



Recommended calling QRGs: 7.028, 10.118/10.128/10.133, 14.058, 18.085, 21.058/21.138, 24.908, 28.058/28.158

FEA Net: 7.026 MHz 2300UTC on Saturdays, 14.054 MHz 0800UTC on Sundays

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## FISTS EAST ASIA MEMBERSHIP RENEWAL

We have changed our policy so that “Annual confirmation” will be “Confirmation every four years.” We will send the next confirmation email in 2024. Please let us know in advance if you change your email address.

## NEW MEMBERS

We're very pleased to welcome our latest members: Roy, BX3ADE #20253 and Shige, 7K2PAR #20254.

## OTH-RADAR ACTIVITY IS REGRETFULLY INCREASING TOWARD CYCLE 25 - TAKESHI, JA4IIJ, #15084

Hello friends, “Here Comes Solar Cycle 25” is the catch copy of the recent issue of QST (April 2021, No.4 vol. 105). According to the article by WB8IMY, the SSN maximum in Cycle 25 will be 115 in July 2025. Since I am already 73 of ages, for my good memories, I heartily hope the coming cycle 25 will be in excellent condition.

I was most active in my ham life during the solar cycle 21, where the maximum SSN of 250 was observed around the year 1980. The latter period of the cycle almost coincided with the period of the New cold war (1979-1985). I remember very well the exciting condition, but the good memory is always combined with the characteristic and strong disturbance, “Russian Woodpecker” noise.

At that time no detailed information of the noise source was available, and my friends told me that Woodpecker was seemingly transmitted from Russia for jamming civilian frequencies. But now lots of (still superficial) information is available together with the video images of the source, Chernobyl Duga radar, which was the over-the-horizon radar aiming detection of ballistic missiles from the USA. I learned a bit from the Google teacher about the OTH radar: The pulsive radio waves, of wide frequency range and high power of 10 MW, had been transmitted to the USA to receive the backscatter signals reflecting the change of ionosphere caused by the possible launch of missiles. Since the radio wave was pulsive and of gigantic power, almost all HF ham bands were covered by the 10 Hz sharp tapping noise specifically when the propagation condition was good.

The radar site was in Chernobyl, and the receiving antenna (a huge HF antenna array, 150 m height, 500 m width) is still standing there. I don't remember, but the Woodpecker was stopped in 1986. Obviously from the place of the radar site, the reason for the stop was the miserable accident of the Chernobyl nuclear plant. Besides radioactive fallouts, huge electricity for running the system had been no more available. It is now a symbol of the cold war. The year was the bottom of solar activity and I was no more active at that time.

After coming back to Ham-radio world, I have noticed there are still woodpeckers but probably of a different kind and from a different place. These days, the HF propagation condition is getting better toward Cycle 25, and along with the better condition, the woodpeckers appear more frequently. It is very much annoying especially at dawn in Japan.

Figure 1a and 1b show the recent band scope image of a 40m band with different bandwidth and different time, which show Woodpecker noise (A), different type of OTH signal (B, C), and FT8 signals (D), together with several CW and

SSB signals. Figure 2a and 2b show the audio spectrum of band A and B in Fig.1, respectively. Band A causes almost the same pulsive sound as the old one like the woodpecker or rather the chopping sound from a helicopter. The pulse frequency is just 10 Hz obviously from Fig.1a, which contains a very wide audio frequency as in Fig.1c. On the other hand, noise B is a denser radio wave detected as a continuous sound like “baaaa-----aa” for 5 seconds as analyzed in Fig.1b.

These radio waves due to OTH radar are disturbing not only for ham radio but also all civilian activity. OTH should be aborted. We are now in the era of the US-China new cold war. I hope that a peaceful era will come when such radio weapons are not needed. Thank you for reading, take care and stay safe, 73/88.

