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PURPOSE

This procedure will define the unique requirements for firefighter safety to be employed during offshore fires.

POLICY

Fire suppression operations offshore and in open water provide unique safety challenges for the fire crews that work within them. Limited egress, the inherent instability of operating from watercraft, and rapid deterioration of the structural integrity of boats and marine structures create an unusual danger to the firefighters working in and around these areas.

This procedure will be implemented by Command on:

- All Working Offensive Offshore Fire Operations
- All Extended Defensive Offshore Fire Operations
- All working Marina Fires
- All Offshore Fires involving Extensive or Complicated Rescue Operations
- All Open Water Operations in which Firefighters are Operating in an IDLH Environment
- Any time firefighter safety is severely compromised

PERSONAL SAFETY:

Personal Floatation Device Use: Members are expected to be familiar with their own swimming abilities and take appropriate individual precautions as needed when operating near water. Any member engaged in emergency operations in immediate proximity to water >4' deep, as well as all personnel operating on or from watercraft, shall wear a USCG approved type III (or better) foam personal floatation device (PFD) at all times. Exceptions to this rule are:

1. A USCG approved inflatable PFD is allowed only during routine operations if it is equipped with an automatic inflation device. An inflatable PFD MAY NOT BE USED any time personnel expect they may have to enter the water (to perform a rescue, treat a patient, as part of a RIC team, etc.), as inflatable devices will limit their mobility and their ability to work in the water.

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2. Personnel engaged in fire suppression operations while wearing full turn-out gear (with or without SCBA) are exempt from wearing a PFD only if they are trained in Accidental Water Immersion (AWI) for Firefighters.

3. Members engaged in routine activities on publicly accessible fixed off-shore platforms (marinas, docks, boat houses, etc...) are not required to wear a PFD if they are trained in Water Accident Management (WAM).

Thermal Protection: Personnel working in or around water must take appropriate thermal protection precautions prior to entering the water. Normal winter surface water temperatures (54 degrees) can incapacitate a non-protected swimmer in less than 10 minutes. No member will enter the water without an appropriate full thermal protection suit (wet suit, dry suit, etc.) for the conditions and the proper training in its use.

Communications: Personnel operating from or on watercraft will maintain radio communications on their assigned tactical channel at all times. If unable to do so due to terrain or geographical interference, alternate communications methods should be used as available (VHF Marine, cell phones, satellite phones, etc.). No member shall enter the water to perform a rescue unless at least one other member is available to monitor the operation and maintain communications.

RAPID INTERVENTION CREW (RIC):

The objective of any RIC team is to have a fully equipped back-up crew on-site, ready to immediately react and respond to rescue injured or endangered firefighters and civilians. The unique circumstances surrounding offshore fire operations dictate that specific steps be taken by Command in the assignment of RIC teams to ensure proper mitigation of the additional safety hazards.

On all incidents that meet the above criteria, command will assign at least one full company as a *dedicated* RIC unit (additional to any “On-Deck” units and sectors). That unit will become “Rescue Sector”. If applicable, Command will also secure a boat and operator for this crew to operate from. Whenever possible, non-suppression watercraft will be used for this purpose, leaving fire watercraft available for suppression and rescue activities. Watercraft and operators may be acquired from allied agencies, such as the Marinas, County Park Employees, or MCSO. Privately owned watercraft should

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only be used as a last resort and only if the operator is known, reliable, and not impaired.

The Company Officer of the assigned RIC unit is responsible to ensure that the crew assembles at the designated rendezvous point (if meeting a boat) with the following equipment:

- Full Fire Personal Protective Equipment, including SCBAs
- All water rescue equipment, including PFDs, helmets, and Throw Bags
- Portable Radios, One six foot pike pole and one pickhead axe
- At least one RIC Bag and One thermal imaging camera
- At least one Dry Chemical Portable extinguisher
- Any other equipment deemed necessary by the expected conditions

The crews will then shuttle to the assigned location and notify Command when in place. Upon placement, the Company Officer of each RIC team will evaluate the situation and report to command if additional resources are necessary to provide proper safety support.

It is the responsibility of the Company Officer to assess the situation, and prepare the crew for rapid deployment in one of three deployment modes:

- Fire Rescue Mode: RIC personnel will don full PPE and SCBAs and assume a ready state to make a fire entry. *Command should give assignment priority to companies that have been AWI trained whenever possible.*
- Water Rescue Mode: RIC personnel will don a PFD and Helmet, and assume a ready state to enter the water and perform a water rescue. *Command should give assignment priority to companies that have been WAM trained whenever possible.*
- Combination Rescue Mode: At least two members will don fire rescue PPE, and at least two will don water rescue PPE. Generally this only a temporary deployment until a second full crew can be assigned to assume one of these roles.

