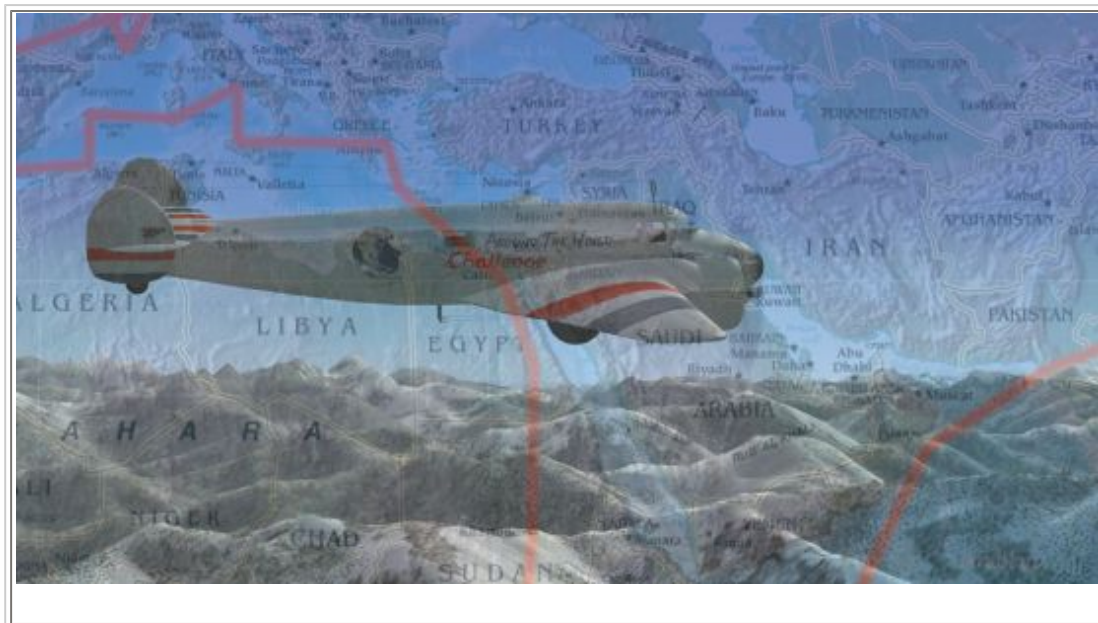


AVSIM Commercial Aircraft/Flight Package Review

Around the World in 80 Flights



Product Information

Publishers: [First Class Simulations](#)

Description: Circumnavigation flight plans, plus Lockheed Electra L-10 aircraft.

Download Size:
76 MB

Format:
Download and CD

Simulation Type:
FSX / FS9

Reviewed by: [Alan Bradbury](#) AVSIM Staff Reviewer - March 5, 2009

Introduction

Around the World in 80 Flights eh? Now there's a challenge. In fact, there's 400 hours worth of challenges courtesy of this FSX/FS2004 add-on package from First Class Simulations.

Four hundred hours!!? Yup, with the included aircraft and the included flight plans, you get to go completely around the Flight Simulator world, visiting 112 countries en-route, as you complete a 35,000 mile trip; and in a piston-engine 1930s-era Lockheed Electra. 400 hours is approximately how long it's going to take you to do it.

Now that's a big concept, and it sounds pretty arduous, doesn't it? And you're right, it is. But read on and you'll see that flying around the world in FS is perhaps one of the most entertaining challenges to be had with your favorite simulator, and you like a challenge, right? After all, with the recent announcement about FSX possibly being the last version of Flight Simulator - at least for a while - we might be stuck in this world for quite some time, so it's probably worth exploring it a bit...

Sound familiar?

To explain a little further and to clear some stuff up about this add-on, first it's worth noting that this is not a new idea in Flight Simulator add-ons. In fact, those of us who've been into FS for a while will remember that Abacus released a similarly-themed title some years ago – Around the World – which was compatible with FS 5, FS95 and FS98. However, whereas this new Around the World in 80 Flights offering from First Class Simulations might seem to be suspiciously similar, there are a number of differences between it and the old Abacus title.

The original Around the World focused on recreating the famous ill-fated 1937 circumnavigation attempt by Amelia Earhart and Fred Noonan. To do that, it included a recreation of their specially-modified Lockheed L-10E Electra, along with some additional period scenery which covered their equatorial 29,000-mile (i.e. longest) route around the globe. And pretty good it was too, I know because I bought it and did that very trip in FS98.

Fond memories aside however, and ten years on, it's high time we had something similar - but not too similar - for the current FS. And with the capabilities of FSX and FS2004, we've got every right to expect a newer offering to be a lot better and more than a mere retread, don't you think? So let's find out if it is...



You might remember the original stab Abacus had at flying around the world in FS from some years ago. The aircraft might be the same type, but this time around First Class Simulations bring us a different take on circumnavigation, in their newer, similarly-themed title.

The long and winding road

Obviously, this new circumnavigation title for FS bears one or two similarities to the older Abacus offering, but even so, it genuinely does present a new challenge. Like its predecessor, it also includes a Lockheed Electra – in fact it includes three of them – and also like its predecessor, it focuses on a trip around the globe. But that is where the similarity ends, and you'll find that it diverges onto a very different course, in more ways than one.

You'll notice that, at 35,000 miles, the new First Class Simulations route is far longer than the 16,500 miles you'd need to fly in order to emulate Wiley Post and Harold Gatty's first ever successful flight around the globe in a prop plane. And being 6,000 miles longer than Earhart and Noonan's Equatorial route around the globe which featured in the old Abacus offering, clearly something unusual is afoot.

So why the extra mileage? Well, this trip around the globe is not merely a trip for its own sake, nor is it a trip down memory lane back to 1937. There's a lot more on offer than that; specifically, it is intended to showcase a huge number of spectacular sights in the FS world in current times, whilst also offering a series of challenges to your flying skills as you progress. So, in addition to the shiny log book certificate you receive (if you do it in FSX) for having been around the world, it'll also educate you about the world's most famous places, let you see them from your cockpit windows, and all while putting your aerial skills to the test.

There's one other mildly interesting thing that makes the most recent Flight Simulator incarnation a good choice for a revisit of the circumnavigation add-on. These days Flight Simulator features a genuinely spherical Earth model, rather than segments which load up as you traverse the terrain, as was the case with older versions of FS. Now that spherical model might have caused some initial traumas for scenery developers, but it means you really will be flying around the entire world if you do so in FSX.

So, a tougher, longer trip, but also a more scenic and educational one, with more realistic scenery, and one which can take advantage of the more realistic atmospheric modeling in FS these days. As noted, also thrown in are a series of tricky aviation challenges, including some of the hardest and most interesting approaches to land that there are to be found around the globe. All in all, a very different proposition to what has gone before; a simple concept at heart, but nevertheless quite a gauntlet to throw down at us simmers.

But if we're going to be challenged by First Class Simulations, then it seems only right that they should graciously accept a challenge too, in the form of a no-holds-barred review of their product. So let's make them work a bit if they want to earn their money...

Flying Legends: Left; The German airship Graf Zeppelin was the first aircraft to circumnavigate the globe. Piloted by Hugo Eckener in 1929, it took 21 days and covered 19,500 miles. Centre; Wiley Post, accompanied by Harold Gatty, took the first conventional aircraft around the globe in 1931. Their Lockheed Vega took 8 days and 15 hours to complete the journey. In 1933, Post redid the trip alone in that same aircraft, which took 7 days and 19 hours. Right; Amelia Earhart (pictured with Paul Mantz, Harry Manning and Fred Noonan). Earhart and Noonan's circumnavigation attempt in 1937 - even though it failed - is well known because of the mystery surrounding their disappearance. Now, *Around the World in 80 Flights* allows you to write your own epic chapter - but in modern times - on what is surely the ultimate aviation challenge (Graf Zeppelin picture by Alexander Cohrs, used with permission)



Why buy an add-on aircraft and a bunch of flight plans, when you might get them for free?

First up - and before we even get to the product in detail - why should you buy *Around the World in 80 Flights*? After all, there's nothing to prevent you from having a look in an atlas, going to the flight planner in FS, and working out your own route around the globe is there? Nope, there sure isn't, in fact, you don't even have to do that, because if you look online, you'll find several 'around the world' flight plans which can be downloaded for the princely sum of nothing, although to be fair you'll find most of these are replications of Earhart and Noonan's well-known flight routing.

Furthermore, in addition to those freebie route plans you can find, there's a few freebie Lockheed Electras to be had too, which means the route, and indeed the Electra, which feature in *Around the World in 80 Flights* had better be something special if First Class Simulations want to shift plenty of copies of their add-on, instead of watching in dismay as we all do it without buying their product.

Now I know what you're thinking. You're thinking, hang on a minute, isn't it a bit mean to be suggesting possible free alternatives to a product when I'm supposed to be reviewing it? Well, mean it may be, but if we're to see whether this add-on is any good, we have to compare it with whatever else is out there, and if whatever else is out there happens to be free (or even already there for the asking in the simulation we own), well then so be it. That is the challenge which the product has to measure up to.

First Class Simulations might have sent a freebie for us to review, but that doesn't mean I'm simply going to green light it and slavishly tell you to go and buy it without putting it through its paces.



Hmm... that's a lot of flight plans. But are they better than what you could plan by yourself? We shall see...

Top-flight entertainment

So what is it that makes these First Class Simulation flight plans so special? Why shouldn't we just plan the route ourselves and save our money for an add-on that we can't make for ourselves? Well, I looked long and hard at these flight plans and thought carefully about that very point.

Having done so, and despite being initially dubious about their value, I have to admit that when you examine them in detail, they actually are something special. You see, it's one thing to plan a route around the globe, and no small thing at that, but it's quite another to have the level of geographic knowledge required to plan a route which ticks all the boxes in the way that Around the World in 80 Flights does. I certainly wouldn't like to try recreating something which compares to them, and I'm not bad at geography either.

To elaborate; do you know where all the best views in the world are? The FS world that is? Nope, like me you know some of them, but not all of them. Then there are the trickiest and most fun airports to land at all around the globe, coupled with the terrain you might fly over which could also offer some challenges and spectacular views. Again, I know some of these places and I'm sure you do too, but there are many I don't know of, and I'm willing to bet you're the same on that score.

