BIG RADIALS

#FLYTHEDAMNPLANE

NIEUPORT 17
Flight Manual

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for Microsoft Flight Simulator

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Table of Contents

Introduction

Thank you for purchasing the Big Radials Nieuport 17. This manual will guide through everything you need to know to take your little Nieuport on all sorts of adventures!

Installation

Copy the contents of the ZIP file to your community folder. The default locations are

Windows   Store:
C:\Users\[YOUR   USERNAME]\AppData\Local\Packages\Microsoft.FlightSimulator_[RANDOM LETTERS]\LocalCache\Packages\Community

Steam:
C:\Users\[YOUR USERNAME]\AppData\Roaming\Microsoft Flight
Simulator\Packages\Community
Or
C:\Users\[YOUR USERNAME]\AppData\Local\Packages\Microsoft.FlightDashboard_[RANDOM LETTERS]\LocalCache\Packages\Community

History of the Nieuport 17

The Nieuport 17 was a French sesquiplane (meaning "one-and-a-half" wings, as the lower wing was significantly smaller than the upper wing) fighter designed and manufactured by the Nieuport company during World War I. It was developed and improved from the Nieuport 11 (nicknamed "Bèbè", "Baby" in English), was larger compared to earlier Nieuports and hence better suited for the more powerful engine than the Nieuport 16, which was considered kind of an interim plane. Our 17 is equipped with the early 110 hp (82 kW) Le Rhône 9J engine which was later replaced with a 120hp (89 kW) variant.

Aside from early examples, which had a wing-mounted Lewis gun only, the 17 had a new Alkan-Hamy synchronization gear, permitting the use of an additional fuselage-mounted synchronised Vickers gun firing through the propeller disc. The Lewis gun on the wing was mounted on a rail to change ammunition and clear jams, but it could also be used to fire the gun upwards (e.g. at bombers with rear gunners).

It was introduced in March 1916 and showed outstanding manoeuvrability and excellent rate of climb, hence giving it a significant advantage over fighters on both sides. It was described as "the best pursuit plane of the day". However, due to its small lower wing the plane had a tendency for wing flutter at higher speeds, an effect that was not fully understood back then. This flaw was later addressed by moving the location of the wing main spar, actually using spare parts from the Nieuport 24.

The aircraft was permanently developed further and there was a Nieuport 17 Biplane, Triplane and the Nieuport 21 (a bomber escort variant with a smaller engine). The Nieuport 23 was the definitive 17 and used a different machine gun synchronizer. The Nieuport 23's fuselage was also the base for the Berliner Helicopters built from 1922 to 1925.

The Nieuport 17 was used by many operators and entered service with every Allied power and copies were also operated by the German Air Service. It was mass-produced by several firms and the Nieuport 17 and its derivatives were built in France by Nieuport, in Italy by Nieuport-Macci and in Russia by Dux. Even the Germans tried to copy the plane with their Siemens-Schuckert D.I and the Euler D.I, without license of course. In total approximately 3.600 Nieuport 17's were built (including variants as the Nieuport 21).

During March 1916, the first planes reached the French-German front and in 1917 every squadron of the Aèronautique Militaire (French Air Service) was equipped with the Nieuport 17. It was later ordered by the Royal Flying Corps and the Royal Naval Air Service. British pilots found the plane superior to its british counterpart and many squadrons were equipped with Nieuport 17s instead. In mid-1917 the arrival of the german Albatross D.III required the replacement of the Nieuport with the SPAD S.VII, which had a more powerful engine available. The British continued to operate the Nieuport 17 until 1918 when the Royal Aircraft Factory introduced the S.E.5. From this point on the plane was mainly used as a advanced trainer aircraft. It was later exported to new air forces around the world to be used through the 1920s.

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Recommended Specs & Settings

The Nieuport 17 has been modeled with fluidity of frame rates in mind, which means you should not notice a significant drop in performance when using it.

Please use the same graphics settings you are used to.

