



Monitoring System

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The monthly newsletter for Region 1

November 2019

The 25 members of the IARUMS Region 1 Monitoring Team:



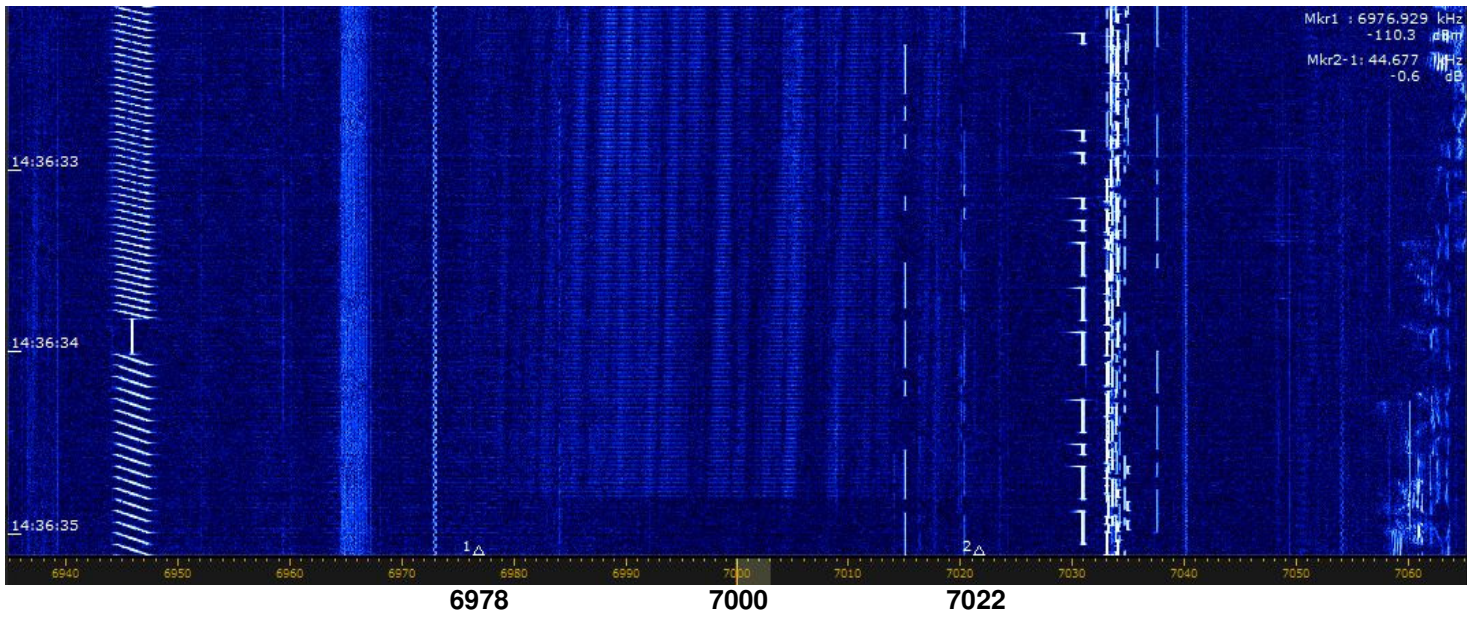
Acknowledgements

ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4BV - Kamweti ++ DARC: DK2OM – Wolf ++ EARS: A61M – Obaid ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ PZK: SP5GNI - Miro ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: G4DYA - Richard ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ UBA: ON5NQ – Frank +++ URE: EA6AMM - Gaspar ++ USKA: HB9CET - Peter ++ VERON: PG1R - Ruud ++ ZRS: S56ZDB – Darko ++ LU1BCE – Carlos (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster supp.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1) ++ PTTs: BAKOM (Swiss) ++ OFCOM (UK) ++ Dutch AT ++ Austrian PTT

Part 1: News and Infos

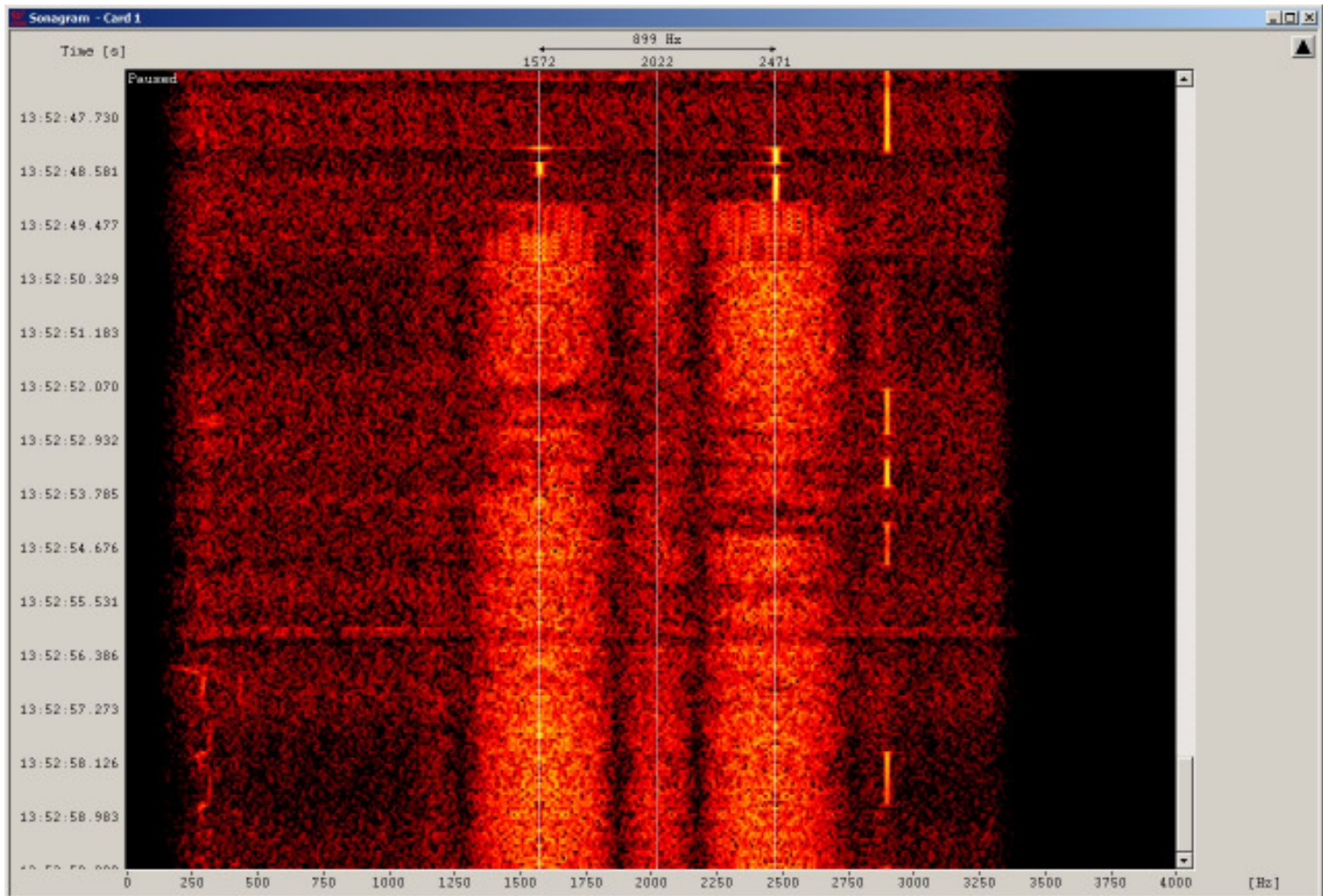
1. Iranian radar on 7 MHz

An Iranian radar was observed on 7000 kHz center QRG. Parameters: 6978 – 7022 kHz – AMOP – 81 sps
13 Nov. 1437 utc – DF location: northern Iran

