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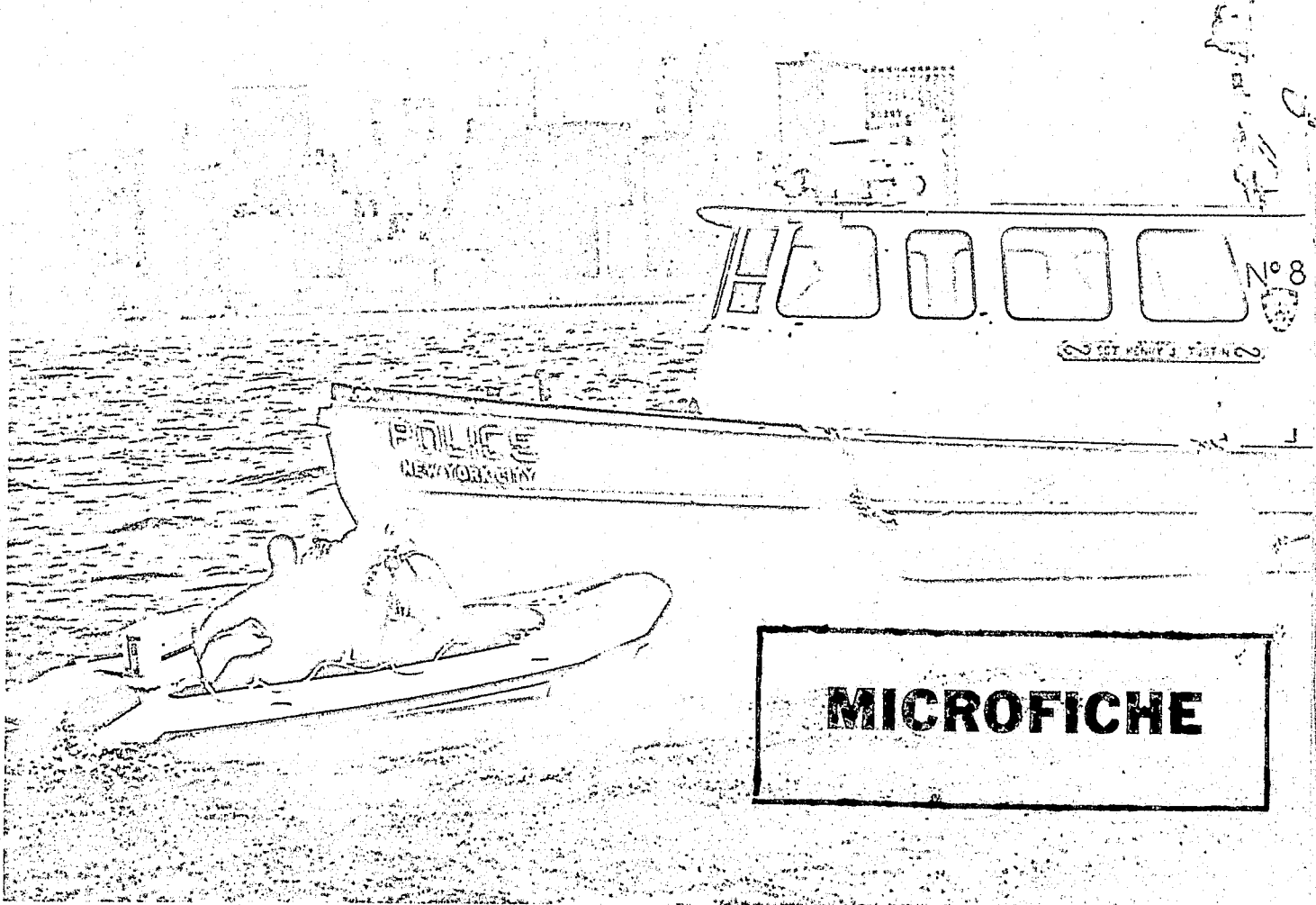
OPERATIONS

