

## Course Descriptions and Instructor Biographies

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Friday, April 21
6:00-7:00
Dinner
Saturday, April 22
8:00-9:50 NM SAR Council General Meeting
1:00-3:50 NM Field Certification Exam
6:00-6:50 Dinner
6:50-7:10 Guest Speaker - David Dye, NM DHSEM Secretary
7:10-8:00 Keynote Speaker - Dr. Tim Durkin
Sunday, April 23
8:00-10:50 NM Field Certification Exam
9:00-11:50 Ham Radio License Exam

## FIELD CERTIFICATION

NOTE: There will be two opportunities to take the Field Certification Examination.
Participants must provide proof of successful completion of the ICS-100 and ICS-200 (paper or digital copies). Information about ICS-100, ICS-200, the Field Study Guide, The New Mexico SAR Act, and "What to Expect" during the examination is located on the New Mexico Search and Rescue Council's website at http://www.nmsarc.org/resources.html.

Participants in the examination are also required to bring their complete field pack. This includes ALL items listed in Chapter 1, page 2 of Study Guide: Search and Rescue Field Certification.

## Failure to produce all listed items as described ends your participation in the Certification Session.

The Certification Examination has five sections and 50 questions covering Gear and Clothing, Communications, Safety in Search and Rescue, Search Techniques, and Map and Compass. A passing grade for each section is $70 \%$. Failing two or more sections ends your participation in this Certification Session. If you fail only one section, then you will be allowed a makeup examination and must get at least $70 \%$ to pass the Certification Session.
***Practice with your compass ahead of time and bring 2 writing instruments***

## FRIDAY

Time: 1:00-3:50

## FIELD CERTIFICATION PREP SESSION

Instructor: Tony Gaier
Description: This will be a discussion on the contents of the New Mexico Field Certification Study Guide. It is designed to prepare you for the New Mexico Field Certification Examination and answer any questions you may have concerning field operations. You are welcome to bring any gear or clothing you would like checked for compliance with certification requirements.

## SATURDAY

Time: 1:00-3:50
FIELD CERTIFICATION EXAM
Lead Evaluator: Tony Gaier

## SUNDAY

Time: 8:00-10:50
FIELD CERTIFICATION EXAM
Lead Evaluator: Tony Gaier

## BASIC TRACK

## FRIDAY

Time: 10:00-10:50

## GEAR AND PACK CONSIDERATIONS

Instructor: Henrik Bo Pedersen
"How much clothing do I need?", "What is a shelter system?", "Do I need a survival machete?", "Why is my pack so heavy?". Bring all of your gear questions to the Wizard of Gear! This will be an open discussion on what and how to pack, how to lighten your load with multi-purpose items, along with other valuable considerations for mission customization.

Time: 11:00-11:50

## KNOW YOUR LIMITS/THE INCIDENT PIT <br> (BASIC)

Instructor: Henrik Bo Pedersen
"My legs really hurt and I might be getting a blister, but nobody else is even breathing hard...", "Why are we doing this?", "This is making me really uncomfortable, but no one is saying anything, so l'll be quiet." If these thoughts ever run through your head, STOP! Trust your inner voice and SPEAK UP! This course covers self-awareness, situational awareness, and the need to have the courage and confidence to speak up. Form honest self-assessments of your personal limits (physical, emotional, and knowledge based), use situational awareness of what's going on around you and the team, and know when to speak up so everyone can pause, breathe, and think. This session is for Basic Track attendees, using guided discussion scenarios.

Time: 1:00-2:50

## BREAKING GROUND: TRACKING INTRODUCTION

Instructor: Phyllis Wright, Brian Foote
In this class you will understand that everyone leaves sign when walking in the outdoors, practice accurately measuring and sketching a human track for reference and comparison, communicate and share a track description with other SAR personnel, learn how to set markers on a tracking stick for print length and step interval, practice using a tracking stick to locate subsequent steps on a subject's route, and understand how trained trackers can follow subject sign even when tracks are not evident to others.

Time: 3:00-4:20

## BASIC RADIO COMMUNICATIONS

Instructor: Peter Coffin
Come learn and polish your basic field communications skills in this class. This class is oriented towards those who are relatively new to radios or just want to get more comfortable behind the microphone. We will cover basics of radios, how they work and how they are used in search and rescue. There will be an opportunity to practice some radio communications with a fun exercise (and Legos!).

Time: 4:30-5:50
SEARCH TEAM BASICS
Instructor: Tony Gaier
This lesson will discuss organizing the team for different types of search tactics/strategies, use of sound/light attraction, searching the "cube", navigating the search area, clue documentation and reporting, and decision points investigation.

## SATURDAY

Time: 10:00-11:50

## NAVIGATION CLASSROOM TRAINING

Instructor: Taos SAR personnel
Navigation is an important skill for all SAR responders! This class will introduce the fundamentals of navigation by beginning with map reading and coordinate systems and then progress into how to use a compass for basic navigation. We will then learn about GPS units and how to input coordinates and navigate to those points.

Time: 1:00-4:50

## NAVIGATION FIELD EXERCISES

Instructor: Taos SAR personnel
A continuation of the morning session. Participants will have the opportunity to go outside and practice their navigation skills with a GPS, map, and compass through short guided exercises.

## Participants should bring their own (or borrow) GPS device/app and compasses if possible. Loaners may not be available.

Time: 5:00-5:50

## ICS DEMYSTIFIED

Instructor: Spenser Moreland
SAR can be a language of its own. Then add the Incident Command System terms and acronyms to it, and it can become utterly incomprehensible. But with a little demystification, it can quickly become very easy to understand. All SAR responders should know what ICS is, what their individual role and responsibility is, and how ICS applies to SAR.

## SUNDAY

Time: 8:00-9:50

## WINTER PREPAREDNESS

Instructor: Eric Krosche
Description: A review of clothing and gear used for search and rescue in winter conditions. The layering system (base, insulating and shell) for clothing will be explored in detail. The feature of fleece, down and synthetic fiber insulating layers will be covered. The importance of footwear and traction devices used in winter will not be overlooked. Gear topics include sleep systems, shelters and stoves as well as other equipment unique to cold weather conditions.

