MILWAUKEE POLICE DEPARTMENT

STANDARD OPERATING INSTRUCTION

UNDERWATER INVESTIGATION UNIT

ISSUED: March 8, 2022	**EFFECTIVE:** March 8, 2022	**REVIEWED/APPROVED BY:** Assistant Chief Steven Johnson **DATE:** February 14, 2022
ACTION: Amends SOI (March 6, 2020)		**WILEAG STANDARD(S): 13.1.6**

I. PURPOSE

The purpose of this standard operating instruction is to ensure that all diving under the auspices of the Milwaukee Police Department Underwater Investigation Unit are conducted in a manner that maximizes protection of the divers from accidental injury and/or illness. This SOI sets forth minimal procedures for the establishments of diving programs within the Milwaukee Police Department.

II. POLICY

The terms Underwater Investigation Unit (UIU) and dive team are synonymous in these guidelines. No person shall engage in diving operations unless they are currently a member of the Underwater Investigation Unit, involved in the testing procedure to become a member of the Unit, or in circumstances to be determined by the Specialized Patrol Division commanding officer, or designee.

No personnel are permitted to operate at a level of certification above which they have been certified or trained by the department at any incident or training exercise. Divers must be annually tested to departmental standards to maintain department certification to act in the capacity of a diver.

Diving for the Milwaukee Police Department is to be considered a privilege and can be revoked at any time by the Specialized Patrol Division commanding officer, or designee.

III. MISSION STATEMENT (WILEAG 13.1.6)

A. The Underwater Investigation Unit (UIU) is responsible for providing support services to all districts and divisions of the Milwaukee Police Department. The scope of these services shall include, though are not limited to, the following:

1. Recovery of stolen items (e.g., vehicles, safes, firearms, personal property).

2. Recovery of weapons used in crimes.

3. Vehicle recovery (involved in accidents or intentionally driven into the water).

4. Body recovery (including drowning victims and homicide victims).

5. Underwater crime scene documentation, photography, and processing.

6. Homeland Security related underwater searches.

B. The Dive Team is notified of and deployed in response to potential:

1. Rescues involving a report of a person in a body of water.

2. Rescues when the Milwaukee Fire Department dive team is dispatched.

3. Reports of watercraft accidents.

4. Reports of vehicle accidents where the vehicle comes to rest in a body of water.

5. Reports of submerged vehicles, watercraft, or aircraft.

6. Investigations involving submerged bodies, evidence, property, or contraband.

7. Pier and hull searches in response to heightened Maritime Security (MARSEC) level or receipt of intelligence warranting an underwater search.

8. Requests for water safety demonstrations and community displays.
(WILEAG 13.1.6.1)

C. The UIU, when requested and with proper departmental approval, will respond to assist other local, state, or federal agencies with water recoveries, underwater investigations, or the recovery of submerged bodies, evidence, property, or contraband.

D. In all instances, this standard operating instruction governs the actions and response of the UIU and other department personnel.

E. The UIU is a recovery team, not a rescue team. Any drowning victim in the water for 60 minutes or less has a chance to be resuscitated. For subjects in this category the Milwaukee Fire Department Dive Rescue unit shall be called.
(WILEAG 13.1.6.1)

IV. DEFINITIONS

A. BODY OF WATER

Rivers, creeks, streams, ponds, drainage ditches, sewers, lakes, canals, reservoirs, and swimming pools.

B. BOTTOM TIME

The total elapsed time measured in minutes from the time a diver leaves the surface in descent until the time that the diver begins a direct ascent to the surface.

C. COLD WATER DIVE

Dive operations in waters with temperatures under 45°F or air temperatures under 40°F.

D. COMPRESSION CHAMBER

A pressure vessel for human occupancy which may also be called a hyperbaric chamber (see recompression chamber).

E. CYLINDER

A pressure vessel for the storage of gases (see tank).

F. DECOMPRESSION SICKNESS

A condition with a variety of symptoms which has its origin in the formation of bubbles in the tissues of divers after pressure reduction.

G. DIVE

A descent into the water, an underwater diving activity utilizing compressed gas, an ascent, and a return to the surface.

H. DIVE LOCATION

A surface area or vessel from which a diving operation is conducted.

I. DIVE TABLE

A profile or set of profiles of depth-time relationships for ascent rates and breathing mixtures to be followed after a specific depth-time exposure or exposures.

J. DIVE INCIDENT LEADER

The team member with experience and training to conduct the diving operation and who has been designated to be in charge of the diving operation.

K. DIVE INCIDENT SAFETY COORDINATOR

That diver selected by the dive team supervisor with the seniority and diving experience to effectively supervise dive team safety procedures.

L. DIVER

An individual in the water who uses apparatus including snorkels which supplies breathing gas at ambient pressure.

M. DIVE SITE

The physical location of a diver during a dive.

N. DIVE TEAM

Divers and support individuals who are exposed to or control the exposure of others to hyperbaric conditions. Also for the purpose of this SOI known as the Underwater Investigation Unit.

O. DIVE TEAM SUPERVISOR

The supervisor in charge of the administrative functions of the dive team selected by the Specialized Patrol Division commanding officer.

P. DIVING MODE

A type of diving requiring procedures, techniques, and specific equipment (e.g., snorkel, scuba, surface-supplied air).

Q. EMERGENCY ASCENT

An ascent made under anything other than normal conditions.

R. FSW

Feet of seawater or equivalent static pressure.

S. HOOKAH DIVING

A type of shallow water surface-supplied diving where there is no voice communication with the surface.

T. HYPERBARIC CHAMBER

A pressure vessel for human occupancy (see compression chamber, recompression chamber).

U. HYPERBARIC CONDITIONS

Pressure conditions in excess of normal atmospheric pressure at the dive site.

V. LEAD DIVER

The diver who has the experience and training to be the responsible member of the buddy team or other underwater operational group.

W. LINE TENDER

An individual trained in the responsibilities of diver safety that provides control of search patterns from the surface of the water.

X. NO-DECOMPRESSION LIMITS

The depth-time limits of the "no - decompression limits and repetitive dive group designations table for no-decompression air dives" of the U.S. Navy Diving Manual or equivalent limits.

Y. PRESSURE-RELATED INJURY

Any injury resulting from pressure disequilibrium within the body as the result of hyperbaric exposure such as decompression sickness, pneumothorax, mediastinal emphysema, air embolism, or subcutaneous emphysema.

Z. PRESSURE VESSEL

See cylinder or tank. PSIG means pounds per square inch gauge.

AA. PRIMARY DIVER

The diver performing the in-water operation.

BB. PROBATIONARY DIVER

An individual gaining experience and training in additional diving activities under the supervision of a dive team member experienced in those activities.

CC. PUBLIC SAFETY DIVING

Underwater diving, related to team operations and training, performed by a member, group, or agency of a community or government recognized public safety diving or water rescue team.

DD. RECOMPRESSION CHAMBER

A pressure vessel for human occupancy such as a surface recompression chamber, closed bell, or deep diving system used to recompress divers and to treat decompression sickness or air embolism. This is sometimes referred to as a decompression chamber.

EE. RESCUE

Any dive operation the purpose of which is to recover a person submerged in a body of water less than 60 minutes with the intent of resuscitating that person.

