



# Weber County Sheriff

## Search and Rescue Newsletter



November 2009

### TRAINING CALENDAR

WCSSAR meetings are held in the main WCSO building.

#### NOVEMBER

- 03 Pack test 6 pm, Bring your pack loaded at proper weight, ready to walk at 6 ..... Sgt. Toll
- 03 Meeting: 7 pm, Scene Assessment/Safety, Cold Weather Injuries & Medical Pack check ... Cor. Horton, John S.
- 07 Sat. Training: Patient Packaging & Transport, WCSO, 9 am ..... Rick S., Kimball K.
- 14 OEC refresher, McKay Dee Hospital Education Center, 7:30 am-5 pm ..... Steve E.
- 21 OEC refresher, Wolf Creek, Ogden Regional, 7:30 am-4:30 pm ..... Nathan F.
- 21 MSAR ride, Lower Wheatgrass, Trail Maint.; Allen's house 8 am (9 am @ Wheatgrass) ..... Allen M.
- 21 Dive Trailer maintenance, WCSO, 8 am ..... Rick G.
- 21 ATVs ride to guard shack to check equipment, WCSO 8 am, Monte snowmobile pk lot, 9 am .. Gary S.
- 24 Professional CPR course for WCSSAR, McKay Dee Hospital Education Center, 6 pm ..... Steve E.
- TBA Dive ..... Rick G.
- TBA Airboat ..... Dave C.

#### DECEMBER

- 01 Winter Meeting: 7 pm—snowmobiles/skiers callout procedures/training, transceivers.. Gary S, Mike F.
- 05 Sat. Training: Snowcat and snowmobile maintenance, WCSO, 9 am ..... Scott C., Gary S.
- 05 Transceivers, Probe Lines, Strategic Shoveling, Patient Packaging/Transport, TBA, 9 am ... John S.
- TBA ClimbTraining: Snow Anchors, Ice Axe Self Arrest ..... John S.

#### JANUARY 2010

- 05 Meeting: 7 pm, Winter Survival, Radio/GPS practice, Avi Aware ..... Mike J., Mike F.
- 08 Avalanche Awareness, classroom ..... Bryan B., Craig Gordon
- 09 Avalanche Awareness, field ..... Bryan B., Craig Gordon
- TBA Climb Training: Practice for MRA Winter Recert ..... John S.
- TBA Ski the Moon ..... Mike F.

#### FEBRUARY

- 02 Hep.B 6:30 pm, Meeting: Winter Search Theory, 7 pm, ..... Bryan B., Gary S.
- 06 Sat. Training: Winter Team ..... Bret Rasmussen
- TBA Climb Training: Practice for MRA Winter Recert ..... John S.
- TBA Ski the Moon ..... Mike F.

#### MARCH

- 02 Meeting: Ice Safety, 7 pm, ..... Rick G.
- 06 Sat. Training: Ice Dive/Airboat, TBA, 9 am ..... Rick G., Dave C.
- 06 Sat. Training: Mock Search, TBA, 9 am ..... Gary S.
- TBA Ski the Moon ..... Mike F.

#### APRIL

- 06 Meeting: Swiftwater, 7 pm, ..... Lane M.
- 10 Sat. Training: Swiftwater (runoff dependent) or Heli Ops ..... Lane M., Rick G.
- TBA First Care ..... Steve E.

#### MAY

- 04 Meeting: 7 pm, ..... Lane M., Rick G.
- 08 Sat. Training: Swiftwater (runoff dependent) or WSU Ropes Course ..... Lane M., Rick G.

### EVENTS CALENDAR

#### NOVEMBER

- 07 Avalanche Workshop, Depot at the Gateway, SLC, 8 am ..... Mike J.

#### JANUARY 2010

- 8-10 MRA Winter Meeting in SLC ..... John S.

#### MARCH

- 05-07 MRA recert, W. Pine Basin Lodge, ID ..... John S.

#### JUNE

- 17-20 MRA Spring Meeting in Juneau, AK ..... John S.

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WCSSAR web site: <http://webersar.org>  
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WEBER CO. SEARCH AND RESCUE IS A MEMBER OF:  
MRA, NASAR, UTAH SAR  
DISPATCH 629-8221  
All phone numbers above are area code 801 unless noted.

