

AEROPLANE HEAVEN

GRUMMAN F3F-2

OWNERS MANUAL





Congratulations on becoming an owner of a piece of Heaven*.

Installation

There are two ways to install your software.

1. Double-click on the self installing archive(s) and follow the prompts. The installers are thoroughly pre-tested and built specifically for Aeroplane Heaven installations. Just double click on the installers and they will place everything where it should go.
2. If you'd prefer to install the software manually, then unzip the 'Manual ZIPS' to a folder of your choice and distribute the folder contents yourself.

IF YOU ARE UNSURE OR NEW TO INSTALLING EXPANSIONS FOR YOUR SIMULATORS, WE STRONGLY RECOMMEND THAT YOU USE THE AUTO-INSTALLERS

GAUGES

For maximum reliability, we have designed the instrument panel to use Microsoft standard gauges. Your programme should already have these gauges installed. Just in case, we have included a set with the aeroplane. Test fly it first before installing any standard gauges. We have included a SPECIAL GUN COUNTER set which operate in the Virtual Cockpit mode. Just place these gauges in the GAUGES folder of your simulator.

If you do need some or all of the gauges just unpack and drop the gauges into you GAUGES folder in your simulator folder.

* aeroplaneheaven.com



Originally constructed in 1934, the Grumman XF3F-1 prototype was powered by a Pratt & Whitney R-1535 engine in more refined form. The production F3F-1 proved to be a manoeuvrable, fast and deceptively (for its bulky looks) fast machine. With a takeoff run of less than 200 feet, the aeroplane was the ideal response to the original brief for a carrier-based fighter.

In 1936, the XF3F-2 took to the air with a new Wright Cyclone powerplant, a top speed of 255 mph and a service ceiling of 33,800 feet. The US Navy ordered 81 Grumman F3F-2 s in 1937.

Development problems in the design programme for the new monoplane fighters led to an 'extension' of the useful career of the F3F and the production of the F3F-3 version for 1938.

Pilots enjoyed their 'flying barrels' immensely reporting them as a 'joy to fly' being fast, immensely strong and agile performers. Snap rolls, tight turns and loops were carried out with ease and the aeroplane could be put down in a perfect three pointer at varying speeds and weight configurations. The tough little Grummans became the mainstay fighters in all front-line squadrons of the US NAVY and MARINE CORPS throughout 1939 and on to the early days of the Second World War. Many design features such as the complex action retracting undercarriage and 'tubby' fuselage would find their way into the new breed of ship borne fighters, the legendary F4F Wildcats and F6F Hellcats.

A total of 140 F2Fs and F3Fs were still on squadron strength at the outbreak of hostilities and the rugged little fighters remained in service as trainers, until as late as 1943.

The Models

The version modelled in this Aeroplane Heaven release is based on the F3F-2 with the more powerful Wright Cyclone engine. Included in the pack are seven different paint schemes. These include schemes for the Fighting Squadrons based on the US Carriers: ENTERPRISE, RANGER, LEXINGTON, YORKTOWN and WASP. Also, there are schemes for two US MARINES aeroplanes and a TRAINER scheme employed in 1941. The colourful pre-war markings denoted the squadron, section and home carrier "call-signs" which were later dropped in favour of the ubiquitous Olive Drab/Grey schemes used during wartime.

The models are fully detailed with a large amount of animations and special effects. The big Wright Cyclone engines are modelled in 3D right down to pushrods and valve gear and even the sparkplugs are all there! You'll see exhaust flame effects at the stubby exhaust pipes and there's a smoke effect for aerobatic displays in FS2002!

All control surfaces operate as original and the complex, hand-operated undercarriage retracts and extends just as the original. Under the sliding canopy is a fully detailed 3D Virtual Cockpit with all the working knobs, switches and controls you would find in the real thing including the hand operated undercarriage crank. In FS2002, smaller items such as pipes and valves are modelled in reflective brass and metal textures to lend a really authentic feel to the 'office'.

