# The admirable time machine called Concorde

# Version 1.2

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## **Preface**

June 17th, 1974, at 08:22 local time. An Air France Concorde leaves Logan Airport in Boston, bound for Paris. At that same time, a 747 Air France leaves from Paris Orly bound for Boston Logan. Concorde crossed the Atlantic and landed in Paris. Just 68 minutes after landing, Concorde takes off again doing the reverse route, landing back at Boston Logan 11 minutes before the 747 reaches its destination.

Imagine leaving London at 10:30 am, in no great hurry, and arriving in New York at 09:00 local time. If you were able to complete the purpose of your visit to New York in less than four hours you could take the return flight at 13:30 and be back in London at 22:30, so you could sleep at home after having crossed the Atlantic twice in one day. Concorde was, in practice, the closest thing to a time machine you can think of.

It is remarkable that in the 1960s and 1970s Concorde made the U.S. supersonic project initiated by Boeing, and that never saw the light, a dead letter. And being more effective than the Russian Tupolev Tu-144, which was eventually abandoned. The two superpowers of the time, developers of all space projects by then, were overcome by a strange European collaboration between France and the UK.

Admirable is also the strange sensation of flying a plane that looks classic, with its cockpit filled up with analog gauges but that, in practice, had very similar systems to modern aircraft such as INS, fly-by-wire and electronic engine management and offered superior performance to any current commercial airliner full of glass panels with maps, digits and characters. It is remarkable that even today, retired and after 34 years of service since its first flight, the Concorde remains an icon, a benchmark with no competitor to overshadow it in at least the next 10-20 years, and all that despite having at present far superior manufacturing processes and super-computers instead of pencils, paper and design tables that were used to develop the Concorde at its time. It is remarkable that in all the years in operation the only two notable changes were the introduction in 1996 of the collision avoidance system (TCAS) and the kevlar reinforcement of the fuel tanks after the crash of 2000.

Concorde is, finally, admirable just in itself. Its unparalleled beauty makes you lose your senses and, when you least expect it, you're absent minded doing nothing but watching. Admiring, really. Enjoying her line. Her shape. Her beauty. Ultimately, a unique aircraft for its features and performance. Because it was the only aircraft capable of offering its passengers a true journey through time.

# Introduction

Most tours designed by virtual airliners are special. Some of them make you fly very special aircrafts that require all our expertise to pilot them. Others help us discover the world going through the usual routes and in some cases or taking us to remote. Historical routes or achievements are often recreated. On many occasions the tour is special because there's a special mission to fulfill. However, I dare say that this Concorde Tour is even a bit more special.

Concorde is already, in itself, a very, very particular plane. You will need many hours to learn how to fly her properly. I say fly, just fly, meaning getting into the air. You will need even more hours to really master her. In fact, it takes a while just to learn how to start the engines...

But once we get airborne, we will recreate historic routes, go round the world several times, land at some of the most famous and busiest airports in the world, some are remote and we will even stop at one presently out of use. And on top of that, some stages include special missions. Stage by stage we will discover curiosities and important dates, facts, routes and destinations of this gorgeous plane. Ultimately, discovering her story in the most vivid and intense possible way: by flying her. Wow! Don't you feel like starting to fly her already?.

# Before you start...

Just two months ago I knew NOTHING about Concorde. Well... it flew supersonic...I knew that. But little, little more. Now, two months later I've been able to learn to fly Concorde (well... at least to take off and arrive my destinations) and I've learnt many things while preparing this World Tour. Today, on November 26th, I wanted to tribute Concorde making this tour public on the 9th anniversary of their last flight ever. HOWEVER... I'M NOT A CONCORDE EXPERT.

Just the other way round, in fact. I'm a perfect newbie. In fact, I managed to make my first flight with Concorde-X just 40 days ago...

I pretty sure that you'll find inaccurate information in this text. I DO APOLOGIZE in advance and I would really appreciate if you contacted me so that I can improve the tour. Next you'll find a link to the original document. There, you can RIGHT CLICK any part of the document and leave me a message. I promise I'll review all your comments and change whatever is necessary.

Thanks so much in advance!!!

https://docs.google.com/document/d/1JI7hzg0g\_iFUi0mOCflLdona1jKjJ7VkOEIK9XPAjLo/edit?

# Requirements

## About the plane

This tour has been designed specifically for **Flightsim Lab's Concorde-X**. Of course, anyone is free to use any other Concorde model or even a**Tupolev**Tu-144. However, please bear in mind that **the entire tour is designed with the Concorde-X in mind**.

If you'd like to try the Tupolev Tu-144, please have a look at Nikita Konstantinov and Mikhail Mitin model for **FSX**:

http://www.avsimrus.com/f/fsx-aircrafts-79/tu-144d-v3-5-44272.html

## Calculate fuel reference speeds and other data

If want to accurately **load and setup your Concorde <u>YOU'LL NEED</u> Concorde Performance System**, donationware tool developed by Pierre Chassang.

You can download it at his blog:

http://concordeperformancesystem.unblog.fr/

# **Checklists for Concorde-X by FSLabs**

http://ramoncutanda.com/alz/concorde/FSLabs Concorde Checklist.pdf

http://ramoncutanda.com/alz/concorde/concorde-x voicechecklist.rar

## **INS navigation system of Concorde**

The real Concorde used the navigation system Delco Carousel INS whose concept is very similar to the current one that is used: that is, three gyros calibrated determine the estimated location of the aircraft at all times. INS navigation was a breakthrough in terms of precision navigation and at the time was used by other aircrafts too, such as the first B747s series. But

Delco Carousel is quite limited compared to the current FMC. First it required you to manually enter geographic coordinates of each point on the route, which was a more tedious way to enter intersections and airways than you find in modern aircraft today. Furthermore, it only could store up to nine waypoints. So, routes with more than 9 points were required to reenter new data constantly in order to not have any discontinuity in the route. Later on, the system was refined and Delco Carousel INS could be programmed using cards that had preprogrammed routes, so there was no need to hand type all coordinates for each leg. It was enough to insert the right card at the right time along of the route. Still, the limit of nine points still existed, so you had to be careful to switch from one card to another at the right time along the route. Incidentally, the waypoints are not named as the current FMC. There are just plain numbers. So it was necessary to have the route on paper with the names of each waypoint and to know to what card and number they corresponded to.

On all stages you'll will see that I refer to these cards and route numbers. For example, for the second stage you will see that I refer to the following restrictions:

**Speed restrictions** Subsonic from 40 miles before ROA until the end of the route. (Card 1, section 3-4)

That is, the reference point is ROA. In a current FMC you can actually read ROA. However, in the Concorde we need to know to which card and stage that point corresponds to. I'll include that information at every stage to make navigation easier.

Also, another limitation of the Delco Carousel INS to take into account is that, once aligned, it is as accurate as the current one. However, it does relatively easy lose precision as each stage goes by as it is based on mechanical systems, rather than the current lasers, and at the end of long stages, depending on the turbulences through which you may have passed through, there can be an important deviation from the filed plan. Therefore it is desirable to "recalibrate" en route. It is important to note that to make the re-calibration **you need to tune a VOR that, important, also counts with DME (Distance Measuring Equipment)**. Please note that not all VORs are equipped with DME. Once tuned, you need to provide the INS with the altitude (rounded to thousands of feet) and exact coordinates where located. When using a route map as of <a href="skyvector.com">skyvector.com</a> or applications such as FSBuild or FSCommander, please make sure you are selecting a VOR-DME or VORTAC. Once you have the VOR tuned and after entering the coordinates for its exact location, using the measuring equipment the INS will calculate the difference between the coordinates of your current position with respect to that VOR and can correct any possible deviation gained and acquired along the route.

Again, and just to make your life easier, when possible I will point out a reference VOR for each stage which you can use to recalibrate the computer route. The DME can be updated by inputting coordinates and frequence manually or through a custom update included along with other files prepared for the tour. Sometimes you will not need to use it when the calibration is maintained within a reasonable range, and at other times it may be necessary to update

beforehand.

#### **ADC** files for the DME Updating

In the file containing all the routes you'll find a folder called "Concorde Performance System" where you will find all the route files in a format that WON'T REQUIRE YOU TO MANUALLY ADD ROUTES IN Concorde Performance System. ADC files attached ALREADY INCLUDE the coordinates for all the recommended VOR to use in the DME Updating.

VERY IMPORTANT: Sometimes there are discrepancies between the information provided by Flightsim Commander (FSC) and the actual frequency in FSX. Since all frequencies for the tour have been obtained through FSC and before publishing this document I've only flown a couple of test stages, I have not thoroughly checked all of them in real flight. You may find that some of the VORs frequencies suggested to update the INS may not work. In that case, please review the VOR in FSX own map. I can only apologize for any discrepancies you may encounter and would kindly ask you to let me know so I can update the information for this route. THANKS in advance.

**NOTE** 1:Suggested VOR DME upgrade are just that: suggestions. It is highly recommended to always be attentive to the loss of accuracy during the route and calibrate INS whenever necessary (and possible, of course) whatever may have been my recommendation for the stage. Having en route charts or tools like FSCommander whilst enroute can be very convenient.

**NOTE 2**:There are some stages, such as crossing the Pacific, in which no VOR are suggested. That's simply because there are none close enough along the route to be tuned. In other stages, however, the distance is simply so short (about 1,000 miles or less) that an update is very unlikely to be necessary.

**NOTE 3:** In FSX VOR all have a maximum range set at 200 nm. At every stage my suggestion indicates the point of the route, expressed as card and section, in which the VOR tuned will **begin to pick up the signal** and, therefore, when we can start the upgrade procedure, which will, automatically end when we get out of the reach of VOR.

# Routes to fly

Concorde featured several characteristics that made her flying very special as far as compiling

routes are concerned. First one is that, because of the sonic boom, you could only normally fly at supersonic speed over unpopulated areas, taking into account that sonic boom could be heard in a corridor of about 60 miles wide along the vertical flight path. In practice, this restricted supersonic routes to seas and oceans. However, in rare cases Concorde could also fly over land at supersonic speed when routes passed over deserts, jungles and other underpopulated territories and, besides, had specific permissions from the governments whose airspace it crossed. Anyway, and whether over water or land, Concorde's bank angle in turns at supersonic speed is very limited, so sometimes it was simply impossible to follow standard airways because it was impossible to turn so tightly.

Another special feature of the Concorde was her flying at an altitude of between 50,000 and 60,000 feet. Flying at that altitude has two practical implications. The first one is that Concorde always flew "alone". No other airliner was capable of flying at that altitude, so once above 40,000 feet the air traffic controllers could "go to sleep" until the descent because there was no one else up there. Because of this "loneliness" Concorde could avoid "step-climb". Instead, a mode called "Max Climb" was used, in which Concorde was ascending fully automatically depending on her weight, constantly modified by burning fuel and atmospheric conditions. In fact, it is not uncommon to see the Concorde make small descents after reaching a "cruising" altitude of about 50,000 feet or above to maintain Mach 2. Once the Concorde reduced her weight or weather conditions changed, Concorde continued her climb to a maximum altitude of 60,000 feet, although in practice rarely exceeded 56 to 58,000 feet and, again, there are often small decreases to maintain Mach 2. Second implication is that the wind is not such a big influence at those altitudes, so that Concorde transoceanic routes were fixed and did not need to make changes daily depending on the weather conditions (NATs and PACOTs).



Mach 2.02 and 60,000 feet cruise. You'll see when you get that feeling ...

Another aspect to consider is the huge Concorde fuel consumption in subsonic flight. So accelerating and keeping supersonic speed as soon and as long as possible was critical. Concorde often obtained permission to ascend and descend over 250 knots above 5,000 feet, half of the 10,000 feet usual altitude. We will have the opportunity to try this kind of acceleration and descent in some of the airports we'll visit; those more accustomed to receiving Concorde.

But leaving aside the economics of the fuel expediture (after all we're not paying for fuel in a simulator) an excessive consumption may mean that we won't have enough fuel to reach our destination. Please note that the minimum operating fuel is around 3T. Below that amount you can lose an engine due to lack of fuel pressure.

One last final special feature of Concorde to consider when planning a route is that only about 200 miles are needed for a full descent from an altitude of 60,000 and M2.02 spee, including the distance required to decelerate to 360 knots before actually starting the descent. During the descent from 50-60000 feet to 36,000 feet Concorde normal VPS are 8,000 to 9,000 feet per minute are normal. And yes ... I said "normal" In real life Concorde could make descents up to 11,000 feet per minute. The last part of the subsonic descent is closer to the values of other ircraft but, again, performance in supersonic flight is far superior to conventional aircraft.

The practical implications of all these features is that the Concorde's flight plans were

personalized and unique, very different from any other normal commercial airline and very commonly official airways were not followed. In fact, it was quite common to use specific coordinates instead of using fixed reference points, intersections or other fixed points. Air traffic controllers contacted by Concorde along its route had to be aware of all these features to facilitate as far as possible, these special departures, climbings, routes, special arrivals and descents. In the unscheduled flights that Concorde made throughout the years across the world a great bureaucratic management was required prior to each flight to obtain the necessary authorizations in each country and warn ATCs about Concorde's special features.

#### Priorities taken during route design

When **designing the stages** for this tour the following **priorities** have been **taken into account**:

- 1. Whenever possible, real Concorde flight plans have been used.
- 2. When unable to access real Concorde flight plans, her special characteristics mentioned above have been taken into account, avoiding flying at supersonic speed over populated areas which, at times, has caused significant deviations with respect to the path that a conventional subsonic aircraft would have followed.

In order to be sure that no populated areas were flown supersonic, I've checked the population density maps by Columbia University in New York when designing some of the routes. The reference year chosen was 1990.

Http://sedac.ciesin.columbia.edu/maps/gallery/set/grump-v1-population-density

3. I've also done my best to stick to official airways. However, if using an official airway involved a supersonic flight over populated areas or required an unacceptably large deviation affecting the flight time or fuel, then direct direct routes have been chosen NOT using official airways. In those cases I've tried, at least, to use intersections and real fixed points available in enroute maps instead of using custom geographic coordinates.

**NOTE:** When designing routes **AIRAC 1210** cycle was used.

- 4. For each stage it is clearly indicated whether there is or isn't a restricted speed section.
- 5. For **subsonic sections** the best autonomy is obtained at **M0,95** and **FL260** (before ascending and accelerate to supersonic) and **FL350** to **FL300** after descending from

FL500-FL600.

#### SIDs and STARs

In order to make the use of the suggested routes easier, whenever possible all routes start in a common intersection to all SIDs and end in a common one to all STARs.

When there isn't a common intersection to all SIDs or STARs the most logical point has been selected according to the direction of the route. An exception has been made, however, when there is only one runway with ILS available, in which case the runway with ILS has been given priority.

The SIDs and STARs proposed are only and exactly that: <u>PROPOSALS</u>. Actual SIDs and STARs will always be provided of course by ATC. But knowing which ones are more likely to be assigned makes choosing and reading charts quicker and easier.

#### Types of routes

On each stage it is clearly indicated if the Route is:

- **Route 100% real**, when I've had access to a real Concorde flight plan and, therefore, we will faithfully follow her steps from start to finish
- Route partially real, when only part of the original Concorde route is used.
- Route using Official Airways. The Concorde did not make that same route or, if made, I have not been able to get the route flown. But I've been able to use official airways, VORs, fixed points and intersections based on AIRAC cycle 1012.
- **Route simulated**, when I could not have access to a real Concorde flight plan and, besides, using official airways would be an unacceptable alternative route. Whenever possible official intersections or fixed have been used. At other times, only geographic coordinates could be used.

#### **Speed restrictions**

For each stage, is its clearly stated if it is 100% supersonic, if there are any subsonic sections at the start, end or both, or if the whole flight will be subsonic.

**Most** of the stages will follow the **standard 250 knots below 10,000 feet speed limit**. However, in real life it was not uncommon for ATCs to clear Concorde to ascend or descend at higher speeds, especially in long routes where fuel consumption was an important factor to

consider. Concorde does NOT like to comply with these limits, so at some stages you will be allowed to ascend or descend above 250 knots; just as in real life Concorde pilots could sometimes experience. As always, in each stage it will be indicated whether there are or aren't such limitations.

**Standard:** Up to 250 knots below 10,000 feet. No subsonic sections.

**5,000 feet:** Up to 350 knots between 5,000 and 10,000 feet and 250 knots below 5,000 feet.

**Subsonic:** If there is any subsonic section either at departure, arrival or both it will be clearly indicated.

#### Routes download

In the following link you'll be able to download all the flight plans for FSX, Flightsim Commander and X-plane:

http://www.ramoncutanda.com/alz/concorde/ConcordeFlightPlans.zip

## Flying online / offline

Because of all particulars Concorde features stated above, it is NOT recommended to fly this tour online unless you are willing and are able to make all the necessary arrangements with ATCs for each flight. If you do not, conflicts with ATCs are guaranteed.

I've only flown online a couple of times and never with Concorde. But some users used to flying Concorde online suggests including the following information in your flight plans:

- 1) Your acceleration point over unpopulated or desertic areas
- 2) The cruise climb at M2 up to FL600, which means FL600 is a target you may not reach depending the current delta ISA and the FL may fluctuate with ups and downs
- 3) Your deceleration point over unpopulated or desertic areas

If necessary kindly ask the ATC guys who does not quite understand the supersonic flight particularities to have a deeper look at your FPL and give him some basic and cordial explanations related. (Thanks to ontheair)

#### **Missions**

There are some stages in which there is a "special mission" to fulfill consisting of taking a screenshot of the Concorde overflying some famous landmarks allowing us to have a small "scrapbook" of this world tour.

The whole tour has been designed using FSX as the reference simulator so all the landmarks chosen are modeled in the default FSX sceneries.

For making the screenshots I personally like to use the free tool **Gadwin PrintScreen** which allows automatically generation of JPEGs with every snapshot.

http://www.gadwin.com/download/ps\_setup.exe

More about the Pro version of the same tool http://www.gadwin.com/printscreen/

**NOTICE:** Due to the proximity of all landmarks to the destination airport **stages with a mission are especially complicated to fly** online.

## **Navigation Charts**

As we all know, navigation charts are copyrighted material and, unless the aeronautical authorities themselves provide them for free, their distribution is prohibited. That's why whenever it has been possible I provide a link to the official navigation authority website so that you can get a free updated real chart for each airport. When no free chart is available I would recommend acquiring Navigraph charts:

http://www.navigraph.com

You can get 50 charts for 10 euros.

As an alternative, you can always Google the ICAO airport code adding the words "chart" and "AIP" (Aeronautical Information Publication) However, remember that the fact that they are easy to find for free does NOT mean that downloading or using those resources is always legal.

Below I include a list of countries that offer their AIP (Aeronautical Information Publication) for free. Perhaps you may find this info useful for other flights.

#### French Antilles, Guyana, St Pierre and Miquelon

https://www.sia.aviation-civile.gouv.fr/aip/enligne/uk/AIP%20CAR-SAM-NAMProduitPartieframe set.htm

#### **United Arab Emirates**

Http://www.gcaa.gov.ae/aip/UAE AIP Current.html

#### Australia:

http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm

#### Bahrain:

http://www.caa.gov.bh/ais/aip button.html

#### Brazil:

http://www.aisweb.aer.mil.br/?i=cartas&filtro=1&nova=1

#### Chile:

http://www.aipchile.gob.cl/

#### Denmark

http://www.slv.dk/Dokumenter/dsweb/View/Collection-28

#### Spain:

http://www.aena.es/csee/Satellite/navegacion-aerea/es/Page/1078418725163/?other=1083158 950596#ancla3

American Samoa, Anguilla, British Virgin Islands, Bahamas, Bermuda, Guam, Marshall Islands, Micronesia, Netherlands Antilles, Northern Mariana Islands, Palau, Puerto Rico, St Martin, Turks & Caicos, U.S. Virgin Islands, USA

http://www.airnav.com/

#### Finland:

https://ais.fi/ais/eaip/en/

#### France

https://www.sia.aviation-civile.gouv.fr/html/frameset aip uk.htm

#### Greenland:

http://www.slv.dk/Dokumenter/dsweb/View/Collection-30

#### **Hong Kong**

http://www.hkatc.gov.hk/

#### Faroe Islands

http://www.slv.dk/Dokumenter/dsweb/View/Collection-31

#### Reunion island, Mayotte and Scattered

https://www.sia.aviation-civile.gouv.fr/aip/enligne/uk/AIP%20RUNProduitPartieframeset.htm

#### **New Caledonia Wallis and Futuna**

https://www.sia.aviation-civile.gouv.fr/aip/enligne/uk/AIP%20PAC-Nframeset.htm

#### New Zealand

http://www.aip.net.nz/NavWalk.aspx?section=CHARTS

#### French Polynesia

https://www.sia.aviation-civile.gouv.fr/aip/enligne/uk/AIP%20PAC-PAD2sectionframeset.htm

#### **Dominican Republic:**

http://aip.idac.gov.do/

#### **United Kingdom**

http://www.nats-uk.ead-it.com/public/index.php%3Foption=com\_content&task=blogcategory&id =6&Itemid=13.html

#### **Singapore**

http://www.caas.gov.sg/caas/en/Regulations/Aeronautical\_Information/AIP/aerodrome/?\_\_local e=en

#### South Africa

http://www.caa.co.za/resource%20center/Charts/AERONAUTICAL%20CHARTS/ChartsIndex.html

#### Thailand

http://www.aerothai.co.th/eng/mission ais en.php

Asecna, Benin, Burkina Faso, Cameroon, Centrafrica, Comoros, Congo, Ivoiry Coast, Gabon, Guinee Bissau, Equatorial Guinea, Madagascar, Mali, Mauritania, Niger, Senegal, Chad, Togo

http://www.ais-asecna.org/en/ad/ad2.htm

# **Sceneries and Airports**

For each stage scenarios and airports are suggested to improve the detail and quality of the default scenary. Some are free but some other are payware. Obviously the use of these scenarios is completely and totally optional, but some of them are highly recommended because of their special realism, or because they are common destinations and could be reused

in other tours. The convenience of these add-ons is at to the user's discretion.