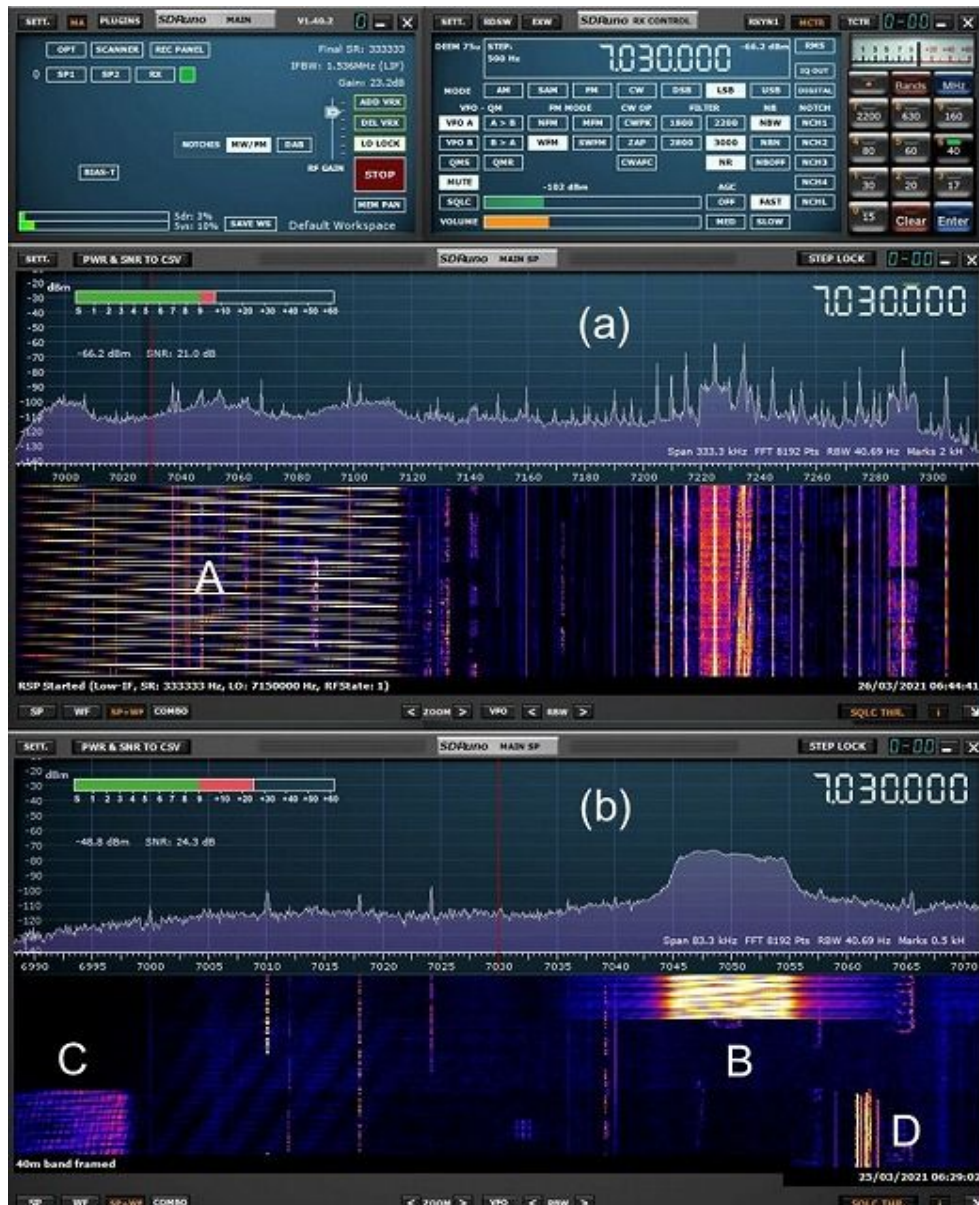


Figure 1a. Frequency range 7.0-7.3 MHz; A, Woodpecker noise (Date: 06:44 JST 26/3/2021). Fig. 1b. Frequency range 6.99-7.07 MHz; B, C, Different type of OTH; D, FT8 signals (Date: 06:20 JST 25/3/2021). Time span of waterfall is 15 sec. SDR: RSP1A, SDRuno from SDRplay.

