The Maine tourism motto is “Maine – The Way Life Should Be.” Whether or not you agree with the motto as Maine as a place to live (many people flee the state in the winter), I do know that we have a excellent system for search and rescue. I’ve talked with many search and rescue (SAR) professionals and volunteer SAR K-9 handlers that I’ve met at the seminars we hosted in Maine as well as those I have met at seminars out of state. I’ve found that we are fortunate in Maine to have a “state of the art” system for handling people who are lost or missing in the inland woods and waters of Maine. Although nothing is perfect, we usually manage to recover most people who are lost in the woods during the first 24 hours of a search.

The Maine Warden Service, the agency in charge of inland SAR in Maine, averages about a call a day or over 300 calls a year for a lost, missing or “overdue” (the word we use when someone probably is not in danger, but late returning home) person or persons. They range all the way from lost children to boating parties who may have misjudged the weather, amount of daylight or condition of their transportation equipment. Each year, about 10% of these searches become extended, involving actual ground searches and the use of resources besides the warden in the local district.

Some History

How did this search and rescue system come to be, and why does it work so well? Traditionally, the Maine Warden Service searched for lost hunters and fishermen who represented the majority of people who ventured into the woods of Maine up until about 20 years ago. Occasionally Warden Service would help with a search for a non-sportsman. More recently, the use of ATVs, snowmobiles and extensive road building in remote areas has led to many non-sportsmen using the Maine woods so the number of searches for those who are not hunters or fishermen now exceed those for sportsmen.

In the late 1970’s, there was a massive search in extreme northwestern Maine for a young child that was missing from a family outing to a remote campground. The search went on for weeks and the boy was never located. Because of the remoteness of the area, Warden Service was one of the primary agencies involved. About this time, NASAR, the National Association for Search and Rescue, formulated and offered courses in running searches including the use of the Incident Management System.

Possibly because of the search for the boy and a search for a better search method (I am not privy to the exact reasons as I was either not hired or just hired at the time), the Maine Warden Service sent wardens and other department personnel to the Managing the Search Incident classes put on by NASAR. These courses were comprehensive in their instruction of how to run searches from start to finish and Warden Service took steps to incorporate their teachings.

Warden Service also realized that unless some central authority was put in charge of these searches, it would be difficult to run and financially support efforts if a number
of agencies or jurisdictions were competing for search management jurisdiction. In the early 1980s (I am unsure of the exact year), the legislature passed laws that: 1) Designated the Maine Warden Service as being responsible for the recovery of “lost, stranded or drowned” persons in the inland portions of the state, 2) Provided some funding for such efforts and 3) Provided for penalties for persons failing to notify Warden Service of persons who are “lost, stranded or drowned.” By putting one state-wide agency in charge of SAR, the state allowed that agency to devote the needed personnel and time to develop a comprehensive search and rescue management system.

At the same time that the Maine Warden Service was developing its management team and system, some dedicated and proactive search and rescue volunteers created the Maine Association of Search and Rescue (MASAR). Typical of Maine, MASAR’s official motto is “Find a Way.” MASAR is made up of civilian volunteer search and rescue groups and the various agencies involved in SAR. Besides Warden Service, Baxter State Park and Acadia National Park have their own SAR management systems and jurisdictions as well as the Maine Warden Service. Although the user agencies are members and advisors for MASAR, the civilian volunteer groups hold the voting powers and do most of the work. Since its formation, MASAR has created training and certification courses and standards for its various volunteer functions like basic ground search certifications, SAR dog team certifications, SAR equestrian team certifications and technical rescue certifications. The basic certification level includes basic training in SAR, first aid and CPR, and a physical fitness test that must be passed every three years to meet on-going training and re-certification standards. The training and certifications provided by MASAR have insured that user agencies have a pool of trained and qualified volunteer resources to draw on at searches.

To avoid potential problems with the qualifications of dog teams being used at Warden Service run searches, I wrote into the Warden Service K-9 Policy that all dog teams utilized for SAR functions will be certified by MASAR, the Maine Criminal Justice Academy or to a similar standard. This allows Warden Service search managers to reject dog teams that do not meet a credible standard and thus would be a potential liability at searches.

The state has provided an additional incentive to be certified: it provides Worker’s Compensation insurance for certified searchers if they are injured at a search or at organized trainings. In addition, if Warden Service is assisting another agency like the Maine State Police in doing a search for a potential homicide victim, only certified searchers are allowed to participate.

