minimum control speed:** 35 mph (30 kn; 56 km/h) (50 MPH in Flight Simulator)
- **Range:** 475 mi (413 nmi; 764 km)
- **Crew:** 2
- **Length:** 25 ft 0 in (7.62 m)

Here are some special features of the Pasped Skylark.

- * One belly mounted air brake, some referred to them as flaps back then. This is identical to such planes as the DC3 with a single flap mounted under the belly and basically only caused drag and slight nose down pitch without generating any lift as like normal flaps do. The air brake has a readout gauge on the panel and is electric.
- * No Manifold Gauge was used, only an RPM gauge with a green and red set of lines to mark cruise and max RPM ranges.
- * The wings were huge on this plane, which enabled it to fly at low speeds per its massive lift capabilities. Handling of the aircraft is thus like a 'large' aircraft, as which it is.

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Special Features Contd.

- * Braking on the ground and **steering** is done through toe-brakes. The rear tailwheel freewheels and does have a tailwheel lock lever at the pilots left foot.
- * There is **'no' landing light**, but the Skylark is equipped with Navigational lights. The 'Flight Sim' model is equipped with a functioning landing light source, but has no 'physical' object light to see to keep the 'historic value' of the plane pure.
- * The Skylark is equipped with both a **sliding top canopy structure** as well as two opening small doors that enable easier access to the cockpit. The Canopy must be open before the doors will be able to be opened, as the canopy track is shared along the tops of the doors as well as behind them.
- * The Pasped W-1 carries **35 US Gallons** of aviation fuel. 5 Gallons of this is in a captured 'Reserve' section in the fuel cell. Take-off's require 'Reserve' selected per factory recommendations. After take-off, select Main fuel tank.
- * The Warner Super Scarab has an oil resevoir in the nose cavity just behind the engine firewall. The tank carries 5 US Gallons of standard Aviation oil. Please check this before every long flight. Recommended oils are Archer and Sunoco. Access to the nose compartment is via Shift-E - 4.
- * There is a small storage nook behind the seats for lite luggage.

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Model Features

This model is equipped with the following features;

1. Full control surface and Virtual Cockpit animations
2. Scanning pilot that roams the horizon and instrumentation
3. Extreme airfiles set that enable the Skylark to perform just like the restoration group explained.
4. FSX Materials that feature bump mapping, high rendering environment reflections, and even 'stressed metal' deformation, (very slight along the fuselage area where there is Duraluminum skinning).
5. Custom gauges taken from actual photos and improved
6. A custom sound package that is liable to vibrate your coffee mug off your desk.
7. Opening front cowling door to see the inside nose compartment and access the oil resevoir tank. Spare cans of motor oil within.
8. 3 Paint schemes, including the original white prototype color, and the later red paint scheme seen in several early movies of that era.
9. A 'High Definition' option package that has double sized textures at 2048 pixels square instead of 1024 pixels for people with more powerful computers that desire sharper texture clarity. These are still in DXT5 format for added performance. This HD version is the same price as the regular Pasped Skylark package.
10. A basic 2D panel comes with the Skylark package. The 2D panels were to be faded out due to complex issues with wide screen monitors in various computer platforms, but we added one anyways.

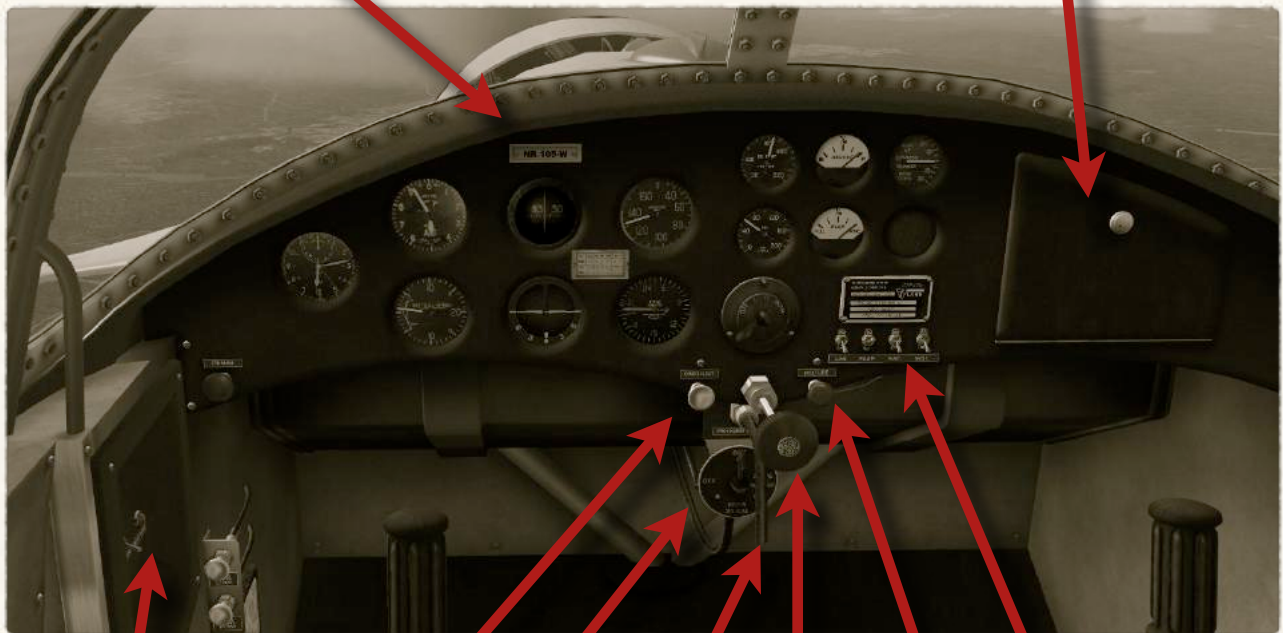
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Instrument Panel and Cockpit Layout

