Presentations Terrestrial Rescue Commission

Place: Borovets (Bulgaria), Hotel Samakov

Date: October 21, 2016

Time: 8 a.m.

Participants: Member of the Terrestrial Rescue Commission

Members of the Air Rescue Commission (from 2 p.m. to 4 p.m.)

Members of the Medical Commission (from 2:30 p.m. to 4 p.m.)

Chairmen: Gebhard Barbisch and Kirk Mauthner

Minutes: Fabienne Jelk

LifeSeeker, Centum (Research and Technology)

Search missions can be done in various manners, using air or just terrestrial. New means are constantly developed, and the widespread use of Smartphones is taken advantage of. Smartphones can be identified and located as well as allow communication with the victim. Technological searches can be done at night, in bad weather, difficult terrain and are far reaching as they shorten the search time which in turn results in reduced cost. The device is a very good addition to the current search methods and devices. The device works by radio and is not dependent on cell coverage; therefore, we can locate missing persons without their participation.

Procedure: Alarm call comes in, flight to search area, locate cell phone. The system automatically starts the geo-locating. Communication with the lost person is possible. After locating the person the rescue begins. The device is very precise, to within 20 meters.

Questions/Comments:

Q: This is an IMSI catcher. Are other cell phones blocked?

A: It is not considered an IMSI catcher, which are more complex and require authorization. LifeSeeker has a few functions of an IMSI catcher; there is a list of cell phones that are being searched for, other cell phones are not being blocked.

File: 20161021-TER-001-LIFESEEKER-Centum.pdf

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Improvement of SAR in non-urban and rural areas, ruins and collapsed objects/EU Project Cipras (CMRS, Robert Jagodic)

Cipras is a project of the mountain rescue services of Croatia and Serbia (HGSS and GSSS, respectively). The goal is to improve emergency services in the non-urban and rural areas. The project is supported by the EU. While the urban areas have good emergency service coverage, the rest of the population is pretty much left to their own devices during emergencies, and local rescuers have not been sufficiently trained.

EU ECHO can be petitioned to financially support a project by submitting the problem with an idea for a solution, based on which the EU committee makes a decision for or against support.

A project that is being presented aims at improving the cooperation in cave rescues; involved are the Croatian Mountain Rescue Service and the Cave Rescue Service of Slovenia. The current problem is not enough resources for extensive cave rescues, i.e. the rescue in the Riesending caves. Solution: Workshops and training to standardize rescue techniques develop guidelines, exchange of medical knowledge, requisition of material, founding of a European Cave Rescue Association (ECRA). Timeframe for project: 2 years, budget EUR400'000.

Questions/Comments: None.

File: 20161021-TER-002-HGSS_CIPRAS-Jagodic.pdf

Guideline for terrestrial search methods (V. Standahl Olsen, NC)

Presents search method guidelines that were developed for terrestrial rescue in Norway. Norway is an elongated country with a long coastline and low population density. Rescue units are divided into federal organizations, volunteers, and professional rescue units who all work together. Communication and a unified search method are tantamount to good collaboration. This also applies to the different services within each unit such as dog handlers or air rescue and so forth. The guidelines are a 100-page book which regulates the procedure during rescue missions. One of the goals is to pass on knowledge and to point out dangers. The guidelines were printed on waterproof paper and distributed to all rescuers. Improvements have been noticed since introduction of the guidelines.

Questions/Comments:

Q: How were the volunteers motivated to work with the professional rescuer?

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A: The volunteers have always been very motivated and wanted to improve even if it is during their free time.

Files: 20161021-TER-003-Nat-Guideline-NRK-Olsen.pdf
20161021-TER-004-Nat-Guideline-NRK-Notes-Olsen.pdf

Search and Rescue Strategies: Experience and outlook from the Austrian Mountain Rescue (Martin Gurdet, ÖBRD)

Martin Gurdet presents the Austrian Mountain Rescue Service, which was founded on October 12 and 13, 1946. This was following an avalanche accident in 1896 on the Reisthalersteig on the Rax. There are 7,000 to 8,000 missions annually. The organization is divided into 7 sub-organizations and 291units spread across the country. Donations, grants, payments for rescue missions, and government subsidies make up the income. The emergency number is 140.

Search Strategies:
First the situation is assessed; where was the person last seen, destination, who called it in, etc. Then the planning of the search and the actual mission follow. There is a constant reevaluation during the mission.

Technical Means:
Wireless providers can locate missing persons (emergency search). This method is highly inaccurate and needs cooperation with the police, who are excellent. This method is only allowed in emergencies. Furthermore there are helicopters equipped with FLIR (forward-looking infrared camera) and video cameras. These can be used to send live feeds to dispatch.

Future:
There is an abundance of technology; cell phones with GPS and Apps, GPS and satellite transmitters, IMSI catchers, FLIR, night vision, data banks from police, hospitals, ambulances. This technology needs to be used appropriately.

Questions/Comments: None.

