

1-8	WRT	Winter Rescue Team	Faerthen Felix
1-9	GCSAR	Avalanche Awareness	Frank
1-25	GCSAR	Incident Command System	Jim Webster
2- 5	WRT	Winter Rescue Team	Faerthen Felix
2- 10	WRT	GCSAR and Winter Rescue Joint Training	Faerthen Felix
2- 13	GCSAR	Search Operations, Strategy, Tactics	Haynes That Finds
2- 22	GCSAR	Patient Assessment, packaging, blood path.	Matt McCune
3- 5	WRT	Winter Rescue Team	Felix
3- 6 to 9 NPS		Arches Rock Rescue (GP- 13)	Haynes That Rescues
3- 13 & 15	GCSAR	ICS- practical application, forms, etc	Webster & Frank
3- 17 RRRR		Canyonlands One Half Marathon	
3- 22	GCSAR	Tracking- classroom	Frank
3- 31	GCSAR	Practice Search Ops: tracking, ICS, computer	Frank
4- 7 to 15		The Jeep Safari. 13th= Boy Scout dinner	Red Rock Four Wheelers
4- 10	GCSAR	Tracking- field	
4- 23 to 27	NPS	The ISKY Rock Rescue Party	Phillips
4- 26	GCSAR	Land Navigation, Orienteering, Maps, GPS	
5- 8	GCSAR	Land Navigation etc- field	

5- 12 GCSAR	Tracking, GPS, compass. With SJSAR in La Sal Mtns.	
5- 24 GCSAR	ATV and Bronco skills	Sam, Lee, Brad
6- 12 GCSAR	River Rescue	
6- 16 GCSAR	River Rescue on the Colorado River "Daily"	
6- 28 GCSAR	Rock Rescue	
10- 29 to 11- 4	The Arizona Vortex	Reed Thorne

2001- J-0 F-2

2000- J-2 F-4 M- 9 A-13 M- 14 J-7 [49] J- 3 A-2 S-9 O- 7 N-0 D-0 [70]

1999- J-1 F-1 M-15 A- 4 M- 11 J- 8 [40] J- 6 A-9 S-9 O-13 N- 7 D-2 [86]

1998- J-0 F-1 M- 5 A-18 M- 15 J- 3 [42] J-10 A-2 S-4 O- 9 N-3 D-1 [71]

1997- J-4 F-6 M-10 A- 8 M- 16 J-9 [53] J- 4 A-6 S-5 O- 9 N-8 D-0 [85]

OFFICERS FOR 2001:
Lewis

Rescuer of the Year: Sam

Commander -Rex Tanner

Vice Commander -Brad Mallory Training Officer -Frank Mendonca

Equipment Officer -Sam Lewis THE Secretary -Nancy May

Captains- -Jeff Davis: Medical Matt McCune: Equipment

-Josh Winkler: River Bego Gerhart: Rock

1 T 7: "When hooked up to an EEG machine, a bowl of lime jell-o exhibited virtually the identical movement as brain waves in a healthy adult."

GCSAR Meeting 1- 25- 01

New member: Chris Kelly 1 T 814

A new non-repeater radio channel is being developed for GCSAR. Training: ICS

by the awesome Jim Webster, Chief Ranger at Arches NP.

NPS SAR Brief Wed, 7 Feb 2001

Canyonlands NP (UT) – Agency Assist, Falling Fatality

On February 4 at about 5:00 pm a 29 year old female fell approximately 90' while free solo climbing in Indian Creek Canyon near the Needles District of the park. Friends of the climber witnessed the fall and were able to call 911 within about 10 minutes via cell phone. The local Sheriff's Department requested assistance from the park. Needles Rangers Fred Patton, Michelle Busbee and Daniel Habig responded.

