

The Old Barney Beacon

SO I HAVE MY LICENSE, NOW WHAT?

FT8—WHAT IT IS AND HOW YOU CAN GET STARTED PART 6 OF A SERIES

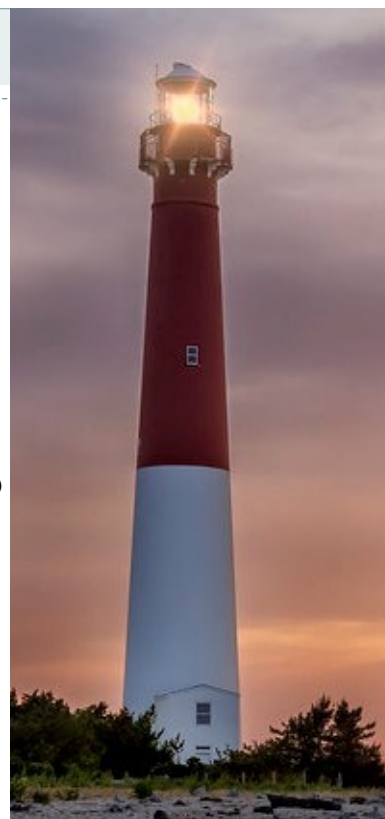
BY T. PREISER, N2XW

Many of you reading this have either heard about FT8 from fellow Hams or heard it on air as that strange repetitive buzzing sound between the CW and SSB portions of the bands. As one of the fastest growing modes of Amateur Radio it has been hard to miss, but you may be wondering how to get started and why you would want to?

First, what is it? FT8 is one of the many digital modes often referred to as sound card modes (SCM) because they utilize a computer's sound card to bring in audio from your radio to be processed by software to decode the information embedded in the signal. Conversely, when you want to transmit, the software encodes your message into audio tones that are sent out via your sound card to your radio's audio or Mic input.

For years there have been a variety of these new software modes including Phase-shift keying (PSK31 & PSK 65), Hell-schreiber, Olivia, Pactor, etc. and even older hardware-based modes such as RTTY that we now use our computers to encode and decode. FT8 is one of a group of Multiple Frequency-Shift Keying (MFSK) modes that include JT9, JT65 and MSK144 created by Joe Taylor, K1JT and co-developers.

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OUT WITH SOME OLD AND IN WITH SOME NEW!

So with the “unofficial” end of summer right around the corner already we have come to the end of our summer event season. Even though COVID and Mr. Murphy got in the way we were able to have some very useful discussions over the past months about our events.

The Decoy Duck Show event which was a money maker for us over the years will no longer be part of the club’s annual events. The bottom line is that with increases in pricing, decreases in our spending and the amount of personal commitment it needs getting to be more it just didn’t make sense for us anymore.

The lighthouse events will be staying on the agenda. Unfortunately between the COVID restrictions at Tuckerton and the high probability of rain for Old Barney we didn’t have either event this year but they will be back. Field Day, of course, will continue to happen. We will see what

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Our next meeting will be on Wednesday, Sept 1, 2021 at the Stafford Community Center **IN PERSON!** The meeting time for this meeting is 7pm.

VE CORNER

There were no candidates for a VE test in August.

Starting this month we will be moving the sessions back to Wed nights before the meeting at the community center at 6pm.

If you are looking to upgrade your license or you know someone who needs a session please contact Rick at n2rpq@arrl.net.

FCC APPLICATION FEES UNLIKELY TO GO INTO EFFECT UNTIL 2022

(as posted on [arrl.org](https://www.arrl.org) 8/16/2021)

The schedule of FCC amateur radio application fees likely will not go into effect before 2022. FCC staff confirmed during a recent virtual meeting with Volunteer Examiner Coordinators (VECs) that the agency is still working on the necessary changes to the Universal Licensing System (ULS) software and other processes and procedures that must be in place before it starts collecting fees from amateur applicants. Earlier this year, the FCC said it would not start collecting fees from amateur applicants before this summer. The new estimate is that the fees won’t go into effect until early next year.

Once it’s effective, the \$35 application fee will apply to new, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications. All fees will be per application. Administrative update applications, such as those to change a licensee’s name, mailing, or email address, will be exempt from fees. ARRL VEC manager Maria Somma, AB1FM, said Volunteer Examiner (VE) teams will not face the burden of collecting the \$35 fee.

NOW WHAT? - Continued from page 1

Why would I want to operate FT8?

FT8 is designed to maximize communication even when signals are very weak (as low as -24dB). This means that even low-powered stations and stations with sub-optimal antennas can make contacts worldwide. With its popularity, quickly working DXCC or WAS with FT8 is easily within reach of almost any station. With FT8, activity is limited to a narrow band of frequencies, so it is ideal for use with loop antennas that require retuning when changing frequency. FT8 is also extremely popular on the 6-meter band, so there are many opportunities for long-distance communication even with a Technician Class License.

