

Toblach /Dobbachio ICAR Sud Tirol 2023

Dog Sig Meeting notes



Practical Day

We were given three demonstrations in the most beautiful Dolomiti backdrop by the Sud Tirolian dog handlers.

- We had an impressive demonstration of Man trailing with a cross Pointer /poodle. Also two air scenting dogs were used to search two adjoining area after the man trailer had found the first missing person. They demonstrated the use of a drone to follow the search including gps tracking of the dogs. This was all recorded on the handlers' phones', control computer and displayed on a huge screen to demonstrate it to the delegates. One training note after the handler had swabbed the car of the missing person, he let the dog round all of us so he settled and could eliminate all of us needing to be found.
- Man trailing a detailed explanation about the training and handling of dog for man trailing by Raymond and his cross poodle/pointer
- Getting young dogs to bark

Thursday

Marcel welcomed us to ICAR 2023, and all delegates introduced themselves

Last year's protocol was approved by the meeting.

Marcel reported on a dog workshop held at the Bernina Pass in 2023. 18 dog handlers attended with all types of dogs. It was cold and windy with easy access to training areas. Marcel thanked the organizer's and mentioned the Spanish team of a Malinois and a Schnauzer who demonstrated man trailing and Patrick who explained the progression of training a cadaver dog.

Marcel explained the work of the ICAR board introducing the new secretary Ralph Naf from Switzerland and thanked Knut Skar with his work on the technical committee. There is a brand-new web page. It was agreed to hold a workshop for Dog training instructors, and an avalanche workshop I Tirol. Austria have special topics for different dog searches around area dogs, barking and man trailing.



Operation Hope Case of HK2803 and 4 missing Children in Colombia

Humberto Hinestrosa – Rescue International

Rescue of 4 indigenous Colombian children (ages 13,9,4 and 11 months) lost in the Rain Forest after their plane crashed killing their mother and 2 other adults. The flight route was known, and the distress messages logged along flight path. There was an air search with 2 Black Hawk helicopters and a plane called in to help along with 2 military German Shepherds for 8 days with loudspeaker instructions telling children to go to the river over a range of 12 nautical miles. The jungle canopy made searching very challenging. The grid search was expanded after 10 days but was very slow, clues were found including a baby's bottle. The search parameters were narrowed down using a lot of mathematical modelling narrowing down the search to certain coordinates along which ground teams found the plane with no sign of children. The special forces took the lead using dynamic, fluid active and passive search methods. They considered geographical features, watersheds and paths of least resistance.

The progress was slow, especially as the weather was unfavorable. 2 Military and 2 civilian dogs were deployed (one having to evacuate). By plotting the position of the clues, the course of the children was shown. The civilian dogs were evacuated after 5 days and Wilson the remaining dog found the children but did not indicate or respond to recall. He remains missing. The children were found alive 3.7km from the aircraft dehydrated and malnourished but had survived on native knowledge of the jungle and a bag of tapioca flour from the aircraft.

Re Search dogs- They were trained but mainly in rubble with unknown capabilities in area searches. All the missions used a helicopter and no man trailing or tracker dogs were used. Wilson spent two days with the children then left as he was put off by the conditions (heat loudspeakers etc.) The question you ask is if you find 4 kids in the jungle would your dog alert you?

How to teach a Puppy to bark

Marco Terroni GDF Scuola Alpina Predazzo

The method is used for all 3-month puppies and adult dogs having problems with the bark indication.

- Use a mat or piece of board to let the dog know where he must be using food on board as target.
- The dog was then released from handler to board where another is standing with food reward. he encourages dog to sit and bark on board
- Then the receiving man lowers his position to a crouch all the time with the dog sitting on board and barking, still rewarded with food.
- The food reward is then swapped for a toy.
- The use of a board keeps the dog at a good distance from body, this training takes 2-3 days in yard and a further week on the hill.

