



# Airline Wet Drill



# Ditching Procedures and Protocols



Welcome all to the class

## Topics

- Standard operating procedures (SOPs) for ditching.
- Roles and responsibilities of the flight crew.
- Passenger briefing and preparation.

Welcome all to the class

## Aircraft with Slide/Raft/Hatches



- Source: Aviation International News, <https://www.wsj.com/articles/SB123301773654017857>



# Standard Operating Procedures (SOPs) for Ditching

## 1. Standard Operating Procedures (SOPs) for Ditching:

- **Pre-Ditching Procedures:**
- **Assessment and Decision Making:** The flight crew must quickly assess the situation to determine if ditching is necessary. This includes evaluating the aircraft's condition, fuel levels, weather conditions, and proximity to land.
- **Communication:** The captain will inform Air Traffic Control (ATC) of the emergency and intention to ditch, providing details of the planned ditching location.
- **Checklist:** The crew will follow a specific ditching checklist, which includes securing the cabin, shutting down unnecessary systems, and preparing flotation devices.

# Standard Operating Procedures (SOPs) for Ditching

## 1. Standard Operating Procedures (SOPs) for Ditching:

- **Ditching Procedures:**
- **Approach and Landing:** The pilot will aim for a controlled descent and landing on water, typically at a shallow angle and into the wind to minimize speed and impact forces.
- **Command:** Brace, Brace, Brace, Head down, Stay down



Source: [https://medium.com/@airline\\_ratings/air-niugini-crew-ignored-alerts-prior-to-ditching-94475f94e78c](https://medium.com/@airline_ratings/air-niugini-crew-ignored-alerts-prior-to-ditching-94475f94e78c)

# Standard Operating Procedures (SOPs) for Ditching

## 1. Standard Operating Procedures (SOPs) for Ditching:

- **Ditching Procedures:**
- **Aircraft Configuration:** Specific configurations, such as deploying flaps and retracting landing gear, are set to optimize the aircraft for water impact.
- **Command:** Brace, Brace, Brace, Head down, Stay down, Unfasten Seatbelt, High Heels Off, Leave everything behind



Source: [https://medium.com/@airline\\_ratings/air-niugini-crew-ignored-alerts-prior-to-ditching-94475f94e78c](https://medium.com/@airline_ratings/air-niugini-crew-ignored-alerts-prior-to-ditching-94475f94e78c)

# Standard Operating Procedures (SOPs) for Ditching

## 1. Standard Operating Procedures (SOPs) for Ditching:

- **Post-Ditching Procedures:**
- **Evacuation:** Immediate evacuation protocols are initiated, with the crew ensuring that all passengers exit the aircraft safely using life rafts and flotation devices.
- **Survival and Signaling:** The crew will organize passengers in life rafts, perform headcounts, and use signaling devices to attract rescue efforts.

Source: <https://www.cbc.ca/news/world/passengers-saved-after-plane-ditches-in-new-york-s-hudson-river-1.797694>



# Standard Operating Procedures (SOPs) for Ditching

## 1. Standard Operating Procedures (SOPs) for Ditching:

- **Post-Ditching Procedures:**
- **Evacuation:** Console and reach the activities that may need



Source: <https://www.cbc.ca/news/world/passengers-saved-after-plane-ditches-in-new-york-s-hudson-river-1.797694>



# Roles and Responsibilities of the Flight Crew

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## 2. Roles and Responsibilities of the Flight Crew:

- **Captain (Pilot-in-Command):**
- **Decision Making:** Responsible for the final decision to ditch and overall command of the situation.
- **Communication:** Maintains communication with ATC, crew, and passengers.
- **Maneuvering:** Executes the ditching maneuver, aiming for optimal landing conditions.



# Roles and Responsibilities of the Flight Crew

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## 2. Roles and Responsibilities of the Flight Crew:

- **First Officer (Co-Pilot):**
- **Support:** Assists the captain with flying duties, checklist completion, and system monitoring.
- **Coordination:** Helps with communication and ensures that the SOPs are followed correctly.



# Roles and Responsibilities of the Flight Crew

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## 2. Roles and Responsibilities of the Flight Crew:

- **Cabin Crew:**
- **Passenger Management:** Instructs and assists passengers in preparation for ditching, ensuring everyone understands safety procedures.
- **Evacuation:** Leads the evacuation process, directing passengers to exits and ensuring the deployment of life rafts and flotation devices.
- **Survival Leadership:** Once in the water, the cabin crew takes charge of organizing passengers, distributing survival gear, and maintaining order.



# **Roles and Responsibilities of the Flight Crew**

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## **2. Roles and Responsibilities of the Flight Crew:**

- **Example:**
- The crew of Ethiopian Airlines Flight 961 displayed clear roles during their attempted ditching after a hijacking incident, with the captain focusing on controlling the aircraft and the cabin crew managing passenger evacuation.



Break for 10 minutes



# Passenger Briefing and Preparation

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## 3. Passenger Briefing and Preparation:

- **Pre-Ditching Briefing:**
- **Announcement:** The captain makes an initial announcement to inform passengers of the situation and the need to prepare for ditching.
- **Instructions:** Cabin crew provide detailed instructions on how to brace for impact, use life vests, and prepare for evacuation. This includes a demonstration or briefing on how to use seat belts, life vests, and the location of exits.
- **Calming Passengers:** The crew works to keep passengers calm and focused, ensuring they understand the importance of following instructions.



# Passenger Briefing and Preparation

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## 3. Passenger Briefing and Preparation:

- **Preparation for Impact:**
- **Securing the Cabin:** Passengers are instructed to stow away loose items, secure tray tables and seats, and ensure that seat belts are tightly fastened.
- **Brace Position:** Passengers are shown how to adopt the brace position to minimize injury upon impact.



# Passenger Briefing and Preparation

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## 3. Passenger Briefing and Preparation:

- **Post-Impact Evacuation:**
- **Evacuation Procedures:** Passengers are directed to exits in an orderly manner, with crew members guiding and assisting them to life rafts and flotation devices.
- **Survival Tips:** Once evacuated, passengers receive instructions on how to stay safe in the water, use signaling devices, and await rescue.

# Passenger Briefing and Preparation

## 3. Passenger Briefing and Preparation:

- **Example:**
- During the ditching of Pan Am Flight 6 in the Pacific Ocean in 1956, the crew effectively briefed and prepared passengers, contributing to the successful evacuation and survival of most on board.

Source: <https://thegatewithbriancohen.com/what-to-do-to-survive-an-airplane-water-landing-a-photographic-essay-which-could-save-your-life/>, <https://www.survivalsystemsinc.com/sea-survival-training.html>





Q & A