## SEPTEMBER/OCTOBER 2009 CALLOUTS

**October 16<sup>th</sup>, early morning**- 500 N. Harrison; early morning, there was a group of lights on the mountain that did not move for 2 hours. Cor. Mark Horton brought a spotting scope, they looked like experienced climbers and appeared to be prepared. No call-out to the WCSSAR team.

## MEMBERSHIP ISSUES AND UPDATES

We have four new members this month: **Taylor Arave, Judy Walton, Rhea Schoustra** and **Gretchen Anderson**. Taylor will be joining the climb team while Judy, Rhea and Gretchen join the mounted SAR team. Please welcome these folks at the next meeting.

**Denny Valberg** is leaving the WCSAR, and while we will miss his cheerful and steady presence, we wish him well in his future endeavours.

**Nathan Foster** asked to step down as climb team assistant leader, although he is still an active SAR member. Kimball Kelsey will take over this position. A big thank you to Nathan for all the time and effort he dedicates to the team.

**Meg Fogg** requested to be put on inactive status for the next few months while she sorts her life and manages priorities. Please see Kathy's tribute to Meg at the end of the newsletter.

Please review the masthead on the right side of page one for other management changes. **Joe Humphreys** is taking over from Bryan Bennett as assistant leader of the winter team, while Bryan concentrates on wilderness K9. **Mike Jenkins** has a new email address and phone number and is actively back on the team.

## PREVIOUS TRAINING REPORTS

**Deer CAMP**—It turned out to be a very slow weekend at Deer Camp on October 16<sup>th</sup>–18<sup>th</sup>. The signs were placed by the road to let the public know where First Aid and information was located. Luckily there were not any incidents, it was a good opportunity for public relations.

See the K9 section for a report on the second weekend of Deer Camp.

## OVERVIEW OF UPCOMING TRAINING

**The November 3<sup>rd</sup> meeting** will feature Cor. Mark Horton discussing **Scene Safety** and John Sohl with a presentation on **Cold Weather Injuries**.

There will be a "last chance" **pack test** is scheduled for 6 pm on November 3<sup>rd</sup>, please arrive early and be ready to walk by 6 pm. Don't forget that you must bring your own pack, with the proper amount of weight, to be weighed before you begin the walk.

The **November 7<sup>th</sup>, Saturday training** is patient packaging at 9 am at the WCSO. Rick Schroeder and Kimball Kelsey will be organizing this event. See Climb News for more info.

**Also** scheduled for November 7<sup>th</sup> is the **Utah Snow and Avalanche Workshop** in the Depot at the Gateway in Salt Lake City. The workshop for professionals begins at 8 am and the public sessions begin at 1 pm. The fee will be \$40 and the WCSO will pay for the workshop fee if you sign up in advance. Contact Sheri for details on registering. More info on page 5.

## CLIMBING WALL, FUND RAISING ACTIVITIES & EVENTS:

**Cabela's**—There was a final mini sale of leftover, packaged underwear at the Wilderness Recreation Center sale on the WSU campus on October 9<sup>th</sup>. We raised an additional \$216—a big thank you to Roy West for organizing this sale event.

## CLIMBERS/BACK COUNTRY SKIERS NEWS:

The climb team (everyone is invited to attend) is going to practice **patient packaging** and cold weather injures at the November 7<sup>th</sup>, Saturday training so when winter hits we will be ready. Those attending need to bring packs and strap systems.

All climb team members that are new on the team as well as any team members who have been on the climb team for about a year, need to report to me (Rick Schroeder) for a one year **skills assessment**. We will set up a time to go over some of the requirements and skill levels for beginning climb team members who are at the one year mark—including medical and climbing skills as well as personal gear assessment and benchmarks for future training needs.

I am also setting a day for the team to go climbing or practice winter activities like snow shoeing (for those who don't ski) or the skier who wants to get better at snow shoeing. We also have the **MRA Winter recert** (see requirements at the end of the newsletter) coming up in March and I will need at least 8 team members who will be willing to train and prepare for this event. *Go climbing, Rick Schroeder*

## DIVE/,SWIFTWATER/AIRBOAT NEWS:

**Dive—Maintenance on the Dive trailer** will be held on the 21<sup>st</sup> of November at the Sheriff's office at 8 am. The trailer should be there at that time. *Thanks Rick Goodliffe*

**Airboat Training for November is TBA**

## K9 NEWS:

**Wilderness K9**—The K9 Team participated in the Deer Camp again this year. Joe Jennings and Kurt Hadfield actually had an assist on Friday night. While listening to the County radio, they heard a call about a stranded hunter on Monte Cristo. After listening for a minute, Kurt realized he knew where the hunter and his vehicle were. They got on the radio and identified themselves and offered to respond. They were dispatched and found a man and his daughter and their broken down truck with a horse trailer attached. They were out near Deseret and had a dead battery. After several futile attempts to jump the truck, they took the man and his daughter back to Deer Camp and fed them while they waited for his wife to arrive. Although it didn't involve K9's, their knowledge of the area allowed them to do exactly what we're up there to do. Nice job Joe and Kurt.

