

AEROPLANE HEAVEN



You're virtually there.

COCKPIT GUIDE & FLYING NOTES



CESSNA 140

This Cessna 140 Cockpit and Flying guide has been produced to make getting acquainted with your new Cessna, both simpler and more fun. To this end, this is not an “official” pilot’s manual and should not be considered such.

The Cessna 140 is a very simple little aeroplane with few if any vices and is flying in its purer, more basic form. So don’t go expecting sophisticated systems, the very latest avionics* or any computerised gizmos - as a 140 owner, you have no need of such things.

We won’t be teaching you how to fly, that is not the purpose of this guide. We are going to assume that you have a good working knowledge of flight simulators and flying in them.

All the controls on the 140 are easy to use and laid out in a sensible orderly fashion, reminiscent of the motor-cars of the 1940s. On that note, we hope that you will agree that the instrument panels are very attractive and show a strong “art-deco” heritage in their design. You’ll find a variety of upholstery and paint finishes so there is bound to be one to your taste.

The cockpit of a 140 is just a “nice place to be”.

Well, let’s dive in and see what we have in our shiny new aeroplane.

**OK we lied. For those who can’t live without a fully functional G1000-equipped lounge, we have included an entirely optional G1000 suite which you can access with the flick of a switch.*

THE CESSNA 140 (details may change depending on year and modifications. Many examples were modified to bring them up to modern standard.)

Wings:
Wing span: 32ft. 10ins. (10m)
Wing area: 159.6 ft² (14.8 m²)

Fuselage:
Monocoque all Alloy structure
Length (tail up): 20 ft 11½ in (6.40 m).
Height (tail down): 6 ft ¾ in (1.91 m)

Tail Unit:
Trim-tab in starboard elevator.
Tailplane span: 8 ft 10 in (2.69 m).

Landing Gear:
Cessna patented fixed sprung steel
Hydraulic friction-disc brakes.
Track: 6 ft 5 in (1.96 m)
Scott steerable tail-wheel.

Alaskan Bush wheels are an option.

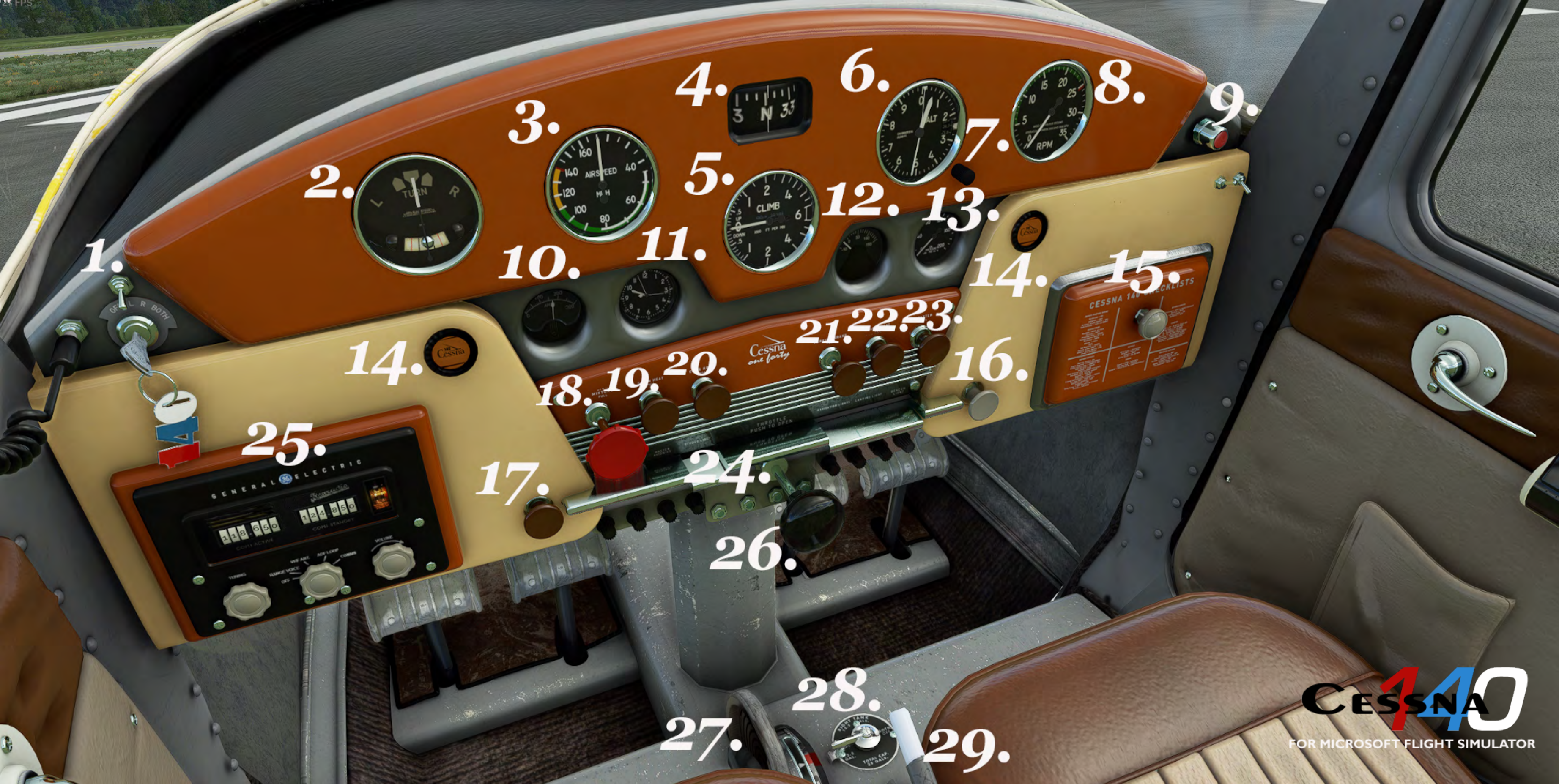
Power Plant:
One 85-hp or 90-hp Continental
four-cylinder horizontally-opposed air-cooled engine driving McCauley fixed-pitch metal airscrew.
Fuel capacity 25 U.S. gallons (94 liters)

