



# Aérospatiale Concorde Flight Tutorial

Phoenix Simulation	TUTORIAL FLIGHT	2			
Concorde	LFPG to KJFK	REV	02	SEQ	001

NOTES:

Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK	3		
Concorde		<b>REV 02</b>	SEQ 001	

	5	
SETUP	6	
PRE-SAVED FLIGHTS INSTALLATION PRE-SAVED FLIGHTS FS FLIGHT PLANNER FS NAVIGATOR PANEL CONFIGURATION UTILITY		
PANEL CLICK SPOTS	9	
SIDE CONSOLE (ENGINEER'S) PANEL	10	
GETTING STARTED PSSconcorde_1	11	
COCKPIT SAFETY CHECK	12	
COCKPIT PRELIMINARY PREPARATION	19	
FLIGHT ENGINEER'S COCKPIT PREPARATION	22	
CAPTAIN'S COCKPIT PREPARATION	36	
FIRST OFFICER'S COCKPIT PREPARATION	48	
BEFORE START CHECK	55	
ENGINE START PSSconcorde_2	61	
PUSHBACK PROCEDURE	67	
AFTER START CHECK	70	
TAXI CHECK	73	
BEFORE TAKE-OFF CHECK PSSconcorde_3	79	
TAKE-OFF	81	
AFTER TAKE-OFF CHECK	82	

Phoenix Simulation	TUTORIAL FLIGHT	4		
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001	

TRANSONIC CHECK	84
DECELERATION AND DESCENT CHECK PSSconcorde_4	91
APPROACH CHECK PSSconcorde_5	93
FINAL PSSconcorde_6	98
LANDING CHECK	99
AFTER LANDING CHECK	101
PARKING CHECK	102
STOPOVER CHECK	109
FLIGHT ENGINEER'S LEAVING PANEL CHECK	109

#### INTRODUCTION

This tutorial details a flight from Charles De Gaulle Airport, Paris to Kennedy International, New York.

The flight details are based on real life operating procedures as outlined in the British Airways Concorde Flight Manual.

This basic tutorial utilizes the Virtual Flight Engineer to control systems and fuel transfer. It also uses the default FS flight planner to control navigation. This reduces the workload placed on you as a solo virtual pilot.

The PSS Concorde contains the following panels:

MAIN PANEL MAIN ZOOM PANEL THRUST QUADRANT LOWER OVERHEAD UPPER OVERHEAD SIDE ENGINEER'S CONSOLE with 8 SUB-PANELS INS CDU AUTOPILOT DATUM CONTROLLER

The entire flight takes about 3 1/2 hrs with the option to start at various locations of your choosing via pre-saved flights.

Hope you have an enjoyable flight!

#### PRE-SAVED FLIGHTS INSTALLATION

Note!

Only the first flight PSSconcorde\_1 is included Other flights must be saved as you go and can be used to repeat the flights This is due to limitations in the way FS saves, reloads flights and plans

The tutorial download includes the pre-saved flight file

PSSconcorde\_1.flt

Place this file in the folder (or siimilar folder for non-english versions)

C:\Documents and Settings\UserName\Flight Simulator Files\\

Place the file

PSSconcorde\_1.sav

in the folder

\PSS\Concorde\

#### **FS9 FLIGHT PLANNER FILE**

also included are the files:

PSSconcorde 1.pln

this is for the FS planner, place it in the folder

C:\Documents and Settings\UserName\My Documents\Flight Simulator Files\

#### **FS NAVIGATOR FLIGHT FILE**

PSSconcorde\_1.fsn

this is for FS Navigator, place it in the folder

FS9\Modules\FS Navigator\Plan\

# PANEL CONFIG SETUP

click Start, Programs, Phoenix,,Concorde,PanelConfig

under 'Startup'

click on 'Start with Cold and Dark Cockpit

under 'Commands'

click on 'Autopilot Instinctive Disconnect Button'

under Keyboard Shortcut

select CTRL and Z

click on 'Autothrottle Instinctive Disconnect Button'

under Keyboard Shortcut

select CTRL and T

click 'Assign'

click OK

# PANEL CLICK SPOTS

click spots can used to open/close the various panels



#### SIDE CONSOLE SUB-PANELS

- 1. Pressurization + Engines 1
- 2. Engines 2
- 3. Bleed Air + Conditioning
- 4. Fuel Management 1 + Cooling
- 5. Fuel Management 2
- 6. Hydraulic Management
- 7. Electrical Generating Control 1
- 8. Electrical Generating Control 2



#### **GETTING STARTED**

start FS2004

from the 'Create a Flight' menu select

# PSSconcorde\_1

the PSS Concorde will be positioned at LFPG, gate A16,

after a few seconds the panel will reset to 'Cold and Dark'

Note! If a flight doesn't load properly, try re loading the flight

# COCKPIT SAFETY CHECK

using the click spots

- 1. to open the Side Console panel, click in area 1
- 2. to open the Fuel Management 2 sub-panel, right click on area 2



REV 02 SEQ 001

#### COCKPIT SAFETY CHECK



12

complete the following Safety checks

#### Trim Trans Auto Master

verify TRIM TRANS AUTO MASTER switch at OFF and GUARDED

#### NOTE!

Switches can be un-guarded/guarded by placing the mouse pointer over the switch and right clicking

#### TANK 11 INLET VALVES

set TANK 11 INLET VALVES MAIN switches 1 and 2 to AUTO

confirm OVERRIDE switches 1 and 2 at OFF

close the Fuel Management 2 sub-panel by right clicking on the sub-panel

open the Fuel Management 1 + Cooling sub-panel by right clicking on then subpanel, it is the one above Fuel Management 2

#### STANDBY INLET VALVES

verify STANDBY INLET VALVES switches all at SHUT

#### TRIM PIPE DRAIN

verify TRIM PIPE DRAIN switch at SHUT

#### JETTISON PANEL COVER

verify the JETTISON PANEL transparent cover is closed and all switches are OFF

the cover can be open/closed by placing the mouse in the

centre of the cover and right clicking

close the Fuel Management 1 + Cooling sub-panel

close the Side Console panel

open the Centre Console panel (the click spot is at the lower right corner of the main panel)

#### TRANSPONDER

verify ATC MODE selector switch at STBY

#### NOSE AND VISOR STBY CONTROL

verify Nose and Visor STBY control is OFF and GUARDED

Note! guarded switches can be un-guarded by placing the mouse over the guard and right clicking

#### close the Centre Console

at the Main panel

#### L/GEAR NORMAL LEVER

verify L/GEAR lever at DOWN

#### **VISOR/NOSE LEVER**

verify that visor/nose lever position coincides with visor/nose configuration the Visor should be at VIS/0

Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK	15			
Concorde		REV 02	SEQ 001		
0011001 40					



the Overhead panel is divided into 2 section LOWER and UPPER

open the Overhead panel using the click spot (the click spot is at the top of the centre window post)

open the Upper Overhead panel using the click spot (the click spot is at the top of the lower overhead)

Note!

bar switches can be toggled to set multiple switches on/off in one click, place the mouse over the lower bar and click same to set the 4 switches in one click

