



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

August 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 ++ OEVS: 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. DK2OM and DJ9KR again Coordinators

DK2OM was elected as Coordinator IARUMS R1 for a further period of 3 years in Sun City. DJ9KR will be the Vice Coordinator as before. Many thanks to our National Coordinators for the excellent summaries and assistance! Grateful words to all contributors and all involved PTTs. Together we are strong, together we will continue our successful work.



Uli (right) and Wolf at the Hamradio 2011 ->

2. Thunderstorms – reduced monitoring

Due to many strong thunderstorms we could not observe our bands for hours and days in Germany and Switzerland.

3. Region 1 homepage improved

The Region 1 homepage has been improved by OD5TE and 9A8MM. The right part is better readable now. Many thanks dear Hani and Marko! Try it yourself now:

<http://www.iaru-r1.org/>

4. FMCW instead of P0N

The earlier classification **P0N** for Radar systems is no longer in use. Pulses on one frequency can be described as P0N. But the OTH Radars are working with sweeps of 10, 20, 30 kHz spread and more. The latest classification is now **FMCW** = frequency modulated continuous wave.

5. JORN from Australia on 21 MHz

JORN (= Jindalee Operational Radar Network) was on 21291.0 and 21295.0 with 41.7 - 45.45 - 50 sweeps/sec and 10 kHz wide on Aug. 19th at 0640 UTC. A short intro tone is placed at the center QRG.

6. Chinese OTH Radar often below 7 MHz

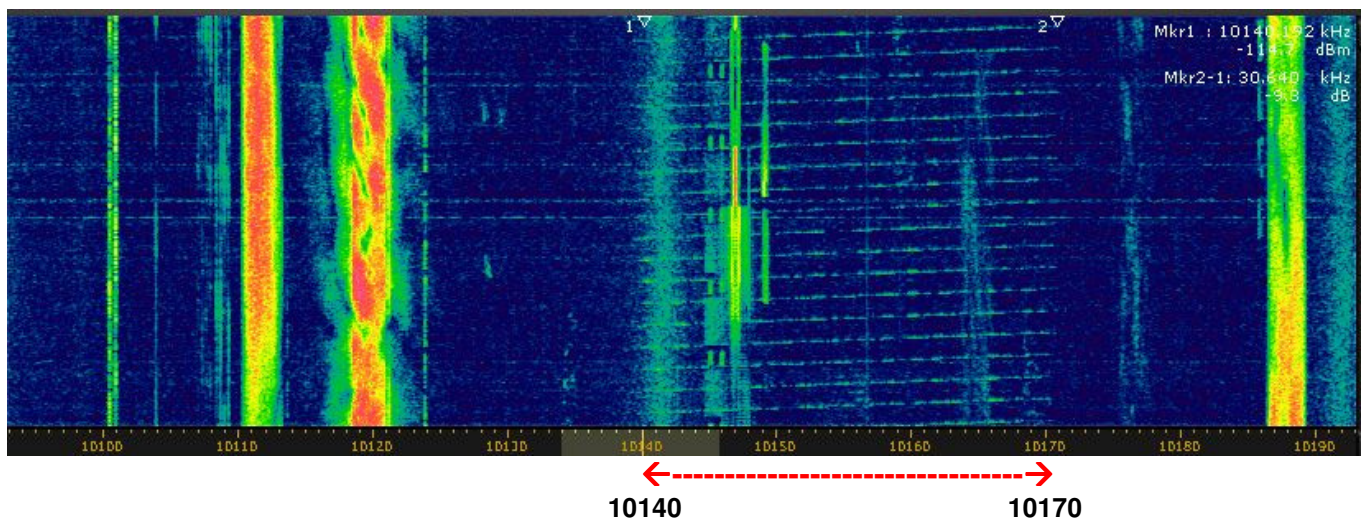
The Chinese OTH Radar is often transmitting below 7000.0 kHz, but on Aug. 27th on 7000 – 7020!

7. North Korean HF-Radar disturbed 10 MHz

A North Korean Coastal Radar was transmitting on **10140-10170** kHz daily and all day. The system was audible very strong in Europe under night conditions. Sometimes the Radar was transmitting on **10020 – 10200**. Parameters: 2.6 sweeps/sec. The German PTT found out, that the transmissions came from Pyongyang (Capital City of North Korea) and filed an official complaint. The same system has also been found on our exclusive 7 MHz-band.

Screenshot below! - [soundfile: http://www.iarums-r1.org/iarums/sound/kre.wav](http://www.iarums-r1.org/iarums/sound/kre.wav)

**The HF-Radar from North Korea (DPRK) disturbed the upper part of our 10 MHz-band daily.
DPRK = Democratic People Republic of North Korea**



- 8. Homepage IARU Region 1 <http://www.iaru-r1.org/>
- Homepage IARUMS Region 1 <http://www.iarums-r1.org>
- Homepage IARUMS Region 2 [not available](#)
- Homepage IARUMS Region 3 <http://www.iaru-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 AUGUST 2011

A few Somali and DRC intruders were heard on 40 meters, but sweeps over the band are now often completely blank. Khartoum, Addis Ababa and Eritrea maintained their broadcasts in the range 7100 – 7200 kHz.

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	0727	*	8	DRC	UiPHONE	J3E	French, vernacular. *22,
ARSK	7009.0	0900	29	8	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7017.0	0815	27	8	SOM	UiPHONE	J3Eu	Somalis.
ARSK	7035.0	1310	17	8	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7040.0	1310	19	8	DRC	UiPHONE	J3Eu	Vernacular, French.
ARSK	7048.0	0929	22	8	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7050.0	vt	*	8	DRC	UiPHONE	J3Eu	Vernacular.*19,20,23,
ARSK	7066.0	0817	27	8	SOM	UiPHONE	J3Eu	Somalis.
ARSK	7067.0	1311	17	8	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7074.0	vt	*	8	SDN	UiPHONE	J3Eu	Vernacular. *14,21,
ARSK	7075.0	vt	*	8	DRC	UiPHONE	J3Eu	Vernacular.*23,27,29,30
ARSK	7077.0	0902	29	8	SOM	UiPHONE	J3Eu	Somalis.
ARSK	7095.0	0733	23	8	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7114.0	1314	19	8	DRC?	UiPHONE	J3Eu	Vernacular.
ARSK	7110.0	vt	*	8	ERI?	UIBC	A3E	Broadcast. *20,
ARSK	7130.0	1430	20	8	DRC?	UIBC	A3E	Vernacular.
ARSK	7140.0	0905	29	8	DRC	UiPHONE	J3Eu	Vernacular.
ARSK	7145.0	0820	27	8	DRC	UiPHONE	J3E	Vernacular.
ARSK	7175.0	vt	*	8	ERI?	VOBM?	A3E	Broadcast.*20,
ARSK	7195.0	vt	dly	8	ETH?	UIBC	A3E	Broadcast.
ARSK	7200.0	vt	dly	8	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	vt	vd	08	E	UiILL	J3E-U	Spanish fishery, one OP is Antonio, heard 11 12 at 0710, 2208, 1850
DARC	3510,0	1950	31	08	F	UiILL	J3E-U	French fishery
DARC	3514,4	1900	23	08	E	UiILL	J3E-U	Spanish fishery, also vocoder CRY-2001
DARC	3520,0	2025	16	08	G	UiILL	J3E-U	UK fishery
DARC	3535,0	0740	13	08	F	UiILL	J3E-U	French fishery
DARC	3535,0	2016	24	08	N.Eu	UiILL	J3E-U	Scandinavians
DARC	3535,0	vt	vd	08	E	UiILL	J3E-U	Spanish fishery, heard 11 13 at 0648, 0700, also engine noise
DARC	3550,0	0638	20	08	F	French Ham Net	A3E	pas bon: AM in CW section - vive l'anarchie dans nos bandes!
DARC	3550,0	1955	30	08	CIS	UiCLD	A3E	AM in Russian voice, unstable carrier, RUS voice, music