Busbee and Habig arrived on the scene at about 5:45 and were the first units on scene. By that time the patient had been pulseless for about 20 minutes and CPR was in progress. The patient was packaged and lowered to the road by a 400' belayed scree evacuation. The patient had sustained major head trauma in the fall and was pronounced dead at the scene by the Flight Nurse from St. Mary's CareFlight. (Daniel Habig)

Winter Rescue training up in the La Sal Mountains 2-10-01

Finally...an incident...

01-1 2-24-01 It's a Dog's Life -- Or, Doggie Bagged

Smoke strayed over the rim of Culvert Canyon down Highway 279 on Saturday afternoon, Feb. 24, and was trapped in a small bowl about 20 feet below the rim for 24 hours. Smoke is a 4-year-old Border Collie-Chow mix belonging to a Moab couple. The dog had been hiking with the couple's son. On Sunday, after trying unsuccessfully to rescue the animal from the bowl atop a 200-foot cliff, the dog's owners requested the assistance of Search and Rescue. Five SAR members hiked a

little more than 1.5 miles to the top of the wall. Kevin Chase rappelled down to the dog and placed him in a haul bag, which was then hauled back to the top. The incident was

not paged.

Comments:

Responders: Nancy May, Kevin Chase, Jeff Davis, Mark Ward, T-Berry, Frank M.

SEARCH THEORY, STRATEGY, TACTICS by Gary Haynes, Arches NP ranger

Lost Subject- location, behavior and survivability.

Location-

Point Last Seen (PLS)- Positively. Could be subject's house, car rental desk, picnic table, etc.

Can shift as eye witnesses positively ID the subject.

Last Known Point (LKP)- Can differ from PLS cuz of some evidence or clue of passage.

Initial Planning Point (IPP)- Search Management team says the search begins HERE.

Categories of People	<u>samples</u>	<u>median dist traveled</u> 50% found closer 50% found farther	<u>range</u>	<u>50% zone</u>
hunters	100	1.52 miles	.14 - 12	.98 - 2.38
fishheads	25	.89	.31 - 11	.59 - 2.17
hikers	241	.63	.37 - 14	.59 - 2.88
misc Adults (?)	261	.27		
youth (13-16)	201	.12		
child	81	.30		

despondent	16	.64		
walkaways	22	.62		

SEARCH THEORY - Layer these methods and think about it.

Theoretical- How far could the subject travel in the time elapsed? 2 circles around PLS, min & max.

Statistical- Has to do with category of person- see above.

Subjective- What do the search managers FEEL? Terrain, time, weather, previous history in area.....

SEARCH STRATEGY- $POA \times POD = POS$ Layer these methods and think about it.

Probability of Area (POA)- Likelihood (%) that subject IS in a given area

Regions- divisions of search area that have same likelihood of containing subject

Mattson method-each region has a % value with total of 100%.

OConnor method- each region has a value of most likely, more likely, even, less likely, not.

Modified Mattson- choose region most likely, other regions have % based off first region.

No method- the most common management technique in USA.

Probability of Detection (POD)- likelihood (%) that a team will find the subject.

-size of search area, terrain, weather, ground cover, skills, time allotted, quality of briefing.....

Probability of Success (POS)- If you look well in high % area with high % of certainty = success.

TACTICS- initial attack uses confinement, attraction and hasty searchers.

Passive- self rescue where the subject finds the searchers.

containment- trail blocks, track traps, road patrols, leave note on subject's vehicle.....

attraction- fire / smoke, noises of all kinds, lights.....

investigation- on going thruout, interviews, background checks (may not want to be found).

remote sensing- GPS, satellites, side scan radar, night vision

Active-

Tracking- takes alot of training by individual and team, very effective in this area.

Dogs- very effective in most conditions, desert heat is challenging.

Aircraft- good for attraction and in logistics, about 30 % effective in desert by one study.

Hasty search (Type 1)- cut for sign, hike trails, drive roads, check attractive hazards...

Open Grid (efficient Type 2)- critical separation depends on what you are looking for: a gum wrapper in dense brush or a body on the slickrock.....

Closed Grid (thorough Type 3)- looking for evidence, unresponsive subject, avalanche.

