

F4U-7 CORSAIR

HISTORY

The F4U-7 was the last corsairs produced. The F4U-7 was produced exclusively for the French Navy at Vought's plant in Grand Prairie. A total of 94 planes were produced between 1952 and 1963. The F4U-7 was basically an updated version of the F4U-1B with AU-1's structure powered by a Pratt & Whitney R-2800-43. The F4U-7 has a maximum speed of 440 mph (382 knots). France has used the F4U-7 in Indochina, Suez and Algeria.

FLIGHT DYNAMIC

With the help of pilot of the real Corsair we have worked hard to give to the model a realistic flight dynamics. The virtual pilot may be surprised by the behavior of the model. As for those who have flown the real plane, it is strongly recommended to the virtual pilot a careful handling of the model for the first time.

Realism parameters, sensibility & null zones of the joystick

For a realistic behavior you should put the realism parameter sliders to the right;

For a realistic behavior you should use maximum values for sensitivity parameter and minimum value for the null zones on all axis for your joystick.

WARNING

With those settings, the virtual pilot will have to manage the realistic huge motor torque effect during take-off. The virtual pilot, as for the real pilot, should be aware of these effects to avoid going out of the carrier desk.



In case of problem: Put all realism parameter sliders to the left.

With more flight time on the Corsair you can put the realism parameter sliders to center. Put to feel the strong sensations of the motor torque effects on the Corsair you should put the realism parameter sliders to maximum.

3D MODEL

The **Alpha Bleu Ciel** F4U-7 Corsair has several moving parts:

- Folding wings;
- Moving tail hook;
- Animated landing gear suspension;
- Ailerons, rudder, elevator and flaps;
- Cooling flaps
- Canopy

The **Alpha Bleu Ciel** F4U-7 Corsair come with two French Navy textures: the no. 6 of the 14.F Flotille and the np. 22 of the 22.F flotille. Both correspond to real and restored Corsair who are currently in flying condition.



PANEL

Main view

After the selection of the aircraft, the panel is in cold condition. The engine start up is described in the Engine starting procedure section page 8. Note that the cowling flaps appear in open position. The cowling flaps will appear in closed position during flight if the pilot chooses to close them.



The **icons** on the 2D panel are

- [1] Left landing view
- [2] Rise pilot's seat;
- [3] Lower pilot's seat;
- [4] Right Left landing view;
- [5] Left bank with engine & propeller controls;
- [6] Right bank with radios, Tail hook and starter;
- [7] Show/hide VOR
- [8] Show/hide ADF
- [9] Show/hide GPS
- [10] Show/hide kneeboard
- [11] Show/hide ATC
- [12] Show/hide map

Main flight instruments



The main flying gauges are

- [1] Altimeter
- [2] Gyro heading
- [3] Magnetic compass
- [4] Artificial horizon
- [5] Chronometer
- [6] Tachometer
- [7] Admission pressure
- [8] Airspeed
- [9] Turn coordinator
- [10] Vertical speed
- [11] Cylinder head temperature
- [12] Oil pressure
- [13] Oil temperature
- [14] Fuel
- [15] Hydraulic pressure
- [16] Folding/unfolding wings lever
- [17] Magnetos selector
- [18] Carburetor heat

Left landing view



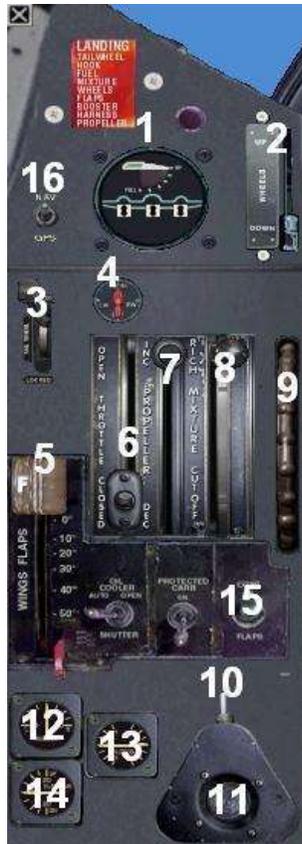
Right landing view



Virtual cockpit with operational clickable gauges



Left bank



&

Right bank



The elements on the **left bank** are:

(We can also open the left bank by clicking on the left bottom side of the panel)

- [1] Landing gear & flaps position indicator
- [2] Landing gear lever
- [3] Tail wheel locking / unlocking lever
- [4] Fuel tank selector
- [5] Flaps lever
- [6] Throttle lever
- [7] Mixture lever
- [8] Propeller pitch lever
- [9] Pitch trim
- [10] Yaw trim
- [11] Aileron trim
- [12] Yaw trim position indicator
- [13] aileron trim position indicator
- [14] Pitch trim position indicator
- [15] Cowling flaps position indicator / selector
- [16] NAV/GPS selector

The elements on the **right bank** are:

(We can also open the left bank by clicking on the right bottom side of the panel)

- [1] Tail hook lever
- [2] Voltmeter
- [3] Battery switch selector
 - Low position : battery only
 - center position : OFF
 - High position: battery & external generator
- [4] Primer
- [5] Starter
- [6] Navigation light switch
- [7] Panel light switch
- [8] Pitot heat switch
- [9] Radio Com
- [10] Radio NAV
- [11] Radio ADF
- [12] Transponder

SIMULATION OF AIRCRAFT CARRIER DISPLACEMENT

To help the pilot, the aircraft carrier is sailing in the wind at its maximal cruise speed of 24-20 knots.

To simulate these operational conditions:

- [1] Open "World" menu and choose "weather"
- [2] Select "user defined weather"
- [3] Click on "customize weather"
- [4] Input wind speed (24-30 knots) with the slider
- [5] Select the wind direction by clicking on the wind circle. The direction should be +/- 15 degree of the carrier sailing direction
- [6] Click on OK
- [7] Click on OK

ENGINE STARTING SEQUENCE

- [1] Put Magnetos selector on BOTH (1+2)
- [2] Open the left bank
- [3] Put mixture control on RICH and propeller pitch control as wished;
- [4] Open the right bank
- [5] Put battery selector on high position
The voltmeter should indicate 24 – 30 V
- [6] Click twice on primer;
- [7] Increase throttle slightly;
- [8] Depress starter.

POWER ON RADIOS

Use the following sequence to activate radios COMM, NAV, ADF

- [1] Open right bank
- [2] Activate each radio (COMM, NAV, ou ADF) by clicking on (ON) marking
- [3] Input integer part of the frequency value by clicking on the left knob of the radio;
- [4] Input decimal part of the frequency value by clicking on the right knob of the radio;
- [5] Input the unit digit value of the frequency of the ADF radio by clicking on the right knob;
- [6] Input the tens digits the frequency of the ADF radio by clicking on the center knob
- [6] Input the hundred digits the frequency of the ADF radio by clicking on the left knob.

CHRONOMETER

Left knob setting of the chronometer

- [1] With a right mouse button click on this left knob the chronometer pass from clock mode to chronometer mode.
All the clock handles are bring to noon and one cannot set the time (with the right knob)
- [2] With a left mouse button on this left knob one cyclically activate the chronometer functions: start, stop, reset to 0.
- [3] With a right mouse button click on this left knob one can come back to clock mode. The clock handles return to the actual time.

Right knob setting of the chronometer

- [1] This knob is inactive in chronometer mode
One has two clickable zones on each half portion of the knob: on the left half (decrease) and on right half (increase)
- [2] With a left mouse button one can adjust the time, minute by minute; and with a right mouse button one can adjust time five minutes by five minutes

Attention:

when one adjust time of a clock, Flight Simulator reset automatically the scenery. This is a Flight Simulator feature.

