

The “Official Organ”

The Official newsletter of the Johnston Amateur Radio Society, Inc.

April 2019 edition



This month's “Official Organ” is being dedicated to Tommy Rich, N4CBI.

JARS Meeting This Thursday:

Our next regular scheduled meeting is this coming Thursday, April 18th at Grandsons Buffet located at: 1273 N Brightleaf Blvd, Smithfield, NC 27577. We will start eating around 630 and the meeting will start at 7pm.

In this month's Official Organ:

Presidential Remarks

VP Remarks

Secretary

Life on the Farm

Johnston County ARRL VE Team

Ham Humor

ARRL News

Presidential Remarks:

This past month, JARS unexpectedly lost a very valuable and long-time member. Tommy Rich, N4CBI. Tommy passed away quickly and unexpectedly at his home. Many of the JARS members were able to attend the visitation and funeral. Tommy will be missed not only by JARS, but the many other organizations that he belonged to and cooked for. I, for one, know that JARS Burgers will never be the same.

On a brighter note, JARSComm is coming closer to being completed. We have had two work days of installing radios and other items in JARSComm and it will be on display in all it's glory at RARSFest next weekend.

Vice Presidents Remarks:

**From your Vice-President: Scott Wilkinson
KJ4TUC**

Our next regular club meeting will be Thursday, **April 18**, at 6:30 PM, at Grandsons Buffet, 1273 (North) Brightleaf Blvd., Smithfield NC 27577, directly in front of Wal-Mart.

Educational Program: In keeping with the theme of Emergency Preparedness and assisting Public Safety, the topic of our educational program for the **April 18** meeting will be: **AUXCOMM**. AUXCOMM replaced ARES (Amateur Radio Emergency Service) several years ago as Auxiliary Communications to support Public Safety, and is recognized by Homeland Security, FEMA, and state & local Emergency Management. We are fortunate to have our own **Scott Lewis AB4SL** as the AUXCOMM Coordinator for Johnston County. He will tell us what AUXCOMM is all about, the training requirements for participation, and how the JARS club can help out in times of a communications emergency. For more information on AUXCOMM check:

<https://www.dhs.gov/comu-training-resources>

Upcoming area Ham Fest:

Raleigh RARS Ham Fest

NC State Fairgrounds, Raleigh NC

(Jim Graham Building)

Saturday, April 20, 2019, 8:00 AM

Tickets are \$10. at the door

The JARSCOMM truck will be on display at RARSFEST.

www.rarsfest.org

SKYWARN: As a follow-up to our last month's educational program on the weather, I would like to remind everyone that: There will be a National Weather Service, Basic SKYWARN Spotter Training class with Virginia Enzor (NC4VA), Emergency Coordinator for Central Carolina SKYWARN, at RARS-Fest on Saturday, April 20 at 1:00 PM in Room #1 of the Jim Graham Building at the NC State Fairgrounds during the RARS Ham Fest.

JARS Picnic: Will be **Saturday, May 11**, starting at 12:00 Noon, at White Deer Park in Garner. This is a family event (kids welcome), so bring some games for the kids and the musicians can bring their musical instruments for entertainment. If JARSCOMM is there we can play radio. This should be a lot of fun. President Mike Callam has volunteered to cook the hot dogs and hamburgers. Please bring a side dish to be enjoyed by everyone.

Additional information: There will be NO regular club meeting on the third Thursday in May. We will resume our regular schedule in June.

Summer Field Day: Summer Field Day will be the fourth weekend in June. (June 22-23). Thanks to Billy Newton KJ4ZKG for allowing us to use his place at 239 Mann Road in Coats, NC 27591. More information coming later.

JARS Logo Shirts: (T-Shirts and Golf Shirts)

If anyone still wants to order a shirt, contact Paulette Disbrow KM4RMW, or come to the next club meeting. These are really nice shirts. It will identify you as a JARS member. Nice to wear at any Ham Radio event, if deployed on

JARSCOMM, JarsFest, or anytime you are representing the JARS Club.

