

Experience of DX-ing with an EWE-antenna in Härnösand

Sven-Åke Heinemo

2017-10-03

This presentation has been complemented with red coloured comments after some questions and discussion 2017-10-03

EWE-antenna was used with the receiver AOR AR 7030

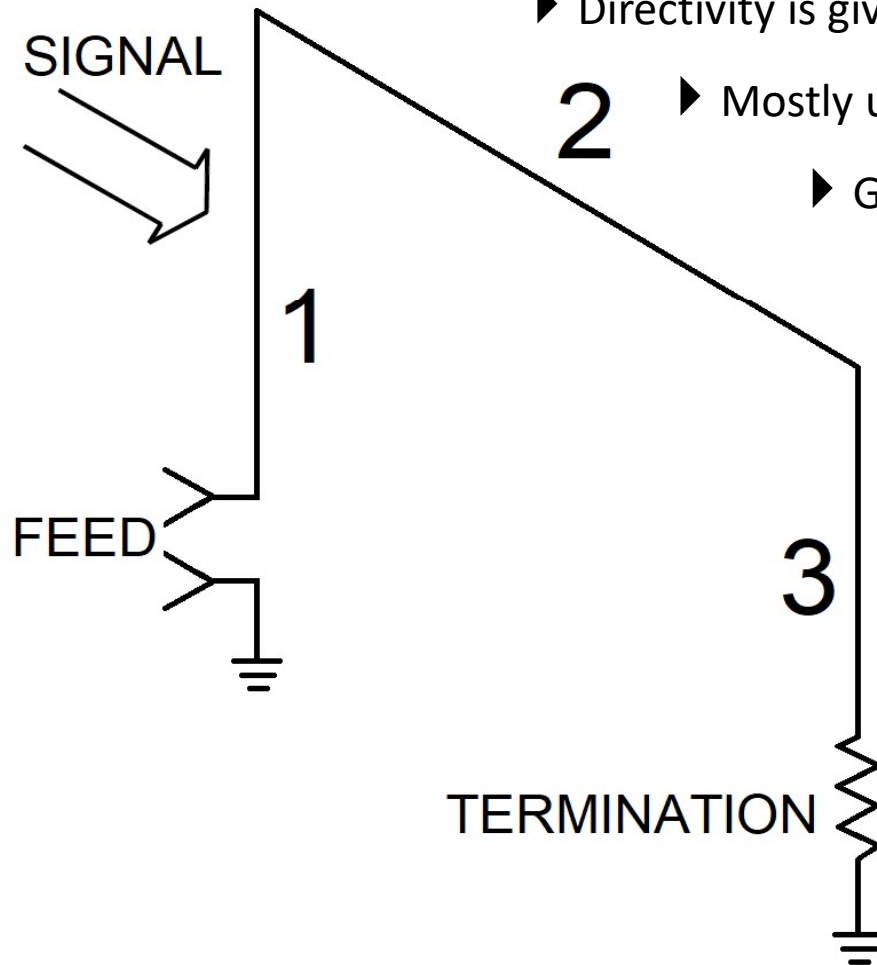
AOR AR 7030:

- ▼ 0 kHz-32 MHz ▼ AM, SSB, NFM, CW ▼ AM synchronous detector
- ▼ Noise blanker ▼ Notch filter ▼ 2,1 / 2,3 / 5,4 / 6,1 / 9,5 kHz filter

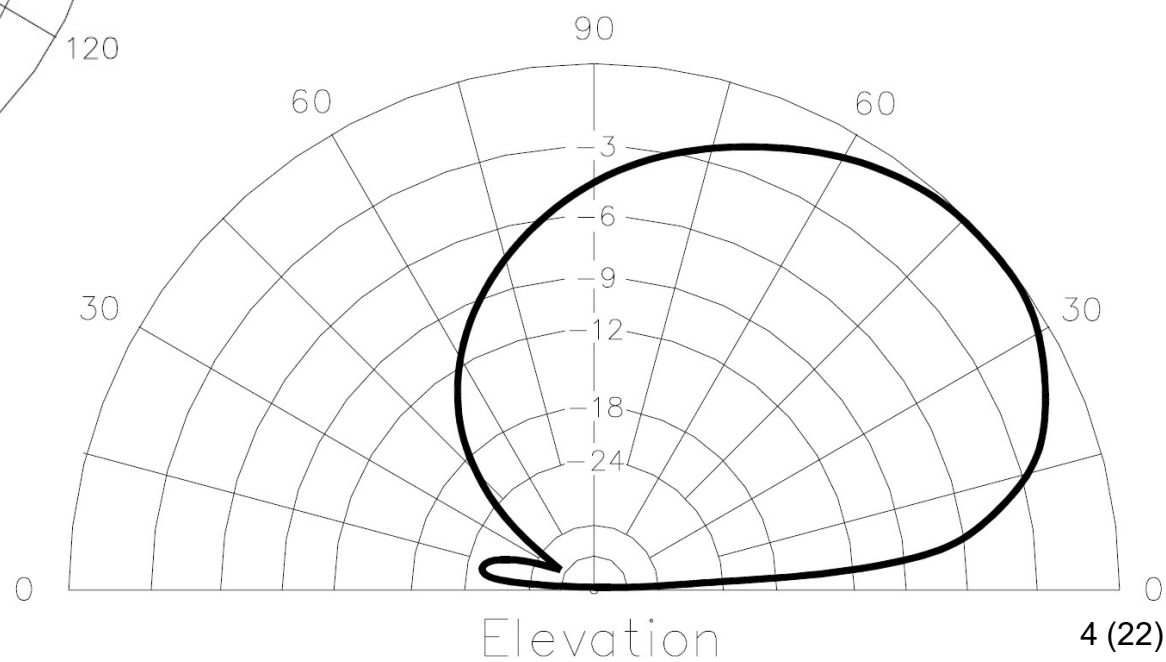
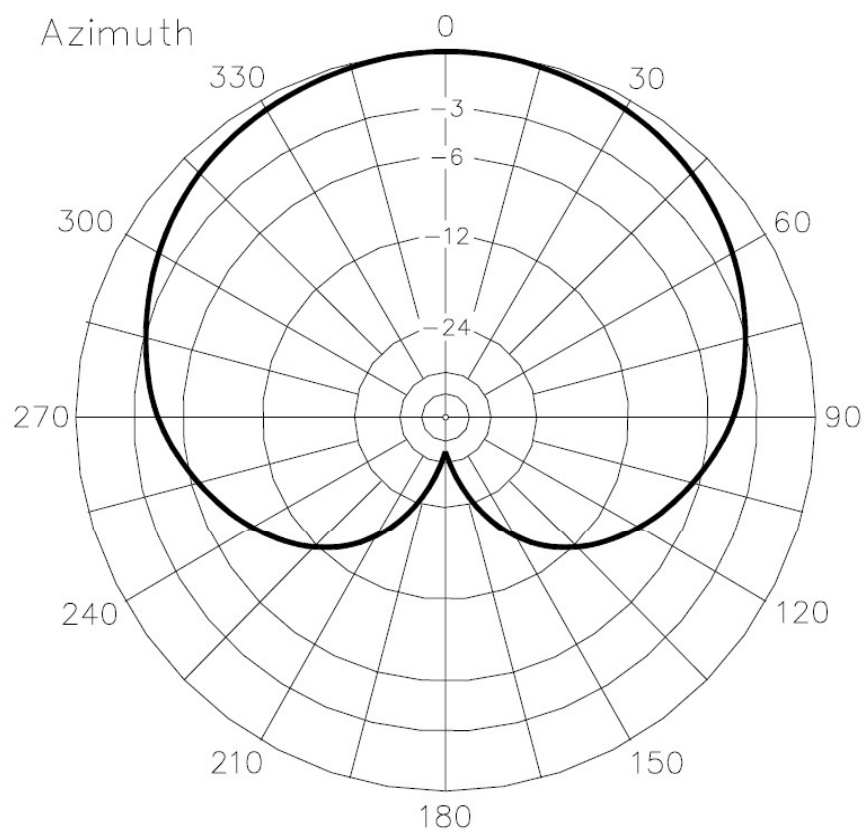


