


LORAIN COUNTY FIRE CHIEFS' ASSOCIATION

Standard Operating Guidelines

<p>Lorain County Dive Team Standard Operating Guidelines</p>	<p>SOG: 003 Effective Date: March 27, 2014 Supersedes: September 23, 2010</p> <p>Approved:  President, Lorain County Fire Chiefs' Association Inc.</p> <p>Page 1 of 16</p>
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1. PURPOSE

This dive team was established to fulfill a growing need for a professional search and recovery dive team to cover the increasing amount of water exposure on a reciprocation mutual aid basis, within Lorain County and its jurisdiction.

This dive team will provide properly trained Public Safety Divers for the specific purpose of underwater search and rescue or body recovery of drowning victims. The dive team will also, on a limited basis, conduct underwater investigations when requested by the appropriate law enforcement agency with jurisdiction. In addition, the dive team may perform other water related services when specifically requested with the approval of the chief of the department whose jurisdiction the request is being made by, and the approval of the diving operations supervisor.

2. DIVISIONS AFFECTED

All Lorain County Fire Department personnel and emergency personnel

3. RESPONSIBILITY

All officers are responsible to comply with and ensure that personnel under their command are adequately trained, fully understand, and comply with this guideline.

All members have the responsibility to learn and follow this guideline.

4. TEAM POLICIES

4.1 Emergency Aid

- A. Each department shall develop and maintain a list of available resources of emergency

aid, equipment, and professional assistance with their radio call signs, phone numbers, and instructions for contacting them.

B. The list shall include information necessary for the requisition of or access to, the following types of emergency aid:

- Decompression Chamber
- Hospital or medical treatment facility
- Air or ground transportation
- On call physician (Med Control)
- U.S. Coast Guard Rescue Coordination Centers
- Heavy wrecker service or Mobil Cranes
- Local Commercial Diving services
- LC EMA MOBILE COMMAND POST

4.2 Personnel

On scene utilization of personnel for diving will be limited to dive team members only, regardless of scuba experience. Utilization of personnel for tending or other tasks directly related to diving will be limited to trained tenders or dive team members only.

5. TEAM MEMBER CLASSIFICATIONS

5.1 Tender

- A. This classification indicates that the individual has basic knowledge of diving theories, equipment, underwater physiology, under-water physics, and has been departmentally trained specifically for tending diver and dive teams needs including but not limited to:
- a. Line signals
 - b. Search patterns
 - c. Set up and operation of diver communication equipment
 - d. Emergency situations recognition and operations

5.2 Non-Rescue Diver

- A. This classification indicates that the diver holds at least an advanced open water certification from a certifying agency and has good basic skills and knowledge. This also indicates that the diver has had an orientation into public service, team policies and protocols, and local job-related hazards to the extent that he/she can participate in team activities.
- B. Non-rescue divers should be utilized as line tenders, or support personnel and are not permitted to be used as rescue divers. (i.e. solo tether line search patterns or solo diving)
- C. Non-rescue divers may be permitted to train/dive at County Dive Team training dives in a controlled environment, under the dive team supervisor in roles such as solo tether search patterns and solo diving to gain experience in team operations.

5.3 Rescue diver

This classification indicates that the diver holds at least an advanced certification, and holds PSD or ERDI certification from a certifying agency and is adequately proficient at tasks related to diving and is qualified to do most jobs on the team.

5.4 Diving Supervisor

- A. Diving supervisors must have received formal dive rescue training and must be knowledgeable, accomplished divers proficient at tasks related to diving and maintaining supervisory control over dive team operations.
- B. Diving supervisors are qualified to fill any position on a scene; however, they should be utilized as the dive team leader and placed in charge of diving operations.
- C. In the absence of a dive supervisor, a senior diver can fill this position until relieved by a qualified dive supervisor.

6. TRAINING

- A. There will be one (1) January business meeting every year for organizational review, academic training, and scheduling of four (4) annual county dives. The host department for the next meeting will be determined at the January meeting.
- B. There will be four (4) actual dive training sessions per year, with the dates, times, intended training topics for said dates, and host department for each dive training session to be determined at the January business meeting. The host department will provide a location within their municipality that is a potential exposure, and will be responsible for the training scenario.
- C. Each team member is required to attend at least two (2) actual dive training sessions per year – (no dive training credit will be granted for the January business meeting).