Accommodation:
Enclosed cabin seating two side-by-side with dual controls.

Baggage allowance 80 lb (36 kg).

Weight empty: 900 lb (409 kg)
Weight loaded: 1,500 lb. (680 kg)

Performance:
Maximum speed: 120-125 mph
Cruising speed: 105 mph
Landing speed: 41 mph
Rate of climb: 680 fpm
Service ceiling: 15,500 ft (4,724 m)
Cruising range: 450 miles (724 km)



1. Magnetos 2. Turn/Slip Indicator 3. Airspeed Indicator 4. Gyro Compass 5. Climb/Fall Indicator (VSI) 6. Altimeter 7. Baro Knob 8. Tachometer 9. Stall Indicator light (INOP) 10. Ammeter 11. Clock 12. Oil Temperature 13. Oil Pressure 14. Yoke Hiders 15. Checklists 16. Secure Aircraft Toggle 17. Engine Primer 18. Mixture control 19. Cabin Heater 20. Carburettor Heater 21. Parking Brake 22. Cabin Heater (2) 23. Engine Starter 24. Electrical (From left- Master Battery - Avionics Master - Strobe Light - Navigation Lights - Landing Lights- Rotating Beacon Light 25. Comms Radio Receiver 26. Throttle 27. Elevator Trim Wheel 28. Fuel Tank Selector 29. Flaps lever

What’s so nice about the C140’s panel is that everything is laid out in a sensible, orderly fashion with everything immediately to hand. It doesn’t take long to familiarise yourself with the controls and instruments.

The panel is divided into four main sections. The flying instruments are grouped in the main panel arcing right across the cockpit. Immediately below in a sub panel are the “systems” gauges for engine and electrics and a handy clock. Below this again, the major operating controls are grouped together in a neat centre panel.

A “piano keyboard” of electrical switches is mounted below with a big central throttle control dominating the area.

Below all of this are the circuit breaker/fuses and a small jack panel for microphones and accessories.

Flanking the centre panel are two quarter panels. The other has a printed checklist.

In the bottom left corner of this panel is a cream knob. Pull this to toggle on the tiedowns and chocks.



The Basic Radio Set.

In the standard cockpit, a period communications radio is mounted directly in front of the pilot. You can use this unit to tune into communications (COM1) frequencies used by ATC.

Operation is very simple. Left knob tunes the standby frequency (right tumbler set) Middle knob is INOP and the Right knob switches between the standby frequency and active frequency (Left tumbler set).

Of course, all radio operation is covered by the Garmin suite so this old-school unit disappears when you select the Garmin (Avionics Switch).



Navigation.

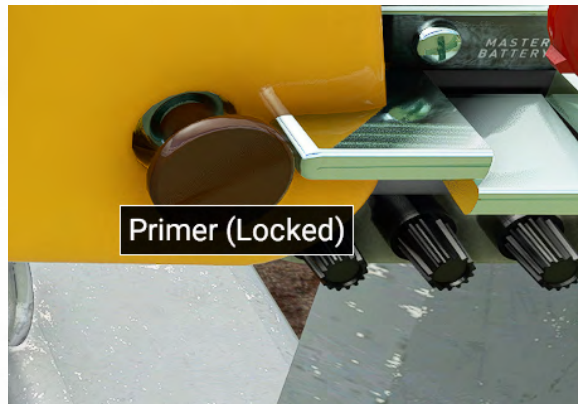
CESSNA 140
FOR MICROSOFT FLIGHT SIMULATOR

The Garmin 1000 option.