The flight model has been specifically designed to feel best when following settings are used.
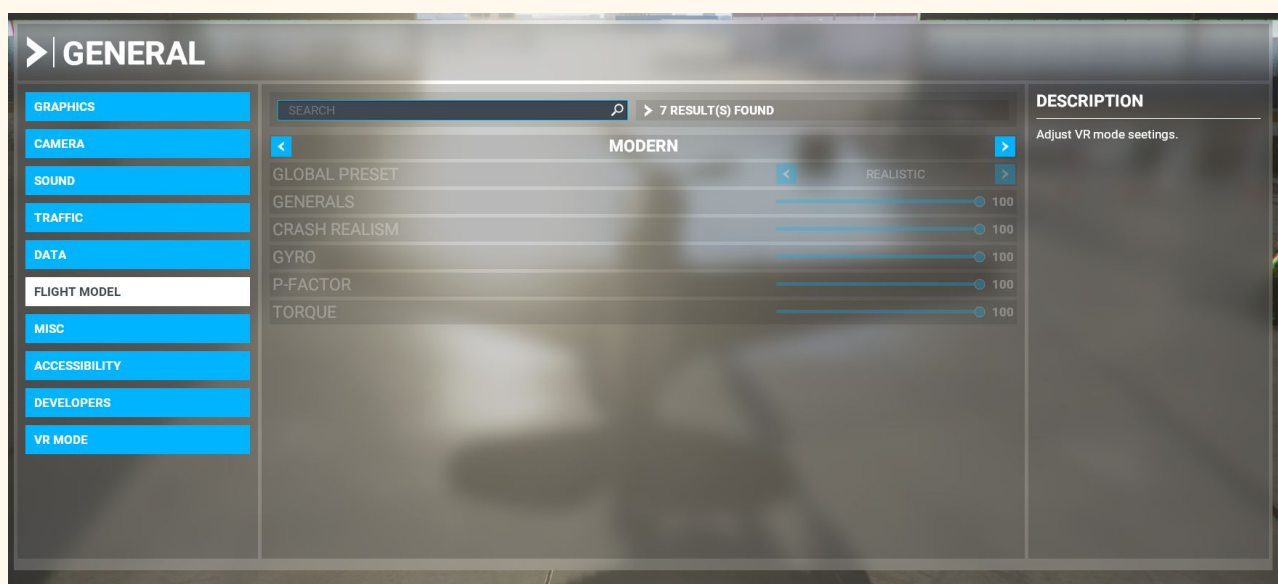
One thing you will have to do: Bind a key to the "Toggle Master Ignition Switch" command. This is used for the Nieuport's throttle blip switch.

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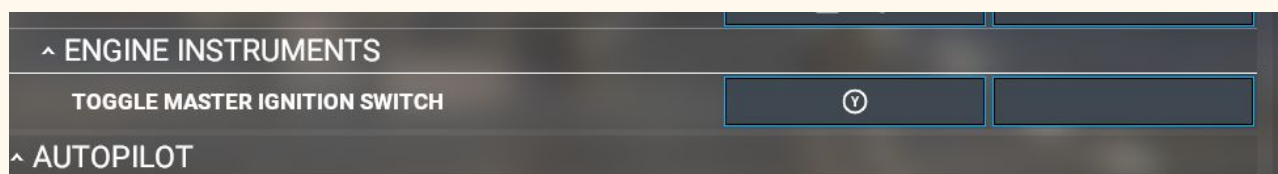
Quick Start Guide

If you are just too eager to fly, and you don't care about real world procedures, please follow these tips and tricks to get you up in no time.

STARTUP
Simply use the default keybind Ctrl+E to start your engine and electrical systems.

TAXI
Remember you have no brakes! Best strategy is to plan your taxi to have as many straight lines as possible. To turn, give it a full rudder deflection in the direction you want to take, and a burst of power, the prop wash from the engine should allow you to turn. Get off the rudder early, as the inertia will keep pushing you for a while.

TAKE OFF
Simple. Full Power, and watch the torque effect by compensating with a bit of right rudder. Let the plane lift itself off the ground

