SAR ACADEMY

February 6, 2023

Honorable Representatives of the State of North Dakota and All Concerned,

NASAR is the leading Search and Rescue (SAR) education, certification, publishing and advocacy non-profit in the US.

The National Association For Search And Rescue (NASAR) originated when the Search and Rescue Coordinators in a few western states met in 1970 where they determined the state level need for:

- Legislated Authority and Responsibility for SAR Response
- Legislated Standard of Care for SAR Response
- Volunteer SAR Responder Protections
- Formal Mutual Aid System
- State SAR Coordinator Position

These five inter-related topics, when properly implemented will provide the residents and visitors of North Dakota and the Tribal Territories the safety, security and protection they deserve and expect.

SAR response is a life-saving service that is 99% volunteer based. It enhances the law enforcement agency response to a missing person event, the fire agency response to a personal in peril requiring rescue and it extends the pre-hospital EMS care system into austere and primitive environments where extended travel requirements are life threatening. Yet, there is little or no legislation supporting, directing, defining, or providing budgetary support to this life saving service and its necessary volunteer citizen cadre.

The North Dakota Century Code Chapter 12-68-05 addresses the responsibility of acceptance of missing person reports, the definition of a high-risk missing person, and directs the Office of the Attorney General to develop and missing persons procedure manual.

The Century Code does not define who is responsible for search and rescue of the missing person, what training or certification is required of the SAR responder, how an overwhelmed agency asks for SAR assistance, who coordinates state level SAR coordination, or what support is provided to a volunteer's family if the volunteer is injured or killed while on a humanitarian SAR mission.

The North Dakota Bureau of Criminal Investigation Policy and Procedure for Missing Persons does not recognize the existence of SAR resources, does not mention the notification or application of SAR resources to a missing person incident.

SAR ACADEMY

In November of 2022, the North Dakota Attorney General, Drew Wrigley launched a new statewide missing persons database. The implementation of an effective SAR program will help minimize the addition of new missing person cases and the resolution of cold cases.

Attached to this testimony is the NASAR publication *Successful State SAR Program Design*. It was written with decades of experience and research into best practices from states, provinces, and territories throughout North America.

Christopher Boyer
Executive Director
925-586-3357
chrisb@nasar.org

SAR ACADEMY

SUCCESSFUL STATE SAR PROGRAM DESIGN

SAR ACADEMY

Successful State SAR Program Design

Introduction

In each state, every resident and visitor deserve the same and equal response to any emergency situation., especially a missing person event. This equality of emergency response is typically legislated regarding law enforcement, fire, EMS, disaster response, and judicial services. However, missing person Search And Rescue (SAR) response is rarely legislated and results in varied level of response from a deliberate professional response to no response at all.

NASAR considers Search And Rescue a critical life safety service for every community. Part of NASAR's mission is to advocate for all SAR responders, missing persons and the families of the responders and missing persons.

SAR is more complex than one initially might think. It typically involves at least three (3) emergency response disciplines, and may include overlapping jurisdictions, multiple government levels, and result in civil or criminal prosecution. Searches can last from hours to years, with a handful of trained responders to hundreds of convergent, untrained volunteers. The is no way to predict the complexity, resource demands, or time required to resolve a missing person incident.

In general, the first report of a missing person goes to the local 911 Public Safety Answering Point (PSAP). This is where the first of many complexities can occur. Where does the 911 call come from? Is it from a municipal location, unincorporated location out of state location, location on federal or tribal land, location on state park or national park land, or a location of a military base, or a combination of any of the above? Already you can see how difficult SAR response starts out.

Does the PSAP dispatcher have clear and unconflicted direction on where missing person calls are routed to? Initially it should be a law enforcement agency so that the missing person can be placed into the National Criminal Information Center (NCIC) Missing Persons File. The responsible jurisdiction must also be careful to adhere to 42 USC 5779 and 42 USC 5780 which codify the 1990 National Child Search Assistance Act.

Once the call is dispatched to the municipal police department, county sheriff, state police, fire department, EMS/ambulance, state park rangers, National Park Service rangers, tribal police, Bureau of Indian Affairs Police, or FBI as the Agency Having Jurisdiction (AHJ) the initial report gets taken. The AHJ may not have SAR resources and must contact the local SAR response organization(s).

The local SAR response could be a single, or multiple SAR teams, SAR teams may be cooperative or competitive, law enforcement managed uniformed volunteers, volunteer firefighters, volunteer EMS responders, well-meaning convergent volunteers, or even advocacy groups that are not law enforcement or government friendly.

Once the missing person is found, they may require technical rescue, which some SAR teams are capable of, but in many cases the local fire department responds to perform the technical part of the rescue or a different SAR team like a Mountain Rescue Association (MRA) team does the rescue. Once the missing person is accessed, they are stabilized and handed off to the pre-hospital care system (EMS/Ambulance) for assessment and transport if required. The alternative is the missing person is found dead, and the location becomes a crime scene for the local law enforcement jurisdiction, and then the missing persons body is turned over to the local coroner or medical examiners office. Or, the missing person isn't found and the case becomes a long-term investigation by law enforcement. In SAR we refer to this as LAST – Locate Access Stabilize Transport.