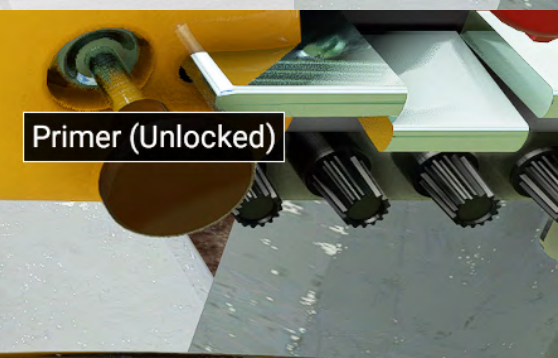
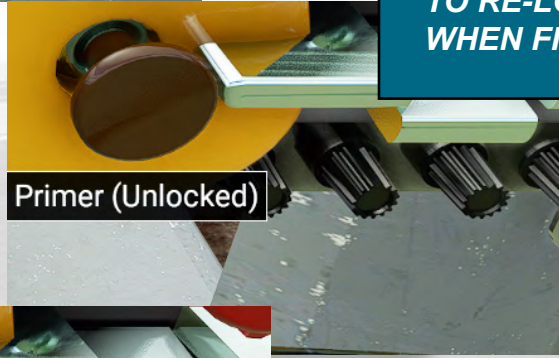
Click on the Avionics Switch (Piano Key at 24) and you toggle on the Garmin Suite. Doing this places a Pilot's MFD and Co-Pilot's PFD on the quarter panels and alongside the MFD, an Audio Panel. Now you have a full Garmin 1000 operating in the cockpit, together with a fully functional digital Autopilot.



ALWAYS REMEMBER TO HAVE YOUR BATTERY SWITCHED ON TO USE THE G1000



REMEMBER TO PRIME THE ENGINE WHEN COLD. HOVER OVER THE PRIMER KNOB AND USE THE MOUSEWHEEL (BACK) TO UNLOCK THE PRIMER. THEN CLICK THE KNOB TO OPERATE. 4 - 5 STROKES SHOULD BE AMPLE. REMEMBER TO RE-LOCK THE PRIMER WHEN FINISHED.