Now for the dog stuff. I ended up getting sick and did not end up arriving until Sunday morning. But, in true team fashion, Kurt, Joe and Amelia went on and had a great training on Saturday. We had a couple of visitors, one from Treasure Valley Search Dogs in Boise, Idaho and another from the local Golden Spike Club. They told me that they were accepted with open arms and were made to feel like family. In addition to the training, Amelia/Xena passed their Wilderness Mini Area test. They are now just one test from being a certified wilderness team. Our K9 Team is a true example of teamwork. I am very

proud of the way they all pulled together to make a wet rainy day a productive training event. *Report by Bryan Bennett*

**K-9/Avalanche**—Mike Jenkins would like to schedule an avalanche training for the team. He also will be speaking at the **Utah Snow & Avalanche Workshop** on November 7<sup>th</sup>. Some members of SAR will be attending, Mike will get a list of those interested at the next meeting.

## LOGISTICS/DISPATCH NEWS:

**Sign up for your Twitter account today!** Fair warning, I'm going to start picking on individuals in the newsletter if you don't sign up...

Please keep your **SARteams** information up to date so that other team members can contact you.

If you have any questions about your membership, please contact Sheri rather than Meg—since Meg is taking some well deserved time off.

## MOUNTED SAR NEWS:

**MSAR Ride up Wheatgrass Canyon**—November 21<sup>st</sup>, Lower Wheatgrass, Trail Maintenance; meet at Allen Melle's house at 8 am (9 am @ Wheatgrass).

## MEDICAL NEWS:

**To all OEC certified team members**, The WCSSAR OEC records are up to date for the first time in some time. With your help I want to maintain our *current status*, thus I need all team members to provide Steve Ericson with both a *2009 Cycle B OEC Refresher Completion Acknowledgment* and *2009 Cycle B OEC Refresher Supplemental Roster Information* signed by the *Instructor of Record*. You may find these reports at the end of the refresher study guide, which I hope that you all now have and are completing. With this information I can file a supplemental roster for our team. Without this information YOU are on your own as far as your OEC records. I can tell you, for a fact, that not all IOR's file supplemental records which leaves YOU delinquent with respect to your OEC refreshers. **Please get these records signed and returned to me.** Thanks so much for your efforts with this important record keeping!

There will be an **OEC refresher course** at the McKay-Dee Education Center at 7:30 am on November 14<sup>th</sup>. All the equipment is already there and the instructors are used to teaching there. See Steve Ericson if you have any questions.

The Wolf Creek **OEC refresher course** is at Ogden Regional Medical Center at 7:30 am on November 21<sup>st</sup>. See Nathan Foster if you have any questions.

We will be combining the **CPR course** with the OEC course (students) so instructors only have to teach CPR once. The course will be held Tuesday, Nov. 24<sup>th</sup>, 6 pm at the McKay Dee hospital education center. *Steve Ericson*

### Traumatic Head Injuries

Head injuries can be deceiving to first responders. Closed head trauma, at first, can seem minor but progress to long term disability or death. On the other hand, a scalp laceration may bleed profusely and the first impression seem severe but may only require wound care or sutures with no long term disability. Most bleeding from scalp lacerations can be controlled with direct pressure. If a skin flap is present, then replace the flap

and apply direct pressure. If the dressing becomes soaked, don't remove the original dressing but apply additional dressing. Caution must be exercised when applying pressure as there may be an underlying skull fracture. If a fracture is palpated then applying pressure around the fracture/laceration may be considered. Applying direct pressure over the fracture may depress the bone into the brain and should be avoided.

