

6. MINE DANGER AREAS, CLEARED ROUTES AND INSTRUCTIONS REGARDING CONVENTIONAL AND CHEMICAL MUNITIONS PICKED UP AT SEA

Source: UK Hydrographic Office and Ministry of Defence (Navy).

Former Notice 6/04 is cancelled. This is a complete revision of the former notice.

MINE DANGER AREAS

1. Minefields were laid in many parts of the world during the World War of 1939 to 1945, the Korean War of 1950 to 1951, and in a number of less extensive conflicts since then including the Gulf War of 1990 to 1991. The vast majority of historic minefields have been now been cleared. In the case of the few historic areas which remain uncleared, due to the passage of time, *surface* navigation through them is no longer considered dangerous. It should be noted however, that in these historic uncleared areas, a real danger *still* exists with regard to anchoring, fishing or any form of submarine or seabed activity. In the Northern Gulf in particular, anchoring within former mine danger areas is not recommended.
2. Former mine danger areas are mentioned in appropriate volumes of Sailing Directions, with full details in an Appendix. In the rare instances where these historic minefields *are* still considered dangerous, they are denoted on the Admiralty chart as Mine Danger Areas, and detailed in the appropriate Sailing Directions.
3. Many modern minefields have been cleared and others have had routes cleared through them. These routes are typically marked by buoys and have been used safely by shipping for many years. Notwithstanding this, even in cleared waters and routes, there is a remote risk that mines may still remain, having failed to be detected by orthodox mine-clearance methods. Mariners are therefore advised to anchor only in port approaches and established anchorages. Notwithstanding the risk of undetected mines, uncharted wrecks and shoals may lie in these areas, some of which are not covered by modern surveys. In these areas, in an emergency, it is better to anchor in a cleared route/area rather than in uncleared waters.
4. The majority of drifting mines sighted will *probably* be lost exercise mines. Notwithstanding this, *all* drifting mines should be reported immediately to the Naval Authorities via the Coastguard Service or normal ship/shore communication channel. An "All Ships" broadcast should also be made on VHF Channel 16 to communicate the information to ships in the vicinity. The time of sighting and position of the mine is important in the reporting information. A drifting mine is best left for naval explosive ordnance disposal experts to deal with. Under no circumstances are drifting mines to be shot at using a firearm: this may pierce the casing and sink the mine without detonating it. The mine will then drift on the seabed, potentially end up in a trawl or washed up on the beach, still in a lethal state. If possible, a lightly weighted marker float should be laid in the vicinity of the mine to assist in re-location should the vessel finding the mine be unable to remain within visual range.
5. If a vessel stopped in the water or at anchor sights a drifting mine close to the side of the vessel, the best way of moving the weapon away from the vessel's side may be to use a fire hose, playing the jet on the surface of the water close to the weapon, thereby creating a current to push the weapon away. Under no circumstances is the jet to be played on the body of the weapon itself.

CONVENTIONAL AND CHEMICAL MUNITIONS PICKED UP AT SEA

1. "Conventional and Chemical Munitions" means all types of conventional and chemical weapons and munitions, including chemical warfare agents in any type of receptacle, weapon or munition. These, (which may include mines, torpedoes, depth charges, bombs and missiles containing conventional (explosive) or chemical components), are sometimes picked up in trawls, or as a result of other undersea operations, often in waters comparatively distant from where they were laid, fired, dropped, or dumped. These munitions are dangerous even if they have been in the water for many years, and the following guidance is given in dealing with them:
 - a. A suspected munition should not be landed on deck if it has been observed whilst still outboard. In the case of fishing vessels, the trawl should be lowered and, where possible, towed clear of regular fishing grounds before cutting away the gear as necessary. The following information should be passed to the Naval Authorities via the Coastguard, Ship's Agent or Fishery Officer. Those making such reports are encouraged to provide information on the location and nature of the encounter, the type and state of the device encountered (if known), the action taken with the device, and, if released at sea, the location of the release; whenever possible, the following information should be included:
 - (i) Position of the encounter, latitude and longitude. If the contacting party is aware of the geodetic datum used for the position, and it is not World Geodetic System 1984, the geodetic datum should be reported as part of the location information. Where the exact position is unknown, approximate coordinates should be given, or a range and bearing from a charted feature.
 - (ii) Depth of water
 - (iii) Nature of the encounter. The description could include such things as: entanglement in nets; dredging activities; laying pipelines / cables; found on shore; diving / ROV or other details.
 - (iv) Position of disposal if released at sea. Latitude and longitude (if different from i)
 - (v) Type of device, if known, or a description of key features if observed
 - (vi) State of device. The description could include:

Partly corroded – cases where the contents cannot yet escape

Seriously corroded - *cases where substantial parts of the contents can escape*

Heavily corroded - *cases where most of the contents can escape*

Completely corroded - *cases where the contents can escape freely*

(vii) General remarks or any amplifying comments. If an encounter is near or in a known (charted) dumping site for munitions, a reference to this should be given.