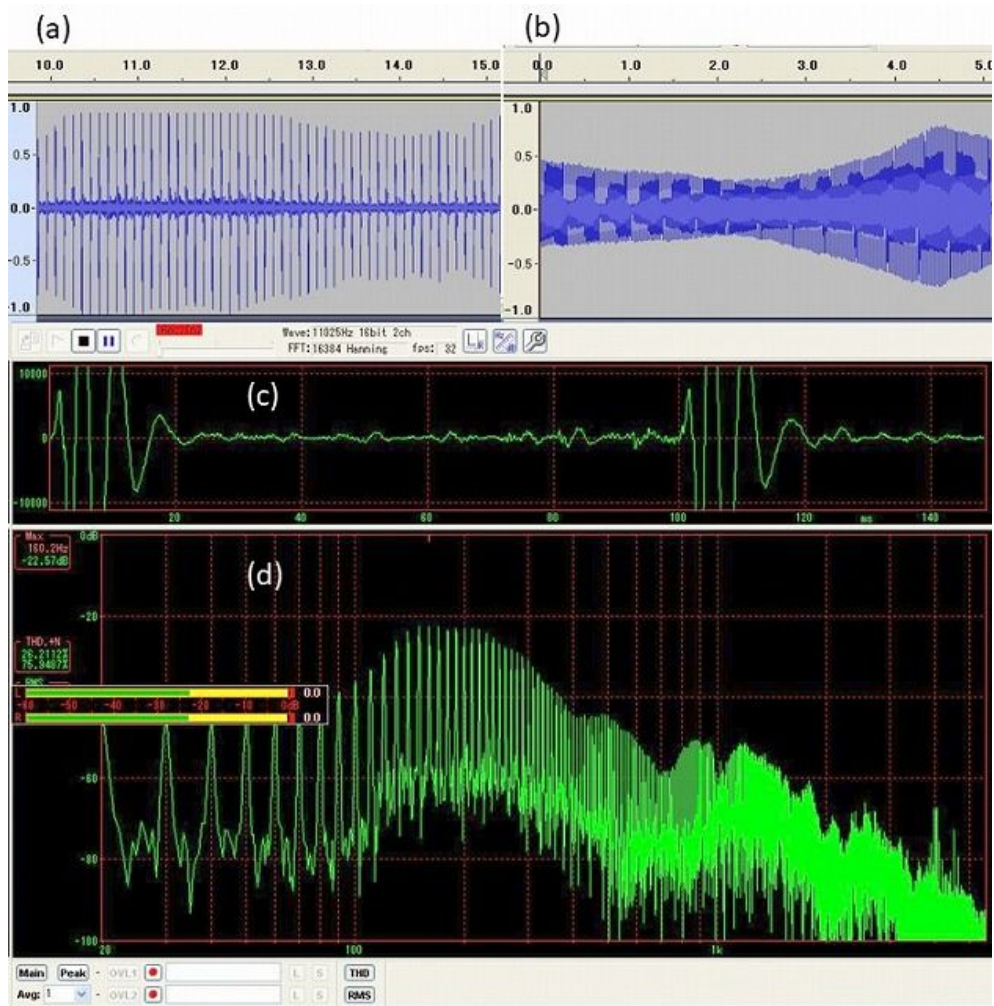


Figure 2a. 2b Audio signal of band A and B in Fig.1, respectively. Figures of time scale are in milli-second. Used software was Audacity. Fig. 2c shows the interval of pulses and Fig. 2d is the audio spectrum (20 Hz -6 kHz) of band A in Fig.1a obtained by WaveSpectra.

### EIGHT METER WIRE IN A PARK - TAK, JS1QIZ, #15150

On the 27th of February, I had a chance to QRV from a park near my house one hour before sunset. An IC705, multiband portable TRX and an AH705, battery-powered automatic antenna tuner, five 5-meter-long counterpoises, and an 8 m wire hooked up on a branch of a cherry tree was the set-up. I brought a portable fabric chair and a small table together with a set for making coffee. All but the chair was packed in a small backpack, and I walked to the park.