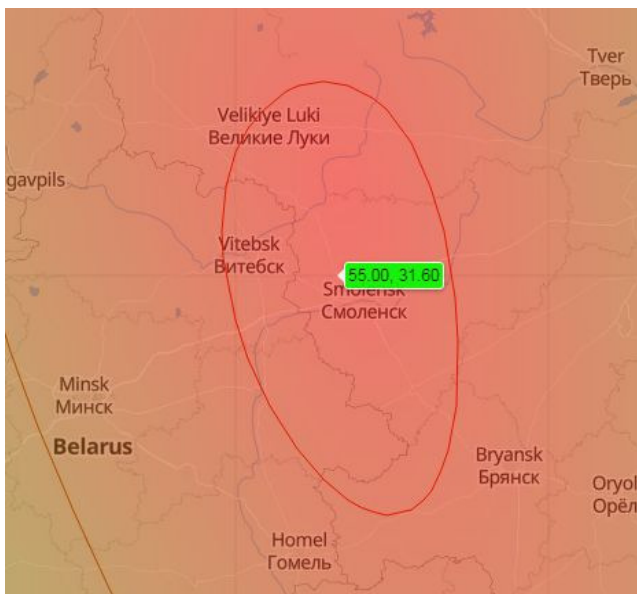


2. Unid F1B system on 7002 kHz

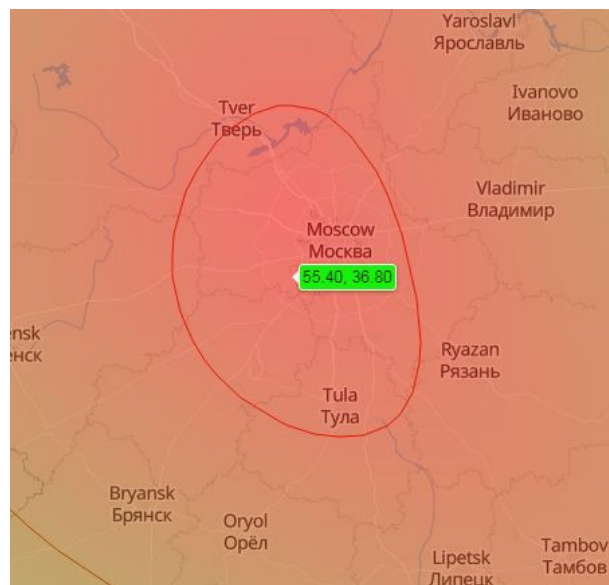
An unknown F1B system was found on 7002.0 kHz center QRG. Parameters: 600 Bd and 900 Hz shift
06 Nov. 1353 utc – screenshot with Wavcom W-Code – DF not possible



3. TDoA bearings



7112.0 - AT3004D (= CIS12) – 20 Nov. - Smolensk.



7178.0 - AT3004D – 13 Nov. - Moscow

4. Russian F1B MIL transmissions on 7 MHz

We found Russian F1B MIL transmissions on

7008.0 kHz (75 Bd, 250 Hz shift) – Moscow

7051.0 kHz (50Bd, 200 Hz shift) – Kaliningrad – ident: RDL (RUS navy) - daily at 2000 utc

7122.0 kHz (50 Bd, 200 Hz shift) – Severomordk – ident: RDL (RUS navy) – every morning

7188.0 kHz (43.5 Bd, 250 Hz shift) – Krasnoyark - often

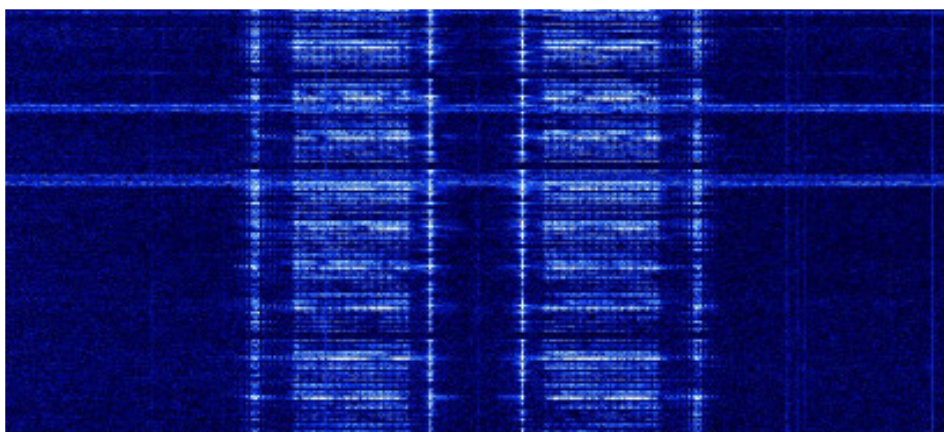
7193.0 Khz (50 Bd, 200 Hz shift) – Kaliningrad – ident RDL (RUS navy) – complaint by German PTT no result

7196.0 kHz (75 Bd, 200 Hz shift) - Moscow

5. Link11-CLEW - DSB on 7159.0 MHz

Link11-CLEW on DSB mode (both sidebands) was daily active on 7159.0 kHz center QRG.

Ship north or north-west of Scotland and later nw of England



7159

6. Miscellaneous news:

5350.0 kHz – USB – illegal Spanish fishery traffic, splattering up - daily

14000.5 kHz – robust packet daily

14295.0 kHz – harmonic from Radio Tajik on 4765 kHz (no change)

21030.0 kHz – Spanish fishery on USB

28000 and 28860 kHz – Iranian radar (under Es)

28000 – 29700 CIS taxi services – FM (F3E)

7. Homepage IARU Region 1

Homepage IARUMS Region 1 <http://www.iarums-r1.org>

Homepage IARUMS Region 2 <http://www.iarums-r2.org/>

Homepage IARUMS Region 3 <http://iaru-r3.org/iaru-region-3-monitoring-system-newsletter/>

Intruderlogger Region 1 <http://peditio.net/intruder/bluechat.cgi>

ITU-Monitoring Reports <http://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx>

Part 2: Detailed reports of the national Coordinators

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 *** OFDM = orthogonal frequency division multiplex
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 *** **PRF** = pulse repetition frequency (radar) = **sps** *** **sps** = sweeps/sec (radar systems) *** **FMCW** = frequency modulated continuous wave (OTH radars)
FMOP = frequency modulation on pulse (OTH radars) *** **5BL** = cyrillic 5 lettergroups *** **DF** = direction finder
AMOP = amplitude modulation on pulse

DARC – Germany - DK2OM (Wolf)

FSK transmissions -> center frequency between mark and space

PSK transmissions -> center QRG - ALE (MIL188-141A) -> USB QRG

exclusive bands -> black – shared bands -> blue - voice traffic -> green - BC -> red

SH = shift - SP = spread (radar) – SPS = sweeps/sec (radar) -> (aka PRF)

