Pilot's Notes

Expansion for Microsoft Flight Simulator X Steam Edition

CONTENTS

INTRODUCTION

This simulation of the famous Hawker Hurricane covers the earlier years of the aircraft.

We begin with the Prototype, which first flew in November of 1935. Design, however, had started in 1933, a time when the bi-plane fighter was considered ‘state of the art’.

Over the years the design of the Hurricane changed little as it was adapted to many roles, performing with distinction in all theatres of the Second World War.

Remarkably strong and a perfectly stable gun platform, the Hurricane was much admired by its combat pilots and was responsible for more enemy aircraft shot down in the Battle of Britain than any other type.

We have modelled the Prototype, Early Mk1 with twin-blade, fixed pitch propeller and the ‘Standard’ Mk1 of the Battle of Britain period. The cockpits of all the aircraft are fully functional and we believe that these simulations will allow you to experience some of the excitement that the young pilots of the day experienced as they learned the art of aerial combat in the dark days of 1939.

INSTALLATION

Installation is handled by Steam after purchase of the product. After purchasing the product the files will be downloaded and installation into the Scenery Library will be automatic.

Accessing the aircraft

Go to FREE FLIGHT, look at the CURRENT AIRCRAFT box and press the CHANGE button. The Aircraft Manufacturer is Hawker. The Publisher is Just Flight Ltd, and the aircraft type is ‘Single Engine Prop’.

Ensure you tick the ‘Show all variations’ tick box at the bottom of the page.

Updates

Updates to the product will automatically be deployed, downloaded and installed via Steam to all users who own the product.

Technical Support

To obtain technical support (in English) please visit the Support pages at www.justflight.com. As a Just Flight customer you can obtain free technical support for any Just Flight or Just Trains product.

For support specifically on the Steam version of the add-on please contact Dovetail Games.

https://dovetailgames.kayako.com/

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INCLUDED AIRCRAFT

Prototype

Sydney, later Sir Sydney, Camm began work on a high speed monoplane fighter as early as 1933 the era of the bi-plane when aeroplanes such as the Bristol Bulldog and Hawker's Demon and Fury were the front line RAF fighters. The design of the Hurricane owes much to the Hawker Fury, in fact, and a close look at the Fury reveals visual clues to the classic shape and form of Camm's legendary later design.

At around the same time Rolls-Royce was developing a new V12 aero engine called the PV.12, later to become the Merlin.

Camm saw great potential for this engine in his new design and submitted it in response to an Air Ministry specification for a new monoplane fighter capable of speeds in excess of 265 MPH and able to carry six Browning machine guns. The specification, F5/35, was soon altered on seeing Camm's design, and armament was changed to eight guns in total.

A similar exercise was taking place at Supermarine for another legendary fighter, but that's another story!

Bristol, Fairey, Gloster, Martin-Baker and others all submitted designs, but Hawker was awarded the contract for a production prototype.

At the time of its roll-out, the Hurricane was a revolutionary aircraft for its day. The monoplane design consisted of an all-metal tube construction for the fuselage, covered in doped fabric. The cockpit area was built from marine grade plywood and nick-named 'the dog-house'. Forward of the cockpit, the airframe and engine bay were constructed of detachable alloy panels. The wings were covered in doped fabric for the outer panels (later versions had metal wings) in diagonal strips four feet wide. Early Hurricane wings are recognisable by this unique stitching. All the flying control surfaces were finished in doped fabric.

The undercarriage retracted inwards into large wells which also housed gas tanks and other equipment for the retraction mechanism. The legs were covered in alloy spats with folding tips, which were later discarded as they collected too much mud and dirt which was transferred to the wheel wells. The tailplane assembly had support struts which were also removed after tests later in the year. A simple castoring tail wheel was fitted at the rear of the fuselage.

The Merlin engine turned a large two-blade Watts-type propeller which had armoured leading edges to protect against chipping.

The entire airframe was finished in silver – the standard fighter scheme of the day.

Registered as K5083, the Hurricane Prototype first took to the air on November 6 1935 at the hands of Hawker chief test pilot Flt Lt P.W.S. ‘George’ Bulman, who was often to be seen flying in an old trilby hat!

The first flight took place at the famous Brooklands aerodrome and race circuit. The machine was later transferred to the Aircraft and Armament Experimental Establishment at Martlesham Heath where it would undergo extensive testing and evaluation.

Not much is known of the later history of K5083 other than its brief spells at Farnborough with the Royal Aircraft Establishment and back at Hawker. In January 1939 the airframe, with only 153 flying hours logged, became a ground instruction airframe with the serial number 1211M.

What happened to it after this is not known. It had obviously done its job, however, as by 1940 the Hurricane had become a household name.

The Prototype's 'first flight' scheme of natural metal engine panels and silver dope. Note the struts beneath the tailplane and the simple 'greenhouse' canopy.

Specifications

Wingspan: 40 ft

Wing Area: 258 sq ft

Length: 31 ft 5 in

Height: 12 ft 11½ in

Weight: 5,672 lbs (take-off)

Powerplant: Rolls-Royce Merlin C: 1,029 BHP @ 11,000 ft and 2,600 RPM, +6 lb boost.

Propeller: Watts-type wooden two-blade fixed pitch

Armament: None

Performance:

Maximum speed: 314 MPH @ 15,000 ft

Cruise speed: Maximum 265 MPH @ 15,000 ft

Climb speed: 2,680 ft/min. to 10,000 ft

Range: 335 miles

Service ceiling: 34,500 ft

Time to 30,000 ft: 18 minutes

Mk1 Early

The first production Hurricanes were delivered to 111 Squadron RAF in December 1937.

These early models were powered by the Rolls-Royce Merlin II, developing 1020hp and turning a fixed-pitch wooden two-blade Watts propeller. These airframes had no armour protection for the pilot, simple single-pane Perspex windscreens and a multiple frame canopy. Eight Browning machine guns were fitted in the wings and aligned to converge on a single fixed point ahead of the aircraft. This created a murderous concentration of fire and the stability of the aeroplane design made the Hurricane an excellent gun platform. Apart from armament, a simple ring and bead gunsight and camouflage, the early production machines differed little from the Prototype.

Early Hurricanes saw service in France with the British Expeditionary Force and defended forward airfields against attack from marauding German fighters and bombers. Many were destroyed on the ground by Stuka attack but large numbers evaded capture as France was overrun and, following valiant defence fighting over Dunkirk, returned to bases in the UK.

The Hurricane was to bear the brunt of early fighting in defence of England and would become one of the legends of the Battle of Britain.

111 - A machine from 111 Squadron, Northholt, Summer 1938. At this time there was much confusion over Air Ministry orders and specifications for camouflage and unit code schemes. The RAF was changing from an all-over silver grey finish for their fighters to a ‘standard’ camouflage scheme of dark green and dark earth-brown for the upper surfaces and a white/black ‘day-night’ scheme for the undersides. 111 Squadron aircraft initially retained the silver finish for the undersides except for night-day for the wing outer panels!