I made one long QSO on the 10 MHz band, one long and two short QSO on the 7MHz band, and a short QSO on the 3.5MHz band with a break with two cups of hot coffee.

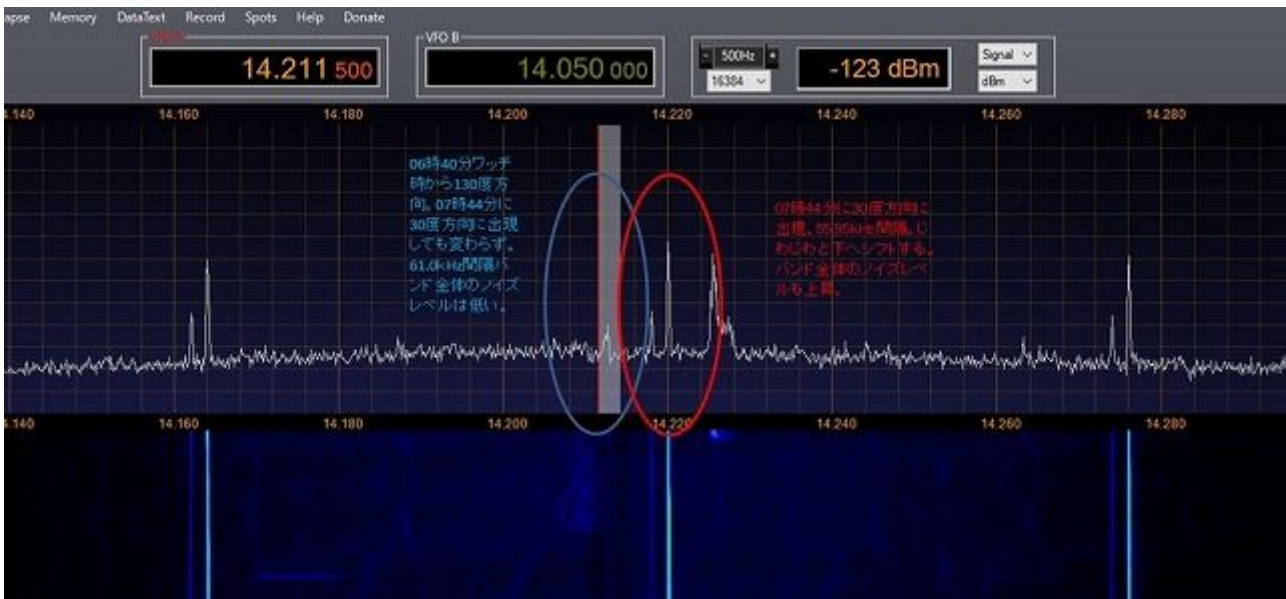
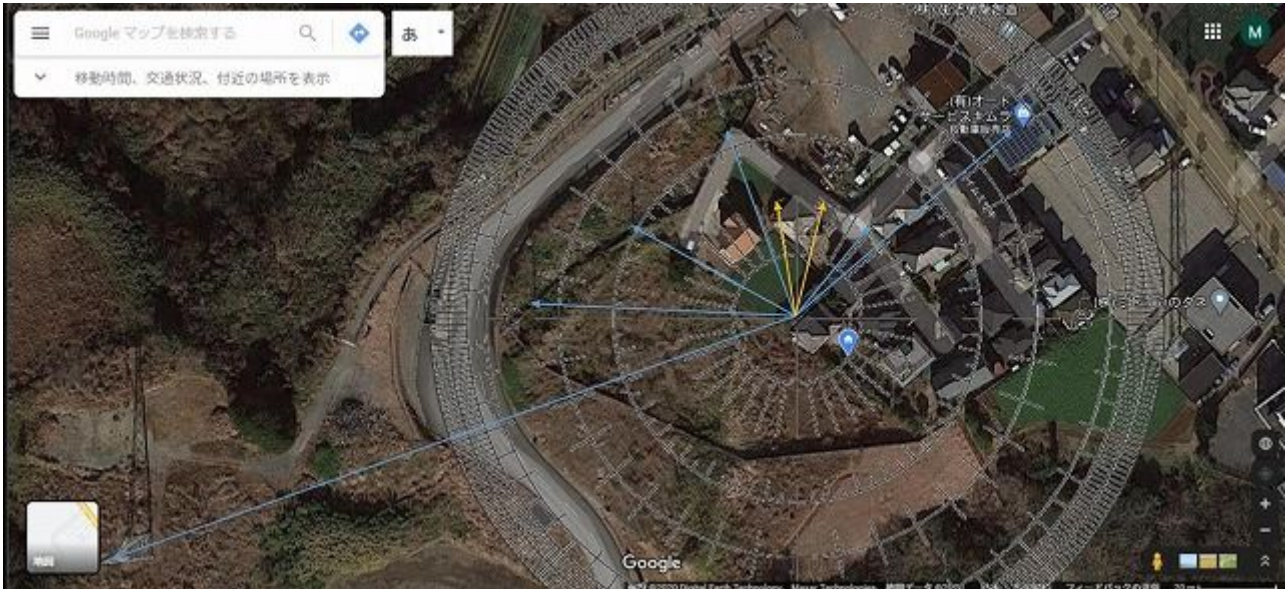
Afternoon sunshine was enjoyable, as well as the sound of Morse code with a bit of QSB.