All this assumes that someone is in charge from the AHJ. That there is an incident commander that takes responsibility appropriately and is experienced in dealing with missing person searches, has access to trained and certified SAR resources, and that all the other agencies and organizations responding respect the Incident Commanders authority and cooperate.

It is easy to see how complex a missing person case is and how many jurisdictions, agencies, and organizations may get involved in the search, investigation, rescue or recovery.

Core Areas For Success

NASAR believes there are five (5) core areas that a State (or large government agency) should address to build and support a successful SAR response system. These core areas are interconnected, interdependent, and it is difficult to have a successful program without all of them working together.

Legislated Authority And Responsibility For SAR Response

Every state or territory level of government should have in place legislation naming the primary response agency/organization for missing person searches/wilderness SAR. Due to the complexity of SAR response, this legislation may also include Memorandums of Understanding (MOU) or Agreement (MOA) between agencies regarding individual responsibilities and jurisdictions to minimize confusion during response. This is not the same as ESF#9 responsibility in NIMS or state level Urban SAR (USAR) response plans.

Legislated Standard Of Care For SAR Response

Every state level of government should have in place a legislated standard of care for SAR. Any standard should be respectful of the authority granted to the local jurisdiction for response. It is more efficient for an agency to adopt standards from current standards organizations than to develop standards on their own.

Volunteer SAR Responder Protections

NASAR believes that all appropriate volunteer SAR responders should be provided the same level of basic protections when participating in approved training or response. The protections provided should include:

- Workers Compensation
- Short Term Disability
- Long Term Disability
- Death Disability

These protections should also be provided to adolescent volunteer responders such as Explorer Scouts, Civil Air Patrol Cadets, government agency youth programs, and other community and faith-based organizations that have been authorized to participate in the system and provide responders.

The protections are best provided at the state level, where the state has a financial economy of scale that smaller agencies would not have access to. Many if not all states are self-insured, and this structure would provide appropriate and equal oversight to claims.

A good example of this type of protection program is the California Disaster Service Worker Volunteer Program (CA DSWVP). More information on the CA DSWVP program can be found at the CA Office of Emergency Services website.

Formal Mutual Aid System

Mutual aid should be coordinated at the state level, providing for the prioritized coordination of the limited SAR resources within the state. Mutual aid should be provided between jurisdictions on a voluntary basis and without charge. Resources requested through mutual aid should be based on the state standard of care and resources provided should meet the state standard of care.

Mutual aid ensures that every missing person gets the same level of response without penalizing any one jurisdiction.

A formal mutual aid system enables better resource integration into EMACS and interstate MOA or MOUs.

State SAR Coordinator

Somebody needs to be in charge and be the champion of SAR within government and the budget process. The State SAR Coordinator becomes the owner of the state level standard approval process, formal mutual aid coordination and dispatching, and pre-approval of volunteer protection claims on their way to state risk management.

The five core elements work like this. The State will not want to provide volunteer protections to unorganized groups that do not follow standards or comply with AHJ policies. To solve this, the state needs to enact legislated authority and responsibility for SAR and adopt legislated standards for SAR response. This ensures the volunteer protections protect qualified and responsible individuals and only qualified individuals are responding to agency requests. A formal mutual aid system and the legislated authority eliminate competitiveness and reward collaboration between agencies and organizations. The State SAR Coordinator position is the champion, gatekeeper, and coordinates the mutual aid system. Without formal mutual aid or legislated authority, you get competition. Without a standard of care, you fail at mutual aid and suffer from a lack of volunteer protections. Without volunteer protections, you have a hard time enforcing the standard of care.

Standards For SAR

There are numerous standard setting bodies/organizations that develop standards for SAR. NASAR is *not* one of them. NASAR develops education and certification to meet the standards developed by third parties. NASAR *does not* develop SAR standards. SAR standards come from ASTM, NFPA, CSA, ISO, ANSI, DHS/FEMA, NSARC and other similar organizations. ASTM has the F32 committee that focuses on SAR, and the F38 committee that focuses on unmanned aerial systems aka drones. The F32 committee currently has 96 standards that relate to SAR (see Appendix A), including F3069-13 which is the "*Standard Guide for Requirements for Bodies that Operate Certification Program in the Field of Search and Rescue*". This guide should be of interest to any agency or organization that is considering providing a certification or accreditation in SAR knowledge, skills, or abilities. F3069-14 is what your program will be measured against in court regarding the structure of your program.

Any agency or organization considering developing a SAR program, should research all the standards to ensure they are not negligent in their efforts, or setting their responders up for failure. NASAR utilizes standards from ASTM, NFPA, CSA, ISO, ANSI, and DHS/FEMA, NSARC to develop their programs. Some standards bodies reference NASAR programs as requirements, prerequisites or as meeting their standard.

NASAR develops a crosswalk for each certification against the applicable standards. The crosswalk records each standard requirement, where it is covered in the curriculum, textbook page number, slide number, written testing and practical testing. The crosswalk is reviewed by the entire board for accuracy and is provided to the instructors and lead evaluators for their convenience.

Certification for SAR

Once a standard has been selected, then a certification rubric needs to be developed. A written and practical testing and scoring paradigm supports the successful satisfaction of the standard.

Recertification

SAR based knowledge, skills, and abilities are perishable, have a limited shelf life, or need to be reviewed regularly to ensure continued compliance. All certification programs need a recertification process that adequately addresses knowledge, skills, and ability maintenance and capability. This process can be built around performance testing, additional education, experience, or knowledge testing.

