Plan for the use of amateur radio frequencies in the event of activation of the ARON network

All available amateur radio frequency ranges and all modes of operation can be used for communication. The most important thing is to establish a reliable relationship. Regional teams will send their location and on which frequencies they can be reached via the Winlink system.

S50ARO frequencies for 80m and 60m will be matched on the fly. In the beginning, standard frequencies should apply, e.g. 3605 kHz. S50ARO will also be QRV to DMR network TG 293112 or TG 293, if internet connections work and on 2m FM repeater S55VCE (Mrzlica), S55VLJ (Crimea) and S55VNM (Trdinov vrh).

Regional ARON teams in "unaffected" areas that have an "internet connection" use the TELNET mode for S50ARO messages via the Winlink global email system. This will allow the teams in the "affected" area to have easier access to the radio gateways that will most likely be stressed during the exercise. It is desirable that the Regional ARON teams send the collected S50ARO data in the already known form. Even the municipal teams that will use Winlink should send messages to the regional teams in the form, if they have this option.

All teams should submit their GPS location and information on which frequencies/repeaters the team is reachable on. If they are unable to do so, they will communicate this via voicemail.

ARON teams submit a GPS/Position report with availability data via Winlink. In the Comment field, write ARON, QTH, one analog repeater and one DMR repeater, and the TG on which they can be reached if they work in DMR.

Example: ARON Trbovlje: RV56 S55VCE, DMR S55DTR TG29313/TS2

S50ARO exchanges data with stations abroad via Winlink and fictitiously hands it over to the Red Cross Information Center. S50ARO also fictitiously cooperates with CORS and the CZ National Headquarters. S50ARO is operating from an alternate CORS location in the exercise. Winlink GW S50ARO will be switched off unless the KV station for PHONE communication is dislocated. If possible, the S50ARO will also broadcast some radiograms for radio amateurs who do not have access to Winlink and as an occasional status update.

a) Voice/phone connections

The following frequencies are used for voice/phone communications:

- 3605 kHz LSB on short wave at the very start (primarily for communication between regional teams republican ARON team),
- 80 and 40 m PHONE SSB frequencies for abroad are determined according to IARU EmComm frequency arrangement,
- simplex FM channels 145.500 MHz on VHF and 433.500 MHz FM on UHF in the initial phase (local, regional and national level) and
- S5 repeater network.
- UHF FM/DMR repeater on Kum S55DHF 438.275 -7.6 MHz CC:1, S55UHF FM repeater 439.125-7.6 MHz with CTCSS 123.0 Hz, repeater S55VLJ 145.775 MHz - 0.6 with CTCSS 123.0 Hz can be used for connection between regional teams and S50ARO.

The specified frequencies, especially the simplex channels in the VHF and UHF range, can only be used in the initial phase of establishing the ARON network, but later, when the traffic becomes denser, it is necessary to move to the channels specified in the attached channel scheme, which is compiled by region:

1. Western Štajerska – Celje 2.
Carinthia – Slovenj Gradec 3.
Northern Primorska – Nova Gorica 4.
Posavska – Brežice 5. Coastal – Koper 6.
Gorenjska – Kranj 7. Ljubljana – Ljubljana 8.
Pomurska – Murska Sobota 9. Eastern
Štajerska – Maribor 10. Dolenjska – Novo
Mesto 11. Notranjska – Postojna 12.
Podravska – Ptuj 13. Zasavska – Trbovlje

Plan for using FM simplex channels in the VHF (2m) and UHF (70 cm) areas

Simplex channels in the VHF (145,500) and UHF (433,500) range can be used only in the initial phase of establishing the ARON network, and later, when the traffic becomes denser, it is necessary to organize and retreat/move to other channels to establish direct voice connections. This is especially true if a natural or other disaster affects several regions at the same time or the entire country.

Frequency	Channel label	Type of frequency	Region
145.500 MHz **433.500 MHz**	**Q40** **U280**	**Primary**	Frequency to start act Interregional connection and connection from Upra
145.525 MHz	**V42**	**Primary**	Western Styria
145.550 MHz	**V44**	**Reserve 1**	Western Styria
145.5375 MHz	**Q43**	**Reserve 2**	Western Styria
145.325 MHz	**V26**	**Primary**	North Primorska - Nova Gorica
145.400 MHz	**V32**	**Reserve 1**	North Primorska - Nova Gorica
145.2625 MHz	**V21**	**Reserve 2**	North Primorska - Nova Gorica
145.375 MHz	**Q30**	**Primary**	Carinthia - Slovenj Gradec
145.325 MHz	**V26**	**Reserve** 1	Carinthia - Slovenj Gradec
145.2375 MHz	**V19**	**Reserve** 2	Carinthia - Slovenj Gradec