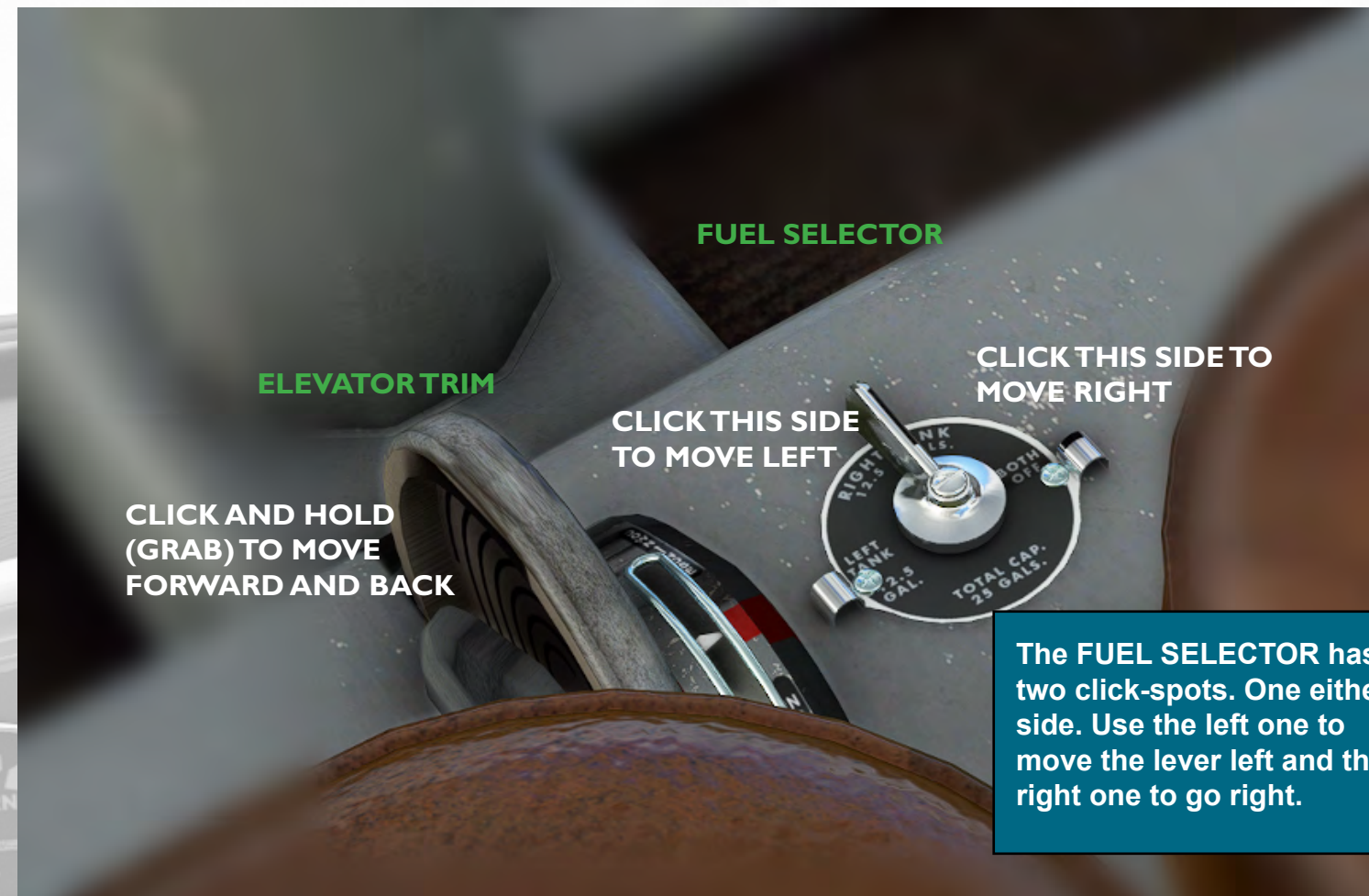
ALWAYS REMEMBER TO CHECK THE GAUGES REGULARLY. YOU **MUST** SWITCH TANKS TO EQUALISE THE FUEL WEIGHT AND THERE-



The FLAPS LEVER has 4 positions. A) UP B) TAKE-OFF C) INTERMEDIATE and D) DOWN-LANDING.

FLAPS ON A CESSNA 140 ARE AT BEST MARGINAL.

YOU NEED TO ADJUST YOUR SPEEDS ACCORDING TO CONDITIONS AND USE FLAPS AS AN AID RATHER THAN A SOLUTION TO LOSING SPEED OR ADDING MUCH LIFT, ESPECIALLY ON APPROACH TO LANDING.



Setting up for flight.

There's a set of chocks and tie-downs which are toggled on and off using the knob (16). This will also remove the pilot and passenger/co-pilot.



There are two fuel gauges - one for the left wing tank and one for the right. They are located in the wingroot of each wing, next to your head.

The dials have a red segment which indicates low contents. **ON NO ACCOUNT** attempt to take off with the needles inside these red areas. Always check that you have sufficient fuel before making a flight. The Cessna 140 is very economical on fuel but will eventually run out of the stuff.

On the floor, immediately in front of the seats there is a fuel tank selector. It operates with LEFT and RIGHT CLICK to select either or both tanks.

There is an elevator trim tab which is controlled by a large rubber rimmed wheel. The amount of up or downward trim is indicated by a white pointer. Red markings on the side of the trim unit indicate the recommended position for trim for takeoff. Set it up so that the pointer is within the red range. The Cessna 140 likes to be a tad nose down for takeoff.



All the options!

Your new Cessna 140 comes in a variety of colour schemes to suit all tastes. You can have your machine delivered all shiny new as it left the factory or if you prefer, in used condition, ranging from everyday wear to downright tired!

Cessna 140
FOR MICROSOFT FLIGHT SIMULATOR

All your favourite colours!

Each aircraft comes in an attractive combination of paint and trim colours. There's a well-worn scheme, British Racing Green echoes the days of classic motorsport and who could resist the traditional Cessna style?



Microsoft **Flight Simulator**

Go bush!

These days, bush flying has become a major pastime for owners of small aircraft like the Cessna 140. This little aeroplane is a solid performer in the wild with excellent STOL capabilities and in-built ruggedness to take the punishment of dirt-strip and grass fields.

With this kind of adventure flying in mind, we have included a version of the C140 with bush wheels and tires. If you're going to go for virtual flying adventure, then Microsoft Flight Simulator is the place to do it!