FF. SAFETY DIVER

An on-site diver available to assist another diver in the water who is already operating at a site. The safety diver shall be able to deploy immediately to provide assistance to the diver in distress or need; thus the safety diver must have all equipment donned and operational.

GG. SCUBA DIVING

A diving mode independent of surface supply in which the diver uses open-circuit, self-contained, underwater breathing apparatus.

HH. STANDBY DIVER

A diver at the dive location capable of rendering immediate assistance to a diver in the water.

II. SURFACE-SUPPLIED DIVING

A diving mode in which the diver in the water is supplied from the surface with compressed gas for breathing.

JJ. TANK

A pressure vessel for the storage of gases (see cylinder).

KK. UMBILICAL

The composite hose bundle between the surface and a diver which supplies the diver with breathing gas or communications as appropriate to the diving mode or conditions and includes a safety line between the diver and surface.

LL. UNDERWATER INVESTIGATION UNIT

Members assigned to dive related functions of the Milwaukee Police Department, also referred to as the dive team.

MM. WATER INCIDENT

An incident where the Milwaukee Police or Fire Department respond to a situation taking place in, under, or near a flowing or stationary body of water.

NN. WATERMANSHIP SKILLS

Capabilities that include swimming, surface diving, treading water and staying afloat with a reasonable degree of comfort appropriate to the required task.

V. CALL UP PROCEDURES (WILEAG 13.1.6)

A. While underwater investigations somewhat parallels land investigations, there are important differences in the gathering of evidence in underwater situations. The personnel assigned to the Underwater Investigation Unit are trained and experienced in these types of investigations and recovery procedures. Underwater Investigation Unit personnel are trained and available for other critical incidents that may occur on the water such as recovery of stolen items, recovery of weapons used in crimes, aircraft accidents, vehicle recovery, and homeland security underwater operations. Underwater Investigation Unit personnel shall recover deceased drowning and homicide victims from the water. Any drowning victim in the water for 60 minutes or less has a chance to be resuscitated. For subjects in this category the Milwaukee Fire Department shall be called.
(WILEAG 13.1.6.1)

B. The Underwater Investigation Unit of the Milwaukee Police Department is assigned to the Specialized Patrol Division. The unit operates on an on-call basis, available 24 hours per day, seven days a week, 365 days a year.
(WILEAG 13.1.6.2)

C. The members of the unit are on duty at various districts and divisions on all shifts. There will be circumstances in which an immediate call up is not necessary. In those cases arrangements can be made to conduct a search as soon as practicable, using the following procedure.

1. The requesting supervisor shall notify the night watch commander or the Specialized Patrol Division commanding officer or his/her designee.

2. During late shift duty hours, a supervisor shall notify the on duty night watch commander, or in his/her absence, the Specialized Patrol Division shift commander, relative to the nature of the UIU request, its location and urgency of the request. The authority to institute a call up procedure will be the night watch commander or in his/her absence the Specialized Patrol Division shift commander who in like determining manner shall authorize a call-up by notifying the Specialized Patrol Division commanding officer or his/her designee of the same particulars and requesting a call up be initiated.

3. The deployment of manpower/resources by the Underwater Investigation Unit shall be based upon safety considerations, the seriousness of the incident, weather conditions, etc.

4. Unless prescribed otherwise by the Specialized Patrol Division commanding officer or designee, the following protocol and compliment of UIU personnel are to be notified.

   a. A minimum of two divers and a dive incident leader are needed to conduct a UIU dive operation of any modality. The dive team supervisor is responsible for determining the sufficient number of personnel for the operation.

   b. UIU personnel will transport dive equipment to the dive site.
   (WILEAG 13.1.6.2)

VI. DIVE TEAM SUPERVISOR

A. The Specialized Patrol Division commanding officer shall appoint a dive team supervisor.

B. The dive team supervisor shall be accountable to the Specialized Patrol Division commanding officer or his or her designee for the conduct of the dive team. The operational authority for the dive team including the conduct of training and certification, approval of dive plans, maintenance of diving records, and ensuring compliance with this SOI and all relevant regulations of the dive team rests with the dive team supervisor.

C. The dive team supervisor shall have the authority to appoint an assistant dive supervisor and permit portions of this SOI to be carried out by him/her or a qualified delegate.

D. The dive team supervisor shall have the authority to suspend diving operations which he/she considers to be unsafe or unwise.

VII. DIVE INCIDENT LEADER

The Specialized Patrol Division commanding officer has the ultimate authority for the dive team and its related activities. However, the dive incident leader will make decisions related to the conduct of actual diving operations unless he or she is properly relieved of his or her responsibilities by a diver of higher authority and his or her orders are superseded by the diver assuming the responsibility of dive incident leader.

For each dive, one diver shall be designated as the dive incident leader. The dive team leader shall be in an appropriate location at the dive site or the dive location to direct the diving operation.

A. COMMAND

The dive incident leader is the authority with regard to diving operations and is responsible for:

1. Assessing incident priorities;

2. Determining strategic goals and tactical objectives;

3. Developing, approving, and implementing the incident action plan;

4. Developing an incident command structure appropriate for the operation;

5. Serving as an incident safety officer and is responsible for preventing injuries or death;

6. Coordinating activities of and with other MPD personnel or outside agencies.

B. COORDINATION

Diving shall be coordinated with other known activities in the vicinity, which are likely to interfere with diving operations.

C. BRIEFING

All dive team members and on scene medical personnel will participate in a briefing before operations are initiated. The dive team members shall be briefed on:

1. Dive objectives;

2. Any unusual hazards or environmental conditions likely to affect the safety of the diving operation;

3. Any modifications to diving or emergency procedures necessitated by the specific diving operation; and

4. Reporting any physical problems or adverse physiological effects including symptoms of pressure-related injuries.

5. An accelerated briefing can be done in a fast rescue mode.

D. DIVE PLANNING

Planning of a diving operation shall include considerations of the safety and health aspects of the following:

1. Diving mode;

2. Surface and underwater conditions and hazards;

3. Breathing-gas supply;

4. Thermal protection;

5. Diving equipment;

6. Dive team assignments;

7. Residual inert gas status of dive team members;

8. Decompression schedules and altitude corrections;

9. Entry and exit procedures;

10. Emergency procedures; and

11. De-briefing.

E. SAFETY PROCEDURES FOR DIVING OPERATIONS

It shall be the responsibility of the dive incident leader prior to diving operations to:

1. Conduct a risk benefit field analysis to identify the risks and determine the benefit of conducting the dive at each site. Where underwater search/recovery operations are requested, the dive incident leader and/or the dive team supervisor or his/her designee should consider the following factors:

    a. Determine if operations at the site will not exceed the department's capabilities.

    b. Determine if the operation that is being requested is a "rescue" or "recovery."

    c. Ability to establish a credible "last seen point" from on-site witnesses.

    d. The maximum depth does not exceed the team's capabilities.

    e. The current of the water does not exceed three (3) knots.

    f. The divers can safely operate in water conditions that are present.

    g. There are sufficient divers, dive tenders and equipment on site to conduct operations.

    h. All safety aspects are considered.

    i. All medical safety issues are addressed.

    j. If assets on site will not meet the demands for a safe operation, are other qualified resources available that can provide support (e.g., Milwaukee Fire Department).

2. Insure that a fully dressed safety diver is prepared to immediately enter the water in the event that a diver becomes entangled or needs assistance from the rescue diver prior to any dive operation being initiated unless exigent circumstances exist.