Getting started with FT8

To use FT8 you need four things:

1. An **HF transceiver** with data or SSB capability
2. An **audio interface**, a way to get receive audio from the radio into a computer and audio output of the computer into the radio, typically a sound card interface
3. A **computer capable of running the FT8 software** and time synchronization

FT8 software

Radios

Although you can operate FT8 with older transceivers, the best experience will come by using a transceiver capable of both computer control and dedicated data mode. Fortunately, most modern radios have both of these. The extra feature that many of today's radios have is a built-in sound card, eliminating the need for the extra sound card interface.

Audio Interface

If your current radio does not have a built-in sound card interface, there are a few easy to use commercial devices available. The Tigertronics Signal Link USB Interface Device with a cable for your radio.

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PRESIDENT'S MESSAGE

Wow it feels like I just wrote it is great that summer is here and now it is winding down.

I was so looking forward to events that we had to unfortunately cancel again. Oh well, I guess next year!

As we get ready to have our beaches and beach towns back to ourselves again let's keep active. No hibernation this winter. Instead crank up the radios. Join our net on Thursdays, continue with rag chews, and keep up the mentoring.

As we have had to work through the year with constant changes I can't tell you how thankful I am to those of you who stepped up to run an event, even if it didn't happen. Cancelling them was tough for me because so much work was done but our safety and weather concerns come first.

We have a great group and I'm proud to steer the ship in direction you say.

Until next month...

N2RPQ

2021 ARRL CONTESTS

Sept VHF Contest Sep 11-1
10 GHz & Up—Round 2
 Sep 18-19
EME 2.3GHz & Up—Wknd 1
 TBD
School Club Roundup
 Oct 18-22
EME 50 to 1296 MHz—Wknd 2
 TBD
Nov Sweepstakes—CW
 Nov 6-8
Nov Sweepstakes—Phone
 Nov 20-21
EME 50 to 1296 MHz—Wknd 3
 TBD
160 Meter
 Dec 3-5
10 Meter Dec 11-12
Rookie Roundup—CW
 Dec 19

NOW WHAT? - Continued from previous page

You are then ready to go not only for FT8 but also PSK31, JT65, JT9, FSK441, MSK144, WSPR, RTTY, SSTV, CW, Olivia, EchoLink Node and many more with appropriate software.

Computer and Software

WSJT-X (<https://physics.princeton.edu/pulsar/K1JT/wsjitx.html>) is the most popular software for FT8. This great program is not only free but versions are available for Windows-based PCs and Macintosh OS, Linux (with pre-compiled Debian, Fedora and Raspbian distros). For details on installing and configuring the software, follow the online **WSJT- X User Guide** (<https://physics.princeton.edu/pulsar/K1JT/wsjitx-doc/wsjitx-main-2.0.1.html>) Do not ignore the information on making sure your computer's time is synchronized as this is vital to making contacts! After you install the software, you may also need to configure your radio's settings.

There are a number of great guides available for most models of radios. Search the internet for your model of radio and how to connect to FT-8.

Operating

An excellent guide on operating is "[FT8 Operating Guide Weak Signal HF DXing ... Enhanced](#)" by Gary Hinson ZL2iFB. Free helper software programs [JTAlert](#) provide many additional features for FT8 operations. For additional information on a wide variety of digital modes and software visit www.k8zt.com/digital.

Information supplied by Anthony Luscre, K8ZT



In the Coming Issues:

- **October—Final Part— Wrap-up (Still More to Come!)**

FEES—Continued

“Once the FCC application fee takes effect, new and upgrade applicants will pay the exam session fee to the VE team as usual, but they’ll pay the \$35 application fee directly to the FCC using the **FCC Pay Fees** system,” she explained. When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate who then will have 10 days from the date of the email to pay.

After the fee is paid and the FCC has processed an application, examinees will receive a second email from the FCC with a link to their official license. The link will be good for 30 days. Licensees also will be able to view, download, and print official license copies by logging into their FCC ULS account. The FCC no longer provides printed licenses.

Licensees can log into the **ULS** with their 10-digit FRN (FCC Registration Number) and password at any time to view and manage their license and application, **print their license**, and update anything in their FCC license record, including adding an email address.

FEE SCHEDULE

INDIVIDUALS

\$35 FEE: New, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications. All fees will be per application.

NO FEE: Administrative updates, such as a change of name, mailing or email address, or license cancellation.

AMATEUR RADIO CLUBS

\$35 FEE: New, renewal, trustee change, and vanity call sign applications. All fees will be per application.

