



Monthly Newsletter - September 2025

- **Video feature:** click on the “play” red icons in the text or in the images of the Newsletter to watch the videos



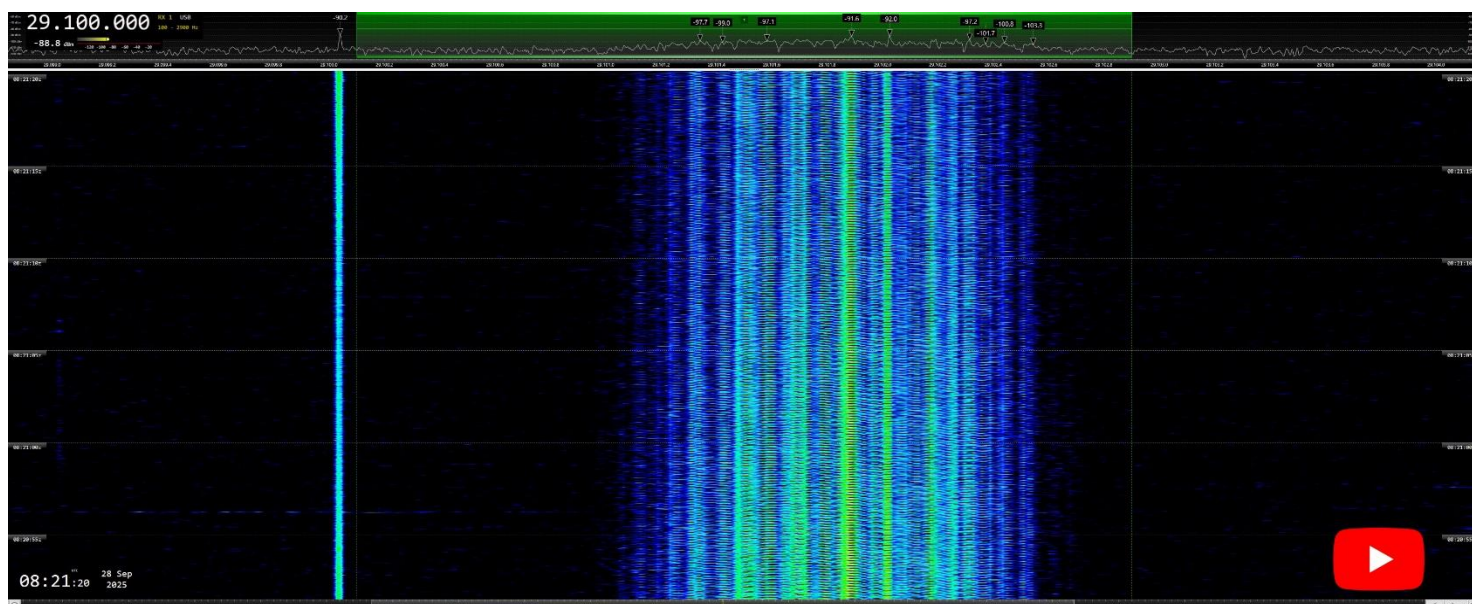
- **IARU IWS Wiki:** find more information, screenshots, videos and recordings of the transmission modes most used by non-amateur stations on the amateur radio bands: <https://www.iaru-r1.org/spectrum/monitoring-system/iarums-wiki/>

News and Info

As in recent issues, we begin this report by describing some of the signals that drew our attention during the month, among which we found several new ones not previously received.

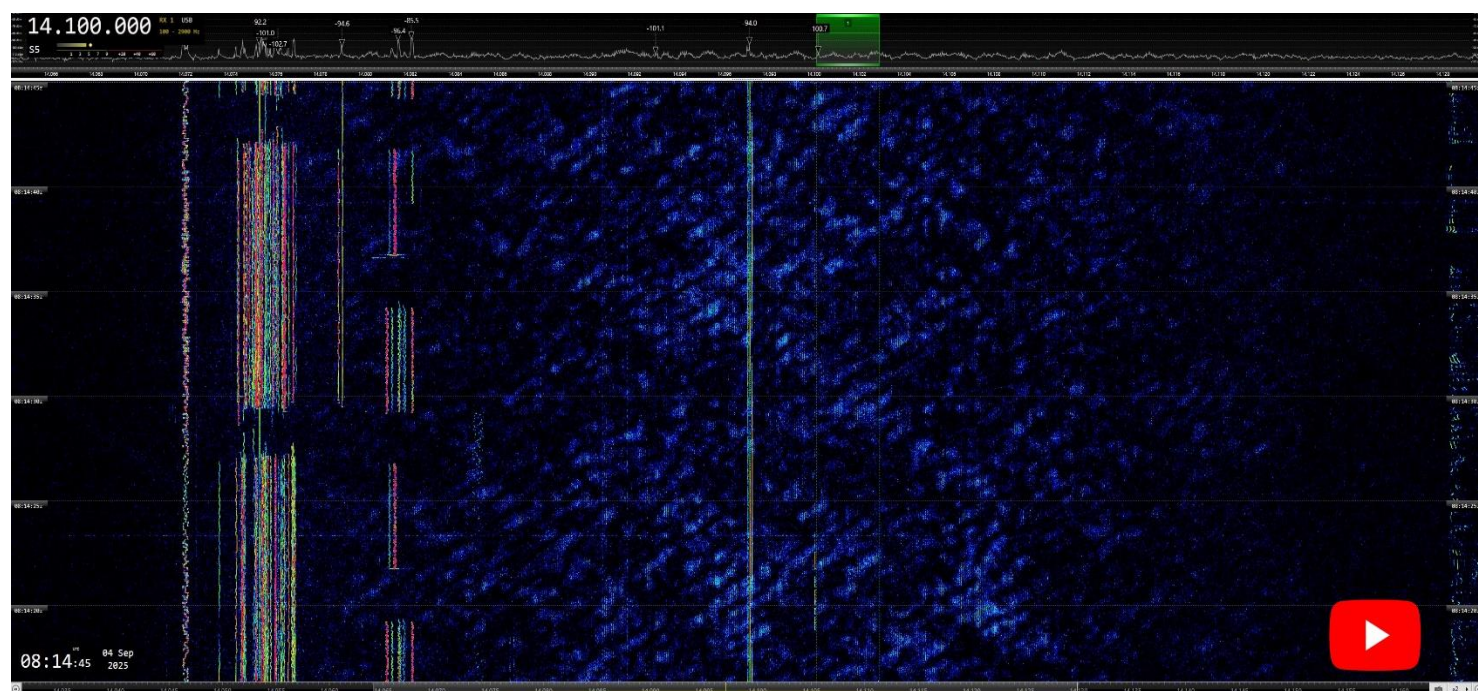
We would like to remind readers that hardly a month goes by without the appearance of new signals, which add to the long list of known emissions that we unfortunately continue to encounter month after month across the amateur HF spectrum. This ongoing trend indicates a steady increase in the number and variety of non-amateur transmissions occupying these bands. A significant portion of these new signals are wideband in nature, representing an even greater threat to the integrity of our amateur allocations.

During September 2025, we discovered a long-lasting transmission of a signal not previously observed. It consisted of a BPSK emission with a bandwidth of 2.8 kHz and a symbol rate of 1200 Bd, continuously transmitting the same sequence for extended periods on 29100 kHz USB. On the same frequency, but in LSB mode, we also observed short-duration transmissions with a bandwidth of 3.5 kHz, during which counting from 1 to 10 in Russian was heard. This could suggest that the BPSK signal might have been part of testing activity, although no firm link between the two transmissions can be confirmed.



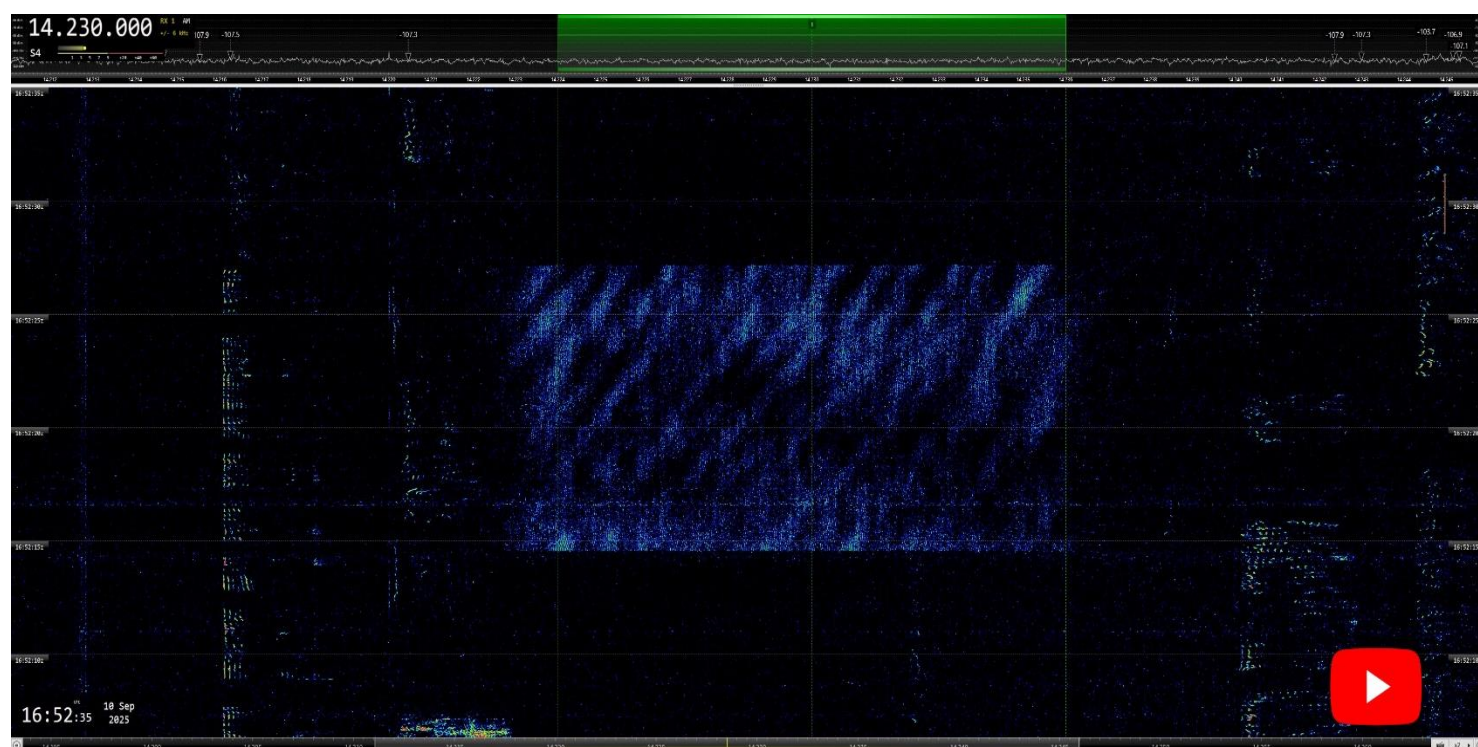
29100 kHz USB: XXX. BPSK 1200 repeating the same sequence. BW ca 3 kHz Long-lasting. Purpose: unknown

A further reception was made of an unidentified wideband signal on 20 metres, specifically on 14000 kHz CF, showing a total bandwidth of 40 kHz and an ACF of 83.3 ms.:



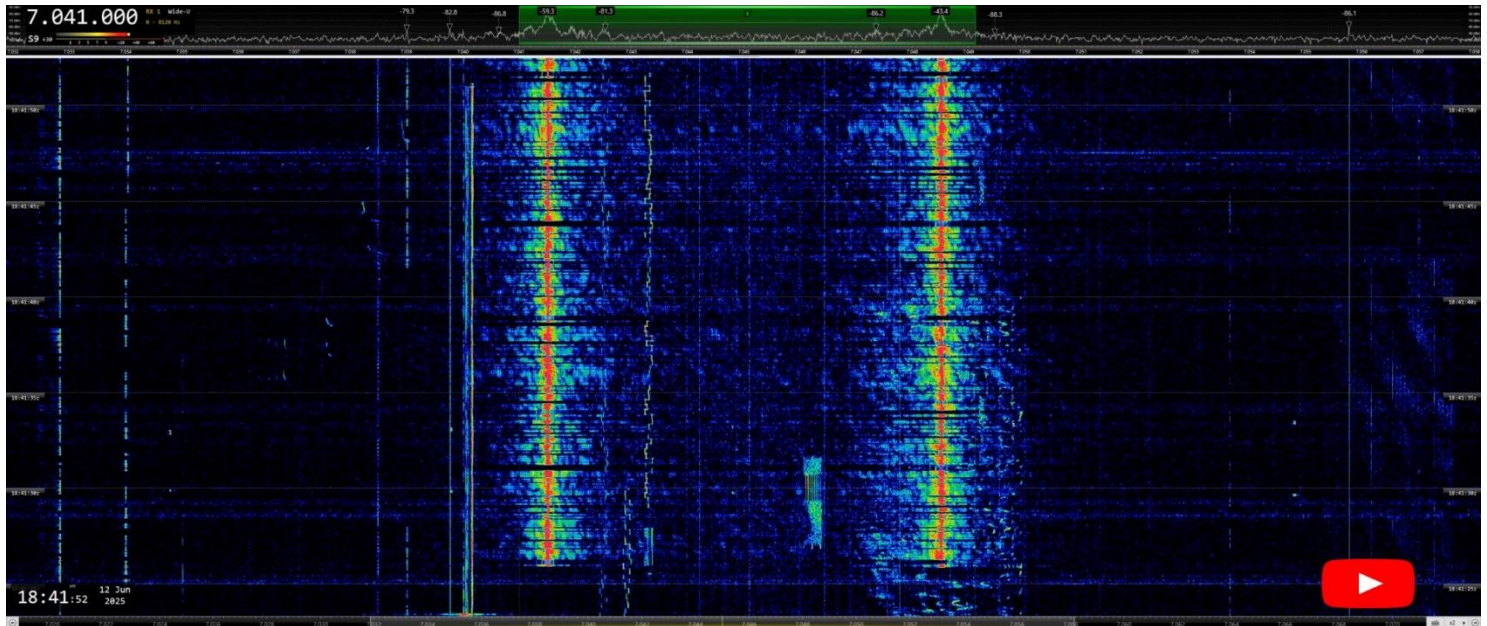
14100 kHz CF: XXX. BW 40 kHz. ACF = 83.3 ms

Also noteworthy on the same band were several bursts with a bandwidth of approximately 12 kHz and a PRF of 40 pps. Could this be a new radar system, or perhaps the well-known Russian Over-The-Horizon radar Contayner operating in a burst transmission mode? Unfortunately, the signal was short-lived, and no direction-finding data could be obtained.



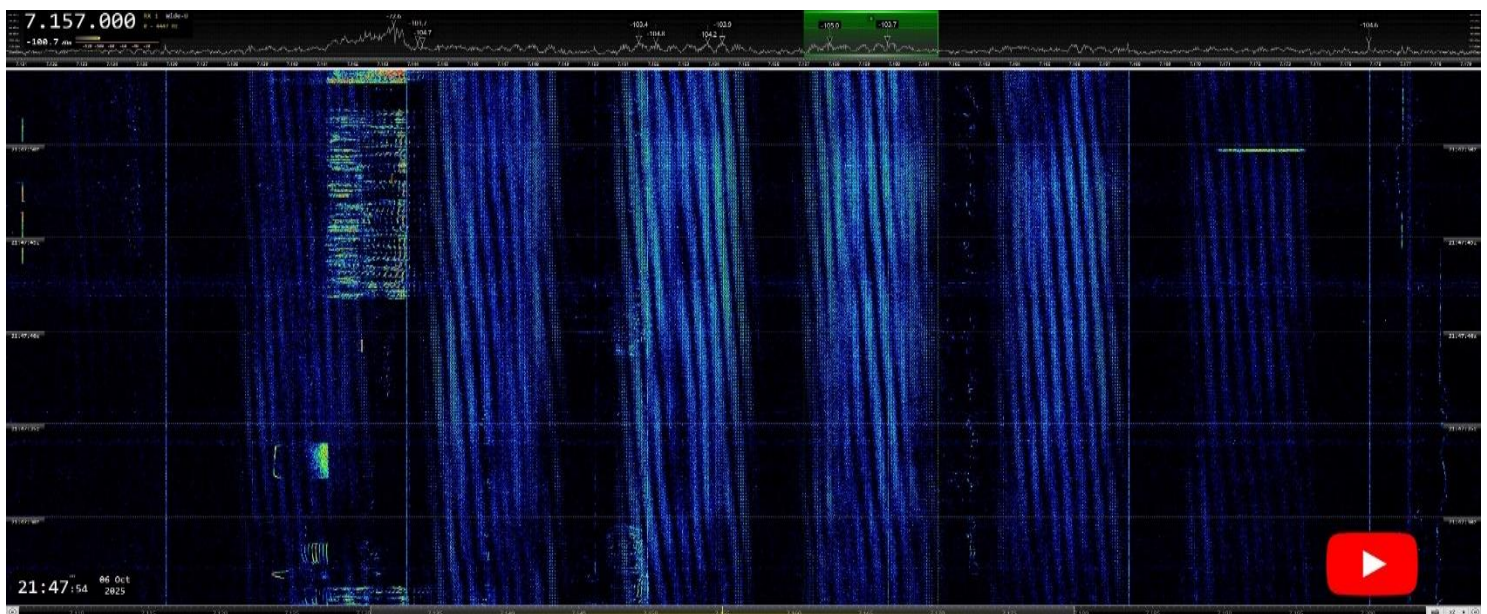
14230 kHz CF: Unidentified radar bursts. BW = 12 kHz. PRF = 40 pps

Two FSK transmissions, 7 kHz wide and operating at 20 Bd, which had previously been detected in July and August on the 40-metre band, were again observed several times in this band during September. No variations have been noted so far, and their purpose remains unknown.



7045 kHz CF: F1B (FSK). Shift = 7 kHz. 20 Bd. Also on 7066.5 kHz CF. Both repeating the same sequence.

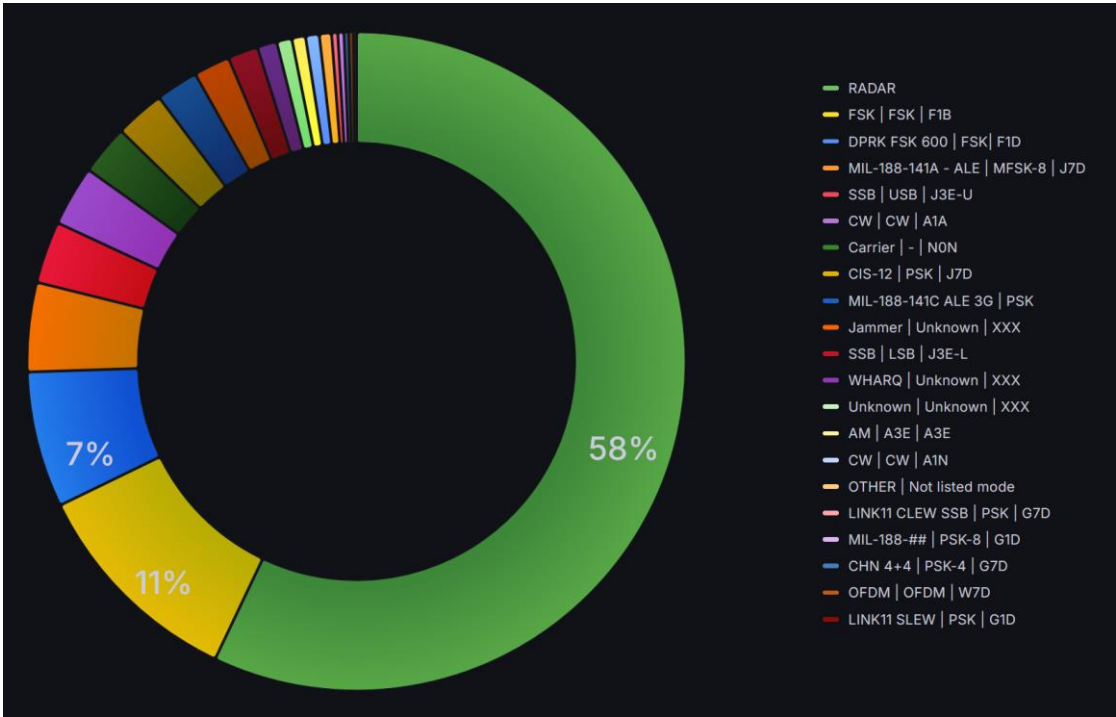
Also detected were the already well-known jammers (a jammer is a transmission intentionally made with the purpose of preventing the reception of another signal transmitted on the same frequency), active mainly on the 40-metre band—where they appear most frequently—and to a lesser extent on 15 metres, where their activity has noticeably decreased in recent months. These jamming signals are characterised by modulation on an 85 Hz tone. During September they were observed on numerous frequencies within the 40-metre band; most notably, frequent occurrences were logged on 7156 kHz CF, where six simultaneous transmissions of this jammer were active, each about 5 kHz wide and covering together an overall span of nearly 40 kHz.



7156 kHz CF: Jammer. 85 Hz. 6 simultaneous TX. BW = 5 kHz each. Disturbed spectrum: ca 40 kHz

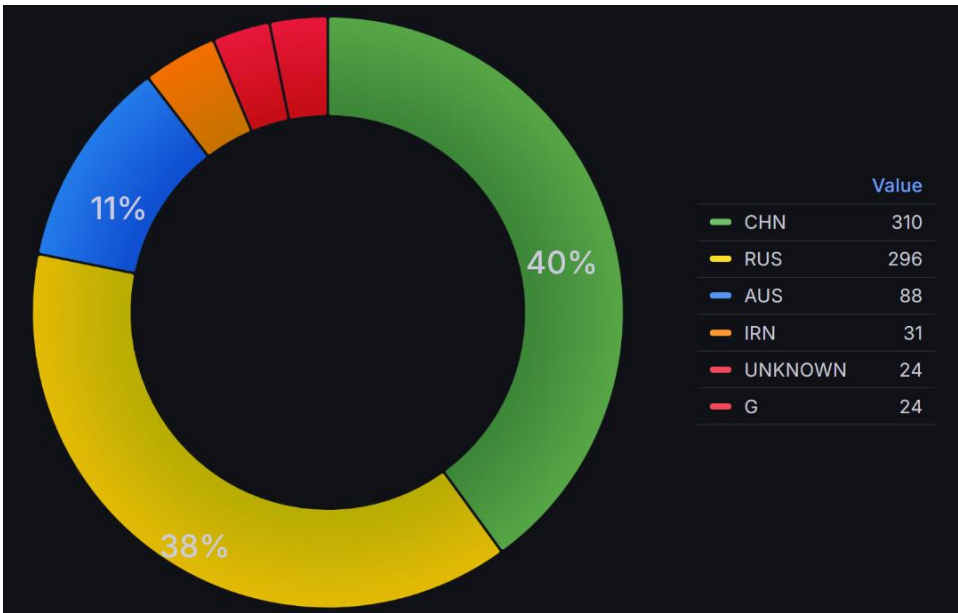
We will now address the most common non-amateur transmissions that can be received each month in the amateur HF bands — a phenomenon that has persisted for many years.

As shown in the following chart, the majority of these transmissions are produced by radars (and most radar transmissions originate from military Over-The-Horizon Radars — OTHR). These, in most cases, operate at very high-power levels and generally occupy wide bandwidths. Moreover, they tend to be long-lasting transmissions, which makes them the most disruptive to the spectrum allocated to amateur radio in HF.



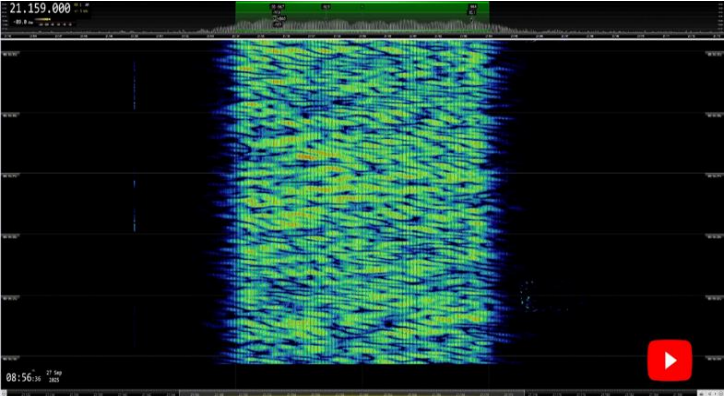
Non-amateur TX received in September 2025. Distribution by TX modes.

