

G650 Oceanic Contingency Procedures

ONE ENGINE INOPERATIVE

- 1 Set MCT on Operating Engine (**Auto throttles will Disengage**)
- 2 Slow to L/D Max (SMC / FLTREF / Approx. V_{REF} Flaps 0° + 10 kts).

QRH / Engine Driftdown Charts / EB-16

Then, begin driftdown using **FLCH** to the One Engine Inop Cruise Alt.

FMS – PERF / S.E. RANGE (5R)

60000# Target Altitude is FL340
75000# Target Altitude is FL280
90000# Target Altitude is FL230

A Green and Amber Banana will be displayed on the Nav Display. Green indicates the Bottom of Descent; Amber is the S.E. Ceiling

-Simultaneously-

- 3 Perform the applicable offset and diversion procedure

- Do Not Delay -

- 4 Verify or manually select CPDLC / Emergency:
FMS – NAV / ATC / Emergency (1L)
- 5 Consider starting APU when at / below **FL 300 (FL370 with ASC123 or later)**

OTS: CONTINUE & OFFSET

- 1 Advise ATC when time permits - Turn on all exterior lights
Determine which way to turn (Consider OTS, Traffic, WX, Turn towards alternate airport)
- 2 Turn Left or Right as required at least 45° and Offset 15 NM
- 3 Once clear of assigned route by 10 NM, Climb or Descend to an Offset Altitude

**ABOVE FL410 CLIMB or DESCEND 1000'
AT FL410 DESCEND 500' or CLIMB 1000'
BELOW FL410 CLIMB or DESCEND 500'**

FMS Procedure:

Select PROG / Page 3
Enter the appropriate Offset, L15 or R15 (1R)
Verify the Offset and Flight Plan, then Activate (6R)
Monitor new route
Check Fuel and determine appropriate speed

OTS: RETURN & OFFSET

Before initiating any 180° turn-back, consider maintaining a same direction 15 NM offset. Expedite climb above or descent below the vast majority of NAT traffic (FL410-280) prior to crossing adjacent tracks, or making a 180° turn-back.

- 1 Advise ATC when time permits - Turn on all exterior lights
- 2 Determine which way to turn (Consider OTS, Traffic, WX, Turn towards alternate airport)
- 3 Turn Left or Right as required 45° from present course to intercept and establish a 15 NM offset
- 4 Once established on the 15 NM offset, expedite climb above or descent below NAT HLA airspace (FL410-280)

**ABOVE FL410 CLIMB or DESCEND 1000'
AT FL410 DESCEND 500' or CLIMB 1000'
BELOW FL410 CLIMB or DESCEND 500'**

- 5 Turn Left or Right as required, 180° to 225° from present course to intercept and re-establish yourself on the offset course.

NOTE: This procedure assumes you have built a contingency-based turn-back flight plan during your preflight planning.

FMS Procedure:

On Guidance Panel, sync the Heading bug, then select HDG Mode
On FMS, Select NAV / FPL LIST (1L)
Line Select your Contingency Flight Plan
Select FPL SEL
Select ACTIVATE (6R)
Confirm Replacing – Select YES
Select PROG , Page 3 / Enter Offset, L15 or R15 (1R) / ACTIVATE (6R) Use caution to select the correct offset. The new course line should be very close to your current position.
Verify Routing, then on Guidance Panel, select LNAV Mode
Check Fuel and determine appropriate speed

DIVERSION: ACROSS PRIMARY TFC FLOW (OTS)

If drifting down or descending, DO NOT cross tracks until level at an appropriate altitude for crossing tracks. Maintain established offset and expedite Climb above or Descent below the OTS (FL410-280). Utilize one of the previous procedures until clear of the organized track system.

- 1 Advise ATC when time permits - Turn on all exterior lights
- 2 Confirm you are level at an appropriate Offset Altitude

**ABOVE FL410 CLIMB or DESCEND 1000'
AT FL410 DESCEND 500' or CLIMB 1000'
BELOW FL410 CLIMB or DESCEND 500'**

- 3 Request a clearance and proceed to alternate airport as per your re-clearance; or Direct, if unable to obtain a clearance.
- 4 Check Fuel and determine appropriate speed
- 5 Maintain extra vigilance for traffic
- 6 Broadcast FL & Position to nearby traffic on 121.5/123.45

DEPRESSURIZATION / EMERGENCY DESCENT

Manually performing the Emergency Descent Procedure ONCE CREW IS ON O₂ may be the safest course of action in Oceanic Airspace. Monitor for nearby traffic on TCAS.

NOTE: Difference in non-NAT HLA and NAT HLA procedures (3)

- 1 Crew and Passenger O₂ DON/100%
- 2 Autopilot Disconnect if EDM Annunciated / Re-engage AP and select HDG and ALT
- 3 **NON-North Atlantic HLA** – Turn Left or Right as required 90° from present course to quickly intercept and establish a 15 NM offset
North Atlantic HLA – Turn Left or Right as required 90° from present course to quickly intercept a point midway between a pair of tracks prior to entering the OTS from above. If NOT above tracks, establish a 15 NM offset.
- 4 Set/Verify 15000' in Altitude Selector, **MAN** Speed **M_{MO}** and **FLCH**
- 5 Deploy Speedbrakes
- 6 Datalink "Verify Emergency" will automatically display on FMS if EDM is activated. Review the info, add Persons on Board (**POB**) and Press **SEND**.
If not displayed, Press **NAV / ATC (R1) / ATC INDEX (L6) / EMERGENCY (1L) / MAYDAY** to active ADS Emergency Mode
- 7 Advise ATC when time permits - Turn on all exterior lights
- 8 Maintain extra vigilance for traffic. Monitor TCAS
- 9 Broadcast FL & Position to nearby traffic on 121.5/123.45

G650 Oceanic Contingency Procedures

WEATHER DEVIATION

Obtain ATC Clearance if possible. Indicate priority with "WEATHER DEVIATION REQUIRED" or "PAN-PAN-PAN". If ATC advises "Unable due Traffic, State your Intentions" consider Declaring an Emergency prior to utilizing this procedure.