CLUB	kHz	UTC	DD	MM	ITU	Call Sign	MODE	Remarks and Comments
DARC	3550,0	0620	dly	08	F	French Ham Net	A3E	AM in CW section, pas bon!
DARC	3575,0	2130	17	08	G	UiILL	J3E-U	UK fishery, engine noise
DARC	3587,0	2130	04	08	I	UiILL	J3E-L	Italian pirates - to 3590
DARC	3590,0	2146	04	08	I	UiILL	J3E-L	Italian pirates - from 3587
DARC	3590,0	1919	23	08	E	UiILL	J3E-U	Spanish fishery, voice traffic
DARC	7000,0	vt	vd	08	INS	UiILL	J3E	Indonesian pirates, singing and fooling around, heard 03 18 at 1922, 1756 - using SSB-USB or SSB-LSB
DARC	7008,0	0634	17	08	RUS	UiPTR	F1B	unid printer
DARC	7008,0	0619	18	08	RUS	UiPTR	F1B	unid printer
DARC	7009,0	2052	07	08	RUS	V.o.Russia	A3E	Russian px
DARC	7009,0	2005	25	08	RUS	V.o.Russia	A3E	S9+5dB-signal
DARC	7038,7	0123	20	08	UKR	beacon D	A1A	beacon Sevastopol
DARC	7038,8	0634	17	08	RUS	beacon P	A1A	beacon Kaliningrad
DARC	7039,0	0123	20	08	RUS	beacon C	A1A	beacon Moscow
DARC	7050,0	1015	13	08	G	Fishing Vessels	J3E-U	location Plymouth area - report GM4XQJ
DARC	7054,0	1904	02	08	RUS	UiPTR	F1B	fast reversals, clear signal this time
DARC	7054,0	2222	04	08	RUS	UiPTR	F1B	fast reversals, distorted chirpy signal
DARC	7091,5	0650	21	08		UiPTR	F1B	fast reversals
DARC	7105,0	2222	04	08	CHN	R.China	A3E	Chinese px to jam Sound of Hope on same QRG
DARC	7105,0	2222	04	08	TWN	Sound of Hope	A3E	Chinese px to jam Sound of Hope on same QRG
DARC	7110,0	vt	11	08	ERI	VOBME	A3E	heard 1635 - 1748, typical music, found // 7170
DARC	7110,0	1558	24	08	ERI	VOBME	A3E	S9-signal
DARC	7110,0	1558	24	08	ETH	ETH Govt. Jammer	JAM	wn-jammer
DARC	7110,0	1650	30	08	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7115,0	1555	31	08	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7120,0	1546	07	08	ERI	VOBME	A3E	found // 7175
DARC	7125,0	2222	04	08	GUI	R.Conakry	A3E	S9+10dB-signal
DARC	7125,0	2009	17	08	GUI	R.Conakry	A3E	French px
DARC	7125,0	0619	18	08	GUI	R.Conakry	A3E	French px
DARC	7130,0	1730	08	08	ERI	VOBME	A3E	found // 7170 - S9-signal
DARC	7132,0	1905	21	08	UKR	UiMUX	PSK2	12 x 120 Bd, PSK2, AT-3004-D, location Kiev
DARC	7140,0	1905	21	08		UiBC	A3E	weak signal
DARC	7150,0	vt	18	08		DRM-BC	DRM	rushing noise floor down 7150 from DRM station on 7230 (S9+40dB)
DARC	7165,0	0517	16	08		UiBC	A3E	2 px heard (so poss. IM), 1 px is English - 0519: has gone
DARC	7170,0	1730	08	08	ERI	VOBME	A3E	found // 7130 - S9+20dB-signal
DARC	7170,0	vt	11	08	ERI	VOBME	A3E	heard 1635 - 1748, typical music, found // 7110
DARC	7175,0	1546	07	08	ERI	VOBME	A3E	found // 7120
DARC	7175,0	1600	10	08	ERI	VOBME	A3E	Ar px, S9+25dB
DARC	7175,0	1606	23	08	ERI	VOBME	A3E	is active, audible under white noise jammer
DARC	7175,0	1606	23	08	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7175,0	1558	24	08	ERI	VOBME	A3E	S9+10dB-signal
DARC	7175,0	1558	24	08	ETH	ETH Govt. Jammer	JAM	S9+10dB-signal
DARC	7180,0	1650	30	08	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7180,0	1555	31	08	ETH	ETH Govt. Jammer	JAM	white noise (WN) jammer on VOBME
DARC	7185,0	1600	24	08	F	UiMUX	FSK	ALE heard, is it F4BXW?
DARC	7189,7	0103	20	08	CLN	SLBC Colombo	A3E	typical music, S9+10dB
DARC	7190,0	vt	03	08	ROU	Radio Romania	A3E	Evangelical program "The Overcomer Ministry Broadcast" of "Brother Stair",

CLUB	kHz	UTC	DD	MM	ITU	Call Sign	MODE	Remarks and Comments
						Intl./ The Overcomer Ministry BC		English sermon, fundamental found on 7290 - heard 1815 - 1858 s/off
DARC	7190,0	vt	14	08		UiBC	A3E	heard 1800 - 1900, S8
DARC	7190,0	vt	dly	08	ROU	Radio Romania Intl. / The Overcomer Ministry BC	A3E	daily 1800 - 1900, is IM of "The Overcomer Ministry Broadcast" (7290) with "Radio Romania International" (7240) knitting pattern: 7240 x 2 - 7290 = 7190 - both tx-ers located Area of Tiganesti
DARC	7195,0	0103	20	08		UiBC	A3E	weak signal
DARC	7196,0	0605	07	08		UiBC	A3E	organ concert, 0700: nil found // 7250
DARC	7196,0	vt	18	08	CVA	Vatican Radio	A3E	0619: French px, weak found // 7250
DARC	7196,0	vt	18	08	CVA	Vatican Radio	A3E	0630: English px, weak found // 7250
DARC	7200,0	1909	02	08	SDN	R.Omdurm an	A3E	Arabic px
DARC	7200,0	1605	10	08	SDN	R.Omdurm an	A3E	Ar px, S9+25dB
DARC	7200,0	vt	20	08		UiCLD	J3E-U	reproducing music, long breaks between items, heard 0102 - 0112, S9-signal, no ID of station
DARC	10040,0	2055	13	08	KRE	HF Radar	FMCW	heard 10040 - 10230 kHz (= 190 kHz spread), 160 sweeps / minute, location Pyongyang
DARC	10101,5	0528	09	08	MRC	UiILL	J3E-U	2 Moroccan fishermen
DARC	10115,5	0618	09	08	MRC	UiILL	J3E-U	2 Moroccan fishermen
DARC	10125,0	2018	14	08		UiBC	A3E	French px, S9+20dB, QSB
DARC	10125,0	vt	22	08	AUS	VK5??? with VK7???	J3E-U	2 male persons, English voice, heard 0647 - 0709 s/off
DARC	10130,0	1613	03	08	As	UiILL	J3E-U	male persons, Asiatic voice
DARC	10132,9	0629	26	08	As	UiILL	J3E-U	unid Asian male voices
DARC	10133,0	1910	01	08	E	UiILL	J3E-L	Spanish fishery, male to female
DARC	10135,0	vt	08	08	KRE	HF Radar	FMCW	spreading 10135 - 10170, heard 1737, location Pyongyang
DARC	10135,0	1900	21	08	KRE	HF Radar	FMCW	chirping pulses, spread 10135 - 10170, 160 sweeps / minute - location Pyongyang
DARC	10135,0	2030	22	08	KRE	HF Radar	FMCW	chirping pulses, spread 10135 - 10170, 160 sweeps / minute
DARC	10135,5	2005	19	08		UiILL	J3E-U	unid male person
DARC	10140,0	2002	25	08	KRE	UiOTH-Radar	FMCW	chirping pulses 10140 - 10170
DARC	10140,0	1503	27	08		UiILL	J3E-U	unid male voices
DARC	10140,0	vt	29	08	KRE	UiOTH-Radar	FMCW	chirping pulses heard 10140 - 10170
DARC	10143,9	1602	24	08	E	UiILL	J3E-U	2 m in Spanish voice
DARC	10144,0	vt	23	08	E	UiILL	J3E-U	2 male persons in Spanish voice, heard 0637 - 0737
DARC	10144,3	0638	17	08		UiILL	J3E-U	unid male voices
DARC	10145,0	2019	24	08		UiILL	J3E-U	unid voice traffic
DARC	10150,0	1808	03	08	MRC	UiILL	J3E-U	Arabic male net - just info!
DARC	10150,0	0801	05	08	RUS	UiILL	J3E-U	male in Russian voice "Radio Kontrol", just info
DARC	10150,0	2140	08	08	MRC	UiILL	J3E-U	Moroccan fishery - just info
DARC	10150,0	0739	09	08	RUS	Radio Kontrol	J3E-U	male in Russian "Radio Kontrol", just info
DARC	10150,0	0615	10	08		UiILL	J3E-U	unid male voice, S9 - is not inside ham band, just info!
DARC	10150,0	0847	15	08	TUR	UiILL	J3E-U	Turkish male person, just info!
DARC	10150,0	1845	17	08	MRC	UiILL	J3E-U	Moroccan fishery, just info!
DARC	10150,0	1018	22	08		UiSTN	J3E-U	male voice, is not in ham band, just info!
DARC	10150,8	0616	10	08		UiCAR	NON	carrier, just info!
DARC	13970,0	0657	17	08	CHN	Hainan Music	JAM	just info

