

NEWSLETTER

Deep East Texas Amateur Radio Club

© Copyright 2017, DETARC Roger K0YY Editor, k0yy@arrl.net

DETARC, Inc. Lufkin, TX

1. DETARC INFORMATION

Club Officers: President- Steve KG5ODZ, Vice President/Repeater Trustee- Mike WD5EFY, Secretary- RM K5AGE, Treasurer- Randy N5CRW.

Club Web Page: www.detarc.net

Club Email Reflector: Join to receive Club information. To join send an email request to: detarc@detarc.net

Meeting Times/Location: Fourth Thursday of the month at 7 PM at the old armory on Tulane Drive, across from Kiwanis Park.

DETARC/ARES Net: 146.940 MHz-600, 141.3 CTCSS. Every Tuesday at 8 PM, alternates 147.360+600 MHz, 141.3 CTCSS, or 146.42 Simplex.

For additional information on DETARC/ARES see the web site at www.detarc.net

DETARC/ARES News:



DETARC/ARES members have you upgraded, or recently accomplished something special in Ham Radio? Are you working on a special project? Share it with fellow Club members and let us all know what you are doing. Bring it up at a meeting or the 4th Saturday DETARC Social Gatherings. We'd like to hear about what you are doing.

Congratulations to Dayton Jones who recently passed both his Technician and General tests on the same day. Dayton works with Gary KI5LR. We

look forward to seeing you at Club meetings Dayton.

<u>Door Prizes:</u> The Club meetings now have door prizes thanks to Gary KI5LR.

<u>Door Prize Donation</u>: Each attendee receives one free ticket for showing up. For each dollar donated to the prize fund you will receive one additional ticket. See Gary KI5LR for additional details.

Don't forget the Quarterly door prize coming up at the June meeting, a Kenwood 50-watt VHF mobile radio.

DETARC/ARES Projects/Events:

Old Armory Comm Room: Many thanks to the folks who helped finish the painting in the Comm Room on May 13th: Gary KI5LR and his daughter Citori, Jerry KC5JWB, Mike WD5EFY, and K0YY.

We finished painting the bookshelves and baseboards a dark gray and we touched up painting on the light gray paint where the blue painter's tape pulled some paint loose as it came off. We painted the entry door and frame on the inside. We determined which circuit breakers are for the Comm room outlets and lights. We replaced several electric outlets that were cracked. We installed a security feature on the entry door to prevent it from being removed from the outside. We cleaned up most of the painting debris and tools laying around.

The next step in the project is to get the tower supported from the outside wall with a fabricated bracket. The tower will then be erected once it is supported from the wall. We will need to drill holes in the wall for the several runs of coax cable and the ground wire.

June 2017

We are also working on installing a 160-meter version of a G5RV multi-band dipole for HF operations.

We will need some assistance with raising the tower and installing the antennas. Let us know if you are available to assist.

NEW-- DETARC Social Gathering May 27th 10:30 AM, location to be determined. Listen on the nets and at the meeting This is a **monthly occurrence on the Saturday after the meeting**. Stop in and visit with your Ham friends. Put it on your calendar now, don't forget.

Neches River Rendezvous Event June 3.

This event takes place every year on a 10 mile stretch on the Neches River. We stage at North Boggy Slough (on Hwy 7 West) just 1 mile west of the Angelina/Houston County line. We transport participants north to Anderson Crossing where they canoe downriver to the Hwy 7 bridge at the Angelina/Houston county line. If you are new to amateur radio and/or ARES, this is a great event to get your feet wet in learning how an ARES event goes. This is a fast-paced event where there's a lot of traffic. Your ears will be your best friend

We are still looking for 10 more operators to assist with the 20th Annual Neches River Rendezvous. This is a fun event that I hope you will give strong consideration to being a part of. It is good practice for ARES events and you will give your traffic handling technique a good workout. If you keep an open mind, you will learn new things as to what works, what doesn't and how you can improve your radio skills.

It is a very fun event in the East Texas outdoors and you do get lunch, complete with desert provided to you!

If you are interested in being a radio operator for this event, and you have not previously signed up, please get the following information to Steve Glass KB8QWN as soon as possible.

- 1.) Name and Call-sign
- 2.) Shirt size
- 3.) Email address

- 4.) Contact number (if you are willing only to be used for last-minute changes I won't spam your phone!!)
- 5.) Do you have a preferred position?
- 6.) Are you willing to volunteer for additional work if the Chamber needs additional help (van driver, pull a trailer, vehicle coordinator/passenger loader, boat operator, etc.)?
- 7.) Do you need radio/antenna equipment? Which one or both?
- 8.) Do you have equipment you're willing to loan? If so, what?