Basic on EWE-antenna (1)

- ▶ Described by Floyd Koontz 1995 (WA2WVL)
 - ▶ Two linked verticals where the phase differens of 135° - 150° is used
 - ▶ Directivity is given by connecting one of the verticals to earth
- 2 ▶ Mostly used to receive signals below 10 MHz
 - ▶ Generally a low noice antenna



Basic on EWE-antenna (2)

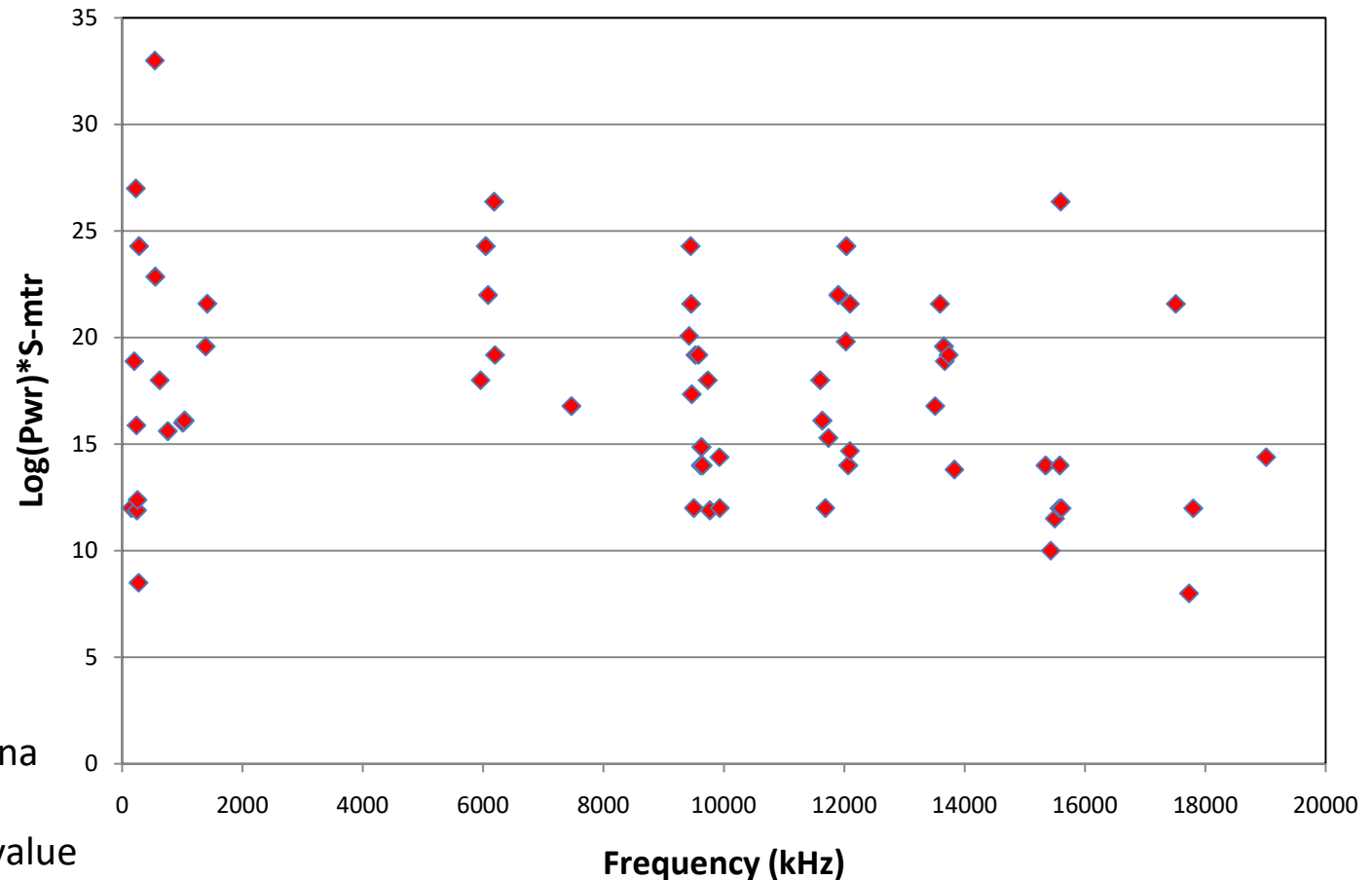


Examples on the EWE-antenna

Reference	<i>used band (MHz)</i>	<i>vertikal 1 (m)</i>	<i>vertikal 2 (m)</i>	<i>top wire (m)</i>	<i>band (MHz) 2:1 (top wire)</i>	<i>total length (m)</i>	<i>band (MHz) 2:1 (total length)</i>
"Super Loop"	???	13,5	13,5	28,5	0,7-(1,3)-2,6	55,5	0,7-(1,3)-2,7
Hermod Pedersen	0,5-1,6	6	6	18	1,0-(2,1)-4,2	30,0	1,3-(2,5)-5,0
Floyd Koontz	1,8-4,0	4,5	4,5	11,4	1,7-(3,3)-6,6	20,4	1,8-(3,7)-7,4
Michael Schnitzer	0,15-10	3	3	7,5	2,5-(5,0)-10,0	13,5	2,8-(5,6)-11,1
Hermod Pedersen	3,5-5,7	5	5	5	3,7-(7,5)-15,0	15,0	2,5-(5,0)-10,0
John Conover	3-18	1,9	1,9	3,7	5,1-(10,2)-20,4	7,5	5,0-(10,0)-20,0