In point of fact, I have some experience of this kind of difficulty with planning stuff for FS; I made an FS add-on adventure some years ago (a search in the Avsim file library will find it if you are curious); now this add-on required a secluded desert island of very specific proportions, with a runway that was just long enough for the FS2004 DC-3, and which might have been a place the Japanese had occupied during WW2.

To find such a place, I can remember spending a very long time searching through FS and various atlases to locate exactly what I wanted, which ended up being the French Polynesian island of Wallis et Futuna. Have you even heard of this place, let alone know anything about it? You see my point then, and the point of Around the World in 80 Flights; there are millions of interesting and spectacular places around the world with which you and I may, or may not, be familiar.

So God alone knows what it would be like to try and locate all of these by yourself and then come up with all the stopping points and interesting routings to get to them. And even if you could manage to do that, where would be the

surprise when you came to fly such a route if you already knew all about it from having planned it yourself? This kind of surprising adventure is exactly what Around the World in 80 Flights gives you. You might ask for the world - you might even get it - but this is the only add-on I know of which actually shows it to you!

So you can see that what initially looks like something you could easily do for yourself, is actually not nearly so simple as it appears. Possible yes, likely, no. On top of all that, these flight plans also feature a subtly-hidden series of challenges, which will test your aviating mettle quite considerably, but more on this later.

Score one for Around the World in 80 Flights then, because the route it follows is exciting, surprising, pretty, extremely challenging, educational, occasionally infuriating, but mostly just plain old fun. Eighty flight plans in which to do this seems a bit more like a bargain when you think about all that, doesn't it? And it is.

We'll look at the route in more detail later in this review, but you can skip down to the bottom of this review if you just want to know about those, I won't get upset, but right now, on to more pressing matters...

Electra glide in silver

The intriguing route of Around the World in 80 Flights hasn't won us over completely just yet, there's another potential reason not to buy this title which I've already briefly mentioned, and which needs to be examined: Why should you bother buying an add-on Lockheed Electra when you can download one for free from the internet? After all, much of the cost of this add-on is in the fact that you get an aircraft with it.



One of several freebie Lockheed Electras which you can download from places such as the Avsim file library; this one is by Arik Hohmeyer (FS-Design Berlin) and even includes a virtual cockpit. As you can see, it's pretty nice, especially for free

It's true, you really can download a very nice FS Lockheed Electra for free (more than one actually). However, before you get too excited, you'll find that of all the ones you can find for free, have all been made with the FS2004 SDK, which means they have limited functionality in FSX (if they work at all in that version of FS) and, whether in FS2004 or FSX, none look as good as the one you get in Around the World in 80 Flights.

Conversely, the Electra in this add-on was created with the later FSX SDK, thus it utilizes better texture capabilities and more modeling features. In addition to not looking as nice, the freebie ones don't fly nearly as well as the one in this add-on, nor for that matter, do they sound as good. Frankly, when it comes to realism, it is streets ahead of the free ones

you can find.

All of this is probably a case of the developer having access to better resources, as opposed to being a fault on the part of those who've made freeware ones who, by definition, cannot normally afford to go around photographing the interiors of real aircraft and paying for copyright licenses etc. So this is certainly not a criticism of freeware modelers (I'm one myself), but the difference in quality is no less true for that.

The Lockheed Electra you find in *Around the World in 80 Flights* does actually have some genuine Lockheed credentials too incidentally; if you look on the CD case it states: *'Lockheed Martin, Electra, associated emblems and logos, and body designs of vehicles are either registered trademarks, or trademarks of Lockheed Martin, and used under license'*. The level of access to better data from the original aircraft manufacturer such a license affords, is of course what you are paying for, and when you look at the difference in quality which results from it, you can see it was money well spent.

Now to be fair, the freebie Lockheed Electras you can find online are pretty good if you haven't seen and flown the First Class Simulations version. But they're up against something developed more recently and able to be accurate without fear of copyright infringement, so the freeware developers really cannot compete, even if they wanted to. The upshot of this is; if you're going to spend 400 hours in an aircraft flying it all the way around the world, do you really want to do it in the second best one you can find, free though it may be, or the one which Lockheed endorsed? Silly question really, nobody likes settling for second best.



The free Electra (top) is certainly pretty good, but compared to the one you get in *Around the World in 80 Flights* (pictured below it) you can see that, having used the later SDK trickery and texturing, there's no problem with the prop disks obscuring autogen scenery and clouds, because of the more sophisticated alpha channel blending from the DDS textures it uses. The spinning blades of the prop disc are reflecting the sunlight too, and because of all these subtle effects, it looks altogether more convincing. That's true in the cockpit too, where it is also far more believable in every respect, with things like the sun causing momentary glare on the windows as you turn in the sunlight. You will notice one thing that is better on the freebie model however, and that is the DF loop antenna, which mistakenly has antenna rig wires attached to it on the *Around the World in 80 Flights* model – oops, still that's only a glitch on one of the three Electras you get, the other two are fine. When it comes flight modeling, which is the thing that really matters, the Electra featured in *Around the World in 80 Flights* is a clear winner, being far more faithful to the original aircraft

That's cleared all that up then, yes (in theory at least) you can do what *Around the World in 80 Flights* offers without buying it, and, yes, you can get an Electra of sorts for free. But if you do, you'll either be doing a ton of research for a seriously large number of flight-planning tasks, or you'll be missing out on a lot, and quite possibly both. This is a case where the parsimonious approach will see you considerably shortchanged on enjoyment and immersion. I'm guessing that you don't want to miss out these things, so now we've established that, let's have a look at this title in greater detail...

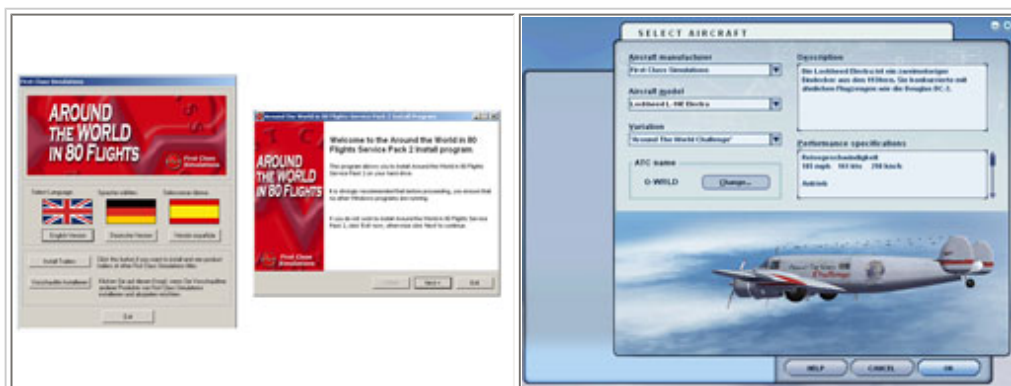
Installation and documentation

Being essentially three add-on aircraft and some flight plans, Around the World in 80 Flights is not a massive drain on your hard disk's spare capacity. The CD ROM case cover states that you need 1GB of space on your drive to install it, but the installation application screen claims it's less than 300 MB, and that smaller size seems more like it from my observations. So the 1GB mentioned on the box is probably just the developer erring on the side of caution as far as the requirements go. This makes a change from what most developers do when it comes to touting optimistic recommended specs!

It's as simple to install as it is diminutive too, requiring nothing more than a foolproof double-click on the .exe, or, if your DVD/CD drive is set up to autoplay disks, it'll fire up when you insert the disk. Type in your installation code from the manual's cover, pick whether you want it in FSX or FS2004, and you're in business less than a minute later. Simply run the install twice if you want it in both FS2004 and FSX.

Although I am reviewing the Boxed CD ROM version here, this product is also available as a download from First Class Simulations, and is about a fiver less when you buy it in digital form, being 24.46 for the boxed version and 19.99 for the download version (both those prices are UK Sterling, so with the pound currently dropping on the world exchanges like Wily Coyote with an anvil strapped to his back, buyers outside the UK are in for a bargain).

The only thing you'd not get with the download is, of course, the printed version of the installation guide. Since you get a PDF version of it with the download edition, you're not missing much, and I'd say go for the cheaper download if I were you and burn a back-up CD yourself. The download version weighs in at a shade over 70MB, it being a zipped package, which includes a text file with your installation serial number. Small is beautiful in this case; you don't need massive bandwidth to get hold of it fairly swiftly.



Installation is a straightforward affair. There is a small update available too (for the FSX version only), which can be downloaded from the First Class Simulations website, this patch adds some extra preset views to the virtual cockpit and is certainly worth having for the ease of functionality it adds. The patch is a mere 119 Kb in size, so if you blink, you'll miss it downloading. Like the main application, it is a self-extracting .exe file, which does everything for you automatically

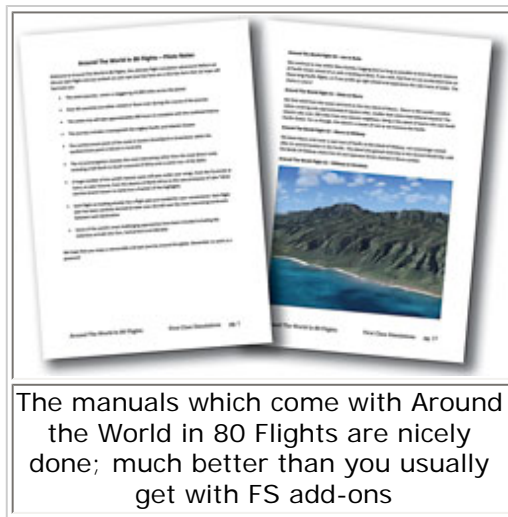
If you choose to install Around the World in 80 Flights in either German or Spanish, you do get the stats in the language you choose, as we can see from this screenshot of the German version installed into FS2004. Sadly, you still get the British-registered G-WRLD sporting Red, White and Blue paintwork and English titles on the fuselage. It would have been nice to see 'Um Die Welt' or 'Circa el Mundo' on the other versions when you install in those languages, and different national colors/registrations would have been nice too. Some work by the army of repainters who perform such sterling work for Avsim's file libraries can perhaps address this for our international brethren. Excuse my terrible Spanish and German translations if they incorrect by the way, I'm an ignorant Limey!