## THE FIGHTING WITH THE NOISE - MANABU, JE1RZR, #15020

Since I moved to current QTH more than 10 years ago I noticed that my location has a lot of noise though it's not so high density of residence. It was terrible on HF bands with big pulse noise when it just stated rain or blows strong wind. The cause was the bad contact of insulator on the electric pole made an electrical discharge. I could hear the sound of spark and even watch the lightning. My QTH is close to sea coast so wind with salt makes poor condition on the insulator. I asked the local power company to take a properly measure several times and finally they replaced with the high-performance insulators against salt damage last year. Since then, it seems be O.K but found another noise which have been hide behind the noise from insulator. I collect the character of noise, time, direction carefully using band scope and plot the data.

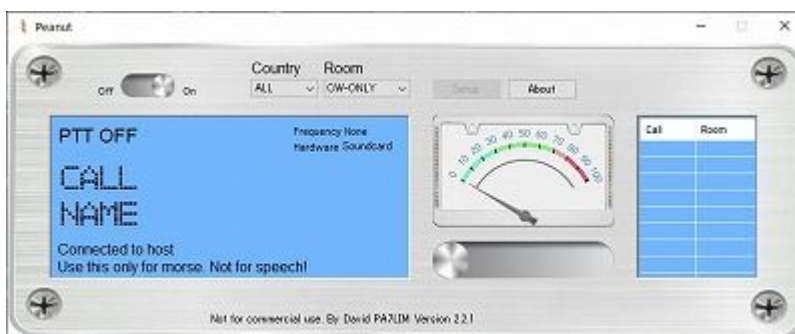


Now I found two peaks of the noise. One appears every 55.95 kHz and the other does every 61.0 kHz on 20 m band. From different direction. When they appear the floor noise level comes up together so it becomes hard to pick up a weak signal. Still could not find exactly where they come from. Suspect some home appliances built-in inverter unit but not sure. I explore around my house with portable radio when the noise comes on the band but, you know, it looks like a suspicious person so I hesitate every time. Will continue to find out and terminate the enemies someday.

## PEANUT - AN IP BASED QSO PROGRAM - TAK, JS1QIZ, #15150

When I cannot have access to my radio, I sometimes have QSOs with an IP-based QSO system, Peanut.

The Peanut is a program developed by PA7LIM, and you can easily find it with a web search using the call sign. To activate the program, you must have a code number that you can get from PA7LIM by sending a copy of your ham certificate.