N-Number Placard

Map Box (opens)



Knee Switches Box

Carburetor Heater

Fuel Selector

Parking Brake

Throttle

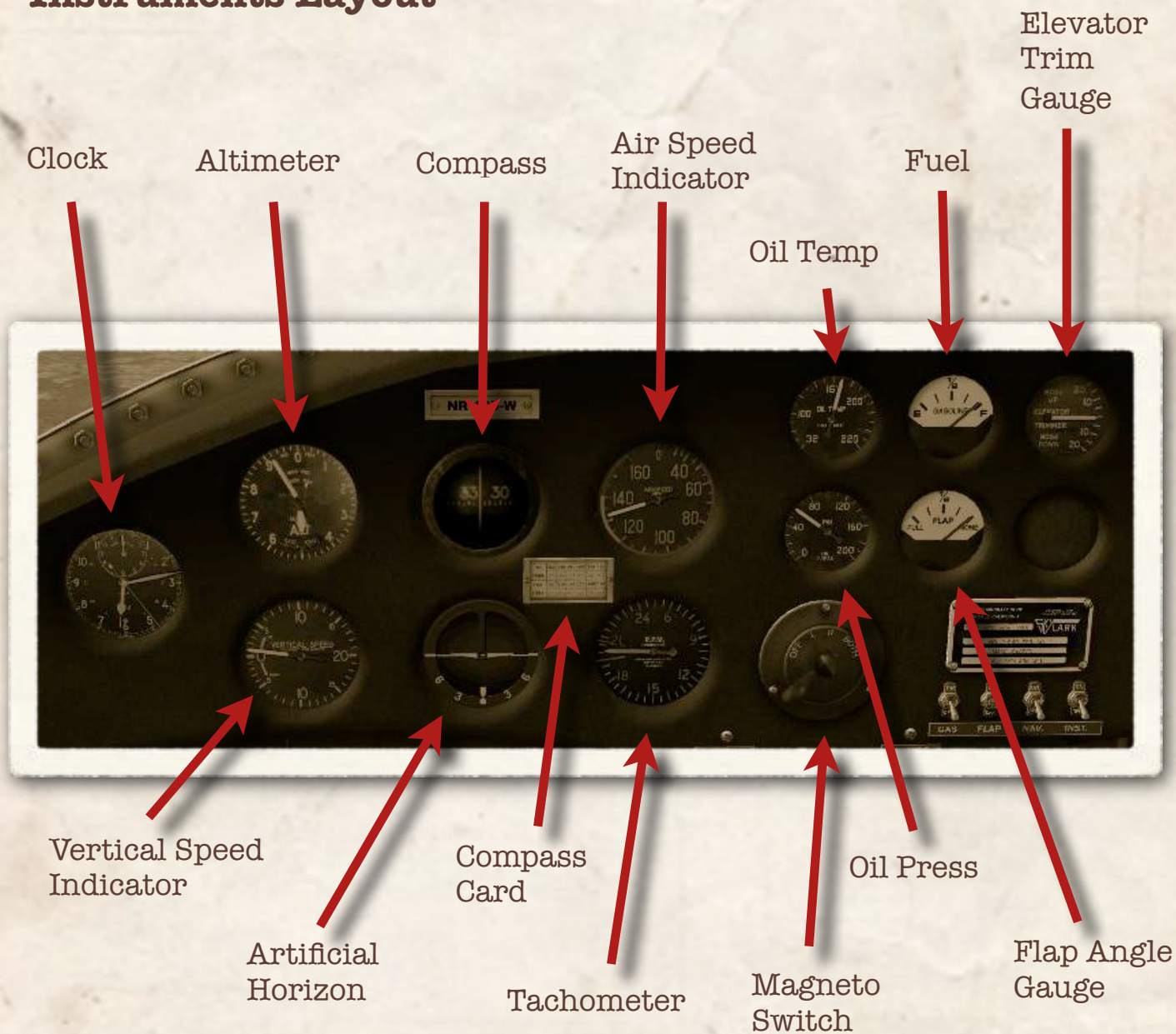
Mixture

Electrical System
Switches

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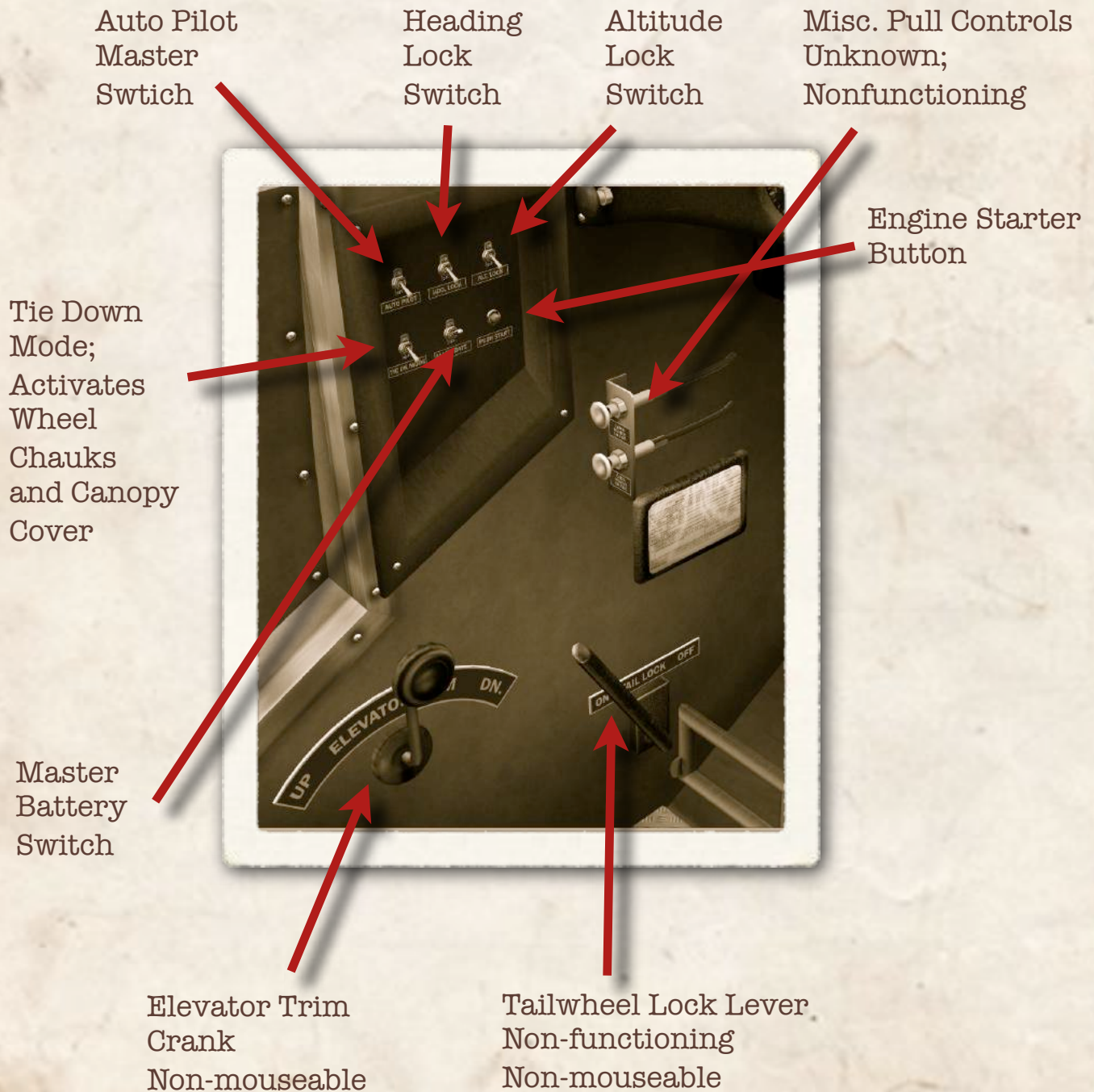
Instruments Layout



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Left Switches and Levers



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Special Features

You will have a set of special features in the Skylark that are not accessed on the panel.