2 way sws can be toggled using mouse clicks

3 way sws can be toggled using either mouse clicks or the mouse wheel

#### **AUTO IGNITION**

verify AUTO IGNITION switches at OFF

#### WING AND INTAKE ANTI-ICING TEST

verify WING & INTAKE ANTI-ICING TEST rotary switch at OFF

#### FUEL FWD TRANS SW

verify FUEL FWD TRANS switch at NORM and GUARDED

Note! placing the mouse over switches will display the name and status of the sw

close the UPPER Overhead panel

close the LOWER Overhead panel

Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK	17		
Concorde		<b>REV 02</b>	SEQ 001	



this completes the Cockpit Safety check

#### COCKPIT PRELIMINARY PREPARATION

open the Side Console panel

open the Electrical Generating Control 1 sub-panel



# GROUND SERVICE (electrical and air)

press Ctrl+. to set PARKING BRAKE

observe GRND POWER AVAILABLE now ON

#### **GROUND POWER**

set Ground Power switch to CLOSE

close the Electrical Generating Control 1 sub-panel

open the Electrical Generating Control 2 sub-panel



set BATTERY selector switches to BATT ON

close the Electrical Generating Control 2 sub-panel

#### open the Fuel Management 1 + Cooling sub-panel



# EQUIPMENT BAY COOLING PANEL

set/verify

FAN 2 sw to AUTO

FANS 1 & 3 sw to AUTO

FWD SUPPLY sw to NORM

REAR EXTRACT LH and RH sws to ON

STANDBY sw to OFF

FWD EMERGY RELIEF sw to SHUT

FUEL LP PROTECTION sw to ARMED (ON)

close the Fuel Management 1 + Cooling sub-panel

close the Side Console

# PRELIMINARY COCKPIT CHECKLIST

all items on the checklist have now been completed (grayed out items are not covered in this tutorial)

TECHNICAL LOG	CHECK
GROUND POWER	ON
EQUIPMENT BAY COOLING PANEL	CHECK/SET
OXYGEN PANEL	CHECK/SET
DRAIN MAST HEATERS	CHECK/SET
INS 1	SELECT ALIGN, TEST & PRESENT
	POSITION
AIR DATA COMPUTERS	ON
COCKPIT EMERGENCY EQUIPMENT	CHECK
Fire axe, asbestos gloves,	
portable oxygen masks and	
Pack, life jackets (5),	
Fire extinguisher, smoke	
Goggles (4) and escape ropes (2)	
DOCUMENTATION STOWAGES	CHECK

20

#### FLIGHT ENGINEERS COCKPIT PREPARATION

open the LOWER Overhead panel



at the MWS panel

press the CANCEL button

press the INHIBIT button

open the UPPER Overhead panel



starting at the top left corner

**MISC SWS** (top left corner, left to right, top to bottom)

F/D DOOR sw OPEN

I/PHONE sw NORMAL

FASTEN SEAT BELTS sw ON

NO SMKG sw ON

EMERG EVAC sw ARM

#### SERVO CONTROL PANEL

verify BLACK and YELLOW rotary sws at NORMAL

#### LIGHTS

(centre section, left to right, top to bottom)

ROOF sw as required, set to OFF

EMERG sw ARM

ANTI COLN sw OFF

NAV LIGHTS sw ON

LIGHTS TEST sw to TEST, then HI

#### ENGINE FLIGHT RATING

verify sws (4) at CLIMB

#### THROTTLE MASTERS

set sws to MAIN

#### **AUTO IGNITION**

confirm 4 sws at OFF

#### AUTO THROTTLE

set sws (4) to ON

#### **ENGINE RATING MODE**

set sws to TAKEOFF

#### HP VALVES

verify 4 sws at SHUT

confirm MIs (magnetic indicators) show SHUT

#### **RELAY JACK**

verify sw at NORM

open LOWER Overhead panel

#### **ENGINE SHUT DOWN/FIRE CONTROLS**

confirm ENGINE SHUT DOWN handles 1-4 at IN position

close LOWER Overhead panel

open the Side Console panel

open the Engines 2 sub-panel

#### ENGINE STARTING PANEL

verify START/REFLIGHT sws 1-4 at OFF

observe START VALVE MIs read SHUT

close the Engine 2 panel

open the Pressurization + Engines 1 sub-panel



## **GROUND HYD CHECK OUT**

verify GROUND HYD CHECK OUT rotary sw to YELLOW/YELLOW

verify PUMP 1 G-Y and 2 B-Y at OFF

CLOCK

confirm GMT time

#### **FWD LIGHTS**

set the FWD LIGHTS sw to TEST, then set at HI

observe on the forward section of the Flight Engineers panel, all warning lights on

#### BRAKE ACCUMULATOR

observe brakes accumulator pressure gauge reads approx 3000 PSI

#### **BRAKE FANS**

set BRAKE FANS sw to ON

#### CABIN PRESSURE CONTROL

for this flight will be controlled by the Virtual Flight Engineer (VFE)

#### **ENGINE WARNING LIGHTS**

Observe lights off for

ENGINE O/HEAT START PUMP WIND DOWN REHEAT

NAC/WING O/HEAT FUEL FILTER

press FUEL FILTER 1-4 to test

#### FUEL HEATERS

set sws 1-4 to AUTO

#### ENGINE RECIRCULATION VALVES

verify sws 1-4 at SHUT

#### TAKE-OFF CG

verify sw is at NORMAL and GUARDED

#### ENG 4 T/O N1 LIMITER

set sw to NORMAL

#### GRD IDLE

verify ENG 1-4 and ENG 2-3 sws at LO

#### **ENGINE CONTROL SCHEDULE**

verify rotary sw at NORMAL

verify sw at AUTO

#### SECONDARY AIR DOORS

verify sws 1-4 at SHUT

#### FLIGHT REV ARM

verify sw at RELEASED, OPEN It OFF

#### NASU TEST

verify sw at NORM, NOZZLE It OFF

close the Pressurization + Engines 1 sub-panel

open the Bleed Air + Conditioning sub-panel



#### AIR BLEED CONTROL

set BLEED VALVES ENG 1-4 sws to OPEN

press the OVER PRESS light 1,2,3,4

observe

OVER PRESS light ON

BLEED VALVE MIs show crossline

then return to inline

set BLEED VALVE sws to SHUT

set CROSS BLEED 2 & 3 sws to OPEN

observe pressure values show approx 65 psi as provided by Ground Service

verify CROSS BLEED 1 & 4 sws at SHUT

verify COND VALVES 1,2,3,4 sws at OFF

close the Bleed Air + Conditioning sub-panel

open the Fuel Management 1 + Cooling sub-panel



Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK	28			
Concorde		<b>REV 02</b>	SEQ 001		

# **FUEL TANKS LOCATION**



set/verify

TANK 9 INLET VALVE MAIN to AUTO TANK 9 INLET VALVE O/RIDE to OFF TANK 9 PUMPS to AUTO

TANK 9 & 10 load limit at 0 TANK 10 PUMPS to AUTO

TANK 5A and 7A PUMPS to OFF

close the Fuel Management 1 + Cooling sub-panel

open the Fuel Management 2 sub-panel



TANKS 1 & 4 sw to NORM

TANK 11 PUMPS GREEN/BLUE (HYD) to AUTO TANK 11 PUMPS (ELECTR) to AUTO

TRANS VALVE 5A-5 and 7A-7 to SHUT TANK 5 and 7 PUMPS to OFF

TANK 5 and 7 INLET VALVE MAIN to AUTO TANK 5 and 7 INLET O/RIDE to OFF

TANK 6 and 8 PUMPS 1 and 2 to OFF

INTER-CON VALVE 6-7 and 5-8 to OFF

ENGINE FEED PUMPS (12) to OFF

CROSSFEED rotary switches are CROSSLINE

close the Fuel Management 2 sub-panel

#### HYDRAULIC SYSTEM SCHEMATIC



30

## HYDRAULIC MANAGEMENT PANEL

open the Hydraulic Management sub-panel



set/verify

GREEN system pumps G1 and G2 at AUTO and GUARDED

BLUE system pumps B3 and B4 at AUTO and GUARDED

YELLOW system pumps Y2 and Y4 at AUTO and GUARDED

YELLOW PUMPS sw is at NORM and GUARDED

observe L/PRESS lights (6) are ON

GREEN, YELLOW and BLUE hydraulic pressure gauges pointers at '0'

close the Hydraulic Management sub-panel

Phoenix Simulation	TUTORIAL FLIGHT	32		
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001	

