Helicopter Operations at Sea — study guide

Helicopters reach ships that no boat can, whether to lift a casualty off in a medical emergency or to move personnel. This guide covers the helideck, the equipment, the crew's PPE and the training.[1][2]

Why helicopters are used

Helicopters are used for MEDIVAC, crew transfer, pilot transfer, and winching personnel and equipment to renewable-energy sites.

The helideck

The physical characteristics of helidecks are outlined by **CAP 437**. These include markings and colours that fit the colour code — the deck is always **green** and the lettering is **white**; the helideck area, or "**D Value**", which is the largest overall dimension of the helicopter with rotors turning; and windsocks that show which way the wind is blowing.

Landing without a designated area

To land a helicopter on a ship without a designated area, ensure that flags and pennants are flown to indicate wind direction; that at night the area is well lit with no glare; that no loose equipment or debris is in the vicinity to avoid accidents from downdraft; and that deck personnel are wearing the correct PPE.

Helideck crew PPE

The helideck crew require safety boots or shoes, eye protection, and ear protection.

Procedures and communication

As per SOLAS and GMDSS procedures, all ships should be fitted with communication equipment and have clear communication protocols to follow. Drills prepare the crew for emergencies such as fire, abandon ship and collision. Note that it **is** possible to carry dangerous goods by air (with the applicable rules). Familiar items of helideck equipment include the **wheel chock**; operations include the **Hi-Line** and **winching**.

Training

Helicopter training covers escaping from an **overturned** helicopter to a **life raft** or into the water, together with the necessary sea survival, including rescue and recovery (the Helicopter Underwater Escape Training).

Key facts to remember

- Helicopters: MEDIVAC, crew transfer, pilot transfer, winching.
- CAP 437 helideck: green deck with white lettering; "D Value" = largest helicopter

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dimension with rotors turning; windsocks.

- No designated area: flags/pennants for wind, lit at night without glare, no loose debris, correct PPE.
- Helideck crew PPE: safety boots, eye protection, ear protection.
- SOLAS/GMDSS: communication equipment and clear protocols; drills for fire, abandon ship, collision.
- Dangerous goods can be carried by air (with rules). Equipment includes the wheel chock; procedures include Hi-Line and winching.
- Training: escaping an overturned helicopter to a life raft/water plus sea survival.

Sources

1. CAP 437 — Standards for Offshore Helicopter Landing Areas (UK Civil Aviation Authority) — helideck physical characteristics and markings.
2. SOLAS and the IMO/ICAO SAR framework (GMDSS) — shipboard communication and helicopter operations.