3. Develop a plan to transport an injured diver to the nearest operational hyperbaric chamber or appropriate emergency medical facility.

4. Develop a safety plan for all topside and dive operations prior to any operations being initiated.

5. No dive operations shall be conducted without a safety diver for every diver that is operating below the surface unless exigent circumstances exist.

6. All water is to be presumed contaminated; therefore, all open water dives will be conducted in dry suits and AGA masks, EXO26 masks, or full helmet, to reduce exposure to contamination.

7. The dive tables will be referred to on all dives.

8. A three minute safety stop is suggested on all dives.

9. All SCUBA divers shall wear a pony tank with separate first and second stage

regulators unless exigent circumstances exist or when the buddy system is utilized. The pony bottle second stage, when deployed and in use, shall be secured in a department approved necklace around the diver's neck.

VIII. DIVE OPERATIONS (WILEAG 13.1.6)

No dive operation shall be conducted unless emergency procedures have been established to initially treat and transport diver(s) to an operational hyperbaric chamber or appropriate emergency medical facility.

A. GENERAL DIVE PROCEDURES

For all dives the following procedure shall be followed. The dive incident leader, in concert with the safety diver, shall survey the dive site and plan the safest location to enter the water, prepare the equipment needed to safely complete the dive, and direct other team members on establishing a perimeter for containment of dive equipment and divers. The dive incident leader or designee, and/or the safety diver will plan access to the dive scene by ambulance personnel and advise other officers on the scene of the planned access to facilitate quick response by medical personnel in an emergency. Under no circumstances will a diver be ordered to or required to dive if he/she deems the diving conditions, his/her own physical or mental condition, or the condition of his/her equipment unsafe to dive. The dive incident leader, dive team supervisor, or designee, the Specialized Patrol Division commanding officer, or designee, or the safety diver may forbid a diver from performing a dive.

B. BEFORE DIVING OPERATIONS ARE COMMENCED

1. A dive action plan (DAP) shall be developed. Planning of a dive operation shall include as a minimum:

   a. Diving mode (training or operational, rescue/recovery, surface supplied/SCUBA).

   b. Determine if dive operations will be shore-based, boat-based or boat-assisted.

   c. Identify surface and sub-surface conditions and hazards.

   d. Emergency procedures are identified.

   e. Approximate number of dives anticipated.

   f. Location(s) of proposed dive(s).

   g. Estimated depth(s) and bottom times(s).

   h. Current environmental conditions and expected changes.

   i. Proposed work, equipment, and other resources needed.

   j. Diving shall be coordinated with other known activities in the area that may

interfere with the diving operation.

k. Minimum of two divers on scene and one dive tender unless exigent circumstances exist.

l. Type of search pattern that will be utilized for the operation.

2. An operational communications system exists at the dive site with the ability to call medical assistance if needed.

3. Approved diver communication system fully operational must be in place before any dive operations are initiated. This may include hand or line pull signals.

4. All divers shall be line tended unless conditions otherwise dictate and can only be done off-line with approval of the dive incident leader or dive team supervisor.

5. The “diver down” flag shall be predominantly displayed during all dive operations unless currents, lack of traffic overhead or other circumstances dictate none is needed.

6. Enclosed or confined space diving and hookah diving are outside the training of the dive team and shall not be conducted.

7. Dives shall not exceed the no-decompression limits.

8. Any diver who has omitted required decompression or is symptomatic shall be administered high flow oxygen and transported to an appropriate hospital as required.

9. A boat shall be placed in the water to assist during diving operations. Where terrain, obstructions, ice, or size of body of water makes the use a boats impractical this requirement may be omitted.

C. The following are the dive site standard operating instructions. Actual procedures will vary depending on weather, water, and other logistic factors.

1. Upon arrival at the dive site the following assignments and responsibilities will be initiated by the dive incident leader:

a. Evaluation of the dive site, feasibility for dive operation, safety factors, risk/benefit considerations, search operation plan.

b. Personnel assignments.

c. Overall site management.

d. Evaluation of personnel fitness to dive.

2. Dive Tender
    a. Assist in the dressing of the diver.
    b. Ensure diver has required equipment and is functioning properly.
    c. Ensure equipment is donned, fitted, and connected properly.
3. Line tender/Umbilical Tender
    a. Wear gloves.
    b. Install descent line.
    c. Review emergency line pull signals with diver.
    d. Provide undivided attention to line/umbilical.
    e. Maintain proper amount of slack in line/umbilical.
    f. Give slack only when diver requests it.
4. Diver (SCUBA)
    a. Subject to complete directions of dive incident leader.
    b. Responsible for knowing the operation of equipment selected.
    c. Responsible for the selection and serviceability of equipment selected.
    d. Review emergency line pull signals with the line tender.
    e. Responsible for advising the dive incident leader of any reason not fit to dive.
    f. Abort dive if overly fatigued, stressed, or if experience equipment failure.
    g. Abort dive for any reason you feel it is necessary for your safety.
5. Diver (Superlite 17B/KM-77 Helmet)
    a. Same responsibilities as diver (SCUBA).
    b. Review bailout procedure prior to diving.
    c. Avoid unnecessary conversation with board operator.
    d. Give specific instructions to umbilical tender regarding amount of slack needed.
    e. Go over any obstructions, not under.

f. Take same route to surface as to the bottom.

g. Notify topside when on the bottom and when leaving.

h. Diver should frequently ventilate helmet to avoid hypercapnia.

i. If breathing becomes difficult, stop, open free flow valve, and relax.

j. Abort dive if you become overly stressed or fatigued.

k. Abort dive if loss of communications occur, bailout bottle becomes empty or leaks develop in suit or helmet.

l. Abort dive for any reason you feel it is necessary for your safety.

6. Dive Control Board Operator

a. Ensure proper connection of hoses and cylinders, and sufficient uninterrupted supply of breathing gas to the diver.

b. Ensure board is functioning properly.

c. Coordinate responsibilities with umbilical tender.

d. Provide undivided attention to board's operation.

e. Avoid unnecessary communications with diver or others.

f. Constantly monitor condition of diver.

g. Monitor depth and decompression limits of diver.

h. Clean, dry, and secure board after use.

7. Dive Recorder

a. Record divers' in, out, bottom time, depth, bottom condition, current, water temperature, and any hazards or noteworthy environmental observations.

b. Record water/weather conditions, reason for dive, results and any other pertinent information.

c. Coordinate monitoring of diver depth/decompression limits with board operator when utilizing the Superlite 17B or KM-77 helmets.

8. Safety Diver

Be fully dressed or partially dressed with remaining equipment near and ready for immediate donning and entry into water.

9. Equipment Handler

    a. Arrange for and obtain equipment vehicle.

    b. Arrange for and obtain portable radio and cellular phone.

    c. Transport all necessary equipment to dive site.

    d. Provide any site equipment security/accountability.

    e. Notify supervisor of missing and/or damaged equipment.

    f. Return equipment to dive locker and decontaminate as necessary.

    g. Repair/maintenance of equipment either by equipment handler or brought to dive locker for repair.

    h. Proper cleaning and storage of equipment.

    i. Fill empty and store air tanks.

