BrSimDesigns
Ercoupe 415C

The Ercoupe 415C was developed by aeronaut engineer Fred Weick at ERCO (Engineering and Research Corporation) before WWII. The aircraft was developed with the aim of being light, safe and easy to maintain.

In 1934 Fred Weick and some workers developed an experimental aircraft based on the Stout Skycar. The result was the W-1 aircraft that had the following characteristics: tricycle landing gear, parasol wing, engine in pusher configuration, lateral and longitudinal stability to avoid loss of control due to spinning, a glide-control flap and two-control operation using controls for pitch and roll.

In 1936 Fred Weick left NACA to join ERCO (Engineering and Research Corporation). At ERCO Weick strove to develop a safe aircraft that would be difficult to stall and spin. Using some of the features of the W-1, Fred Weick developed the ERCO 310 which was later renamed to Ercoupe 310.

The Ercoupe 310 has tricycle landing gear, low wing, limited elevator up movement, linked rudder and aileron controls and bubble canopy for better visibility.
Initially the Ercoupe 310 had an ERCO I-L116 engine that had been replaced due to its high manufacturing cost. The Ercoupe 310 was the first aircraft certified as "unable to spin" by the Civil Aeronautics Administration (CAA).

In 1940, the Ercoupe 415 was launched, which had two seats and initially the 65HP ERCO I-L116 engine. Soon after, the Ercoupe 415C was launched with a 65HP Continental A65-8 engine. The -A and -B suffixes were never used.

This addon is based on the Ercoupe 415C manufactured after WWII which had a 75HP Continental C75 engine.

Due to the features of the Ercoupe 415C, you need to know some very important informations which is described on the next page.

Informations

Rudder Pedals

Although the original aircraft did not have rudder pedals, some aircraft were modified to have rudder pedals. This addon has rudder pedals from version 1.2

Limited Elevator Movement

Elevator control on this aircraft is limited as this aircraft is designed to be stall and spin proof.

During takeoff, after 50 knots, use full elevator deflection to lift the aircraft off the ground.

During landing, maintain the correct speed and avoid sinking the aircraft as it can be difficult to flare the aircraft for landing.

Remember to always adjust the elevator trim correctly.

Crosswind Takeoff And Landing

In certain weather conditions, where there is a crosswind, it may be necessary to use the aileron to prevent the aircraft wing from touching the ground.

Addon Features

6 Liveries
8K full PBR textures
High quality 3d modelling and animations
All switches, lever and knobs (except circuit breakers)
Options Tablet to control the airplane options
Optional and subtle panel vibrations
Subtle tail and aileron vibrations
4 panel colors (Blue, Black, Red and Yellow)
Optional landing gear fairing and cockpit cover
Static Elements (chocks, tie down, pitot protection, etc)
Flight model with limited stall and spin characteristics

