Troy Amateur Radio Association, Inc.

TARA NEWS

N2TY

Troy Amateur Radio Association - N2TY
PO BOX 1292 - Troy, New York - 12181-1292
145.170/R * Troy's *Full Service Repeaters* * ***447.075/R***
(Use a PL Tone of 127.3 Hz on BOTH INPUT/OUTPUT)
Repeaters are now Yaesu Fusion running in automatic mode

Spring 2019

Happy 28th Birthday TARA:

Wondering what to get your spouse/parent/child for their birthday this year? Well, I can't answer that question...but I can tell you what to do for your favorite local Ham Radio club on its birthday:

Come and join the fun with all of us at the Troy Amateur Radio Association's annual Anniversary Dinner. The event is chock full of fun and everyone who is anyone will be in attendance. There will be plenty of food but we do ask that you bring a dish to share if you can.

If you don't know, the party will be on Tuesday, April 16th beginning at 6:00 PM. Please RSVP with Karen Smith and tell her if you would like to bring a dish to share or a guest. She can be reached by email at: ksmithkb2uuc@aol.com

In This Issue:

The Successful Ham Radio Operator's Handbook:

The Successful Ham Radio Operator's Handbook

Vic, VE3YT and Fred, KE7X are pleased to introduce "The Successful Ham Radio Operator's Handbook", a new book aimed at new or returning hams to help them learn about the exciting challenges ham radio offers us today and to help them be successful. Attached is a news announcement describing the book in more detail. We would be pleased if you would be able to use it as an information article in your club newsletter.
73,
Fred and Vic

This new book is aimed at new or returning hams, to help them understand the practical aspects of the hobby, how to use their radios, build antennas and baluns, and get on the air successfully. In it you will find explanations of how the various parts of your ham radio - the transmitter and receiver – work, plus how these are being implemented using software defined radio technology. Operating techniques for VHF/UHF repeaters, HF radio DXing techniques, and the new digital modes are covered. Radio propagation, antennas, transmission lines, SWR and the mysteries of baluns are explained. Building your HF station, choosing a radio, connecting your radio to a computer, and mobile and portable operation are extensively covered.

Both the pdf and spiral-bound printed versions are available from Lulu.com, and the print copy is also sold by DX Engineering. You can find them via the links below:

http://www.ke7x.com/successful/ordering-the-successful-ham-radio-operator-s-handbook

Here is a link that describes the book in more detail:

http://www.ke7x.com/successful

Follow us on www.facebook.com/KE7XBOOKS to keep up-to-date on book news and to be notified of book discounts at www.lulu.com.

This book has 267 pages, 211 figures and diagrams, and 53 tables of data to make understanding the sometimes complicated ham radio operations much easier. The book follows KE7X's philosophy of presenting material in several forms to accommodate people with different learning styles -- reading, visualizing, hands-on -- with the many figures and text explanations and there are hands-on exercises throughout the book that can help you learn more about your particular radio.

Follow us on www.facebook.com/KE7XBOOKS to keep up-to-date on book news and to be notified of book discounts at www.lulu.com.

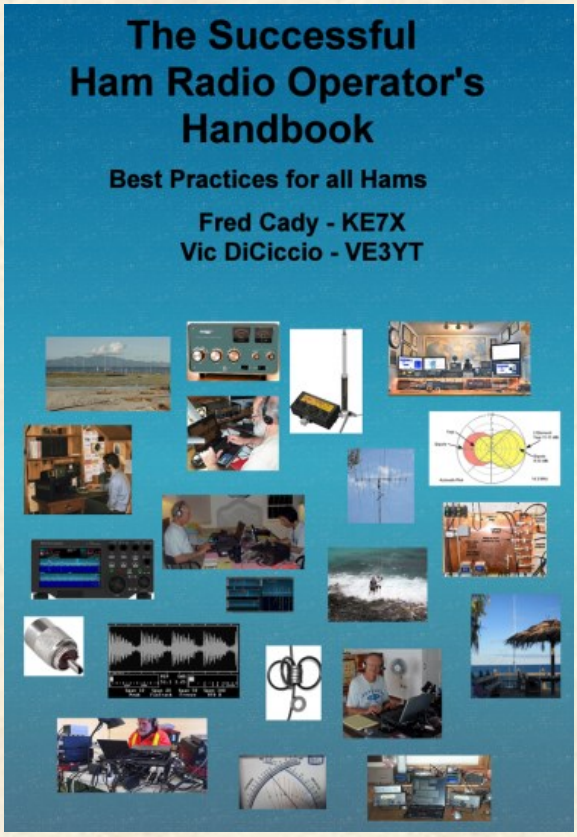
One instructor for new and advanced ham classes has said, "This book is exactly what is needed. I've seen some other books targeting the new hams that are less than satisfying both technically and in content but this one is right on the mark and covers so much information that I so often get asked about, during and after teaching classes." (Continued on page 3)

