



CROATIAN MOUNTAIN RESCUE SERVICE

SAR and Avalanche Committee

Summer search with SAR dogs

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Croatian Mountain Rescue Service

SAR missions in Croatia in 2009

- no avalanches
- SAR missions - looking for lost people
- Around 50 SAR missions in 2009
- hikers, dementia, Alzheimer, children



Problems in SAR missions



- looking for a person in large area
- person can be anywhere



Involved in SAR mission on the ground:



1. local residents
2. hunters
3. police
4. fire department
5. HGSS (CMRS)
6. Canine organizations

- Many people on the ground
- everybody wants to be involved in SAR mission
- little or no knowledge in cartography
- poor coordination between services (police, HGSS, fire department...)
- no real organization of the resources
- misuse of resources

CHAOS!



- no knowledge of what already has been searched through
- searching the same terrain over and over again
- SAR mission becomes uncontrolled
- after few days we are still at the beginning!
- motivation is low!



result:

MISSION FAILED!

Victim not found.



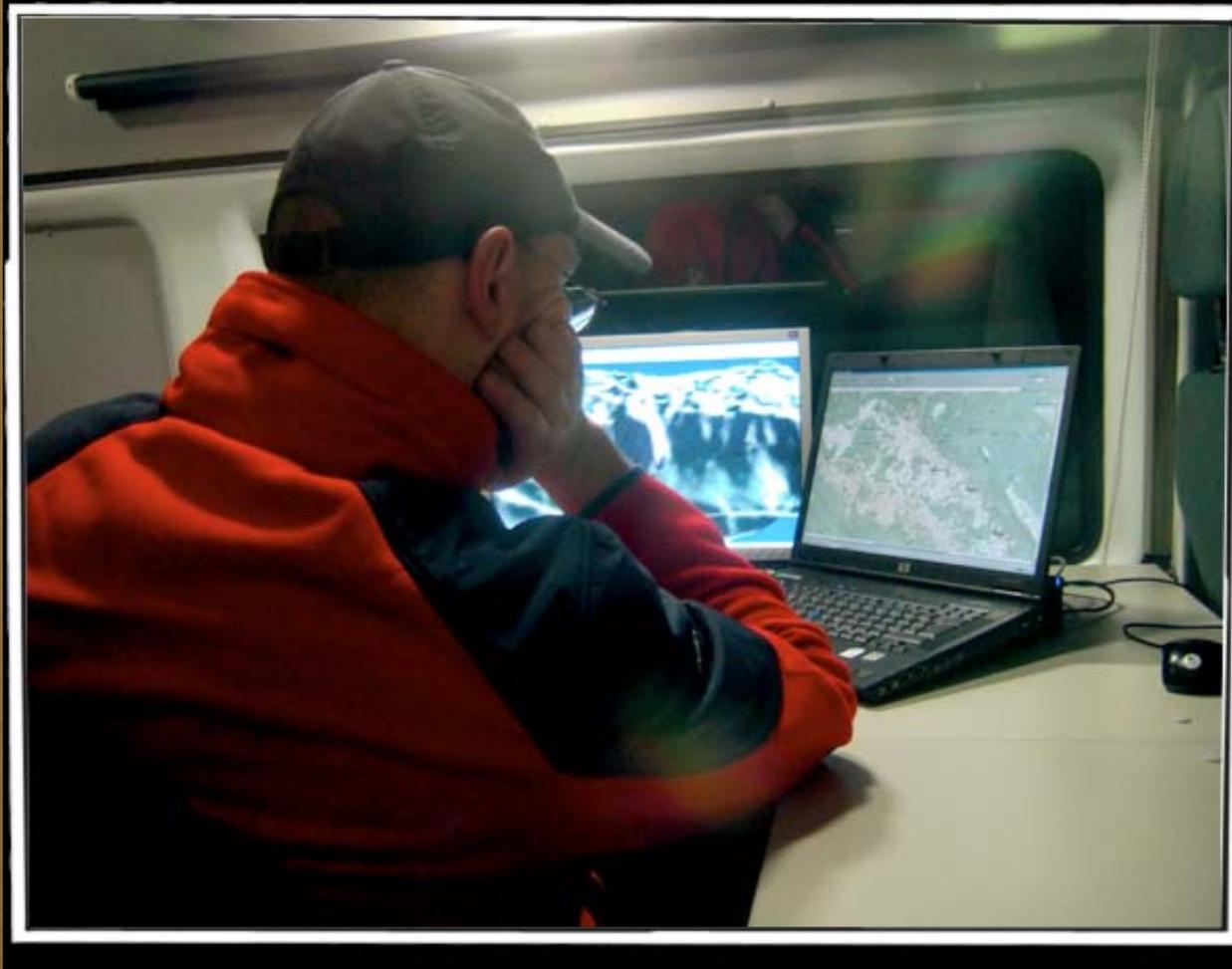
HGSS Search management in SAR missions



- Start from the beginning
- educated search managers
- get to know all the resources on the ground

