

<div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div>	Fire District #1	GOG #:	2014 - 5
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Water/Ice Rescue Response-Routine Response Mode

Purpose:

To define the response protocols for the Hillsborough Fire District to routine ice and water rescue emergencies, which shall be understood to be events that are isolated in nature and not occurring in conjunction with any large scale regional weather event(s).

Scope:

This GOG shall apply to all current and prospective members within Hillsborough Fire District #1.

This GOG shall include responses to the following types of emergencies;

- Open water in large or natural bodies of water
- Flood water
- Swift water
- Ice Rescue (Surface)
- Incidents where a victim may not be in the water, but where units must traverse water to access a victim(s)

Prerequisites:

Water / Ice Rescue Awareness Level

All members responding to water rescue related incidents shall have a minimum of Water Rescue Awareness level training

All members responding to ice rescue related incidents shall have a minimum of Ice Rescue Awareness level training

Water / Ice Rescue Operations Level

All members participating in shore based water rescue skills shall have a minimum of water rescue operations level training

All members participating in shore based ice rescue skills shall have a minimum of water

rescue operations level AND ice rescue operations level training (for ice rescue events)

All members operating rescue boats shall have a minimum water rescue technician level training.

Water /Ice Rescue Technician Level

All members participating the following situations shall be trained to the Technician Level in Swift water and/or Ice Rescue

- Members conducting contact (in or on water) rescue
- Members conducting contact (in or on Ice) rescue
- Members operating water fording vehicles

Swift water Rescue Boat Operator

All members operating rescue boats shall be trained and certified as follows;

- Swift water Boat Operator
- Boating Safety Course Certificate
- NJ Driver's License with boat endorsement

Incident Management

Officers and Members acting as incident commanders and supervisors shall meet the requirements of the Fire District Incident Management GOG, and shall be trained to a minimum of the Awareness level for Water Rescue situations.

Responsibilities:

None

Procedure:

Dispatch

Whenever an incident involving water related rescue or evacuation occurs, the respective Hillsborough Fire District companies shall respond and/or stand by with their allocated resources per the requirements of this GOG.

Somerset County Communications shall utilize the Hillsborough Fire District Tone to alert the companies for all incidents of water rescue or evacuation.

Response

When a water rescue is dispatched during times when there are no widespread active weather events, the district fire companies shall respond according to the established fire company primary coverage area boundaries and split into the second due coverage areas for backup units. The Primary fire company shall have the responsibility of command and control as outlined in the Incident Command GOG.

All responses shall include a minimum complement of resources to include;

- (2) Rescue Boats
- (1) High water rescue truck
- (2) Rescue Trucks (or a Rescue Engine & Rescue Truck)
- (2) BLS Units
- A dive team shall be dispatched immediately for **all ice rescue calls** and for any water rescue calls if there is any possibility of a victim being submerged

No exceptions shall be made unless in cases of extreme life threat with no other resources available - OR - the incident is deemed to need fewer resources by a trained and qualified IC.

Hillsborough Fire Safety Bureau

Staff shall ensure that a minimum of one on duty Fire Marshal is sent to station 36 to tow the second boat during hours of duty.

Neshanic Fire Co. (48)

Shall respond only in their primary Coverage area and only operate up to their level of training

The table below indicates the response protocols for apparatus and equipment.

Routine Water/Ice Rescue Response Mode					
Primary Area	Command Authority	Station 36 Units	Station 37 Units	Station 38 Units	Station 48 Units
36/37	36	Per 36 Protocol	Boat, Rescue	Boats, Rescue Standby @ 38	N/A
36/48	36	Per 36 Protocol	Boat, Rescue	Boats, Rescue Standby @ 38	N/A
37/36	37	Boat, B36-2, Engine	Per 37 Protocol	Boats, Rescue Standby @ 38	N/A
37/38	37	B36-2 to Scene Boat S/B @ 36	Per 37 Protocol	Boats, Rescue	N/A
38/37	38	B36-2 to Scene Boat S/B @ 36	Boat, Rescue	Per 38 Protocol	N/A
48/36	36	Per 36 Protocol	Boat, Rescue	Boats, Rescue Standby @ 38	Per 48 Protocol

Response Routes

Although it is less likely in instances outlined in this GOG, units responding to water rescue emergencies shall consider the possibility of flooded roadways or other response route challenges including remote incident locations etc., which may make response routes impassible and delay arrival. In some instances, adjacent municipalities may be able to deploy resources faster. The IC shall immediately request mutual aid companies when these cases arise, in the interest of getting the appropriate resources to a scene faster.

Operations

The initial arriving unit shall complete the following tasks as completely as possible

- Confirm the incident location upon arrival
- Establish or pass command - report the physical location if establishing a command post
- Report on number and location(s) of victim(s) and their condition if known, otherwise relay whatever information is known
- Determine and communicate the operational Mode to incoming units (Evacuation, Rescue or Recovery)
- Attempt to effect a rescue if trained and equipped and deemed necessary based on circumstances and proximity of additional resources

Incident Command Structure

Command. Shall include The IC and support staff.