CRUISE
Reduce throttle and mixture for fuel efficiency

LANDING
Generally, even with the throttle closed, you will carry too much speed for a safe landing. To bleed that extra speed off, you should bleep the throttle on final, to maintain a lower speed than idle. Bleep carefully, in short burst. Longer blips may result in the engine quitting, or in extreme cases, it could catch fire.
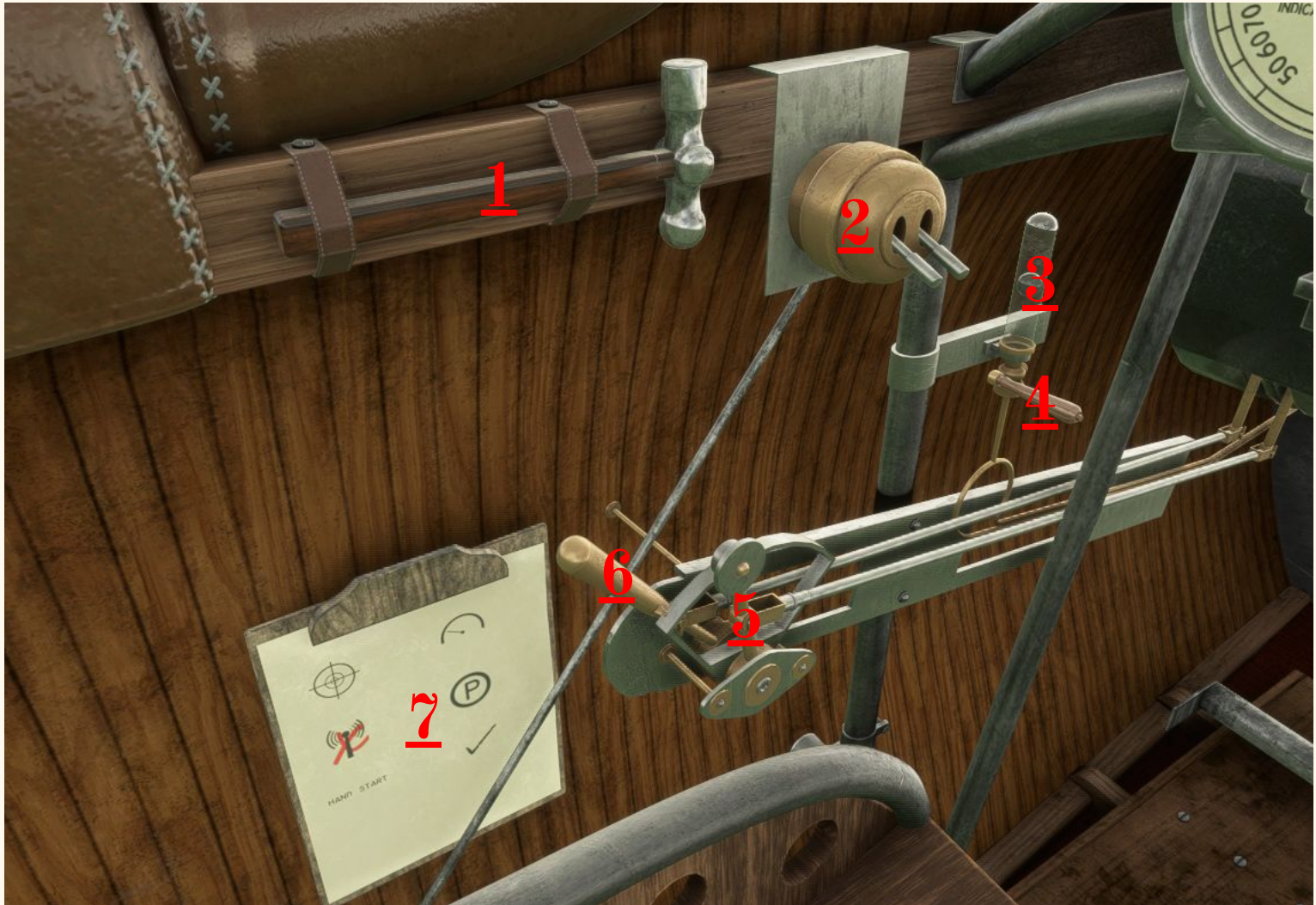
Panel Layout

1-Speedometer   2-Compass

3-Altimeter   4-Tachometer

Port Layout

1-Hammer

2-Magnetos

3-Fuel Level

4-Fuel Cutoff

5-Mixture

6-Throttle

7-Interactive Clipboard

Starboard Layout

1-Clock   2-Hideable Transponder   3-Hideable Radio

What the Hell Is It?
What the Hell Does It Do?

**Compass**: Indicates your magnetic heading. Note that you can grab and rotate it up or down for better visibility.

Speedometer: Shows your Indicated Air Speed (IAS), in Kilometers per Hour. Note that you can have it indicate Knots via a clickspot on the starboard's side Clipboard