When it comes to documentation, the Around the World in 80 Flights manuals are in a different league to most add-ons. Actually you get two manuals, rather obviously they come in PDF format with the download version, which install into the main FS folder. With the boxed version, one manual comes as a PDF and the other in printed booklet form. For both versions you get a program menu link to these PDF files too, accessible from your PC's Start menu, there's also an uninstall option located there too, but I suspect you won't want to use that.

The first of these two manuals is a relatively simple Installation Guide which even so, still runs to eight pages. This is the one you get in printed form with the boxed version, and in either case it comes in all three of the installation languages choices too, so if you are German or Spanish, you needn't feel shortchanged.

Unlike a lot of installation guides, this one is extremely comprehensive too; in spite of the installation simplicity, it doesn't make any assumptions about how much you know with regard to installing stuff, or getting things going in FS. I have to say that this is a welcome and admirable change from what we invariably see in installation documentation, and whilst I had no call to need any of the help it provided, I was impressed by the lengths it went to in order to ensure the customer is happy with the product.

It even details how to go about using the flights on VATSIM and IVAO, and has comprehensive instructions on where to find even more help online too. This further online help, incidentally, is also much better than you tend to find from most publishers; it includes numerous free utilities you can download, to help improve your FS experience. You can check all that out [here](#).



The manuals which come with Around the World in 80 Flights are nicely done; much better than you usually get with FS add-ons

As you can imagine, having seen the standard of the Installation Guide, it came as no surprise to find that the other manual you get is also a very nice thing, this one being the Pilot's Manual. It's a shame it's only included as a PDF, as the artwork is very handsome, but is serviceable enough in PDF form and does mean buyers of the download version are not missing out.

The title is perhaps a little misleading, as it is not a technical manual covering everything about how to pilot the plane, which you might expect in something called a pilot's manual. Nevertheless, it does provide a lot of information along those lines, even if it is not completely comprehensive. In fairness, the Electra is not a particularly complex aircraft as far as systems go, but if you are at all unfamiliar with the kind of controls and equipment you find in something like the default FS DC-3 (of which the Electra is a contemporary), then you might want to look at some of the tutorials in FS with regard to things such as the older radio type, the Sperry autopilot, and perhaps the mixture and prop controls.

Having given you a reasonably decent (although not comprehensive) guide on how to fly the Electra, the Pilot's Manual then becomes something of a travelogue-style guide, which occasionally offers helpful hints about hazards you might expect on the flights. It briefly details each one of the 80 flights you have in store, giving a potted history of the places you will see, along with other interesting facts about the routes.

The style in which it is written is particularly pleasing too; in the dim and distant past I was a travel writer myself and had to write that sort of thing, so I know when something of this kind is well written, and it was a nice surprise to find something of this standard cropping up in a manual which really did not need to go to those lengths. It all smacks of good quality and customer care, which is a very welcome and reassuring thing to see when you've just bought a product.

Both manuals feature some nice screenshots of the Electra on its journey around the world, and give you a visual taste of what is in store. This serves to whet your appetite for the adventure ahead, and I daresay other developers could learn a thing or two from looking at these two PDFs.

In short, installation is simple and the documentation is of a really excellent standard.

Some installation considerations...

Despite the fact that Around the World in 80 Flights is easy to install, and can be used in both the most recent versions of Flight Simulator, if you have both FS2004 and FSX, the choice is not as clear cut as it would seem, and there are a few things worth knowing in order to decide which would be the better choice for installation.

First up, which sim runs best for you with all the detail levels cranked up? This is important, because one of the main reasons for taking a trip around your virtual world is to see what there is to see, which is obviously going to be more pleasing if the detail levels are up fairly high. You might find that you have more scenery add-ons for the earlier version of FS, for example, which would obviously tip the scales in favor of making the circumnavigation in the older sim. On the other hand, you might relish the challenge of doing it in tricky weather, or with a buddy online in a single aircraft, in which case there's a good chance FSX will be your weapon of choice, with its improved atmospheric and multiplayer capabilities.

When deciding on which sim to put Around the World in 80 Flights in, it's also worth noting that, whilst there is an aircraft provided for you to make your trip in - in the shape of the Lockheed Electra - there is nothing stopping you from doing the trip in any aircraft you have installed in FS, so again, if you have the FS2004 PMDG 737, for example, and fancy making the trip in that, then it would dictate your choice of sim.

Incidentally, this flexibility over which aircraft to fly also means that you are not forced to spend 400 hours making the trip in a slow vintage aircraft if you don't want to. Going to extremes, if you have an add-on SR-71 Blackbird, you could probably be halfway around the globe in time for afternoon tea.

One caveat to this flexibility however, is to pay attention to the places you'll be landing at. Some airstrips on the route are pretty tricky for one reason or another; regardless of the fact it has a braking parachute, I wouldn't fancy trying to thread an SR-71 Blackbird through the Swiss Alps to land on the 6,500 foot-long runway at Sion in Switzerland, which is the third destination you'll visit on this trip, so plan ahead. That said, you could use a different aircraft for each leg of the journey if you liked, thus if the long hop across the Pacific is putting you off, there's nothing stopping you from doing it in Concorde or a Mig-29, or whatever you happen to have in whichever is your favored version of FS, and in fact doing that means you could set yourself all manner of circumnavigation speed challenges if you so desired.

Aircraft availability, scenic and environmental modeling reasons aside, there is also your computer's hardware to consider when deciding which sim to choose as far as installation is concerned. This is because as we have briefly seen, Around the World in 80 Flights utilizes all the very latest texturing whistles and bells in the model of its Lockheed Electra.

Now if your computer can handle this, that's good news, because it means you won't get visual problems such as the prop disks disappearing when viewed against clouds and autogen trees etc. But, if you have an older graphics card which doesn't handle all the latest Direct X trickery, then you might have further issues with the Electra in FSX. In extreme cases, this can mean large portions of the model for the Electra don't display.

Note that ticking the 'Advanced Animations' option in FSX can sometimes be behind this, with older graphics cards

Test System

Around the World in 80 Flights was tested on two computers:

A desktop PC with an ASUS P5 KPL SE motherboard, running 2Mb of DDR 3 RAM, an ATI Radeon 4800 PCI-x graphics card with Jan 2009 Catalyst drivers. Operating system: Windows XP Home with Service Pack 3 and DirectX 9.0c. Peripheral devices: Saitek Cyborg EVO joystick, Saitek rudder pedals and Track-IR 4.

A Hewlett-Packard dv2000 Entertainment laptop, running 2Mb of DDR 2 RAM, Intel Mobile 945 built-in graphics with Jan 2009 Intel drivers. Operating system: Windows Vista Home Premium 32-bit edition with the Service Pack 1 and DirectX 9.0c

Flying Time:

40 hours, and is still going on, and it's still great fun too...

struggling to display aircraft which have been modeled using the most recent SDK guidelines, so there are some things you can try from within FS to solve issues, but it's not First Class Simulations at fault here. The developers have stated that the problem seems to be mainly with older NVidia graphics cards, which means that for once I was glad I have an ATI card on my main computer (and it's not often I can say that), although as we shall see, it wasn't immune to a couple of issues there are with the textures in FS2004.



If your graphics card cannot handle the latest textures in FSX, you can get this sort of thing going on, which may mean either an upgrade is on the cards, or running this title in FS2004 is the better choice. On the other hand, it is one way to improve the visibility from a taildragger's cockpit!

I should point out that whilst I did not experience any of these problems with my desktop computer equipped with an ATI PCI-x card in FSX, the Intel Mobile 945 graphics in my laptop didn't like all that fancy FSX texturing at all, which is how I got the screenshot with the missing panel texture. (See the Test System Info box out panel in this review for further details of both of my test computer's specifications). I must stress that pointing this issue out is not a criticism of the product – any add-on aircraft which uses the latest SDK stuff can potentially have display issues with older graphics cards/drivers, or ones with lesser capabilities. The screenshot of another add-on aircraft which I've included further illustrates the point.



The Shockwave WOPII Boeing B-17 Flying Fortress on my laptop in FSX. This model features some fairly advanced texturing and was made for FSX, yet it displays with the Intel Mobile 945 built-in graphics of that laptop perfectly, as you can see. So having FSX display the default aircraft and indeed fancy add-ons such as this Flying Fortress perfectly well, does not necessarily mean you won't get graphics issues with the Around the World in 80 Flights Lockheed Electra. Coincidentally for the title we are talking about, you might be interested to know that despite this being a Boeing design, many B-17s were actually built by Lockheed, a situation made possible as a result of its success with the Electra

To list all the combinations of graphics cards which will, or will not, have this issue is not possible here (I simply do not know, and I doubt anyone else does either), but I suspect it is safe to say that if you have a fairly recent graphics card and up to date drivers you should be okay. If not, it might be worth upgrading, because if you want to use Around the World in 80 Flights in FSX, it's likely that a card which experiences these problems would probably not be great for many other add-on aircraft in the future, or frame rates either. That is unless it is something which is known to have limited texture capabilities, as is the case with my laptop's graphics card, which actually runs FSX really well as far as frame-rates go, despite not liking those Electra textures.

Keep in mind that this will only be an FSX issue if you have a particularly old graphics card and old drivers, so there's no need to be disappointed if you fancy this title; updating your drivers may solve the problem, but if not, you will still be able to run Around the World in 80 Flights in FS2004 with little difficulty, even if your computer's specs are relatively modest. Although see the night screenshots in this review for a slight display issue that crops up in FS2004 if you choose to fly at night.

Having said all that, a potential way around this display issue just occurred to me; what you could do is open up the DDS textures for the Electra in an image editing program such as Photoshop, or Paint.net (Paint.net is free) and resave them in one of the older FS DXT texture formats, whilst keeping the same file names. You'd need the (NVidia) DDS plug in for Photoshop in order to open DDS texture files, but that is a free download, the latest version of Paint.net will open DDS files by default. You might also try something like the DXTBmp utility (Google it) which enables you to convert various FS texture file formats. I've not tried this fix that I just thought of, because I've had no desperate need to do so (I only use FSX on my laptop for testing how stuff runs in Vista, not tweaking stuff), but it's my guess that this might alleviate most, if not all of the major texture problems should your card not be sufficiently up to date to handle fancier texture processes in FSX. No promises, just offering a helpful hint here!