145.325 MHz	**V26**	**Primary**	Posavska - Brežice
145.225MHz	**V18**	**Reserve 1**	Posavska - Brežice
145.2625 MHz	**V21**	**Reserve 2** Posavska – Brežice	
145.550 MHz	**V44**	**Primary**	Coastal – Koper
145.525MHz	**V42**	**Reserve** 1	Coastal – Koper
145.5375 MHz	**Q43**	**Reserve 2** Coastal – Koper	
145.225MHz	**V18**	**Primary**	Gorenjska - Kranj
145.250 MHz	**Q20**	**Reserve** 1	Gorenjska - Kranj
145.2125MHz	**V17**	**Reserve 2** Gorenjska – Kranj	
145.350 MHz	**V28**	**Primary**	Ljubljana - Ljubljana
145.375 MHz	**Q30**	**Reserve** 1	Ljubljana - Ljubljana
145.3625 MHz	**V29**	**Reserve 2** Ljubljanska - Ljubljana	
145.475 MHz	**V38**	**Primary**	Pomurska - Murska Sobota
145.425 MHz	**V34**	**Reserve 1** Pomurska – Murska Sobota	
145.4375 MHz	**V35**	**Reserve 2** Pomurska – Murska Sobota	
145.5125 MHz	**V41**	**Primary**	Eastern Styria - Maribor
145.400 MHz	**V32**	**Reserve 1** East Štajerska – Maribor	
145.4125 MHz	**V33**	**Reserve 2** East Štajerska – Maribor	
145.300 MHz	**V24**	**Primary**	Dolenjska - Novo Mesto
145.375 MHz	**Q30**	**Reserve** 1	Dolenjska - Novo Mesto
145.3875 MHz	**V31**	**Reserve 2** Dolenjska – Novo Mesto	
145.425 MHz	**V34**	**Primary**	Notranjska - Postojna
145.450 MHz	**V36**	**Reserve** 1	Notranjska - Postojna
145.4375 MHz	**V35**	**Reserve 2** Notranjska – Postojna	
145.450 MHz	**V36**	**Primary**	Podravska - Ptuj
145.350 MHz	**V28**	**Reserve** 1	Podravska - Ptuj
145.4125 MHz	**V33**	**Reserve 2** Podravska – Ptuj	
145.275 MHz	**V22**	**Primary**	Zasavska – Trbovlje
145.475 MHz	**V38**	**Reserve** 1	Zasavska – Trbovlje
145.4875 MHz	**V39**	**Reserve 2** Zasavska – Trbovlje	

a)