Fuel gauge and fuel tap: Shows the remaining capacity of a fuel tank in percent. The ball will go down as the fuel is depleting. The fuel tap opens or closes the fuel system
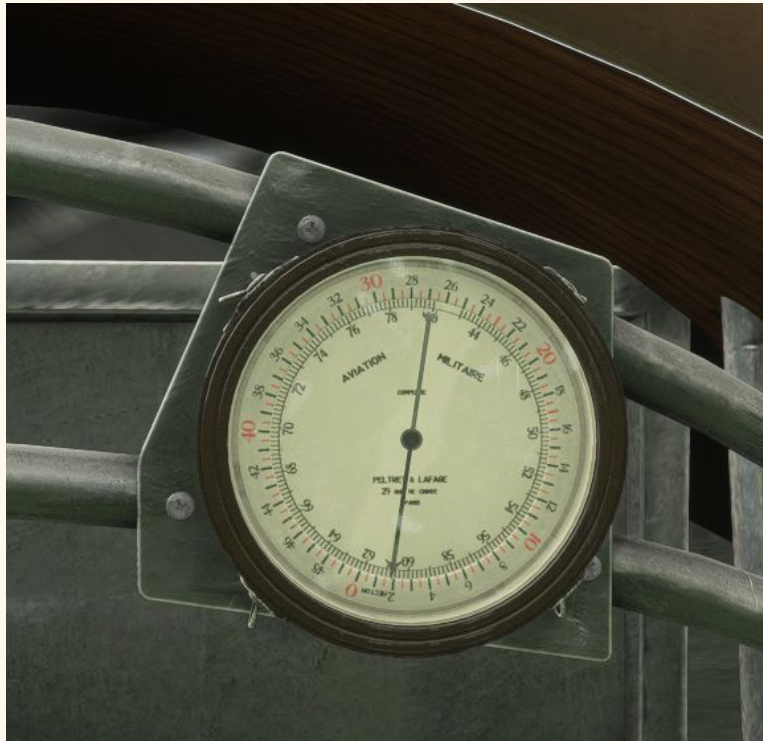
Altimeter: Measures sea level altitude in thousands of meters (10=1000 meters). Beware that the altitude shown is at a 29.92 baro pressure setting.
