



# Monitoring System

DK2OM – Wolf Hadel  
Co-ordinator of IARUMS Region 1  
Editor of the Newsletter

DJ9KR – Uli Bihlmayer  
Vice Co-ordinator of IARUMS Region 1  
Editor of the German Overview

The monthly newsletter for Region 1

## September 2011

### The members of the IARUMS Region 1 Monitoring Team:



### Acknowledgements

++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ DARC: DJ9KR - Uli ++ CAST: DL1BDF – Mustapha ++  
++ EARA: SU1SA – Sayed ++ IRTS: EI4GXB - Ger ++ KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++  
++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ OEVSU: OE3DMA – Alex ++ PZK: SP3SUZ – Wladyslaw ++  
++ RAL: OD5MV – Raja ++ REP: CT4AN – Jose ++ RSGB: G4BOH - Chris ++ SARI: ZS1FCS - Fred ++  
++ SRAL: OH2BLU - Pekka ++ UBA: ON4VJ - Johny ++ URE: EA5DY - Salvador ++ USKA: HB9CET - Peter ++  
++ VERON: PA0GRU - Dick ++ ZRS: S56ZDB – Darko ++ G3VZV – Graham (satellite intrusions) ++  
++ VK3MV – Peter (Co-ordinator Region 3) ++ DF8FE – Martin (Webmaster assistance) ++ DL8AAM (ALE) ++  
++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ IARU Region 1 assistance ++ OD5TE (Hani)  
++ PB2T – Hans (IARU R1 President) ++ G3PSM - Colin (EC-IARU-R1) ++ German PTT (BNetzA) ++

Part 1: News and infos

Part 2: Detailed reports of the national co-ordinators

# Part 1: News and Infos

## 1. 28 MHz – a lost band?

We found much CB-like traffic (AM, FM, SSB) between 28 and 29.7 MHz in September 2011. Origins: Europe, Brazil, Far East. Besides that we observed, that the band is still crowded of numerous CIS taxi-cabs in FM. The conditions on the upper bands are raising, so we are able to recognize and realize the “apocalypse” on our exclusive band. Many authorities seem to be helpless or not interested in this disaster.

## 2. Russian military on 21 MHz in September

- 21000.0 kHz - Russian MIL - voice traffic in USB – daily, various times, Murmansk
- 21000.0 kHz – Russian MIL - broadband emissions – 20995 – 21005 kHz – Murmansk
- 21000.0 kHz – Russian MIL - vocoder “Yakhta” – encrypted speech, daily, various times, Nizhny Tagil
- 21001.5 kHz – Russian MIL - F1B 100 Bd, 150 Hz shift, vocoder Yakhta synchro signal, daily, Nizhny Tagil
- 21002.0 kHz - Russian MIL – F7D CIS36 (36 tone) – 40 Bd, 1300 Hz shift, Moscow
- 21438.0 kHz - Russian Navy Sevastopol i- A1A – ship messages

## 3. Russian military on 7 MHz in September

Including A1A SL-beacons, F1B and PSK transmissions:  
Russian military was active on 27 different frequencies!

## 4. Chinese OTH Radar again on 7 MHz

The Chinese OTH Radar was transmitting several times on 7 MHz with 43.5 sweeps/sec.

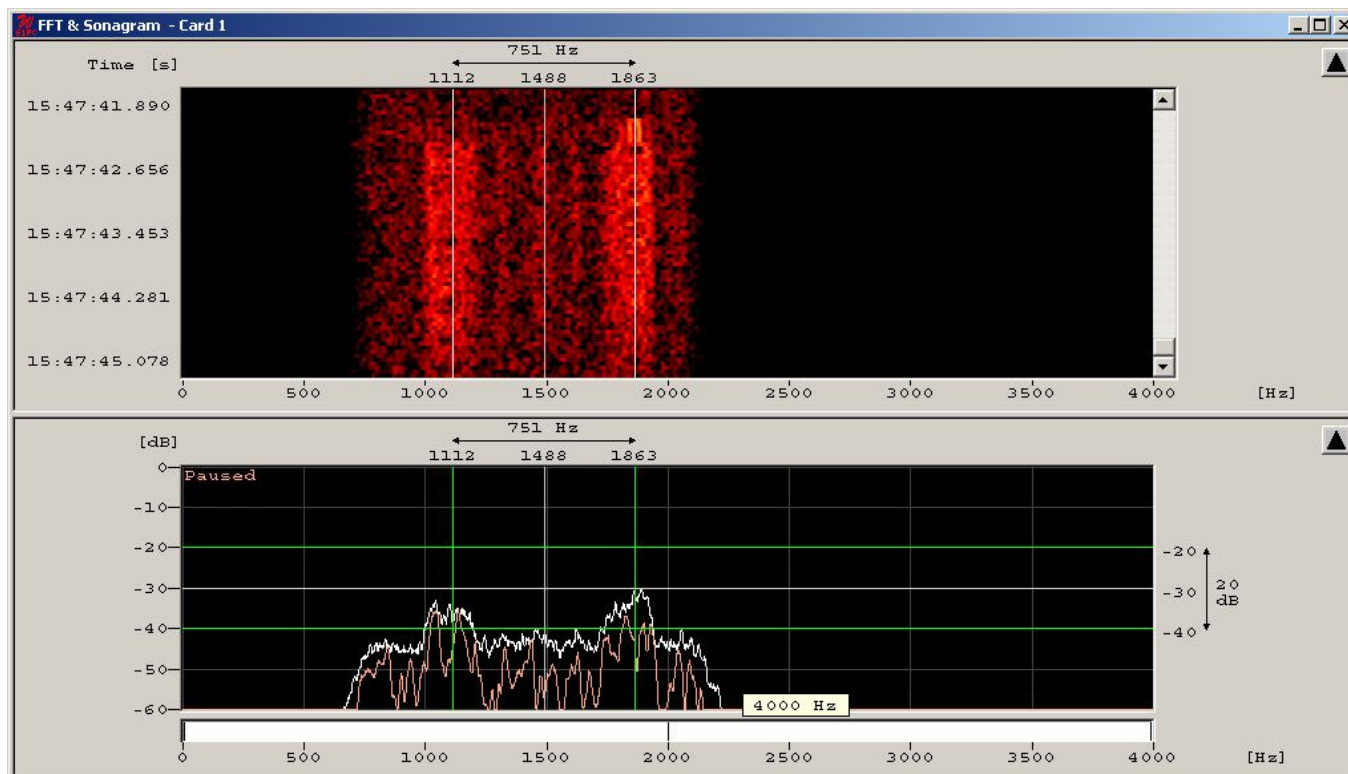
## 5. North Korean HF-Radar disturbed again 10 and 7 MHz

The North Korean Coastal Radar was again transmitting on 10140-10170 kHz daily and all day. The system was audible very strong in Europe in the evenings. Sometimes the Radar was transmitting on 10020 – 10200. Parameters: 2.6 sweeps/sec. The system disturbed 7 MHz, too – same parameters! The sound is similar to pasture fence noise. [soundfile: http://www.iarums-r1.org/iarums/sound/kre.wav](http://www.iarums-r1.org/iarums/sound/kre.wav)

## 6. Mysteriuous F1B from Chile on 28 MHz

I found a mysterious F1B burst signal on 28180.0 kHz (RF) – 28181.5 kHz center. Parameters: 300 Bd and 750 Hz shift. Audible in Europe: every afternoon and evening. Location: Santiago de Chile. Purpose: unknown.