- * Hand Nautical Compass, good for seeing your directions on the compass rose rather than just the Whiskey Compass. Access this via Shift-5.
- * Kneeboard pilots clipboard. This has all of your checklists on it, including some notes on maintenance history, performance specs, as well as a 'Runway Visualizer' which will enable you to set it for your traffic pattern entries. (Again, great when all you have is a Whiskey Compass). Set the runway heading on it via your mouse scroll wheel which will rotate the outer ring of the Visualizer. This is on the last page of the Kneeboard. Use the bottom arrows on the Kneeboard to move back and fourth through the pages.
- * Fictional 1940's Steam Technology GPS. Imagine the face panel as like the smaller Garmin GPS in Flight Simulator and you will quickly invision how it works.
- * AutoPilot is hot-wired into the plane, but no controls exist for the sake of model purity. If you are like me and love to look around when in cruise flight, just use Z key to turn on AP, then Control-Z to lock in your altitude, and Contorl-H to lock in your heading. :) Z key to turn it back off again.



Hand Compass

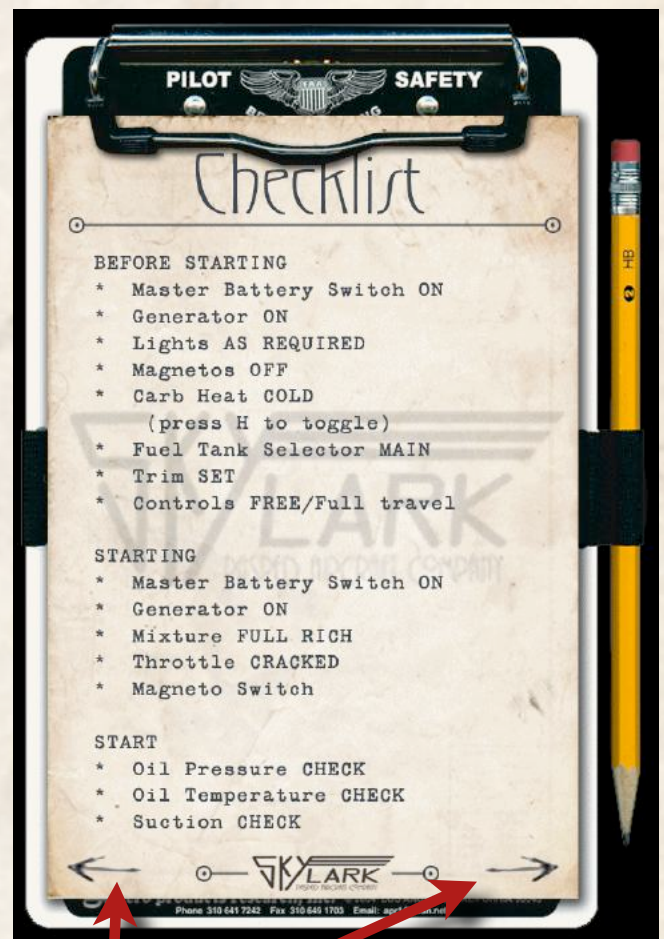
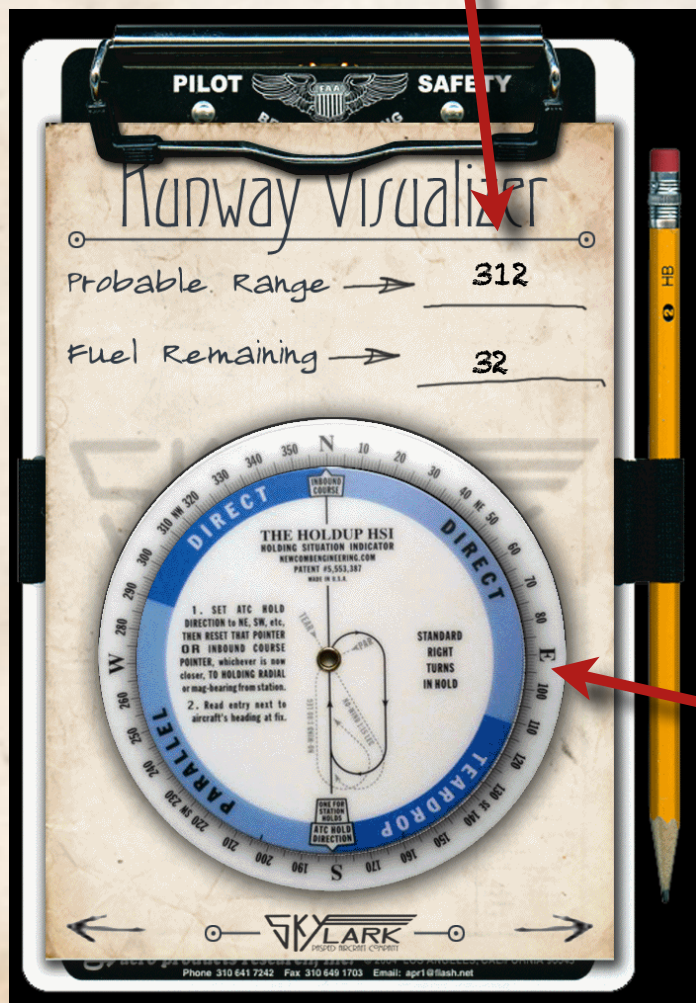