NO FEE: Administrative updates, such as a change of name, mailing or email address, or license cancellation.

OUT WITH SOME OLD AND IN WITH SOME NEW! - Continued

format it will be in as the years progress.

Added to our list of events will be the annual picnic. It seems like everyone enjoyed this event enough to start a new tradition of having it.

We are also looking into some new events for us like a hamfest. Ira Hosid and Frank Piccolo have joined forces to start looking into this idea.

Another idea that was mentioned is getting back into assisting with township events like parades, etc. After all we can always help out with communications from our vehicles. This is something amateur operators excel at. Something definitely worth considering.

So I’m often told change is good. I hope these changes will be excellent.—*Rick, N2RPQ*



COMING IN OCTOBER

OLD BARNEY'S WHITE ELEPHANT SALE (aka Chinese Auction)

I know it's been a while but October 6th in place of the meeting will be our Chinese Auction event.

Clean out your closets. Give away some stuff and make room for the new things you will bring home!

Stay tuned for more to come.

*"Keep your face always toward the sunshine - and shadows will fall behind you." - **Walt Whitman***

JOIN US ON THE AIR

Join us for our club net. The net is held every Thursday night at 7:30pm (except holidays and special occasions) on the WU2E repeater.

Every week we host a random topic of discussion.

Find us at: 146.835 (-600) PL 127.3

We look forward to sharing time with you!

For any comments or questions regarding the weekly net please contact Tom Preiser, N2XW at n2xw@arrl.net.

Old Barney would like to thank the 835 users group for allowing us to use the WU2E repeater to host our club nets.

OLD BARNEY GEAR

You can find Old Barney Gear at all these places:

Southern Ocean Marine Sportswear (Hats & Jackets Embroidered)

79 South Main Street, Barnegat, NJ 08005

(609) 698-8868

Email: sales@soms4u.com Website: www.soms4u.com

Café Press (All types of logoed items available)

New Logo Items: <https://www.cafepress.com/oldbarneyarcnewlogo>

Old Logo Items: <https://www.cafepress.com/obarc>

Gold Medal Ideas (Personalized Old Barney Items)

1160 Thompson Blvd, Buffalo Grove, IL 60089

https://stores.goldmedalideas.com/ygs/Old_Barney-Products/10000170



HAVE YOU JOINED THE MEMBER'S AREA?

The member's area of the OBARC website is being developed to provide useful tools to our members. Currently there is:

- Club Documents & Meeting Minutes
- Swap and Shop Postings (You decide if yours is just for members or the public)
- A "Ask for help/Questions" area to post questions to other members for assistance.
- A members directory for those who want to be listed.

Take a look. Suggestions are welcome! You can request access to the area by going to: www.obarc.org/members

SWAP & SHOP

The new Swap & Shop section is now available in the Members area of the website. In the very near future you will also be able to control your listings and keep them available for the members or have them listed on the public website.

We will also be happy to list any items you would like here in the newsletter. Just send your listings to n2rpq@arrl.net and I will make sure that they are added here.

OUR MEMBERS

Welcome to Our New Members:

George Gotthold, WA2JDA

September Birthdays:

NEWS FROM AROUND OUR SECTION...



OCEAN COUNTY ARES® SEPTEMBER 2021

The next Ocean County ARES VE Session will be September 21st at the Ocean County EOC. Testing is by appointment only. Contact Lead VE, John – N2LD for details and an appointment.

On Wednesday, August 18th, Ocean County ARES had an in-person meeting for the first time since the first quarter of 2020. WX2NJ introduced a VARA FM Go-Kit and described how to set up a VARA FM station, linked with Winlink to send messages through an RMS Gateway. VARA FM is greatly faster than packet and replaced the WX2NJ-10 Gateway that ran Packet since 2008 with VARA. Contact was made with WX2NJ-10 from the EOC using an external antenna and 5 watts and Winlink traffic was passed.

The meeting also included a mini-hamfest with a table filled with estate donated gear for the picking.

Ocean County ARES is acting as a clearing house for two significant estate donated items of interest. One is a US Tower, Motorized 4 section, Model HDX-572MDPL, 72 foot height Tower and the second is an Alpha 9500, Microprocessor Controlled HF Linear Amplifier.



The tower is located at a residence in Lakewood and must be removed and transported by the buyer. The tower is a tilt-over design and there is room to fit a vehicle in the back yard of the property.

