

## AVSIM Commercial Aircraft Review

# *Dornier Do-27*



### Product Information

**Publisher:** [Digital Aviation](#)

**Description:** Vintage GA add-on aircraft.

**Download Size:**  
135 MB

**Format:**  
Download

**Simulation Type:**  
FS 2004

**Reviewed by:** [Bert Pieke](#) AVSIM Sr Staff Reviewer - November 18, 2006

## Introduction

Many of the add-on aircraft I get to see are somewhat predictable: A nice outside model, a nice panel with some custom gauges, and a flight model that allows me to hop in and take it once around the block, just to get a feel for it's handling characteristics. But every once in a while, I get to explore an aircraft add-on that has it's very own personality – an aircraft that makes me realize that I better have a good look at the documentation and go through the checklists before I go and make a fool of myself by damaging this aircraft that I am supposed to be testing in a “non-destructive” fashion.

The Dornier Do-27 is somewhat of a collector's airplane and has a cult-like following by its owners. It was first built in 1956 to be operated from short and unprepared airstrips. 627 aircraft had been built in total when production came to an end in 1976. The Do-27 provides seating for up to 6 occupants and is powered by a six cylinder, 270 HP Lycoming GO-480-B1A6 engine. It was used by various air forces, German, Swiss, and Spanish among others, for tasks such as liaison, aerial photography, air ambulance, or as a light cargo aircraft. Of the approximately 100 machines still flying today, some are still flown as military aircraft. It is, however also popular as a civilian plane, for example for dropping parachutists. A website is dedicated to the currently flying machines: [www.do27.com](http://www.do27.com).

The authors have gone well beyond the expected effort in re-creating this aircraft, and offer it up in two selectable flying configurations: “simple” and “professional”. In the professional configuration, you get your flying time logged and graded and get to follow a prescribed maintenance schedule or suffer the consequences. In simple mode, you can overstress the engine without dire effects - kind of the way most of us “virtual pilots” fly much of the time, I would imagine. The authors have included the following comment in the documentation which gives you more than a glimpse into the design philosophy of this (superb) add-on.

*“ ... However, we would like to encourage you to face the challenge, and take control of an aircraft that won't forgive every mistake. Maybe you will pilot other virtual airplanes in the future with a different attitude, handle the engine smoothly and with care, and a bit of mistrust in gauges and indicators...”*

## Installation and Documentation

The package comes as a 135 Meg download, complete with an auto-installer, which worked flawlessly on my system. You will end up with two distinct models: an A1 model and a B1 model, each with multiple paint jobs.



The documentation is uncommonly comprehensive and very professionally put together. It includes specifications, checklists, and engineering drawings and will keep you busy for a while. Luckily, the checklists are also included on a kneeboard in the actual aircraft where they come in very handy when starting up and flying the plane.



Startup view



Window open



Kneeboard with checklist

## Interior and Exterior Views

Although the configuration panel has an option to include a 2D panel, this aircraft was designed to be flown from the virtual cockpit (VC) and that is where I did all my testing. When you first start the engine, you feel as if you have left FS9 and entered another world. The whole aircraft rattles and shakes and the ground handling of this tail dragger is awful. This aircraft comes with a lot of personality and not all of it friendly. It reminded me of a camel I was once invited to ride, who first refused to get up from the ground and when it finally did, tried to bite me as I climbed a little platform to get "on board".

The VC is in one word: stunning – it really re-creates this vintage aircraft with custom gauges, levers, and lots of interior detail. You even get to chose if you would like a co-pilot on board, and if you choose this option, you'll find that she is not just a wooden figure, but fully animated, including moving her head and blinking her eyes in a very natural manner. Is this really FS9? Other nice details are the hand-held GPS that actually has a hand holding it, and the kneeboard that can be brought up, complete with executable checklist commands.



Interior detail



Handheld GPS



Co-pilot

The exterior model is nicely detailed, with different features for the A and B model, and textures that show the wear and tear of a vintage airplane. You can have a lot of fun just figuring out how to open the doors (hint: release the security catch first) not to mention the maintenance mode which comes with all kinds of "toys" as shown in the picture below.



Door open



Maintenance mode



A-model detail

## Flying the Do-27

### Test System

P4 - 2.8 GHz  
 1 GB DDR 3200 Ram  
 Nvidia 7600GT 256MB  
 Video Card  
 17" LCD monitor  
 1280x1024 resolution  
 CH Products joystick w/  
 throttle  
 WindowsXP Professional

**Flying Time:**  
 15 hours

OK, now you have figured out that differential braking is the way to go in taxiing to the runway and that you want to treat the throttle with some respect. The next thing you notice, is that this plane does not need a lot of runway to get airborne, while you are still deciding if it needs some forward pressure to get the tail wheel off the ground, it lifts off and you are airborne.