#### **ELECTRICAL SYSTEM SCHEMATIC**



#### ELECTRICAL PANEL

open the Electrical Generating Control 1 sub-panel



verify

CSD DISCONNECT sws (4) at NORM and GUARDED

CSD 1,2,3, 4 lights ON

KW KVAR Meters (4) reading '0'

GENERATOR sws (1-4) at ON

GCB 1,2,3,4 MIs show CROSSLINE

GEN 1,2,3,4 lights ON

AC MAIN BUS lights (4) OFF

BTB 1,2,3,4 at NORM and GUARDED

BTB MIs (4) show INLINE

SSB MI shows INLINE

close the Electrical Generating Control 1 sub-panel

#### open the Electrical Generating Control 2 sub-panel



verify

AC ESS BUS 1-4 indicator MIs show inline AC ESS BUS lights (4) OFF

EMER GEN ISOL sw at NORM and GUARDED EMER GEN sw at AUTO and GUARDED

O/HEAT It OFF

SELECTED It OFF

EMERG GEN KVA meter indicates '0'

TRU 1, 2, 3 and 4 load ammeter shows approx 50A

ESS MAIN SPLIT MIs show inline

DC ESS BUS lights (2) OFF

DC MAIN BUS light OFF

set

GEN 1 & 3 and GEN 2 & 4 GALLEY sws to ON

WATER HTRS sw to ON

LIGHTS CTR to TEST then HIGH

LIGHTS AFT to TEST then HIGH

close the Electrical Generating Control 2 sub-panel

close the Side Console

#### **CAPTAIN'S COCKPIT PREPARATION**

#### FLIGHT PLAN

RAMP ASSIGNMENT: Gate: A 16

DEPARTURE: LFPG Charles-De-Gaulle Rwy: ILS/GS/DME 27L CGW SID: EVX9A

ARRIVAL: KJFK Kennedy Intl Rwy: ILS/GS 31L IMOH STAR: ENE4

#### WAYPT FRQ LAT/LON

RSO	364.0 N49	)°00.68' E002°21.69'
PG280		N49°02.30' E002°08.80'
PG284		N49°03.88' E001°37.72'
EVX	112.40	N49°01.90' E001°13.25'
SENLO		N49°05.00' W001°10.70'
JSY	112.20	N49°13.27' W002°02.77'
PHILI	N49	)°28.52' W007°01.28'
RATKA		N49°30.00' W008°00.00'
KENUK		N50°00.00' W012°00.00'
SOMAX		N50°00.00' W015°00.00'
5020N	N50	)°00.00' W020°00.00'
5030N	N50	)°00.00' W030°00.00'
4940N	N49	9°00.00' W040°00.00'
YYT	113.50	N47°29.12' W052°51.13'
YQY	114.90	N46°09.20' W060°03.35'
ALLEX		N44°25.00' W067°00.00'
ENE	117.10	N43°25.54' W070°36.81'
ASPEN		N42°48.96' W070°54.69'
PVD	115.60	N41°43.46' W071°25.78'
TRAIT	N41	°17.08' W071°55.06'
PARCH		N41°05.95' W072°07.24'
CCC	117.20	N40°55.78' W072°47.93'
ROBER		N40°41.12' W073°01.96'

TOTAL DISTANCE

3119.9 nm

for this tutorial we will be using the default

FS flight planner to control lateral navigation,

instructions are also included if you wish to use

FS Navigator (www.fsnavigator.com)

#### FS FLIGHT PLANNER

to load the plan, click Flights, Flight Planner

click 'Load'

select 'PSSconcorde\_1.pln'

click OK

click OK

at 'do you want FS to move,,,,'

click 'No'

#### **FS NAVIGATOR**

press F9 to open FS Navigator press Plan, Open

select PSSconcorde\_1.fsn

press OK

press Options, Settings, FMS

make sure HDG control is set to 'Set and hold Heading'

press OK

close FS Navigator
#### **INSTRUMENT TRANSFER SWS / SET**



the Captain's INSTRUMENT TRANSFER panel allows for control of various navigation modes and also the VFE

#### OFF - VFE

Virtual Flight Engineer function when active, automatically controls fuel transfer, pressurization, selects engine ratings, and performs other checklist items

#### INS - FS

[INS]: the AFCS INS mode follows the route entered into INS

[FS]: the AFCS INS mode will depend on the next switch

#### **GPS - EXT**

[GPS]: the AFCS INS mode will follow the route currently loaded in the stock Flight Simulator flight planner; this route can be monitored on the default GPS (press Shift-7)

[EXT]: the AFCS INS mode will follow the heading selected on the flight simulator autopilot (NOT the heading selected in the AFCS window)

this allow any 3d-party flight planner or FMC products (such as FS Navigator) to control the aircraft by using FS HDG HOLD mode

Phoenix Simulation	TUTORIAL FLIGHT		38
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001

### RAD/INS



set to RAD

Note!

with RAD-INS switch at INS position, the HSI shows True headings; course pointer shows INS desired track (DTK), and deviation indicator shows INS cross track error (XTK) with full deflection equal to 7.5 nm offset

#### **AFCS PANEL**



verify AT1, AT2, FD1, AP1, AP2 and FD2 sws at OFF

## WARNING AND LANDING DISPLAY



observe

TERRAIN light OFF M/CG light OFF

**TYRE light OFF** 

press and hold TEST button

observe

AUTO LAND light AP light AT light AIRCRAFT ILS deviation light LAND 2 and LAND 3 light DH light

release the TEST button

ASI



observe no failure flags visible

ADI



press and hold TEST button

observe flag G visible, sphere moves 10 deg pitch/bank, and CHECK ATT Its

release the TEST button

Phoenix Simulation	TUTORIAL FLIGHT		40
Concorde	LFPG to KJFK	REV 02	SEQ 001

VSI



observe no failure flags visible

# RADIO ALTIMETER



observe red failure flag not visible

press and release TEST button

observe pointer rotates and failure flag visible

set DH height to '20'

observe DH lights on ADI and warning panel

set DH to '0'

## **STANDBY HORIZON**



observe no failure flags visible

Phoenix Simulation	TUTORIAL FLIGHT		41
Concorde	LFPG to KJFK	REV 02	SEQ 001

# MARKERS



press and hold TEST button

observe OUTER, MIDDLE, AIRWAYS lights on then off

release TEST button

# INCIDENCE AND ACCELEROMETER



observe no failure flags visible

## STANDBY ASI/MACHMETER



observe no failure flags visible

Phoenix Simulation TUTORIAL FLIGHT	42		
Soltware	LFPG to KJFK		SEO 001
Concorde		KEV UZ	PEC OOT

HSI



pull HDG/TRK selector so HDG shows on HSI

rotate HDG left 10deg, right 10deg

observe heading on AFCS panel and HSI

observe MAG, RAD, 1 on HSI display

press and hole TEST button

observe HDG alarm flag, compass rotates, 8888 displayed in MILES and GND SPD window

release TEST button

#### **FD1 SWITCH**



set FD1 sw to ON

observe FD1 visible on ADI

set FD1 to OFF

Phoenix Simulation	TUTORIAL FLIGHT		43
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001

# ALTIMETER



observe no failure flags visible

rotate static pressure knob to set airfield QNH of 1013 mbar

check altimeter reads within +/- 35 ft of airfield elevation, which at LFPG is 390ft

#### CLOCK



the clock has three digital displays, GMT, ELAPS and CHRONO

the **GMT** display shows current hours and minutes of GMT time tendency indicator to the right of GMT display represents the seconds:

0 to 14 seconds - no bar lit 15 to 29 seconds - bottom bar lit 30 TO 44 second - two bottom bars lit 45 TO 59 second - all bars lit

the **ELAPS** display shows elapsed time counter it is controlled by the ET selector next to it:

'STOP' - counter stopped 'RUN' - counter operating 'RESET' - counter reset to zero and indicators out

the **CHRONO** display shows chronometer or timer, depending on the position of TIMER - CHRO switch in the upper part of the clock

in **CHRONO mode**, the chronometer is controlled by the CHRO pushbutton in the lower corner of the clock

'FIRST' - push starts counter increasing

'SECOND' - push stops the counter

'THIRD' - push resets counter to zero

in **TIMER mode**, the timer is first set using the GMT selector in the upper corner of the clock

it has these positions working only in TIMER mode:

'RUN' - the timer is counting, if started
'HOLD' - the timer is frozen
'SLOW' - the timer is increased at slow rate
'FAST'- the timer is increased at fast rate
'TEST'- illuminates all segments on all displays

after the timer is set using SLOW or FAST and the GMT selector is returned to RUN position, the timer is started by pushing the CHRO pushbutton in the lower corner of the gauge

second push resets the timer to zero

in TIMER mode, two lights at the sides of CHRONO display begin to flash 5 seconds before the display achieves zero

at zero seconds the lights become steady

# **ENGINE RATING LIGHTS**



observe T/O light is displayed

# VOR/RMI



observe no failure flags visible

# SIDE SLIP



observe no failure flags visible

Phoenix Simulation	TUTORIAL FLIGHT		46
Concorde	LFPG to KJFK	REV 02	SEQ 001

#### ADF/RMI



observe no failure flags visible

## INS MONITOR LIGHTS

INS warning lights on the main panel above the chronometer, are lit together with the ALERT lights on INS CDUs

steady light indicates less than one minute to next leg, and flashing light in manual leg change mode indicates that waypoint is passed

#### C.G INDICATOR

observe no failure flags visible

**BRIEFING** as required

#### FIRST OFFICER'S COCKPIT PREPARATION

close the ZOOMED MAIN panel

open the LOWER Overhead panel

# STAB, FEEL AND TRIM PANEL



verify

AUTO STAB No 1 PITCH, ROLL and YAW sws at OFF

AUTO STAB No 2 PITCH, ROLL and YAW sws at OFF

ELECTRIC TRIM No 1 and 2 sws at OFF

ARTIFICIAL FEEL No 1 PITCH, ROLL and YAW sws at OFF

ARTIFICIAL FEEL No 2 PITCH, ROLL and YAW sws at OFF

## FLIGHT CONTROL INVERTERS



set

BLUE INVERTER sw to ON and GUARDED

GREEN INVERTER sw to ON and GUARDED

### FLIGHT CONTROL SELECTION

set

O&M ELEVONS sw to BLUE

IN ELEVONS sw to BLUE

RUDDER sw to BLUE

#### ANTI-STALL



set ANTI STALL SYSTEM 1,2 sws to ON

## LANDING LIGHTS



set MAIN, TAXI, TAXI TURN to OFF

observe EXTENDED It OFF

Note!

Landing lights, if left on and extended, automatically retract at 365 knots

#### W/SHIELD DE-ICE

confirm L/R sws at OFF

#### VISOR DE-ICE

confirm L/R sws at OFF

#### **DV DE-MIST**

confirm L/R sws at OFF

#### close the Overhead panel

at MAIN panel

#### BRAKE PRESSURE AND WARNING LIGHTS



observe

dual PARKING BRAKE pressure gauge reads full scale on both sides and no failure flags visible

BRAKE FAIL It OFF

**BRAKE EMERG It ON** 

# TAKE-OFF MONITOR



pull T/O MONITOR control button to INHIBIT

# TOTAL FUEL CONTENTS INDICATOR

observe no failure flags visible

#### NAV1/2/DME



Note!

the rotating compass card indicates present magnetic heading, when referenced to the fixed yellow index at the top of the instrument

the two pointers show bearings to the VOR stations tuned on

NAV1 (thin pointer) and NAV2 (thick pointer) radios

the bearings are absolute magnetic if referenced to the compass card, or relative if referenced to the yellow index at the top of the instrument

a red and black striped flag appears over the compass card indicating loss of power supply

red and black striped flags appear in windows below "VOR1" and "VOR2" markings in the center of the instrument indicating station out of range or loss of power supply

NAV 1 112.40 for EVX VOR

NAV 2 to 115.35 for CGN VOR

observe DME-2 displays 2.7 nm for CGN



#### PRIMARY ENGINE INDICATIONS



observe

power management Its (12) OFF

N2 pointers and digital counters at '0'

Over limit pointers at 110% and no flag across digital counters

N1 pointers and digital counters at '0'

Over limit pointers at 108.5%

N1 auto reduction Its (top left) OFF and no flags across digital counters

FUEL pointers and lower digital counters at '0'

EGT pointers and digital counters show sensible readings,

Phoenix Simulation	TUTORIAL FLIGHT		52
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001

no flags across digital counters and EGT instrument warning It off

AREA instrument pointers show sensible readings, no flags and reheat selected Its OFF

#### open the Centre Console

# THROTTLES



Note! throttles can be individually moved by dragging with the mouse

if dragged by pressing RIGHT mouse button, all four throttles are moved altogether

advance throttle levers (4) to fully forward and return to the idle stop

confirm at IDLE by pressing F1

Phoenix Simulation	TUTORIAL FLIGHT			53
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ	001

#### WINDSHIELD WIPERS



verify W/S WIPERS rotary sws at OFF

#### REHEAT

confirm reheat sws are OFF and reheat selected lights are OFF on Engine Exhaust gauge

## ADF

the PSS Concorde allows for 2 ADF settings

Note!

the rotating compass card indicates present magnetic heading, when referenced to the fixed yellow index at the top of the instrument

the two pointers show bearings to the ADF stations tuned on ADF1 (thin pointer) and ADF2 (thick pointer) radios

the bearings are absolute magnetic if referenced to the compass card, or relative if referenced to the yellow index at the top of the instrument

a red and black striped flag appears over the compass card indicating loss of power supply

set ADF-1 to 364.0 for RSO NDB set ADF-2 to 356.0 for RSY NDB

close the Centre Console

## **BEFORE START CHECK**

open the Side Console panel

open the Pressurization + Engines 1 sub-panel



SECONDARY AIR DOORS

set SECONDARY AIR DOORS sws to AUTO

close the Pressurization + Engines 1 sub-panel

close the Side Console panel

open the UPPER Overhead panel

ANTI COLN



set ANTI COLN to ON

close the Overhead panel

at the Main panel

#### AIR SPEED INDICATOR



MAX SPEED POINTER the yellow/black pointer indicates the value of Vmo

CAS POINTER the white pointer indicates CAS also shown in the digital display

RED VMO FLAG indicates loss of ADC validity signal and/or loss of power

SPD BUGS set the 4 reminder bugs as follows

for Charles De Gaulle Airport runway 27L, dry, no wind, standard pressure

V1 = 164

VR = 198

V2 = VR+21 = 219

#### PITCH INDEX set

(lower right corner of the ADI gauge)

set the pitch index indicator to 13 deg

#### LOADSHEET

for the Concorde it's best to deal in metric values

select Options, Settings, International

under Units of measure

make sure Metric (altimeter in feet) is selected

click OK

select Aircraft, Fuel and Payload

check 'Display fuel quantity as weight

Empty weight - is the weight of the aircraft minus fuel and payload, also referred to as Basic Operating Weight