Microsoft **Flight Simulator**

We would like to take this opportunity to thank Stephane Beillard for the nose art and reference for HB-CAD

www.stephanebeillard.com



1. Left Front



2. Back SEAT (!)

4. UP



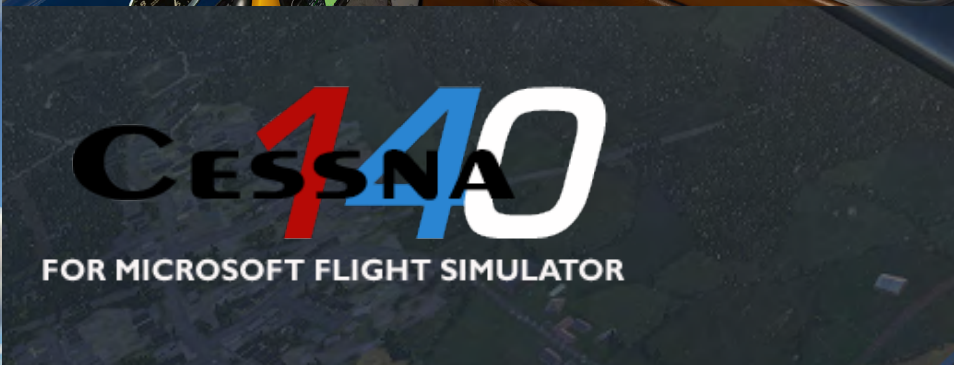
5. Right Side



6. Look Down



3. Right Front



A ROOM WITH A VIEW.

We have taken full advantage of this simulator's camera view selection and have provided some great presets to get you started.

In addition to the standard pilot, co-pilot and close views, we have some great angles in the cockpit to cover Quick-Look selections.



7. Left REAR



7. Right REAR



Microsoft **Flight Simulator**

CESSNA 140 CHECKLIST

BEFORE STARTING ENGINE

Parkbrake -- ON
Autopilot -- OFF
Avionics Master Switch -- OFF
Fuel Selector -- LEFT or RIGHT

ENGINE START

Throttle -- OPEN 1/2 INCH
Mixture -- RICH
Propeller Area -- CLEAR
Ignition Master Switch -- ON
Magneto -- BOTH
Starter -- PULL
Then,
Oil Pressure -- CHECK
Beacon & Nav. Lights -- ON
Avionics Master Switch -- ON
Flaps -- RETRACT

BEFORE TAKEOFF

Parking Brake -- ON
Flight Controls -- FREE & CORRECT
Flight Instruments -- CHECK & SET
Fuel Quantity -- CHECK
Mixture -- RICH
Fuel Selector LEFT or RIGHT (Fullest)
Elevator Trim SET for takeoff
Throttle -- 1000 RPM
Magneto -- CHECK
Engine Instruments & Ammeter -- CHECK
Throttle RPM -- 1000 or less
Radio and Avionics -- SET
Autopilot -- OFF
Wing Flaps -- SET Takeoff (10 degrees)
Brakes -- RELEASE

TAKEOFF

Wing Flaps -- 10 degrees
Throttle -- FULL OPEN
Mixture -- RICH
Climb Speed -- 80-85 MPH

CRUISE

Power -- 2100 - 2400 RPM
Elevator Trim -- ADJUST
Mixture -- above 5,000 ft., LEAN GRADUALLY

SECURING AIRPLANE

Parking Brake--SET
Avionics Master Switch -- OFF
Mixture -- IDLE CUT-OFF (PUSH IN)
Magneto -- OFF
Master Ignition Switch -- OFF
Fuel Selector -- BOTH OFF

For night lighting, click one of the cockpit torches mounted on the wing-root panels. The torches are independent of each other allowing you to balance the lighting to your desired level.

Time to go flying!

Either bring up the kneeboard checklist or use the "CHECKLIST" camera view.

We recommend starting from a "cold-dark" state, that is all switches off, controls zeroed and security chocks etc in place.

The kneeboard checklist is interactive so you can tick off the boxes as you go through the lists.

Never forget to switch on the master ignition switch which is above the magnetos. The magnetos switch operates using RIGHT CLICK to go from OFF to BOTH and LEFT CLICK to go back again.

Priming the engine when cold is important for trouble free starting.

Working your way through the checklist will soon have your Cessna140 purring along at idle. It is important to remember that the Cessna140 has a carburettor which if left to its own devices at idle will eventually ice up and the engine will falter. Use of the carburettor heat control (20) will ensure a happy idle. Close it in flight.

Flying the 140 is easy. She's no race-horse but can get along quickly enough with careful engine management.

We very much hope that you will find your Cessna140 an enjoyable, fun and rewarding experience.

Thanks for taking the time to read this and best wishes from all of us at Aeroplane Heaven.

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