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	1,8 – 50 MHz	vt	dly	11	D		QRM			1.8 - 50 MHz strong QRM by a neighbouring LED lamp - since April 2016 - "many thanks" to German "BNetzA" Eschborn
DK2OM	1810,4	1835	02	11	CIS?		A3E			unid pirates – unstable carrier
DK2OM	1814,0	2058	08	11	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad
DK2OM	1855,0	2059	08	11	I	IQP	USB			San Benedetto Radio, weather reports - daily
DK2OM	1925,0	2005	03	11	I	IPL	USB			Livorno Radio, weather reports - daily
DK2OM	3503,5	vt	dly	11	G	no ITU	FSK8	125	1750	ALE – British MIL Tascomm – shared band - legal!
DK2OM	3510,0 RF	ady	dly	11	RUS		chirps		3k	mysterious chirps – northwest of Smolensk – daily, all day - shared band!
DK2OM	3522,0	1745	26	11	RUS		F1B	75	250	Bryansk – shared band!
DK2OM	3525,0 center	1846	19	11	F		PSK8A	2400	2400	LINK11-SLEW on both sidebands (6300 Hz wide) – area of Marseille – legal!
DK2OM	3527,0	1800	dly	11	RUS		F1B	50	200	Severomorsk – daily – shared band
DK2OM	3531,0	---	--	11	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: full hour + 40 min - daily
DK2OM	3532,0	1700	22	11	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest
DK2OM	3548,0	1729	01	11	RUS	RDL	F1B	50	200	west of Arkhangelsk
DK2OM	3550,0	0630	dly	11	F		A3E			French amateurs not respecting bandplans – every morning
DK2OM	3550,0	1619	08	11	RUS		PSK2A	120	2600	AT2004D - Sevastopol
DK2OM	3550,7	2139	05	11	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – shared band!
DK2OM	3553,8	ady	dly	11	TUR		PSK8A	2400	2400	Stanag4285 – 600 bps long -TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3557,0	1840	27	11	RUS		F1B	75	250	Moscow - shared band!
DK2OM	3560,0	1820	27	11	RUS		F1B	50	500	Velikiye Luki - shared band!
DK2OM	3580,0	2130	26	11	RUS		F1B	75	250	Smolensk - shared band!
DK2OM	3581,8	ady	dly	11	TUR		PSK8A	2400	2400	Stanag-4285 – 600 bps long –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Ankara – shared band!
DK2OM	3585,0	ady	dly	11	TWN	HLL	F1C		800	WX-fax Taiwan - 120 rpm, IOC 576 - daily, all day - legal!
DK2OM	3586,0	vt	dly	11	HOL		PSK2A	40	40	Amsterdam - daily
DK2OM	3591,0	1415	20	11	J		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – ship south of Miyazaki – shared band!
DK2OM	3592,0	vt	vd	11	G		PSK8A	2400	2400	Stanag-4285 – 600 bps long - area of Falmouth – shared band
DK2OM	3597,0	2104	28	11	RUS		PSK2A	120	2600	AT3004D – Smolensk - shared band!
DK2OM	3616,5	1704	22	11	RUS		PSK2A	120	2600	AT3004D – idle and test – Sevastopol – shared band!
DK2OM	3622,5	ady	dly	11	J	JMH	F1C		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!
DK2OM	3744,5	1840	12	11	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – shared band!
DK2OM	3756,0	1800	dly	11	RUS		USB			RUS MIL – channel marker – Tuapse – East Black Sea (nw of Sochi) – night QRG
DK2OM	5350,0	---	--	11	RUS		FMOP		50k	Russian coastal radar “Sunflower” – 43 sps – 5350 – 5400 kHz - Makhachkala
DK2OM	5350,0	vt	vd	11	E		USB		2400	5350.0 – 5352.4 kHz – Spanish fishery
DK2OM	5350,0 RF	2221	13	11			FSK8	125	1750	ALE, “9002”
DK2OM	5352,96	2100	18	11	UKR		N0N			5352.964 kHz - unclear carrier – Donetsk – often in the evenings
DK2OM	5353,0	2035	27	11	RUS		F1B	50	200	area of Smolensk - shared band!
DK2OM	5360,5	1340	08	11	RUS	RDL	F1B	50	200	Severomorsk – primary user
DK2OM	5361,8 RF	---	--	11	DNK	OUA15	PSK8A	2400	2400	Stanag-4285 – 600 bps long – assigned to Danish Navy – ne of Aalborg - primary user!
DK2OM	7000,0	1350	06	11	INS		LSB USB			Indonesian pirates - singing and playing music - daily
DK2OM	7000,0 RF	1400	06	11	F		PSK8A	2400	2400	Stanag-4285 – 600 bps long – area of Marseille
DK2OM	7000,0	1437	13	11	IRN		FMOP		44k	OTH radar North Iran – 6978 – 7022 kHz - 81sps
DK2OM	7000,0	2115	22	11	I		USB			pirates in Italian voice
DK2OM	7002,0	1350	06	11			F1B	600	900	bursts
DK2OM	7005,0	1716	08	11	INS		LSB			Indonesian pirates
DK2OM	7005,0	1818	dly	11	RUS		FMOP		90k	coastal radar „Sunflower“ – 43 sps – 6915 – 7005 kHz with spurious – east of Vladivostok
DK2OM	7008,0	0919	06	11	RUS		F1B	75	250	Moscow – disturbed by a German HAM with CW dashes on the space QRG
DK2OM	7009,0	1409	20	11	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7010,0	vt	dly	11	INS		LSB			Indonesian pirates
DK2OM	7014,0	1345	27	11	RUS		PSK2A	120	2600	AT3004D -
DK2OM	7015,0	vt	dly	11	INS		LSB			Indonesian pirates – male and female voices
DK2OM	7021,0	1330	28	11			F1B	300	500	KG84 header
DK2OM	7021,2	1340	28	11	CIS		LSB			male net in Russian voice
DK2OM	7025,0	vt	dly	11	INS		LSB			Indonesian pirates singing
DK2OM	7035,0	vt	dly	11	INS		LSB			Indonesian pirates singing
DK2OM	7039,2	1813	03	11	RUS	„F“	A1A			Cluster beacon „F“ - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	---	--	11	RUS	„K“	A1A			Cluster beacon “K” Petropavlovsk Kamchatskiy -

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										RUS Navy - Pacific fleet - "RCC"
DK2OM	7039,4	1817	03	11	RUS	„M“	A1A			Cluster beacon „M“ – Magadan RUS Navy – „RTS“ - daily
DK2OM	7051,0	2208	20	11	RUS	RDL	F1B	50	200	Kaliningrad – RUS navy – daily at 2000 utc
DK2OM	7054,0	vt	dly	11	UKR		USB		2400	picture propaganda transmissions
DK2OM	7055,0	vt	dly	11	UKR		LSB			music and Russian voices
DK2OM	7087,0	1845	05	11	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	7088,8	vt	vd	11	S	SL0FRO	A1A			7088.820 kHz - cw-trainee, Sweden - SL0FRO – often - just for info!
DK2OM	7089,8	---	--	11	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft ? west of Izmir
DK2OM	7108,0	1945	21	11	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7111,0	vt	05	11	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7112,0	vt	07	11	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7112,0	1045	20	11	RUS		PSK2A	120	2600	AT3004D - Smolensk
DK2OM	7121,0	1428	18	11	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7122,0	1345	19	11	RUS	RDL	F1B	50	200	Severomorsk - often
DK2OM	7129,0	0955	12	11	RUS		PSK2A	120	2600	AT3004D – Nizhny Novgorod
DK2OM	7137,0	vt	dly	11	TWN		FSK8 LSB	125	1750	ALE, MIL-188-141A, "FBABA" "FWKMB" "FXIBY" "FCPSL" "FHKHD" "FVIKE" "FHVWY" "FCUGP" "FDRRK" "FWIML" "FBQCY" "FCEAX" Taiwanese navy
DK2OM	7140,0	1730	dly	11	ERI		A3E		9k	7140.021 kHz - Radio Eritrea
DK2OM	7146,0	0940	03	11	RUS		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	7159,0	1425	04	11	G		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – ship north of Scotland and nw of UK
DK2OM	7178,0	0853	13	11	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	7180,0	1729	dly	11	ERI		A3E		9k	7180.021 kHz - Radio Eritrea
DK2OM	7186,0	1000	23	11	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	7188,0	1025	12	11	RUS		F1B	43.5	250	Krasnoyarsk - often
DK2OM	7190,0	1848	05	11	CHN		A3E/BC		40k	China International on 7210 kHz with splatters 7190 – 7230 kHz
DK2OM	7193,0	1111	01	11	RUS	RDL	F1B	50	200	Kaliningrad – RUS navy
DK2OM	7196,0	1450	05	11	RUS	RIW	A1A			encrypted CW – Moscow – RUS navy
DK2OM	7196,0	0840	18	11	RUS		F1B	75	200	Moscow
DK2OM	7197,0	vt	dly	11	TUR		FSK8	125	1750	ALE, „353013“ „334018“ „314013“ - Turkish Sivil Avunma – Turkish Civil Defense
DK2OM	7198,3	1819	12	11	CHN		MPSK	75	2250	PRC4+4
DK2OM	7200,0	1416	29	11	RUS		F1B	15	250	fast dots
DK2OM	10100,8	ady	dly	11	D	DDK9	F1B	50	450	Baudot - German Weatherservice – legal! – disturbed by Russian OTH radar Contayner on 26 Oct. at 1723 utc and later (also 27.10.)
DK2OM	10105,0	0949	30	11	RUS		PSK2A	120	2600	AT3004D – Moscow – shared band
DK2OM	10114,8	0640	dly	11	RUS		F1B	100	1000	CIS14 – Moscow
DK2OM	10117,0	0940	26	11	RUS		PSK2A	120	2600	AT3004D – Moscow – shared band!
DK2OM	10121,0	0920	22	11	RUS		F1B	75	200	Severomorsk – shared band
DK2OM	10132,0	vt	vd	11	F		USB			French amateurs not respecting