Also, the Squadron carried the number in white and red on the fuselage sides. Eventually more consistency was achieved by new rulings from the Air Ministry for all RAF fighter types.

JX-G - Number 1 Squadron Hurricane, based in Berry-au-Bac, France in May 1940 and flown by P/O Paul Richey. In another example of confused interpretation of the 'rules', L1697 had undersides in an (unknown) shade of light blue and , as was customary on some machines of the period, had the squadron codes overpainted.

FT-N - 43 Squadron Hurricane flown by F/O Patrick 'Tiger' Folkes who, on the 3rd February1940, along with others of his squadron, shot down a Heinkel bomber, the first enemy kill over British soil in WWII.

JX-H – Flying L1842, P/O Peter ‘Boy’ Mould of 1 Squadron shot down a Dornier Do17P on the 30th October 1939 to claim the first kill by a British pilot on French soil since 1918.

JX-H - Several foreign countries ordered Hurricanes early in the war. This machine was one of 20 delivered to the Yugoslav Air Force prior to that country being invaded and overrun by German forces. In fact Yugoslavia had made plans to build the Hurricane under licence but the invasion ended these plans, with no locally made airframes having been finished.

Specifications

Wingspan: 37 ft 8 in

Wing Area: 242 sq ft

Length: 29 ft 11 in

Height: 8 ft 2½ in (2.5m)

Weight: 6,363 lbs (take-off)

Powerplant: Rolls-Royce Merlin II: 990 BHP @ 12,000 feet. Maximum 1,050 @ 16,000 ft and 3,000 RPM, 7 lb boost.

Propeller: Watts-type two-blade wooden fixed pitch of 10 ft 8 in diameter. Weight: 83 lbs

Armament: Eight x Browning .303 calibre machine guns, four per wing.

Performance:

Maximum speed: 314 MPH @ 15,000 ft

Cruise speed: Maximum 285 MPH @ 15,000 ft (160 MPH for economy range)

Climb speed: 2,640ft/min to 10,000 ft

Range: 395 miles

Service ceiling: 35,400 ft

Time to 30,000 feet: 18 minutes 20 seconds

Hurricane Mk1A

After the evacuation of Dunkirk, many improvements were made to the Hurricane design. Not least of these was the fitting of a three-blade variable pitch, constant speed propeller.

Improvements were made to the Merlin power plant and greater protection for the pilot came in the form of armoured windscreens and heavy armour plating behind the seat.

The wings were now skinned in metal and improved radio equipment was installed in the fuselage.

The rugged design had proved itself again and again in the battle for France and it could take enormous punishment. This was mainly due to the fabric covering of the fuselage, which allowed high velocity cannon shells to pass through without inflicting damage on critical components. The eight Browning machine guns, built under licence by BSA, remained as the standard armament of the Hurricane Mk1.

Lacking the ‘cleaner’ look of the Spitfire cockpit, the Hurricane’s ‘office’ appeared cluttered and had no floor, with the result that the complex framework was exposed. This was simply a legacy of the Hawker’s bi-plane heritage, but curiously it never changed, even in later versions.

The Hurricane was to prove more than competent at destroying enemy bombers but lacked the performance and agility of the German fighters, especially at higher altitudes. Nonetheless, it was the Hurricane that was responsible for the lion's share of kills in the Battle of Britain.

GZ-L - A machine from 32 Squadron, Hawkinge, July 1940. This aircraft was flown by Flt Lt Peter Brothers, who became a leading ace in the Battle of Britain. 32 Squadron claimed 48 destroyed enemy aircraft during the Battle.

UP-W - R4118 flew 49 combat sorties during the Battle of Britain and the machine survived the war to become an instructional airframe in India. Rescued in the late 1990s, the veteran warrior was returned to England for restoration to flying status, and it flies today as an active tribute to the young pilots who flew this amazing machine in battle. Wing Commander Bob Foster DFC was one of UP-W's pilots during the Battle of Britain and was reunited with his aeroplane in 2005.

LE-D - This machine was flown by legendary ace Douglas Bader. Recognisable by its distinctive nose art, this Hurricane carried Bader into battle through the summer of 1940, when he led 242 Squadron. Bader was a strong supporter of the 'big wing' theory – the practice of vectoring large numbers of aircraft to single rendezvous points in order to outnumber the enemy – although it is debatable how effective this actually was. Nonetheless, Bader was to score 11 kills in his Hurricane.

KW-Z - Typical of a ‘standard’ Hurricane Mk1 of the Battle of Britain period, flown by P/O Looker of 615 Squadron. This machine was damaged in combat on the 18th August 1940 and, while bringing it safely back to Croydon, Looker was fired on by a friendly anti-aircraft unit! After the war this Hurricane was fully restored and placed in the Science Museum in London where it remains to this day.

YB-W - 17 Squadron Hurricane which flew out of Debden in July 1940, the mid-point of the Battle of Britain. This famous machine was flown by F/O H.A.C. Bird-Wilson. It is unusual in having its spinner painted in the ‘sky’ colour used on the undersides of RAF aircraft**.**

The Battle of Britain Memorial Flight currently has its Hurricane painted in P3878’s colours.

Specifications

Wingspan: 37 ft 8 in

Wing Area: 242 sq ft

Length: 29 ft 11 in

Height: 8 ft 2½ in (2.5m)

Weight: 6,532 lbs (take-off)

Powerplant: Rolls-Royce Merlin III: 1030 BHP @ 12,000 feet. Maximum 1,060 @ 16,000 ft and 3,000 RPM, 7 lb boost

Propeller: de Havilland or Rotol three-blade constant-speed metal of 10 ft 9 inches diameter

Armament: Eight Browning .303 calibre machine guns, four per wing

Performance:

Maximum speed: 316 MPH @ 17,500 ft

Cruise speed: Maximum 272 MPH @ 15,000 ft (160mph for economy range)

Climb speed: 2,530ft/min

Range: 575 miles (combat: 395 miles)

Service ceiling: 33,200 ft

Time to 15,000 ft: 6 minutes 25 seconds

GETTING TO KNOW THE HURRICANE

Simulator set-up

To enjoy this simulation to the full, we strongly recommend that you set up your host simulator in the following way:

Load up your desired aircraft, airport, time of day and so on in the usual way.