**NOTE:** Prices shown are correct as at November 2012, but should be used only as a reference

Of course the list of airports and scenarios is just a guidance but it's not an exhaustive list.

If no suggestions are made for a particular stage, or if you prefer not to pay (or hack...) you can find other free sceneries by airport name, city, region ICAO code or one of these websites:

**NOTE:** When searching for free sceneries do not forget to check the sections AFCAD

#### **Especially recommended:**

http://www.flightsim.com/vbfs/fslib.php?do=displaysearch

Other options

http://library.avsim.net/

http://simviation.com/1/search

http://www.freewarescenery.com/

# Dates and times for flights

Since the main purpose of this trip is to recreate the Concorde flights and routes as closely as possible a date and time of departure is recommended for each stage. Sometimes it is the exact date or time in which the Concorde actually flew. Other times it is simply an estimate or recommendation. And finally, in those stages where I could find neither the exact date nor the time I decided to recommend dates and hours not flown in other stages for maximum possible diversity.

**NOTE: All times listed in <u>Zulu time</u>** (GMT)

Part 1: Around the world, October 12th 1992



Apart from regular commercial flights, which we will deal with later, Concorde made numerous charter flights worldwide. Some were organized by Air France and British Airways themselves, but on many other occasions Concorde was leased to specialized travel agencies or large companies. One such company was the American Concorde Spirit Tours, who organized several trips around the world with the F-BTSD Air France Concorde. Two of those tours set the current circumnavigation world speed record both eastbound and westbound.

For our first round the world tour we will recreate the one that took place on 12-13th October 1992 which started and finished in Lisbon to celebrate the 500th anniversary of the arrival of Christopher Columbus to America. This tour was completed in just under one and a half days. To be precise, in 32 hours 49 minutes and 3 seconds, including technical downtime in Santo Domingo, Acapulco, Honolulu, Guam, Bangkok and Bahrein. I'm pretty sure Phileas Fog would have loved to have been on that flight ...

Although the original route began and ended in Lisbon, for this occasion we will make our last stop for this world tour in Spain, just a little before the actual destination. There are so many places to visit in this Concorde World Tour that **we will not land at the same airport twice**. Our Spanish airport, which is neither Madrid nor Barcelona, is close enough to Lisbon so that we consider our world tour to be complete:.

There is a very interesting site with information on the various airplanes that undertook around

the world tours throughout history. Amongst which, of course, we can find information about Concorde's.

http://www.wingnet.org / rtw /

Stage 01. Lisbon - Santo Domingo / LPPT MDSD (3358 nm)



Concorde at Lisbon - Photo by Bruno Monte

Let's begin our Concorde world tour in in Lisbon, a city that was never used as a scheduled Concorde destination but yet sometimes served as a refueling point on the route London-Barbados, as well as a stopover or destination charter. Lisboans therefore enjoyed for a few years the sight of Concorde flying over their city quite often, since Lisbon airport is integrated within the city limits.

Santo Domingo, on the other hand, only received Concorde's visit once, at least that's what I've been able to learn, and it was just a pit stop of around an hour during the world tour that we have just began.

We'll use this "quiet" flight over the Atlantic just to get familiar with the aircraft we will be using for for so many nautical miles, hours and stops around the world. You can also enjoy the sight

of a unique phenomenon that only military fighter pilots and Concorde users have enjoyed. Concorde's speed of Mach 2 is faster Earth's rotation, and on westbound flights produces a strange feeling of travelling "back in time", as we will be arriving ar our destinations in an earlier local time than in our departure. Indeed, this world tour was called "Sunchaser II" and despite the technical stops, the sun never set during the entire trip. Departure time will be 13:00 zulu time, same as in this historical flight. Including technical stops of around an hour at each stage, it will take us over 30 hours to complete this world tour "of a day", so our last landing will be very close to the sun set. Sure we will honor this so called "sunchaser" tour...

This stage is, curiously, the longest of them all, so do not panic if you "eat" most of runway on takeoff as we will be carrying a lot of fuel. Btw. .. you'd better not forget the afterburners ...

#### **Airport / Sceneries**

Aerosoft FSX/FS9 - 24,95€

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=11134&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

#### Charts

LPPT <a href="http://www.nav.pt/ais/cd/2012-10-18-AIRAC/html/eAIP/LP-AD-2.LPPT-en-PT.html">http://www.nav.pt/ais/cd/2012-10-18-AIRAC/html/eAIP/LP-AD-2.LPPT-en-PT.html</a>

MDSD <a href="http://aip.idac.gov.do/ingles/paginas/mdsd">http://aip.idac.gov.do/ingles/paginas/mdsd</a> in AD2 24.html

MDPC <a href="http://aip.idac.gov.do/mdpc.html">http://aip.idac.gov.do/mdpc.html</a>

SID: BUSEN
STAR: BIBOK

Recommended date/time: October 12. Z 13:00

**Estimated Time Enroute: 3:40** 

**Alternate:** MDPC (Punta Cana)

#### Simulated Route (3358 nm)

LPPT BUSEN UM744 KOMUT ETROX 3532N 3436N 3243N 2951N 2756N FIVZE M597 PIXAR BIBOK MDSD

```
3532N = N35 ° 00'00 " W032 ° 00'00"

3436N = N34 ° 00'00" W036 ° 00'00"

3243N = N32 ° 00'00" W043 ° 00'00"

2951N = N29 ° 00'00" W051 ° 00'00"

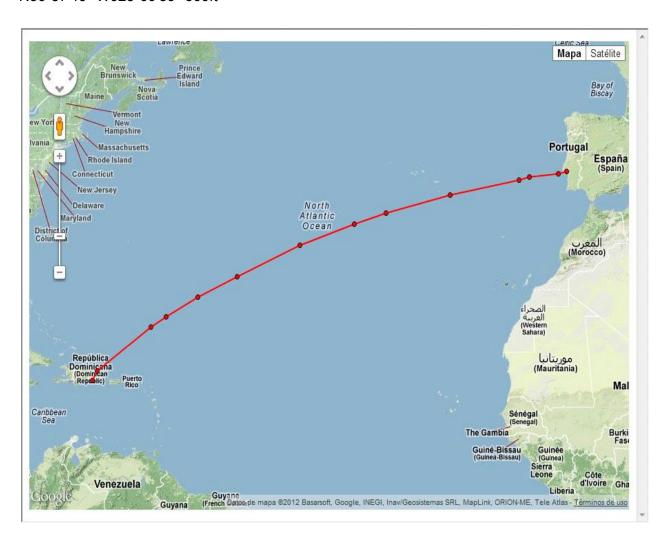
2756N = N27 ° 00'00" W056 ° 00'00"

2462N = N24 ° 00'00" W062 ° 00'00"
```

Speed Restrictions: Standard

### **DME Update**

Santa María Card 1, section 3-4 VOR-DME VSM 113.7 N36°57'46" W025°09'59" 300ft



Stage 02. Santo Domingo - Acapulco / MDSD MMAA (1809 nm)

http://en.wikipedia.org/wiki/General Juan N. % C3% 81Ivarez International Airport



At Santo Domingo - Photo by!\* Sonikkito \*!

Similarly to Santo Domingo, Acapulco was only used as an intermediate step during the Concorde round the world tours, so I have not found anything particularly relevant to say about this stage. Nevertheless, this stage is interesting because we will only be able to fly at supersonic speed for the first half of the journey, decelerating and descending to subsonic speed on our arrival to Honduras in order to make a brief Central America crossing and then going out and turning to the north by the Pacific, maintaining subsonic speed to destination.

Please, take into account that in order to fly subsonic you need to descend to an altitude of about 34-36000 feet and that the optimal speed at that altitude is M0.95 for Concorde; which is faster than any other subsonic aircraft.

#### **Airport / Sceneries**

LatinVFR - FSX/FS9 - 19.03€

http://secure.simmarket.com/latinvfr-las-americas-mdsd.phtml

Aerosoft - FS9/FSX - 27,95€ (IVA Inc)

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=10571&s\_design=

#### <u>DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol\_</u>

NOTE: Includes 17 México airports; México City and Acapulco among them

**Charts** (no official charts available for free)

SID: LECKY

**STAR:** -/ILS/DME (ACA)

Recommended date and time of departure:October 12th - 16:30z

**Estimated Time Enroute: 3:00** 

**Alternate:** MMZH (Ixtapa -Zihuatanejo)

Simulated route up to ROA. Starting at ROA official airways to destination (1809 nm)
MDSD LECKY UA319 RAGUS BEREX DELVI ROA UR644 TAP J1 ACA MMAA

**Speed Restrictions:** Standard on departure and arrival. Subsonic from 60 miles before ROA to the end of the route. (Card 1, section 6-7).

Subsonic distance: 870 miles

**DME Update** 

Roatan Card 1, section 6-7 VOR-DME ROA 117.600 N16°18'59" W086°31'18" 20ft



Stage 03. Acapulco - Honolulu / MMAA PHNL (3325 nm)

http://en.wikipedia.org/wiki/Honolulu International Airport



At Acapulco - Photo by Proud AMX

If anything distinguish Pacific Ocean is a vast array of water. And being plenty of water can only mean one thing: there is very little land. Concorde autonomy did not allow her to cross the entire Pacific on a nonstop flight, so it was necessary to make stops along the way. But there aren't many runways in the Pacific long enough for the Concorde to land. Due to its location, the Hawaiian Islands were always an interesting option to take into account. And Honolulu airport was almost always chosen. Moreover, due to the scarcity of land, we can not update our INS, so do not be surprised if there is some deviation with respect to the planned route reaching the final approach.

#### **Airport / Sceneries**

FSDream Team - FS9/FSX - <a href="http://www.fsdreamteam.com/products">http://www.fsdreamteam.com/products</a> phnl.html

MegaSceneryX (FSX) - 14,95\$ http://www.megascenery.com/MegaSceneryXHawaii.htm

MegaScenery 2004 (FS9) - 9,95\$

#### http://www.megascenery.com/megacityhawaii.htm

Recomended date and time for departure: October 12th - 20:00z

**Estimated Time Enroute: 3:30** 

Alternate: PHDH (Dillingham)

Charts

PHNL <a href="http://www.airnav.com/airport/PHNL">http://www.airnav.com/airport/PHNL</a>
PHKO <a href="http://www.airnav.com/airport/PHKO">http://www.airnav.com/airport/PHKO</a>

SID: ACA

STAR 1: FRTZI2.LNY STAR 2: JULLE5.LNY

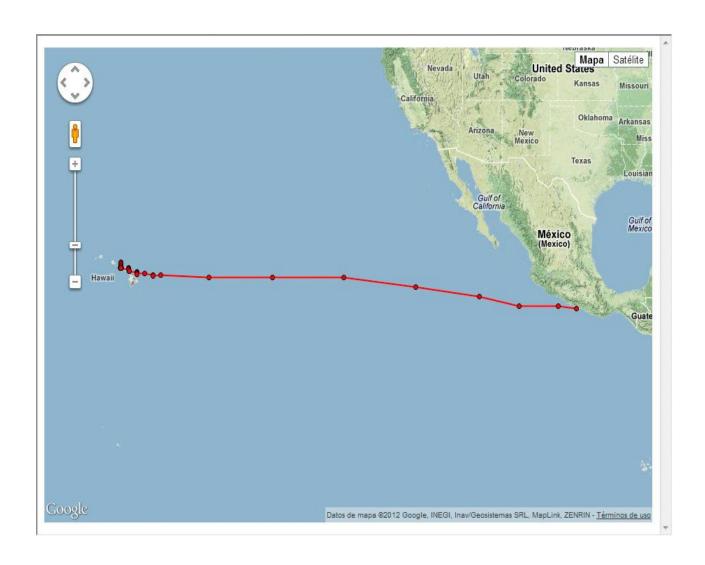
Simulated Route. (3325 nm)

MMAA ACA 17N02 17N07 18N12 19N20 20N29 20N38 20N46 SCOON V21 LNY PHNL

17N02 = N17°00'00" W102°00'00" 17N07 = N17°00'00" W107°00'00" 18N12 = N18°00'00" W112°00'00" 19N20 = N19°00'00" W120°00'00" 20N29 = N20°00'00" W129°00'00" 20N38 = N20°00'00" W138°00'00" 20N46 = N20°00'00" W146°00'00"

Speed restriction: Standard

**DME Update**: Not available



Stage 04. Honolulu - Guam / PHNL PGUM (3331 nm)

http://en.wikipedia.org/wiki/Antonio\_B.\_Won\_Pat\_International\_Airport



At Honolulu -Photo by HawaiiAviation

The small island of Guam was a Spanish territory since Magallanes arrived on his world tour until 1898, when it became under U.S. control after a war between US and Spain. Unlike Hawaii, Guam doesn't seem, at first, a very interesting tourist destination of international relevance. Unless, of course, we consider this stop as an intermediate technical landing in our world tour. In this case, this will work for us as an intermediate step, after our stop in Hawaii, just before we finish crossing the Pacific and jumping from the Americas to Asia.

Recommended data and time for departure: October 13th - 00:30z

Estimated Lenght: 3:40

**Alternate:** PGUA (Anderser)

Charts:

PGUM <a href="http://www.airnav.com/airport/PGUM">http://www.airnav.com/airport/PGUM</a>
PGUA <a href="http://www.airnav.com/airport/PGUA">http://www.airnav.com/airport/PGUA</a>

**SID**: KEOLA2

STAR: -

Simulated route, using official airways. (3331 nm)

#### PHNL KEOLA V12 KATHS A450 BAGBE ADAYI FIGOR PGUM

#### **Airports/Sceneries**

Flywestwind - FS9/FSX - Gratuito

http://www.flywestwind.com/Scenery/scenery\_display.asp?SceneryID=43

Speed restrictions: Standard

## **DME Update**

Wake Island Card 2, section 9-1 VORTAC AWK 113.500 N19°17'06" E166°37'39" 14ft



## Stage 05. Guam - Bangkok / PGUM VTBD (3265 nm)

http://en.wikipedia.org/wiki/Don\_Mueang\_International\_Airport



At Bangkok - Photo by Concorde Spirit Tours

There was never scheduled Concorde flights to Bangkok. However, Bangkok was a usual stop on Concorde frequent round the world tours. The airport used at the time was Don Mueang International (VTBD) since current Suvarnabhumi airport (VTBS) did not open until 2006. Don Mueang Airport was closed temporarily after the opening of Suvarnabhumi but, at present, the two of them are operational.

#### **Airports/Scneries**

Thai Flight - FS9 - Gratuito

http://www.simviation.com/simviation/download.php?ID=6949

Recommended date and time for departure: October 13th - 05:00z

**Estimated Time Enroute: 3:40** 

Alternate: VTBS (Bangkok Intl)

Charts <a href="http://www.aerothai.co.th/eng/mission">http://www.aerothai.co.th/eng/mission</a> ais en.php

NOTE: At the time of publishing this tour this official website is temporarily out of service..

SID: -

**STAR:** PAUL4A.REGOS

Route 100% real. (3265 nm)

PGUM UNZ ACRON LADSS KYWEE TILLY GURAG MEVIN KABAM N892 MOXON DUDIS BITOD REGOS PAULA VTBD

Speed restrictions: Standard on departure and landing. Subsonic 60 millas before REGOS

(Card 3, section 2-3)

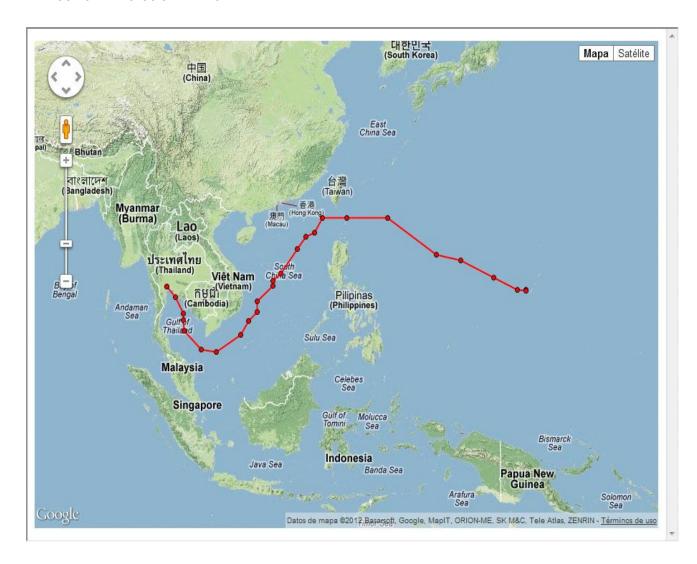
Subsonic distance: 150 millas

**DME Update:** 

Henghun

Tarjeta 1, tramo 6-7 VORTAC HCN 113.700

N21°55'40" E120°50'37" 421ft



Stage 06. Bangkok - Bahrain / VTBD OBBI (3086 nm)

http://en.wikipedia.org/wiki/Bahrain International Airport



At Bahrain, late in 1979 - Photo by Dennis Gooch

Bahrain was, as some of the other stages covered so far in this tour, a regular stop on Concorde's round the world tours. But there's more. We've finally come to an airport closely tied to the history of the Concorde. Bahrain was the first regular destination of British Airways Concorde, opening scheduled passenger operations on January 21st 1976, the same day that Air France started its Concorde operations on the route Paris - Dakar - Rio de Janeiro.

Due to its strategic location Bahrain was almost always chosen as scale airport in the flights with destination in the eastern part of Asia. Either for charter flights like ours, or for the few scheduled flights to Singapore which will be dealt with later on.

#### **Airports/Sceneries**

 $\label{lem:model} \begin{tabular}{ll} Mohammad Al-Bassam - FS9 - Gratuito \\ $http://library.avsim.net/esearch.php?DLID=88469\&CatID=fs2004scen\&Cookie=1 \\ \end{tabular}$ 

**Recommended date and time for departure**: October 13th - 09:30z

**Estimated Time Enroute: 3:50** 

Alternate: OTBD (Doha)

Charts:

OBBI <a href="http://www.caa.gov.bh/ais/eAIP/2012-05-03-AIRAC/html/eAIP/OB-AD-2.OBBI-en-BH.html">http://www.caa.gov.bh/ais/eAIP/2012-05-03-AIRAC/html/eAIP/OB-AD-2.OBBI-en-BH.html</a>
OEDR

http://www.caa.gov.bh/ais/eAipsep2012/2012-09-20-AIRAC/html/eAIP/OB-AD-2.OTBD-en-BH.html#AD-2.OTBD

SID: CHRIS2.TANEK STAR: RADLO1

#### Route 100% real (3086 nm)

VTBD CHRIS2.TANEK DWI P762 LULDA SADAP IDASO MMV W72 ANIRO BBI W56N AGELA N571 SENTO A415 RAMRO ELOSA UB457 RADLO OBBI

**Speed restrictions:** Standard on departure and arrival. Subsonic until 110 miles before LALIT (Card 1, section 2-3)

Subsonic distance: 200 millas

#### **DME Update**

Bellary Card 2, section 3-4 VOR-DME BBI 112.800 N15°09'54" E076°52'49" 1550ft

**NOTE:** As explained below, Concorde only made three supersonic flights over India before the Indian government's ban. For this stage we will follow the route that Concorde flew at supersonic speed over Indian territory.



Stage 07. Bahrain - Valladolid / OBBI LEVD (3075 nm)

http://es.wikipedia.org/wiki/Aeropuerto de Valladolid



At Villanubla - Photo by ACOR, obtained by Rafael Alvarez

Following the "tour" definition, any World Tour should finish at exactly the same point where it began. But, as already stated in the introduction, in order to avoid repeating airports we'll allow ourselves to land a little before our beginning point. In... Valladolid??? Bahrain-Valladolid??? That sounds weird even for a Spaniard like myself!!!

Concorde landed at many Spanish airports such as Barcelona, Malaga and Seville in the Peninsula and in Ibiza, Lanzarote, Las Palmas and Tenerife in the islands. Concorde visited some of them more than once. Of course, Concorde also visited Madrid. In fact, the first Concorde landing in Spain took place as early as July 9, 1973. And did not land in Barajas, but in Torrejón Air Base, a small airport just a couple south of Barajas but with a very long runway of 4,818m / 15,807 ft. Using Torrejón as a base, and over the course of three weeks, British Airways Concorde test model 002 made a batch of 20 subsonic test flights in Madrid surroundings. But Madrid also received passenger flights. The first, and I don't know if it was the only one, took place on September 27th, 1977.

But Concorde also visited other unusual Spanish airports for an aircraft of its features such as Albacete, Badajoz or our destiny: Villanubla airport in Valladolid. When designing this leg I thought at first to to use Badajoz Airport as the destination for this stage because of its proximity to Lisbon. But Concorde flights to and from Valladolid were so special that I choose it instead.

Concorde passengers at Valladolid were not rich or celebrities. They were just a group of 200 members of the cooperative sugar company Acor that on July 5th, 1988 spent around 180,000 euros at that time to charter a flight to Gran Canaria. Actually two flights in fact, since the capacity of that Concorde was only 100 passengers.

Finally, I'd like to clarify something that you will very likely imagine at this point: all airports chosen in this tour were actually visited by Concorde, even if only once on charter flights or tests, as was the case of Santo Domingo, the first destination of our trip. There is one exception though... but let's not anticipate events. You'll find out in due course.

If taking off shortly after sunset, as recommended for this stage, you'll see something spectacular. The sun rises in the west and daylight comes back again! The feeling is like travelling back in time :-)

#### Airports/Sceneries

vuelosaventura.com - FSX - Free

http://www.vuelosaventura.com/index.php?option=com\_content&view=article&id=79&Itemid=65

Recommended date and time for departure: October 13th - 14:00z

**Estimated Time Enroute: 3:50** 

Alternate: LESA (Matacán)

Charts: LEVD

http://www.aena.es/csee/Satellite/navegacion-aerea/es/Page/1078418725163/?other=1083158 950596&other2=1091168248817&other3=1096014651371#ancla3537

#### LESA

http://www.aena.es/csee/Satellite/navegacion-aerea/es/Page/1078418725163/?other=1083158 950596&other2=1083857759449&other3=1092293999622#ancla3444

SID: KFA1

**STAR:** - / ILS/DME (VLD/VL) and NDB (NUB)

Route only real until EPONT. Official airways from there (3070 nm)

OBBI RULEX UL602 RAMSI UL768 HFR V45 TRF RASLI ZELAF R785 NIKAS UM978 ALSUS EPONT APLON UA28 GIPAS UM33 KAVOS KUMBI METRU UP868 ARLOS UN4 EVIRA UN46 UPLIT UM732 MEGAN OSMAR DOPEL UM739 BALEN UM601 BCN UN725 DGO UN976 NEA VLD LEVD

<u>IMPORTANT</u>: As explained above, the Concorde's maximum bank angle when flying supersonic is very limited, so it's IMPOSSIBLE to follow the steep turn in this stage between KTN and NIKAS along R785. However, I've decided to include that part in the flight plan because it WAS USED in one of the original Concorde's flight plans I've been able to have access to.