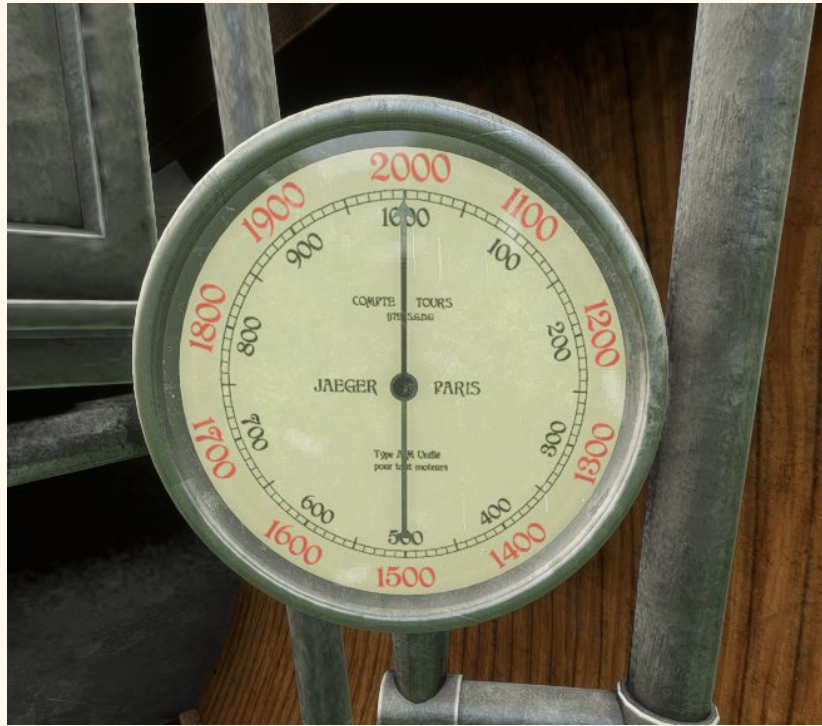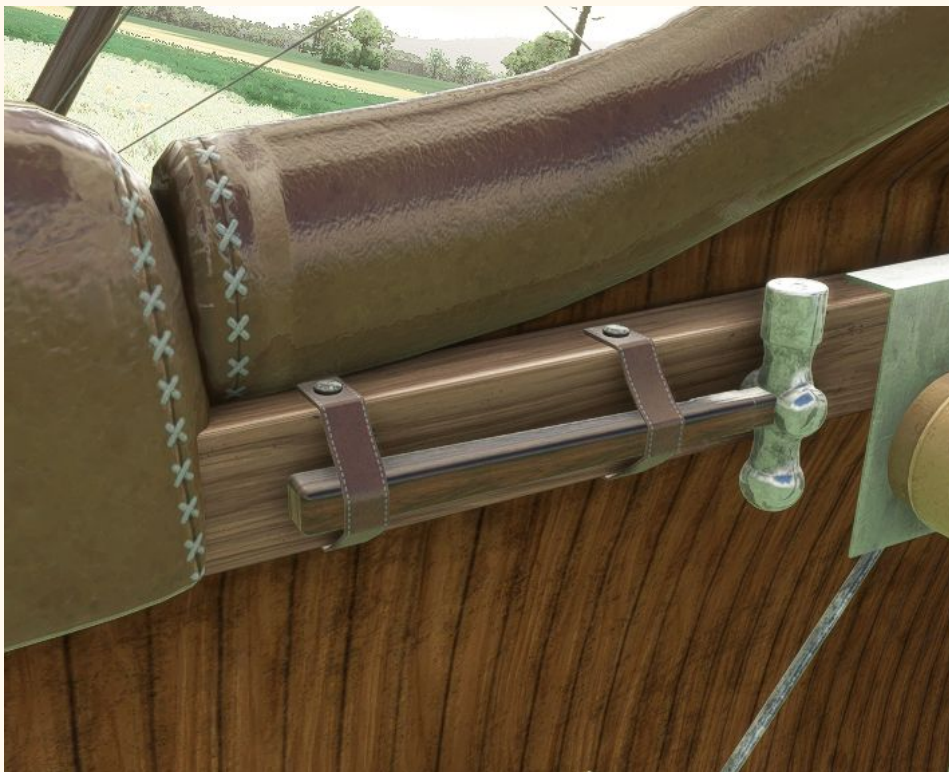
Tachometer: Measures propeller speed with 2 full needle revolutions, from 0 to 1000 for the first turn, then from 1000 to 2000 for the next one. But how do I know if I am at the first or second revolution? Engine sound!
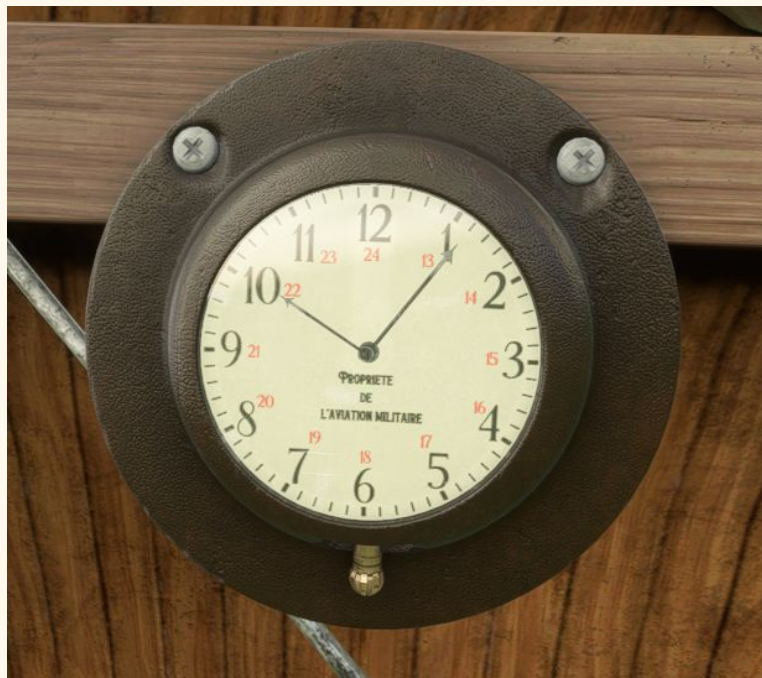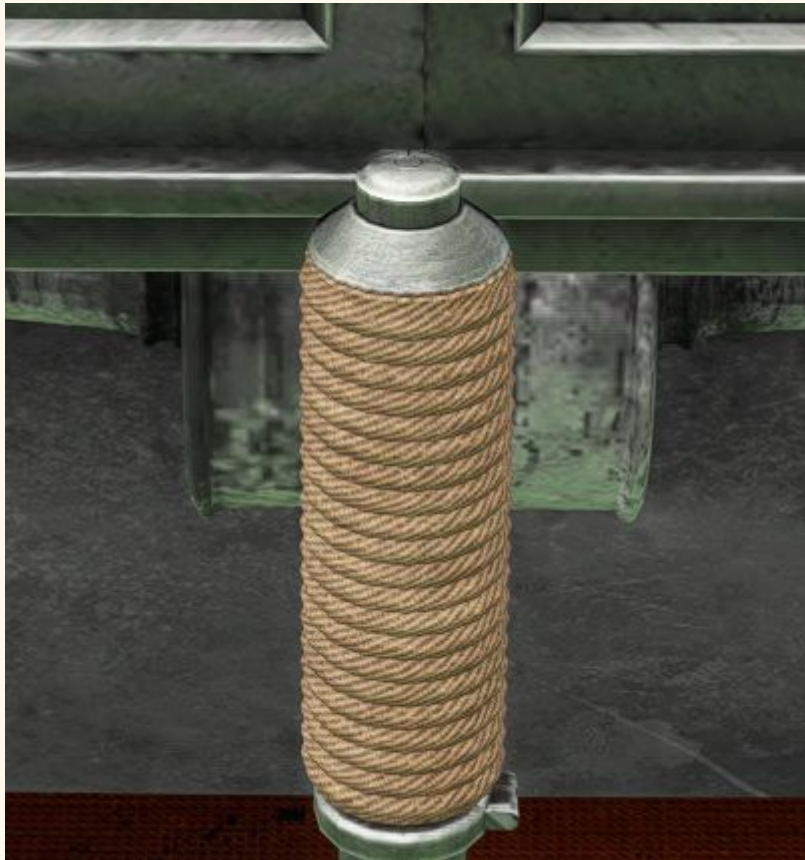