Up in the air, you notice that the mechanics forgot to clean the windshield and make a note to yourself that maybe more than a little cleaning might be in order. The illusion of worn Plexiglas, complete with scratches and dead bugs is really well done. Luckily, the aircraft handles a lot better in the air than it did on the ground, and as you figure out the quirks in the gauges, like an HSI with O for Ost, instead of E for East. You get more confident that it will all work out for the better.

The plane is flown by hand, no autopilot here, but responds nicely to control inputs and trims out fine after reducing the engine revolutions to a more comfortable level. At this point, the cowling does not shake as much either, and you can start to enjoy the view, which is expansive especially out the sides where the big windows come into play. The plane has a VOR receiver, which helps in navigating back to the airport

and lining up for the descent.

Landing is quite a treat, for the flaps really slow down the plane and you can come in nice and controlled and just put her down on the main gear and wait for the tail to drop. Just do not get impatient and slam on the brakes, or you'll be on your nose before you can say "Sh....." (in German).

### Sounds and Effects

The sounds are quite convincing, and the orchestra of engine noise, combined with rattles, creaks and groans at full throttle really adds to the overall feeling of being there. The list of special effects is long, and is one of the attractions of this package. Some of the effects are selectable via a supplied effects panel.

A partial list of effects, from the documentation, follows:

- \* Control surfaces are affected by wind if pilot left aircraft and controls have not fixed.
- \* Elevator vibrates during engine start and at low rpm on ground.
- \* All doors can be handled separately (that means lock/unlock, open/close and dumping)
- \* The 2 engine doors can be opened separately as well as the whole lower cowling.
- \* Detailed Lycoming GO-480 B1A6 engine.
- \* Exterior equipment like brake chocks, warning cones, camping equipment, tools, information panel for flight days etc.

Virtual Cockpit and systems:

- \* Panels and instruments may be damaged by hard landings.
- \* All automatic circuit breakers and circuit breakers work.
- \* Instruments may be inaccurate, needles may be influenced by vibrations, g-forces or disorders.
- \* Attitude indicator and compass card are driven electrically and have to be aligned / calibrated. The compass card will start to rotate for several minutes if electricity has been cut.
- \* The glass of the vertical speed indicator may be broken.
- \* Avionics may be damaged if avionics master switch is not turned off during engine start and engine shut down.
- \* Engine must be primed.
- \* Engine prime can lead to have too much fuel in the starter system. Removing superfluous fuel is possible using original procedure.
- \* Engine starter can get overheated and damaged.
- \* Warm weather can cause air bubbles in the fuel system, making the engine stutter. The fuel pump solves this problem.
- \* Cold engine can go out.
- \* Real engine start up procedure, with starter circuit breaker, priming and mixture lever in cut off position.
- \* If engine is not serviced periodically, engine start will get more and more difficult.
- \* Fuel quantity indicators are not very precise.
- \* Pitot heat can get damaged if enabled on ground.
- \* Structure and controls can get damaged through high speeds and extreme maneuvers.
- \* Flaps can get damaged through high speeds or when being lowered as long as the cabin doors are open.
- \* Windows get dirty.
- \* Each door can be locked/unlocked, opened/closed and dumped separate. The latch for the left cabin door can be disabled, so the door will stay open during flight due air stream, and can be closed by shortly lowering the flaps. (Real life procedure after the skydivers left the plane)
- \* If you forgot to remove the pitot cover before flight, airspeed indicator will not work, and the cover can only be removed on ground.
- \* Vibration effects through engine, ground roll, stalls etc.



Do-27 in flight



Effects panel



Frame rate over Seattle

## Summary

This is quite an amazing package. The more time you spend with it, the more you discover. For vintage aircraft enthusiasts, this is a "must have" add-on. This plane will also work nicely for bush pilots, as it was designed to take off and land at small, remote airstrips.

If what you are looking for is a sleek, fast personal aircraft, this is not the plane for you, but if you are into rugged, workhorse aircraft with distinct personalities, this package has a lot to offer. The detailed virtual cockpit takes a bit of a toll on frame rates, but there are options to turn down some of the details, which I did not use, since on my system that was never a problem.

Overall, this is a welcome addition to FS9, which I would recommend highly to any aspiring GA pilot.

### **What I Like About the Dornier Do-27 Package**

- Very detailed simulation of an interesting aircraft
- Lots of special effects to explore
- Choice of "simple" and "professional" modes
- Very comprehensive documentation, lots of good material
- Great challenge for semi-experienced armchair pilots!

### **What I Don't Like About the Dornier Do-27 Package**

- Detailed virtual cockpit takes it's toll on frame rates

### **Printing**

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[\*\*Dornier Do-27\*\*](#)

[\(adobe acrobat required\)](#)

### **Comments?**

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