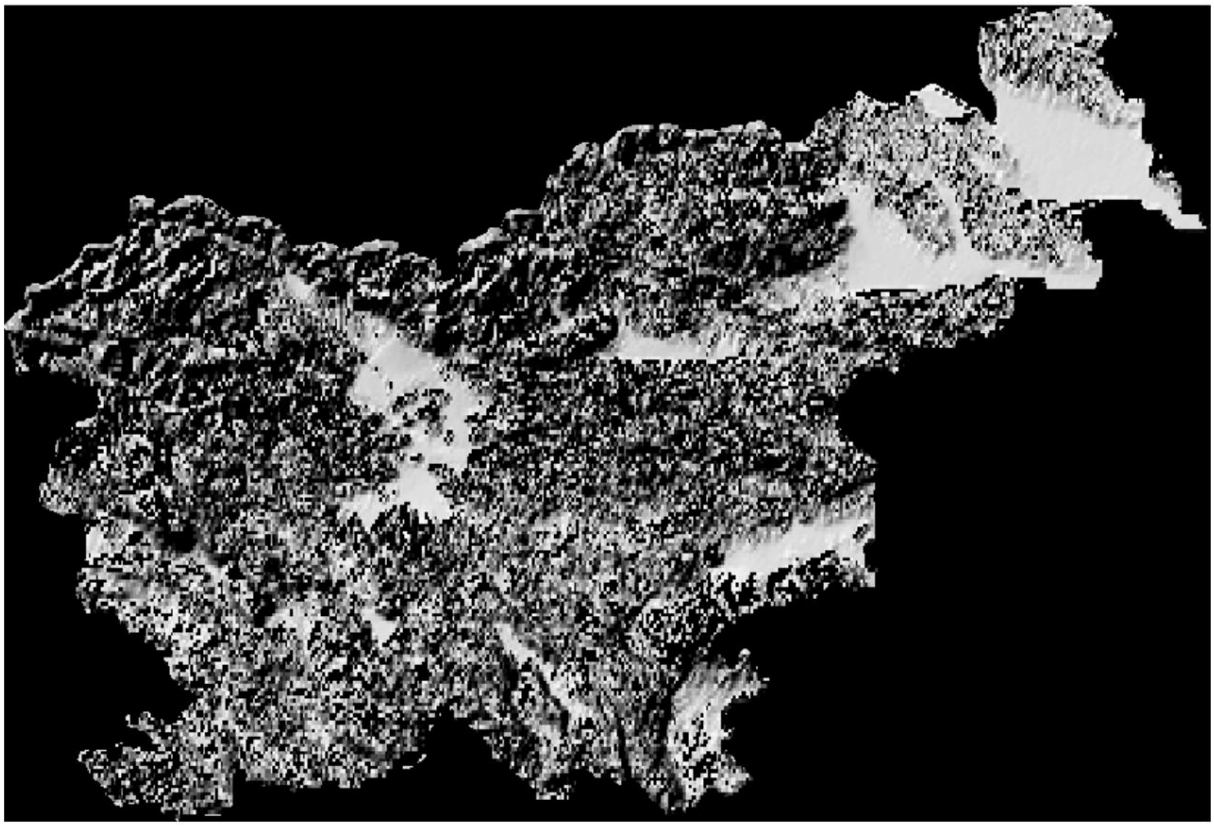
Plan for using voice repeaters

Since there are usually not enough repeaters in critical situations, or too much traffic can appear on them, it is necessary to use the repeater wisely, especially if the repeater operates on backup power due to a power failure.

We must therefore limit the traffic via the repeater to a minimum and use the repeater only in the case when a direct simplex connection is not possible.
Since the repeaters are placed with the aim of covering a certain area, it is necessary to know who has the priority of use on which repeater.
The first priority of use on all repeaters is, of course, the emergency call, which can only be used in cases where the life or health of people and animals is at risk and when there is a possibility of major material damage. In such cases, we use the repeater that is closest to us or we know that we will be able to call someone through it.

An emergency call is made in the following way: "EMERGENCY CALL EMERGENCY CALL S5xxxx S5xxxx" or "MAYDAY MAYDAY S5xxxxx S5xxxxx" II. the priority of using the repeater is given to radio amateurs, for whom the repeater is designated as the parent channel upon activation of ARON.

III. priority is given to other radio amateurs participating in the ARON IV campaign. the
last priority is given to radio amateurs who do not participate in the campaign and would like to use the repeater for normal communication.



It is clear from the terrain of Slovenia that repeaters are absolutely necessary for quality work from the lowlands in the VHF/UHF area for communications.

Therefore, each region should have at least one voice repeater that enables high-quality communication between mobile and portable radio stations.

In addition to the FM repeater network, the DMR network also operates in Slovenia. There are also some active Yaesu System Fusion repeaters and DMMDVM repeaters that support Yaesu's digital mode of operation as well as D-STAR. The group DMR call in S5 on TS 1 for EmComm is 293112, but it makes sense to use this group after a certain time when a move is made from group 293, which is the primary group to use

in normal conditions and connects all Slovenian repeaters at a given moment. Within the regions, group calls for each region on TS2 or group call on TG9 are used, which allows only local use of the repeater. If there is no need to talk through several repeaters at the same time, TG9 is used on TS2.
We also have to count , that the repeater can operate on batteries or a backup power supply.
NOTE: When using the repeater, it is always necessary to follow the instructions of the control station. It is imperative to use ham call signs.
If necessary, the traffic on some repeaters can also be recorded. The recordings can be used later for analysis or education.
As long as the Internet connections are not interrupted, it is possible to connect some repeaters to each other in the network with the Echolink application. These repeaters are marked with an Echolink ID number in the tables.
The Echolink conference server *SLOVENIA* operates in Nova Gorica, which can receive 50 Echolink stations simultaneously. Most DMR repeaters are in the BrandMeister network.

Distribution of repeaters by region:

Western Styria - Celje

INPUT OUTPUT RPT			ID	QTH	LOC ASL		Note / network	The owner	Sysop
144.9875	**145.5875** RV47	**S55VCM**		LITTLE (Celje, Laško)	JN76OE 936m		CTCSS: 123.0 Hz Motorola GM 900	S59GCD	S56AFJ, S56KZ
145.0125	**145.6125** RV49	**S55VRT**		STUTCINOV HILL (Roman Spa)	JN76OC 600m		CTCSS on TX 123.0 Hz Motorola R100	S59GCD S56CT	S56AFJ, S56CT S56KGZ
145.0375	**145.6375** RV51	**S55VSC**		OLD MOUNTAINS (Shenjur at Celje)	JN76QH 630m		Echolink ID: 646960 CTCSS 77.0 Hz Motorola GM300 Connected to S55USC	S51HT	S51HT
431,025	**438,625** RU690	**S55USC**		OLD MOUNTAINS (Shenjur at Celje)	JN76QH 630m		Echolink ID: 646960 CTCSS 123.0 Hz Motorola GM300 Connected to S55VSC	S51HT	S51HT
145,100	**145,700** RV56	**S55VCE**	COLD	JN76NE 1122m			EchoLink ID: 167520 CTCSS 123.0 Hz	S59DOR	S56CT