Time: 10:00-10:50
DON'T WORRY, BE HELPFUL
Instructor: Ann McPhee
This talk will cover the ways you can assist in SAR even when limited in mobility or location. We will discuss multiple ways you can help: becoming an Ordering Manager, helping at IB with comms/errands/scribing, being an officer/trainer on your team, researching call out options for your team, managing the social media or website for your team, being the team photographer, fundraising, equipment storage/maintenance.

## ADVANCED TRACK

## FRIDAY

Time: 10:00-11:50
CALTOPO BASICS CLASS
Instructor: Bob Howell
Description: This class is a beginning point for CalTopo use for both Base and Field personnel. It will include basic principles of use to plan and execute trainings for teams, as well as the basics of use for missions. This will cover logging into CalTopo, your info, your data, base layers, mapsheets, overlays, map objects, SAR objects, and more.
Participants should bring their own laptop or tablet, with the program already set up.
Time: 1:00-2:50
KNOW YOUR LIMITS/THE INCIDENT PIT
Instructor: Henrik Bo Pedersen
(ADVANCED)
Description: "My legs really hurt and I might be getting a blister, but nobody else is even breathing hard...", "Why are we doing this?", "This is making me really uncomfortable, but no one is saying anything, so l'll be quiet." If these thoughts ever run through your head, STOP! Trust your inner voice and SPEAK UP! This course covers self-awareness, situational awareness, and the need to have the courage and confidence to speak up. Form honest selfassessment of your personal limits (physical, emotional, and knowledge based), use situational awareness of what's going on around you and the team, and know when to speak up so everyone can pause, breathe, and think. This session is geared towards Advanced Track attendees, using small group discussion and presentation to large group audience.

Time: 3:00-5:50
CALTOPO PHONE APP USAGE
Instructor: Delinda Vannebrightyn
As NMSAR embraces the use of CalTopo for trainings and missions, use of the mobile app may become the go-to GPS tool for field teams. This class will introduce you to powerful CalTopo tools and how the app integrates with IMT's use of CalTopo. Through a classroom session, then an outside field exercise, you will experience how this app interfaces and accelerates your effectiveness during a training or mission, and enhances safety and navigation for field teams. Participants should have a smartphone, preferably with the app already set up.

## SATURDAY

Time: 10:00-11:50
HOW TO BE FIELD SUPPORT FOR A CANINE TEAM
Instructor: Becky Maidment, Mary Walker
How many times have you arrived at incident base and been asked to field support 3a K9 team? Most K9 teams do not have many individuals on their teams that solely deploy as field support, so we rely extensively on SAR searchers from other teams to fill this role! This class will introduce the three main disciplines for which SAR K9s are trained and deployed, highlight the key aspects of how the dogs work differently in each discipline, and describe the best ways to field support these K9 teams.

Time: 1:00-2:50
DEATH SCENE PRESERVATION AND MANAGEMENT
Instructor: NMSP Crime Scene personnel
Overview of the principles and considerations for when a subject is located deceased on a SAR mission. Will include a demonstration and walk through of a simulated "death scene" and how to safely protect and preserve the area prior to the arrival of law enforcement.

Time: 3:00-3:50
THE SAR SUBJECT AND MENTAL HEALTH FACTORS
Instructor: Rebecca Penn
Mental health diagnoses are often part of a subject's behavioral profile. When a subject has mental health concerns it informs how searches are conducted. This workshop aims to demystify a little bit of "mental illness" so that responders in the field can act on knowledge rather than on hearsay. Would you know how (or whether) to approach a subject who acts unnaturally, and is perhaps mentally ill or under the influence of drugs or alcohol? How might you interact with a child who has autism if you found her hiding in a bush at 2 am? This workshop does not offer failsafe answers to these questions, but it will provide some basic guidelines and factors to keep in mind. Mental illness is far more common than many imagine and is often nothing like most people assume. Being accurately informed about what mental illness looks like will leave you better prepared to help others in the future, potentially even a friend or family member.

Time: 4:00-4:50

## DON'T EAT THAT PLANT!

Instructor: Marina Hein
This will be a brief introduction to common plants of New Mexico, highlighting notably helpful or harmful species you, your team, or a lost subject may encounter in the wilderness. Full of helpful information to identify common plants and how they help or hurt, along with their ecosystem role.

Time: 5:00-5:50
Callout Systems, Communications, and Recruiting
Instructor: Ann McPhee
This session will compare several team's different call-out systems, communication applications and recruiting tools. Share what your team uses and how pleased (or not) you are with it.

## SUNDAY

Time: 8:00-8:50

## SCENE MANAGEMENT

Instructor: Spenser Moreland
The subject has been found, great! Now what? The IC won't stop asking for updates! Maybe there's medical care to be rendered, a litter evacuation to organize, a technical rescue, a landing or hoist zone to set up. Somebody needs to take charge on scene and make these things happen. This class will walk through some tips, tricks, and tools that can be called upon.

Time: 9:00-11:50
FIELD LEADERSHIP FOR SAR
Instructors: Nate Lay, Phyllis Wright, Pete Coffin, Teal Harbin We will introduce potential Task Force Leaders to new tools and expertise to expand on their existing SAR experience and knowledge in preparation for leading and supervising search efforts in the field. This class will go over some general tenets and approaches to leadership in a SAR setting, and then apply it to search assignments and risk management through several scenarios and exercises.

## MANAGEMENT TRACK

## FRIDAY

Time: 10:00-11:50
CALTOPO BASICS CLASS
Instructor: Bob Howell
Description: This class is a beginning point for CalTopo use for both Base and Field personnel. It will include basic principles of use to plan and execute trainings for teams, as well as the basics of use for missions. This will cover logging into CalTopo, your info, your data, Base Layers, Mapsheets, Overlays, Map Objects, SAR Objects, and more.