Even with a simple laceration, a neurological assessment should be performed and repeated to detect any deterioration in mental status. Specifically this is the four orienting questions:

Name  
Place  
Date & time

### Events leading up to injury

You may also ask the patient to remember a random number and ask the patient to repeat that number 15 minutes later. Check for battle signs, which is echymosis around the eyelids or behind the ears. Check the pupil size and reaction to light.

Brain injuries can be as mild as a minor concussion that may have cleared before you arrive to severe intracranial hemorrhage leading to death.

A patient with a concussion will be disoriented and/or suffer from retrograde or anterograde amnesia. When the events after the injury are forgotten, then this is anterograde amnesia. Other symptoms may include dizziness, weakness, headache, nausea, vomiting, ringing in the ears or visual symptoms.

Progressing forward on the continuum from minor to severe injury is a brain contusion. Like any other soft tissue the brain can suffer a bruise when the head is struck hard. A contusion is far more serious than a concussion because it is actual physical injury rather than a temporary electrical disturbance of the brain's electrical signals. Because nerve tissue is less resilient than other soft tissue permanent disability may result from a contusion. In addition to hemorrhage, edema will result from a contusion and in the confined space of the skull this can lead to increased intracranial pressure which complicates both acute and long term recovery.

Intracranial hemorrhage is further along the continuum toward severity. Bleeding can occur in three spaces of the brain or its membranes. Bleeding outside or distal to the durra, which is the fibrous membrane covering the brain is called an epidural (above the durra) hematoma. Hemorrhage may occur under the durra which is a subdural hematoma. Finally, bleeding can develop within the brain which is an intracerebral hematoma. Bleeding can develop rapidly with an epidural hemorrhage or more slowly in a subdural hemorrhage. In either case since the brain occupies most of the space within the skull, increased intracranial pressure soon develops and compresses the brain tissue. This compression leads to progressive loss of brain function and death if not promptly treated surgically. Deterioration of neurological signs indicates increasing intracranial pressure. Therefore, it is critical to provide the patient with an initial neurological assessment and then repeat it in 15 minutes. Other signs of brain injury include anisocoria or unequal pupil size. This can occur naturally in a small fraction (5%) of people, however an injury should be suspected until ruled out. Additionally the pupils may be slow to respond to light or not at all.

Treating for increased intracranial pressure includes, providing the patient with high flow O<sub>2</sub> (15L/m) and guarding the airway. Remember that any head injury deserves spinal precautions i.e. cervical collar and backboard. Other signs and symptoms of increased intracranial pressure include seizures, increased blood pressure, decreased pulse and irregular respirations. Also CSF (cerebral spinal fluid) a clear or pink colored fluid may drain from the ears, nose, or wound. The presence of CSF indicates a skull fracture and progression to unresponsiveness is a certain indication of a brain injury.

Special consideration needs to be paid to pediatric patients. Pediatric patients must be monitored carefully since they can be stable for a period of time following the initial injury and then quickly "crash", that is, rapidly and progressively decline. Regarding cervical stabilization, you may not have an appropriately sized cervical collar however one can use a rolled towel on either side of the head taped to the backboard

In conclusion, head injuries include skull wounds which may be simple scalp lacerations and/or skull fractures. Brain injuries include concussion, contusion, intracranial bleeding. The MOI for these injuries may be from direct blows, collisions, falls from heights, and sports injuries. Signs and symptoms include seizures, vomiting, and cerebrospinal fluid leaks. Additionally lacerations, skull deformities, echymosis around the eyes or behind the ears, unequal pupil size or failure of the pupils to react to light, loss of sensation and/or motion, visual complaint, and irregular respirations, are other signs of head injury.

When assessing a brain injury the single most important observation is a decline in the level of responsiveness. One may assess LOR with the simple AVPU or the Glasgow coma scale. The LOR should be assessed every 15 minutes in stable patients and every 5 minutes for patients who are declining. Also monitor and document pupil size and reaction to light. In the treatment of head injury patients, they must have their cervical spine stabilized and placed on a backboard. These patients should be offered high flow O<sub>2</sub> and their airway guarded. *Article submitted by Steve Ericson.*

## **OHV/MOTORCYCLE NEWS:**

Brrr, it's getting cold!