145.1875 145.7875 RV63 **S55VMO**				LOWER BEAUTIFUL (Mozire)	JN76KH 460m Lower Karst S51DSW S57AZG				
431,225 438,825			**S55UBC**	BOCH (Rogaska Slatina)	JN76TF 980m		CTCSS 123.0 Hz Hytera RD985	ZRS	S56CT
431,350 438,950			**S55UCE** Gora (Celje) JN76OH 554m				Motorola GM900	S56KZ S56KZ	
431,675 439,275			**S55UZA** COLD JN76NE 1122m				EchoLink ID: 785783 CTCSS 123.0 Hz SVXLink, FRN	S56CT S56CT	
431,700 439,300			**S55UCM**	LITTLE (Celje, Laško)	JN76OE 936m		Motorola GM900	S56KZ S56KZ	
431,700 438,300			**S55DZA** MRZLICA JN76NE 1122m				MMDVM FM, DMR, D STAR, YSF	ZRS	S56CT S58DB
430,625 438,225			**S55DSC**	OLD SLEMENE (Šentjur at Celje)	JN76QH 630m		Hytera DMR	S57RD S57RD	
430,900 438,500			**S55DCE**	CELJE city	JN76PF 238m		Motorola GM360 MMDVM CC:3 DMR only	S56KZ S56KZ	
430,825 438,425			**S55DCM**	LITTLE (Celje, Laško)	JN76OE 936m		CTCSS: 123.0 Hz Hytera RD985	S59GCD S56AFJ	

Note: S55VCE repeater RV56 on Mrzlica is common to several regions and also serves for inter-regional communication and communication of regions with the republic station (S50ARO, S50ZRS). The S55VCE is also used for VARA FM communication.

Carinthia - Slovenj Gradec

INPUT EXIT		RPT	ID	QTH	LOC ASL	Note / network Owner Sysop			
145.075 145.675 RV54 **S55VRK** PLEŠIVEC JN76LL 1700m YAESU DR1XE S59EHI S56UTM									

				(URLS MOUNTAIN)					
431,775	**439,375**		**S55URK**	PLEŠEVEC (URLS MOUNTAIN)	JN76LL 1700m		Hytera RD985 FM, DMR	ZRS S56UTM	
431,550	**439,150**		**S55UKO**	SMALL DIP	JN76OM 1522m		Spectra MX920	S50VZZ S51UZ	
430,725	**438,325**		**S55DKO**	SMALL DIP	JN76OM 1522m		Motorola DR3000 BrandMeister	S50VZZ S51UZ	

North Primorska - Nova Gorica

INPUT	OUTPUT	RPT	ID		QTH	LOC ASL		Note / network	The owner	Sysop
145.025	**145.625**	RV50	**S55VKP**	COATING	JN75AS 1240m			Motorola GM900	ZRS	S57NK S51WI
145.050	**145.650**	RV52	**S55VBG**	KUP (Podbrdo)	JN76AF 1046m	ICOM			S51ST, S59DAQ	S51ST
145.125	**145.725**	RV58	**S55VID**		ARMY (IDRIJA)	JN66WA 1129m		to Yaesu DR1XE	S59EYZ	S51GF
145.1875	**145.7875**	RV63	**S55VTO**	KANIN		JN66RI 2180m		EchoLink ID: 315147 Motorola	S59DAP	S51W
431,150	**438,750**		**S55UGO**	TRSTELJ (NG)	JN65UU 643m			Hytera DMR, FM CTCSS: 123.0 Hz	S59DKS	S52X
431,625	**439,225**		**S55VID**		ARMY (IDRIJA)	JN66WA 1129m		Nokia BSR 450	S59EYZ	S51GF
431,650	**439,250**		**S55DGO**		Nova Gorica/ Under With a sharpener	JN65UH 385m		Yaesu DR1XE CTCSS: 123.0 Hz MMDVM DMR, D STAR	ZRS	S52X
430,900	**438,500**		**S55DSN**		A chicken	JN65WP 670		Yaesu DR1XE CTCSS: 123.0 Hz MMDVM DMR, D STAR	S59ABL	S52X S56G S53X S54B S52BOT
431,700	**439,300**		**S55DKN**	CANINE		JN66RI 2180m		Yaesu DR1XE CTCSS: 123.0 Hz MMDVM DMR, D STAR	ZRS	S56AL

145.475 145.475 V38 **S53AAN** BUCKWHEAT JN65VW 100							Echolink ID: 124137	S53AAN S58G	
431,100 438,700 RU696 **S5DKP** APPLY					JN7AS 124m		Yaesu DR1XE CTCSS: 23.0 Hz MMDVM DMR, D STAR	ZS	S57N

Note: The S55VKP repeater on Nanos is common to several regions and also serves for inter-regional communication.

Posavska - Brežice

INPUT EXIT		RPT	ID	QTH LOC	ASL Note / network	Owner Sysop		
145,050 145,650 RV52 **S55VNM**				TRDINOV TOP	JN75PS 1178m	CTCSS TX: 123.0 Hz Motorola GM640	ZRS	S52B
145.1875 145.7875 RV63 **S55VKK**				DRAWING (Krško)	JN75RW 429m	CTCSS: 123.0 Hz Motorola GM900	S56CT S56CT	
431,050 439,200			**S55UKK**	DRAWING (Krško)	JN75RW 429m	Echolink ID: CTCSS: 123.0 Hz Vertex VXR 5000	S56CT S56CT	
431,400 439,000			**S55USE**	LIES (Sevnica)	JN76PX 528m	EchoLink ID: 316250 Radio system	S56CT S56CT	
430,800 438,400			**S55DSE**	LIES (Sevnica)	JN75PX 528m	CTCSS 123.0 Hz mixmode Hytera BrandMeister	ZRS	S56CT
431,300 438,900			**S55USX**	ST. DEADLINE (Sevnica)	JN76PA 374m	Echolink ID: 952012 CTCSS: 123.0 Hz	S56CT S56CT	