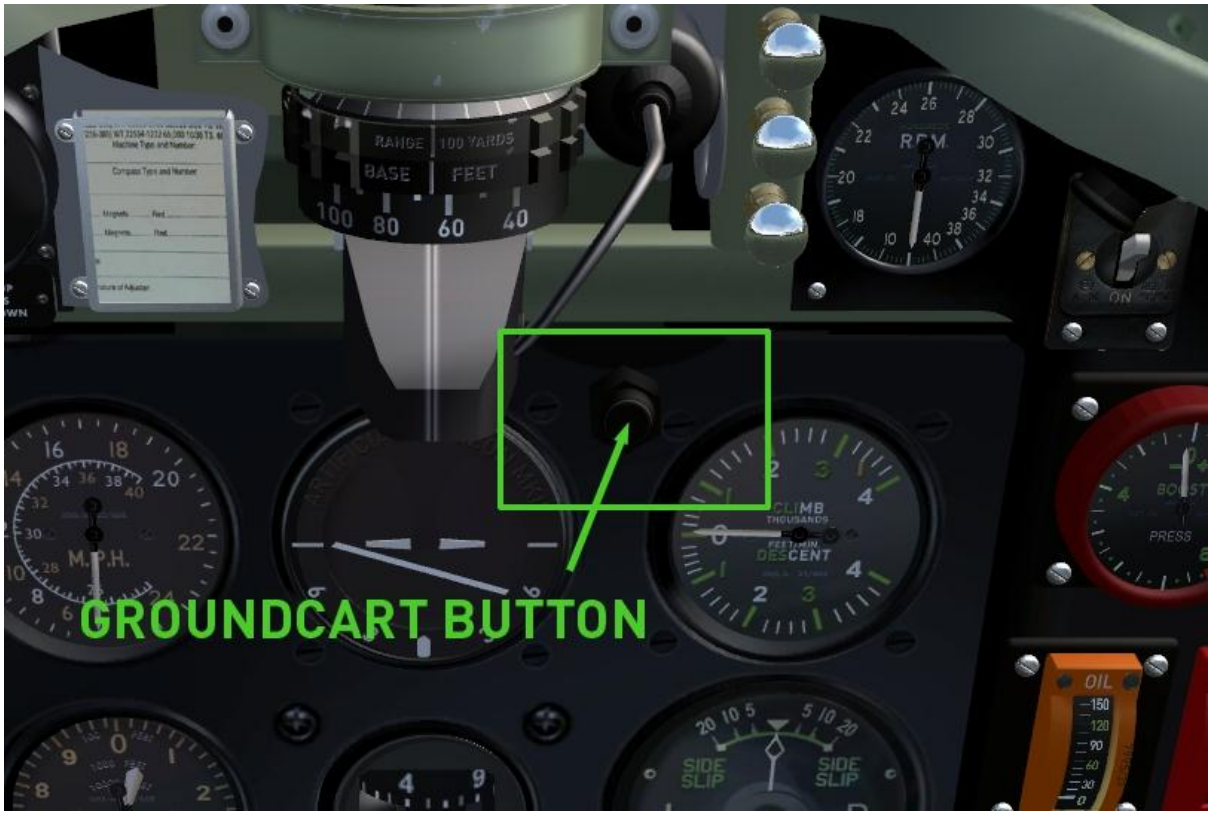
Using the Slew function (with the Y keystroke) position your aircraft on a concrete apron or grass area.

Enter the VC cockpit mode and turn everything off – battery, magnetos, fuel selectors etc. Also pull all levers such as prop, mixture and throttle to their zero limits.

You should now have what is called a ‘cold and dark’ cockpit.

Press the button to load in the battery start or ‘acc’ trolley. This was a trolley containing powerful starting batteries which was used to start all early Merlin-powered Hurricanes.

The button is actually disguised as one of the flying panel mounting studs.



Moving outside you will see the cart in place ready to start the engine. Press Shift-E+4 to open the engine cover and flip-down engine starting access panel.

In the outside view, press Shift-E, Shift-E+2 and Shift-E+3 and Shift-E+4. This will open the canopy, the engine access panels and cockpit door, inspection panel and gun hatch on the starboard side.

You are now ready to get acquainted with the aeroplane.

Walkaround

In Spot view rotate your view around the aeroplane slowly, from the front.

The unique design of the Hurricane is immediately apparent. Its sturdy stance comes from the substantial undercarriage track sitting beneath those thick wings. From this front view it is evident that the Hurricane means business and looks extremely stable.

From the other side of the aircraft you can see the big Merlin engine, fuel and glycol tanks.

Unlike the Spitfire, the aircraft has no side entry door, but it does have an emergency access door which can be used by the pilot. This forms the starboard cockpit sidewall.

The huge coolant radiator is visible and you can see how the oil cooler is mounted within the coolant matrix in one simple, tidy unit.

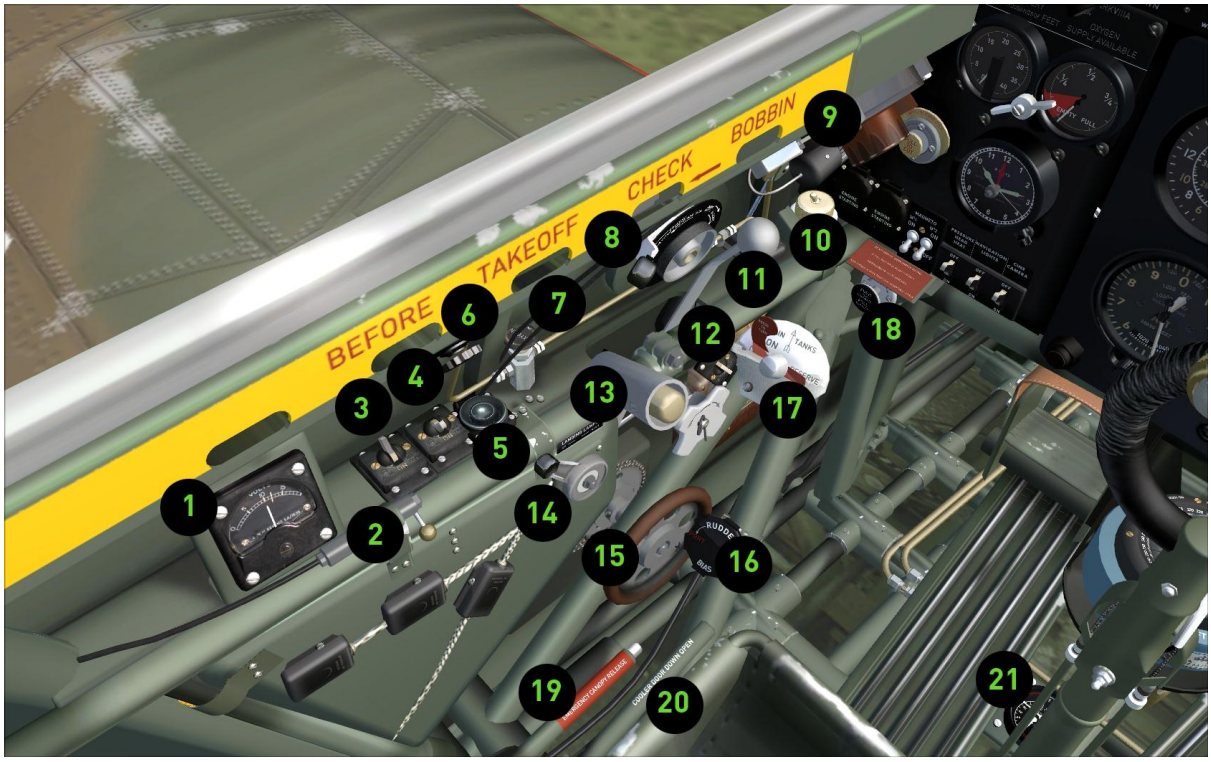
From the right, or starboard, side of the aeroplane you can see a fair amount of what makes a Hurricane tick. Access panels are provided for the maintenance of pumps and valves for the hydraulics, electrical systems and controls. In this shot, the pilot's access door has also been removed. The wings have removable hatches over each set of four Browning machine guns. Move closer to this area and you will see the ammunition feed chutes and the lethal .303 Browning shells.

