






Cave rescue in Croatia

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A Short History of Cave Rescue in Croatia

- ⇒ 1925. - first cave accident in Croatia was in Istria - Rašpor pit
- ⇒ 4th January 1950 - The Croatian Mountain Rescue Service (CMRS) was founded
- ⇒ 1959. - cave accident in Srednja Cerovacka pecina - caver broke his leg - his colleagues rescued him
- ⇒ 1960. - Tounj - Speleology Commission of the Croatian Mountaineering Association - carrying of wounded persons on ladders



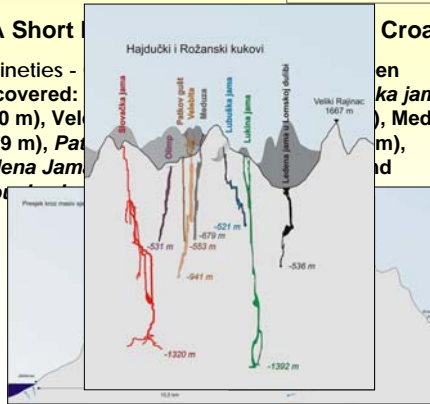
A Short History of Cave Rescue in Croatia

- ⇒ During 50s - 60s, both cavers and mountain rescuers played equal roles in cave rescue
- ⇒ 1971. - *Jamarska reševalna služba (JRS)* held the first Yugoslavian cave rescue congress in *Jopiceva špilja* near Karlovac - 30-member cave rescue team was organized in Karlovac
- ⇒ In the eighties many cavers became members of the *CMRS* - *CMRS* took




A Short History of Cave Rescue in Croatia

⇒ In nineties - discovered: 1320 m), Velki Rajnac (-679 m), Pat Ledena Jama u Lomskoj dulibi



A Short History of Cave Rescue in Croatia

- ⇒ discovery of deep pits influenced the development of caving, as well as the development of cave rescuing
- ⇒ 1997. - two bigger cave accidents
 - Veternica cave near Zagreb
 - Ledena jama u Lomskoj dulibi
- In 1997, the *CMRS* translated the French Cave rescue's manual and organized cave rescue training



A Short History of Cave Rescue in Croatia

- ⇒ 1999 - *CMRS* members participated in the First European cave rescue in Göppingen
- ⇒ 1999 - International cave rescue course in Arbas - France (SSF) - three rescuers of *CMRS*