"<u>Hurricane Charlie</u>" state-wide Exercise, 7 June, several radio operators will be needed. More information to follow.

FIELD DAY, June 24-25th. We need a volunteer to coordinate a Club Field Day operation. Let the Club Officers know if you are interested in coordinating this event. You will get support when you take this on.

2. Upcoming Ham Radio Contests/Special Events:



SELECT HAM CONTESTS: (There are many more).

10-12 **June VHF** Contest

18 Kids Day 24-25 Field Day

SELECT HAM SPECIAL EVENTS:

The Armed Forces Day yearly Crossband Operation was May 13th. KC5JWB and K0YY participated and talked with several Military Affiliate Radio System (MARS) stations. We listened on MARS frequencies outside the Ham bands and called on Ham frequencies. We look forward to receiving these special QSL cards. This is a once a year authorized operation. See--

http://www.usarmymars.org/home/announcements

June 2017

06/03/2017 | Nuclear Submarine USS Nautilus SSN 571 Museum Ships Weekend

UPCOMING HAMFESTS: --from ARRL Web Site.

• 06/09/2017 | West Gulf Division Convention (Ham-Com)

Location: Irving, TX **Type:** ARRL Convention

Sponsor: DFW Metroplex Clubs **Website:** http://www.Hamcom.org

Learn More

Hamfest/Convention

07/08/2017 | <u>Texas City/Tidelands</u> ARS Hamfest

Location: Texas City, TX **Type:** ARRL Hamfest

Sponsor: Tidelands Amateur Radio Socitey

Website: http://tidelands.org

Learn More

Hamfest/Convention

08/04/2017 | South Texas Section Convention (Austin Summerfest)

Location: Austin, TX **Type:** ARRL Convention

Sponsor: Austin ARC & Texas VHF-FM

Society

Website: http://www.austinsummerfest.org

Learn More

For further details on Contests/Special Events/Hamfests see:

www.hornucopia.com/contestcal/ www.arrl.org/contest-calendar www.arrl.org/special-event-stations http://www.cq-amateur-

radio.com/cq contests/cq annual contest calendar/cq annual contest calendar.html

http://www.rsgbcc.org/hf/

http://www.arrl.org/hamfests/search/Location.state: TX

3. AMATEUR RADIO EMERGENCY SERVICE® (ARES)

Steve KB8QWN Assistant EC (AEC)

Mike WD5EFY, South Texas Section, District 2 Emergency Coordinator (DEC) (Angelina & Surrounding Counties).



Come Join Us!

GO KITS: Hurricane season is here. Are your radios properly programmed with the Regional Repeater Frequency List? Do you have an up to date Equipment and Admin Go kit complete with all the forms you will need during an incident? Check out the Repeater Frequency List and sample Go Kit Lists on the ARES Forms and Lists page at www.detarc.net You can download any forms you may need for your Go Kit. Are you RMS Express capable? Computer generated ICS fill-in forms are also available.

To join our ARES email reflector, send an email request to ares@detarc.net.

.4. OPERATING:



National/Regional Organizations List (US) – Courtesy CQ Magazine

June 2017

American Radio Relay League (ARRL) www.arrl.org

FISTS Int'l Morse Preservation Society www.fists.org

Quarter Century Wireless Assn. (QCWA) www.qcwa.org

Radio Amateur Satellite Corp. (AMSAT) www.amsat.org

Ten-X International Net (10-10) www.ten-ten.org

Tucson Amateur Packet Radio (TAPR) www.tapr.org

OM International Side Band Society (OMISS) Net-- http://www.omiss.net/Facelift/

Military Auxiliary Radio System (MARS), Army, Air Force, Navy MARS Systems. Ask Patricia K5HER for information. https://afmars-msn.org/

65 Great Things About Ham Radio— CQ Magazine (The other great Ham magazine).

How many of these items are you familiar with?

Five years ago, on CQ's Magazine's 60th anniversary, we ran a feature throughout the year titled "60 Great Things About Ham Radio," in which we listed five "great things" each month. The series was quite popular and we have continued to receive requests to reprint it. So now, in honor of our 65th anniversary, we're repeating the list—with a few updates as well as five more "Great Things About Ham Radio."