These two images show the differences between the Hurricane Prototype and the 'Standard' Mk1.

Now, enter the cockpit and get acquainted with the controls of your Hurricane.

COCKPIT GUIDE

Left side



1. Voltmeter
2. Sutton Harness release (non-functional)
3. Voltage selector switch (non-functional)
4. Oil dilution button switch
5. Rudder trim wheel
6. Instrument panel light switch
7. Oxygen valve control
8. Propeller control (Mk1A only)
9. Radio control (visual function only)
10. Cockpit light switch
11. Mixture control
12. Remote contactor switch
13. Throttle
14. Landing light control

15. Elevator trim wheel

16. Rudder trim wheel

17. Tank selector

18. Supercharger control (visual function only - superchargers do not work correctly in FSX)

19. Emergency canopy ejection lever

20 Coolant radiator door control

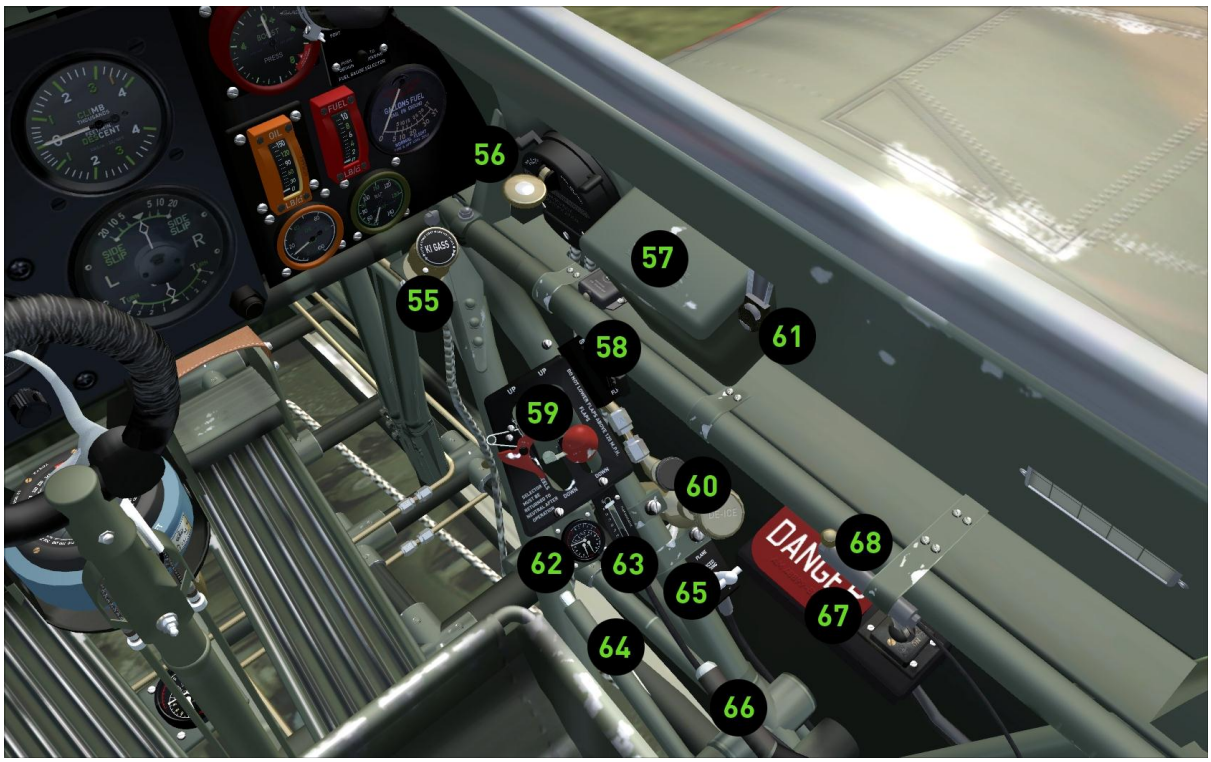
21. Brake pressure gauge

Main Panel

22. Boost coil pushbutton
23. Engine starter pushbutton
24. Emergency boost control (WEP)
25. Clock (Target trip time can be set using the centre knob)
26. Magneto switches
27. Navigation lights switch
28. Pitot heater switch
29. Landing lights switch
30. Gun firing button
31. Parking brake lever
32. Compass
33. Altimeter (set using the knob control)
34. Oxygen set control (visual function only)
35. ASI (Airspeed Indicator)
36. AHI (Artificial Horizon Indicator)
37. Gyro Direction Indicator (set using knob control)

38. VSI (Vertical Speed Indicator)
39. Turn and slip indicator
40. Switch to toggle ground starting cart on/off
41. Cockpit fresh air vent
42. Bulb change-over switches for gear indicator (non-functional)
43. Landing gear position indicator
44. Spare bulbs for gunsight
45. Tachometer
46. Gunsight reticle switch
47. Cockpit light
48. Engine boost gauge
49. Fuel tank gauge selector
50. Oil pressure gauge
51. Fuel pressure gauge
52. Tank contents gauge
53. Oil temperature gauge
54. Coolant temperature gauge
55. Ki-Gass engine primer

Right side



56. Morse button - this button can be used to signal Morse code with the recognition light on the underbelly of the aircraft)

57. Map case

58. Battery switch (ground to flight)

59. Landing gear and flaps operating lever (IMPORTANT – Refer to the section below on the proper operation of this equipment)