## Participants should bring their own laptop or tablet, with the program already set up.


#### Abstract

Time: 1:00-3:50 ADVANCED CALTOPO FOR MANAGEMENT Instructors: Matt Griffin, Robert Garcia Building on the foundation created in the CalTopo Basics Class, this class will focus on the application of the tools provided in CalTopo in order to provide a standardized, methodical workflow for planning and managing SAR missions. Starting from activation of the IC all the way through preplanning, team callouts, search area analysis, lost person behavior, initial actions, and beyond, this class will give IMT personnel the tools needed to leverage and utilize CalTopo. Participants should bring their own laptop or tablet, with the program already set up.


Time: 4:00-4:50
COMMS PLANNING FOR INCIDENT BASE
Instructor: Ron Nelson
Description: This class provides SAR Incident Management Team and Incident Base Communications staff with real-world situations and examples of the challenges and issues that arise in communications in wilderness search and rescue missions. Communications with field teams, other agencies, and within the IMT are covered. The role of the radio operator and the value of situational awareness will be stressed. The communication log and information transfer to the IMT as well as technical details and "best" operating practices, and safety and privacy issues are discussed. The presentation will conclude with some emerging technologies and their potential applications.

Time: 5:00-5:50

## SARSAT AND DIRECTION FINDING MANAGEMENT

Instructor: Larry Zentner
This class will explain the NOAA SARSAT system, concept of operations, and summarize saves directly attributed to emergency beacons. The presentation will include a technical explanation of direction-finding theory, emergency locator transmitters (ELT) and personal locator beacon (PLB) types, and conclude with a demonstration of DF receivers.

## SATURDAY

Time: 10:00-11:50

## MEDICAL PLANNING AND CONSIDERATIONS

Instructors: Teal Harbin, Spenser Moreland
What do you do when there is a critically injured or ill subject? Are you sure they aren't actually a critically ill or injured subject? Learn what the IMT needs to be planning for and considering. Learn about the medical resources available for SAR missions. Considerations for consulting with or requesting UNM EMS Consortium physicians will be covered as well.

Time: 1:00-2:50
CELL PHONE FORENSICS
Instructor: Jerad Hoff
A brief history of the Civil Air Patrol with an overview of the capability of the Civil Air Patrol's National Cell Phone Forensics Team with walk-throughs of how analysis is completed for missing aircraft and missing people searches. SAR planners will find greater insight into how to integrate cell phone information into their data gathering and search planning.

Time: 3:00-3:50

## WEATHER BASICS FOR SAR PLANNING

Instructor: Kerry Jones
This class will provide a basic understanding of mountain weather/meteorology, associated hazards, and resources available from NOAA for Search and Rescue personnel. This class will review basic weather processes with special emphasis on mountain weather including general and local wind systems, orographic precipitation, stable and unstable atmospheric phenomena such as inversions and cloud types and identification. Additionally, the basics of thunderstorm development, severe thunderstorm structure, storm spotting techniques and procedures, as well as hazardous weather safety and preparedness information will be presented.

Time: 4:00-5:50

## WHAT TO DO WITH THOSE CANINES?

Instructor: Cindy Oliver
This course will explain basic principles of scent theory and describe primary characteristics of SAR K9s (trailing, air scent, and cadaver/HRD). The course will also explain effective strategies for assigning SAR K9s on a search mission. During the class, participants will get a chance to apply the learned strategies to search scenarios.

## SUNDAY

Time: 8:00-8:50

## TRACKING STRATEGIES FOR THE IMT

Instructors: Phyllis Wright, Brian Foote
This class will separate tracking myths from the reality of the field by considering effective tracking assignments for search situations. This class will also identify choices the IMT can make which assist trackers in identifying and locating subject tracks and observe gear additions which improve mission tracking operations.

Time: 9:00-10:50

## USING CALTOPO OFFLINE

Instructors: Matt Griffin, Bob Howell
This course will demonstrate how to set up and run an offline version of CalTopo for use at remote or off grid incident command posts. This course will also explore methods to create, deploy, and maintain an Incident Command Post Local Area Network.
Participants should bring their own laptop or tablet, with the program already set up.
Time: 11:00-11:50
CALTOPO Q\&A SESSION
All CalTopo instructors will be available for any questions and support related to CalTopo usage and SAR community implementation.

## MEDICAL TRACK

## FRIDAY

Time: 10:00-11:50

## MUSCULOSKELETAL INJURIES

Instructor: Ben Herman
Each year Philmont Scout Ranch hosts thousands of youths and adults on backpacking trips in the Sangre De Cristo mountains, making it a perfect Wilderness Medicine laboratory. This class will examine a University of Kansas research study conducted at Philmont, looking at musculoskeletal injuries and identifying common factors that increased the risk of injuries.

Time: 1:00-1:50
MEDICAL OVERSIGHT IN SAR
Instructor: Dr. Jenna White, Did you know that the Department of Public Safety has formed a partnership with a group of UNM physicians focused on out-of-hospital medicine to provide medical training and education on SAR-relevant topics, to support the medical aspects of SAR operations in New Mexico, and to provide medical direction to EMS-licensed SAR responders? Come learn about the UNM EMS Consortium, what they do, and how the group can support you and your team!

Time: 2:00-2:50
WFA, WFR, WEMT: WHAT IT ALL MEANS
Instructor: Dr. Jenna White
This presentation will discuss options for wilderness-specific medical training and will outline the additional steps that lead to EMS licensure in New Mexico after completion of such a course.

Time: 3:00-3:50

## ESSENTIAL MEDICAL GEAR FOR ALL

Instructor: Dr. Jenna White
This presentation will cover the basics on personal medical kits, essential life-saving equipment that should go with hasty teams to a known injured subject, and a few other key pieces of medical gear that could make the difference between life and death.

Time: 4:00-5:50
ASSESSING THE SAR SUBJECT
Instructor: Dr. Jenna White
Learn how to assess a SAR subject for injuries and to identify medical needs. The instructors will provide easy-to-learn algorithms and mnemonics for how to remember the key steps in patient assessment and evaluation.