- The board is removed when the dog is ready.
- Using food to begin with is more calming for the dog.
- This exercise can be used if a dog has become too forward with the bodies.

Discussion groups on Mountain Day workshops



Prospective Study of Avalanche Data

F.Albensini MR Doctor

Since 2014 there has been a date base formed of all avalanche victims in the Northern Alps who have needed medical attention

It is concluded that all persons falling from the top of an avalanche are assumed to have severe trauma, however this is not always the case when compared to a road traffic collision.

More data is needed including weather snow densities+ geographical features, actual cause of death (hypothermia vs trauma vs asphyxia) and a postmortem avalanche study.



In light of this alongside ANENA a new form will be filled in by medics, rescuers and the State to improve quality indicators, knowledge, prevention messages and decision making.

Search Operation in the Hochkalter

Michael Partholl Bergwacht Bayern

This incident was widely reported in the European press.

The Missing Person (MP) was hiking 18k in bad weather conditions along a narrow ridge 1150m high.

Saturday pm call comes in from MP with a video. He was inadequately dressed. He phoned back and thought he had # his hand and was hypothermic and pleaded for help. He was told to keep moving but he refused. Tried to locate him by calling every 30 mins and the helicopter couldn't fly. It was too dangerous to put MR up as the storm got worse, so they stopped the mission.

MP talked to his parents, and he said I will die in 50 minutes. The storm made it impossible to try and get to him.

A risk matrix was done to assess risk and it was unacceptable.

Another MR team tried from the other side but couldn't get to him.

The last call from MP was at 21.29 and his mobile failed 10 mins later.

23.26 Kid Crisis Intervention team supported the parents.

Sunday Two teams started out again but by late morning stopped search due to weather-2m new snow on very steep ground. Helicopter again could not fly.

Monday No further attempts due to weather.

Tuesday Weather improved. A Eurofighter with heat seeking technology was deployed, Journalists took MR clothes to try and get information.

Wednesday Good weather. Briefing then helicopter deployed with recco, found a signal and marked with a flare (it wasn't a person but a weather balloon)

15.39 rucksack found with a laptop in, Police deployed a drone, but it crashed (60,000euros lost) Rucksack also had a banana, tin of beans gloves and helmet with GO Pro. Search stopped at 17.30.

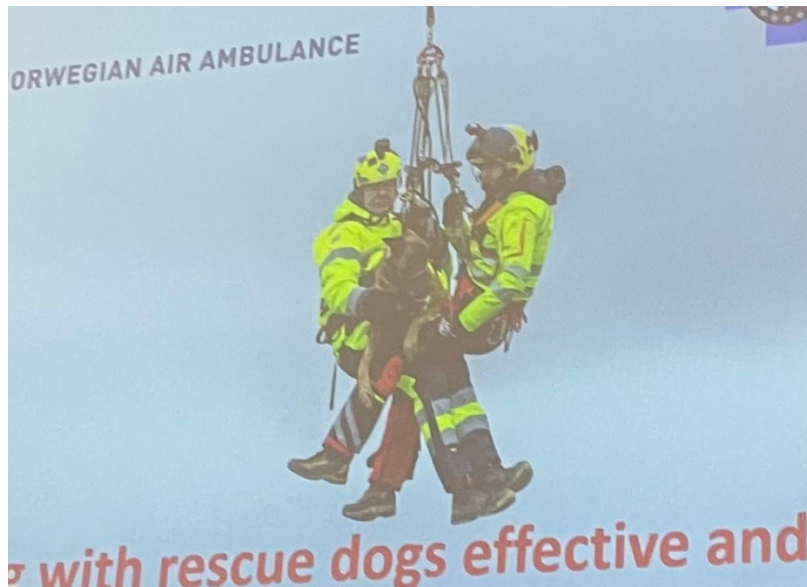
Thursday Good weather, 3 teams flown in on fixed ropes, searched with Recco and probes. It was too steep for dogs. 15.45 Recco signaled on a stone.