60. De-icing pump

61. Emergency pilot door release lever (pull out and turn to open; Shift-E+3 to return door to the closed position)

62 Stand-by brake/hydraulic pressure gauge

63. Flaps position indicator

64. Seat height adjuster (non functional)

65. Emergency signal flare release switch (non-functional)

66. Hydraulic pump handle (non-functional)

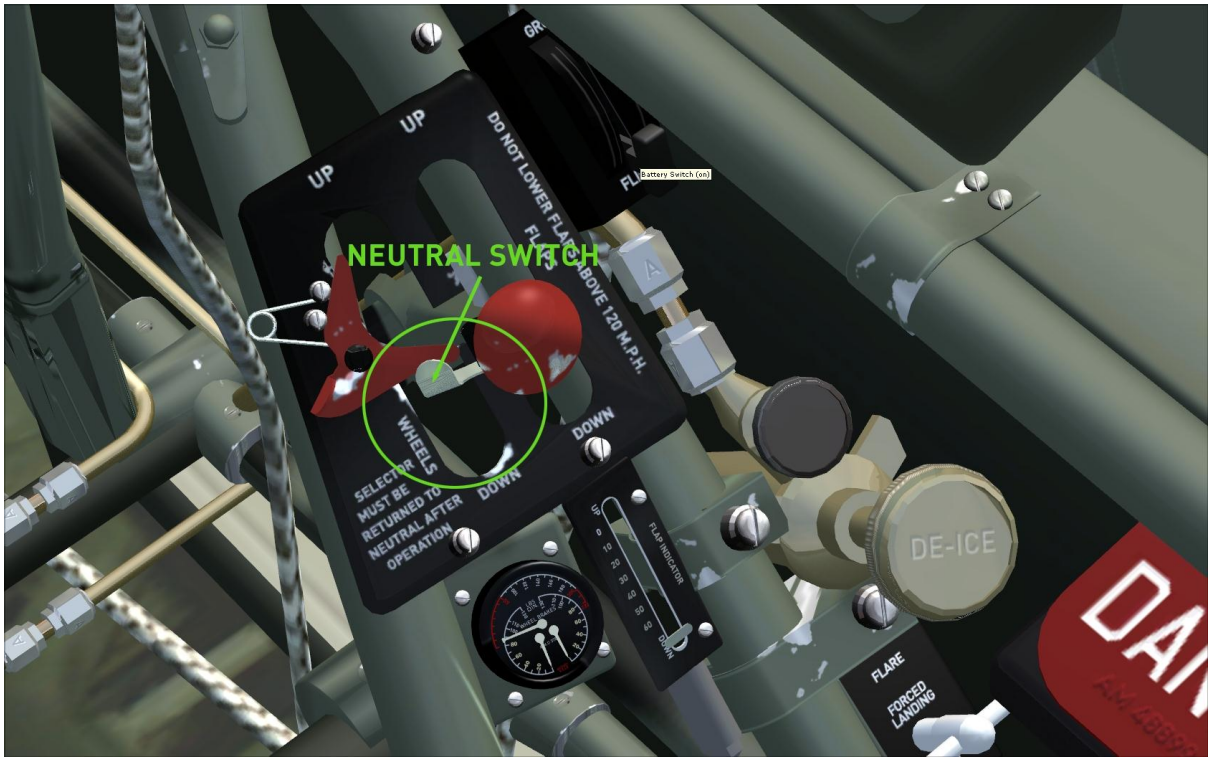
67. IFF (Identify Friend or Foe) equipment (visual function only)

68. Sutton Harness release (non-functional)

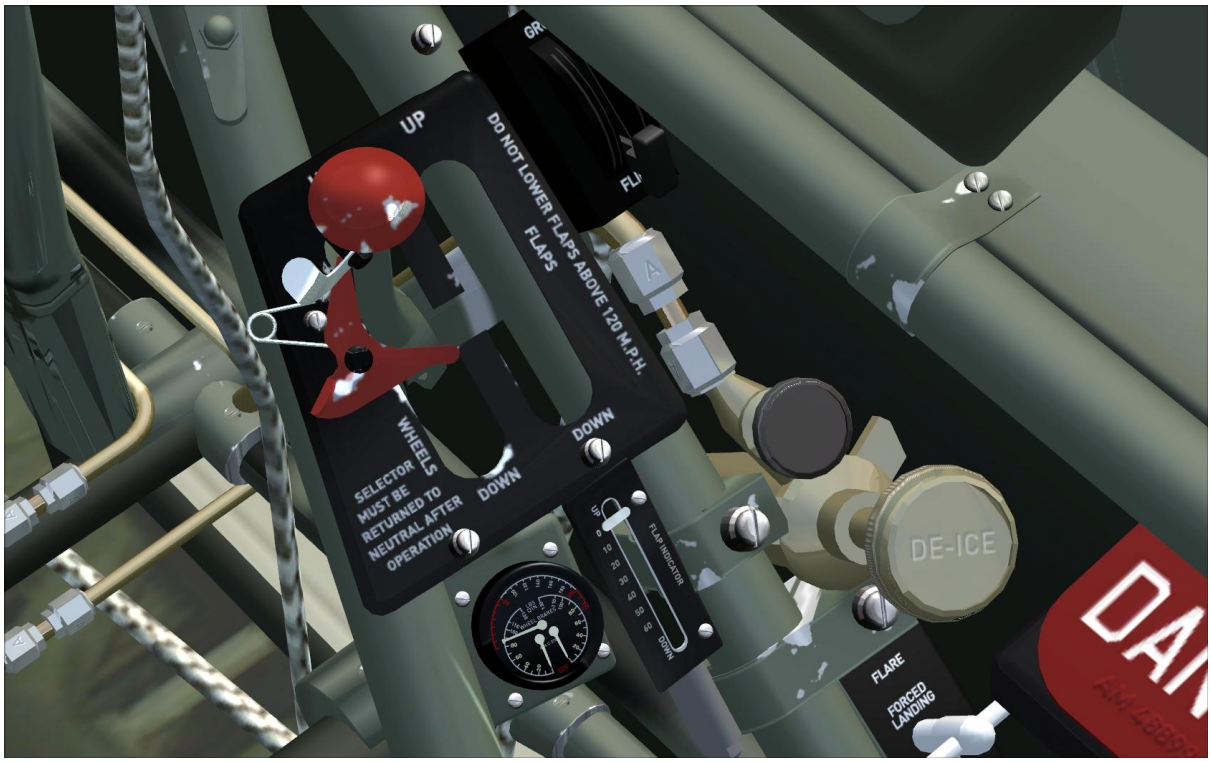
Landing gear and flaps control

The Just Flight Hurricane simulates the actual operation of the real-life combination flaps/gear lever. It is important for the pilot to understand the following for correct operation of this equipment.

