Focus on Emergency Checklists
Spills Prevention, Preparedness & Response

What emergency checklists provide

Checklists help crewmembers respond to vessel emergencies in an effective, systematic, and consistent way. Emergencies are stressful and stress can lead to oversights and mistakes. Checklists help crewmembers stay focused on the critial actions needed to control the situation.

Why emergency checklists are important

Humans adapted to respond to emergencies with a fight, flight, or freeze response. When you recognize an emergency situation, your nervous system releases hormones and your blood pressure and heart rate increase, readying the body for survival. This happens regardless of your training or experience. It is much easier to follow the actions listed on a checklist than to remember the appropriate actions in the middle of an emergency.

Emergency checklists in action

In January 2009, a jet airliner made an emergency landing on the Hudson River in New York State. As the plane engines stalled after take-off, the pilot took control of the plan and the co-pilot pulled out the emergency checklist for a water landing. The plane landed safely and all passengers and crewmembers were rescued.

Emergency checklists and drills

It is critical that you practice using emergency checklists by conducting training and drills. As the saying goes "in an emergency you will do as you drill." Drills and checklists work together to prepare crewmembers to respond to emergencies. Each drill on the ship's drill matrix should have a corresponding emergency checklist. Crew training should emphasize using checklists consistently and completing them under situational pressure.

Where to keep emergency checklists

Safety Management System (SMS) emergency checklists should be stored on the bridge and in the engine control room. Watchstanders should be able to quickly find the checklists when time is short and the pressure is on. You can make your checklists easy to access by keeping them in a binder with clearly labeled tabs or by keeping laminated checklists in a clearly labeled container. A checklist will do no good if it cannot be easily located and used.

Topic for emergency checklists:

- Collisions and allisions
- Groundings and strandings
- Hull breach, structural failure, and foundering
- Loss of propulsion
- Loss of steering
- Loss of electrical power
- Loss of ECDIS
- Gyrocompass malfunction
- Emergency towing
- Loss of bridge throttle control (if equipped)
- Heavy weather
- Fire
- Abandon ship
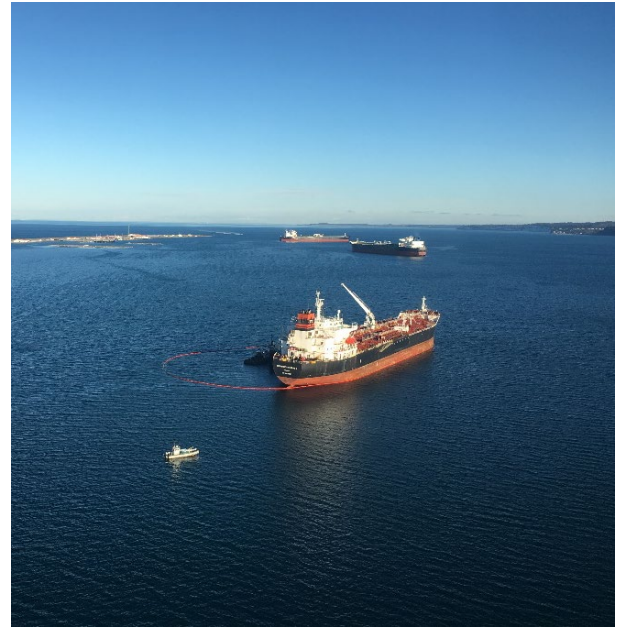- Man overboard
- Oil spill

Figure 1: Oil Spill Response near Port Angeles, WA

Emergency checklist tips

- Keep it focused and brief. A long checklist should be subdivided into smaller task-specific checklists.
- Include the critical tasks prioritized and in logical order.
- Develop it based on the particular needs of the vessel. Generic emergency checklists can miss important steps that apply to an individual vessel.
- Regularly evaluate emergency checklists and, when improvements are identified, ensure the checklist is revised and not just placed back in a binder.

Evaluating your ship's emergency checklists by asking:

- Does it address the emergency in a precise and practical manner?
- Is it short, readable, and portable?
- Are the most important steps listed first?
- Do the steps flow logically?
- Is it a reasonable length?
- How much time will it take to go through the checklist?
- Is it located in an easily accessible location?

Further reading

- Gawande, Atul. The Checklist Manifesto: How To Get Things Done. Picador, 2010.
- International Chamber of Shipping. Bridge Procedures Guide, Sixth Edition .
- Eastern Kentucky University. "Mental Responses During Emergencies." EKU Online, 21 July 2020, https://safetymanagement.eku.edu/blog/mental-responses-during-emergencies/ .
- "How the Fight-or-Flight Response Works." Verywell Mind, 10 June 2022, www.verywellmind.com/what-is-the-fight-or-flight-response-2795194 .