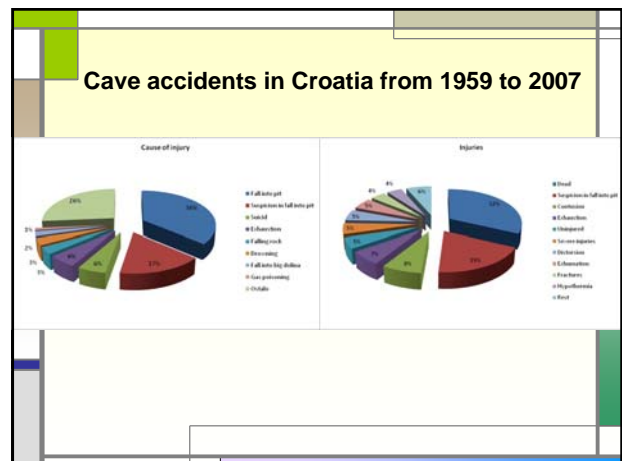
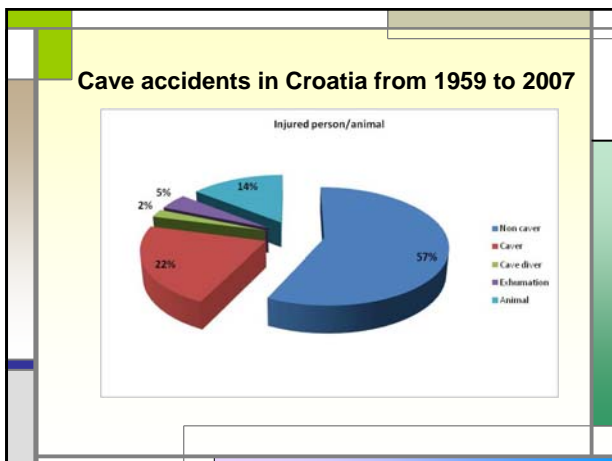
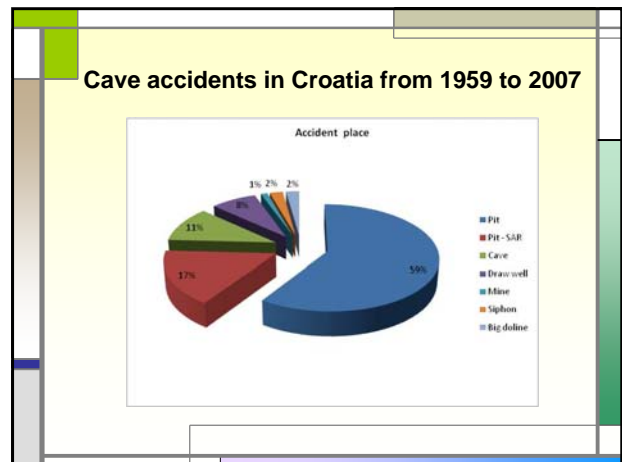
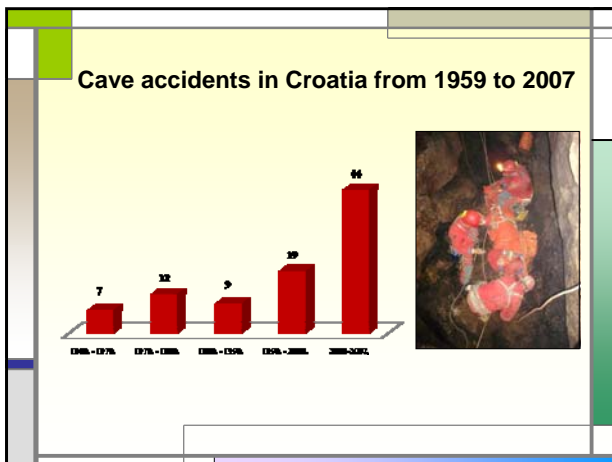


Cave Accidents in Croatia

⇒ 1959 – 2007 - 91 cave accidents have been evidenced in Croatia


⇒ 78 people

⇒ 13 animals (dogs, cats and one bear)



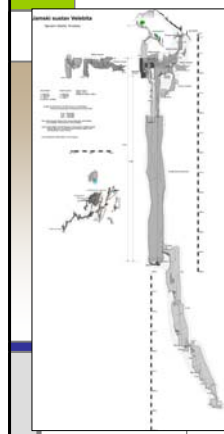
The specificity of cave rescue in Croatia

- ⇒ Around 9000 caves and pits
- ⇒ In 15 known pits there are 16 vertical falls that are deeper than 200 m



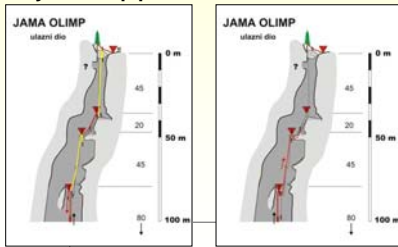
The specificity of cave rescue in Croatia

- ⇒ large number of rescuers in one vertical drop
- ⇒ possible problems with felling rocks and ice
- ⇒ counterweight is unable to reach the ground – must prepare ancore
- ⇒ problems with communication – radio communication



The specificity of cave rescue in Croatia

- ⇒ The CMRS applies same cave rescue techniques as SSF (*Speleo Secours Français*)
- ⇒ also uses some techniques from the CNSAS (*Corpo nazionale Soccorso Alpino e Speleologico*), especially for deep pit rescues.