Used as last resort cuz uses many people for small area but nearly 100% POD

VSP= Very Smart People. APD= Awesome Powers of Deduction. DOB=Designated Officer to Blame

01-029 - Olympic NP (WA) - Search and Rescue

On Saturday, January 27th, Floyd Herron, 82, became separated from his son and grandson while hiking up the Queets trail. He was lagging behind them and could not catch up, so turned around and headed for a river crossing near the trailhead with the objective of waiting there for his companions. Herron missed the crossing point, though, then lost the trail. He became disoriented while searching for the trail that evening, so camped under a tree near the river and the crossing. He had a Holofill

sleeping bag, a poncho, a bag of bread and some cookies with him. On Sunday, Herron continued hiking up a creek he had crossed, traveling in very dense forest with many downed trees, tangles of brush, and swamps. Saturday night had been very cold; Sunday brought heavy rains. Herron had forgotten he had a poncho and slept in the rain in the sleeping bag that night. On Monday, he again began his search for the trail, hiking up the creek, out of the park, and into a dense second growth forest. He stopped and lit a fire after a park helicopter flew over his location but failed to see him due to the thick canopy. A television crew spotted his smoke while filming area shots for a search story that was to appear that night. They were able to identify him by zooming in with their camera, then direct the search helicopter to his location. Herron was in very good condition and was reunited with his family. Twenty-five searchers and four dog teams participated in the search along with the helicopter. Two of the dog teams alerted to a canteen left behind by Herron and had pointed the searchers in the right direction. [Curt Sauer, CR, OLYM, 1/31]

01-034 - Mammoth Cave NP (KY) - Rescue

On the afternoon of January 31st, park hydrologist Joe Meiman advised rangers that Dr. Chris Groves, a professor from Western Kentucky University, had been injured in Sides Cave, located on the park's eastern boundary. Meiman, Groves, park employee Brice Leech and a WKU graduate student had been retrieving dye-trace collectors from the cave when the accident occurred. Groves was attempting to go around a pit on a rock ledge when the ledge broke free and he plunged about 30 feet into the pit, which contained about two-and-a-half feet of water. Meiman was able to reach Groves and pull him from the water. Leech stayed with Groves while Meiman then sought help. The accident site was at the end of a 1,450-foot "wet crawl" through a low, narrow passage with two to ten inches of water in the bottom. More than 100 rescuers from Mammoth Cave, TRACERS (The Rock and Cave Emergency Rescue Squad, based in Kentucky), and the National Cave Rescue Commission (based in Indiana) conducted the rescue; acting chief ranger Brad McDougal was IC. The rescue proved extremely difficult because of the long and narrow passage and the length of time the rescuers had to work in the water. Because of the threat of hypothermia, teams of four relieved each other throughout the night and were shuttled to the Cave Research Foundation's nearby Hamilton Valley Center to warm themselves and obtain food and dry clothing. There were usually four teams in the cave at a time working with Groves. The 14-hour rescue ended successfully the next morning at 3:35 a.m. Groves was alert and responsive. He was taken to Cave City, then flown to the University of Louisville Hospital, where he was treated for four broken ribs, a broken collar bone, a punctured lung, cuts, contusions and bruises. [CRO, MACA, 2/2]

00- 2 Feb 26 to Mar 1 Plane Crash in the Book Cliffs

In the afternoon of 26 Feb, Fred and his airplane came falling out of the sky from 22,000 feet. The Emergency Locator Transmitter in his Beach Bonanza 35 started beeping and this was picked up by satellite and relayed to Langley AFB. Fred crashed at N 39° 07.32' by W 109° 51.61'

Tuesday morning about 0630 hours it was determined that the ELT signal was coming from a site in the Book Cliffs way up near the top of the Right Fork of Tusher Canyon. Deputy Phlanges Pace started his drive up Tusher Canyon to see how close to the crash he could get. Now, Deputy Pace, mind you, is very good at these types of things.

