

Avalanche on Kamešnica mountain – February 23, 2013

First Avalanche for Croatian Mountain Rescue
Service – From Theory to Practice



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Circumstances of the accident

On Saturday, February 23, 2013, four Croatian climbers went ski touring on Kamešnica mountain – from village Podgradina (750m) toward peak Konj (1856m). The entire route is located in Bosnia and Herzegovina, close to the Croatian border.

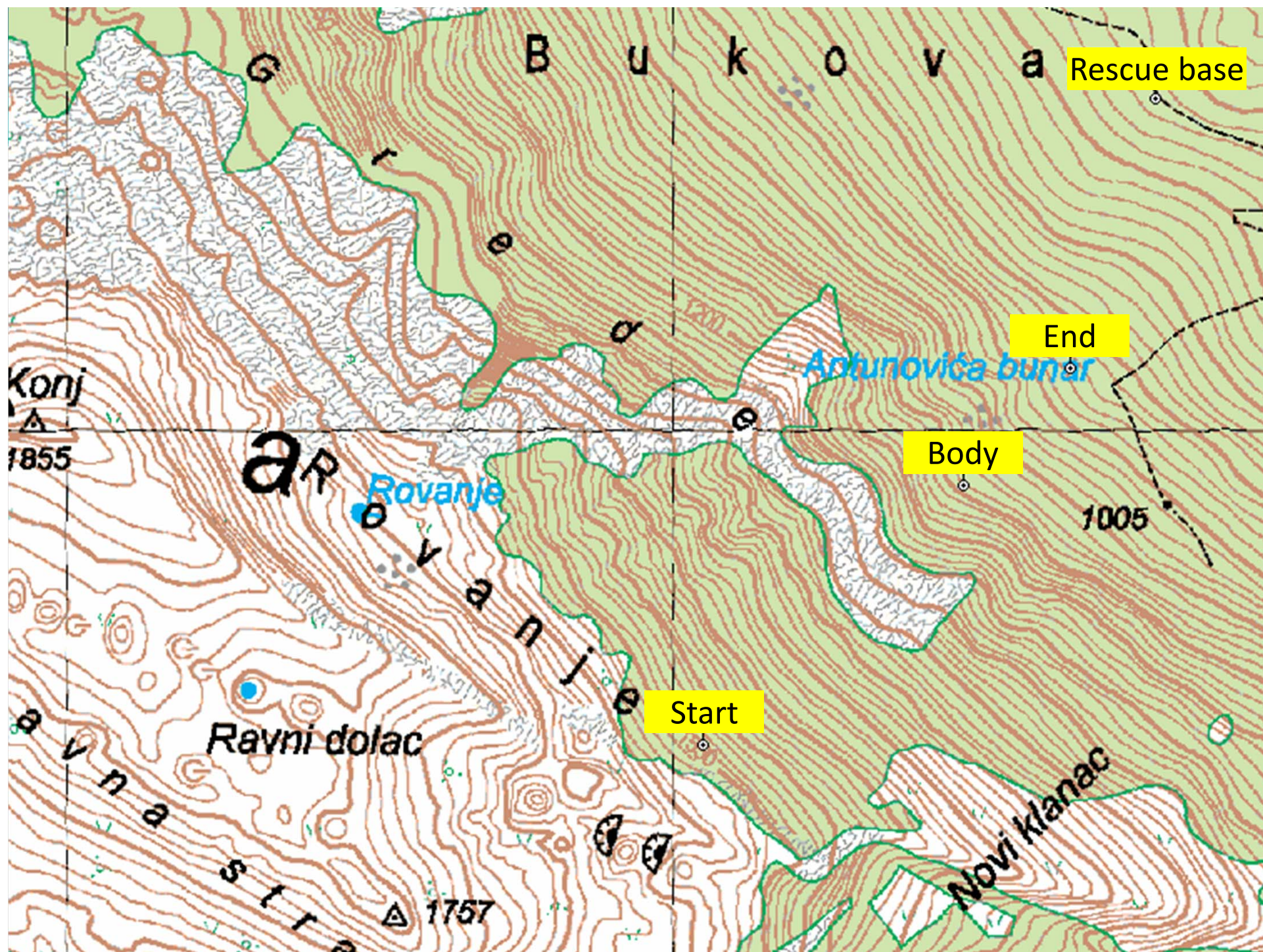
At some point, before they reached peak, they decided to go back, because of the danger of avalanches.

