



Troy Amateur Radio Association - N2TY

PO BOX 1292 - Troy, New York - 12181-1292

145.17/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

Winter 2018

2018 Christmas Party!!!!:

Ho Ho Ho! It's the most wonderful time of the year. Come warm yourself by Hallicrafters HT-41 amplifier and enjoy some Christmas goodies at the 2018 TARA Christmas Party.

Whether you are walking through a Winter wonderland or dashing through the snow to get there, be safe and don't get run over by a reindeer.

Ok enough of that, even I'm tired of hearing myself think of more Christmas puns... Well I hope to see you at the party.

If you don't know, the party will be on Tuesday, December 18th 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



https://www.jpole-antenna.com/wordpress/wp-content/uploads/2012/12/il_fullxfull.274785609.jpg

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Pumpkin Patrol 2018 Thank You:

This year's Pumpkin Patrol was a success. Thank you to everyone who helped out this year, we hope you will be able to next year. A special thanks goes out to Ray Ginter N2ZQF for providing goodies and driving around the entire area, the visit and treats were greatly appreciated.

In addition to the club thanking all those who helped out, provided below is a thank you message from Sergeant Nicholas R. Barna of the NYSP Troop T:

"I just wanted to say thank you so much for work towards the Pumpkin Patrol 2018. It was a success. I tried to get around to meet some of the volunteers over the two nights. I know I missed a lot but I just wanted to Say Thank you to all the volunteers." Sergeant Barna.

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:

<u>Packet Radio:</u> Mike Styne K2MTS	<u>Contesting:</u> Ray Ginter N2ZQF	<u>Field Day Team:</u> Steve Kopecky KF2WA Ray Ginter N2ZQF Karen Smith KS2O	<u>Repeater Manager:</u> Randy Stein KL7TJZ	<u>Technical Advisors:</u> Robert Isby N2LUD James McKnight K2LM	<u>Equipment Manager:</u> Roy Warner N2OWC
<u>Food/Refreshments:</u> Pat Decker KB2SRC Margaret Warner N2PEK David Jaeger, Jr. K2DEJ	<u>Public Service Events:</u> Mac Smith W2VLT Karen Smith KS2O	<u>Radio Direction Finding:</u> Dick Neimeyer W2ABY	<u>Newsletter Team:</u> David Jaeger, Jr. K2DEJ	<u>VE Liaison:</u> Chris D'Allaird AK2CD	<u>Webmaster:</u> Randy Stein KL7TJZ

Ria Jairam Wins ARRL Hudson Division Chief Election:

In a tight election decided by 53 votes, Ria Jairam, N2RJ, has been elected ARRL's Hudson Division Manager, narrowly beating incumbent Mike Lisenco N2YBB. Vice Director Bill Hudzik, W2UDT, was unopposed for re-election. The final vote count was 1292 to 1239. She will take over the position on January 1st. "I would like to thank Mike, N2YBB for his past 6 years of service and I wish him well in his future endeavors," Jairam said. "I would also like to thank everyone who supported this important campaign. We made history and you were a vital part of it." Jairam ran an aggressive campaign, making dozens of visits to clubs and Amateur Radio events throughout the region. She also was active on social media platforms, such as the Upstate New York Amateur Radio Group on Facebook. "I want our league to grow and be vibrant, and stay up to date with the latest and greatest. True to the amateur's code: 'with knowledge abreast of science, a well built and efficient station, and operation beyond reproach.' I want ARRL to hold true to that," she said.

She can be contacted at: Ria@N2RJ.com



Ria Jairam, N2RJ, is ARRL's new Hudson Division Manager.

Orbital Surveillance:

"These Satellites Will Hunt Pirates, and Maybe Terrorists" Kyle Stock

SpaceX is set to launch three toaster oven-size vehicles this weekend that will scan the globe for telltale radio signals of dark ships.

If all goes as planned with the scheduled SpaceX launch Sunday, a startup called HawkEye 360 will have a trio of satellites resembling toaster ovens circling the globe, scanning for pirate radio.

The Washington-area company is one of 35 paying customers strapped to the top of the Falcon 9 rocket, a crowd of cosmic enterprises boldly pushing the private sector into parts of the universe that were once solely the province of sovereign space agencies. The passenger list includes a Honeywell satellite to relay messages from tankers at sea, a company called Audacity that is building a system to speed communication among satellites, and the Nevada Museum of Art, which is launching an orbiting sculpture meant to be visible from Earth.