Clock: You know what a clock is, don't you?

Radio stack: Transponder and VHF radio

The "J'Hammer": Used in case of a gun jam. Open the windshield, take the hammer, and bang bang bang. The hammer will work only if the windshield is down.

Blip switch: It is used to cut the engine off in small bursts. This action can and should be bound via the Option menu (Toggle Master Ignition).

The blips are mostly used on approach to reduce speed. Do it in short bursts, not too close from each other, and do not leave the engine off for too long.

Starter: Lean out from cockpit view, then grab and hold the propeller for a few seconds until the engine coughs to life. Here is the clickspot for it.

FOR SIMULATION USE ONLY
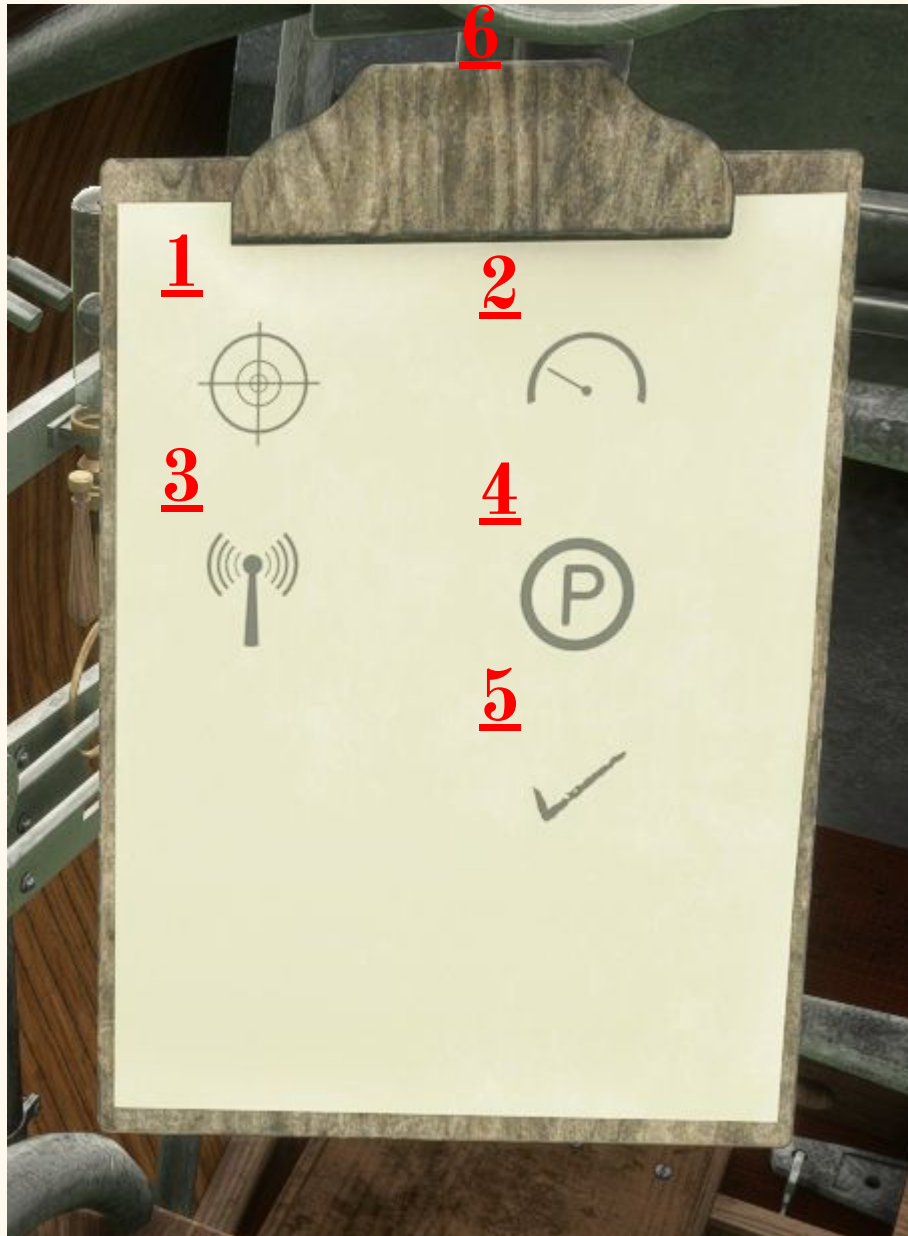
1-Show/Hide Guns   2-Speed in KMH or Knots

