AVSIM Commercial Utility Review

FlightSim Commander Version 9
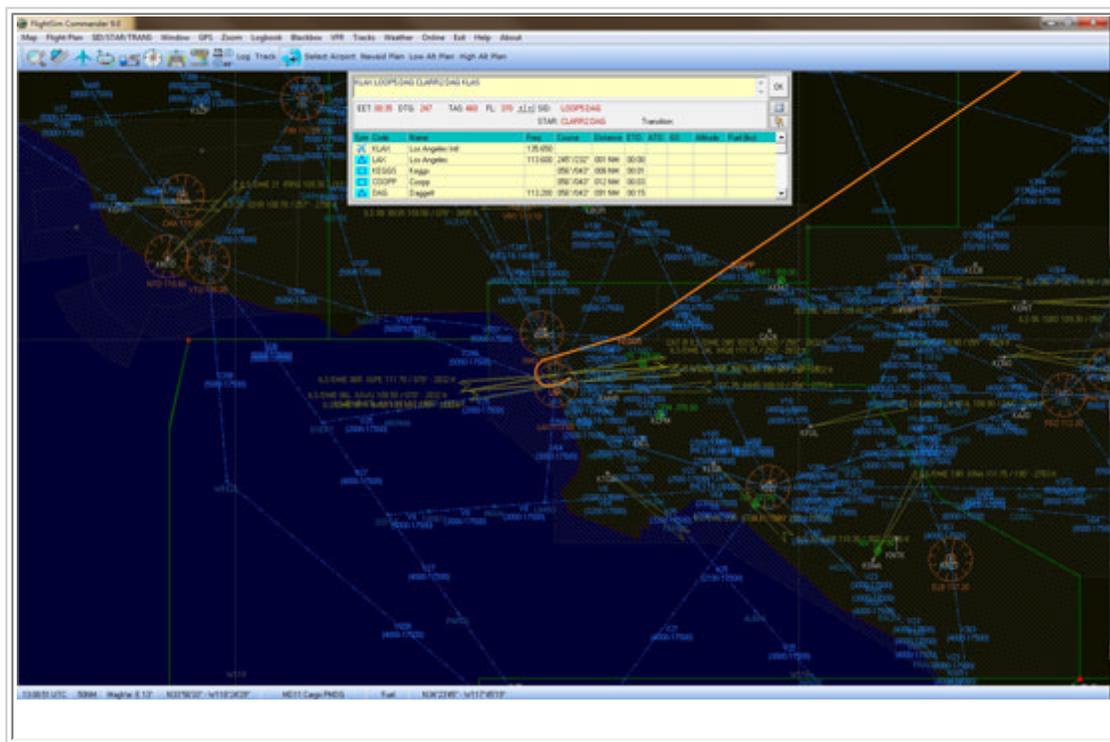
Product Information		
Publishers: FlightSim Commander		
Description: Flight planner with moving map and flight analysis.		
Download Size: 489 MB	**Format:** Download	**Simulation Type:** FS9 / FSX
Reviewed by: David Wilson-Okamura AVSIM Senior Staff Reviewer - February 7, 2011		

Introduction

In the real world, flying without a plan can get you into serious trouble. The simulator is more forgiving, but sometimes you want structure (for a long, multi-leg tour); or, if you want realism, a plan.

For FSX, there are several options, both payware and freeware. The most popular payware planners are FSBuild, reviewed in 2006 by AVSIM Staff Reviewer Gavin Hendrie, and FlightSim Commander, which I reviewed here in 2006 (version 7.7) and Arjun Murthy reviewed here again in 2009 (version 8.x). Now that version 9 is here, we're going to have a third look, and see what's new. We'll divide our coverage into four parts: installation and documentation; flight planning; in-flight and post-flight services; and user interface.

