

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

Attachment 45 - UPS AOM Safety of Flight Reference

**OPERATIONS/HUMAN PERFORMANCE SUPPORT TO
THE U.S. ACCREDITED REPRESENTATIVE**

DCA10RA092



B747-400 AIRCRAFT OPERATING MANUAL

CHAP: 2
PAGE: INTRO 5
REV : 4
DATE: 12/31/07

SAFETY OF FLIGHT

GENERAL

It is not possible to develop a checklist for all conceivable situations, especially those involving multiple failures. In some circumstances the crew may have to deviate from a checklist or combine elements of more than one checklist. The Captain must assess the situation and exercise good judgment in determining the safest course of action.

The Captain must carefully evaluate the situation when a checklist prescribes shutting down an engine. It must be determined if an actual shutdown is required, or if operation at reduced thrust is the safest course of action. The probable effects should be considered if the engine is allowed to run (even at minimum thrust).

LANDING AT NEAREST SUITABLE AIRPORT

There are some situations which dictate that the crew must land at the nearest suitable airport. The Captain should also evaluate the risks associated with the approach, landing and post-landing. These situations include the following:

- A non-normal checklist includes the phrase "Plan to land at nearest suitable airport."
- Flight deck or upper deck smoke or fire which cannot be immediately and positively determined to be extinguished.

NOTE: Once a fire or concentration of smoke or fumes is detected, continuing flight to the planned destination is not recommended unless the source of the smoke/fire/fumes is confirmed to be extinguished and the smoke/fumes are dissipating.

- Main deck or lower cargo compartment fire or smoke.
- Two hydraulic systems remaining.
- One AC generator remaining.

- Any other situation determined by the flight crew to have a significant adverse effect on safety if the flight is continued.

IMMEDIATE LANDING REQUIRED

The SMOKE, FIRE OR FUMES non-normal checklist includes the phrase "**Consider an immediate landing**" under certain conditions. This phrase indicates that conditions have deteriorated and the risks associated with the approach, landing or post-landing are exceeded by the risk of the onboard situation. The crew shall proceed immediately to the nearest landing site.

"**Consider an immediate landing**" implies an immediate diversion to a runway. However, the smoke, fire or fumes situation may be severe enough that the Captain should consider an overweight landing, a tailwind landing, an off-airport landing or ditching, as appropriate.

CIRCUIT BREAKER RESET

WARNING: DO NOT RESET A TRIPPED FUEL PUMP CIRCUIT BREAKER.

Cycling (pulling and resetting) circuit breakers to clear any non-normal condition is not permitted, unless directed by a non-normal checklist.

While on the ground, a tripped circuit breaker (other than a fuel pump circuit breaker) may be reset by the flight crew after maintenance has determined that it is safe to do so.

While in flight, resetting a tripped circuit breaker is not recommended. However, a tripped circuit breaker may be reset if in the judgment of the Captain, the situation resulting from the circuit breaker trip has a significant adverse effect on safety.

In any case, only one reset of a tripped circuit breaker should be attempted and then only after a cooling period of approximately 2 minutes.

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