There is one more thing to mention with regard to choosing FS2004 or FSX; the routes taken in Around the World in 80 Flights are ever so slightly different for the two sims, specifically when you get to Africa and visit Lake Victoria. This is to take best advantage of the capabilities of either sim, so when it comes to flight number 24, in FSX you fly from Nairobi to Kasulu, whereas in FS2004, flight number 24 goes from Nairobi to Tabora. After this, you're back on the same route, heading for Mbala from either destination, so the difference is not huge, but it does mean that you actually get 81 flights in this package in spite of the name, providing you try both versions, that is. If you have some fancy scenery near Lake Victoria, this different routing might be worth considering.

Beyond that, there is little to choose between the two versions as far as features go, so whichever sim you decide to go

Around the World in 80 Flights with, you'll be experiencing much the same adventure. It works in both sims, but, as we see, not always flawlessly so where the Electra is concerned. If I am honest, I'd say that people who own both FS2004 and FSX will find more to like about it than those with just one or the other, because it does have plus and minus points in both versions. Depending on your own personal preferences and the level of customized add-ons you have for either sim, having the flexibility to choose which way to go with regard to this aspect is certainly an option you'll welcome.

Anyway, on to the Electra itself...

Because you're getting on that plane...

When Humphrey Bogart said those words to Ingrid Bergman in the 1942 movie, *Casablanca*, of course there wasn't a dry eye in the house. It remains one of the most wonderful moments in film history. But it wasn't just the actors and the script which made it so; it was the iconic setting and the choice of props too. Among them, the plane Bogie was talking about – a prop with props you might say - in the shape of the Air France Lockheed Electra which spirited Ilsa and Victor away from our hero - and out of the clutches of the Nazis - in his moment of romantic self-sacrifice at the uplifting end of the movie.

Why am I mentioning all this? Well, *Casablanca* gets the nod tipped to it on more than one occasion in *Around the World in 80 Flights*, as do many other movies, not least because of the Electra which appears in this add-on. Notably when you visit the airfield that doubled for *Casablanca* in that iconic final scene. You'll also be paying Lisbon a visit too, which is of course where that Electra was escaping to. Not forgetting Paris, which is another location from that, and many other screen classics.

There are plenty of other fun facts and items of trivia like these to learn of as you fly around the world in this add-on, and you'll find out all about them with its excellent manual as your tour guide, which makes taking on the challenge of *Around the World in 80 Flights* as educational as it is enjoyable. If think of the Electra as your flying detective/historian/adventurer, you'll get an idea of the many features that are cleverly woven into this add-on.



Claude Rains and Humphrey Bogart watch the Lockheed Electra depart for Lisbon, and safety, at the climax of the classic 1942 movie, *Casablanca*. Air France never actually used the Electra incidentally - they flew Douglas DC-3s – but that's Hollywood for you!

Along with the Douglas DC-3, the Beechcraft 18 and the Boeing 247, Lockheed's Electra is one of a number of early

airliners which combined the style of the Art Deco movement with the then-burgeoning science of aerodynamics. As a result, these airborne classics are among the prettiest and most iconic aircraft ever made, and the belle of them all is without doubt the Electra. Not the most successful of the bunch it's true, the DC-3 has that accolade, but the Electra was nevertheless the most sleek and stylish of them, and often found itself favored by VIPs in the 1930s; take a look at the footage of British Prime Minister Neville Chamberlain when he is giving his 'Peace in our time' speech just before WW2 kicked off, yup, he's just disembarked from an Electra. It was also the fledgling precursor to what is known as Air Force One these days. All this is hardly surprising when you consider that much of the final aerodynamic design work on the Electra was the result of efforts by perhaps the most celebrated aircraft designer of them all - Clarence 'Kelly' Johnson.

The man behind the machine you will fly, and a tale about the tail...

Many of you will know that Johnson was in large part responsible for some of the greatest aircraft of all time, among them the P-38 Lightning, the L-749 Constellation, the P-80 Shooting Star, the F-104 Starfighter, the F-117 Nighthawk, the C-130 Hercules, the U-2 Dragon Lady and of course, the ultimate airborne hot rod, the SR-71 Blackbird. But it is the Electra which is most closely-linked to Johnson's meteoric rise at Lockheed.

When Hall Hibbard initially designed the Electra, which was before Johnson joined the company, he and Lockheed's engineers built a 1/20th scale model of the proposed prototype and delivered it to the University of Michigan, where it could be tested using that University's wind-tunnel facilities. The head of the University's Aeronautical Department - Professor Edward Stalker - duly examined the model of the Electra and declared it a good design, he did, however, note that it was only marginally within acceptable stability limits for an aircraft of its type, but acceptable nonetheless.

Being a prototype upon which the hopes of Lockheed's success rested, this assessment was well received by the Lockheed designers, well received, that is, until it became known that a young upstart named Clarence 'Kelly' Johnson, who was at that time doing post-graduate aeronautical studies at the same University, had disagreed with Professor Stalker's assessment and stated that the prototype Electra's stability was at best, bad and in fact, probably dangerous. This did not go down well at the University, where he was effectively saying that the Head of Aeronautics didn't know what he was doing and neither did Lockheed! Coincidentally, Johnson had applied for a job at Lockheed the year before, and had been told that a job might be forthcoming when he completed his aeronautical studies, which is what he was in the process of doing when the Electra model showed up, prompting him to voice his concerns.

You'll come to appreciate his wisdom when you take the FS version of the Electra up high in the thin air as you traverse the globe, without his input, and because the simulated Electra in this package emulates the real thing so well, you'd find things quite a struggle had it not been for the alterations he suggested.



Clarence 'Kelly' Johnson with the original Lockheed Electra wind tunnel test model, which he suggested was in need of twin tailfins to improve its stability. In addition to the single tailfin on this model, notice the original forward slanted central windscreen pillar, which was more Art Deco than aerodynamic in its styling

Sure enough, having completed his University studies, Johnson turned up at Lockheed, qualification in hand, and sought the job which had been promised; he got it, but almost immediately came close to being fired, by again stating that the Electra was dangerously unstable. He narrowly escaped a sacking and was instead dispatched to the University of Michigan's wind-tunnel, with the Electra model, essentially so Lockheed could see if he knew what he was talking about and to get him out of the way before he came to blows with the other staff! This must have been somewhat annoying for a man who had won a prize for aircraft design when aged just 13.

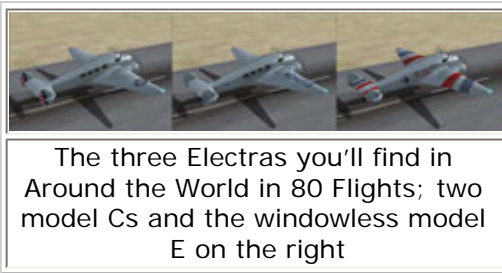
It was at Michigan's University that the Electra as we know it was born, when Johnson came up with the notion of putting twin tailfins onto the model to improve its stability, it was a vindication of Johnson's genius and the start of his major career. The original Electra design sported only a single tailfin and looked a lot like the rival Boeing 247, which first flew a year prior to the Electra. This is an interesting aside, as Boeing were fairly notorious for putting small tailfins on their aircraft at that point, only to later enlarge them to improve stability – see the early B-17s and compare them to the later variants for a good example of this early Boeing trait.

For Lockheed, and Johnson, multiple tailfins became something of a trademark; many of their most successful designs have that feature, among them the SR-71 Blackbird, the F-117 Nighthawk Stealth Bomber and the new F-35 Lightning Joint Strike Fighter. Not least among these was the Electra, which turned the company's fortunes around as they, and the US at large, recovered from the thirties economic depression. The Electra's success led to Lockheed winning a lucrative contract to make Hudson bombers for the R.A.F. and catapulted the company into the big league of aircraft manufacturers - the Hudson of course being a recognizable derivative of the Electra, and one which led to further variants for the US military, such as the Neptune and the Ventura.

The Electra in Flight Simulator

The pretty little Electra is the aircraft you get to try out in Around the World in 80 Flights, and you're in for a treat when you do so, because here is an excellent rendition of the aircraft, managing to capture its quirks and pleasantries with a good deal of accuracy. The three versions of this classic Lockheed airliner in the package are somewhat different too, not merely straight repaints. Two are Model L-10C Electras; the other is an L-10E variant.

The two C models are replicated in both military and civilian form, with a US military version - tail number N38BB, and a Pacific Alaska Airways version - tail number NC14259. The E model is of course the same variant as the one used by Earhart and Noonan on their circumnavigation attempt, but this depiction is in a fictional scheme; being a special 'Around the World Challenge' livery with the UK registration G-WRLD. You'll be pleased to know all three have GPS as well as their old instruments by the way, so despite their thirties vintage, you're not forced to totally recreate the past when it comes to navigating if you don't want to.



Of the aircraft depicted, the real Pacific Alaska NC14259 was eventually withdrawn from use, and presumably scrapped at some point, but a surviving Lockheed Electra wears the N38BB registration, even though it is not the same 1930s N38BB which we see here. You can check out N38BB, which used to belong to Braniff Airways, at the Western Aerospace Museum in Oakland USA. If you do go to see it, you'll notice it has two slightly different extra windows along each side, which were added to make it more suitable for passengers. Being fictional, Electra G-WRLD never really existed, so of course has no real-world counterpart, but the G-WRLD registration itself does indeed exist, and is worn by a Cameron R-15 hot air balloon.

Electra shocks

A very minor point here, but worth noting all the same; despite the 10E and the 10C having different cfg files for FS - chiefly to give the E model a bigger fuel capacity courtesy of an extra fuel tank - this difference is not reflected on the 'details' page if you view the aircraft descriptions in FS. Both the E and C variants are listed as having a 605 gallon fuel capacity. This is misleading; the L-10E does correctly carry considerably more fuel in the sim, as did its real-world counterparts, so in practical terms it's not an issue. But since fuel capacity and management is an important consideration for many of the flights you make in Around the World in 80 Flights, you should be careful not to let this minor typo catch you out with the E model, lest you find yourself emulating Amelia Earhart a bit more authentically than you might prefer, when you run out of gas over the Pacific if you fuel it with less than it can take!

There are a few other typos of this nature to be found, but I won't labor the point except to mention this other one, which hints at something a little more serious; the C and E variants are listed as having Two Pratt & Whitney R-985-13s. This is not correct; it was the Electra L-10A that had these engines (and there is no A model Electra in the package). The real C model had Pratt and Whitney Wasp SC1s and the real E model had Pratt and Whitney R-1340-49s.