However, and because it's IMPOSSIBLE fo faithfully follow that corner, I suggest performing a manual turn some 25 nm beffore BAN and then heading directly to NIKAS.

**Speed restrictions:** Standard on departure and landing. Subsonic from 60 miles before BNC (Card 8, section 5-6)

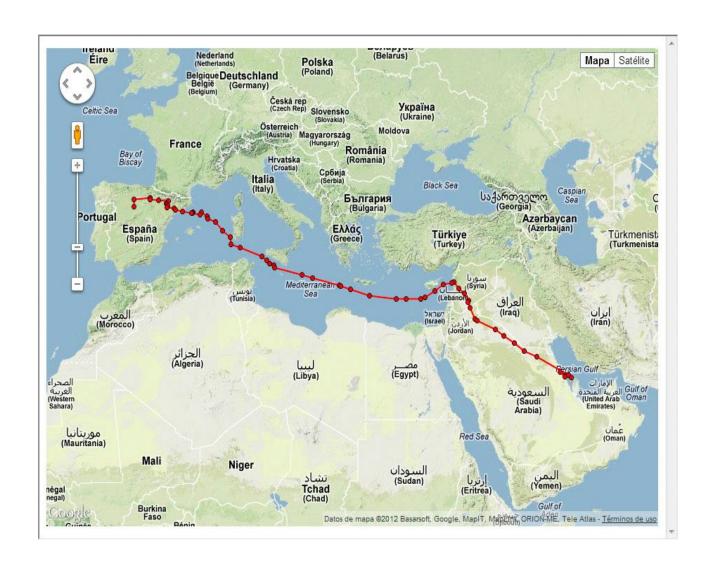
Subsonic disatance: 390 millas

#### DME Update 1:

Latakia
Card 3, section 1-2
VOR-DME LTK 114.800
N35°24'39" E035°56'58" 193ft

#### **DME Update 2:**

Cagliari
Tarjeta 6, tramo 2-3
VOR-DME CAG 113.40
N39°14'56" E009°03'14" 33ft



Part 2: From north to south.



In this second part of our tour we will not go around the world in the strict and literal sense, but we'll fly from north to south also recreating some historical stages of Concorde and doing stops in some very unique destinations that we will discover little by little as we move around.

# Stage 08. Valladolid - Kangerlussuaq / LEVD BGSF (2443 nm)

http://en.wikipedia.org/wiki/Kangerlussuag Airport



Two Concordes at Kangerlussuaq - Photo by Aviatsiya.ru

Strange as it may seem, Kangerlussuaq, an airport in Greenland within the Artic Polar Circle, was a common Concorde destination between 1996 and 2000, with charter flights organized by the British travel agency Travel Goodwood. On one occasion two Concorde's could be photographed together at such a "peculiar" airport (I'm sorry for not having found a higher resolution sample) The flights took place during the summer to enjoy the "midnight sun" available in such high latitudes, so recommended date of departure for this sage will be June 20th, coinciding with the summer solstice in the northern hemisphere. The scheduled departure

time is 22:00 local time at Valladolid and we'll try to get to Kangerlussuaq approximately by midnight.

#### Sceneries/Airports

INET.GL - FSX - 15 euros

http://secure.simmarket.com/inet.gl-kangerlussuag-x.phtml

INET.GL - Prepar3D - 30 euros

http://secure.simmarket.com/flightsim-greenland-greenland-mesh-prepar3d.phtml

Recommended date and time for the departure: June 20th - 00:00z

**Estimated Time Enroute: 2:50** 

Alternate: BGBW (Narsarsuaq - 5.990 pies / 1825 metros)

Charts:

**BGSF** <a href="http://www.slv.dk/Dokumenter/dsweb/View/Collection-398">http://www.slv.dk/Dokumenter/dsweb/View/Collection-398</a> **BGBW** <a href="http://www.slv.dk/Dokumenter/dsweb/View/Collection-401">http://www.slv.dk/Dokumenter/dsweb/View/Collection-398</a>

SID: -

STAR: - / NDB (SF)

# Simulated route. (2443 nm)

LEVD ROVAK STG PASAS 4919N 5225N 5635N 5946N 6049N 6252N NUTKA W24 AMINI SF BGSF

4919N = N49°00'00" W019°'00'00" 5225N = N52°00'00" W025°'00'00" 5635N = N56°00'00" W035°'00'00" 5946N = N59°00'00" W046°'00'00" 6049N = N60°00'00" W049°'00'00" 6252N = N62°00'00" W052°'00'00"

**Speed restrictions:** Standard. Subsonic until 150 nm before PASAS (Card 1, section 2-3).

**DME Update:** Not available



Stage 09. Kangerlussuaq - Rovaniemi / BGSF EFRO (1840 nm)

http://en.wikipedia.org/wiki/Rovaniemi\_Airport



Taking land at Rovaniemi - Photo by Oxcart Project



Santa Claus seriously considered swapping his reindeers for the Concorde to deliver his presents on Christmas Eve - Photo by <u>Santa Claus Promotions</u>

The Finnish city of Rovaniemi, located almost on the same latitude as Kangerlussuaq, was another strange Concorde common destination. However, Rovaniemi visiting time was winter, in almost total darkness and with heavy snowfalls. The purpose of the stop, this time, was to visit Santa Claus himself during preparations for Christmas:-) Unlike what happened during our

arrival with midnight sun, daylight is almost non-existant at this latitude during this time of year, so our departure time will be at night at Kangerlussuaq just to try to get some light at Rovaniemi for our landing.

#### **Airports/Sceneries**

Tatu Kantomaa - FSX - Free http://fisd.fsnordic.net/projects/efro/

Recommended date and time for departure: December 24th - 09:30z

**Estimated Time Enroute: 2:45** 

**Alternate:** EFKE (Tornio)

Charts:

EFRO <a href="https://ais.fi/ais/eaip/html/efro.htm">https://ais.fi/ais/eaip/html/efro.htm</a>
EFKE <a href="https://ais.fi/ais/eaip/html/efke.htm1">https://ais.fi/ais/eaip/html/efke.htm1</a>

SID: -

**STAR:** LEKRA

Simulated route. (1840 nm)

BGSF DA VAXAN 6724N 6716N 6806E OGPAR BDO EFRO

6724N = N67°00'00" W024°'00'00" 6716N = N67°00'00" W016°'00'00" 6806E = N68°00'00" W006°'00'00"

**Speed restrictions:** Standard on departure and landing. Subosonic 60 millas before reaching

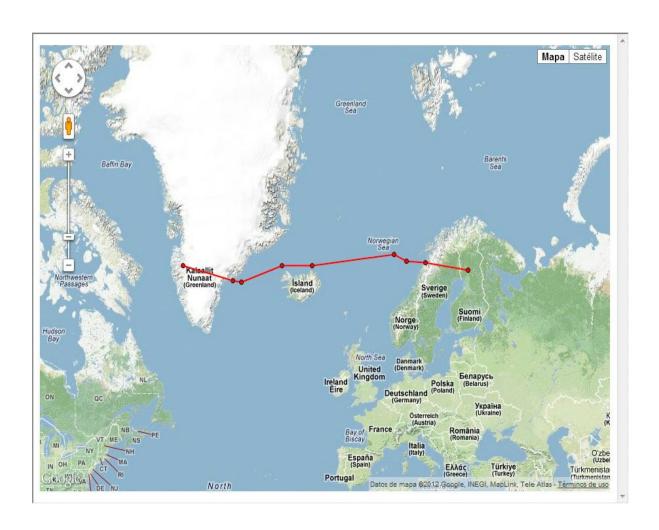
BDO (Card 1, section 6-7)

Subsonic distance: 330 millas

# **DME Update**

Bodo

Card 1, section 5-6 VOR-DME BDO 117.55 N67°16'00" E014°21'54" 101ft



Stage 10. Rovaniemi - Moscow / EFRO UUDD (866 nm)

http://en.wikipedia.org/wiki/Domodedovo International Airport



Six of the seven Concorde which entered service with British Airways - Photo by British Aiways

On April 12th, 1985 British Airways made its first flight to Moscow. However, the Soviet authorities did not grant the Concorde permission to fly supersonic over its territory, resulting in a flight about 5 minutes longer than it would take in any other aircraft of the time. That's because Concorde could not fly supersonic over European land either. Our flight today will be somewhat shorter, but also subsonic.

The sonic boom was undoubtedly one of the main reasons that prevented Concorde's commercial expansion, limiting its use to oceanic flights or very specific depopulated areas. The "sonic boom" occurs when an aircraft exceeds Mach 1.15 and can be heard in a corridor approximately 60 km wide. The intensity, of course, is higher in the perpendicular of the flight path and decreases with the distance up to the 60 km limit where it is hardly noticeable. Some governments, notably the Middle East, South America and Australia, temporarily opened supersonic corridors in sparsely populated areas to experience its effects and the reaction of the citizens.

But although Concorde had no trouble at all to fly supersonic, there's something very important to bear in mind: fuel consumption, already high, increased about 1.5 times in subsonic flights. Thus, at subsonic speeds Concorde burned more fuel, carried fewer passengers and cargo and took the same time to fly as the aircraft of its time. It was a wreck!

But Concorde was not exactly cheap at supersonic speeds either. Its average consumption was about 166 milliliters of fuel per passenger. That's about four times the consumption of a 747. This consumption was so high partly because of the special characteristics of their engines, but also because of the required particularities of its design to fly at Mach 2, which forced their engines to move a load of 655 kg for each passenger; almost twice the 341kg that a Boeing 747-400 had to move for each passenger.

These two limitations, ultimately, meant Concorde's demise since the number of feasible or profitable routes were very limited; mostly the busiest routes being the transatlantic Paris and London to New York and Washington. But the price maintaining costs and escalating fuel prices made Concorde viability even harder. These limitations caused that the major airlines of the time, after having made initial orders, to roll back their orders meaning that, eventually, not a single Concorde was sold. Some of the airlines that showed an initial interest in Concorde, but that backed down, were Singapore Airlines, Iran Air, CAAC (China), Sabena, BOAC, Qantas, and the American TWA, Braniff International, Eastern, American, Continental and PanAm.

On April 20th 1979 the last Concorde ever built left Filton hangars in the UK. Shortly after that date, on September 21th of that same year, British and French governments announced they would not be manufacturing more Concordes and that all aircraft, engines and parts built and made to date would remain in the hands of Air France and British Airways.

Altogether a total of 20 units were produced: 10 for British Airways and 10 for Air France. Of these, 2 were test units, which never entered commercial service, and two others were never to fly but served to experience manufacturing processes. So the total operating fleet in the commercial life of Concorde was of 16 aircraft, 8 for each company.

#### Sceneries/Airports

IGFly - FS9 - 26.95\$ http://www.igfly.com/

Taburet - X-Pane 10 - 11,89€

http://secure.simmarket.com/taburet-moscow-photorealistic-for-x-plane-10.phtml

**Recommended date and time for departure**: December 25th - 09:00z

**Estimated Time Enroute: 2:00** 

**ETA:** 10:40z

Alternate: UUWW (Vnukovo)

**Charts:** (no official charts available for free)

SID: NASUL

**STAR:** BD 1D / 2D (ARRIVALS FROM THE NORTH)

## Simulated route (871 nm)

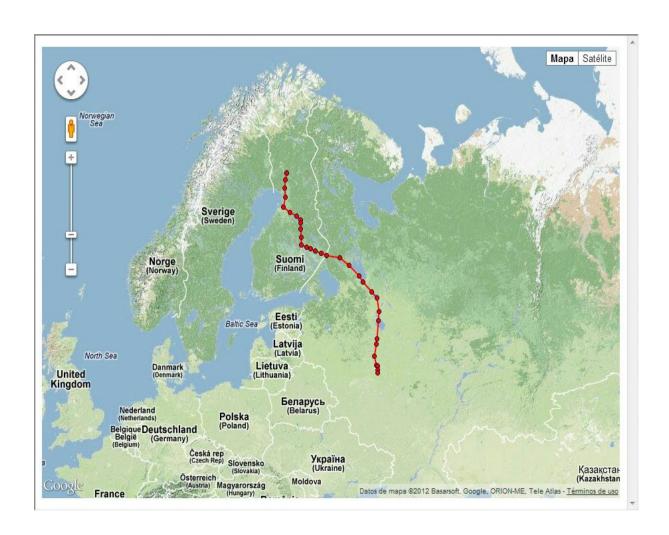
# EFRO NASUL M857 ABOVA M6 VEKUV N198 KOMEK B487 DEGER B158 SU UREPI B958 BD UUDD

**Speed restrictions:** Standard on departure and landing. Subsonic for the whole of the flight.

Subsonic distance: 871 millas.

## **DME Update**

St Petersburg Card 2, section 2-3 VOR-DME SPB 113.400 N59°48'25" E030°16'28" 96ft



# Stage 11 Moscow - Almaty / UUDD UAAA (1691 nm)

http://en.wikipedia.org/wiki/Almaty\_International\_Airport



Tupolev Tu-144 at Domodedovo - Photo obtained from the official website of <u>Tupolev</u>, located thanks to David Gorri, manager of <u>tu144sst.com</u>

Although Soviet Union banned Concorde to fly supersonic over soviet territory, nine and a half years earlier, there was indeed a very special supersonic flight departing from Moscow's Domodedovo Airport. It was not a Concorde which took flight, however, but a Tupolev Tu-144, making its maiden commercial flight, although only under load and no passengers. It was bound for Almaty, capital of Kazakhstan.

As with the space race with the United States, the Soviets were ahead of the Concorde in virtually every step of the development of the Tupolev Tu-144. Its maiden flight took place on December 31th 1968, two months before the first flight of the Concorde. Supersonic speed was reached for the first time on June 5th 1969, four months before the Concorde. Tupolev Tu-144 was also the first commercial aircraft to fly at Mach 2 on July 15th 1969, again, four months ahead of Concorde. The Tu-144 had more capacity and was also slightly faster than the Concorde, with a cruising speed of Mach 2.14 versus Mach 2.02 for the Concorde. Its only weakness was autonomy, as its engines were much less efficient than Concorde's and limited Tu-144 to a range of about 1,300 nm versus the 3,900 nm autonomy of the Concorde.

But Tu-144 was sentenced after an accident at the Paris air show in 1973 that killed all six crew and eight people on the ground. This delayed its commissioning until November 1th 1977, almost two years after the Concorde. Furthermore, in May the next year an improved Tu-144, called Tu-144D, had another accident during a test flight that forced the Tu-144 not to be used on passenger flights again, after a total of only 55 commercial flights. But Tu-144 continued in service until 1983, when it was finally removed after a total of 102 commercial flights. However, despite its withdrawal, the Tu-144 is not gone forever, and it's been recently reused, in conjunction with NASA, as a flying laboratory.

Unfortunately, accidents of the Tupolev Tu-144 were not only harmful to the Russian project. It also hurt very badly the Concorde's expansion markets. To the high cost of operations and problems of creation and acceptance of supersonic routes, now mistrust and insecurity were also to be fought.

### Airports/Sceneries

Nikita Fomin - FSX - Free

http://www.avsimrus.com/files.phtml?action=download&id=31049

Nikita Fomin - FS9 - Free

http://www.avsimrus.com/f/fs2004-sceneries-44/airport-almaty-intl-uaaa-fs9-v-2-0-2838.html

**Recommended date and time for departure**: December 26th - 09:00z

**Estimated Time Enroute: 2:50** 

Alternate: UAFM (Manas)
Charts: (no official free charts)

**SID:** OKREM

**STAR:** UC (ARRIVALS FROM THE WEST)

Simulated route using official airways (1691 nm)

UUDD OKREM NEMOR RELTO B923 BEKAS B142 SIVKO A368 AKB R366 DZG W86 ANELI W104 UC UAAA

**Speed restrictions:** Standard on departure and landing. Subsonic until 70 mn before SIVKO

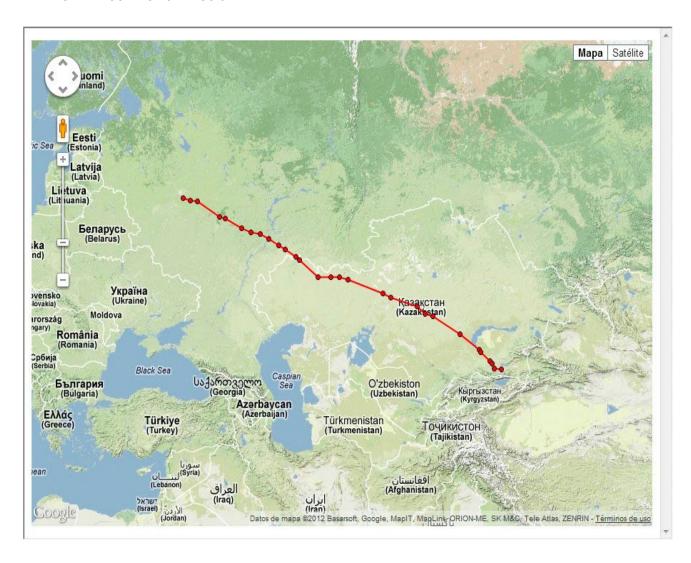
(Card 2, section 4-5)

Subsonic distance: 600 millas

**DME Update** 

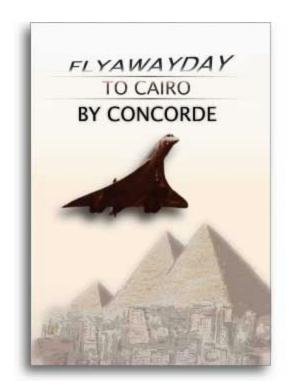
Zhezkazgan

Tarjeta 3, tramo 9-1



Stage 12. Almaty - Cairo / UAAA HECA (2410 nm)

http://en.wikipedia.org/wiki/Cairo International Airport



Advertising Flyer offering to fly to Cairo for the day - Photo by plate-video.co.uk

Even with limitations, it is easy to fall in love with such a wonder as Concorde, which was a technological milestone in the history of mankind. It is as amazing and attractive as the very pyramids of Egypt.

During the introduction of this tour it was noted that we would have to learn to handle a very special aircraft, fly to popular, historic or particular destinations. And that we should also carry out "special missions". British Airways and the travel agency Dave Gladwin organized for a time flights to Cairo to "spend the day". In the promotional brochure you could see a Concorde flying over the pyramids. So what about if we make a photo of our Concorde flying over the pyramids in a low and slow flight? That is your mission. You will be able to do so when flying FIX points 21, 22, 23 and 24, just before touchdown.

**NOTICE:** Concorde does not like to fly slow. The only way to fly the Concorde at low speeds is increasing the angle of attack, that makes it very easy to stall. Besides, you won't be able to use autopilot when using a pitch close or above 18°. **It's not advisable to fly below** 180 knots for these flights "photographic".

**IMPORTANT:** If **runway 05** is in use when you fly this stage don't dawdle much with pictures as almost immediately after turning on the pyramids the landing manouver begins.

WHEN TWO WAYPOINTS ARE VERY CLOSE TOGETHER Simufly INS starts turns some miles before actually reaching the waypoints. But because waypoints 3031E, CA528 and CA416 are so close together the INS directs to the LAST waypoint even before actually reaching the first (3031E) In order to avoid that behaviour and being able to follow the route correctly it's necessary to make manual segment change, as showed in the picture.



Some 10 miles BEFORE reaching 3031E CHANGE THE SELECTOR FROM AUTO TO MANUAL. Then, 2-3 miles BEFORE 3031E put the selector back to AUTO. The INS will then automatically load the next segment 2-3.

# \* IMMEDIATELY AFTER THE AUTOMATIC SEGMENT CHANGE TURN BACK THE SELECTOR TO MANUAL \*

An alternative way of making the Concorde follow the route is KEEPING THE SELECTOR IN

MANUAL and actually manually loading the next segment. The procedure goes as follows (marked in yellow in the picture:

- 1. Press WY PT CHG (Way Point Change)
- 2. Press the next segment. In the picture 2-3.
- Press Insert.

