

# KYEM Dive Team Committee



March, 2016

# Executive Summary

## 1. Mission Statement

Provide a platform through standards, training, education and funding to those rescue squads who utilize divers as a part of water rescue so they can

1. Safely complete their mission
2. Efficiently complete their mission
3. Provide a value added service

## 2. Objectives

- a. Ensure that all Dive Teams are trained to best practices related to public safety diving while not interfering or being restrictive in individual training vendor choice.
- b. Explore the establishment of minimum standards for public safety diving, i.e. NFPA/OSHA compliance, physical ability and medical surveillance
- c. Ensure that any funding awarded supports qualified, adequately trained teams through validation and documentation.
- d. Revise minimum equipment list (grant program) that includes best practices, and current technology reflecting industry changes.

## 3. Committee Selection/Demographics

- a. Selection of voting members
  - i. maximum of 10 plus chair
    - Chair – Gregg M. Bayer
    - Vice Chair – Les Whalen
  - ii. no more than two voting members from same team
- Volunteers were solicited for voting members of the sub committee in accordance with the guidance given
  1. Mark Isaacs
  2. Mark Jump
  3. Chris Taylor
  4. Tony Brown
  5. Dale Apple
  6. Jim Hampton
  7. Gary Luce
  8. Donald Sexton
  9. David Shepherd
  10. William Whobrey

- b. Diverse representation was solicited from all geographical regions
- c. Work Groups Established
  - 1. Training workgroup
  - 2. Equipment workgroup
  - 3. Compliance/standards workgroup

## 4. Meetings

- a. Date/Location
  - 1. May 7<sup>th</sup>, 2015 – Lexington
  - 2. June 11<sup>th</sup>, 2015 – Elizabethtown
  - 3. August 28<sup>th</sup>, 2015 – Williamstown
  - 4. October 13<sup>th</sup>, 2015 – Campbellsville
  - 5. December 8<sup>th</sup>, 2015 – Frankfort
  - 6. February 27<sup>th</sup>, 2016 – Owensboro
- b. Times
  - 1. Meeting times were adjusted to fit the needs of the majority, inclusive of evenings
- c. Attendance
  - 1. May – 15pax, 10 voting
  - 2. June – 5 pax, 3 voting
  - 3. August – 12 pax, 6 voting
  - 4. October – 6 pax, 4 voting
  - 5. December – 6 pax, 4 voting
  - 6. February – 3 pax, 3 voting

## 5. Dive Team Structure

- a. KYEM SAR Dive Team Committee Proposal

### Slide 2

#### Team Organization

- 1. Tiered Response Capability
- 2. Forward Progression
- 3. Integrates Equipment with Training Capabilities
- 4. Lends itself to MRP/Capability Typing

### Slide 3

#### Individual Diver Training Matrix

- 1. Promotes training through an accredited agency
  - Potentially opens door to utilize a portion of funding for training. I.e. 50% equipment/50% training OR demonstration of achievement prior to equipment purchase in which 100% funds goes toward equipment.
- 2. Promotes vendor choice
- 3. Promotes the grant process and increase capability
- 4. Limits risk by expanding education
- 5. Complies with HSPD5 – NIMS compliance

Slide 4

Recommended Diver Training

1. Spectrum of courses identified as value added toward the progression of dive teams (expands on Slide 3 #1)

Slide 5

Diver/Team **Minimum** Equipment

1. Based on the ENTRY level dive team
2. Allows options for expansion into the more advanced levels
3. Research based on public safety dive practices

\*\* Please see spread sheet in your handout\*\*

Slide 6

Dive Team References

1. Consensus Standards in place
2. OSHA standards in place

Slide 7

Dive Team Requirements

1. Compliance with existing KRS/KAR

## 6. Challenges

- a. Risk vs. Benefit – Are PSDT sustainable in a volunteer rescue squad environment?
  - i. Public Safety Dive Teams require hours of training
  - ii. Public Safety Dive Teams require tremendous monetary support
- b. Liability
  - i. WC – KYEM
  - ii. Required equipment maintenance – OSHA Standards
- c. Medical Clearance
  - i. Diver physical
  - ii. Physical assessment – fit for diving (IADRS watermanship test)

## 7. Triumphs

- a. Framework set for a volunteer rescue squad to start with little capability and progress to full capability.
- b. Allows flexibility within the grant process recognizing advanced capability
- c. Correlates training, education, equipment to a structured operational capability.
- d. Recognizes consensus and compliance standards limiting risk and liability
- e. Achieves the committees Mission Statement and Objectives

# KYEM Dive Team Committee Overview of Accomplishments



## UNDERWATER RESCUE/RECOVERY TEAM ORGANIZATION

**\*Level 1-** Dragging operations (Non-Diver)  
Recommended Side Scan Sonar Operations

**Level 2-** Basic "Open Water" SCUBA Certification  
Basic Gear  
Tethered diver  
Line signals, (Non-verbal communication)  
Basic search and recovery techniques

**Level 3-** (Meeting Level 2 requirements)  
Full Face Mask (certification)  
Drysuit (certification)  
Verbal Communications between diver and surface and backup line communication  
Public Safety Diver Certification  
Independent back-up air supply

\*A team concept consist of a minimum of 3 qualified and trained divers while recommending initial and annual fit for diving medical evaluations or equivalent, based on your national curriculum.