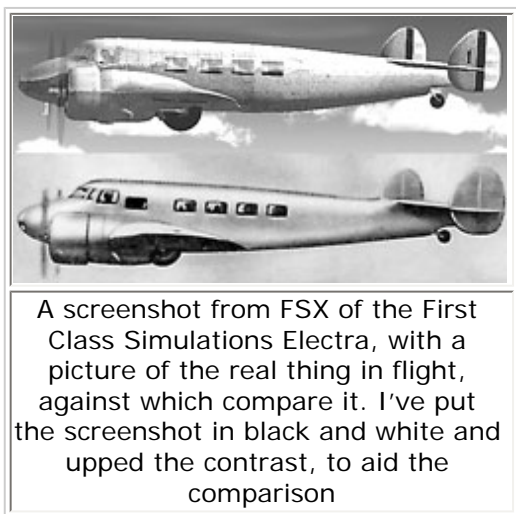
Now, were it only a typo on the details, then this would not really matter at all - except possibly to nerds - but when you examine something for a review, you do have to get a bit nerdy, and so that typo led me to check the .cfg files for the different C and E models. Doing this revealed that they both have the same engine stats for their FS flight models, which cannot possibly be correct if they are to behave as different variants; the E model should have 600hp engines and the C model should have 450hp engines. So, either the E is underpowered, or the C is overpowered, and either way, one of them is not going to be using fuel at the right rate.

My guess is the E being underpowered, as it does struggle a bit with a full fuel load on board, but to be honest, I quite it that way and to be fair, the real thing probably struggled too under those circumstances. I like it that way because it makes the thing more edgy to fly and adds to the challenge. Realism rivet-counter types will probably be the only ones really concerned with these issues of course, it doesn't stop you enjoying them and it's by no means a deal-breaker, but the developers should look at this in a patch, because it is an error, albeit a minor one. And even though you can tweak the .cfg files and correct this data for yourself, not everyone is happy with indulging in this kind of 'under the hood' tinkering with FS. Which means it's really the developer's duty to address the issue, in order that we get two different Electras that are noticeably different in performance and not just fuel capacity.

External model

As far as the overall accuracy of the Electra 3D model goes, it's a very close match to the real deal. It's often tricky to find a suitable picture of a real aircraft with which to compare a screenshot of a model from FS, because of the distortion in perspective that you get from various lenses, but I persevered and did my usual trick of overlaying several slightly transparent screenshots from FS onto pictures of the real thing in Photoshop, to see how they matched. For the most part, there's nothing to choose between the model and pictures of the real deal where dimensions are concerned.

This is another thing to watch out for if you are hunting down freeware Electra variants for FS incidentally. It appears from some of the ones kicking around, that one or two modelers have mistakenly identified the slightly smaller L-12 Electra Junior as an L-10 when choosing reference pictures to model the L-10. There's none of that going on here with the Around the World in 80 Flights Electra; as you can see, it's a remarkably accurate model, with only the wires to DF loop on the E model being noticeably incorrect. If I was being really picky, it could maybe taper a touch slimmer at the mid-to-rear of the fuselage, but it's certainly not far out. The important thing is that it captures the look of an L-10 Electra very well indeed.



There are some night texture issues with the Electra in FS2004 - see the pictures below which I've included - but they do not affect the internal cockpit views and in daylight there is no problem evident, in fact, in daylight the Electra looks great in the older sim. It's sort of understandable that these night texture issues might have been missed, because the flights in Around the World in 80 Flights are really intended to take place in daylight, in order that you might actually see the sights on your travels which the flights intend to showcase, but even so, it does tip the balance back toward picking FSX in which to make you flights, where the issue is not evident at all.



Here's the model in FS2004. It's true that you get slightly shinier textures and better bump mapping and all that malarkey in FSX, but, as you can see, it doesn't look too shabby in good old FS9 either, but see the night screenshots below for a slight issue in FS2004



A closer look at the thing in FSX. About the only incorrect detail on the model is the wires attached to the direction-finding loop on the cabin roof, which should really be attached to a blade mast behind the loop; as it stands, it would be impossible to rotate the loop antenna with those wires where they are! Note that this is not an error to be found on the C models.

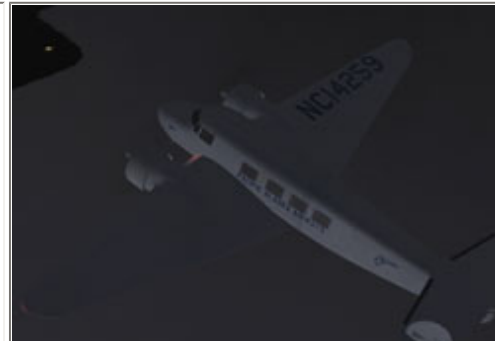
Apart from this minor stuff-up on the E variant's antenna (which I personally can live with) it's a really great model. Not every fussy detail is present it's true, so don't expect to see all the hydraulic lines up in the wheel wells and every ignition lead on the engines, but there's more than enough intricacy to make going to an external view a pleasure every time



Should you fancy taking a night flight, you'll find that, in FSX, the Electra's night lighting textures are simple, yet evocative, with the wings bathed in a gentle glow and the landing lights appearing suitably dim, as befits their vintage



There's a problem with the night lighting when you get in FS2004; turn the navigation lights on, and you get semi-transparent textures, which make your aircraft look like some sort of Flying Dutchman-type ghost aircraft, kind of spooky and cool, but probably not what most people want. This is not the only add-on aircraft to suffer this problem incidentally, it's down to the more modern DDS



Knock the lights off in FS2004 and you're textures are okay however. Now I've not really got this down as a major problem, because all the flights in Around the World in 80 Flights are really intended to be done in daylight so you can see the sights as you fly, but it does limit things a little if you step outside the default settings of those flights and take off at night in FS2004 with the Electra. This did not affect the cockpit textures by the way, so if you stay on the internal

	textures, which quite a few recent FS add-on aircraft employ	views and used the lights, you'd never know it was happening unless you looked at the engine cowling outside your window and saw its slight transparent appearance
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Flight modeling and how it compares to the real thing

We are in the fortunate position of there still being one or two airworthy Lockheed Electras kicking about, and more are under restoration too incidentally, which is nice to know. So, we've got pretty good reference for their flight characteristics. That said, I've never flown in an Electra, although I have seen a couple in flight and have flown in several similar aircraft from that same era. Aircraft such as the Beech 18, DC-3 and the De Havilland Dragon Rapide, so I've a reasonably good impression of how thirties-era aircraft handle and ride the air.

I could not locate a real pilot's manual for the L-10 Electra, despite quite a search, so I had to content myself with a combination of what we know about its flight data and the pilot's manual for the Electra's big fat warrior sister; the Lockheed Hudson. Now the Hudson is of course different, but it is based on an Electra derivative – the L-14 Super Electra – which was basically a scaled-up L-10 with a fatter fuselage, so it's better than nothing when looking for genuine Lockheed operational references, and in actual fact, the Hudson manual did prove useful for testing the Electra with regard to some of the systems and the flight envelope, as in terms of operation and aerodynamics, they aren't worlds apart. With all that in mind, remember that my comments about how it flies are just my opinion and not based on having flown a real one. Also note that I was flying with all the realism settings on full during these tests.

Right from the off when you load up the Electra which comes with this title, you get the impression you're in for some fun. Slight disappointment follows when you discover that not all of the virtual cockpit is 'clickable', necessitating the use of the 2D panel for one or two things that really should be operable in the VC - particularly the pressure setting for the altimeter - but this is something of a personal opinion, as many prefer the 2D panels in FS. In common with the majority of FS aircraft, not absolutely every little switch is modeled in terms of operation, but all the ones you'd want to play with most certainly are.

As with the real thing, and taildraggers in general, the visibility from both pilot's seats is terrible when on the ground, and was something pilots of the real thing complained about, so that's certainly spot on, however, I did find that you're a bit too far back in the seat from the default VC position, so I shifted my seat position forward a little. Of course with Track-IR this is less of an issue, but I often found myself preferring to fly without Track-IR because of the need to switch to the 2D panel quite a bit in order to adjust the altimeter pressure settings on a long flight, and it's a lot easier on a static panned view to tweak the mixture settings. This is where FS2004 scores of course, since it's a default toggle through on the view switching to get to the 2D cockpit from the virtual cockpit, the passing of which when FSX came out, was something that many simmers bemoaned, probably for just that reason.

In fairness to First Class Simulations, they do state in the manual that Around the World in 80 Flights is designed to be flown with the default weather settings that are there in the flights – i.e. static 1013 Millibars pressure and good daylight weather – this being to ensure all there is to see on the flights is visible from the air, rather than being obscured by a blanket of clouds. But after the first couple of flights I found that to be not very challenging and switched on real-world weather downloads, which of course necessitated the pressure setting changes on the altimeter and the need to go to the 2D view. There was another reason for my switch to real world weather, which was rather more pragmatic; I reasoned that if I downloaded the (currently very cold) real world weather data into FSX, I'd get better climb performance in the colder, denser air. What do you mean, I'm a cheat? I call that piloting skill!



2D cockpit is nice and also very much like the real thing, but the vast expanse of those dials means some of them can be a bit small on screen. You'll have to use this for one or two of the controls, namely the altimeter pressure setting and the elevator trim - accessing these adjustments is not enabled in the virtual cockpit.

Alternatively you could use the keyboard or a joystick assignment, as I eventually chose to do

The cockpit at night is lit by the yellowish glow of the overhead spotlights in the cabin roof and the similarly illuminated dials, which give it a nice period look

Start me up

Starting the Electra up is a relatively simple business; parking brake on, mixture levers full rich, props levers fully forward, throttles open a bit, master switches on, magnetos on, booster pumps on, a couple of flicks on the fuel primer switches and hit the starter. You get a nice big, not very environmentally-friendly, cloud of black smoke when you do this. It's all pretty much the same as the real thing, although you'll find the magneto switches don't move in the FS2004 version of the virtual cockpit, which is a plus point for FSX, where they do.