- 1. It works when nothing else does
- 2. It makes you part of a worldwide community
- 3. The opportunity to help neighbors by providing public service and emergency communications
- 4. Some of the nicest people you'll ever meet
- 5. Some of the smartest people you'll ever meet
- 6. Some of the most interesting people you'll ever meet
- 7. Some of the most generous people you'll ever meet (along with some of the cheapest!)

- 8. Lifelong friendships
- 9. Friends around the world (including those you haven't met yet)
- 10. The opportunity to go interesting places you might not otherwise go to
- 11. The opportunity to do interesting things you might not otherwise get to do
- 12. The opportunity to expand your knowledge of geography
- 13. The opportunity to expand your knowledge of earth and space science
- 14. Practical uses for high school math
- 15. Practical uses for high school physics
- 16. A good way to practice a foreign language
- 17. A good way to keep in touch with faraway friends and relatives
- 18. A good way to get driving directions when visiting someplace new (with or without GPS)
- 19. A good way to find the best places to eat when visiting someplace new (with or without GPS)
- 20. Finding "non-touristy" off-the-beaten-path places to stay, eat, visit, etc.
- 21. A good way to learn about virtually any topic
- 22. A good way to bridge the generation gap
- 23. A good way to keep tabs on elderly/infirm people
- 24. People named Joe (Walsh, Rudi, Taylor)
- 25. How many of your non-ham friends have actually talked to someone in some remote place such as Cape Verde or the Seychelles?
- 26. How many of your non-ham friends might have talked to an astronaut aboard the space station?
- 27. How many of your non-ham neighbors might have a satellite uplink station in their basements—or in the palms of their hands?
- 28. How many of your non-ham neighbors might have a TV studio in their garage?
- 29. What other hobby group has designed, built, and had launched its own fleet of communication satellites?
- 30. Where else can you play with meteors?
- 31. Moon bounce
- 32. Informal way to improve technical skills
- 33. Informal way to improve communication skills
- 34. Introduces a variety of career paths
- 35. Offers unparalleled opportunities for career networking
- 36. Opportunities for competition in contesting and foxhunting
- 37. A good way to collect really cool postcards from

June 2017

- around the world (despite the growth of electronic confirmations)
- 38. Nearly endless variety of different things to do, on and off the air
- 39. Hamfests
- 40. Dayton
- 41. Field Day
- 42. Working DX
- 43. Being DX
- 44. DXpeditions
- 45. Contesting
- 46. Award-chasing
- 47. Double-hop sporadic-E
- 48. Worldwide DX on 6 meters (once or twice every 11 years)

[The current extended sunspot minimum has shown that mechanisms other than F2 propagation can offer intercontinental DX on the "magic band" at any point in the solar cycle.]

- 49. Tropospheric ducting
- 50. Gray-line propagation
- 51. TEP, chordal hops, etc.
- 52. Getting through on CW when nothing else will
- 53. Unexpected band openings
- 54. Building your own gear
- 55. Using gear you've built yourself
- 56. Operating QRP from some remote location
- 57. Experimenting with antennas
- 58. Working DX while mobile or while hiking
- 59. Experimenting with new modes and new technology
- 60. The opportunity to help build an internet that doesn't rely on the internet
- 61. DXing on your HT via IRLP and Echolink
- 62. Contributing to scientific knowledge about propagation
- 63. Keeping track of other people's GPS units via APRS
- 64. Ham radio balloon launches to the edge of space, and as always...
- 65. Reading CQ!

Permission is hereby granted to reprint this list from CQ Magazine in amateur radio club newsletters, provided credit is given to CQ magazine. Online editions must include a link to the CQ website, www.cq-amateur-radio.com

BUYING HAM GEAR, WHAT TO LOOK FOR OR CONSIDER — AN OVERVIEW— Originally

presented at the April 2016 DETARC meeting, repeated here by popular demand.

1. GENERAL RULES FOR ALL PURCHASES:

A. DECIDE WHAT YOU CAN AFFORD-- PRICE B. DEFINE HOW YOU WILL USE IT—CASUAL VS INTENSE, MULTI-MODE

C. DECISION-- BUY BASIC NOW VERSUS MORE CAPABILITY/FEATURES

D. COMPARISON SHOP— HRO, UNIVERSAL, HOUSTON ARS, DX ENGINEERING, TEXAS TOWERS E. NEW VERSUS USED— NEW WARRANTY VERSUS PRICE