CLUB	kHz	UTC	DD	MM	ITU	Call Sign	MODE	Remarks and Comments
						Jammer		
DARC	14000,0	1025	27	08	MRC	UiILL	J3E-U	2 male persons, Moroccans
DARC	14000,0	vt	vd	08	INS	UiILL	J3E-U	Far East pirates heard 18 19 23 28 29 30 at 1600 - 1650
DARC	14000,0	vt	vd	08	INS	UiILL	J3E-L	Far East pirates heard 18 28 at 1908, 1733
DARC	14002,0	2001	10	08	INS	UiILL	J3E-L	Far East pirates, QTE appr. 080 degs, INS?
DARC	14002,0	0806	28	08		UiILL	J3E-U	unid pirates
DARC	14002,0	1733	28	08	INS	UiILL	J3E-L	INS pirates
DARC	14118,0	0720	05	08		UiMUX	PSK2	AT-3004-D, location Kaliningrad
DARC	14169,0	0651	18	08		UiPTR	F1B	unid printer
DARC	14192,0	0636	20	08		UiPTR	F1B	fast reversals
DARC	14206,0	0720	05	08	RUS	UiMUX	PSK2	AT-3004-D, location northern Ural mountain
DARC	14240,0	0735	19	08		UiPTR	F1B	unid printer
DARC	14295,0	0754	25	08		UiOTH-Radar	FMCW	chirps in strings
DARC	14295,1	1916	02	08	TJK	R.Tajikistan	A3E	S9, pulsating carrier
DARC	14334,0	0954	29	08	RUS	UiMUX	PSK2	AT-3004-D, location Novosibirsk
DARC	14336,0	0644	05	08		UiPTR	F1B	unid printer
DARC	18000,0	0633	26	08		UiOTH-Radar	FMCW	chirping pulses, just info!
DARC	18180,0	0750	29	08	CHN	Hainan Music Jammer	JAM	Hainan Music Jammer in AM, just info!
DARC	20999,0	1710	02	08	MRC	UiILL	J3E-U	Moroccan fishery, splattering up into ham band
DARC	21000,0	1036	01	08	SDN	MFA Sudan	J3E-U	MFA Sudan with YEM Embassy
DARC	21000,0	1036	01	08	YEM	Sudan Emba Yemen	J3E-U	MFA Sudan with YEM Embassy
DARC	21000,0	1959	28	08	POR	UiILL	J3E-U	pirates from Cape Verde Islands
DARC	21000,0	vt	vd	08	RUS	UiILL	J3E-U	male person in Russian voice, heard 03 09 12 at 1032, 1058, 1018; location is Murmansk
DARC	21005,0	0838	21	08	E	UiILL	J3E-U	Spanish fishery
DARC	21101,8	1726	02	08	MRC	UiILL	J3E-U	Moroccan fishery
DARC	21212,0	0532	04	08	S.As	UiILL	J3E-U	S.As male persons
DARC	21283,0	0813	19	08		Ui-OH-Radar	PSK2	chirps in strings, duration 2s each chirp
DARC	21290,0	0711	24	08		UiOTH-Radar	FMCW	short bursts, a loud one followed by a weak one
DARC	21300,0	0813	19	08		UiOTH-Radar	FMCW	chirping pulses 25 kHz spread
DARC	21325,0	1136	12	08		UiOTH-Radar	FMCW	30 kHz spread, S9
DARC	21385,0	1351	17	08		OH-Radar	FMCW	heard 21385 - 21410 (= 25 kHz spread)
DARC	28005,0	vt	vd	08	B	UiILL	J3E-U	CB-ers from Brazil, heard 27 28 at 1933, 1954
DARC	28010,0	1917	12	08	I	UiILL	J3E-U	Italian CB-ers
DARC	28035,0	1953	28	08	B	UiILL	A3E	CB-ers from Brazil
DARC	28065,0	1953	28	08	B	UiILL	A3E	CB-ers from Brazil
DARC	28065,0	vt	vd	08	RUS	Taxi Cabs	F3E	taxi business heard 06 07 at 1412, 0915
DARC	28065,0	vt	vd	08	RUS	Taxi Cabs	F3E	taxi business heard 20 22 at 0954, 0842
DARC	28085,0	1005	09	08	E	UiILL	A3E	Spanish CB-ers
DARC	28104,8	0744	02	08	E	UiILL	A3E	2 male persons in Spanish voice
DARC	28105,0	vt	vd	08	RUS	Taxi Cabs	F3E	taxi business heard 20 22 at 0953, 0904
DARC	28115,0	0832	24	08	I	UiILL	A3E	Italian CB-ers
DARC	28150,0	1545	05	08	I	UiILL	J3E-U	Italian CB-ers
DARC	28165,0	0952	20	08	RUS	Taxi Cabs	F3E	taxi business
DARC	28195,0	1546	05	08	RUS	Taxi Cabs	F3E	taxi business
DARC	28205,0	1338	05	08	E	UiILL	A3E	Spanish CB-ers
DARC	28205,0	1010	09	08	E	UiILL	A3E/F3E	Spanish CB-ers in AM and FM
DARC	28205,0	vt	10	08	E	ship "La Machutina	F3E	heard 1200 - 1218 s/off, OP Gaspar, home harbour "Alicante" - "barco pescero"

CLUB	kHz	UTC	DD	MM	ITU	Call Sign	MODE	Remarks and Comments
						"		"cambi", DIESEL engine noise
DARC	28235,0	1844	29	08	I	UiILL	A3E	Italian CB-ers
DARC	28245,0	0715	02	08	E	UiILL	A3E	2 male persons in Spanish voice
DARC	28245,0	0922	22	08	RUS	Taxi Cabs	F3E	taxi business
DARC	28247,5	0817	02	08	E	UiILL	A3E	2 male persons in Spanish voice
DARC	28255,0	1904	27	08	B	UiILL	A3E	CB-ers from Brazil
DARC	28265,0	1759	06	08	I	UiILL	J3E-U	CB-ers, roger beep
DARC	28285,0	0707	08	08	RUS	Taxi Cabs	F3E	taxi business
DARC	28305,0	0836	02	08	E	UiILL	A3E	2 male persons in Spanish voice, engine noise
DARC	28305,0	1838	12	08	I	UiILL	F3E	Italian CB-ers, OP is Luigi
DARC	28305,0	1957	28	08	B	UiILL	A3E	CB-ers from Brazil

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)

DARC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DARC	1812,0	vt	vd	08	POL		A3E			Polish “PIP” – 10 tones – North-Poland – Baltic coast - POL Navy ? – legal operation
DARC	1876,8	ady	dly	08	G		PSK8	2400	2400	Stanag4285 - 1200 bps long - Scotland
DARC	1896,5	ady	dly	08	D		PSK8	2400	2400	Stanag4285 - 600 bps long - German Navy
DARC	3500,0	vt	dly	08	TUR	no ITU	FSK8	125	1750	ALE, “2015” “2016” “1020” “3010”- Turkish Red Crescent - legal
DARC	3503,5	vt	dly	08	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” – British MIL Tascomm
DARC	3510,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, “JE30” “PT30”
DARC	3527,0	1900	dly	08	RUS		F1B	50	200	Severomorsk - daily
DARC	3531,0	1900	dly	08	RUS		A1A			33 dots/sec - Kaliningrad
DARC	3533,0	vt	dly	08	E	no ITU	FSK8	125	1750	ALE, “TZSC2” “TWBZ1” - Spanish Guardia Civil
DARC	3544,8	1917	15	08	TUR	no ITU	PSK8	2400	2400	Stanag4285 - north-west of Ankara
DARC	3545,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, “FL49” “FL57” “PT50” - ALG MIL + voice traffic USB and scrambler
DARC	3550,7	2135	15	08	ISR		PSK4	75	2700	MIL-188-110A hybrid modem - ISR navy
DARC	3553,8	ady	dly	08	TUR		PSK8	2400	2400	Stanag4285 – TUR MIL - Ankara
DARC	3558,0	vt	dly	08			FSK8	125	1750	ALE, “102” “206”
DARC	3569,0	2027	09	08	RUS		F1B	50	200	idling - St. Petersburg
DARC	3577,0	ady	dly	08	I	IZ3DVW	A1A			IZ3DVW – beacon not coordinated with IARU
DARC	3582,0	1850	09	08	S		PSK2	120	2600	AT3004D - Russian ship south of Stockholm
DARC	3585,0	1700	dly	08	TWN	HLL	F1C			120 rpm, IOC 576, Wxfax - legal!
DARC	3590,0	vt	dly	08	PAK	no ITU	FSK8	125	1750	ALE, “KW” “BABUR” “KHA” “KHAIBAR” “BADR” “NASR”
DARC	3595,0	vt	dly	08	D	no ITU	FSK8	125	1750	ALE, „ZLST“ „ZPRI“ „ZSHO“ „ZBOR“ „ZEMD“ „ZHEL“ „ZKNI“ „ZBOR“ „BPLEZS“ German customs – North-Germany
DARC	3596,0	vt	dly	08	HRV	9A0ALE	FSK8	125	1750	Croatian emergency ALE-net ---