Payload - is the combined weight of passengers, crew, baggage and cargo

Empty weight + Payload = Zero Fuel Weight

78,698 + 10,759 = 89,457 kgs is less than MZFW of 92,000 kgs

ZFW + FUEL load = Gross Weight (GW)

89,457 + 95,129 = 184,586 kgs

the Maximum Takeoff Weight (MTOW) of the Concorde is approx 185,454 kgs

as our GW of 184,586 Kg is less than the MTOW of 185,454 kgs a full fuel load is ok for takeoff

# open the Side Console panel

open the Fuel Management 2 sub-panel



# ZFW and ZFCG

set to 89,500

## TOTAL FUEL REM/AC WEIGHT

should be approx 95,130 kgs and 117530 kgs

# **BEFORE START CHECKLIST**

all items on the checklist have now been completed

MASTER CB's	SET/CHECKED
OXYGEN	CHECKED 100%
DVWINDOWS	CLOSED
FLIGHT CONTROL INVERTERS	ON
ANTI-STALL SYSTEMS	ON
RADAR/INSTRUMENT SWITCHES	RAD
INSTRUMENT TRANSFER SWITCHES	SET
QNH/AA/ALTIMETERS	SET / CROSS CHECKED
NAV RADIOS	SET
TRANSPONDER	XPDR
BRAKES	PARK/CHECKED
NAV LIGHTS	AS REQUIRED
THROTTLE MASTERS	MAIN/ALT
GROUND HYDRAULICS CHECK OUT	YELLOW, YELLOW/OFF
FUEL HEATERS	AUTO
ENGINE RECIRCULATING VALVES	SHUT
SECONDARY AIR DOORS	AUTO
BATTERIES	ON / Normal
INS 1, 2 & 3	LOADING CHECKED
NAV MODE/MIX ASI BUGS, PITCH INDEX &	SET
3/4 REHEAT PLACARD	
FUEL FLOW & P7 BUGS	SET
CLOCK AND TLA BUGS	SET
SEAT BELT SIGNAL	ON
BRIEFING	STATED
Radio Aids, Emergencies	REVIEW

58

Phoenix Simulation	TUTORIAL FLIGHT		59
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001

LOADSHEET	CHECKED
ZFW & ZFCG	SET/CHECKED
FUEL REM. & A/C WEIGHT	SET/CHECKED
LOAD LIMITS	SET

START CLEARANCE	OBTAIN
DOOR LIGHTS	CHECKED
MASTER WARNING	RECALL
ANTI-COLLISION LIGHTS	ON
THROTTLES	IDLE
ENGINE FEED PUMPS	ON
FLIGHT DECK DOOR	LOCKED
CLEARANCE TO START	OBTAIN
AG ONLY BATTERIES	ON
GALLEY SWITCHES	OFF
1ST ENGINE	START
BATTERIES	NORMAL
START ENGINE	AS REQUIRED

#### ENGINE START PROCEDURE

click Flights, Save Flight, enter the title

PSSconcorde\_2

click OK

we will be following the CROSS BLEED engine start procedure

#### **START ENGINE 3**

#### open the Side Console panel

the following can be completed without enlarging the sub-panels, your choice

at Fuel Management 2 panel sub-panel



set MAIN ENGINE PUMP sw 3 to ON (each pump has 3 switches, main and 2 standby pumps)

# at Engines 2 panel sub-panel

set REFLIGHT/START sw 3 to START

observe

switch latched at START

START VALVE MI reads OPEN

START PUMP light is ON

close the Side Console panel

observe N2 increasing

when N2 is between 10-12%

open UPPER Overhead panel

set HP VALVE sw 3 to OPEN

close the UPPER Overhead

observe EGT increases

open the Side Console panel

at Engines 2 panel sub-panel

observe

REFLIGHT/START sw 3 at OFF

START VALVE MI reads SHUT

START PUMP light is OFF

at Air Bleed Control sub-panel



set BLEED VALVE 3 sw to OPEN

set COND VALVE 3 sw to ON

#### **REPEAT START PROCEDURE FOR ENGINE 2**

MAIN ENGINE PUMP sw 2 to ON

REFLIGHT/START sw 2 to START

N2 increasing

HP VALVE sw 2 to OPEN

EGT increases

REFLIGHT/START sw 2 at OFF

START VALVE MI reads SHUT

START PUMP light is OFF

BLEED VALVE 2 sw to OPEN

COND VALVE 2 sw to ON

CSD2 light is OFF

SECONDARY NOZZLE 2 indicates 18-24 deg

### at Hydraulic Management panel sub-panel



set GREEN hydraulic pump sws 1,2 to ON

set BLUE hydraulic pump sws 3,4 to ON

at Electrical Generating Control 1 sub-panel



set GROUND POWER sw to TRIP

close the Side Console panel

# PUSHBACK CHECKLIST

all items on the checklist have now been completed

NOs 3 & 2 ENGINES	STARTED
HYDRAULICS	CHECKED
GROUND EQUIPMENT	CLEAR
PUSHBACK	
NOs 4 & 1 ENGINES	STARTED
PUSHBACK CHECKLIST	COMPLETE

#### PUSHBACK PROCEDURE

press Shift+S for SPOT view

adjust view as required

press '.' to release the PARKING BRAKE

press Shift+P for Pushback

when the nose wheel is at the taxi line

press Shift+P to stop the pushback

press Ctrl+. to set the PARKING BRAKE

press 'S' to return to the cockpit

#### **START PROCEDURE FOR ENGINE 4**

open the Side Console panel

set CROSS BLEED 4 to ON

MAIN ENGINE PUMP sw 4 to ON

**REFLIGHT/START sw 4 to START** 

N2 increasing

HP VALVE sw 4 to OPEN

EGT increases

REFLIGHT/START sw 4 at OFF

START VALVE MI reads SHUT

START PUMP light is OFF

BLEED VALVE 4 sw to OPEN

COND VALVE 4 sw to ON

CSD4 light is OFF

SECONDARY NOZZLE 4 indicates 18-24 deg

#### START PROCEDURE FOR ENGINE 1

set CROSS BLEED 1 to ON

MAIN ENGINE PUMP sw 1 to ON

**REFLIGHT/START sw 1 to START** 

N2 increasing

HP VALVE sw 1 to OPEN

EGT increases

REFLIGHT/START sw 1 at OFF

START VALVE MI reads SHUT

START PUMP light is OFF

BLEED VALVE 1 sw to OPEN

COND VALVE 1 sw to ON

CSD1 light is OFF

SECONDARY NOZZLE 1 indicates 18-24 deg

set CROSS BLEED sws 1-4 to OFF

#### **ENGINE FEED PUMPS**

set all PUMPS to ON

close the Side Console panel

#### AFTER START CHECK

# FLIGHT CONTROL AFCS



at the flight control position indicator, observe ELEVONS and RUDDERS are inline

#### AUTO THROTTLE

set AT1 sw to engage position

observe IAS HOLD It ON

press Ctrl+T for 'Autothrottle Instinctive Disconnect'

observe AT1 sw to OFF, IAS HOLD It to OFF

observe AT light flashing on warning panel

press AT light to cancel the warning

## AUTO PILOT

set AP1 sw to engage position

observe HDG HOLD and PITCH HOLD Its ON

press Ctrl+Z for 'AutoPilot Instinctive Disconnect' observe AP1 sw to OFF, HOLD and PITCH Its to OFF

observe AP light flashing on warning panel

press AP light to cancel the warning

open the LOWER Overhead panel

#### STAB and FEEL

set ELECTRIC TRIM 2 sw to ENGAGE

set ELECTRIC TRIM 1 sw to ENGAGE

set AUTO STAB NO 1 PITCH, ROLL and YAW to ENGAGE

set AUTO STAB NO 2 PITCH, ROLL and YAW to ENGAGE

set ARTIFICIAL FEEL NO 1 PITCH, ROLL and YAW to ENGAGE

set ARTIFICIAL FEEL NO 1 PITCH, ROLL and YAW to ENGAGE

#### LIGHTS LANDING TAXI

set to EXTEND/ON

at the MWS panel

press RECALL

observe no warning lights

close the LOWER Overhead panel

# AFTER START CHECKLIST

all items on the checklist have now been completed

NOSEWHEEL STEERING	CHECKED		
FLIGHT CONTROL, AFCS & TRIMS	CHECKED		
STAB & FEEL	ENGAGED		
ENGINE ANTI-ICE/ENGINE SCHEDULE	AS REQUIRED		
BRAKE FANS	ON		
IDLE SWITCHES	LOW		
DOOR WARNINGS	TESTED/OFF		
ENGINE FEED PUMPS	ALL ON		
HYDRAULICS	CHECKED		
ELECTRICS	CHECKED: GREEN BYPASS		
GROUND EQUIPMENT	CLEAR		
AFTER START CHECKLIST	COMPLETE		

