

ZVEZA RADIOAMATERJEV SLOVENIJE

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EmComm in S5 & Ice sleet intervention

Friedrichshafen, 25 June 2016

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National hamradio organization ZRS & EmComm



- *In 2015 103 radioclubs were members of national hamradio organization ZRS. All radioclubs have around 1.100 radioamateurs.*
- *ZRS is an IARU member since 1992 and the same year ZRS steering committee has announced Amateur radio emergency network code called ARON.*
- *Every HAM in S5 has to respect ARON code which is introduced to the candidates during the HAM course.*
- *ARON code has 11 Articles which describes how every HAM should act in case of emergency situation.*
- *In 2002 ZRS has signed a co-financing contract with Administration for Civil Protection and Disaster Relief of Republic Slovenia*
- *ZRS has prepared two documents*
 - *Standards for organizing, training and equip of hamradio ARON teams*
 - *Plan of activation for ARON teams*



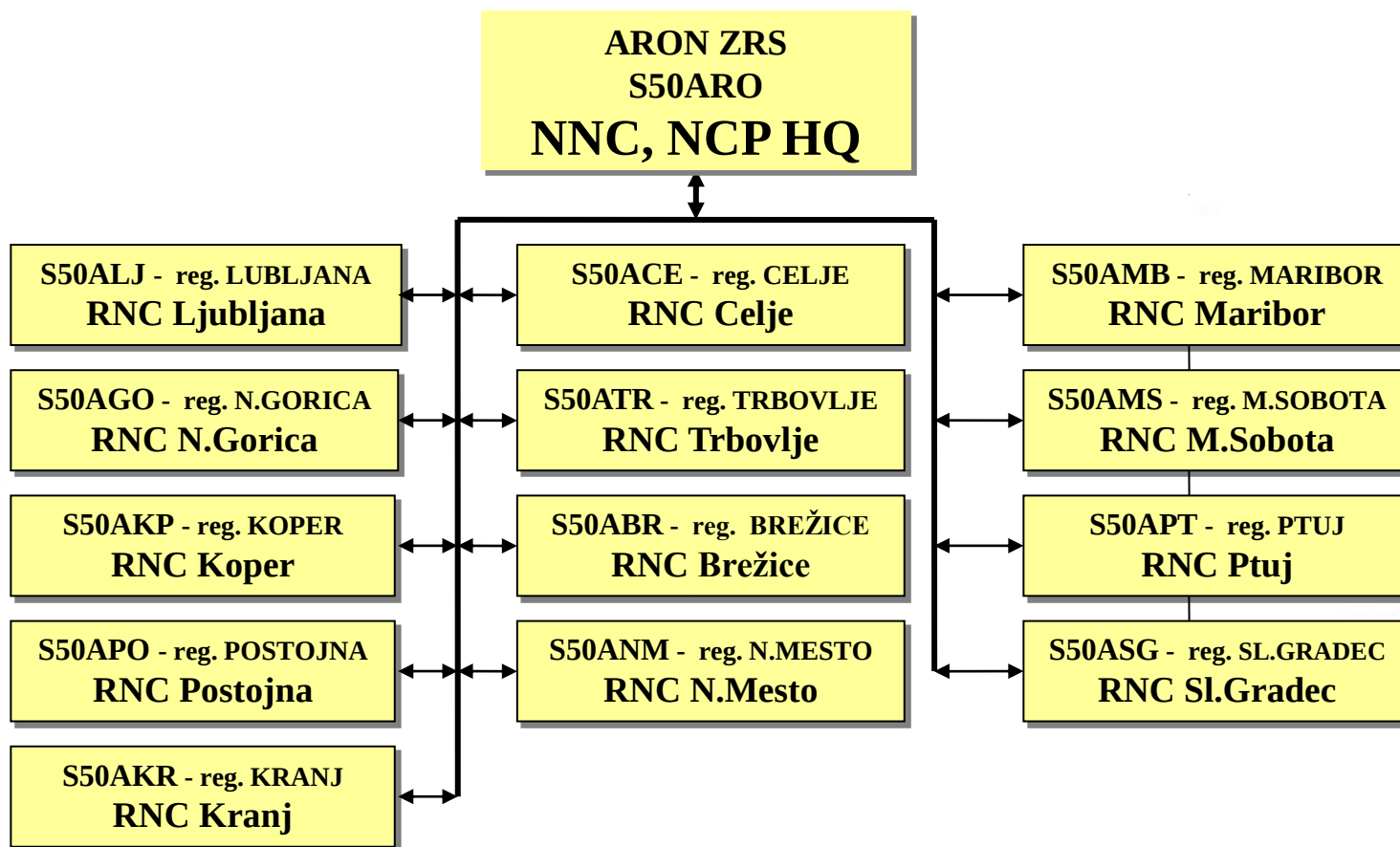
In accordance with the contract ZRS has to ensure:



- 13 regional and a one national level ARON team
- *HF communication from each of the 13 regions (RNC, regional CP HQ) to a NNC and/or National CP HQ*
- *a plan for communication through repeater network and VHF/UHF simplex channels*
- *data transfer through hamradio digital networks (Packet radio, Winlink)*
- *international hamradio traffic with neighbour and other affected countries or countries where Slovenia send rescue & protection teams*
- *availability of ARON teams for immediate response for interventions*
- *Plan of activation and Standards for organizing, training and equip of hamradio ARON teams*
- *education and exercises for ARON teams*
- *cooperation of ARON teams in exercises which are organized by Ministry of defence, ACPDR and others involved in rescue and protection system*



Organization chart of ARON teams







Members of ARON teams have a task to :



- establish communication from Regional notification centre to National notification centre and vice versa
- establish communication between Regional CP HQ and Regional notification centre 112 and vice versa
- establish communication between Regional CP HQ and National CP HQ and vice versa
- to cooperate with all rescue and protection teams and give them all the necessary communication support



ARON team



- Licensed hams, members of radioclubs

- Every team has:
 - Team leader,
 - HF operator,
 - VHF operator
 - DIGI comm operator.



- Team members don't wear CP uniforms. They can be recognized with the ZRS and ARON emblems on their clothes, vests and caps. In a case if they need protection clothes on the place of accident, CP will ensure them.



Who can activate ARON teams



■ *From NNC by the order of:*

- *CP commander or his deputy*
- *Director general of ACPDR or his deputy*
- *President of ZRS*
- *National ARON coordinator or his deputy*

■ *From RNC by the order of:*

- *Regional CP commander or his deputy*
- *Leader of Regional branch of ACPDR*
- *Leader of the Regional ARON team*

■ *Self activation of ARON teams is also possible especially when public communications systems fails*



Education & exercises



- *Every first Wednesday in a month ARON teams have SKED's*
 - *At 1800 hrs local time on 3605 KHz SSB*
 - *At 1900 hrs local time on repeater network*
 - *At 2000 hrs training with Winlink system (WINMOR, PACTOR, Packet radio)*
- *EmComm education meetings*