Observe the screenshot below! (DK2OM with W61PC)



- 7. Homepage IARU Region 1 <http://www.iau-r1.org/>
- Homepage IARUMS Region 1 <http://www.iarums-r1.org>
- Homepage IARUMS Region 2 <http://www.iau-r2.org/>
- Homepage IARUMS Region 3 <http://www.iau-r3.org/ms/>

## Part 2: Detailed reports from the national Co-ordinators

DD = day \*\*\* MM = month \*\*\* dly = daily \*\*\* vt = various times \*\*\* vd = various days \*\*\* BD = Baud \*\*\* SH = shift \*\*\* SP = spacing \*\*\* Mode = mode of transmission \*\*\* A3E = AM \*\*\* A1A = CW \*\*\* J3E-U = USB \*\*\* J3E-L = LSB \*\*\* FSK (F1B) = frequency shift keying \*\*\* PSK = phase shift keying \*\*\* MPSK12 (J7D) = 12 channel phase shift keying \*\*\* ALE (MIL-188-141A) = automatic link establishment \*\*\* MUX = multiplex \*\*\* Ui (unid) = unidentified \*\*\* Illicit = illegal \*\*\* UiILL = unidentified illegal \*\*\* BC = broadcast \*\*\* MIL = military \*\*\* PTR = printer \*\*\* NGO = non governmental organization \*\*\* ITU = ITU country abbreviation \*\*\* PRC = People's Republic of China \*\*\* PLA = People's Liberation Army \*\*\* MFA = Ministry of Foreign Affairs \*\*\* MOI = Ministry of Interior \*\*\* MOPO = Ministry of Public Order \*\*\* IARUMS = IARU Monitoring System \*\*\* UTC = Universal Time Coordinated \*\*\* pps = pulses per second (radar systems) \*\*\* sps = sweeps/sec (radar systems FMCW)

### ARSK MONITORING OVERVIEW FOR SEPTEMBER 2011

Not available.

E.H.M. Alleyne, 5Z4NU  
ARSK National IARUMS Co-ordinator

\*\*\*\*\*

### ARSK – Kenya – 5Z4NU (Ted)

H'd by	kHz	UTC	dd	mm	ITU	Identity	MODE	Details
ARSK	7000.0	1108	*	9	DRC	UiPHONE	J3E	Vernacular. *12, 16,
ARSK	7030.0	1110	12	9	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7032.0	0656	22	9	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7035.0	1433	25	9	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7045.0	1459	29	9	DRC	UiPHONE		Vernacular.
ARSK	7075.0	vt	*	9	DRC	UiPHONE	J3Eu	Vernacular.*23,24,25,
ARSK	7148.0	0901	10	9	DRC	UiPHONE	J3E	Vernacular. SELCAL.
ARSK	7195.0	vt	dly	9	ETH?	UiBC	A3E	Broadcast.
ARSK	7200.0	vt	dly	9	SDN	Khartoum	A3E	Broadcast, Khartoum.

### DARC 1 – Germany – DJ9KR (Ui)

BC transmissions, IM products, harmonics = blue

CLUB	kHz	UTC	DD	MM	ITU	Call Sign	MODE	Remarks and Comments
DARC	3500,0	0810	01	09	E	UiILL	J3E-U	Spanish fishery
DARC	3500,3	2140	10	09	CIS	UiILL	A3E	AM-traffic, unstable carrier
DARC	3525,0	2132	20	09	E	UiILL	J3E-U	Spanish fishery
DARC	3535,0	0904	07	09	F	UiILL	J3E-U	French fishery
DARC	3550,0	0630	04	09	F	French Lis Amateurs	A3E	French lis Amateurs, daily - AM in CW-section
DARC	3550,0	0650	12	09	F	French Lis Amateurs	A3E	French lis Amateurs playing music in AM
DARC	7000,0	1431	04	09	INS	UiILL	J3E	Indonesian pirates, SSB-USB and SSB-LSB used, daily
DARC	7009,0	1949	15	09	RUS	V.o.Russia	A3E	is IM
DARC	7009,0	2037	22	09	RUS	V.o.Russia	A3E	Russian px, church choir
DARC	7009,0	2002	29	09	RUS	V.o.Russia	A3E	S9+10dB
DARC	7016,0	0743	21	09		UiPTR	F1B	unid printer
DARC	7020,0	2002	29	09		UiPTR	F1B	unid printer
DARC	7032,0	0605	29	09		UiMUX	XXX	rushing noise
DARC	7035,0	1633	21	09		UiPTR	F1B	unid printer
DARC	7038,7	0605	29	09	RUS	beacon D	A1A	Sevastopol
DARC	7038,8	1630	21	09	RUS	beacon P	A1A	Kaliningrad
DARC	7054,0	2037	22	09	RUS	UiPTR	F1B	fast reversals, distorted chirpy signal
DARC	7054,0	2002	28	09		UiPTR	F1B	fast reversals and printer, distorted signal
DARC	7054,0	0605	29	09	RUS	UiPTR	F1B	fast reversals, clear audio
DARC	7056,2	1329	12	09	HOL	Scottie-1/3	SSTV	SSTV by Dutch amateurs, strange!
DARC	7105,0	2037	22	09		UiBC	A3E	weak signal
DARC	7110,0	1556	07	09	ERI	VOBME	A3E	is active
DARC	7110,0	1556	07	09	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7117,0	1555	17	09	RUS	REA4	F1B	fast reversals

CLUB	kHz	UTC	DD	MM	ITU	Call Sign	MODE	Remarks and Comments
DARC	7118,0	1946	15	09		UiPTR	F1B	fast reversals
DARC	7125,0	2013	08	09	GUI	R.Conakry	A3E	is active
DARC	7130,0	vt	24	09	ERI	VOBME	A3E	heard 0310 - 0330, report Brian Alexander, USA
DARC	7130,0	0406	28	09	ERI	VOBME	A3E	under heavy jam / ETH - report DF5SX
DARC	7130,0	0406	28	09	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME - report DF5SX
DARC	7175,0	1534	18	09	ERI	VOBME	A3E	under heavy jam / ETH
DARC	7175,0	1633	21	09	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7175,0	1633	21	09	ERI	VOBME	A3E	under heavy jam / ETH
DARC	7175,0	vt	24	09	ERI	VOBME	A3E	heard 0310 - 0330, report Brian Alexander, USA
DARC	7175,0	0406	28	09	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME - report DF5SX
DARC	7175,0	0406	28	09	ERI	VOBME	A3E	under heavy jam / ETH - report DF5SX
DARC	7180,0	1556	07	09	ERI	VOBME	A3E	is active
DARC	7180,0	1556	07	09	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7200,0	vt	28	09	SDN	R.Omdurman	A3E	heard 0400 - 0430, report DF5SX
DARC	7200,0	vt	dly	10	IRN	IRIB Tehran	A3E	Spanish px 2030 - 2130, location Kamalabad
DARC	7205,0	2037	22	09	F	R.France Inter	A3E	French px, splatters down till 7190
DARC	10105,0	2130	02	09	MRC	UiILL	J3E-U	Moroccan fishery
DARC	10125,0	1000	08	09		NATO PsyOps	J3E-U	Ar and En texts against Gaddafi troupes S9+10dB, is allowed!
DARC	10126,0	1953	19	09	KOR	Korean Ships	J3E-U	Korean ships
DARC	10131,0	2140	13	09	MRC	UiILL	J3E-U	Moroccan fishery
DARC	10135,0	2006	29	09	KRE	OTH-Radar	FMCW	chirping pulses heard 10135 - 10170
DARC	10138,0	1954	15	09	KRE	Sea Wave Radar	FMCW	chirps heard 10138 - 10170
DARC	10144,4	0645	03	09	KOR	UiILL	J3E-U	Korean ships
DARC	10150,0	1444	11	09	TUR	UiILL	J3E-U	Turkish male persons, aircraft
DARC	10150,0	2111	22	09	MRC	UiILL	J3E-U	Moroccan fishery
DARC	14000,0	1612	02	09	FNL	UiILL	J3E-L	reproducing music, S9+20dB-signal, location Helsinki
DARC	14000,0	1733	02	09	FNL	UiILL	A3E / F3E	reproducing music of the Rolling Stones, , S9+20dB-signal, location Helsinki
DARC	14000,0	1925	04	09	INS	UiILL	J3E	Indonesian pirates, SSB-USB and SSB-LSB used, daily
DARC	14002,0	1431	04	09	INS	UiILL	J3E	Indonesian pirates, SSB-USB and SSB-LSB used, daily
DARC	14008,0	0754	05	09	RUS	UiPTR	F1B	unid printer
DARC	14015,0	0510	16	09	RUS	UiCW	A1A	"NW DE OILL", 5er groups - report DL3XZ
DARC	14044,2	1704	13	09	F.Ea	UiILL	J3E-U	Far East pirates
DARC	14133,0	0642	22	09		UiPTR	F1B	unid printer
DARC	14192,0	0642	22	09		UiPTR	F1B	fast reversals
DARC	14233,0	0756	05	09		UiMUX	XXX	roaring noise
DARC	14245,0	vt	09	09	RUS	UiOTH-Radar	FMCW	chirping pulses, short bursts 2 s, heard 0800 - 0922
DARC	14285,0	0719	07	09	E	UiMUX	OFDM	OFDM 10 kHz wide, area of Valencia
DARC	14292,0	0757	27	09		UiMUX	XXX	rushing noise S9+10dB
DARC	14293,0	0726	21	09		UiPTR	F1B	unid printer S9+10dB
DARC	14295,1	vt	17	09	TJK	R.Tajikistan	A3E	S6-8-signal, heard 0552, 1543
DARC	14295,1	1335	22	09	TJK	R.Tajikistan	A3E	3rd harmonic from 4765 kHz
DARC	14343,0	0726	21	09		UiOTH-Radar	FMCW	chirping pulses in strings
DARC	14350,0	0823	15	09	E	UiILL	J3E-U	Spanish fishery
DARC	18100,0	0838	30	09		UiILL	J3E-U	pirates in Arabic voice
DARC	21000,0	0627	15	09	RUS	UiILL	J3E-U	Vocoder YAKHTA, USB, voices - location Yekaterinburg
DARC	21000,0	vt	21	09	RUS	UiILL	J3E-U	Ru male with messages in Russian voice, each sentence twice, heard 1638 - 1643