The chart below shows the distribution of the radar transmissions detected in September, originating from each country

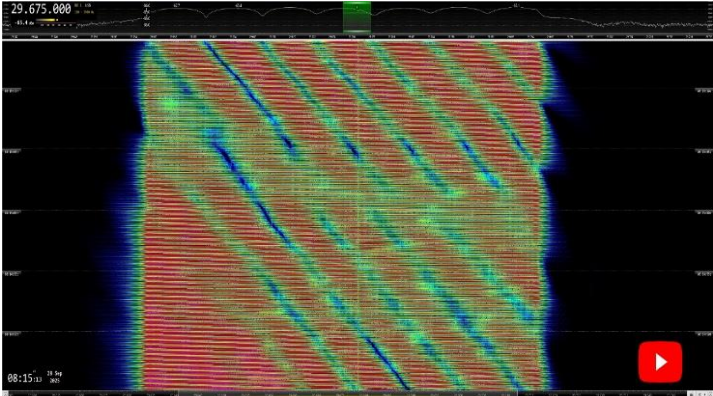


Radar transmissions received in September 2025, distributed by country of origin of the TX

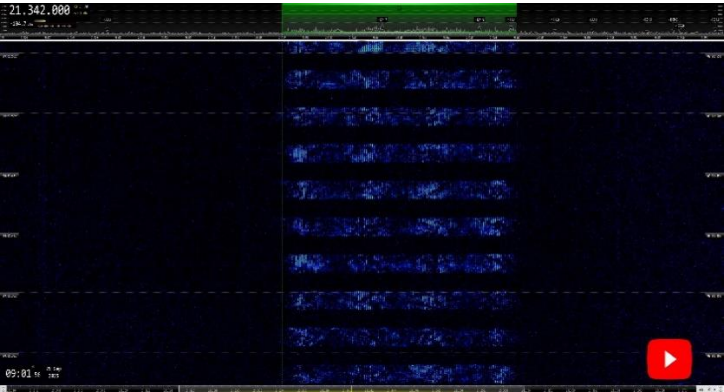
Below, some examples of the radar transmissions received during September 2025:



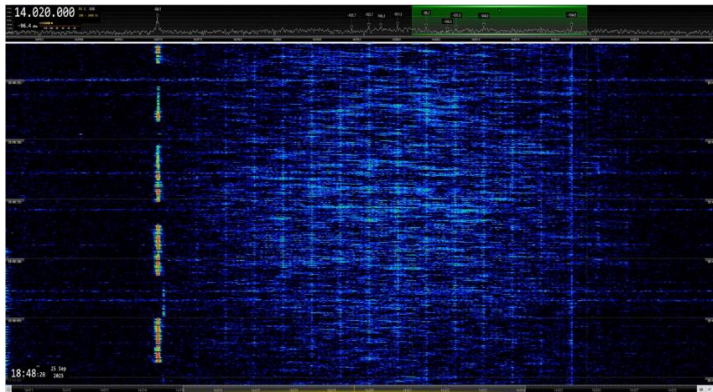
21159 kHz CF: CHN OTHR. BW = 10 kHz. PRF = 50 pps



29675 kHz CF: British OTHR (UK SBA, Cyprus). BW = 40 kHz. 12.5 pps

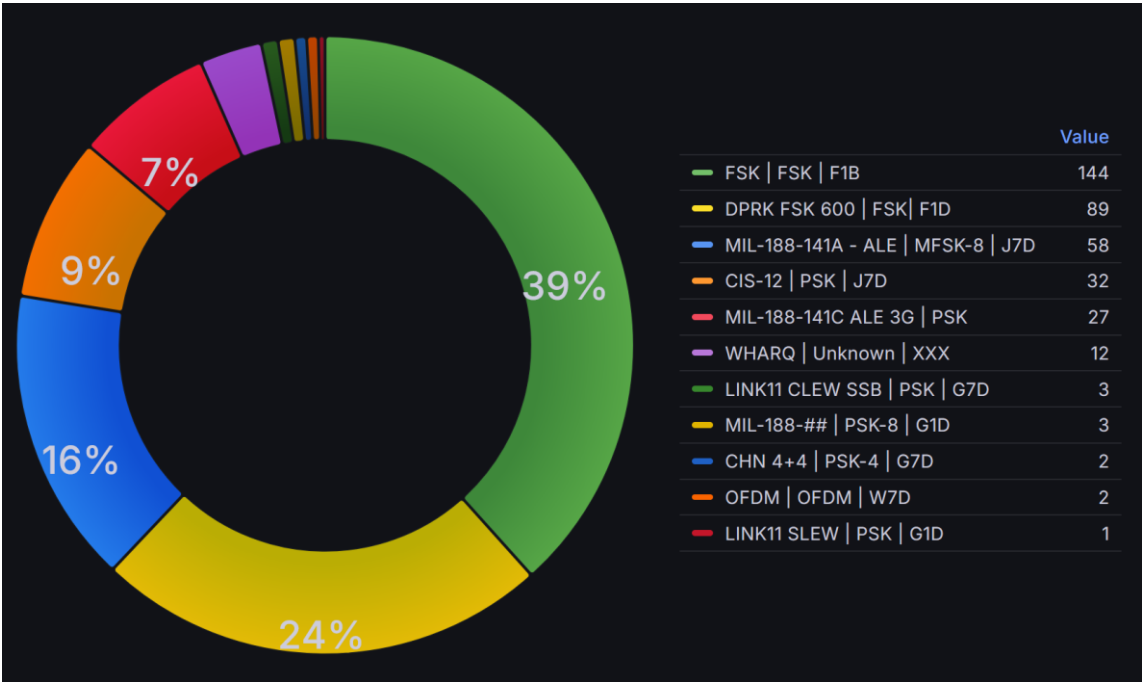


21342 kHz CF: CHN OTHR „Foghorn“ bursts. BW, 10 kHz. 83.3 pps



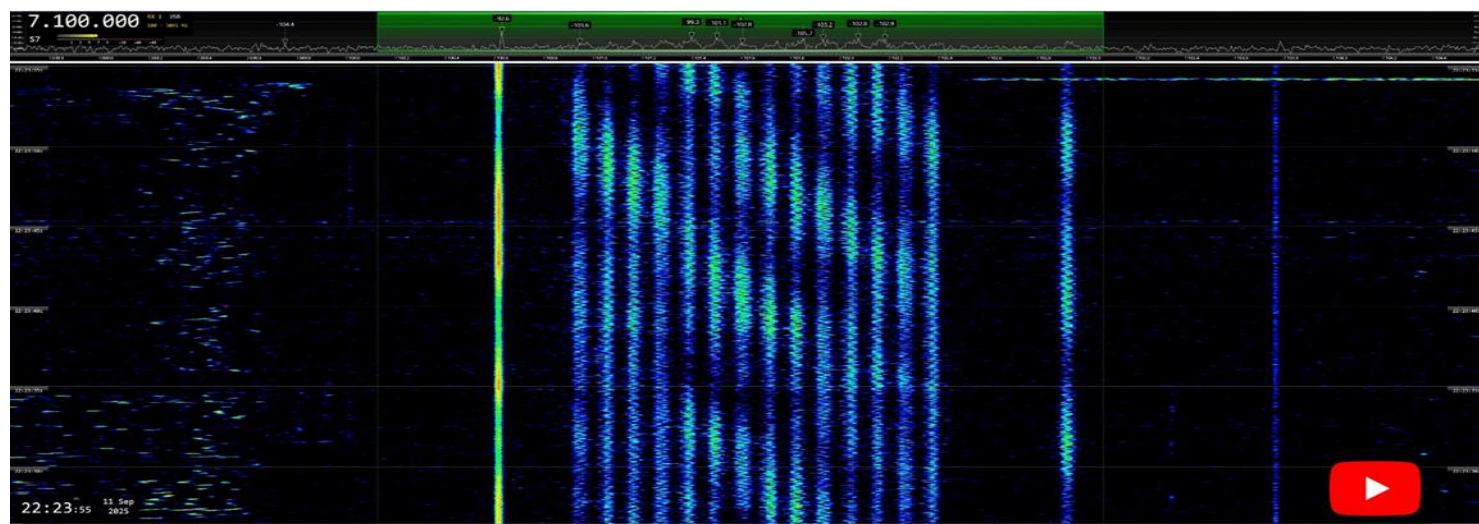
14020 kHz CF: SuperDARN radar bursts, BW ca 6 kHz. Hopping

This category of non-amateur transmissions is followed in number by those produced using various military and diplomatic modes. Below, a chart showing the distribution of these transmissions by mode, and a few examples of these transmissions

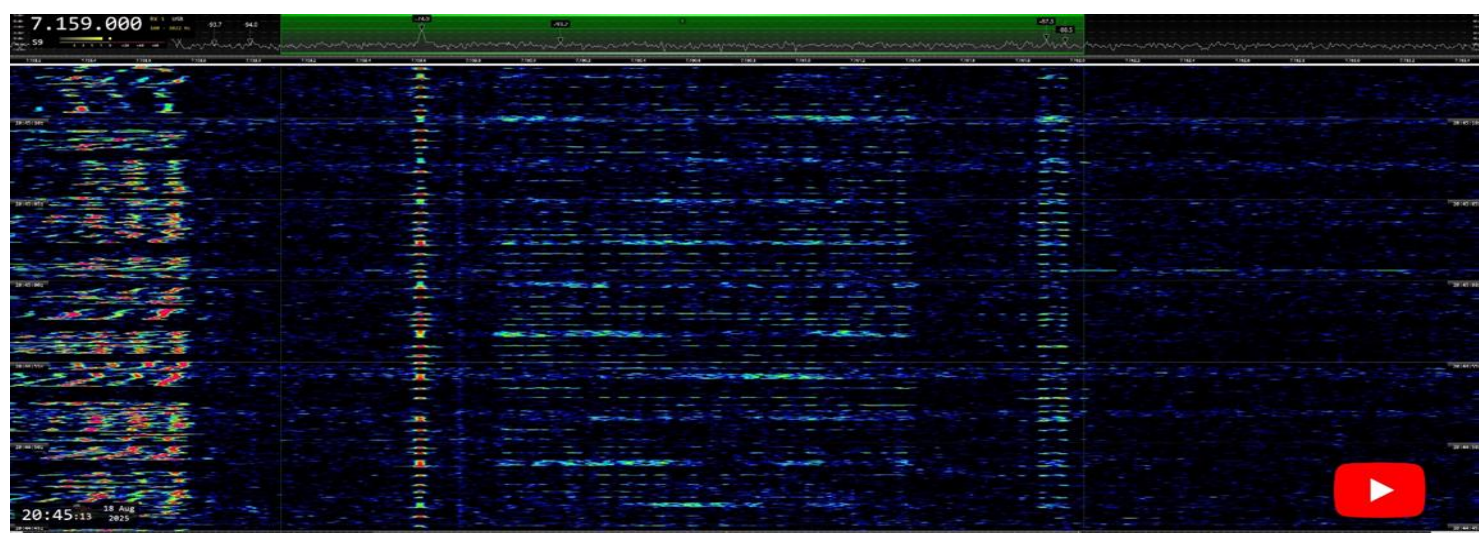


MIL and DIPLO modes received in September 2025

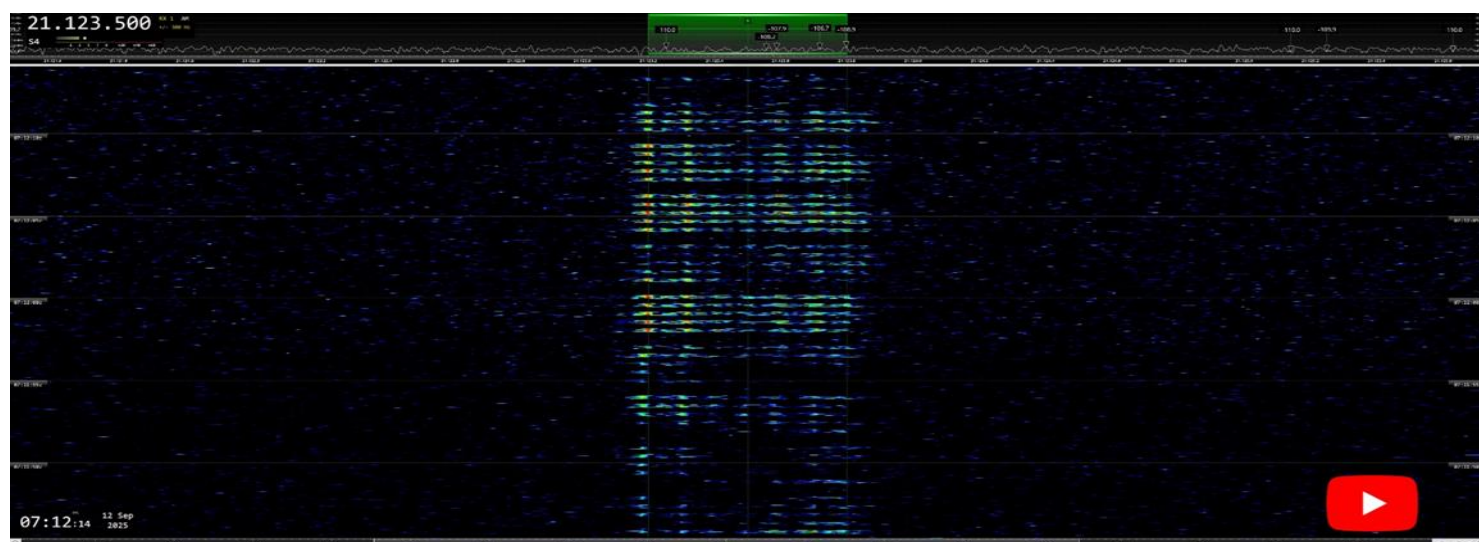
Here we propose some examples of these transmissions received during September 2025:



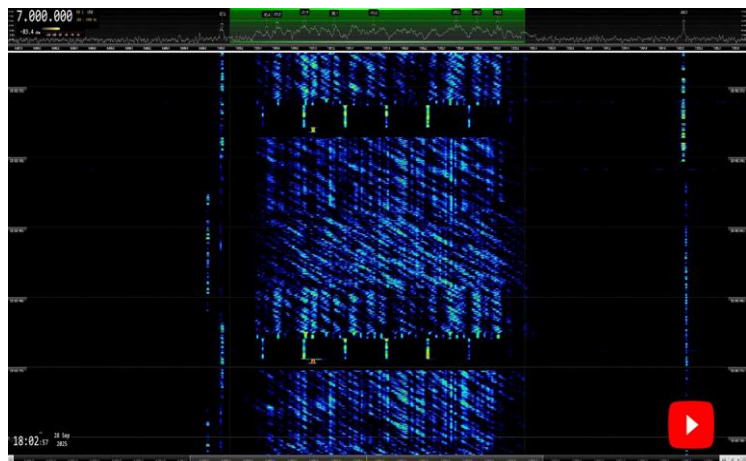
7100 kHz USB: LINK-11 CLEW SSB. G7D. BW = 2.4 kHz. 75 Bd (unusual type of TX: same mode but different appearance and sound that the one below)



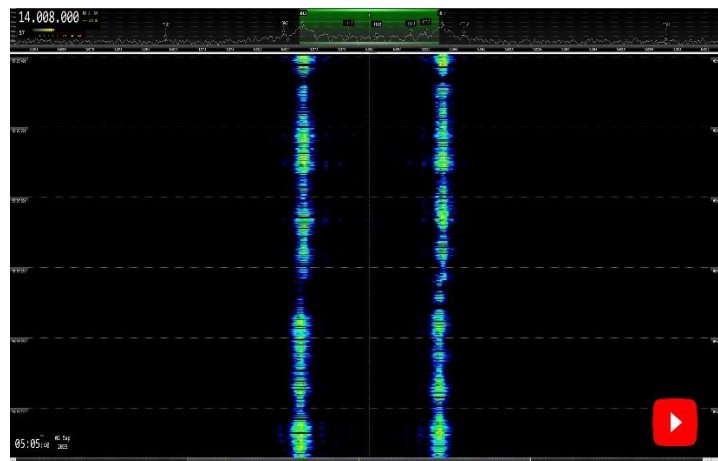
7159 kHz. LINK-11 CLEW SSB. G7D. BW = 2.4 kHz. 75 Bd



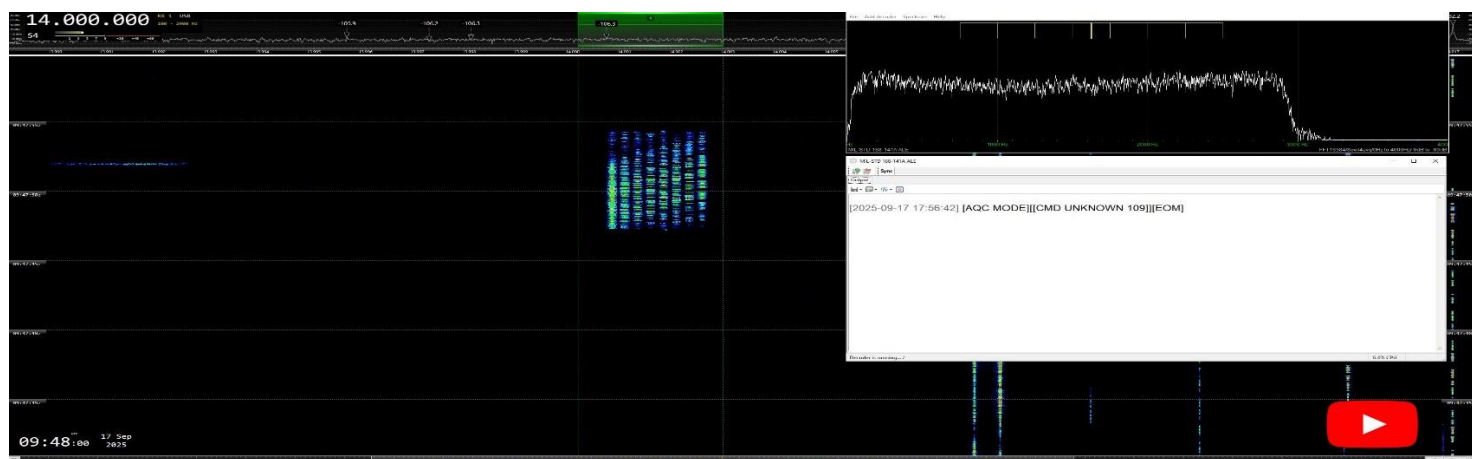
DPRK-PSK 600. G1D. BW = 600 Hz. 600 Bd



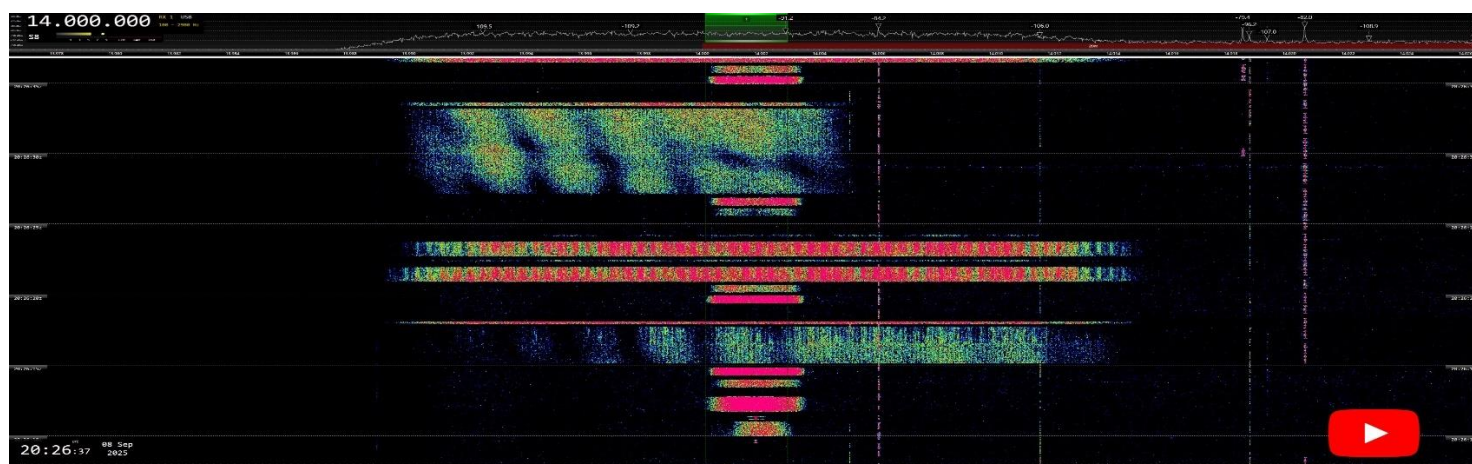
7000 kHz USB: ISR Navy hybrid modem bursts. BW. 2.4 kHz. 2400 Bd



14008 kHz CF: F1B (FSK). Shift = 500 Hz. 50 Bd. RUS (example video)



14000 kHz USB: MIL-188-141A ALE 2G (example video)



14000 kHz USB: WHARQ. Wideband HF Hybrid Automatic Repeat Request (ARQ). BW = 24 kHz. 19200 Bd

Like every month, and since many years, different types of pirates were also heard, transmitting from the 3 IARU Regions, using different transmission modes, mostly SSB Am and FM.

Find other videos and screenshots about the transmissions received during September 2025 at the end of this Newsletter

Detailed reports of national coordinators

Abbreviations used (as per IARU IWS definitions)

aka = also known as | **BC** = Broadcast | **Bd** = Baud | **BD** = Burst duration) | **BRI** = Burst repetition interval.
BW = Bandwidth | **ca** = approximate | **CHN = PRC** = People's Republic of China | **CF** = Center frequency
DF = Direction finding (radio location; see also TDoA) | **FMCW** = frequency modulated continuous wave
FMOP = frequency modulated on pulse | **OTHR** = over the horizon radar | **PRF** = Pulse Repetition
Frequency | **pps** = pulses per second (same as "sps") | **SH** = Shift (Hz) | **sps** = sweeps per second |
TDoA = Time difference of arrival | **ui** = **unid** = unidentified.

DARC. Harald, DL9NDW and team: DF5JL, DE2TRF

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
6990.0	19:47	30	09	RUS		RADAR	40	12K0E	OTHR Contayner, splattering first 10Kc of 40m
7008.0	00:12	01	09	RUS		RADAR	40	12K0E	OTHR Contayner,
7018.9	17:38	27	09			NON		2K0E	Carrier with 100hz spaced subcarriers
7022.5	04:53	01	09			A1A			CW like signal but not real CW, every day copy in Germany in the early morning.
7034.0	04:59	18	09			XXX		3K0E	Jammer, Carrier with 100hz spaced subcarriers 3Khz wide, daily
7046.5	16:29	17	09			F1B	20	7K0E	Unknown FSK Signal, 2 times on Air, 2nd = 7066.6 , moving
7050.0	05:39	06	09			J3E-L		2K70E	Radiowar, NON Ham Voice : UKR vs RUS
7055.0	04:48 vt*	05 vd*	09			J3E-L		2K70E	Radiowar, Music : UKR vs RUS, often, 8 reports
7065.0	05:56 vt*	08 vd*	09	RUS		RADAR	40	12K0E	OTHR Contayner, * also on 7087 (13.09),8 reports
7065.9	04:49	05	09			NON		1K50E	Carrier with strong hum, taking 1.5 K away. Carrier from 7066 kHz RUS FSK system (primary)
7114.0	04:56	18	09	RUS		F1B	50	200H	
7115.0	05:38	06	09			J3E-L		2K70E	Radiowar, NON Ham Voice : UKR vs RUS
7121.0	19:30	29	09			XXX		5K0E	Jammer, frequency mix, appears at least 6 times in 40m Band
7137.0	01:28	22	09	RUS		RADAR	40	12K0E	OTHR Contayner
7153.0	18:55	22	09			XXX		2K70E	Jammer, not loud
7164.0	06:35	18	09	RUS		J7D	120	2K60E	CIS-12
7165.0	19:04	10	09			XXX		2K70E	Jammer
7225.0	05:57	01	09			RADAR		70K0E	Strong Bursts Wideband Radar down to 7190
10102.6	08:15	12	09			NON			with hum , taking 1.2 kHz
10102.9	18:34	27	09			NON		1K20E	Carrier with hum taking abt. 1.2 K , fading
10113.0	03:35	23	09	RUS		RADAR	40	12K0E	OTHR Contayner.
13996.0	18:25	07	09	RUS		RADAR	40	12K0E	OTHR Contayner, up to 14003 splatter
14008.0	05:11	02	09	RUS	RIW	F1B	50	500H	Strong
14008.0	06:00	03	09	RUS		F1B	50	500H	
14162.0	10:15	02	09	RUS		J7D	120	2K60E	CIS-12
14177.0	19:35 vt*	13 vd*	09	RUS		RADAR	40	12K0E	OTHR Contayner, *also on : 14182(08.09 11:32), 14202(11.09 14:17), 14213 (15.09 11:36),14283(5x), 14345 (7x), 15 reports