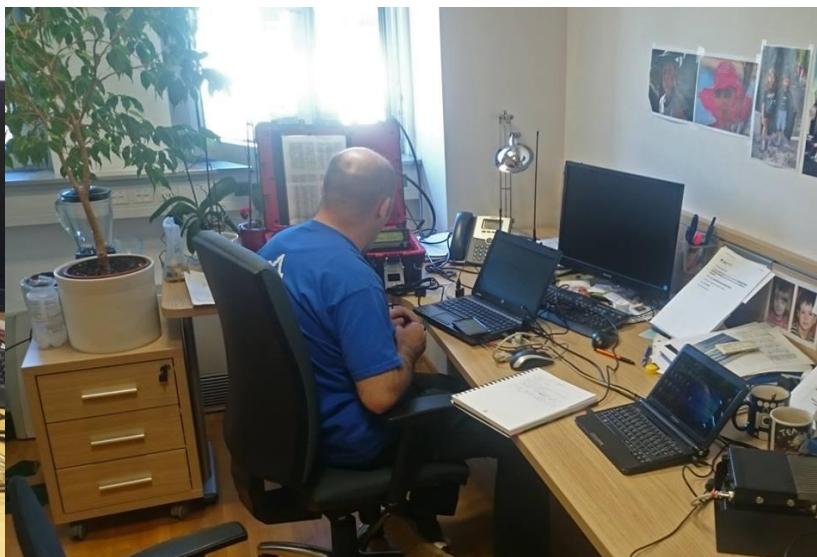


Exercises



■ ConvEx international exercise 21 June 2016– cooperation with Slovenian nuclear safety administration, Slovenian armed forces and Institute Josef Stefan

Data transfer of radiological measurements using Packet radio-Winlink and APRS



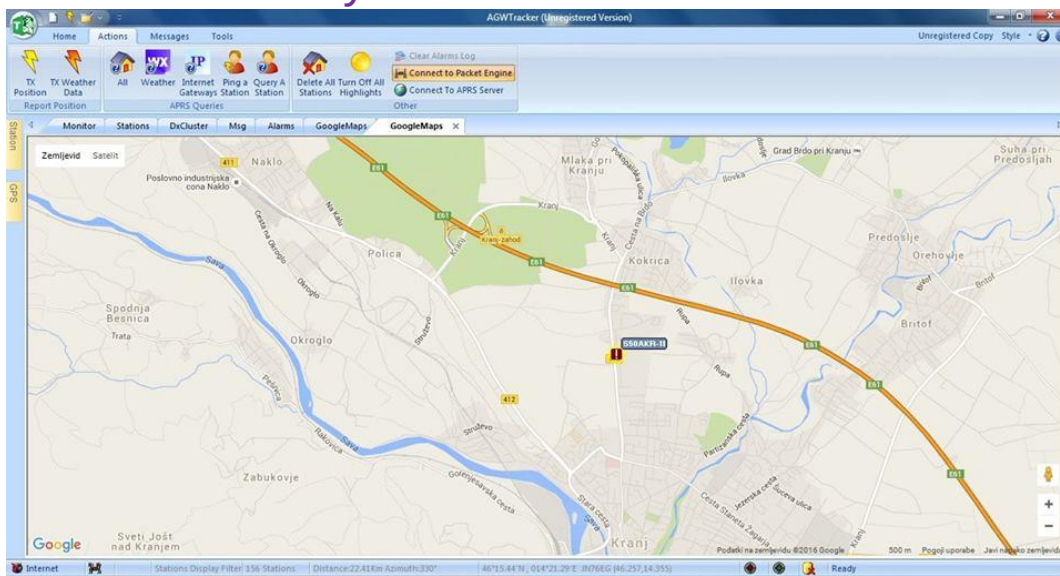


Exercises



■ ConvEx international exercise 21 June 2016– cooperation with Slovenian nuclear safety administration, Slovenian armed forces and Institute Josef Stefan

APRS telemetry from Reuter Stokes Gamma monitor





Exercises



■ Cro floods international exercise – monitoring Sava river (S5, 9A, YU)





Interventions



- *EmComm activity of Slovenian HAM's has a long tradition*
 - *Earthquake in Skopje in 1963*
 - *Balkan wars in 90's*
 - *Earthquake in Posočje in 1998*
 - *High snow Cirkulane 2009*
 - *Floods in Ljubljana in 2010*
 - *Fire in a skyscraper in Domžale 2013*
 - Ice sleet in 2014





Ice sleet 2014



What is ice sleet?

Rain and snow mixed, snow that partially melts as it falls.