Installation and Documentation

Installation is a bit involved, compared with most products I have reviewed. You can't install in the usual place (Program Files) and you need to locate the *correct* copy of scenery.cfg. There are at least two files with that name, and the instructions on this point are vague. That being said, none of the problems were insurmountable -- or even memorable. If I hadn't made notes, I would have forgotten about them altogether.

The documentation for actually using the program is detailed and well-illustrated. For flight planning, there are several mini-tutorials. Where there's more than one way of doing something, the manual points that out, but in a well-paced manner that doesn't confuse or overwhelm.

That's the good. Here's the bad: the manual is vague about file locations and file names. It all makes sense...in retrospect, once you know what the instructions are *supposed* to mean (or, if the filenames have changed -- which they have for PACOTs and NATracks -- figured out the naming principles for yourself). But if you want to use all of the program's features, expect some trial and error.

There's a forum if you need help, but the program authors (who answer questions there) come across as real people, with human emotions. In referring users to the manual, they sometimes seem to remember what they meant, rather than what they actually wrote.

Flight Planning

Microsoft Flight Simulator comes with its own flight planner built-in, which can create usable flight plans with multiple waypoints. The program will track your progress and, if you're using the GPS, display your intended route and your actual location on a moving map.

Its main limitation, for IFR planning, is that it doesn't understand standard departure procedures (DPs) and standard arrivals (STARs). If you've never used these before, DPs and STARs are published routes for take-off and approach. They're useful for pilots, because the routes have been tested for safety, and for controllers, because they maximize the efficiency of an airport and its surrounding airspace. They're especially important at busy or dangerous airports, and in the real world you learn about them pretty fast. So, if you're trying to make your IFR flights realistic, you want a planner that can handle DPs and STARs.
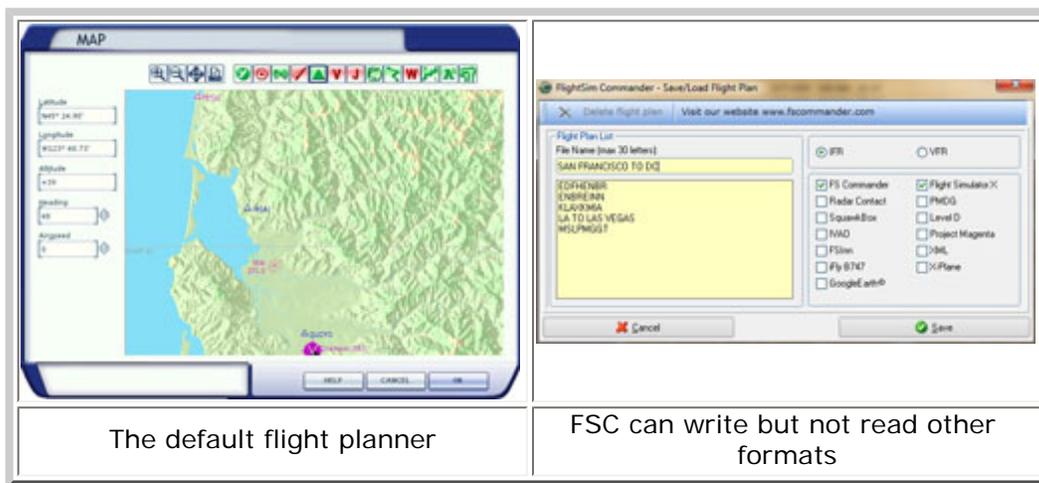
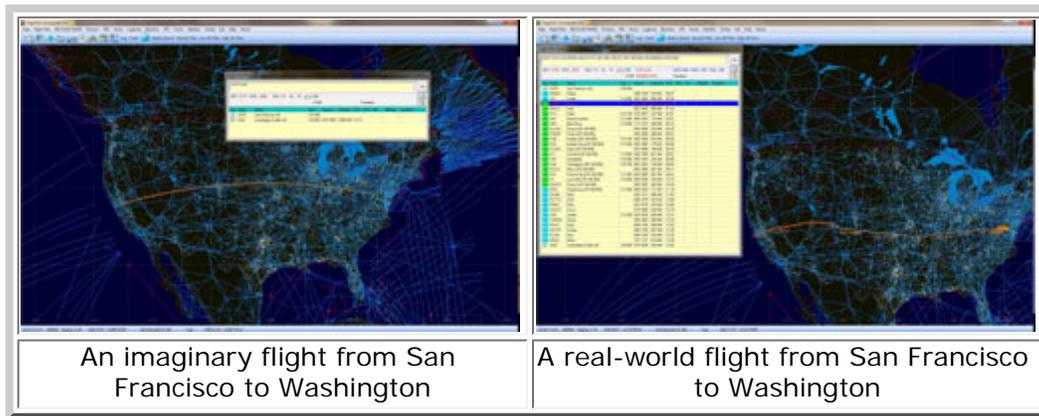| The default flight planner | FSC can write but not read other formats |