On returning, two climbers decided to use skis, and two went on foot. Very soon, after only several turns, avalanche was triggered.



Avalanche

- Slab wet avalanche - crown fracture 150m wide, 40 cm deep.
- Starting zone in 1550m close to the ridge line, end of avalanche 970m.
- Height difference 580 m
- Length on the ground 1050m
- In the middle 70m high vertical rock face
- One of the climbers managed to keep 10 m above the 70m high vertical rock face (slightly injured)
- The other three jumped over vertical rock face
- Two managed to stay on the surface, one (Edo Retelj) unfortunately did not





peak Konj

Start

Body

End

Rescue base

624 m

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Goog







First day

First information at 13.30 - almost simultaneously from three injured persons – avalanche took place about 30 minutes earlier

- helicopter operation was launched
 - Closest base is in Split, Croatia – 50 km from accident
 - Avalanche is in another country – permission is needed
 - obtaining permission needs time – helicopter landed close to the border waiting for permission
 - Due to bad weather, rescuers abseiled 700m away from avalanche
- More teams was sent from Split by cars, 80km by road
- Several “teams” (not actual rescuers) was sent from Sinj (Croatia) and Livno (Bosnia and Herzegovina) that are closer to the scene then Split

As a result, all teams arrived almost simultaneously on avalanche, at 15.15 – about 30 people – more later

First day

Situation at the time of arrival

- One injured (slightly injured) managed to reach end of the avalanche before rescuers arrived
 - Two injured (seriously injured) were on the lower part of avalanche
 - One is missing
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- Part of the team worked on rescuing injured climbers
 - Part of the team searched for fourth climber



First day

Two seriously injured was evacuated with helicopter using fix line technique

Because of the type of injures, one was in vacuum stretcher in sitting position !

Injuries

- First one – leg fracture + ...
- Second one – difficultiy breading, pneumothorax + ...

At 22:00, because of a strong thunderstorm, mission was suspended.

Many buried objects was found, but not the fourth victim.



Second day

Sunday, February 24

- More than 200 people on avalanche + 30 in logistics (from all over Croatia and Bosnia and Herzegovina)
- Body was found at 14.50

Weather conditions

- First day– rain in the lower parts, fog and mixed rain and snow in the higher parts; strong thunderstorm at 22.00
- Second day– rain in the lower parts, fog in the higher parts













Importance of IKAR

This was the first avalanche in which HGSS was engaged as an organization (although many members of the HGSS participated in various avalanche rescue missions all over the world).

- Almost all that HGSS learned about organized avalanche rescuing was from IKAR.
- It is very important that IKAR continue with this knowledge transfer between members.
- It is very important to attract other countries to participate in IKAR and/or to find a way to extend knowledge transfer to countries that are not members of IKAR.

Importance of cross-border cooperation

Avalanche actually took place in Bosnia and Herzegovina, but close to the Croatian border.

HGSS is making great effort to help in better development of mountain rescuing in border area of Bosnia and Herzegovina.

The result is that, a few years ago almost non-existing mountain rescuing in border area of Bosnia and Herzegovina, are now on relatively high level.

Together with members of HGSS, a lot of rescuers from this neighboring country also participated in rescuing.

I would like to see on IKAR more good practices, examples of cooperation including legal aspects. This is very important, especially for Europe. IKAR is the ideal platform for this.

Strategic and tactical level

- the importance of learning how to manage rescue operation on higher level (strategic and tactical)
- we all like to talk a lot more about lower (operational) level of rescue operations (shoveling, knots, stretchers, etc.) but important part of some of the rescue operations are also higher level management (i.e. how to manage multi-day operations with 100+ rescuers, dogs, helicopters, etc.);

Black swan



the importance of hard-to-predict, rare events with high impact or so called “black swan events” – are we capable to cope with events that are beyond the realm of normal expectation?

- They are very difficult to predict.
- They have a high impact on society.
- After the event people have the tendency to rationalize them giving the illusion that they were expected.