3-Show/Hide Radio Stack   4-Show/Hide Chocks

5-Checklist   6-Take/Stow Clipboard

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Fun Things Any Nieuport Owner Should Do
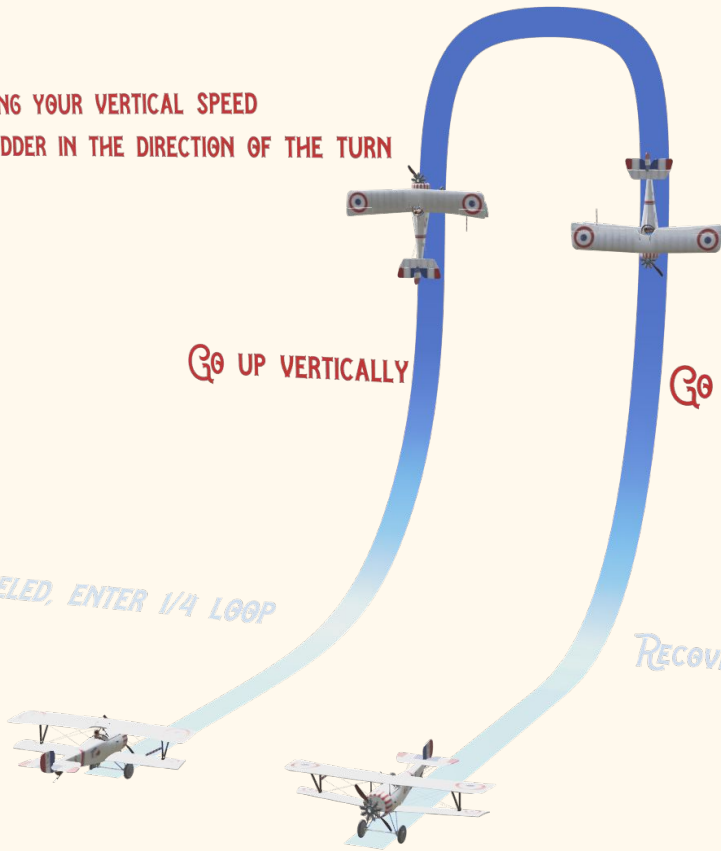
HAMMERHEAD / STALL TURN

UPON LOOSING YOUR VERTICAL SPEED
KICK THE RUDDER IN THE DIRECTION OF THE TURN

GO UP VERTICALLY

GO DOWN VERTICALLY

WINGS LEVELED, ENTER 1/4 LOOP

RECOVER, SAME ALTITUDE AS THE ENTRY

IMMELMAN TURN

1/2 AILERON ROLL TO RECOVER

WINGS LEVELED, ENTER 1/2 LOOP

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Safety Checks

There are no official, readily accessible, checklists for the N17. It is a WW1 plane after all. But here are a few safety checks and procedures to make sure you do not break anything.

The Nieuport was NEVER MEANT TO BE OPERATED ON HARD RUNWAYS! It was intended to be flown from grass and dirt runways.