In segment 2-3 you can either load the last card or manually enter the coordinates for point 4. In fact, you can manually introduce those coordinates just after loading card 4 when you still have a lot of time before getting to Cairo. This is the sequence for manually loading the coordinates:

- 1. Set the knob in WAY PT (DIS/TIME shown in the picture)
- 2. **DO MAKE SURE the number above WAY PT is 4** (5 in the picture)
- 3. Press N2 (North)
- 4. Introduce NORTH coordinates for waypoint 4 (29587)
- 5. Press INSERT
- 6. Press 6E (East)
- 7. Introduce East coordinates for waypoint 4 (31134)
- 8. Press INSERT

#### **Airports/Sceneries**

flight2000it- FSX- Free

http://www.fs2000.org/index.php/downloads/doc\_details/32505-fsx-scenery-cairo-international-a irport

**Recommended date and time for departure**: 27th December - 09:00z

**Estimated Time Enroute: 3:50** 

Alternate: HECW (Cairo West)
Charts: (sin cartas oficiales)

Simulated route using official airways. (2410 nm)

UAAA UC B142 NT A356 KZO MNK KRS ARB RER TAN ARH ISMLH 3031E CA528 CA416 HECA

**Speed restrictions:** Standard on departure and landing. Subsonic from 90 millas before ARB (Card 3, section 6-7)

Subsonic distance: 1,060 millas

Altitude restrictions: Section 3031E, CA528 and CA416 must be flown at 2.500 feet, which

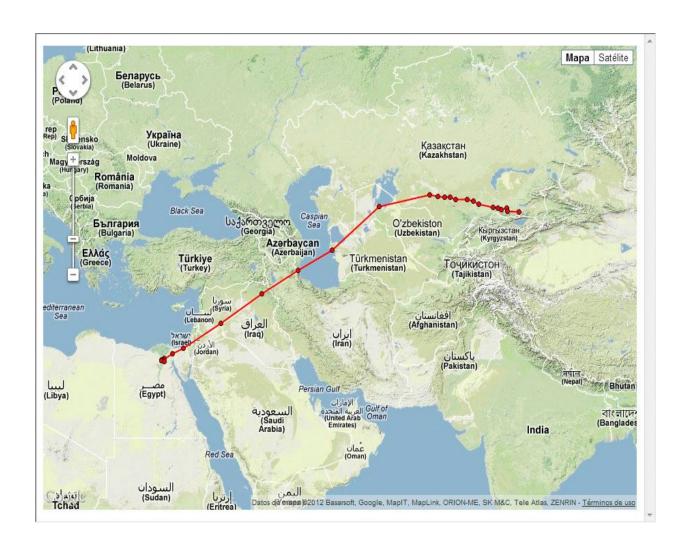
is the ILS initial height.

## **DME Update 1:**

Muynak Card 2, section 3-4 VOR-DME MNK 116.50 N43°45'12 " E059°01'41" 100 ft

## **DME Update 2:**

Erbil
Card 3, section 6-7
VOR-DME RER 116.30
N36°14'35" E043°57'58" 1330 ft



# Stage 13. Cairo - Nairobi / HECA HKJK (2209 nm)

http://en.wikipedia.org/wiki/Jomo Kenyatta International Airport



A cheetah and a Masai on the wing of a Concorde in Nairobi - Photo by Simon Watts

This will just be a transitional stage before getting to Town Cape. Concorde 01 (G-AXDN) flew the Cairo - Nairobi route on February 26th 1975 to test natural melting in tropical environments. Very likely, the picture chosen for this stage shows that same Concorde.

Nairobi airport has also been used in several round the world tours of the Concorde, alternating at times with the nearby airport of Mombasa, on the coast.

#### **Airports/Sceneries**

Orientalsim - FSX - 19,04€

http://secure.simmarket.com/orientalsim-nairobi-intl.phtml

Orientalsim - FS9 - 16,66€

http://secure.simmarket.com/orientalsim-nairobi-intl-fs2004.phtml

**Recommended date and time for departure:** February the 26th - 12:00z

**Estimated Time Enroute: 2:40** 

**Alternate:** HKRE (Eastleigh) **Charts:** (no official charts for free)

SID: -

**STAR:** APNOM (06) / APDUS (24)

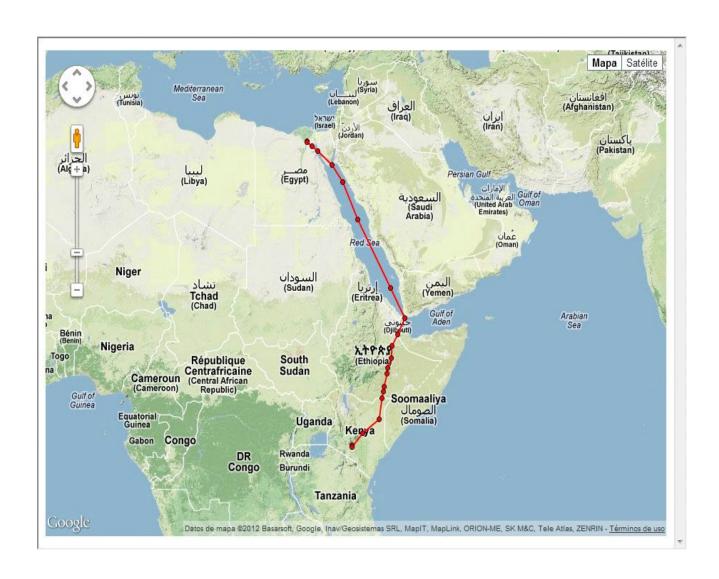
Route 100% real. (2209 nm)

HECA MENLI A411 SHM IMRAD DEDLI APDOS PARIM ASTAR UM997 WAV UA405 AVITU HKJK

**Speed restrictions:** Standard

**DME Update** 

Djibouti Tarjeta 1, tramo 7-8 VOR-DME DTI 113.900 N11°32'54" E043°05'36" 492ft



Stage 14. Nairobi - Cape Town / HKJK FACT (2830 nm)

http://en.wikipedia.org/wiki/Cape Town International Airport



At Cape Town - Photo by Alwyn Slabbert (by Etienne du Plessis)

Next stop: the southern tip of Africa. As on many other occasions, the Concorde holds the trip time record between London and Cape Town. The distance was covered in 8 hours and 8 minutes, but I could not figure out where the intermediate pit stop was made.

#### Airports/Sceneries:

NMG Trading - FSX - 17,16€

http://shop.nmgtrading.com/fsx-scenery/download-version-2/nmg-cape-town-international-airpor t-2012-download.html

NMG Trading - Prepar3D - 17,16€

http://shop.nmgtrading.com/prepar3d-scenery/download-version/nmg-cape-town-international-airport-2012-download.html

NMG Trading - X-plane 10 - 17,16€

http://shop.nmgtrading.com/x-plane-10-scenery/download-version-1/nmg-cape-town-international-airport-2012-download.html

Recommended date and time for departure: February 27th - 14:00z

**Estimated Time Enroute: 3:30** 

**Alternate:** FALW (Langebaanweb)

Charts: FACT

http://www.caa.co.za/resource%20center/Charts/AERONAUTICAL%20CHARTS/C/FACT\_CAP E%20TOWN%20INTERNATIONAL/Index.htm

#### **FALW**

http://www.caa.co.za/resource%20center/Charts/AERONAUTICAL%20CHARTS/L/FALW\_LANGEBAANWEG%20MIL/Index.htm

SID: IMSAN

**STAR:** GREYTON

#### Simulated route (2818 nm)

HKJK IMSAN UA609 MOV AVIGO KINAN 1541S IMRON TALVA ANVED EKBOX NEVIR UQ32 GE FACT

**Speed restrictions:** Standard on departure and landing. Subsonic until ITKID. Card 1, section

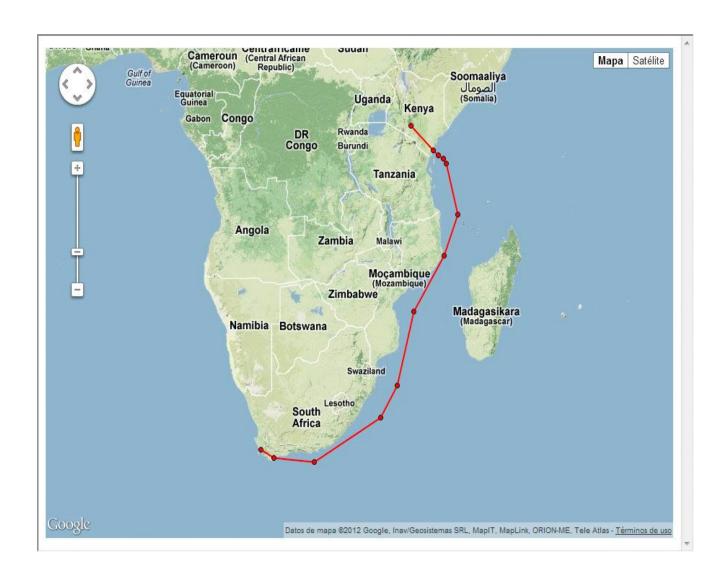
3-4

Subsonic distance: 260 mn

**DME Update:** 

Nampula Tarjeta 1, tramo 5-6 VOR-DME VNP 113.900 S15°05'18" E039°17'59" 138ft

**WARNING: HKJK** is a **high altitude airport (5.330 feet)**. You'll need to be **careful with the load** if you don't want to "eat" all of the runway; specially under certain weather conditions. Do not forget afterburners!!



Stage 15. Cape Town - N'Djamena / FACT FTTJ (3026 nm)

http://en.wikipedia.org/wiki/N% 27Djamena\_International\_Airport



Concorde 001 taking off from the airport of Las Palmas "in the chase" of the solar eclipse of June 30, 1973 - Photo through <a href="https://xjubier.free.fr">https://xjubier.free.fr</a>

On June 30th 1973 Concorde 001, the first prototype, provided a group of seven scientists of the time the longest vision of a total solar eclipse in history. The launch took place from the airport of Las Palmas in the Canary Islands, and "chased" the shadow of the moon at twice the speed of sound through Africa for 74 minutes before landing at N'Djamena, Chad's capital. There's a lot of interesting information about the monitoring of the eclipse by the Concorde in the following website:

http://xjubier.free.fr/en/site\_pages/solar\_eclipses/TSE\_19730630\_Concorde001.html

#### **Airports/Sceneries**

Skydesigners - FSX - 17,85€

http://secure.simmarket.com/skydesigners-ndjamena-intl-hassan-djamous-airport-fttj.phtml

**Recommended date and time for departure**: June 30th - 09:00z

**Estimated Time Enroute: 3:50** 

**Alternate:** DNMA (Maiduguri)

Charts:

FTTJ http://www.ais-asecna.org/en/atlas/tchad/ndjamena.htm

**DNMA** (no available free charts)

SID: IMSOM STAR: POTED

Simulated route (3026 nm)

# FACT IMSOM UQ34 EXAKO UQ14 UVGOD UQ18 GEVIN IMPOK NEVEP IBLOK ETLOV EGNAB DUGRA NERUP ARKOT UB737 DLA UG857 SEMIR POTED FTTJ

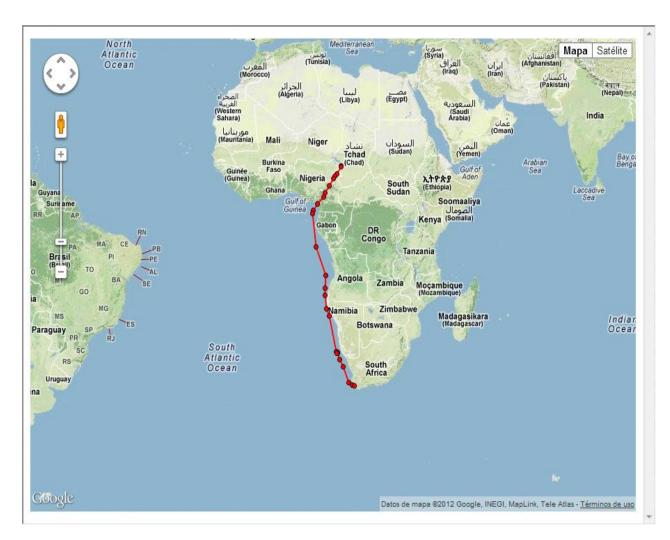
**Speed restrictions:** Standard on departure and landing. Subsonic from 60 miles before DLA.

Card 3, section 7-8

Subsonic distance: 650 millas

#### **DME Update**

Namibe Tarjeta 2, tramo 1-2 VOR-DME VMO 114.100 S15°15'12" E012°09'54" 171ft



Stage 16. N'Djamena - Paris / FTTJ LFPG (2605 nm)

### http://en.wikipedia.org/wiki/Paris-Charles de Gaulle Airport



The beginning of the end - Photo by Toshihiko Sato, via AP

Along our world tour we will visit many historical sites in Concorde's history. But there are few places as linked to Concorde as one of her hubs: Charles de Gaulle airport in Paris.

Concorde's history is not only strongly linked to Paris just because of being Air France's hub both for scheduled and charter flights but also because, unfortunately, two plane crashes that took place in Paris decisively influenced creating a negative public opinion of the Concorde. The first one was the Russian Tupolev we've already learnt about. The second was the one that suffered to one of the Concordes on July 25th 2000 when a wheel exploded during the takeoff manouver, starting a fire that ended with the loss of control of the aircraft and causing the death of the 109 people aboard and four more on the ground.

At the time of the accident, Concorde had flown without major upgrades or improvements during its nearly 25 years of service. But Concorde hardly made profits, with a very discreet and elitist service, and public opinion questioned whether these aircraft were receiving adequate service and whether it was really necessary to keep them in the air. Three weeks after the accident, on August 16th, the CAA (Civil Aviation Authority) and the DGCA (Directorate General for Civil Aviation) officially withdrew Concorde's Certificate of Airworthiness.

On December 12th 2000, French researchers from the BEA (Bureau of Enquiry and Analysis for Civil Aviation Safety) published a report, the second from the accident, which confirmed that the origin of the fire was the bursting of a tyre, which caused a break in one of the fuel tanks. The fuel leaked from the tank and ignited causing the loss of two engines, one because of the lack of fuel and the other because of the fire. Concorde, heavily loaded for the takeoff, could not climb with only two engines running and, eventually, fell to the ground. The report also pointed out an external possible cause for the tyre explosion and, therefore, for the accident. A titanium strip from a Continental Airlines DC10 that might have broken off and fallen on the runway during takeoff minutes before the Concorde did was found to be the cause.

Following the accident the wiring insulation was improved and the bottom of the fuel tanks was reinforced. On July 17th 2001 the G-BOAF Concorde conducted a flight test to verify that the changes made to the aircraft did not involve any change in manouverability. On August 16th an airworthiness certification was requested and from September 5th on, CAA and DGAC reviewed and returned, one by one, the airworthiness certificate to all Concordes.

On September 11th 2001, the day of the tragic Twin Towers attacks in New York, Concorde G-BOAF was the first to complete the certification flight and gain its Certificate of Airworthiness back.

Notwithstanding this fatal coincidence, it was announced that Concorde will resume operations on November 7th, putting tickets to go on sale on October 6th 2001. Concorde had a very warm welcome back and within days all tickets were sold out. Concorde's fever still had not disappeared. A few days later, on December 19th, British Airways offered roundtrip tickets for the London-New York route priced at 2002 pounds (sterling) to "celebrate" the entry of 2002. Tickets sold out in three minutes.

#### Airport/Scenery

**NOTE:** FSX includes a detailed version of LFPG by default

Aerosoft - FSX/FS9 - 24,95 (VAT included)

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=10233&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

Recommended date and time for departute: 1 de julio - 12:00z

**Estimated Time Enroute:** 03:15

Alternate: LFPO (Orly)

Charts: https://www.sia.aviation-civile.gouv.fr/html/frameset\_aip\_uk.htm

SID: -

**STAR:** OKIPA

# Simulated flight using official airways (2605 nm)

FTTJ DEPOS DINTA UR778 TONBA UM215 UPLIT UM732 MEGAN UM740 RONAB UL12 VELAD UT378 DOBIM UM616 PIGOS UM733 BULOL UZ12 PIBAT LFPG

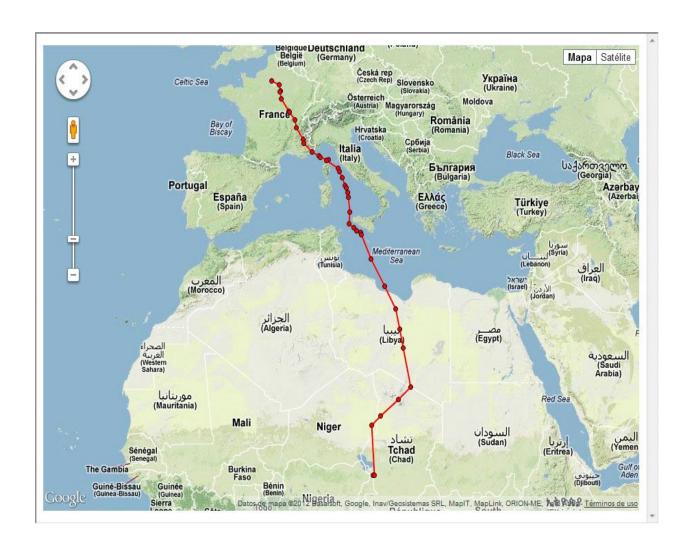
**Speed restrictions:** 5.000 feet on departure and landing. Subsonic from 50 nm before PIGOS

(Card 4, section 9-1)

Subsonic distance: 370 mn

# **DME Update**

Misrata
Card 2, section 8-9
VOR-DME MIS 117.10
N32°18'51" E015°04'39" 433ft



Stage 17. Paris - Dakar / LFPG GOOY (2544 nm)

http://en.wikipedia.org/wiki/Dakar-Yoff-L% C3% A9opold\_S% C3% A9dar Senghor International Airport



At Dakar - Photo by Alain Michot

We've already gone through half of our journey, and now its time for another historical flight! This time we'll recreate the first passenger scheduled flight that took place on January 21st 1976. British Airways began flying scheduled flights to Bahrain. But we will make Air France's flight instead. Our destination: Rio de Janeiro; after a short stop in Dakar, Senegal.

Dakar airport was not an actual Concorde destination; just a technical stop. But because of its strategic location stops at Dakar here were very common during Concorde's life. Air France landed its Concordes on Dakar since January 21st 1976 until routes to South America were cancelled on March 31st 1982. Also numerous charter flights stopped at Dakar, especially in round the world tours.

#### Sceneries/Airports

http://www.sunudiv.com/telechargement.htm

**Recommended date and time for departute**: January 21st - 10:40z (real time)

**Estimated Time Enroute:** 03:15

Alternate: GBYD (Banjul)

Charts:

GOOY <a href="http://www.ais-asecna.org/en/atlas/senegal/dakar.htm">http://www.ais-asecna.org/en/atlas/senegal/dakar.htm</a>

**GBYD** (no free charts available)

SID: LGL (WEST)

**STAR:** BRAVO (18) / ALPHA (36)

## Simulated route (2544 nm)

LFPG LGL UT190 GODIX UN872 TERPO UN461 RIVAK BEGAS UP47 ORTIS ROSTA APASO AMDIB LIMAX GOOY

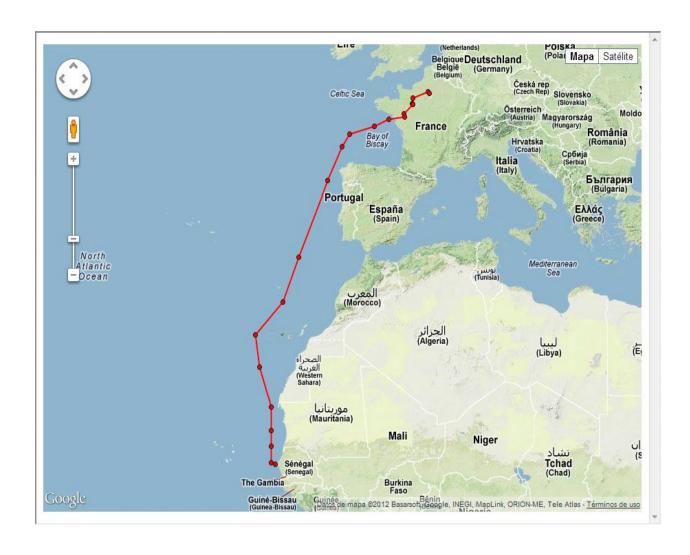
**Speed restrictions:** 5.000 feet on departure and arrival. Subsonic until 60 nm before KOLEX

(Card 1, section 6-7)

Subsonic distance: 260 mn

**DME Update** 

Porto Santo Card 2, Section 3-4 VOR-DME SNT 114.90 N33°05'25" E016°21'02" 400ft



Stage 18. Dakar - Rio de Janeiro / GOOY SBGL (2764 nm)

http://en.wikipedia.org/wiki/Rio de Janeiro-Gale% C3% A3o International Airport



Maiden flight of the route Paris - Rio on January 21st 1976. This is the image we want to repeat - Photo by <a href="http://jortegafigueiral.blogspot.com.es">http://jortegafigueiral.blogspot.com.es</a>

Although the Paris-Rio route never had as much traffic as New York's, during the early days of Concorde it was also quite profitable in its two weekly flights. Both British Airways and Air France reached an agreement with IATA (International Air Transport Association) which would allow Concorde to increase its rates to 20% higher than those of first class at the time, resulting in a price of £356 (sterling pounds) for a single ticket, the equivalent of 2,500 euros today.

## Speed restrictions: None

**Altitude restrictions: 2.400 feet from MIA until final approach.** Christ the Redeemer it's located exactly at 2.200 feet but, because of its relative small size, we need to fly real low in order to be able to take a nice picture; much lower than the minimum safe altitude of 4,000 feet in the approach to runway 10. Make sure you've set the altimeter correctly!!! There's not much room for error.

**Mission:** In this stage we'll try to reproduce the picture illustrating this stage showing an Air France Concorde flying over Rio, very close to the Sugarloaf Mountain, with some spectacular views of Guanabara Bay in the first place and Christ the Redeemer almost immediately afterwards.

**IMPORTANT!:** The most beautiful and spectacular approach, but also the most complicated is that of runway 33. It's a visual approach (no ILS) entering the Bay leaving both the Sugarloaf Mountain and Christ the Redeemer to the left. You won't be able to make a direct entry from the Christ. If you want to make this approach you'll have to turn left after the Chirst to go back to the sea and then make a base before aligning the runway. You should really check on the airport Approach Charts!