Caving in Croatia today

- ⇒ The Speleological Committee of the Croatian Mountaineering Association (SC CMA) – 15 clubs
 - SO HPD Blokovo - Blokovo, SO PD Dubovac – Karlovac, SO HPD Dubrovnik – Dubrovnik, SAK Ekstrem – Biokovo, SO HPD Japetic – Samobor, SO PD Klen – Vodice, SO Liburnija – Zadar, SD Lika – Gospic, SO PD Malacka – Donja Kaštela, SO HPD Mosor – Split, SO HPD Spilnik – Biato, SO PK Split – Split, SO HPK Sv. Mihovil – Šibenik, SO PDS Velebit – Zagreb, SO HPD Željeznicar – Zagreb
- ⇒ Croatian Speleological Federation (CSF) – 14 clubs
 - SD Cicarja – Roc, SD Buje – Buje, DISKF – Zagreb, SU Estavela – Kastav, SD Istra – Pazin, SD Jamar – Han, SD Karlovac – Karlovac, SK "Ozren Lukic" – Zagreb, SD Pauk – Fužine, SD Prezid – Prezid, SD Proteus – Porec, SK Samobor – Samobor, SD Spiljar – Split, SD Ursus Spelaeus – Karlovac
- ⇒ Independent clubs - 12 clubs
 - Hrvatsko biospeleološko društvo – Zagreb, DISKF Dinaridi – Zagreb, SD Dinaridi – Zagreb, SK Had – Porec, SO HPK Dalmacija – Split, SD Krstacije – Split, SD Matokit – Vrgorac, PD Profunda – Selca, SD Rovinj – Rovinj, Speleoronilacko društvo – Zagreb, SU Spelunka – Vepřinac, SG Šišmiš – Zagreb

Total 41 clubs – approx. 300 cavers

Cave rescue in Croatia today

- Požega
- Varaždin
- Zagreb
- Samobor
- Karlovac
- Ogulin
- Delnice
- Tršće
- Rijeka
- Pula
- Gospic
- Zadar
- Split
- Makarska
- Orebić
- Dubrovnik
- Osijek



Cave rescue in Croatia today

- ⇒ 10 rescuers finished cave rescue training in France (SSF)
- ⇒ 2 rescuers finished cave rescue training in Slovenia (JRS)
- ⇒ 32 rescuers are able to rescue in complicated and deep caves
- ⇒ 90 rescuers are able to participate in complicated rescue mission
- ⇒ all members of the CMRS (more than 300 rescuers) are



Cave rescue in Croatia today

- ⇒ 3 medical doctors – can provide aid to injured persons in most complicated and deep caves
- ⇒ 20 medical doctors – can provide aid to injured persons in less complicated caves
- ⇒ All members of the CMRS finished BTLIS
- ⇒ 2 rescuers completed the SSF's course for the care of injured persons



Cave rescue in Croatia today

- ⇒ 3 divers completed a course in speleo-diving organized by the Unit for Technical Diving and Rescuing of the Ministry of Defense of the Republic of Slovenia

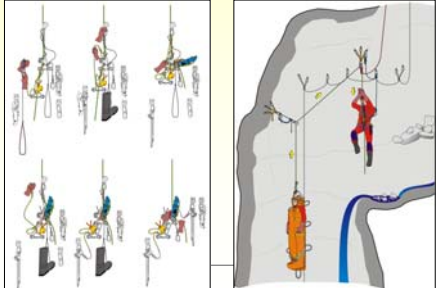




Cave rescue in Croatia today

- ⇒ Croatian Laws do not yet regulate training requirements or the use or storage of explosive materials intended for use in speleological rescues
- ⇒ CMRS does not have any licensed specialists to perform this task but some rescuers have been trained on his own to widen narrow passageways with explosive materials.

Cave rescue in Croatia today

Cave rescue manual – in preparation
Speleofon prototype has been made

Questions?