4 weeks later by constant fly pasts the body was found at 2264 m with rucksack at 2475m.

There were problems with PTSD up to 6 weeks after the mission over the difficult decisions that had to be made.

Are Rescue dogs precise and efficient in its searches while secured by under sling rope to a Helicopters?

Knut Scar (NRH)



Searching while still connected to Airbus H145 Helicopter with 5 rotors.

This was a collaboration between the Norwegian air ambulance and Norske Redningshunder (Norwegian search and rescue dogs) to answer the following-

Is a search with rescue dogs just as effective and precise when a dog team is secured with the help of an under-sling rope to the helicopter compared with a conventional search team?

The study's main hypothesis is that searches using an experimental method are not inferior to conventional methods in terms of use finding avalanche or landslide victims and total time searching.

Priority in all the study was SAFETY. The study compared performance with and without the helicopter. Performance was assessed by time and performance parameters by a group of assessors.

4 dog teams took part 3 from the police and 3 from Norwegian rescue dogs. 4 assessors observed the performance 2 from Police and 2 from Norwegian rescue dogs.

The study was held in a stone quarry, day 1 was conventional method and day 2 experimental. There were 2 live markers(bodies) one on surface and one underground in a pipe. Helicopter Airbus H145 with a 60m rope. 15 mins max for search in an area of 6000sq m. The dogs were on a line like in man trailing, the handler controlled the dog while the winch partner looked after the helicopter rope.

It was concluded that very little difference was made to the dog by having the helicopter nearby. It was asked about the line in the wash from helicopter and when it was behind the dog team no difference when in front it blew scent towards the dog. They will develop a procedure for a rapid retreat and the best way to retrieve the dog.

The future is to experiment with a larger helicopter and in snow.

Never give up hope Avalanche in Annaberg Lower Austria 15/2/23

Reinhard Hirschmuggel (Austrian OBRD)



Reinhard is responsible 240 avalanche and area search dogs in Austria. There are 130 avalanche missions per year and in 90% they are recovering bodies.

Weather Sunshine Avalanche risk am 1 pm 2.

Conditions Less snow in winter, heavy snowfall before accident followed by rapid warming.

Location Forestry road elevation 1090m

Equipment Touring skis no beacons probes or shovels.

3 men aged between 60-79 years out touring on skis. At 11.30 at 1090m a warm glide avalanche was triggered from approx. 1260 m on a 40° slope. One person was buried 2.8-3m deep. His 2 companions were not caught.

Companions initiated their search but unsuccessful, another ski tourer arrived and called emergency services , response started at 11.39.

The rescue team comprised 69 MR, 12 police, 2 police helicopters, 1 police drone, 1 rescue helicopter and **5 search dogs**.

12.15 started recco search and probe lines.

12.45 Dogs started searching.

13.15 Dog indicates,

14.40 Person was found 8m down the slope from indication at a depth of 2.8 m after deep probing. An experienced MR coached the probing. The dog's indication was above because of the angle of slope and warm air rising.



The person had an air pocket given by a little tree. He wasn't expected to be found alive because of the wet snow. He was injured with severe hypothermia body temperature of 26°C.

15.20 Causality evacuated.

Puppy testing for search and rescue dogs

Patrick Czermak (Polish GOPR)

This test was introduced because a lot of dogs failed after 6 months of training.

Genetics are also important as that pups come from a recognized working background.

The test is done at any time between 4-12 months old and decided by the handler.

The Test

- **Reaction to people** Handler ties to fence and walks away, people walk past dog to be active and happy without anxiety or aggression.
- **Reaction to dogs** Dog let loose with another dog looking for stability with no aggression or anxiety.
- **Play drive** Dog to fetch, play, bite and retrieve specific toy and not to be distracted by other toys.
- **Unknown toy** Same as above but with new toy
- **Reaction to gunshots** Handler plays with dog while 3-4 shots are fired and want to see no reaction from dog.
- **Air scenting** Handler moves away from dog into the wind, dog's view interrupted by a blanket and handler hides a few steps further on. Dog released to find handler.
- **Tracking** As above, both show whether the dog will track or air scent.
- **Food motivation** Food in box see what the dogs drive is with discomfort from pushing lifting etc.