Deputy Brian Backus, Grand County Search and Rescue with Commander Rex Tanner at the helm, BLM Rangers Loren Good and James Ward and Trooper Darrell Mecham mobilized ATVs to Hastings Road in Green River. The weather was close in with heavy clouds and rain in the Cliffs.

At this time, a second set of coordinates were radioed to the search party. The search group was split in half, sending a team to Diamond Canyon, 25 miles east-northeast of the original site.

At 1000 hours Detective Sgt. Curt Brewer arrived to coordinate the search efforts. Computer map wizard Frank Mendonca brought the GCSAR laptop computer with "NGS Topo" and the USGS topo maps for Utah loaded into it. Slick.

The Diamond Canyon team drove up the canyon 20 miles to the end of the gooey muddy road. From there the given coordinates were a mile further up canyon which they covered in ATVs. Hiking, climbing and looking, looking in cloudy, partly rainy conditions. At 1300 hours this group was recalled to Tusher Canyon Base Camp when it was determined by the Civil Air Patrol pilots that the original coordinates were correct. The signal in Diamond Canyon must have been "skip" or "bounce" from the original site, a fairly common occurrence.

Meanwhile, the GCSAR members established a Base Camp up Hastings Road at the Tusher Canyon dirt road. From there, ATVs and jeeps were dispatched up Tusher Canyon. Ground searchers motored 18 miles up the canyon bottom thru much muck and smedge to Deputy Pace's ride. This was the closest driving approach to the crash. From this location, the crash was 3/4 mile away horizontally but 700 feet higher. They were looking up at some seriously bad terrain with many cliff bands, dense P-J forest, circuitous route finding and much snow.

A Civil Air Patrol plane had been dispatched to the scene as the clouds dissipated somewhat in the early afternoon. The crashed plane was finally spotted in the thick Pinyon-Juniper forest in 1 to 2 feet of snow. A white, gray and blue metal heap to be spotted against a background of white, gray and dark green.

At 1600 hours the DPS helicopter N UT 8 arrived at Base Camp with Pilot Terry Mercer. Sgt. Brewer and a SAR member were helicoptered to the scene. The nearest landing zone to the crash was 300 feet higher on the mountain, above another cliff band. It took much postholing thru the snow drifts to reach the crash. By now, it was so late in the day that Brewer took pictures and video and the 2 departed by postholing down hill to a lower LZ, below another cliff band. Everyone went home.

Wednesday morning, everyone was mobilized again but the stormy, snowy weather precluded advancing into the field.

Thursday dawned partly cloudy so out we went. A few inches of fresh snow had fallen in the night. The helicopter lifted 2 SAR members to the site where a chain saw was lowered from the helo to the ground. The SAR members were left at the upper LZ to hike down to clear a suitable landing zone near the wreckage while the helo returned for fuel. Shortly later, Chief Deputy and M.E. Doug Squire and Det. Sgt. Brewer were flown to the crash. Next came 2 flights of NTSB folks and some extrication equipment. It took over an hour to recover the body from the wreckage. The body was flown out to Base Camp. NTSB concluded their investigation. Everyone was then flown down out of the hills.

Communications frequencies:

UHP Statewide 1 for talking with the CAP airplane, the DPS helicopter and dispatch in Price. Car to car was used by the Diamond Canyon team.

SAR channel was used by GCSAR in Tusher Canyon.

The Grand County SO channels were of limited use in the field cuz of the mountains and canyons and the distance to the repeater on Bald Mesa but worked well from any of the paved roads traveled during the operation.

Radio relays were established twice to facilitate coms.

Comments: Good job everyone.

Responders:

Grand County Search and Rescue: Rex, Jeff, Sam, Frank, Dick, Sam, Nancy, August, Chris, Kevin, Steve

Grand County Sheriff's Office: Brent, Brian, Doug, Curt, Steve

UHP: Darrell Mecham

Civil Air Patrol: Pilot and Spotter

Dept of Public Safety: Hopiter Pilot Terry Mercer