File: 20161021-TER-005-OeBRD-Search-Strategies-Gurdet.pdf

The Norwegian Mountain Code (Julia Fieler, Kjetil Hoidal)

After a series of fatal accidents the Mountain Code was established in 1950. A lot has changed since then so the code was revised in 2015. Here are 9 points that need to be considered when in the mountains:

1. Plan your tour and inform others where you are going.

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2. Adapt the tour to your capabilities and the situation.
3. Watch the weather and avalanche situation.
4. Be prepared for bad and cold weather even on short tours.
5. Take the necessary equipment so that you can help yourself as well as others.
6. Choose safe routes, consider the danger of avalanches and ice fall.
7. Use map and compass. Ensure that you always know where you are at.
8. Don't be ashamed to turn around.
9. Use your energy wisely and seek shelter if needed.

The code is divided into three levels, depending on training level. Each point has practical suggestions.

The Mountain Code is not considered a law but a guideline. It can be used for training. It should be translated into several languages and distributed through the media, especially digitally.

Questions/Comments: None.

File: 20161021-TER-006-NorwMountainCode-Hoidal.pdf

Location System for Downhill-Biking Accidents on Ski Slopes (A. Lagroy de Croute, A. Krim, CRS F)

Presented is a system to locate mountain bike paths. This became necessary as downhill biking in ski areas increased rapidly and accidents happened more often. The system was developed by Fabien Ecarnot in Sierre Chevalier. Signs were put up along the mountain bike routes. These signs allow the bikers to communicate where they are at. The signs are placed 80-150 meters apart and are sequentially numbered. Each sign has the emergency number, the name of the route, and the number of the sign. The color of the signs indicates the difficulty of the mountain bike route.

The system only works if the bikers know what the signs mean and how to proceed in case of an accident. This information is being distributed by flyers. In case of an accident, the victim can be directly located. The physician is informed and the rescue initiated. In 2015 this system was also introduced in „Les 2 Alpes". The system was also integrated with the GENDLOC database. Rescues were optimized through faster locating of the victims; the fine localization was improved especially. Goal would be to introduce the system in all of France as well as other countries, and also on hiking trails.

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Questions/Comments:

C: Gebhard Barbisch: This system exists in Austria for hiking trails but not for ski slopes.

File: 20161021-TER-007-Bikepark-Location-Croute-Krim.pdf

Joint meeting TER-AIR

When Rope Meets Rotor (Charley Shimanski, MRA)

A simple climbing rope can bring down a helicopter. Presented is an accident in which there were luckily no casualties. The accident happened on September 9, 2015 in Utah. The Utah Highway Patrol wanted to recover the body of an extreme sportswoman who died on her 60th hike. She had been located in steep terrain and it was obvious that she was dead. The body was put in a stretcher and everything was prepared for the flight out with the helicopter. The stretcher was taken to a place where the helicopter could land and the stretcher loaded. The Eurocopter came in and the stretcher was loaded when all of a sudden the rotor caught on a rope and flung it into the tail rotor. The tail rotor cut out for a short moment. The tail section touched the crag. The pilot was able to pull down the helicopter, fly away, and land. The rope was cut. A more serious accident was avoided because of the pilot's quick and good reaction.

Questions/Comments: None.

File: 20161021-TER-AIR-008-Rope-Meets-Rotor.pptx

Joint Meeting TER - AVA – AIR

Multi-Day Search, Recovery of an Avalanche Victim on a Technical Ice-Climb (Brian Webster, PC)

Presents a rescue mission that lasted from February 5 through 11, 2015. The rescue included components of terrestrial, air, and avalanche rescue. The accident happened at around 5 p.m. in the Polar Circus Ice Climb, a very remote area in Banff National Park in the Canadian Rocky Mountains. Above the route there is a prominent avalanche area. Two climbers were ascending an icefall when an avalanche came down and buried one of the climbers. The climbers did not carry avalanche beacons so his companion was unable to locate him. After his descent he drove about an hour to get help. The alarm reached the rescue team at 11:30 p.m.

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The weather got worse and the avalanche danger rose. The rescuers were able to reach the scene by helicopter. The assumption was that the buried climber was dead and this was a recovery mission. The bad weather continued through days 2 and 3. The slopes above the accident site were blasted before the rescuer and his dog were set down on the avalanche runout. Day 4 brought 43 blasts. This led to the accident site being avalanched 14 more times. At the end of day 5 a weak Recco signal was found. However, the search had to be interrupted because of increasing avalanche danger due to solar radiation. The next day an avalanche dog was flown onto the avalanche runout which also weakly indicated at the same point. Probing began at that point and the buried climber was found at a depth of 2.8 meters. The Recco signal had been triggered by a headlamp in the backpack of the victim.

During the rescue the question came up how much risk the rescuers should take in view of this being a recovery. Also, how much time and money should be invested in a case like this? Another question is why the climbers did not carry avalanche beacons in this area.

Questions/Comments : None.

File: 20161021-TER-AIR-AVA-011-PolarCircus-SAR-Webster.pdf

Joint workshop TER – AVA – AIR – MED: Scoop and Run

The workshop aims to define „scoop and run“.