You will need a policy around recertification, a process to track responders who are due to recertify, and provide updated certificates.

Agencies and organizations will also have to develop a policy and program for remediation of responders that have failed recertification, or whose certification has expired.

Grandfathering Current Responders

If the agency is implementing a new standard, they will need to determine how long a current responder has to comply, what credit the responder will get for their previous education and certifications, and what documentation will be required to qualify for the credit.

Education for SAR

Your education program should use a broad mix of the five methods of learning:

- Direct – lecture, demonstration
- Experiential – role play, simulation
- Independent Study – read ahead, tutorial, research
- Indirect – case study, concept mapping, inquiry
- Interactive – discussion, panel, debate, brainstorming

NASAR seeks to provide all five methods where possible in its education programs. There are many books on adult learning concepts and best methods for student interaction and use of tools like Boole's.

Record Keeping

The ASTM F3069 standard describes record keeping requirements. Agencies or organizations considering providing education and certification will need to review their agency/organization policy on record keeping and personal data privacy. If the organization is a federal non-profit education organization, they will need to review Department of Education requirements they need to comply with as well.

Record Retention Policy

Organizations providing SAR education or certification will need a Record retention policy that satisfies their existing organizations needs. If the existing policy is not relevant because it has not considered this type of record keeping, then a new record retention

policy must be approved and implemented. NASAR keeps its educational and certification records for 20 years in most cases.

Personal Data Privacy / Security

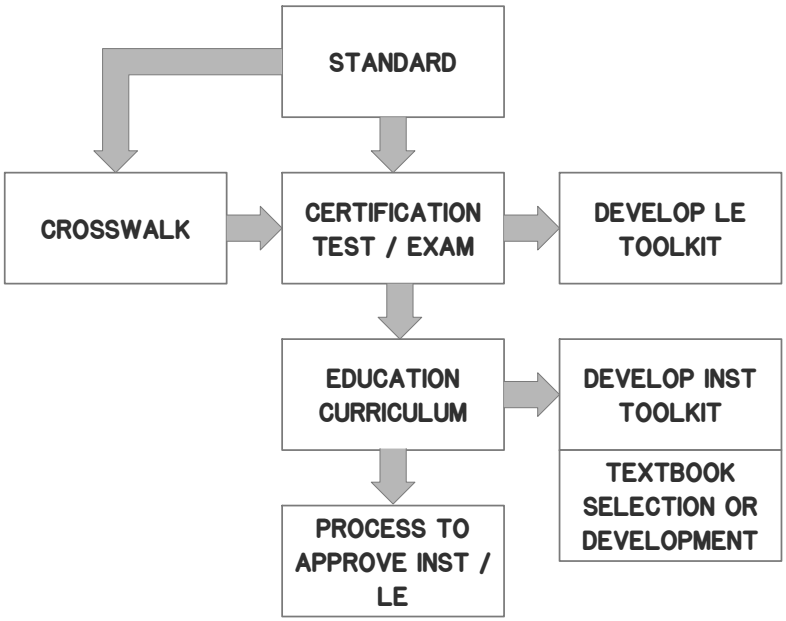
Organizations providing SAR education or certification will need a Personal Data Privacy policy, which satisfies their existing organizations needs. NASAR does not share student data with outside organizations. Student data is protected by multi-layer security software and encryption.

Records Requests Policy / Subpoenas / Approval

Organizations providing SAR education or certification will also need policies around records requests through FOIA, subpoenas or other court orders. In some cases, there is case law protecting responder training records, but that needs to be researched locally. NASAR refers all official records request to its attorney for review and approval, unless the student has signed a records release.

Education/Certification Development

NASAR has an adopted process for the development of education and certification materials from a third-party standard. This flowchart shows the process at a high level.



The first step is to determine the standard(s) that apply to the job description / position you want to staff (Wilderness SAR Responder, SAR Canine Handler, etc.) The next step is to crosswalk the standard(s) to determine any overlap or conflicting requirements. The second step is to develop the certification (i.e. written and practical test materials) that meet the standard, and the toolkit that would assist the evaluator to conduct and properly assess the examination.

The third step is to develop the education curriculum (i.e. handouts, slide shows, demonstrations, etc.) that prepares the student to take the certification test. The fourth step is to develop the instructor toolkit that assists the instructor in presenting the materials appropriately. Part of the fourth step includes the selection or development of a textbook to support the educational materials. The fifth step is to develop a process to determine who is capable of teaching and evaluating with the materials and get them trained on the materials. Then rollout of the program can begin (which is a whole other set of planning and communication).

Textbooks

Development of a textbook from scratch is the most expensive part of the curriculum process, and it takes the longest amount of time. Authors typically struggle to get over 500 words a day on paper. There are copyedit costs, photo and illustration licensing costs to consider, as well choice of color printing or grayscale. When printing, many government agencies now require books to be printed on 30% recycled paper with environmentally friendly ink. NASAR has a long history of contract and self-publication, and in our experience it can take two years or more to produce a quality textbook like our *Fundamentals of Search and Rescue* text.

Instructor Materials

Instructor materials are essential to build new instructors and support current instructors. The quality of the instructor materials will directly affect the quality of instruction and the consistency of the education. Quality control of instruction starts here.