Now, just to even things up, here's where FSX bows to FS2004; Obviously, managing your fuel properly on a flight around the world is paramount, particularly when you get to Flight Number 54 of this epic journey – Honolulu to San Francisco – because that's getting pretty close in distance to the 3,000 mile maximum range of the L-10E Electra, so every drop of gas you save adds to your safety margin if you run into a headwind or some other airborne hindrance. With this in mind, I thought I would have the Electra's engines draw fuel from the wing tanks first, and the central auxiliary tank last, because being located in the passenger compartment, the auxiliary tank is the one which throws the centre of gravity towards the rear when it is full, making the centre of lift move aft.

Glider pilots such as myself will tell you that having the CoG shift rearwards makes an aircraft less stable, but it also reduces aerodynamic drag, by shifting the center of lift back further toward the trailing edge of the wing, making the tailplane do less work, which is why glider pilots play around with that sort of thing. But boring glider-nerd facts aside, less aerodynamic drag will equate to better fuel economy in a powered aircraft too of course – airliner pilots know this and so do the automated fuel management systems on board modern airliners. This is something the Captain of an airliner will never point out to the passengers, since most of them would be alarmed to learn that he and the co-pilot

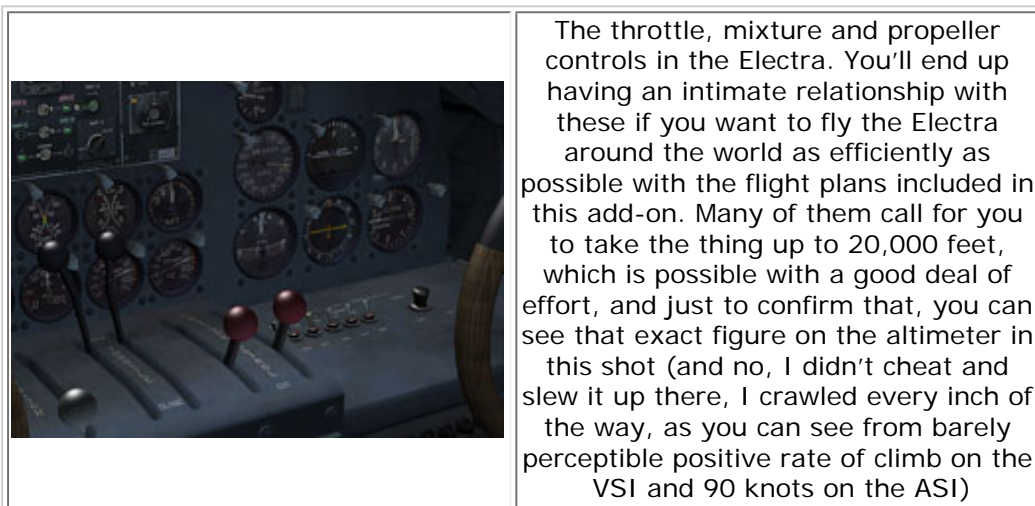
were pumping fuel rearward to make the thing less stable in order to improve the mileage!

We can do this too in FS, but we don't have an automated fuel management system to do it with in the Electra, which is why I wanted to select the wing tanks first. This highlighted a problem with the Electra in FSX; you can't do it. The fuel cock switch doesn't move to all of the supposedly selectable positions, which limits your options. But in FS2004, it works just fine. This can be fixed in FSX, with a tweak to the aircraft's .cfg file, but if you aren't happy messing with aircraft configuration files, then you'll be stuck with the Electra in FSX drawing from all three tanks at the same time, which is not quite so aerodynamically efficient. I wasn't happy with this, so I altered my FSX Electra's .cfg file to enable it to select different tanks, but it's annoying that it doesn't do that out of the box.

Incidentally, if you want to do this alteration yourself and make the fuel tanks selectable in FSX, open the FSX Electra's .cfg file in something like Notepad or a similar text editing program and change the **number of tank selectors** value from **1** to **2**, which you'll find under the [Fuel] heading (scroll down a bit to see it), having altered the value, save the file (always make a back up copy first when you indulge in this sort of thing). This will make the port engine able to feed from the centre, or the wing tanks, this is not ideal, it'd be better if both engines would do it, but it's better than no option to do it at all.

You'll have to remember to switch the fuel to feed from the other full tank at some point on your flight before the one you are using runs dry, or the engine will stop and you'll have to restart it in mid air, which is not a major problem, but might lose some of your hard-earned altitude before you get it going again. Use the port fuel selector cock in the cockpit to select which tank you want to feed from (big red handle below the throttles), which will now work in FSX if you make this change to the 'cfg file. If you don't like the change you've made, you can simply open the .cfg file again and change the value back to **1**, and all will be back as it was originally, i.e. busted but still basically working if jammed on a default selection. Welcome to the world of modifying flight model configuration files for aircraft in FS!

Anyway, back to the flight test...



After cranking up the engines, which have a nice throaty tone, I'd recommend paying close attention to the autopilot and the trim settings, which is of course what you should do with your checklists anyway, but especially with this aircraft. The elevator trim control is occasionally to be found in the fully down position when the aircraft loads into FS, and unless you are a Kamikaze pilot about to dive onto a US battleship at Leyte Gulf, that's not a great position to have the elevator

trimmer set at. Similarly, the Sperry autopilot – or gyropilot as they called it in those days - is often engaged when you first load up the aircraft too, so I'd recommend checking that unless you want to go careering off the runway like I almost did when I forgot to switch it off once prior to the take-off roll, fortunately, I realized what was wrong and knocked it off before I was on the grass, although with those big wheels, the Electra is no stranger to grass strips.

One other thing to check is the fuel you have on board, this is because all the flights in Around the World in 80 Flights have one of two default fuel loads depending on the distance of the flight; either half tanks, or full tanks. So, open up the kneepad and check the estimated fuel burn for the trip from the flight plan, you can then go to the fuel set up and add maybe ten percent or so to what you'll definitely need, and you're in business, fill the central tank first too, as it will improve lateral stability but reduce longitudinal stability, which will make you a bit more aerodynamically efficient in the air.

Paying attention to things like this is particularly worth doing, because the Electra is a slow old bird and very heavy when filled to the brim with gas – especially the E model – and if you have too much fuel on board you'll have a hard time making it up to your assigned IFR cruise altitude (see the note earlier about the underpowered engines in the .cfg file). That can get annoying for a few reasons; like the real Electra, this thing is slow at low altitude, so the higher you can get, the better the progress you can make, the less fuel you'll use, and the more chance you have of climbing above poor weather; additionally, if you are struggling to make altitude, you'll be ready to kill someone from constantly having ATC ask you to 'expedite your climb'. Trust me, you want the minimum fuel you can get away with on this aircraft – or, if you are happy to tinker, soup up the engines a bit with a tweak to the configuration file (careful with that though, if you try it, back up the file first, it's easy to stuff things up, I personally didn't bother to try tweaking it).

So, with our ATC clearance all sorted and permission to taxi granted, it's off we go. Incidentally, the radio is of the same type as you find in the default FS DC-3, so if you aren't massively familiar with that thing - or even if you are - it's worth using the ATC window to change frequencies. Those thirties-era radios were not designed to be suitable for the busy ATC chat-filled airwaves of today, especially when flying alone, and are simply too fiddly when you are switching frequencies all the time, and since you'll be visiting 112 countries and crossing a lot of borders, you can expect a lot of ATC handoffs as you circle the globe. You do still need to learn how to work that radio though, as the navigation aids it can receive will be critical if you don't employ the GPS.



Taxiing is a pleasure in this aircraft; with the throttles at idle, mixture on full rich and with the props fully forward it coasts along at a nice pace and turns well with the rudders, rarely needing any differential braking. This is just as well, because when you land at Orly after your first flight, you'll be given the longest taxi to parking instructions you'll ever get!

Letting the brakes off and opening up the throttles to get rolling brings a really nice surprise; the engine noise. Despite the fact that this Electra is actually using the default DC-3's engine noise sound files, the stereo placement of the sound source has of course been altered by the fact that this is a smaller aircraft and the geometry is different to a DC-3 (the configuration file geometry figures are one of the things which affect this). The change results in a nice effect on how things sound in stereo, and you get a good emulation of that evocative buzz-saw sound when the tips of the propeller blades on radial-engined aircraft begin to approach supersonic speeds at high RPM - headphones and some decent volume recommended!

But before we get to take-off and wind those big old radials up to full power to enjoy that effect, we need to see how this baby taxis and handles on the ground. Fortunately, the aircraft responds to the rudders and a burst of throttle very well, you rarely, if ever, need to apply differential braking to get around the twisty taxiways and only need to use asymmetric throttle if you want to get it to turn on the spot. That's just as well, because if you had to hit the throttles hard and step on the brakes, you'd find that this aircraft would happily stand on its nose and end your flight before it even started, so watch out for the brakes if you land long on a short runway. Another reason to favor the rearward CoG there incidentally, but watch out, it'll also make a ground loop more likely to develop, too.

Amelia Earhart found that out in her Electra when she first attempted to fly around the world, busting the undercarriage off her Electra and forcing a one month delay to her trip while it was fixed. She blamed it on a burst tire, but the legendary movie stunt flier Paul Mantz, who witnessed the crash, said it was a pilot error.

Back with Taxiing, once moving you can actually chop the throttle to idle and it will keep rolling at a nice sedate taxi speed with the prop pitch fully forward and the mixture on full rich, so it's really very pleasant to taxi about in it. As noted, the cockpit visibility when your tail wheel is on the ground is terrible, so you'll need to either jack up your viewpoint a couple of notches, use Track-IR and lean forward, or cheat and use an external view, but having said that, looking at the pretty little Electra on external view is a plus, so this is no hardship.



No flaps necessary for take off providing you've got the room, as was the case here at Farnborough, for the first of those 80 flights, although I reduced the fuel quite considerably from what you get by default

Lined up on the runway, you open up the throttles and there goes that great engine noise again. There's a slight swing to port as you get moving, so you need to be ready to correct with the rudders, but you'll also need to be aware of how much weight you have in fuel; at high take off weights you can keep the stick back on the take-off roll to hold the tail wheel on the ground, which helps it track the runway centerline until you have some directional momentum. But try that at low take-off weights and you'll risk lifting off too soon, so planning your control inputs on the take off roll before you open the throttle (as all good pilots should do) is quite important with this Electra.