							Motorola Quantro SVX Link		
431,475 439,075			**S55DMR** Fox		JN76PB 948 m		CTCSS: 123.0 HZ Mixed mode DMR/FM SVXLink Echolink TG 293	S57VHF	S57VHF, S56CT
431,450 439,050			**S55DSX**	ST. DEADLINE (Sevnica)	JN76PA 374m		Motorola SLR1000 only DMR	Compass S56CT	
431,125 438,725			**S55UBR** BREŽICE	JN75TV 162 m			CTCSS: 123.0 Hz Kenwood TKR 820 FRN	S56CT S56IPS	
144.6125 144.6125			**S59ACP** BREŽICE	JN75TV 162 m			Echolink ID: 549592 CTCSS: 123.0 Hz Kenwood TM241	S59ACP	S56IPS, S52NR

Note: Repeater S55VNM on Trdinovo vrh is also used in other regions and serves during regional interconnection.

S55DMR has a gateway to Echolink on TG293 and is connectable to the conference *SLOVENIA*.

Coastal – Koper

INPUT OUTPUT RPT ID				QTH LOC	ASL Note / network		Owner Sysop		
145.025 145.625 RV50		**S55VKP**	COATING	JN75AS 1240m			Motorola GM900	ZRS	S56ZAB, S51WI
145.1625 145.7625 RV61		**S55VIS**		MALIA / ISOLATED	JN65TM 277m		CTCSS: 77.0 Hz VXR 5000	S59DTN S53KP	
430,625 438,225			**S55DPI**	MALIA / ISOLATED	JN65TM 277m		D-STAR MMDVM FM, DMR, D STAR, YSF	ZRS	S56FMZ, S56RGA
145.1875 145.7875 RV63		**S55VTO**	KANIN	JN66RI 2180m			EchoLink ID: **315147**	S59DAP	S51W, S54S

							Motorola		
431,200	**438,800** RU704	**S55UPI**		RK PIRANA	JN65TM	150m Triple P	MMDVM S59HIJ		S52ID S56RGA
431.100	**438.700** RU696	**S55DKP**	APPLYING	JN75AS	1240m		Yaesu MMDVM FM,DMR,D STAR,YSF CTCSS:123.0 Hz	ZRS S57NK	
431,625	**439,225**		**S55DSK** SLAVNIK	JN75DQ	1028m		Motorola DR3000 DMR	S57DV	S56RGA S57DV

Note 1: The S55VKP repeater on Nanos is common to several regions and also serves for inter-regional communication.

Note 2: The S55VTO repeater is intended to cover Posoÿje, but it also covers well the coast, which has access to the Echolink network through it.

Gorenjska - Kranj

INPUT	EXIT	RPT	ID	QTH	LOC	ASL	Note / network	The owner	Sysop
145.0125	**145.6125**	RV49	**S55VKR**	MOHOR	JN76CF	952m	CANCELED S59BDE S52MF		
145.0375	**145.6375**	RV51	**S55VBO**	KOBLA	JN66XF	1560m	Hytera DMR, FM CTCSS: 123.0 Hz Not connected to BM	S53GA S59DBO	S53GA
145,075	**145,675**		**S55VKG**	KRANJIA THE MOUNTAIN	JN66VL	1040m	CANCELED S59DKG		S56BLT S56FFJ
145,125	**145,725**		**S55VJE**	JESENICE	JN76CK	715m		S59DNA S52VJ	
431,075	**438,675**		**S55UKV**	KRAVAVEC	JN76GH	1853m	Echolink ID: 271336 CTCSS: 123.0 Hz Motorola GM350	S53SI, S56CT, S51HP	S51HP
431,725	**439,325**		**S55UJE**	STRUŠKA	JN76BL	1944	SOLAR POWERED	S59 DNA	OE8KKK, S52VJ, S57AJJ
431,425	**439,025**		**S55UBO**	KOBLA	JN66XF	1560m	Hytera DMR, FM CTCSS: 123.0 Hz	S53GA S59DBO	S53GA
430,875	**438,475**		**S55DKV**	KRAVAVEC	JN76GH	1853m	Motorola SLR 5500 DM CC:1	ZRS	S51HP S56CT
431,325	**438,925**		**S55UKA**	Great mountain	JN76HH	1666	MMDVM FM, DMR, D STAR, YSF	ZRS	S56ZBL S58DB S56CT
430,875	**438,475**		**S55DKV**	KRAVAVEC	JN76GH	1853m	Motorola SLR 5500 DM CC:1	ZRS	S51HP S56CT
431.125	**438,725**		**S55DGV**	Ermanovec - Gorenja village	JN76AC	1026m	CTCSS: 123.0 Hz Hytera RD625 mixed mode FM/DMR BrandMeister	S53DGM	S56WDN