D. PRE-DIVE SAFETY CHECKS

1. The dive objectives for the operation;

2. Identify all entry and exit points;

3. Review of hand/line pull signals;

4. Emergency protocols;

5. Beginning and ending tank pressure;

6. Reporting of any physical problems or adverse physiological effects.

7. Diver’s Responsibility

    a. Each diver shall conduct a functional check of his diving equipment in the presence of the dive buddy or tender;

    b. No diver shall be required to be exposed to hyperbaric conditions against his or her will except when necessary to prevent or treat a pressure-related injury.

    c. No diver shall be permitted to dive for the duration of any known condition which is likely to adversely affect the safety and health of the diver or other dive team member(s).

8. Diver's Qualifications

   Each diver shall be trained, qualified, and certified for the diving mode used. Each diver shall have experience or training in the following:

   a. The use of the instruments and equipment appropriate to the diving activity to be conducted;

   b. Dive planning and emergency procedures;

   c. Diver rescue techniques, cardiopulmonary resuscitation, oxygen administration, and other diving-related first aid;

   d. Diving-related physics and physiology as well as recognition of injuries. (WILEAG 13.1.6.3)

E. POST DIVE CHECKS

With the completion of a dive, each diver shall:

1. Report any physical problems or symptoms of decompression sickness or air embolism;

2. Perform an equipment check and report any problems or malfunctions to the dive incident commander; and

3. If the no-decompression limits are exceeded, the divers should remain awake for at least one hour after diving and in the company of a dive team member who is prepared to transport him to a hyperbaric chamber if necessary.

4. Decontaminate as required.

F. POST DIVE PROCEDURES

1. Secure all equipment.

2. Identify any damaged/unserviceable equipment and arrange for repair.

3. Debrief dive operation.

   a. Determine if the objectives of the dive were achieved.

   b. If objectives were not met, what factors caused the objectives to not be met and identify what changes in the dive action plan need to occur before initiating further dives.

   c. Identify additional information obtained from personnel involved in the dive.

   d. Insure that all pertinent information has been recorded.

e. Identify any deficiencies that may exist in training or equipment that should be addressed for future operations.

f. Discuss problems encountered and identify future training objectives to address problems.

g. Identify those items of equipment that could have minimized the problem and forward the recommendation to the dive team supervisor.

4. All divers and equipment handlers must decontaminate themselves from any exposure to contaminated water or equipment.

G. EMERGENCIES -- DEVIATION FROM GUIDELINES

Any diver may deviate from the requirements of this SOI to the extent necessary to prevent or minimize a situation that is likely to cause death, serious physical harm, or major environmental damage. A written report of such actions must be submitted by the dive incident leader explaining the circumstances and justifications for such action.

H. REFUSAL TO DIVE

1. The decision to dive rests with the individual diver. A diver may refuse to dive without fear of penalty whenever he feels it is unsafe to make the dive.

2. Ultimate responsibility for safety rests with the individual diver. It is the diver's responsibility and duty to refuse to dive or continue to dive if, in his/her judgement, conditions are unsafe, unfavorable, or if diving would violate the precepts of his/her training or the guidelines of this SOI or the member organization's diving manual.

I. TERMINATION OF DIVE

1. Unless it compromises the safety of another diver already in the water, it is the responsibility of the diver to terminate the dive without fear of penalty whenever the diver feels it is unsafe to continue.

2. The dive shall be terminated while there is still sufficient tank pressure to permit the diver to safely reach the surface, including decompression/safety stop time.

3. It is suggested that an ascent to the surface from a dive of 100 feet or shallower be initiated when the tank pressure reaches 1000 psig.

4. The cylinder pressure has reached 1000psig or other value predetermined by the dive incident leader.

5. Dive tender indicates that due to air consumption rate or emergency that diver is required to surface; and/or

6. A no decompression dive limit is being reached.

7. In the opinion of the dive incident leader, the dive incident safety coordinator, and/or the dive team supervisor, the dive should be terminated for safety or other operational reasons.

8. Ultimate responsibility for safety rests with the individual diver and it is the diver's responsibility and duty to refuse to dive if, in his or her judgement, conditions are unsafe, unfavorable, or if diving would violate the precepts of his or her level of certification or training.

J. SOLO DIVING PROHIBITED

All diving shall be planned and executed in a manner as to ensure that every diver involved maintains constant, effective communication with at least one other comparably equipped safety diver. This buddy system is based upon mutual assistance, especially in the case of an emergency. Dives should be planned around the competency of the least experienced diver. If loss of effective communication occurs within a buddy team, all divers within that team shall surface and re-establish contact. Exceptions may be made on a case-by-case basis in the event of a rescue or other exigent circumstances. The solo, line-tended diver shall be considered an exception to the solo diving prohibition. However, both the diver and the tender shall be sufficiently trained in this technique prior to their operational use of this type of solo diving. During a solo, line tended diving operation, a standby diver in addition to the line tender shall be utilized. At least one safety diver, fully suited and ready to dive, shall be standing by if needed for the rescue of another diver. The dive incident leader, or designee, shall designate the stand-by diver. A dive incident leader, a safety diver, a tender, and a minimum of two divers are suggested for any dive operation.

K. CONFINED OR ENCLOSED SPACES

Where an enclosed or confined space is not large enough for two divers, a diver shall be stationed at the underwater point of entry and an orientation line shall be used. Cavern and cave diving shall only be conducted by personnel with appropriate training and certifications. The standards of either the National Association for Cave Diving (NACD), the National Speleological Society - Cave Diving Section (NSS-CDS), or Global Underwater Explorers (GUE) will be followed at all times.
(WILEAG 13.1.6.3)

L. DIVER'S FLAG

A diver down flag shall be displayed during all diving operations unless circumstances exist that do not require display.

M. FLOTATION DEVICES

Each diver shall on every dive possess the capability of attaining and maintaining positive buoyancy. An inflatable exposure suit by itself shall not be used as the sole source of buoyancy unless in surface-supplied mode.

N. TIMING DEVICES, DEPTH GAUGES, AND PRESSURE GAUGES

Divers must have an underwater timekeeping device, an approved depth indicator, and a submersible tank pressure gauge. Divers may delegate the determination of their depth and dive time to a surface tender or other individual appropriately equipped to perform such functions.

O. DIVE TABLES AND COMPUTERS

An appropriate dive table or dive computer must be available at the dive location:

1. Only those dive computers or dive tables approved by the dive team supervisor may be utilized by dive team members.

2. Each diver utilizing a dive computer or dive table is trained to understand basic decompression theory and properly and safely operate the dive computer. Documentation of this training shall be maintained in the diver's permanent diving record.
   (WILEAG 13.1.6.3)

3. Each diver relying on a dive computer to plan dives and indicate or determine decompression status must have his/her own unit. A diver who is not using a personal dive computer is prohibited from relying on a computer used by another diver.

4. On any given dive, both divers in a buddy pair must follow the more conservative dive computer or dive table.

5. If one of the computers fails, the dive will be immediately terminated using appropriate surfacing procedures.

6. A diver should not dive for 24 hours prior to the initial activation of a dive computer that will be used to control his diving.

7. Once in use, the computer shall not be turned off for 24 hours after the final dive or until computer outgassing is completed, whichever comes first.

8. When using a dive computer or dive table, non-emergency ascents are to be at the rate specified for the system being used.

9. Ascent rates shall not exceed 60 fsw/min.

10. When practical, the diver should make a 3 minute safety stop between 15 and 25 feet, especially for dives deeper than 60 feet.