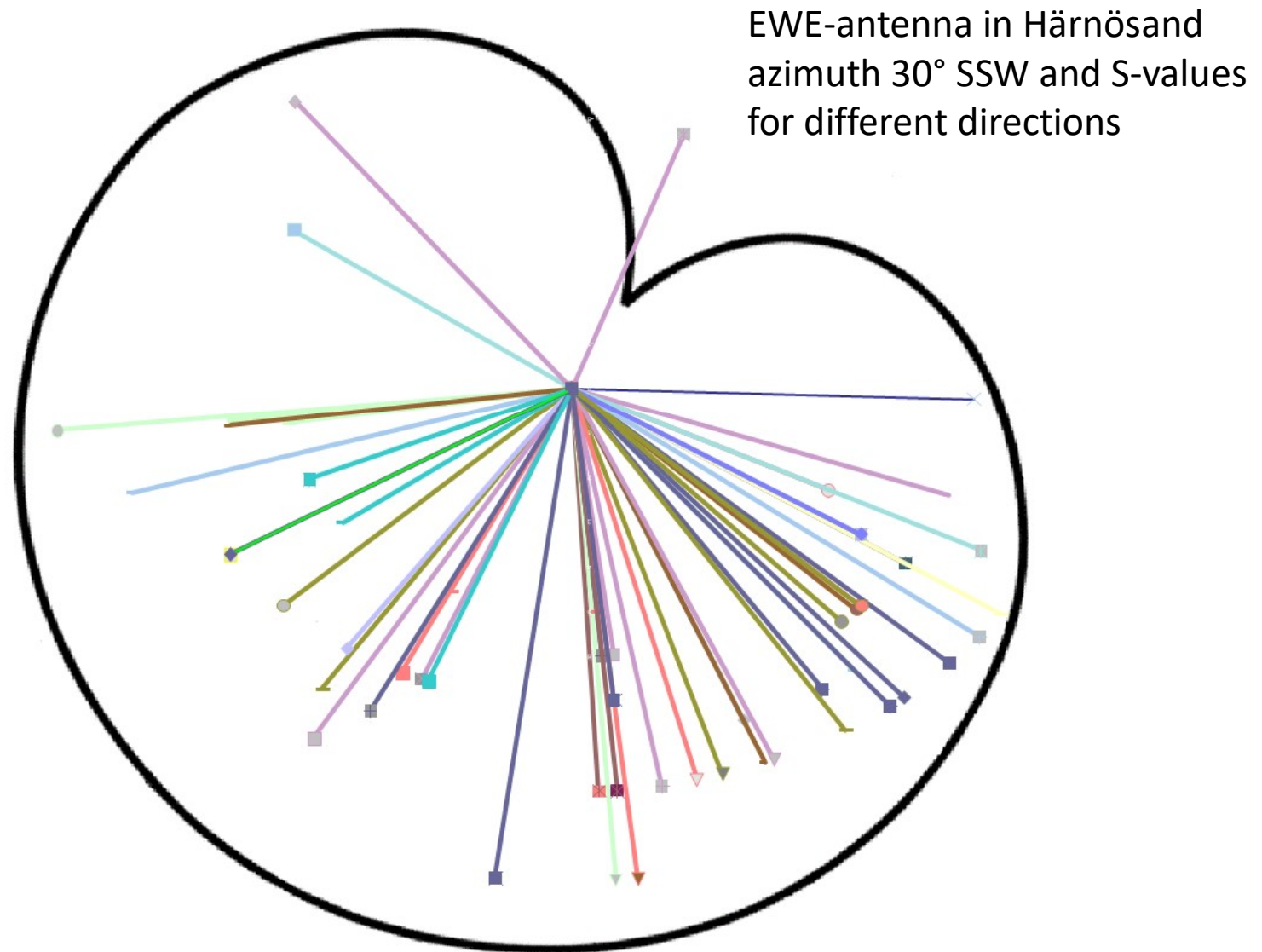
The EWE-antenna in Härnösand

<i>Reference</i>	<i>used band (MHz)</i>	<i>vertical 1 (m)</i>	<i>vertical 2 (m)</i>	<i>top wire (m)</i>	<i>band (MHz) 2:1 (top wire)</i>	<i>total length (m)</i>	<i>band (MHz) 2:1 (total length)</i>
Michael Schnitzer	0,15-10	3	3	7,5	2,5-(5,0)-10,0	13,5	2,8-(5,6)-11,1

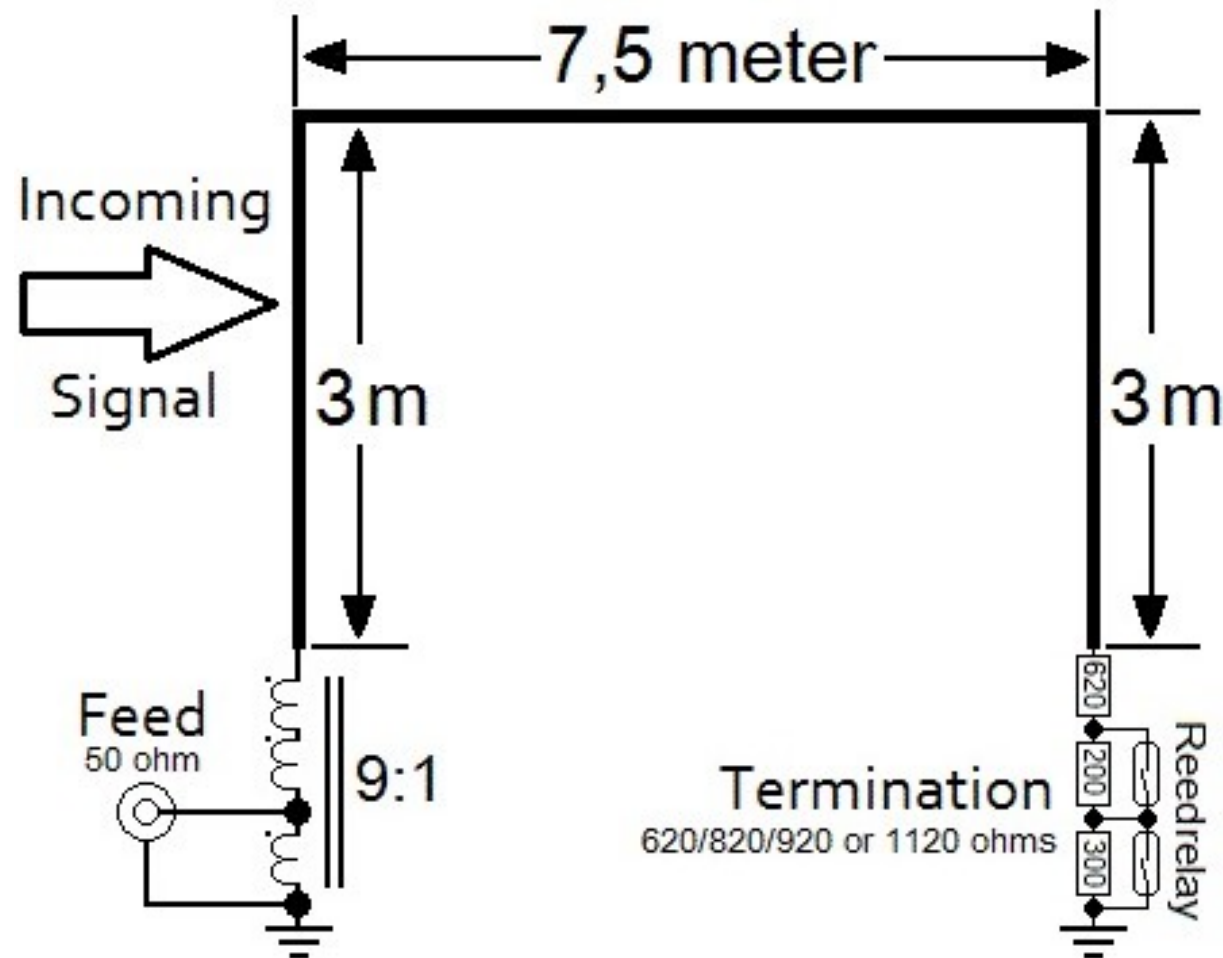


Reception with EWE-antenna
(S-values in Härnösand
multiplied with logarithmic value
of the stations power).

Reception with EWE in Härnösand



Construction of the EWE in Härnösand (1)



Connection to earth was made with ground anchors, driven 60 cm down into the soil. (Art.nr: **238245**, ByggMax)

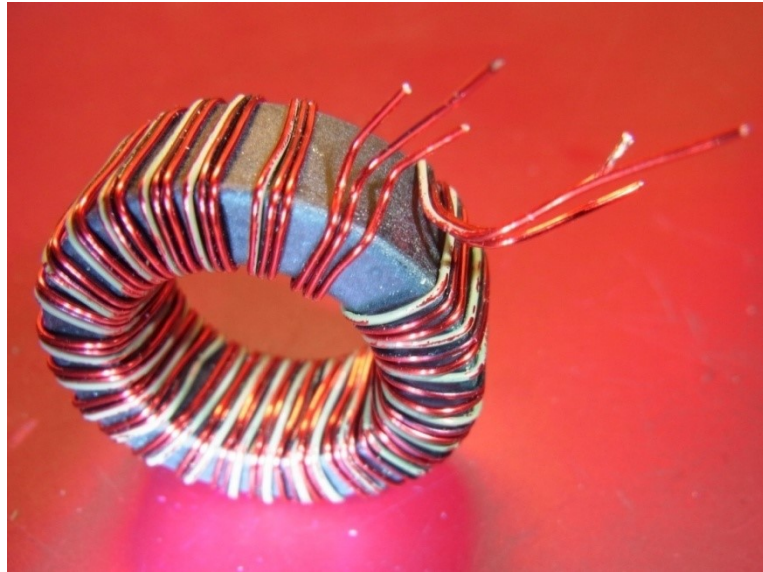
Background noise was of interest during the presentation 2017-10-03. My answer was S 1-2, but that is only partly correct. Background noise with the EWE in Härnösand varies between the bands.

For bands 11 – 31 meter, background noise is measured between S 0-2. Except on the 13 meter band, there it is S 3.