71

Phoenix Simulation	TUTORIAL FLIGHT	72		
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001	

# TAXI CHECK

## **VISOR NOSE**



set VISOR/NOSE lever to 5 deg

#### at the UPPER Overhead

# **AUTO IGNITION**

set to ON

### at the Main panel

# FLIGHT CONTROLS

using flight control apply full left, right, forward, back pressure observe ELEVONS follow control movements
# TAXI CHECKLIST

some items will be set by the VFE once we are holding short of the runway

VISOR / NOSE	DOWN / 5 DEG
BRAKES	CHECKED / NORM
FLIGHT INSTRUMENTS	CHKD / NO FLAGS
FLIGHT CONTROLS / EFC	CHECKED / LIGHT OFF
TRIMS	SET
C.G. MOVEMENT	AS REQD
ENGINE RATING MODE	TAKE-OFF
AUTO IGNITION	ON
THROTTLES	CHECKED
DRAIN MAST HEATER	ON
ENGINE FLIGHT RATING	CLIMB
PRESS STATIC HEATERS	ON
ADS & STBY HEATERS	Tt INHIB / ON
AIR INTAKES	CHECKED / SET
ENGINE CONTROL SCHEDULE	CHECKED
ENG 4 T/O N1 LIMITER	88%
AIR CONDITIONING	CHECKED / SET
FUEL LP PROTECTION SWITCH	ARMED
FUEL CONSUMED INDICATORS	CHECKED
ENGINE FEED PUMPS	ALL ON
CROSSFEED VALVES	SHUT
ANTI-SKID 'R' LTS / TRYE LTS	OFF
REVERSE ASOV's	CHECKED/18-24o/NORM
ENGINE O/HEAT	AS REQUIRED
SEATS & HARNESS	LOCKED, PWR OFF & SEC
TRIM TANKS CONTENTS	CHECKED
DE-AIR PUMPS	ON
TAKE-OFF CG SWITCH	AS REQUIRED
CG POSITION	CHECKED
MAIN TRANSFER PUMPS	AS REQUIRED
CABIN / SLIDES	SECURE / ARMED
TAXY CHECKLIST	COMPLETE

## TAXI PROCEDURE

release the parking brake

press F3 to increase thrust till moving

then press F1 for idle

adjust thrust as required for 15 kts taxi speed

at the hold short point

press F1 for idle

set the PARKING BRAKE



click Flights, Save Flight, enter the title

## PSSconcorde\_3

click OK

## C.G. MANAGEMENT / TRIM TRANSFER

for this tutorial flight we will be using the VFE to control

Fuel Transfer and various systems

## at the Main panel



set OFF - VFE to VFE for Virtual Flight Engineer

open the LOWER overhead panel

## LANDING LIGHTS

set LIGHT TAXI to OFF

set LIGHTS MAIN LANDING to EXTEND/ON

#### MASTER WARNING

press RECALL

observe indicators

press INHIBIT

#### close the LOWER overhead panel

at the Main panel

#### **T/O MONITOR**

set to ARMED

#### RADAR ALTIMETER.

set to 500'

#### **PITCH INDEX**

verify set to 13 deg for take-off

open the Centre Console

#### TRANSPONER

set to A and 5515

#### ADF

confirm ADF1 at 364.0 and ADF2 at 356.0

#### close the Centre console

at the Main Panel we will now do some final AFCS settings

confirm

AT1/2, FD1/2, AP1/2 all OFF

all indicator Its OFF

	TUTORIAL FLIGHT	77		
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001	

NAV1 at 112.40

NAV2 at 115.35

set

SPEED SELECT to 400 kts

HDG to 269

CRS to 277

ALT to FL260'

#### at INSTRUMENT TRANSFER PANEL



if using the FS flight planner

set

INS - FS to FS

GPS - EXT to GPS

if using FS Navigator

set

INS - FS to FS

GPS - EXT to EXT

press Shift+F4 to set REHEAT to ON

the items on the checklist have now been completed

Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK	78		
Concorde		<b>REV 02</b>	SEQ 001	

## **BEFORE TAKE-OFF CHECK**

BRIEFING, T/O DATA	UPDATED
CABIN CREW CALL	3 PRESSES
LANDING LIGHTS	AS REQUIRED
TRANSPONDER	SET
WHEEL LIGHTS	OFF
OVERLOAD MI	BLACK
MASTER WARNING	RECALL / INHIBIT
T/O MONITOR	ARMED
REHEAT	ON
NOZZLE OVERRIDE LIGHTS	OFF
PITCH INDEX	CHECKED
RADAR	AS REQUIRED
BRAKE FANS	OFF
BEFORE TAKE-OFF CHECKLIST	COMPLETE

#### DEPARTURE PROCEDURE

we will be departing on runway 27L

maintaining the runway heading of 269 deg, climbing through 6000'

at DME-2, 5.5 nm from CGN (115.35)

commence right turn to 299 deg

intercept the 277 radial from CGN

at DME-1, 13.9 nm from CGN

maintain heading of 277 deg direct to intersection PG284

then direct to VOR EVX

## TAXI INTO POSITION

with the BRAKES released increase thrust slightly taxi into position rny 27L press F1 for idle set BRAKES to ON press Shift+F4 for reheat confirm REHEAT Its on

#### TAKE-OFF

**BRAKES OFF** 

press F4

at VR

ROTATE initially to 18 deg

GEAR UP at positive climb

500' REHEATS OFF

NOSE DOWN to 13 deg t hold approx 250 kts

NOSE to VIS/0

GEAR to 'N'

passing 4000'

lower nose to 8 deg

press AT1

press IAS ACQ

set VISOR to UP

press FD1, and AP1

press ALT ACQ

press INS to activate FS - GPS flight plan

observe IAS ACQ, INS, PITCH HOLD and ALT ACQ primed (yellow triangle)

VFE will have set ENGINE RATING to CLB and will be adjusting fuel transfer

passing 10,000'

set LANDING LIGHTS to OFF

Phoenix Simulation	TUTORIAL FLIGHT	81		
Concorde	LFPG to KJFK	<b>REV 02</b>	SEQ 001	

# AFTER TAKE-OFF CHECKLIST

LANDING GEAR	UP:LIGHTS OFF NEUTRAL
LANDING LIGHTS	OFF/10,000'
MASTER WARNING	RECALL
ADS & STBY HEATERS	ON
ENGINE RATING MODE	FLIGHT
PRESSURISATION	CHECKED
SECONDARY AIR DOORS	OPEN
NOSE / VISOR	UP / LOCKED
AFTER TAKE-OFF CHECKLIST	COMPLETE