11. Diving that results in exceeding the no-decompression limits of the dive computer or dive table at any time during the dive is strongly discouraged.

12. Repetitive and multi-level diving procedures should start the dive or series of dives at the maximum planned depth followed by subsequently shallower exposures.

13. Multiple deep dives approach the limits of the dive computer's or dive table's capability and require special consideration and planning.

14. During dives in which dive computers are used, the diver shall have the capability for redundant time and depth measurements.

15. Throughout all dives, the diver shall maintain an awareness of maximum depth and bottom time.

16. In the event of omitted decompression, breathing 100% oxygen above water is preferred to in-water air procedures.

P. COLD WATER DIVE PROCEDURES

Due to the danger from hypothermia and death related to diving in cold water, no diver shall remain in contact with the water for over 30 continuous minutes without at least a one hour break between repetitive dives. See section IX regarding cold water / ice diving.

Q. RESCUE DIVES

The Milwaukee Fire Department Dive Team is primarily responsible for drowning rescue operations. Scientific research indicates that a person submerged over 40 minutes has very little chance of resuscitation, however, at MFD’s request, after 60 minutes of rescue operation a water incident will become a body recovery and primary responsibility for the dive will be transferred to the MPD dive team. The Milwaukee Police Department dive incident leader, or designee, shall coordinate the use of police divers to assist fire department divers with all rescues. Police divers shall be dispatched simultaneously with the fire department dive team to all rescues to assist with the rescue, interviewing witnesses, preserving and recovering evidence, and conducting the underwater investigation (see Memorandum of Understanding dated March 19, 2015).
(WILEAG 13.1.6.1)

R. BODY RECOVERIES

When called to assist homicide investigators with recovery of a submerged body, the dive incident leader, or designee, shall coordinate and plan the dive after consulting with investigators. The dive incident leader shall confirm the interviews of witnesses and/or suspects to ascertain a specific location of the body or evidence before recovery operations begin.

1. Side scan and sector scan-guided sonar searches are preferred over blind searches when possible.

2. Sonar operators and divers should note the orientation and position of submerged bodies.

3. Divers should note clothing worn by the victim, any visible injuries, degree of deterioration and other evidentiary findings.

4. Video and photos should be taken in the position found if practicable. If visibility is limited, consider using transparent plastic bags of clean water between the camera lens and the subject.

5. Bodies should generally be bagged in the water utilizing a mesh bag and attaching lift bags as needed.

6. Best practices and principles and procedures enumerated in Encyclopedia of Underwater Investigations (Tether, 1995) should be adhered to.

7. Upon completion of the action plan, briefing and pre-dive check:

   a. Determine point last seen through witness interviews, visual reconnaissance, or physical evidence.

   b. Establish area of probability, considering time down, boat traffic, natural currents and any attempted rescue efforts.

   c. Confirm type of search pattern(s).

   d. Make proper entry to minimize turbidity, and maximize safety.

   e. Search point last seen (P.L.S.) upon initial entry.

   f. If victim is located and resuscitation efforts are called for, begin basic life support care immediately upon surfacing, transferring to advanced life support unit as quickly as possible.

   g. Anytime a line-tended operation is used, the diver must be in a department approved harness system.
   (WILEAG 13.1.6.1)

S. EVIDENCE RECOVERIES

When called to assist investigators with recovery of submerged evidence, the dive incident leader, or designee, shall coordinate and plan the dive after consulting with investigators. The dive incident leader, or designee, shall confirm the interviews of witnesses and/or suspects to ascertain a specific location of evidence before recovery operations begin.

1. Items of evidence such as firearms, safes, etc. shall be photographed in place if practicable.

2. The location and orientation of the object shall be recorded.

3. Firearms in particular should be packaged in water and taken to the Wisconsin Regional Crime Lab for examination in accordance with SOP 560 Property. Metallic objects removed from the water and exposed to air will rapidly oxidize.
   (WILEAG 13.1.6.1)

T. RECOVERY OF SUBMERGED VEHICLES

When called to recover a vehicle in a body of water, divers shall ascertain the position of the vehicle and plan the best method of recovery. The interior passenger compartment shall be checked for occupants.

Submerged vehicles are a dangerous environmental pollutant. Caution must be used around leaking fluids. A contract wrecker with equipment sufficient to make the recovery shall be dispatched to the scene. When possible, divers shall hook the recovery cable to an axle of the vehicle. All divers shall surface and clear the cable when the vehicle is being moved in the water. An evidence hold should be considered on all vehicles removed from the water.

Search and extrication of a victim from a vehicle in the water should follow these steps:

1. When location of the vehicle is established, a marker buoy should be deployed for future reference.

2. Establish cautious entry into vehicles, if necessary, using one of the following methods:

   a. For safety concerns the diver shall perform a visual recon of the vehicle from the exterior, noting the position of windows, doors, locks, seat belts, passengers, contents, etc.

   b. If the victim is deceased or the dive is in the recovery mode, the diver shall not open the vehicle doors or windows (thus reducing chances of loss of evidence).

   c. If the diver believes that there is a chance of revival for the victim(s), remove them from the vehicle after evaluating the safest method to do so.

   d. Recovery of negatively buoyant liquid evidence or bodily fluids from the vehicle should be considered before moving the vehicle.
   (WILEAG 13.1.6.1)

U. MARSEC SEARCHES

1. The Underwater Investigation Unit is tasked with conducting ship hull, dock, pier and sea wall searches in response to receipt of Maritime Security (MARSEC) intelligence.

[redacted]

[redacted]

[redacted]

[redacted]

8. The A-T Solutions Underwater Hazardous Devices Search Course manual should be consulted for further information.

V. TRAINING DIVES

Underwater Investigation Unit members are required to attend training exercises to remain team members. Absence from a training dive may only be granted by the dive team supervisor and the Specialized Patrol Division commanding officer, or their designees. Divers missing a training dive without permission are subject to remedies and exclusion from the team.

During all training exercises, divers will utilize safe diving practices. Training dives are to familiarize divers with their equipment, practice recovery techniques, and educate divers on advanced diving techniques and practices. The team training officer is responsible for planning and executing practice sessions.
(WILEAG 13.1.6.3)

W. HAZARDOUS ENVIRONMENTAL EXPOSURES (HAZ-MAT DIVE OPERATIONS)

The dive incident leader must evaluate the possibility of the presence of environmental hazards such as water contamination from pollution, toxic waste, chemical spills, sanitary sewer overflow, and other contaminants or hazards.

1. Required Equipment

   Only divers equipped with vulcanized rubber dry suits, full-face masks or helmets, and sealed gloves may dive in hazardous environments. Full face masks (e.g., AGA or EXO-26) at minimum, or preferably dive helmets, shall be utilized for hazardous environmental exposure diving operations. Divers should prevent any bare skin to be exposed to contaminated water. Divers should also refrain from allowing contaminated water to flood masks or regulators.