<b>CLUB</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>Call Sign</b>	<b>MODE</b>	<b>Remarks and Comments</b>
<b>DARC</b>	21000,0	vt	vd	09	RUS	UiILL	J3E-U	Russian male persons heard 01 06 at 1520, 0945, location Murmansk
<b>DARC</b>	21001,5	0820	20	09	RUS	UiPTR	F1B	yakhta signal
<b>DARC</b>	21001,6	0839	30	09	E	UiILL	J3E-L	unid pirate, singing
<b>DARC</b>	21002,2	2140	10	09	NW-Af	UiILL	J3E-U	unid pirates from NW-Africa
<b>DARC</b>	21020,5	1020	09	09	E	UiILL	J3E-U	2 male persons in Spanish (?) voice, strong engine noise - report DF21AX
<b>DARC</b>	21030,5	0737	20	09	MRC	UiILL	J3E-U	Moroccan fishery
<b>DARC</b>	21096,0	0820	20	09		UiPTR	F1B	unid printer
<b>DARC</b>	21130,0	0845	23	09		UiOTH-Radar	FMCW	OTH-Radar S9+30dB
<b>DARC</b>	21153,9	1408	22	09	S.As	UiILL	J3E-L	male person, SSB-LSB used
<b>DARC</b>	21160,0	0711	16	09		UiOTH-Radar	FMCW	rattling pulses 30 kHz spread
<b>DARC</b>	21165,0	0735	09	09		UiPTR	F1B	unid printer
<b>DARC</b>	21280,0	0704	26	09		UiMUX	XXX	rushing noise
<b>DARC</b>	21345,0	0551	24	09		UiOTH-Radar	FMCW	OTH-Radar S9+10dB - spurious of 21400
<b>DARC</b>	21375,0	0735	24	09		UiOTH-Radar	FMCW	OTH-Radar S9+10dB - QTE 135 degs.
<b>DARC</b>	21400,0	0551	24	09		UiOTH-Radar	FMCW	OTH-Radar S9+30dB
<b>DARC</b>	21400,9	0735	09	09		UiPTR	F1B	is harmonic
<b>DARC</b>	21400,9	0803	23	09		UiPTR	F1B	2nd harmonic
<b>DARC</b>	21440,0	0807	24	09		UiPTR	F1B	unid printer
<b>DARC</b>	21455,0	0551	24	09		UiOTH-Radar	FMCW	OTH-Radar S9+10dB - spurious of 21400
<b>DARC</b>	28000,0	2125	06	09	G	TSW-1	F3E	UK CB-ers
<b>DARC</b>	28000,0	1928	17	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28005,0	0951	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28005,0	vt	vd	09	B	UiILL	A3E	CB-ers heard 17 19 at 1930, 1842
<b>DARC</b>	28014,2	1847	20	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28015,0	0859	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28015,0	vt	vd	09	B	UiILL	A3E	CB-ers heard 17 19 at 1927, 1840
<b>DARC</b>	28025,0	1931	17	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28025,0	0737	22	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28035,0	1742	20	09	S.Am	UiILL	A3E	Spanish male voices
<b>DARC</b>	28035,0	1104	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28035,0	vt	vd	09	B	UiILL	A3E	CB-ers heard 17 19 at 1927, 1840
<b>DARC</b>	28045,0	1730	20	09	S.Am	UiILL	A3E	Spanish male voices
<b>DARC</b>	28055,0	1926	17	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28055,0	0954	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28065,0	1925	17	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28065,0	1111	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28085,0	1741	20	09	S.Am	UiILL	A3E	Spanish male voices
<b>DARC</b>	28095,0	0850	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28100,0	1732	21	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28105,0	0753	20	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28105,0	1741	20	09	S.Am	UiILL	A3E	Spanish male voices
<b>DARC</b>	28105,0	1111	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28115,0	1904	21	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28130,0	1705	21	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28135,0	0941	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28146,1	1842	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28150,0	0800	24	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28155,0	1839	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28165,0	1345	21	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28170,0	0742	22	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28175,0	0913	20	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28180,0	0744	22	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28181,3	1838	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28185,0	1111	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28185,0	1840	20	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28185,0	0716	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28185,0	1117	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice

<b>CLUB</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>Call Sign</b>	<b>MODE</b>	<b>Remarks and Comments</b>
<b>DARC</b>	28190,0	0715	26	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28200,0	0918	20	09	RUS	UiILL	J3E-U	vocoder YAKHTA, USB
<b>DARC</b>	28205,7	1844	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28215,0	0716	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28215,0	1117	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28235,0	1838	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28235,0	1739	20	09	S.Am	UiILL	A3E	Spanish male voices
<b>DARC</b>	28235,0	1103	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28245,0	0913	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28245,0	1837	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28245,0	1110	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28255,0	1931	17	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28255,0	1742	20	09	S.Am	UiILL	A3E	Spanish male voices
<b>DARC</b>	28265,0	0942	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28265,0	1102	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28275,0	1300	21	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28290,0	0716	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28290,0	0837	26	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28305,0	0902	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28305,0	1837	19	09	B	UiILL	A3E	CB-ers
<b>DARC</b>	28315,0	1850	dly	09	B	UiILL	J3E-U	pirates, daily
<b>DARC</b>	28365,0	1836	19	09	B	UiILL	J3E-U	no call sign
<b>DARC</b>	28365,0	0858	21	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28385,0	1105	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28400,0	2110	06	09	G	UiILL	F3E	UK CB-ers
<b>DARC</b>	28405,0	0855	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28435,0	1102	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28585,0	1111	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28635,0	0858	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28655,0	1107	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28715,0	0952	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28715,0	0748	22	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28725,0	0745	22	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28745,0	0915	20	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28765,0	1112	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28775,0	1116	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28795,0	1114	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28805,0	1112	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28805,0	1109	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28815,0	1117	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28825,0	0720	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28840,0	0908	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28845,0	0954	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28865,0	0900	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28865,0	0952	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28875,0	1111	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28885,0	0858	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28885,0	1116	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28915,0	0901	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	28935,0	1113	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	28935,0	1100	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29000,0	0950	22	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	29005,0	0859	21	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	29005,0	0719	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29005,0	1059	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29010,0	1415	25	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice, report EA3WR
<b>DARC</b>	29025,0	1100	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29045,0	0857	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29060,0	1354	25	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice, report EA3WR
<b>DARC</b>	29125,0	1115	20	09	RUS	Taxi Bisnis	F3E	taxi business
<b>DARC</b>	29205,0	0856	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29250,0	0857	03	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice
<b>DARC</b>	29325,0	1100	26	09	RUS	Taxi Bisnis	F3E	male to female in Russian voice

**DARC 2 – Germany - DK2OM (Wolf)****PSE observe:****FSK transmissions -> center frequency between mark and space****PSK transmissions -> center frequency (subtract the modem frequency!)****ALE (MIL188-141A) -> USB frequency – exclusive bands: black – nonexclusive: blue****SH = shift --- SP = spread (radar) – SPS = sweeps/sec (radar)**