Summary

The test is descriptive and shows the innate abilities of the dog. The dog has to pass at least 7 out of 9 tasks if not he can repeat in a months' time.

Obedience tests done at 12 months, and they do not do Stock (farm animals) test

ICAR expectations of new technology

Technology and rotor disk visualization 100% working in helicopters have experienced rotor strikes.

- Find a tech solution.
- SOPs and training

Tracking and localizing prior to rescue Development a two path MR-Manufacturers



- New tech new training
- Missing person (MP) has decisions over which technology.
- 1 helicopter with cell phone and or PLB detector
- MR needs to know which device the MP has with them.
- PLB should alert the central call centre and let the MR know what kind of PLB is transmitting.
- Culture and Education of the public needs to be changed (maybe through Manufacturers) and public need to have something on them that is searchable.
- Manufacturers need to make development simpler and need to liaise with pilots as to functionality of devices.
- All have smart phones can we lobby Apple etc. to improve searchability, data of position automatically transferred on phoning emergency number.
- Free permits into areas can educate and aid in rescue.
- Better to have something in clothes (doesn't require thinking about)
- Manufactures must develop devices that help MR.
- Iceland incident Command Centre collect info and profiles of all devices available.
- ICAR needs to reach out to all emergency call centres and standardize SOPs.

Mountain survival Course for Civilian helicopter crews

Securite Civile Helicopter Group

33 Airbus 145 C2 helicopters

20 main helicopter bases in France, 3 in French West Indies, 8 temporary bases and 12 mountain rescue bases.

95 crews of up to 5 people, Survival courses include Mountain Sea and Forest refreshed every 5 years. MR helicopters must carry survival kit.

Mountain survival course is crucial for crew and must be taken in winter conditions. It is very good team building effects and consists of

- 12 trainees supported and supervised by Mountain guide trainers, MR and Doctors
- Col du Lautaret in Haut Alpes 05
- Movement and survival techniques
- Workshops and scenarios
- Winter period

Topics covered.

- Clothing and PPE in Snow
- Travelling on Snow
- Safety in Snow and Fall arrest techniques.
- Movement on Fixed ropes roped movement on Glacier and crevasse techniques.
- Abseiling
- Technical helicopter transport and drop off.
- Medical and First aid especially hypothermia
- Survival shelters

- Avalanche beacons probing and shoveling for rescue.

It was asked is there a list of survival kits in the helicopters and maybe that ICAR could develop a minimum standard.

Lost Person Behavior- The science of Search and Rescue

Robert Koester PhD, FRGS Fin STR

The difference between Missing and Lost

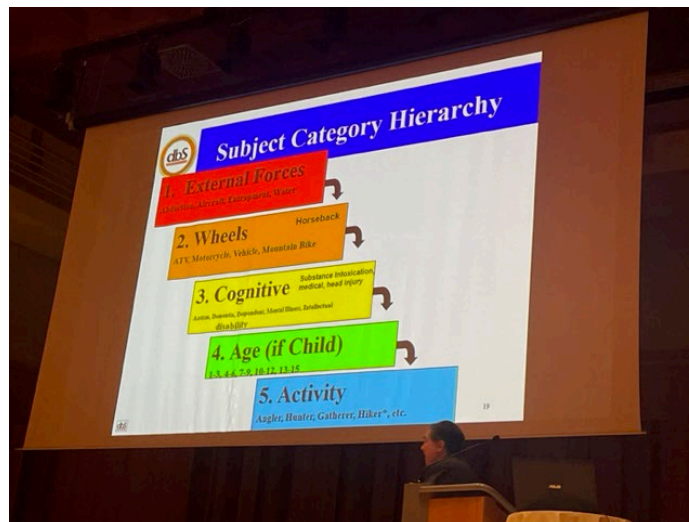
- Missing- Abductions, Asylum seekers, Runaways, Forced marriage to Mental Health
- Lost (outdoors) – Avalanche, Drowning, Trauma Lost, Overdue Stranded, Criminal, Investigative, Despondent

Ultimate question is where Using lost keys as example.