2. Dive Procedure

   Analysis of the risk/benefit of diving in polluted waters should always be performed. If diving is a must, the following procedures, in addition to normal dive procedures, shall also be implemented:

a. An accurate evaluation of the concentration and nature of the pollutants should be available;

b. The operations area should be set up well clear of the water's edge, up-wind and up-current;

c. All support personnel, line tenders especially, should use protection ranging from gloves and boots to full hazmat suits depending on environmental hazards;

d. All seals should be carefully checked before allowing a diver near the water. The use of duct-tape on zippers and on cuffs should be considered as added protection;

e. Positive pressure in the divers' dry suits and a light free flow from the masks should be considered. This allows air to pass through any leaks rather than contaminants entering the dry suit or mask;

f. In case of any leak, the diver will surface and abort the dive;

g. The dive incident leader and safety diver should be especially aware of diver stress or anxiety;

h. Divers with open cuts or sores which could lead to infections should be kept away from contaminated water;

i. Dives and bottom times should be kept as short as possible;

j. All divers must go through the decontamination procedure below before undressing or removing any equipment;

k. Line tenders must wear rubber gloves and avoid getting their hands near mouth, ears, nose, or eyes;

l. Smoking or eating is prohibited near a hazmat dive; and,

m. The dive incident leader shall monitor divers after a hazmat dive for signs of illness or adverse reactions. If medical problems develop, medical personnel shall be advised of suspected contaminants.

X. DECONTAMINATION PROCEDURE

Following all dives, the dive incident leader shall plan and supervise the proper decontamination of divers exposed to contaminated water or contaminants. An area suitable for conducting the decontamination operation should be designated after considering run-off and other risks.

1. Each diver shall be thoroughly rinsed with fresh water before removing any equipment. The diver will then be brushed with an appropriate detergent and/or bleach solution. The diver will then be thoroughly rinsed with fresh water.

2. Divers should take a hot shower and thoroughly scrub skin and scalp with an anti-bacterial cleaner. Divers should apply an optic solution such as Demeboro to the ear canals to prevent infection.

3. Diver shall have approved cleaning solution applied to suit.

4. Line tenders and others contacting contaminated water or other contaminants must also be decontaminated in a manner suitable to their exposure.

5. If diver comes into contact with petroleum-based products, such as gasoline, diesel, aircraft fuel or any other biological or chemical agent, the diver will be decontaminated while suit and equipment are still donned. Extreme care should be given not to further expose the diver and personnel decontaminating the diver to the product. The diver's suit, mask, and accessible equipment shall be washed with appropriate decontamination solution and water using a soft bristle brush. The diver and equipment will then be washed in clean water (this will be repeated twice). The suit should then again be cleaned after use and a thorough inspection for reaction to the chemical should be made. If the product is of extreme nature and poses a further risk of contamination or has caused damage to the suit, disposing of the suit should be considered.

6. All communication lines, ropes and other equipment used in the dive shall undergo all steps of decontamination that the suits undergo as outlined in this section.

7. Return of equipment to service.

    a. All equipment used shall be inspected prior to being placed back into service.

    b. All equipment shall be cleaned, dried and properly returned to its place or storage container prior to being placed back into service.

    c. Any damaged or missing equipment shall be reported to the dive team supervisor immediately.

Y. COMMUNITY DEMONSTRATIONS / DISPLAYS

The Underwater Investigation Unit shall participate, when requested, in community, school, or civic group demonstrations with approval of the Specialized Patrol Division commanding officer, or his/her designee. Equipment displayed at such demonstrations shall be clean and present a positive image of the dive team and the Milwaukee Police Department. Divers manning the display shall wear the uniform approved by the team supervisor, or his designee.

Z. REPORTING REQUIREMENTS

1. The dive incident leader, or designee, upon the conclusion of the dive operation, shall complete an incident report supplement or *Department Memorandum* (form PM-9E) as appropriate. A copy shall be placed in the dive team records. The dive logs shall be turned into the dive team supervisor upon completion of the dive. An annual report of

all dive operations shall be completed and submitted to the Specialized Patrol Division commanding officer.

2. Dive Records

   a. Dive Team Log

      The dive team supervisor shall maintain an appropriate dive log for each diving operation.

   b. Diver's Log

      Each diver shall log every dive made under the auspices of the dive team's program and is encouraged to log all other dives. Standard forms will be provided by the dive team supervisor. Log sheets shall be submitted to the dive team supervisor to be placed in the diver's permanent file. Copies of dive logs are due annually, by January 31, for the preceding year. The diving log shall be in a form specified by the agency and shall include at least the following information:

      1. Name of diver, partner, and/or lead diver:

      2. Date, time, and location of dive;

      3. Diving modes used:

      4. General nature of diving activities;

      5. Approximate underwater and surface conditions;

      6. Maximum depths and bottom/surface interval times;

      7. Diving tables or dive computers used; and

      8. Details of any accidents or incidents.

      If pressure-related injuries are suspected or symptoms are evident, the following additional information shall be recorded and retained with the diver's records:

      1. Description of symptoms, including severity and time of onset; and

      2. Description and results of treatment.

   c. Records Maintenance

      The dive team supervisor or designee shall maintain permanent records for each individual diving under the auspices of the dive team. The file shall include evidence of certification, log sheets, and other pertinent information. The dive team supervisor shall be responsible for maintaining permanent records for all scuba equipment, including inspection and testing records, maintenance and damage

reports.

d. Records and documents required by this document shall be retained by the member organization for the following periods:

1. Equipment inspection and testing records - current entry or tag or until equipment is withdrawn from service;

2. Diving manual - current document only.

AA. ACCIDENT REPORTING

Divers shall report any accident, injury, or illness that occurs while on the dive site to the safety diver, dive incident leader, and dive team supervisor immediately.

BB. EQUIPMENT

Dive team equipment shall be used and maintained per manufacturers' specifications. Dry suit cuffs, seals, and zippers must be kept in good order and checked regularly for holes or leaks to prevent contamination while diving. The operation of dive team vehicles, boats, and boat trailers shall be governed by the operator's guides for those pieces of equipment. Operator's guides shall be posted in the dive truck and distributed to every diver.

1. All equipment shall be subject to inspection before and after all dives, tested and certified on an annual basis or as defined by the equipment manufacturer.

2. Only those makes and models of equipment specially approved by the department shall be used, with appropriate training.

3. All inspections, tests and maintenance, must be accomplished by certified personnel or facility approved by the department.

4. All equipment maintenance shall be recorded and logged by the dive equipment manager.

5. Regulators shall be environmentally sealed.

6. All scuba cylinders shall be in current visual cylinder inspection and hydrostatic testing requirements as mandated by regulatory agencies and manufacturer's requirements.

7. Scuba cylinders shall be:

a. Hydrostatically tested at least every five (5) years.

b. Visually inspected at least every twelve (12) months.

CC. PROBATIONARY STATUS

Any diver selected for appointment to the Milwaukee Police Department Underwater Investigation Unit shall be considered a probationary diver for a period of no less than one year from the date of appointment. The probationary diver's performance will be reviewed periodically. The Specialized Patrol Division commanding officer will consider the probationary diver's retention or removal from the team or extending the probationary period.

IX. COLD WATER / ICE DIVING

A. Cold water shall be defined as water having a temperature below 45° Fahrenheit or air temperature below 40° Fahrenheit and the term cold water diving shall include diving under ice.

B. COLD WATER OPERATIONS

1. Diving in cold water requires a different approach, logistically and operationally, by command.

2. Command must be keenly aware of the adverse effects of cold exposure, not only to the divers, but to all personnel.

3. Adequate protection from the cold for support personnel, primary divers, back up divers, equipment, victims, witnesses, and command personnel must be established.

