DIVE TEAM OPERATIONS

1. All responding agencies are to meet and develop an operating plan. (Fire Dept., Dept. of Natural Resources, Sheriff’s Dept., State Police and Coast Guard).

2. The scene will be evaluated to determine the last location the victim was seen.
   A. The Incident Commander reports the following information to the Dive Team Captain/Leader as soon as possible.
      1) Exact nature of call.
      2) Exact location.
      3) Number of people in the water. missing and/or injured.
      4) Command unit and Incident Commander.
      5) Staging area.
      6) Time incident occurred.
   B. Interview all witnesses separate and apart from each other. Ask witnesses to describe the accident from the point they observed it.
   C. If the victim was a swimmer, put a diver in the water to help the witness mark the last seen point.
   D. If a boat was involved in the accident, use a boat to mark the last seen point.
   E. If there are two or more last seen locations, two or more divers or boats should be put in the water. One for each location.
   F. Dive Team Captain/Leader will request resources as needed through the Incident Commander.

3. Water Temperature and Time
   A. When the water temperature is 69° F or lower, the recovery operating plan should be carried out for a full 90 minutes from the time the incident occurred unless conditions become unsafe to continue recovery operations.
   B. When the water temperature is 70° F or above, the recovery operating plan should be carried out for a full 60 minutes from the time the incident occurred unless conditions become unsafe to continue recovery operations.
   C. After these time frames, the Incident Commander, the Dive Team Captain/Leader and all other agency representatives will re-evaluate the operating plan.

4. The decision to dive will be made by the Dive Team Captain/Leader and the Incident Commander. The decision to dive will always be made on the basis of “RISK - BENEFIT”.
   A. No diving operation will be conducted with less than 2 qualified divers and a trained top man. One diver will be designated as the primary diver and the other diver will be designated as the safety diver.
B. The buddy team will mutually agree on who will be the Safety Diver and the Primary Diver.

C. The Dive Team Captain/Leader will have control over diving operations. However, the Dive Team Captain/Leader and the Incident Commander will communicate with each other concerning the status of the recovery operation.

D. The Dive Team Captain/Leader will be responsible for maintaining the "Incident Diving Log" and all other record keeping, for the incident. The Dive Team Captain/Leader will give a written report on the incident to the Incident Commander.

E. At the termination of the diving operation, it is the Dive Team Captain/Leader's responsibility to make certain that all company owned diving equipment is properly cared for and placed back in service as soon as possible.

5. When an incident occurs at any community beach, private beach or marina, diving should be the primary mode of recovery operation.

6. If a boat is required to access the incident location, diving should be the primary mode of recovery operation if or when a boat can be utilized as a dive platform in a timely fashion.

7. Dragging should be used only as a last resort and after the 60 minute time frame or the 90 minute time frame has elapsed. Dragging may be during the recovery phase of the operation in lieu of diving when it has been determined that conditions are unsafe for diving operations.

8. UNDER NO CIRCUMSTANCES will dragging operations be conducted while divers are in the water.
DIVING OPERATIONS

1. Diving operations will be under the direction of the Dive Team Captain/Leader and the Incident Commander.

2. A minimum of two search divers will be utilized for each search pattern.

3. If possible, a fully suited back-up diver will be present on all operations when divers are beneath the surface.

BOAT OPERATIONS

1. U.S.C.G. approved PFD's will be worn by everyone operating in the boat.
   EXCEPTION — divers in wet suits or full dive equipment.

2. No fire-fighting turnout gear should be worn while operating in the boat unless a fire hazard is present or firefighting activities are necessary.

3. The boat operator shall be responsible for passenger safety.

4. The boat operator shall operate the boat with the utmost regard for diver safety while divers are in the water.

5. A trained member should be present on the boat to act as a liaison between the boat operator and the dive team.

DIVE PLAN

Before every dive:

1. Test all of your equipment before you enter the water.

2. Know the position and location of both yours and your partner's gear, (i.e. Air II, Weight Belts Buckle, Auto Inflator/Exhaust controls and instruments console, etc.).