The HawkEye mission, meanwhile, is a bit more subtle—and lucrative. While space is full of satellites snapping pictures of the planet, the company said it will be the first commercial operation to capture radio frequency feeds down below. Article continued on page 4...



SpaceX Falcon 9 rocket launch Photographer: Paul Hennessy/NurPhoto via Getty Images.

Orbital Surveillance Cont...

“I spend as much time pitching the paradigm—the idea—as I do pushing Hawkeye itself,” said founder Chris DeMay. “It’s not necessarily intuitive to those who don’t come from the government, because [radio frequency] is not inherently visual.” DeMay used to help the U.S. government do this kind of thing during his tenure at the National Reconnaissance Office. A few years ago, he realized that the growing crop of small satellites—or cubesats, as they are called—could accomplish missions similar to what’s being done by larger, more expensive government hardware.

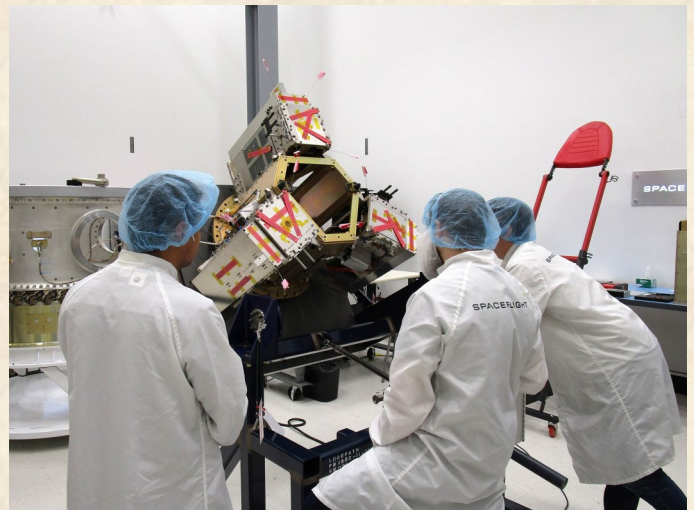
The company he formed in 2015 had a simple pitch to government agencies: “We convert a capital expense to an operation expense.” Raytheon Co., the giant defense contractor, was an early investor and customer. It has engineers working with Hawkeye’s 31-person team and, in turn, will sell some of the company’s findings to its own government customers.

Sunday’s launch (it’s been rescheduled twice) will be the 18th mission by Elon Musk’s rocket fleet this year, and the first time such a large vehicle was entirely dedicated to ride-sharing. SpaceX split the \$62 million cost among dozens of small clients, rather than NASA or some other major satellite operator. (The launch had originally been scheduled for earlier this month but was delayed.)

Once aloft, Hawkeye’s three satellites will be able to triangulate and pinpoint any given radio signal. Eventually, the company hopes to have 10 separate, three-satellite flocks zooming around the globe. With that much hardware, it will be able to scan any part of the world in less than 30 minutes. “It’s going to move pretty darn quickly once we have live data from space,” DeMay said.

So why is this important? “If you kind of look at the art of the possible ... you can understand how that could be very beneficial for customers like Homeland Security or Coast Guard,” said Jane Chappell, Raytheon’s vice president of global intelligence solutions. In any type of conflict, or for law enforcement, the ability to zero in on people you might not otherwise see becomes a valuable—if perhaps Orwellian—product.

Chief Executive Officer John Serafini said about half of HawkEye’s demand will come from defense and intelligence clients, with the rest coming from a mixed bag—ranging from rescue groups searching for emergency beacons at sea to telecommunications companies eager to map bandwidth use. The first order of business, however, will be catching pirates. Smugglers and other wrongdoers of the high seas regularly turn off their GPS transponders to avoid tracking. Instead, they use satellite phones and CB radios to coordinate with other ships or confederates on land, all of which will whisper to the Hawkeye toasters soaring overhead.



HawkEye engineers prepare the company's first three satellites for launch.
Source: HawkEye 360.

“They told me what they wanted to do, and I thought ‘Is that possible?’” recalled Robert Tremlett, a maritime analyst and former merchant marine. Tremlett spent much of his career escorting minesweepers and military ships near Iraq and Iran. Often, on those missions, a very expensive and sophisticated plane flew overhead to keep an eye out for dark vessels laying mines. HawkEye will be able to perform a similar service at a fraction of the cost.