The best product for creating realistic IFR plans is probably FSBuild, by VATSIM controller Ernie Alston. It knows all of the current procedures (including TEC routes for Southern California), database updates are still free (if not always frequent), and it can import plans from other products.

So why are we reviewing FlightSim Commander, which can't import plans from other programs (including Flight Simulator), doesn't know about TEC routes, and refers customers to the payware service Navigraph for updates to the procedure database?

FSBuild is a very powerful flight planner, but that's all it does. Once you're in-flight, it can log things like location, fuel usage, and speed, but there's no moving map and it can't fly your plane. To put it another way, FSBuild knows where you are, but it can't show you and it won't help you stay on course. FlightSim Commander can do all of those things, and it's a pretty good IFR flight planner.

From this point on, I'm going to refer to the product by its initials: FSC. I'm not going to list all of its numerous features: that's what product websites are for, and downloadable manuals (which, for this product, are free on the company website). Instead, I want to focus on the user experience.

In the FSX flight planner, there are four options to generate a flight plan: direct/GPS, navaid-to-navaid, following low-altitude V-routes, and following high-altitude J-routes. FSC can generate the same four types -- and, unlike the default planner, it can generate V-route and J-route segments between any two waypoints, not just between airports. But if you're trying to simulate real-world routes, there's a better way.

| An imaginary flight from San Francisco to Washington | A real-world flight from San Francisco to Washington |

First, see what the real pilots are flying. My favorite tool for this is FlightAware, which gives the route in the same form that dispatchers use to file real-world flight plans (and pilots use on VATSIM). Here is the flight plan for United Airlines flight #198 from San Francisco (KSFO) to Washington, Dulles (KIAD): KSFO CUIT2 LIN PEONS INSLO DTA J84 OBH J10 DSM BDF BVT ROD APE AIR J162 MGW VERNI ESL SHNON2 KIAD.

In English, this means depart San Francisco (KSFO) using the CUIT2 departure procedure. Intersection LIN is the transition between the standard procedure and the rest of your flight plan. From LIN, continue to named intersections PEONS, INSLO, and DTA. From DTA, follow J-route 84 to intersection OBH. From OBH, follow J-route 10 to intersection DSM. Continue to named intersections BDF, BVT, ROD, APE, and AIR. From AIR, follow J-route 162 to intersection MGW, VERNI, and ESL. At ESL, begin the SHNON2 standard arrival procedure and follow the controllers' instructions to land at KIAD. Got all that?

It's actually more complicated than it sounds, because each of the standard procedures, CUIT2 and SHNON2, includes another series of waypoints, altitudes, and (probably) speeds. Fortunately, FSC keeps track of the waypoints so you don't have to.