4. Rehabilitation and definite care measures for cold exposure injury victim(s) shall be addressed.

5. Cold exposure has been identified as a possible independent factor for increased risk of decompression sickness. For that reason, a standby EMS unit should be considered at the scene of a cold water diving operation.

6. That unit will be exclusively designated for the treatment and transportation of potentially injured divers.

7. Since the survivability factors in cold water near drowning incidents are so complex, all operations should be considered in a "rescue mode" for at least 60 minutes after arrival.

8. Divers working under ice shall be given a twenty (20) minute window of operation.

9. While working under ice, the diver will be restricted to a working area that will not exceed a radius of [redacted] from the entry hole.

10. Personnel should dress for possible long-term exposure to cold climate conditions.

11. Support personnel shall be responsible for the prevention of equipment freezing, especially tanks and regulators.

12. A well protected, heated area with warm water and warm liquids available should be provided for all personnel.

13. Since exposure to cold water is known to greatly increase diuresis, the nearest toilet facility or suitable site shall be identified, especially for incidents of long duration or when dry suits are the most appropriate forms of cold protection.

14. Traction material around the entry hole and work area should be used. The material used can be but not limited to snow fencing, sand, walk boards, wood chips, etc.

15. All divers will have their search line attached to their chest harness using a locking carabiner.

C. COLD WATER EMERGENCY PROCEDURES

1. Anytime voice communication are lost between the diver and his/her tender, the diver shall be signaled using the line signals in these guidelines.

2. Anytime a diver is required to surface due to injury, equipment failure or “out of air emergency,” the diver will be treated as if he/she has encountered a pressure-related injury and shall undergo a post-dive medical evaluation.

3. Anytime a diver becomes entangled or entrapped during a dive the safety diver shall be deployed immediately to mitigate and free the diver and to provide the dive incident leader information on the safety of further dives.

4. Anytime there is a lost or missing diver incident, the point last seen will be identified and marked immediately and a permanent support boat will be stationed at that location.

5. Any boat used at the point last seen cannot be moved or used for any other purpose until recovery has been made.

6. Any equipment that was in place prior to the diver becoming lost shall be left in place and used for assisting in locating the diver at his/her last seen point.

7. In ice diving, the safety diver shall be attached to a safety of communication line longer than that of the primary diver.

8. Divers who dive under ice or in any overhead environment shall be equipped with a redundant breathing gas source.

D. COLD WATER SITE PREPARATION

1. A triangular hole with 10’ sides will be cut into the ice.

2. The cutting operation shall be done in protective attire and using a chain saw.

3. The section of ice that is cut out shall be made retrievable for securing the hole at the

termination of the dive.

4. Some provision for positive footing for all personnel shall be employed around the hole in any of the above stated operational modes.

5. Any dive made under ice shall be tended.

6. Prior to an under ice dive, the diver and tender should confirm the dive plan, the type of search pattern to be used, and review the line signals.

7. The dive tender shall conduct a complete equipment check of the diver prior to entry.

8. Anytime a diver becomes separated from the tender line, then the lost diver procedure shall be conducted.

9. At the termination of dive operations, a physical check of the diver shall be done.

X. COMMUNICATIONS

A. The following are line signals for tethered diver operations. Any modifications to these signals must be mutually agreed upon by the tender and diver and approved by the dive incident leader. All members in the dive operation must be informed of the modifications.

TENDER TO DIVER	
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

DIVER TO TENDER	
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

B. The following are touch signals for divers working in pairs.

DIVER TO DIVER	
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

C. Anytime voice communications are lost between the diver and his/her tender, the diver shall be signaled using the above signal protocol.

XI. BOAT OPERATIONS

A. It is the responsibility of the dive incident leader or the dive team supervisor to determine if a dive operation will be shore-based or boat-based.

B. It is the responsibility of the safety officer, dive team supervisor or the dive incident leader that all personnel operating boats for the department are properly trained.

C. It is the responsibility of the safety officer, dive team supervisor or the dive incident leader to coordinate all boats operating in the area from which divers may be operating.

D. It shall be the responsibility of the safety officer to conduct a safety briefing concerning localized hazards with all boat handlers that are operating at the site.

E. In the event of other agencies being on site with boats and operating in the area of the divers, it is the responsibility of the safety officer to insure that all other agency boat handlers are briefed on the area of operations and insure that a communication system is established before initiation of any operations on the water.

XII. SPECIALIZED EQUIPMENT

A. KIRBY MORGAN SUPERLITE 17B DIVE HELMET AND KM-77 DIVE HELMET

1. Pre-dive Equipment Checklist:

a. Kirby Morgan SL-17B helmet with collar and internal cushion or neck dam and gasket, or KM-77 helmet with neck yoke.

b. Kirby-Morgan Diving Systems International DCS-II board or DiveLab XLDS-3 surface control station.

c. Umbilicus with attached carabiner or snap shackle.

d. Sufficient number of breathing gas cylinders for dive operation.

e. Emergency bailout bottle with SPG, properly sized harness and chest knife.

f. Emergency bailout hose.

g. Weight belt with sufficient weight.

h. Communications headset for DCS-II.

i. Dive medical bag.

j. Tool box.

k. Miscellaneous equipment needed for a dive operation (e.g., helmet light, lift bag, rope).

l. Fins.

2. Surface Station (“Board”) Set Up Procedure:

   Follow the exact procedure in the user manual for the DCS-II or XLDS-3 as appropriate. Generally, place board on stable, level surface with breathing gas cylinders on the appropriate adjacent side. Attach umbilicus to diver circuit. This includes the air-line, pneumofathometer and communications. Be cautious as to only snug up the brass fittings as the brass threads will strip at only one foot pound of pressure. Do not turn on communications at this time until the helmet is set up. Connect two air tanks to the board and charge up, not allowing air into the umbilicus.

3. Helmet Set Up Procedure:

   a. Follow the exact procedure in SL-17B or KM-77 user manual as appropriate. Generally, inspect the helmet for any damage or wear. Inspect the interior to make sure that the communications network is all attached to the appropriate connecting posts. Physically turn all valves to check for ease of operation. Push the regulator’s demand valve purge button and check for freedom of movement. Inspect the lexan faceplate for any cracks, scratches and/or signs of fatigue. Open the emergency valve halfway and blow air, by mouth, through the inlet checking for freedom of air movement. You should feel a slight resistance. If there are any problems with the above check list, do not use the helmet until the problem is corrected. Under any circumstances, do not attempt to adjust the lexan screw tension on the face of the helmet. Over tightening of these screws can cause a lexan implosion at depth or cause screws to extrude from the fiberglass. Lastly, check the collar for any defects and proper helmet fit.

   b. Insert head cushion into the helmet snapping all fasteners. Attach umbilicus snugging the brass fittings only. No more than a half foot-pound of pressure. Attach communications line and tape fitting’s seam with duct tape.

   c. Turn on communications at the board end and check for proper operation. Remember that feedback inside of the helmet can be painful to the diver.

   d. Turn on the air board and feed air pressure to the helmet at around 150 lbs. per the umbilical gauge. If there is more, decrease pressure until desirable level is met. Never exceed 240 lbs. of pressure. An over bottom pressure chart is located on the board for reference.

   e. Check bailout bottle for pressure reading using external pressure gauge. The size of the bailout cylinder should be selected based on the diver’s profile. Attach connector hose to bailout bottle.