### Airports/Sceneries

**NOTA:** FSX already includes a detailed version of SBGL

Tropicalsim - FS9/FSX/P3D - 21,42€ (VAT inc.)

http://www.tropicalsim.com/2010/index.php?option=com\_content&view=article&id=3&Itemid=7

Blueprint - FS9/FSX - 14,27€ (VAT incl.)

http://www.blueprintsimulations.com/BluePrint SBGL.html

**Recommended date and time for departure**: January 21st de enero - 14:45z (real time)

Estimated Time Enroute: 03:10

Alternate: SBSJ (Sao Jose Dos Campos)

Charts:

**SBGL** <a href="http://www.aisweb.aer.mil.br/?i=cartas">http://www.aisweb.aer.mil.br/?i=cartas</a> **SBSJ** <a href="http://www.aisweb.aer.mil.br/?i=cartas">http://www.aisweb.aer.mil.br/?i=cartas</a>

**SID:** BOMSA **STAR:** - (misión)

Simulated Route (2764 nm)

GOOY BOMSA UA302 TAROT 0822N KODOS UL206 PAMOX UM661 LOBIK UL340 NIKDO ADA W53 MIA FIX 28 SBG

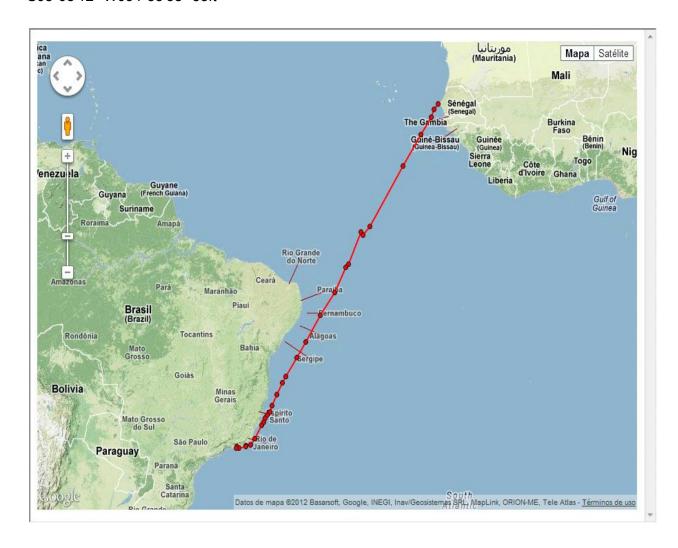
0822N = N08°00'00" W022°00'00" FIX 28 = S22°57'36' 'W043°13'52"

**Speed restrictions:** 5.000 feet both on departure and arrival

**DME Update:** 

Recife

Card 2, section 1-2



Stage 19. Rio de Janeiro - Barbados / SBGL TBPB (2530 nm)

http://en.wikipedia.org/wiki/Grantley Adams International Airport



Concorde G-BOAE resting in the exhibition "Concorde Experience" in Barbados - Photo by <u>barbadosconcorde.com</u>

The London - Barbados route was one of the most successful and repeated British Airways routes. In fact it was one of the few profitable ones together with the London - New York. But the route to Barbados was operational only during the winter months. It was a nonstop journey of 4,250 miles, but as we saw in the first stage, sometimes Concorde had to stop to refuel in Lisbon. Occasionally, you could say that sometimes Concorde reached Heathrow with the captain's window down, waving a white handkerchief and blowing the horn asking a clear way for landing because of the very low fuel level on arrival, well below 10T.

Concorde left London at 9:30 am and after 4 hours of flight, reached very close to the departure time: 9:45, local time. That's just another example of what this time machine called Concorde could do.

Barbados is also another historical landmark in the life of the Concorde for another reason. On November 17 th 2003 Barbados was the final destination of the last supersonic transatlantic flight ever made by a Concorde and the penultimate flight in history. Today, you can visit this Concorde in a public exhibition.

### Airports/Sceneries

BluePrint - FS9/FSX - Free

### http://www.blueprintsimulations.com/BluePrint TBPB.html

Max Kraus - FSX - Free

http://library.avsim.net/esearch.php?CatID=fsxscen&DLID=153845

Recommended date and time for departureFecha y hora de salida recomendada: 22 de

enero - 12:00z

**Estimated Time Enroute:** 03:45

ETA:

**Alternate:** TFFF (Le Lamentin) **Charts:** (no available free charts)

SID: MUDKA

STAR: -

Simulated route. Official airways but for the OPRUX - PANER section (2530 nm)

SBGL MUDKA UM409 PROVE UZ40 OPRUX BOMAL KOGPO MICAL PANER UM791 BGI
TBPB

**Speed restrictions:** 5.000 feet on departure and arrival. Subsonic speed until 160 nm before BOMAL (Card 3, section 1-2)

Subsonic distance: 740 mn

### **DME Update 1**

Brasilia
Card 2, section 9-1
VOR-DME BSI 116.30
S15°52'18" W048°01'18" 3497ft

### **DME Update 2**

Carajas Card 3, section 2-3 VOR-DME CJS 114.40 S06°07'10" W005°00'07" 2100ft



Stage 20. Barbados - Miami / TBPB KMIA (1586 nm)

http://en.wikipedia.org/wiki/Miami International Airport



Scale in Miami during a world tour - Photo by Kevin Cook

Miami was one of the major destinations of Concorde. From London, via Washington, a Concorde flew the route to Miami three times a week between 1984 and 1991. This time, we won't follow the usual route, but will arrive from the south in a fully simulated route.

### **Airports / Sceneries**

**NOTE:** FSX and includes a detailed version of this airport

LatinVFR - FS9/FSX - € 24.98 (VAT Inc)
<a href="http://www.latinvfr.com/LatinVFR">http://www.latinvfr.com/LatinVFR</a> American Sceneries.html

Drzewiecki Design - FSX/P3D - 16.81 (VAT inc) http://www.drzewiecki-design.net/prodMIA2012\_X.htm

Butnaru - X-Plane - € 13.51 (VAT inc.) http://secure.simmarket.com / butnaru-miami-international-KMIA-for-x-plane.phtml Mega Scenery Earth - 7,49\$ - FSX

http://www.megasceneryearth.com/store/cart.php?target=product&product\_id=345&substring=k mia

Recommended date and time for departure: January 22 - 12:00 z

**Estimated Time Enroute:** 01:55

**Alternate:** KFLL (Fort Lauderdale)

Charts:

KMIA <a href="http://www.airnav.com/airport/KMIA">http://www.airnav.com/airport/KMIA</a>
KFLL <a href="http://www.airnav.com/airport/KFLL">http://www.airnav.com/airport/KFLL</a>

SID: BIRNO STAR: FOWEE5

Simulated Route (1586 nm)

TBPB BIRNO SESPO OBIKE ELMUC Y585 RENAH ZQA KMIA

**Speed restrictions:** 5,000 feet at departure. Standard on arrival.

**DME Update** 

NOTA: Updating DME shouldn't be necessary for this short stage. Nevertheless, here's a VOR

Puerto Plata
Card 1, section 3-4
VOR-DME PTA 115.10
N19°45'33" W070°34'14" 38ft



Stage 21. Miami - Dallas / KMIA KDFW (1094 nm)

http://en.wikipedia.org/wiki/Dallas/Fort\_Worth\_International\_Airport



A recreation on Braniff colors, the Concorde never actually came to be painted like this. - Photo by concordesst.com

Dallas was another scheduled Concorde destination, but not for long. The first Concorde landing took place in 1973 to commemorate the completion of the airport. But it was not until 1979 when Braniff Airways struck a deal with British Airways and Air France to rent no less than 10 Concordes, five each. Air France and British Airways flew the supersonic transoceanic flight to Washington. Braniff pilots flew Concorde at subsonic speed for the rest of the route to Dallas.

Ultimately, in the Washington-Dallas leg by Braniff Airways less than 50% of the seats were sold, forcing the route to be cancelled. Here's an interesting promotional video made by Braniff Concorde:

### http://www.youtube.com/watch?v=yqAC3M--VDw

On our way to Dallas, and since we left Miami, we fly over Gulf of Mexico supersonic and we'll only reduce during the Houston-Dallas populated stretch.

### Sceneries / airports

NOTE: FSX and includes a detailed version of KDFW

### http://www.fsdreamteam.com/products\_kdfw.html

Blueprint - FS / FSX - € 24.22 (VAT inc.) http://www.blueprintsimulations.com/BluePrint\_KDFW.html

Recommended date and time of departure: January 23 - 12:00 z

**Estimated Time Enroute:** 01:55

**Alternate:** KAFW (Fort Worth Alliance)

Charts:

KDFW <a href="http://www.airnav.com/airport/KDFW">http://www.airnav.com/airport/KDFW</a></a>
KAFW <a href="http://www.airnav.com/airport/KAFW">http://www.airnav.com/airport/KAFW</a>

**SID:** MNATE1

**STAR: CEDAR CREEK 6** 

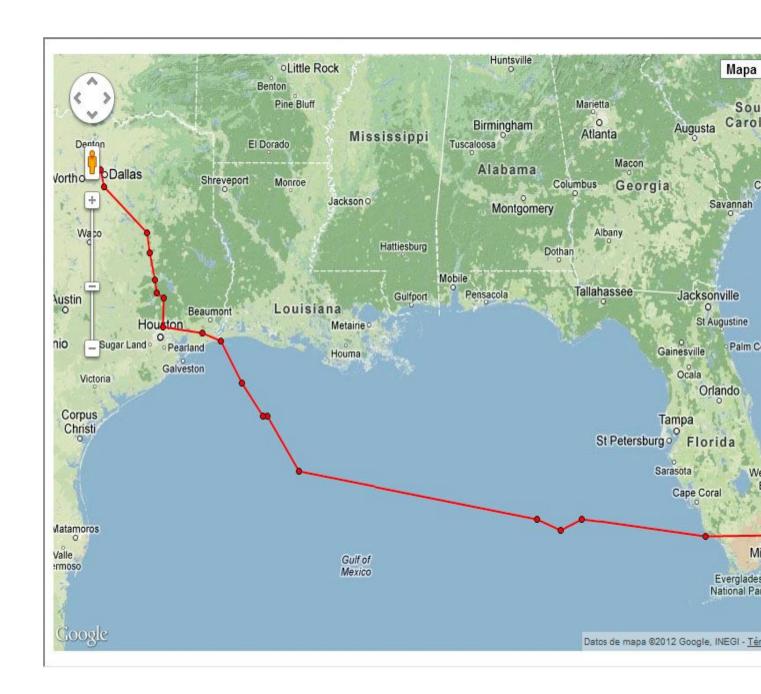
Simulated route (1094 nm)

KMIA MARCI A509 MINOW KELPP A766 SBI KAPAA J86 IAH J33 TANBE KDFW

**Speed restrictions:** Standard. Subsonic 60 miles before SBI (Card 2, section 9-1)

Subsonic distance: 345mn

**DME update:** Not required



Stage 22. Dallas - Mexico DF / KDFW MMMX (910 nm)

http://en.wikipedia.org/wiki/Mexico\_City\_International\_Airport



At Mexico - Photo by Federico Sosa Velasquez

The first Concorde to arrive in Mexico City was the test model 002 operated by British Airways following the route London - Gander - Mexico - Los Angeles, making her landing on October 20th 1974. However, the first Concorde commercial flight to Mexico City did not arrive until September 20th 1978, almost four years later.

On that date, at the request of the Mexican government, Concorde service to Washington City was extended to Mexico with a frequency of two flights a week. The journey from Paris took 7 hours and 40 minutes, including a ground time of 50 minutes at the Washington airport. On March 1st 1981 Washington scale was replaced by New York and the last supersonic trip between Paris and Mexico took place on November 2nd 1982.

Similarly to our arrival in Dallas, the first part of the trip to Houston will be at subsonic speed. Then we'll accelerate to supersonic speed to cross the Gulf of Mexico and we'll reduce again to subsonic before entering Mexican land.

### Airports / Sceneries

**NOTE:** FSX already includes a detailed version of this airport

Taxi2Gate - FS9 - € 24.22 (inc VAT)

http://secure.simmarket.com/blueprint-kdfw-dallas-forth-worth-intl-fs2004.phtml

Taxi2Gate - FSX - € 22.61 (inc VAT)

http://secure.simmarket.com/taxi2gate-mexico--international-city-v2-fsx.phtml MMMX

Aerosoft - FS9/FSX - € 27.95 (inc VAT)

Includes 17 airports in Mexico, Mexico City and Acapulco among them

Recommended date and time of departure: September 20th - 18:00 z

**Estimated Time Enroute:** 02:05

**Alternate:** MMTO (Licenciado Adolfo Lopez Mateos)

**Charts:** (no charts available for free)

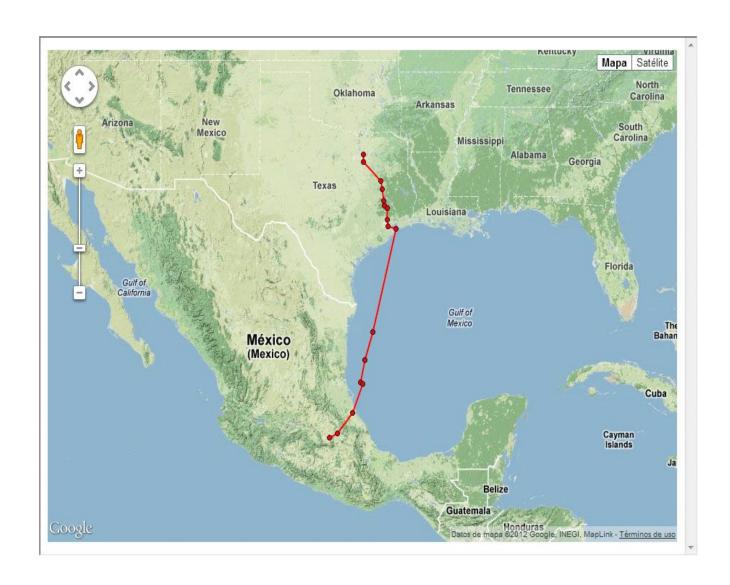
SID: DARTZ4 STAR: DATUL

Official airwaytes but the section HUB - ARGUS (910 nm)
KDFW TORNN J87 IAH J177 HUB DELVE ARGUS UT7 SIDRA DATUL MMMX

**Speed restrictions**: Standard on departure and arrival. Subsonic until 220mn before AREGUS (Card 2, section 9-1) and from SIDRA (Card 2, section 2-3)

**Subsonic Distance:** 530 nm (320 nm on departure and 210 nm on arrival)

**DME update:** Not required



Stage 23. Mexico City - Seattle / MMMX KBFI (2612 nm)

http://en.wikipedia.org/wiki/Seattle-Tacoma\_International\_Airport



Arrival of Concorde G-BOAG to Seattle - Photo by Tom Killgore through http://ships.bouwman.com/

Seattle is another historical destination for Concorde, but not arriving from Mexico, as we'll do, but from New York. British Airways Concorde G-BOAG of course set a new record linking New York and Seattle in 3 hours, 55 minutes and 12 seconds. And that taking into account that in order for the Concorde to be able to fly at supersonic speed it did a considerable detour through Canada that had to he used along with a special supersonic corridor prepared for the occasion. But that was not, however, the first time Concorde travelled that corridor. On October 23rd 1999 Concorde also received permission to fly that corridor for the first leg of a world tour that ran between New York and Vancouver. It was really unusual that Concorde had permission to fly at supersonic speed overland. This flight was not only the last flight that Concorde did supersonic overland, but it was also her penultimate supersonic flight ever.

The arrival destination was not the busy airport of Seattle-Tacoma (KSEA), but the Boeing Field, the Boeing Airport base which also includes its famous aviation museum. The Concorde was a gift from British Airways to this key American company in the history of global aviation. Concorde G-BOAG can be visited today in that museum, but because its stored out in the open its condition is getting worse and worse.

### **Airports / Sceneries**

FlyAway - FSX - Free

http://flyawaysimulation.com/downloads/files / 7932/fsx-seattle-airports-scenery /

Recommended date and time for: October 22nd - 00:00z

**Estimated Time Enroute:** 03:35

**Alternate:** KSEA (Seattle-Tacoma)

Charts:

**KBFI** <a href="http://www.airnav.com/airport/KBFI">http://www.airnav.com/airport/KBFI</a> **KSEA** <a href="http://www.airnav.com/airport/KSEA">http://www.airnav.com/airport/KSEA</a>

**SID**: PASTEJE **STAR**: OLYMPIA6

Simulated route. Official airways but for the section GDL - HQM (2612 nm)

MMMX PTJ UJ65 MLM UJ12 GDL UJ14N PVR AXOKA 24N16 FICKY ALCOA BOXER

SEDAR HQM J34 OLM KBFI

24N16 = N24°00'00" W116°00'00"

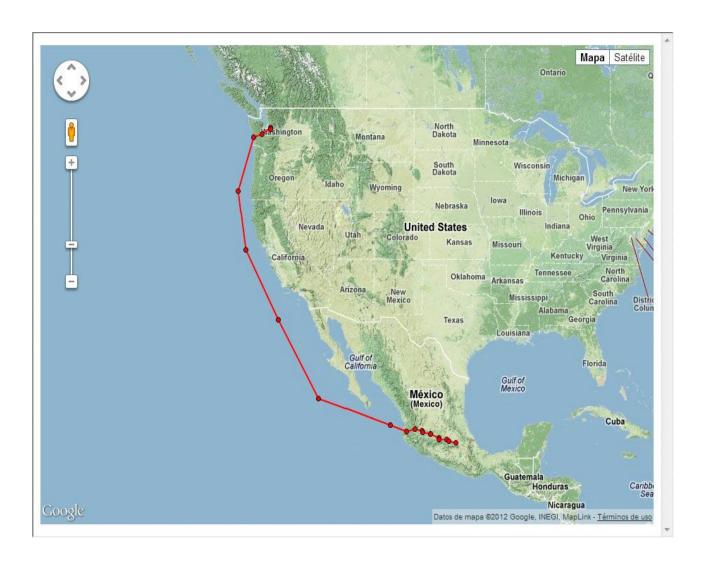
IMPORTANT WARNING!: Because of the ahigh altitude of Benito Juárez airport, 7300 feet above sea level, even with its "generous" runway of 13000 feet / 4000 meters pfor this stage you'll need to reduce the load. Although the Maximum Take Off Weight for Concorde is 185T under optimal conditions, that figure is reduced to just 150T here. So in order to be able to take off you'll need to reduce the passenger load.

**Speed Restrictions:** Standard on departure and arrival. Subsonic until 70 miles before AXOKA (Card 2, section 1-2) and 70 miles before HQM (Card 3, section 7-8)

Subsonic Distance: 570 mn

**DME Update:** 

Fortuna
Card 3, section 5-6
VORTAC FOT 114.00
N40°40'16" W124°14'04" 386ft



Stage 24. Seattle - Washington / KBFI KIAD (2995 nm)

http://en.wikipedia.org/wiki/Washington Dulles International Airport



Simultaneous arrival of two Concorde to Washington Dulles - Photo published by Kaitak747



Now, landing simultaneously. This time in Orlando, on the occasion of the opening of Epcot Center in Disneyland - Photo by <u>Orlando Sentinel</u>

This stage is a bit strange because, as noted in the previous stage, the supersonic Concorde flew the Canadian corridor westbound, never eastbound as we shall do. There are other changes too, because instead of landing in New York we will be heading to Washington. There are two reasons for this change: the first one is that we'll visit New York later on for a very, very special flight and, as we said at the beginning of the tour, we will not repeat airports. Washington is close enough to New York so that the Seattle-Washington route will be close enough..

On the other hand, Washington is one of the airports that we could not miss on our tour. Not only was Washington a key destination on Concorde routes to America, but it also played an important commercial role. Being the seat of the U.S. government many important decisions were taken there that marked Concorde's fate.

The first one took place on December 18th 1975, when the US House of Representatives decided, 199 votes to 198, to ban Concorde's flight over the U.S. for a period of six months. On February 4th 1976 however, just over a month later, the Secretary of Transportation William Coleman allowed two daily services to New York and one to Washington for a trial period of 16 months.

Regular service to Washington from London and Paris began on May 24th, four months after the approval. For such an occasion, a spectacular was prepared when two Concordes, from Paris and London, conducted a parallel approach and intended to hit the ground simultaneously on runways 01L and 01R. However, because the air traffic synchronization was not perfect they touched down 70 seconds apart. Once decelerated, both Concorde stood, facing each other, in front of the main airport building almost touching nose to nose in a kind of salute. Attached images recall such an emotional moment; although the second picture was not actually taken in Washington, but in Orlando on October 18th 1982, in a second attempt to land simultaneously. This second time they did.

Air France ended their scheduled flights to Washington on October 29th 1982. British Airways kept the route for 12 more years. But eventually the Washington route was cancelled by BA too by the end of 1994.

### Airports/Sceneries

BluePrint - FS9 - 24.98€ / 14,40€ (VAT incl)
http://www.blueprintsimulations.com/BluePrint KIAD.html

Imagine Simulation - FS9/FSX - 26.65\$ http://www.imaginesim.com/kiad01.htm

Recommended date and time for departure: October 23rd - 15:00z

**Estimated Time Enroute:** 04:30

**Alternate:** KBWI (Baltimore-Washington)

Charts:

KIAD <a href="http://www.airnav.com/airport/KIAD">http://www.airnav.com/airport/KIAD</a>
KBWI <a href="http://www.airnav.com/airport/KBWI">http://www.airnav.com/airport/KBWI</a>

**SID:** NEEDLE 6

**STAR:** PHILIPSBURG 2 / PRTZL 3

### 100% real plan to SYR (2995 nm)

KBFI YYJ J518 YWL J528 YQU BISPO 58N11 59N05 DUVER 5884N GRAND YGL J570 MT N428E SYR J59 PSB KIAD

58N11 = N58°00'00" W111°00'00' 59N05 = N59°00'00" W105°00'00' 5884N = N58°00'00" W084°00'00"

**Speed restriction:** Standard on departure. 5.000 feet on arrival. Subsonic until YQU (Card 1, section 6-7) and from MT (Card 3, section 5-6)

**Subsonic distance:** 1200 mn (500 mn on departure + 700 on arrival)

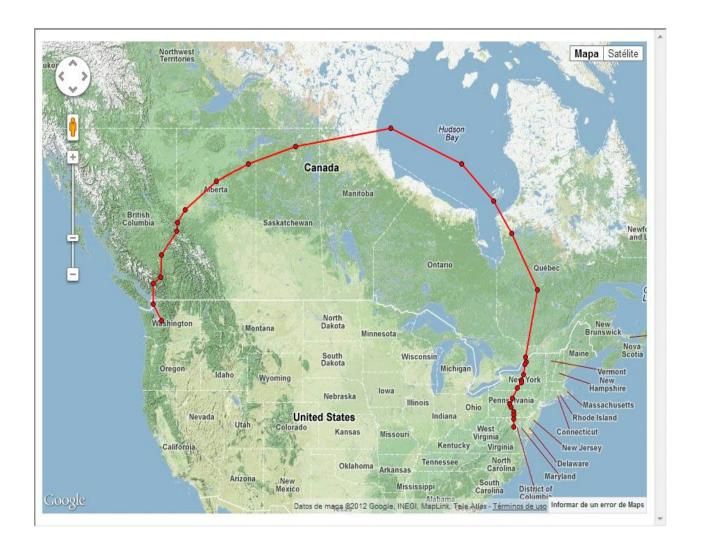
IMPORTANT: Don't forget to fill up the tank. Almost half of the stage is flown subsonically, and that means a much higher fuel consumption; besides a longer stage run. This is, in fact, the longest stage of all.