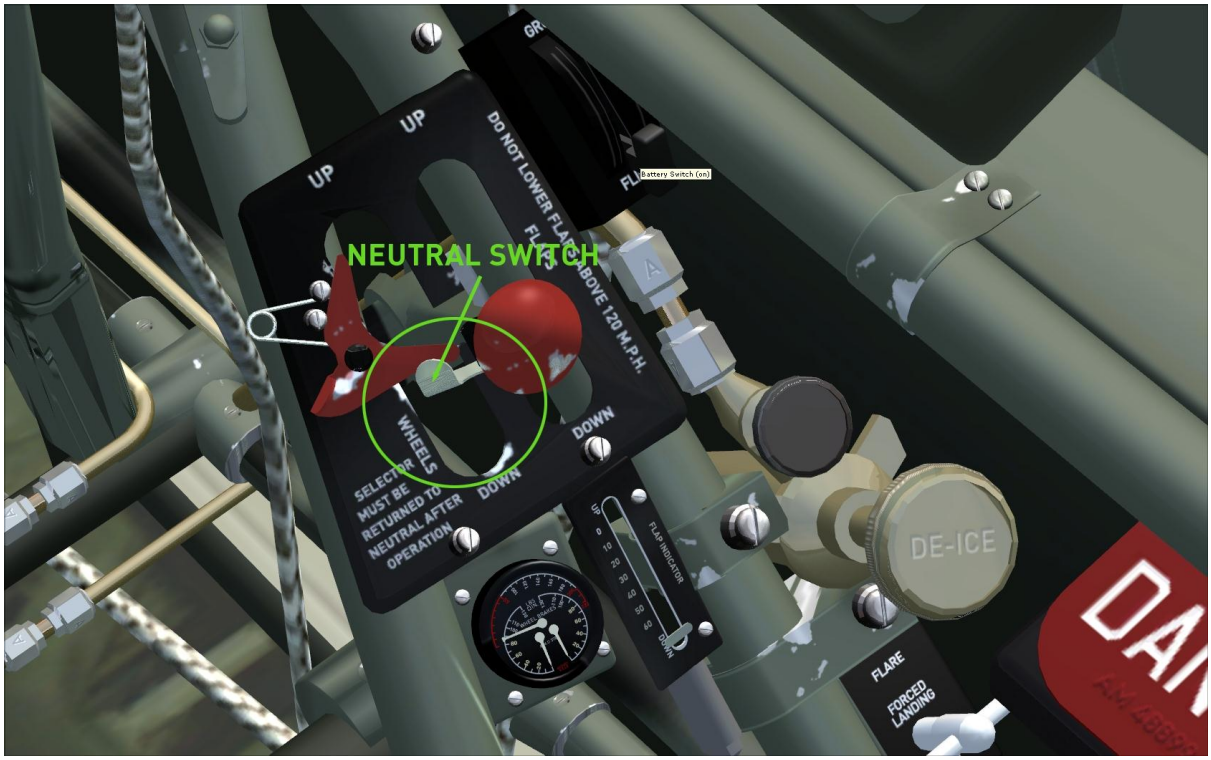
The dual purpose lever must be left in the NEUTRAL position at ALL times.



To activate LANDING GEAR MODE, click the lever with the LEFT mouse button. Then move up through the RED TRIGGER to raise the gear.



Click the trigger switch immediately below the red lever knob to return the lever to the neutral position.

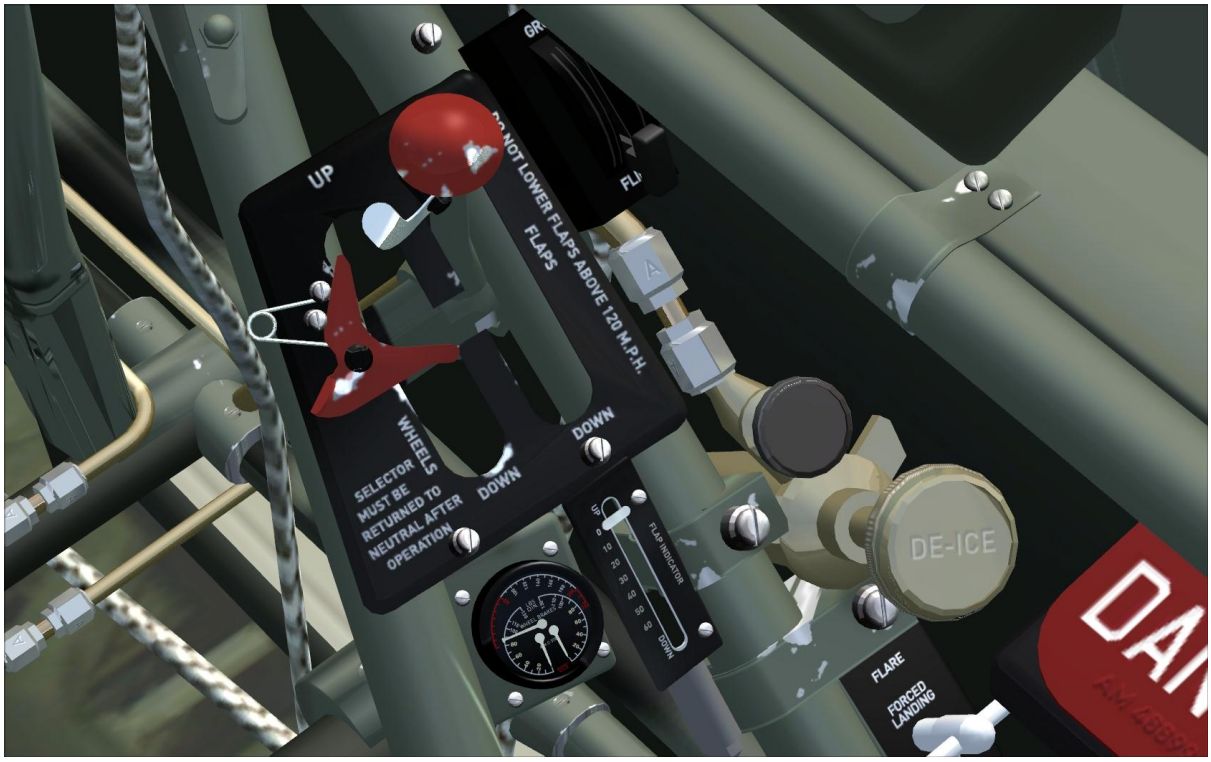


Repeat the above procedure to lower the gear.

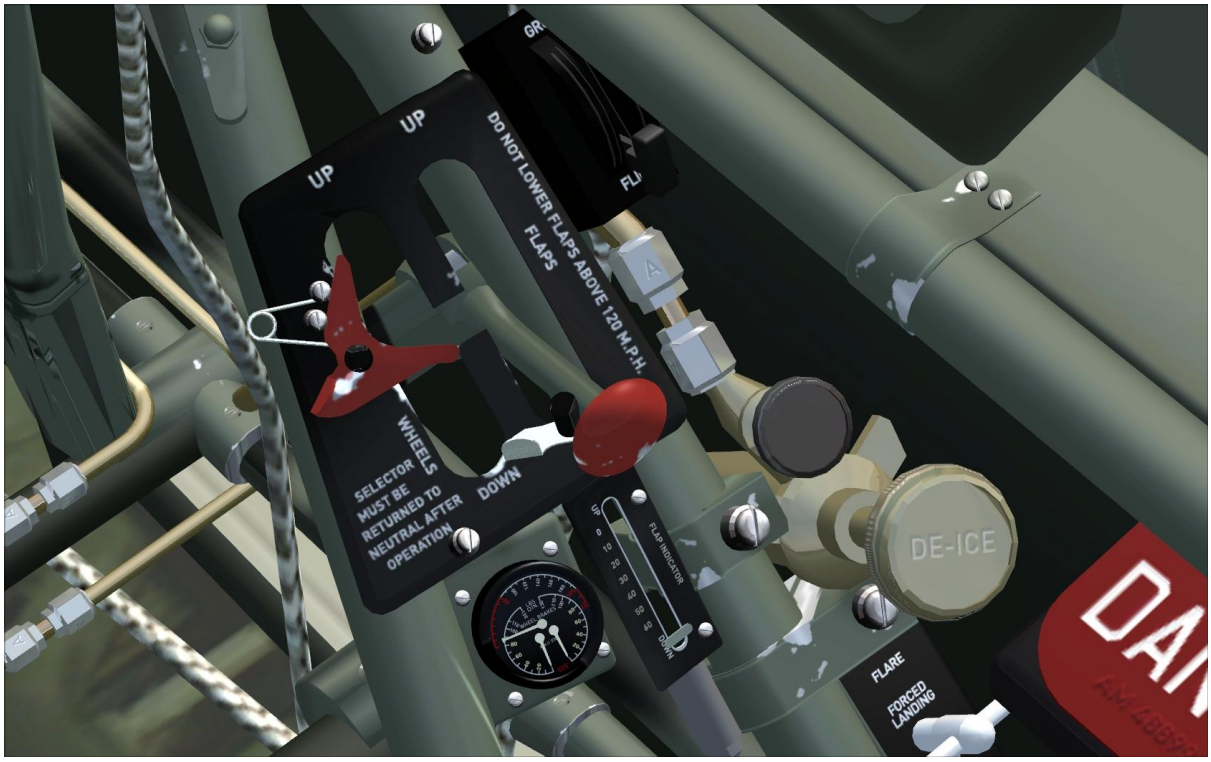
To activate FLAPS MODE click the lever with the RIGHT mouse button.