6.1. Training for Tender

- A. Shall maintain current CPR certification.
- B. Prior to appointment he/she shall have basic knowledge of diving theories, equipment, under-water physiology, under-water physics, and have been departmentally trained for tending diver.
- C. Before an individual will be allowed to participate as a tender on a call, he/she must have been oriented into dive team operations and techniques and expectations of said role by the dive supervisor and have participated in at least one (1) county training session.

6.2 Training for Non-Rescue & Rescue Divers

- A. All divers shall be required to take and pass the NFPA/IADRS Watermanship Test annually, and provide said documentation to the team to keep on file.
- B. Shall maintain current CPR certification.
- C. Prior to appointment he/she will have completed an advanced open water course from a certifying agency.

- D. Before an individual will be allowed to participate as a diver on a call, he/she must have been oriented into dive team operations and techniques and expectations of said role by the dive supervisor and have participated in at least one (1) county training session.
- E. Each team member is required to log at least eight (8) dives per two (2) year cycle.

7. EQUIPMENT

- Dry Suit – Compatible for use with environmental hazards of water(s) to be entered.
- Full Face Mask with communication compatibility to interface with county team communication system.
- Spare/Back-up Scuba Mask
- Fins
- Tank – (minimum of 60 cubic foot air capacity)
- Redundant air tank (minimum of 19 cubic foot air capacity)
- Contingency tank with regulator and pressure gauge
- BCD (buoyancy control device)
- Pressure gauge / depth gauge
- Two (2) cutting devices
- Safety harness with tether line attachment point

8. SAFETY

8.1 Safety Guidelines

- A. All dive team members are expected to exercise prudent care and safe practices during all training and on all emergency scenes. This not only includes in or around the water of a scene, but en route to a scene, while donning gear or preparing to dive, and after the on scene mission is complete.
- B. The ultimate responsibility for safety rests with the individual, whether diver or tender. It is the diver's responsibility and privilege to refuse to dive if, in his or her judgment, conditions are, unfavorable, unsafe, or beyond their level of training, or if he /she would violate the dictates of their training or any regulations, SOP's, or other dictates of their department and/or dive team without reasonable justification. No diver shall ever be forced or coerced to dive, or be penalized for refusing to dive when he/she elects to.
- C. It is the responsibility of all divers and tenders to maintain familiarization with dive team equipment and be aware of its location at the dive scene.
- D. Divers shall perform a basic inspection of their equipment prior to each dive. VIP and hydro shall be current.
- E. Equipment deficiencies may demand the cancellation, termination, or postponement of diving operations.
- F. At any incident where leakage of unknown chemicals is entering the water from various vehicle(s), the divers shall conduct an evaluation, and after conferring with the officer in charge on the scene determine whether or not to dive. Should the decision be made in favor of diving, a water sample must be taken for future reference.
- G. In general at any scene, whether training or on an actual incident, all members are expected to either be suited up in dive gear or be wearing a PFD when operating within

twenty five (25) feet of the water.

- H. Any member in any capacity, when suffering from or recovering from an injury or illness, which does not allow the individual to attend their normal profession, and/or limits their function at their normal profession, and/or the individual is aware of any condition which inhibits their normal functioning, and/or poses a hazard to himself/herself or others, that the individual shall not participate as a dive team member until cleared by a physician.

8.2 EMS SQUAD

- A. No diver shall enter the water until there is a medic squad on scene. The medic squad shall be dedicated for dive team use only. If there is a second squad needed for a patient(s) care then a second medic squad should be dispatched to the scene.
- B. If the medic squad is called away from the scene, diving operations shall cease until another medic squad is on scene. However, diving operations may continue provided qualified EMS personnel with appropriate equipment are on scene and are dedicated to the safety of the divers/team.
- C. Any diver that develops a medical problem during a dive will report to the medic squad crew for a medical examination and vital signs check.

8.3 DIVER DEPTH LIMITS

- A. Non-Rescue divers shall not conduct training dive operations below 60 feet in depth.
- B. Rescue divers shall not conduct dive operations below 100 feet in depth.

8.4 SAFETY DIVER

- A. The safety diver shall have a contingency bottle with regulator and pressure gauge for use in dive contingency emergency operations.

8.5 STAND-BY DIVER

- A. The stand-by diver shall maintain a ninety (90%) percent ready-to-go availability.

8.6 DIVER EMERGENCY

- A. In the event of a diver emergency, for any reason search and rescue operations shall cease.
- B. Once the diver(s) are out of the water, IC and diver supervisor will conduct a review of dive operations.
Any diver injuries and/or death arising from the activities of the dive team including training, search and rescue, body recovery, or other water related services that have the approval of the Fire Chief's Association, will be considered "on duty" and individuals will be entitled to all benefits.