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										bandplans
DK2OM	10144,0	ady	dly	11	D	DK0WCY	A1A			10144.000 kHz - DK0WCY – German aurora beacon – just for info!
DK2OM	14000,0	vt	dly	11	PNG		USB			fishermen - south east of Papua New Guinea (Coral Sea) - daily
DK2OM	14000,0	vt	vd	11	B		USB			Brazilian pirates – Rio with North Brazil
DK2OM	14000,0	0940	03	11			USB			male persons in Arabic voice – 180 deg.
DK2OM	14000,5	ady	dly	11	CHN		OFDM	200 600	420	RF: 13999.0 kHz - Robust Packet – OFDM 8 – no Ham calls – idents with 6 characters (letters and figures like tiny URLs) – large net – daily, all day
DK2OM	14001,8	---	--	11	ISR		PSK4 PSK8	75 2400	2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial
DK2OM	14008,0	---	--	11	RUS		F1B	50	500	Moscow – very often
DK2OM	14017,0	0853	08	11	CHN		FMOP		10k	Chinese OTH radar – 14012 – 14022 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14157,0	1405	19	11	RUS		FMOP		12k	OTH radar Contayner - 40 sps – west of Saransk – 14151 – 14163 together with 14182
DK2OM	14171,0	0855	08	11	CHN		FMOP		10k	Chinese OTH radar – 14166 – 14176 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14182,0	1340	19	11	RUS		FMOP		12k	OTH radar Contayner - 40 sps – west of Saransk – 14176 - 14188
DK2OM	14192,0	vt	vd	11	RUS		F1B	50 75 50 100 100	500 500 200 500 200	RUS navy Kaliningrad – often with 50 Bd and 200 Hz shift
DK2OM	14212,0	1206	vd	11	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – every Thursday at 1206 utc – msgs at 1214 utc
DK2OM	14213,0	0939	06	11	CHN		FMOP		10k	Chinese OTH radar – 14208 – 14218 kHz - 42 sps – 3.0 sec bursts
DK2OM	14221,0	---	--	11	KAZ		F1B	50	200	Kazakhstan – west of Almaty - mostly idling - every evening
DK2OM	14259,0	0850	08	11	MNG		FMOP		40k	Mongolian OTHR – 10 sps – 14239 – 14279 kHz
DK2OM	14260,0	vt	vd	11	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – reported by a German HAM
DK2OM	14294,0	0747	06	11	RUS		PSK2A	120	2600	area of Novosibirsk
DK2OM	14294,0	1025	27	11	RUS		PSK2A	120	2600	AT3004D – Khabarovsk – allowed in Region 3
DK2OM	14295,2	ady	dly	11	TJK		A3E/BC		9k	14295.128 kHz -3x from Radio Tajik on 4765 kHz – daily, all day
DK2OM	14308,0	0912	06	11	RUS		F1B	75	500	Moscow
DK2OM	14348,5	vt	dly	11	THA	HS0ZEA	A1A			HS0ZEA beacon – 14348.488 kHz - every 5 minutes – daily - just for info!
DK2OM	18080,0	0750	vd	11	TWN		A3E/BC			Sound of Hope – Taiwan and Chinese BC jammer – daily at 06 utc and later

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	18090,0	1024	16	11	CYP		FMOP		20k	UK OTH radar Cyprus - 25 sps – 18080 – 18100 kHz
DK2OM	18090,0	1100	20	11	CYP		FMCW		20k	UK OTH radar Cyprus - 50 sps – 18080 – 18100 kHz
DK2OM	18107,0	vt	vd	11	RUS	RDL	F1B	36/50	200	CIS-36-50 - Moscow – idle and traffic – often - Russian navy
DK2OM	18113,5	1107	20	11	MRC		F1B	600	600	DPRK-FSK 600 – DPRK emba Morocco
DK2OM	18113,6	0917	01	11			F1B	600	600	DPRK-FSK 600
DK2OM	18150,0	---	--	11	RUS		F1B	100	1000	harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad
DK2OM	18150,0	---	--	11	RUS		F1B	100	1000	harmonic from 9075 kHz (100 Bd – 500 Hz) - Kaliningrad
DK2OM	18171,0	1008	14	11	CYP		FMOP		20k	UK OTH radar Cyprus - 25 sps – 18161 – 18181 kHz
DK2OM	20982,2	0920	23	11			FMOP		14k	OTH radar – 54 and 60 sps bursts – splattering up – Caucasian region
DK2OM	21000,0	---	--	11	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil – very often
DK2OM	21000,0	0845	01	11	?		USB			unid voice traffic – male and female
DK2OM	21010,0	0926	01	11	E		USB			Spanish fishery – woman and husband
DK2OM	21030,0	0920	01	11	E		USB			Spanish fishery – woman and husband
DK2OM	21042,5	0945	01	11			F1B	600	600	DPRK-FSK 600
DK2OM	21145,0	vt	dly	11	MRC		FSK8	125	1750	ALE, “A” “B301” “C3”, “IR4” “H4” “IR6” “T4” “E4” “A2” “CD” “K3” “KB2” “J5” “J52” “GR2” “GS4” “R3” “R301” “R33” “R8” “R5” “Y1” “S51” “S3” “S4” “S512” “S552” “G2” “G501” - various times, daily
DK2OM	21438,0	0840	01	11	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21446,0	---	--	11	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	28000,0	---	--	11	B		A3E			Brazilian CBers – 28000 – 28325 – daily, all day - no change
DK2OM	28000,0	vt	vd	11	CIS		F3E			28000 – 29700 numerous CIS taxi nets – no change
DK2OM	28000,0	---	--	11	IRN		AMOP		45k	Iranian radar - 27980 – 28025 kHz – 307 sps – 870 sps alternating
DK2OM	28860,0	0840	31	11	IRN		AM pulse		45k	Iranian radar - 28837 – 28883 kHz – 150 sps – 313 sps alternating – North Iran - daily
DK2OM	29685,0	---	--	11	I		VFT		2300	Italian MIL – Brescia - daily
DK2OM	29699,5	---	--	11	I		VFT		1600	Italian MIL – Brescia - daily

IRTS – Ireland – EI3GYB (Michael)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
IRTS	1896.5	1930	17	11			PSK	German Navy. Returned after a long absence. Heard all day. Very strong at night. Frequency unusable for any traffic.
IRTS	3510	1830	24	11	RUS		USB	Russian Air Horn, Smolensk. Audible all evening and night with very strong signals.
IRTS	3535	1330	12	11	E or MM		USB	2 Spanish fishermen. Strong signals from both ships. Ends at 1336z.

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
IRTS	3550	0630	04	11	F		AM	Group of French HAMs violating the band plan.
IRTS	5250	0255	02	11	RUS or CHN		FMOP	Radar from 5250 to 5450 kHz. Huge bursts, about 15 kHz wide, moving up and down the band until fade out at around 0800z. Affects all Irish spot frequencies and the complete WARC-15 5MHz band.
IRTS	5320	2230	05	11	RUS		FMOP	Sunflower radar, medium signal. Drifting in and out and making any weak signal contacts on the entire 5 MHz band very difficult.
IRTS	5344	1603	10	11			USB	A female voice in English with a strong Eastern European accent keeps repeating "232-Opik-KK", splattering all over the Irish/US spot frequency of 5346.5 kHz. She says "Out" at 1608z and the transmission ends. Probably military and probably legal.
IRTS	5346	2100	03	11	MM		USB	Group of Japanese male voices with plenty of "dodo". Medium signals. Covers the Irish/US spot frequency of 5346.5 kHz.
IRTS	5346	0330	19	11	E or MM		USB	2 Spanish fishermen. Covering EI/US spot frequency for SSB
IRTS	5345.5	1400	06	11	DL ?		USB	Voices in English with a strong German accent. Might be military and probably a legal user. Covering the Irish/US spot frequency of 5346.5 kHz.
IRTS	5345.5	1150	19	11	D?		USB	Male voices in English, very heavy accent. Probably German army in a NATO exercise. Covering Irish/US spot frequency.
IRTS	5350	2100	25	11	E or MM		USB	2 Spanish fishermen. Medium strength signal. Splattering all over the band, bad audio.
IRTS	5370	1935	14	11			FMOP	Radar from 5370 to 5430 kHz. Covering the whole range of frequencies. Stops at 2045z.
IRTS	5366.5	1826	28	11			LSB	Somebody plays Oldies from the 1930s.
IRTS	5395	1505 to 1520	10	11	IRL		USB	An Irish HAM radio station is using an UK only allocation frequency without permit. Audio is very distorted and overdriven. Signal is dirty and splatters all over the band and heavily interferes with the RSGB news on 5398.5 kHz. The same HAM appears about an hour later in the new WARC-15 allocation where he makes contact with a Danish HAM, freely admitting that he is using "80 watts of power and no amplifier this time" (Sic!). Audio is very bad. Some people seem to have absolutely no knowledge of the allocations, power levels and rules on 5 MHz.
IRTS	5403	1330	06	11	POL ?		USB	Polish speaking voices. Medium strength. Might be military and might be legal. Covering the Irish/UK spot frequency of 5403.5 kHz.
IRTS	5398.5	1050	23	11	HOL		USB	A Dutch ham appears on this UK/EI only spot frequency and joins a group of UK hams for about 20 minutes. He works about half a dozen UK Hams before he disappears again.
IRTS	5405	1950	22	11	E or MM		USB	2 Spanish fishermen. Strong motor noise from both ships. Signals are very strong. Irish/UK/US CW spot frequency.
IRTS	7000	1150	12	11			FMOP	Radar, moving up and down from 7000 to 7200 kHz.
IRTS	7055	0615	04	11	UKR /RUS		LSB	Ukrainian-Russian radio war with plenty of music, shouting of slogans, BC relaying and propaganda. Heard very often during the month with big signals.
IRTS	7088	1410	07	11	RUS ?		Digital	Huge digital signal. Most likely Russian military.