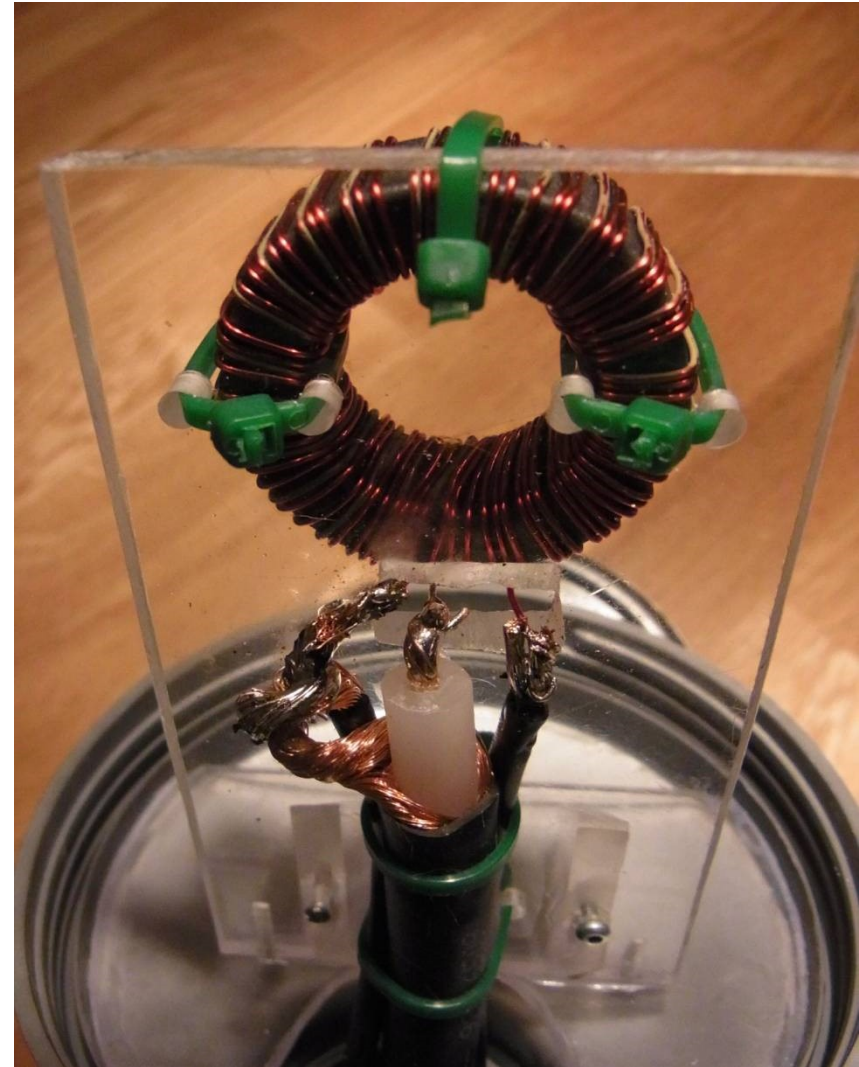
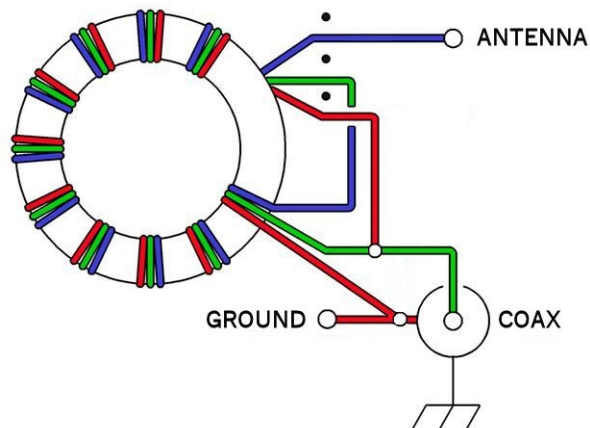
For bands 41 – 120 meter, background noise is S 3-5. (41/S3,5: 49/S4,2: 60/S4,3: 75/S5: 90/S4,8: 120/S3)

For LW and MW, background noise is measured between S 1,5-2,5.

Construction of the EWE in Härnösand (2)



25-turns of trifilar 0,6mm wire 23AWG on FT140-43 ferrite core. Recommended turns are 9-11. But I assumed that with trifilar wound, 25 turns could increase the output signal without distorting the impedance.



Ground wire left, coax feed in the middle, antenna wire at the right.

Construction of the EWE in Härnösand (3)



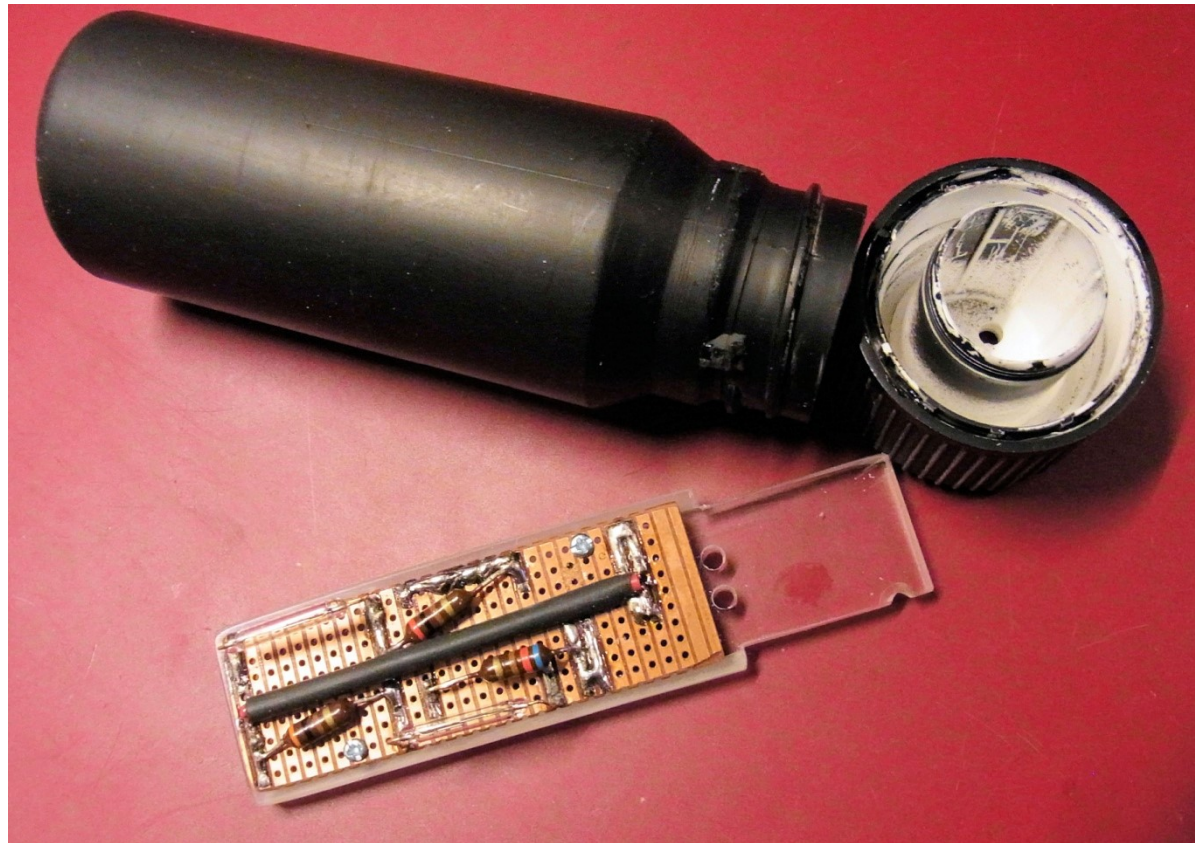
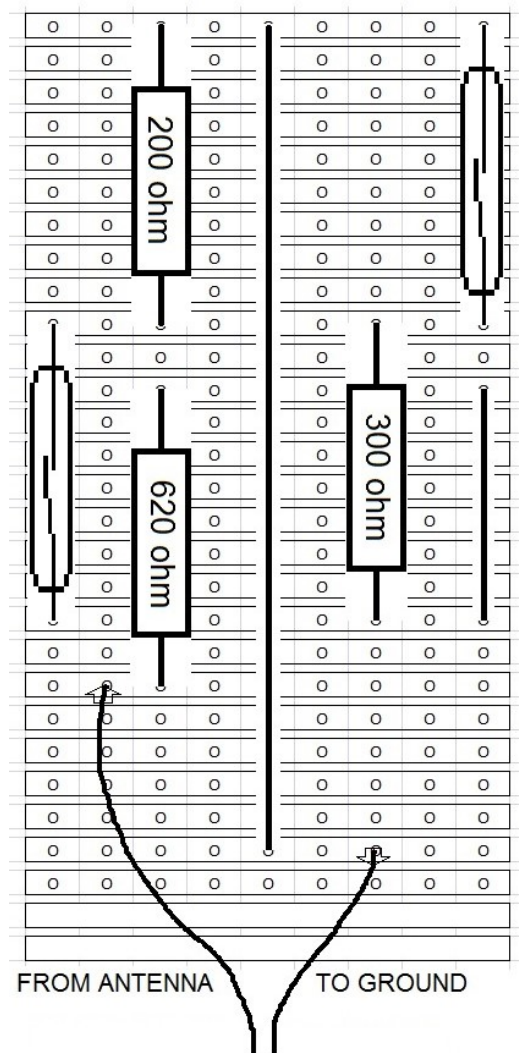
Coax RG-213 just a few centimeters under the lawn leading to the receiver