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ACQUISITIONS

Underwater Recovery Techniques in Police Operations



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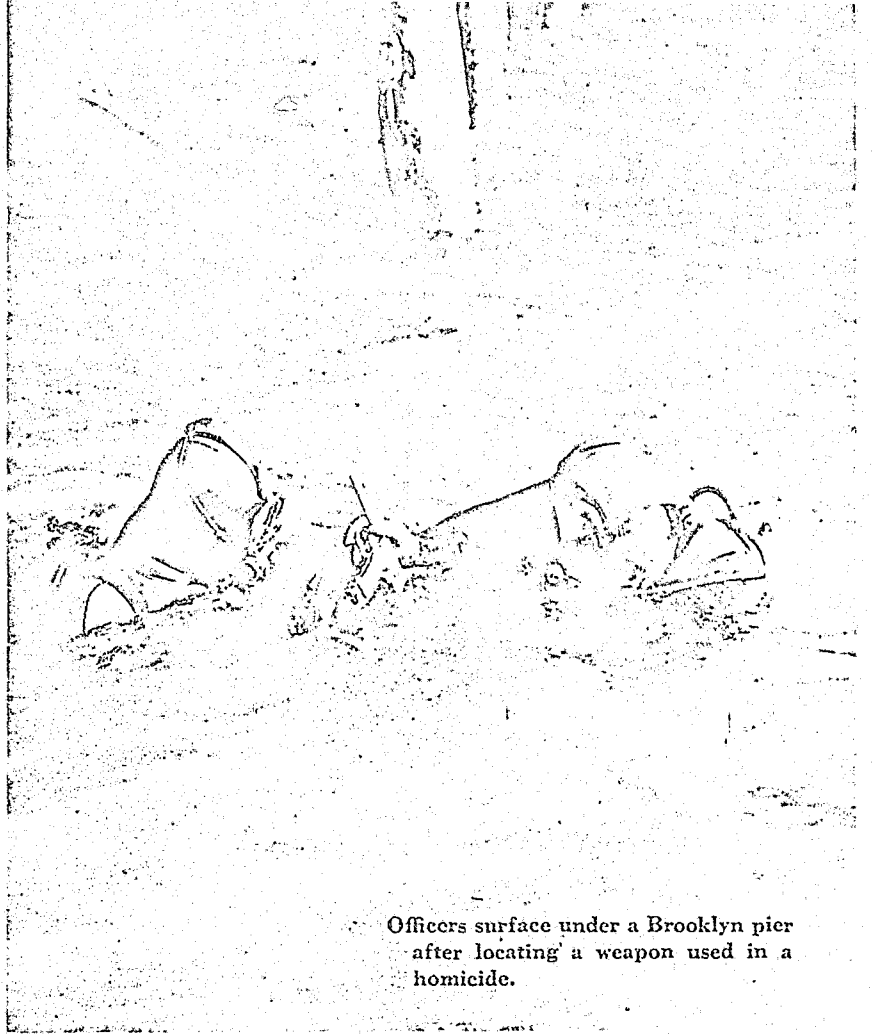
New York City, in addition to being one of the largest metropolitan cities of the world, is in reality a city of islands. Although many people know that it is made up of five counties, few out-of-towners realize that four of these counties are either islands (Manhattan and Richmond), or part of an island (Brooklyn and Queens), and that within these counties there are entire communities of people living on smaller islands (Coney Island, City Island, Roosevelt Island, Wards Island, Rikers Island, and Broad Channel). Because of this geographical configuration, there are 576 miles of shoreline encompassing 146 square miles of water. To police this vast area, the New York City Police Department has, within the Special Operations Division, a harbor unit of 100 men and officers with the capability of launching 14 boats, ranging in size from 25-foot fiberglass boats to 52-foot steel-hulled launches.

Although the bulk of waterborne police problems have been successfully handled by this surface fleet throughout the years, the advancement in technology, which has permitted man to graduate from cumbersome diving gear to the more flexible wet suit, has also enabled us to conquer the under-

water surface of harbors, lakes, and rivers within the city. We have done this through the formation of scuba-trained police officers into the Underwater Recovery Team.