You can enter flight plans as a string of text
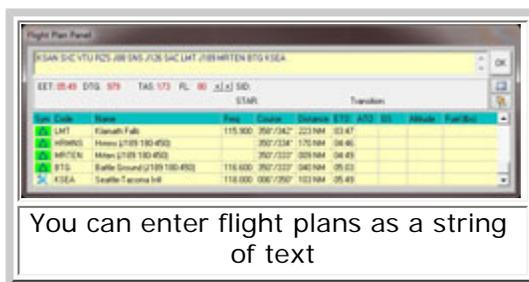
Some of you are thinking: I don't want to deal with all that. My point isn't that you should want to. Rather, if you do want to (either because you fly on VATSIM, or you're training for IFR certification), you'll want something more capable than the default flight planner, which FSC is. To recreate this flight plan using the default planner, you would need, first, to create some custom waypoints that didn't exist in 2006 (when FSX was published). That means editing a text file in Notepad. Then you'd need to find all of those waypoints on the planner map and connect them with your mouse. You could do it, but it would be tedious, and a kludge.

With FSC, though, it's relatively easy: using the clipboard, you can copy most of the route from FlightAware to the clipboard and then paste it directly into the flight plan window. It might take a minute to process, but in the routes that I tested, all of the intersections, fixes, J-routes, V-routes, and even Q-routes were recognized. The only parts of

the string that I couldn't just paste in were (a) the two airports and (b) the standard procedures, with their transition waypoints; for those items, I used dedicated dialogue boxes.


No more hairpin turns
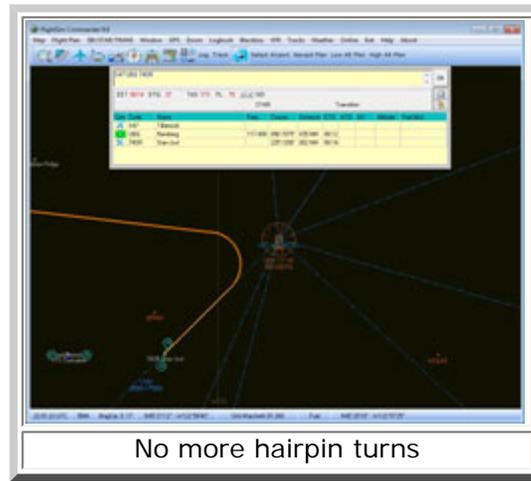
The last time I reviewed FSC, I complained about several things. First, there were no departure procedures for major airports like Portland (KPDX) and Toronto (CYYZ). I attributed this to omissions in the database (which, at the time, was maintained by the U.S. Department of Defense). Later, though, I looked at the published procedures for both airports, and realized why they were useless in a simulator flight plan: for both airports, the instructions for departure were essentially, "Do what the controller tells you to do." There were no standard altitudes, speeds, or waypoints. You could include them in a flight plan, but it wouldn't actually be helpful.

Now that I'm less ignorant, I think FSC handles DPs and STARs pretty well. (You can even create your own, though you can't call them that, and the manual explains why: unlike custom groups of waypoints, standard procedures can't be edited; if they could, they wouldn't be standard.) As the product ages, its database will need to be updated, and that will cost money from Navigraph. But so long as the database is current, FSC makes it very easy to insert a whole sequence of real-world waypoints for both ends of a real-world flight, including transitions.

This part of the interface is largely unchanged: for each DP and STAR, you pull up a list for the relevant airport, select the procedure you want to fly, press an "Add to plan" button, and it will insert all of the waypoints in your navigation log, with frequencies for navaids.