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS	
IRTS	7115	1950	10	11			USB	French male voices, faint. No ID, just short messages.	
IRTS	7123	1325	12	11			Digital	Link-11Clew	
IRTS	7140	1730	11	11	E or MM		USB	2 Spanish fishermen.	
IRTS	7146	0620	04	11	RUS ?		Digital	Big digital signal, most likely Russian military.	
IRTS	7159	1230	14	11			Digital	Link-11 Clew. Very strong.	
IRTS	7165	1240	14	11			FMOP	Radar from 7165 to 7175 kHz.	
IRTS	7199	1735	11	11			Digital	Big digital signal	
IRTS	10127	2235	21	11			FMOP	Radar from 10127 to 10170 kHz. Medium strength signals.	
IRTS	14112.5	1220	25	11	KWT		FSK	North Korean embassy, Kuwait City. Strong.	
IRTS	14280	1010	20	11	UKR ?		USB	Female voice keeps saying "276" in Russian. As of 1010z she changes over into a litany of different numbers. Stops at 1018z.	
IRTS	14292.5	1000	30	11			Digital	Very strong digital signals.	
IRTS	14310	1340	12	11			FMOP	Radar from 14310 to 14320 kHz. Medium strength.	
IRTS	18157	1015	14	11			FMOP	Radar from 18157 to 18180 KHz.	

KARS – Kuwait – 9K2RR (Faisal)

MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3510,0	1955	21	11	RUS		UNID	3000	chirps
MRASZ	3510,0	1727	22	11	RUS		UNID	3000	chirps
MRASZ	3510,0	1747	26	11	RUS		UNID	3000	chirps
MRASZ	3510,0	1656	27	11	RUS		UNID	3000	chirps
MRASZ	3521,0	1914	04	11			A1A		"35954 34675"
MRASZ	3522,0	1817	22	11			F1B	250	
MRASZ	3522,0	1734	26	11			F1B	250	
MRASZ	3524,0	1818	22	11			PSK2		AT3004D
MRASZ	3527,0	1910	21	11			F1B	200	
MRASZ	3527,0	2032	27	11			F1B	200	
MRASZ	3542,0	1735	26	11			PSK2		AT3004D
MRASZ	3543,0	1849	26	11			PSK2		AT3004D
MRASZ	3550,0	2033	13	11			PSK2		AT3004D
MRASZ	3550,0	1657	27	11			PSK2		AT3004D
MRASZ	3553,6	1717	22	11			A1A		quick dotter
MRASZ	3557,0	1637	22	11			F1B	250	
MRASZ	3563,0	1736	26	11			PSK2		AT3004D
MRASZ	3577,5	1748	26	11			A1A		... "QXS +"
MRASZ	3580,0	1737	26	11			F1B	250	
MRASZ	3593,0	1840	20	11			A1A		"56173 54795 89764"
MRASZ	3597,0	1739	26	11			PSK2		AT3004D
MRASZ	3616,5	1630	22	11			PSK2		AT3004D
MRASZ	3641,0	1854	19	11			F1B	250	
MRASZ	3643,0	1851	19	11			PSK2		AT3004D
MRASZ	3657,0	2015	21	11			A1A		slow V string
MRASZ	3657,0	1904	26	11			A1A		slow V string
MRASZ	3725,0	1841	20	11			LSB		music + singing
MRASZ	3726,0	1944	11	11			A1A		"IXIIP KLQZY JJQCM" "=K"
MRASZ	3738,0	1653	25	11			F1B	250	
MRASZ	3792,0	1804	04	11			F1B	200	
MRASZ	3792,0	1826	04	11			F1A	200	"RDL 59158 30828"
MRASZ	3792,0	1902	11	11			F1B	200	
MRASZ	7055,0	1051	14	11			LSB		propaganda + music
MRASZ	7140,0	1745	11	11	ERI		A3E		BC R. Eritrea
MRASZ	7146,0	1830	04	11			PSK2		AT3004D

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	7150,0	1247	10	11			A3E		music, singing
MRASZ	7180,0	1745	11	11	ERI		A3E		BC R. Eritrea
MRASZ	7193,0	1043	14	11			F1B	200	disturbed on one side
MRASZ	7193,0	1055	14	11			F1A	200	"RDL QCZ"
MRASZ	10114,75	0759	28	11			F1B	1000	

OEVSV – Austria – OE3GSA (Gerd)

PZK – Polish group

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
SP5GNI	3519,5	1452	14	11			FSK		200	RTTY-like continous transmission
SP3AMO	3526,0	2034	28	11			PSK/F1 B		200	2035 RTTY
SP5GNI	3540,0	vt	vd	11			A1			Carrier S9
SP5GNI	3582,0	vt	vd	11			MFSK		3k	S9 +10dB, +20dB
SP3AMO	3582,0	1923	11	11			PSK		1k6	
SP5GNI	3590,0	1545	7	11			MFSK		3k	S9 +10dB
SP3AMO	3590,2	2009	11	11			PSK		500	500 Hz wide signal on waterfall [S9+20]
SP5GNI	3595,0	1330	21	11			FSK		250	S9 + 10
SP3AMO	3607,8	2016	11	11			PSK		250	
SP5GNI	3653,0	1328	21	11			FSK		180	S9 + 10
SP5GNI	3688,0	1243	22	11			MFSK		2,8k	pilot 3689,3; 12 lines every 200 Hz
SP5GNI	3697,9	1317	21	11			MFSK		3,3k	Not like Stanag, many tones space 200 Hz
SP3AMO	3722,0	600	1	11	PL	ARS	J3E_L			Station broadcasted profanity, phone calls, music
SP3AMO	3731,0	1927	11	11			UI			
SP5GNI	3735,0	1229	5	11			FSK		500	RTTY-like continous transmission
SP5GNI	3735,0	1134	25	11			MFSK		500	pilot 3735,25 , 4 lines below transmitted in 2 sec. packets
SP5GNI	3738,0	vt	vd	11			FSK		250	RTTY-like continous transmission
SP5GNI	3743,0	vt	vd	11			UI			Pilot 3742,95 + wider peak 3742,6-3742,85 + occasinally peak at 3752,05 kHz
SP5GNI	3743,0	1449	18	11			A1			Carrier S9 +10dB
SP5GNI	3744,5	1939	12	11			MFSK		2,5k	Repeatable transmissions packets 12s long, 1941 stopped
SP5GNI	3754,0	1253	29	11			UI			3745 pilot, 3742,4 broad peak, 3741,8 weak and narrow
SP5GNI	3758,0	1449	18	11			MFSK			6 tones, repeatable transmissions
SP5GNI	3771,5	1920	12	11			J3E_L		5k	Singing male voice, short and repeatable
SP5GNI	3782,0	1120	13	11			MFSK		2,5k	S9 (non continous)
SP3AMO	3792,0	1930	11	11			PSK/R TTY	75	200	Alternately PSK and RTTY
SP5GNI	5353,0	2000	vd	vt			A3E		500	Like carier 2-tone modulated (100 weak and 400 Hz strong), continous, S9 +10dB max
SP5GNI	5360,4	vt	vd	11			FSK		200	
SP5GNI	7000,0	1524	13	11			FMSW		50k	6973 up to 7024 many tones, at 1540 moved to 7100
SP5GNI	7000,0	1235	22	11			UI			frequency hopping
SP5GNI	7000,0	1135	13	11			UI			frequency hopping up to 7080 kHz (SEE ExpertSDR2_SunSDR2_Date_13_11_2019_Time_11_35.jpg)
SP5GNI	7010,0	1341	21	11			MFSK		3 k	S9 + 10 PILOT 7011,3 12 Tones
SP5GNI	7050,0	1233	22	11			J3E_L			Russian-Ukr mess
SQ9DHS	7055,0	vt	vd	11	UKR		J3E_L			Russian-language program, music (Radio Kanal)
SP5GNI	7086,8	1600	7	11			MFSK		2,5k	S9
SP3AMO	7100,0	1934	11	11			NON			
SP3AMO	7115,0	1932	10	11	FR		J3E_U/ F2B			Voice S9, emission F2B S3 - S5. Received untill 2200 UTC
SP5GNI	7122,0	vt	vd	11			FSK		180	S9
SP5GNI	7128,5	1126	13	11			MFSK		2,5k	S7
SP3AMO	7128,8	vt	12	11		MIL	MFSK		1k2	6 lines every 120 Hz