Consequences: falling trees, power lines, telephone lines, blocked roads, telecommunication breakdown, power blackout...



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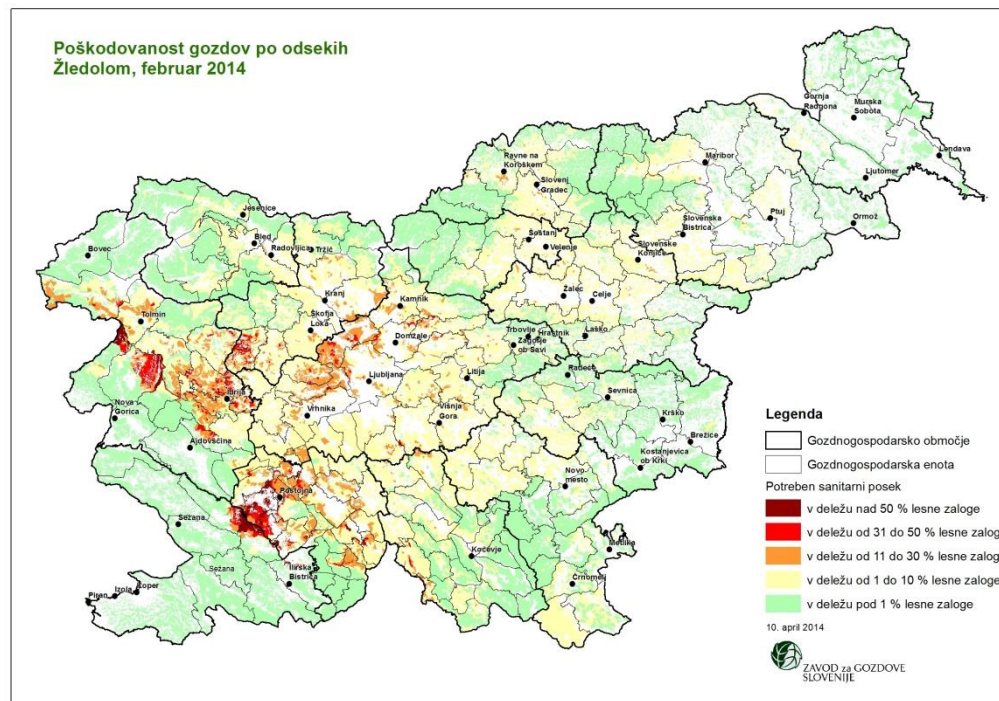
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Ice sleet 2014

Affected almost whole territory of S5

Most affected region Notranjska and Gorenjska Consequences: falling trees, power lines, telephone lines, blocked roads, telecommunication breakdown, power blackout...





Ice sleet Notranjska



Activation of ARON team S50APO to help local community CP HQ

ARON team was working together with CP HQ

- *Logbook*
- *Radiocomms in region and to Ljubljana*
- *Professional communication systems were down (old batteries on repeaters, broken antennas) mobile professional repeater installation by ARON team*
- *GSM is down*
- *Hams are standby on simplex 145.425 Mhz and VHF repeater R1 on mountain Nanos (temp. Echolink connection to conference *SLOVENIA*)*