Top of the front pole

Construction of the EWE in Härnösand (4)

Layout for the termination net.



Termination resistor net to be mounted in a plastic holder.

Construction of the EWE in Härnösand (5)



End pole with termination resistor holder



The EWE-antenna directed 30° SSW

ID-logging of LW/MW/SW (1)

SHORT-WAVE.INFO

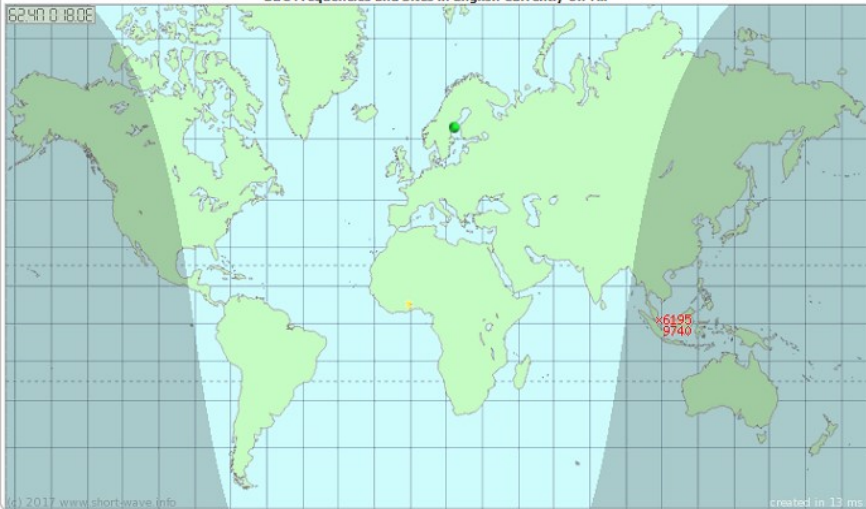
Find frequencies for **BBC** in **English** at **12:04** GMT (☒ NOW) **GO**

Find stations broadcasting on kHz (☐ ± 5 kHz) **NOW**

List everything on-air in the **120m Band (2300-2500 kHz)** **NOW**

[AdChoices](#) [Shortwave Radio](#) [Frequency](#) [Radio Short Wave](#)

BBC Frequencies and Sites in English Currently On-Air



6240 0 1800

6195 9740

6195 9740

Freq	Station	Start	End	Days	Language	Pwr	Az	Transmitter Site	Remarks
9740	BBC	10:00	13:00	1234567	English	125	13	Kranji	
6195	BBC	10:00	13:00	1234567	English	125	0	Kranji	
9740	BBC	10:00	13:00	1234567	English	125	135	Kranji	
6195	BBC	10:00	13:00	1234567	English	125	90	Kranji	

MWLIST quick and easy: Europe, Africa and Middle East

| Asia and Pacific | North America, Central America, Caribbean | South America |

This web page is just another view of the content of www.mwlist.org, a unique database of worldwide radio stations on longwave, mediumwave and shortwave. MWLIST powers various things like the medi was created following the example of www.fmlist.it. It is a non-commercial and hobby project and open for everyone to contribute and use. We understand that maintaining the database is time-consuming for a database a useful tool for all DXers and radio enthusiasts.

[Click here for acknowledgements, sources, copyright information and external links](#)

Click on any frequency to display station details

153 162 171 183 189 198
207 216 225 234 243 252 270

531 **540** 549 558 567 576 585 594 595

602 603 612 621 630 638 639 648 657 666 675 684 693

702 711 720 729 738 747 756 765 774 783 792

801 810 819 828 837 840 846 850 855 864 873 882 891

900 909 917 918 927 936 945 950 954 963 972 981 989 990 999

1008 1017 1026 1035 1044 1053 1062 1071 1080 1089 1098

1107 1115 1116 1125 1134 1143 1152 1161 1170 1179 1188 1197

1206 1215 1224 1233 1242 1251 1260 1269 1278 1287 1290 1295 1296

1306 1314 1322 1332 1332 1341 1350 1359 1368 1377 1386 1394 1395

1404 1413 1422 1431 1440 1449 1458 1467 1476 1484 1485 1494

1503 1512 1521 1530 1539 1548 1550 1557 1566 1575 1584 1588 1590 1593

1602 1611 1616 1620 1625 1626 1630 1635 1636.4 1638 1641 1642.5 1644 1650 1653 1656 1657.5 1659 1660 1660.4 1662 1662.5 1663 1699.4

1701 1704 1707 1710 1713 1716 1720 1720.4 1722 1726 1728 1731 1734 1737 1739 1740 1741.4 1743 1746 1750 1752 1755 1757 1758

1813 1848 1850 1852 1855 1856 1862 1869 1876 1880 1881 1883 1888 1890

1904 1911 1918 1925

2096 2099

2135 2170.5 2182 2192 2197

2200 2204 2210 2221 2226 2230 2256 2264 2266 2282 2291 2296 2297

ALL frequencies (slow!)

540 kHz Offsets...

Country	Station (web site link)	Transmitter (GoogleMaps link) * = high precision	kW	Remarks
AFS	(planned) Sport 540 AM	Meyerton *	50	
E	Onda Cero Catalunya 24h es	Barcelona/EAJ15 *	50	EAJ15, temp Onda Melodia 01/2012 // 954 1080 1341
HNG	MR1 Kossuth Rádío 0323-2131 hu [Mo-Fr] 0353-2131 hu [SaSu]	Solt *	2000/1000	
IRN	IRIB Radio Iran 24h fa	Mashhad/Gaem *	200	// 531 549 558 648 666 702 747 873 909 963 981 990 1 1503 1530 1539 1548 1557 1566 1575 1602

“Verified” with the use of internet sites:

<http://www.short-wave.info/>

http://www.mwlist.org/mwlist_quick_and_easy.php

ID-logging of LW/MW/SW (2)