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Kneeboard and Visualizer

This is the Kneeboard. This will have all of your Checklists as well as an airport runway visualizer to help on doing pattern entries, and also features a hand written looking fuel range calculation and 'fuel remaining' calculation.



To flip through the various pages of the Kneeboard, click on the arrows on the bottom of the kneeboard, or use your mouse wheel.

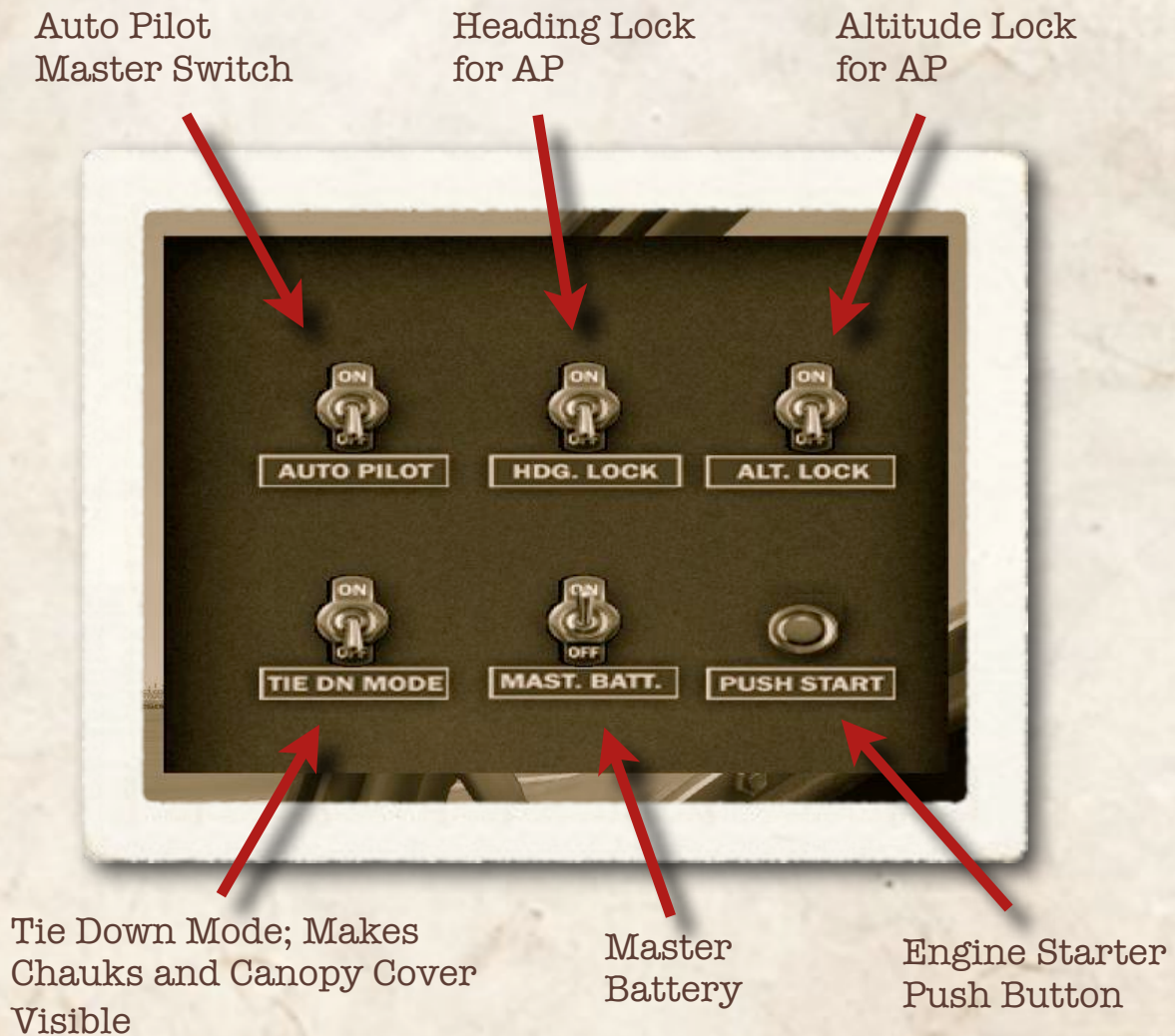
To turn the wheel on the visualizer, use your mouse wheel. To exit the Visualizer back into Specs and Checklists, click the bottom left of the clipboard.