F. HRO HAS SOME USED GEAR, HAMFESTS, LOCAL CLUBS

G. GATHER INFO-- CHECK REVIEWS AT ARRL & ON WEB— EHAM, QRZ

H. MANUFACTURER/MODEL REPUTATION--REVIEWS

I. GOOD TO HAVE SOME RECOURSE IF PROBLEM—KNOW SELLER

2. VHF/UHF HANDHELDS:

A. PRICE

B. POWER—MANY NEW UNITS-- MAX 5 WATTS— POWER SAVER STEPS

C. ANTENNA CONNECTOR— CONNECT EXTERNAL ANTENNA?

D. SINGLE VERSUS DUAL BAND— NEED 440 MHZ? E. SINGLE RF DECK VERSUS DUAL (TRUE DUAL BAND = TWO FREQUENCIES

DISPLAYED)
F. TONE ENCODE AND DECODE (TONE SQUELCH)

G. MEMORIES— KEEP YOUR SETTINGS

H. CASE QUALITY—STURDY?

I. BATTERY SIZE—GOOD CAPACITY—1100-1400 MAH

J. ACCESSORIES— 120 VAC & 12 VDC CHARGERS, SPEAKER MICS.

K. PC PROGRAMABLE— SOFTWARE AVAILABLE L. OTHER— WATER RESISTANT, WEATHER CHANNELS, WIDE RECEIVE

M. SPECIAL MODES— ICOM-- D-STAR, YAESU— WIRES

3. VHF/UHF MOBILES:

- A. PRICE
- B. POWER
- C. SINGLE VERSUS DUAL BAND, MULTIBAND
- D. SINGLE RF DECK VERSUS DUAL DECK
- E. TONE ENCODE AND DECODE (TONE SQUELCH)
- F. MEMORIES
- G. REMOVABLE FRONT PANEL— EASE OF INSTALL IN VEHICLES

June 2017

H. CROSSBAND REPEAT— USE TO EXTEND RANGE OF HANDHELDS

I. OTHER— WEATHER CHANNELS, WIDE RECEIVE J. DATA PORT--PC PROGRAMABLE/INTERFACE TO

PC FOR PACKET

K. SPECIAL MODES—DIGITAL, SSB

4. HF MOBILES:

A. PRICE

B. BANDS- 160-10, 6M, 2M

C. MODES-SSB, CW, FM, AM, DIGITAL

D. MEMORIES

E. FILTERS— DSP, BAND PASS, CRYSTAL FILTERS

F. EASE OF USE— MENUS VERSUS BUTTONS

G. PROGRAMABLE FROM PC

H. SPECIAL FEATURES -- TX AUDIO COMPRESSION

5. HF BASE STATIONS:

A. PRICE

B. BANDS-160-10 PLUS, 60, 6, 2

C. MODES-SSB, CW, DIGITAL, AM, FM

D. MEMORIES — MULTIPLE IN BAND MEMORIES

E. FILTERS-- DSP, AUTOMATIC NOTCH FILTER

F. DUAL VFOs—A & B

G. SPILT FREQUENCY OPERATION—DX & 40 METER SSB

H. RECEIVER SPECS— SELECTIVITY, SENSITIVITY, DISTORTION, ADJACENT CHANNEL OVERLOAD REJECTION, NOISE FLOOR

I. TRANSMITER SPECS—ADJUST AUDIO CHARACTERISITICS

J. BUILT IN CW KEYER

K. VOICE/CW MEMORY—CONTESTS, DXING

L. ACCESSORY HOOKUPS— DIGITAL, AMPLIFIER,

M. BAND SCOPE— SEE SIGNALS ACROSS BAND

N. BUILT IN AUTO-TUNER

6. REFERENCE WEB SITES:

A. ARRL— WWW.ARRL.ORG OPERATING, REVIEWS, NEWSLETTERS, ARES, NPOTA, LOTW

B. QRZ— WWW.QRZ.COM CALL SIGN LOOKUP, REVIEWS, DX

C. EHAM-- WWW.EHAM.COM HAM INFO, EQUIPMENT REVIEWS, DX

D. AES— AMATEUR ELECTRONIC SUPPLY— WWW.AESHAM.COM NEW

AND USED EQUIPMENT, ACCESSORIES, SUPPLIES E. HRO— HAM RADIO OUTLET-

WWW.HAMRADIO.COM NEW EQUIPMENT

ACCESSORIES, SUPPLIES, CONSIGNMENTS

F. UNIVERSAL-- WWW.UNIVERSAL-RADIO.COM NEW

EQUIPMENT, ACCESSORIES, SUPPLIES

G. HOUSTON-- WWW.HARSRADIO.COM NEW EQUIPMENT, CONSIGNMENT

H. RFSTUFF— WWW.RFSTUFF.COM RADIO
ACCESSORIES & SUPPLIES,
GOOD PRICES
I. QTH.COM— WWW.QTH.COM HAM INFO,
EQUIPMENT FOR SALE,
READ SAFE BUYING TIPS