## **WINTER RESCUE/SNOWCAT NEWS:**

It is getting close to the time when we will need to have ourselves and our equipment ready to go on a moments notice. So we need to **get things ready to ride**. October is the month that most snowmobile registrations come due. Make sure to get your sled registered before we need you on a search. Those members on the snowmobile team that haven't had the **pack test** in the past year, will have another chance on November 3<sup>rd</sup> to take the test. You will need to have a 25 pound pack and be at the Sheriff's compound at 6 pm. One of the requirements to get a parking pass is to have passed the pack test. I think Sgt. Brandon Toll is trying to get the passes for the November meeting.

With the budget cuts, Sgt. Toll doesn't know if the deputies will be able to have the **Friday rides** this coming season. If they can't I would like to go out at least once a month so we can see how each other rides. Be thinking of that and we will make a

decision at the November meeting.

**Joe Humphreys** has accepted the assistant team leader position. I would like to thank him for the time that he will be putting in for the team. He has a lot of experience that will be beneficial to the team.

We have some great **trainings** coming up in January, and February. Make sure you get the dates on your calendar so you can attend. *Thanks, Gary Stoker.*

## **PREVENTATIVE SAR NEWS:**

Jeff Stark is always in the midst of another **CERT class**. He would appreciate help from any team member for teaching.

## **MEMBER THANK YOU MEG FOGG, BY KATHY BENNETT**

WCSSAR would like to thank Meg Fogg for her contribution to the team. She has been an integral part in transferring information of team members, updating our computer programs and being an active member on the winter teams. At this time she is going to be leaving the team and we want her to know that it has been a pleasure serving with her on the WCSSAR. We wish her the best of luck in the future and hope to see her back on the team again sometime soon. Hugs and kisses from all your friends at WCSSAR!!!

## **FINAL NOTES FROM THE EDITOR**

Welcome to the world of plain vanilla newsletters. I'm recovering from my hand surgery and thought it would be a bad idea to overdo the use of my computer while my ligaments are healing. Therefore, with luck, this will be the shortest and blandest newsletter I ever publish. On the bright side the surgery seems to successful so far and I look forward to the day I can dispense with the wrist brace. Thanks for your patience.

Thanks to everyone who sent me articles for the newsletter and to Kellie Slater for taking the minutes of the Executive Committee. And a big thank you to John Sohl for proof reading this newsletter.

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## **Message from Craig Gordon of the Utah Avalanche Center**

Here's the info for the professional development morning session. This is NOT for the public, but of course your organization is more than welcome to attend. We're gearing up for the 2009 Utah Snow and Avalanche Workshop. I've attached a draft of the presentations and here's an online registration link- [http://www.24tix.com/event.html?show\\_id=T15647747401564748628119](http://www.24tix.com/event.html?show_id=T15647747401564748628119). In addition to a morning beverage service, Utah Food Services is preparing an awesome lunch for us and it's included with your admission. Please register online so I can provide UFS with accurate numbers for both. Also, free parking will be available across the street from The Depot at the Zions Bank parking lot. Please share this announcement with your staff and feel free to contact me if you have any questions. We look forward to seeing everyone at The Depot on Saturday, November 7<sup>th</sup>.

### **2009 USAW Draft Schedule, Registration- 07:00-07:50, Professional Development-08:00-12:00**

#### **8:00-8:10 Rich Mrazik/Bruce Tremper- Friends of the Utah Avalanche Center/Welcome**

#### **8:10-8:25 Doug Wewer- Wasatch Winter Review**

The story of the 2008-09 season will be told from the perspective of the avalanche professional. A short film will highlight the weather, snowpack and resulting avalanches and events.

#### **8:30-8:50 Dan Howlett- Conditions Leading to Class Five Avalanches in Alta, January 2005**

This discussion focuses on how the weather events earlier in the season contributed to the large avalanche cycle that took place in January 2005. Constant monitoring and stability testing, in the days prior to the cycle starting, did not reveal what we were about to witness.

#### **8:55-9:15 Doug Abromeit- Inbounds Fatalities**

This presentation focuses on how the Forest Service National Avalanche Center worked with the ski industry to address media inquiries following the many accidents/incidents of December 2008, then describes a couple accidents that occurred in 2004-05 to give some historic perspective to the issue.

#### **9:25-9:45 Jimmy Collinson- Baldy Accident**

A review of the Dec. 14, 2008 in area avalanche fatality at Snowbird.

#### **9:50-10:10 Bob Comey- Bridger Restaurant Avalanche: A case study**

A case study of the Headwall avalanche path which impacted the Bridger Restaurant at Jackson Hole Mountain Resort on Dec. 29, 2008.