## at M = 0.7 CLIMB CHECKLIST

these items will be checked by the VFE

ALTIMETERS	SET
FUEL TRANSFER	AFT
TAKE-OFF CG SWITCH	NORMAL
BRAKE FANS	OFF
ENGINE CONTROL SCHEDULE	NORMAL
SEAT BELT SIGNS	AS REQUIRED
TAXI TURN LTS	OFF
NOZZLE OVERRIDE LIGHTS	OFF
SECONDARY AIR DOOR SWITCHES	OPEN
SECONDARY NOZZLES	MODULATING
CLIMB CHECKLIST	COMPLETE

# <u>at M=0.90 approx FL260</u>

AUXILARY INLETS	SHUT
SECONDARY NOZZLES	<15 DEG
REHEAT	ON
FUEL TRANSFER	TRANSFER AFT

#### <u>at FL260 approx M = 0.90</u>

observe ALT HOLD

confirm NAV1 to 112.20 for VOR JSY

set CRS and HDG to track JSY, approx 280 deg

pre set ALT to FL580

set RA to 0

set PITCH INDEX to 0

monitor DME-1

100 nm from JSY

set AT1 to OFF

press F4

press Shift+F4 for REHEAT

press MAX CLIMB

press ALT ACQ

observe pressure wave effect passing M = 1.00 on VSI and Altimeter

at FL320 observe Vmo indicator increasing

set NAV 1 to 113.50 for YYT (Saint John's)

set NAV 2 to 112.20

at M = 1.7

press Shift+F4 to turn off reheat

## open Side Console panel

right click to open the Fuel Management 1 + Cooling sub-panel

then right click to open the Fuel Management 2 sub-panel

click the left edge of the FM2 panel and drag it down to lineup with the FM1 panel



you can now watch the VFE control the fuel transfer

fuel will be transferred from TANK 9 to TANKS 5 and 7

when TANK 9 is empty TANK 10 will be used

TANKS 5A and 7A will also be transferred as required to TANKS 5 and 7 via the TRANS VALVE 5A-5 and 7A-7 switches

when TANK 9 is empty the LOW PRESS lights will come on, same for TANK 10

when TANKS 9, 10, 5A and 7A are empty

TANKS 5 and 7 will supply fuel to TANKS 1, 2, 3, 4

when 5 and 7 are empty

TANKS 6 and 8 will supply TANKS 1, 2, 3, 4

TANK 6 left pump supplies TANK 1

TANK 6 right pump supplies TANK 2

TANK 8 left pump supplies TANK 3

TANK 8 right pump supplies TANK 4

### <u>AT FL500</u>

observe MAX CLIMB and MAX CRUISE Its ON

NOTE! MAX CRUISE PUSH BUTTON LIGHT **on** - indicates engagement of the mode

MAX CRUISE is automatically engaged from the MAX CLIMB mode when the 'corner point' is reached once engaged it constrains the aircraft to the lesser of M = 2.00 or the airspeed associated with Tmo

passing FL500 the climb speed will reduce

further climbing to FL580 will continue based on the fuel load, and OAT, this is similar to step climbing in modern aircraft

you can monitor the progress using the default GPS by pressing Shift+7

some info on AFCS modes

**IAS HOLD** holds the existing airspeed

MACH HOLD holds the existing Mach No

## IAS ACQ

initiates the acquisition and subsequent hold of speed set on the SPEED SEL control

## FD

engagement mode is PITCH HOLD if no AP is engaged if engaged after AP, will assume the established mode

#### INS

initiates acquisition of track set by INS CDU or FS or EXT

## TRK HDG

follows preset track or heading using bank angle not > 30 deg

## HDG HOLD

holds existing magnetic heading

PITCH HOLD holds existing attitude

TURB holds existing pitch attitude and heading

## **BACK BEAM**

is specific to the FD and only used with AP disengaged

# GO AROUND

automatic go around,

#### **VOR LOC**

intercepts the selected VOR radial or Localizer

## LAND

primes both VOR LOC and GLIDE modes

#### GLIDE

captures GLIDE beam and LOC beam

# MACH HOLD

holds existing MACH number

## MAX CLIMB

when at or near Vmo constrains the airspeed to Vmo,

disengages between 530 kts and M = 2.00

MAX CRUISE

automatically engaged from MAX CLIMB

**VERT SPEED** holds the existing vertical speed

ALT HOLD holds existing altitude

ALT ACQ primes for acquisition of the pre set altitude

#### DESCENT

after approx 1.5hrs

set RAD/INS to RAD

NOTE!

with RAD-INS switch at INS position, the HSI shows True headings; course pointer shows INS desired track (DTK), and deviation indicator shows INS cross track error (XTK) with full deflection equal to 7.5 nm offset

passing YYT 113.50 (St John's Newfoundland)

set NAV 1 to 114.90 for YQY (Sydney, Nova Scotia)

set NAV 2 to 117.10 for ENE (Kennebunk, Maine)

final altitude will vary depending on several factors, fuel load, Outside Air Temp

press ALT HOLD

#### DECELERATION AND DESCENT CHECKLIST

we will let the VFE look after the checklist items further checklists can be found at the end of the tutorial

WARNING AND LOG DISPLAY	CHECKED
BRIEFING	STATED
Aide-Memoir: Decl. Point, ADD's/MEL,	
AIS/ATIS, Sig.Wx., Terrain/SSA/MSA,	
Transition Level, STAR, Approach / Go-	
Around/Radio Aids, R/W State / Stopping	
/ Airfield, Fuel Capability / Alternate,	
AWO	
SAFTEY ALTITUDE	CHECKED
ASI BUGS	SET
ALTIMETERS	SET / CROSS CHECKED
RADIO ALTIMETERS	DH SET
ENGINE RECIRC VALVES	OPEN
THROTTLES	180
TANKS 1 & 4	NORM
TANK 11 HYDRAULIC PUMPS	OFF
FUEL TRANSFER	TRANSFER FWD
ENGINE FLIGHT RATING	CLIMB
THROTTLES	320
INTAKES	CHECKED
THROTTLES	AS REQD
PRESSURISATION	SET
PRESS STATIC HEATERS	ON
TRANSPARENCY DE-ICE, DEMIST	ON
THROTTLE MASTER SWITCH	OTHER SELECTION
DECELERATION AND DESCENT	COMPLETE
CHECKLIST	

89

click Flights, Save Flight, enter the title

PSSconcorde\_4

click OK

## <u>YQY</u>

at 50 nm DME-1 from YQY

set SPEED SELECT to 350 kts

press AT1

press IAS ACQ

set ALT SELECT to FL410

passing YQY (114.90)

press ALT ACQ

observe VERT SPEED selected

HDG and CRS should be approx 275 deg

set NAV 1 to UZX 117.60

with a projected landing weight of 115,000 kgs

pre-set SPD BUGS for landing VREF

VREF = 160 kts VREF+7 = 167 VREF+10 = 170 VREF+30 = 190

while we have some time,,

set ADF 1 to 275.0 for BABYLON \*we will need this during the final approach set ADF 2 to 268.0 for GRIMM

passing UZX (117.60)

leave NAV 1 at UZX as ENE won't be in range

observe DME-1 increasing as we fly from UZX

at approx 74 nm DME-1 NAV 2 will activate

set NAV 1 to ENE 117.10

set NAV 2 to PVD 115.60

we are still using the INS for navigation, however it is good practice to set CRS and HDG

adjust CRS and HDG values to track direct to ENE approx 266 deg

when at FL410 and ALT HOLD

set ALT SELECT to FL240

when 70 nm DME-1 from ENE (117.10)

press ALT ACQ

#### <u>ENE</u>

passing ENE

set SPEED SELECT to 300 kts

we will now be flying direct to the next waypoint which is VOR PVD 115.60 as indicated on NAV 2 and DME-2