### **DME Update 1:**

Churchill
Card 2, section 1-2
VOR-DME YYQ 114.10
N58°44'30" W094°08'07" 51ft

### DME Update 2:

Ottawa
Card 3, section 6-7
VOR-DME YOW 114.60
N45°26'30" W075°53'48" 482ft



## Part 3: Towards the rising sun

Since we did the first around the world tour Westbound, let's do one now in the opposite direction, towards the rising sun. This time we will make a strange mix of routes stopping at airports that Concorde historically visited trying to make our trip as "complete" as possible. I would really like that by the end of the tour everyone really has the feeling of having visited all corners of the world.

### Stage 25. Washington - Santa Maria / KIAD LPAZ (2530 nm)

http://en.wikipedia.org/wiki/Santa Maria Airport 28Azores% 29%



In the Azores - Photo by Marco Goncalves

This tiny island in the Azores was never a destination, but was used for some time as a refueling pit stop on the Paris-Caracas route. Although it's not strictly necessary to stop here for our current stage this historical Concorde stop it's just on our way to Toulouse so... why not?

### Sceneries / Airports

Tropicalsim - FS9/FSX/P3D - 15.47 (inc VAT) <a href="http://secure.simmarket.com/tropicalsim-santa-maria-lpaz.phtml">http://secure.simmarket.com/tropicalsim-santa-maria-lpaz.phtml</a>

Date and time of departurerecommended:October 24 - 16:00 z

**Estimated Time Enroute:** 03:20

Alternate: LPPD (Joao Paulo)

Charts:

LPAZ <a href="http://www.nav.pt/ais/cd/2012-10-18-AIRAC/html/eAIP/LP-AD-2.LPAZ-en-PT.html">http://www.nav.pt/ais/cd/2012-10-18-AIRAC/html/eAIP/LP-AD-2.LPAZ-en-PT.html</a>
LPPD <a href="http://www.nav.pt/ais/cd/2012-10-18-AIRAC/html/eAIP/LP-AD-2.LPPD-en-PT.html">http://www.nav.pt/ais/cd/2012-10-18-AIRAC/html/eAIP/LP-AD-2.LPPD-en-PT.html</a>

SID: CAPITAL 8 STAR: VMG1

### Routesimulated (2530 nm)

# KIAD OTT V379 ENO J191 BESSI J150 AJGON DOVEY 4260N 4250N 4240N 4230N VMG LPAZ

4260N= N42 ° 00'00" W060 ° 00'00" 4250N = N42 ° 00'00" W050 ° 00'00" 4240N = N42 ° 00'00" W040 ° 00'00" 4230N = N42 ° 00'00" W030 ° 00 ' 00"

**Speed restrictions:** 5,000 feet at departure. Standard on arrival. Subsonic to 270mn before DOVEY (Card 2, section 1-2)

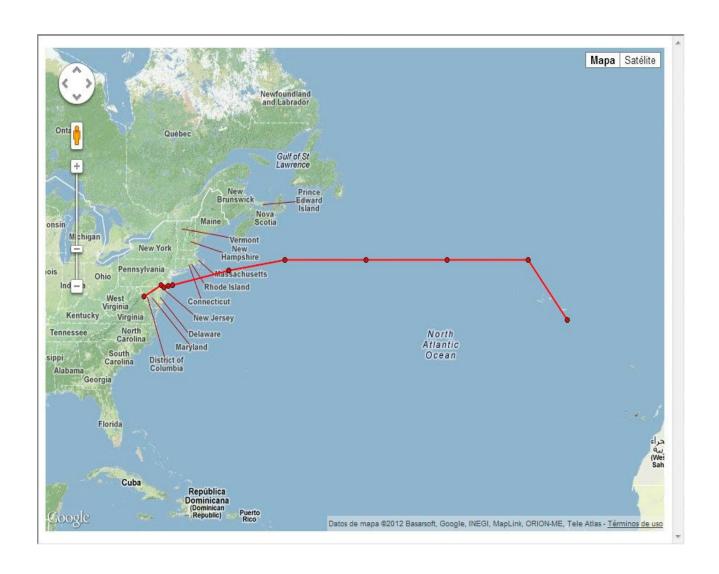
Subsonic distance: 240 mn

### **DME Update 1:**

Yarmouth Card 2, section 1-2 VOR-DME YQI 113.30 N43°49'30" W066°04'56" 164ft

### **DME Update 2:**

Flores
Card 3, section 6-7
VOR-DME FRS 113.30
N39°27'28" W031°07'39" 122ft



Stage 26. Santa Maria - Toulouse / LPAZ LFBO (1303)

http://en.wikipedia.org/wiki/Toulouse Airport



First off - Photo by concordesst.com

Toulouse Airport. March 2nd 1969. 15:40 hours. André Turcat, squeezing the four Olympus 593 engines of the prototype Concorde 001, afterburners included, reached 205 knots after running 4,700 feet of the runway, and what had been a dream and a project until then, became a reality. The Concorde, loaded with 10 tons of data logging equipment, got airbone, making the effort and dreams of years come true. It was a short flight of only 28 minutes, in which not even the landing gear was retracted. But Concorde had already made history.

Though the development of Concorde was an Anglo-French project, the airport of Toulouse is undoubtedly the most important of the European aerospace industry, as it holds the manufacture of Airbus and ATR aircrafts in the vicinity and has always been used as a test site for these. Concorde also had its birthplace in Toulouse so ... Welcome home!

Of Course, one the Concordes, F-BVFC rests here in Toulouse nowadays. She arrived on June 27th 2003 from Paris after a short flight over the Atlantic for the last supersonic flight that an Air France Concorde would ever make. More than 30,000 people were waiting in Toulouse for her arrival, with all Airbus employees aligned on one of the taxiways. The reverence was well worth it. Without Concorde, Airbus would not exist today.

That particular moment was very exciting in itself. But then it turned out to be even more special when the doors opened and André Turcat, the pilot that first flew Concorde, appeared. Wow! What a moment... Impossible to miss this stage in our tour!!!

### **Airports / Sceneries**

Aerosoft - FSX / X-Plane 10 -

Recommended date and time for departure: October 25th - 17:00z

**Estimated Time Enroute:** 01:55

Alternate: LFBA (La Garenne)

Cartas:

https://www.sia.aviation-civile.gouv.fr/html/frameset\_aip\_uk.htm

SID: BEKUN

**STAR:** TBO (FROM WEST)

Routesimulated. (1303)

LPAZ BEKUN ARMED BEGAS DELOG ABRIX BTZ UT144 TBO LFBO

4408N = N44 ° 00'00" W008 ° 00'00"

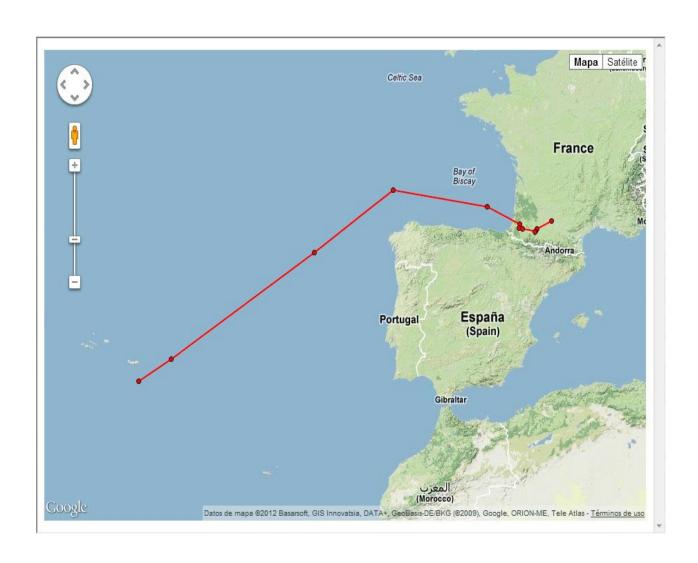
Speed restrictions: Standard on departure and arrival. Subsonic on DELOG. Card 1, section

3-4

Subsonic distance: 245 nm

**DME Update:** 

La Coruña Card 1, section 2-3 **VOR-DME VES 115.10** N43°23'46" W008°18'24" 416ft



Stage 27. Toulouse - Dubai / LFBO OMDB (3145 nm)

http://en.wikipedia.org/wiki/Dubai\_International\_Airport



Pepsi promotional campaign in 1996. Photo by Reuters through thenational.ae

Probably because of its proximity to Bahrain, Dubai never was a Concorde scheduled destination. Yet Dubai has been a common stop in the various flights to and from East Asia and around the world, as the one held in 1996 to promote Pepsi. It hurts a little to see Concorde as an advertising showcase, right? By the way, I failed to find out how fast that Concorde flew. The white and clear regular Concorde paint had nothing to do with style. High temperatures reached at Mach 2.0 forced the use of a special type of white paint that offered a high heat dissipation, so it is more than likely that the Concorde "Pepsi style" did not fly at top speed along the route.

### **Sceneries / Airports**

FlyTampa - FS9 / FSX/P3D- € 31.46 (VAT inc.) http://www.flytampa.org/omdb.html

**NOTE:** This is one of those sceneries that's really worth considering the purchase of. In my opinion, THE BEST SCENERY EVER

**IMPORTANT:** Even though I've got 12 GB or RAM installed, I got an OOM error (Out Of Memory) everytime I tried to land at Dubai in this stage. I solved it disabling artificial traffic and autogen.

Recommended date and time for departure: March 1st - 13:40z

**Estimated Time Enroute:** 03:50

Alternate: OMSJ

Charts: OMDB

http://www.gcaa.gov.ae/aip/AIRAC96/html/eAIP/OM-AD-2.OMDB-en-GB.html#AD-2.OMDB

http://www.gcaa.gov.ae/aip/AIRAC96/html/eAIP/OM-AD-2.OMSJ-en-GB.html#AD-2.OMSJ

**SID:** PUMAL (SOUTH)

STAR: DESDI

Official airways. Parts of the route were real. Others have been simulated.

LFBO PUMAL UN859 BCN UN725 NOLVI UM739 DOPEL MEGAN UM732 UPLIT UN46

EVIRA UN4 ARLOS METRU KUMBI KAVOS UM33 GIPAS UA28 APLON EPONT ALSUS

UM978 NIKAS R785 ZELAF UR785 RASLI TRF V45 ITIXI UM691 KEDAT UP559 LABTA

VUXOR Y505 DESDI OMDB

**Speed limitations:** Standard on departure and arrival. Subsonic up to DIPES (Card 1, section

3-4)

Distance subsonic: 200 nm

**Updated DME:** 

Larnaka
Card 4, section 7-8
VOR-DME LCA 112.80
N34°52'22" E033°37'32" 98ft



Stage 28. Dubai - Singapore / OMDB WSAP (3185 nm)

http://en.wikipedia.org/wiki/Changi Air Base



Let's see who can guess where this picture was taken. Answer at the end of the text. And advancement... is not Singapore ... - Photo by M.Oertle

Singapore was the destination that should have opened the doors to Concorde flights to Asia. Unfortunately it was not. Clearly, the benefits of flying Concorde are high, the longer is the distance travelled since, more airtime, more difference in flight time over subsonic flight. So, although the routes London / Paris - New York / Washington were important, Concorde's life depended also on scheduled flights to Asia in the first place, and then to Australia.

Beginnings were certainly promising, as the December 9th 1977, when not even a year had passed since British Airways began scheduled flights to Bahrain, Singapore Airlines reached an agreement whereby Concorde would extend the route to Paya Lebar Airport, which was the international civil airport of Singapore until 1980 (NOTE: that's the reason why we're flying to Paya Lebar instead of Changi). The deal was so promising that even Concorde G-BOAD was painted in the colors of Singapore Airlines on one side. However, contrary to expectations, the route was cancelled because of noise complaints from the Malaysian government when only

three flights had been made. The route was resumed in 1979 after a few changes to the route that forced Concorde to circle the Malaysian airspace. But then India opposed to the Concorde flying supersonic along its airspace, with the final result that the London-Singapore route (via Bahrain) was declared non-feasible.

Incidentally, the photo of the Concorde in Singapore Airlines colours for this stage was taken at... Barcelona! Displayed the first time the Concorde reached LEBL on February 25th 1979 coming from London. The next day a charter flight to New York was organized by the Catalan Industrial Bank. On the flight, flew some of the bank's VIPs (of course ...) including the mayor in-office of Barcelona at the time Manuel Font i Altaba. Concorde, by the way, had British Airways colours on the other side.

### **Airports / Sceneries**

**NOTE:** The following sceneries include Changi Airport instead of our destiny Paya Lebar, but offers a realistic scenary of the city:

Samsoft - FSX - 23,74 €

http://secure.simmarket.com/samsoft-the-very-singapore-fsx.phtml

Samsoft - FS9 - 27,31€

http://secure.simmarket.com/samsoft-the-very-singapore.phtml

Recommended date and time for departure: March 2nd - 09:00z

**Estimated Time Enroute: 03:35** 

Alternate: WSSS

Charts: WSAP

http://www.caas.gov.sg/caas/en/Regulations/Aeronautical\_Information/AIP/aerodrome/ad\_wsap.html

**WSSS** 

http://www.caas.gov.sg/caas/en/Regulations/Aeronautical\_Information/AIP/aerodrome/ad\_wsss.html

SID: ANVIX

Real Route from TOTOX (3185 nm)

OMDB ANVIX L223 TARDI N629 MUSUK T511 MCT T502 MUSRU P574 PUGER R461 VKL A464 LELIB WSAP

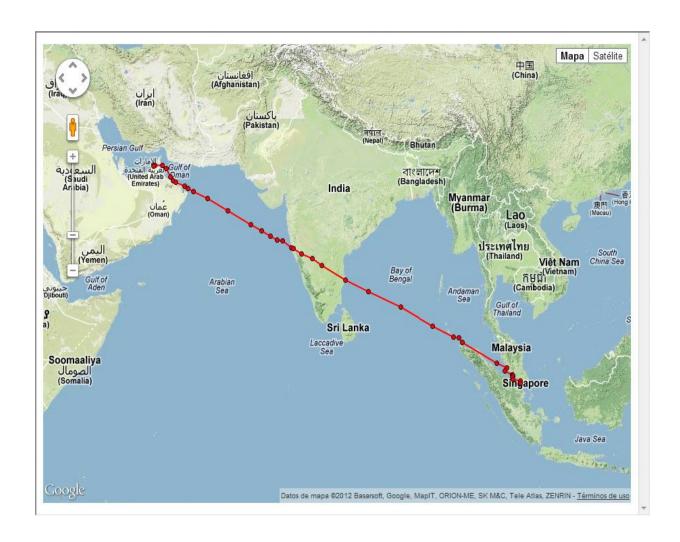
Speed restrictions: Standard on departure and arrival. Subsonic 20mn before INTOT (Card 5,

section 1-2)

Subsonic distance: 200 nm

**DME Update:** 

Belgaum Card 3, section 5-6 VOR-DME BBM 112.10 N15°51'22" E074°37'00" 2543ft



Stage 29. Singapore - Hong Kong / WSAP VHHX (1448 nm)

http://en.wikipedia.org/wiki/Kai Tak Airport



Kai Tak Approach 13. Do you dare to make it with the Concorde? - Photo by Andrew Hunt

The Concorde flew to Hong Kong several times and yes... landed at Kai Tak before it was closed. And yes, on more than one occasion performed the "Hong Kong Turn" in approach to runway 13. And yes ... we'll also land on runway 13. That is, in fact, our mission. Here's an example:

http://www.youtube.com/watch?v=1s7Q-Z2PGQw

### Mission:

Landing at Kai Tak on runway 13. To do this <u>you must fly using custom weather with no</u> <u>wind or wait for a weather day with a configuration suitable for use of runway 13</u>. You can also, if you want to, use archived weather in **Active Sky or REX** (both paid addons)

### Airports / Sceneries

**RECOMMENDATION:** Being an abandoned airport, the level of detail in the FSX default scenery is especially low. There are some addons that are really worth their money. That is the case of Fly Tampa's Kai Tak. It costs 26 euros, but the level of detail, realism and visual quality is awesome and, if you can afford it, I can highly recommend it without any hesitation. After Duabi, that's possibly the most realistic scenary I've ever installed.

Flytampa - FS9/FSX - 26€ http://www.flytampa.org/vhhx.html

Recommended date and time for departure: March 2nd - 08:30z

**Estimated Time Enroute:** 02:15

**Alternative:** VHHH (Hong Kong)

Charts:

VHHX vatsim.hk/airports/VHHX\_ALL.pd

VHHH <a href="http://www.hkatc.gov.hk/HK\_AIP/ad.htm">http://www.hkatc.gov.hk/HK\_AIP/ad.htm</a>

SID: -

STAR: DUMOL

Simulated route. 100% Official airways. (1448 nm)

WSAP PU B469 VMR M771 CH VHHX

**Speed restrictions:** Standard on departure and arrival. Subsonic up to OTLON (Card 1, section 6-7)

### **DME Update:**

Cam Ranh Tarjeta 2, tramo 3-4 VOR-DME CRA 116.50 N11°59'40" E109°13'12" 40ft



Stage 30. Hong Kong - Tokyo Haneda / VHHX RJTT (1780 nm)

http://en.wikipedia.org/wiki/Haneda\_Airport



In Tokyo after flying over Siberia from Paris - Photo by <u>Lucy Liu Leroux</u>

The first Concorde to land in Japan was the test unit 002 that came to Tokyo from Singapore in early June 1972, but stopping at Manila, instead of stopping in Hong Kong as we have. Tokyo was considered one of the most critical destinations during the Asian presentation, since Haneda is one of the busiest airports in the world and that made it possible to experience how Concorde behaved in a dense traffic environment. Concorde made three takeoffs and landings in Tokyo proving airport authorities and air traffic control that Concorde was just one more airplane when flying at subsonic speeds. However, the problems to reach Singapore from Bahrain put away any plan to create routes to Asia and, on the other hand, Japan was never in the list of charter flights around the world either.

Following this promising first initial flight, Concorde only visited Japan two more times (at least that I've been able to learn) The second was on June 28th 1979 and it was a really special flight from Paris. At that time, during the Cold War, the Soviet Union did not allow flights over its airspace unless a Soviet chief navigator was included in the crew. Yet any stop on Soviet territory was completely forbidden, especially in Siberia. Concorde not only had the privilege of flying over Siberia, but also to make a stop at Novosibirsk airbase. The reason for this favorable treatment was that the French president at the time, Valéry Giscard d'Estaing, was onboard heading to the G7 Summit held in Tokyo.

Concorde did not return to Japan until 11 years later. At that time, some 15,000 people watched the Concorde landing, not in Tokyo, but in Nagasaki Airport on the occasion of the exhibition "Travel Exposition '90 - Nagasaki".

### Airports / Sceneries

Fly Away - FSX - Free

http://flyawaysimulation.com/downloads/files/7368/fsx-tokyo-haneda-international-scenery/

**Recommended date and time for departure**: June 14th - 05:00z

**Estimated Time Enroute:** 02:20

**Alternative:** RJAA (Narita)

**Charts:** (No charts available for free)

SID: ELATO STAR: KAIHO

Simulated route (1780 nm)

VHHX ELATO KABAM POTIB SAKON BIXAK A590 MJE BAFFY Y87 PQE Y108 KAIHO RJTT

**Speed restrictions:** Standard on departure and arrival. Subsonic from 60 mn before MJE (Card 2, section 9-1)

### **DME Update:**

New Minamidaito
Card 1, section 4-5
VOR-DME MDE 117.80
N25°51'16" E131°15'49" 141ft



Stage 31. Tokyo Haneda - Darwin / RJTT YPDN (3066 nm)

http://en.wikipedia.org/wiki/Darwin International Airport



At Darwin - Photo by Michae Jensel, through the <u>Australian National Library</u>

Continuing its demonstration tour, on June 15th 1972 test Concorde 002 leaves Tokyo heading to Darwin Airport in Australia after an unplanned stop at Manila to replace an air conditioning valve. Hopefully we won't have to fix anything on our way.

Though Darwin was not a usual destination for Concorde, she landed there from time to time during her world tours.

### **Airports / Sceneries**

Anthony31 - FSX - Free (Includes al Australian airports) <a href="http://aussiex.org/forum/index.php?/files/file/679-ants-aussie-airports-complete/">http://aussiex.org/forum/index.php?/files/file/679-ants-aussie-airports-complete/</a>

Aerosoft - FSX - 89,99€ (IVA inc.)

