## Annual report - Norway 2009 - IKAR subcommision - avalanche

#### AVALANCHE RESCUE STATISTICS

- 4 persons deceased in four different accidents (one off-piste skier, one snow mobiler and two men (alpinist without skis and a backcountry skier) died from falling off cliffs when cornices broke)
- 25 avalanche incidents registered by the Rescue Coordination Centres in North- and South-Norway, of which 10 incidents resulted in rescue operations.
- In total, 18 people were registered caught, and 9 people were rescued / assisted by the rescue service. A number of unregistered incidents where avalanche victims survived by self rescue or companion rescue.

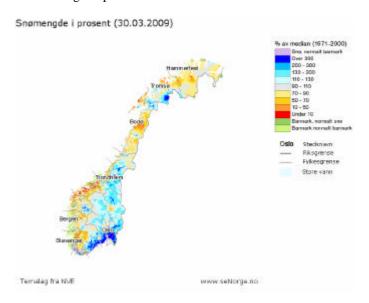
#### **THE WINTER 2008-2009**

#### Temperature and precipitation

December 2008 was mild and dry, with higher temperatures than normal and lower precipitation levels than normal throughout the country.

Looking at the winter season from December till February, we saw the 38<sup>th</sup> mildest winter period registered ever in Norway, whereas precipitation levels were about normal (98 %). As a curiosity, it should be mentioned that the highest maximum temperature was 14 degrees C on the 12<sup>th</sup> January, in Sunndalsøra (on the West Coast), and the lowest minimum temperature was 36.6 degrees C on the 18<sup>th</sup> February, in Karasjok, North Norway.

The month of March showed higher temperatures than normal throughout the country, but again, as in December, a rather dry period compared with normal levels of precipitation. This left us with these snow levels, as a percentage of the median during the period from 1971-2000.



The spring season was again warmer than normal, in fact the western parts of South Norway experienced their warmest spring season ever, with a deviation of 2.1 degrees C. Precipitation levels in Norway, during this period, was 115 % of normal, with highest levels in North Norway, and along the western coast of South Norway. In May, most mountainous regions still had sufficient snow levels for good skiing.

# **AVALANCHE ACCIDENTS (fatal accidents)**

#### 26th February, Kroken ski lifts, Tromsø, North Norway

A 23-year-old girl released an avalanche when off-piste skiing close to Kroken ski lifts in Tromsø, in 38 degrees steep slope. The accident took place just before 6 o'clock in the afternoon, after sun set. The group of skiers noticed her absence when gathering at the bottom of the slopes, and then went back up with the ski lift to look for her. Eventually, they found the avalanche and short after located the victim using a transceiver. The victim was visible on the surface due to one protruding ski. She was covered with 0,5-1 meter of snow, and tucked against a small birch tree. The time span from the time of the accident till she was freed from the snow was about 30 minutes. Excavation time was about 5 minutes.

On location, she showed no vital signs, and CPR was commenced immediately. Evacuation was complicated, due to avalanche danger, steep terrain, forest and darkness, so only after some 3 hours she was delivered at the local hospital.

She was reported dead the following evening, with the main causes of death expected to be mechanical injuries and asphyxia.

On the day of the avalanche, avalanche danger was rated to 3. The skiers were considered experienced, and they were well familiar with the area. Some factors that may have contributed to the grave outcome was: an unwitnessed accident, obstacles leading to mechanical injuries, darkness and complicated evacuation.

## 13<sup>th</sup> March 2009, Kirketaket, Møre og Romsdal, South Norway

A group of seven skiers were approaching the peak Kirketaket in Romsdal when icy conditions lead to a halt. One of the skiers used ski crampons and continued on his own, while the other skiers chose a different route with less ice and snow. On approaching the very peak, he skied too close to the cornice, which then broke about 2 meters from the edge, causing the skier to a 250 meter fall over the north side of the mountain. In the following rescue operation, he was initially observed from a helicopter on the glacier underneath the cliff, and later lifted out by a Sea King rescue helicopter.

#### 15th March 2009, Hiorthfjellet, Svalvard

At 1605 in the afternoon, a highmarking snowmobiler was observed from Longyearbyen to release a SW facing avalanche that subsequently buried him. Rescue response time was short, and 33 minutes after accident, the victim was located with transceivers at a depth of 2 meters. In spite of a relatively short rescue time, the patient was already without vital signs. CPR and later intensive hospital treatment did not succeed in saving his life.

The avalanche area is often frequented for free skiing and occasional highmarking with snowmobiles. It is situated 5,5 km from Longyearbyen, explaining the short rescue response time. The avalanche debris covered an area of approx. 10 000 m2, with a volume of nearly 18000 m3.

## 17<sup>th</sup> may 2009, Tromsdalstind, Troms, North Norway

A man, who stayed overnight in a tent on the peak of Tromsdalstind, was reported missing the next morning by other mountaineers. Tracks were leading towards the cornice and disappeared. The air ambulance helicopter was alerted and started searching, and soon after they located the missing person, deceased, in an avalanche underneath the cliff. It is assumed that the victim, a professional photographer, had approached the cornice which then broke off and started an avalanche. He was visible on the surface of the avalanche and had sustained severe mechanical injuries. He was evacuated by the helicopter crew, in a fixed rope operation.

#### RESCUE METHODS

#### Methods

Organisations involved in avalanche rescue in Norway have started to adjust their education and training to comply with the newly established National Guidelines for Avalanche Rescue (National Standard), leading to improved safety, communication and efficiency. New courses are developed, alongside an ever-increasing number of advanced avalanche rescue equipment throughout the country.

## AVALANCHE RESCUE DOGS

Total number: approx. 130

The Norwegian Rescue Dog Association is a voluntary rescue organization. This year, the organization offers approx. 85 approved avalanche dogs in the service of mountain rescue. In addition to the voluntary dog handlers, the Norwegian police and the Norwegian Army have a varying number of approved avalanche rescue dogs. No avalanche victims were located by dogs this winter.

#### **SOURCE**

- Norwegian Rescue Dog Association Information Office
- Snoskred.no, Norwegian Geotechnical Institute
- Rescue Co-ordination Centres South- and North-Norway
- DNMI Klimaavdelingen / The Norwegian Meteorological Institute / met.no
- www.seNorge.no
- Simen Berg, Rapport om ulykken på Kirketaket (Vinterfestivalen i Rauma)
- Tor André Skjelbakken, Tromsø Red Cross Rescue Team
- Jørgen Melau, Lufttransport / Air ambulance

Albert Lunde IKAR-delegate Norwegian Red Cross Rescue Corps