9. DIVE TEAM REQUESTS

- 9.1 The Lorain County Dive Team will be requested by contacting 9-1-1 / Dispatch by radio

or by phone. MABAS Box # 2830

- 9.2 The Incident Commander should notify the dispatcher of the Dive Team request and should provide the following instructions:
- Name of department requesting aid.
 - Radio frequency/channel to be used and/or tactical channel for the dive team.
 - The location of the incident staging area.
 - The type of incident. i.e. a car in the water, a missing swimmer, or overturned boat - unknown occupants.

10. OPERATIONS

10.1 Scene responsibility

- A. Diving operations is a section of the incident command system (ICS). The fire chief or his authorized representative shall be in charge at the scene of a fire or other emergency involving protection of life and/or property, and shall remain in charge until authority is relinquished. Typically the first person arriving on the scene will assume incident command and that individual will be relieved working up through the chain of command as if on any other fire incident.
- B. The first arriving dive team member, whether diver or tender, assumes command of the diving operations sector supervisor. The diving operations sector supervisor may be relieved when the transition can occur safely and smoothly. Ultimately, protocol prefers that a diving supervisor fill this position.
- C. Diving operations sector supervisor responsibilities:
- Directly supervises and is responsible for any dive team operations, including and IAP. (Incident Action Plan)
 - Remains out of the water and in contact with all members and the incident commander as needed.
 - Assigns all dive team personnel responsibilities as necessitated by the operation and the equipment available.
 - Assists in establishing and evaluates the last seen point before any dive operation is initiated.
 - Gathers information from the incident commander and/or the requesting agency.
 - Conducts a scene evaluation.
 - Makes a risk versus benefit assessment using all available information and makes the decision on whether or not to dive.
 - Should diving operations be performed, the diving operations supervisor will remain abreast of all elements of operation, in particular the conduct and safety of the divers.
 - Should evidence and/or a victim/patient be located, the dive operations supervisor will coordinate the extraction with the incident commander.
 - The diving operations supervisor shall have the authority to cancel, terminate, or postpone any diving operations anytime as he/she deems necessary.

- D. Non-Diver and Rescue-Diver responsibilities
 - It is the responsibility of all divers to indicate upon arrival as to whether or not they are fit for duty and able to dive.
 - Every diver must inspect their equipment before every dive.
 - Every diver must remain current on training and be familiar with search patterns, diving techniques, and dive team protocols.
- E. Tender responsibilities
 - Every tender must be familiar with diving equipment, theories, tending procedures, and dive team protocols.
 - On scene a tender must focus their attention on the diver. No unnecessary conversations should be held. Anything that takes attention from the diver should be reported to the diving operations supervisor to rectify the matter.

10.2 Incoming personnel

- A. Incoming personnel are to report to staging and assume the duties of staging officer if position is vacant.
- B. Incoming divers or qualified tenders are to report to staging and present staging officer with proper identification.

10.3 Refusal to dive

Every diver has the right to and the responsibility to refuse to dive if in diverse judgment, condition are unfavorable, unsafe, or beyond their level of training. No diver shall be penalized for exercising this right.

10.4 Pre-dive

- A. Scene safety/safe scene assessment shall be made.
- B. There shall be a safe means for entering or leaving the water such as a ladder stage, or other appropriate device. Additionally, the means of entering and leaving the water shall be adequate to facilitate rescue personnel.
- C. Adequate personnel shall be on scene to facilitate safe dive operations.
- D. Line signals/communications shall be reviewed and agreed upon prior to dive operation starting.
- E. Development and review of an IAP, (Incident Action Plan), shall be made and presented/coordinated with the incident commander.

10.5 Rescue

The determination of whether the situation at hand is a rescue or recovery shall be left up to the on scene dive operations supervisor, dependent on Risk Verses Benefit analysis.

10.6 Body recovery

Body recoveries shall be handled with priority to dive team safety and the objective of

preserving any and all evidence relevant to Law Enforcement personnel having jurisdiction.

10.7 Termination of dive

The working interval of a dive shall be terminated when:

- Directed by the dive supervisor and/or the IC.
- The diver requests termination and or help.
- The diver fails to respond correctly to communications or signals from the diver's tender.
- Communications are lost and cannot be quickly reestablished between the diver, the tender, the diving supervisor, and in live boating operations, the person controlling the vessel.
- The diver begins to use the diver-carried redundant air source.