Presentation Materials

Lecture based presentation materials are typically thought of as PowerPoint. But there are other programs like Prezi, Digideck, Visme, Haiku Deck, Canva, Google Slides and Keynote. These are all meant to support the speaker and provide high level graphics, illustrations, photos and videos for the audience. They are not meant to just be a script for the instructor to read. In some instances, students may benefit from copies of the presentation as a handout to take notes on or refer to later.

Developing lecture materials is not as easy as copying the materials in a textbook onto a slide. Textbook items are typically copyrighted and require permission to use. There are numerous texts, guides and courses on how to best develop presentations and slide decks, no need to go into that here. The rule of thumb for slide development is 1 hour per slide. Sounds like a lot of time to just put 5 sentences on a slide, but this includes the time it takes to learn the slide program, research and understand the material you are trying to convey, format the slide, choose a font and color, add your logo, add the instructional material, develop the instructor script, check for typos, review the entire deck and script when it is done to make sure it flows and conveys the material as required.

Ideally, your instructors will know the education material so well they could teach it without the slide deck if required (this is a good way to test instructor knowledge of a topic). NASAR strives to minimize lecture where possible and create hands on experiential training.

Experiential based materials include ropes/cordage for knot tying, first aid supplies for care practice, maps and compass for navigation training, stokes for packaging, etc.

Student Materials

Student materials are items that support the students learning and encourage their curiosity and interest. For a lecture, you might want to provide a printed copy of the presentation to assist students in note taking. You might also want to provide relevant articles or reports that support the instruction, but you don't have time to cover during the lecture.

For experiential education you will need to look at the items required to demonstrate/practice the skills being taught and practiced. If we are teaching ropes and knots, each student should be provided appropriate quantities and lengths of cordage, webbing, rope, and hardware to perform the skills. Each skill should be assessed for student practice needs as the education materials are being prepared. Anytime you can get students practicing a skill instead of just watching or listening is a better education experience.

Written Testing

Written testing primarily tests knowledge. Your written test should crosswalk back to the material you taught, the textbook, and student handouts. You will need to develop the test itself, a student answer sheet and an answer key. You will also need to determine what a passing grade is, how long the test is good for, and a policy for retesting failures.

Practical Testing

Practical testing is designed to test capabilities and skills. Typically, practical skills are tested in-person using operational testing. Since the testing of skills is somewhat subjective, you will need to develop a set of testing criteria, how long the skills test is valid for and a policy for retesting failures.

Experiential Review

Experiential review is designed to determine what and how much of a candidate's experience qualifies as knowledge, skill, or ability that is required. In some cases, the use of a continuing education (CE) credit system is used. This is a very subjective

area and will need a great deal of discussion and development. Once adopted, you will need a process for receiving, validating, and crediting the responder with the experience.

Train The Trainer Program

Your agency will need to find, develop, and deploy instructors and evaluators for your program in enough numbers and with enough availability to build an adequate number of SAR responders. Your trainers will need the time to study the materials, arrange course details, and prepare for each class as well as teach and report the students' progress. You will also need to develop a feedback system to ensure the quality of your instructors and their instruction.

Finding Educators and Evaluators

In many cases SAR subject matter experts (SME's) step up to be instructors or evaluators. In other cases, power and influence motivate individuals to seek out instructor or evaluator positions. When SAR members mature and age they also tend to minimize their field experience and become instructors. Some agency members will gravitate towards instruction because it typically means more overtime and financially benefits them. Your concern will be to select individuals who are good communicators, understand the material, are fair, have the time, and have the presence to represent you appropriately.

Program Deployment

Deploying the program will be a combination of having students come to your training centers, and you sending instructors and lead evaluators to their training facilities.

Political Environment Considerations

There are political considerations when it comes to providing certification to different agencies, jurisdictions, and volunteers. Sheriffs are elected, and almost every other agency head is either an appointed civil-servant or a volunteer. Some jurisdictions may also have to overcome competition between disciplines (e.g., fire versus law enforcement) or between paid responder and volunteers or even agencies versus advocacy groups.

Volunteer Considerations

Most SAR responders are volunteers. Education and certification will need to be developed for a volunteer audience which will have diverse educational backgrounds, financial resources and time constraints.

Scheduling Courses

Volunteers are typically available for training on weekends, and intermittently on weekdays. This runs counter to agency personnel which are typically available during

M-F day shift. If the instructor cadre is built around agency personnel, then weekend overtime for them will be a consideration in budgeting.

Engendered Reliance

There is a concept call "engendered reliance" which means a situation where an institution has encouraged its customers (audience) to become reliant on their services and is therefore legally obligated to provide those services. If you build a SAR team, and advertise it, and respond to missing person calls, then at some point according to the definition you are expected to respond (not at your convenience, but every time). Imagine a situation where your non-profit has been advertising that you are a SAR team for years. You dispatch your members on calls regularly. Then one day you don't have anyone that can respond. The family calling you is upset because you have staffed every call you have gotten for several years. Now you don't have anyone to respond for whatever reason. The family decides that you are not responding because you are either incompetent or discriminating against them. Either way your team is not going to look good to the press, local agencies, or the courts. Legislated response and a formal mutual aid system helps protect you from this sort of situation. This applies most to non-agency organizations, but you should consult an attorney, because this paper is not legal advice.