Nr	Date	UTC	(khz)	Radiostation	Site of transmitter	Country	ITU-code	Pwr(kW)	S-mtr
1	2016-01-05	10:22	9615	KNLS	Anchor Point	Alaska	ALS	100	7
2	2016-01-05	10:57	9765	RNZI	Rangitaiki	New Zealand	NZL	50	7
3	2016-01-05	15:31	12095	BBC	Talata-Volonondry	Madagascar	MDG	250	9
4	2016-01-05	22:10	9445	AIR	Bengaluru	India	IND	500	9
5	2016-01-06	13:59	13670	China Radio International	Kashi-Saibagh	China	CHN	500	7
6	2016-01-08	10:00	1035 R.	ELI	Tartu(Sooranna)	Estonia	EST	200	7
7	2016-01-08	18:59	6195	BBC	Al Seela	Oman	OMA	250	8
8	2016-01-09	13:31	12035	Voice of Turkey	Emirler	Turkey	TUR	500	9
9	2016-01-09	22:01	1008	GrootNieuws Radio	Zeewolde(Flevoland)	Netherlands	HOL	100	8
10	2016-01-10	13:00	13590	VOA Deewa Radio	Iranawila	Sri Lanka	CLN	250	9
11	2016-01-10	15:17	7465	BBC	Kranji	Singapore	SNG	250	7
12	2016-01-12	19:58	225	Polskie Radio Jedynka	Solec Kujawski(Kabat)	Poland	POL	1000	9
13	2016-01-13	17:27	198	BBC Radio 4	Droitwich	United Kingdom	G	500	7
14	2016-01-12	21:59	756	SRR Radio Roumania Actualitati	Lugoj(Boldur)	Romania	ROU	400	6
15	2016-01-13	19:09	549	UR 1 Persha Prog.	Mykolaiv(Luch)	Ukraine	UKR	720	8
16	2016-01-13	19:26	270	Cro Radiozurnal	Topolna	Czech Republic	CZE	50	5
17	2016-01-13	22:03	1413	Vesti FM	Grigoriopol(Maiac)	Moldova	MDA	500	8
18	2016-01-14	18:27	9500	TWR Africa	Manzini	Swaziland	SWZ	100	6
19	2016-01-14	18:59	540	MR1 Kossuth Radio	Solt	Hungary	HNG	1000	+10dB
20	2016-01-15	16:02	15580	Voice Of America	Selebi-Phikwe	Botswana	BOT	100	7
21	2016-01-15	16:30	15610	EWITN (WEWN)	Vandiver	USA	USA	250	5
22	2016-01-16	12:00	12065	Radio Australia (ABC)	Shepparton	Australia	AUS	100	7
23	2016-01-18	15:00	17730	R. Habana Cuba	Bauta	Cuba	CUB	100	4
24	2016-01-18	19:26	6040	VO Islamic Rep. Iran	Sirjan	Iran	IRN	500	9
25	2016-01-19	12:25	19010	R. Azadi (R.Free Afghanistan)	Kuwait	Kuwait	KWT	250	6
26	2016-01-19	19:56	279	Pershy Kanal_Radyjo Stalitsa	Sasnovy	Belarus	BLR	500	9
27	2016-01-19	21:28	12095	BBC	Ascension	Ascension	ASC	125	7
28	2016-01-20	16:51	11900	Voice Of America	Meyerton	South Africa	AFS	100	+10dB
29	2016-01-23	14:57	17510	Bible Voice BCN Christ Gospel	Issoudun	France	F	250	9
30	2016-01-24	18:01	5955	Voice Of Vietnam	Moosbrunn	Austria	AUT	100	9
31	2016-01-24	21:00	6080	Voice Of America	Pinheira	Sao Tome Principe	STP	100	+10dB

ID-logging of LW/MW/SW (3)

Nr	Date	UTC	(khz) Radiostation	Site of transmitter	Country	ITU-code	Pwr(kW)	S-mtr
32	2016-01-25	12:28	13655 China Radio International	Cerrik	Albania	ALB	150	9
33	2016-01-25	13:59	13510 BBC	Nakhon Sawan	Thailand	THA	250	7
34	2016-01-26	07:30	17800 Deutsche Welle	Dhabbaya	United Arab Emirates	UAE	250	5
35	2016-01-26	07:40	9575 R. Mediterranee Int. (Medi 1)	Nador	Morocco	MRC	250	8
36	2016-01-28	07:29	15595 Vatican Radio	Santa Maria di Galeria	Vatikan City State	CVA	250	+10dB
37	2016-01-29	16:29	252 RTE Radio 1	Clarkestown(Summerhill)	Ireland	IRL	300	5
38	2016-01-29	18:57	234 RTL	Beidweiler	Luxemburg	LUX	1500	5
39	2016-01-30	13:46	9930 T8WH The Harvest Show	Palau Medorn	Palau	PLW	100	6
40	2016-01-30	16:40	243 Dansk Radio Langbølge	Kalundborg	Denmark	DNK	50	7
41	2016-01-30	17:28	1386 Radio Baltic Waves Int.	Kaunas(Sitkunai)	Lithuania	LTU	150	9
42	2016-01-31	16:59	9645 R. Liberty(R. Svaboda)	Biblis	Germany	D	100	7
43	2016-02-12	09:59	9625 NHK World Radio Japan	Ibaragi-Koga-Yamata	Japan	J	300	6
44	2016-02-12	13:28	13735 Radio Free Asia	Tinian Island	North Mariana Islands	MRA	250	8
45	2016-02-13	12:59	15430 KSDA-AWR Guam	Agat	Guam	GUM	100	5
46	2016-02-13	13:44	9455 R. Bangladesh Betar	Dhaka	Bangladesh	BGD	250	9
47	2016-02-13	14:58	15500 R. Exterior De Espana	Noblejas	Spain	E	200	5
48	2016-02-14	19:29	11635 Voice of Korea	Kujang	North Korea	KRE	200	7
49	2016-02-15	13:05	15575 KBS World Radio	Kimjae	South Korea	KOR	250	5
50	2016-02-21	14:57	12025 TWR India	Yerevan-Gavar	Armenia	ARM	300	8
51	2016-02-26	15:28	11685 NHK World Radio Japan	Tashkent	Uzbekistan	UZB	100	6
52	2016-02-27	15:57	9465 Radio Taiwan International	Tamsui District	Taiwan	TWN	300	7
53	2016-02-27	17:59	11735 Zanzibar Broadcasting Corporation	Dole	Tanzania	TZA	50	9
54	2016-02-28	17:30	9925 Radio Pilipinas	Tinang	Philippines	PHL	250	6
55	2016-02-28	18:59	153 NRK	Ingøy	Norway	NOR	100	6
56	2016-03-01	15:23	11600 The Overcomer Ministry	Kostinbrod(Sofia)	Bulgaria	BUL	100	9
57	2016-03-02	21:00	9420 Helliniki Radiophonia	Avlis	Greece	GRC	170	9
58	2016-03-08	19:26	9525 Voice of Indonesia	Jakarta-Cimanggis	Indonesia	INS	250	8
59	2016-03-20	21:00	9730 Voice of Vietnam	Hanoi-Sontay	Vietnam	VTN	100	9
60	2016-06-30	21:56	15345 R. Argentina Exterior	General Pacheco	Argentina	ARG	100	7
61	2016-11-16	17:56	621 RTBF La Première	Wavre	Belgium	BEL	100	9
62	2016-11-17	06:58	6180 Radio Nacional da Brasilia/Amazonia	Brasilia	Brazil	B	250	+10dB
63	2017-04-20	11:59	13830 Radio Free Asia	Dushanbe-Yangiyul	Tajikistan	TJK	200	6

ID on language hard to understand!!



Shortwave listeners hear the Voice of Greece once again

[13 Replies](#)



SWling Post contributor, Moshe, writes with some good news from the Voice of Greece:

I'm listening to VOG at 9420kHz. At 11:27 local time 08:27UTC, 11/06/2015 the station identified itself as "Ezo Athina, I Foni Dis Elladas": "This Is Athens, The Voice Of Greece".

I'm listening to VOG at 9420kHz, At 11:27 local time 08:27UTC, 11/06/2015 the station identified itself as "Ezo Athina, I Foni Dis Elladas": "This Is Athens, The Voice Of Greece".

How to interpret IDs from countries like Egypt, Saudi, Somalia, Ethiopia, Russia etc. was a question during 20171003. On the net we have swling.com and DX-radio.se, where it is possible to chat or advertise for help with radio-related issues. One proposal was to contact personnel on municipal daycare centres, they often need to speak with children from these countries. Another proposal was the municipal interpreters or in Härnösand personnel on SIDA.