<b>DARC</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
<b>DARC</b>	1812,0	vt	vd	09	POL		A3E			Polish “PIP” – 10 tones – North-Poland – Baltic coast - POL Navy ? – legal operation
<b>DARC</b>	1876,8	ady	dly	09	G		PSK8	2400	2400	Stanag4285 - 1200 bps long - Scotland
<b>DARC</b>	1896,5	ady	dly	09	D		PSK8	2400	2400	Stanag4285 - 600 bps long - German Navy
<b>DARC</b>	3500,0	vt	dly	09	TUR	no ITU	FSK8	125	1750	ALE, “2015” “2016” “1020” “3010”- Turkish Red Crescent - legal
<b>DARC</b>	3503,5	vt	dly	09	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” – British MIL Tascomm
<b>DARC</b>	3510,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, “JE30” “PT30”
<b>DARC</b>	3527,0	1900	dly	09	RUS		F1B	50	200	Severomorsk - daily
<b>DARC</b>	3531,0	1900	dly	09	RUS		A1A			33 dots/sec - Kaliningrad
<b>DARC</b>	3533,0	vt	dly	09	E	no ITU	FSK8	125	1750	ALE, “TZSC2” “TWBZ1” - Spanish Guardia Civil
<b>DARC</b>	3545,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, “FL49” “FL57” “PT50” - ALG MIL + voice traffic USB and scrambler
<b>DARC</b>	3553,8	ady	dly	09	TUR		PSK8	2400	2400	Stanag4285 – TUR MIL - Ankara
<b>DARC</b>	3558,0	vt	dly	09			FSK8	125	1750	ALE, “102” “206”
<b>DARC</b>	3577,0	ady	dly	09	I	IZ3DVW	A1A			IZ3DVW – beacon not coordinated with IARU
<b>DARC</b>	3580,0	1745	29	09	UKR		PSK2	120	2600	AT3004D - south of Kiev
<b>DARC</b>	3581,8	1740	17	09	BEL		PSK8	2400	2400	Stanag4285 – 600 bps - Brussels
<b>DARC</b>	3585,0	1700	dly	09	TWN	HLL	F1C			120 rpm, IOC 576, Wxfax - legal!
<b>DARC</b>	3590,0	vt	dly	09	PAK	no ITU	FSK8	125	1750	ALE, “KW” “BABUR” “KHA” “KHAIBAR” “BADR” “NASR”
<b>DARC</b>	3591,5	2130	13	09	F		OFDM	44.5	1800	OFDM 27, area of Bordeaux
<b>DARC</b>	3595,0	vt	dly	09	D	no ITU	FSK8	125	1750	ALE, „ZLST“ „ZPRI“ „ZSHO“ „ZBOR“ „ZEMD“ „ZHEL“ „ZKNI“ „ZBOR“ „BPLEZS“ German customs – North-Germany
<b>DARC</b>	3596,0	vt	dly	09	HRV	9A0ALE	FSK8	125	1750	Croatian emergency ALE-net --- for info!
<b>DARC</b>	3603,0	vt	vd	09	D	DA0EC	PSK8	2000	2000	RFSM 8000 – amateur emergency net - Berlin - legal operation - just for info!!!
<b>DARC</b>	3603,0	vt	dly	09	ALG?	no ITU	FSK8	125	1750	ALE, “PT01JL94” “JL05JL94”
<b>DARC</b>	3611,5	vt	dly	09	D		PSK8	200	500	German APRS Net in Robust Packet - just for info!
<b>DARC</b>	3617,0	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX1P” – HAM-ALE - just for info
<b>DARC</b>	3622,5	2100	24	09	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
<b>DARC</b>	3756,0	ady	dly	09	UKR		A3E			UKR – pip – 10 tones
<b>DARC</b>	3782,0	ady	dly	09	POR	CTP	F1B	75	850	POR Navy headquarter Lisbon
<b>DARC</b>	7000,0	vt	dly	09	IRQ	no ITU	FSK8	125	1750	ALE, “MEDOPS” “BMROPS” “LNGKNF” “EAGLE” “HFCFSR” “R23747” “ALZMED” “KALMED” “R24594” “T2Z224” US MIL
<b>DARC</b>	7000,0	1855	17	09	KRE		FMCW		30k	Coastal Radar Pyongyang – 2.6 sps - 7000 - 7030 kHz

DARC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DARC	7001,8	0624	08	09			PSK8	2400	2400	Stanag4285 - ship - Atlantic Ocean – south-west of Azores Islands
DARC	7008,0	1703	27	09	RUS		F1B	75	250	Kaluga
DARC	7014,5	1620	06	09	UKR		PSK4	120	2600	AT3104D - east of Kiev
DARC	7016,0	1907	21	09	RUS		F1B	75	250	Kaliningrad
DARC	7016,0	0915	28	09	RUS		F1B	75	500	Smolensk
DARC	7020,0	0621	09	09						frequency hopper
DARC	7020,0	vt	dly	09		no ITU	FSK8	125	1750	ALE, “RS0013” “CS004A” NATO NC3A-network
DARC	7020,0	0917	28	09	RUS		F1B	75	250	Volgograd
DARC	7032,0	ady	dly	09	RUS		PSK2	120	2600	AT3004D - Rostov na Donu
DARC	7035,0	1935	21	09	RUS		F1B	75	250	Kaliningrad
DARC	7037,0	1517	28	09	RUS		PSK2	120	2600	AT3004D - Kaliningrad
DARC	7037,0	1920	29	09	KRE		FMCW		31k	Coastal Radar Pyongyang – 2.6 sps - 7037 - 7068 kHz
DARC	7038,7	ady	dly	09	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DARC	7038,8	ady	dly	09	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
DARC	7038,9	ady	dly	09	RUS	S	A1A			Cluster beacon – Murmansk RUS Navy – „RIT“
DARC	7039,0	ady	dly	09	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DARC	7039,1	vt	dly	09	KGZ	A	A1A			Cluster beacon – Bishkek RUS Navy –
DARC	7039,2	ady	dly	09	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS”
DARC	7039,3	vt	dly	09	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DARC	7039,4	1437	03	09	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DARC	7039,9	ady	dly	09	I	IZ3DVW	A1A			IZ3DVW – beacon not coordinated with IARU
DARC	7040,5	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” - just for info!
DARC	7041,8	ady	dly	09	RUS	L	A1A			Cluster beacon “L” - St. Petersburg - dirty signal
DARC	7043,5	0920	28	09	RUS		F1B	75	250	Orenburg
DARC	7049,5	vt	dly	09	F	F4BXW1	FSK8	125	1750	ALE, “F4BXW1” - just for info!
DARC	7054,0	1800	dly	09	RUS		F1B	50	200	CIS50-50 - RUS Navy Moscow – strange signal
DARC	7055,0	1853	17	09	CHN		FMCW		125k	OTHR China - 7055 – 7180 kHz 43.5 sps
DARC	7063,0	1342	26	09	RUS		PSK2	120	2600	AT3004D - east of Moscow
DARC	7063,5	1600	09	09	RUS		F1B	75	250	
DARC	7065,0	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” - just for info!
DARC	7088,0	0530	26	09	RUS		F1B	75	200	Russian ship – English Channel
DARC	7092,5	2000	07	09	RUS		PSK2	120	2600	AT3004D - Severomorsk
DARC	7097,5	1344	26	09	UKR		F1B	81	250	system 81 - Kiev
DARC	7099,5	vt	dly	09	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” - just for info
DARC	7102,0	0809	12	09	HRV	9A3COL	FSK8	125	1750	ALE, “9A3COL” – just for info!
DARC	7110,5	vt	dly	09	HRV	9A0ALE	FSK8	125	1750	ALE, amateur net, just for info!
DARC	7111,9	vt	dly	09	KWT	no ITU	FSK8	125	1750	ALE, “UDAIRI” “ATFOPS” – UDAIRI = US MIL Camp Buehring / Kuwait
DARC	7117,0	1945	01	09	RUS	REA4	F1B	50	1000	Russian Airforce Moscow
DARC	7117,0	1352	17	09	RUS		F1B	50	1000	idling - Ufa
DARC	7119,0	1930	18	09	RUS		PSK2	120	2600	AT3004D - Petrozavodsk
DARC	7122,0	1340	28	09	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	7132,0	1750	17	09	UKR		PSK2	120	2600	AT3004D - Lugansk
DARC	7134,0	0615	17	09	UKR		PSK2	120	2600	AT3004D - Lugansk
DARC	7135,0	0944	29	09	CHN		FMCW		55k	Chinese OTH Radar - 7135 – 7190 kHz - 43.5 sps
DARC	7137,5	0719	22	09	RUS		PSK2	120	2600	AT3004D -
DARC	7141,5	0923	28	09	UKR		PSK2	120	2600	AT3004D - Kiev
DARC	7155,0	1440	08	09	KRE		FMCW		32k	Coastal Radar Pyongyang – 2.6