There is another application of engendered reliance you should consider. For example, your agency decides it is going to be the single provider of training in your state. You publish policies regarding your responsibility as the training agency and maybe you even get it legislated. Then, because of budget, or staffing, or lack of program material, you don't provide any courses or certifications, or you only provide them sporadically and have a long wait list for course demand. You just set up your SAR teams for failure. They rely on you for their training, but you are incapable of providing the training as required to build responders. A legislated standard of care that accepts education and certification programs that meet or exceed the standard allows responders to select from vendors or agencies as certification providers taking the pressure of your agency. I will reiterate again that you should consult an attorney, because this paper is not legal advice.

Budget / Cost

It all comes down to budget and cost. If you require the responders to come to you for their training and certification and intend to build the education and certification programs in-house, expect to develop a multi-year budget and a multi-year roll out plan.

A state level program will have an economy of scale that a county, parish, borough, or township program will not have.

NASAR Can Help Your Program Succeed

This is a lot to consider and take on. Since 1973, NASAR has dedicated decades of efforts by thousands of contributors to develop and present its education and certification programs. Programs require continuous maintenance and upkeep to stay abreast of evolving technology,

legislation, experience, and maturing social considerations. The national and international economy of scale allows NASAR to provide and maintain quality programs that are priced with volunteers in mind. Your agency will have to consider what budget, resources and time are available to it for development and maintenance of a SAR education and certification program.

NASAR is not an operational organization. It focuses solely on education, certification, and advocacy. NASAR is not an operational competitor to your field teams.

Through our advocacy program we can help you form legislation and policies, point you towards peers that have been in your shoes or help you navigate the world of standards. We offer guidance like this paper for free to our responder audience.

Our certification and education programs are already built, meet the most important standards making them interstate friendly, and are accepted internationally. We have built position task books that support the standards and your AHJ requirements. You can roll out our programs in a matter of weeks, not years. We can provide instructors, or help you build your own instructors.

Regardless of the route you take to success, we wish you the best of luck, and please extend our gratitude to your volunteers for their SAR stewardship in their community.

Appendix A
Standards That NASAR Meets Or Exceeds

NASAR certifications have been developed and used since 1973, longer than any other North American SAR certification body or state program. Many, if not most current agency or organizational certifications have their roots in NASAR material or are unauthorized copies of NASAR materials. NASAR has never provided authorization for an organization to duplicate its certification or education materials under copyright law.

State Of California Governors OES Mutual Aid Guidelines

In CA there is legislation directing the responsibility for SAR to the county sheriff. Each of the 58 county Sheriffs have a volunteer SAR team(s). Some counties like San Bernardino have dozens of teams encompassing thousands of uniformed volunteers, while other counties like Alpine have a single team that has less than 50 members.

In 2002, the California State SAR Coordinator, Deputy Chief Matt Scharper met with the county SAR coordinators representing the 58 county Sheriff's to begin developing more formal mutual aid guidelines. Each Sheriff was allowed to use whatever standard they wanted for their in-county response. However, to engage in the state OES managed SAR mutual aid system, a team would need to meet the mutual aid guideline. These guidelines were developed by county SAR coordinators under Deputy Chief Scharpers supervision and were presented to the CA State Sheriff's Association for adoption. Deputy Chief Scharper was sensitive to the politics of dealing with elected officials, and one of his requirements was that any guideline produced did not exceed the lowest standard any Sheriff or OES team used, essentially building a guideline that would be all inclusive of any program in the state. CA OES eventually produced and adopted guidelines for:

- SAR Alpine Team Guideline
- SAR Dog Guideline
    - SAR Dog Avalanche Appendix
    - SAR Dog Cadaver Appendix
    - SAR Dog Water Appendix
    - SAR Dog Disaster Type 3 Appendix
    - SAR Dog Disaster Type 4 Appendix
    - SAR Dog Trailing Appendix
- SAR Fixed Wing Aircraft Guideline
- SAR Ground Searchers Guideline
- SAR Incident Support Team Guideline
- SAR Mounted Teams Guideline
- SAR OHV Guideline
- SAR Swiftwater-Flood Guideline

- SAR Technical Rope Rescue Guideline
- SAR Tracking Guideline
- SAR Underground Guideline
- SAR Underwater Guideline
- SAR – USAR Guideline

Chris Boyer (NASAR Executive Director) helped author and was involved in the development of many of the CA OES guidelines, including the canine guides.

> Note: The CA OES Canine Mutual Aid Guidelines mention the American Rescue Dog Association (ARDA)certification by name. This was done to recognize it as the lowest certification accepted by CA OES and allow others to benchmark themselves against it. NASAR meets or exceeds all the CA Canine guidelines (including ARDA standards) and has been recognized by CA OES for the same.