10.8 Post dive

After the completion of each dive the diver shall:

- Be evaluated as to his physical condition.
- If any physical problems or adverse physiological effects including symptoms of decompression sickness or gas embolism present, the diver shall follow up with a physician.
- A post incident review/debriefing will be performed.

10.9 Incident reporting

- A. Any incident including, but not limited to, injury, illness, disregard for safety, or altercations with bystanders shall be reported to the dive operations supervisor/incident commander.
- B. Dive Team Site log: Shall be utilized/filled out during every dive. (Appendices B.)
- C. Diver log: It is recommended that after the completion of diving, a personal log should be kept.
- D. Any damaged or lost equipment incurred during an incident, should be brought to the attention of the dive operations supervisor. (Damaged or lost equipment shall be dealt with in accordance with the recommendation of the Mutual Aid Committee and the Lorain County Fire Chiefs).

11. APPENDICES

- A. Sign In Log
- B. Dive Team Event Log
- C. Dive Team Site Log
- D. Neurological Exam
- E. Witness Interview
- F. Watermanship Test
- G. Sonar Equipment Sign Out Sheet
- H. Metal Detector Sign Out Sheet

APPENDIX A **Lorain County Dive Team Sign In Log**

DATE: _____

LOCATION: _____

NAME	DEPARTMENT

APPENDIX B

**LORAIN COUNTY
DIVE TEAM
EVENT LOG**

Date: _____

Page: _____

TIME	EVENT	INT.

LORAIN COUNTY DIVE TEAM SITE LOG

DATE: ____/____/____

TRAINING RESCUE/RECOVERY

LOCATION: _____

OBJECTIVE: _____

NAME	Pre-Dive				Post-Dive			
	TANK SIZE	TANK PSI	PLANNED DEPTH	TIME IN	TIME OUT	TOTAL TIME	TANK PSI	MAX DEPTH
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								

LORAIN COUNTY DIVE TEAM RAPID FIELD NEUROLOGICAL EXAM

DIVER'S NAME: _____ DATE: _____

EXAMINER: _____

TIME	YES	NO	YES	NO	YES	NO
1. MENTAL STATUS						
A. NAME						
B. PLACE						
C. SITUATION						
D. TIME						
E. IS SPEECH CLEAR						
2. VISION						
A. CLEAR						
B. NYSTAGMUS ABSENT						
3. FACIAL MOVEMENTS						
A. TEETH CLENCH OK						
B. ABLE TO WRINKLE FOREHEAD						
C. TONGUE MOVES IN ALL DIRECTIONS						
D. SMILE SYMMETRICAL						
4. HEAD/SHOULDER MOVEMENT						
A. ADAMS APPLE MOVES						
B. SHOULDER SHRUG EQUAL						
C. HEAD MOVEMENTS NORMAL						
5. HEARING						
A. NORMAL FOR THAT DIVER						
B. EQUAL BOTH EARS						
6. SENSATIONS						
A. HEAD						
B. CHEST						
C. ABDOMEN						
D. UPPER EXTREMITIES						
E. BACK						
F. LOWER EXTREMITIES						
7. MUSCLE TONE NORMAL SYMMETRICAL						
A. ARMS						
B. HAND GRIPS						
C. LEGS						
D. FEET						
8. BALANCE COORDINATION						
A. ROMBERG OK						
B. STEADY GAIT						
C. ALTERNATING HAND MOVEMENTS						
9. VITAL SIGNS OK						
COMMENTS:						

LORAIN COUNTY DIVE TEAM WITNESS FORM

WITNESS NAME: _____

WITNESS ADDRESS: _____

WITNESS PHONE: _____ OTHER: ____ (____) _____

INTERVIEWER: _____

INTERVIEW DATE: _____ TIME: _____

PROCEDURE:

1. If more than one witness, keep witnesses separated.
2. Take the witness back to their viewpoint of the incident.
3. Have the witness describe the distance and landmarks then mark the location.
4. Relay information to Dive Supervisor.
5. Dive Supervisor will position a swimmer in the water to establish a datum point.
6. Have witness describe:
 - a. Clothing or jewelry if noticed.
 - b. Race of individual and build if noticed.
 - c. Time last seen.
 - d. How many victims.
 - e. Any other facts that they feel are important.