- Investigate PLS, where they should be, retrace steps from memory.
- Hasty search those locations
- Scenario analysis
- ISRLKD
- Hasty search -Investigation +Stats
- Saturation searches

There is a data base of stats from lots of rescues and countries but more always needed.

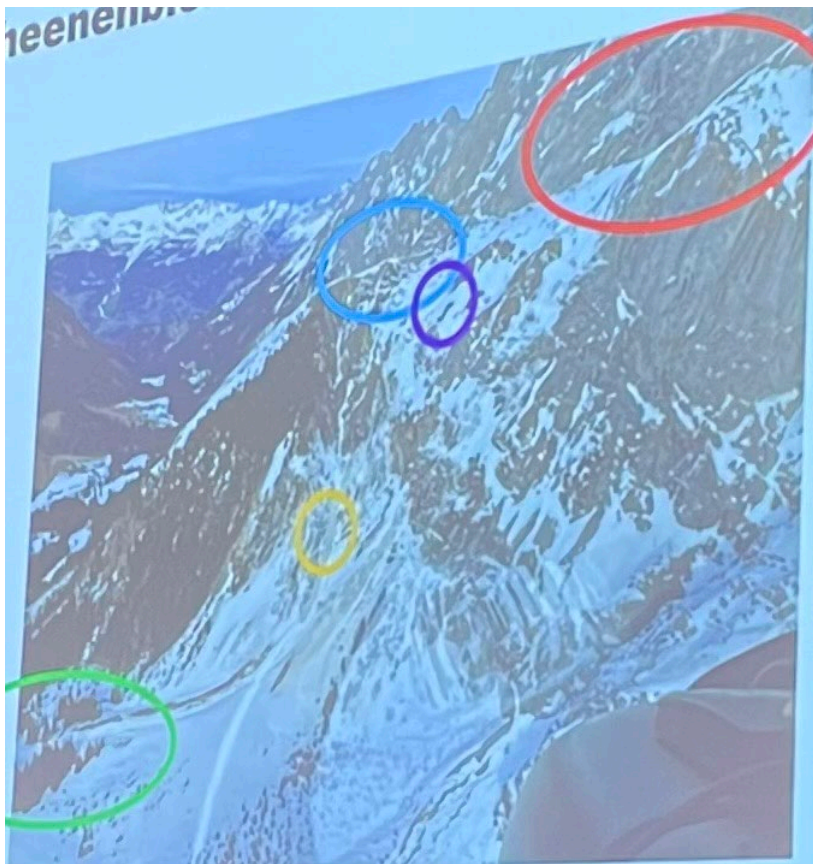
Categories that areas are take demonstrated and maps. There that helps analyze used by search



help narrow search into account and through case studies is an app and book the data and can be coordinators

Scheenbielhubel Meiringen (Grindweld) Avalanche Accident

Marcel Meier and Ralph Naf (operations manager of rescue)



Red zone Start zone at 2300m plus 9 people.

Green zone Stop zone at 800m 1500m long.

Blue zone Ski mountaineer

Purple zone 1 person doing a beacon search.

Yellow zone a recco find.

Weather was good time Avalanche risk level 2, 16.15, 35°, 12 people involved, witness not clear how many people caught, One youngster phoned Mountain guide in purple zone

2 dog teams arrived in Blue zone safety of 9 persons a priority.