set NAV 1 to PVD 115.60

set NAV 2 to JFK 115.90

set HDG and CRS to approx 212 deg

press TRK HDG

adjust CRS as required to fly direct to PVD (115.60)

set VISOR to VIS/0

monitor DME-1

passing PVD we will turn direct to TRAIT

set HDG to 235 deg

set NAV 1 to CCC 117.20

## APPROACH CHECKLIST

CABIN CREW CALL	15 MINUTES
LANDING BRIEFING	UPDATE
TAXI TURN LTS	ON
RAD / INS SWITCH	RAD
SEAT BELT SIGN	ON
ENGINE RATING MODE	TAKE OFF
ENGINE RECIRC VALVES	SHUT
ENGINE CONTROL SCHEDULE	APPROACH
SECONDARY AIR DOOR sws	AUTO
ENGINE FEED PUMPS	ALL ON
CROSS FEED VALVES	SHUT
SSB	AS REQUIRED
BATTERIES / d.c. split SWITCH	AS REQUIRED
FUEL / WEIGHT / CG	CHECKED
ASI BUGS	UPDATE
SEATS & HARNESS	LOCKED PWR OFF& SEC
VISOR / NOSE	DOWN / 5 DEG
ALTIMETERS / RAD ALT	QNH SET / UPDATE
APPROACH CHECKLIST	COMPLETE

## <u>TRAIT</u>

click Flights, Save Flight, enter the title

PSSconcorde\_5

click OK

when DME-1 is at 47 nm we will be passing TRAIT

set SPEED SELECT to 240 kts

set ALTITUDE SELECT to 9,000'

press ALT ACQ

open the AP DATUM ADJUST panel





press NOSE DOWN till VS is -1500 fpm set VISOR/NOSE to 5



we are going to fly direct to CCC

with NAV 1 set to 117.20 for CCC

adjust CRS to centre the VOR 1 deviation needle as shown on the HSI, approx 258 deg



press VOR LOC to track direct to CCC



adjust CRS as required to centre deviation needle

pre-set HDG to 230 deg

when DME-1 at 5 nm

press TRK HDG

set NAV 1 to 111.35 for runway 31L KJFK

set both VOR/LOC selectors to 315 for runway 31L

passing 10,000' set Landing Lights to ON

at ALT HOLD of 9,000'

set ALTITUDE SELECT to 2,000'

press ALT ACQ

set SPEED SELECT to 210 kts

confirm ADF 1 set at 275.0 for BABYLON

when ADF 1 BRG is at 320 deg



set HDG to 285 deg to fly direct to ZACHS

approx DME-2 at 25 nm the ILS for 31L will activate



press VOR LOC observe prime light on

Phoenix Simulation	TUTORIAL FLIGHT	96		
Concorde	LFPG to KJFK	REV 02	SEQ 001	

## set VISOR/NOSE to DOWN

at LOC intercept

press LAND



observe GLIDE primed

set SPEED SELECT to 190

set ASI reminder bug to 160 kts

set DH to 30'

set HDG to 315

click Flights, Save Flight, enter the title

PSSconcorde\_6

click OK

as the GLIDE SLOPE starts moving DOWN



set GEAR to DOWN

at GLIDE SLOPE intercept

set SPEED SELECT to 170 kts

observe LAND selected

set AP2 to ON



set SPEED SELECT to 160

### LANDING CHECKLIST

LANDING GEAR	4 GREENS
NOSE	DOWN & GREEN
BRAKES	CHECKED / NORMAL
ANTI-SKID	CHECKED
AUX INLETS	OPEN / X-HATCH
YELLOW SYSTEM	CHECKED
LANDING CHECKLIST	COMPLETE

#### LAND 3

approaching touchdown

Concorde with flare slightly

thrust will go to IDLE

at TOUCHDOWN

set AT1 to OFF

set AP1, AP2 to OFF

lower the nose

press F2 for REVERSE

use brakes as required

exit the runway when able

press F1 for IDLE

press BRAKE to STOP

set VISOR/NOSE to 5

open the LOWER Overhead panel

set LANDING LIGHTS to OFF

set TAXI LIGHTS to ON

taxi to the gate and continue with the shutdown checklist

Hope you enjoyed the flight

Phoenix Simulation Software

The Phoenix (PSS) Support Forum

Phoenix Simulation	n TUTORIAL FLIGHT LFPG to KJFK		100
Concorde		<b>REV 02</b>	SEQ 001

## AFTER LANDING CHECKLIST

TIRE LIGHT	OBSERVE
BRAKE FANS	AS REQUIRED
MASTER WARNING	INHIBIT
NOSE	5 DEG
FLIGHT CONTROL INVERTERS	OFF LIV
RADAR	OFF
SSB	CLOSED
RAMP SPILL MASTER sws	MAN
REVERSE ASOVs	CHKD/18-24o/NORM
INBOARD ENGINES	AS REQUIRED
AUTO IGNITION	OFF
PRESS STATIC HEATERS	OFF
ADS AND STBY HEATERS	OFF
DRAIN MAST HEATERS	AS REQUIRED
WING & INTAKE ANTI-ICING	OFF
W/SHIELD EMERG DE-ICE sws	OFF / GAURDED
TRANSPONDER	XPDR
PRESSURISATION	CHECKED
SECONDARY AIR DOORS	AUTO, SHUT and LIGHTS OFF
BATTERY/DC SPLIT SWs	ON / normal
BRAKE TEMP Its	CHECKED
SLIDES	DOORS RO MANUAL
TANK 9 SHUT DOWN FUEL	4,000 KG
AFTER LANDING CHECKLIST	COMPLETE

Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK		101
Concorde		<b>REV 02</b>	SEQ 001

# PARKING CHECKLIST

BRAKES	PARK
LIGHTS & TRANSPARENCIES	OFF / RETRACT: OFF
NOSE / VISOR	AS REQUIRED
EMERG GENERATOR sel	AUTO
BATTERIES	ON
GROUND POWER	ON
HP VALVES	SHUT
THROTTLE MASTERS	OFF
ANTI-COLLISION Its	OFF
FASTEN SEAT BELTS	OFF
ENGINE ANTI-ICING	OFF
IGNITION	OFF
GROUND CONDITIONONG	AVAILIBLE
FUEL PANEL	GROUND STATE
BATTERIES	BATT OFF
INS	POST FLT INFO
TRANSPONDER	STANDBY
CHOCKS	IN POSITION
BRAKE FANS	AS REQUIRED
RADIATION METER	NOTED
INS	RELOAD (TRANSIT)
FLIGHT DECK DOOR	UNLOCKED
FLIGHT DOCUMENTS	RETAINED
PARKING CHECKLIST	COMPLETE

Phoenix Simulation	TUTORIAL FLIGHT LFPG to KJFK		102
Concorde		<b>REV 02</b>	SEQ 001

## **STOPOVER CHECKLIST**

AIR DATA COMPUTERS	OFF
INS	OFF
FLIGHT CONTROL INVERTERS	PWR OFF
OXYGEN	OFF
GROUND POWER	AS REQUIRED
MASTER C/B's	TRIP
EMERGENCY Its	OFF
STOPOVER CHECKLIST	COMPLETE

# FLIGHT ENGINEER'S LEAVING PANEL CHECKLIST

CABIN TEMPERATURE	STABLE
CG	CHECKED
TRIM TRANSFER	CHECKED
FUEL TRANSFER	SAFE
ENGINE FEED PUMPS	ALL ON
CROSSFEED	SHUT
JETTISON SYSTEM	VALVES SHUT/ COVER CLOSED
EMERGENCY GENERATOR	NORM / GRD BYPASS
LEAVING PANEL CHECKLIST	COMPLETE