DARC. Harald, DL9NDW and team: DF5JL, DE2TRF

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14180.0	19:08 vt*	28 vd*	09	CHN		RADAR	42	10K0E	OTHR Bursts, 42, 50 or 66 hz , * also 14278, (3x), 14283 (3x), 14338 (2 x) , 14350 (1x) , 9 reports
14192.0	05:54	11	09	RUS		F1B	50	200H	daily
14240.0	13:56	11	09	RUS		N0N	50	200H	Carrier with Hum
14269.0	06:43	04	09	RUS		F1B	75	250H	CIS 75-250
18165.0	05:09	02	09	RUS		RADAR	40	12K0E	OTHR Contayner
20992.5	16:28	24	09	G		RADAR	50	20K0E	OTHR Cyprus UK SBA, up to 21003
21133.0	13:10	12	09	RUS		RADAR	40	12K0E	OTHR Contayner
21163.0	16:09	25	09	G		RADAR	50	20K0E	OTHR Cyprus UK SBA
21171.0	10:42	23	09	CHN		RADAR	50	10K0E	OTHR Bursts
21218.0	08:25	19	09	CHN		RADAR	50	10K0E	CHN OTHR Continuous.BW = 10K0E. 50 pps.
21253.0	10:43	23	09	CHN		RADAR	66.7	10K0E	OTHR Bursts
21365.0	13:16	28	09	G		RADAR	50	20K0E	OTHR Cyprus UK SBA
21350.0	10:50	23	09	CHN		G7D	75	2K250	CHN 4 4
21441.0	16:20	24	09	G		RADAR	50	20K0E	OTHR Cyprus UK SBA
28725.0	14:17	25	09	IRN		RADAR		46K0E	Iranian radar - 150 sps , also on other frequencies, short bursts
29000.0	16:04	20	09			J3E-U		2K70E	Weather Fax with Pics from NOAA . Unknown Source
29020.0	13:13	26	09	IRN		RADAR		46K0E	Iranian radar Alternating 150 pps and 313 pps bursts. Hopping after every burst
29150.0	12:58	03	09	IRN		RADAR		46K0E	Iranian radar - 313 sps only, bursts, same on 29305, 29250 and others , hopping

IRTS. Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
3640	750	25	9	MM		USB			Japanese sailors. Strong signals.
5360	2110	29	9			USB			Russian propaganda music. Medium but persistent signal.
6990	1920	18	9			RADAR			Radar from 6990 to 7010 kHz. Huge and persistent signal.
6998	2330	8	9			RADAR			Radar from 6998 to 7023 kHz Strong and persistent signal.
7000	1915	30	9			RADAR			Radar from 7000 to 7015 kHz. Huge and persistent signal. Ends 1915z.
7015	1810	29	9			RADAR			Radar from 7015 to 7030 kHz. Huge and persistent signal.
7031	445	18	9	UKR/RUS		USB			Russian-Ukrainian radio war. Huge signals, persistent.
7032	245	24	9			USB			Jammer. Strong and persistent.
7055	555	7	9	UKR/RUS		LSB			Russian-Ukrainian radio war. Strong and persistent signals.
7105	110	15	9			RADAR			Radar from 7105 to 7120 kHz. Weak to medium signal. Persistent.
7110	1915	27	9			RADAR			Radar from 7110 to 7140 kHz. Huge and persistent signal.
7115	450	16	9			USB			Link-11 Clew. Medium but persistent signal.
7149	1930	7	9	UKR/RUS		LSB			Russian-Ukrainian radio war. Strong and persistent signal.

IRTS. Michael, EI3GYB

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7200	110	18	9	USA		LSB			Loud rock music. Crazy shouting. Fire horns. Complete pandemonium. A male voice keeps shouting something like "National jerk-off hour from America". Still on at 0300z with big signals.
14146	1640	28	9	UKR/ RUS		USB			Rebroadcasting of a propaganda programme in Russian. Huge signal. Persistent.
14170	1245	2	9			RADAR			Radar from 14170 to 14190 kHz. Strong and persistent.
14191	1410	1	9	RUS		F1B			Russian navy Kaliningrad. Daily all day long with a medium to big signal.
14245	1345	16	9			RADAR			Radar from 14245 to 14265 kHz. Weak but persistent signal.
14280	1755	28	9			RADAR			Radar from 14280 to 14305 kHz. Medium signal, persistent.
14290	1320	17	9			RADAR			Radar from 14290 to 14320 kHz. Huge and persistent.
14335	600	7	9			RADAR			Radar from 14335 to 14350 kHz. Weak but persistent signal.
18118	1240	2	9			FSK			North Korean embassy traffic. Strong. On and off.
18140	1345	2	9	CHN		RADAR			Radar from 18140 to 18150 kHz. Chinese Foghorn. Medium signal. Persistent.
18150	1115	27	9	UK		RADAR			Radar from 18150 to 18185 kHz. Huge and persistent signal. British base in Cyprus.
21332	1055	23	9	CHN		RADAR			Radar from 21332 to 21342 kHz. Chinese Foghorn. Weak- in and out.
21315	835	28	9			RADAR			Radar from 21315 to 21325 kHz. Huge and persistent signal.
21395	915	22	9			RADAR			Radar from 21395 to 21415 kHz. Strong and persistent.
21419,5	1215	22	9	B		LSB			Brazilian pirates. Male voices. Very bad audio. Medium signals.
21438	1350	2	9	UKR		CW			Russian navy, Sevastopol. Medium to strong signals. Daily.
28195	1045	23	9	I		USB			Cbers with roger beep. Male voices. Medium signals.
28205	1050	23	9	I		USB			Cbers with roger beep. Male voices. Medium signals.
29000	1100	21	9	IRN		RADAR			Radar from 29000 to 30000 MHz. Strong signals. Moving up and down the band all hours of daylight.

PZK. Mirek, SP5GNI

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7062.0	2205	12	09			RADAR		12K0E	S9++
7090.0	2205	12	09	RUS		CIS-12		2K7	S9
7168.0	0825	12	09	RUS		CIS-12		2K7	S9
7195.0	0800	09	09	RUS		CIS-12		2K7	S7
14008.0	vt	vd	09			F1B		250	S9
14012.0	1110	10	09			RADAR		12K0E	S9

PZK. Mirek, SP5GNI

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14023.0	0837	09	09			RADAR		10K0E	S9 8 sec. Burst
14026.0	0805	29	09	RUS		CIS-12		3K0E	S7
14048.0	0800	13	09			RADAR		12K0E	S9
14140.0	vt	11	09			RADAR		10K0E	S7 foghorn
14140.0	1515	29	09			RADAR		10K0E	S9 8 sec. burst
14145.0	1410	23	09			RADAR		10K0E	short bursts S9
14160.0	1410	07	09			UI		2K5	S9
14180.0	0840	09	09			RADAR		12K0E	S9
14182.0	1305	11	09			RADAR		10K0E	S7 foghorn
14195.0	0900	26	09			RADAR		50K0E	S7
14208.0	1215	16	09			RADAR		12K0E	S9 freq hopping
14217.0	1330	09	09			RADAR		12K0E	S10
14226.0	1240	01	09			RADAR		12K0E	S9
14230.0	1600	21	09			USB		3K0E	S9+ songs in Russian
14240.0	0840	29	09			F1B		250	S9+
14256.0	1545	22	09			RADAR		10K0E	3 sec. bursts and 14289.0
14260.0	0815	16	09			RADAR		12K0E	S9
14269.0	0830	04	09			F1B		250	S9
14295.0	1345	18	09			RADAR		12K0E	S9+
14298.5	1205	01	09			UI		3K0E	S9+ short bursts like RTTY 600
14305.0	vt	19	09			RADAR		12K0E	S9+
14345.0	2155	01	09			RADAR		10K0E	S6
18168.0	1730	21	09			RADAR		12K0E	S6
21000.0	1115	01	09			RADAR		10K0E	S5 2 sec. bursts
21043.3	0900	21	09			UI		1K6	S6
21203.0	1555	22	09			RADAR		10K0E	3 sec. burst 3 sec. pause
21218.0	0930	19	09			RADAR		10K0E	S7 Foghorn
21337.0	0905	11	09			RADAR		10K0E	3 sec. bursts foghorn
21348.0	1115	18	09			RADAR		10K0E	3 sec. bursts also 21380.0
21354.0	0825	26	09			RADAR		10K0E	3 sec. bursts also 21321.0
21365.0	1215	25	09			RADAR		10K0E	3 sec. Bursts
21390.0	0820	29	09			RADAR		10K0E	S6 2 sec. bursts and 21425.0
21412.0	0820	26	09			RADAR		10K0E	S9 8 sec. Burst
28112.5	1225	21	09			F3E		6K0E	S6 unknown language
28245.0	1055	11	09			A3E		6K0E	A few stations in Spanish
29090.0	0935	19	09	IRN		RADAR		45K0E	S7
29130.0	1055	15	09	IRN		RADAR		45K0E	S7 also 29690.0
29180.0	1230	25	09	IRN		RADAR		45K0E	S7 + 29380.0
29200.0	0800	13	09	IRN		RADAR		45K0E	S7 also 29560.0
29200.0	1615	22	09	IRN		RADAR		45K0E	S7 + 29380.0
29290.0	0905	04	09	IRN		RADAR		45K0E	S7
29340.0	0830	17	09	IRN		RADAR		60K0E	S7 also 29430.0
29500.0	0830	05	09	IRN		RADAR		45K0E	S7
29550.0	0830	09	09	IRN		RADAR		45K0E	S7
29610.0	1115	10	09	IRN		RADAR		45K0E	S7 hopping up/down

REP. Paulo, CT2IWW

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7024.0	17:20	10	09			J3E-U			unid arabic voice comms
7050.0	05:44	11	09			J3E-L			ukr vs rus radiowar, repeating loop
7055.0	17:22	10	09			J3E-L		2K80E	radio war channel, music broadcast, UKR vs RUS
7083.0	05:08	11	09			A1A			unid letters and numbers tx, no callsign given, off at 05:27
7114.0	05:08	11	09	RUS	RDL	F1B	50	200H	
14008.0	07:38	15	09	RUS		F1B	50	500H	
14100.0	08:55	17	09	VEN	LIBERTAD	J3E-L		3K0E	Bolivarian Navy of Venezuela net, LIBERTAD exchanging letter groups and coordinates
14101.0	08:08	12	09			J3E-U			unid arabic comms, no ID, not amateur ops
14101.0	08:46	15	09			J3E-U			unid language calling, singing
14115.0	09:54	15	09			J3E-U			apparent fishery comms, engine noise, unid language
14118.5	13:08	04	09			F1D	600	600H	DPRK-FSK 600 ARQ
14119.0	11:28	04	09	RUS	RDL	F1B	50	200H	F1A and F1B
14122.0	07:52	17	09			J3E-L		2K80E	LSB spanish language fishery, engine noises
14122.0	10:08	17	09			J3E-U		2K80E	UKR vs RUS radio war, long repeating speech
14133.0	09:26	08	09			F1B	50	250H	
14133.0	14:31	11	09			J3E-U			UKR vs RUS war of words, looping in slavic language
14191.0	08:14	12	09			XXX		20K0E	unid 20khz wide mode, 2 minute bursts w/ 20 secs intervals, also 1 second interrupts
14192.0	09:05	11	09	RUS		F1B	50	200H	
14192.0	09:24	15	09	RUS		F1B	50	200H	
14194.0	09:37	12	09		743	J7D	125	1K80E	14194 kHz LSB. MIL-188-141A ALE 2G. 743 clg 308, followed by SSB voice call, unid arabic
14212.0	11:39	04	09	RUS		RADAR	40	12K0E	OTHR Contayner
14215.0	08:48	10	09			XXX		20K0E	unid radar-like 20khz wide signal, apparent PSK
14221.0	08:05	15	09			XXX		20K0E	unid 20khz wide mode, 2 minute bursts w/ 20 secs intervals, also 1 second interrupts
14298.5	12:30	04	09			F1D	600	600H	DPRK-FSK 600 ARQ
21028.0	11:39	09	09	CHN		RADAR	50	10K0E	
21130.0	10:53	09	09	CHN		RADAR	66.7	10K0E	OTHR short bursts
21145.0	13:17	09	09	MRC	Q42	J7D	125	1K80E	21145 kHz USB. MIL-188-141A ALE 2G
21359.0	10:57	09	09	CHN		RADAR	66.7	10K0E	CHN OTHR from short bursts to continous TX for 23 minutes
28125.0	12:12	10	09	B		A3E			Brazilian outbanders, vt vd
28145.0	12:01	10	09	B		A3E			Brazilian outbanders, vt vd
28195.0	12:12	10	09	B		A3E			Brazilian outbanders, vt vd
28205.0	17:37	04	09	B		A3E			Brazilian outbanders, vt vd
28305.0	17:38	04	09	B		A3E			Brazilian outbanders, vt vd
28305.0	12:10	10	09	B		A3E			Brazilian outbanders, vt vd
29100.0	16:00	25	09			XXX	1200	3K0E	29100.0 kHz USB, 1200bd QPSK with fixed sequence, no aparent traffic. Continuous tx, for many days
29100.0	16:33	26	09	RUS		J3E-L		3K5E0	Male op counting from 1 to 10 and "stop"

REP. Paulo, CT2IWW

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									in Russian, several times. Parallel to QPSK USB 1200bds TX on same frequency