If unable to obtain a clearance

- 1 If possible, deviate away from nearby routes, tracks, or traffic
- 2 Broadcast FL, Position and Intentions to nearby traffic on 121.5/123.45
- 3 Maintain extra vigilance for traffic – Turn on all ext. lights
- 4 If deviating LESS than 10 NM remain at current FL
- 5 If deviating MORE than 10 NM use the table below.

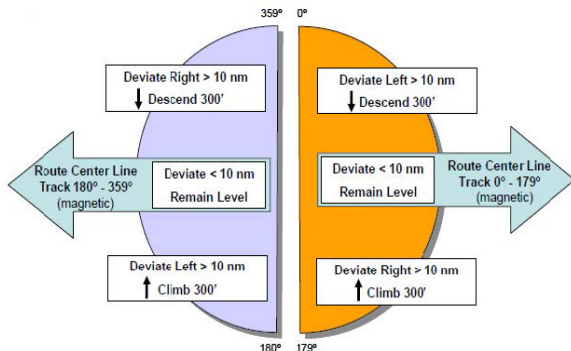
SAND – South Ascend – North Descend

EASTBOUND	Deviating Left	Descend 300'
	Deviating Right	Climb 300'
WESTBOUND	Deviating Left	Climb 300'
	Deviating Right	Descend 300'

- 6 Return to Cleared FL when within 10 NM of course
- 7 Continue broadcasting FL and Position
- 8 Continue to attempt contact with ATC and advise them of your weather deviation.

FMS Procedure:

PROG, Page 3 / Enter Offset, L15 or R15 (1R) / ACTIVATE (6R)



ONE REMAINING NAV SOURCE

- 1 Assess prevailing circumstance:
 - a. Performance of remaining NAV source
 - b. Remaining portion of flight in NAT/HLA Airspace
- 2 Exercise good judgement w/ respect to current situation
 - a. Request clearance above or below NAT/HLA
 - b. Reverse course
 - c. Divert to use Special Routes (Blue Spruce)
- 3 Consult ATC as to the most suitable action
- 4 Obtain a clearance prior to any deviation from route
- 5 Ensure monitoring and crosscheck of remaining NAV source.
- 6 Check main and standby compass systems against flight plan
- 7 Attempt visual sighting of other aircraft for position confirmation
- 8 Contact aircraft in vicinity to obtain useful info: Current Winds, Mag Heading, Drift, etc.

NAV RELATED CB's

ALL NAV RECEIVERS ARE ON A SINGLE CB
 NAV RCVR 1 POP F3
 NAV RCVR 2 CPOP F3

TOTAL NAV FAILURE

- 1 Notify ATC
- 2 Make best use of procedures specified above
- 3 Turn on all exterior lights
- 4 Maintain extra vigilance for traffic
- 5 All data required for Dead Reckoning along route is available on Computer Flight Plan.

COMM FAILURE

- 1 Check the following:
 - a. Communications panels (3)
 - b. Volume
 - c. Circuit Breakers (See list below)
 - d. Replace microphone and or headset
 - e. Try different frequency
- 2 Attempt communications on SATCOM
- 3 Attempt contact via Datalink (ADS-C / CPDLC)
- 4 Squawk 7600
- 5 Broadcast in the Blind on 121.5/123.45

Remain clear of Oceanic Airspace if able

- 6 If failure occurs within the Oceanic airspace:
 - a. **NAT/HLA:** Fly the route you received in your clearance and maintain your last cleared / assigned FL and Mach number
 - b. **PACIFIC OCA:** maintain the last assigned speed and FL for **60 mins** after the last **compulsory reporting** point since the failure. **THEN** adjust speed and altitude in accordance with the **FILED Flight Plan**
- 7 Rejoin FILED Route after exiting Oceanic Airspace
- 8 Continue attempts to regain communication

COMM RELATED CB's

PILOT ACP POP G-1	VHF COMM 1 POP F-4	HF CPLR 1 SSPC #2301
COPILOT ACP CPOP G-1	VHF COMM 2 CPOP F-4	HF CPLR 2 SSPC #2302
OBSERVER ACP CPOP G-2	NAV/COM CPOP G-4	HF RX/TX 1 SSPC #2303
SATCOM PRI SSPC #2311		HF RX/TX 2 SSPC #2304

OCEANIC CONTACTS

Verify numbers on Jepp Chart

OAKLAND	SATCOM 436697 +1-510-745-3415 or 3416
ANCHORAGE	SATCOM 436602 +1-907-269-1103
GANDER OCEANIC	SATCOM 431603 Oceanic / 431602 Domestic +1-709-651-5324
GANDER RADIO	SATCOM 431613 +1-709-651-5328
SHANWICK OCEANIC	SATCOM 423201 or 425002 +353-61-368-241
SHANWICK RADIO	SATCOM 425002 +353-61-471-199
NEW YORK OCEANIC (NAT)	SATCOM 436695 +1-631-468-1495
NEW YORK OCEANIC (WATRS)	SATCOM 436696 +1-631-468-1495
REYKJAVIK ATC	SATCOM 425103 +354-568-3035
ICELAND RADIO	SATCOM 425105 +354-568-4600
SANTA MARIA RADIO	SATCOM 426305 +351-29-68-86-655