

Ant's Airplanes Tiger Moth

de Havilland's beautiful trainer

I've always admired the sleek and elegant lines of the de Havilland DH.82 Tiger Moth. In fact, a few years ago, my lovely wife bought me a flight in a Tiger Moth as a birthday present, which took place at Duxford Airfield, Cambridge, in the UK. The flight itself was an exhilarating and unforgettable experience. The Tiger Moth is comparatively slow but majestic in flight. To be honest, flight in a vintage aircraft, such as the Tiger Moth should not be rushed but rather savoured, like a fine wine.



This is a beautiful rendition of the de Havilland DH.82 Tiger Moth and is a true labour of love from Ant's Airplanes. Key Publishing

The de Havilland DH.82 Tiger Moth first flew on October 26, 1931, and was essentially designed as a military trainer, the role for which it was successfully used by the RAF. However, it was also a commercial success in the GA private sector and there are around 650 airworthy Tiger Moths still in existence today.

So, to the subject of this review: Ant's Airplanes' Tiger Moth, which, incidentally, was the first ever aircraft ever produced by this developer. In 2019, Ant's Tiger Moth was rebuilt for FSX and Prepar3D and then this year the aircraft was converted for use in Microsoft Flight Simulator (MFS) with extra detail added to take full advantage of the new features and capabilities of the new platform.



When it comes to rolling, the Moth is relatively slow in that axis and so this is more challenging to do well. Key Publishing

A little background

The developer of this excellent rendition of the de Havilland Tiger Moth is Anthony Lynch of Ant's Airplanes. Based in northern New South Wales, Australia, Anthony began developing for FS2004 in 2006, starting with scenery and then transferred to FSX a couple of years later. He made his first aircraft, the freeware Tiger Moth, in 2010.

Explaining why he chose to model this particular aircraft, Anthony said: "I had foolishly thought that the Tiger Moth, being such a simple aircraft, would be easy to model. Little did I realise that having all the wiring and controls on the exterior of the aircraft and being a biplane actually made it quite complex. As this is the first aircraft I made for flight simulators, it has remained a favourite for that reason."

When asked to describe the essential differences between this and the previous versions of his Tiger Moth, Anthony said: "The model has had extra geometry added to smooth it out including new pilot head models. The main textures have been upscaled from 2K to 4K. In general, much of the work involved redoing all of the coding to use the new Microsoft Flight Simulator systems."



The Tiger Moth is comparatively slow but majestic in flight. Key Publishing

Overview of the main features

Before getting into the finer details of this simulation, I thought it would be helpful to give an overview of its main features. Right off the bat, I must say that this release presents you with an authentic rendition of the Tiger Moth, both in terms of its 3D modelling and flight characteristics. When it comes to engine realism, you have two options to select from: 'Easy' and 'Hard'. In 'Hard' mode, low oil levels can lead to engine failure, sparkplug fouling is simulated and the engine must be properly primed before starting. In addition, a full manual engine start procedure, including engine priming and propeller pull, is provided but autostart is also supported. A GPS is also included, the default Garmin Aera GPS, which is available as a pop-up and can be placed at various positions within the cockpit.

A nice touch is the inclusion of a 'user-interface' provided on an innovative pop-up tablet, which provides access to a variety of user preferences, including autopilot and radios if required. A page for the manual engine start-up procedure is also included on the tablet and makes it easy to see the current state of the aircraft. Another notable feature of the tablet, using the preferences page, is that you can set fuel and oil levels to remain persistent. This means the Tiger Moth will save the fuel and oil levels from the previous flight and reload them in the next one.

Other additional features include removable engine cowlings and propeller, optional tail skid or tail wheel, 10 different liveries and a paint kit to create your own liveries. The package also comes with a superb, illustrated PDF 'Pilot's Handbook' which covers every aspect of this package, from installation and a full cockpit description to engine start-up and flying notes.



The take-off procedure is straightforward; the only thing to watch is the propeller torque pulling the nose to the right. Key Publishing

Visual rendition – the cockpit

I have to say that this is a beautiful rendition of the de Havilland DH.82 Tiger Moth and is a true labour of love from Ant's Airplanes which does the aircraft full justice. This applies to both the cockpit and exterior portrayal. So, let's start with the cockpit which is authentically reproduced. The Tiger Moth's wooden instrument panel is faithfully rendered with varnished wood grain. The Tiger Moth's panel does not include many instruments but the ones that it has have all been faithfully reproduced. Each has a 3D appearance, and the instrument dials themselves are pin-sharp and the glass covering of each one exhibits a reflective quality.

The instruments comprise the following: airspeed indicator, altimeter, turn and slip indicator, rev counter, oil pressure gauge, rate of climb and descent indicator. Finally, the panel is dominated by the large magnetic compass, situated in the lower middle. There are also several exquisite brass placards located around the panel with various bits of perfectly readable information on them. For example, one contains the stall, climb and cruise speeds of the Tiger Moth. Two additional features are worthy of note. Clicking on the airspeed indicator gauge will switch between three different gauges, with two in knots and one in mph. Similarly, clicking on the altimeter will switch between an original Mk XIII height gauge and two versions (one showing the Kohlsman dial in mb and the other inHg) of the more modern Mk XIV altimeter.