DARC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										for info!
DARC	3603,0	vt	vd	08	D	DA0EC	PSK8	2000	2000	RFSM 8000 – amateur emergency net - Berlin - legal operation - just for info!!!
DARC	3603,0	vt	dly	08	ALG?	no ITU	FSK8	125	1750	ALE, “PT01JL94” “JL05JL94”
DARC	3611,5	vt	dly	08	D		PSK8	200	500	German APRS Net in Robust Packet - just for info!
DARC	3617,0	vt	dly	08	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX1P” – HAM-ALE - just for info
DARC	3622,5	2100	24	08	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DARC	3756,0	ady	dly	08	UKR		A3E			UKR – pip – 10 tones
DARC	3782,0	ady	dly	08	POR	CTP	F1B	75	850	POR Navy headquarter Lisbon
DARC	7000,0	vt	dly	08	IRQ	no ITU	FSK8	125	1750	ALE, “MEDOPS” “BMROPS” “LNGKNF” “EAGLE” “HFCFSR” “R23747” “ALZMED” “KALMED” “R24594” US MIL
DARC	7008,0	0517	22	08	RUS		F1B	81	250	system 81 - Moscow
DARC	7024,0	1250	22	08	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	7034,0	0630	22	08	RUS		PSK2	120	2600	AT3004D - Astrakhan
DARC	7038,7	ady	dly	08	UKR	D	A1A			Cluster beacon – Sevastopol - RUS Navy - “RCV”
DARC	7038,8	ady	dly	08	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
DARC	7038,9	ady	dly	08	RUS	S	A1A			Cluster beacon – Murmansk RUS Navy – „RIT“
DARC	7039,0	ady	dly	08	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DARC	7039,1	vt	dly	08	KGZ	A	A1A			Cluster beacon – Bishkek RUS Navy –
DARC	7039,2	ady	dly	08	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS”
DARC	7039,3	vt	dly	08	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DARC	7039,4	1437	03	08	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DARC	7039,9	ady	dly	08	I	IZ3DVW	A1A			IZ3DVW – beacon not coordinated with IARU
DARC	7040,5	vt	dly	08	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” - just for info!
DARC	7041,8	1950	13	08	RUS	L	A1A			Cluster beacon “L” - St. Petersburg - dirty signal
DARC	7049,5	vt	dly	08	F	F4BXW1	FSK8	125	1750	ALE, “F4BXW1” - just for info!
DARC	7052,0	2200	05	08	RUS		F1B	50	200	
DARC	7054,0	1800	dly	08	RUS		F1B	50	200	CIS50-50 - RUS Navy Moscow – strange signal
DARC	7065,0	vt	dly	08	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” - just for info!
DARC	7065,0	1708	01	08	KRE		FMCW		35k	Coastal HF Radar – 2.6 sweeps/sec 7065 – 7100 kHz
DARC	7089,8	2145	03	08	TUR		PSK8	2400	2400	Link11 - SLEW - Turkey
DARC	7089,8	2350	30	08			PSK8	2400	2400	Link11 - SLEW - ship east of Malta
DARC	7095,0	1900	03	08	KRE		FMCW		30k	Coastal HF Radar – 2.6 sps – 7095 – 7130 kHz
DARC	7099,5	vt	dly	08	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” - just for info
DARC	7102,0	0809	12	08	HRV		FSK8	125	1750	ALE, “9A3COL” – just for info!
DARC	7102,0	1440	01	08	RUS		F1B	75	200	Norway coastal area
DARC	7110,5	vt	dly	08	HRV	9A0ALE	FSK8	125	1750	ALE, amateur net, just for info!
DARC	7111,9	vt	dly	08	KWT	no ITU	FSK8	125	1750	ALE, “UDAIRI” “ATFOPS” – UDAIRI = US MIL Camp Buehring / Kuwait
DARC	7122,0	1252	22	08	RUS		F1B	75	250	Moscow
DARC	7125,0	1804	29	08	KRE		FMCW		35k	Coastal HF Radar – 2.6 sps – 7125 – 7160 kHz
DARC	7132,0	2010	02	08	KRE		FMCW		33k	Coastal HF Radar – 2.6 sps – 7132 – 7165 kHz

DARC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DARC	7132,0	1929	17	08	UKR		PSK2	120	2600	AT3004D - area of Kiev
DARC	7144,0	1445	03	08	RUS		PSK2	120	2600	AT3004D - Rostov
DARC	7162,0	0350	31	08	RUS		F1B	75	250	Vologda
DARC	7166,0	2115	05	08	RUS		A1A			RUS MIL - St. Petersburg
DARC	7180,0	vt	dly	08	MRC	no ITU	FSK8	125	1750	ALE, "9201" "6350" "RC1"
DARC	7185,0	1547	31	08						frequency hopper
DARC	7185,5	vt	dly	08	F	F4BXW	FSK8	125	1750	ALE, "F4BXW" - just for info!
DARC	10100,0	1710	05	08	KRE		FMCW		190k	Coastal HF Radar - 10040 - 10230 kHz - 2.6 sps
DARC	10102,5	1030	30	08	RUS		PSK2	120	2600	AT3004D - modem idling - Kaliningrad
DARC	10106,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, "OG100A" "OR200B" - Algerian MIL
DARC	10110,0	2207	05	08	SNG		FSK8	125	1750	ALE, "CN6" "68" - Singapore Navy - Changi Naval Base with frigate "RSS Formidable"
DARC	10112,0	ady	dly	08	TUR		PSK8	2400	2400	Stanag4285 - 600 bps long - TUR MIL - Izmir
DARC	10114,8	0645	11	08	RUS		F1B	100	1000	CIS 14 - Moscow
DARC	10115,0	0640	dly	08	RUS		FSK4	100	1500	CIS14 group - Moscow
DARC	10115,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, "2001", "2011"
DARC	10118,0	1548	25	08	RUS		F1B	75	250	Moscow
DARC	10120,0	vt	dly	08		no ITU	FSK2	125	1750	ALE, "9066" "9067"
DARC	10120,0	1645	07	08	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	10120,0	2049	12	08	KRE		FMCW		75k	North Korean Radar - 31 sps - 10120 - 10200 kHz
DARC	10125,0	vt	dly	08	LBY	no ITU	FSK8	125	1750	ALE, "MOBILE8" "MOBILE16" - Libyan GMMRA
DARC	10126,0	0642	11	08	RUS		PSK	120	2600	AT3004D - Severomorsk
DARC	10130,0	2200	dly	08	USA		F1B	50	850	USA - Maine
DARC	10130,0	2018	25	08						frequency hopper
DARC	10134,0	vt	dly	08	ALG	no ITU	FSK8	125	1750	ALE, "CM4" "COF" - Algerian Airforce
DARC	10136,5	vt	dly	08	F	F4BXW	FSK8	125	1750	ALE, "F4BXW" - just for info!
DARC	10140,0	ady	dly	08	KRE		FMCW		30k	Coastal HF Radar - 2.6 sps - 10140 - 10170 kHz - Pyongyang
DARC	10145,0	1034	09	08	RUS		PSK2	120	2600	AT3004D - Moscow - DK0WCY on 10144 interferred!
DARC	10145,5	vt	dly	08	HRV	9A5EX	FSK8	125	1750	ALE, 9A5EX, just for info!
DARC	10146,0	vt	dly	08	ALG		FSK8	125	1750	ALE, "ORG" "CM4" - ALG Airforce
DARC	10148,0	1549	25	08	SRB		PSK2	120	2600	AT3004D - area of Belgrade
DARC	10150,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, "CFA" "CTA"
DARC	14000,0	vt	dly	08	CYP	no ITU	FSK8	125	1750	ALE, "091" "1010"
DARC	14000,0	0751	27	08	VEN		FSK8	125	1750	Thales 3000 - Venezuela
DARC	14000,4	0742	27	08			PSK8	2400	2400	MIL-188-110A
DARC	14001,5	0925	22	08	F					Pactor 3 - Dijon
DARC	14005,0	0702	10	08	TUR		FMCW		20k	OTH Radar Turkey, 50 sps - spurious from 13955 kHz
DARC	14008,0	0750	22	08	RUS		F1B	50	250	T-600 - Moscow
DARC	14037,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, "313" "132" "932"
DARC	14064,0	1008	30	08	RUS		F1B	75	250	area of Moscow
DARC	14071,0	0605	16	08	RUS		FMCW		10k	OTHR RUS - 66.7 sps - 3.8 sec bursts every 30 sec
DARC	14081,0	1030	15	08	RUS		F1B	75	250	Penza
DARC	14108,0	0710	03	08	RUS		A1A			encrypted CW, RUS MIL
DARC	14110,0	1946	05	08						frequency hopper
DARC	14112,7	1856	04	08	CHN		PSK8	2400	2400	MIL-188-110A - 600 bps short East-China
DARC	14118,0	0950	02	08	RUS		PSK2	120	2600	AT3004D - Kaliningrad
DARC	14120,0	0745	18	08	RUS		F1B	76.3	250	Moscow - idling
DARC	14122,0	0903	03	08	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14141,0	0816	27	08	RUS		F1B	75	200	Moscow
DARC	14144,0	0755	13	08	RUS		FMCW		10k	OTHR RUS - 83.3 sps - 1.5 sec bursts every 30 sec

