

## **NEW MEMBER**

We're very pleased to welcome our latest member: Dovi, 4Z4DX #15286 and Ramesh, VU2LU #15287.

# HAM FAIR 2019 - TARO, JR0QWW #5578

On 31st August, I went to HAM FAIR 2019 in Tokyo Big Sight in Tokyo, and had nice time with our colleague. Unfortunately, we didn't prepare FISTS booth at HAM FAIR, due to personal manage. However, I wanted to see FISTS member, and another CW circle. At first, I went ICOM booth and saw the detail of IC-705, which ICOM announce to sell next spring. I'll not mention the detail of IC-705, because many HP showed the detail of new equipment. I was really moved by the IC-705, so I will buy it next spring.

Afternoon at that day, while I made some QSO on the roof of Big Sight, Korean ham came up with me, and he talked me. I answered him "welcome to Japan in such timing!" with smile, then I had long conversation with him about SOTA.

In the night session, although I'm not a member of A1 club, I have joined A1 club party due to Atm an (IE1TRV as I want to say more thanks to him. I



There was a crowd in front of ICOM booth. All of them want to see ICOM new equipment!

Atsu-san/JE1TRV, so I want to say many thanks to him. In this party, I was very glad to meet 7J1ATG/George in first time. Although, only one day participation, I was really happy to have very nice time in HAM FAIR 2019!

# 50 YEARS HAVE PASSED! - JAY, JA3UMK, #15103

It was in 1969 that I took out an operator license for novice. But I didn't apply for station license for a little while. One day, I heard a big news that the suffix of JA call sign were almost coming to an end from a few conversation among customers at a certain amateur radio equipment dealer in Kyoto city, I hurriedly submitted the required application documents. Unlike today, I can still remember that I had to complete some hard paperwork as if establishing broadcasting station such as writing an application form by hand not with a computer, I did it for transmitter system diagram and so on in detail.

Inoue Electric's FDAM-3 and so called "square" antenna that was designed for 50 MHz dipole antenna folded into a square. Those were my first rig the amateur radio life began with. In those days, I lived near Katsura Station in Kyoto City on the Hankyu Railway. On first QSO I have forgotten the name of the other party, but I could remember being moved by the first QSO with A3 mode station 8km away from home. After that, I used to enjoy the ham life by working

on 144 MHz F3 at night. There were several persons who were on the air in Kyoto area. We (5 or 6 person) needed just only one spot as the main for chat. Yes! One single spot was really good enough to do so. There was no crowd on the main as well as other sub channel. There was some rumor that the Inoue Denki Seisakusho would market 5 channel machines, but there were few people who thought that 5 channels were needed in those days. I remember thinking "Who would use such kind of the machine equipped with plural channels?"

After graduated from school, I began to work for some travel agency. I was very busy with the sales activities and as a tour escort for oversea tours. So, that is why my interest and regard in telegraph became weaker and weaker. But one day, I suddenly got a little interested in telegraph without any specific reason and I had got the telegraph class license in 1985. During the listening test, I still had been struggling with myself even at the QRSS signals and I still have a memory of writing the answer soon after I heard the CW code counting the number of dot and dash. I tried to practice everything on my own teacher as I did not have any acquaintance for Ham Radio giving a helping hand to me. I had been lost and had reached a deadrock, the interest and regard for telegraph had vanished away like previous instance. I did not try a single actual QSO without any trial for a long while. It meant I was under semi-hibernation state. When I could see the retirement was just around corner, I was thinking about how to spend my leisure time after it carrying on living.

What I came up with was much more full-fledged efforts by the actual radio operation that had been neglected for many years. The desire for working on CW had been encouraged without hesitation. There was only a Mizuho's Pico Morse practice machine left by my side. I tried again to make efforts to master CW code by listening for every night before going to bed. However, the practice without trying the actual QSO made me lose my fight and I was attacked by anxiety and then I had lost a Pico Morse.

When I started working on a real QSO in 2013, the considerable length of time had passed away. It was just six years ago when 65 birthday had gone.