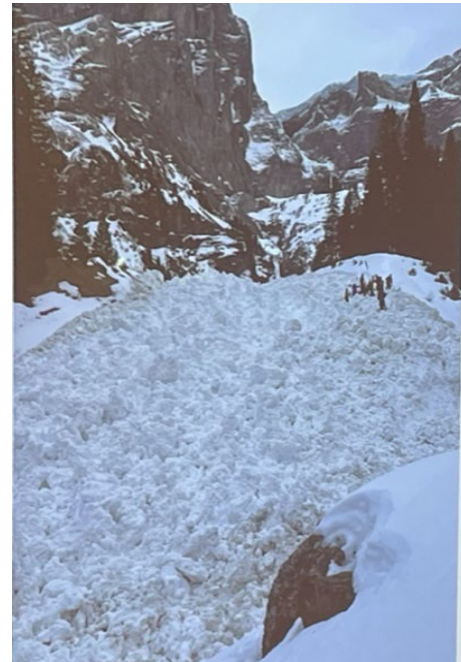
Dogs move down to Green zone.

17.15 first signal in green zone and 9 youngsters evacuated off mountain, witness agreed 2 people missing.

20.00 Search stopped for day (noted that they had skied the snow field in start zone twice)

2nd Day:11 rescuers, first casualty found with beacon and probe in the first 3 days, 2nd not till May (buried 10-15m deep and was flushed out by river in spring)

The snow was very wet and heavy, the dogs found it impossible to get a scent. The area is known for wet avalanches. Have had 2 similar wet avalanches where people were found alive after 1-3 hours.



Bulgarian Dog teams experience at Turkish Earthquake Feb 2023



We train the dogs in rubble searches, this started in Armenia in 1988 with an Austrian and Italian

06/02/23 Left Sofia in a troop carrier with 12 rescuers, 5 dog teams and a doctor.

07/02/23 Adana with 17 collapsed buildings for 2 days not easy but no real possibilities so requested to get to centre of rescue operations. Liaised with Turkish red crescent/cross and move to Hatai. Highway blocked so took 12 hours.

10/02/23 Hatai for 3 days no dog finds very disappointed too much scent in the compressed rubble. We wanted to search for live people (to hopefully save lives). Liaised with Police who escorted us to suspect locations.

Belgium Malinois found live family of 5

German shepherd indicated on rubble; Firefighter investigated but nobody. GSD indicated again and an old woman found by sound of breathing by Turkish firefighter. Another dog indicated on her dead daughter and kids.

Found a further 7 alive people, lots of dead bodies and more quakes always.

The dogs were very resilient worked for a week in total and there were no motivational issues. Perhaps our adrenalin gave them extra strength.

Pniowek Coal Mine Accident

Patrick Czermak

20/04/22 Methane explosion at Poland's largest coal mine, 39 miners evacuated with 15 injured 7 left underground.

21/04/22 Secondary explosions rescue suspended.

10/09/23 search operation resumed and after 10 days 5 out of 7 bodies were found. Cadaver dog requested, 1 searching and 4 standbys.

- 10pm first try, 2-hour descent, 40-50°C, 100% humidity, dust
- 2am 2nd try dog and handler in cooling vests.
- 4am first body found by bark indication through rock hole.
- 2nd body dog bark indicated in a small, flooded section.
- 1st body transported to surface next day.
- 2nd body mine rescue dug a trough and retrieved him 2 months later.

Dog needed 5 litres of water between rescue attempts and had 2 weeks rest after finished.





A revolution in prevention of asphyxia in Avalanche Burial

Giacomo Strazzon MD PhD

Pathophysiology in an Avalanche is critical, and the objective is to investigate the efficacy of a new asphyxiation delaying device during snow burial in the prone position.

Main cause of death from burial is Asphyxia due to airway obstruction and CO₂. Importance is when digging to identify air pocket and to always ventilate before compressions.