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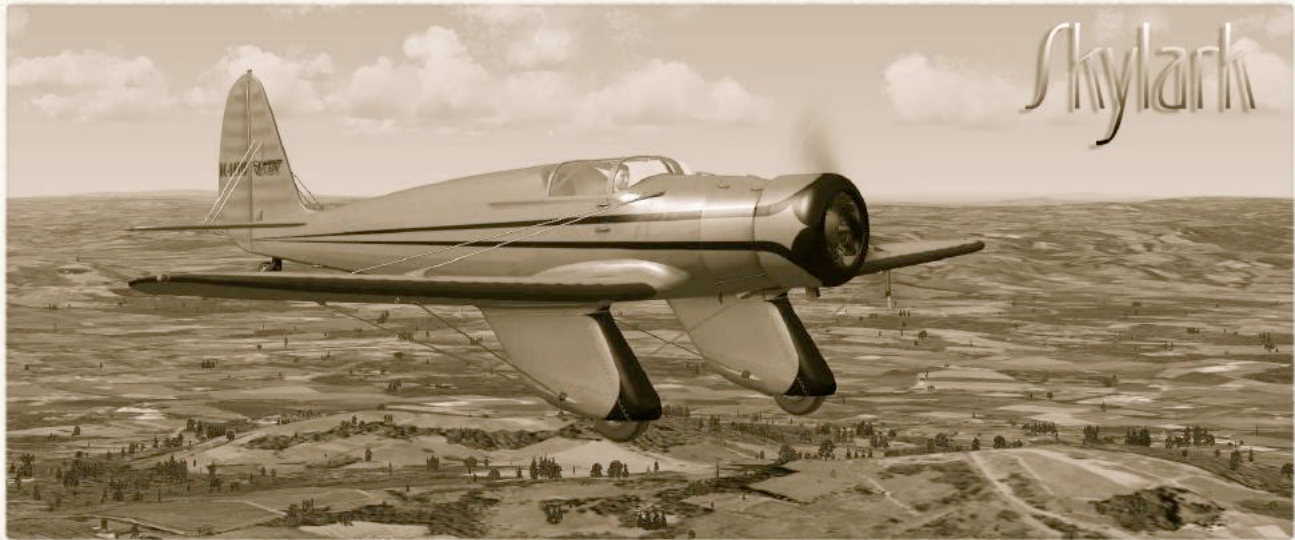
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Kneebox Switch Cubby Pop-up

The Kneebox Switch Cubby is a small odd shaped box next to the pilots left knee. It protects the switches from the pilot not being able to bump them as the switches are recessed inside it. Its hard to see it down in the VC because of limitations in the design of Flight Simulator, (much easier if you have Track IR however). So we designed a nice little popup window that enables full access to the switches in the cubby nook.



Pasped Skylark



Flying the Skylark W-1

As like explained earlier in this manual, the Skylark behaves like a large airplane, much bigger then it is, though it is a very large plane for only 2 passengers. Remember that bit of feedback as you start to learn to fly this incredible classic.

When you climb into the Skylark, you will climb up on the wing along the footpad material, and slide open the canopy. Reach in and pull the latch knob on the door forward and open the door. Squeeze into the cockpit and close the door. After you are fastened in, you may wish to keep the canopy open as it will help you see out the side of the cowling, since the aircraft is pointing up at an extreme angle, making forward visibility from the cockpit basically impossible.

Open up your checklist in your kneeboard, Shift-6, and review your startup and taxi procedures. After you have cranked up the Warner radial (via the push switch in the left hand switch box in the side of the cockpit), you can now taxi out. Use your side vision to estimate your center on taxiways and runways.

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Flying the Skylark, Cont.

Use your toe brakes to steer with. You have a castoring (rotating) tailwheel, so turning is done all by the main landing gear brakes. In FS, you would give your rudder input a bit of turn and use brakes as well, and this will grab the one side of the brakes to help steer you.

Taking Off

First note, when about to take off, select your Reserve fuel supply per factory instructions. The Skylark has a low take-off speed, almost as though it were a STOL aircraft. Her tail will come off the ground quickly and now and then, her wings will catch some air and momentarily make the main gear lite, leaving a 'chirp' as they may leave the tarmac for a short moment. Continue on your acceleration through 50 MPH at which point you can then begin pulling back on the joystick. If you wish and you have adequate runway space, you can let the Skylark take off on her own, which should be at 80 to 90 MPH.