## SATURDAY

Time: 10:00-11:50

## PATIENT PACKAGING

Instructor: Neil Paz
This will be an overview of how to secure a patient to a litter or extrication device with equipment required in a Search and Rescue field backpack. Students will be able to demonstrate how to secure a patient while also addressing spinal precautions and environmental emergencies.

Time: 1:00-12:50

## SPINAL ASSESSMENT AND CLEARANCE

Instructor: Nate Lay
Spinal immobilization, while sometimes necessary, can severely delay the evacuation of an injured patient. This class will review the latest information on the assessment of spinal injuries, and the best practices for determining if an injury is unstable and needs to be immobilized or when the patient can assist with their own evacuation.

Time: 3:00-3:50
PELVIC FRACTURES
Instructor: Dr. Nick Weiss
This course will review relevant pelvic anatomy, signs/symptoms of pelvic fractures, and when a pelvic binder should be applied to manage it in a prehospital setting.

Time: 4:00-4:50

## BLEEDING CONTROL

Instructor: Dr. Nick Weiss
This course will discuss all aspects of hemorrhage control in the prehospital environment. Learn how to stop life threatening bleeds by mastering the fundamentals of direct pressure, wound packing, and tourniquets application.

Time: 5:00-5:50

## mental health Emergencies

Instructor: Nate Lay
The instances of Mental Health Emergencies are increasing across the country and the wilderness is no exception. This class will look at some of the most common mental health emergencies, and what SAR responders can do to identify potential problems, keep themselves and others safe, and get patients to appropriate care when needed.

## SUNDAY

Time: 8:00-8:50

## FIX YOUR FEET

Instructor: Nate Lay
Hikers, backpackers, trail runners and searchers all have one thing in common: they all use and abuse their feet. This class will look at methods to prevent, diagnose, and treat the most common foot problems that occur on the trail. Using realistic props (fun!), this class will learn to treat difficult blisters, ingrown toenails, and other foot problems common in the wilderness.

Time: 9:00-9:50

## GRAND CANYON CASE STUDIES

Instructor: Emily Pearce
Presenting a series of backcountry cases from Grand Canyon National Park, Emily will discuss the overlaps between austere and pre-hospital medicine and lessons learned from the prolonged care environments.

Time: 10:00-10:50

## HYPOTHERMIA

Instructor: Emily Pearce
Discussion of the pathophysiology of hypothermia, how to assess the potentially hypothermic subject, and the spectrum of passive and active rewarming interventions. The second half of this lecture will include a hands-on rewarming exercise with a live subject. Bring your favorite rewarming gear!

Time: 11:00-11:50
HEAT ILLNESS
Instructor: Emily Pearce
Discussion of the spectrum of heat illnesses, ranging from mild heat illness to heat stroke. We will also touch on the more uncommon pathophysiology of heat cramps, heat trauma to feet, and exercise-associated hyponatremia, as well as how to recognize and treat all of these as a SAR team member and/or EMS provider.

## CANINE TRACK

## FRIDAY

Time: 10:00-11:50
SCIENCE OF CANINE SCENT/ODOR DETECTION
Instructor: Dr. Paola Tiedemann
This course is designed to give an overview of the utility of scientific approaches within canine detection practices. It will discuss updates on the development of basic standards of practice for canine detection disciplines. It will also provide foundations on odor chemistry including chemical analysis of target odors, odor delivery, odor fate and movement. The course will provide examples from ongoing research showcasing the bridge between laboratory and working dog principles.

Time: 1:00-2:50
RESEARCH ADVANCES IN SCENT DETECTION
Instructor: Dr. Nathan Hall
This class will break down recent scientific publications and advances for applications to detection and search canines. This is a no jargon class but packs the data to demonstrate how changes in a training program can lead to meaningful performance changes. We will discuss advances in odor presentation techniques such as olfactometry, advances in training resiliency in low target environments, and how environmental conditions can impact canine performance and ways to prevent decrements.

Time: 3:00-5:50

## AREA LIVE-FIND FIELD TRAINING

Instructors: Rebecca Penn, Mary Walker
This course is designed to provide handlers with an opportunity to experience new terrain, enhance their skills, and have fun. There will be several established search areas in which we will work problems suited to each handler/K9 team. Although they will be flagged, bringing a GPS to upload areas will be helpful.

Time: 3:00-5:50
HRD BUILDING SEARCHES AND DRILLS
Instructors: Dayna Dominguez, Lette Birn
This course is designed to help canine handler's train for and execute building search scenarios. We will discuss search strategies, indoor scent dynamics, and potential concerns. We will have search scenarios for all levels and provide some training drills that can be used to hone you and your canines' skills, problem solve, and increase your rate of reinforcement on target odors.

Time: 3:00-5:50

## K9 TRAILING FIELD SESSION \#1

Instructor: Shanon Kimball
This course will focus on the practical elements of deploying and training Trailing Dogs. Shanon has extensive experience in both urban and wilderness searches with mixed resources. She will
discuss strategy while working with the dogs in the field. Training will include problem solving, reading your dog, and scent based on terrain and other issues. Training will be based on the needs of class attendees, from operational dog/handler teams to beginners.

## SATURDAY

Time: 10:00-11:50

## WEATHER CONSIDERATIONS FOR K9 DEPLOYMENT

Instructor: Kerry Jones
This class will cover topics most critical to K9 deployment such as terrain influences on temperature, thermally-driven wind systems, and orographic cloud and precipitation processes with special emphasis on mountain environments. Stable and unstable atmospheric phenomena such as inversions and thunderstorms will also be covered, along with cloud identification and near-term forecasting techniques

Time: 1:00-4:50
K9 ADVANCED FIRST AID (PART 1/2)
Instructors: Dr. Elle De Ford, Barb Insel
This course is designed to provide practical skills to recognize, address, and stabilize K9 emergencies in the field. It covers basic and advanced K9 first aid, cortical cardiopulmonary resuscitation certification, rescue K9 web harness tie, mock scene assessment, etc. Basic K9 First Aid topics include field assessment, critical injury recognition, wound management, toxins/ venoms, bandaging/splinting, K9 carries for extraction, etc. Advanced K9 First Aid topics include,
hemorrhage, fluid therapy, heat/cold injury, bloat, shock, over-dose, extrication/packaging/ transport considerations, etc. Will continue with Part 2 on Sunday.