A Typical Search

So what happens at a typical search? First of all, the Warden Service response to a search depends partially on the type of search. If the person is just “missing” and there is no indication that the person is in the woods or if there is no indication that the person may be in potential danger, the search may end with a simple investigation by the local warden, or the warden may call in a scent discriminating tracking dog team (commonly a Warden Service K-9 team) to attempt a track to see if a direction of travel can be established that may give clues to the person’s route or actions.
If the missing person is in potential jeopardy due to their condition (very young, mentally or physically impaired) or due to the combination of their condition and the terrain or weather, a high priority search starts. Typical of this type of search is that for a young child or an elderly person with Alzheimer’s.

Typically, the family searches on their own and waits until darkness is falling to call. The closest wardens are dispatched to start a preliminary search and investigation. They often call out Warden Service K-9 teams and local SAR dog teams before or just after arriving on scene. On the high priority searches, the search management team and Warden Service Investigators also respond immediately. Since it takes awhile for the Incident Management Team to arrive and get set up at a command post, often the search runs for the first night at the direction of local wardens.

The quicker the search starts, the better the chances are for finding the subject. With more time, the subject can travel farther and the search area expands. With more time, the greater the likelihood is that clues like footprints or tracking scent will fade or be destroyed. With more time, the greater the likelihood is that the subject will become disabled and unable to help searchers to find them.

The first night the investigating wardens gather information from relatives and search areas close to the Point Last Seen (PLS). Wardens, Warden K-9 teams and certified volunteer SAR dog teams will be deployed the first night. Scent discriminating tracking dogs will work on establishing a track from the PLS and following it. Other dog teams and warden teams will be sent out on “hasty searches” to check areas of high probability along roads, travel lanes, water courses or places that the lost person is likely to go or end up (like at the edge of a marsh or stream). A hasty search is not designed to be a comprehensive or thorough search of an area, it is only meant to hit the most likely spots and to pick up victims that are responsive or easy to find. If the victim is unresponsive or evasive, more thorough searches may be needed.

These hasty teams often find the person the first night or shortly after daylight the next morning. If the person is mobile, they often walk out on their own before noon of the next day. If hasty teams don’t find the person directly, they may have found tracks or other clues that help to establish the path or direction of travel for the person.

If the weather is good, Warden Service and other aircraft will arrive shortly after sunrise and begin covering the search area. If the person is mobile and mentally capable, often the aircraft will spot them in an open area the next morning. Unfortunately, children and mentally impaired subjects rarely move into areas where aircraft can spot them.

Wardens make exceptionally effective search and rescue resources because they can read woods “sign” like tracks or other disturbance. When you pair a warden with a K-9 trained to detect tracks or human scent, you get the best of both worlds. Wardens are also experts in negotiating and surviving in wild terrain and navigating without roads. They have the ATVs, watercraft, snowmobiles, snowshoes and clothing to work in the woods. It is only common sense that such a resource be used for SAR.

Warden Service K-9s are trained to be utilized either as tracking dogs or on “air scent” hasty missions. Air scent SAR dogs utilize the air born scent of a person to locate the person rather than ground scent (tracking). In areas where the track is too difficult or too old to follow, air scent dogs cover areas and routes to attempt to find the victim by using air borne scent rather than by following their track.
tracking dogs area usually deployed from the PLS to work outward while air scent teams are deployed further out on hasty searches of perimeters or in areas where the lost person may have ended up. Sometimes Warden Service K-9 teams search likely areas in a hasty manner using air scent and find that the K-9 picks up a track that can be followed directly to the victim. In other cases, scent discriminating dog teams have tracked directly to the victim from the area of the PLS in spite of contamination by others. Often hasty searchers can make voice contact with the victim and make their way to the victim by shouting back and forth.

If a full search is being mobilized, then all the volunteer SAR groups in the state have been paged the night the search starts and told to arrive early the next morning. If the search planners have had time to work, they will have assignments formulated for the various resources by the time they arrive. Hasty teams will be dispatched to fan out into areas the subject may have gone. Grid search teams and area search dog teams will start doing searches that are more thorough and designed to clear areas the subject might be in to eliminate them from initial consideration.

Untrained volunteers “off the street” often arrive at high profile searches and may be utilized according to their skill and equipment levels. Obviously, people who show up to search in sandals and shorts will not be assigned to work in the woods, but they can be used on listening posts or road patrols and containment. It is important for search management to try to find a job for everyone, or those left over often wander into the woods on their own and become more of a problem than a solution. At searches for lost children, the number of untrained volunteers that show up can be in the hundreds or thousands. Large numbers of local people who know the area and others who don’t end up in the woods on their own freelance missions, destroying the sign of the lost person and interfering with the air scent dog teams that are trained to find everyone in their areas, missing or not. Usually by noon of the first day on these massive searches, the air scent or hasty dog teams retreat to rest and plan on searching during the night when the untrained searchers retreat from the woods with the coming darkness.