Divisions. Shall be used to identify and delegate authority to geographic areas of the incident. A division may be “River Left Division” for example, where the Division supervisor is overseeing the operations along the left riverbank.

Groups. Shall be used when the task is not specifically assigned to a fixed location of the incident.

Rescue Modes

Responses shall be divided into three operational modes

Evacuation Mode

An evacuation is defined where rescuers are working to assist able bodied victims from being stranded by flood water, but where those victims are in no immediate danger. Members shall work to reduce and limit risks under these conditions.

Rescue Mode

A rescue is defined as an event where members are working to actively save victim(s) from a dangerous situation. During these conditions, rescuers are working to remove injured, trapped or stranded victims whose lives are or will soon be in immediate danger. Members will work aggressively, but also to manage risks as best as possible under these conditions.

Recovery Mode

A Recovery is defined where it is confirmed or highly suspected that a victim(s) are deceased and there is little or no chance of their successful rescue. The shift from rescue to recovery shall be made with careful consideration to the following factors;

- Last known time victim(s) were seen alive
- Known Location of victim(s)
- Water conditions
- Temperature of water (victims will survive longer in cold water)
- Available resources
- Risk to rescuers

In recovery mode, rescuers will work to manage risk carefully, while still seeking to locate and recover the victim(s). If water conditions are hostile, and the above considerations lead the IC to deem it is likely the victim(s) have perished, they may elect to switch the operational strategy into recovery mode. In recovery mode, it will sometimes be necessary to summon advanced level resources such as dive teams to assist.

Incident Zones

In order to assure members operating are properly protected and equipped, the incident will be broken into work/hazard zones.

- The **Hot Zone** is defined as any area close enough to the water's edge, river bank or flooded area where the member will operate as part of the rescue plan or any member operating in support functions may slip, trip or fall into the water. Any Fire and/or EMS member within the Hot Zone will be REQUIRED to hold at minimum Swift Water Rescue Technician training. Additionally, any member in the Hot Zone will be required to wear at minimum at Class V (5) PFD. At no time will any form of turnout gear be allowed with the Hot Zone.
- The **Warm Zone** is defined as the area where members performing support tasks may be operating, such as preparing equipment for launch, securing rope systems, receiving victims etc. Any Fire and/or EMS member within the Warm Zone will be REQUIRED to hold at minimum Swift Water Rescue Operations training. Additionally, any member in the Warm Zone will be required to wear at minimum at Class III (3) PFD. At no time will any form of turnout gear be allowed with the Warm Zone.
- The **Cold Zone** is defined as the area away from any of the active incident rescue operations, where members are at NO RISK for becoming involved in rescue operations, slips trips or falls into or near the water. Any Fire and/or EMS member within the Cold Zone will be REQUIRED to hold at minimum water rescue awareness training. Members operating in the cold zone shall have PPE shall be appropriate for time of day, weather and traffic conditions.

Rescue Plan

Incident commanders must develop and implement a series of progressive plans which take into account least to greatest risk given the circumstances. The standard rescue approach of Reach, Throw, Row, Go, Helo (Air Support) should be a basis of decision making. It is understood that each situation will present unique challenges, which the IC must account for these. Some of the most critical consideration should be;

- Number of known or suspected victims and their locations
- Current
- Depth
- Hazards including strainers, depth changes, storm water drains, dams, drop, offs, overhead obstructions including utility wires, etc.
- Hazardous materials (contaminated water)
- Immediate and future weather that may affect conditions or operations.

Night Operations

Operations during hours of darkness will present challenges to the safety and efficiency of the rescue effort. During incidences of night operations, the following considerations must be taken into account;

- Operation of boats or vehicles in/on the water shall be conducted with greater care due to the lower visibility
- All personnel shall have illumination devices (cyalume sticks or colored LED marker lights) attached to their PPE at shoulder level or higher
- Boats shall have navigation lights or properly colored cyalume sticks marking the sides and stern
- All members operating in or on the water shall be equipped with waterproof headlamps mounted to helmets.
- Safety eyewear shall be worn by all members operating at night.

Safety/Backup

Strainers and Hazards

Water can disguise hazards known as strainers, which pose a serious threat to members. Strainers may include any submerged objects which could entangle members and risk their safety.

Topography changes under the water line may present hazards to slips, trips and falls as well as damage to boats, if they run aground. Members shall be aware of this at all times and anticipate such potential.

Open manholes and culverts pose a risk for death, should members be pulled into them. The use of guide poles to feel along roadways when walking is necessary, to avoid these hazards. Members shall also be aware of swirling water currents, indicating the presence of openings or culverts which will pose a serious threat to safety.

Downstream Backup

During incidents involving moving water, the IC must establish downstream backup rescue teams consisting of a minimum of Operations level members with throw rope bags and radios. In instances where water is wider or faster than these members can provide sufficient backup, an additional boat(s) shall be deployed downstream. Downstream backup team members may position along river banks, overpasses, or any vantage point where they may be able to retrieve a victim or rescuer who is swept into the current.