Appendix B
SAR Related Documents

National Search And Rescue Committee (NSARC)
The NSARC is a federal-level committee formed to coordinate civil search and rescue (SAR) matters of interagency interest within the United States. The NSARC consists of representatives from:

- Department of Homeland Security (DHS)
  - U.S. Coast Guard
  - USCG Search and Rescue Program
  - FEMA Urban Search and Rescue
- Department of Defense (DOD)
  - Office of the Secretary of Defense (OSD)
  - Defense POW/MISSING Personnel Office
  - U.S. Air Force
  - USAF Rescue Coordination Center (AFRCC)
- Department of State (DOS)
  - Ocean and Polar Affairs
- Department of Commerce (DOC)
  - National Oceanographic and Atmospheric Administration (NOAA)
  - NOAA Search and Rescue Satellite-Aided Tracking (SARSAT)
- Department of Transportation (DOT)
  - Federal Aeronautical Administration (FAA)
- Department of the Interior (DOI)
  - National Park Service (NPS)
  - U.S. Geological Survey (USGS)
- Federal Communications Commission (FCC)
- National Aeronautics and Space Administration (NASA)
  - NASAR SAR Mission

NASAR attends and presents at the NSARC meetings and sits on the committee that develops and publishes the guides.

The NSARC publishes several SAR guides including:

- United States National SAR Supplement (NSS) Version 2.0
  NSARC developed this Version 2.0 of the *National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual* for SAR Coordinators, planners, and responders. When compared to the original NSS, this

version was completely rewritten to provide the SAR professional with a. broad overview of general SAR principles and operations, as well as explain the organization of the U.S. SAR system, in support of the National SAR Plan (NSP) and *IAMSAR Manual*.

- Critical Incident SAR (CISAR) Addendum Version 3.0
  The third revision of the *Catastrophic Incident Search and Rescue (CISAR) Addendum* to the *National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual* continues the National Search and Rescue Committee's (NSARC) work in developing guidance for Federal SAR responders in the conduct of disaster response search and rescue (SAR) operations.

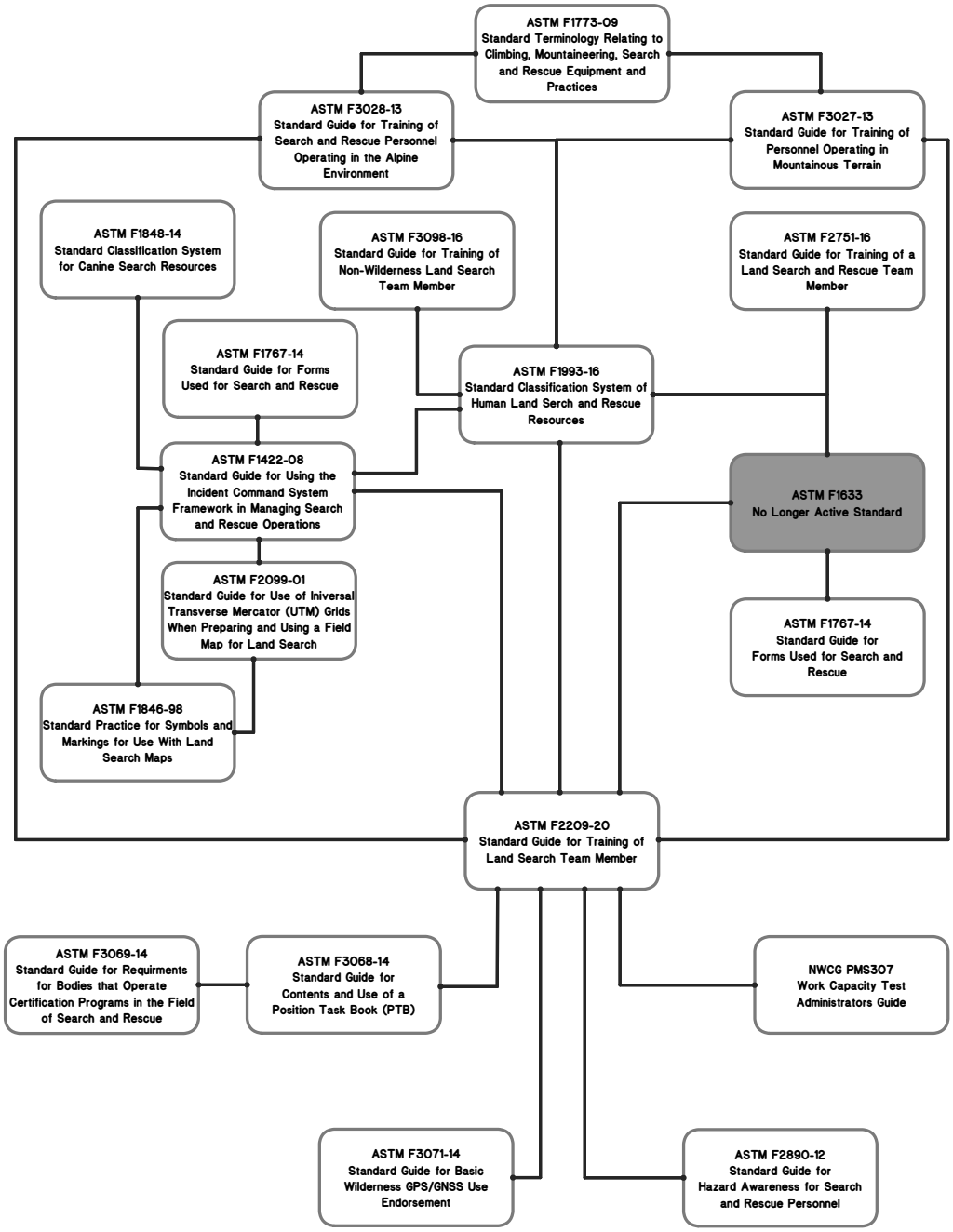
- SAR Unmanned Aircraft Systems (UAS) Search and Rescue Addendum Version 1.0
  This Unmanned Aerial System (UAS) Search and Rescue (SAR) Addendum was developed by the United States Search and Rescue Committee (NSARC) to provide background, guidance, and relevant information on the use of UAS in SAR operations.