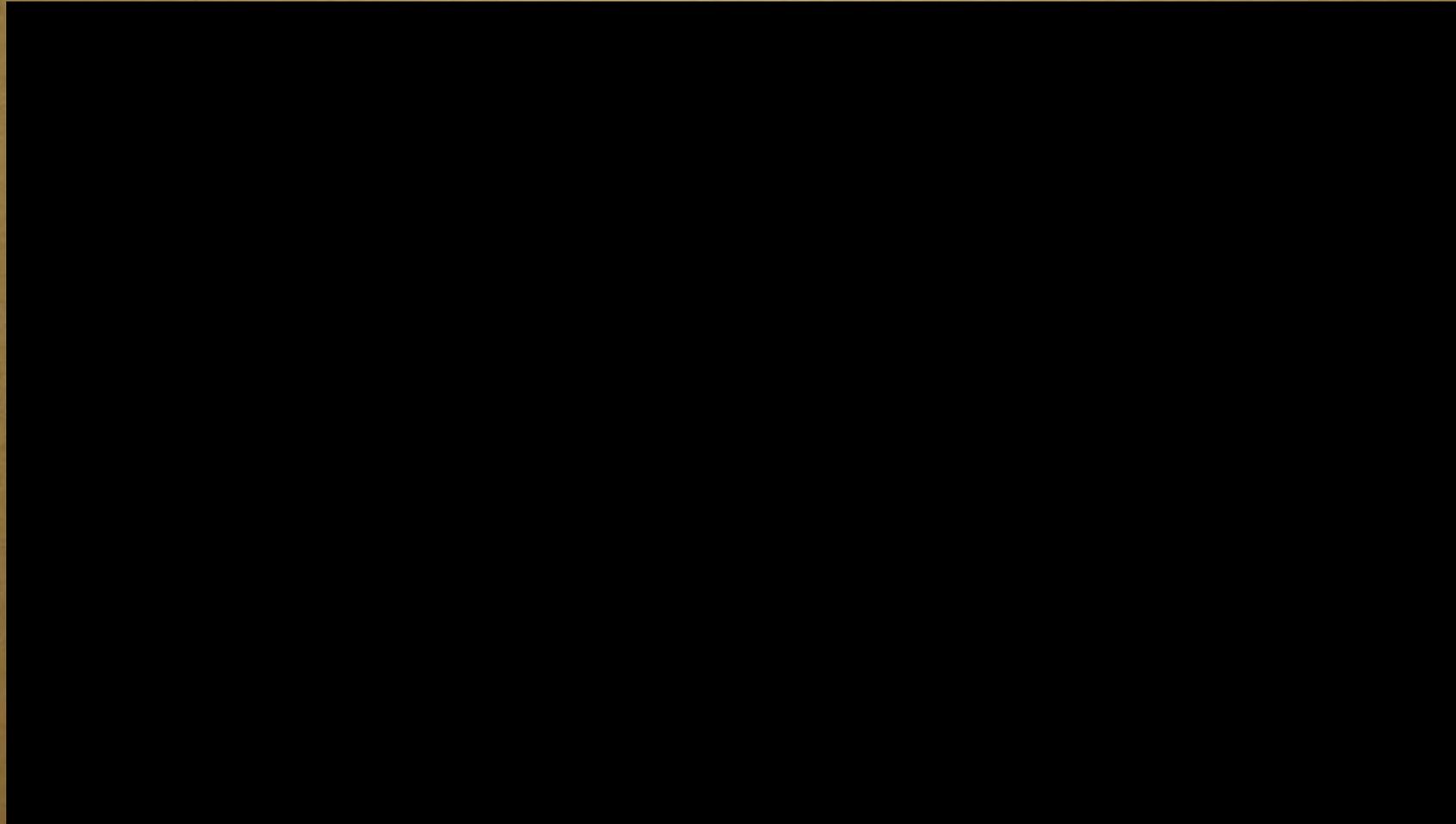


Search managers:



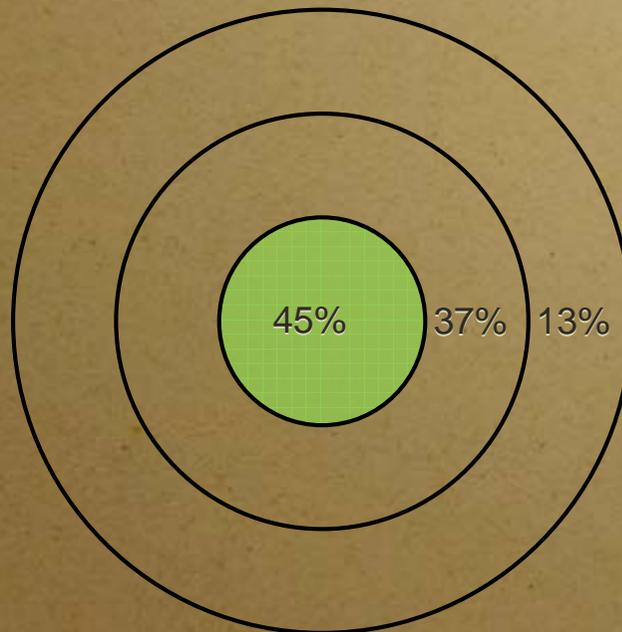
- Preparing and plan SAR mission before sending teams in terrain
- Collecting and analysing all information about missing person
- making the profile of missing person
- usage of digital cartography and GPS
- Usage of the HGSS command vehicle

Usage of the HGSS command vehicle



Planning of the SAR mission

Selecting which terrain to search



by probability of detection
(average)

1st zone 45 %

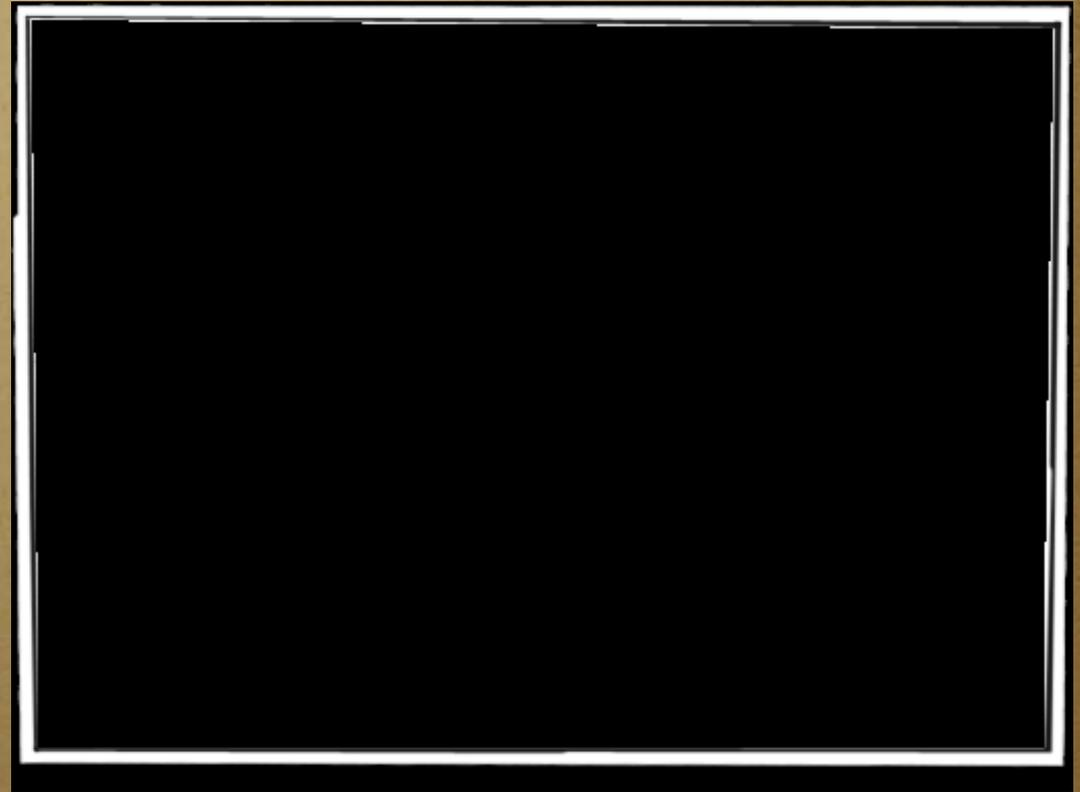
2nd zone 37%

3rd zone 13%

Resources we can use in SAR mission

- helicopter
- HGSS SAR dog teams
- groups of people
- police
- firefighters
- Canine organizations
- hunters
- local population

What can we use them for?