A full complement of instruments will be found on the accurately rendered panels and there are several configurations available to suit your flying needs. A special 'flying panel' has been designed which removes a lot of the clutter of stays and wires present in the real thing and makes the view forward and to the sides much clearer for takeoffs and landings. You can switch back to the 'standard' panel for normal flight. In FS2002, you can have a 'modern' panel complete with radio equipment and the latest navigation aids as fitted to some replicas and restored F3Fs. This turns the tubby little fighter into a practical passage maker that's a little different! In FS2002 the full benefits of reflective and gloss paint textures are realised and this bird is delightful to just watch on a cloudy day.

In CFS2, you also get a 'fighting panel', which lowers the height of the instrument panel to accommodate the stock gunsight and provides a clearer view forward for combat.

Flying the F3F is a dream. She's stable and great fun in aerobatics (don't forget to use the 'I' key in FS2002 for the smoke trail) , has a short takeoff run for small fields and carrier ops and is easy to land, providing you stay above stall speed and don't forget to drop the tailhook!

Even with the simulator's settings on "Hard" the aeroplane is well behaved and handles beautifully in a dogfight. The big Cyclone can be throttled back in level flight for some leisurely cost effective cruising and she's no slouch on the run home.

Whether your taste is cruising around a pre-war Pearl Harbour in FS2002 or dusting it up with some early opposition fighters on a carrier mission in CFS2, the Aeroplane Heaven Grumman F3F is guaranteed to delight.

1.



2.



3.



4.



5.



6.



7.



THE DIFFERENT PAINT SCHEMES

You'll be able to fly the Grumman F3F-2 in a number of different guises. Infact, seven in all! These schemes are:

- 1) Fighting Unit 5 aboard the USNC "YORKTOWN"
- 2) TRAINING livery of 1941
- 3) Fighting Unit 6 aboard the USNC "ENTERPRISE"
- 4) Fighting Unit 4 aboard the USNC "LEXINGTON"
- 5) Fighting Unit 4 US MARINES (version1)
- 6) Fighting Unit 4 USNC "RANGER"
- 7) Fighting Unit 6 aboard the USNC "WASP"

AEROPLANE HEAVEN





Grumman F3F-2 Operations Manual

The purpose of this manual is to assist you in extracting the maximum satisfaction from owning and flying the F3F-2 .

This aeroplane is a delight to fly. If you set your simulator controls for maximum realism, you will enjoy the self-same experience that real pre-war pilots had.

All simulator controls work as per normal including autostart for the engines. You can, of course, go right ahead and use your own settings and controller assignments.

However, should you wish to start the aeroplane manually, we've included a short checklist which may be of assistance.

If you are flying in FS2002, of course weapons are denied you but you can revel in the F3F's sporty performance and ability as a fast passage maker. The reflective surfaces of the airframe respond best in cloudy or late-day/sunset conditions and the sight of the F3F-2 at speed over Pearl Harbour is sheer joy!

Each version is fitted with a full lighting set for night work and the 3D Virtual Cockpit is also lit. Specially designed exhaust 'flames' add to the excitement at night.

F3F Specification

Crew:	1 (pilot)
Engine :	R-1820-39: 930 hp (693 kW) 9 cylinder, air-cooled, radial displacement: 1,820 cu. in.
WingSpan:	32 ft
Length:	23 ft
Weight:	3254/4403 LB
Internal fuel:	130 gal
Range:	1150 st MI
Max. Speed	264 mph at 15,200 ft
Armament	1 X 30 CAL and 1 X 50 CAL machine guns





Flying the Grumman F3F-2

To start up simply use the simulator shortcut keystrokes or if you prefer a manual start follow this checklist:

- 1) Parkbrakes on.
- 2) Switch fuel selector to right.
- 3) Master switch on.
- 4) Mixture lever to idle (about half way on the quadrant).
- 5) Crack the throttle about an inch.
- 6) Switch magnetos to full on position.
- 7) Depress and hold start switch
- 8) As engine catches, push mixture through to max (top of quadrant).
- 10) Allow warm up.
- 11) Check prop speed full in on control panel.