Then move the lever up or down in the gate to raise or lower the flaps. Watch the flaps position indicator to assess the position of flaps.

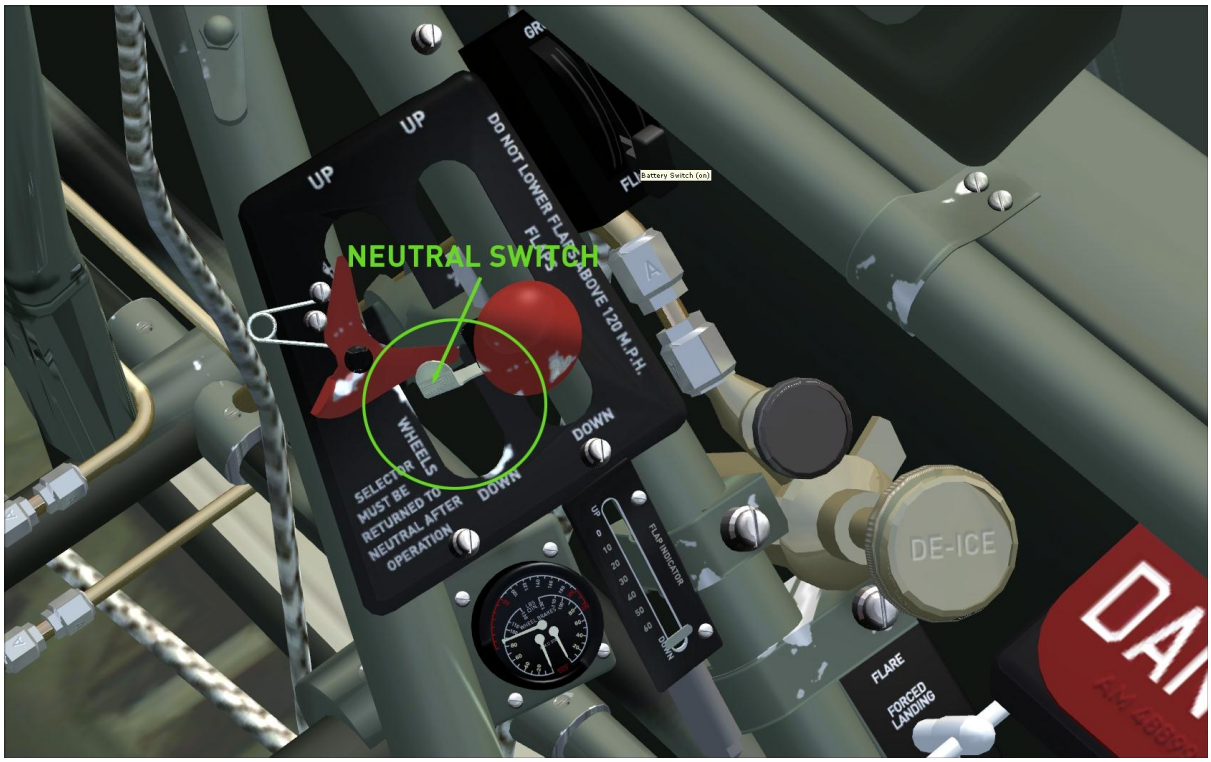
Flaps up



Flaps down



Click the trigger switch immediately below the red lever knob to return the lever to the neutral position.



Canopy

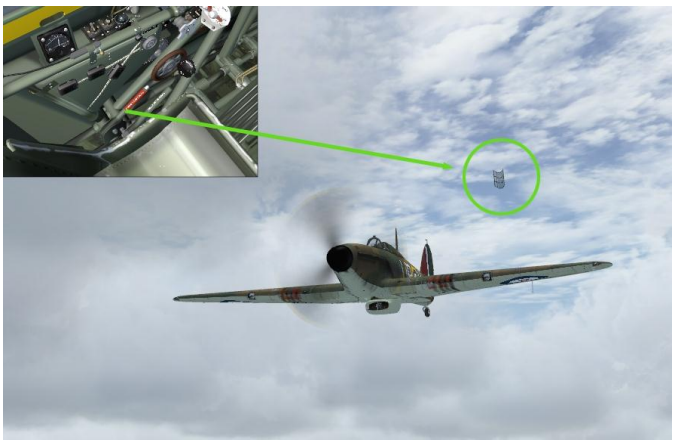
In the VC open the canopy by clicking on the handle(s). Close using Shift-E.

There is a pressure-equalising ‘push-out’ panel in the forward port side of the canopy.

Push the lever all the way forward and then click the Perspex panel to eject it.

The panel cannot be ‘pushed’ until the lever is fully forward.

This is a once-only function and the panel cannot be recovered until the flight is reset.



To jettison the canopy in flight, pull the red emergency jettison handle on the left side of the seat.

This is a once-only function and the canopy cannot be recovered until the flight is reset.

FLYING THE HURRICANE

Begin with a cold, dark cockpit (or just hit Ctrl-E and take off!)

Pre-start

Check that the undercarriage selector lever is in the neutral position, the indicator is showing ‘down’ and the indicator lights show green “’down’.

Check the fuel contents.

Test for free movement of flying controls.

Ensure parking brake is on.

Ensure the ground cart is in position and connected (use button on panel).

Battery switch to FLIGHT.

Radiator shutter – OPEN (lever fully down forward).

Starting

Fuel tank selector to ‘Main Tanks ON’.

Magnetos OFF.

Crack the throttle about half an inch.

Propeller control to FULL FORWARD FINE PITCH.

Mixture control back to FULL RICH.

If starting from cold, pump the primer 4-6 strokes.

Switch magnetos to ON.

Press the starter and boost switches simultaneously.