Multiple RIC Teams: On large-scale incidents command may designate separate RIC crews for independent functions. This may include separate RIC teams for operation in the *Fire Rescue Mode* and *Water Rescue Mode*.

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In addition, multiple RIC teams may be placed in key geographic areas (such as when operations are conducted on multiple docks or on docks and in open water). Whenever possible individual RIC teams will be assigned to an existing sector to improve accountability and reduce the span of control.

For large vessel fires in open water command should consider RIC teams for both sides (port and starboard) of the vessel. These teams will remain off the burning vessel in other watercraft and may be prepared for operation in the *Water Rescue Mode*, *Fire Rescue Mode*, or both. This will ensure a rapid response to a MAYDAY or Man Overboard situation.

It is key for command to assign appropriate geographical RIC team designations when assigning multiple RIC teams. This will enable quick assignment of the closest most appropriate team under the stress of a MAYDAY situation. This might include directional sector assignment (i.e.; “West Rescue Sector”), or location assignment (i.e.; “Dock 5 Rescue Sector”, “Port-side Rescue Sector, etc.).

DIVE RIC TEAMS:

In large scale or extended offshore operations, command should consider the placement of RIC divers. RIC divers should operate from non-suppression watercraft and will have the designation of “Dive Rescue Sector”.

It is the function of the rescue divers to provide immediate intervention for lost or trapped firefighters, *when surface access is not possible*. This might include firefighters trapped on a sinking vessel, who have fallen through an unstable dock, or who have fallen overboard and were unable to maintain buoyancy. Divers can access lost firefighters by swimming under a dock or vessel, providing emergency air to the victim, and assisting them with egress.

Rescue divers *must* be appropriately trained and equipped to perform this function. This role may be assigned to fire or law enforcement personnel only. During expected campaign duration fires, dive teams should be considered early from Tempe Fire Department or MCSO. Communications between the dive team and Command must be maintained at all times, so when utilizing law enforcement divers a fire department liaison/sector officer should be assigned to them by Command.

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MAYDAY PROCEDURE:

Firefighters who become lost, trapped, or injured related to fire suppression activities should use the existing Mayday procedures in accordance with SOP 202.03A. However, accidental immersion into the water is a very real and present danger for anyone working on the fire ground during an offshore incident. Firefighters wear approximately 70 pounds of personal protective equipment, which gain another 40-60lbs when wet. While a properly trained person *can* use their equipment to float, there are other factors that might cause them to sink. These include panic, disorientation, loss of consciousness, equipment failure, or a lack of training. *The rapid detection and assistance of an immersed firefighter before they submerge is vital for the overall survival potential.* Because of this, separate and specialized radio communications and rescue procedures are necessary.

FIREFIGHTER IMMERSION:

The radio message “**Mayday, Mayday, Mayday. Man overboard...**” will be used to report any firefighter who falls *into* the water. This message can be initiated by the involved firefighter or by any witness. The term “man overboard” (MOB) is the standard nautical term to indicate an emergency water immersion, and is universally understood. Using this radio call will immediately differentiate the situation from a fire related emergency.

Upon declaration of “Mayday, Man overboard”, Command will:

1. Immediately request emergency traffic tones from the alarm room and advise the reporting party to go ahead with the mayday traffic.
2. Once the radio channel is cleared, a follow-up report should provide command with the following information:
 - Exact location of the victim
 - The number and identities of the victim(s), if known
 - If the victim(s) is floating or has submerged
 - Any resources known to be needed to affect a rescue
3. Based on the information provided by the reporting party, Command will initiate the emergency action plan outlined below.

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EMERGENCY ACTION PLAN:

Upon receiving a radio “man overboard” mayday call, Command should immediately implement an emergency action plan based on the information provided by the reporting party. While this situation is a high priority rescue condition, it may vary from structure fire mayday situations in that fewer resources are usually required to mitigate the situation. This is especially true if a RIC team is already in place. However, specialized rescue equipment may be necessary for a successful rescue outcome.