I came across a few telegraph fan in Hokkaido on the Internet. We formed some SKED with him via the radio waves or Skype, I had communicated with him for 30 minutes to 1 hour every night and sometime in the early morning. The chat that went on nearly for one hour, those long-term and full-text in English CW chat QSO from 6:30 am made my amateur radio life a truly enjoyable and fulfilling. Although I had to communicate even in small and simple English on my own and the chat had been going on inch by inch. It was such an awesome adventure to communicate by using my poor English vocabulary, phrase and grammar that I could remember during the chats. I was really able to spend a long time of bliss that made me realize CW life again. My buddy and I were convinced that QSOs working at dialogue neither abbreviation nor figure were the substance through our childish QSOs.

Unfortunately, since last year when my good buddy in Hokkaido was completely stopped his Ham life and he abandoned all of his radio equipment for one unknown reasons.

In these days, QSO with some plain text in English have faded away especially so sad on daylight time of weekday. In my personal impression, supposing there are really a few QSO in English, most of their signals that I could hear are the QSO by telling 599 + number (JCC & JCG etc) + BK. Such QSO as this style really does not intrigue me.

Frankly speaking, my following words may sound rude and conceited. Could you please permit me to say that I am always looking for conversational QSO exchanging of idea by means of neither abbreviations nor figure. The

conversational QSO that is not by telling but by talking may be one of endangered species as some OM said before. So, we might have to accept the way things are going as there are scarcely chances of QSO for chat at daytime on nowadays. My motivation over the chat on the telegraph have begun to gradually decline under the circumstances that CW skill level remained low and poor, but I would like to strive to QRV for chat in poor and simple English as long as I could carry on living. Every time when I QRV, I have been encouraging myself with the following phrase saying "Hang in there and keep on going!"

Folks! When you could chance upon me in the sky, please QRSS in easy English and go easy on me as I am still a probie. Have a good one! Warmly from JA3UMK "JAY"



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## 160M BAND ADD-ON FOR CUSHCRAFT R9 - TAKESHI, JA4IIJ #15084

Dear friends, in this note, I would like to introduce to you my recent activity on making an add-on for a Cushcraft R9 (nine bands from 6 m to 80 m) to enable operation on a 160 m band. As you may agree, the propagation condition of HF bands is poor in these days: In fact, we are in the period of minimum solar activity between the Solar cycle 24 and the next probable cycle 25. Obviously, the recent ionosphere is usually thin enough to abandon stable QSO at high band with gainless antennas, therefore we need a careful watch on the band condition using modern tools like ionogram report and RBN. Waiting for possible open on high bands is one idea, but going down to the lower band is another option.

The SWR of R9 at a 160 m band was unmeasurably large in its original form, but when an antenna tuner is applied, the SWR can be minimized to 1.5, and to my surprise, over 10 stations responded for successful QSO. The length of a 5D-2V cable from the matching box of R9 to my Tuner (HC-2000) is about 10 m, of which the half is indoor. The maximum length of R9 is also about 10 m for an 80 m band. Effective radiation, therefore, could not be expected in this system, however, I was glad to find a new possibility in a 160 m band.

Popular antenna for a 160 m band seems to be a long wire, a sloper, etc. Due to my unavailability of wide land, I would like to make use of a small footprint of R9 for the band. I am interested if a little bit of higher efficiency can be obtained by increasing the height of the feeding point than adopting by using the tuner.

During the Google search, I found a very interesting option (the 160 m add-on, BUT-TBR-160S) designed for Butternut vertical antennas (HF2V, HF6V, and HF9V). Fig. 1 shows the schematic diagram of the add-on taken from the instruction manual (https://static.dxengineering.com/global/images/instructions/but-tbr-160s.pdf).

For your information, one significant difference between the Butternut antenna and the Cushcraft is that the former is originally supposed to be operated on the ground, but the R9 is designed at the simulated (elevated) ground.