DARC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DARC	14170,0	2140	04	08	RUS		FMCW		10k	OTH Radar – 50 sps – burst length 2.7 sec
DARC	14172,0	1202	22	08	RUS		A1A			encrypted - Moscow
DARC	14177,0	1125	29	08	UKR		F1B	75	500	south of Kharkov
DARC	14186,0	0604	16	08	RUS		FMCW		10k	OTHR RUS – 66.7 sps – 3.8 sec bursts every 30 sec
DARC	14192,0	vt	vd	08	RUS		F1B	50	500	CIS50-50 - RUS Navy Kaliningrad
DARC	14206,0	0828	05	08	RUS		PSK2	120	2600	AT3004D - northern Ural
DARC	14206,0	0550	16	08	RUS		FMCW		10k	OTHR RUS – 66.7 sps – 3.8 sec bursts every 30 sec
DARC	14240,0	0920	03	08			A1A			encrypted
DARC	14242,0	0955	02	08	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14244,0	0944	22	08	RUS		PSK2	120	2600	AT3004D - Moscow
DARC	14247,0	vt	dly	08	E		FSK8	125	1750	ALE, “151” “250”
DARC	14252,0	0720	12	08	CHN		PSK2	120	2600	AT3004D - area of Beijing
DARC	14272,0	0715	31	08	RUS		PSK2	120	2600	AT3004D – submode idling - Kaliningrad
DARC	14285,0	0700	dly	08	E		OFDM	37.5	10k	14285 – 14295 Hz - OFDM – 10 kHz wide - area of Valencia
DARC	14292,0	0704	27	08	RUS		A1A			encrypted msgs - kyrillic letters RUS MIL Mscow
DARC	14305,0	0850	19	08	RUS		FMCW		10k	OTHR RUS – 66.7 sps – 2.0 sec bursts every 30 sec
DARC	14311,7	1355	15	08	CHN		PSK8	2400	2400	MIL-188-110A – App. B - modified – SE China
DARC	14316,0	vt	dly	08	?	no ITU	FSK8	125	1750	ALE, “601” “611”
DARC	14325,0	1520	18	08	RUS		FMCW		10k	OTHR RUS – 66.7 sps – 3.8 sec bursts every 30 sec
DARC	14325,1	vt	vd	08	FEa	no ITU	FSK8	125	1750	ALE, “776” “699” “475”
DARC	14334,0	0955	02	08	RUS		PSK2	120	2600	AT3004D - Novosibirsk
DARC	14337,0	1520	18	08	RUS		FMCW		10k	OTHR RUS – 66.7 sps – 3.8 sec bursts every 30 sec
DARC	14338,0	1530	05	08	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps
DARC	14343,0	vt	dly	08		no ITU	FSK8	125	1750	ALE, “L06” “A98”
DARC	14344,7	ady	dly	08	CHN		PSK8	2400	2400	MIL-188-110A – 600 bps short - intro tone ACARS like – burst system
DARC	18100,0	1535	10	08	CYP		FMCW		20k	OTH Radar Cyprus, 50 sps – spurious from 18040 kHz
DARC	18160,0	1724	21	08	CYP		FMCW			OTH Radar Cyprus, 50 sps
DARC	21000,0	vt	dly	08			FSK8	125	1750	ALE, “Y” “M7X”
DARC	21002,2	vt	dly	08	SDN YEM	!0000	FSK	100	200	Pactor1 encrypted, - MFA SDN + SDN-emba Yemen – ident: !0000
DARC	21050,0	1845	22	08	CYP		FMCW			OTH Radar Cyprus, 50 sps
DARC	21070,0	1740	14	08						frequency hopper
DARC	21089,5	vt	dly	08	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” - just for info!
DARC	21110,0	0706	08	08	TUR		FMCW		20k	OTH Radar Turkey, 50 sps
DARC	21146,0	0915	27	08						frequency hopper
DARC	21291,0	0640	19	08	AUS		FMCW		10k	OTHR – JORN - 45.45 and 50 sps
DARC	21295,0	0640	19	08	AUS		FMCW		10k	OTHR – JORN - 41.7 and 50 sps
DARC	21402,0	0820	13	08	RUS		FMCW		10k	OTHR RUS 47.6 sps – 2.7 sec bursts every 30 sec - Novgorod
DARC	21438,0	vt	vd	08	UKR	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol
DARC	24920,0	ady	dly	08	I		FMCW			Codar HF Radar - 24920 – 25080 kHz - 2 sweeps/sec – Venice - stopped on Aug. 12 th after a complaint by the German PTT
DARC	24920,0	1401	10	08						frequency hopper
DARC	25000,0	ady	dly	08	FIN		A3E			time signal Helsinki – just for info

IRTS – Ireland – EI4GXB (Ger)**KARS – Kuwait – 9K2RR (Faisal)****MRASZ – Hungary - HA7PL (Laci)**

CLUB	kHz	UTC	DD	MM	MODE	ITU	IDENT	BD	SH	DETAILS
MRASZ	7000.0	VT	VD	08	FSK8 (ALE)	IRQ	UiMUX	125	1750	ALZMED, , FUZZY, KALMED, NOMAD, R467 – TC1189, 71Z171, T2Z224, TAJMED (USAF)
MRASZ	7000.0	VT	VD	08	FSK8 (ALE)	I	UiMUX	125	1750	2214 ITALIAN CARABINIERI. MODERATE TRAFFIC.
MRASZ	7031.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	UNID: 315, 333, 420
MRASZ	7031.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	8ZW UNID
MRASZ	7031.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	3515: 4 FIGURES NET
MRASZ	7045.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	4 FIGURES NET 20??-NET
MRASZ	7054.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	1001, 100, SOUNDED.
MRASZ	7055.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	131 – 168, 134 – 168, 168 – 134, 134 – 155, 135 – 168 UNID NET
MRASZ	7060.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	9056 UNID
MRASZ	7062.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	100 – 101 UNID
MRASZ	7070.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	244-NET: 244 – 204, 514, 686. 288 – 334, 514, 686. 334 – 494, 514 – 494.
MRASZ	7080.0	VT	VD	08	FSK8 (ALE)	ALB	UiMUX	125	1750	ALBANIAN MOPO: 5810
MRASZ	7090.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	4001 SOUNDED.
MRASZ	7091.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	D07 – A04, D09 – A04, L04 – A98. UNID
MRASZ	7092.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	4 FIGURES NET
MRASZ	7098.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	10 UNID
MRASZ	7102.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	AMATEUR ALE: LEGAL
MRASZ	7107.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	9200 SOUNDED. UNID
MRASZ	7107.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	437805 SOUNDED. UNID
MRASZ	7115.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	Z13 SOUNDED. UNID.
MRASZ	7115.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	5750 SOUNDED. UNID
MRASZ	7116.0	VT	VD	08	FSK8 (ALE)	UZB	UiMUX	125	1750	110-NET UZBEK FORCE: 1101, 1104, 1105, 1106, 1713
MRASZ	7140.0	VT	VD	8	FSK8	UZB	UiMUX	125	1750	110-NET UZBEK FORCE: 1101,