Calltakers in CP HQ





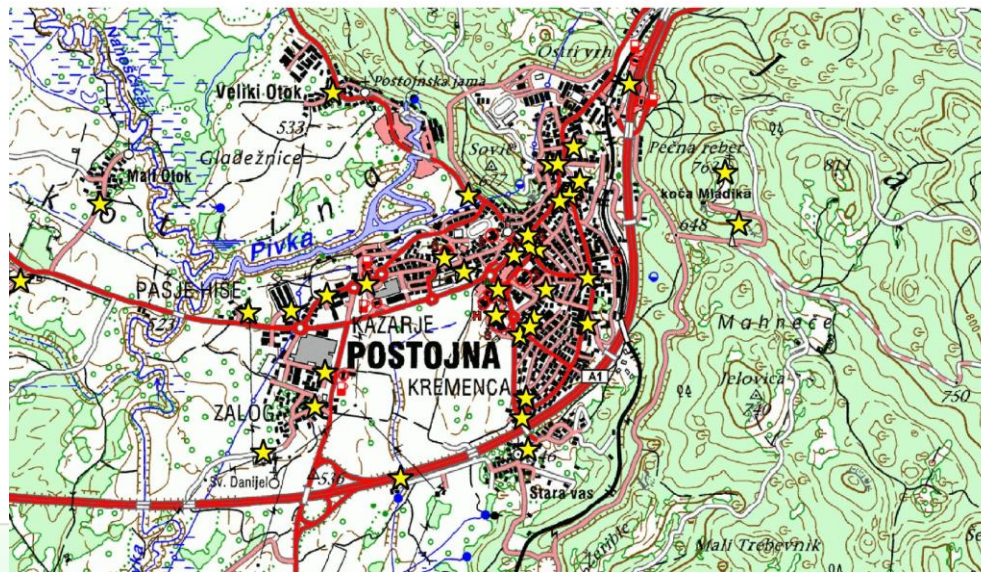
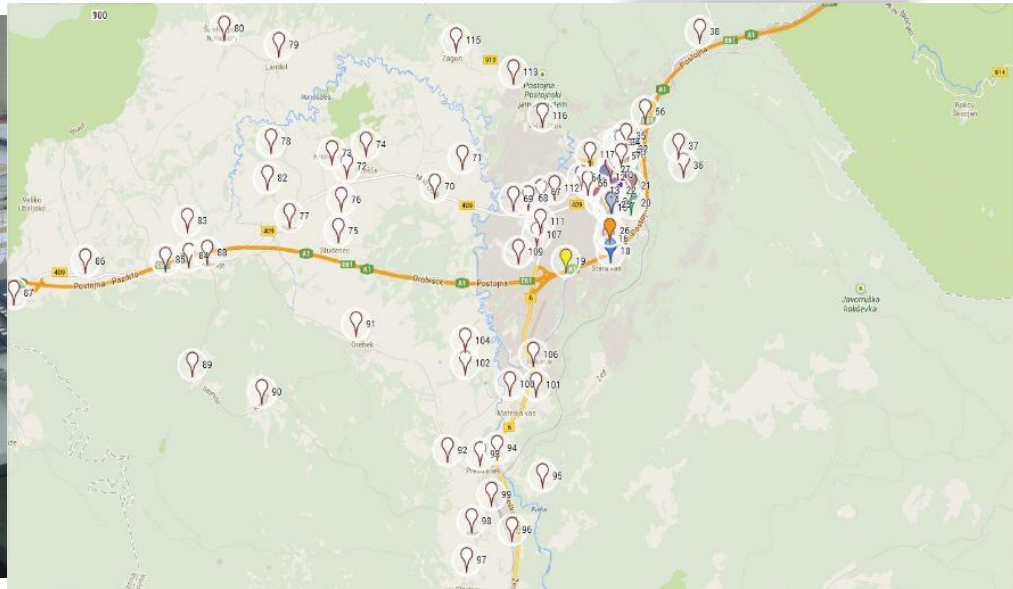
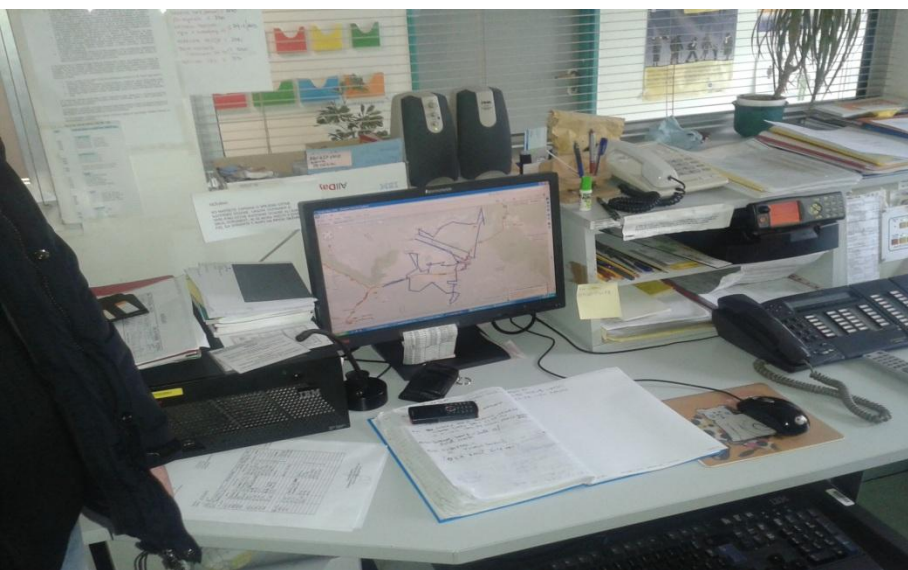
Repeater location-power generator