The Alpha 9500 Amplifier is in the possession of Ocean County ARES and is currently being tested to ensure 100 percent operability. It was completely overhauled by the manufacturer in 2016 and looks like the day it was made. Alpha, made by RF Concepts, is currently closed due to COVID and the 9500 is on backorder for many that want it. It is rated for 1500 watts output with 50 watts input. The power input can be 120 VAC, but the output would be limited to 1000 watts. For full output, a 220 VAC, 20 amp supply is needed. The unit is rated for continuous key down service. The output tube is a 8877 high-mu external-anode triode ceramic design. The operating frequency is 1.8 to 29.7 MHz (other than the 60 meter band). The unit can also be PC controlled using software by RF Concepts.

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Any operator interested in purchasing the tower or amplifier are asked to contact WX2NJ. Ocean County ARES plans on presenting these items at the Gloucester County Radio Club Hamfest in September not sold before then.



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Southern NJ Section News September 2021

Tom Preiser N2XW SNJ Section Manager

n2xw@arrl.org

September is here and Fall is just around the corner. There was a lot going on in August. Fires out West, Hurricanes passing along the coast, and many hot and humid days. Keep a watch out for more hurricane activity as we are still in the peak of the season during September. Also let us take time to remember the Silent Keys in Southern New Jersey. I have received many reports of Silent Keys from many clubs. It is sad to see them go, but please remember them by continuing to promote Amateur Radio.

The big news for the Southern New Jersey Section is the Gloucester County Amateur Radio Club Hamfest and Southern New Jersey Section Convention. It will be held on September 12, 2021 at the Gloucester County 4-H Fairgrounds in Mullica Hill. Admission is \$10 and doors open at 8 AM. Atlantic Division Director Tom Abernathy W3TOM will be there and be speaking in the morning. There are also many other good presentations planned. For more information go to their website www.w2mmd.com.

Also mark your calendars for the ARRL Simulated Emergency Test (SET). ARRL SNJ Section Emergency Coordinator Tom Devine WB2ALJ has been busy working with a planning committee to come up with plans for this year's exercise. The SET will take place on Saturday October 2, 2021. Contact Tom wb2alj@arrl.net for more information.

The NJ QSO Party will take place on September 18th from Noon till 11:59 EDT. The contest is sponsored by the Burlington County Radio Club K2TD. Check out more information at Hope to hear a lot of South Jersey on the air that afternoon. <http://www.k2td-bcrc.org/njqp/index.html>.

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FCC Application Fees Unlikely to Go into Effect Until 2022

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ARRL Now Provides Free RF Exposure Calculator

The FCC has adopted guidelines and procedures for evaluating environmental effects of RF emissions. Under the new FCC rules, some amateurs need to perform routine station evaluations to ensure that their stations comply with the RF exposure rules. This can be as simple as running an online calculator to determine the minimum safe distance between any part of your antenna and areas where people might be exposed to RF energy from your station. Although amateurs can make measurements of their stations, evaluations can also be done by calculation.

The FCC guidelines already incorporate two tiers of exposure limits based on whether exposure occurs in an occupational or "controlled" situation, or whether the general population is exposed or exposure is in an "uncontrolled" situation.

To make this easy for amateurs, ARRL now provides an RF Exposure Calculator on its RF Exposure page <http://arrl.org/rf-exposure-calculator>.

To use the calculator, enter your transmit peak-envelope power (PEP) and operating mode, and answer the questions about the maximum amount of time you might be transmitting. The calculator will give you the minimum distance people must be from your antenna and human exposure.

You can print the results and keep

WHO IS OLD BARNEY?

The Old Barney Amateur Radio Club (OBARC) was established in 1975 by a diverse group of individuals with a common goal of promoting Amateur Radio.

Today the group continues towards making the amateur radio hobby rewarding through participation in several events throughout the year, training sessions, VE testing and monthly meetings.

Our meetings are held at the [Ocean Acres Community Center](#), 489 Nautilus Blvd, Manahawkin, NJ 08050*, beginning at 7:30pm on the first Wednesday of each month (except holidays). We welcome anyone (licensed or not) to come and meet with us to learn more about amateur radio.

*** DUE TO COVID-19 MEETINGS ARE CURRENTLY BEING HELD VIA ZOOM.**

SHARE YOUR KNOWLEDGE

The newsletter is open to anyone who would like to submit articles. Please join me in contributing to content and share the knowledge you have about our hobby with all our readers.

Presentations are also welcomed. We try to host a presentation at each monthly meeting covering different topics. We would even welcome "special" sessions via Zoom for presentations that are too long to host at a meeting.

Please contact me at n2rpg@arrl.net with any articles or to arrange a presentation.

THE OLD BARNEY RADIO CLUB IS ARRL AFFILIATED



Old Barney Amateur Radio Club

PO Box 117
Manahawkin, NJ 08050

E-mail: n2ob@arrl.net

Visit the ARRL at www.arrl.org