A double-blind study was conducted with the people buried ½ m under not knowing whether device was switched on or not. Device was shown to increase O₂ in air pocket.

Norwegian Avalanche Dog training course

Rob Grainger and Benni

Knut Skar invited dog teams from Poland and Italy the Lake District to Bygalin in SE Norway to the NRH regular avalanche rescue course.

Content

- Burial techniques
- Skiddoos
- Clues on site
- Partial and full burial
- Working dog from skiddoo trailer.

All avalanche tips were hand dug.

High standards were expected of all, a good exchange of ideas from all participants.

The Spirit of exchange of training methods and ideas are fostered by ICAR and helps all the different countries using dogs in rescue. The Norwegians always think consider and are innovative. Their hospitality and willingness to help in our education is fantastic. Thankyou



Importance of Avalanche Dogs in USA rescue operations

Margeurite Van Komen (Wasatch Backcountry Rescue)

We operate in the state of Utah in The Wasatch range covering 16 alpine resorts with 32,000 skiable acres.

WBR has 50 dog teams good for PR and educating the public in Avalanche safety.

Our dog teams respond to all mudslide and avalanche callouts in Utah. Train with and to Police standards. Train to live finds (introduced only to cadavers)

In resort 15ft deep avalanche over road 04/06/23 Snowbird Resort

- 900" inches snow over season bet Nov-may, just before avalanche 2-3ft new snow
- Road closed 45 times already due to avalanche risk.
- People housebound for 2.5 days, Beginners ski area open
- Gas-ex non-operational, tried to Heli Bomb
- Sun came out midday and hill spontaneously avalanched-15ft debris.
- On scene in 1 min, beacon search in 2 mins
- No children involved.
- 4 dog teams, 2 Snowbird there in 4mins, 2 Alta there in 10 mins
- 3 probe teams
- Site cleared in 45 mins.
- Dogs semi indicated on a walkway.

Reflections

- Can't control the weather.
- Can close runs but people still go out
- Skiers don't wear beacons.
- Important dogs are trained to be skilled professionals, lots of support from the resorts.

Dog deployment in search operations

Raymond (Bergrettung)

History; started in 1957, 1963 4 dogs purchased by Alpine Club South Tyrol ACS. Marius Eccell first group leader of avalanche search dog handlers. First winter course in 1979 and Avalanche search dog handlers became a department of ACS. Mantrailing came from USA and Switzerland started with Bloodhounds and developed from there including Area and Avalanche dogs.



Training; Begins in the playground and progresses through A B and C grades C being operational

Organisation; 30 Dog teams in MR plus other agencies including fire brigade dog teams. Sud Tirol has 5 districts vwith 4-8 dog teams. All groups cooperate and Mantrailing dogs become Avalanche dogs in the winter. All dogs deployment controlled by coordinator.

Tech Tools; BRD App that tracks through GPS handlers, no good without signal. Sends maessages and images. Dogs have Garmin tracker. Vehicle used as mobile digital base.

Case study Kruberalpass 19/08/2019

- 86 yr. old tourist who liked foraging in forest. Failed to return for dinner, alert at 21.00.
- Man trailers deployed first and toke freshest forest trail, one took an old track
- 2 air scenting dogs followed 200-300m behind to the left and right of man trailer.
- Air scenting dog found in thick vegetation at 02.00.
- MP had fallen in a hole and died.

Trailing dogs tend to get confused when near a body by a big pool of scent. Air scenters do not get confused how can we help the trailing dog? Benni suggested taking away the lead at that point.

End of meeting discussions

Marcel is planning an avalanche workshop and instructors workshop details to be emailed. These will be discussed at next conference.



Marcel and Knut need more presentations and these need to be discussed prior to ICAR

Peter stated everyone needs to use technical devices.

FIPS link; <https://www.fips-skipatrol.org/world-congress/2024-riksgrasen-sweden>