CLUB	kHz	UTC	DD	MM	MODE	ITU	IDENT	BD	SH	DETAILS
					(ALE)					1713.
MRASZ	7141.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	7801, 7803, 7806, 7835, 7845, 7868, 7897. 78???: 4 FIGURES UNID NET
MRASZ	7149.0	VT	VD	08	FSK8 (ALE)	ALB	UiMUX	125	1750	ALBANIAN MOPO: 5810
MRASZ	7197.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	8011, 8031, 8061, 8161, 8211, 8251, 8341, 8351, 8551, 9817, 9850. 4FIGURES UNID NET
MRASZ	7197.0	VT	VD	08	FSK8 (ALE)	Ui	UiMUX	125	1750	43402 SOUNDED. 123456, 123466, 206102 SOUNDED. UNID
MRASZ	14001.0	VT	VD	08	FSK8 (ALE)	G	UiMUX	125	1750	UK FOREST MOORE TASCOMM HF HQ. XSS CALLSIGN

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	3503,00	18.44	07	08			J3E-U			Phone Arabic
REP	3505,00	08.50	15	08	POR E		J3E-U			Fishermen Portuguese / Spanish talking
REP	3510,00	10.15	13	08	E		J3E-U			Fishermen, boat-to-family
REP	3512,00	19.20	27	08			J3E-U			Fishermen
REP	3525,00	07.49	26	08	E		J3E-U			Fishermen
REP	3535,00	08.50	13	08			J3E-U			Talks 2 persons
REP	3537,00	19.31	19	08			J3E-U			Pirates - 3 male voices
REP	3550,00	08.00	22	08	F		A3E-AM			French Amateurs, DLY INFRINGE IARU 80m BAND PLAN
REP	3550,00	06.59	17	08	F		A3E-AM			French Amateurs, DLY 50uV S9 INFRINGE IARU 80m BAND PLAN
REP	3550,00	02.00	11	08	?		F3E			High level jamming 50uV S9
REP	3555,00	19.45	23	08	MRC		J3E-U			Fishermen
REP	3560,00	21.45	20	08	n.i.		8k00 A3EGN			Broadcasting - Spanish Program (Intermodulation products ?)
REP	3575,00	08.43	12	08	MRC		J3E-U			Marroco's fishermen
REP	3575,00	07.40	06	08	F		A3E-AM			French Amateurs, DLY INFRINGE IARU 80m BAND PLAN
REP	3578,00	23.22	12	08			A1A			BEACON OUT OF IARU BAND RECOMMENDATIONS
REP	3580,50	08.46	12	08	E		J3E-U			Spanish fishermen, sea to families
REP	3585,50	19.41	25	08			J3E-U			Scrambled voices – Marine ?
REP	3594,00	22.30	15	08		D	A1A			Marker
REP	3595,00	08.27	14	08	E		J3E-U			Spanish fishermen
REP	3755,00	02.31	19	08			A2A			1 bps continuous 25uV S8
REP	3765,00	08.05	23	08			F1B			2 Tones shifted on low rate
REP	3780,00	08.20	23	08			F1B	55	250	
REP	3782,45	08.28	17	08			F1B	60	250	
REP	3782,45	09.30	03	08		FTBO	F1B	60	250	Pooling messages
REP	7005,00	01.19	07	08	E		J3E-U			Spanish pirates. 1.6uV S3-S5
REP	7015,00	02.20	08	08			FSK8	75	1750	12.5uV S7
REP	7018,55	01.55	14	08	RUS	REA4	F1B	50	1000	Aircoms 50uV S9
REP	7032,50	02.20	21	08			F1B	50	250	12.5uV S7

SOC	KHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	7038,05	23.55	12	08	?	L	A1A			1.6uV S3-S4 Fading
REP	7038,60	06.00	03	08	RUS	S	A1A			MURMANSK Beacon, ADY, DLY 12.5uV S7
REP	7038,70	23.30	11	08	UKR	D	A1A			SEVASTOPOL Beacon, ADY, DLY 1.6uV S4
REP	7039,00	06.28	03	08	RUS	C	A1A			MOSCOW Beacon, ADY, DLY 12.5uV S7
REP	7039,00	23.48	11	08	RUS	C	A1A			MOSCOW Beacon, ADY, DLY 25uV S8
REP	10100,25	10.02	29	08			J3E-U			Male voices arabic
REP	10125,00	15.05	08	08	MRC		J3E-U			Arabic several pirates
REP	10135,00	15.11	01	08			A1A			Tone changing up-down
REP	10143,50	14.10	08	08			NON			Continuous Carrier

RSGB - Great Britain – G4BOH (Chris)

Society	kHz	UTC	DD	MM	ITU	IDENT	REMARKS
RSGB	24920-25070 kHz	24H	Continu uous	08	I	Radar	CODAR wave profile radar located in Venice. Disappeared around mid July following Baldock action and reappeared in early August. Not heard since 19th August. Observations continue.

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7000,0	0700-1630	*	8		UiMUX	J7D	12x120	12x200	Days: 10, 17, 19, 25, 26
SRAL	7006,5	1020	21	8		UiPTR	F1B		200	
SRAL	7008,0	0530-0720	18, 29	8		UiPTR	F1B		250	
SRAL	7008,5	0650-1020	7, 10	8		UiMUX	J7D	12x120	12x200	
SRAL	7010,0	0650-1155	9, 23	8		UiMUX	J7D	12x120	12x200	
SRAL	7014,0	0440	21	8		UiPTR	F1B			
SRAL	7016,0	0630-0800	11, 17	8		UiPTR	F1B		250	
SRAL	7019 A	0400-1930	*	8		UiCarr	N0N			Days: 10, 11, 12, 22
SRAL	7021,0	0915-1715	24, 31	8		UiMUX	J7D	12x120	12x200	
SRAL	7032,0	0700-0830	22	8		UiMUX	J7D	12x120	12x200	
SRAL	7034,0	0930-1130	23	8		UiPTR	F1B			
SRAL	7037,0	1815-1930	23	8		UiMUX	J7D	12x120	12x200	
SRAL	7038,2	h24	1 - 20	8	RUS	L	A1A			St Peterburg, on 20 th -1515
SRAL	7038,7	h24	dly	8	UKR	D	A1A			Sevastopol, fq –100 Hz on 19 - 24
SRAL	7038,8	h24	dly	8	RUS	P	A1A			Kaliningrad
SRAL	7038,9	h24	dly	8	RUS	S	A1A			Severomorsk
SRAL	7039,0	h24	dly	8	RUS	C	A1A			Moscow
SRAL	7041,8	h24	dly	8	RUS	L	A1A			St Peterburg, distorted mod. From 13th
SRAL	7054,0	1900-0500	1 - 24	8	RUS	REA4	F1B		200	Moscow, 2 – 5 + 1 kHz, from 5/1920 to 6/0435 jumping 7052 / 7062 kHz
SRAL	7064,0	1855-1930	23	8		UiMUX	J7D	12x120	12x200	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7082,0	1100-1230	3, 9	8		UiMUX	J7D	12x120	12x200	
SRAL	7083,8	0845-1030	21	8		UiPTR	F1B		500	
SRAL	7097,0	0900-1330	*	8		UiPTR	F1B		200	Days: 12, 19, 23
SRAL	7112,0	1030-1100	6	8		UiMUX	J7D	12x120	12x200	
SRAL	7114,0	1745-1815	16	8		UiPTR	F1B		250	
SRAL	7115,0	1855	16	8		UiCW	A1A			MR 5BL
SRAL	7120,0	0245-0500	dly	8	ERI	VoBME 1	A3E			QSY 7100 – 7130 kHz
SRAL	7120,0	1430-1800	dly	8	ERI	VoBME 1	A3E			QSY 7100 – 7130, jammed by ETH until 1700
SRAL	7122,0	0450-1930	*	8		UiPTR	F1B		250	Days: 17, 21, 22, 31
SRAL	7122,0	0430-1200	25, 30	8		UiMUX	J7D	12x120	12x200	
SRAL	7125,0	1830-2100	dly	8	GUI	R. Conakry	A3E			
SRAL	7132,0	0400-2000	16 - 20	8		UiMUX	J7D	12x120	12x200	
SRAL	7142,0	0705	30	8		UiMUX	J7D	12x120	12x200	
SRAL	7149,0	0530-1430	2	8		UiPTR	F1B			
SRAL	7150,0	0330-1430	2 - 5	8		UiMUX	J7D	12x120	12x200	
SRAL	7153,0	0415-0530	11	8		UiPTR	F1B			
SRAL	7153,0	1525	26	8		UiPTR	F1B			
SRAL	7162,0	1145-1930	22	8		UiPTR	F1B		250	
SRAL	7166,0	1715-1930	*	8	RUS	PVO “9”	A1A			Timestamp (UTC + 4h), days: 8, 10, 13, 16
SRAL	7175,0	0245-0500	dly	8	ERI	VoBME 2	A3E			QSY 7165 - 7190
SRAL	7175,0	1430-1805	dly	8	ERI	VoBME 2	A3E			QSY 7165 - 7190, jammed by ETH until 1700
SRAL	7176,0	0645-1200	*	8		UiPTR	F1B		250	Days: 2, 10, 17
SRAL	7178,0	1300-1315/	23	8		UiMUX	J7D	12x120	12x200	
SRAL	7183,5	0900-1000	5	8		UiPTR	F1B			
SRAL	7184,0	1325	20	8		UiPTR	F1B		250	
SRAL	7184,0	0600	22	8		UiPTR	F1B		250	
SRAL	7188,0	0740-1200	11, 17	8		UiPTR	F1B			
SRAL	7195,0	1730-1930	4, 5	8	UGA	UBC radio	A3E			
SRAL	7200,0	0230-0600	dly	8	SDN	R Sudan	A3E			
SRAL	7200,0	1445-1530	dly	8	SDN	R Sudan	A3E			
SRAL	7200,0	1730-2000	dly	8	SDN	R Sudan	A3E			
SRAL	10145,0	1005	21	8	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	14108,0	0825-0930	18	8		ATDT	A1A			MR 4F
SRAL	14120,0	0825-1025	18	8		UiPTR	F1B		250	
SRAL	14242,0	0850-1000	2	8	RUS	UiMUX	J7D	12x120	12x200	
SRAL	14272,0	0615-0700	31	8	RUS	UiMUX	J7D	12x120	12x200	
SRAL	14292,0	0545	2	8		UiCW	A1A			“QRV”