Time: 5:00-5:50
TRAINING LOGS AS A TARGETED TOOL
Instructor: Rebecca Penn
Maintaining training logs can feel like a real drag at times. It's especially not fun if you fall behind and then have to play catch-up, or if you have multiple dogs, and different disciplines. The basic goal of this course is to challenge how we, as handlers, think about that dreaded log. This course is not about how to organize or write your own training log. Instead, we'll discuss how we can use our logs as tools to make ourselves better handlers. This is about our end of the leash. The best trainings are often those where it's clear the dog "got it." But that can be hard to accomplish if we don't have things straight in our head before we let the dog out of the vehicle.

## SUNDAY

Time: 8:00-1200
K9 ADVANCED FIRST AID (PART 2/2)
Instructor: Dr. Elle De Ford, Barb Insel
Continuation of Saturday's session.
Time: 8:00-12:00
K9 HRD FIELD TRAINING
Instructor: Nancy Sklavos-Gillett, Linda Meincke
This course is designed to provide handlers with an opportunity to experience new terrain, enhance their skills, and have fun. There will be several established search areas available, in which we will be working problems as they suit handlers and their dogs. Although they will be flagged, bringing a GPS to upload search areas will be helpful.

Time: 8:00-12:00

## K9 TRAILING FIELD SESSION \#2

Instructor: Shanon Kimball
This course will focus on the practical elements of deploying and training Trailing Dogs. The class will discuss strategy while working with the dogs in the field. Training will include problem solving, reading your dog, and scent based on terrain and other issues. Training will be based on the needs of class attendees, from operational dog/handler teams to beginners.
Management and support are welcome to attend and learn how to work with Trailing Dogs and other scent specific canines.

Time: 8:00-12:00
FINDING SUBJECTS IN UNUSUAL PLACES
Instructors: Mary Walker, Rebecca Penn
This course is designed to help train handlers and their K9s to find lost subjects in unique situations that might occur in wilderness search areas, for example the subject sitting out in the open, continuing to walk despite being lost, having a dog with them, or taking shelter in a tent. We will incorporate these scenarios into the same search areas from Friday afternoon.

## SPECIAL SESSIONS

## FRIDAY

Time: 10:00-2:00
NMSP \& NATIONAL GUARD HELICOPTER SESSION
An interactive session on the capabilities and SAR use of the NMSP helicopter. Will discuss patient packaging and hoisting. May include a live demonstration, ground display, and classroom session. Will not include any K9 "loads" or desensitization. Start/end times and duration may change due to weather and aircraft arrival. Be flexible.

Time: 3:00-5:50
INTRODUCTION TO SAR MANAGEMENT
Instructors: Spenser Moreland
Ever wonder what goes on at incident base or how a SAR mission starts? Then this is the class for you! Or are you thinking about taking the path to the dark side and becoming a section chief or (the horror!) an incident commander? Then this is a required class for you! This class also covers the various SAR forms, but nobody ever gets curious and wants to know about those.

## SATURDAY

Time: 10:00-11:50

## TRACKING FIELD EXERCISE

Instructors: Phyllis Wright, Brian Foote
Everyone leaves sign when walking in the outdoors. Come practice your tracking skills or just learn what tracking is all about! This class will reinforce the importance of establishing a direction of travel and show how to measure, sketch, and communicate a description of a track; We will demonstrate how to use a tracking stack for measuring print length and step interval.

Time: 10:00-11:50, 1:00-4:50 DRONE TRAINING
Instructors: Brad Berry, David Ripple
Description: This all day course will start with a classroom-based overview of UAS search information, and after lunch, several different flights will be conducted. Then it is back into the classroom for post flight data analysis and how to send flight logs to the Incident Management Team. Time permitting, the class will include some non-search uses for UAS on missions. Part

107 certified pilots are encouraged to bring their drones. Visual Observers, IMT, and other interested parties are encouraged to attend as well.

Time: 7:00-7:50
TAKING IT TO THE NEXT LEVEL
Speaker: Dr. Tim Durkin
In his experiences, Dr. Durkin has learned it is essential that SAR responders bring a broad skillset to missions. In this keynote address, Dr. Durkin will draw on his more than 30 years of SAR, patient care and emergency response experience to help you improve capabilities as a responder, SAR team and as a system.

## SUNDAY

Time: 8:00-8:50

## AMATEUR RADIO LICENSE EXAM Q\&A SESSION

Instructor: Ron Nelson
Description: This session is for answering questions you may have regarding specific items from the question pool.

Time: 9:00-12:00

## AMATEUR RADIO LICENSE EXAM

Lead Evaluator: Ron Nelson
Description: Exams for all license classes, Technician (beginner), General (intermediate) and Amateur Extra (advanced) will be available. Those without a license start with the "Technician" exam. If you did not indicate on the Registration Form that you might take the exam, please contact Ron Nelson (NR5ON@arrl.net) as soon as possible.

To take the exam you will need:

1) A fee of $\$ 15.00$ payable by cash or by check made out to the "ARRL VEC",
2) A picture ID or two other forms of ID, and
3) An FCC issued FCC Registration Number (FRN) is required! Please register online to obtain your FRN at https://apps.fcc.gov/cores/userLogin.do

More detailed information will be emailed to those who registered for the exam or by contacting Ron Nelson.

## INSTRUCTOR BIOGRAPHIES <br> (Alphabetical by Last Name)

Brad Berry has been with Search and Rescue in New Mexico since 2009. He started with New Mexico SAR Support, and then joined Cibola Search and Rescue around 2011. He has been flying UAVs since 2015. He is the UAS coordinator for the team and has flown UAVs all over the state, from Alamogordo to Zia Pueblo. He also operates a private UAS business.