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
SP5GNI	7136,2	1129	13	11			UI			Changable frequency, up - 7136,2 - down very slowly to 7153 ended 1132 (SEE ExpertSDR2_SunSDR2_Date_13_11_2019_Time_11_29)
iq24@iq24.pl	7150,0	407	30	11			A3E			Unkown radio
SP5GNI	7160,8	1627	7	11			UI			Complex - carrier 7159,5 kHz, 3 lines 7162 kHz, packets in-between (SEE ExpertSDR2_SunSDR2_Date_7_11_2019_Time_16_27)
SP5GNI	7188,0	1141	25	11			FSK		250	RTTY-like continuous transmission
SP5GNI	10121,0	1226	22	11			FSK		200	
SP5GNI	10145,0	1409	14	11			MFSK		0,8k	short transmissions
SP5GNI	14091,4	1349	13	11			UI			Like 3 correlated emissions, changable view
SP5GNI	14092,0	1350	21	11			FSK		200	In most cases 3-second long repeatable transmissions
SP5GNI	14133,5	1228	25	11			FSK		600	2 pulses every 2 seconds
SP5GNI	14199,4	vt	vd	11			MFSK		2,5k	
SP3AMO	21051,8	1943	11	11			NON			
SP3AMO	21113,1	1940	11	11			PSK		400	
SP3AMO	21125,7	1939	11	11			NON			
SP3AMO	24899,0	1946	11	11			PSK			
SP3AMO	24899,1	1850	12	11			PSK			3 lines 100 Hz
SP3AMO	24926,3	1851	12	11			NON			
SP3AMO	24941,0	1852	12	11			NON			
SP3AMO	24959,8	1854	12	11			NON			
SP5GNI	28098,9	1156	22	11			FSK		180	
SP3AMO	28139,3	1948	11	11			FMOP			OTHR
SP3AMO	28140,2	1856	12	11		UI	NON			Lines every 50 Hz
SP3AMO	28421,2	1859	12	11			NON			QRG +/-
SP3AMO	28425,3	1952	11	11			NON			
SP3AMO	28438,5	1953	11	11			PSK		170	4 tones emission
SP3AMO	28439,2	1900	12	11			PSK			4 lines every 50 Hz
SP3AMO	28633,0	1906	12	11			NON			
SP3AMO	28633,2	1955	11	11			NON			
SP3AMO	29036,6	1957	11	11			PSK		750	Multitone [2 x 4 lines]
SP3AMO	29582,6	1915	12	11			NON			
SP3AMO	29585,5	2002	11	11			NON			

REF – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Sh/Bw	DETAILS
R.E.F.									November 2019
F5MIU	3647	1800	3	11			lsb	3kHz	Funny sweeping signal, after some body playing with tones facility on is Tx
F5MIU	14105	0845	11	11			fmcw	10kHz	OTH Radar pulsed 20ms,S9+ during 3sec and move away around the 20m band spoiling NCDXF beacons.
F5MIU	14170	0856	8	11			fmcw	10kHz	OTH Radar pulsed 15ms,S9+ during 3sec and move away around the 20m band
F5MIU	14250	0840	8	11			fmcw	40kHz	OTH Radar pulsed 20ms,S9+

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAIL
REP	3500	07.08	02	11	E		J3E-U			Fishery
REP	3550	06.59	02	11	E		J3E-U			Fishery
REP	3550	08.11	02	11	F		A3E			French amateurs ignoring IARU Bandplan, daily
REP	3582	dly	dly	11	TUR		PSK8			NATO Stanag4285

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAIL
REP	7010	23.10	12	11		920014	MFSK8			Mil / Std 188-141A
REP	7025	08.42	02	11			J3E-L			Unid language
REP	7030	23.54	18	11	B		J3E-U			Fishery
REP	7039	dly	dly	11	RUS	F	A1A			Beacon VLADIVOSTOK
REP	7039	dly	dly	11	RUS	M	A1A			Beacon MAGADAN
REP	7100	20.00	18	11	CHN		FMOP	10	160k	OTH
REP	7110	07.50	02	11	RUS		FSK	300	500	FSK encrypted
REP	7125	07.22	02	11	RUS		FSK			CIS 36-50 50/200
REP	7140	dly	dly	11	ETH		8k00 A3EGN			BC Eritrea, daily
REP	7146	10.45	12	11	RUS		PSK2A			AT3004
REP	7180	dly	dly	11	ERI		9k00 A3EGN			Radio Eritrea
REP	10125	12.00	15	11			J3E-U			Fishery
REP	10130	09.12	07	11	MRC		J3E-U			Fishery
REP	14140	16.16	02	11	CHN		FMOP	10	100k	OTH
REP	14150	16.29	02	11	E		J3E-L			Fishery
REP	14192	08.34	03	11	RUS		F1B	50	200	Navy
REP	14195	09.10	23	11	RUS		FSK	50	200	Navy
REP	14275	09.05	12	11	RUS		F1B	75	200	T206
REP	14325	10.05	24	11	E		J3E-U			Fishery
REP	18091	10.58	28	11	CYP		FMCW		20k	OTH sps=50
REP	18100	14.44	27	11	CYP		FMCW	50	20k	OTH
REP	18113	10.36	19	11	MRC	DPRK	F1B	600	600	Embassy
REP	21185	16.01	25	11	MRC		J3E-U			Fishery
REP	21437	07.55	01	11	RUS		A1A			Navy
REP	28550	11.30	12	11	RUS		F3E			Taxis dispatcher
REP	28725	10.12	08	11	RUS		F3E			Taxis dispatchers
REP	28745	10.41	09	11	RUS		F3E			Taxis female dispatcher

RSGB – United Kingdom – G4DYA (Richard)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	3510.0	vt	vd	11	RUS		J3E			USB repetitive chirp sound.
RSGB	7008.0	0803 0905	06 07	11			F1B		250	
RSGB	7038.5	ady	dly	11	CZE	OK0EU	A1A			For info: QRP propagation beacon
RSGB	7051.0	2050 2051 2146	21 27 29	11			F1B		200	
RSGB	7087.0	2131 0805	05 06	11			J7D		2K70E	USB 7085.0 / CIS-12
RSGB	7122.0	1228 0917	19 28	11			F1B		200	
RSGB	7129.0	0808	12	11			J7D		2K70E	USB 7127.0 / CIS-12
RSGB	7140.02	vt	vd	11	ERI	VoBM1	A3E			BC
RSGB	7142.0	1201	08	11			F1B		250	
RSGB	7146.0	1651	04	11			J7D		2K70E	USB 7144.0 / CIS-12
RSGB	7159.0	vt	04, 07, 12-18	11			B7D		6K00E	Link 11 CLEW (ISB or DSB SC)
RSGB	7159.7	1304	03	11			B7D		6K00E	Link 11 CLEW (ISB or DSB SC)
RSGB	7178.0	0910	13	11			J7D		2K70E	USB 7176.0 / CIS-12
RSGB	7180.02	vt	vd	11	ERI	VoBM2	A3E			BC
RSGB	7186.0	0936	23	11			R7D		3K30	USB 7184.0 / CIS-12
RSGB	7188.0	1025 0855 1056 0910	08 10 12 22	11			F1B		250	
RSGB	7190.0	1136	24	11			J3E			LSB / music: Himne Nacional de Catalunya

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	7193.0	vt	01, 04 05, 07-10 13, 14, 19	11	RUS	RDL	F1B		200	Ident in F1A
RSGB	10100.8	ady	dly	11	D	DDK9	F1B	50	450	For info: Primary user: WX broadcast
RSGB	13999.0	0758	06	11			J7D		2K70E	USB 13997.0 / CIS-12. Pilot tone at 14000.3
RSGB	14053.0	0911	08	11			P0N		10K0E	'Foghorn' OTH radar. ~67 sps.
RSGB	14109.0	0808	05	11			P0N		20K0E	'Foghorn' OTH radar. ~67 sps.
RSGB	14170.0	0903	08	11			P0N		10K0E	'Foghorn' OTH radar. ~67 sps.
RSGB	14213.0	0946	06	11			P0N		10K0E	OTH radar.
RSGB	14228.0	0915	08	11			P0N		40K0E	OTH radar. 10 sps.
RSGB	21370.0	0739	04	11			P0N		20K0E	OTH radar FMCW. 50 sps.
RSGB	21438.0	0811 0904	06 07	11	RUS	RCV	A1A			

