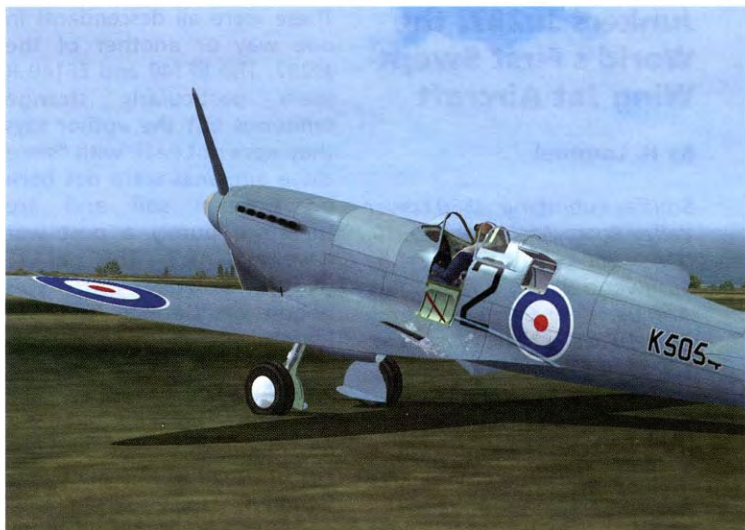# Spitfire

Add-on for *FS2004/FS2002/CFS3/CFS2*

Billed as a definite Spitfire expansion for Microsoft's Flight Simulator series, *Spitfire* from Just Flight is an officially licensed expansion pack that adds no fewer than 14 Marks (many with multiple paint schemes) of this iconic British fighter to your hard drive. Enthusiasts of this legend will be pleased to note that it includes the prototype K5054, right up to the Mk22, passing through all the major marks, with only the Seafire variants and Marks VIII and XVI seemingly left out. Six variants also will work in Combat Flight Simulator 3, while one is also CFS2 compatible. Each cockpit, both 2D and virtual, is different, showing the development of the Spitfire's office from no armour and ring-and-bead gunsight in the earliest MkI to the bubble canopy and gyro gunsight of later models. However, to the reviewer's mind, the 2D panels look a trifle unreal and some of the 3D pits are definitely not up to the standard found in *IL-2*

Forgotten Battles/Pacific Fighters. A similar story is evident in the different paint schemes. Some, like the prototype and BBMF Spitfires look wonderfully crisp and with a gorgeous sheen on them. Others, however, look less polished and rough, which no amount of fiddling with the settings can improve.

Flight models seem extremely realistic within the limits of the FS engine and, although the MkI's engine does not cut out under negative 'g', the flight modelling demonstrates the progression from the delightful handling of the early marks to the brute power of the Griffon-engined variants where take-off requires a bootful of rudder and some steady nerves. Whether the flight model is up to the standards of RealAir's Spitfire XIV (which has been receiving rave reviews) is a moot point, it certainly catches the impression that many real pilots have of the Spitfire's development as a combat aircraft.

Two other features round-out

the product — period scenery of RAF Duxford to fly circuits round, and an informative interactive guide to flying the Spitfire which complements the excellent manual in the style of official *Pilot's Notes*.

All in all this is a worthwhile add-on for the warbird virtual pilot and, while the quality is slightly variable, the quantity more than makes up for it.

Tim Robinson

System Requirements
Microsoft *FS2004/FS2002* or *CFS3/2*
Windows® XP/2000/Me/98
Processor — 1.4Ghz+
512Mb RAM
1.5Gb of Hard Drive
Video card — 64Mb minimum
DirectX® 8.1 compatible graphics card required
Just Flight £29.99 out now

ProTrainer

'Professional' flight simulator devices and training aids have recently been fighting a rearguard action against the likes of *FS2004* and *X-Plane*. With increased fidelity, photographic scenery and thousands of add-ons, many student pilots have steered away from the 'high-end' for these cheaper 'consumer' sims.

However, ETC with its *ProTrainer* sim is fighting back with an affordable and accessible flight training device that has a number of unique features that may make student pilots, GA clubs or flying schools think again.

The software, which has been developed from the same software used at the USAF Academy and Flight Safety International among other places, is scalable and indeed has been certified for use with motion platform simulators. At the middle level, it can also be used in Personal Computer Airplane Training Device (PCATD), where it is approved by the FAA when used with the correct hardware. Finally, the *ProTrainer Desktop*, the version reviewed here (and available for download as a demo from http://www.flyprotrainer.com) can be installed on a normal Windows PC for home use.

Unlike some other professional level devices the *ProTrainer* features a wide range of GA aircraft to begin with, from the Cessna Skyhawk to the twin-engined Baron as well as a Schweizer 333 helicopter. For those that have been attracted to such software in the past but put off by paying more for extra common GA aircraft, this is a huge improvement.

The first thing that strikes the user upon entering a flight is the clarity of the instrument panel. Unlike *FS2004* there is no juddering of dials or needles with all the main instruments being extremely readable with very smooth movement.

In contrast with *FS2004* and the latest version of *X-Plane* there is no virtual cockpit as such but a hatbutton on a joystick or yoke will allow you to pan around the cockpit in steps. The panel can also be lowered for a better view and, uniquely, there is a view over the cowling which is ideal for landings and is one of the best examples of what you actually see out of an aircraft seen on a home PC. The panel also features a GPS system which can be toggled on or off.

On the outside, the graphics, while not up to *FS2004* 'eye-candy' standards, do the job effectively

enough and the sim retains a fluid frame-rate.

The flight modelling, as might be expected, feels incredibly real and putting an aircraft down on the runway I witnessed ground effect cushion the aircraft before the wheels touched down — a good sign.

Like *FS2004* and *X-Plane*, weather conditions can be manipulated and changed and the user can set up situations on approach to various airports, or even navaids. System failures can also be set-up by the user to replicate various emergencies. Flights can also be recorded for later analysis and a data recording feature also logs 30+ variables to allow instructors to grade approaches or precision flying. The sim also features a database of US, Canadian and Mexican airports, navaids and obstacles for you to fly around

One interesting feature, and one claimed by the makers as unique, is that the sim can be used to simulate or train for spatial disorientation, a common danger for the unwary GA pilot. Using a menu, the angle of the clouds to the ground can be altered, teaching the pilot to focus on the instruments rather than the

outside — a novel use of PC software to increase safety.

In conclusion then, *ProTrainer* is a good alternative choice for those looking for a high fidelity training simulator for home use or the flying school. Though its graphics are poor by *FS2004* standards, its flight model and superlative panel make this software shine. In comparison to its other 'consumer' rival, *X-Plane*, its flight model may be on a similar level, however, *ProTrainer's* accessibility and instructional manuals make it a far more student-friendly experience for the novice. The price, too, is reasonable ($99/£51) for the student flyer and compares well with the consumer-type sims. The only drawback really is that the sim only covers North America at present but the makers say they plan on adding other ICAO regions in the future.

Tim Robinson

System Requirements
Windows® XP/2000
Processor — 1Ghz+
512Mb RAM
1.25Gb of Hard Drive
Video card — 64Mb recommended
Environmental Tectonics Corporation $99.99 out now