431,425 439,025			**S55UBO** Kobla		JN66XF 1560m CTCSS: 123.0 Hytera RD625 mixed mode FM/DMR BrandMeister ID: 293019 CC:1		S59DBO S53GA	
430,650 438,250			**S55DSL**	Lubnik JN76DE 1025m MMDVM repeater			S52SX, S52O	S52SX, S52O
431,800 439,400			**S55 GIFT**	A chair (Caravans)	JN76CK 2136m CTCSS: 123.0 Hz Hytera RD985 mixed mode FM/DMR BrandMeister (SOLAR powered)		ZRS	S56RAL
431.7625 439.3625			**S55UAR**	A chair (Caravans)	JN76CK 2136m Motorola (SOLAR powered)		S59UAR S59UAR	S56RAL
430,650 438,250			**S55DSV**	Spanish Peak (Jesenice)	JN76AL 1365m CTCSS: 123.0 Hz Hytera RD985 mixed mode FM/DMR BrandMeister		ZRS	S56BLT S56LA

Note 1: S55UKV, S55UKA AND S55DKV repeaters are common to several regions and also serve for inter-regional communication.

Central Slovenia - Ljubljana

INPUT OUTPUT RPT ID				QTH	LOC ASL	Note / network	The owner	Sysop
145.0875	**145.6875** RV55	**S55VZV**		ZAGARSKI TOP	JN76IA 626m	CTCSS: 77.0 VXR 7000	S53DZZ	S57NIX
145.175	**145.775** RV62	**S55VLJ**	CRIMEA	JN75FW 1114m	MOTOROLA	ZRS		S56DE S51ZK
144,550	**144,550**		**S55VZR**	Ljubljana Bezigrad	JN76GB 300m	Echolink ID: **216136** Motorola MC2100 CTCSS 123.0 Hz	S56CT	S56CT
431.075	**438.675** RU694	**S55UKV**	KRVAVEC	JN76GH 1853m		Echolink ID: 271336 CTCSS: 123.0 Hz Motorola GM350	S53SI, S56CT, S51HP	S51HP
431.175	**438.775** RU702	**S55ULX**	CRIMEA	JN75FW 1114m		Motorola GM900	S56CT	S56DE
431.275 145.2875	**438.875** 145.2875	RU710 **S55ULJ**		JANÿE (Ljubljana, lithium)	JN76IB 794m	Crossband 70<<>>2m CTCSS:123.0 Hz	ZRS	S56CT S56DE
430,950	**438,550** RU684	**S55UZV**		ZAGARSKI TOP	JN76IA 626m	MMDVM FM, DMR, D STAR, YSF	S57NIX S51ZK	S57NIX
430,875	**438,475**		**S55DKV**	KRAVAVEC	JN76GH 1853m	Motorola SLR 5500 DM CC:1	ZRS	S51HP S56CT
430,600	**438,200**		**S55DLJ**	CRIMEA	JN75FW 1114m	Motorola GM900	S56CT	S51ZK
431,325	**438,925**		**S55UKA**	Great mountain	JN76HH 1666	MMDVM FM, DMR, D STAR, YSF	ZRS	S56ZBL S58DB S56CT
430,900	**438,500**		**S55DLM**	Ljubljana center	JN76GB 300	Motorola GM660 MMDVM	ZRS	S56CT S51ZT S51ZK
430,900	**438,500**		**S55DLM**	Ljubljana center	JN76GB 300	D-STAR	ZRS	S56CT S51ZT S51ZK

									S56DE
144,975 145,575			**S55VLM**	Ljubljana center	JN76GB 300		Kenwood TKR D750	ZRS	S56CT S51ZT
430,750 438,350			**S55DRI** Travna Gora JN75HR 857m Hytera RD625 S59DLT S51SK						

Note 1: The S55UKV repeater on Krvavec is shared by several regions and also serves for inter-regional communication.
Note 2: The S55VZV and S55DZV repeaters are primarily used by the amateur radio unit for the Civil Defense Unions of the Municipality of Ljubljana.

Pomurska - Murska Sobota

INPUT EXIT		RPT	ID	QTH	LOC ASL	Note / network	Owner	Sysop	
145.125 145.725 RV58		**S55VMB**		POHORJE – observation tower	JN76TM 1147m	DTMF link to 6m S55VMB and S55UMB Motorola	ZRS	S56WAN	
431,125 438,725			**S55UTB**	Zg. KOCJAN (Radenci)	JN86AO 301m	MMDVM FM, DMR, D-STAR, YSF	S59DTB	S56ZM S55WT	
430.8375 438.4375			**S55DLE**	Winery Lendava	JN86FN 327m	CTCSS 123.0 Hz mixmode Hytera BrandMeister	ZRS	S53ZO S56SCI	

Note: S55VMB is used primarily in the Maribor region, but also serves as an interregional repeater.