RSK – Kenya – 5Z4BV (Kamweti)

Soc	kHz	UTC	dd	mm	ITU	Identity	MODE	Shift	Details
RSK	7040	v.t.	nr.dly	11	East Africa?	?	J3E-1		Kiswahili QSO
RSK	7045	1245	10	11	Central Africa?	?	J3E-1		Vernacular QSO
RSK	7087	0405	7	11	?	?	PSK	2800	CIS 12
RSK	7120	v.t.	dly	11	?		A3E		Carrier and weak broadcast; unconfirmed identity
RSK	7135	p.m.	occ.	11	E. Africa	?	PSK	2500	ALE MIL 188-141/STANAG
RSK	7140	v.t.	dly	11	Eritrea	Voice of the Broad Masses of Eritrea 1	A3E		Commercial broadcast
RSK	7140	1250	10	11	Central Africa?	?	J3E-u		French/vernacular net
RSK	7146	0355	4	11	?	?	PSK	2800	CIS 12
RSK	7160	1150	12	11	Central Africa?	?	J3E-1		French/vernacular net
RSK	7180	v.t.	dly	11	Eritrea	Voice of the Broad Masses of Eritrea 2	A3E		Commercial broadcast

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7007.9	0615-1435/	2	11		UiCarr	N0N			
SRAL	7008.0	0630-1515	*	11	RUS	UiPTR	F1B		250	Days: 6. 7. 15. 25.
SRAL	7010.0	0615-1330	18 21	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7012.0	0930-1200	29	11		UiMUX	PSK2	120	2600	
SRAL	7015.0	1000-1030	3 4	11	RUS	RIT	A1A			Calls RLO
SRAL	7021 A	0815-0830	15	11	RUS	UiPTR	F1B		500	Unstable fq
SRAL	7030.0	0900-0943/	25	11	RUS	UiPTR	F1B		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7044.0	1200-1315	22	11		UiCarr	N0N			
SRAL	7054.0	1200-1215	21	11	RUS	UiPTR	F1B		250	
SRAL	7073.0	0915-1200	29	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7087.0	0600-1630	6 7	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7090.2	1315-1330/	21	11		UiPTR	F1B		1100	ship
SRAL	7111.3	1015-1210/	20	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7119.0	0830-0843/	10	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7122.0	0745-1500	*	11	RUS	RDL	F1A/B		200	5F, days: 11. 12. 14. 21. 26. 27. 29
SRAL	7129.0	0930-1306/	12	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7140,0	0450-0700	dly	11	ERI	VoBME	A3E			
SRAL	7140,0	1400-1835/	dly	11	ERI	VoBME	A3E			
SRAL	7141.0	1035	8	11		UiCW	A1A			MR, 5F
SRAL	7146.0	0500-1915	*	11	RUS	UiMUX	PSK2	120	2600	Days: 1. - 5. maybe h24
SRAL	7148.0	0830-0837/	15	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7159.0	0630-1830	*	11		UiMUX	DQPSK			LINK11 dsb, days: 3. 4. 8 .12. 13. 14. 19. ship
SRAL	7178.0	'0830	13	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7180.0	0515-0700	dly	11	ERI	VoBME	A3E			
SRAL	7180.0	1400-1835/	dly	11	ERI	VoBME	A3E			
SRAL	7188.0	0650-1300	*	11	RUS	UiPTR	F1A/B N0N		250	Days: 5. 6. 9. 10.11. 12. 14. 16. 17. 19. 20. 24. 25. 26. 27. 29. 5F
SRAL	7193.0	0800-1450/	*	11	RUS	RDL	F1A/B N0N		200	Days: 1. 3. 4. 5. 7. 8. 9. 11. 13. 14. 16. 18. 19. 20.
SRAL	7196.0	0615-1300/	18	11	RUS	UiPTR	F1B		200	
SRAL	7198.0	0830-1230	16 28	11	RUS	UiMUX	PSK2	120	2600	
SRAL	7200.0	1350	29	11	RUS	UiPTR	F1B		250	
SRAL	7 MHz	0830-0900	11	11	RUS	Kontainer	FMCW			40Hz/ 13kHz
SRAL	7 MHz			11	CHN	UiOTHR	FMCW			10Hz/ 40kHz
SRAL	10 MHz	'0810	3	11	CYP	UiOTHR	FMCW			25/50Hz/ 20kHz, (WebSDR 17d)
SRAL	10MHz			11	RUS	Kontainer	FMCW			40Hz/ 13kHz
SRAL	10113.0	'0845	11	11	RUS	UiMUX	PSK2	120	2600	
SRAL	14 MHz	0630-0700	7 15	11	CHN	UiOTHR	FMCW			10Hz/ 40kHz, (WebSDR 4d)
SRAL	14 MHz	0530-0915	*	11	CHN	UiOTHR	FMCW			67Hz/ 10kHz, days: 1. 3. - 7. 11. 13. 18. foghorn
SRAL	14 MHz	0630-0930	*	11	RUS	Kontainer	FMCW			40Hz/ 15kHz, days: 15. 19. 30. (WebSDR 3d)
SRAL	14008.0	0540-1050	*	11	RUS	UiPTR	F1B/ N0N		500	Days: 7. 8. 17.
SRAL	14220.0	0620-0630/	19	11		UiMUX	PSK2	120	2600	
SRAL	14294.0	0630-0800	25 30	11	CHN	UiMUX	PSK2	120	2600	
SRAL	14295.2			11	TJK	R	A3E			3f, not heard

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
						Tojikiston				
SRAL	18 MHz	0550-1330	*	11	CYP	UiOTHR	FMCW			25/50Hz/20kHz, days: 2. 10. 14. 16. 20. (WebSDR 16d)
SRAL	18 MHz			11	RUS	Kontainer	FMCW			40Hz/15kHz (WebSDR 0d)
SRAL	18080.0			11	TWN	Sound of Hope	A3E			CHN jam by BC, not heard
SRAL	21 MHz	0630-0815	*	11	CYP	UiOTHR	FMCW			25/50Hz/20kHz, days: 1. 3. 13. (WebSDR 13d)
SRAL	21 MHz	0630-0653/	13	11	CHN	UiOTHR	FMCW			10Hz/ 40kHz
SRAL	21438.0	/0830-1030	*	10	RUS	RCV	A1A			Days: 1. 2. 4. 5. 13. 14. 29.
SRAL	24 MHz			11		UiOTHR	FMCW			(WebSDR 0d)
SRAL	28 MHz			11	IRN	UiOTHR	FMCW			307 & 870Hz / 60 kHz.
SRAL	28860.0			11	IRN	UiOTHR	FMCW			150 & 313Hz / 60 kHz.
SRAL	28 MHz			11	RUS	Taxi disp.	F3E			no reports

URE – Spain – EA6AMM (Gaspar)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
URE	7001.8	08:03	07	11			PSK8	2400		STANAG 4285
URE	7008	VT	VD	11			F1B		250	Moscow
URE	7055	VT	VD	11	RUS /UK R		J3E-L			Music, speech
URE	7087	07:56	07	11	RDL		PSK2A		2600	AT3004_D. Kaliningrad
URE	7115	13:43	09	11	FR	UI,PQ8, K6V, Contact	J3E-U			French (MIL?) stations sending QTC (“message de service”) then “transmettez” and changing to F1B 75 Bd. BW = 850 Hz.. Also on 10 November. Video: https://www.youtube.com/watch?v=Vt_nlqv7Hns0
URE	7017	13:43	09	11	FR		F1B	75	850	French (MIL?). Also on 10 November
URE	7159	VT	VD	11			G7D			LINK11 CLEW DSB. Video: https://www.youtube.com/watch?v=eT_T_RzIGaA4
URE	7188	VT	VD	11	RUS		F1B	44	250	Krasnoyarsk
URE	7193	VT	VD	11	RDL		F1B		200	Kaliningrad. RUS Navy
URE	10111.1	17:49	16	11			J3E-U			Fishermen talking
URE	10113	08:56	11	11			PSK2A	120	2600	AT3004D
URE	10114.8	VT	VD	11	RUS		F1B		500	Moscow
URE	10113	15:30	21	11	E/M M		J3E-U			Spanish fishermen talking (Galician language).
URE	10119.5	09:29	19	11			FSK	600	600	DPRK-FSK 600
URE	10121	VT	VD	11	RUS		F1B		250	Moscow
URE	10123	08:47	29	11			F1B		250	
URE	14113.5	07:50	14	11			FSK	600	600	DPRK-FSK 600. Also on 15 Nov.
URE	14124.5	08:50	22	11			FSK	600	600	DPRK-FSK 600
URE	14148.5	08:58	22	11			FSK	600	600	DPRK-FSK 600. Video: https://www.youtube.com/watch?v=0qMXw5rBHms
URE	14000*	VT	VD	11			FMOP		10k	OTH Radar bursts. 3 Transmissions on the band regularly hopping. Received on 5,6
URE	14310	08:10	12	11			FMOP		40k	OTH Radar
URE	21420	08:02	13	11			FMOP		40k	OTH Radar