Prior to 1973, team members were assigned to various commands throughout the city and activated as needed, on a case-by-case basis. After completing their assignment, the divers were returned to their regular police commands. Diving in the murky and often dangerous waters of New York, the teams successfully located and recovered everything from a downed aircraft to weapons required as evidence in major criminal cases. As their expertise and success rate grew, the department realized the valuable contribution these men could make in support of various units within the department as well as other city agencies. And so, in 1973, one sergeant and six police officers became part of a permanent Underwater Recovery Team, working within the harbor command.

The divers, who are called upon to work in all weather conditions, frequently do not have the luxury of time normally allowed to prepare and plan the detailed approach which is the hallmark of their trade. On one occasion, members of the team were airlifted by police helicopter from their base and dropped into the choppy Atlantic Ocean to rescue crew members trapped in an overturned tugboat. The episode ended happily with the rescue of four men who were trapped neck deep in water in the overturned and sinking tug. They had kept themselves alive by breathing



Officers surface under a Brooklyn pier after locating a weapon used in a homicide.

from a small pocket of trapped air while awaiting rescue. During the rescue, the victims shared the air tanks of the divers while making the swim to surface. Although this particular assignment was dramatic and extraordinary, most Underwater Recovery Team assignments are not so newsworthy or exciting.

While the primary function of the team is search and recovery, they have been assigned other roles, including assisting detectives in homicide in-

vestigations. In 1973, divers were sent to recover the bodies of two workmen who had drowned during the construction of a "coffer dam" in the treacherous waters of the East River's Hell Gate channel. After a 2-day search, during which time the team had to swim and examine each level of the twisted and torn steel in almost zero visibility, the bodies were recovered. Several months later, at the request of the district attorney, they repeated this operation in order to as-

sist in the determination of the cause of the collapse. As a result of the divers' subsequent court testimony, the district attorney was aided in his prosecution against the builder of the dam for criminally negligent homicide.

The search for a body, a car, or even an aircraft provides the divers with a recognizable target, a distinct advantage in the dark and murky waters of New York Harbor. The search for a smaller object, such as

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"One of the most important considerations in [an underwater] operation is safety."

a gun or knife, requires detailed planning, knowledge of the area and its currents, and close teamwork. When all available information has been sifted and analyzed and a determination of the most probably search location has been made, the divers are ready to begin.

"The Underwater Recovery Team . . . has developed a [parallel] search technique which enables them to cover the bottom in a thorough and exact search pattern."

The Underwater Recovery Team, through a process of trial and error, has developed a search technique which enables them to cover the bottom in a thorough and exact search pattern. Known as a "parallel search," it can be used in any type of water—lakes, ponds, streams, reservoirs, or even sewer systems. The pattern is established by attaching 100 feet of 3/8-inch floating plastic line to two 10-pound grapnel hooks. This setup is lowered to the bottom with "up" lines attached to each grapnel, which are in turn connected to surface buoys. With one diver on either side of the bottom line, visual or touch-type search can be made while traveling from one grapnel to the other. The grapnel is then moved away from the entry point to a distance determined by visibility and bottom conditions. Once the grapnels are reset, the divers continue their systematic search. Moving along the bottom line, the divers have sight and touch contact with each other. They can easily move the bottom line over any object, regardless of its size, and thus insure that the line will remain free and untangled. Using the