VFR flight plans are constructed using the same tools, except that you'll be using V-routes instead of DPs and STARs. Once you've constructed the route, FSC can check to see which airspaces you'll be entering; and in-flight, when you do enter an airspace, FSC can record it, so that you can check for violations afterward.
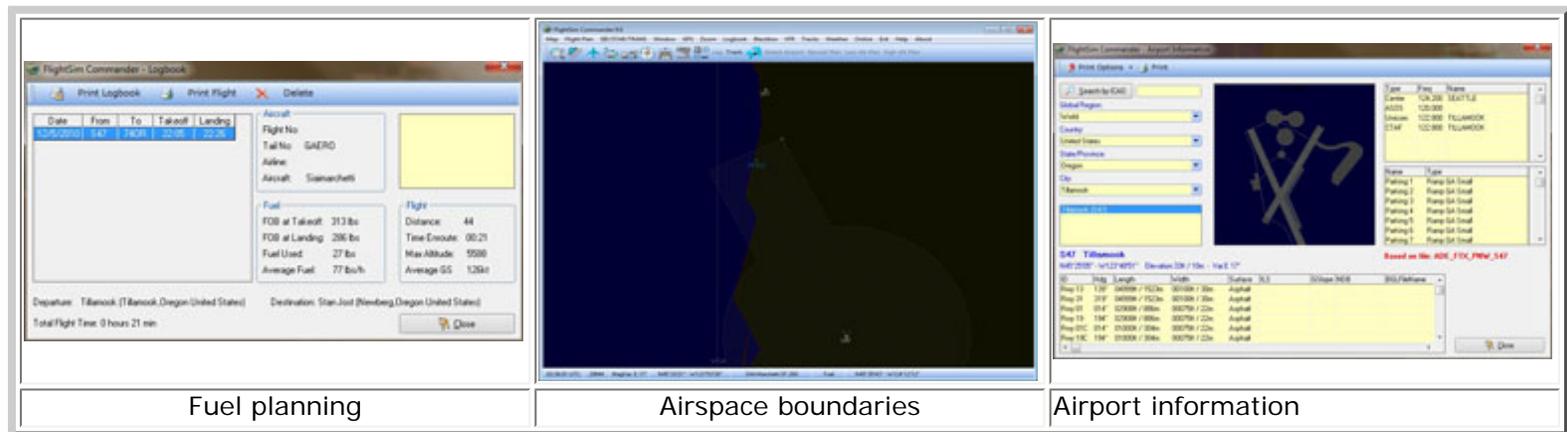
Fuel planning

Airspace boundaries

Airport information

There are several features I haven't mentioned here that are useful for flight planning: airport maps, including parking spaces; a fuel calculator; online controllers and pilots (for the VATSIM and IVAO networks); current routes for trans-Atlantic and trans-Pacific crossings (which I had trouble updating); sunrise and sunset times; and current weather for reporting airports.

This last feature is useful for planning departures and landings; what it doesn't give is a picture of your weather

enroute (like a weather radar does, or ActiveSky). Skies can be overcast for a hundred miles, but the only clouds you'll see on the map are little icons next to airports.

The best way to learn about the other features is to download the manual or, better yet, the trial version from FSC's website; I'll say more about this at the end.

I did notice one planning feature that other programs have and this one doesn't: namely, there's no way to automatically reverse the waypoints in a flight plan. That's not something you need every day, but it's handy when you want to make a quick and dirty plan for the ride home.

## In-Flight and Post-Flight Services

I've already mentioned one of the post-flight services, the check for airspace violations. There is also an approach window, which gives a graphical display of any approaches in the Flight Simulator database; a hold window, which traces a hold pattern on the moving map, using the angle, speed/distance, and reference point that you specify; and online mapping of VATSIM and IVAO controllers and pilots.