DARC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										sps - 7155 - 7187 kHz
DARC	7176,0	0925	28	09	RUS		F1B	75	250	Orenburg
DARC	7180,0	vt	dly	09	MRC	no ITU	FSK8	125	1750	ALE, "9201" "6350" "RC1"
DARC	7185,5	vt	dly	09	F	F4BXW	FSK8	125	1750	ALE, "F4BXW" - just for info!
DARC	7188,0	1354	17	09	RUS		F1B	75	250	Safonovo
DARC	7200,0	0602	30	09	?		FMCW		20k	OTH Radar - 25 sps
DARC	10100,0	1940	01	09	KRE		FMCW		200k	Coastal HF Radar - 10020 - 10220 kHz - 2.6 sps
DARC	10100,0	0838	15	09	KRE		FMCW		190	Coastal Radar Pyongyang - 2.6 sps - 10100 - 10290 kHz
DARC	10106,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, "OG100A" "OR200B" - Algerian MIL
DARC	10107,0	vt	dly	09			FSK8	125	1750	ALE, "193"
DARC	10108,3	1957	22	09	CHN					PRC4+4 - idling
DARC	10110,0	vt	vd	09	SNG		FSK8	125	1750	ALE, "CN6" "68" - Singapore Navy - Changi Naval Base with frigate "RSS Formidable"
DARC	10112,0	ady	dly	09	TUR		PSK8	2400	2400	Stanag4285 - 600 bps long - TUR MIL - Izmir
DARC	10114,5	0700	26	09	RUS		F1B	50	500	Saransk
DARC	10114,8	0645	dly	09	RUS		F1B	100	1000	CIS 14 - Moscow
DARC	10115,0	0640	dly	09	RUS		FSK4	100	1500	CIS14 group - Moscow
DARC	10115,0	vt	dly	09		no ITU	FSK8	125	1750	ALE, "2001", "2011"
DARC	10118,0	vt	dly	09	RUS		F1B	75	250	Moscow
DARC	10120,0	vt	dly	09		no ITU	FSK2	125	1750	ALE, "9066" "9067"
DARC	10120,0	vt	vd	09	KRE		FMCW		75k	North Korean Radar - 31 sps - 10120 - 10200 kHz
DARC	10116.5	1900	30	09	AFS		MFSK	54.3	2200	multitone system "MHF-50" - (Saab Grintek) - South African Navy
DARC	10124,0	2130	24	09	RUS		PSK2	120	2600	AT3004D - submode idling - Far-East Russia
DARC	10125,0	1709	26	09	TUR		FMCW		20k	OTH Radar West-Turkey, 50 sps
DARC	10130,0	2200	dly	09	USA		F1B	50	850	USA - Maine
DARC	10131,8	1315	29	09	FEa		PSK8	2400	2400	MIL-188-110A - CHN?
DARC	10134,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, "CM4" "COF" - Algerian Airforce
DARC	10136,5	vt	dly	09	F	F4BXW	FSK8	125	1750	ALE, "F4BXW" - just for info!
DARC	10138,0	2140	25	09						frequency hopper
DARC	10138,4	2143	25	09	CHN		PSK4	75	2300	PRC4+4 - traffic + idling - also: 29.09. at 1325 utc - also: 1330 utc on 30.09.11
DARC	10140,0	ady	dly	09	KRE		FMCW		30k	Coastal HF Radar - 2.6 sps - 10140 - 10170 kHz - Pyongyang
DARC	10141,7	1254	29	09	CHN		PSK4	75	2300	PRC4+4 - traffic + idling
DARC	10144,0	1548	09	09	RUS		PSK2	120	2600	AT3004D - Far-East Russia
DARC	10145,5	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, 9A5EX, just for info!
DARC	10146,0	vt	dly	09	ALG		FSK8	125	1750	ALE, "ORG" "CM4" - ALG Airforce
DARC	10150,0	vt	dly	09		no ITU	FSK8	125	1750	ALE, "CFA" "CTA"
DARC	14000,0	vt	dly	09	CYP	no ITU	FSK8	125	1750	ALE, "091" "1010"
DARC	14000,0	vt	14	09			FSK8	125	1750	Thales 3000
DARC	14000,0	1828	21	09	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	14014,0	1654	03	09	RUS		PSK2	120	2600	AT3004D - Far East-RUS
DARC	14026,0	1420	28	09	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14037,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, "313" "132" "932"
DARC	14046,0	1100	26	09	UKR		F1B	40.5	400	system "Frost1" - Sevastopol
DARC	14054,0	1054	27	09						frequency hopper
DARC	14056,0	1815	06	09	RUS		F7D	40	1300	Crowd36 - Moscow
DARC	14122,0	0820	14	09	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14133,0	0540	22	09	RUS		F1B	75	250	Penza
DARC	14137,0	1104	26	09	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14177,0	0645	06	09	RUS		FMCW		10k	Russian OTHR - 100 sps - bursts of 2 sec - every 30 sec
DARC	14192,0	vt	vd	09	RUS		F1B	50	500	CIS50-50 - RUS Navy Kaliningrad

DARC	KHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DARC	14242,0	0558	02	09	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14245,0	0817	09	09	RUS		FMCW		10k	OTHR RUS – 66.7 sps – 1.8 sec bursts every 30 sec
DARC	14247,0	vt	dly	09	E		FSK8	125	1750	ALE, “151” “250”
DARC	14259,0	0607	26	09	RUS		F1B	40.5	500	system “Frost1” - Chita
DARC	14270,0	0920	17	09	RUS		PSK2	120	2600	AT3004D - Novosibirsk
DARC	14271,3	0612	26	09	RUS		PSK4			OFDM39 – Hanning – SE China
DARC	14280,0	1214	18	09	RUS		F1B	75	250	area of Baikal-Sea
DARC	14281,0	0830	14	09						frequency hopper
DARC	14285,0	0700	dly	09	E		OFDM	37.5	10k	14285 – 14295 Hz - OFDM – 10 kHz wide - Spsin
DARC	14290,0	0640	06	09	RUS		FMCW		10k	Russian OTHR – 66.7 sps – bursts of 2 sec – every 30 sec
DARC	14290,0	0751	18	09						frequency hopper
DARC	14291,0	0620	06	09	RUS		PSK4	120	2600	AT3104D - Moscow
DARC	14316,0	vt	dly	09	?	no ITU	FSK8	125	1750	ALE, “601” “611”
DARC	14325,1	vt	vd	09	FEa	no ITU	FSK8	125	1750	ALE, “776” “699” “475”
DARC	14343,0	vt	dly	09		no ITU	FSK8	125	1750	ALE, “L06” “A98”
DARC	14344,7	ady	dly	09	CHN		PSK8	2400	2400	MIL-188-110A – 600 bps short - intro tone ACARS like – burst system
DARC	18070,0	1334	13	09	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	18080,0	1720	13	09						frequency hopper
DARC	18100,0	1529	15	09						frequency hopper
DARC	18107,0	1630	06	09	RUS		F1B	36/50	200	Moscow
DARC	21000,0	vt	dly	09			FSK8	125	1750	ALE, “Y” “M7X”
DARC	21000,0	ady	05	09	EU		NON			unid carrier system, 5 carriers, north-east Baltic Sea
DARC	21000,0	0930	21	09	RUS		OFDM		10k	OFDM system – 20995 - 21005 kHz – 10 kHz wide - Murmansk
DARC	21001,5	0640	01	09	RUS		F1B	100	150	vocoder Yakhta synchro – north of Jekaterinburg
DARC	21002,0	0710	20	09	RUS		F7D	40	1300	Crowd36 - Moscow
DARC	21002,2	vt	dly	09	SDN YEM	!0000	FSK	100	200	Pactor1 encrypted, - MFA SDN + SDN-emba at Yemen – ident: !0000
DARC	21025,0	1314	14	09						frequency hopper
DARC	21050,0	0605	30	09	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	21070,0	1740	14	08						frequency hopper
DARC	21070,0	1551	14	09						frequency hopper
DARC	21089,5	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” - just for info!
DARC	21097,0	0733	22	09						frequency hopper
DARC	21100,0	1240	26	09	TUR		FMCW		20k	OTHR nr Ankara – 50 sps
DARC	21130,0	0752	20	09	TUR		FMCW		20k	OTH Radar Turkey, 50 sps
DARC	21146,0	0915	27	08						frequency hopper
DARC	21175,0	0750	06	09			FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	21330,0	1317	23	09	CYP		FMCW			OTH Radar Cyprus, 50 sps
DARC	21371,8	0855	15	09	AFG		PSK8	2400	2400	Link11 - SLEW
DARC	21390,0	0817	09	09	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	21400,0	0807	23	09	RUS		F1B	50 async	2000	harmonic from 5350 – area of Jekaterinburg
DARC	21409,5	0700	05	09	RUS		F1B	100	2000	harmonic from 5352.375
DARC	21438,0	vt	vd	09	UKR	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol
DARC	24890,0	2117	06	09						frequency hopper
DARC	24898,0	1104	20	09						frequency hopper
DARC	24902,0	1421	26	09						frequency hopper
DARC	24910,0	0755	21	09	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	25000,0	ady	dly	09	FIN		A3E			time signal Helsinki – just for info
DARC	28000,0	1541	29	09						frequency hopper
DARC	28015,0	1052	22	09						frequency hopper
DARC	28100,0	1731	21	09						frequency hopper
DARC	28100,2	2130	06	09	POR		F1B	51	270	burst system
DARC	28150,0	1327	21	09	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps

DARC	KHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DARC	28150,0	0935	23	09	CYP		FMCW		20k	OTH Radar Cyprus, 25 sps
DARC	28175,0	0913	20	09						frequency hopper
DARC	28181,5	1600	dly	09	CHL		F1B	300	750	bursts of 7 sec - every 52 sec - Santiago de Chile
DARC	28190,0	1611	29	09						frequency hopper
DARC	28201,5	0917	20	09	RUS		F1B	100	150	vocoder Yakhta synchro - Ufa
DARC	28400,0	1356	17	09	TUR		FMCW		50k	OTHR nr Ankara - 50 sps
DARC	28460,3	1346	19	09	MRC		PSK8	2400	2400	Stanag4285 - area of El Aaiun
DARC	28468,0	1355	19	09	NWA		PSK8	2400	2400	Stanag4285 - North-West Africa
DARC	28995,0	1120	19	09	TUR		FMCW		20k	OTHR nr Ankara - 25 sps
DARC	29070,0	1113	20	09	TUR		FMCW		20k	OTHR nr Ankara - 50 sps
DARC	29190,0	0900	21	09	TUR		FMCW		20k	OTHR nr Ankara - 50 sps
DARC	29210,0	0900	19	09	CHN		DRM		10k	DRM - area of Beijing

### IRTS – Ireland – EI4GXB (Ger)

### KARS – Kuwait – 9K2RR (Faisal)

### MRASZ – Hungary - HA7PL (Laci)

### OEVSV – Austria – OE3DMA (Alex)

### PZK – Poland – SP3UZ (Wladyslaw)

### REP – Portugal – CT4AN (Jose Francisco)

SOC	KHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3501,0	21.29	22	09	E		J3E-U			Fishers to port
REP	3504,0	08.33	02	09	E		J3E-U			Fishermen
REP	3506,0	00.07	07	09	MRC		J3E-U			Fishermen
REP	<b>3575,0</b>	<b>07.44</b>	<b>13</b>	<b>09</b>	<b>F</b>		<b>A3E</b>			<b>French Amateurs INFRINGE IARU 80m BAND PLAN</b>
REP	7015,5	19.17	12	09	n.i.		J3E-U			Chinese male and female voices
REP	7030,0	08.19	21	09	E		J3E-U			Fishermen sea-harbour
REP	7038,0	18.05	09	09	E		J3E-U			Fishermen
REP	7038,6	20.12	29	09	RUS	S	A1A			KALININGRAD, ADY, DLY 3.1uV S5
REP	7038,7	23.56	12	09	UKR	D	A1A			SEVASTOPOL, ADY, DLY 3.1uV S5
REP	7038,8	23.18	15	09	RUS	P	A1A			MURMANSK, ADY, DLY 0.2uV S1
REP	7039,0	23.09	12	09	RUS	C	A1A			MOSCOW, ADY, DLY 3.1uV S5
REP	7039,1	21.26	16	09	RUS	A	A1A			VOLGOGRAD, ADY, DLY 6.3uV S6
REP	7039,2	22.26	22	09	RUS	F	A1A			KAMCHATSKY, ADY, DLY 3.1uV S5
REP	7039,3	21.45	26	09	RUS	K	A1A			VOLGOGRAD, ADY, DLY 3.1uV S5
REP	7039,5	22.55	10	09	RUS	M	A1A			MAGADAN, ADY, DLY 6.3uV S6
REP	7041,0	21.58	11	09	RUS	L	A1A			St PETERSBURG, ADY, DLY 0.2uV S1
REP	7100,0	22.40	21	09	n.i.		WXFAX	rpm 120	IOC 576	Analysis and prognosis
REP	7105,0	22.50	21	09	CHN		8k00 A3EGN			Radio - Chinese 6.3uV S6
REP	7114,0	08.02	10	09	E MRC		J3E-U			Male voices
REP	7116,0	22.02	20	09	n.i.		J3E-U			Tones and scrambled voices
REP	7118,0	21.00	14	09	n.i.		F1B			RTTY non standard parameters
REP	7160,0	23.20	28	09	RUS		A3E			Talks males and female
REP	7180,0	08.09	23	09	F		J3E-U			Fishermen talks
REP	7185,0	15.00	04	09	n.i.		A3E-NB			Broadcasting ? 0.2uV S1
REP	10103,0	20.11	16	09	MRC		J3E-U			Fishermen

SOC	KHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	10122,0	20.53	14	09	n.i.		J3E-U			Number stations
REP	10125,0	21.19	29	09	n.i.		J3E-L			Fishermen
REP	10150,0	21.07	27	09	n.i.		J3E-U			English voice
REP	14000,0	08.55	18	09	MRC		J3E-U			Fishermen
REP	14000,0	08.11	18	09	n.i.		F1B			RY tests
REP	14003,0	09.05	12	09	E		J3E-U			Fishermen
REP	14100,0	20.00	01	09	n.i.		J3E-U			English talks two male voices
REP	14265,5	08.12	06	09	n.i.		F1B	300	170	
REP	18100,0	12.12	28	09	n.i.		A1			Carrier
REP	21004,0	23.59	22	09	n.i.		J3E-U			Inversed coded voice
REP	21010,0	09.19	17	09	n.i.		J3E-U			Arab
REP	21012,5	08.44	02	09	n.i.		J3E-U			Fishermen
REP	28000,0	22.12	15	09	n.i.		Noise			WB PLT
REP	28065,0	09.55	19	09	RUS		F3E			Taxis
REP	28070,0	20.50	26	09	F		A3E			CB's
REP	28070,5	23.00	14	09	F		A3E			CB's
REP	28135,0	11.12	05	09	RUS		F3E			Taxis
REP	28175,0	13.00	05	09	RUS		F3E			Taxis
REP	28245,0	12.00	02	09	RUS		F3E			Taxis
REP	28275,0	11.21	04	09	RUS		F3E			Taxis
REP	28310,0	18.42	11	09	RUS		F3E			Russian talks male and female

### RSGB - Great Britain – G4BOH (Chris)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	REMARKS
RSGB	7102	0825	22	09	G	GYA	FIC	Northwood fax transmission // 4610 kHz. Disappeared before Baldock could be informed. Did not return.

### SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7008,0	0530-1930	7, 27	9	RUS	UiPTR	F1B		250	
SRAL	7009,0	1635-1920	18	9		UiMUX	J7D	12x120	12x200	
SRAL	7012,0	0845-1000	17	9		UiMUX	J7D	12x120	12x200	
SRAL	7016,0	0600-1930	*	9	RUS	UiPTR	F1B		500/250	Days: 7, 16, 21. Kaliningrad
SRAL	7020,0	0535-1530	*	9		UiPTR	F1B		250	Days: 12, 16, 28
SRAL	7032,0	0550-1930	29, 30	9		UiMUX	J7D	12x120	12x200	Rostov on Don
SRAL	7034,5	0700-1745	11	9		UiMUX	J7D	12x120	12x200	
SRAL	7035,0	1500-2350	21	9		UiPTR	F1B		250	Kaliningrad
SRAL	7036,5	1515-1630	27, 28	9		UiMUX	J7D	12x120	12x200	Kaliningrad
SRAL	7037,5	1220-1630	*	9		UiPTR	F1B		250	Idling, days 23, 26, 29
SRAL	7038,7	h24	dly	9	UKR	D	A1A			Sevastopol, fq –100 Hz on 19 - 24
SRAL	7038,8	h24	dly	9	RUS	P	A1A			Kaliningrad
SRAL	7038,9	h24	dly	9	RUS	S	A1A			Severomorsk
SRAL	7039,0	h24	dly	9	RUS	C	A1A			Moscow
SRAL	7041,8	h24	dly	9	RUS	L	A1A			St Peterburg, distorted mod. on 12th
SRAL	7049,0	1115-1300	7	9		UiPTR	F1B		200	
SRAL	7052,0	1800-	7, 21	9		UiPTR	F1B		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
		2000								
SRAL	7054,0	1700-0700	dly	9	RUS	REA4	F1B		200	Moscow
SRAL	7058,2	1030-1500	30	9		E	A1A			
SRAL	7063,5	0340-1530	9	9		UiPTR	F1B		200	
SRAL	7076,0	1200-1330	1, 10	9		UiPTR	F1B		230	
SRAL	7078,0	1150	1	9		UiMUX	J7D	12x120	12x200	
SRAL	7081,0	0530-0900	13	9		UiMUX	J7D	12x120	12x200	
SRAL	7088,0	0330-1930	23 – 28	9		UiPTR	F1B			
SRAL	7111,0	1145-1215	1	9		UiMUX	J7D	12x120	12x200	
SRAL	7111,0	0645-1800	*	9		UiPTR	F1B		250	Days: 2, 12, 22
SRAL	7117,0	1300-2030	dly	9	REA4	UiPTR	F1B		1000	Moscow
SRAL	7119,0	1530-1930	17-19	9		UiMUX	J7D	12x120	12x200	Petrozavodsk
SRAL	7120,0	0245-0500	dly	9	ERI	VoBME1	A3E			QSY 7100 – 7130 kHz, jammed by ETH
SRAL	7120,0	1500-1800	dly	9	ERI	VoBME1	A3E			QSY 7100 – 7130, jammed by ETH until 1700
SRAL	7122,0	0645-1530	*	9		UiPTR	F1B		200/250	Days: 2, 12, 13, 22, 23
SRAL	7122,0	0640-1530	6	9		UiMUX	J7D	12x120	12x200	
SRAL	7124,0	0520-0730	2, 4	9		UiMUX	J7D	12x120	12x200	40 Hz idle
SRAL	7125,0	1830-2015	*	9	GUI	R. Conakry	A3E			Days: 1, 2, 5, 8
SRAL	7131,0	1520-1920	8	9		UiPTR	F1B		500	
SRAL	7132,0	0300-2030	*	9		UiMUX	J7D	12x120	12x200	Days: 15 – 18, 23 - 27
SRAL	7162,0	0630-1600	*	9		UiPTR	F1B		250	Days: 1, 9, 10, 13, 23
SRAL	7169,0	1630-1810	14	9		UiPTR	F1B		250	
SRAL	7170,0	1045-1115	23	9		UiMUX	J7D	12x120	12x200	
SRAL	7172,0	1205	7	9	RUS	UiCW	A1A			MR 4BL, Z- code
SRAL	7175,0	0245-0500	dly	9	ERI	VoBME2	A3E			QSY 7165 - 7190, jammed by ETH
SRAL	7175,0	1415-1805	dly	9	ERI	VoBME2	A3E			QSY 7165 - 7190, jammed by ETH until 1700
SRAL	7176,0	0920-1200	28	9		UiPTR	F1B			
SRAL	7178,0	0330-1245	24, 29	9		UiMUX	J7D	12x120	12x200	
SRAL	7183,5	0900-1000	5	9		UiPTR	F1B			
SRAL	7188,0	0240-1930	*	9		UiPTR	F1B		250	Days: 1, 7, 13, 14, 17, 21, 25, 28
SRAL	7190,0	1300-1530	5, 27	9		UiMUX	J7D	12x120	12x200	
SRAL	7194,0	1400-1430	11	9		UiMUX	J7D	12x120	12x200	
SRAL	7196,0	0820	14	9		2FA2	A1A			
SRAL	7196,0	1115	19	9		2FA2	A1A			
SRAL	7200,0	0200-0430	dly	9	SDN	R Sudan	A3E			
SRAL	14008,0	0855-1100	4, 17	9		UiPTR	F1B		500	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	14186,0	1020	17	9	RUS	UiMUX	J7D	12x120	12x200	40 Hz idle
SRAL	14268,0	0845	17	9	RUS	UiMUX	J7D	12x120	12x200	
SRAL	14280,0	1100-1200	17	9		UiPTR	F1B		250	
SRAL	14295,1	0230-2000	dly	9	TJK	R Tojikiston	A3E			3f 4765,05 kHz, Yangiyul TX
SRAL	18149,0	0900	4	9		UiMUX	J7D	12x120	12x200	
SRAL	18165,0	1035	4	9	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	21001,5	1020-1305	17	9	RUS	UiPTR	F1B		150	Jekaterinburg
SRAL	21030,0	1045	1	9	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	21100,0	1300	23	9	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	21100,0	1150-1240	26	9	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	21110,0	1000-1040	21	9	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	24970,0	0835	21	9	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	28055-28485	0850-1100	17	9	CIS	UiVOX	F3E			21 reports

### USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7000.0	0010	01	09		ALZMED	MFSK8	125	1750	MIL 188-141A daily
USKA	7000.0	0024	01	09		T2Z224	MFSK8	125	1750	MIL 188-141A daily
USKA	7000.0	0124	01	09		FUZZY	MFSK8	125	1750	MIL 188-141A daily
USKA	7000.0	0231	01	09		NOMAD	MFSK8	125	1750	MIL 188-141A daily
USKA	7000.0	2227	27	09		KALMED	MFSK8	125	1750	MIL 188-141A daily
USKA	7000.0	2239	27	09		T1Z171	MFSK8	125	1750	MIL 188-141A daily
USKA	7000.0	0026	28	09		TAJMED	MFSK8	125	1750	MIL 188-141A daily
USKA	7008.0	2056	27	09			F1B	75	250	
USKA	7032.0	2104	29	09			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D
USKA	7038.7	0950	01	09	UKR	D	A1A			Beacon D Sevastopol daily
USKA	7038.8	0951	01	09	RUS	P	A1A			Beacon P Kaliningrad
USKA	7038.9	0957	01	09	RUS	S	A1A			Beacon S Murmansk daily
USKA	7039.0	0958	01	09	RUS	C	A1A			Beacon C Moscow daily
USKA	7039.2	0954	01	09	RUS	F	A1A			Beacon F Vladivostok daily
USKA	7039.4	0955	01	09	RUS	M	A1A			Beacon M Magadan daily
USKA	7041.8	2042	02	09		L	A1A		~500	Beacon L, distorted
USKA	7054.0	1846	02	09			F1B	50	200	
USKA	7070.0	1543	28	09		MV	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	1545	28	09		288	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	1952	28	09		244	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2340	28	09		209	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2351	28	09		571	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2356	28	09		810202	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	0003	29	09		20868	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	0011	29	09		810	MFSK8	125	1750	MIL 188-141A
USKA	7111.9	0057	30	09	KWT	UDAIRI	MFSK8	125	1750	MIL 188-141A daily
USKA	7117.0	1851	02	09			F1B	50	1000	
USKA	7119.0	1058	02	09			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D
USKA	7125.0	1903	02	09	GUI		A3E			Radio Conakry daily
USKA	7132.0	2015	16	09			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D
USKA	10150.0	2038	02	09			FMCW	50 sps	20k	OTHR (10140 up)
USKA	10155.0	1542	01	09			FMCW	2.6 sps	~30 k	OTHR (10140 up) almost daily
USKA	14026.0	1443	28	09			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D
USKA	14192.0	2012	16	09			F1B	50	500	
USKA	14344.7	1332	30	09			PSK-8	2400	2k4	MIL 188-110A modified, Hybrid, Bursts almost daily
USKA	18060.0	0954	02	09			FMCW	25 sps	20 kHz	OTHR (up to 18070)
USKA	18107.0	1254	30	09	RUS	RDL	F1A	17 wpm	200	daily
USKA	18107.0	1521	30	09			F1B	50	200	almost daily
USKA	18118.0	1348	28	09			F1B		600	ARQ
USKA	21001.5	0934	01	09			F1B	100	150	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	21175.0	0756	02	09			FMCW	50 sps	20 kHz	OTHR
USKA	21250.0	1536	19	09			FMCW	50 sps	20 kHz	OTHR
USKA	21270.0	1340	17	09			FMCW	50 sps	20 kHz	OTHR
USKA	28450.0	1150	16	09			FMCW	50 sps	20 kHz	OTHR
USKA	28572.0	1407	28	09			F1B	75	500	