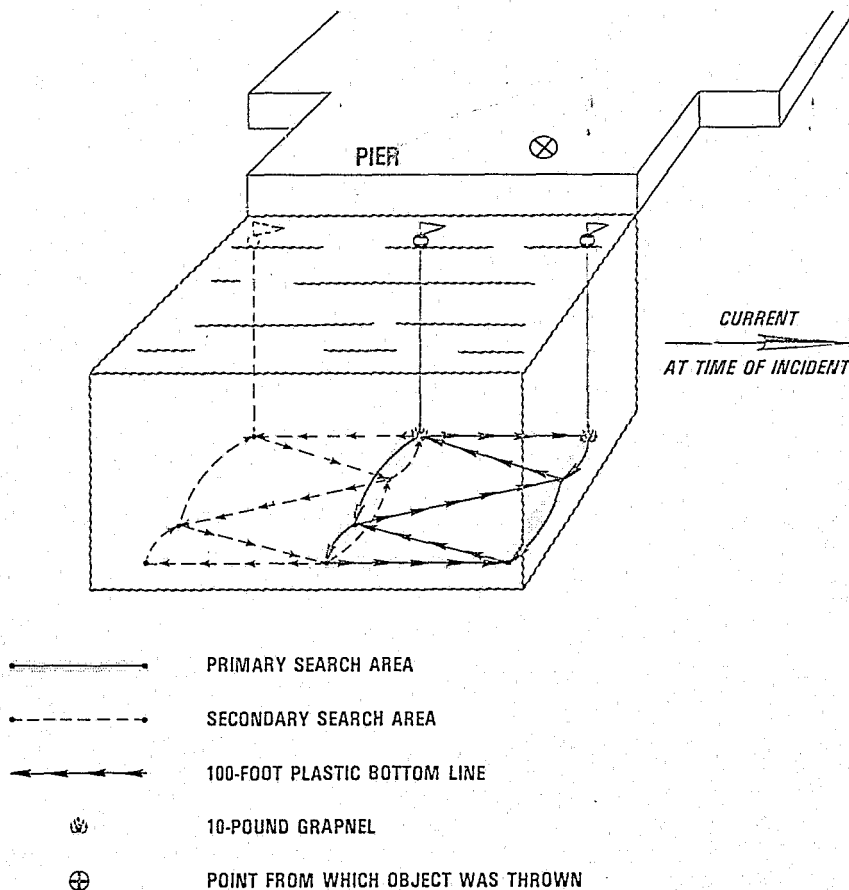
parallel search pattern frees the divers to work without an umbilical line to the dive boat. That type of line is prone to tangle, creating a danger to the diver and retarding the search. A search pattern is usually run parallel to the river's current and perpendicular to the point of entry.

Using this parallel pattern, the Underwater Recovery Team has achieved a recovery rate of over 90 percent. During 1976 and 1977, the team logged approximately 10,600 hours underwater during 252 assignments, resulting in the recovery of 61 bodies, 62 guns, and 74 stolen vehicles, as well as numerous other pieces of evidence.

One of the most important consid-

erations in this type of operation is safety. Any underwater diving operation can be dangerous, but in a congested and cluttered waterway, such as New York Harbor, the dangers are multiplied. The Underwater Recovery Team operates from its own 52-foot police launch, supplemented by a 16-foot inflatable boat. Prior to any dive, a notice to all mariners is transmitted via radio. The inflatable boat is then launched to survey the scene and establish the diving pattern. The crew maintains constant vigilance for surface traffic during the entire operation and is available to assist any diver.

A cardinal rule of the team's diving operations is that no one dives alone.



Only in the extreme emergency where a life is in danger will a diver be permitted to go down alone. The ideal dive operation uses four divers, alternating with each other for a maximum of three dives on any day.

The Underwater Recovery Team's work uniforms are the typical wet suits, face masks, fins, and air tanks; however, New York waterways, like those of any busy commercial harbor, present special problems. These problems have required the divers to supplement their equipment with additional safety equipment. An observer, seeing the divers strapping on a large, very sharp diving knife, might consider this overdramatic, as there are