NOTA: Includes the whole of photorealistic Australia

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=11937&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

**Recommended data and time for departure**: June 15th - 19:00z

**Estimated Time Enroute:** 03:25

**Alternate:** YPTN (Tindal)

Charts:

YPDN <a href="http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#D">http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#D</a>
YPTN <a href="http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#T">http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#T</a>

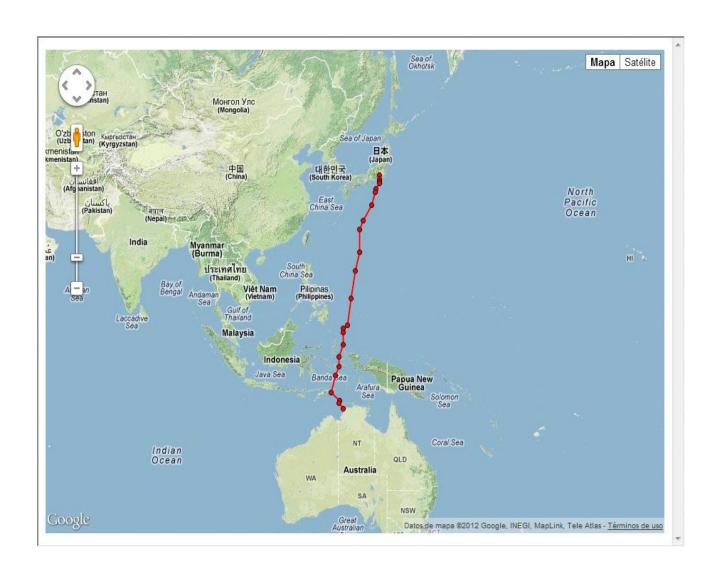
Route simulated. 100% official Airways (3066 nm)

RJTT OPPAR PQE Y87 BAFFY V16 MJE A339 ELBIS M768 SHEPP YPDN

**Speed restrictions:** Standard on departure and arrival. Although we'll fly over populated islands, we'll assume that we have special permission to not have any speed restrictions on the entire route.

#### DME update:

Koror Card 2, section 2-3 TACAN ROR 115.70 N07°22'07" E134°33'01" 182



Stage 32 Darwin - Sydney / YPDN YSSY (1798 nm)

http://en.wikipedia.org/wiki/Sydney\_Airport



At Sydney - Photo by John Ward

Continuing the promotional route, Concorde 002 reached Sydney on 17th June 1972. She had to follow a carefully calculated route by the Australian Department of Civil Aviation that was required to avoid even small towns or aboriginal reserves along the route. The supersonic corridor ran near Alice Springs, where several measurements were performed to check the impact of sonic boom. It was shown that it did not cause any significant discomfort in animals, birds or locals... I could not have access to the flight plan for that special route, so we'll use official airways instead that should be quite close to the actual flight.

Organizers had been warned that environmental opposition on the arrival was likely to be found. But the number of enthusiastic spectators for the Concorde was, however, much greater. In fact, one of the pilots said, anecdotedly, that once on land, he could see one protester throwing his protest banner to the ground and begin to clap and cheer at the passing of the "monster" that just a couple of minutes before he wanted to scare away.

### **Airports / Sceneries**

**NOTE:** FSX already includes a detailed version of YSSY

AUscene- FS9/FSX - 19.99 € (VAT incl)

http://secure.simmarket.com/auscene-sydney-professional-x-% 28es 6782% 29.phtml

Recommended date and time for departure: June 17th - 22:00z

**Estimated Time Enroute:** 02:15

Alternate: YWLM

**Charts:** 

YSSY <a href="http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#S">http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#S</a>
YWLM <a href="http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#W">http://www.airservicesaustralia.com/aip/pending/dap/AeroProcChartsTOC.htm#W</a>

SID: MAVER 2 STAR: ODALE 3

Simulataed. 100% official airways (1798 nm)
YPDN MAVER J251 AS A576 KAT ODALE YSSY

**Speed restrictions:** Standard.

**DME Update:** 

Parkes
Card 2, section 3-4
DME PKS 112.00
S33°07'52" E148°14'14" 1070ft



Stage 33. Sydney - Auckland / YSSY NZAA (1168 nm)

http://en.wikipedia.org/wiki/Auckland International Airport



At Auckland - Photo by Ross Yeatman

Once in Sydney, Concorde made several test flights over the Tasmanian Sea, but always returning to Sydney. Once all the test flights were completed Concorde 002 made its way back home. We, instead, will be crossing the Tasmanian Sea to land in Auckland, New Zealand, and once there we will continue our tour, crossing again over the Pacific. But this time, towards the rising sun.

#### **Airports / Sceneries**

NOTE: FSX already includes a detailed version of NZAA

Vector Land Class - FSX - 46,41€ (IVA inc)

http://secure.simmarket.com/vector-landclass-new-zealand-%28es 5412%29.phtml

Aerosoft - FSX/P3D - 39,99€ (Iva inc)

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=12393&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

Recommended date and time for departure: July 22nd - 22:00z

**Estimated Time Enroute:** 01:40

**Alternate:** NZOH (RNZAF Ohakea Base) It's a military airport, but can be used as an alternate.

Charts:

NZAA <a href="http://www.aip.net.nz/NavWalk.aspx?section=CHARTS&tree=Auckland">http://www.aip.net.nz/NavWalk.aspx?section=CHARTS&tree=Auckland</a>
NZOH <a href="http://www.aip.net.nz/NavWalk.aspx?section=CHARTS&tree=Ohakea">http://www.aip.net.nz/NavWalk.aspx?section=CHARTS&tree=Ohakea</a>

SID: KEVIN 3 STAR: ARADI

100% Official Airways (1168 nm)

YSSY KEVIN EVONN L521 LUNBI ARADI NZAA

**Speed restrictions:** Standard.

**DME Updated**: Not required

Stage 34. Auckland - Papeete / NZAA NTAA (2209 nm)

http://en.wikipedia.org/wiki/Faa% 27a International Airport



At Papetee, in late 1997. - Photo by Regis Dautremont, through Martial Dautremont

We are back again in the vastness of the Pacific Ocean. We again need an intermediate place to "rest" our Concorde before continuing the route. Hawaii is far to the north and, besides, we've already stopped there before. Let me think... I have it! Tahiti! Who can resist a stop in this volcanic archipelago paradise? Neither we nor the lucky Concorde users can resist to land here time and time again over the years during the world tours of this magical "iron bird".

#### **Sceneries / Airports**

Aerosoft - FSX - 17,95€ (IVA Inc)

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=10940&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

**NOTA:** Aerosoft announced on september 2012 that they're working on a major update of the current Tahiti scenary; so perhaps it would be wise to wait for the new version to be released. http://forum.aerosoft.com/index.php?/topic/57526-tahiti-x2/ Recommended date and time for departure: July 23rd - 22:00z

**Estimated Time Enroute:** 02:20

Alternate: NTTG (Rangiroa - 190 mn)

Charts:

NTAA <a href="http://www.tahiti-aeroport.pf/UserFiles/File/fiche%">http://www.tahiti-aeroport.pf/UserFiles/File/fiche%</a> 20technique% 20FAAA.pdf

**NCMK** (no free charts available)

SID: -

**STAR:** AROBA

100% airways officers (2209 nm)

NZAA EMRAG OLBEX G599 TEKOT AROBA NTAA

**Speed restrictions:** Standard.

**DME Updatre:** 

Rarotonga Card 1, section 4-5 VOR-DME RG 113.50 S21°12'06" W159°48'51" 21ft



Stage 35. Papetee- Easter Island / NTAA SCIP (2293 nm)

http://en.wikipedia.org/wiki/Mataveri\_International\_Airport



Moai, Rapa Niu and Concorde. Curious and beautiful combination - Photo by Christian Pinson

Throughout our journeys across the Pacific we could feel the vast ocean below us without a place to stop not even in case of an emergency. But there is no place in the world with a greater sense of loneliness and isolation than Easter Island. This airport is the most isolated in the world. The nearest airport Concorde could use for landing is Totegegie, "only" 1402 nm away on our way back to Papeete. In addition, it's runway is only 6,500 feet long and the runway occupies almost 100% of the island's surface, so there is not much room for error. This means that, in practice, there is no alternative at Mataveri. Aircrafts heading to Easter Island follow a special procedure in which pilots are not given permission to cross the point of no return unless the runway is 100% clear at that point. Thinking of an emergency at this stage freaks you out, right?

Rapa Nui airport at Easter Island only has connections to Lima, Santiago de Chile and Papeete:, all of which are operated by Chilean airline LAN. The only exceptions were the occasional visits of Concorde, which were less frequent than visits to those of Papeete or Hawaii.

Pinson Christian took a superb photograph in 1987 which shows the Concorde, a Rapanui and a Moai in a backlight.

#### **Airports / Sceneries**

Cristóbal Laje - FSX - Gratuito <a href="http://www.simviation.com/simviation/?ID=63&page=57&mark=7085">http://www.simviation.com/simviation/?ID=63&page=57&mark=7085</a>

Recommended date and time for departure: July 24th - 16:00z

Estimated time enroute: 02:35

Alternate: NTGJ (Totegegie) - Alternate... yeah...sure....

Charts: SCIP

http://www.aipchile.gob.cl/aip/vol2/seccion/proc

NTGJ

https://www.sia.aviation-civile.gouv.fr/aip/enligne/uk/..%5CPDF\_AIPparSSection%5CAIP%20PAC-P%5CAD%5C2%5C1212\_AD-2.NTGJ.pdf

SID: -

**STAR:** ILS/VOR-DME (IPA)

100% official airways (2293 nm)
NTAA TATIA UL348 IPA SCIP

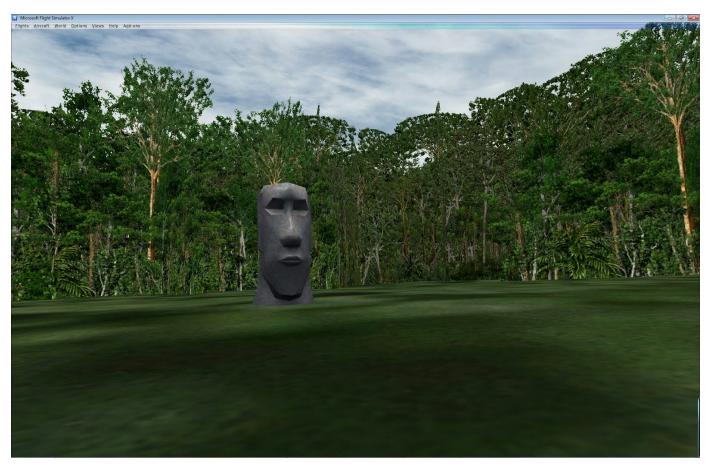
**Speed restrictions:** Standard.

**DME Update:** 

Mururoa Card 1, section 3-4 VOR-DME MRA 115.50 S21°48'35" W138°49'59" 20ft



Stage 36. Easter Island Tour (optional)



One of the (at least) seven moai that can be found in the default FSX scenery

Let's play a game. Taking advantage of us being in the world's most remote airport let's have some fun leaving supersonic speed for the time being and taking a relaxing recreational flight over the island... but with some interesting searching to do.

In the default FSX scenery for Easter Island there are, at least, seven moai, these strange monolithic stone statues found only in this small island of Rapa Nui. Will you be able to find them all? If you are a hairy-chested macho I challenge you to find them with full autogen enabled. But if that's just too much for you then you can either reduce autogen or download the file you'll find below with some clues:

## http://ramoncutanda.com/alz/concorde/Moais\_Clues.rar

To find the moais I recommend using the ultralight or helicopter. Perhaps a plane capable of flying very slowly could also do.

This stage has a clear leisure purpose and it's completely out of the main concept of flying Concorde around the world so it's entirely up to you whether you'll fly it or not..

Stage 37. Easter Island - Ushuaia / SCIP SAWH (2444 nm)

http://en.wikipedia.org/wiki/Ushuaia % E2% 80% 93 Malvinas Argentinas International Airport



In Ushuaia - Photo by Maximilian Curto

At the beginning of the second part of our tour we landed within the Antartic Circle and real close to it in the following. We are now at the southernmost international airport in the world and, although not exactly within the Antarctic Circle, it is close enough to the South Pole to say that not only have we flew Concorde around the world (both eastbound and westbound), but also that we've gone North to South.

Air France Concorde F-BTSD visited Ushuaia twice. The first time was on January 17th 1999 on a flight from Buenos Aires and leaving to Santiago afterwards. The second arrived on July 25th 2000, also from Easter Island and left, like us, to Buenos Aires.

#### **Airports/Sceneries**

Cristóbal Laje, Jorge Bilia and Marcelo Veneziale - FSX - Free <a href="http://www.flightsimulatorarg.com.ar/xescenarios11.htm">http://www.flightsimulatorarg.com.ar/xescenarios11.htm</a> (Includes 8 sceneries in Tierra del

### Fuego)

Recommended date and time for departure: July 25th - 14:00z

Estimated time enroute: 02:50h

Alternate: SCCI (Carlos Ibáñez del Campo)

Cartas: (no available free charts)

SID: -

**STAR:** DABLI 2

## Simulated route (2444 mn)

SCIP 30W07 33W04 3998W 4393W 4787W 4984W 5474W DABLI SAWH

30W07= S30°00'00" W107°00'00" 33W04 = S33°00'00" W104°00'00" 3998W = S39°00'00" W98°00'00" 4393W = S43°00'00" W93°00'00" 4787W = S47°00'00" W87°00'00" 4984W = S49°00'00" W84°00'00" 5474W = S54°00'00" W74°00'00"

Speed restrictions: Standard

Actualización DME: Not available



Stage 38. Ushuaia - Buenos Aires / SAWH SAEZ (1273 nm)

http://en.wikipedia.org/wiki/Ministro\_Pistarini\_International\_Airport



At Buenos Aires - Photo by lobito

Air France Concordes landed in Argentine territory six times and in all of them, she did stop in Buenos Aires. The first visit was the prototype Concorde 001 (F-WTSS). Later on, another Concorde took the French national team to the World Cup '78. And as already mentioned in the previous stage, there were two more charter flights, including one world tour in the year 2000.

Besides these four occasions the Concorde transported the President of Zaire once in 1987 and months later it was the turn of the French President François Mitterrand.

### **Airports / Sceneries**

Blueprint - FS9/FSX - 11,89€

http://www.blueprintsimulations.com/BluePrint SAEZ.html

Tropicalsim - FS9/FSX - 20,22€

http://secure.simmarket.com/tropicalsim-buenos-aires ezeiza-saez-%28es 4480%29.phtml

Recommended date and time for departure: July 26th - 16:00z

Estimated time enroute: 02:00h

Alternate: SADJ (Mariano Moreno)

**Charts:** (no charts available for free)

**SID**: KEXOP **STAR**: GBE

100% official airways (1273 nm)

SAWH KEXOP UW42 GRA UT662 DIL UA570 GBE UW29 EZE SAEZ

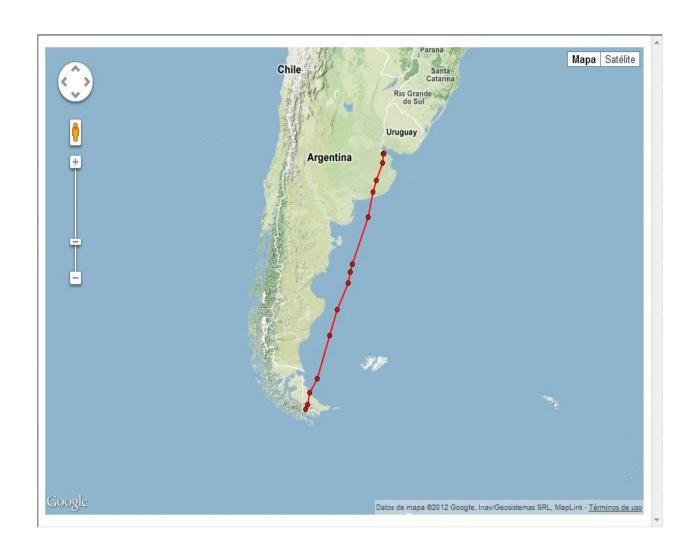
Speed restrictions: Standard on departure and destination. Subsonic at 70 miles before

SIGUL (Card 2, section 8-9)

Subsonic distance: 280 mn

**DME Update:** 

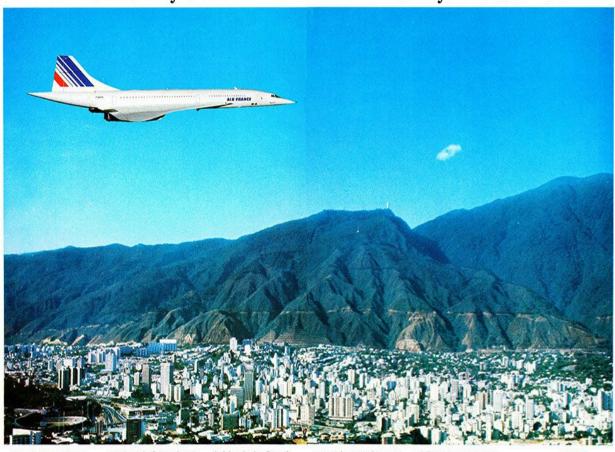
Bahía Blanca Card 2, section 8-9 VOR-DME BCA 114.30 S38°43'12" W062°09'29" 261ft



Stage 39. Buenos Aires - Caracas / SAEZ SVMI (2781 nm)

http://en.wikipedia.org/wiki/Sim% C3% C3% ADvar\_International\_Airport\_ B3n\_Bol%% 29% 28Venezuela

# Paris-Caracas by Concorde. The easiest 6 hours you've ever flown.



Since April 9th, Air France has been flying its second Concorde route: Paris Caracas, Not only can you cut your flying time in half, but you will rediscover the efficiency and case that make flying a pleasure. The Concorde's service is efficiency itself. On board it's custom-made for supersonic flight. On the ground it's fast and simple, to make sure you don't lose the time Concorde saves you. You leave Paris at 7 p.m. and

You leave Paris at 7 p.m. and arrive in Caracas at 7 p.m. local time! That's just 6 hours including a stop in the Azores, compared to over 11 hours on a conventional jet. Of course it's nice to know that you'll be saving a lot of time. But it's even nicer knowing

that for the first time

you'll be arriving totally fresh and relaxed. Saying that the Concorde is the easy way to South America may just be the understatement

of the year.

AIR FRANCE
Concorde, a new world of flying

Air France flyer, through fly-brother.com

Air France opened the Paris-Caracas route on April 9th 1976 and flew it until March 31st 1982 when all the South Americas routes, including Paris - Rio, were cancelled.

Concorde needed to make a pit stop to refuel in the small island of Santa Maria, in the Azores, which we have already visited on the way from Washington to Toulouse. However, there were times when the Concorde could avoid this stop and make a direct flight. This, of course, required a wealth of exceptional simultaneous situations such as no waiting at the departure airport and to be cleared to exceed Mach 1 as soon as possible (remember Concorde engines consume much more at subsonic speeds), flying light and having favorable wind and temperature conditions. It was quite unusual, but a non-stop route did happen sometimes.

The fastest flight between Paris and Caracas took place on October 7th 1976 when a Concorde carrying only 56 passengers took 4 hours and 12 minutes.

Since much of our route we will be flying today runs through uninhabited Amazon rainforest we will afford, once again, to use a path that allows us to fly over land at supersonic speed.

#### **Airports / Sceneries**

Blueprint - FS9/FSX - € 11.89 (inc VAT)
http://www.blueprintsimulations.com/BluePrint SVMI.html

LatinVFR - FS9/FSX - € 22.61 (inc VAT)

http://secure.simmarket.com/latinvfr-latin- hub-caracas-svmi-% 28es\_6271% 29.phtml

Recommended date and time for departure: April 9th - 19:00z

**Estimated Time Enroute:** 03:40

**Alternate:** SVVA (Arturo Michelena) **Charts:** (no free charts available)

SID: LANDA 2A

**STAR:** REKON (ILS/VOR/DME)

Route using official airways (2781 nm)

SAEZ LANDA UW64 GUA UL793 DAVEX UL216 MIQ REKON SVMI

**Speed restrictions**: Standard on departure and arrival. Subsonic until SIS (Card 2, section 7-8) Arrival with normal deceleration.

Subsonic distance: 445 nm

#### DME update:

Porto Velho Card 3, section 2-3 VOR-DME PVH 112.70 S08°42'50" W063°54'12" 290ft



Stage 40.Caracas - New York / SVMI KJFK (1901 nm)

http://en.wikipedia.org/wiki/John\_F.\_Kennedy\_International\_Airport



The image of the twin towers in the background leaves no doubt: this is New York - Photo by Hanns Ullrich

It can be said, without the slightest doubt, that the route from Paris and London to New York was what kept Concorde alive for over 25 years. Concorde took more passengers on that route than in any other ever flown and, together with Barbados, the only ones that really reported profits. But unlike Barbados, Concorde flew to and from New York all year long and she did so during most of her life. There's no destination more linked to Concorde's history than KJFK.

#### **Airports/Sceneries**

**NOTA:** FSX already includes a detailed version of KJFK

Blueprint - FS9/FSX - 22,60€ (IVA incl)
<a href="http://www.blueprintsimulations.com/BluePrint">http://www.blueprintsimulations.com/BluePrint</a> KJFK.html

Megascenery - FS9 - 19,95\$

http://www.pcaviator.com/store/product.php?productid=18000&cat=0&page=1

Aerosoft - FS9/FSX/P3D - 19,95\$

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=10813&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

Mega Scenery Earth - 7,49\$ (5.62\$ buying 3 sectors or more. Perhaps you may be interested in buying KMIA and KBFI together)

http://www.megasceneryearth.com/store/cart.php?target=product&product\_id=403&category\_id =92

Recommended date and time for departute: April 10th - 12:00z

Estimated time enroute: 02:20

**Alternate:** KEWR (Newark Liberty)

Charts:

KJFK <a href="http://www.airnav.com/airport/KJFK">http://www.airnav.com/airport/KJFK</a>
KEWR <a href="http://www.airnav.com/airport/KEWR">http://www.airnav.com/airport/KEWR</a>

SID: REKON STAR: CAMRN

Simulated route. 100% official airways (1889 nm)

SVMI REKON ROJAS UA554 POKAK LENNT L455 BOUNO WUNKA ZETAL KJFK

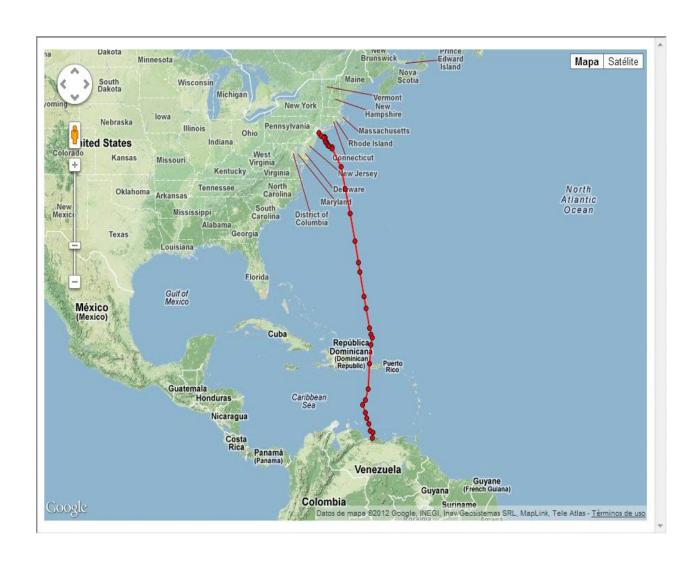
**Speed restrictions:** Standard on departure and 5.000 feet on arrival.