J. TEXAS TOWERS— WWW.TEXASTOWERS.COM TOWERS, ANTENNAS COAX, ACCESSORIES K. MFJ— WWW.MFJENTERPRISES.COM

ACCESSORIES, SUPPLIES

Recommendations for Purchasing Ham Radio Gear— By Jerry K5JLW

- 1) buy new equipment unless you can purchase what you need from someone you personally know, trust, know where they live and a 2nd person that you know and trust also recommends the purchase and you are given ample opportunity to use (fully test) the equipment before the sale is final;
- 2) do not purchase Ham Radio Equipment until you have a specific need for it (get a dictionary and learn the difference between the words need and want):
- 3) never purchase new "bottom of the line" Ham Radio Equipment with the intention to later "upgrade"
- wait until you can afford what you really need do not base your equipment needs on how much it costs;
- 4) do not pay for "bells and whistles" related to Ham Radio Equipment without understanding their purpose and your need for them (reread definition of need vs want and add the meaning of the word "purpose" to your vocabulary);
- 5) before making purchases at a Hamfest, off the Internet, or from any other source- make a prioritized shopping list complete with prices, consult or take a "knowledgeable" friend with you, and

NEVER make a major purchase for any item not on your prioritized shopping list;

- 6) always set a budget limit on how much to spend prior to every shopping "spree" and never spend more; and
- 7) reread item 5 & 6 above, 6 more times. If you need something and it isn't on your prioritized shopping list you don't need it you just want it. Don't let price determine your need. Whatever you

June 2017

want will still be available the next time you go shopping and you have a 50-50 chance that it will be cheaper!

Corollary (1) to Item 7 above: Shop long and hard for what you need as long as possible. Often, shopping for, but postponing a purchase will lead to a better price.

Corollary (2) to Item 7 above: Ham gear, not on sale, is rarely a good deal.

5. REPEATER NOTES:

--Mike WD5EFY, Repeater Trustee/Technician.



The Alto repeater is back on the air with a temporary repeater (Motorola Quantar) and the duplexer has been replaced with a betterquality unit donated by Roger, K0YY. Thanks for the donation Roger and thanks to Steve, KB8QWN for helping load and unload the repeater cabinet, which at the time seemed to weigh about 2 thousand pounds!

The long work done on the original Alto repeater didn't work out just as planned because the controller (circa 1985) is just not up to the task of running the repeater, handling the control receiver and is not being friendly as far as running the UHF link to the Tyler system. It has some audio issues and then started adding random delays in the link audio line (as much as 2 seconds!) so it was decided to just pull the repeater again and replace the controller with the spare the Club has (CatAuto CAT-300dXI). So, my son and I went and got the original repeater again and placed the Quantar in service. I will be working on replacing the controller and getting all the link set up so this site can seamlessly link into the Smith County system during hurricane evacuations (or more recently tornado threats), as well as routine nets and exercises. Thanks

to John, N9JN, for the invitation for us to join their linked repeater system!

As a side note, this large link system did work well in providing an RF only link back to Lufkin during my deployment to Canton with the SAR team after the recent tornados. I was able to use the Edom, TX repeater which is part of the Smith County system and Roger had the Alto intertie linked to the Tyler system monitoring traffic in the affected areas. A simple command would have enabled the full link to provide seamless communications from Canton to Lufkin.

Work continues on the linking system in other areas as well.

Much work has been done at the Hudson site also. Permission was granted for us to remove all the old and outdated equipment that was littering the site so Dayton Jones, his son and I loaded his truck and got that all removed. Thanks Dayton and Israel!

Right after that, one of the cellular providers removed all their equipment as well so there is now a lot of floor space available.

The Saltgrass system also got an overhaul recently as well. Steve, N5ZUA, and I met at the site and he replaced the rather large Linux computer with a Raspberry Pi sbc and replaced the failed transmitter in the repeater. We also added a PA deck between the transmitter and duplexer so the Saltgrass system is now running about twice the power it previously did with about 60 watts to the antenna. Thanks Steve Agee!

Quite a bit happening on the repeater scene lately, stay tuned, more to come next month!

June 2017

73, --Mike, WD5EFY, Repeater system design engineer and maintenance technician. Thanks for all you do Mike!