APRS

locations of power generators





Ice sleet Gorenjska





Ice sleet Gorenjska



ARON team S50AKR:

Andraž – S54AN

Janez – S51ZG

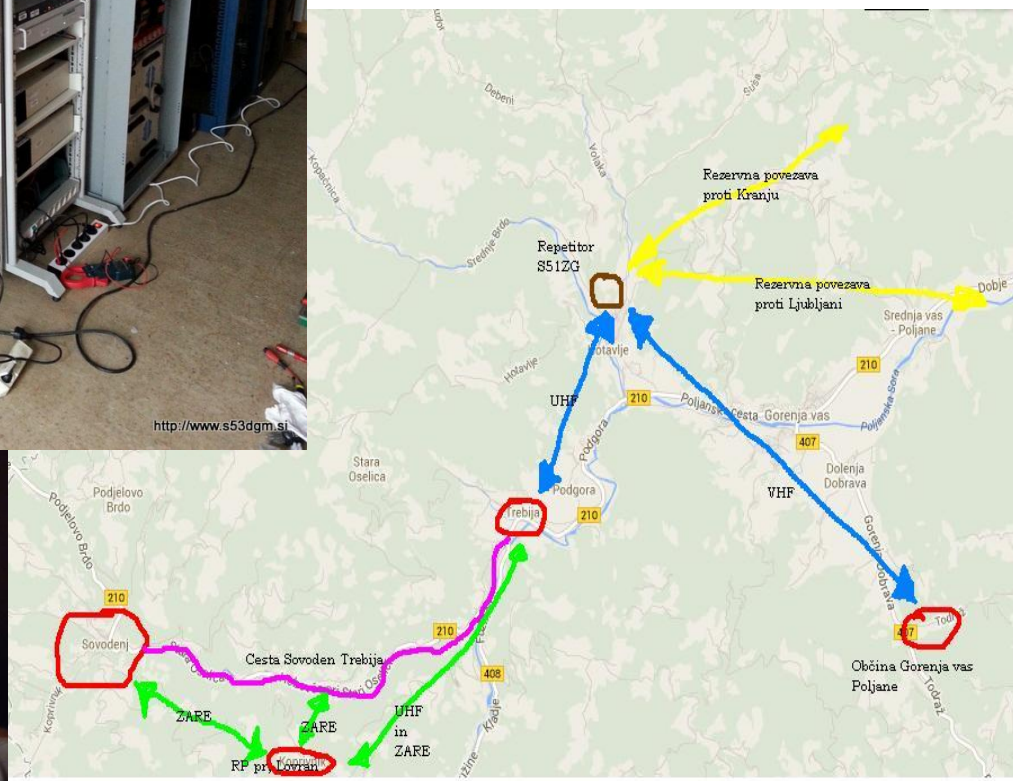
Miha – S54KM

Robert – S53RP

Zvone – S57PZ

Dejan – S56WDN

Arne – S53IA





Used equipment



- Power generator 2,8 kW
- Power generator 4 kW
- Power generator 5 kW (Koprivnik Radio TV tower with GSM and professional radio systems))
- Power generator 1 kW 3x
- 20 handhelds
- Mobile radios: FT-7800, FT-7900, FT-8800, FT-8100
- 4 power supplies