| Post-flight analysis | Compare plan with actual flight path | Flight tracking with altitude |
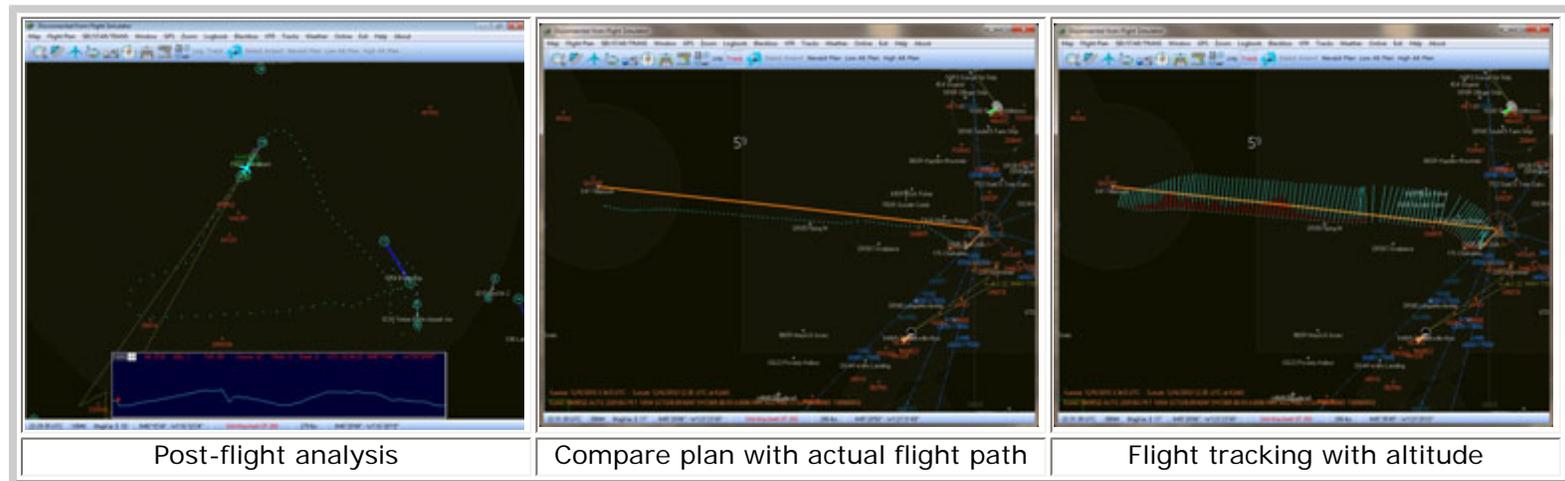
There's also what the developers call a black box feature, for analyzing your flight path later. This can be displayed on the moving map; or, in the most recent version (under review here) exported to Google Earth, where it looks like a giant aqueduct or roller coaster. I'm sorry I don't have a screenshot. I spent two hours on this, but I couldn't get it to work: the "export to Google Earth" checkbox was always grayed out.

A web search reveals that someone else has had the same problem, but the solution proposed, make sure you have defined the correct folder in settings, didn't fix it for me; it just cleared the track I was hoping to analyze.

I do like the program's logbook feature. Why do you need another logbook? Because the default log doesn't capture the same data about fuel usage, max altitude, and average groundspeed. The only thing I would add is a preference setting, to log all flights by default, instead of just the ones you remember to hit the "Log" button for.

| Information when you right-click | In-flight tracking with GPS window |
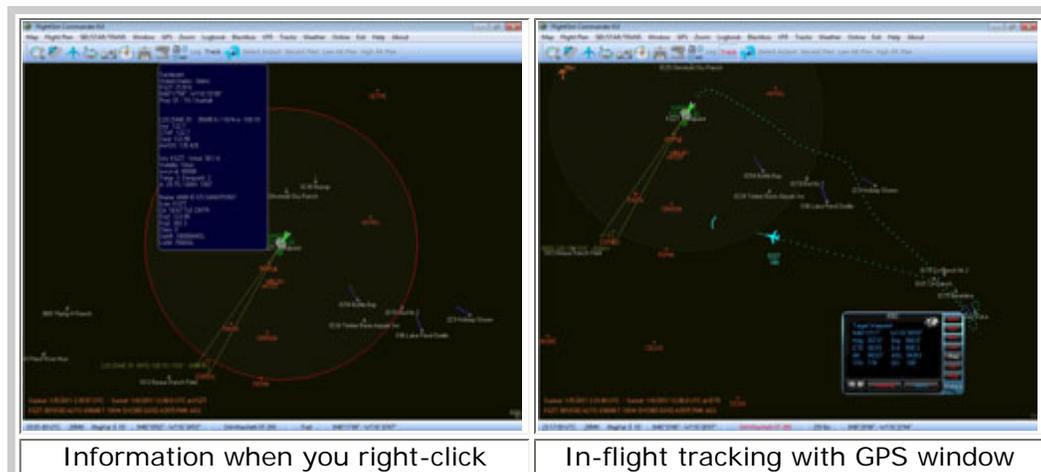
My favorite in-flight service is the GPS/autopilot window, which tells you everything you could want to know about your present groundspeed, weather, destination runways, and radio frequencies. (It can send those frequencies to your plane as well.)

