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 7th, 2015 – Lexington
      2. June 11th, 2015 – Elizabethtown
      3. August 28th, 2015 – Williamstown
      4. October 13th, 2015 – Campbellsville
      5. December 8th, 2015 – Frankfort
      6. February 27th, 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 1 requirements)
Full Face Mask (certification)
Drysuit (certification)
Verbal Communications between diver and surface and backup line communications
Public Safety Diver Certification
Independent back-up air supply

*As team concept consist of a minimum of 3 qualified and trained drivers while recommending social and personal fit for diving, certifications 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 1. Levels 1-5 are progression.

Level 4 (Meeting Level 3 requirements)
Surface Supplied Air and/or Redundant Air Supply (certification)
Advanced training inclusive to but not limited to:
L.E.T.
Deep Dive
Mood Gas
Hard Hat
Advanced public safety diving course
Evidence Collection
Boat based operators

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

*Level 3 and 4 are not recommended for public safety dive operations. This should be viewed as a stepping stone for level 5 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

<table>
<thead>
<tr>
<th>Air Supply Per Team</th>
<th>Thermal Protection Per Diver</th>
<th>Accessories Per Diver</th>
<th>Team Equipment</th>
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<tbody>
<tr>
<td>3-Regulator, Octopus, SPG w/compass OR 3-Full Face Mask with Backup Regulator, SPG w/compass OR Surface Supplied Air System</td>
<td>Wetsuit, Booties, Hood, Gloves OR Dive Dry suit, Hood, Gloves, Thermal Liner</td>
<td>Knife Dive • Dive Chest Harness • Trauma Shears and Blunt Tip • Weighted Belt/integrated weight system in BC • Diving Fins • Spare Mask</td>
<td>Dive Flags • Surface buoys • Flashlights-waterproof • PFD’s • Tending dive ropes-• Rescue Throw bags • First aid kit with O2 and AED</td>
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<tr>
<td>3-Buoyancy Compensators</td>
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<tr>
<td>6-80 cuft tank</td>
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<tr>
<td>3-Independent Back Up Air Source min 30cuft Tank</td>
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### 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