6. ARRL NEWS:



The ARRL has revised and updated its "US Amateur Radio Bands" charts, and these now are available for <u>download</u>. These are PDF documents, available in color or grayscale presentations.

The revised charts reflect the new 630- and 2,200-meter bands, but also emphasize that these bands are *not yet available* for Amateur Radio use. The effective date of the recent FCC *Report & Order* granting these allocations has not yet been determined, and until the start date has been set, it is *not* legal under an Amateur Radio license to transmit on either band.

The FCC will publish a notice in *The Federal Register* "announcing such approval and the relevant effective date." ARRL will announce the UTC notification procedures *and* the effective date to use these new bands as soon as these are known. ARRL will update the Amateur Radio frequency charts at that time.

-Thanks Steve KG5ODZ

Amateur Satellites— From the ARRL web site.

On December 12, 1961, Amateur Radio entered the Space Age when OSCAR-1 was launched. Since then, amateurs from more than 22 different countries have launched over 70 satellites, exploring both digital and analog satellite technology. Many of the latest birds have been school experiments, training scientists and engineers. But, you don't need to be a rocket scientist to participate-- Some satellites operate FM and can actually be worked using a dual-band handheld transceiver. An excellent place to start is AMSAT's <u>Station and Operating Hints</u> page. AMSAT, or the Radio Amateur Satellite Corporation, has played a key role in building, launching, and using amateur satellites.

Occasionally, Radio Amateurs can talk with the astronauts on the International Space Station. For more information check out ARISS. –ARRL





7. FOR SALE/WANTED:

Do you have something to sell or are you looking for a Ham related item? Place a free ad by sending ads to k0yy@arrl.net. (Kilo Zero Yankee Yankee).

Ad Rules:

- 1. Ham related only
- 2. DETARC/ARES Members receive priority.
- Include asking price, name, call, and email address or phone number—this is required for all ads. You give your permission to publish your email address and/or phone number by submitting an ad.
- 4. Be specific, short & concise. Use brand and model numbers if available. State condition if appropriate- poor/fair/good/excellent, or as is.
- Newsletter Editor determines what is/isn't appropriate and may edit ads to fit or limit the number of ads.
- 6. Be aware that the Newsletter is shared among many of the regions Hams.
- 7. This is on a trial basis to see how it works.
- 8. Disclaimer: DETARC and the Newsletter Editor are not a party to or responsible for transactions between individuals. Strongly recommend buyers thoroughly check purchases prior to completing any transaction. Buyers may want to check prices for similar items on www.eham.com or www.ebay.com.
- The cutoff date to receive ads is the 15th of the month prior to the monthly meetings. The next month's Newsletter is published immediately

after the DETARC/ARES monthly meeting the 4th Thursday of the month. For example: to place an ad in the May Newsletter, your ad must arrive by April 15th.

Ham Radio Ads:

FOR SALE: 2 each 50' 12ga extension cords for sale \$20.00 ea. These are \$65.00 at Lowes. Randy N5CRW scuba2@banditt.com

WANTED: Rohn 25 tower sections, 10 foot sections, 4 each in good to excellent condition. Contact Roger K0YY, k0yy@arrl.net.

FOR SALE: AZDEN PCS-7000H 2 Meter Transceiver. Receive range is 118 to 135.99 MHz aircraft AM as well as 136 to 173.995 FM. Transmit is 140.1 to 149.995 mhz. Modifiable for all MARS and CAP frequencies. Radio is 50 or 10 watts. The mic plug could use a reworking and strain relief. Asking \$140, as is condition.

Gary.Antley@Consolidated.com

FOR SALE: ICOM IC-3200A 2 Meter/70
Centimeters Transceiver. Older dual band radio.
25 watt max output on VHF/UHF. May need new
PA deck on the VHF side. Last time I replace the
PA deck I think I paid about \$25 after shipping.
This radio has been just laying about for the past 15
years. I don't know if I still have a mic for it (ICOM
MH-14.) 440 MHz does not get out of Possum
Walk well at all. Asking \$100, as is condition.
Gary.Antley@Consolidated.com

Editor's Notes: If you have an idea for the Newsletter or a question about Ham Radio of general interest to the members, drop a line to the editor at k0yy@arrl.net. We'll try to include the topic or answer the question in a future Newsletter.

60 years in Ham Radio and still loving it!



--Roger Krautkremer K0YY, Editor

EXTRA:

So, you recently passed your General License.

Dreaming big time — a new Yaesu FT-991A



www.hamradio.com/