#### **10:10-10:30 Break**

#### **10:30-10:50 Mike Jenkins- Iron Man Measures Forces in an Avalanche: Implications for Backcountry Search and Rescue**

Results of an experiment with an instrumented mannequin demonstrate the forces imposed on an avalanche victim. The results support the fact that even "average" sized avalanches can result in serious injuries or death. This talk reviews implications to rescuers involved in backcountry avalanche SAR missions.

#### **10:55-11:15 Ralph Whatley- Military Weapons for Avalanche Mitigation in LCC**

#### **11:20-11:50 Adam Nesbitt- Infra-what? Listening for simple information derived from a not so simple system.**

In recent years the Infrasonic Avalanche Detection System has made its mark on the modern highway avalanche forecasting operation. This new tool in the toolbox allows for the near real time detection of remote activity along highway corridors, in turn providing vital information for making decisions about avalanche safety during periods of limited or no visibility.

#### **12:00-12:45 Lunch**

### **Public Session-13:00- 15:00**

#### **13:00-13:05 Welcome/Friends of the Utah Avalanche Center**

#### **13:05-13:20 Larry Dunn- New Snow Web Pages from the National Weather Service**

The National Weather Service has made changes to the Cottonwood and Provo Canyon forecasts that are made in support of the Snow Safety and Avalanche Community. Changes have also been made to the NWS public web page of mountain and snow observations. These changes will be discussed and examples of the new format will be unveiled.

#### **13:25-13:40 Greg Dollhausen, Bill Nalli & Matt McKee-The Other Canyons: Big Cottonwood & Provo Avalanche Anatomy & Control Procedures.**

UDOT forecasters discuss slide paths and historic avalanche events in Big Cottonwood and Provo Canyons. In addition, this presentation focuses on control measures and how it affects both the public and dawn patrolling parties.

#### **13:45- 14:00 Dean Cardinale- Avalanche Rescue Techniques: Partner Rescue Plan**

Having a rescue plan is a critical component in saving an avalanche victim. Professionals spend countless hours training for avalanche rescue. A personal rescue plan could help save your life or that of a close friend in the unfortunate occurrence of an avalanche accident. This talk discusses the techniques necessary to perform a hasty partner search and rescue.

#### **14:05-14:20 Drew Hardesty-Which Way Should I Go?...Utah Avalanche Center's new Avalanche Ratings for Selected Routes in the Central Wasatch"**

An avalanche and terrain rating system for 30 selected routes in the central Wasatch and development of a route decision making matrix for recreationists.

#### **14:25-14:40 Bruce Tremper and Tom Diegle- A close call on Little Water Peak**

An account of the avalanche incident that took place during the notorious holiday 08/09 cycle in the Little Water area of the Central Wasatch. A series of decisions led three people to cross a relatively innocuous-looking slope that turned out to be not so harmless after all. The slope avalanched as the third person crossed it, burying him in a tree-well. Though a deep burial, the small size of the slide and quick work enabled a successful live retrieval.

#### **14:45-15:00 Ian McCammon- Critical slope angles for avalanche: A user's guide**

Avalanche courses teach us that avalanches are most frequent on slopes around 38 degrees in steepness. But does that rule apply to all avalanche types? This presentation will examine the 38 degree rule, when to apply it, and when it can get you into trouble.

#### **15:00-16:30 Social in the Blue Goose Bar at The Depot- Sponsored by High Angle Construction, Utah Food Services and the Friends of the Utah Avalanche Center**

# Mountain Rescue Association Intermountain Region Team Accreditation (Winter)

## INDIVIDUAL SNOW SKILLS (Test V)

**Knots:** High Strength Bowline, Double Fisherman's, Prusik, Figure of Eight (Rethreaded and On a Bight), Water, Safety tie offs used where needed

**Anchors:** Demonstrate Anchors (Flukes, Pickets, Screws, Deadman, Bollard), Demonstrate a multiple anchor system using pickets or flukes (SEA or LDA)

**Travel:** Proficient in over-snow mobility (Ski or Snowshoe), Mobility on Steep Snow (Crampons and Ice Axe)

**Snow Technique:** Self arrest feet first, Self arrest head first, Boot/Axe Belay, Sitting hip belay

**Avalanche Techniques:** Transceiver use

**Personal Preparedness:** Personal Technical Gear, Personal Survival Gear (Wet, Cold, Signal etc.)

**Medical Skills:** Standard First aid certification current, CPR Certification current, Hypothermia Frostbite knowledge

## SNOW TECHNICAL RESCUE (Test VI)

**Leadership:** Leader took charge of operation, Leader delegated tasks/authority, Leader inspired respect/cooperation, Depth of leadership evident in team