TAKE OFF

- [1] Open canopy (<Maj.>+<E>) and rise the pilot seat (icon 2)
- [2] Adjust the trims optional)
 - rudder trim on 7 right (between first and second mark)
 - aileron trim on 2 right
 - pitch trim on 2 up

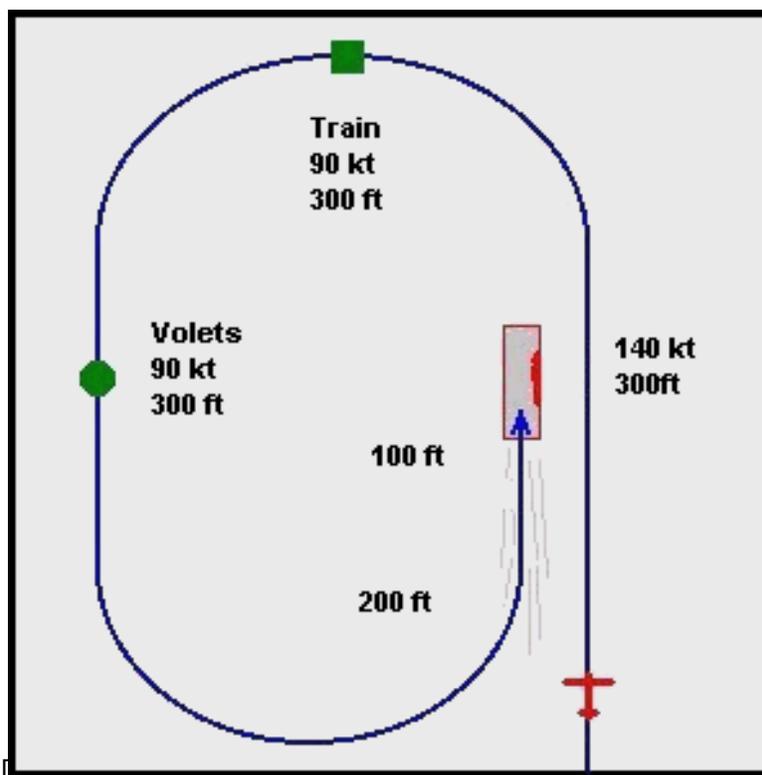


- [3] Verify the position of the fuel selector
- [4] align the aircraft
- [5] Increase throttle to obtain a boost pressure 30 in. Hg max.
- [6] Stick full back
- [7] After the brakes release, let the Corsair take a slight acceleration at the beginning, then add right pedal action to contract the motor torque effect
- [8] When the Corsair is in straight course, slightly push the stick to be in flight attitude
- [9] Once in flight attitude increase progressively the throttle to obtain boost pressure of 45 in. Hg.

CLIMB

- [1] Close canopy (<Maj.>+<E>) and lower the pilot (icon 3)
- [2] Retract the landing gear and the flaps
- [3] Adjust aircraft trim.

CARRIER LANDING



- [1] Enter in the aircraft carrier circuit, with the aircraft carrier on your left side at 300 ft altitude and with an airspeed of 140 knots
- [2] In the cross wing leg reduce the airspeed to 90 kts and lower the landing gear at 300 ft altitude
- [3] In the rear wind leg completely lower the flaps, open the canopy, lower the tail hook and rise the pilot seat at 300 ft alti
- [4] In base leg descent to 200 ft altitude, 90 kts airspeed
- [6] In final leg descend to 100 ft altitude
- [7] **Never let the airspeed to be lower than 90 kts**
- [8] When crossing the back end of the ship reduce throttle to idle and pull up slightly the Corsair

AFTER CARRIER LANDING

- [1] After the Corsair came to a rest, fold the wings
- [2] Follow deck officer instructions
- [3] At the deck officer signal shut down the engine by putting the mixture control to 0.
- [4] Bold salute, then go to the debriefing room.

AUTHORS

3D model, virtual cockpit & textures

Guy Hulin

hulin.guy@wanadoo.fr

For the textures with the help of
Yves Raymond

Panel & gauges

The image of the main panel was based on the freeware Corsair panel of **Sergey "Araks" Golovachev**
<http://www.comesk.com/>

The left & right banks, the landing views, the radios COM & NAV were created by **Jean-Pierre Langer** The gauges were programmed and realized by **Jean-Pierre Langer & Arne Bartels**.

Jean-Pierre Langer

jp_langer@libello.com

Arne Bartels

arne.bartels@t-online.de

Flight dynamic

Jean-Pierre Bourgeois

bourgeoispierre@free.fr

Benoit Dubé

dube_benoit_m@yahoo.fr

Flight tests

Sonny

remysonny3@free.fr

Michel JUNAC

Michel BESSON

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http://joel.maillot.free.fr/fs2k2_Porte_avions2.html

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version 6

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