Startup
1. Fuel - OPEN
2. Mixture - Full Forward
3. Throttle - 1 inch open
4. Magnetos - OFF
5. Press and hold the Prop for 3 SECONDS then release
6. Magnetos - ON
7. Press and hold the Prop until full engine startup
8. RPM > 1000

Taxi
1. Controls - FREE
2. Pick a direction of turn and apply full corresponding rudder
3. Have a big burst of power
4. Take inertia into account when cutting power to end your turn
5. Generally, try to make the taxi straight and short :)

Take Off

6. Controls - FREE
7. FULL POWER
8. Manage torque with rudders
9. Let the plane take off by itself, around 55 Knots

Landing

10. Manage speed with throttle blips
11. Land 2 main gears first
12. Full back stick when speed allows, to apply friction on the tail and stop

Landing Challenges and Bush Trip

We have included a little extra to test your piloting skills with the Nieuport 17. Two landing challenges and a bush trip await you! Look for the landing challenges in the EPIC section.

Landing Challenge - Corlier

You have been caught in bad weather and your fuel is running out. Try to make it to Corlier Altiport (LFJD) just a few miles North of Corlier.

Landing Challenge - Venice

Cruise along Canale Della Giudecca (the main canal of Venice) over San Marco and San Giorgio into the airport Giovanni Nicelli located on Lido island.
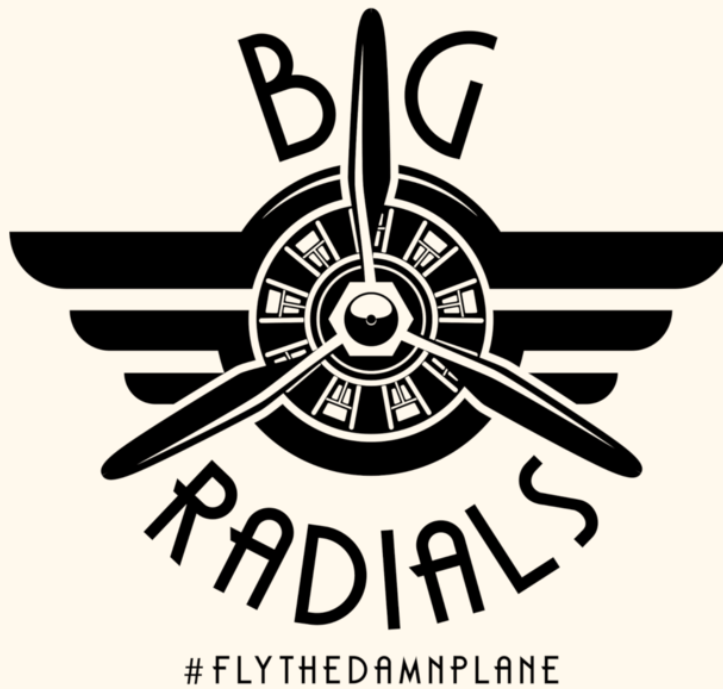
Bush Trip - Godefroy

This tour will guide you along the route flown by Charles Godefroy in 1919. As a protest (he and his comrades were ordered to participate marching instead of flying during the great parade after the first world war) he flew through the Arc de Triomphe with his Nieuport. The whole tour took him about 20 minutes, see if you can beat that. Ah, and don't crash…

REMARKS

- The time limit on this mission is 20 minutes. This is tight, no time for sightseeing!
- To end the mission successfully you have to be on the ground with engine off!
- Due to the peculiarities of MSFS, you might start the trip in the middle of the flight. If this happens to you please delete the "BIGRADIALS-BUSHTRIP-GODEFROY-SAVE" folder in the Activities folder of your MSFS installation path (C:\Users\"Your username"\AppData\Roaming\Microsoft Flight Simulator\MISSIONS\ACTIVITIES).

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Credits

Chief Cat Herders

Leprechaunlive
&
BeeJay "OzWookiee" Bristow-Stagg

Flightmodel

Don "Wrap23" Spencer

Bush Trip & Crash Test Dummy #1

Robert "Pontiac51" Graf-Klosterer
www.pontiac51.com

Big Radials Logo & Crash Test Dummy #2

David "Cmdr Bracher" Bracher
david-bracher.pixels.com

Technical Consultant

Rob Gauld-Galliers
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Missions Toolkit

Mats Lundquist (f99mlu)

Author of the BushMissionGenerator

https://fr.flightsim.to/file/3681/bushmissiongen

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