The Peanut has some “rooms,” among which the “CW-Only” room is open for the Morse lovers. It would be best if you had an AF oscillator connected to your key to send the Morse as “sound” via your PC’s microphone.

I enjoy QSOs with the Peanut when I stay at hotel rooms on my business trip. IP-based QSO is usually comfortable with the hotels’ Wi-Fi system. You do not need any special settings. If you have frequent travel and do not have remote control of your radio, the Peanut may help you cope with your CW addiction (Hi).

### FEA-100 AWARD

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PURPOSE:	The purpose of this award is to deepen mutual friendship among members and enhance activities.
START DATE:	0000 UTC 1st January 2021. All logged QSOs must be made on or after the start date.
MODE:	CW
RULES:	The FEA-100 Award is earned by working 100 points of FEA members. FEA member is worth one point. FEA affiliated club stations (JE7YTQ #15100, JO1ZZZ #15200, JL3YOC #15300) are worth three points. FEA National Club Station (JL3YMV #15000) is worth five points.
EXCHANGE:	RST
LOGS:	For each QSO logged: Date / Call sign / Band / RST / Time in UTC / FISTS Number / Points. Logs may be in ADIF or CSV format.
GENERAL:	Not only all FEA members, but also worldwide FISTS members can submit. There is no charge.
ENTRIES TO:	email to <a href="mailto:awards@fists-ea.org">awards@fists-ea.org</a> .
REMARKS:	Countable QSO are made with FEA members who have their FISTS number, not only active but also inactive members, when you apply for the FEA-100 Award. QSO with same member on other bands are also countable. Please count members (FISTS numbers), not callsigns.

Please click here (<http://www.feacw.net/mbr/fea-list.cgi>) to show the list of members who belong to the East Asia chapter.

FEA-100 Award: [http://www.feacw.net/qrv/FEA-100\\_Award.htm](http://www.feacw.net/qrv/FEA-100_Award.htm)

### FEA CROSSING

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PURPOSE:	To enjoy one-on-one Morse code communication.
TIME:	Every Friday 23:30 to 00:30 UTC
FREQUENCY:	7.025 to 7.030 MHz
PARTICIPATION:	All amateur stations
CALL:	CQ FISTS or CQ
HOW TO:	Call a CQ at this time and frequency. Or respond to the station sending the CQ. We recommend using the FEA QRV Information: <a href="http://www.fists-ea.org/qrv/qrvinfo.cgi">http://www.fists-ea.org/qrv/qrvinfo.cgi</a>

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FEA CROSSING: <https://www.fists-ea.org/qrv/info.htm#x>