The Successful Ham Radio Operator's Handbook:

(From page 2)

Here are more details on the content:

- With nearly 110 years of ham radio experience between them, the authors are still excited about the challenges this wonderful hobby offers. *The Successful Ham Radio Operator's Handbook* will guide you when exploring some of these.
- Its goal is to help new operators and returning old-timers learn about the breadth of exciting ham radio activities and challenges available today.
- It answers the question "Why is ham radio relevant in the Internet age?"
- It covers a wide range of topics, helping the reader to understand the excitement of different facets of ham radio and to choose a challenging and exciting activity to pursue.
- It helps the reader better understand how the radio works. Many hams only use a small fraction of the features of their radio. For example, if you understand how a noise blanker or a roofing filter or the AGC works, you will be able to more easily use these, and other, features of your radio to your benefit.
- It provides exercises designed to apply the knowledge to cement your understanding of how your radio works without being radio-specific. It is good for all makes and models.
- It helps the reader get enough background to understand much of the jargon hams who pursue special activities, such as the various digital modes, VHF contesting and moon bounce. It quickly takes the novitiate reader to higher level of understanding and provides URLs and websites that help the reader go deeper into new interests.
- Antennas remain a key area where all hams can still successfully experiment and create a key part of their station. This book provides information to help new hams get started cutting their own verticals and dipoles. It explains why some popular multiband antennas may have compromises that impact performance.



- It gives practical guidelines about choosing transmission lines and building and using baluns and chokes.
- Digital modes such as RTTY, PSK and the new WSTJ modes are explained. The computer-to-radio connections needed for these modes are discussed and illustrated.
- Many hams are motivated by public service and emergency preparedness. This book describes typical local emergency organizations and national networks.
- Hams who like to operate while traveling will find practical information on reciprocal international agreements and how to get permission to operate legally.

TARA Committees:

In case you didn't know, one of the things that makes TARA so successful in the area with membership from the entire Capital District, is the committees that are set up and managed by members to keep the club running smoothly and allowing its members to have a more rewarding experience.

Below is a list of the 12 Committees of TARA and the current members of each one. We always encourage members to become part of a committee to benefit themselves as well as the group to improve TARA as a whole:

Packet Radio:	Contesting:	Field Day Team:	Repeater Manager:	Technical Advisors:	Equipment Manager:
Mike Styne K2MTS	Ray Ginter N2ZQF	Steve Kopecky KF2WA Ray Ginter N2ZQF Karen Smith KS2O	Randy Stein KL7TJZ	Robert Isby N2LUD James McKnight K2LM	Roy Warner N2OWC

Food/Refreshments:	Public Service Events:	Radio Direction Finding:	Newsletter Team:	VE Liaison:	Webmaster:
Pat Decker KB2SRC Margaret Warner N2PEK David Jaeger, Jr. K2DEJ	Mac Smith W2VLT Karen Smith KS2O	Dick Neimeyer W2ABY	David Jaeger, Jr. K2DEJ	Chris D'Allaird AK2CD	Randy Stein KL7TJZ

2019 Public Service Events:

CDPHP Workforce Team Challenge
Thursday, May 16 at 6:25 PM
Washington Park, Albany, NY

Freihofer's Run for Women
Saturday June 1 at 9:00 AM
Washington Park, Albany, NY

Hudson Mohawk Marathon
Saturday October 19 at 8:00 AM:
Schenectady & 1/2 at 8:00 AM:
Colonie Town Park

Watervliet Memorial Day Parade
Monday May 27 at 10:00 AM
Watervliet, NY

Arsenal City Run
Sunday September 22 at 10:00 AM
Watervliet, NY

Pumpkin Patrol
Wednesday &Thursday
October 30 & 31 - 6-10 PM

Stockade-A-Thon
November 12 at 8:00 AM
Schenectady, NY

If you have any questions about TARA's Public Service Team:
Please contact Karen Smith, KS2O, at 518-273-6594 or ksmithkb2uuc@aol.com.