NOTES:

APPENDIX F

I.A.D.R.S. ANNUAL WATERMANSHIP TEST

Evaluation Parameters

There are five exercises that evaluate stamina and comfort in the water, each rated by points. The diver must successfully complete all stations and score a minimum of 12 points to pass the test. The test should be completed with not more than 15 minutes between exercises. If the participant is unable to complete any portion of the "Watermanship Test" due to exercise intolerance, the participant should NOT re-test until evaluated and cleared by a physician. See Public Safety Diver Medical Guidelines for more information.

Exercise 1. 500 Yard Swim

The diver must swim 500 yards without stopping using a forward stroke and without using any swim aids such as a dive mask, fins, snorkel, or flotation device. Stopping or standing up in the shallow end of the pool at any point during this exercise will constitute a failure of this station.

<u>Time to Complete</u>	<u>Points Awarded</u>
Under 10 minutes	5
10-13 minutes	4
13-16 minutes	3
16-19 minutes	2
More than 19 minutes	1
Stopped or incomplete	Incomplete

Exercise 2. 15 Minute Tread

Using no swim aids and wearing only a swimsuit the diver will stay afloat by treading water, drown proofing, bobbing or floating for 15 minutes with hands only out of the water for the last 2 minutes.

Exercise 3. 800 Yard Snorkel Swim

Using a dive mask, fins, snorkel, and a swimsuit (no BCD or other flotation aid) and swimming the entire time with the face in the water, the diver must swim nonstop for 800 yards. The diver must not use arms to swim at any time.

<u>Performance Criteria</u>	<u>Points Awarded</u>
Under 15 minutes	5
15-17 minutes	4
17-19 minutes	3
19-21 minutes	2
More than 21 minutes	1
Stopped at any time	Incomplete

Exercise 4. 100 Yard Inert Rescue Tow

The swimmer must push or tow an inert victim wearing appropriate PPE on the surface 100 yards nonstop and without assistance.

<u>Performance Criteria</u>	<u>Points Awarded</u>
Under 2 minutes	5
2-3 minutes	4
3-4 minutes	3
4-5 minutes	2
More than 5 minutes	1
Stopped at any time	Incomplete

Exercise 5. Free Dive to a depth of nine feet and retrieve an object

<u>Performance Criteria</u>	<u>Points Awarded</u>
Performed satisfactorily	Pass
Stopped or incomplete	Incomplete

Lorain County Sonar Sign out Sheet

The Lorain County sonar can be signed out by any department that acquired factory training upon delivery. A complete inventory must be done prior to sign out and upon return of the sonar. Please initial each line item showing boxes were checked. **NOTE: It is the responsibility of the department that signed out the sonar to replace any parts that are missing or pay for the repair of damage that was cause while in their possession. Sign out/in checks: (first line needs initialed by receiving department second line needs initialed by hosting department upon return.**

Box #1 (computer/dongle key)

____ x ____ x Verified computer function and dongle key location

____ x ____ x Verified computer power supply cord

Box #2 (sonar and case)

____ x ____ x Verified sonar head & pins for communication cable are not damaged

____ x ____ x Verified 4 legs w/feet, 3 tripod legs, 1 cannonball, nuts, bolts, and 7/16 wrenches for assembly (10nuts/bolts and 2 wrenches)

Box #3 (main power supply)

____ x ____ x Verified main power unit

____ x ____ x Verified power strip, auxiliary communication cable, power unit, USB cable, software disc and operators manual

Box #4 (communication cable)

____ x ____ x Verified cable and ends are not broken or damaged

____ x ____ x Unit must be available for any county response 24 hours per day

Unit is being signed out by _____ Fire department

Sonar signed out on ____/____/____ will be returned on ____/____/____

Printed name of person signing out equipment _____

Signature of person signing out equipment _____

Signature of person inspecting equipment upon return to host department _____

Lorain County Metal Detector Sign out Sheet

The Lorain County metal detector can be signed out by any department. A complete inventory must be done prior to sign out and upon return of the metal detector. Please initial each line item showing items were checked. **NOTE: It is the responsibility of the department that signed out the metal detector to replace any parts that are missing or pay for the repair of damage that was cause while in their possession. Sign out/in checks: (first line needs initialed by receiving department second line needs initialed by hosting department upon return.**

The contents of the metal detector bag are as follows:

____ x ____ x Verified metal detector unit function

____ x ____ x Verified small search coil present

____ x ____ x Verified large search coil present

Unit is being signed out by _____ Fire Department

Unit signed out on ____/____/____ will be returned on ____/____/____

Printed name of person signing out equipment _____

Signature of person signing out equipment _____

Signature of person inspecting equipment upon return to host department _____