The autopilot is basic -- it sets the heading bug in your plane, and if your plane autopilot is set to heading mode, the plane will follow it for lateral navigation -- but you can use it to follow a flight plan; or, as I often do, you can choose a waypoint in the air and set the plane to steer for it while you look around, take screenshots, or get ready for an approach.

User Interface

There are some things about the user interface that can be conveyed by screenshots: graphics, colors, and layout. All of these, except graphics, are customizable. You can tinker with the map colors (very useful when you want to print); and if you want to move the flight plan to a different part of the screen, or make it bigger, you can do that too.

As for the graphics, you toggle which objects are displayed -- airports, labels, intersections, J-routes, V-routes, control spaces, NDBs, VORs, ILS feathers, and so forth -- but you're always going to be looking at an animated diagram.


Choose how much information you want to see
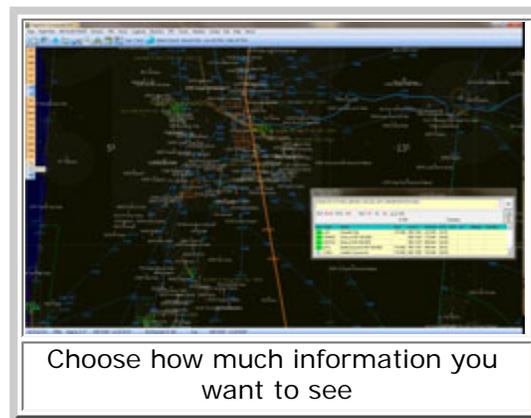
Four years ago, having the diagram was a big deal. (According to the product website, FSC was probably the first program for flight simulator to feature a moving map.) Since then, Google Maps and Google Earth have made it possible to get high-resolution terrain maps and satellite photos for the whole planet; and at least two freeware programs, Gmap and Plan-G, have integrated this data into moving map programs for Flight Simulator.

Neither of these freeware programs is suitable for serious IFR flight planning; for one thing, they don't have a database of standard procedures. But for VFR flight planning, a terrain map beats a diagram. FSC shows major coastlines, but nothing else. This was all right for the Oregon coast, but when I moved inland to Idaho, the map didn't show mountains, rivers, or lakes. I could see seaplane bases, but not shorelines. This is not a bug. But it is a limitation.

Zoomed in
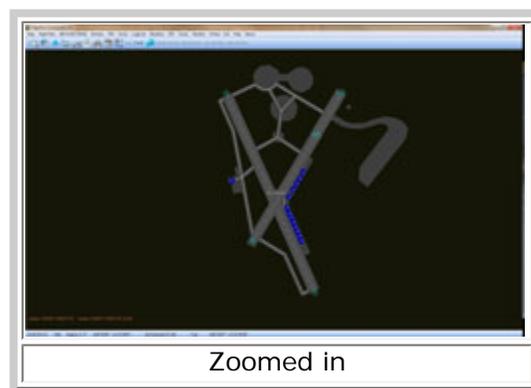
In just the last month, FSC has added a feature which lets you view your flight plan and the progress of your flight live in Google Earth. This is a welcome step, but there is a lot of work to do -- in this one area of terrain and satellite mapping -- before FSC catches up with Plan-G.