## FEA CW NET RESULTS: NO. 837 TO 849 - NAO, JO3HPM, #15008

No.	Date (Y/M/D)	Time (UTC)	Freq. (MHz)	Controller	Participants
849-2	2021/3/28	0800-0836	14.054	JE7YTQ	JE1RZR, 7J1ATG/2
849-1	2021/3/27	2300-0004	7.026	JL1GEL	JA4IIJ, JS1QIZ, JK7UST, JO3HPM, JJ1FXF, 7J1ATG/2, JE1RZR
848-2	2021/3/21	0800-0826	14.0545	JL1GEL	JE1RZR, 7J1ATG/2
848-1	2021/3/20	2300-0009	7.026	JL3YMV	JS1QIZ, JG1BGT, JA4IIJ, 7J1ATG/2, JL1GEL, JE1RZR, JE1TRV, JJ1FXF, JK7UST
847-2	2021/3/14	0800-0834	14.0545	JO3HPM& JE1RZR	7J1ATG/2, JL1GEL, JJ1FXF
847-1	2021/3/13	2300-0002	7.026	JA4IIJ	JK7UST, JS1QIZ, 7J1ATG/2, JL1GEL, JE1RZR, JJ1FXF
846-2	2021/3/7	0800-0844	14.054	JE1RZR	VK6RR, 7J1ATG/2, JL1GEL, JO3HPM, JJ1FXF, JS1QIZ
846-1	2021/3/6	2300-2355	7.026	JS1QIZ	JA4IIJ, JK7UST, JL1GEL, JE1RZR, JO3HPM, 7J1ATG/2
845-2	2021/2/28	0800-0841	14.054	JE7YTQ	JE1RZR, 7J1ATG/2, JO3HPM, JL1GEL, VK6RR
845-1	2021/2/27	2300-2355	7.026	JL3YMV	JS1QIZ, JL1GEL, 7J1ATG/2, JK7UST, JJ1FXF, JE1RZR, JS2AHG
844-2	2021/2/21	0800-0824	14.054	JL1GEL	7J1ATG/2, JS1QIZ
844-1	2021/2/20	2300-0016	7.0265	JE7YTQ	JA4IIJ, JS1QIZ, JH2HTQ, 7J1ATG/2, JL1GEL, JJ1FXF, JE1TRV, JO3HPM, JE1RZR
843-2	2021/2/14	0800-0838	14.054	JE1RZR	7J1ATG/2, JK7UST, JO3HPM, JL1GEL, JJ1FXF
843-1	2021/2/13	2300-0018	7.026	JA4IIJ	JK7UST, 7J1ATG/2, JS1QIZ, JE1RZR, JL1GEL, JJ1FXF, JG1BGT, JO3HPM, JJ1TTG
842-2	2021/2/7	0800-0835	14.054	JE1RZR	7J1ATG/2, JO3HPM, JJ1FXF
842-1	2021/2/6	2300-2358	7.026	JS1QIZ	JA4IIJ, JO3HPM, JL1GEL, JK7UST, JJ1FXF, 7J1ATG/2, JE1RZR
841-2	2021/1/31	0800-0812	14.054	JE7YTQ	7J1ATG/2
841-1	2021/1/30	2300-2353	7.026	JL1GEL	JO3HPM, JA4IIJ, JE1RZR, 7J1ATG/2, JJ1FXF, JG1BGT
840-2	2021/1/24	0800-0835	14.054	JL1GEL	JE1RZR, JK7UST, JS1QIZ, 7J1ATG/2
840-1	2021/1/23	2300-2348	7.0255	JL3YMV	JS1QIZ, JE1RZR, JS2AHG, JJ1FXF, JA4IIJ, 7J1ATG/2
839-2	2021/1/17	0800-0840	14.054	JO3HPM& JE1RZR	7J1ATG/2, JK7UST, JJ1FXF, JS2AHG, JA4IIJ
839-1	2021/1/16	2300-2350	7.027	JE1RZR	JA4IIJ, JO3HPM, JL1GEL, JJ1FXF, JS2AHG, 7J1ATG/2
838-2	2021/1/10	0800-0845	14.054	JE1RZR	7J1ATG/2, JA4IIJ, JL1GEL, YC2VOC, JO3HPM, JS2AHG, JK7UST, EW6LY
838-1	2021/1/9	2300-0010	7.026	JA4IIJ	JK7UST, JE1RZR, JL1GEL, JS1QIZ, 7J1ATG/2, JO3HPM, JJ1FXF
837-2	2021/1/3	0800-0818	14.054	JE7YTQ & JE1RZR	JO3HPM, JL1GEL, JS1QIZ, 7J1ATG/2
837-1	2021/1/2	2300-2357	7.027	JS1QIZ	JK7UST, JL3YMV, JL1GEL, JA4IIJ, JJ1FXF, 7J1ATG/2

### FINALE

Cycle 25 has started, but the propagation conditions are not getting any better. As a result, I do not have many opportunities to communicate with FISTS members abroad. Occasionally I watch or call CQ on FISTS calling frequencies, especially 14.058 MHz. From JA it is relatively easy to communicate with VK/ZL and W6, so I hope to meet with members in those areas again, as I did before. By the way, a stray cat came to my house three months ago, eat well and is in good health now. Her fur has become richer. 73/88 and stay sober de Nao.