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	14295,1	0230-2000	dly	8	TJK	R Tojikiston	A3E			3f 4765,05 kHz, Yangiyul TX
SRAL	14332,0	0955-1040	13	8		UiPTR	F1B		250	
SRAL	14334,0	0850-1130	*	8		UiMUX	J7D	12x120	12x200	Days: 1, 2, 3, 21, 27
SRAL	18165,0	1010	21	8	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide
SRAL	21130,0	1025	3	8	CYP	UiOTHR	P0N			50 Hz , 20 kHz wide

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS	
USKA	7000.0	0017	01	08		NOMAD	MFSK8	125	1750	MIL 188-141A	almost daily
USKA	7000.0	0033	01	08		FUZZY	MFSK8	125	1750	MIL 188-141A	almost daily
USKA	7000.0	0126	10	08		T2Z224	MFSK8	125	1750	MIL 188-141A	almost daily
USKA	7000.0	2153	30	08		ALZMED	MFSK8	125	1750	MIL 188-141A	
USKA	7000.0	2154	30	08		KALMED	MFSK8	125	1750	MIL 188-141A	
USKA	7000.0	2205	30	08		T1Z	MFSK8	125	1750	MIL 188-141A	
USKA	7000.0	2103	30	08			J3E-U			Spanish	
USKA	7001.0	1650	04	08			J3E-U			unid language	
USKA	7001.8	2121	30	08			MFSK32	~ 15.6	500		
USKA	7008.0	0718	18	08			F1B	75	250	with some F1A sequences	
USKA	7008.0	0735	18	08			F1A		250		
USKA	7009.0	2043	19	08			A3E			BC IM, unid	
USKA	7009.0	2213	23	08			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D	
USKA	7020.0	0712	18	08			F1B	75	250	unid	
USKA	7021.0	1601	24	08			J7D		2k6	CIS 12 idling, carriers only	
USKA	7038.3	1054	03	08	RUS	K	A1A			Beacon K Petropavlovsk	
USKA	7038.7	2228	01	08	UKR	D	A1A			Beacon D Sevastopol	daily
USKA	7038.8	2228	01	08	RUS	P	A1A			Beacon P Kaliningrad	daily
USKA	7038.9	2228	01	08	RUS	S	A1A			Beacon S Murmansk	daily
USKA	7039.0	0817	01	08	RUS	C	A1A			Beacon C Moscow	daily
USKA	7039.2	1053	03	08	RUS	F	A1A			Beacon F Vladivostok	daily
USKA	7039.4	1053	03	08	RUS	M	A1A			Beacon M Magadan	daily
USKA	7041.8	2229	02	08		L	A1A			Beacon L	daily
USKA	7041.8	2240	13	08		L	A1A		~700	Beacon L, distorted	
USKA	7053.9	1919	14	08			A1A			dashes + dots - Jammer	often
USKA	7054.0	1925	03	08			F1?		400	curious, maybe malfunction ?	
USKA	7054.0	1965	19	08			F1B	50	200	"back to normal" F1B	
USKA	7070.0	2348	01	08		244	MFSK8	125	1750	MIL 188-141A TO: 204	
USKA	7070.0	2354	01	08		288	MFSK8	125	1750	MIL 188-141A TO: 571	
USKA	7070.0	0015	02	08		288	MFSK8	125	1750	MIL 188-141A TO: 686	
USKA	7070.0	0018	02	08		288	MFSK8	125	1750	MIL 188-141A TO: 334	
USKA	7088.8	2034	07	08			A1A			cw-training emission?	often
USKA	7089.8	2142	02	08			PSK-8	2400	2k4	Link 11- SLEW	often
USKA	7090.0	2155	02	08			N0N			long lasting carrier	
USKA	7100.0	1544	28	08			A3E			BC	
USKA	7100.0	1545	28	08			Noise		10 kHz	Jammer	
USKA	7105.0	2259	02	08		TWN	A3E			BC (2 stations)	daily
USKA	7105.0	2259	02	08		CHN	A3E			BC (2 stations)	daily
USKA	7110.0	1552	29	08			A3E			BC, jammed	
USKA	7110.0	1553	29	08			Noise		10 kHz	Jammer	
USKA	7111.9	0204	05	08		UDAIRI	MFSK8	125	1750	MIL 188-141A,	almost daily
USKA	7111.9	0250	05	08		ATFOPS	MFSK8	125	1750	MIL 188-141A,	almost daily
USKA	7120.0	1634	10	08			A3E			BC, jammed	
USKA	7120.0	1634	10	08			Noise		10 kHz	Jammer	
USKA	7125.0	2037	19	08	GUI		A3E			Radio Conakry	daily
USKA	7132.0	1905	16	08			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D	often
USKA	7175.0	1651	10	08			A3E			BC	often
USKA	7175.0	1651	10	08			Noise		10 kHz	Jammer	often
USKA	7190.0	1556	29	08			A3E			BC, jammed	
USKA	7190.0	1557	29	08			Noise		10k	Jammer	
USKA	7195.0	1943	05	08	UGA?		A3E			BC, unid	often
USKA	7200.0	0243	09	08	SDN		A3E		10k	down to 7195	often