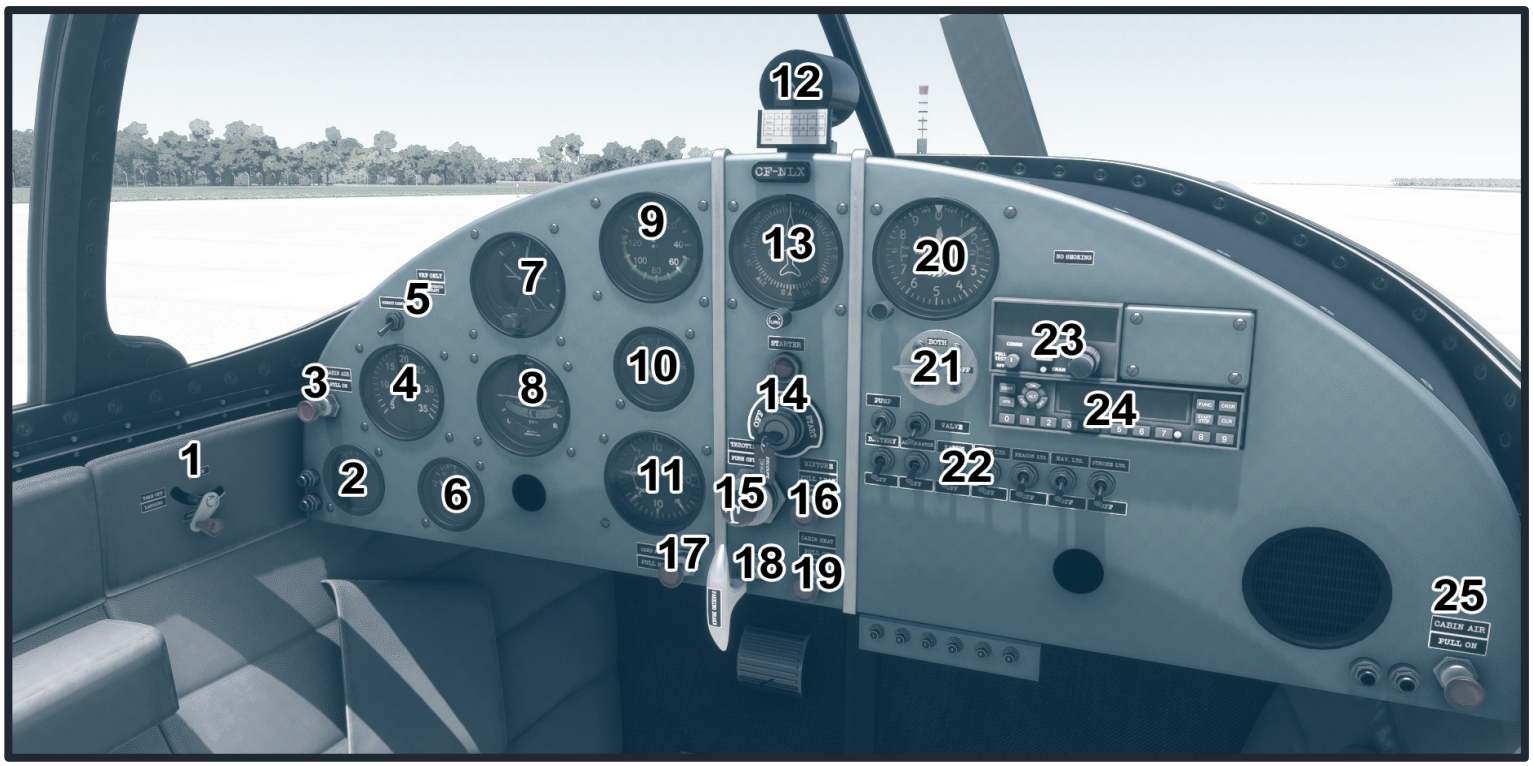
General Characteristics

Crew	1
Passengers	1
Length	20 ft 9 in
Wingspan	30 ft
Height	5 ft 11 in
Wing Area	142.6 ft
Empty weight	747 lb
Gross weight	1260 lb
Fuel capacity	24 US. Gallon Usable
Powerplant	1 X Continental C75 75HP 2300RPM

Performance

Max. speed	125 knots
Stall speed	42 knots
Takeoff speed	65 knots
Cruise speed	96 knots
Landing speed	60 knots
Range	260 nm
Rate of climb	550 fpm
Service ceiling	12000 ft