“I see this as part of a solution to a massive problem,” Tremlett said.

By: Kyle Stock, November 30, 2018, 4:00 AM EST

In The News:

Ham Radio University is January 5, 2019

12/6/2018

The new Chief Executive Officer of ARRL, Howard Michel, WB2ITX, will be the keynote speaker at the annual Ham Radio University (HRU) educational conference, which will mark its 20th anniversary on Saturday, January 5, 2019. The event, which serves as the ARRL New York City/Long Island Section Convention, will be held in the Hillwood Commons Student Center on the campus of LIU / Post college in the New York City suburb of Brookville, Long Island from 7:30 am to 3:30 pm, with Mr. Michel delivering his remarks at 12:00 noon. HRU will include nearly thirty informational forums moderated by local experts in a broad range of Amateur Radio activities, including:

Assembling an Amateur Radio Station
Communicating through Amateur Radio Earth Satellites
Remote Station Operating Over the Internet
Emergency Communications

AND

Hands-on workshops on:

Cable Theory and RFConnectors
Ethernet Connectors
Test Equipment.

Presented in cooperation with LIU / Post public radio station WCWP 88.1FM (www.WCWP.org), HRU 2019 is a day of activities at which some 300 hams will share ideas, experiences, knowledge and fellowship. In addition to the forums and workshops, there will be a VE session in the afternoon for individuals who would like to take an FCC license examination to become a ham radio operator or upgrade their amateur radio license.

Ham Radio University is supported by numerous radio clubs and related organizations in the New York City - Long Island area. They will have displays in a Club Room and provide information about their licensing classes, public service events and other amateur radio activities.

Further information and the forum schedule is on line at:

<http://www.HamRadioUniversity.org>

There will be free parking and a cafeteria will be open for breakfast and lunch.

A suggested donation for attendees is \$5.00.

73 de Mike N2YBB

ARRL Hudson Division
Director: Mike Lisenco, N2YBB

TALARC Humming Along Under New Management:

I would like to thank Marty Justis, W9WMJ, president of The American Legion Amateur Radio Club (TALARC), for asking me to write the December newsletter, which is my first. I hope I can follow his lead and provide news and information to our membership each month in the same manner in which he has done so well over the years. Last month, Marty reported on how the staff changes in Indianapolis will continue to advance the club's vision for the future of ham radio within the Legion.

He wrote, "Bill Sloan, NZ9S – trustee for K9TAL, vice president of TALARC, and longtime staffer in the Internal Affairs Division at National Headquarters – has decided to retire as part of a reorganization at The American Legion. Bill will retire at the end of November."

Well, that's me. And I'm very happy to write that the transition of K9TAL's trusteeship and the TALARC volunteer staff liaison

to my successor, Josh Marshall, KD9DHX, has succeeded even beyond our expectations. The passing-along of administration of membership records, membership card processing, maintenance and supervision of the national headquarters station K9TAL, and other tasks are completed. The TALARC program itself has also moved from my old Internal Affairs Division back to the Media & Communications Division, which ironically is where it all started in 2011 with the originating resolutions.

With the strong support and backing of his division directors, Josh has already begun to improve and streamline the membership card processing, which will result in faster returns of the dozen or so new TALARC membership requests we receive each week from Legion Family amateur radio operators – a rate that has continued without pause for several years.

He won't be alone. Even though I join Marty and Mike, W9MNA, in retirement, we all will continue to take part in this great program. My role is simply to take over the newsletter and continue to visit National Headquarters to help Josh look after the radios and associated equipment. This remains true to the great amateur radio spirit of volunteerism. The Media & Communications Division is eager to continue the monthly net schedules and provide full support to the TALARC page at www.legion.org/hamradio. Our special events will continue annually in March and November. We may even return to Hamvention in 2019, as we have done each year since 2012. Most importantly, we will continue to seek ways to engage all our members and provide an interesting and exciting program. Article continued on page 7...



Under New Management Cont...

TALARC itself was not necessarily intended (at first) to be a long-term function of National Headquarters, but rather a mechanism to create awareness of amateur radio within The American Legion, and to promote among posts and departments an avenue for community service. And it has succeeded.