Henrik Bo Pedersen is a retired MD and current WEMT. He has been a member of Santa Fe Search and Rescue for over 10 years, currently serving as ground pounder and field team leader. He has served as Vice President and Training Officer, as well as on Committees, such as Field Team Leader, Mapping, and First Aid Oversight. Outside of SAR he enjoys hiking, backpacking, archery, tai chi, spoon carving, and scuba diving and is an all-around gear head.

Lette Birn joined Mountain Canine Corps as a SAR K9 handler in 1989 and has since trained and certified multiple dogs for trailing, wilderness airscent live find, urban disaster (FEMA) and human remains detection. Lette is additionally an active member of Colorado Forensic Canines since 2017. Lette's two current K9s, Piper and Finley are mission ready with Mountain Canine Corps in HRD. They have both passed the American Police Working Dog Association certification for HRD in wilderness area, rubble, water, buried, vehicles, and buildings; Piper annually since 2017 and Finley since 2021.

Peter Coffin is a cyclist, backcountry skier, and native of Maine who also spent some time in the Adirondacks and the mountains of Colorado while trying to get outside in between classes. He is a member of Cibola SAR and Albuquerque Mountain Rescue, mechanical engineer and a biiit of a radio nerd.

Dr. Elle De Ford (MS PhD DVM MCBC cVMA TCCC CCRP) started in K9 SAR in 2000. She and her dogs have focused mainly on wilderness search and specialized in missing children. She holds multiple active and past certifications and memberships in the veterinary, behavioral, emergency response, K9, CBRNE fields. As a mountaineer and climber, she trained in leadership facilitation at VirginiaCommonwealth University (VCU) Outdoor Adventure Program including swift water and high angle rescue. She has nearly 20 years in the K9 Search and Rescue community as handler, trainer and veterinarian specializing in working dog field medicine, research and education. As founding member and CEO for K9 Field Vet Mobile Unit Inc, she continues to organize and participate in veterinary care and research for working dogs in the field as well as provide K9, EMS and veterinary staff education and training. Her approach to veterinary medicine and working dog medical management reflects over 30 years of experience in studying physiological psychology/neuroscience, learning and memory, as well as behavioral and cognitive performance in animals.

Dayna Dominguez has been in SAR for 11 years and is an active member of Sandia Search Dogs. She has trained and certified K9s in trailing, area live find, urban disaster (FEMA), and human remains detection. Dayna and her current K9, November, have been mission ready with Sandia Search Dogs since 2015 for live find, and 2016 for HRD. They have since been certified yearly starting in 2017 with North American Police Working Dog Association for HRD in wilderness area, rubble, water, buried, vehicles, and buildings. They are also active members of Colorado Forensic Canines since 2017.

Dr. Tim Durkin's SAR career began in 1993 as an Explorer in Maryland, responding to search missions all over the mid-Atlantic region. During college, he became certified as an EMT. After college, he continued SAR work with the Appalachian Search and Rescue Conference, and as an EMS volunteer, later completing Paramedic school. Gaining experience as a paramedic, he then attended medical school at the Kentucky College of Osteopathic Medicine, and completed emergency medicine residency at Philadelphia's busiest Trauma Hospital. In 2009, he moved to New Mexico where he joined Albuquerque Mountain Rescue. In 2015, he moved to Colorado, where he served with both La Plata and San Juan County SAR. Throughout his time in SAR, Dr Durkin has been a committed and passionate responder, holding positions such as communications chair, supply officer, vice president, board member, medical director as well as frequently being among the most active mission responders on the team. Dr. Durkin is an Eagle Scout, and is board certified in both emergency and sports medicine. He currently serves as Medical Director for the San Juan National Forest, lead SAR specialist for Colorado Highland Helicopters SAR and Chief Medical Officer with Base Medical. In his role with Base Medical, he has created online SAR training courses taken by thousands of responders.

Brian Foote began tracking in 2003 after joining DACSAR, and for nine years trained with his SAR team and with Border Patrol trackers. He began training under Fernando Moreira's guidance in 2012, has completed 180 field tracking hours with him, through Fernando's Signcutter levels. Brian has led tracking and sign-cutting teams during missions. He has hosted four NM SAR Tracker Weekend events which focus on mission simulations for sign-cutting and tracking. He is now a District 4 Field Coordinator. He relishes retirement while staying busy with handyman, hiking, outdoor, and family activities.

Tony Gaier grew up in Montana and Texas and has lived in New Mexico for 30 years. He spent 23 years as an Air Force Flight Engineer on several types of Search and Rescue Helicopters. During his career in the Air Force, he participated in multiple search and rescue missions. He has been with Cibola for just over 20 years. He has participated in 200+ missions for the State, became a licensed HAM radio operator, Field Team Leader, Operation Section Chief, Planning Section Chief, Logistics Section Chief, Safety Officer, and Field Coordinator. He's also the Chair of the NMSAR Policy Advisory Committee on Education.

Matt Griffin is a team leader for Los Alamos Amateur Radio Club, a member of Los Alamos Auxiliary Fire Brigade, and a field coordinator trainee. He has worked with CalTopo for SAR use for over five years, both in New Mexico and Montana. He focuses on developing a selfcontained incident base support unit, supporting off-grid communications for SAR and emergency management, and GIS mapping and general technical support in austere conditions.

Dr. Nathan Hall is an Associate Professor of Companion Animal Science at Texas Tech University and the Director of the Canine Olfaction Research and Education Laboratory. Dr. Hall earned his PhD at the University of Florida, specializing in the study of Behavior Analysis and canine olfaction. As a postdoc, he continued his studies at Arizona State University investigating the optimization of training to enhance canine's detection of Homemade Explosives. At Texas Tech, his work continues to explore canine olfactory perception and how experience influences odor perception. His lab also investigates predictors and correlates of problem behavior, behavioral predictors of working aptitude, and canine health. Throughout his career, Dr. Hall has published numerous peer-reviewed scientific publications and book chapters on canine olfaction and detection abilities.