During every dive:

3. Maximum depth of 30 feet and bottom time of 30 minutes.

4. Minimum air pressure to terminate dive:

   - 30 ft. or less  δ  500 PSI
   - 31 ft or more  δ  1000 PSI

5. Lost buddy procedure  δ  take a quick look around, if you can't find your buddy, surface and
   A. Look for bubbles. If they are moving, your buddy should surface shortly.
**STANDARD OPERATING GUIDELINES**

**RESCUE FIRE COMPANY - STATION 1 - CAMBRIDGE, MD**

B. If the bubbles are not moving, follow the bubbles down and check to make sure your buddy is not entangled.


7. Search Pattern Procedure:

   A. Diver to Tender
      
      1 pull δ I am OK
      2 pulls δ More Line
      3 pulls δ Object has been located
      4 pulls δ Diver needs help

   B. Tender to Diver
      
      1 pull δ Are you OK?
      2 pulls δ Stop. Take out line and reverse direction.
      3 pulls δ Come to the surface
      4 pulls δ STOP, DANGER IS NEAR
      4 pulls after stop δ Proceed with search

The procedures outlined above serve as general guidelines that are in addition to rules and/or regulations of the company. The above procedures are not intended to be hard and fast rules governing every incident. There could be conditions that warrant varying from these guidelines. Good judgment should be used to insure that all personnel are not subjected to unnecessary risks.

**ICE RESCUE DIVING**

Ice recovery and ice diving should be considered synonymous for our operations. On receipt of an ice recovery call we must gear up for both scenarios we could encounter on this type of incident. Upon arrival at the scene it is possible that we could be faced with a subject fallen through the ice and still on the surface or we could face a dive rescue situation where the subject has succumbed to hypothermia and has submerged.

Therefore upon alert for this type of incident personnel on board must suit up for ice recovery and divers must be dressed to handle the possible dive operation.

Diving operations under ice can be handled in the same manner as a standard dive operation with the exception that the search diver will be fastened to the search line. In most cases the last seen point will be obvious since there will be a hole in the ice where the victim submerged. The recommended pattern is to use a circle pattern with the hole as the pivot location.

The back-up diver will also be fastened to a separate line and be ready to enter the water.

NO ONE is to operate on the ice without exposure protection and the proper flotation device.
LOST DIVER PROCEDURES

In the event a search diver becomes detached from the search line, the following is the retrieval operation.

1. When the search diver realizes that he has become detached from the search line, he will immediately ascend to the surface and stay suspended perpendicular to the under surface of the ice. This action serves two purposes. One – it may enable surface personnel to spot the lost diver from topside. Two – it will conserve the most air available in the diver's tank.

2. Immediately after the line tender realizes that the search diver has become detached, the dive officer will be notified.

3. The back-up diver will enter the water and swim just beneath the surface of the ice until he reaches the determined length of searchline. He will then begin a circle pattern search.

The theory behind this procedure is that the back-up diver should only need to make one sweep to recover the lost diver. The lost diver, being suspended vertically in the water, should detect the back-up diver's search line as it sweeps past. The lost diver will then signal both the surface and the back-up diver with 3 pulls, and both will return to the exit point. The line tender, to assist in the retrieval, shall gently begin taking in the search line.

To execute this type of pattern, the search line is taken down the anchor line and fed through a carabinier attached to the line. The anchor or search line weight becomes the pivot point that should be directly beneath the last seen point. After the search divers have attached the search line through the carabinier, the immediate area should be checked before starting the circle pattern.

The line tender has control of the search pattern and tracks the divers progress by watching the air bubbles. When the divers have made a complete 360 degree pass the tender signals the diver to stop, take out line and reverse his direction. When turning the divers, the tender should use a reference point on shore such as a tree, large rock, etc. A compass heading can also be used as a reference point. Alternating directions prevents the search line from becoming entangled with the anchor line and also gives the divers an indication of his progress.

As in the shore pattern, line tension must be maintained in order for the pattern to be performed efficiently and so that line signals can be transmitted between divers and tender.

SEARCH TEAM RESPONSIBILITIES

Recovery Divers
- Swimming search pattern to locate object.
- Keeping tension on the line.
- Retrieval of the object once located
- Maintain communications via proper line signals

Line Tender
- Control of the divers search pattern
Remain stationary on point
Always be aware of last seen point
Ensure search area is completely covered

- Monitoring divers progress / well being
  Keep track of divers position via air bubbles
  Periodically surfaces diver to check tank pressure

- Recording information
  Start and stop times of diver
  Start and stop tank pressure

- Maintain communications via proper line signals