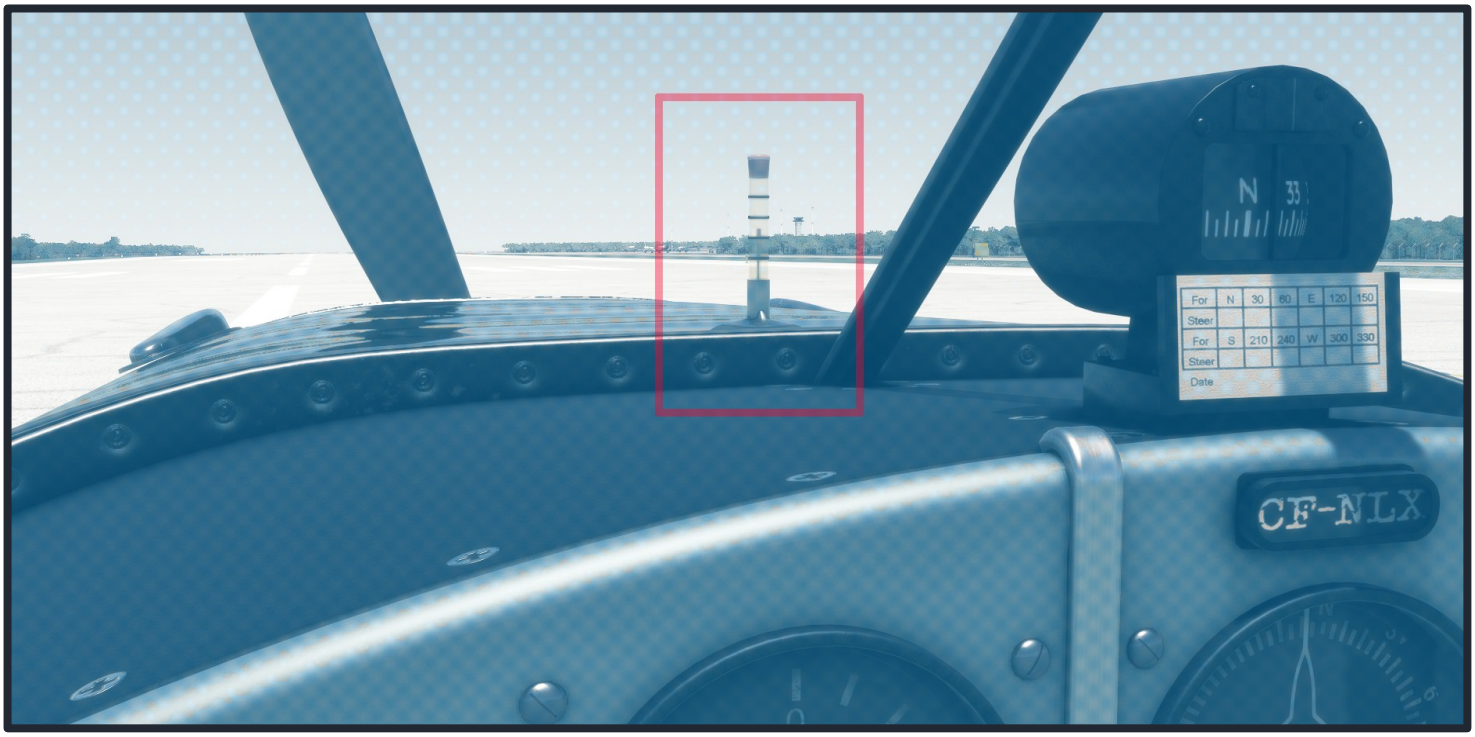
Cockpit



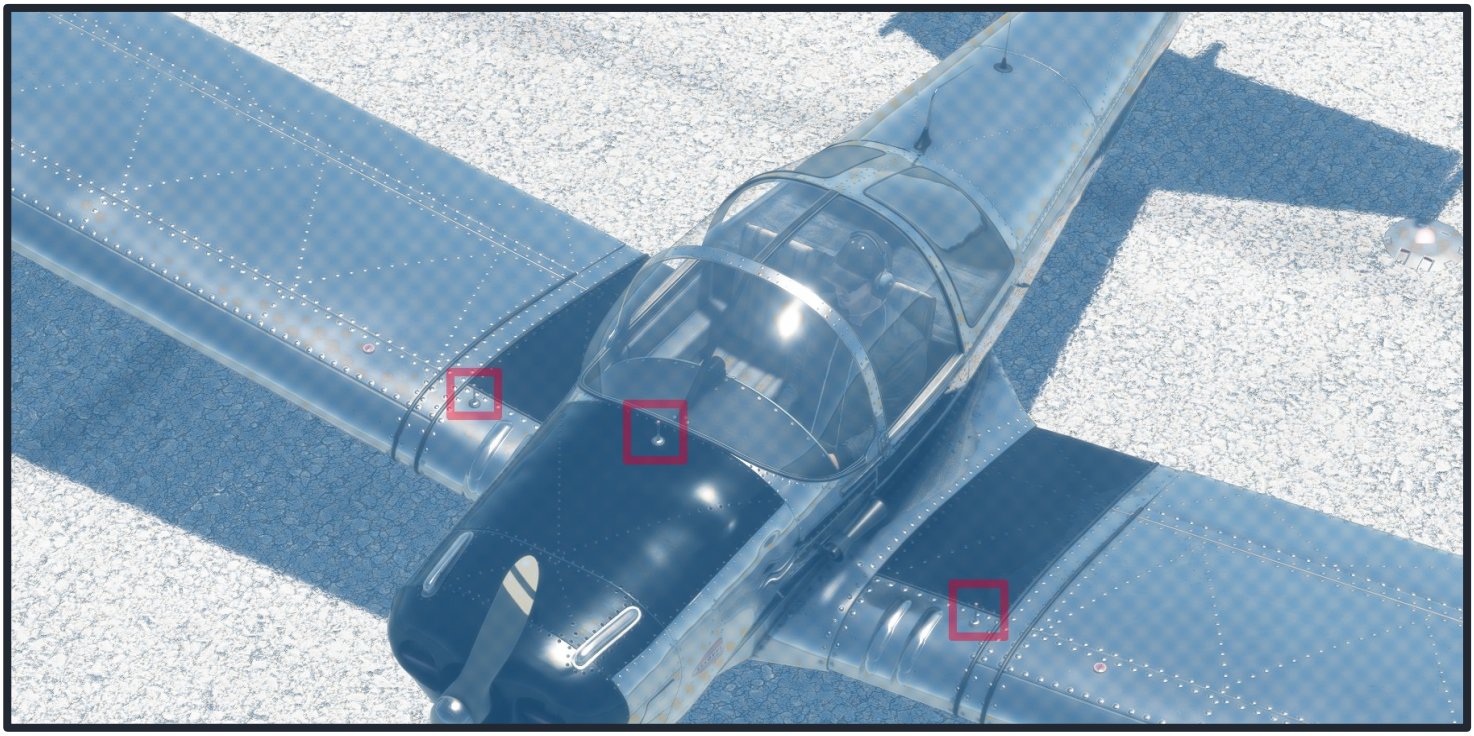
Caption on next page

1	Elevator Trim	22	Switches Panel
2	Cylinder Head Temperature		Fuel Pump
3	Cabin Air		Fuel Valve (Cut Off)
4	Tacometer		Battery
5	Cabin Lights		Alternator
6	Oil Temperature		Radios
7	Attitude Indicator		Landing Lights
8	Turn And Slip Indicator		Beacon Lights
9	Airspeed Indicator		Navigation Lights
10	Oil Pressure		Strobe Lights
11	Variometer	23	Radio Panel
12	Magnetic Compass	24	Transponder Panel
13	Heading Compass	25	Cabin Air
14	Magnetos		
15	Throttle Lever		
16	Mixture Lever		
17	Carburator Heat		
18	Parking Brake		
19	Cabin Heat		
20	Altitude Indicator		
21	Fuel Selector		

Fuel Quanity Indicator



There are three fuel tanks on this aircraft
The fuel quantity indicator is located outside the cockpit



Airplane Options Tablet

This addons has a tablet where some options can be enabled or disabled.
The tablet is located at the top right of the panel.

Options

TO TURN ON THE SCREEN CLICK THE POWER BUTTON ON THE TOP OF THE TABLET

GEAR FAIRINGS
Hide or show the gear fairings.
Gear fairings can only be enabled when the aircraft is not moving and the engine is off.

PANEL COLOR
Switch panel color (Blue, Black, Red and Yellow)

STATIC ELEMENTS
Show or hide chockes, pitot cover, etc.
Static elements can only be enabled when the aircraft is not moving and the engine is off.

WINDOW COVER
Hide or show window cover.
Window Cover can only be enabled when the aircraft is not moving and the engine is off.

COCKPIT VIBRATIONS
Enable panel vibrations when engine is running or only when engine is starting

SAVE OPTIONS
This function saves the current state of the options to be loaded when the aircraft is loaded again in the simulator.

Credits

Brsim Designs

Developer: Bruno Reichert

3D model, texturing, animations, programming,

systems and other related files for this addon with the exception of the audio package that was produced by Asobo.

Contacts

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