Jurisdictional Borders

When incidents occur along township borders, the IC shall summon mutual Aid or assign additional resources to the opposite shore and coordinate their deployment as needed.

Low Head Dams/Hydraulic Currents

Rescuers and boats shall not cross the boil line of a low head dam or hydraulic to

attempt a rescue operation unless executing a proper tethered boat operation

Contaminated Water

Members operating in the water shall be aware of potential contaminants including but not limited to bacteria, sewage and hazardous materials. As such, care should be taken to avoid contact with water to skin and proper decontamination and exposure forms shall be completed when the incident is complete.

Rescue Considerations

- Establishing the location of victim(s) is critical as early as possible
 - IC's must remember that victim survivability is greatly increased for submerged victims on cold water.
- Maintaining dialogue with victims is critical, and they must be instructed to remain calm and hold on until they can be reached
- Reaching and throwing devices shall be used when and where possible
- All rescuers SHALL be tethered to water rescue rated rope (floating polypropylene or similar) whenever working on or adjacent to the water/ice
- When and where possible, rescuers shall avoid getting in the water. Use of inflatable crafts such as the Rapid Deployment Craft (RDC) or ice rescue sleds are the preferred rescue method.
- Rescuers shall operate in teams of two when possible anytime they are on the ice
- Rescuers shall monitor conditions and be cautious of hazards

Communications

The Incident Commander will designate an operations talk group for each incident to communicate with units operating on the scene. Tac channels will only be used as a last resort, due to risk of line-of sight issues with effective communications.

The incident commander will maintain a talk group for Command, to maintain communications with Somerset County Communications and incoming resources

Personnel utilizing portable radios shall enclose them in provided waterproof carry cases, unless they are rated for submersion (APX series only).

A detailed size up will be given by the IC to include but not limited to:

- number of victims
- number of vehicles involved
- weather conditions
- water conditions
- best approach for responding fire and EMS apparatus.

The IC will notify the County with progress reports including but not limited to;

- When members enter the water
- When rescuers have made access to each victim
- When each victim is rescued
- When all units are out of the water and personnel are accounted for

The team leader (Officer) of each crew shall communicate the following information including but not limited to:

- When their crew is in or on the water
- Any obstacles or issues which will be detrimental to the rescue effort
- Best route of access to the victim(s) if able to be determined
- When the Victim(s) are located
- When the Victim(s) are removed
- If any emergency or issue should arise or if any member becomes unaccounted for

Weather Considerations

The IC and all members should be aware of current and expected weather conditions and must dress and prepare accordingly.

Boat Operations

When it is deemed necessary to deploy boats (marine units), the following guidelines shall be adhered to;

- A minimum crew of one trained operator and one technician is required at all times
- Deployment of boats shall be with care and understanding of the topography and potential hazards
- Boats shall be equipped with basic equipment including;
 - Spare PFDs for the anticipated victim(s)
 - A minimum of two throw rope bags
 - Handheld or mounted spot light for night operations
 - Spare prop and repair parts to change a broken prop
 - Handheld air pump
 - Anchor with 25' of line
 - 4 paddles
- Rescue boats operating in river currents should make every effort possible to approach victims from downstream, using motor power to control the speed and accuracy of approach
- One rescuer must act as a guide to direct the operator around or warn of any obstacles or dangers while the boat is under power
- When rescuing victims via boat, care must be used not to overload the boat. It may be necessary to limit occupancy to less than posted by the manufacturer in the boats based on river currents, to prevent the motor from being overwhelmed by the current.
- Victims shall not be secured to spine boards or other devices when on the water

Rescue Vehicles Entering Water

The practice of driving fire and or EMS apparatus directly into the water should be avoided at all costs. This can cause severe damage to the vehicle, and directly puts non swift water rescue technician trained personnel in harm. In the event that an apparatus must be driven into the water EXTREME care and caution must be taken. If the driver or Officer of any fire district apparatus cannot tell the depth of the water, if the water is moving, or if the vehicle is not equipped with a deep water kit, that vehicle shall not enter the water. All encounters with standing water on roadways shall be evaluated by the driver and Officer as well as Incident Command on a case by case basis.

This practice is clearly addressed in detail in GOG 5B - Water Rescue Response-Active Storm Mode

Ice Specific Rescue Operations

Rescues on ice or in ice water shall be conducted with the same considerations in mind as routine water rescues with the addition of the following considerations;

PPE

Members operating on or in ice water shall be wearing proper PPE including;

- Ice rescue immersion suits, which provide proper insulation and buoyancy
 - Dry suits without proper undergarments/insulation are not appropriate attire, and shall be used only as a last resort in calm water
 - Ice rescue (immersion) suits shall NOT be worn in moving water at any time. Dry suits with proper insulation layers are the preferred PPE for these cases.
- Non-slip shoes or cleats for members working on-ice
- Minimum Type III PFD for all member operating near ice and NOT in an immersion suit
- Proper clothing for weather conditions

Demobilization

At the conclusion of the incident, equipment and members will be properly decontaminated and returned to service. Exposure reports shall be complete if members operated in any potentially contaminated conditions. All logs and documentation shall be attached to the NFIRS report