

## Lesson Plan – 5.1-1 Locate and Assist Casualty

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### **AIM:**

Trainer - Explain the equipment available to crew, how it is to be used and the limitations / hazards associated. Crew should be able to demonstrate the ability to use each piece of equipment where practical to do so. Maintenance of equipment to be demonstrated where applicable.

Crew - Understand the equipment available, where it is stowed and how to use; be able to explain where and when to use it , maintenance of the equipment and considerations for using.

### **Training Shoreside –**

- What equipment is available, show where it is stowed and how to use it
- Demonstrate the use of VHF / AIS /DF on both the DF unit and SIMs
- Explain the limitations of the equipment and why
- Explain and demonstrate how to conduct a visual search
- Talk through the options for recovery of a casualty including equipment and hazards
- Discuss the considerations for casualty assessments
- Explain about recovery of casualty equipment and vessel
- Talk through the casualty evacuation options
- Demonstrate and talk on the use of the salvage pump
- Animal rescue - the considerations and dangers associated

**Training afloat** - Demonstrate and training with SAR equipment; carrying out visual searches.

**RNLI Training** - crew course

### **Equipment**

There is a wide array of equipment available to crew that they can utilise depending on the type of shout.

- Radar
  - Can be used to identify targets including AIS overlay; but is limited by poor weather and sea conditions , incorrect reporting of target size or ghost targets, the height of the antenna and radar reporting can be affected by the vessels construction material.
- VHF / DF
  - Once the channel the casualty is on had been identified, direct communication and help to locate them and in conjunction with the DF (Directional Finder) their bearing can be obtained even if they are unsure. This is limited the by quality of the VHF

communication, the line of sight of the communication; land objects that may exist in between and channels available

- AIS
  - AIS provides clear vessel identification through its MMSI number. However, if the casualty does not have AIS then it serves no use and in the Solent many small craft will be without AIS, so it's important not to rely on AIS alone
- Flares
  - White flares can be used to by the lifeboat to improve visibility of the immediate area for a very short time, however they affect night vision afterwards and must be only used in conjunction with the operations procedures (See Pyrotechnics unit)
  - Red Flares from the cas vessel should be kept in mind if available to them and will aid location
- Binoculars
  - These provide a longer range view but a narrow vision and without stability in most conditions.
- Night sights
  - Can assist greatly in locating targets in poor dark conditions, but have a narrow field of vision and are only effective while the batteries work.
- Search lights
  - A constantly utilised tool to provide a wide pan of light; but can be tricky to plug in and have limited range. Additionally they will affect night vision and can give off a glare in poor weather conditions. They may even give off a backscatter from shore lights. Recovery of night vision once lost can take up to 45 minutes to full return.

## Casualty Recovery

The first priority is to locate the casualty once the search begins. To do this crew should use a Scan and Focus approach over an arc of 10 to 15 degree sectors. Fatigue or boredom can set in, so rotation of crew where possible will help to keep crew focused. Additionally, crew should be aware that losing concentration can easily result in a missed casualty.

If crew believe they may have seen something, a clear communication should be given to stop, followed by the direction of the identification. The crew member should retain eye contact at all times, even when speaking to other crew, and should use hand signals to point to the direction of the target.

Once the casualty has been located, next comes the task of recovering them. For the Atlantic 85 the options are the Quoit / Throw-line and the Ambulance pouch. Alternatively if required the Helm can consider requesting either an ALB which has options of a Jason's Cradle / Lifting Strop / Mud lance or a Helicopter for direct lift in a strop. A briefing on recovery should be given prior to commencing the recovery.

**Trainer** - Demonstrate use of the Quoit / Throwline and Ambulance Pouch; Crew should then practice using these. This should include the precautions to be taken for each method such as the condition of the casualty; hydrostatic squeeze; use of the correct PPE and in accordance with the current operating procedures.

**Warning** - Crew safety during these operations must remain paramount, due to the risk of injury from lines underload, bights in lines; heavy lifting; and entrapment.

## Casualty Management

On evaluation of a casualty we should consider if further assets / assistance is required and provide an update to the coordinating authority ie coastguard. Clear calm communication with the casualty will also help as we decide if cas care is required or other medical support such a helo paramedic.

The type of evacuation can range greatly depending on the nature of the incident and the conditions. This can go from towing a vessel to a safe harbour, or the medivac of a person from their vessel on to the lifeboat and up into a helicopter. Whatever the situation, planning of the form of evacuation and assets required land sea or air is important.

Recovery of a vessel should only be considered with the knowledge of the condition of the vessel, where it is located and whether it is taking on water or its buoyancy affected by water ingress. is there a risk to the lifeboat and its crew to do so or to others if recovered.

## Salvage Pump

Refer to the Locate and Assist slide presentation for the salvage pump. A demonstration of how to set up , run and dismantle the pump should be given and then crew perform.

Use of the salvage pump should only be when the conditions are suitable. It's important to understand that running the engine in confined spaces can be dangerous due to fumes and that extension hoses are provided to allow for running from an open space.

The pump must be cleaned through with freshwater on return, refueled and allowed to dry before packing away.

## Animal Rescue

When dealing with any animal, crew must be conscious of the risks involved regardless of the animal type or size. Animals, especially when frightened can fight and or bite; they may also run away so should be handled correctly; larger animals like horses and cows can kick. Be aware of the risk of crush from them and the associated hazards from animal waste.

### Rescue of an animal

When considering the rescue of animals, think about the necessary action required. Can it be safely evacuated, or should it be left on scene until more appropriate assets can arrive , such as a vet or specialists. Does the animal need to be stabilised; and where is it safe to land the animal and have we arranged for the right shoreside support to assist.

On some occasions we may be called on to assist with a stranded animal such as a stray cow and in these circumstance we should try to assist in herding the animal back to its herd.

### Crew Safety

Should a crew member be injured by an animal or fall ill in the preceding days, which may be as a result of contact with the animal , then they should seek medical attention from their GP or hospital.