What can you look forward to in 2019? With more than 3,600 members today, and the strong support of the Legion itself, we might soon examine the possibility of moving from our current local 'board of officers' to a national set of independent American Legion Amateur Radio Clubs. Beyond that, with continued growth, we may even explore national support of forming a new board of directors drawn from TALARC members interested in helping us combine amateur radio with the many existing disaster preparedness and emergency response committees and programs that already exist within our posts and departments. Indeed, the Department of California has maintained an amateur radio committee for many decades. Florida, Arizona, Texas and several other states have also expressed interest in statewide amateur radio programs.

Today TALARC has spawned some 40 independent American Legion amateur radio programs in our posts and departments across the country, with more coming in 2019. We will be able to provide information about membership in TALARC to our department commanders and adjutants, on request, in order to help them gauge interest in starting department programs as well.

For now, we will continue to rely on the current TALARC membership to keep the momentum going for amateur radio within the Legion. As amateur radio operators we bring a lot to the table by way of assistance in times of disaster – when, as we like to say, “all else fails.” But we also have a great deal more to offer, and almost always do, when in support of a Legion post and the community it serves.

As our national promotion of amateur radio continues, please continue with the work you are doing ... continue to promote amateur radio at your posts and departments. Ask your post and department commanders to consider forming amateur radio programs. Enlist Legion Family-eligible amateur radio operators for membership in your post and form a club, volunteer your personal amateur radio abilities at the local or state level, and submit your success stories to the Legiontown website at www.legiontown.org.

My thanks to Marty, W9WMJ, for his leadership and for faithfully writing this newsletter each month over the last five years or more (it's past time to give him a rest).

And thank you all for your continued support and interest in TALARC, which will continue to prosper with Josh and the Media & Communications Division in 2019. We at National Headquarters hope you will take time to look back on the accomplishments of your post in 2018, whether within the scope of amateur radio or otherwise, and from that enjoy the feeling of satisfaction that comes from community service work well done.

To each and every one, Merry Christmas and Happy New Year! God bless all.

73,

Bill Sloan, NZ9S
Vice President, The American Legion Amateur Radio Club
Indianapolis, Indiana

Spatial Interference Filtering Techniques:

Webmaster or Executive - TROY AMATEUR RADIO ASSOC.

Earlier this year, I published a series on my web site about "Spatial Interference Filtering Techniques". The purpose of this information is to show hams and shortwave listeners some different ways to reduce interference and improve reception.

Spatial Interference Filtering, or beamforming, has traditionally been accomplished with analog components and phased antennas. Today, software defined radios can do beamforming and diversity reception digitally. This is accomplished with a dual-channel coherent SDR. By manipulating the phase and amplitude of IQ data, beamforming is easily achieved with two antennas. It's a great approach for diversity reception and interference cancellation. PowerSDR and Linrad both support these techniques.

Please take a moment to review the Spatial Interference Filtering Techniques articles. If you find them to be useful, please consider passing these along to your members or contacts.

These articles are located at <http://play.fallows.ca/wp/series/spatial-interference-filtering-techniques/>

You can use these articles by linking them to your web site, Twitter feed, Facebook page or by e-mail. If you wish, you may also reproduce some of this content in your publications as long as you provide credit and a link to our web site at <http://play.fallows.ca>

Thanks for your consideration. If you have any questions or suggestions, please contact me.

73 John Fallows VE6EY
Calgary, Alberta

Krimskrams:

Build Your Own HF Rig!!!!

From Bob Bownes KI2L:
Folks,

Someone I know just bought a really nice little kit HF transceiver, the μ BitX, 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:

Elecraft KPA500, Elecraft K3, Elecraft KX3

Icom IC-7800, Icom 7600

Yaesu FTDX-5000MP, Yaesu FTDX-3000

Kenwood ts 990s, kenwood ts 2000.

Flex 5000A, Flex 6500, Flex 6700.

Amps:

Icom PW-1

Acom 2000

Ameritron AL82.

Alpha 87A

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

Radios:

Icom IC 7700, Icom IC-7800, Icom IC-756 PRO III .

Yaesu FT-1000MP, Yaesu FTDX-5000MP.

Kenwood ts 990s, kenwood ts 2000.

Flex 5000A, Flex 6500, Flex 6300.

TenTec OMNI VII

Amps:

ICOM PW-1 HF AMPLIFIER

Alpha 9500 and

Acom 2000

Alpha 87A

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

I hope you enjoy the Newsletter —David.