Organizing and coordinating all of them

The best way to use resources in SAR mission?



Organizing the SAR teams (which team to use when and where)



- SAR dog team (handler and dog) - bigger zone / less time
- group of people - grid search technique
- hunters - they know terrain!
- local residents - specific places, hidden places, caves...
- helicopter - wide area, less time, not accurate! (depending of terrain)
- Police - searching in the houses and private property



HGSS SAR dogs

1 handler
+
1 dog
=
1 SAR team
=
1 sector

The best way to use resources in SAR mission?

- motivation of the handler
- responsibility - handler is responsible for his sector
- handler chooses the way of sweeping his sector (depending of the weather conditions, terrain, wind...)
- covering the bigger area with less people

Note:

Dogs must be reliable. That can be achieved by educating the Teams over the period of time, and putting them through the tests in which way they become operational.



Example:
SAR exercise on IKAR doghandler meeting 2009



Terrain:



Facts: Involved: all participants (SAR dog teams, search management, victims)

Terrain: steep sided, difficult, 1 km²

Teams were from 6 different countries

8 live victims and 2 death victims

All teams were lead by HGSS search management team

All teams used GPS

All teams were given communication set to stay in touch with command vehicle



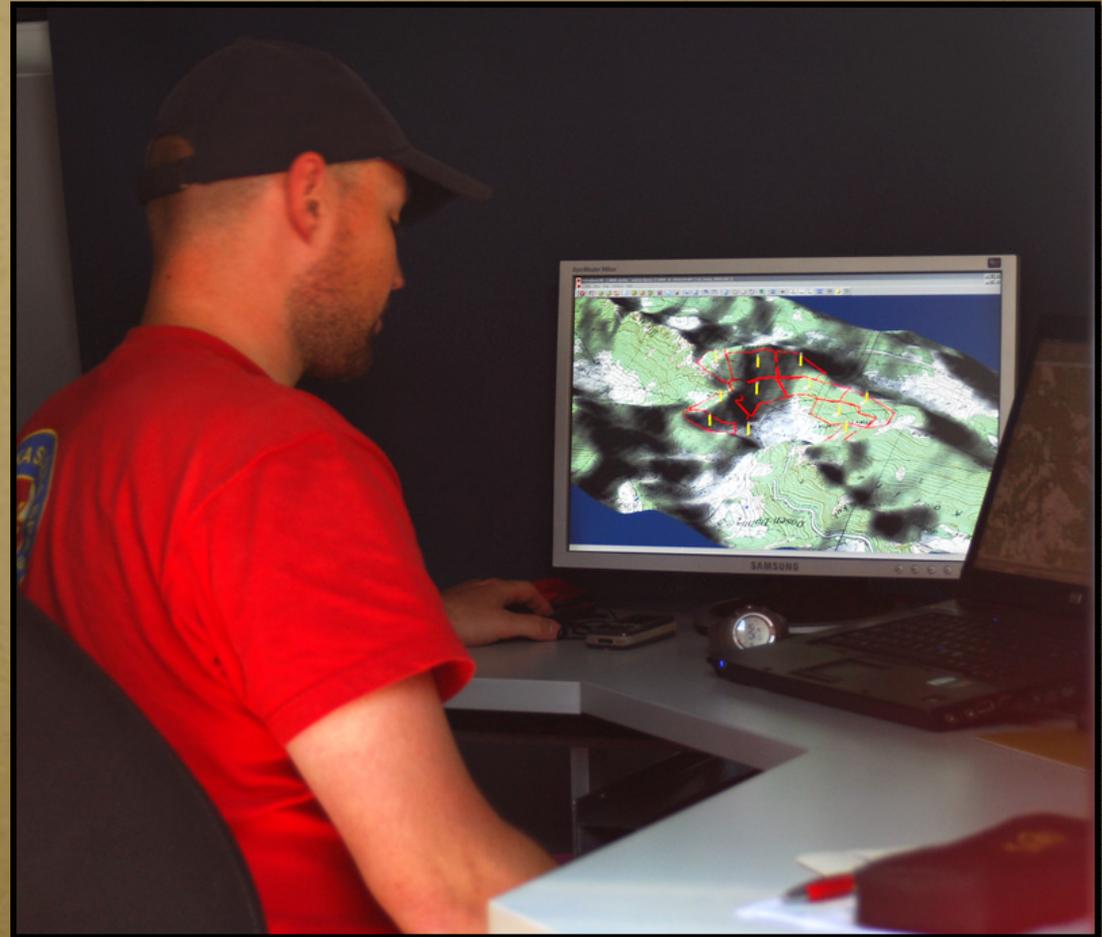
Facts:

**Search managers prepared
10 sectors per 10 Ha for 10
teams = 1km²**

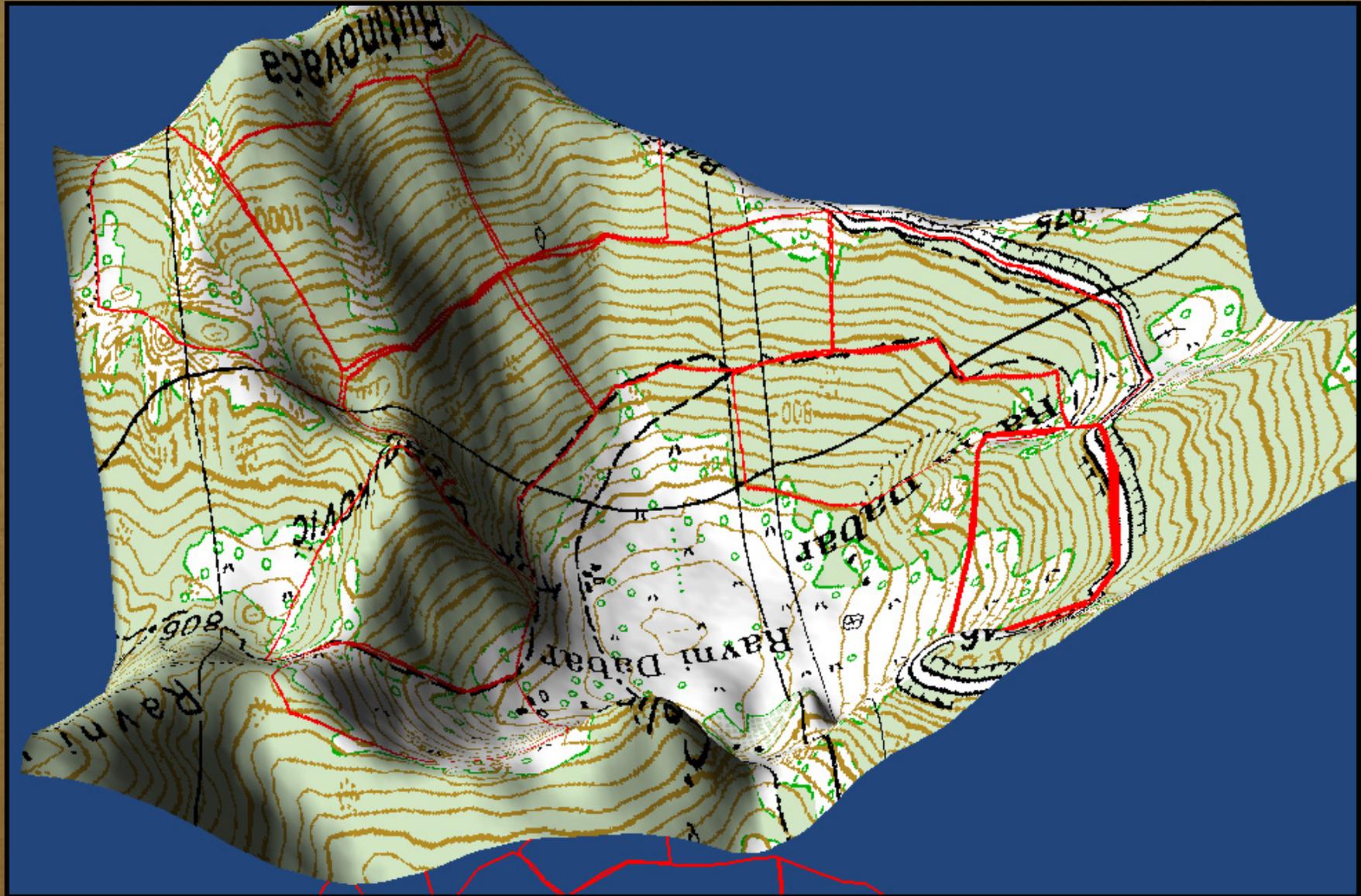
**Every team had his own
sector in GPS**

**Every team got one local
person familiar with terrain**

**All temas choosed thier own
sweeping method**



3D sectors map





Results:

All teams found their victims

1st victim was found after around 0:20 h

Last victim was found after around 2:30 h



What was the point?



10 SAR teams (10 handlers with 10 dogs) who never worked together before, would swept 1 km² of steep difficult unfamiliar terrain in less than 4 h





The End