Turning our attention to the port side of the cockpit, we have the throttle and mixture controls, the fuel cut-off lever and the distinctive triangular trim lever. Located on the starboard side is a lever that locks and unlocks the wing leading-edge slats. Interaction with the controls can be done using the mouse or by binding the controls to your external controllers.



The Tiger Moth's wooden instrument panel is faithfully rendered with varnished wood grain and the dials have a 3D appearance. Note the iPad on the left. Key Publishing

Visual rendition – the external 3D model

The external 3D model matches the high level of detailing found in the cockpit. The developer has faithfully captured the lines and complex curves of the real thing. Attention to detail is probably an over-used phrase but is fully justified in this instance. In fact, taking advantage of the new technology in MFS, the developer has been able to produce a photo-realistic 3D model of the Tiger Moth.

Start-up procedure

Ant's Tiger Moth can be started in several ways depending on how realistic an experience you prefer. The first is the autostart procedure (which users of MFS will be familiar with), the second is referred to as the 'Easy engine realism' and the third is the 'Hard engine mode'. The 'Easy' and 'Hard' modes can be selected via the Tablet and toggling the engine realism option. In 'Easy' mode, the carburettor, engine primer levels and throttle setting are disregarded, while in 'Hard mode' the carburettor and engine primer levels, throttle and magnetos need to be set correctly for the engine to start. However, in 'Hard' mode the engine start-up procedure is relatively straightforward, comprising: 1) priming the carburettor with fuel, 2) manually pulling the prop through to get fuel into the engine cylinders, and 3) turning on the magnetos, setting the throttle and then pulling the prop to start the engine.

These procedures can be achieved in one of three ways: using the MFS key commands; changing the camera view and operating the primer and propeller or using the Tablet to operate the primer, propeller, magnetos and fuel cut-off switches.



The Tiger Moth fairly easy to trim for level flight. Key Publishing

Flying the Tiger Moth

Ant's Tiger Moth faithfully replicates the flying characteristics of its real-world counterpart. Like the real thing, it's easy to fly but difficult to master, but that makes the experience that much more satisfying when you do manage to fly it well, particularly when executing coordinated turns and three-point landings. Ultimately, the Tiger Moth is a joy to fly.

While on the ground, quite a bit of power is required initially to get the Tiger Moth moving. Taxiing is assisted by bursts of throttle and a judicious use of rudder. Being a taildragger, it's necessary to continually weave from left to right in order to see ahead. The take-off procedure is straightforward; the only thing to watch is the propeller torque pulling the nose to the right, which is easily corrected with left rudder. Once under way, push the stick gently forward to raise the tail, which in turn will improve your forward view. Acceleration is swift, so the aircraft becomes airborne fairly quickly.



Acceleration on take-off is swift, so the aircraft becomes airborne fairly quickly. Key Publishing

In-flight experience

Once in the air, I found the aircraft fairly easy to trim for level flight. However, the Tiger Moth is easily affected by turbulence, and this is faithfully modelled in the simulation. In terms of manoeuvres, loops, spins and sideslips are relatively easy to execute but when it comes to rolling, the Moth is relatively slow in that axis and so this is more challenging to do well. In fact, to fly it well, the Tiger Moth demands good hand, eye and feet coordination.

Landing the Tiger Moth

As with any other aircraft, a good landing in the Tiger Moth is dependent on your approach. As you near the ground, you should hold the stick back and keep the wings level. Once over the runway threshold, fully retard the throttle. Use your peripheral vision to keep the aircraft going straight down the runway. As you get closer to the ground, keep holding the aircraft off using progressive back pressure on the stick, while judging your height above the ground. If done correctly, you should achieve a three-point landing. By the way, this simulation allows you to select either tail skid or tail wheel.



I was fortunate to have a flight in a real Tiger Moth at Duxford Airfield, Cambridge, in the UK, which is pictured in this shot. Key Publishing

Conclusion

As previously mentioned, this is a beautiful rendition of the Tiger Moth and a true labour of love from Ant's Airplanes. It is packed with authentic and high-fidelity features. As borne out from Ant's high-fidelity flight model, the Tiger Moth is easy to fly but difficult to master.

At first glance, this may seem like a simple aircraft, but the developer has incorporated so much care and attention into this package that what you have is the closest you'll probably get to experiencing what it's like to fly the iconic Tiger Moth, bar flying the real aircraft. Very highly recommended.

By Derek 'Baron' Davis

PC Pilot Verdict

At a glance: A beautiful rendition of an iconic aircraft, a wonderful flying experience and the closest you'll probably get to experiencing what it's like to fly a Tiger Moth, bar flying the real thing!

Publisher and Developer: Ant's Airplanes

Website: www.antsairplanes.com

Distributors: Ant's Airplanes, simMarket and Just Flight

Prices: \$17.95 USD, \$24.95 AUD, €16.80, £14.993D

Modelling: Excellent

Graphics: Excellent

Documentation: Excellent

Performance: Excellent

PC Pilot Score: 95%