When pushing in the throttle, note your RPM gauge, which will have your **redline** marked at **2175 Revolutions**. You can go to full power which will put you at about 2150 to 2200 RPM's, but only for a short duration. Once airborne, bring your Revolutions back down to 1950 RPM for long climbouts.

Tachometer



Red Line; 2075 Revolutions

Green Zone; 1950 Revolutions

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Flying the Skylark, Cont.

Once airborne, **establish about an 800 to 1000 FPM climb rate.** The original Warner engine required 800 FPM as it was a slightly underpowered engine. With the new Super Scarab 165 HP Radial, you are good for at least 1,000 FPM climbouts under regular conditions. Select your 'Main' fuel selection now.

Cruise Flight

When you have climbed to your desired altitude, begin trimming your plane. Your elevator trim crank is by your left foot below near the floor board. Adjust as needed. As you speed up in straight on flight after your climb, your engine will also speed up a bit, no longer taxed by the heavy climb. Adjust your speed as needed. On a good day, the **Skylark**



should be able to cruise at about 130 MPH with the engine running at normal cruise (Green line on the Tachometer), about 1950 Revolutions.

Fast Cruise can easily push you to 145 MPH. It is recommended though not to exceed 160 MPH, so watch your speed accordingly. **Fuel range with reserve will put you at 475 Nautical Miles** with your engine revolutions in the green.

Landing

When you are setting up to land, note that the Skylark will not slow down like some other planes. She might be a bit fast and heavy, so come in shallow or use your air brake. The air brake on the Skylark is a huge panel assembly lowered by an electric motor with its angle able to be seen on the Flap gauge instrument on the instrument panel. In Flight Simulator, your Skylark will have only **2 notches of settings**, half and full, with full being nearly 90 degrees, (more closer to 80 degrees roughly). This will give you some intense deceleration capabilities.

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Flying the Skylark, Cont.

Landing Contd.

When you engage your air brake, note that it will pull the nose down slightly. **Do not engage the air brake at over 120 MPH** to first notch, and best not to lower it to second notch at over 90 MPH. If you do, you could deform the aluminum structure of the air brake as well as damage the servo drive system that raises and lowers it. Play it careful. A good technique to use when needing to use your air brake is to lower your throttle and hold the stick back a bit to bring your speed down, then drop the air brake and begin your descent. You will not need a 'huge' amount of power with full air brake, but you will need some. Also, it may be good to bring up the air brake to notch one, or raise it completely, so that you have more elevator to work with. (Remember, the air brake pulls the nose down).

Note that on landing approaches, **not to let your speed drop under 50 MPH**. That will be your approximate stall point under normal conditions. The Skylark flies well at lower speeds though at lowest air speeds, she will start to lose complete elevator, what they call 'running out of elevator'. Use your trim to help you out and adjust your elevator room. This helps to really bring it in 'nose high' for a near 3-point landing. I havent been able to land her in a perfect 3-pointer, but you might. It may be because of the elevator factor that keeps her from being able to hold the nose up high enough.

Another thing to realise on landing the Skylark is that the huge wings create a moderate amount of ground effect, making it easy to over-correct it when flattening out your descent right before touchdown. Too much up elevator and you go right back into the sky, as though you bounced off the ground via a huge cushion of air. Be gradual on your pull back just before touch-down.

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Photos of the actual W-1 Skylark



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Flight Sim Screenshots



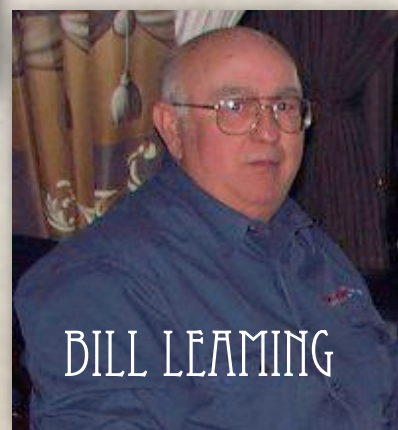
Screenshots by Nick Churchill

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Credits and Team

Dwight Furleigh.....Instrumentation and Gauge Coding
Bill Leaming.....FSX SDK Help, Model Code
Pam Brooker.....Air Files Engineering, Iris Simulations
Paul Frimston.....Air Files Engineering, Iris Simulations
Tom Brown.....Restorer of the Pasped Skylark (actual plane)
Buzz Penny.....Owner of the only Pasped Skylark
Sim Outhouse.....Enthusiasm and Support
Bill Ortis.....Model, Graphics Development, Team Leader



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Other Planes by Lionheart Creations Ltd.