Canada's CHIME telescope detects second repeating fast radio burst:

January 9, 2019, McGill University

The CHIME telescope incorporates four 100-metre long U-shaped cylinders of metal mesh that resemble snowboard half-pipes, with total area equivalent to five hockey rinks. CHIME reconstructs the image of the overhead sky by processing the radio signals recorded by thousands of antennas. Its signal processing system is the largest of any telescope on Earth, allowing it to search huge regions of the sky simultaneously. Credit: CHIME

A Canadian-led team of scientists has found the second repeating fast radio burst (FRB) ever recorded. FRBs are short bursts of radio waves coming from far outside our Milky Way galaxy. Scientists believe FRBs emanate from powerful astrophysical phenomena billions of light years away.

The discovery of the extragalactic signal is among the first, eagerly awaited results from the Canadian Hydrogen Intensity Mapping Experiment (CHIME), a revolutionary radio telescope inaugurated in late 2017 by a collaboration of scientists from the University of British Columbia, McGill University, University of Toronto, Perimeter Institute for Theoretical Physics, and the National Research Council of Canada.

In a resounding endorsement of the novel telescope's capabilities, the repeating FRB was one of a total of 13 bursts detected over a period of just three weeks during the summer of 2018, while CHIME was in its pre-commissioning phase and running at only a fraction of its full capacity. Additional bursts from the repeating FRB were detected in following weeks by the telescope, which is located in British Columbia's Okanagan Valley.

Discovery of second repeating FRB suggests more exist

Of the more than 60 FRBs observed to date, repeating bursts from a single source had been found only once before—a discovery made by the Arecibo radio telescope in Puerto Rico in 2015.

"Until now, there was only one known repeating FRB. Knowing that there is another suggests that there could be more out there. And with more repeaters and more sources available for study, we may be able to understand these cosmic puzzles—where they're from and what causes them," said Ingrid Stairs, a member of the CHIME team and an astrophysicist at UBC. (Continued on page 6)

Canada's CHIME telescope detects second repeating fast radio burst:

(From page 5)

Before CHIME began to gather data, some scientists wondered if the range of radio frequencies the telescope had been designed to detect would be too low to pick up fast radio bursts. Most of the FRBs previously detected had been found at frequencies near 1400 MHz, well above the Canadian telescope's range of 400 MHz to 800 MHz.

The CHIME team's results—published January 9 in two papers in *Nature* and presented the same day at the American Astronomical Society meeting in Seattle—settled these doubts, with the majority of the 13 bursts being recorded well down to the lowest frequencies in CHIME's range. In some of the 13 cases, the signal at the lower end of the band was so bright that it seems likely other FRBs will be detected at frequencies even lower than CHIME's minimum of 400 MHz.

FRB sources likely to be in 'special places' within galaxies

The majority of the 13 FRBs detected showed signs of "scattering," a phenomenon that reveals information about the environment surrounding a source of radio waves. The amount of scattering observed by the CHIME team led them to conclude that the sources of FRBs are powerful astrophysical objects more likely to be in locations with special characteristics.

"That could mean in some sort of dense clump like a supernova remnant," says team member Cherry Ng, an astronomer at the University of Toronto. "Or near the central black hole in a galaxy. But it has to be in some special place to give us all the scattering that we see."

A new clue to the puzzle

Ever since FRBs were first detected, scientists have been piecing together the signals' observed characteristics to come up with models that might explain the sources of the mysterious bursts and provide some idea of the environments in which they occur. The detection by CHIME of FRBs at lower frequencies means some of these theories will need to be reconsidered.

"Whatever the source of these radio waves is, it's interesting to see how wide a range of frequencies it can produce. There are some models where intrinsically the source can't produce anything below a certain frequency," says team member Arun Naidu of McGill University.