Shame there is no tail wheel lock, but, if you fancy getting fancy with that .cfg file again, scroll down and you'll find that you could add one if you wanted to! Without a control in the cockpit for such a lock, you'd have to use a keyboard shortcut to engage it though (no shortcut is assigned in FS for this by default, so you'll have to set one up in the control preferences). The real Electra does have a tail wheel lock incidentally, so there's enough reason to make this change if you like realism, and you may find it makes taking off and landing a bit easier, although tail wheel locks can be a hindrance too if you get quite a way off the centerline, so if you do make that change, pick a key for it that you can get to quickly.

You'll be glad you remembered to set the trim to nose up three or four notches in that pre-flight check too, because this thing loves to pitch down, especially with any flaps set on, so avoid the flaps unless you're on a really short strip. The take-off roll can be quite long with a lot of fuel on board, but when it hits flying speed at around the seventy-five knot mark (about sixty-five knots with full flap), it will lift off pretty cleanly, although on shorter take-off runs you might need to coax it a bit to unstuck from the tarmac with a dash of aileron. Safe climb-out speed should be around the 120 knot mark in case an engine decides to quit, so it's worth considering holding it flat to build up some speed.

It does fly on one engine (just), and the rudders are good enough to hold it on course with an engine out at lower altitudes, where they have some air to bite into, but I don't think you'd want to make a habit of doing too much single engine flying and it can get quite hairy when up high, where those twin tailfins already have enough work to do. Turning toward the live engine is possible, but requires care, and it certainly won't maintain height with a heavy fuel load with one motor out. If it all goes horribly wrong and you stall, the stall itself is quite benign, but you will pitch down a lot. This is no fighter when it comes to rapidly pulling up either, and it can build speed alarmingly quickly in a dive, right up to the point where important things - such as the wings - will start falling off, so avoid a stall if you can and treat the thing with respect when you have the flaps down.

There are easier aircraft to fly with an engine out, that's for sure. If you have engine failures enabled in FS (as I do) you might be in for an exciting time with this Electra on a long flight over water. Although I'll admit that historically, having the failures setting on is actually a bit mean toward both Lockheed and Pratt and Whitney, the Electra, and its engines were actually notable for their reliability. Still, planes always look cool with a propeller stopped, so who cares?



You can (just) hold a course with an engine out, but there is no feathering mechanism in the cockpit, other than what you can do with the propeller pitch control lever, and you can't do it via the FS controls either. So if you like having failures enabled, watch out, and land as soon as you can, because a stopped engine will often continue to windmill on this Electra, which is a good recipe for an engine oil fire as the propeller hub overheats

Getting the Electra up high can be tricky with a lot of fuel on board, and that's quite an endearing feature really, especially with the flight plans featured in *Around the World in 80 Flights*, because it adds a lot to the challenge of making those flights. True to the real Electra, if you climb high with it going very slowly, the stability starts dropping off, and getting from around 17,000 feet to 20,000 feet can see you developing a serious dutch roll as you hang on the props in the thinning air with that big thick draggy wing. This is not a criticism, it's actually remarkably realistic and makes the thing hugely convincing, so treat it as simply one of the many challenges awaiting you. 1930's pilots were real men – and real women too of course!

The fact that you have to work hard to climb this thing upstairs really adds a fun dimension to things; you know that the Himalayas are going to crop up at some point on your journey, so you know you have to figure out how to get the thing up there with just the right combination of speed, pitch, propeller and mixture settings, not to mention how much fuel you dare risk not taking, to save weight and make life easier. On top of all that, you have the joy that is gyro drift making the autopilot often only slightly better than useless for anything other than slaving to the GPS, which of course means you've got to deal with all the other problems inherent with that. So prepare to master offsetting a turn or drift with asymmetric thrust on the engines, courtesy of differing throttle and mixture settings, or deft control of the rudder trim.

You see what I mean about the challenging part of this add-on? You really have to fly this plane; struggling to make the climb to get over the Alps in this Electra was genuinely one of the most enjoyable things I've done in Flight Simulator for a very long time indeed.



Climbing in the Electra can sometimes be a struggle, as it would be in the real aircraft with lots of fuel on board, but this is one of the things which makes Around the World in 80 Flights such fun. Dirtying up the weather from the default settings ramps up the challenge too, although on the plus side, you'll get better performance from the engines in colder weather with the denser air

With the big dirty drag-inducing configuration which full flaps give you, and the noticeable pitch down they also imbue, this thing can drop height like it is going out of fashion when you back the throttles off, so it's nice if you can hang onto your hard-earned altitude until almost on top of your destination and speed up progress, but the caveat to that is ATC wanting you to descend quite a long way from your destination, it being geared to suit faster more modern aircraft, so the option to ditch the IFR plan and stay up high is one to bear in mind. Regard it as yet another challenge awaiting you.

Bringing the Electra in for a landing is very easy, with only the flare being a tad tricky to judge, although you can get away with a 'wheeler' landing on long runways so long as you bear in mind that those brakes can have you over on your nose if you get too clumsy. The good news is that it tracks beautifully once you are lined up for landing, with very convincing and predictable momentum, so like all good aircraft, it makes you look good too. I'd practice a few short landings with it though before setting out on your epic trip, it can be a bit of a handful to stop on very short runways if you come in too hot, and it would be a shame to stuff up your landing after a long flight for the want of a few circuits and bumps.

Obviously you get no automated landing aids with a thing like this, although you can use beacons to at least line you up with the centerline of many landing strips with a bit of care, so it will definitely brush up your visual approach skills! You'll find that the runway PAPI lights are a very helpful guide, although you have to be careful not to run out of elevator authority when you get slow on an approach, so it's often not a bad idea to stay at what would normally be considered quite high and fast as you come in. You might be surprised at how much aileron deflection you need to make small adjustments when on slow approach speeds, but I know this is accurate for a DC-3, so there's no reason to imagine the contemporary Electra would be any different.



Touchdown. Three-pointing it can be tricky, but if you have the room, a wheeler landing is an option and very easy to pull off

All in all, it's great fun to fly, and from my comparisons with the references I had for the real thing and similar aircraft, it repeatedly demonstrated its quality flight model and felt very much like a period aircraft. There are few vintage FS aircraft that manage to really convince you that they are what they are pretending to be, but this one certainly does it and is hugely impressive in this respect, so much so, that it is easy to find it in your heart to forgive the few minus points I've mentioned.

In a word, lovely.



Visibility is okay if you shift the viewpoint. No, your eyes are not deceiving you, that Dash 8 really is going on to the active runway at Sion despite me having been cleared to land. Thank you FSX ATC! What happened next is pictured below. If that had been real, I'd have been having a quiet word with the Dash 8 pilot. More importantly though, it shows the Electra has a pretty good climb rate with the flaps all the way out, although at this point I was getting close to running on fumes, so it was fairly light

Of all the towns, in all the world...

So we finally come to the flights you'll make in the Electra, because the plane is only half of what Around the World in 80 Flights is about. As I've already pointed out, you can make these flights in any aircraft you like and it will not preclude you from getting the reward in FSX to say you have done so (sadly you won't get that in FS2004 of course, but you will know you've done it, which is what really matters). Personally, I wanted to try it in the Electra, for the reasons I've already mentioned regarding, particularly, its climb performance, which I think adds an extra dimension to the challenge.

Now, I'll come right out and admit that I have not yet completed this challenge; I'm less than a quarter of the way through. But if I waited to do it all before writing about it, this review would end up being published in 2010! The fact is, it's going to take a long time to complete this trip, but was there ever a better endorsement for the longevity and playability of an FS add-on than that?

One thing I can tell you is that even though this is a review, and things that I review do not always stay on my hard drive, Around the World in 80 Flights most definitely will. I fully intend to complete the journey in the Electra, and it will not be tedious, simply because it is so much fun.

And I'm not going to ruin things by mentioning the entire route you take in this title, because that might spoil your fun if and when you get this for yourself, instead I'll simply highlight some things of note on the first three flights that you make if you do them in the default order. So, let's start where I started off, flight number one, departing from Farnborough in the UK, going to Paris Orly, in France...



Obviously it makes sense to treat this circumnavigation as you would the real thing, and fly the flights in a proper chronological order, however, you don't actually have to do so, you can fly them in any order you like. But for both common sense reasons and the purposes of the review, I started at the beginning. Farnborough is of course a magnet for aviation enthusiasts in the UK, it's where the Royal Aircraft Establishment was founded (now named the Defence Research Agency), it's also home to one of the most important airshows in Europe, where major aircraft sales deals are often thrashed out.

Farnborough is actually a nice place to start (particularly for me, being a Brit) because it has an 8,000 foot runway, which offers a gentle introduction to getting a fuel-heavy Lockheed Electra off the deck safely. You depart from here and ATC vectors you south and progressively clears you up to 13,000 feet as you head out over southern England and the English Channel. The historic connection with aviation challenges is obvious here, as you make what, until 1909 and Louis Bleriot's historic crossing (albeit in the opposite direction), seemed an impassible aviation barrier. It's good to see that, as with all the flights in Around the World in 80 Flights, we follow the hemispherical routing rules, by cruising at

13,000 feet when headed into France, which is considerably higher than the 250 feet Bleriot was at when he first crossed this stretch of water.



Heading out of England on the first flight gives you a gentle introduction to the Electra's handling qualities. The south coast of England never looks that clear whenever I fly over it for real!

The default weather settings of all the flights in Around the World in 80 Flights present you with nice clear blue skies, punctuated by the odd bank of fluffy cumulous cloud, this being carefully chosen so as not to obscure all there is to see on your long journey. It also means you don't have to play around with the altimeter settings either, as they are already at the 1013.25 Millibars/29.92 Inches of Mercury which you'd otherwise need to change as you hit transition altitude (note that being in Europe, that's not at 18,000 feet as it is in the US). This is all good for less experienced flight simmers, but by the time I'd made a few flights, it seemed a little tame, and I later elected to go with real-world weather downloads, to give me more of a sense of the different weather I would really encounter if I trekked around the globe.

Crossing the coast on the other side of the Channel and transiting across northern France toward Paris, the flat northern plains of the Gallic homeland are a wise choice for the first of these flights. As noted, the Electra calls for some fairly skilled engine management to get it up high, so not having to worry about any terrain clearance on the first flight was a smart move by First Class Simulations, this allows those less familiar with ancient piston-engined twins to get to grips with all the skills necessary to coax them skywards, but keeping the plan to just 13,000 feet means it's not too challenging an introduction to this skill, which will later prove vital.