| What it looks like in Plan-G | What it looks like in FSC |
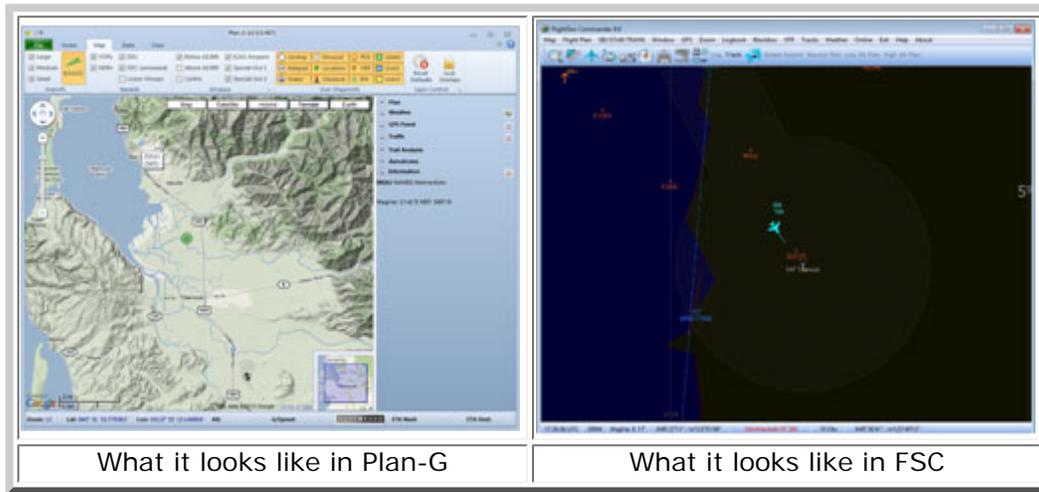
So far, we've been talking about things that can be captured by screenshots. But what about your physical interaction with the program, via the mouse? I like the fact that some of the most common tasks, like zooming in and out, can be accomplished more than one way. But scrolling to different parts of the map -- something you do a lot when you're planning -- is more tedious than it needs to be.

G-Plan uses what is now the standard Google Maps and Google Earth method: you drag the part of the map you want to see into view with the mouse. It's intuitive and instant. With FSC, you click on the point of the map you want to center. It works, but it can take several clicks to get the view you want, and it's not as intuitive as dragging. There's also no zoom-to-plan button, like G-Plan has, that will scroll and scale the map to fit your flight plan. You can achieve more or less the same result manually, but why should you when your computer can do it for you?

Performance

On my rig, described at the side, I didn't notice any performance slowdowns. This is one advantage of having a diagram for your moving map, instead of a terrain chart: it uses less memory. I flew several flights with both FSC and G-Plan running, and G-Plan always used more RAM.

Conclusion

FSC is 40 Euros for new users, 25 Euros for owners of version 8.x. It's not the best program for any one thing, but it does more things than any of its rivals, and it does all of them well enough.

My advice, if you're looking for a flight planner, is to download the trial version from the website. It's free, and you can run it for thirty minutes at a time. After thirty minutes, the program will close, but you can start it up again as many times as you like. None of the features are disabled, so you can test everything to your heart's content.

Test System
Core2Quad Q6600 @ 2.4 GHz
4 gigabytes RAM
Nvidia 8800 GT (512 Mb)
Samsung 20" widescreen LCD (1680 x 1050)
Windows 7 (64-bit)
TrackIR 3 with Vector Expansion
CH pedals, yoke
Saitek X45 throttle
Sidewinder Precision Pro joystick
Sound Blaster X-Fi XtremeGamer sound card
Logitech X-540 5.1 speaker system

Flying Time:
15 hours |

What I Like About FSC 9

- It's a mature program with lots of features
- You can enter IFR flight plans as a text string
- Autopilot is simple but powerful
- Trial version lets you test all features before purchasing

What I Don't Like About FSC 9

- Procedure updates aren't free like FSBuild
- Point-to-center user interface
- Diagram instead of terrain maps for VFR

Printing

If you wish to print this review or read it offline at your leisure, right click on the link below, and select "save as"

FlightSim Commander Version 9

(adobe acrobat required)

Comments?

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