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
										RTVC Sudan
USKA	10125.0	0654	02	08			J3E-U		3k6	NATO; English and Arabic often
USKA	10125.0	1401	25	08			J3E-U		3k6	NATO; English and Arabic often
USKA	10135.0	2216	13	08			FMCW	~2,6 sps	~190k	OTHR
USKA	10155.0	2043	25	08			FMCW	2.6 sps	~ 32 k	OTHR
USKA	14112.65	1513	05	08			PSK-8	2400	2k4	MIL 188-110A mod, PD 2.8s, PRI appx 6.85s; Pilot appx 0.2s
USKA	14118.0	0932	02	08			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D often
USKA	14120.0	0958	18	08			F1B	75	250	
USKA	14122.0	1035	03	08			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D often
USKA	14122.0	0921	29	08			J7D		2k6	CIS12 idling, 13 carriers only
USKA	14192.0	1950	19	08			F1B	50	500	unid
USKA	14200.0	0931	04	08			FMCW	66 sps	10 kHz	OTHR, Bursts PD appx 3.75s, later PD 2s or 1.75s, PRI 27s
USKA	14206.0	0818	05	08			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D often
USKA	14240.0	0846	16	08			F1B	75	250	unid
USKA	14240.0	0847	16	08			F1A		250	often between the F1B
USKA	14290.3	0929	17	08						Frequency hopper
USKA	14334.0	0823	02	08			J7D	12x120	2k6	PSK-2: CIS12 = AT3004D
USKA	14344.7	1652	03	08			PSK-8	2400	2k4	MIL 188-110A modified; Bursts; Hybrid system almost daily
USKA	14344.7	2148	17	08			PSK-8	2400	2k4	MIL 188-110A modified; Bursts; Hybrid system almost daily
USKA	18100.0	0852	11	08			FMCW	50 sps	20 kHz	OTHR
USKA	18135.0	0934	29	08			FMCW	50 sps	10 kHz	OTHR
USKA	21000.0	1003	18	08			J3E-U			Russian
USKA	21002.150	1559	29	08			F1B	200	200	Pactor often
USKA	21290.0	0831	22	08			FMCW	50 sps	20 kHz	OTHR
USKA	21390.0	0944	04	08			FMCW	50 sps	20 kHz	OTHR
USKA	28205.0	0828	02	08			A3			Spanish

Veron 1 – Netherlands – PA0GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3748,0	20.38	20	8		UiPtr	F1B	250	Idling
VERON	3772,0	20.36	20	8		UiPtr	F1B	200	Idling
VERON	3782,0	21.33	20	8	POR	CTP	F1B	850	Printer
VERON	7001,0	15.50	25	8		UiCAR	NON		S-7, carrier till 18.55 utc, also 30/8 31/8
VERON	7019,0	17.20	9	8	RUS	UiCAR	NON		carrier S-9, also 11/8
VERON	7020,0	13.01	24	8	RUS	UiCAR	NON		carrier, also 25/8
VERON	7020,0	15.52	24	8	RUS	UiMUX	FSK		12 MPSK AT 3004-D
VERON	7033,0	10.48	19	8	OE	OE2WSO	A1A		beacon qth Grado against IBP
VERON	7038,7	vt	vd	8	UKR	D	A1A		D-beacon
VERON	7038,8	vt	vd	8	RUS	P	A1A		P-beacon
VERON	7038,8	vt	vd	8	RUS	P	A1A		Beacon Kaliningrad
VERON	7038,9	vt	vd	8	RUS	S	A1A		S-beacon
VERON	7038,9	12.07	5	8	RUS	S	A1A		Beacon Murmansk
VERON	7039,0	vt	vd	8	RUS	C	A1A		C-beacon
VERON	7039,0	14.55	9	8	RUS	C	A1A		Beacon Moscow
VERON	7041,8	18.29	10	8	RUS	L	A1A		L-beacon St. Petesburg, 16/8,
VERON	7041,8	10.38	19	8	RUS	L	A1A		L-beacon St. Petesburg, bad modulation
VERON	7041,8	19.00	24	8	RUS	L	A1A		L-beacon, St. Petersburg, rough tone
VERON	7054,0	19.06	10	8	RUS	UiPtr	F1B	200	Revs
VERON	7054,0	18.14	29	8	RUS	UiPtr	F1B	200	Ptr/Revs
VERON	7054,0	17.58	29	8	CIS	UiPTR	F1B		Revs
VERON	7087,7	21.45	20	8		UiPtr	F1B	300	Printer
VERON	7105,0	22.07	20	8	CHN	R. China	A3E		Chinese speach male & female; s8
VERON	7122,0	17.48	22	8		UiPTR	F1B		Ptr
VERON	7123,0	07.34	17	8	UK	UiILL	j3e-U		English language, fishery?

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	7132,0	18.17	20	8		UiMux	PSK12	5k	12 MPSK AT 3004-D
VERON	7162,0	17.48	22	8		UiPTR	F1B		Ptr
VERON	7171,5	20.43	20	8		UiMux	PSK12	2k2	12 MPSK AT 3004-D
VERON	7192,0	12.03	5	8					Frequency hopper
VERON	10112,0	14.21	7	8	TUR	UiMux	PSK8	2k4	Stanag4285
VERON	10118,0	09.22	9	8		UiPTR	F1B		Revs/Ptr (followed by F1A QRJ3 k)
VERON	10118,0	12.14	26	8		UiPTR	F1B		Ptr
VERON	10125,0	14.43	3	8		NATO	J3E-u		Arab/English comments Libyan situation
VERON	10130,0	vt	vd	8		UiPTR	F1B		Ptr
VERON	10143,0	17.58	22	8		UiPTR	F1B		Ptr
VERON	14008,0	vt	vd	8	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	14024,0	15.00	4	8		UicW	A1A		dots continuous,579 also heard in US
VERON	14026,0	07.38	15	8		UiMUX	FSK		12 MPSK AT 3004-D
VERON	14086,0	08.41	4	8		UiPtr	F1B	200	Revs
VERON	14097,0	14.08	7	8		UiCar			Persistent carrier; s9+10
VERON	14108,0	09.24	12	8		UicW	A1A		5F QTC RPT ALL K
VERON	14108,0	11.12	13	8	CIS	JDFH	A1A		Calls to: SU4H CTQG HHKF E1AO 9UFJ
VERON	14108,0	09.00	22	8	CIS	UicW	A1A		XXX G5CX F2ET 85069 74876
VERON	14108,0	09.00	22	8	CIS	UicW	A1A		BRUSOWINA 5632 3347 K
VERON	14108,0	09.20	22	8	CIS	TJ6E	A1A		PPPPP 5BL (ending: 403 rpt al k)
VERON	14108,0	09.22	22	8	CIS	TJ6E	A1A		Calls to: IKWY WL6K G1FH NGTY 4FMH
VERON	14120,0	09.08	18	8		UiPtr	F1B	250	Ptr
VERON	14120,0	11.10	13	8		UiPTR	F1B		Ptr
VERON	14122,0	09.45	24	8		UiMUX	FSK		12 MPSK AT 3004-D
VERON	14126,5	11.00	12	8		UiPTR	F1B		Revs/Ptr
VERON	14153,0	14.33	12	8					Frequency hopper
VERON	14172,0	08.26	2	8		ZTFM	A1A		TI2C de ZTFM tfc
VERON	14172,0	08.30	2	8		ZTFM	A1A		TI2C de ZTFM QSV K
VERON	14172,00	08.21	11	8		ATDT	A1A		JIIY de ATDT K
VERON	14172,0	08.26	11	8		ATDT	A1A		JIIY de ATDT QTC K
VERON	14172,0	08.27	11	8		ATDT	A1A		to JIIY 14634111219146=2j2111 lodlo etc
VERON	14172,0	08.28	11	8		Uic	A1A		VVVVVVV's
VERON	14172,0	08.43	11	8		XT8M	A1A		QTC AR K
VERON	14172,0	08.44	11	8		XT8M	A1A		65134111236=651=ZUN 111 5F
VERON	14192,0	18.09	24	8		UiPTR	F1B		Revs
VERON	14192,0	19.39	20	8	RUS	UiPtr	F1B	200	Idling
VERON	14194,0	14.19	10	8					Heavy white noise; 28k spread
VERON	14195,0	12.27	14	8	I	Lis amateurs	J3E-u		Crazy guys from IT9 playing music; S9+50
VERON	14203,5	10.26	9	8		UiMux	PSK8	2k6	deep slow QSB
VERON	14234,0	09.34	19	8		UiMUX	FSK		12 MPSK AT 3004-D
VERON	14240,0	09.31	19	8		UiPtr	F1B		Ptr
VERON	14325,0	10.26	24	8	RUS	UiILL	J3e-U		male -counting &repeating in Russian
VERON	14332,0	08.33	1	8		UiMUX	FSK		12 MPSK AT 3004-D
VERON	14332,0	08.04	2	8		UiMUX	FSK		12 MPSK AT 3004-D
VERON	14332,0	09.11	18	8		UiPtr	F1B	250	Ptr
VERON	14350,0	08.28	28	8	E	UiILL	J3e-U		Spanish, male/female voices
VERON	18077,0	10.20	21	8		UiCAR	NON		strong carrier S-9
VERON	18082,0	11.53	10	8		UiCAR	NON		carrier S-9
VERON	18105,0	08.50	11	8		OTHR	PON		radar, 18090-18110 KHz wide
VERON	18160,0	13.37	12	8					Frequency hopper
VERON	21212,0	17.40	21	8	N.Afr ica	UiILL	J3e-U		N. African language, male voices (fishery?)
VERON	21255,0	14.38	30	8					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