Lionheart Creations specialize in exotic and high detail aircraft addon packages for the Microsoft Flight Simulator FSX and FS2009. Some of the aircraft we have created so far were stars at the world famous airshow 'OshKosh', ranging from the new Quest Kodiak high technology bush plane, to the fast and sleek Epic LT and its sister ship, the Epic Victory VLJ mini biz jet, as well as the classic Wittman Tailwind W-8 and W-10 series. Others include the Junkers W-33 and W-34, Bellanca Super Viking series, and the Socata Trinidad Turbo TB-21 and its sister ship, the Tobago TB-10. If you might be interested in our line of addon aircraft visit us at; www.lionheartcreations.com and also at our vendor www.simmarket.com



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Frequently Asked Questions

Question: Does this have the entire Flight Simulator in this package?

Answer: No, you will need Flight Simulator X for this to install into.

Question: I installed this onto my computer and the exterior is transparent. Why is this happening?

Answer: You have not installed the FSX SP1 Update. Go to www.fsinsider.com and go to the Downloads page and get the SP1 update. I also might recommend the second SP2 update as well.

Question: I ran the installer and it quit and I opened up FSX and could not find the installation. Where is it?

Answer: Some OS systems 'hide' FSX from the installers. Run the installer again, but this time, before it uploads the files (installs), click the small Browse button and find the main FSX folder on your computer and then hit OK and let it run. You should then find it.

Question: I installed it, its in FSX, but still doesnt show up. Why? I noticed the 'aircraft.cfg' file is missing though... Could that be why?

Answer: Yes. Some anti-virus systems will try to keep you from installing things like 'config' files (aircraft.cfg) which FSX needs in order to see your plane. Turn off your anti-virus software, run the installer again, then turn the software back on and reboot your computer. The planes should then be visible.

Question: Will this run on FS2004?

Answer: No, sorry. I wish it did.

Question: Is this a FS2004 plane, ported over to FSX?

Answer: No. This is a 'pure' FSX model with all FSX materials.

Pasped Skylark

About the author

William Ortis was originally into automotive, aircraft, and product design, as well as architecture. Later in life, he became focused on Automotive design, working for small racing teams, industrial design teams, kit car manufacturers, then later, Range Rover Engineering, Chrysler Engineering, and Ford Development, doing things such as development work on suspensions, vehicle body add-on equipment, vehicle high speed study assignments, off road programs, high mileage programs and was in on famous automotive lines, working on prototypes including the Dodge Viper V-10 sports car.

Later, when the development industry became conglomerated, he ventured into design and the gaming world, getting back to his roots in designing aircraft and vehicles, but now focussing more into aircraft design. After some time creating some of his designs into the simulated world of FS, he became a full time developer and later started his own design group that now create FS Add-on packages.

Around 2006, Lionheart Creations were requesting permissions to Microsoft to redevelop the existing, cancelled FS2004 Sim product line, requesting that LHC would be able to redo the game platform. LHC was also looking into doing a Mars Simulator and possibly even a multi-planet simulator that included space flight from each planet as well as atmospheric flights. This idea package was presented to Lucas Gaming. However, both Lucas Gaming and Microsoft Game Studios both rejected all LHC proposals.

Perhaps one day, LHC will be able to 'touch the world' and introduce some incredible ideas and technologies in gaming simulation, both atmospheric and in space...

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Spiritual Message

People do not realise the depth of what occurred when Jesus died for us on the cross. A great being, the Son of God Himself, came to Earth to die for humanity, freeing them of the curse of the Mosaic law, the Law of Moses, the law that was impossible to live perfectly by.

We, being human, cannot live a perfect life, so the law basically said that you could not attain holiness because you were not perfect.

When Jesus came here, lived a good life, sinning not, then gave Himself as a sacrifice offering to His own Father in Heaven to die for us that we may have life more abundant and life 'here-after', Jesus also thus created a new law, the law of Grace. The new Commandments were based on two rules; Love your God with all your heart and all your soul, and love your neighbor.

It was written, and foretold, that the Lord said; I require compassion, not sacrifice. Love, compassion and forgiveness are the ways of Christianity. No one is perfect, and yet, our sins are forgiven. We need only ask for forgiveness and it is given.

A new law, a fresh new start, an easier path, a good path, a path led by a kind Soul that is understanding of the Earthly burdens that are pressed upon us.

"I go to prepare a place for you." "I will show you things you have never dreamt before, and there, I will be waiting for you."

John 3:16; "For God so loved the world, that He gave His only begotten Son, that whomever believes on Him shall not perish but have everlasting life." Imagine that. Know that God made that oath, that promise. It is real, very very real. How much more awesome can that be...

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This package was created on an iMac Computer.

This manual was created in iWork 'Notes'.

I highly recommend both. :)



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