1-3



PARKBRAKE ON FUEL SELECTOR TO 'RIGHT MASTER SWITCH ON

4-6



IDLE MIXTURE AND THROTTLE CRACKED MAGNETOS FULL ON



MIXTURE TO FULL RICH

PUSH AND HOLD STARTER

7-11



CHECK CONTROLS



Whilst warming the engine take a visual check around the aeroplane. Check all controls visually. (Watch the pilot!)

After a minute or so, increase throttle steadily and release park brakes. Taxi out to the strip.

This is a taildragger with rear wheel steering. The tailwheel is connected to the rudders so you can steer using rudder control or for tight spots, use left/right braking in conjunction with rudders. Watch your throttle!

THIS IS A VERY POWERFUL AEROPLANE!

She will take off on three quarter throttle settings, with a longer run. This is visually more realistic. Do not, however, try this on a carrier! ON CARRIERS USE FULL POWER- she will lift off well in time.

As speed increases and the tail lifts, wait a second or two before applying back pressure on the stick. Do not yank the stick back as the aeroplane is quite agile and will stall all too easily. Just a gentle, level lift off is what you should aim for. Raise the gear and allow speed to build a little before climbing out. Ease the throttle back to cruise and conserve fuel.





PANEL CONFIGURATIONS

FS2002 pilots can take advantage of an alternative 'Modern' panel setup. You'll find this panel inside a folder marked "Modpanel" in the PANEL folder of the AH_GrummanF3F folder. Rename the existing panel folder something like PANEL_OLD and the Modpanel folder to PANEL. Now, when you start up the simulator and select the Grumman, you'll have a modern day panel with navigational instruments and aradio/comms set.

You can call up the radio stack in the views menu for easier setting.



MODERN MASTER PANEL

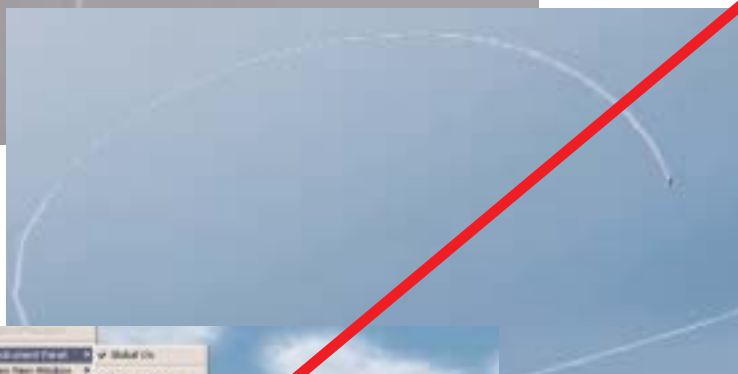
Modern Panel with Radio Stack open



Flying Panel with radio stack open



DO NOT TRY THIS BELOW 500 ft!



REMEMBER TO DROP THE HOOK!

She's aerobatic but take your time and make sure you have plenty of room! In FS2002 you can use the smoke trail effect for some skywriting or a stunning airshow display.

Keep approach speeds just above the mid 80's and cut throttle at the last moment. Remember, THERE ARE NO FLAPS!

For a better all round view switch to the special "Flying Panel" in the view menu. Remember to un-check the main panel, otherwise you won't remove the struts etc. Switch to this panel for a clearer view of the airstrip or carrier deck, or when in combat. It will reveal the stock gunsight more clearly.

Follow the instructions of your 'LSO' on deck and remember to lower the undercarriage and tailhook!

You will find the F3F very rewarding to fly and the special missions pack for CFS2 challenging!

PLEASE READ THE DOCUMENTATION WITH THE MISSIONS PACK. IT INCLUDES VITAL INFORMATION ON WHERE TO DOWNLOAD THE VARIOUS NON-STOCK SHIPS AND AIRCRAFT USED IN THE MISSIONS. (JAPANESE AND U.S.) These models are freely available and are beautifully made by various talented designers. We ask that you respect the conditions of download and any copyright imposed by these designers.