At first, I wondered why the LC circuit was inserted to the original antenna mast (Fig. 1), but the given instruction of changing the feeding point made me understand that the L was for prolonging the whole antenna length to resonate  $1/4\lambda$  of a 160 m band, and the C (two doorknob capacitors, 200 pF x2) was for passing the frequencies. The resonance frequency of the LC circuit might be 2-3 MHz.

NEW FEEDPOINT

Fig. 1 Butternut 160 m addon. (From Butternut instruction manual).

The above design may be applied to a Cushcraft R9. The key parts of R9 are shown in Fig. 2. To minimize the undesirable effect on the higher bands, the modification should be electromagnetically minimized. So, the original design of R9 was modified by adding an LC circuit but the feeding point to the mast is the same as the original one.

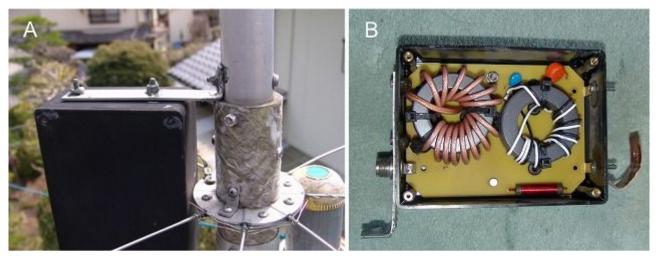


Fig. 2 Key parts of Cushcraft R9. (A) Matching box, simulated ground, and feeding point. (B) Matching box with two toroidal cores.

After some trials for a month, the present version of the add-on was completed as shown in Fig. 3. The C was a 200 pF doorknob paralleled by a variable condenser (400 pF, max.), and the L was 29 T ( $\varphi$ 70 mm, 24 cm). At first, only the 200 pF doorknob condenser was used using the whole coil, but I found high C low L gave better SWR. So that so, the L was tapped down at half-length (14 T) and a variable condenser was added for easy adjustment. For the moment, the add-on works well. The SWR minimum was smaller than 2:1 at 1.910 MHz at the input end of the R9 matching box, which was comparable with the Butternut add-on. The other bands were not very much affected, as expected. Now a plastic cover was applied to avoid rain, which caused unstable SWR. In the real operation, I still need the antenna-tuner for 1:1 SWR, but I believe the radiation efficiency is now better even only a bit. Of course, 1.8 MHz band undisputedly needs the antenna tuner.

I am not very much satisfied with the minimum SWR 2:1 obtained without the tuner. One of the reasons of 2:1 may be related to the specification of the matching box of R9 as shown in Fig. 2B. In the box, two toroidal cores are contained: One is for a choke balun and the other is for an autotransformer from 50 ohm to 240 ohm. To obtain better matching, necessary is an additional transformer, or further research on the LC circuit and configuration.



Fig. 3 R9 with a 160 m add-on.

Frankly, I do not feel the increase of radiation efficiency by the add-on, but I have enjoyed the making process. I am not very sure, but I wish I could keep my activity until the next maximum of solar activity. Thank you for reading. 73s!

#### **TYPHOON FAXAI - AKI JL1GEL, #15147**

Typhoon Faxai hit Chiba Prefecture, adjacent to east side of Tokyo, in the early morning of 9th of September 2019. Wind speed made record high of 57.5 meters/sec in Chiba city. Its strong wind caused power outage on some 641 thousand households.

My house is located in the east side Tokyo and close to Chiba Prefecture. I felt scared of the strong wind from the typhoon, and had been anxious about the antennas on the roof throughout the night. In the next morning, I found my antennas survived from the strong wind... but they had got un-aligned on the mast.