Explosive Ordnance Disposal will be greatly facilitated if the item is laid in no more than 20m water depth at least 1000m clear of any building on the foreshore, and its position is marked by a suitable float and accurately plotted.

b. In the event of the weapon not being detected until the contents of the trawl have been discharged on deck, the skipper of the fishing vessel must decide whether to rid his ship of the weapon by passing it over the side or to make for the nearest port informing the Harbour Authority and Naval Authority by radio without delay. His decision will depend on the circumstances, but he should be guided by the following points:

(i) Great care should be taken to avoid bumping the weapon. The primary consideration in this respect may be the motion of the vessel in relation to vessel size and sea state, weighed against the ease of handling the weapon over the side.

(ii) If retained onboard it should be stowed on deck, away from heat and vibration, firmly chocked and lashed to prevent movement.

(iii) **IT SHOULD BE KEPT COVERED UP AND DAMPENED DOWN.** (This is important because any explosive which may have become exposed to the atmosphere is liable to become very sensitive to shock if allowed to dry out.)

(iv) The weapon should be kept on board for as short a time as possible.

(v) If within two or three hours steaming of the coastline the safest measure will generally be to run towards the nearest port and lie a safe distance offshore to await the arrival of a Naval Explosive Ordnance Disposal Unit. **UNDER NO CIRCUMSTANCES** should the vessel bring the mine or weapon into harbour.

c. Under no circumstances should attempts be made to clean the weapon for identification purposes, open it or tamper with it in any way.

d. A ship with an explosive weapon on board, or in her gear, should warn other ships in the vicinity giving her position and, if applicable, intended position of jettisoning.

2. Phosphorus devices require special care. Phosphorus is an extremely hazardous chemical with ability to cause serious injury and under no account should non-qualified personnel touch or handle a phosphorus device. Leaking phosphorus devices present a significant fire risk, and sudden exposure to atmosphere can cause an explosion. Additionally, there is a risk of chemical poisoning and burns if handled and the formation of Phosphoric and Phosphine toxic gases if stored.

a. Phosphorus devices will generally come in two categories:

i. Expended and partially expended military and civil marine pyrotechnics. These are the most common source and may contain exposed phosphorus dependent on how long they had burnt.

ii. Phosphorus filled ordnance that has previously been dumped at sea (e.g. in Beauforts Dyke). These may not be expended and could contain a considerable amount of phosphorus. Deterioration with age of such items make leaking phosphorus a likely hazard.

b. If a phosphorus device is found it should be returned to the seabed as soon as possible, the position noted and Coastguard informed **immediately**. No attempt should be made to remove the device from the gear except where the gear cannot be ditched and it is necessary to do so to return the device to the seabed. No attempt should be made to handle the device.

3. In French waters, vessels with suspected explosive devices on board or caught in nets etc. should seek advice from the French authorities.

4. Under no circumstances should an attempt be made to recover a mine and bring it to port; rewards formerly paid to mariners for such recovery have been discontinued.

5. It is emphasised that it is the responsibility of all users of the sea to report encounters with mines and other munitions, with the aim of safe disposal, as well as identification of the extent of areas around known dumping sites where conventional and chemical munitions are to be found, and the identification of previously unknown or unrecorded dumping sites. This includes objects identified by Remotely Operated Vehicles (ROVs) or imaging sonar operated by the offshore exploration community. In this way, areas where a high risk of encounters with munitions exists on the seabed may be accurately designated on navigational charts.

6. A colour identification poster illustrating a selection of explosive ordnance which could be encountered, has been prepared by the Ministry of Defence. Copies are available free from the following sources:

Southern Diving Group 1, HM Naval Base Devonport, Devon, PL2 2BG

Northern Diving Group, HM Naval Base Clyde, Faslane, Helensburgh, Dunbartonshire, G84 8HL.