Teal Harbin is an experienced wilderness paramedic, registered nurse, and UNM Lifeguard helicopter dispatcher. She is the CEO of Base Medical, a writer for the International Wilderness

Paramedic exam, a member of Cibola SAR and AMRC, and a NM SAR Medical Coordinator. In past roles, she has worked for Albuquerque Ambulance, UNMH Pediatric ER, Angel Fire Ski patrol, and coordinated international medevacs with Remote Medical International. Teal is the proud mother of a future SAR volunteer (Or astronaut. Or chef).

Marina Hein is a riparian ecologist, teaching as an adjunct professor of biology at New Mexico Tech. Her master's thesis focused on characterizing vegetation communities of the Middle Rio Grande. Trained as an aquatic ecologist through her work on Great Lakes coastal wetlands, Marina begrudgingly became a "land plant" botanist while developing a monitoring program to study the effects of an invasive grass to salmon recruitment. When not in the field for research or volunteering with Socorro SAR, she enjoys foraging for acorns, berries, and oyster mushrooms and training her malinois. She is happiest not identifying an unknown grass species.

Jerad Hoff has been a member of Civil Air Patrol since 2009. He joined the CAP National Cell Phone Forensics Team in 2015 and has participated in hundreds of CAP missions, assisting the SAR community throughout the 50 states and territories in locating missing people. In addition to serving on the Cell Phone Forensics Team, Jerad is active in CAP's cadet program, communications program, IT services, and serves as the Chief of Staff for the Southwest Region. In his professional life, Jerad works in Information Technology and is a licensed police officer in Arizona.

Bob Howell is currently retired (but not expired) from 47 years of hard labor in the computer business serving some fortune 500 companies as a programmer, technical manager, VP, and finally cloud and data center automation consultant. After serving 12+ years in the Mayhill VFD, working many auto accidents, EMS runs, and structure/wildland fires he joined NMSAR in 2016. Now he serves as a board member for NMSARC and is an ORDM and SC (ops/plans/logs) as well as a certified tracker. He also leads the CalTopo implement project statewide. He and wife Connie live in Cloudcroft and Alamogordo and enjoy travel, photography, good food and spending time with their hyper-reactive Doberman, Fritz.

Barb Insel has been a practicing certified veterinary technician for more than 20 years; 15 of those in Emergency and Critical Care Medicine. She also holds a Victoria Stilwell Dog Training and Behavior certification, is an active canine obedience and NoseWork instructor. Barb also trains, handles, and competes with her Belgian Malinois, after adopting him from a dissolved security company. He holds Canine Good Citizen American Kennel Club Temperament, Level 1 Canine Work and Games, National Association Canine Scent Work Level 2, and Canine Performance Events titles. She belongs to AKC, C-WAGS, CPE, and the National Association of Canine Scent Work. Recently, Barb has begun working toward K9 HRD detection work.

Kerry Jones is an Air \& Water Quality Specialist/Meteorologist and Liaison to NMED for the USFS based in Santa Fe. Previously, Kerry spent nearly 30 years as a meteorologist with NOAA National Weather Service including over 20 years at the NWS forecast office in Albuquerque, where he served as a Lead Forecaster, Warning Coordination Meteorologist and Meteorologist-in-Charge. Kerry has served as an Incident Meteorologist on both wildfires and prescribed burns and is currently an Air Resource Advisor for the Interagency Wildland Fire Air Quality Response program. Kerry has worked closely with Federal, state, local and tribal partners throughout New Mexico on weather hazards education and outreach. He received a B.S. degree in meteorology from the University of Oklahoma in 1992 and a Master of Water Resources from the University of New Mexico in 2007.

Shanon Kimball has been handling bloodhounds in SAR for 13 years. She has been deployed by local LE and the FBI within the state of Alaska. She has taught or assisted seminars as far away as Germany. She is the Founder/Trainer/Director of North Paw K9 Search and Recovery, a team of K-9 handlers who specialize in urban trailing, and human remains detection.

Eric Krosche is a retired metallurgical engineer. He has led and participated in several backpacking trips during winter conditions that include Mt. Washington (6290 ft) in NH, Wheeler Peak (13159 ft) in NM, Mt. Shasta (14180 ft) in CA, Mt Rainier (14410 ft) in WA, Island Peak (20300 ft) in Nepal, Cerro Aconcagua (22840 ft) in Argentina, Denali (20310 ft) in Alaska, and Mt. Kilimanjaro (19341 ft) in Tanzania.

Nate Lay is a paramedic from Cimarron, NM, which means that he is basically dead inside, but not as dead as most of his patients became. While the information he teaches in his lectures is medically suspect, he presents it with the confidence of a 4 -year-old wearing a Batman cape. Nate earned his paramedic certification in Mississippi before moving to New Mexico in 2007, thus lowering the IQ of both states.

Becky Maidment is a SAR K9 handler with Sandia Search Dogs. Becky has been a full member with Sandia Search Dogs since April 2019 and is currently the team's treasurer. Becky and her K9, Honor, are trained in the discipline of Live Find, Air Scent and became mission ready in December 2020. Becky and Honor received their national certification by recertifying, with NASAR, in November 2022. Becky is also NASAR SARTech II certified.

Ann McPhee has spent 12 years on DACSAR (Doña Ana Co SAR), is a retired Physical Therapist, Navy Veteran, and the proud owner of bad knees and an old dog - hence not attending many missions but wanting to give back to SAR and still hang with this crowd.

Linda Meincke has been in SAR for seven years, and is an active member of Mountain Canine Corps and Colorado Forensic Canines. She has trained and certified K9 in both live-find and human remains detection. Her current two dogs are single purpose human remains detection dogs, and both are certified by NAPWDA.

Spenser Moreland once dreamed of becoming an astronaut. Unfortunately his academic career peaked with winning the Geography Bee in 6th grade, and has spiraled downward ever since. He sought solace in the dark, scary worlds of EMS and SAR, where he lost all semblance of sanity or ever having a circadian rhythm. When the paperwork demons of his SAR nightmares became too much, he moved onto the paperwork-free federal government. While he is now doomed to spend the rest of his life utterly wrecking his circadian rhythm even more, he thanks you and your tax dollars for allowing him to see the world.