4. Diver Set Up Procedure:

   a. Diver dons dry suit with adequate thermal wear for the water conditions. Keepers are an option to retain fins during the dive. Outer gloves go on last. Place fins on.

b. Diver dons weight belt holding appropriate amount of weight depending on diver preference (most divers are neutral without weight with this system, however, you will need to add air into the suit to counteract squeeze).

c. Tender assists diver in donning harness and bailout bottle making sure the harness does not interfere with the dry suit inflator valve. Placement of the harness around the valve will depend on the diver's size. Secure the harness through the double "D" rings. Check to see if the knife can be removed as designed.

d. Have the diver sit down. Tender guides collar onto the diver's neck and carefully lowers locking band feeding the dry suit through the band. Diver then dons the helmet for proper fit attaching the chinstrap. The diver then indicates the helmet is on correctly. With as little movement of the diver's head as possible, the tenders attach the helmet dam to the helmet ensuring that the suit's built in gasket mates with the helmet's seal grove. Once this is accomplished, the locking band can be closed and locked into place.

e. The outer gloves are put on. Seams can be taped with duct tape if required.

f. The diver stands and the bailout line is attached. The umbilicus is secured to the harness via a carabiner or snap shackle. The diver requests one last check of all the gauges and requests clearance from the dive supervisor to enter the water.

g. Once clearance is given the diver steps into the water holding the umbilicus with his/her left hand and the front of the helmet with his/her right hand.

5. Post Dive Procedures:

a. Relieve pressure from the umbilicus prior to disassembly.

b. Replace all protecting caps on the brass ends.

c. Wash all exposed parts with water and allow to dry, including the head cushion and interior communications components.

d. Charge DCS-II battery only after 24 hours of usage. Make sure the communications network is off upon storage.

e. Avoid dragging the umbilicus on rough surfaces.

f. Store helmet in a level position.

g. Report all damage immediately to a supervisor.

XIII. TRAINING REQUIREMENTS AND LEAVES OF ABSENCE (WILEAG 13.1.6)

A. All unit members must:

1. Attend seven (7) scheduled open water training dives annually, and

2. One of those dives must be in cold water, or

3. Demonstrate proficiency to the satisfaction of the dive team supervisor to remain an active member.

B. No diver may miss 2 consecutive dives without prior approval from the dive team supervisor.

C. All requests must be in writing with times, dates, and reason for missed training. (WILEAG 13.1.6.3)

D. A diver shall be required to obtain a medical release from a physician before resuming diving activities after:

1. Any injury, illness or surgery that resulted in the diver being off duty due to the injury or being placed on light duty.

2. Any diving accident resulting in injury to the diver.

E. LEAVES OF ABSENCE

1. Dive team members unable to perform the required seven (7) dives or annual training sessions due to a lengthy illness, may be placed on inactive status by the dive team commander or the health and safety officer depending on the expected length of recovery.

2. Once placed on a leave of absence, the dive team member shall suspend all actual diving functions, including training and operational dives. The diver may assist the team by performing support functions.

3. Reinstatement into diving will occur based on, but not limited to:

a. The members physical condition (member may be required to perform entry level skills and/or undergo a physical examination).

b. Any or all of the reinstatement requirements as stated in the reinstatement after no dive status section of this document.

XIV. NO DIVE STATUS

A. The dive team supervisor may put a dive team member on a “no dive status” for the following reasons. The status will be given after all resources available to the dive team supervisor have been utilized to correct the situation with the diver. The reason for the status will be documented and cleared through the Specialized Patrol Division commanding officer.

1. The dive team member does not attend training.

2. The dive team member fails to complete any required certification.

3. The dive team members' conduct or attitude is not conducive to a safe work environment.

4. The dive team supervisor opines that the diver requires remedial training.

5. Other safety, health, performance or conduct-related reasons articulated by the dive team supervisor.

B. A dive team member may put him or herself on a no dive status at any time due to health or other reasons. The dive team supervisor and Specialized Patrol Division commanding officer must be notified and the status reflected on the dive roster. If the status change is of a substantial length the diver may have to attend remedial training prior to returning to a dive status.

C. Reinstatement to dive status may encompass one or more of the following:

1. Remedial classroom, pool or open water training.

2. Additional training to updated standards or certification.

3. Physical exam by physician.

4. Completion of CISD, EAP or counseling.

5. Satisfactorily completing the Underwater Investigation Unit's watermanship test.

6. Undergo retraining by successfully completing an appropriate public safety diving course.

XV. UNDERWATER INVESTIGATION UNIT SWIM TEST (WILEAG 13.1.6)

A. Diving in one of the most strenuous disciplines in the police service. Heavy equipment, long surface swims, currents and adverse conditions can take a heavy toll on a diver. As a result the following swim test is required for entry level applicants and annually by all active team members.

B. Being physically fit will increase a diver's safety. Applicants must complete the following watermanship evaluation to be accepted as a candidate for the program.

C. Watermanship Evaluation Parameters: Some or all of the following exercises that evaluate stamina and comfort level in the water may be used.

1. Stamina Exercise 1: 500 yard swim

The diver shall swim 500 yards without stopping using a forward stroke and without using swim aids such as dive mask, swim goggles, fins, and snorkel or flotation device. Stopping or standing up in shallow end of the pool at any time will constitute a failure of this evaluation station. This is a pass or fail exercise.

2. Stamina Exercise 2: 15 Minute Tread

   Using no swim aids and wearing only a swim suit, the applicant will stay afloat by treading water for 15 minutes, with hands only out of the water for the last one minute. This is a pass or fail exercise.

3. Stamina Exercise 3: 25-yard Underwater Breath Hold Swim

   Using a swimsuit (no BCD or other flotation aid) and swimming on a breath hold submerged the entire time, the applicant will swim nonstop for 25 yards. This is a pass or fail exercise.

D. OBSTACLE COURSE

While wearing a blacked out full face mask, drysuit and other gear, the applicant will complete an underwater obstacle course. Details of the stations within the course will be explained to the applicant before the test is administered. The applicant will be graded as objectively as possible on establishment and maintenance of neutral buoyancy, dexterity, problem solving, avoidance and mitigation of entanglement hazards, following instructions, attitude and overall comfort in this controlled environment.

E. OPEN WATER TEST

While wearing the full complement of SCUBA gear including full face mask and communications, the diver will conduct a tended search pattern or like tasks in the Milwaukee, Menominee or Kinnickinnic River. The applicant will be graded on the same criteria as the obstacle course above, as well as equipment familiarity, following instructions, buoyancy/trim/propulsion technique, breath control, effective communication, completion of assigned tasks, ability to multitask, and managing stress.
(WILEAG 13.1.6.3)

XVI. MEMBER SELECTION PROCESS

A. Selection will be based on the results of the applicants':

1. Swim test, which is outlined above.

2. Structured oral interview conducted by an interview panel which includes the dive team commander.

3. Background check, including interviews with applicant's supervisors.

B. Members selected to the Underwater Investigation Unit will be considered on probationary status for a period on one year or as determined by the Specialized Patrol Division commanding officer. Probationary members will be selected from a ranked eligibility list as needed to fill vacancies. The list will expire on a date decided by the Specialized Patrol Division commanding officer.

JEFFREY B. NORMAN
CHIEF OF POLICE

JBN:mfk