Eastern Styria - Maribor

INPUT	OUTPUT	RPT	ID	QTH	LOC	ASL	Note / network	The owner	Sysop
145.125	**145.725** RV58	**S55VMB**		POHORJE – observation tower (Maribor)	JN76TM	1147m	DTMF link for 6m S55VMB and S55UMB Motorola	ZRS	S56WAN
51,580	**51,580**		**S55VMB**	POHORJE – observation tower (Maribor)	JN76TM	1147m	DTMF link for 2m S55VMB and S55UMB DVR	S56WAN	S56WAN

431,225 438,825 R706 **S55UBC**				BOCH (Rogaska Slatina)	JN76TF 980m		CTCSS 123.0 Hz DMR BrandMeister	ZRS	S56CT, S52DK
431.600 439.200 RU736 **S55UMX**				POHORJE (Maribor)	JN76TM 935m		RRC-4 Voiceclock CTCSS: 88.5 Hz VXR 5000	S51UL, S52ME S51IV, S52RX, S51PW, S56WAN	S56WAN S51UL
431.625 439.225 RU738 **S55UMB**				POHORJE viewing tower (Maribor)	JN76TM 1147m		Benefon Forte	S59DXX	S56WAN S51UL
431,750 438,350			**S55DMX**	POHORJE (Maribor)	JN76TM 935m		MMDVM FM, DMR, D STAR, YSF	ZRS S56WAN	

Note 1: S55VMB is used primarily in the Maribor region, but also serves as an inter-regional repeater and a repeater to cover neighboring regions.
Note 2: Repeater S55UBC is in use in several regions and also serves for interregional connection.

Dolenjska - Novo mesto

INPUT EXIT		RPT	ID	QTH LOC	ASL Note / network	Owner		Sysop
145,050 145,650 RV52		**S55VNM**		TRDINOV TOP	JN75PS 1178m	Motorola GM640 ZRS		S52B
431,000 145,500	**438,600** 145,500		**S55UBK**	PEACEFUL THE MOUNTAIN	JN75NP 1014m	70->2m DTMF 88 RRC-4, Voice Clock	S59ACA S59DMJ, S59DJR	S52B
431,400 439,000			**S55USE**	LIES (Sevnica)	JN75PX 528m	EchoLink ID: 316250 Radio system	S56CT	S56CT
430,800 438,400			**S55DSE**	LIES (Sevnica)	JN75PX 528m	CTCSS 123.0 Hz mixmode Hytera BrandMeister	ZRS	S56CT
430,675 438,275			**S55DHF**	KUM JN76MC 1219		Hytera RD985 DMR/FM CTCSS: 123.0 Hz	ZRS	S56CT
431,525 439,125			**S55UHF**	KUM JN76MC 1219		Motorola Quantra, SVXLink, Echolink/FRN, Voice Mail	S56CT	S56CT
430,925 438,525			**S55DST**	VINJI TOP	JN75PV 380	MMDVM DMR, D-STAR, YSF	S52RS	S52RS
431.7375 433.3375			**S55DNM**	TRDINOV TOP	JN75PS 1178m	Motorola SLR5500 only DMR	ZRS	S52RS

Note: Repeater S55VNM on Trdinovo vrh is also used in other regions and serves during regional interconnection.

Notranjska - Postojna

INPUT EXIT		RPT	ID	QTH LOC	ASL Note / network	Owner		Sysop
145.025 145.625 RV50		**S55VKP**	COATING	JN75AS 1240m		Cancelled	ZRS	S57DV
145.150 145.750 RV60		**S55VIB**	MAST	JN75CM 780m		Motorola	S59DGO	S57UIC

145.1125 145.7125 RV57 **S55DPO**				OVEN RIBS (Permanent)	JN75CS 660m		CTCSS: 123.0 Hz mixmode BrandMeister	S59DEM S55ML	
431,100 438,700			**S55DKP** DEPOSIT JN75AS 1240m				Yaesu MMDVM FM,DMR,D STAR,YSF CTCSS:123.0 Hz	ZRS	S57NK
431,225 145,525	**438,825** 145,525		**S55UPO**	OVEN RIBS (Permanent)	JN75CS 660m CTCSS: 123.0 Hz S59DEM				S55ML, S56JCH
431,600 439,200			**S55DKE** Knežak JN75CP 581m				MMDVM DMR, D-STAR, YSF	S56KHL S56KHL	
431,775 439,375			**S55DIB** Karlovica JN75BN 772m				MMDVM DMR, D-STAR, YSF	S59DGO	S57DV S56KHL

Note: The S55VKP repeater on Nanos is common to several regions and also serves for inter-regional communication.