\*You do not have to be Level 1 to advance to next levels. Dive operations start at level 2. Levels 2-5 are progressive.

**Level 4-** (Meeting level 3 requirements)  
Surface Supplied Air and/or Redundant Air Supply (certification)  
Advanced training inclusive to but not limited to:

I.E.:  
Deep Dive  
Mixed Gas  
Hard Hat  
Advanced public safety diving course  
Evidence Collection  
Boat based operations

**Level 5-** (Meeting Level 4 requirements)  
Hazardous Materials/Environmental Operations  
Fully Encapsulated HAZMAT Drysuit  
Advanced training inclusive to but not limited to:  
I.E.:  
Vehicle Recovery  
Cold water/ice operations

\*Level 1 and 2 are not recommended for public safety dive operations. This should be viewed as a stepping stone for level 3 or greater dive teams.

# INDIVIDUAL DIVER TRAINING

## Matrix

Basic Open Water Dive Certification (nationally recognized organizations or equivalents)

Public Safety Diver Certification (nationally recognized organizations or equivalents)

Specialty Certifications (if you have specialized equipment)

Dry suit

Full Face Mask

Supplied Air Systems

Medical Training

Maintain Basic Life Support CPR or Higher (*example First Responder, EMT, EMT-P*)

National Incident Management System

NIMS 100, 200, 700 and 800

# RECOMMENDED DIVER TRAINING

Swift water Awareness

Hazardous Materials Awareness

Drowning reconstruction

Witness Interviewing

Dive Tender

Dive Supervisor

Boat Operator

Disentanglement procedures

Out of air emergencies (buddy breathing, alternate air sources)

Search tactics

Entry/exit procedures

Rapid boat retrieval

Decontamination

Electronic Equipment (if your team has advanced equipment training must be obtained)

Side scan sonar

Sector sonar

Remote Operated Vehicles

Blue view sonar

Diving in Contaminated Water

Diving in Current

Lifting

Vehicle recovery

Evidence collection

Homeland Security

Hazmat Dive Operations

## DIVER/TEAM MINIMUM EQUIPMENT

| AIR SUPPLY<br>Per Team   | THERMAL<br>PROTECTION Per<br>Diver   | ACCESSORIES<br>Per Diver   | Team Equipment   |
|--|--|--|--|
| 3-Regulator, Octopus,<br>SPG w/compass<br>OR<br>3-Full Face Mask with<br>Backup Regulator,<br>SPG w/ compass<br>OR<br>Surface Supplied Air<br>System | Wetsuit, Booties, Hood,<br>Gloves<br>OR<br>Dive Dry suit, Hood,<br>Gloves, Thermal Liner | <ul style="list-style-type: none"> <li>• Knife Dive</li> <li>• Dive Chest Harness</li> <li>• Trauma Sheers and Blunt Tip</li> <li>• Weighted Belt/integrated weight system in BC</li> <li>• Diving Fins</li> <li>• Spare Mask</li> </ul> | <ul style="list-style-type: none"> <li>• Dive Flags</li> <li>• Surface buoys</li> <li>• Flashlights-waterproof</li> <li>• PFD's</li> <li>• Tending dive ropes-2</li> <li>• Rescue Throw bags</li> <li>• First aid kit with O2 and AED</li> </ul> |
| 3-Buoyancy Compensators  |  |  |  |
| 6-80 cuft tank   |  |  |  |
| 3-Independent Back Up Air Source min 30cuft Tank   |  |  |  |

## Dive Team References

**Authority Having Jurisdiction (AHJ) should develop team SOG/SOP's to include, but not be limited to, the below stated standards/best practices for their specific disciplines.**

- OSHA 1910 Subpart T
- NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents
- NFPA 1006 Standard for Technical Rescuer Professional Qualifications

## Dive Team Requirements

- A Specialized Rescue Squad in compliance shall comply with KRS 39F
- Compliancy shall be applicable with KAR's and KRS's in regards to Grant Processes and award expenditures

## KYEM Dive Team Committee Overview of Accomplishments