Antennas

- X-50 3X
- X-200
- X-300
- X-500
- 7 el. Yagi
- 80 m RG-213, H-155 in H-500
- 2x portable towers 4 metres,
- 3x batteries and chargers



Statistics



- 169 litres of gasoline for power generators
- 9 litres of oil for power generators
- Members of ARON team have made 1100 km with their own vehicles
- More than 150 working hours on a duty

Ice sleet international cooperation

Hi Tilen, Hi Greg,

Today at 1000 CET the Emergency Radio Coordinator of Lower Austria, Karl OE3KYS was ask to support the Fire Departments currently on their way to Slovenia with 120 Diesel power generators.

As it is currently unclear how the teams from Austria can communicate with their control in Austria, Austrian HAM EmmComm was asked to establish a link between Austria and Slovenia with Pactor/Winlink.

I ask all European Station to keep the frequencies of the Slovenian and Austrian Winlink RMS free from any traffic not related to the emergency communications.

S51SLO 3.644 MHz
OE3XEC 3.608 MHz and 3.617MHz
OE6XPD 3.601MHZ

Hi Tilen,

Currently on the Pactor Station working on the EmmComm traffic in Austria are:
OE3KYS Karl Mobile TEL: +436646211957
OE3MKU Manfred Mobile Tel: +4367683006273

73

Gregor, OE1VGC



Hi Tilen,

I just got the urgent request to have an HAM onsite in the city of Logatec to set up a Pactor/Winlink station and operate it for the mission control which is located there and send messages on their behalf.

If this is not possible maybe you can name someone of your team who has a working station at his home close to Logatec from where the mission control can send and receive messages.

I kindly ask you to contact Manfred OE3MKU (+4367683xxxxx) and agree with him on the next steps.

many thanks for your help

Gregor, OE1VGC

Naš odgovor:

Hi Greg,

In Logatec S57MK, Matjaz has a possibility to communicate via PACTOR and WINLINK.

His e-mail: s57mk@winlink.org

73 de S56CT,

Tilen Cestnik



Žledolom

■ Matjaž, S57MK in Logatec was transferring data between OE and S5 with his Electcraft KX3, inverted L antenna, SCS Pactor modem, Asus EEE PC 701S and small Honda power generator and battery



Media

- *Media are very useful during interventions*
- *Calls from TV, radio, newspapers*
- *We have made a list who can communicate with media*



■ First TV news 6 February around 19.30 in a show Slovenska kronika on TV channel SLO 1.

http://www.youtube.com/watch?v=viBGmdJ-h_s

Second recording on RTV SLO 1 in a show Dobra ura z Boštjanom on 13 February. <http://ava.rtv slo.si/#174261112; ;> Between 19. in 22. minutes.





Sources



Authors of some photos and data used in a presentation:

- Dejan, S56WDN
- Stojan, S51WI
- Matjaž, S57MK
- Denis, S56DE
- Lovro, S5oLD
- Marjan, S56JCH
- Mitja, S56IUL
- Matej, S56ZM
- Frenk, S51WC
- Google 😊



It is our honour to help people and emergency services with our equipment and skills. That can not be paid with any money.

You can count on S5 ARON teams and don't hesitate to contact us in a case of emergency!

***Thanks for your attention
73 & GL
Tilen Cestnik/S56CT***