The progressive challenge aspect is something of a hallmark of all the flights in Around the World in 80 Flights incidentally; they gently introduce you to things and then throw the odd curve ball as you progress, so when the creators feel you are up for a bit more pressure, the flight will present a further challenge to push you just that little bit more, but without being so hard as to lead to frustration. It's this feature which is indicative of the thoughtful way in which the flights have been planned out and it's implemented so subtly that it could easily be missed. But it's definitely in there; doing these flights in the default order will make you a better FS pilot.

The next minor challenge in this instance is to make sure you come down at the correct airport on the correct runway; Don't laugh, Paris is ringed by airports, Beauvais, Charles De Gaulle and Orly are very central and can easily be confused, but there is also Rouen and Lannion too, both within fifty miles of the centre of Paris, so this offers a nice introduction to the less experienced simmer on following ATC vectors to get you correctly lined up for the designated runway at Paris Orly. You can also expect some traffic conflicts too if you have your AI traffic settings up high in FS. The experienced simmer won't have too many problems with this minor test of course, but it's nice to see that less experienced simmers have also been catered for in the way Around the World in 80 Flights gently ramps up its challenges.

Upon touching down at Orly after a 2-3 hour flight (the Electra is not a fast plane and that's the average length of a

flight in this title if you use the Electra), you are presented with perhaps one of the longest taxies to parking you're ever likely to get, but this again gives you a bit of practice at ground handling with the Electra and it's hard to imagine that this was not a deliberate choice given the generally very smart choices which the flights in this package display. Park the thing up and shut it down by simply closing the mixture levers all the way (this is the proper procedure for an Electra), and you've perhaps earned yourself a nice glass of French wine to celebrate the end of flight number one. Just seventy-nine more to go!



Adding real-world weather downloads made life a bit more challenging, kind of hard to see here, but it was raining pretty hard when I set off on this later flight. Notice the positive trim setting on the elevators, usually not a bad idea for take off

As time goes by...

Flight number two is a trip south from Paris to Marseilles, on the Mediterranean coast of France. This is an interesting scenic trip as you watch the terrain of France change from the flat plains in the north, to the rolling hills and valleys where wine production is still a big part of the French economy. Off to your left, to the East, as you trek down through the heart of France, you get a preview of what is coming in the next flight - the mountains you'll have to cross in order to make it to Switzerland.

This urges you on to getting in a bit of practice at determining the Electra's best climb speed (115 knots) and prop/mixture settings too, as you gaze down on the rivers wending their way through valleys toward the Mediterranean. The terrain subtly changes color from the rich greens of northern Europe to the more arid colors of southern climes and you begin to peer into the distance through the right window to see if you can spot the Pyrenees, dividing France from Spain, but it'll be a while before you get to see those close up.

The bustling port of Marseilles is soon upon you and you get vectored very close to some of the densely populated hillsides as you come in for a landing at Marseilles, again testing your ability to maintain the correct height. After you land and shut down the engines, the bright blue of the Mediterranean could be your reward, if you fancied taking a dip in the ocean.



Full flaps into Marseille. Like a lot of approaches into airports on the Mediterranean coast, it takes you pretty close to some hilly terrain

Now, it's at this point that *Around the World in 80 Flights* starts to put its heart on its sleeve and reveals that you're really going to get about a bit on this circumnavigation. Your next flight is from Marseille across to Sion in Switzerland, which is a magnet for glider pilots, courtesy of the steep snow-capped mountains, creating the updraft ridge and wave lift which glider pilots hold so dear.

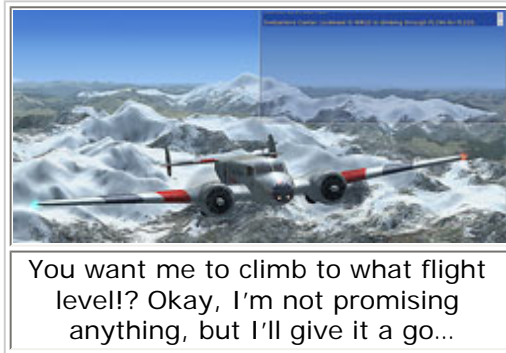
Picturesque this scenery may be, but to you it means another challenge - two or three actually - first you have to get your Electra up high enough to clear the Alpine peaks, so you'd better hope that you remembered to ditch some of the default fuel that the flight loaded you up with at Marseille. Then, if you have real weather enabled, you might find some wind shear and turbulence making life hard for you over those mountains, and just when you've made it through all that, you make the slightly tricky descent into Sion itself, which being on the valley floor, can make for some interesting wind gradients on your approach to land. This is an enjoyable and challenging flight and drills you well in getting more performance out of your trusty aircraft, which by this time you will probably be deeply in love with and possibly deaf from. From here you take an unusual turn which might surprise you; you go back the way you came!



If you want to check out the sights, you might need the external view; those shiny engine cowlings can block out a lot of what there is to see!

Yes, that's right, what would a trip around the world be if you missed out Spain? So from Sion it's off to Bilbao at the coastal junction between France and Spain, and that's not as simple as it sounds. You'd be well advised to stay off the autopilot for the departure – you have been warned – the tricky departure out of the Sion Valley necessitates a fairly rapid climb to clear the Alpine peaks for your turn to the west in order to head for Bilbao. As you clear the mountains the view is nothing short of majestic and you can see why glider pilots flock there to soar up high over that terrain.

At the end of this flight, you'll get your chance to see the Pyrenees, as well as the Atlantic stretching out endlessly to the horizon beyond the Bay of Biscay, which much later in the journey you will be crossing from the other side. If you have real weather enabled, and even if you don't, there's a good chance the flight to Bilbao will take you a while, as you'll most likely be heading into the typical Western European prevailing winds, blowing from about 240 degrees, so you'll be doing well to make a ground speed of 100 knots and you'll get some practice at offset courses if you fly the trip manually. Again this is where you might also get the chance to further expand your flying skills, by taking a leaf out of the balloon pilot's book; try requesting various altitudes to see if you can find a more favorable wind!



If that plane leaves and you're not on it, you'll regret it...

Okay, so you get the general idea about these flights now, they don't add up to anywhere near the shortest route around the world, and will take some serious time to complete, but they do always take you to somewhere of interest and throw a challenge your way whilst they are at it. It really is tremendous fun.

Without giving too much away, as you progress on your orbit of the Earth, you'll find yourself over cities, vast seas, mountains and deserts; you'll land at large high altitude airports where your engines struggle to keep you in the air, glacial airstrips in the frozen wastelands where your touchdown is critical on runways that seem too short for even your small aircraft.

You'll see the Pyramids in Egypt, Mount Kilimanjaro in Tanzania, the vast tracts of Central Africa, the Himalayas as you skirt Pakistan, you'll cross South East Asia, the Pacific, Australia, island paradises in the middle of oceans, the Grand Canyon and all the major famous sights on the North American continent, before eventually heading out across the north Atlantic and skirting the Arctic Circle, where you might get a glimpse of the Northern Lights if you are lucky (yes, they are present in both FS2004 and FSX).

From there you'll come down through Scandinavia and on to Germany and the heartland of Europe, before heading back to the British Isles, where you'll pay a visit to my local airport at Manchester on the penultimate flight, before finally heading back to Farnborough where you started out. Give me a wave as you fly over Stockport.



Quite a trip huh?

Here's looking at you, kid...

In terms of megabytes this is not a huge add-on, however, as a concept it is as vast as your own imagination, and that for me, is what makes it such a thrilling title; it's the tool with which to create your own epic airborne adventure, which is something that appeals to me as much as aviation itself does. As we've seen, a title such as this will either stand or fall not just on its quality, but also on what it can offer beyond that. For me, there's no doubt that after the close examination I have given it, coupled with the adventures it offers, it is still standing tall in spite of a few graphical glitches here and there. The route appears faultless, presenting a whole range of thrills, challenges and insights, some of which I still have to look forward to, and the included Lockheed Electra which you get, is just a joyous thing to have at your command as the FS world opens up to you.

Around the World in 80 Flights will take you to places in FS that you might otherwise never have thought to fly over or land at, and there's a lot to see in that crazy mixed-up virtual world. Yes, there are one or two small gripes with the included Lockheed Electra, but they don't amount to a hill of beans when placed alongside its plus points and can be corrected with a little work, although I do think the developers should do that work in a patch. Back on the plus side, if you want to write your own story about a flight around the globe, I don't think you'll find a better soundtrack for it than the one those two big old radial engines will provide.

If you are not attracted by the Electra in this add-on, and there will be some who are not - after all, not everyone is interested in old airliners - then you might find it slightly tougher to justify the price of this add-on for the flights alone. But if you're even remotely interested in the kind of challenge those flights offer, then it's easy to recommend this product to you, and I know you will not be disappointed. Ultimately though, if you are like me, and you love old airliners like the Electra so much that you would rush out and try to buy one if you won the lottery, and you find the prospect of circumnavigating the globe in FS an inspiring and thrilling challenge - one that can serve to teach you more about the real world, by using the virtual one - then this title is unmatched and you should definitely get hold of it. As Humphrey Bogart points out at the very end of Casablanca, it could be the beginning of a beautiful friendship.

One last point. I do recommend you get hold of a nice map of the world on which to track your progress, it adds a lot to the fun. If you don't have one of these to hand, you can find some very nice ones, which you can download for free, on the [CIA's](#) website (yes really).

What I Like About Around the World in 80 Flights

- It's one of the best challenges you'll find for MSFS, it will relight your enthusiasm for flight simulation.
- It's educational, exciting and fun
- It has great longevity and 'replay value' - and that's a good thing when we may be looking at the last ever version of Flight Simulator
- You can do the flights in any order, which means you can start from your own country in most cases, or at least one nearby to you, which gives it a nice, personal aspect
- The included aircraft is great fun to fly and feels very authentic, and for the most part is a great rendition of it's real-world counterpart
- The documentation is particularly worthy of note for its thorough approach and enthusiastic tone and the product support seems good

What I Don't Like About Around the World in 80 Flights

- One or two minor errors on the aircraft, which whilst not really bad, and largely correctable, tarnish an otherwise faultless rendition
- It's not as flawlessly compatible with both versions of FS as I'd like it to be, or indeed as it could be with a bit of patching
- A couple of controls in the virtual cockpit are not operable from that view, and really should be

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