

Emergency Evacuation on Water



By C. Brooks
skybrary.aero
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Definisi

Evakuasi saat pendaratan darurat di air adalah kondisi yang sangat mendesak bagi seluruh penumpang dan awak pesawat untuk segera dikeluarkan dari kabin pesawat dengan menggunakan semua pintu keluar yang dapat digunakan dengan secara secepat-cepatnya. Proses evakuasi ini dilakukan di bawah pengawasan awak kabin.

Evakuasi & Pelatihan Awak Pesawat

Peluang untuk selamat dari keadaan darurat sangat tergantung pada jenis dan efektivitas pelatihan yang telah diterima awak pesawat dan awak kabin sebelumnya. Pelatihan yang memadai diperlukan untuk memastikan bahwa personel merespons keadaan darurat dengan tepat dan untuk memaksimalkan kemungkinan peluang berhasilnya evakuasi, dan keselamatan seluruh PoB.

Evakuasi dapat dikategorikan atas 2 bentuk:

- **Planned:** Those for which sufficient time exists to brief the passengers and crew and prepare the cabin. Evakuasi dengan kecukupan waktu untuk memberikan briefing terlebih dahulu kepada semua penumpang.

- **Unplanned:** Those for which there is insufficient time to brief the passengers and crew. Evakuasi dengan ketidakcukupan waktu untuk melakukan briefing terlebih dahulu kepada semua penumpang.

General Emergency Evacuation Guidelines

The following general emergency evacuation guidelines for passenger and crew emergency egress are valid for both evacuations on land and on water:

- In a ditching situation, more than one impact should be expected
- Evacuation should not be initiated until the aircraft has come to a complete stop
- The engines must be shut down before opening door directly forward or aft of an engine
- Cabin crewmembers should begin evacuation immediately upon signal from the flight deck crew
- Cabin crew should follow any additional instructions the flight deck crew may give
- If there is an emergency that the flight crew may not be aware of and time permits, the cabin crew should notify the flight deck prior to initiating an evacuation; if time does not permit, the notification of the flight deck should be done simultaneously upon commencement of evacuation
- Cabin crew should make an independent decision to initiate an evacuation when there is severe structural damage, a life-threatening situation ([fire](#), [smoke](#), impact forces, [ditching](#)) or abnormal aircraft attitude exists and there is no response from the flight deck crew
- If one cabin crewmember initiates an evacuation, all cabin crewmembers should follow evacuation procedures immediately
- When a crewmember's life is directly and imminently in danger, the cabin crewmember's personal safety should always take priority

Preparation for an Evacuation on Water

In a planned ditching situation, the cabin, passengers and cabin crew preparation involve the same procedures as with an emergency landing, except for the following:

- Passengers should be informed about the ditching procedure
- Cabin crew should demonstrate the donning of life vests^[1], the brace positions, point out the exits, and finally, show the safety instruction cards
- Cabin crew should make sure that passengers have correctly donned life vests (including infant's life vests), and understand **how and when** to inflate them
- Passengers should be reminded to inflate life vests only as they leave the aircraft
- Crewmember life vests should be a different colour than the passengers' life vest (e.g., bright orange). Life vests should have lights (e.g., water activated).

The following are suggested items for the crew to consider when preparing to evacuate the aircraft following a water ditching:

- Determine the water level outside the aircraft
- Determine the water level inside the aircraft and the rate of change
- If water level is above the door sill, the exit is unusable. In many cases, the slide/life rafts can be detached and moved to a useable exit
- Some exits may be anticipated to be unusable due to the expected aircraft attitude in the water. This is often the case for the rear exits, especially in the case of an aircraft with rear mounted engines
- Prior to transferring slides/life rafts to useable exits, ensure all passengers are evacuated (into the water, if necessary)
- Deploy non door mounted flotation devices from the aft over wing exit as applicable to the aircraft type
- Cabin Crew should ensure that passenger raft count does not exceed recommended raft capacity
- Passengers should board the raft and sit on alternating sides
- Family members should be resealed together in the same life raft if possible
- Slide/Life rafts are detached by cutting the lifeline or pulling the disengage handle; follow instructions from the raft manual
- Attempt to assign crewmember(s) to each raft to establish command
- Where possible, group the rafts together
- Keep groups together and away from the aircraft, spilt fuel and debris.

Factors Affecting Survivors After Evacuation on Water

It is essential that in order to survive a water ditching and be rescued successfully, some basic factors must be taken into consideration. These factors are:

- Protection: The most pressing action should be protection from the adverse effects of the environment (i.e., water, the chilling effect of wind on wet clothing, extremes of temperature, etc.)
- Location: Have all signaling equipment ready
- Water: Take as much water as possible and plan on rationing it
- Food: Check on supplies available; if the quantity of the water supply is in question, decrease the food ration; the quantity of food and water must vary in direct proportion.

Duration of Exposure

When a person suddenly comes into contact with extremely cold water, they experience a cold shock response. This phenomenon is similar to jumping into a freezing swimming pool on a hot summer day. Immediately, the person will hyperventilate and take uncontrollable, deep and fast breaths for the next one to three minutes. If a person goes

underwater in this state, he/she could swallow water and drown. However, the cold shock response is short-lived and the associated risk subsides fairly quickly.

Water Temperature

Survivors of a ditching will not only be unprepared for the sudden exposure to low water temperatures, they are also likely to experience increased body-cooling rates due to the evaporating fuel from the aircraft wreckage. Survivors are vulnerable to hypothermia which may set in when the core body temperature drops below the minimum temperature required for normal metabolism and bodily functions at approximately 35°C.

Other Conditions

Ditching is often a high-impact event, which is likely to result in the break-up of the fuselage. Spilt fuel could possibly be ignited, leading to a post-impact fire. Even if ignition sources were suppressed by the waters, the inhalation and ingestion of fuel vapors can pose severe health risks to the survivors.

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