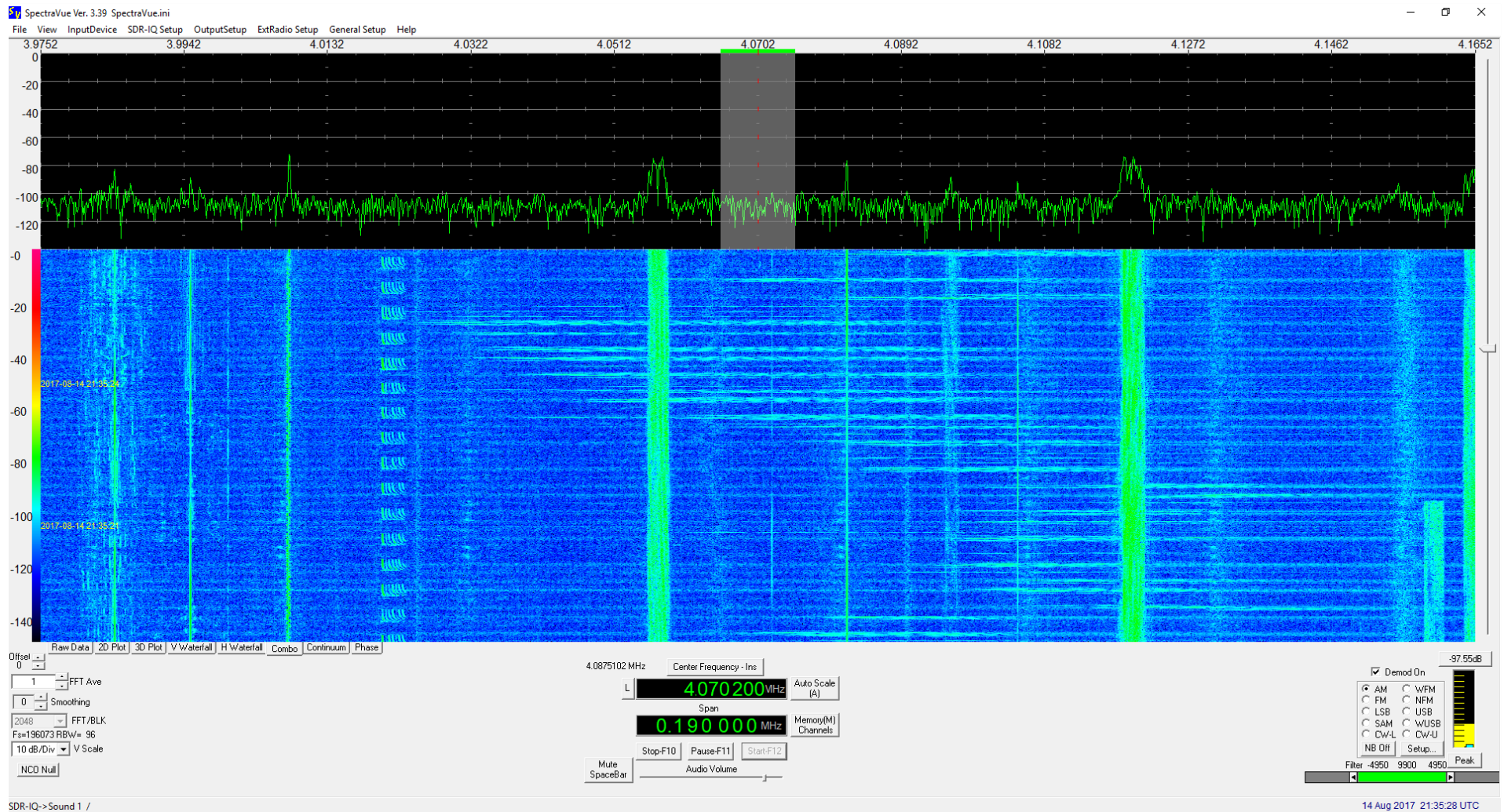
PLEASE SUPPORT OUR SPONSORS:



SWLING POST SEARCH

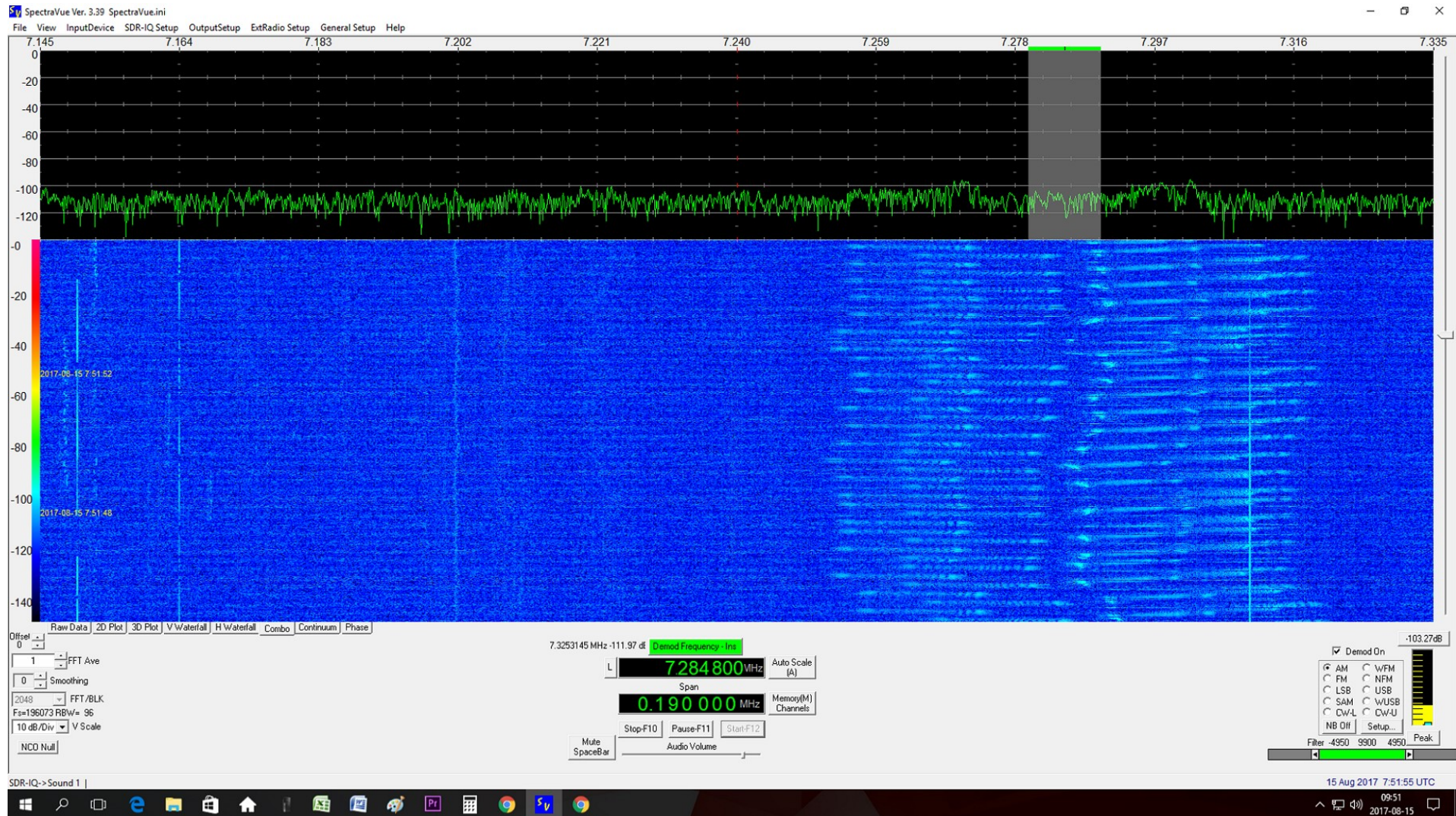
COFFEE FUND

RFI with EWE in Härnösand (1)