"[We now know] the sources can produce low-frequency radio waves and those low-frequency waves can escape their environment, and are not too scattered to be detected by the time they reach the Earth. That tells us something about the environments and the sources. We haven't solved the problem, but it's several more pieces in the puzzle," says Tom Landecker, a CHIME team member from the National Research Council of Canada.

Explore further: **New Canadian radio telescope is detecting fast radio bursts**

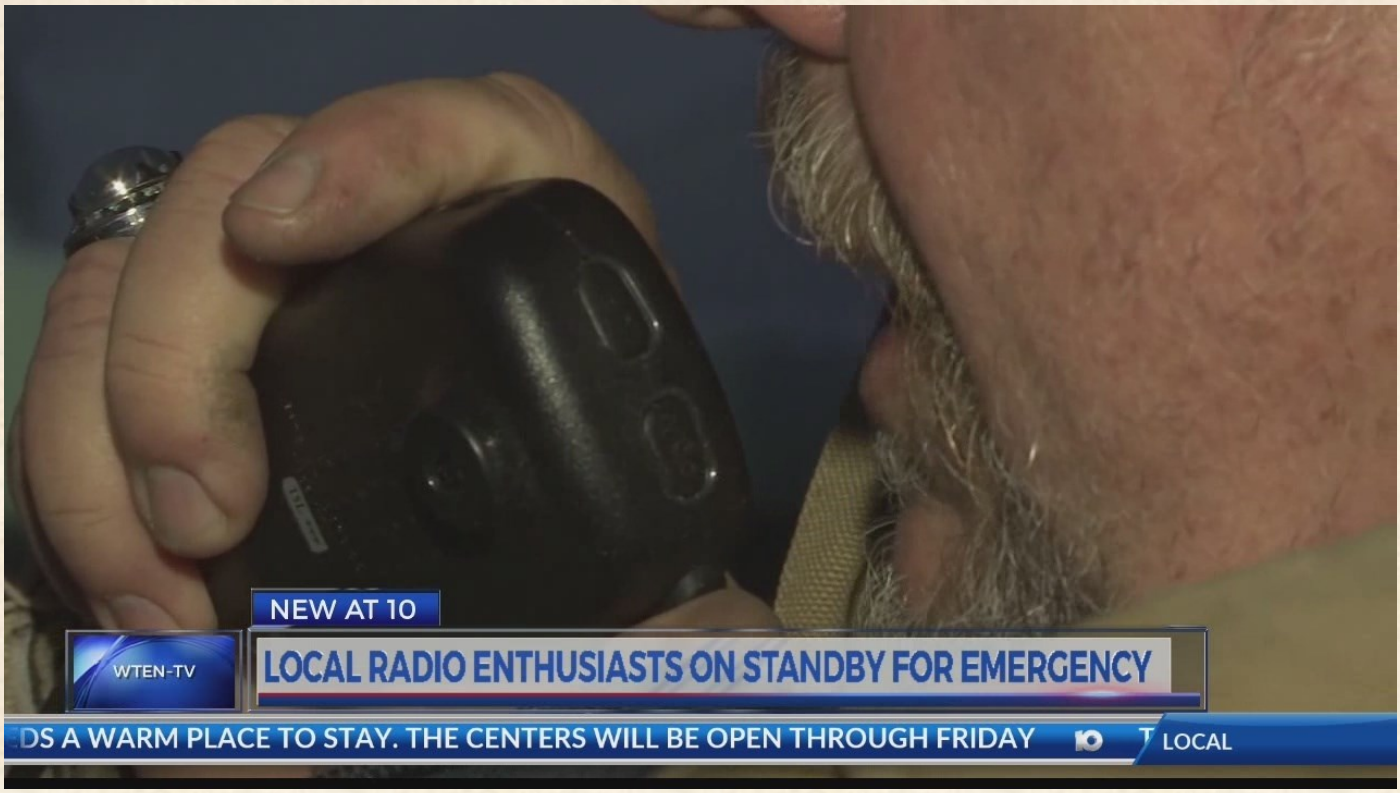
More information: Observations of fast radio bursts at frequencies down to 400 megahertz, *Nature* (2019). **DOI: 10.1038/s41586-018-0867-7**

undefined undefined. A second source of repeating fast radio bursts, *Nature* (2019). **DOI: 10.1038/s41586-018-0864-x**

Journal reference: Nature
Provided by: McGill University

In The News:

Local amateur radio enthusiasts prepared to help in emergencies:



By: Jamie DeLine
Updated: Jan 30, 2019 10:59 PM EST

If there is a storm and the emergency communications system goes out, local amateur radio enthusiasts are prepared to help first responders.