While all the searching is going on, investigators continue to gather information about the subject and canvass local residents for sightings, etc. Sometimes a valid sighting can lead to a new emphasis in the location of the search. Other times the subject is located safe at another location. While the search goes on, the family and press have to be kept informed, transportation to remote areas of the search, meals, and lodging for the participants provided for and the financial and personnel costs and deployments recorded and planned. Large searches are massive and expensive operations.

Based on the results reported by searchers that return to the command post or report in by radio, the search planners constantly revise their assignments for searchers. Areas can be assigned and searched by evaluating probabilities and by using other mathematical or logical models. Often the subject is found by a process of elimination. Once several areas have been searched thoroughly, only a few remaining areas may be left. Most of the time with this system the subjects are found easily and quickly, but sometimes searching is just a lot of hard work in bad weather by all sorts of resources.
GPS Use

The use of GPS units to record searchers’ tracks and the use of mapping software are essential to the Maine Warden Service planning and searching process. Tracking dog teams record the routes they take, and whether or not they are successful at finding the victim, they return to the command post and download those routes into computer mapping programs. This gives planners the exact route the team took displayed on a map. A hasty or area search team will typically work for half a day and then return and download their GPS tracks. This allows the planners to see exactly where the team went and what they covered. Mapping programs allow planners to download search areas and route or waypoints directly into the searchers’ GPS units so that is no confusion in getting to and completing search assignments. Many of the current mapping programs utilize satellite photography, so the planners can see exactly what they have on the ground. GPS use also allows searchers to communicate locations accurately and insures that land navigation is easy and accurate. GPS use coupled with mapping programs integrate all the resources and planning at a search.

Dog Teams in SAR

SAR trained dog teams have also become an integral part of the SAR process in Maine. They are usually the first SAR resource called by wardens. Often a local police patrol K-9 team responds, and if the dog is a good tracking dog or gets an easy track, they are able to locate the subject. More often the police K-9 is not trained in scent discrimination or search and rescue type tracks and the K-9 will track the family members who have been searching, or start the correct track and loose it along the way. It is unfortunate that more police K-9 teams don’t work on scent discrimination because it is an integral part of tracking training and easy to add to a tracking training program.

Sometimes patrol K-9s that have not had training in air scent search and rescue will attempt to search for lost or missing subjects by searching areas off lead. If the terrain is open and the handler can see the dog most of the time, this often works, but I know of many horror stories where patrol dog teams failed to locate unresponsive subjects and left, assuming they had searched the area and cleared it. Unless a team trains and certifies in air scent SAR work, they can’t rely on their work to say an area has been “cleared.” Utilizing a dog on a relatively short, “aggressive mode” area search for a fleeing or evasive criminal is very different from trying to search large areas for a passive, unresponsive subject. The dog team has to be trained in air scent SAR to be effective in searching large areas for an unresponsive subject.

Lessons Learned

What can be learned from the Maine method? First, one agency or one authority (possibly made up of members from several agencies) should be in charge of search and rescue, and that authority should have the resources to establish a search management team and train resources that respond to searches. Second, the jurisdiction of that authority should be clear and respected by other agencies who take on an assistance role. Third, trained volunteer resources have to be developed and supported by the state and
agency during training and search operations. Fourth, the majority of volunteer resources, dog teams and other technical resources utilized by agencies must meet a credible standard or other qualifications to be effective and to minimize liability to the managing agency. Fifth, searches need to start as soon as possible and be conducted with “state of the art” training and resources. Failing to provide for any of these points might result in the injury or death of a subject and liability on the part of the responding agency.

Maine’s SAR system had proven itself to be highly efficient. Maine has very few lost or missing persons that were searched for and have never been located in the last twenty years. The same system and trained search and rescue resources have also been utilized by detectives from various agencies in and out of the state to search for homicide victims with reasonable success, broadening the application of the search and rescue system.

What is the SAR system or authority in your state? If you are a police K-9 handler, you should be familiar with the system because you are likely to be called to search for missing or lost persons, whether or not you are trained in this area. You need to know who to call for help or to report the search when you get that call. You can’t do a large search effectively alone. If there isn’t a good system in your state, then initiate or support efforts to start one.