SRAL. Pekka, OH2BLU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7 MHz	1600-0630	*	9	RUS		RADAR	40 sps	13k0E	*) Days: 8. 16. 29. 30. (WebSDR 29d)
7006.5	0750-0930	05 22	9	RUS		F1B		250H	
7008.5	0800-1100	19 25	9	RUS		J7D	120	2k60E	
7016.0	0840-1400	10 19	9	RUS		F1B		250H	
7019.0	0515-1800	*	9	RUS		N0N/ F1B		200H	*) Days: 12. 13. 23. - 29.
7022.0	0530-1230	15 21	9	RUS		J7D	120	2k60E	
7024.0	0525-0700	22	9	RUS		A1A		40H	
7030.0	1015-1330	*	9	RUS		F1B		250H	*) Days: 14. 25. 29.
7030.0	0930-1330	08 13	9	RUS		J7D dsb	120	6k60	
7035.1	0000-2400	01-30	9	RUS		J3E-I		3k60E	1 sec. ticking 240 Hz tone.
7042.0	0525-1800	11 12	9	RUS		XXX		200HE	
7044.0	1330-1700/	*	9	RUS		F1B		250H	*) Days: 1. 4. 8. 25.
7045.0	1400-1700	*	9	RUS		F1B	20	7k0	*) Days: 3. 11. 17. 29. Alternate fq 7046.5 kHz.
7060.0	0830-0920/	*	9	RUS		F1B		250H	*) Days: 9. 11. 26.
7062.0	0815-1340	*	9	RUS		J7D	120	2k60E	*) Days: 4. 26. 27.
7065.0	1400-1700	*	9	RUS		F1B	20	7k0	*) Days: 3. 11. 1. 29. Alternate fq 7066.5 kHz.
7065.0	0600-1800	*	9	RUS		F1B		200H	*) Days: 1. 3. 5. 12.
7066.0	0445-1800	*	9	RUS		F1A/ N0N		200H	*) Days: 4. 5. 8. 9. 13. 14. 30. 5BL
7090.5	0515-1800	*	9	RUS		J7D	120	3k30	*) Days: 12. 13. 23. N0 7088.5
7114.0	0445-0800	*	9	RUS		F1B/A		200H	*) Days: 1. 5. 8. 15. 17. - 20. 22. 23. 25. 27. 28. 30. 5F
7137.0	1600-1815	*	9	RUS		F1A/ N0N		200H	*) Days: 4. 7. 8. 10. 13. 13. 14. 17. 19. 20. 21. 22. 5F
7154.5	0000-2400	13 - 16	9	RUS		A1N	20	60H	// 7174.5
7162.0	1015-1330	*	9	RUS		F1B		250H	*) Days: 14. 29. 30.
7164.0	0615-1430	*	9	RUS		J7D	120	2k60E	*) Days: 1. 13. 17.

SRAL. Pekka, OH2BLU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7174.5	0000-2400	13 - 16	9	RUS		A1N	20	60H	// 7154.5
7198.0	0930-1700	03 13	9	RUS		J7D	120	2k60E	
10 MHz			9	G		RADAR	50sps	20k0	(WebSDR 2d)
10 MHz	1730-0515	06 14	9	RUS		RADAR	40sps	13k0E	(WebSDR 17d)
14 MHz	0430-1800	*	9	RUS		RADAR	40sps	13k0E	*) Days: 1. - 14. 16. - 23. 27. (WebSDR 24d)
14 MHz	1130-1800	*	9	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 4. 5. 6. 13. 18. 22. 25. 26. 28. 30. 'foghorn'
14 MHz	0800-1830	*	9			RADAR		6k0E	*) Days: 1. 3. 4. 5. 12. 14. 18. 24. 25. 26. 28. SuperDARN (14000 - 14030)
14008.0	0445-1400	*	9	RUS		F1B		250/500H	*) Days: 4. 5. 7. - 12. 14. - 22. 24. 25. 28. 29. 30.
14031.0	0830	28 29	08	RUS		J7D	120	2k60E	
14050.5	0920	08	9	RUS		J7D	120	6k60	dsb
14119.0	0445-1700	01 - 05	9	RUS		F1B		200H	
14160.0	0550-1515	*	9	RUS		F1B		250H	*) Days: 6. 7. 14.
14192.0	0500-1800	01 - 30	9	RUS		F1B		200H	
14240.0	0800-1525	*	9	RUS		F1B		250H	*) Days: 11. 14. 24. 29.
14266.0	1120-1530	05	9	RUS		F1B		250H	
14269.0	0720-1005/	04	9	RUS		F1B		250H	
18 MHz			9	G		RADAR	50/25sps	20k0	(WebSDR 0d)
18 MHz	1015-1145	03 27	9	RUS		RADAR	40 sps	13k0E	(WebSDR 5d)
18115.0	0555-0700/	*	9	CHN	CNR	A3E		9k0	*) Days: 13. 18. 20. 24. //17720
21 MHz	0440-1815	*	9	G		RADAR	50/25	20k0	*) Days: 12. 20. 27. 28. 29. (WebSDR 7d)
21 MHz	0745-1710	*	9	RUS		RADAR	40 sps	13k0E	*) Days: 3. 22. 27. (WebSDR 6d)
21 MHz	0515-1400	*	9	CHN		RADAR	50/67sps	10k0E	*) Days: 1. 2. 4. 5. 6. 10. 12. 18. 20. - 26. 28. 30. 'foghorn'
21 MHz	0600-1000	19	9	CHN		RADAR	50sps	10k0E	(WebSDR 7d)
21113.0	0630-1020	*	9	RUS		F1B		200H	*) Days: 1. 20. 24. 25.
21438.0	/0830-1600	01-30	9	RUS	RCV	A1A	16 - 25 wpm	40H	
24 MHz			9	G		RADAR	50/25sps	20k0	(WebSDR 0d)
24 MHz	0830-1200	24 27	9	RUS		RADAR	40sps	13k0E	(WebSDR 3d)
25000.0	0610-1600	*	9			RADAR	2	200kE	*) Days: 12. 19. - 28. Codar
28 MHz	0500-	28	9	G		RADAR	50/25/	20k0/	(WebSDR 3d)

SRAL. Pekka, OH2BLU

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
	1200	29					12.5sps	40k0	
28 MHz	0530-1600	*	9	IRN		RADAR	150/313	60k0E	*) Days: 1. - 4. 6. 7. 9. 10. 12. 18. - 21. 25. - 28. 30. (WebSDR 10d)
28 MHz	1015	21	9	RUS		F3E		3k0E	2 reports
29500.0	0530-1600	*	9	IRN		RADAR	680	60k0E	*) Days: 20. 22. - 25. 30.

URE. Gaspar, EA6AMM. Team members: EA4021SWL**(Radars activity: summarized per band)**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7000.0	vt**	vd**	09	RUS		RADAR	40	12K0E	OTHR Contayner TX *on 40m: **Very often. 46 reports 2 simultaneous TX on 40m: 4 reports Hopping: 1 reports
7000.0 USB	20:24 vt*	02 vd*	09			OTHER	2400	2K40E	LINK-22 NILE. (NILE = NATO Improved LINK-Eleven) *Also on 27/09, 1601Z
7000.0	17:51	28	09			OTHER	2400	2K40E	7000 kHz USB. ISR Navy hybrid modem bursts
7005.0	16:33 vt*	04 vd*	09			XXX	19000	24K0E	WHARQ. Wideband HF Hybrid Automatic Repeat Request (ARQ). L3Harris proprietary mode. Burst system. Several BW up to 24 kHz. Several modulation types. Intelligent frequency hopping. *Often. 6 reports
7007.0	14:41	15	09			XXX	9600	12K0E	WHARQ
7016.0	12:52	10	09			F1B	75	250H	
7018.9	05:09 vt*	12 vd*	09			NON			Carrier from FSK system on 7019 kHz CF *Often. 9 reports
7019.0	12:28 vt*	23 vd*	09			F1B	50	200H	F1A and F1B short bursts. Rest of the time, lower channel continuous carrier. *Often. 9 reports
7020.0	19:20 vt*	04 vd*	09			J3E-U		2K80E	Male voice. Unidentified language. Village radio R3 (Lots of AC noise, shouting...). *Often. 6 reports
7022.0	07:14	15	09			J7D	120	2K70E	CIS-12. Idle
7024.0	21:15	28	09			J3E-U		2K80E	Non-amateur comms. Male voices. Unidentified language
7028.0	18:37	28	09			XXX	7200	9K0E	WHARQ
7030.0	09:19	08	09			J7D	120	6K50E	CIS-12 DSB
7030.0	20:37	30	09	CHN		RADAR	48	10K0E	OTHR "Foghorn" short bursts
7032.0 USB	19:11 vt*	01 vd*	09			XXX		3K30E	Jammer / QRG occupation (channel marker). *Almost daily. 26 reports
7044.0	15:14 vt*	02 vd*	09	RUS		F1B	50	250H	*Often. 4 reports
7045.0*	16:19 vt**	03 vd**	09			F1B	20	7K0E	*Also on 7066.5 kHz CF. Long-lasting **Also on 17/09 and on 29/09; vt
7052.0	19:34	12	09			F1B	50	250H	
7059.0	08:17	16	09			F1B	75	250H	
7060.0	20:20 vt*	02 vd*	09			XXX		CA6K0E	Jammer. 85 Hz. *Often. 6 reports
7060.0	09:25	26	09			F1B	75	200H	

URE. Gaspar, EA6AMM. Team members: EA4021SWL									(Radars activity: summarized per band)
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7061.0	07:38	16	09			J7D	120	2K70E	
7062.0	09:06 vt*	25 vd*	09			J7D	120	2K70E	CIS-12 *Also on 29/09, 2130Z
7065.9	05:38 vt*	01 vd*	09			N0N			Carrier from FSK system on 7066 kHz CF *Often. 7 reports
7066.5*	16:20 vt**	03 vd**	09			F1B	20	7K0E	*Also on 7045 kHz CF. Long-lasting **Also on 17/09 and on 29/09; vt
7067.0	18:45	06	09			J7D	120	2K70E	CIS-12
7068.0	07:14	04	09			J7D	120	2K70E	CIS-12
7070.0 USB	21:49	14	09		514 - 288	J7D	125	1K80E	MIL-188-141A ALE 2G
7070.0	15:42 vt*	20 vd*	09			XXX		2K50E	Jammer. 85 Hz *Often. 4 reports
7072.0	10:27	06	09			J7D	120	2K70E	CIS-12
7076.0	13:36	24	09			J7D	120	2K70E	CIS-12
7080.0	18:26 vt*	11 vd*	09	RUS	RDL	F1B	50	200H	F1B and F1A *Often. 6 reports
7088.0 USB	04:52	16	09			G1D	2400	2K40E	LINK-11 SLEW
7090.5	17:49	12	09			J7D	120	2K70E	CIS-12
7092.0	12:26	08	09			J7D	120	2K70E	CIS-12
7095.0 USB	21:44	30	09		121705	J7D	125	1K80E	MIL-188-141A ALE 2G
7100.0 USB	20:23 vt*	08 vd*	09			G7D	75	2K40E	LINK-11 CLEW SSB. *Also on 10/09 and on 11/09; vt
7113.9	04:55 vt*	02 vd*	09	RUS		N0N			Carrier from FSK system on 7114 kHz CF *Very often. 16 reports
7114.0	05:12 vt*	02 vd*	09	RUS	RDL	F1B	50	200H	F1B and F1A *Very often. 16 reports
7120.0 USB	21:55	29	09		810508	J7D	125	1K80E	MIL-188-141A ALE 2G
7134.5 USB	22:44	29	09		2200	J7D	125	1K80E	MIL-188-141A ALE 2G
7135.0	19:32 vt*	03 vd*	09	RUS	RDL	F1B	50	200H	F1B and F1A. *Also on 04/09, 1930Z
7136.9	18:05 vt*	02 vd*	09			N0N			Carrier from FSK system on 7137 kHz CF. Long-lasting *Very often. 17 reports
7137.0	20:20 vt*	02 vd*	09	RUS	RDL	F1B	50	200H	F1B and F1A *Very often. 17 reports
7153.0	20:42 vt*	16 vd*	09			XXX		CA30K0E	Jammer. 85 Hz *Often. 10 reports
7154.5*	11:33 vt**	13 vd**	09			A1N			*Same TX on 7174.5 kHz , both transmitting the same sequence. Long- lasting. **Often. 4 reports
7162.0	09:53	25	09			F1B	75	250H	
7164.0	09:17 vt*	08 vd*	09			J7D	120	2K70E	CIS-12 *Also on 18/09, 0627Z
7174.5*	11:33 vt**	13 vd**	09			A1N			*Same TX on 7154.5 kHz , both transmitting the same sequence. Long- lasting. **Often. 4 reports
7187.0	07:39	16	09			J7D	120	2K70E	CIS-12
7194.0	22:16	01	09	RUS		RADAR	40	12K0E	OTHR Contayner. Hopping
10100.0*	vt**	vd**	09	RUS		RADAR	40	12K0E	OTHR Contayner TX *on 30m:

URE. Gaspar, EA6AMM. Team members: EA4021SWL									(Radars activity: summarized per band)
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
									Often. 8 reports Hopping: 1 report
10100.0*	vt**	vd**	09	AUS		RADAR	96 7	3K0E 12K0E	OTHR JORN bursts, with short intro tone at the CF: **Almost daily - 16 bursts sequence. PRF decreasing by the burst from 96 pps to 10 pps. 61 reports - 28 reports
10100.0*	vt**	vd**	09	AUS		RADAR	7	12K0E	OTHR JORN bursts, with short intro tone at the CF **Very often. 28 reports
10138.0	20:23	18	09	G		RADAR	50	20K0E	OTHR. UK SBA, Cyprus
10149.0	19:54	01	09			RADAR	19	10K0E	Unidentified OTHR bursts, with short intro tone at the CF. PRF varying at every burst, from 19 to 22 pps
10152.0	20:13	14	09	RUS		RADAR	40	12K0E	OTHR Contayner. Partially inside the 30m band
10154.0	19:17	24	09	RUS		RADAR	40	12K0E	OTHR Contayner. Partially inside the 30m band
10156.0	19:11	20	09	RUS		RADAR	40	12K0E	OTHR Contayner. Splatter to 10147 kHz
10159.0	19:55	11	09	G		RADAR	50	20K0E	OTHR. UK SBA, Cyprus. Partially inside the 30m band
13996.0	18:18	07	09	RUS		RADAR	40	12K0E	OTHR Contayner. Partially inside the 20m band
13997.0	13:53	23	09	RUS		RADAR	40	12K0E	OTHR Contayner. Partially inside the 20m band
14000.0*	vt**	vd**	09	RUS		RADAR	40	12K0E	OTHR Contayner TX *on 20m: *Almost daily: 153 reports 2 simultaneous TX on 20m: 19 reports 3 simultaneous TX on 20m: 1 report Hopping: 6 reports
14000.0*	vt**	vd**	09	CHN		RADAR	42 48 50 66.7	10K0E	OTHR "Foghorn" (short bursts) TX *on 20m: Very often: 67 reports
14000.0*	vt**	vd**	09			RADAR		Ca6K0E	SuperDARN bursts. Hopping. *From 14000 kHz CF to 14025 kHz CF, using a 5 kHz raster. **Very often. 16 reports
14000.0 USB	18:08 vt*	01 vd*	09		1002 1003	J7D	125	1K80E	MIL-188-141A ALE 2G *Also on 02/09, 1602Z
14000.0 USB	11:45 vt*	02 vd*	09			MIL-188-141CALE3 G	2400	CA3K0E	ALE 3G bursts *Almost daily. 24 reports
14000.0	16:17	02	09			J3E-U		2K80E	Non-amateur comms. Male voice. English language. Radio checks. Most probably, MIL
14000.0	09:19	08	09			XXX	19200	24K0E	WHARQ. Wideband HF Hybrid Automatic Repeat Request (ARQ). L3Harris proprietary mode. Burst system. Several BW up to 24 kHz. Several modulation types. Intelligent frequency hopping
14000.0 USB	09:47	17	09			J7D	125	1K80E	MIL-188-141A ALE 2G. AQC Mode. No ID
14000.0	14:14	17	09			OTHER	2400	2K40E	14000 kHz USB. ISR navy hybrid modem bursts
14000.0	08:35	26	09			G1D	2400	2K40E	14000 kHz USB. MIL-188-110#

URE. Gaspar, EA6AMM. Team members: EA4021SWL									(Radars activity: summarized per band)
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14000.0	18:09 vt*	27 vd*	09			J3E-U		2K80E	Non-amateur comms. Male voices. Unidentified Arabic language. Daily since 27 until 30/09; vt
14000.0	10:37	28	09			J3E-U		2K80E	Non-amateur comms. Male voices. Unidentified language. Long-lasting
14000.0	20:46 vt*	29 vd*	09			OTHER	2400	2K40E	ISR Navy hybrid modem bursts *Also on 30/09, 0930Z
14005.0	08:05	06	09			F1D	600	600H	DPRK-FSK 600 ARQ
14007.0	08:05	06	09			F1D	600	600H	DPRK-FSK 600 ARQ
14008.0	05:05 vt*	02 vd*	09	RUS		F1B	50	500H	*Almost daily. 23 reports
14013.0 USB	22:37 vt*	29 vd*	09			MIL-188-141CALE3 G	2400	CA3K0E	MIL-188-141C ALE 3G *Also on 30/09, 0710Z
14014.3	10:08 vt*	01 vd*	09			J3E-U		2K80E	Non-amateur comms. Male and female voices. Unidentified language. Long-lasting. Often. 4 reports
14022.0	21:04	28	09			J3E-U		2K80E	Non-amateur comms. Male voices. Unidentified language (seems Arabic)
14026.0	08:14 vt*	23 vd*	09			N0N	120	2K70E	CIS-12 *Also on 29/09, 0800Z
14031.0	08:37	08	09			J7D	120	2K70E	CIS-12
14098.5	07:00 vt*	01 vd*	09			F1D	600	600H	DPRK-FSK 600 ARQ *Almost daily. 25 reports
14100.0 LSB	18:04 vt*	01 vd*	09	MOZ	AFUNGI	J7D	125	1K80E	MIL-188-141A ALE 2G. Inverted spectrum *Very often. 16 reports
14100.0	08:10	04	09			XXX	83.3	CA40K0E	Unidentified signal with short interruptions during the transmission. Radar?
14100.0 USB	12:16	08	09			G1D	2400	2K40E	14000 kHz USB. MIL-188-110# bursts
14100.0	08:10 vt*	23 vd*	09	VEN		J3E-L		2K80E	Venezuelan Navy *Also on 25/09, 2148Z. IDs: LIBERTAD, PATRIA, ALBATROS, FEDERACIÓN
14101.7	17:33	08	09			XXX		CA1K40E	Unidentified digital signal 14 tones. Long-lasting
14112.0	08:58	17	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14118.5	07:04 vt*	01 vd*	09			F1D	600	600H	DPRK-FSK 600 ARQ *Very often. 13 reports
14119.0	07:18 vt*	01 vd*	09	RUS	RDL	F1B	50	200H	F1B and F1A *Often. 5 reports
14119.0	09:13	11	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14120.0	10:19 vt*	25 vd*	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting *Also on 26/09, 0802Z
14120.0	08:02	26	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14120.5	12:13	10	09			F1D	600	600H	DPRK-FSK 600 ARQ
14123.0 LSB	06:11	29	09			W7D	44.44	2K40E	CHN OFDM 39
14126.0	11:42	30	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14127.0	14:34	13	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14127.0	14:11	14	09			J3E-U		2K80E	Broadcast being transmitted or relayed. Speech. Male speaker. Slavic language. Long-lasting

URE. Gaspar, EA6AMM. Team members: EA4021SWL									(Radars activity: summarized per band)
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14130.0	16:16 vt*	13 vd*	09			J3E-U		2K80E	Broadcast being transmitted or relayed. Slavic language. Long-lasting. *Also on 21/09, 1524Z
14133.0	16:29	02	09			J3E-U		3K0E	Broadcast being transmitted or relayed. Folk-pop Slavic music. Long-lasting
14133.0	05:57	08	09			F1B	50	250H	
14133.0	14:23	11	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14133.0	16:26	12	09			J3E-U		3K0E	Broadcast being transmitted or relayed. Speech and folk-pop Slavic music. Male speaker. Slavic language. Long-lasting
14135.0	17:25	06	09			J3E-U		3K0E	Broadcast being transmitted or relayed. Speech and folk-pop Slavic music. Male speakers. Slavic language. Long-lasting
14140.0	11:53	28	09			J3E-U		2K80E	UKR radiowar against RUS. Long-lasting
14146.0	16:05	28	09			J3E-U		2K80E	Broadcast being transmitted or relayed. Folk-pop Slavic music and speech. Male speaker. Slavic language. Long-lasting.
14148.5	13:13	30	09			F1D	600	600H	DPRK-FSK 600 ARQ
14160.0	07:02 vt*	06 vd*	09			F1B	75	250H	*Often. 5 reports
14162.0	09:51 vt*	02 vd*	09			J7D	120	2K70E	CIS-12 *Also on 24/09, 1118Z
14169.0	07:41 vt*	03 vd*	09			F1B	50	200H	*Also on 24/09, 0705Z
14170.0	15:56	27	09			J3E-U		2K80E	Broadcast being transmitted or relayed. Folk-pop Slavic music. Long-lasting. QRT: 1752Z
14171.0	06:23 vt*	01 vd*	09			J7D	120	2K70E	CIS-12 *Often. 5 reports
14178.0	12:00	10	09			F1B	50	450H	'CQ DE DDK2 DDH7 DDK9. Frequencies 4583 kHz 7646 kHz 10100.8 kHz' Pinnenberg meteo (!?!)
14190.0	05:53	12	09			J7D	120	2K70E	CIS-12
14191.9	05:16	18	09			NON			Carrier from FKS system on 14192 kHz CF. Long-lasting (no F1B TX these days on 14192 kHz CF). *Also on 19/09 and on 20/09; vt
14192.0	05:35 vt*	01 vd*	09	RUS		F1B	50	200H	*Almost daily. 25 reports
14198.5	07:30 vt*	01 vd*	09			F1D	600	600H	DPRK-FSK 600 ARQ *Almost daily. 25 reports
14228.0	09:34	13	09	CHN		RADAR	50	10K0E	OTHR (continuous)
14230.0	16:49	10	09			RADAR	40	12K0E	Unidentified OTHR bursts. 12K0E 40 pps. BD = 13 sec aprox. BRI = 30 sec. OTHR Contayner?
14235.0	07:22	12	09			F1B	75	250H	
14239.8	13:25	11	09			NON			Carrier from FSK system on 14240 kHz CF
14240.0	14:14 vt*	11 vd*	09			F1B	75	250H	*Also on 29/09, 0741Z
14248.5	12:09 vt*	16 vd*	09			F1D	600	600H	DPRK-FSK 600 ARQ *Also on 30/09, 0742Z
14266.0	09:50	05	09			F1B	75	250H	
14268.0	08:38	05	09			J7D	120	2K70E	CIS-12
14269.0	07:10	04	09			F1B	75	250H	

URE. Gaspar, EA6AMM. Team members: EA4021SWL									(Radars activity: summarized per band)
kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
14294.0	07:10	04	09			J7D	120	2K70E	CIS-12
14298.5	07:04 vt*	01 vd*	09			F1D	600	600H	DPRK-FSK 600 ARQ *Almost daily. 24 reports
14308.0	11:18	18	09	RUS		F1B	150	500H	"Chayka" bursts
14310.0	10:10 vt*	18 vd*	09			J7D	120	2K70E	CIS-12 *Also on 30/09, 0809Z
14337.0	06:22	12	09			F1B	75	250H	
14339.0	05:52	12	09			J7D	120	2K70E	CIS-12
14344.0 USB	10:58	25	09			G1D	2400	2K40E	MIL-188-110#
14345.0 USB	21:44	01	09		CIS02	J7D	125	1K80E	MIL-188-141A ALE 2G
14345.0 USB	13:59	30	09			G1D	2400	2K40E	MIL-188-110#
14356.0	15:54	06	09	RUS		RADAR	40	12K0E	OTHR Contayner. Splatter to 14346 kHz
18133.0	11:29	08	09	CHN		RADAR	66.7	10K0E	OTHR short bursts
18165.0	05:06	02	09	RUS		RADAR	40	12K0E	OTHR Contayner
18171.0	10:39	10	09	RUS		RADAR	40	12K0E	OTHR Contayner. Partially inside the 17m band
20993.0	16:24	23	09	G		RADAR	50	20K0E	OTHR. UK SBA, Cyprus. Partially inside the 15m band
21000.0*	vt**	vd**	09	CHN		RADAR	40 42 48 50 63 66.7 83.3	10K0E	OTHR "Foghorn" (short bursts) TX *on 15m: **Almost daily: 214 reports
21000.0*	vt**	vd**	09	RUS		RADAR	40	12K0E	OTHR Contayner TX *on 15m: **Often. 16 reports
21000.0*	vt**	vd**	09	G		RADAR	50	20k0E	OTHR G (K SBA, Cyprus) TX *on 15m: **Often. 14 reports
21000.0	16:41 vt*	27 vd*	09			XXX		3K50E	Jammer. 85 Hz *Also on 29/09, 1345Z
21002.1	09:38	15	09			J3E-U		2K80E	Non-amateur comms. Male voices. Unidentified Arabic language
21010.0	06:30	25	09			XXX		2K50E	Jammer. 85 Hz
21050.0 USB	12:10 vt*	01 vd*	09		1002 - 1003	J7D	125	1K80E	MIL-188-141A ALE 2G *Also on 02/09, 1503Z
21123.5	07:11	12	09			OTHER	600	600H	DPRK PSK 600 ARQ
21145.0 USB	06:17 vt*	01 vd*	09	MRC		J7D	125	1K80E	MIL-188-141A ALE 2G *Almost daily. 24 reports
21161.5	09:05	30	09			G7D	75	2K40E	21161.5 kHz USB. CHN 4+4 a.k.a PRC 4+4
21201.0	07:28	25	09	CHN		RADAR	50	10K0E	OTHR (Continuous)
21400.0	09:06	01	09		1002 - 1003	J7D	125	1K80E	21400 kHz USB. MIL-188-141A ALE 2G
21400.0	15:03	02	09		1002 - 1003	J7D	125	1K80E	21400 kHz USB. MIL-188-141A ALE 2G
21400.0 USB	14:20	03	09		1002 - 1003	J7D	125	1K80E	MIL-188-141A ALE 2G
21438.0	08:30 vt*	01 vd*	09	RUS	RCV	A1A			RUS navy QTC *Almost daily. 27 reports
21450.0	06:39	26	09			F1B	50	850H	STANAG-4481