### Veron 1 – Netherlands – PA0GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3548,0	18.10	4	9	CIS	UiPTR	F1B		Carrie/Revs/Ptr
VERON	3698,0	1735	7	9	CIS	SHVT	A1A		MMMMM 5BL (ending rpt al QLN k)
VERON	3698,0	1739	7	9	CIS	SHVT	A1A		ZOB QSW 1 k
VERON	3699,5	18.10	4	9		UiPTR	F1B		Revs
VERON	3789,0	22.01	3	9					Frequency hopper
VERON	7016,0	18.37	21	9	?	UiPtr	F1B	250	ptr
VERON	7017,0	20.05	8	9	?	UiPtr	F1B	1000	revs
VERON	7035,0	18.41	21	9	?	UiPtr	F1B	250	ptr
VERON	7035,0	18.30	21	9		UiPtr	F1B	200	Ptr
VERON	7038,7	21.58	4	9	UKR	D	A1A		Beacon Sevastopol
VERON	7038,8	21.58	4	9	RUS	P	A1A		Beacon Kaliningrad
VERON	7038,9	21.58	4	9	RUS	S	A1A		Beacon Murmansk
VERON	7039,0	21.59	4	9	RUS	C	A1A		Beacon Moscow
VERON	7039,2	19.50	8	9	RUS	F	A1A		F-beacon
VERON	7039,4	17.26	30	9	RUS	M	A1A		M-beacon
VERON	7041,8	18.07	4	9	RUS	L	A1A		L-beacon (very bad modulation)
VERON	7041,8	ADY	DLY	9	RUS	L	A1A		L-beacon
VERON	7054,0	19.35	11	9	RUS	UiPtr	F7B	500	5 channel printer
VERON	7054,0	06.48	30	9	RUS	UiPtr	F1B	200	revs, ptr. Stops at 06.58 UTC
VERON	7054,0	17.52	1	9	RUS	UiPtr	F1B	200	Revs Russian Airforce
VERON	7054,0	19.00	2	9		UiPtr	F1B		Revs, rough tone
VERON	7105,0	22.25	10	9	CHN	R.China	A3E		Cninese speech; male&female; S8
VERON	7110,0	07.00	2	9		UiPtr	F1B	250	Revs
VERON	7117,0	17.24	1	9	RUS	UiPtr	F1B	200	Revs, also 2/9
VERON	7117,0	vt	vd	9		UiPtr	F1B	200	3 days, Revs
VERON	7117,0	18.28	14	9	RUS	REA4	F1B	200	Revs, also 16/9 Russian Airforce
VERON	7117,0	18.30	21	9		REA4	F1B	1000	Ptr, also 22/9 nr Moscow
VERON	7117,5	15.24	13	9		UiPTR	F1B		Revs
VERON	7117,5	19.09	4	9		UiPtr	F1B	1k	Idling
VERON	7122,0	07.01	2	9		UiPtr	F1B		Ptr
VERON	7130,0	19.18	8	9		UiPtr	F1B	500	Revs
VERON	7131,0	18.50	15	9		UiMux	FSK		12 MPSK, also 16/9 18.44 utc
VERON	7175,0	17.40	10	9	ERI	VOBME	A3E		E. African language; S7
VERON	7175,0	17.57	1	9	ERA	R.Eritrea	A3E		speech, qrt at 18.00 utc
VERON	7188,0	18.14	13	9		UiPtr	F1B	200	Ptr
VERON	7192,0	21.49	4	9		UiMux	FSK12	2k4	
VERON	7193,5	15.08	11	9		UiMux	FSK8	2k4	
VERON	7198,0	19.10	11	9		UiRadar	FMCW		67sps; 10k spread
VERON	10114,0	06.30	8	9		UiPTR	F1B		Ptr
VERON	10115,0	11.42	9	9		UiPTR	F1B		Ptr
VERON	10130,0	06.31	8	9		UiPTR	F1B		Ptr
VERON	14008,0	13.10	7	9	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	14120,0	09.07	5	9	RUS	UiMux	FSK		12 MPSK AT-3004-D
VERON	14122,0	08.15	14	9		UiMux	FSK		12 MPSK AT-3004-D, also 23/9
VERON	14162,0	05.14	7	9	?	UiMUX	PSK		guard carrier on 14163,4 kHz
VERON	14192,0	09.05	19	9	?	UiPr	F1B	500	revs
VERON	14192,0	06.55	2	9	RUS	UiPtr	F1B	200	Revs
VERON	14233,0	08.33	7	9		UiMux	FSK		12 MPSK AT-3004-D
VERON	14235,0	08.41	9	9		UiMux	FSK		12 MPSK AT-3004-D 08.42 utc QRT

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	14274,0	08.32	12	9		UiCAR	NON		Carrier/Revs/Ptr
VERON	18107,0	vt	vd	9		UiPTR	F1B		Revs/Ptr
VERON	18107,0	09.07	7	9	RUS	RDL	F1A		RDL 37365 59467 k
VERON	18107,0	09.15	7	9	RUS	RDL	F1A		RDL 31023 20335 k
VERON	18107,0	10.21	7	9	RUS	RDL	F1A		XXX RDL 55154 97063 REWANchNYJ
VERON	18107,0	10.30	7	9	RUS	REU	F1A		XXX REU 90271 40712 DOLOPIHT 6967
VERON	18107,0	13.10	7	9	RUS	REU	F1A		XXX REU 10255 40240 HOLONTREN 6385
VERON	18107,0	13.25	7	9	RUS	RDL	F1A		XXX RDL 42569 80852 AWGIT 0131 8437
VERON	18107,0	13.27	7	9	RUS	RDL	F1A		XXX RDL 89612 59923 OBRAZoeIK 4824
VERON	21001,5	09.20	19	9	?	UiPtr	F1B	?	ptr, narrow shift
VERON	21100,0	17.41	1	9		OTHR	FMCW		radar
VERON	21100,0	09.20	26	9		OTHR	FMCW		radar, wide 21086-21110 KHz
VERON	21190,0	15.15	4	9		UiRadar	FMCW		50sps; 40k spread
VERON	21300,0	14.50	28	9					Frequency hopper

# IARUMS Region 1

Many thanks for your interest!

The monitoring team of IARU Region 1

## credits:

Wavecom Elektronik – Buelach – Switzerland

SSB-Electronic – Iserlohn – Germany

BAZ – Special Antennas – Bad Bergzabern - Germany

FTS – Funktechnik Seipelt – Hoppegarten - Germany

German PTT (BNetzA = Federal Network Agency)

compiled and published by DK2OM