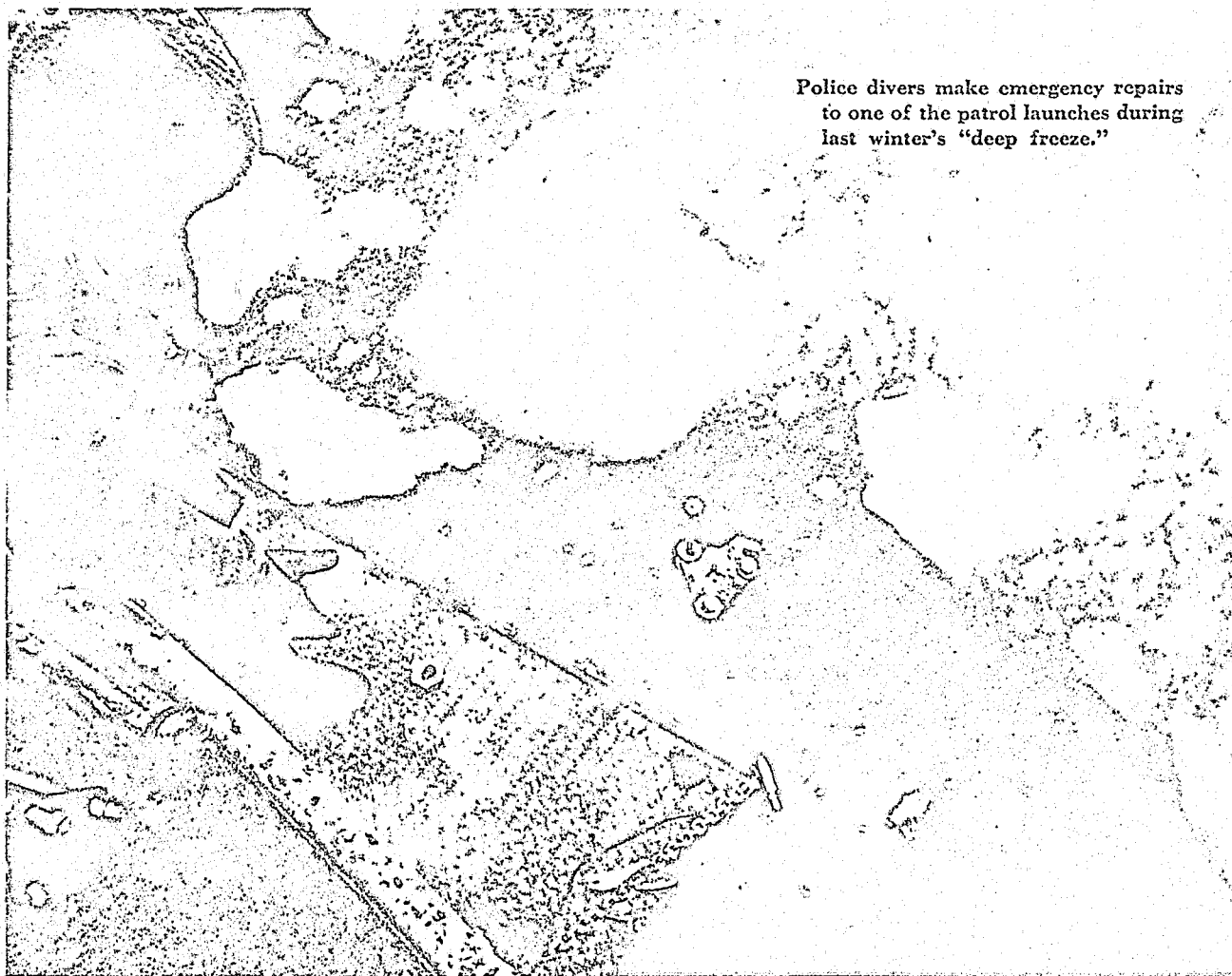
very few sharks in New York City waters. However, in the past, divers have encountered serious and potentially dangerous problems with fishing lines, discarded movie film, and computer tape. There are literally miles of such refuse under the surface, and any diver tangled in line, film, or tape could easily lose his life without the knife to cut himself free.

A diver going down into New York waters never knows what he will encounter. Underwater Recovery Team men have seen every type of underwater obstacle imaginable, including telephone booths and safes. One diver, working beneath the George Washington Bridge, found himself caught

up on the most unusual piece of junk yet encountered, a circus cage!

Just as dangerous to a diver is the junk and debris encountered on the bottom. Sharp edges of broken metal and glass can shred a diver's wet suit and skin in seconds, causing serious lacerations and possible infection. To counter this problem, the divers wear protective-covering suits over the usual wet suits. In addition, the use of heavy insulated, self-sealing gloves are essential to the safety of the officers.