- Land SAR Addendum Version 1.0
  The Land SAR Addendum was created to provide standardized guidance and information on the search and rescue of persons, vehicles, and missing aircraft operations. This addendum further expands on the implementation of the *United States National Search and Rescue Plan (NSP), The National SAR Supplement (NSS) to the International Aeronautical and Maritime SAR (IAMSAR) Manual* and is the land SAR equivalent to the *United State Coast Guard Search and Rescue Addendum to the NSS*, which provides detailed guidance for the conduct of SAR operations in the oceanic environment.

ASTM SAR Standards

The ASTM Committee F32 on Search and Rescue develops standards for all areas of Search and Rescue. ASTM is a members based society that develops standards based on member contribution and collaboration. NASAR has representation on the F32 committee and monitors the committees work products as they are published. ASTM standards may reference other standards from 3rd parties as prerequisites or foundations.

This figure is an example of the related ASTM standards to meet the ASTM F2209-20 *Standard Guide for Training of Land Search Team Member*. ASTM F2209-20 is the basis for the NASAR SARTECH II Wilderness Searcher certification and education.



The current F32 standards that apply directly to land SAR include:

- F1422 ICS in SAR
- F1453 Training and Evaluation of First Responders who Provide Emergency Medical Care

- F1591 Visual Signals Between Persons on the Ground and in Aircraft During Ground Emergencies
- F1616 Scope of Performance of First Responders Who Practice in the Wilderness or Delayed or Prolonged Transport Settings
- F1653 Scope of Performance of Triage in a Prehospital Environment
- F1654 Training and Evaluation of Individuals Responsible for or Perform Triage in a Pre-Hospital Environment
- F1655 Wilderness Responder Delayed Care
- F1767 Forms Used for Search and Rescue
- F1768 Whistle Signals
- F1772 Harnesses
- F1773 Terminology Relating to Climbing, Mountaineering, Search and Rescue Equipment and Practices
- F1846 Map Symbols and Marking
- F1847 Minimum Training of SAR Dog Crews or Teams
- F1848 Canine Classification System
- F1879 Demonstrating Obedience and Agility in a SAR Dogs
- F1993 Classification System of Human Land SAR Resources
- F2047 Workers Compensation Coverage of Emergency Services Volunteers
- F2099 UTM Grid Mapping
- F2209 Search Team Member
- F2662 Minimum Training of Dispatchers for SAR Incidents
- F2685 Search Team Leader
- F2751 Support Search and Rescue Team Member
- F2794 Level I Mounted SAR Response
- F2852 Tracker Training
- F2890 Hazard Awareness for SAR
- F3024 Training for a Land SAR Strike Team/Task Force Leader
- F3027 Mountainous Terrain
- F3028 Alpine Training
- F3068 Position Task Book
- F3069 Requirements for Bodies that Operate Certification Programs in the Field of SAR
- F3070 Area Dog
- F3071 Basic GPS
- F3072 Intermediate GPS
- F3098 Training of Non-Wilderness Land Search Team Member
- F3144 Evaluating Trailing SAR Dog Crews or Teams
- F3193 Training of a Land SAR Team Leader
- F3222 Terminology Relating to F32 Land SAR Standards and Guidelines

Department of Homeland Security (DHS) / Federal Emergency Management Agency (FEMA)
The National Integration Center (NIC) spent over a decade post 9/11 developing Resource Typing in support of the deployment of the National Incident Management System (NIMS) and the Incident Command system (ICS) for all-hazard management. The development of the Resource Typing Library Tool (RTLT) was heavily weighted with fire command experience, and very little wilderness SAR experience. The RTLT includes 852 Position Task Books (PTB), Position Qualifications (PQ) and Resource Typing Definitions (RTD).

These DHS documents typically reference back to standards from others. For example, the Land Search Rescue Technician (8-509-1193) references ASTM F2209-14, ASTM F2751-2009, ASTM F2890-12, ASTM WK45629, MRA 105.1, NFPA 1006, NIAC IAT Guide 2014, NPS RM-59, OSHA 29CFR Part 1910.120 and OSHA 29CFR Part 1910.1030. To be completely certain that an agency meets or exceeds these standards they will need to build a relationship diagram between the referenced standards and crosswalk them to each other.