Podravska - Ptuj

INPUT EXIT		RPT	ID	QTH	LOC ASL	Note / network	Owner Sysop	
145.125 145.725 RV58 **S55VMB**				POHORJE – observation tower	JN76TM 1147m	Motorola	ZRS S56WAN	
431,225 438,825			**S55UBC**	BOCH (Rogaska Slatina)	JN76TF 980m	CTCSS 123.0 Hz mixmode Hytera BrandMeister	ZRS S56CT	
430,600 438,200			**S55DPT**	Mounds (Ptuj)	JN76WK 357m	CTCSS 123.0 Hz mixmode Hytera BrandMeister	ZRS	S59DJK S57XZ

Note 1: S55VMB is used primarily in the Maribor region, but also serves as an inter-regional repeater and a repeater to cover neighboring regions.
Note 2: Repeater S55UBC is in use in several regions and also serves for inter-regional connection.

Zasavska – Trbovlje

INPUT EXIT		RPT	ID	QTH	LOC ASL		Note / network	Owned by	Sysop

145,100 145,700 RV56		**S55VCE**	COLD JN76NE 1122m CTCSS: 123.0 Hz			S59DOR S59DO		
51,290 51,890 6R1		**S55VHF**	FEVER JN76NE 1122m		CTCSS: 123.0 Hz	ZRS S56CT		
431,525 439,125		**S55UHF**	KUM JN76MC 1219		Motorola Quantra, SVXLink, Echolink/FRN, Voice Mail	S56CT S56CT		
431,575 439,175		**S55UTR/S55DTR**	St. PLANINA (Trbovlje)	JN76ME 1011m	Hytera RD985 DMR/FM CTCSS: 123.0 Hz	ZRS S56CT		
431,675 439,275		**S55UZA**	FEVER JN76NE 1122m		EchoLink ID: 785783 CTCSS 123.0 Hz Exicom SVXLink DVMS, Echolink, Meter info	S56CT S56CT		
431,700 438,300		**S55DZA**	FEVER JN76NE 1122m		MMDVM FM, DMR, D STAR, YSF CTCSS:123.0 Hz	ZRS	S56CT, S58DB	
430,675 438,275		**S55DHF**	KUM JN76MC 1219		Hytera RD985 DMR/FM CTCSS: 123.0 Hz	ZRS S56CT		

Note: S55VCE repeater RV56 on Mrzlica is common to several regions and also serves for inter-regional communication and communication of regions with the republic station (S50ARO, S50ZRS). The S55VCE is also used for VARA FM communication.

b) Telegraphy and digital communications on short wave (HF)

In addition to voice connections, digital modes of operation and CW are also used in the shortwave range. The basis for the digital use of the KV area is Winlink, through which teams with different, arbitrary types of access (ARDOP, VARA, PACTOR,...) agree on the use of work methods.

In addition to all of the above, it is also necessary to take into account the international rules for the use of frequencies when activating the international global network in crisis situations.

During the work of regional teams and other stations, it is necessary to avoid frequencies intended for international coordination, where station S50ARO may be present, but only for the purpose of international data exchange. Frequencies for international coordination in IARU R1 are as follows: 15m – 21.360 kHz 17m – 18.160 kHz 20m – 14.300 kHz 40m – 7.110 kHz 80m – 3.760 kHz

c) Use of PACKET RADIO network, NBP network, S5 NET

For data transmissions, a packet (data) radio network can be used, which covers most of the territory of the Republic of Slovenia with nodes (i.e. supernodes) and digipeters. Mainly in the western part of Slovenia, the network has been upgraded with NBP.

In some parts of Slovenia, the S5 NET network, or amateur radio wi-fi, is already operating.

The network can be used to send data, text, photos and other types of digital content.

Packet radio and S5NET are also useful for sending Winlink messages.

d) Use of the APRS network

APRS can offer us very useful functions when the ARON network is activated: 1. reporting the location of radio stations participating in the ARON network, 2. transmission of short text messages with automatic confirmation that the user has received the message, 3. sending telemetry messages, e.g. weather data on air temperature, wind speed, air humidity, radiation measurements, etc. 4. locating and marking objects or events in the field 5. review of GPS/ position reports of Winlink stations with a comment on where these stations can be reached.

The VHF APRS frequency 144,800 MHz is uniform for Slovenia and the whole of Europe.

e) Plan for use of frequencies in the shortwave range

To establish shortwave connections in the territory of the Republic of Slovenia, the 80 and 60 meter frequency bands are primarily used, depending on the time of day and propagations. The frequency for the voice part of communications (SSB) is 3605 kHz, and in case of interference (QRN, QRM) the station moves +/- 5 kHz. Shift to new frequency is commanded by S50ARO.

In addition to voice connections, pre-arranged digital modes of operation are also used in the shortwave range. Recently, Winlink, sending e-mail in WINMOR, ARDOP, VARA, Packet or Pactor mode is the most used. Electronic mail can be sent via an Internet gateway, but messages can also be exchanged in "peer to peer" or direct mode. The frequency of the Internet gateway is chosen according to the frequency range covered by the antenna and the current propagation. The list of transition frequencies must be refreshed when the program is started.

f) Use of satellite communications via the QO-100 geostationary satellite

Some ARON teams have a ground station for communication via the QO-100 geostationary satellite.

The Slovenian frequency is 2400.275 MHz and 10489.775 MHz.