"Once that goes down, the police don't have any way to communicate, the fire department doesn't have any way to communicate, so they rely on guys like me to fill that void," explained John Fritze.

That's when John Fritze, and other amature radio enthusiasts, known as Hams, would be notified by the Albany County Sheriff to help assist.

"What happens is, I can sit down behind a police radio and I can do dispatch. If I am trained to do that, it's legal for me to do that," explained Fritze.

As trained communicators, the Hams are licensed by the FCC. Some are even trained to help report to the National Weather Service. And when the hurricanes hit Puerto Rico, Hams in the Upstate New York region were deployed to help relay messages back and forth.

And while the Hams don't always get recognition, they are always there if and when we need them.

A link to the news10 ABC video is provided below:

https://www.news10.com/news/local-news/local-amateur-radio-enthusiasts-prepared-to-help-in-emergencies/1741317035

WB2MGP Carole Perry Educator of the Year Award:

FEBRUARY 15, 2019 BY N2RJ

Congratulations to Amateur Radio educator Carole Perry, WB2MGP, the first recipient of the newly established "Carole Perry Educator of the Year Award" presented at the 2019 Orlando HamCation. The award, to be given annually in Perry's name, recognizes outstanding dedication in educating and advancing today's youth about ham radio.

WB2MGP with her award – Credit: Bob Inderbitzen, NQ1R (ARRL)

A fellow and director of the Radio Club of America (RCA), Perry is a past Dayton Hamvention Ham of the Year and a recipient of the ARRL Instructor of the Year award. She sits on the RCA Scholarship Committee, and she chairs the RCA Youth Activities Committee, which she established in 2007. She has moderated the Dayton Youth Forum for 31 years. Perry is also a director of the Quarter Century Wireless Association (QCWA) and chairs the QCWA Youth Activities Committee.

Credits: Bob Inderbitzen, NQ1R (ARRL), QCWA

Krimskrams:

Build Your Own HF Rig!!!!

From Bob Bownes KI2L:
Folks,

Someone I know just bought a really nice little kit HF transceiver, the µBitX, a SSB/CW, 10W out that pretty much anyone who can solder a wire into a hole on a PCB can build for the princely sum of $139 w shipping.

Of course I said 'Cool! I want one!' and then thought it might make a good group buy/community project for TARA and the Center of Gravity (since they have a class room and all the tools needed).

So, this is a no commitment required call to see how many folks would be interested in getting together and building some together. If there is enough interest, I'll make a formal call to those expressing interest and ask for commitment.

So, if you're interested, drop me an email at: bownes@gmail.com

Thanks!
Bob

HF Rigs for Sale:

Radios:	Amps:
Elecraft KPA500, Elecraft K3, Elecraft KX3	Icom PW-1
Icom IC-7800, Icom 7600	Acom 2000
Yaesu FTDX-5000MP, Yaesu FTDX-3000	Ameritron AL82.
Kenwood ts 990s, kenwood ts 2000.	Alpha 87A
Flex 5000A, Flex 6500, Flex 6700.	

Email Ruby Garcia KE5MKG for pictures and prices. ruby73garcia@gmail.com Phone: 818 538 5017.

Radios:	Amps:
Icom IC 7700, Icom IC-7800, Icom IC-756 PRO III .	ICOM PW-1 HF AMPLIFIER
Yaesu FT-1000MP, Yaesu FTDX-5000MP.	Alpha 9500 and
Kenwood ts 990s, kenwood ts 2000.	Acom 2000
Flex 5000A, Flex 6500, Flex 6300.	Alpha 87A
TenTec OMNI VII	

Email Shirley Bethel KB5SIN for more information. sbesthel@gmail.com

I hope you enjoy the Newsletter —David.