The health of the divers is also an important concern to the department. Working underwater is tiresome and demanding. A diver in poor



Police divers make emergency repairs to one of the patrol launches during last winter's "deep freeze."

physical condition is a threat to himself and to his diving partners. Members of the New York City Police Department's Underwater Recovery Team are required to be in top

physical condition. Each man participates monthly in 18 hours of physical training under the supervision of the Police Academy's Physical Training School. Their physical health is the

direct responsibility of a police department surgeon, who is one of the leading authorities in hyperbaric medicine. Each diver is examined on a regular basis, and a close check is kept on his overall condition, with special emphasis placed on those conditions which could be affected by his underwater assignment.

Another role for the team is routine hull inspections, repairs, and maintenance. This practice has saved the department countless hours of down time, by not having to dry dock its craft.

The search role of this team sometimes takes on the aspect of crime prevention. For example, in 1976, the Mayor's Office, with the cooperation of the State Department, scheduled a function on board the luxury liner Queen Elizabeth II. The event was jeopardized because of bomb threats from a terrorist group. The Underwater Recovery Team was assigned to carry out a complete underwater search of the ship's hull, pier, and surrounding water. As a result of this search, the affair was able to proceed without incident.

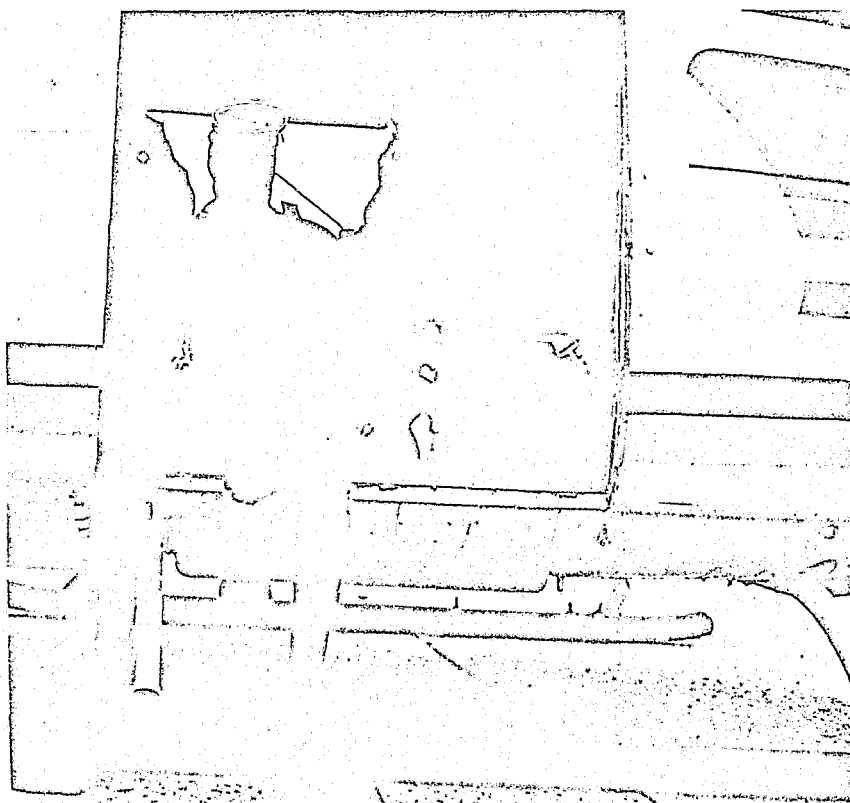


Deputy Chief Robert J. Johnston, Jr.



Robert McGuire
New York City Police Commissioner

A NYPD officer and a Connecticut State trooper prepare to take off on a jump/rescue mission. The Underwater Recovery Team frequently performs joint training sessions with other municipal police departments.



"The concept of underwater police operations is worthy of consideration by every police administrator."

The concept of underwater police operations is worthy of consideration by every police administrator. Having such capability need not be expensive and need not even be maintained on a full-time basis. In small police departments, this capability could be had on a shared basis or with trained volunteers. However, as police divers are operating in an alien atmosphere and subject to conditions where panic could cause disaster and possible loss of life, it is imperative that training be afforded by a privately certified organization or by a cooperative governmental agency.

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