Once the engine starts, open up to 1,000 RPM and warm engine.

Warm-up and taxi

Check oil pressure, fuel pressure and temperature gauges for normal operation.

Check flaps operation. View indicator for confirmation of flaps down and then retract flaps.

Check brake/hydraulic pressure.

Open throttle to take-off setting (2,600 RPM) and check boost which should be +7/+8.

Throttle back and idle at 950-1,000 RPM.

Release parking brake and open throttle slowly to start moving. Use a weaving motion when taxiing to get a better view of where you are heading. Switch to ‘Approach’ view (cycle through the views using the A key until you are at ‘Approach’)

Pre-take-off

Parking brake set.

Elevator trim wheel at neutral.

Rudder trim wheel FULL RIGHT.

The Hurricane has a marked tendency to pull strongly to the left when the throttle is opened. This is due to the significant torque generated by the V12 engine. It can be lessened by using full right trim on the rudder tab. However, you will still need to ‘catch’ the aeroplane with right rudder as you accelerate down the runway. Practice, as always, makes perfect and after a few flights this technique will come naturally.

Propeller control to FINE PITCH.

Mixture control set at FULL RICH.

Flaps are UP.

Fuel pump OFF.

Canopy open.

Take-off

Release the brakes. (Opening the throttle with brakes on is dangerous as the Hurricane will tend to nose over, resulting in a ground loop.)

Open the throttle steadily to +7lb of boost.

As you accelerate apply right rudder to counteract swing.

The tail will lift first and at around 70-75 MPH a small amount of back pressure on the stick will see you airborne. Average take-off run for an Mk1A Hurricane is 265 yards.

Climb to 100 feet before retracting the undercarriage. ENSURE THE LEVER IS RETURNED TO THE NEUTRAL POSITION.

Keep to around +7/+8 lb of boost and climb to altitude at around 150 MPH.

Close the canopy.

Once at altitude, throttle back to around +5/+6 lb of boost and 2,600 RPM (balance throttle and propeller controls to achieve this).

Re-trim the controls for neutral handling.

BEWARE! The trimming controls in a Hurricane are very powerful and it is very easy to start ‘chasing the needles’ by overuse of the trimming controls. Adjust carefully and slowly to achieve the correct hands-off condition. NEVER trim the aeroplane using the VSI. Use the trim position gauge and AHI for visual reference but it is usual practice to align the horizon using those other important instruments – your eyes.

With full tanks and correct trim, the Hurricane Mk1A should have a range of approximately 400 miles, depending on engine RPM, throttle and mixture settings.

Remember! Lean off the mixture control as you gain altitude. One of the most common errors among novice flyers is to forget this. The result is poor engine performance or worse. Correct engine management is vital to successful operation of aircraft like the Hurricane.

Performance limitations

Maximum permissible dive speed

400 MPH (do not intentionally exceed for any lengthy period)

Stall Speeds

Undercarriage and flaps up: 80 MPH

Undercarriage and flaps down: 66 MPH

Do not extend flaps above 120 MPH indicated

Do not extend gear above 145 MPH indicated

At the start of a stall, flaps down or up, one wing will drop quite sharply. Recovery is normal.

Spinning

Recovery is standard (opposite rudder, stick forward). Ensure you have adequate altitude before spinning deliberately – at least 10,000 ft, and preferably 15,000 ft.

The Hurricane should recover before two complete turns are made.

Ensure IAS is above 150 before attempting dive recovery, to avoid another stall.

Aerobatics

The following minimum speeds should be observed if engaging in aerobatics:

Loop: Entry at 280 MPH

Roll: 220-250 MPH IAS

Half-roll off loop: 300 MPH

Climbing roll: 300 MPH

Approach and land

Reduce speed to 140 MPH and open the canopy.

Undercarriage DOWN, LEVER IN NEUTRAL.

Flaps DOWN, LEVER IN NEUTRAL.

Propeller set to give 2,600 RPM, go to FINE PITCH, MAX RPM on final.

Check brake pressures by squeezing the brake lever and check gauge.

Throttle back to reduce speed to 100 MPH.

On finals, reduce further to 95 MPH with flaps, 105 MPH without flaps.

Aim to reach the landing strip threshold at around 75 MPH.

The Hurricane's best landing speed is 70 MPH indicated.

Due to risk of ground looping, touch down and apply brakes CAREFULLY, once the tail wheel is firmly on the ground.

Shut down and park

Raise the flaps and return the lever to neutral.

Open up to 0 boost and then back to idle at around 900 RPM.

Close the throttle and pull the cut-off ring to shut down the engine.

Close the mixture control, propeller control and switch off all electrical switches.

Turn off the fuel cocks.

In cold climates below -10°C, press the oil dilution button for one minute.

Exit the aeroplane and make a visual check of the airframe and flying surfaces.

Basic controls and functions

VC hood handle or Shift-E – Open canopy

VC emergency handle – Jettison canopy

VC door latch or Shift-E+3 – Opens the pilot door

Shift-E+2 – Opens the engine side panel

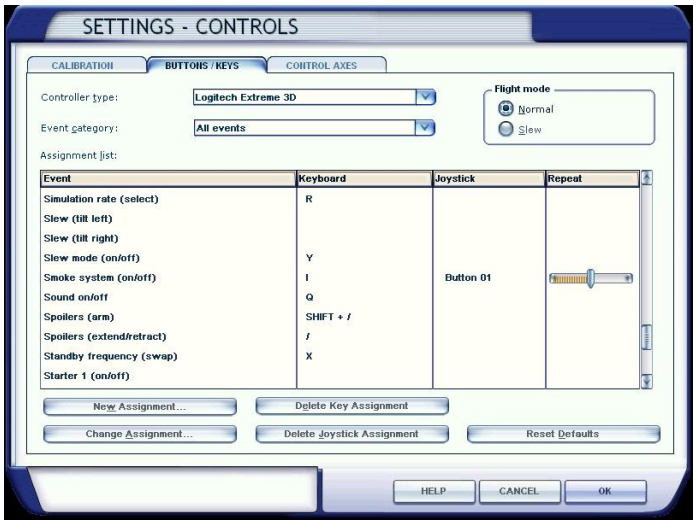
Shift-E+3 – Opens the engine cover and pilot door

Shift-2 – Brings up the radio panel

Shift-1 – Brings up a basic 2D 'flying panel'.

The views control, when cycled, will present various views of the aircraft from close quarters. The 'Approach' view is especially helpful for approach and landing when the long nose of the Hurricane impedes forward vision. It is highly recommended that you use this view when landing.

Guns - The guns on the Hurricane are all controlled by the 'Smoke system on/off' command in the list of FSX control assignments. By default this is assigned to the 'I' key on your keyboard, but we would suggest that you use the New Assignment button to also assign it to your joystick trigger and set the Repeat slider to the 50% setting.



CREDITS

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Design – Fink Creative
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Special thanks for Barry Bromley at Aeroplane Heaven for his untiring dedication beyond the call of duty!

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