Command should, with the information and assistance provided by personnel at the scene of the Mayday, institute any or all of the following procedures:

- **Reassign nearby crews:** The quickest and best chance for a fast rescue lies in the rapid redeployment of personnel operating near the victim(s). Pike poles, axes, and rescue ropes can be used to rescue or stabilize a victim until help arrives.
- **Deploy RIC Teams:** Deploy existing RIC teams, using the closest teams first.
- **Establish a “Rescue Sector”.** Commit the RIC teams to perform rescue duties through a coordinated “Rescue Sector”. A Chief Officer should be assigned as the sector officer. If RIC teams have not yet been placed, Command will assign this function to other companies. Command should assign the minimal amount of companies necessary to accomplish the rescue tasks, to minimize the effects on fire suppression activities. At least one company should be assigned from staging to respond with water rescue equipment, in accordance with *RIC Team Procedures* above.
- **Divers:** Deploy RIC divers if available and appropriate.
- **Resources:** If necessary, request additional resources, usually through a greater alarm assignment request. Rescue operations may require a heavy resource commitment. Due to the isolated region the lake resides within, additional resources will have an extended response time. Command should take a pessimistic approach when evaluating the need for additional resources.
- **Logistics:** The acquisition of specialized equipment may be necessary to affect a rescue. This might include water rescue gear, dive equipment, forcible entry tools, extrication tools, lighting, medical equipment, or other specialized tools. The need for this equipment should be communicated early from the Rescue Sector to Command.
- **Treatment:** Command must ensure that adequate medical personnel are

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dispatched to treat the victims, including transportation to an appropriate hospital. The use of medical helicopters should be considered for any seriously injured victim (due to the remoteness of the lake), and Command should at least place a medical helicopter on “stand-by” early in the rescue effort.

- **Utilize outside agency support.** If the victims cannot be successfully rescued immediately, command should consider support by outside agencies. This might include MCSO, County Park personnel, or Marina employees. They can provide watercraft, divers, marina construction information, and other support. Due to communications and logistical differences between these various agencies, early coordination with liaison officers from each agency is imperative. This should be addressed by Command early in the incident, and prior to the need for their emergency deployment.
- **Support Activities:** Command must address related support activities. This includes media/information management, member support (debriefing), and family support & notification.

Command should anticipate additional mayday situations from rescue related activities, as is often the case. The maintenance of fire suppression activities must be addressed. Command must balance the resource commitment between the active fire suppression activities and the rescue efforts. By not providing adequate support to either operation, the victims are further endangered - as are the rescuers. The situation may dictate that fire control activities be fortified to limit fire spread and protect the rescue operation.

INDIVIDUAL RESPONSIBILITIES:

Any person(s) who witness a firefighter immersion should perform the following steps to the best of their ability:

- Immediately initiate a “Mayday, Man Overboard” radio call. If not equipped with a radio, find someone who is. Provide Command with the necessary information as outlined above.
- Talk to the victim(s); keep them calm and attempt to have them float on their backs until help arrives. You may be able to talk them through the self-rescue steps. Victims may be directed to dock edges or floating objects unseen to them to buy time for rescue personnel to arrive. NEVER take your eyes off the victim, as it may be difficult to locate them again, especially if they submerge.
- Use any available tools to reach out to the victim(s), and pull them to safety if

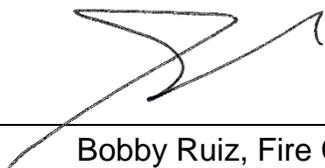
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possible. This might include a pike poles, fire hose, electrical cords (unplugged), and rope available from nearby boats or your personal lifeline.

- Throw a PFD, throw ring, or other floatable object to them. SCBAs are positively buoyant. If they are wearing an SCBA, it should not be removed. If they are not wearing an SCBA, an SCBA bottle can be dropped into the water and pushed toward the victim(s). Do not throw an SCBA bottle or pack directly at the victim, as serious injury may occur. Have the victim(s) grasp any buoyant device close to their chest.
- Fires usually draw a crowd of on-lookers. Look around. There may be someone nearby or in a boat, who can offer assistance.
- DO NOT enter the water to attempt a rescue unless trained and equipped to do so (including wearing a PFD).
- If the victim(s) submerge, use landmarks to accurately identify their “point last seen” (PLS). This information is vital if dive rescue operations are initiated.
- Stay with the victim(s) if possible, to direct rescue personnel.

It is important that fire personnel NOT become secondary victims while attempting a rescue. Additionally, company and sector officers should maintain control to ensure that fire suppression activities are minimally affected, personnel accountability is maintained, and communications with Command is continued.

Once all victims have been successfully rescued, and all fire personnel are accounted for, the Rescue Sector officer will notify Command that they have obtained an “all clear” and a “PAR”.

Approved:  _____ 06/07/2018
Bobby Ruiz, Fire Chief Date