#### **DME Update 1**

Ponce Card 2, section 1-2 VOR-DME PSE 109.00 N17°59'32" W066°31'09" 16ft

### **DME Update 2:**

Sea Isle Card 4, section 4-5 VORTAC SEA 112.40 N39°05'42" W074°48'01" 80ft



Part 4: The Final Flight



Stage 41. New York - London / KJFK EGLL (3155 nm)

http://en.wikipedia.org/wiki/London\_Heathrow\_Airport



On April 10th 2003 British Airways and Air France simultaneously announced that Concorde would make the last scheduled passenger flights in late October of that year, thereby giving end to nearly 30 years of supersonic flight. On May 31st, some months before the announced date, Air France ended its passenger flights with Concorde AF001 coming back from her usual route from New York and F-BVFB performing a special charter flight around the Bay of Biscay. The rest of the Concorde fleet made their last flight, but without passengers, in the following days. The last flight of an Air France Concorde took place on June 27th in Toulouse, as already explained.

The last part of our tour includes only two flights, but two of a kind. The first one, the one you are just about to fly, is no less than the last Concorde flight on the route New York - London, that took place on October 24th of that year.

Of course, we should not forget that although we'll be flying from New York to London, Paris was, of course, the alternate destination for this classic Atlantic flight crossing. In fact, on May 21st 1977 Concorde recreated the exact same route flown by the "Spirit of St. Louis" in the first air crossing of the Atlantic conducted by Charles Lindbergh 50 years before. Concorde needed 3 hours and 44 minutes, compared to the 33 hours and 29 minutes that poor Charles needed. This fact reminds me of a phrase I read in some forum that said that Concorde is the only piece of a museum showing how the future will be. Paradoxical, right?

For this occasion we will use a real Concorde flight plan, so we'll recreate as closely as possible the path taken for so many years by the Concorde. We will be able to beat the speed record for crossing the Atlantic that took place on February 7, 1996 when Captain Leslie Scott managed to travel from New York to London in just 2 hours 52 minutes and 59 seconds?

To honor the Concorde on such a special occasion that day, October 24th 2003, not just one Concorde landed at Heathrow but three of them. The first of these, BA002, which is the one we'll be flying, took off from New York with a spectacular farewell ceremony with three coloured-water cannons with the colors of the Union Jack, whilst every single one of British Airways staff at JFK airport base honored the last time the Concorde rolled down the asphalt waving a flag specially brought for the occasion.

Once Concorde BA002 was airbone and on schedule, the other two Concordes took off from Heathrow. The Alfa-Eco Concorde flew to Edinburgh, whilst the Alfa-foxtrot did the classic tour round the Bay of Biscay.

Upon its return to Edinburgh Alfa-Eco Concorde remained holding at Lambourne while the Alpha-Foxtrot waited at Oakham.

Concorde Alpha-Golf from New York reached British airspace for the last time at 15:15,

reducing at subsonic speed off the coast of Ireland, before heading to the London area. Then Alfa-Eco, followed by the Alpha-Foxtrot, received vectors for the final approach, while the Alpha-Golf headed to the airport to position themselves to coordinate the arrival in sequence.

During the approach, the Alpha-Golf received special permission to fly over London, lower than usual, giving all Londoners the best possible view of that special flight.

Just after four o'clock in the afternoon, Concorde G-BOAE landed. Three minutes later F-BOAF landed too. Finally, at 16:05, the era of supersonic passenger transport came officially to an end when the Concorde G-BOAG landed on runway 27R at Heathrow.

On its way to her base, and replicating what happened hours earlier in New York, all staff waved Union Jack flags while firefighters also greeted Concorde with water jets from their trucks in the traditional greeting.

Hours later, once all passengers had disembarked, all 5 British Airways Concordes were specially arranged for a very special final group photo: the last one.

#### Airports / Sceneries

**NOTE:** FSX already includes a detailed version of EGLL by default

FSDream Team - FS9/FSX - 27.70€ (VAT inc) http://www.fsdreamteam.com/products\_jfk.html

UK2000 Scenery - FS9/FSX - 24,24€ (VAT inc) There's a free demo available <a href="http://www.uk2000scenery.com/newsite/My">http://www.uk2000scenery.com/newsite/My</a> Homepage Files/Page17.html

Aerosoft - FSX - 24,95€ (VAT inc)

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=10228&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

Recommended date and time for departure: October 24th - 12:30z

Estimated time of arrival: 03:40

**Alternative:** EGKK

**Charts** 

#### **EGLL**

http://www.nats-uk.ead-it.com/public/index.php%3Foption=com\_content&task=blogcategory&id

#### =94&Itemid=143.html

#### **EGKK**

http://www.nats-uk.ead-it.com/public/index.php%3Foption=com\_content&task=blogcategory&id =93&Itemid=142.html

SID: -

**STAR:** TOMMO 2F

### Route 100% Real (3155 nm)

KJFK SHIPP LEOES LINND LACKS JOBOC CARAC RAFIN 4550N 4840N 4930N 5020N 5015N LULOX EXMOR OKESI BEDEK EGLL

4550N = N45°00'00" W050°00'00" 4840N = N48°00'00" W040°00'00" 4930N = N49°00'00" W030°00'00" 5020N = N50°00'00" W020°00'00" 5015N = N50°00'00" W015°00'00"

**Speed restrictions :** Standard on departure and arrival. Subsonic from LULOX (Card 2, section 3-4)

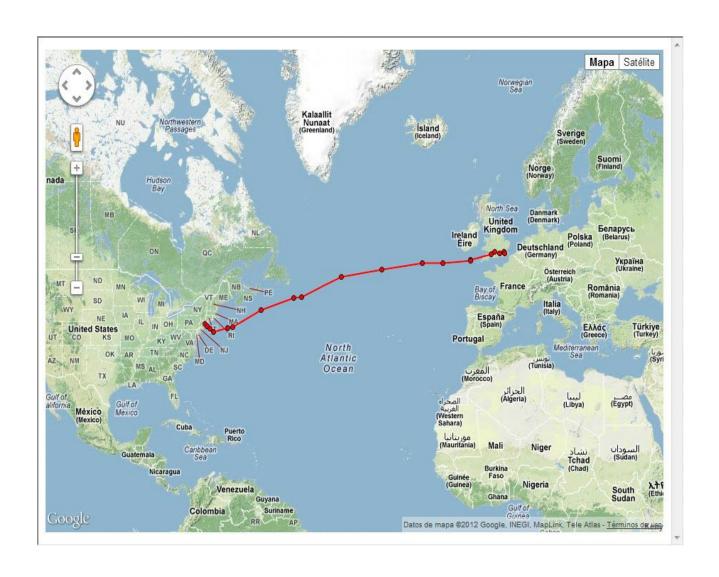
#### **DME Update 1:**

Torbay
Tarjetas 2, tramo 4-5
VOR-DME YYT 113.50
N47°29'07" W052°51'08" 833ft

DME Update 2: (optional)

Cork

Tarjetas 3, tramo 1-2 VOR-DME CRK 114.60 N51°50'26" W008°29'39" 530ft



Stage 42. London - Filton, Bristol / EGLL EGTG (851 nm)

http://en.wikipedia.org/wiki/Bristol Filton Airport



Group photo - Photo by British Airways

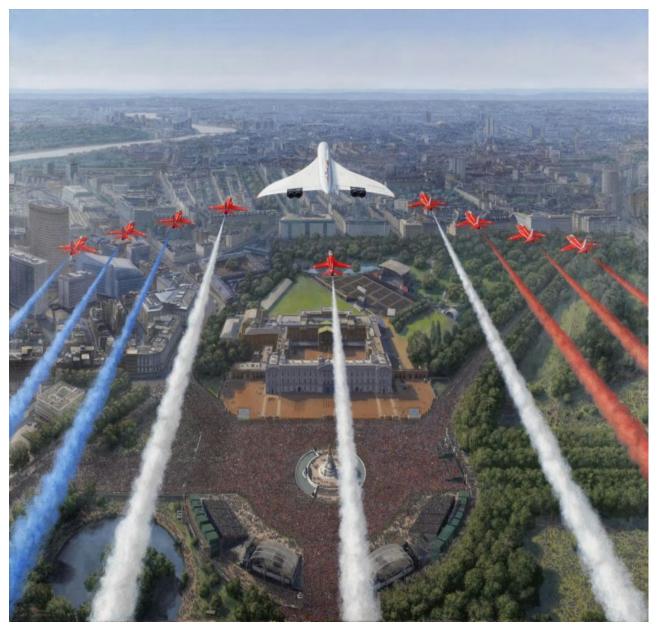
I don't know about you... but after the previous stage tear drops are running down my eyes. Uffff...

But we still have one last stage to fly. The last one. The ultimate. We'll be taking Concorde G-BOAF on her very last flight. It often happens that we live historic moments, but in that very moment, we are not fully aware of its relevance and need some distance in time to realize the importance of the experience. Not so in the last flight of the Concorde. Everyone was aware of the importance and significance of what was about to happen. On November 10th the dreaded date of the last flight was announced. A day to be marked in red in the history of aviation.

On November 26th, 11:10 am, Concorde G-BOAF took off from Heathrow following her usual route to New York. At the point of supersonic acceleration she turned and followed the classic Bay of Biscay tour before heading towards Filton. But before making the final approach, Concorde flew over Bristol. Then, finally touched down at the place where she and all of her sisters were born. Filton. Home.

This route is all by itself a classic and one of a kind. But we will make it even more special. We'll be making the classic Round the Bay tour and then, after crossing the French coast at Normandy, instead of the usual approach into Heathrow we'll be crossing the Thames and over

London before heading for Filton.



Concorde, flanked by the "Red Arrows", were hailed by more than a million people during the Golden Jubilee of Queen Elizabeth II - This painting by Leo Stevenson is a recreation of that moment. <a href="Leojubilee.co.uk">Leojubilee.co.uk</a> - <a

The reason why we'll making this change is to recreate the last of the most glorious moments of the Concorde before the announcement of her retirement, which consisted in a low fly pass by over London and Buckingham Palace on June 4th 2002 on the ocasion of the Golden Jubilee of Queen Elizabeth II. We'll also be crossing one key place in aviation: Greenwich zero meridian. Then we'll head to the British Parliament and from there straight to Buckingham Palace. And all this flying just 1,000 feet above London. Isn't it exciting? Just after Buckingham Palace we'll

climb a little bit and pass close Heathrow before heading to Filton for a fly over, and then head to the coast to accurately recreate the last miles travelled by Concorde before landing.

At 13:00, Captain Les Brodie landed the last Concorde ever built and the last to soar the skies thus closing the first and so far last chapter of supersonic commercial aircraft (no offence to the Tupolev Tu-144) and with it, our round-the-world tribute to that admirable time machine called Concorde.



Taking land. Forever - Photo by Martin Fenner

#### Airports / Sceneries

Aerosoft - FSX - 29,95€

http://es.shop.aerosoft.com/eshop.php?action=article\_detail&s\_supplier\_aid=10804&s\_design=DEFAULT&shopfilter\_category=Flight%20Simulation&s\_language=espanol

ARM-Computers - FSX - Free

http://www.arm-computers.co.uk/html/airfields 4.html

UK2000 VFR Airfields Volume 1 - FSX - £28.99 http://www.uk2000scenery.com/vfrairfields/My Homepage Files/Page2.html

Recommended date and time for departure: November 26th - 11:00z

Estimated Time Enroute: 02:00h

**Alternate:** An alternate for the final flight? You're kidding me, right? Well, OK, just in case let's choose EGFF

#### Charts:

#### **EGTG**

http://www.nats-uk.ead-it.com/public/index.php%3Foption=com\_content&task=blogcategory&id =37&Itemid=86.html

#### **EGFF**

http://www.nats-uk.ead-it.com/public/index.php%3Foption=com\_content&task=blogcategory&id =41&Itemid=90.html

**SID:** CPT 4K/5J/3G/3F

STAR: -

#### 100% real mix (851 nm)

EGLL WOD CPT MALBY UPGAS MERLY LFTRN INT-SL7 GUR JSY UT220 AKIKI UN867 ELDER UM185 HAZEL OKHAM HILLY SOSIG GRNWC BCKHM FI09 CLVDN WSTON BRAVO POMAX EGTG

#### **NOTES:**

- Perform a turn at LFTRN with a radius of 60mn centered at N50°14'60" W006°26'40" (just about the middle point between LFTRN and INT-SL7)
- As in the stage landing at Dubai, you may get an OOM error (Out of Memory) when overflying London. I solved it disabling artificial traffic and autogen.

**IMPORTANT:** To faithfully recreate the last flight of the Concorde **this route is designed to land on runway 27Filton**, so you should adjust the weather at calm your simulator or with proper configuration to be able to land on that runway.

UPGAS = N51°24'00" W003°50'00" LFTRN= N51°10'00" W006°45'00" INT-SL7 = N49°15'00" W006°00'00" OKHAM= N51°18'30" W000°27'20" GRNWC= N51°28'30" W000°00'00" BCKHM = N51°30'00" W000°08'20" CLVDN = N51°26'30" W002°51'20" WSTON = N51°20'20" W002°56'20"

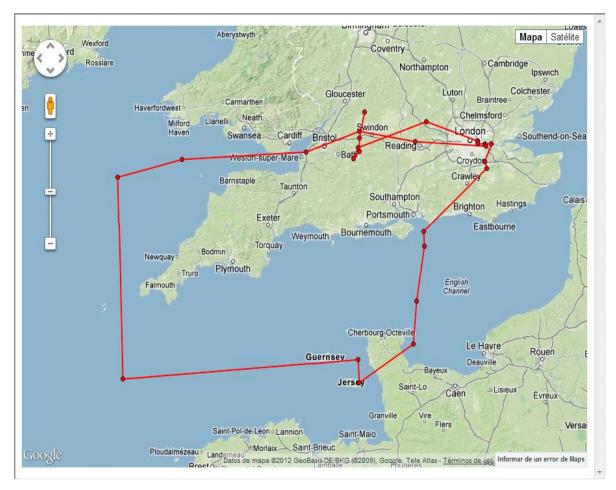
#### **Speed and altitude restrictions:**

- Standard on the departure
- Subsonic until UPGAS
- FL450 or above at LFTRN (Card 1, section 6-7)
- M0.95 at 60mn from GUR (Card 2, section 7-8)
- Maximum of 250 knots from HAZEL (Card 2, section 4-5)
- 10,000 feet from HAZEL (Card 2, section 4-5)
- 4,000 feet from OCKHAM (Card 3, section 5-6)
- 180 knots from GRNWC (Card 3, section 8-9)
- 1,500 feet from GRNWC (Card 3, section 8-9)
- Accelerate to 240 knots from of BCKHM (Card 3, section 1-2)
- Ascend to 4,000 feet from BCKHM (Card 3, section 1-2)
- 180 knots from CLVDN until landing at Filton (Card 4, section 3-4)
- 2,000 feet from CLVDN until final approach at Filton (Card 4, section 3-4)

Subsonic distance: 450 mn

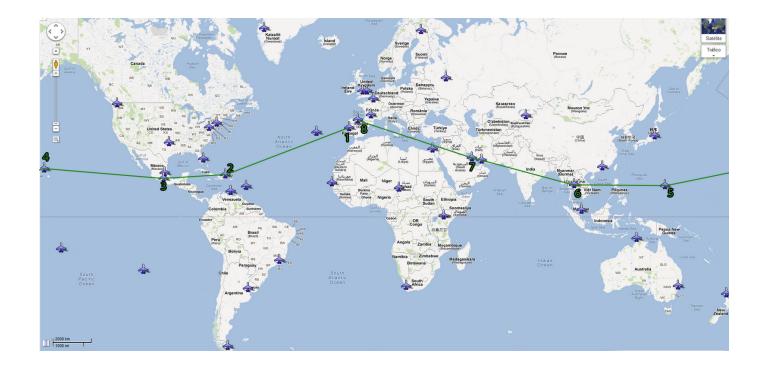
#### **DME Update:**

London Tarjeta 2, tramo 7-8 VOR-DME LON 113.60 N51°29'14" W000°27'59" 110ft



NOTE: The route is corret, but the map is a little misplaced.

# **Full Route**



Total distance traveled on tour: 95,221 miles Average distance per stage: 2,322 miles Average time per stage: 3 hours approx. Longest stage: Stage 01 - 3.358 miles Shorter stage: Stage 42, 851 miles

# **Concorde-X problems with Active Sky**

http://support.hifitechinc.com/Knowledgebase/Article/View/11/0/how-to-prevent-s-turn-issues-with-certain-aircraft-autopilots

# **Basic Concorde-X**

In this video series you will learn the most basic and essential to fly the Concorde

https://www.youtube.com/playlist?list=PLpvCJKz50ejsKkWe1KNqpztCm0xwSuTGX

## **Documentation**

http://www.strontiumdog.plus.com/concfp.htm

http://www.flightlevel350.com/Concorde\_aircraft\_facts.html

http://heritageconcorde.com/

http://www.cambridge-covers.co.uk/autoconclist.html

http://www.concordesst.com/

http://www.concorde-art-world.com/html/about concorde.html

http://www.britishairways.com/concorde/aboutconcorde.html

http://concorde-gallery.co.uk/

http://linea-ala.blogspot.com.es/search/label/Concorde

http://www.nms.ac.uk/our\_museums/museum\_of\_flight/things\_to\_see\_and\_do/concorde/concorde\_timeline.aspx

http://concorde.docs.free.fr/Pages/Classeur-TU1/Classeurs%20TU-accueil.html

http://www.concorde-spirit-tours.com/

http://people.hofstra.edu/geotrans/eng/ch3en/conc3en/concorde.html

http://www.myspace.com/lucy.liu/blog/438153082

http://articles.orlandosentinel.com/1995-01-22/news/9501190604\_1\_landing-in-orlando-concorde-international-airport

# **Videos**

27 years of supersonic flight, by Fast Forward Production

Concorde: A Love Story, by BBC TimeWatch

Concorde's Last Flight, by Channel 4

Concorde, by ITVV

# **Acknowledgements**

Maria del Mar, for coping with me all the days in which I have been preparing this Concorde tour and I have not had any other thing in mind. Any topic of conversation, however it began, always ended talking about the Concorde.

To ALZ222, our fellow Fernando Lopez, Jose Pajuelo ALZ282 and Jorge Briantes ALZ623, for reading, reviewing and advising me in the days before to the publication of this Tour. And to Junama ALZ199 for his discretion.

To Andrew Wilson, developer of the Concorde-X Labs Flightsim, not only for his ultra-realistic achievement, but also for recommending Concorde Performance System and helping me out with some doubts.

Also, my biggests thanks to Pierre Chassang, developer of Concorde Performance System, an invaluable tool for flying Concorde. If you fly Concorde-X you MUST learn to use it. He's been kind enough to read my mails everyday for weeks, fixing many errors in my flight plans, fixing some bugs and making changes to the software after my suggestions. MERCI BEAUCOUP!!!

Last, but not least, thanks to Clive Connelly too for helping me to review and improve this English version. This text would be filled with plenty of the typical errors of a Spanish speaker like myself otherwise...:-)

And thanks to you too. For your patience with me. For having flown this tour for a few days thus sharing the great illusion that overwhelms me since May 2012 when I saw, touched and toured for the first time not one but two Concorde.

https://www.facebook.com/media/set/?set=a.2850588563645.94107.1827439832&type=1&l=31 3ec820a8

Thank you all.

# About the pictures used to illustrate this tour

I have tried to contact all authors of the photos used to illustrate this tour. I've not been able to get in touch with all of them. Some of them simply did not reply to my requests. But since this is a non-profit work and I make it very clear what the sources and authorship of the images are, I have allowed myself to use these pictures without the explicit permission of the authors. I apologize in advance to the authors and thank them for their understanding for using them in documents such as this, with respecto for both the Concorde and the images..

I would like to **emphasize the cooperation** of the authors who answered my requests and **gave me explicit permission** to use their photographs:

Bruno Monte (Lisbon)
Denis Gooch (Bahrain)
David Gorri Gil (Tupolev Tu-144 at Domodedovo)
Harry Fynn, from Video Production (Cairo)
Alain Michot (Dakar)
Kevin Cook (Miami)
Federico Velazquez Sosa (Mexico)
Lucy Liu Leroux (Tokyo)
The Australian National Library (Darwin )
John Ward (Sydney)
Martial and Dautremont Regis (Papetee)
Maximiliano Curto (Ushuaia)
Leo Stevenson (London)

My most sincere thanks to all of them.

# **Updates**

- v.1.2 30/March/2012 Added Checklists fot Concorde-X by Flightsim Labs
- v.1.1.3 25/March/2013 Corrected some way points in stages 07 and 14
- v.1.1.2 25/Dec/2012 Added information about how to proceed when two waypoints are very close together (Stage 12, UAAA-HECA)
- v.1.1.1 15/Dec/2012 The first suggested route for stage 07 is not longer valid in the last AIRAC update (1213), so I've updated the first section (up to TN) to be able to fly it using official airways. An extra DME update has been added.
- v1.1 10/Dec/2012. With the invaluable cooperation of Ángel Domínguez (ALZ269) I've reviewed all routes so that they all start and end in a common fix to official SIDs and STARs (AIRAC 1212). If a common fix to all runways is not available, then a fix for ILS runways have

been given priority. Also, a SID an STAR is SUGGESTED in all stages. (please, see note) v1.0 - 26/Nov/2012. First Edition.