URE. Gaspar, EA6AMM. Team members: EA4021SWL**(Radars activity: summarized per band)**

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
28000.0*	vt**	vd**	09	IRN		RADAR	150/313	Ca45K0E	OTHR IRN TX *on 10m: **Almost daily: 26 reports - Alternating 150 pps and 313 pps bursts. Hopping after every burst: 24 reports
							676	ca80K0E	- 676 pps bursts only. New PRF. 2 reports
29600.0	10:03	28	09	G		RADAR	12.5	40K0E	OTHR. UK SBA, Cyprus
29675.0	08:12	28	09	G		RADAR	12.5	40K0E	OTHR. UK SBA, Cyprus
29100.0	08:21	28	09			XXX	1200	2K80E	XXX. QPSK 1200 Bd always repeating the same sequence

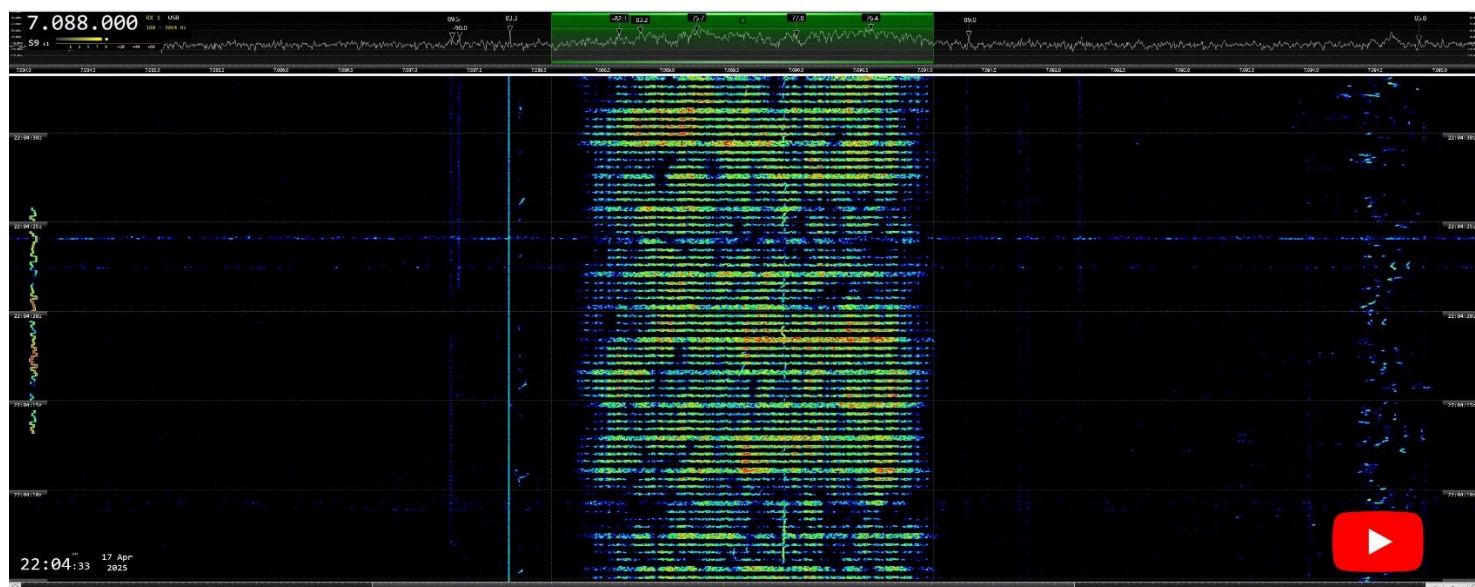
VERON. Ruud, PG1R. Credits to observers Dick PA0GRU, PA2CHM and Rene PA3EQO

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD /sps	SH / BW	DETAILS
7018.0	1830	23	09			NON			UiCar; S7
7018.9	1717	23	09			NON			carrier
7022.0	1643	16	09	RUS		RADAR		12K0E	CF; OTHR contayner with splatters
7050.0	xxxx	xx	09	RUS/ UKR		J3E-L			War rethoric; many days
7055.0	xxxx	xx	09	RUS/ UKR		J3E-L			War rethoric; many days
7055.0	1707	23	09	UKR		J3E-L		3K0E	UKR-RUS radiowar; S9+; back again; slogan in endless loop
7070.0	1723	23	09	RUS		J3E-L		2K8E	2 TX same freq; one with slogans in endless loop; the other is a Russian HAM QSO with comments on UKR
14006.0	1120	15	09			XXX		3K0E	UiData traffic
14008.0	0936	28	09	RUS		F1B			UiPtr; also on 28/9 and 29/9
14120.0	1330	16	09	RUS/ UKR		J3E-U			War rethoric
14170.0	0944	16	09			RADAR			OTHR
14191.9	1417	24	09			NON			Long lasting carrier; S8
14192.0	1511	22	09	RUS		F1B		200H	UiPtr
14192.0	1013	23	09	RUS		F1B		200H	UiPtr
14309.0	0940	19	09			RADAR			OTHR
14330.0	1726	16	09	RUS		RADAR	40	12K0E	OTHR Contayner
14343.0	1401	14	09	RUS		RADAR	40	12K0E	OTHR Contayner
21350.0	0854	25	09	RUS		J3E-U			Non amateur traffic; male voice
29160.0	1418	16	09			A3E		9K0E	2 TX simult; female voice Arabic; s6; BC intermodulation?

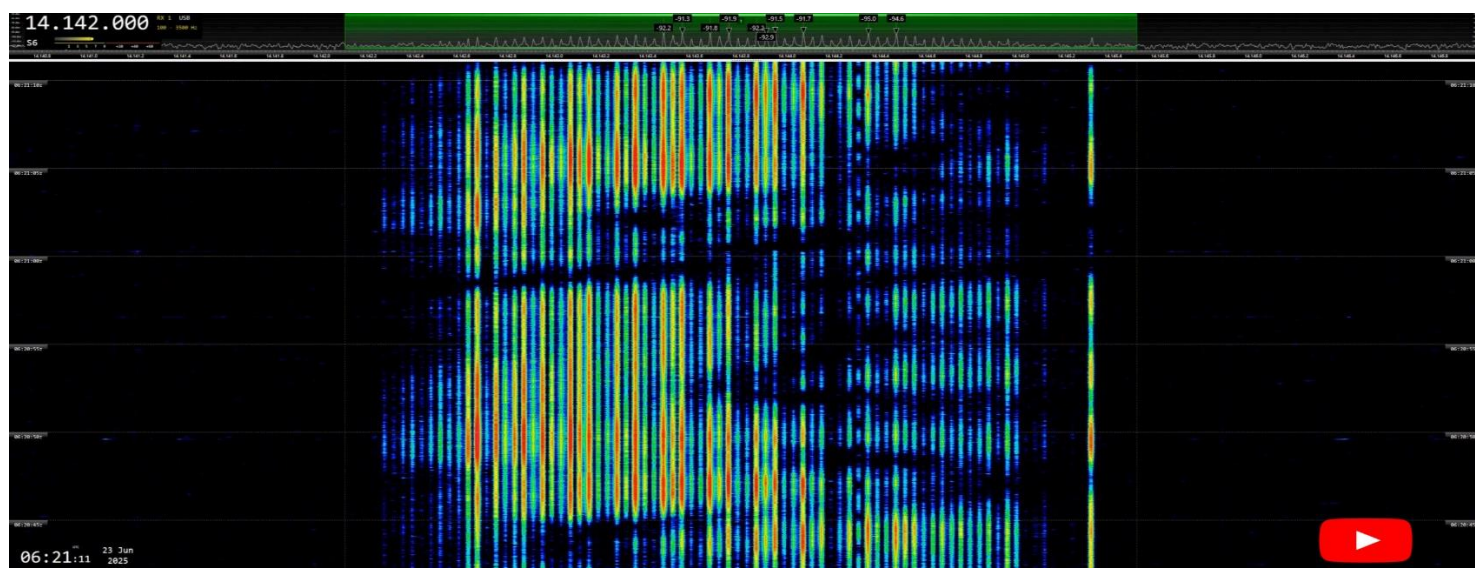
Contact: Gaspar, EA6AMM. IARU IWS coordinator: iarums@iaru-r1.org

IARU IWS R1 coordinators: <https://www.iaru-r1.org/spectrum/monitoring-system/iarums-region-1-coordinators/>

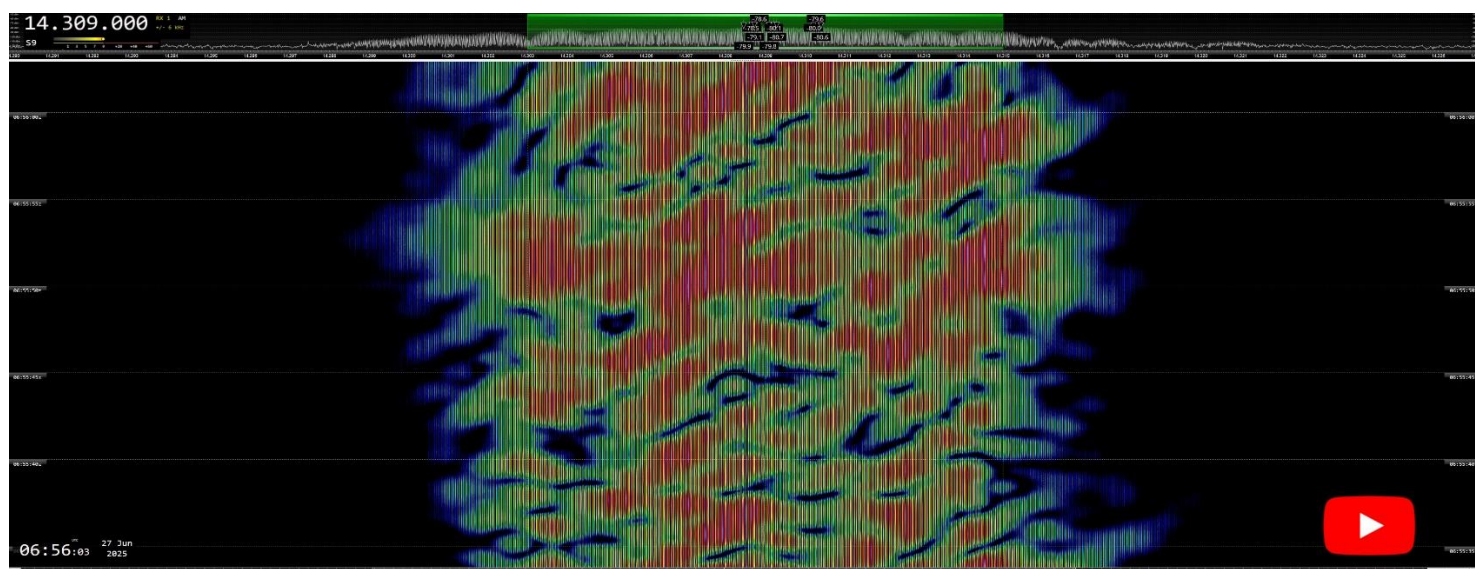
Visit our website: <https://www.iaru-r1.org/about-us/committees-and-working-groups/iarums/>



7088 kHz USB: LINK-11 SLEW. G1D. BW = 2.4 kHz. 2400 Bd (example video)



CIS-12. J7D. BW = 2.7 kHz. 12 X 120 Bd + pilot tone. Submode idle (example video)



RUS OTHR Contayner: received on all bands from 40 to 12 m inclusive. BW = 12 kHz. 40 pps. Sometimes, several simultaneous TX on a same band