DHS produces all-hazard resource types, some have an indirect relationship to wilderness SAR through ICS implementation, but the following entries are SAR specific:

- 8-508-1007 Air Search Team (Fixed Wing)
- 8-509-1256 Boat Crew Member (Search and Rescue)
- 8-509-1255 Boat Operator (Search and Rescue)
- 8-509-1175 Canine Search Specialist – Disaster/Structural Collapse Human Remains
- 8-509-1176 Canine Search Specialist – Disaster/Structural Collapse Live
- 8-509-1177 Canine Search Specialist – Land Human Remains
- 8-509-1178 Canine Search Specialist – Land Live
- 8-509-1179 Canine Search Specialist – Water Human Remains
- 8-508-1164 Canine Search Team – Disaster/Structural Collapse Human Remains
- 8-508-1165 Canine Search Team – Disaster/Structural Collapse Live
- 8-508-1166 Canine Search Team – Land Human Remains
- 8-508-1167 Canine Search Team – Land Live
- 8-508-1168 Canine Search Team – Water Human Remains
- 8-508-1015 Cave Search and Rescue Team
- 8-509-1397 Cave Search and Rescue Team Leader
- 8-509-1181 Cave Search and Rescue Technician
- 8-509-1130 Emergency Services Rescue Manager
- 8-509-1131 Emergency Services Rescue Technician
- 8-508-1265 Fixed Wing Search Team / Disaster Reconnaissance
- 8-509-1170 Helicopter Search and Rescue Crew Chief
- 8-509-1171 Helicopter Search and Rescue Pilot
- 8-509-1172 Helicopter Search and Rescue Technician
- 8-508-1162 Helicopter/Rotary Wing Search and Rescue Team

- 8-509-1191 Land Search and Rescue Strike Team/Task Force Leader
- 8-508-1173 Land Search and Rescue Team
- 8-509-1192 Land Search and Rescue Team Leader
- 8-509-1193 Land Search and Rescue Technician
- 8-509-1243 Mine Search and Rescue Strike Team/Task Force Leader
- 8-508-1169 Mine Search and Rescue Team
- 8-509-1182 Mine Search and Rescue Team Leader
- 8-509-1183 Mine Search and Rescue Technician
- PTB-1044 Missing Persons Group Supervisor
- 2-509-1436 Missing Persons Group Supervisor (NQS)
- 8-509-1194 Mountain Search and Rescue Strike Team/Task Force
- 8-508-1171 Mountain Search and Rescue Team
- 8-509-1195 Mountain Search and Rescue Team Leader
- 8-509-1196 Mountain Search and Rescue Technician
- 6-508-1005 Public Safety Dive Team
- 8-508-1019 Radio Direction Finding Team
- 8-508-1264 Stillwater/Flood Search and Rescue Team
- 8-509-1459 Stillwater/Flood Search and Rescue Team Leader
- 8-509-1458 Stillwater/Flood Search and Rescue Technician
- 8-509-1166 Structural Collapse Rescue Technician
- 8-509-1164 Structural Collapse – Search Technician
- 8-508-1159 Structural Collapse Rescue Team
- 8-509-1167 Structural Collapse Rescue Team Leader
- 8-508-1158 Structural Collapse Search Team
- 8-509-1165 Structural Collapse Search Team Leader
- 8-508-1020 Swiftwater/Flood Search and Rescue Team
- 8-509-1184 Swiftwater/Flood Search and Rescue Team Leader
- 8-509-1236 Swiftwater/Flood Search and Rescue Technician
- 8-509-1186 Swiftwater/Flood Search and Rescue Technician – Boat Bowman
- 8-509-1187 Swiftwater/Flood Search and Rescue Technician – Boat Operator
- 8-509-1168 Urban Search and Rescue (USAR) Task Force Leader
- 8-508-1266 Urban Search and Rescue Support Team
- 8-509-1471 Urban Search and Rescue Logistics Specialist
- 8-509-1472 Urban Search and Rescue Medical Specialist
- 8-508-1262 Urban Search and Rescue Task Force
- 8-508-1215 Waterborne Search and Rescue Team

Canadian Standards Association

The Canadian Standards Association (CSA) develops standards through a consensus standards development process approved by the Standards Council of Canada. This process brings together

volunteers representing varied viewpoints and interests to achieve consensus and develop a standard.

- CSA Z-1620 Core Competency Standards for Ground Search and Rescue Operations: Searcher, Team Leader, and SAR Manager

- CSA Z-1625 Training Curriculum Standards for Ground Search and Rescue Operations: Searcher, Team Leader, and SAR Manager

CA State Mutual Aid Guidelines

The CA OES process for mutual aid guidelines was discussed earlier in the document.

- SAR Alpine Team Guideline
- SAR Dog Guideline
    - SAR Dog Avalanche Appendix
    - SAR Dog Cadaver Appendix
    - SAR Dog Water Appendix
    - SAR Dog Disaster Type 3 Appendix
    - SAR Dog Disaster Type 4 Appendix
    - SAR Dog Trailing Appendix
- SAR Fixed Wing Aircraft Guideline
- SAR Ground Searchers Guideline
- SAR Incident Support Team Guideline
- SAR Mounted Teams Guideline
- SAR OHV Guideline
- SAR Swiftwater-Flood Guideline
- SAR Technical Rope Rescue Guideline
- SAR Tracking Guideline
- SAR Underground Guideline
- SAR Underwater Guideline
- SAR – USAR Guideline

Department of the Interior / National Park Service (DOI/NPS)

The DOI/NPS has several standards built regarding all-hazard response and specifically SAR and Technical Rescue. These standards are typically enforced for searches that take place on federal lands or in National Parks and are managed by the DOI or the NPS. The standards include:

- Technical Rescue Handbook, 11th edition.
- NPS Incident Management Program / Reference Manual – 55 (RM-55)
- NPS Search and Rescue Reference Manual / Reference Manual – 59 (RM-59)
- NPS SAR Position Qualifications

- DOI Incident Positions Qualification Guide
- NPS National SAR Academy Training Manual – Helicopter Rescue Techniques