Ron Nelson began in search and rescue in 2010, and has spent time in vehicles, trailers, and tents providing communication support for numerous missions in northern New Mexico. Ron is committed to improving communications and the practical and effective use of technology in SAR. He has held an Amateur Extra class Ham license since 2012 and is an ARRL Volunteer Examiner. Ron and Erik install and maintain Ham repeaters in their spare time, and currently serve on the NMSARC Board. Ron has lived in northern New Mexico for 35 years and enjoys hiking, skiing and snowboarding. His career and hobbies involve computers, electronics, photography, and more.

Cindy Oliver has been an active member of Sandia Search Dogs since 2002 and is its current Training Officer. She has trained several dogs along the way in the areas of air scent, trailing
and cadaver/HRD. Cindy has deployed on many SAR missions. Currently she owns, trains and deploys two Labrador retrievers. Cindy served on the NMSARC Board from 2010 to 2013.

Neil Paz is an Advanced Emergency Medical Technician with over 20 years of experience in EMS. He has been involved with SAR for over 12 years and is a certified wilderness EMT, Outdoor Emergency Care Technician, Ski Patroller, and National Ski Patrol Instructor.

Emily Pearce is an emergency medicine resident at the University of New Mexico and has worked in EMS since 2008 and SAR since 2012. She has worked as a rural EMT in Virginia, a SAR paramedic park ranger in the Grand Canyon National Park, a critical care paramedic, and a program coordinator for the EMS Consortium, working primarily with rural, tribal, and public lands EMS agencies. She has five years of professional search and rescue experience with the National Park Service and has previously worked with Albuquerque Mountain Rescue Council; she is currently a member of Cibola Search and Rescue.

Rebecca Penn has been a member of Sandia Search Dogs since 2013. She is currently an active member of DACSAR and a supporting member of OMTRS. In 2003, Rebecca graduated from and worked for the Triple Crown Dog Academy in Hutto, TX. During this time, she trained as a handler in Schutzhund and studied how to apply operant conditioning as effectively and cleanly as possible across a number of canine disciplines and sports. In 2018, Rebecca certified her Border Collie with NASAR as a live find area search K9. During work hours, she's a doctoral student at NMSU and studies the brain science behind how animals (humans and dogs) search for things.

Nancy Sklavos-Gillett has been a search and rescue volunteer in New Mexico for ten years, holds a SARTECH II certification, and is a Planning and Operations Section Chief. Previously, she was a K9 handler with New Jersey Search and Rescue. She is an active member of Mountain Canine Corps. Nancy has trained and certified an Area Live Find dog (retired), and currently has an active NASAR HRD Other certified K9.

Dr. Paola Tiedemann is an assistant professor and current Graduate Program Director for the Master's in Forensic Science program at Texas Tech University. Her research incorporates analytical chemistry, canine detection, forensic science, and national security. Experimental designs are focused on understanding the complex odor picture available to the canine nose in the many military and law enforcement applications of working dog teams. She has worked with both national and international police/government agencies to help develop better instrumental and training techniques in various areas of odor detection. She is the author or co-author of numerous journal publications, book chapters, and one book dedicated entirely on human scent evidence. She has presented at various national and international forums. She is a member of the American Academy of Forensic Sciences and is the current Chair of the Dogs and Sensors subcommittee group within the Organization of Scientific Area Committees within the National Institute of Standards and Technology for development of canine detection national standards.

Delinda VanneBrightyn has been in search and rescue for 20 years and has served as the Taos SAR K9 Unit leader, Training Officer, Base Unit Leader. She has been the President of the TSAR Board of Directors since 2013. Besides her first passion as a K9 handler, Delinda loves navigation and technology, and began using CalTopo in its initial stages. She instigated its use by TSAR as the primary GIS software and integrated it into the TSAR Comms Van. Upon release, she tested the beta version of the mobile app with the K9 Unit, and the current version is now a go-to for the entire TSAR team.

Mary Walker is a SAR K9 handler with Sandia Search Dogs. Over the past 12 years, she has trained and certified K9s in both area live-find and human remains detection. Mary is NASAR SARTech II certified and her current K9, Zephyr, has a NASAR Area I certification.

Dr. Nick Weiss is currently the Wilderness and Austere Medicine Fellow at the University of New Mexico. Prior to fellowship, he served on active duty as an emergency physician in the Army. During that time, he deployed to Afghanistan in 2020 and to Rwanda in 2019. He also has extensive experience treating exertional heat stroke while serving as medical director of the emergency department at Fort Campbell, KY. When not on shift or trying to optimize his circadian rhythm post-night shift, he enjoys attempting to keep up with his kids on anything with wheels, being humbled by the skill requisite to scale vertical things, and cooking over a fire.

Dr. Jenna M. B. White is an emergency physician at the University of New Mexico. Dr. White is an instructor in the UNM EMS Academy and in the UNM International Mountain Medicine Center, and serves the New Mexico Search and Rescue community as medical director for Cibola SAR and Albuquerque Mountain Rescue Council. She also provides medical direction for numerous EMS agencies within Sandoval County, New Mexico.

Phyllis Wright is the Training Director for Mesilla Valley SAR. She is a newly certified Field Coordinator, as well as a Planning and Operations Section Chief. In the field, she is a tracker, assists in Basic Tracking classes, navigates for K-9 handlers, and is a member of MVSAR's UTV team. She is looking forward to helping grow the influence of the Task Force Leader's role in NM SAR. Professionally, Phyllis has a Master's degree in English, and is a Consultant/Lead Presenter in literature and rhetoric for the College Board, as well as the Co-Mentor of the College Board's International Teacher Community.

Larry Zentner's SAR experiences started as a teenager in 1974. He is active in Civil Air Patrol, Amateur Radio NL7TO, National Ski Patrol, and is an instructor for a variety of training for our New Mexico SAR community when he can't say no. Currently, Larry serves as the NMSARC Chair, CAP SAR Officer for the NM Wing Headquarters and is an instructor for Cibola SAR. Although Larry may be retired from active-duty USAF, AFJROTC, and APS high school teaching, he is still passionate about education and training.