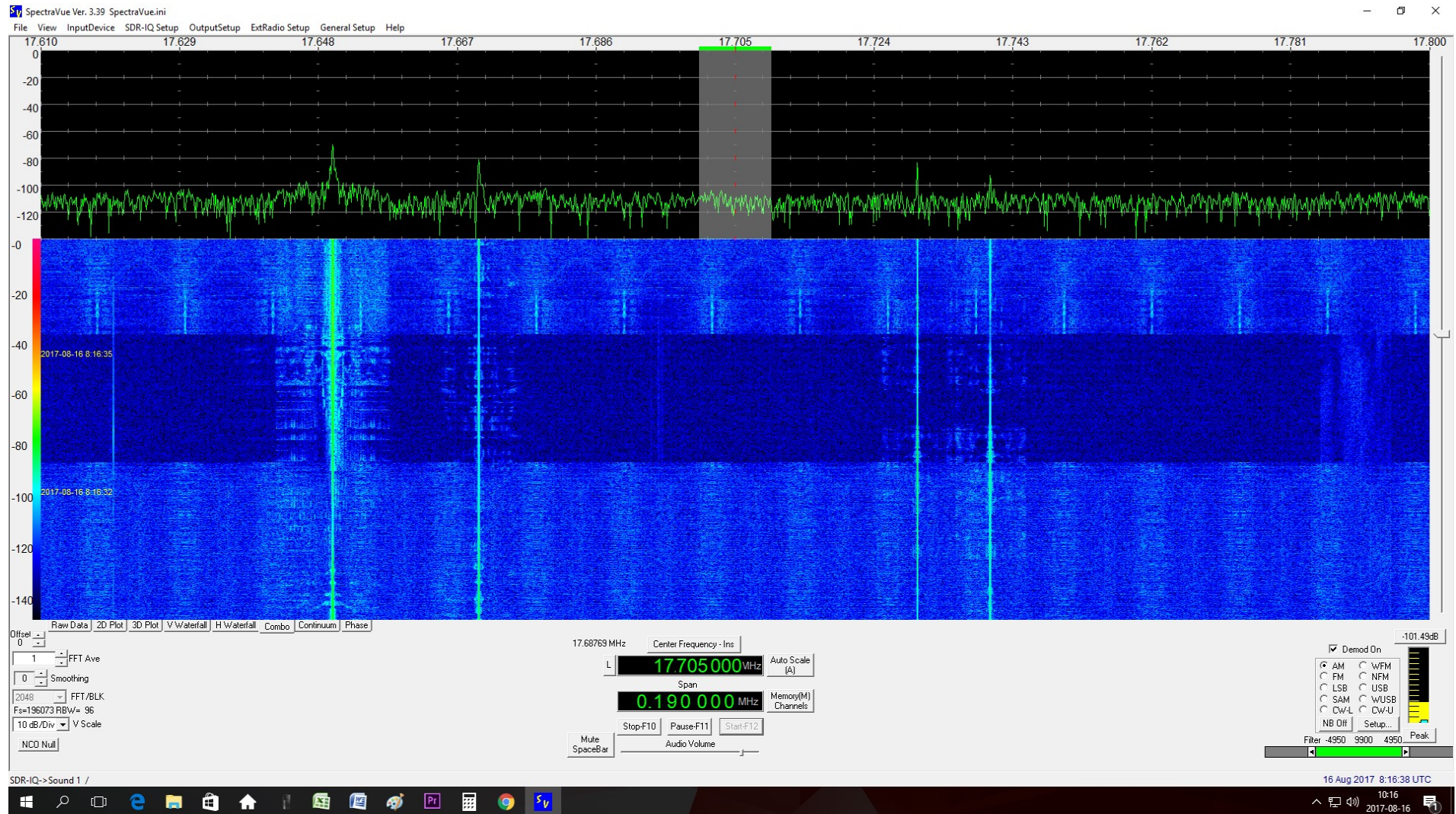
RFI on the 75-meter band (4,02 MHz). Something odd from outside the shack!!

RFI with EWE in Härnösand (2)



RFI on the 41-meter band (7,2– 7,3 MHz). I know of a CAT-coax passing under our lawn, known for common-mode RFI. Shall confirm that before dealing with the owner.

RFI with EWE in Härnösand (3)

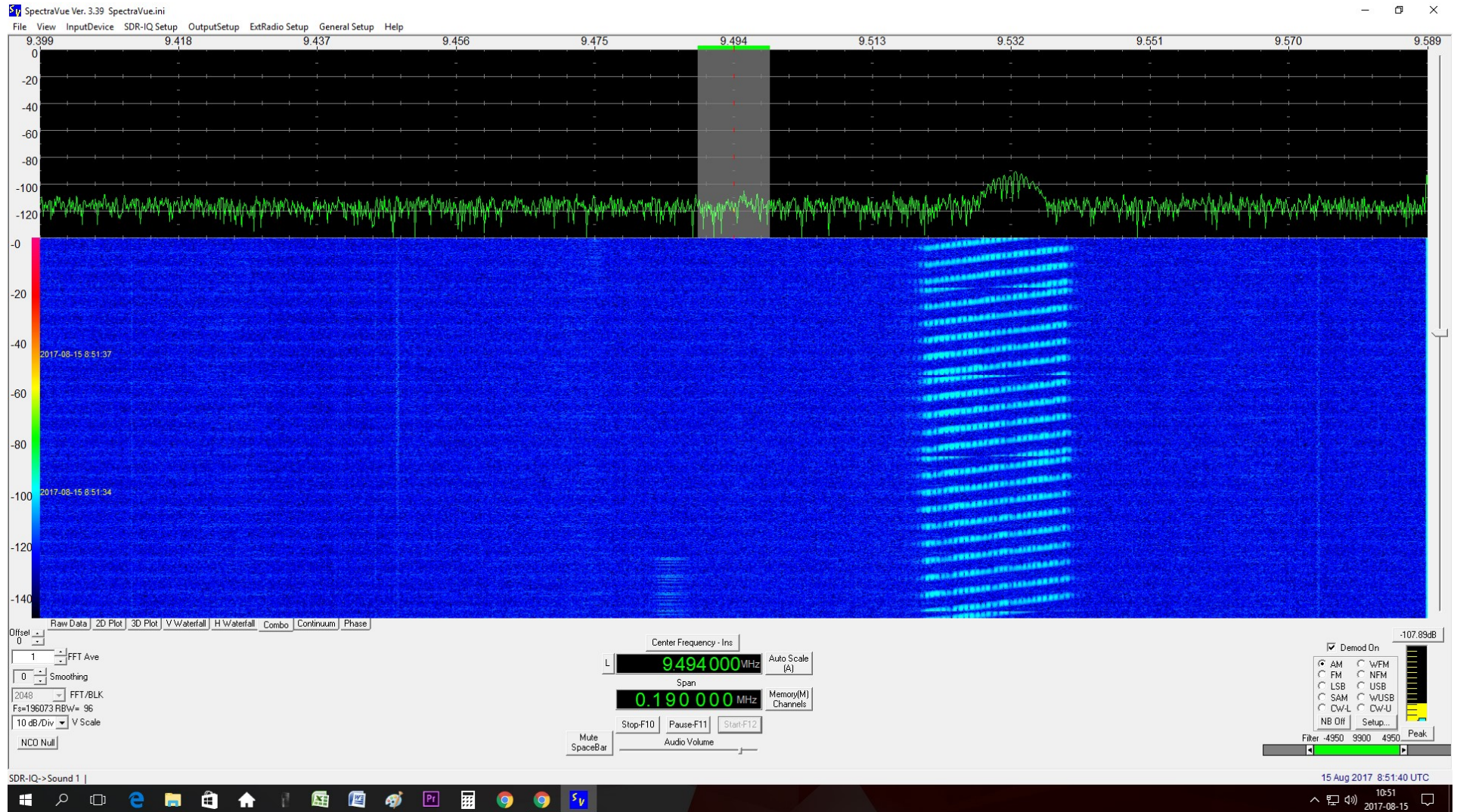


RFI on all of the 25, 22, 19 and 16-meter band.

The origin found, household duties. See later description.

19 (22)

RFI with EWE in Härnösand (4)



RFI on the 31-meter band (9,5 MHz).
The origin found, household duties. See later description.

RFI with EWE in Härnösand (4)



Washing machine with a brushless motor (RFI from interval-washing and spin-drier).

References

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- http://www.mwlist.org/mwlist_quick_and_easy.php
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