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7000.0	1605	05	11			J3E-U		2k1	unident language (sounds asian)
USKA	7000.0 USB	1529	06	11			G7D	2400	3K00E	Stanag 4285
USKA	7000.0 USB	1622 1927	20 22	11			G1D PSK8	2400	2k7	MIL 188-141B, App. C
USKA	7008.0	1044	06	11			F1B	75	250	
USKA	7009.0 LSB	1506	20	11	CHN		OFDM3 0PSK-4	30x60Bd	ca2k5	CHN-30; Burst system; tone spacing 75 Hz; Preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone
USKA	7010.0	1625	20	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7013.0	1558	20	11			MFSK8	125	1750	ALE, MIL 188-141A
USKA	7018.0	1531	20	11			MFSK8	125	1750	ALE, MIL 188-141A
USKA	7023.0	1532	06	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7051.0	2216	19	11			F1B	50	200	
USKA	7054.0	1825	14	11			F1B	50	200	often
USKA	7055.0	0934	13	11			J3E-L		ca 2k7	Music and statements, often
USKA	7087.0	0837	06	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7108.0 LSB	2208	20	11	CHN		OFDM3 0PSK-4	30x60Bd	ca 2k5	CHN-30; Burst system; tone spacing 75 Hz; Preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone
USKA	7111.0 LSB	1433	07	11	CHN		OFDM3 0PSK-4	30x60Bd	ca 2k5	CHN-30; Burst system; tone spacing 75 Hz; Preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone
USKA	7122.0	0733	21	11 15		RDL	F1B F1A	50	200	almost daily
USKA	7129.0	0831	12	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7134.0	1600	08	11			F1B	XX	200	
USKA	7140.0	1557	06	11	ERI	VOBM	A3E		ca 9k	BC often
USKA	7142.0	1212	08	11			F1B	75	250	
USKA	7146.0	2334	02	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7150.0	2342	02	11		1028	MFSK8	125	1750	ALE, MIL 188-141A; To: 7246
USKA	7159.0	1437	07	11			G7D	14x75	3K00E	DQPSK: LINK 11 CLEW, SSB Mode
USKA	7159.0	1119	13	11			F1B	75	200	
USKA	7178.0	0925	13	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7180.0	1559	06	11	ERI	VOBM	A3E		ca 9k	BC almost daily
USKA	7186.0	1017	23	11			J7D	12x120	2k7	PSK2; CIS12 aka AT3004D; Carrier at 7184; Pilottone at 3300Hz
USKA	7188.0	1027 0930	12 19	11			F1B F1A	43.8x	250	QRJ ? often
USKA	7192.9	1214	04	11			A1A			Dots: Jammer, stupid and illegal!
USKA	7193.0	0917	04	11	RUS	RDL	F1B	50	200	TDoA: Kaliningrad almost daily
USKA	7193.1	0819	14	11	RUS	RDL	F1A	17 wpm	200	Numbers and letters; encrypted stopped at 0827
USKA	7196.0	0926	18	11			F1B	75	200	
USKA	7197.0	1539	08	11	TUR	various	MFSK8	125	1750	ALE, MIL 188-141A; Networkdaily
USKA	7198.0	0731	21	11			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	14113.45	1256	25	11			F1B	600	600	ARQ often
USKA	14201.0	0838	12	11			FMOP	10 sps	40k	OTHR; long lasting
USKA	14223.5	1131	05	11			G1D	2400	ca 2k7	PSK-8; MIL 188-141B, Appendix C
USKA	14228.0	0910	03	11			FMxx	41	10k	OTHR (24300µs)
USKA	14264.0	0841	07	11			FMOP	10 sps	10k	OTHR
USKA	14336.0	0932	18	11			FMOP		10k	OTHR; Bursts
USKA	18164.0	1016	14	11			FMCW	25 sps	20k	OTHR
USKA	28198.0	1012	01	11	IRN		XXX	226+ 333 sps	ca 45k	OTHR, Bursts sweep rate alternating
USKA	28860.0	1027 0957	01 19	11	IRN		XXX	150 + 313 sps	ca 45k	OTHR, Bursts; long lasting, sweep rate alternating often

Veron – Netherlands – PG1R (Ruud)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3522,0	1747	26	11		UiPTR	F1B		Ptr
VERON	3548,0	1933	05	11	CIS	UiPTR	F1B		Revs/Ptr
VERON	3580,0	1745	26	11		UiPTR	F1B		Ptr
VERON	3608,0	2115	16	11	RUS	UiPtr	F1B	200	Printer; S8; splatters
VERON	3690,0	1808	25	11	RUS	RKN	A1A		RKN QTC 839 42 1617 839 = Prip Astrahanx port
VERON	3738,0	1736	25	11		UiPTR	F1B		Ptr
VERON	3792,0	1935	05	11	CIS	UiPTR	F1B		Revs/Ptr
VERON	3792,0	1937	05	11	RUS	RDL	F1A		RDL 93905 41557 K
VERON	7008,0	1325	06	11		UiPtr	F1B	250	Printer; S7; + jammer (HAM?)!
VERON	7023,0	1324	06	11		UiPtr	F1B	500	Printer; S5 QSB
VERON	7040,0	1321	06	11		UiMux		300	several unstable carriers; S7 QSB
VERON	7054,0	1559	07	11		UIMux		3k6	Jammer ?
VERON	7055,0	vt	vd	11	RUS/UKR		J3E-1		Chaos; music/slogans; 2 TX same freq. ; S8-9
VERON	7122,0	1015	22	11		UiPTR	F1B		Revs/Ptr
VERON	7188,0	1036	17	11	RUS	UiPtr	F1B	250	Printer; S6
VERON	7193,0	1021	18	11	RUS	RDL	F1A		RDL 04121 49719 K
VERON	7193,0	1015	04	11	CIS	UiPTR	F1B	200	Revs/Ptr
VERON	7193,0	1105	05	11	RUS	RDL	F1A		RDL 75966 42587 K
VERON	7193,0	1027	07	11	CIS	WEGI	F1A		XXX WEGI 17606 45075 NIBOSAEK 2579 7166 K
VERON	7198,0	1221	16	11	RUS	UiMux	PSK2A	2k6	AT3004D
VERON	10100,0	2038	19	11	E	UiLI	J3E-u		Spanish male voices; fishery?
VERON	14280,0	1012	06	11	RUS	276	J3E-u		276 2 419 5 62433 82152 5F in Russian language
VERON	21048,0	1451	07	11	CYP	UiRadar	FMCW	20k	OTHR; 50sps
VERON	21438,0	0952	06	11	RUS	RCV	A1A		RCJG de RCV QCZ K
VERON	21438,0	0955	06	11	RUS	RCV	A1A		RCJG de RCV QSU1 SK
VERON	21438,0	1003	06	11	RUS	RCV	A1A		RBE87 de RCV QTC 649 29 4 0910 649 = Nawip 038 2009 Karta 32300
VERON	21438,0	1013	15	11	RUS	RCV	A1A		RGX94 de RCV QTC 909 55 0910 909 = Nawip 037 007
VERON	21438,0	1021	15	11	RUS	RCV	A1A		RIP90 de RCV QTC 462 46 2 1408 462 = Nawip 033 1994 Karta 30303

The monitoring team of IARU Region 1

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All our friends and contributors worldwide!

Many thanks for your interest!

Seasons greetings from DK2OM and HB9CET!

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