What does scoop and run mean from a medical standpoint (Natalie Hölzl, Fidel Elsensohn):

It is about caring for a patient in difficult terrain in which one wants to get the patient away from the accident scene as soon as possible. The patient is being brought to a place where one can better take care of him or her. It is also about reducing the risk for rescuers.

It is also about situations in which the patient needs to be brought to a hospital quickly so as not to waste time.

In both cases only basic care is applied on scene (ABCDE).

Scoop and run does not mean rescue by winch from a crag in which the patient only receives minimal or no care. Scoop and run is a decision that depends on several factors; i.e. the risk for the rescuers and the patient at the scene, room for caring for the patient, type and severity of injury, available material for the care,

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and how many victims there are. Scoop and run should be done without additionally injuring the patient.

Take home message: The right care for the right patient at the right place within the right time.

Gebhard Barbisch shows an example from a mountain rescuer's perspective:

On February 14, 2016 there was a rescue in Mellenkopf in Vorarlberg (Austria). A person fell 50 meters through a cornice with all the equipment. The victim did not answer according to his colleague. When the rescuers go there, the patient was not moving anymore. A quick evacuation was done without medical care for the patient. The rescuers stayed on the longline and flew the victim out in a triangle sling. The decision to scoop and run was made by the rescuers after they had done a risk assessment. Factors were the great avalanche risk, unbroken cornices, extremely steep terrain and therefore no possibility of doing anything on the face. The decision to scoop and run was made again from a medical standpoint. This was based on the victim having very severe injuries, the hospital only being 2 flying minutes away, and the weather was cold and windy.

Patrick Fauchère, Raphael Richard, and Manuel Genswein show a method that was developed to quickly evacuate rescuers in case of a secondary avalanche. The rescuers stay connected to the helicopter line while working on the avalanche runout and the material is connected to the rescuers. This is not scoop and run, however, since the helicopter hovers up to 20 minutes above the rescuers.

Discussion:

C: Dan Halvorson: In Norway the system has already been tested and was used last winter, but the method was not called scoop and run.

Q: The rescuers are shoveling the snow over the longline. Doesn't this mean that the longline is too loose?

A: Patrick Fauchère: To allow easier shoveling for the rescuers, the lines have 4-meter-long loops to give more freedom of movement. If the loops are only 30 cm, the rescuers cannot work. This is why it is possible that the snow being shoveled ends up over the line.

The opinion of the participants is asked (scoop and run):

Fred Alistair: They use „rapid evacuation". This nomenclature could be used instead.

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Sweden: Scoop and run has been discussed for a long time in the medical community with regards to trauma care. If the physician is good, he'll get better and better. One could use the CRM concept.

At the University of New Mexico we have been getting away from calling it „scoop and run". The term suggested bad or even no medical care and that is not correct.

France: it depends on the situation, how fast can the patient be brought to the physician, and so forth.

Canada, University of Calgary: when we teach the students to act quickly, the word being applied is focused and not fast.

Files: 20161021-TER-AIR-AVA-MED-012-ScoopandRun-AIR.m4v
20161021-TER-AIR-AVA-MED-013-ScoopandRun-MED.pdf
20161021-TER-AIR-AVA-MED-014-ScoopandRun-TER.pdf

Accident on Kazainica Mieguszowiecka, High Tatras, Poland (Lukasz Migiel, Tomasz Dorocha)

Presents an accident from December 30, 2015. One of three climbers fell. TOPR was notified at 5:36 p.m. The climber who had fallen was still attached to the others. They were able to hold him but not to pull him up because the terrain was very steep and they weren't trained well enough. At 10 p.m. the first rescuers arrived on scene. At 10:30 p.m. two paramedics were with the patient who didn't have a pulse anymore but no life-threatening injuries. He was thought to have hypothermia. During the rescue, the patient had to resuscitated several times. The core temperature was 17 degrees. Polish helicopters cannot fly at night but Slovakian helicopters can. The Ministry of the Interior gave the permission to use a helicopter from Slovakia. At 3:53 a.m. the patient was evacuated by the helicopter. Once in the hospital, the patient was warmed up. His core temperature had been 15 degrees on arrival. The regular core temperature was achieved by 6 a.m. but the patient no longer had any heart activity. The potassium level was also very low. The patient was declared dead. The positive aspect of the rescue was the cooperation across the borders.

Questions/Comments:

C: Regarding the question whether the potassium level was due to the patient hanging upside down in the sling: a doctoral thesis about hanging in a sling showed that the potassium level did not decrease.

A: Maybe there are other factors that could contribute to a low potassium level.

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End of Meeting: 2:55 p.m.

For the English Translation: Olivia A. Cashner

Important information:

If to this minutes belonging files are not available on our homepage, please send a mail to me (terrestrial.rescue@alpine-rescue.org). I can send you a link where a download of all this files are possible.

Rankweil, 14.12.2016
Gebhard Barbisch

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