**Coordination:** Team worked together effectively, Leaders directed and coordinated efforts

**Judgment:** Situations evaluated thoroughly/correctly, Effective/correct decisions made, Reacted effectively to changes in situation

**Efficiency:** Team utilized equipment/personnel/expertise, Minimized wasted time and effort, Initiative demonstrated by team

**Operation:** Victim located/reached safely, effectively, Plan established/executed in timely manner

**Communication:** Signals clear, concise and understood, Leader controlled communication, Team remained informed of situation/decisions, Leader aware of Team members' condition

**Safety:** Team prepared for extended operation Use of Helmets appropriate, Edges secure, individuals tied-in as necessary, Rockfall/avalanche danger minimized, Rescuer safety paramount, System/ropes protected, System/ropes monitored and inspected, Gloves worn by brakemen/belayers, Spare safety rope available for emergency, rappel, etc., Ropes/equipment organized, debris/rocks cleared

**Medical:** Immediate and continuous care provided, Vital signs monitored, First aid adequate, Packaging appropriate and secure, Psychological first aid provided, Patient protected from environment, Medical supplies appropriate, Packaging supplies appropriate

**Travel:** Proficient in over-snow mobility (Ski or Snowshoe), Route selection/Avalanche avoidance appropriate

Mobility on Steep Snow (Crampons and Ice Axe), Sled or litter carry proficient, Transceivers carried, Probe or shovels carried, If in an avalanche area was a lookout posted

**Litter or Sled:** Patient secure, hands secured, Litter bearers effective with good teamwork, Patient protected from the elements

**Anchors:** Equalized to at least 3 points if a SEA system, System is equalized before tying off (LDA), Anchors remain effective if load direction changes (SEA), Anchor failure results in less than 12" drop (SEA) , If not bomb proof, were enough anchors used

**System:** Friction easily adjustable on lowering system, Ascenders/Prusiks appropriate to use, Pulleys at least 4 times rope diameter, Lowering/Raising efficient and effective, Knot passing effective, Loads and safety factors known and consistent with team protocols

**Belay:** Anchor separate from system, solid, multi-directional, Friction appropriate to load in case of system failure

**Knots:** Clean and dressed, Appropriate to intended use, high strength, Knots backed-up with safety when appropriate

**Carabiners:** Locking used where appropriate or reversed and opposed, Gates up or away from rock, Gates locked if locking type

**Rope:** Static used for rescue systems, Dynamic used for belays of individuals climbing, Padding/rollers used on edges, friction, abrasion etc., Ropes kept tangle-free and clear for systems

## AVALANCHE SEARCH (Test VII)

**Notification:** Maintains availability of reporting party, Establishes location of slide, Location of witness when avalanche occurred, Number of probable victims, Last seen point of victims

**Pre-Planning:** Organization structure/ responsibilities defined, Team resources identified (equipment), Available resources identified, Plan developed (safe approach), Hazard assessment

**Travel:** Proficient in over-snow mobility (Ski or Snowshoe), Route selection/Avalanche avoidance appropriate, Sled or litter carry proficient, Transceivers carried, Probe or shovels carried

**Accident Site Evaluation,** Scene safety, Is there need for rescue?, Need for avalanche guard? Warning signal established, Safe areas and escape routes identified, Care for survivors if present, Note all tracks into and out of slide

**Communication:** Location, Physical Characteristics, Number of probable victims, Safe route to site identified, Additional resources needed (dogs, columns, medical), Search status, Staging area identified

**Search:** Organize and delegate search responsibilities, Transceiver search performed, Identify and mark last seen point, Mark and pull on all clues to see if they are attached to a victim, Probe likely areas, All debris is searched, Search continues moving, Records kept, Search leader maintains view of slide/ not involved in rescue effort, Clean site maintained, Coarse or fine probe search effective

**Medical:** Immediate and continuous care provided, Vital signs monitored, First aid adequate, Packaging appropriate and secure, Psychological first aid provided, Patient protected from environment, Medical supplies appropriate, Packaging supplies appropriate