# FEA CW NET RESULTS: NO. 759 TO 771 - NAO, JO3HPM, #15008

No.	Date (Y/M/D)	Time (UTC)	Freq. (MHz)	Controller	Participants
771-2	2019/9/29	0800-0849	14.054	JL1GEL	VK4BGR, JE1RZR, JO3HPM, JE1TRV, JK7UST
771-1	2019/9/28	2300-0000	7.026	JS1QIZ	JO3HPM, JA4IIJ, JK7UST, JL1GEL, JR0QWW, JI1XJB/6, JA1NUT
770-2	2019/9/22	0800-0821	14.053	JE7YTQ	JE1RZR, JL1GEL
770-1	2019/9/21	2300-2350	7.0265	JL1GEL	JO3HPM, JS1QIZ, JA4IIJ, JE1RZR, JS2AHG
769-2	2019/9/15	0800-0853	14.053	JO3HPM	BX8AAD, JK7UST, YC1JCD
769-1	2019/9/14	2300-2347	7.0265	JS1QIZ	JA4IIJ, JS2AHG, JL1GEL, JO3HPM
768-2	2019/9/8	0800-0832	14.054	JL1GEL	JE1RZR
768-1	2019/9/7	2300-2352	7.026	JE7YTQ	JA4IIJ, JS2AHG, JO3HPM, JS2DAA, JE1RZR, JS1QIZ
767-2	2019/9/1	0800-0817	14.054	JL3YMV	none
767-1	2019/8/31	2300-2344	7.027	JL3YMV	JE1RZR, JS2AHG, JA4IIJ
766-2	2019/8/25	0800-0815	14.054	JE7YTQ	none
766-1	2019/8/24	2300-2337	7.026	JL3YMV	JE1RZR, JS1QIZ, JL1GEL, JE1TRV/JS2AHG
765-2	2019/8/18	0800-0839	14.049	JL1GEL	JO3HPM, JK7UST, JS2AHG, JA2DHF
765-1	2019/8/17	2300-0009	7.006	JS1QIZ	JI1XJB, JO3HPM, JL1GEL, JE1RZR, JA4IIJ, JJ1TTG, JE1TRV, JI2GZC
764-2	2019/8/11	0800-0849	14.054	JE7YTQ	JO3HPM, JL1GEL, BX8AAD
764-1	2019/8/10	2300-2353	7.026	JL1GEL	JA4IIJ, JO3HPM, JS1QIZ, JS2AHG
763-2	2019/8/4	0800-0815	14.054	JL3YMV	none
763-1	2019/8/3	2300-2356	7.008	JS1QIZ	JA4IIJ, JL1GEL, JO3HPM, 7J1ATG/2
762-2	2019/7/28	0800-0820	14.054	JL1GEL	JK7UST, JE1RZR
762-1	2019/7/27	2300-0001	7.026	JE7YTQ	JO3HPM, JS2AHG, JA4IIJ, 7J1ATG/2, JH2HTQ, JE1RZR, JL1GEL
761-2	2019/7/21	0800-0845	14.054	JO3HPM& JE1RZR	JS2AHG, 7J1ATG/2
761-1	2019/7/20	2300-0000	7.026	JS1QIZ	7J1ATG/2, JR0QWW, JS2AHG, JA4IIJ, JE1RZR, JH2HTQ, JL1GEL, JO3HPM
760-2	2019/7/14	0800-0850	14.054	JE7YTQ	JE1RZR, JO3HPM, 7J1ATG/2, JL3AMK
760-1	2019/7/13	2300-0004	7.026	JL1GEL	JO3HPM, JG1BGT, JS1QIZ, JA4IIJ, 7J1ATG/2, JH2HTQ, JS2AHG, JI2GZC, JS2DAA, JE1RZR
759-2	2019/7/7	0800-0852	14.054	JO3HPM& JK7UST	JK7UST, JE1RZR, JS2AHG, 7J1ATG/2
759-1	2019/7/6	2300-0009	7.026	JS1QIZ	JH2HTQ, JL1GEL, 7J1ATG/2, JA4IIJ, JE1RZR, JS2AHG, JO3HPM, JI2GZC

#### FINALE

What makes you feel the coming of autumn? Clear sky? Colourd leaves? Golden rice field? An active operator finds autumn in DX propagation. In my case, it was my cat. One cool morning, I found she was sleeping on my rig for the first time in this season. The place was warm just after I used it for QSOs. Does your cat like your rig? 73/88 and stay sober de Nao.