Secretary Report:

JARS Meeting March 21, 2019

Meeting was called to order at 7:01pm by President Mike Callam.

Prayer was led by Billy Massengill.

Introductions were made.

Bill Reh, meteorologist from NBC 17 did a presentation on weather.

President Mike said that he has a new digital video camera to record the JARS meeting to post to Youtube under Johnston Amateur Radio Society as well as the JARS facebook page. He also said that if he ever leaves the position of media/newsletter, he will pass it on to the next person.

Secretary Dianne suggested that we make NC4BJ an honorary life member. It was voted on and passed by the members present.

Net Whip Stephen said that all nets were being called.

JARS Picnic is in May in place of our regular meeting. The only business conducted at the picnic is the passing of the LOM.

LOM was awarded to Pete Memolo, KN4OO.

Meeting adjourned at 8:21 pm

Submitted by Velda, K4VJC, Secretary.

JARS April 2019 Board Meeting.

Meeting was called to order at 7pm by President Mike Callam, KD4MC

President Mike reminded everybody that this Saturday, April 13th was JARSCOMM work day, starting at 9am at Mule City Feeds in Benson. We need to get a few more radios installed and try to get it cleaned up for RARSFest on the 20th. Mike will be taking the vehicle to the RARSFest on Friday and bring it back on Saturday evening.

Since Tommy, N4CBI has passed away, Mike said that he will do the cooking at the JARS Presidential Picnic, which will be held on Saturday, May 11th at White Deer Park in Garner.

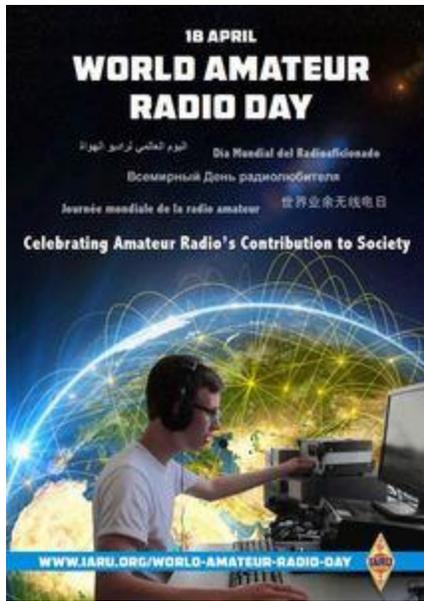
Field Day, Billy Newton, KJ4ZKG has graciously allowed us to hold field day at his house in June. Mike has a cooker that he will bring down and leave for those that want to cook.

Vice President Scott mentioned that the JARS Website needs to be updated with our meeting location and our latest copy of the constitution and bylaws.

Secretary, Dianne said that she sent a \$100.00 donation to the Shriner's Children's Hospital in memory of Tommy Rich, N4CBI.

Net Whip, Stephen said that all nets are being called. However, some people are having to call more than one net.

Member at Large, Doug said that BJ was overjoyed that we made him an honorary life member. Our current honorary life members are BJ, Danny Hampton and Billy Massengill.



"I am pleased to extend my greetings for World Amateur Radio Day," IARU President Tim Ellam, VE6SH, said. April 18 is the day for all of Amateur Radio to

celebrate and tell the world about the science we can help to teach, the community service we can provide, and the fun we have. I would encourage all radio amateurs to join in the celebrations and promote Amateur Radio on the air or in your community."

Amateur Radio experimenters were the first to discover that the shortwave spectrum was not the wasteland experts of the time considered it to be, but a resource that could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was "in grave danger of being pushed aside," the IARU's history notes. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio around the globe.

Two years later, at the International Radiotelegraph Conference, Amateur Radio gained allocations still recognized today -- 160, 80, 40, 20, and 10 meters. More bands have

followed, and the IARU has been working to defend and expand Amateur Radio frequency allocations ever since.



From the 25 countries that formed the IARU in 1925, the IARU has grown to include 160 member-societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia.

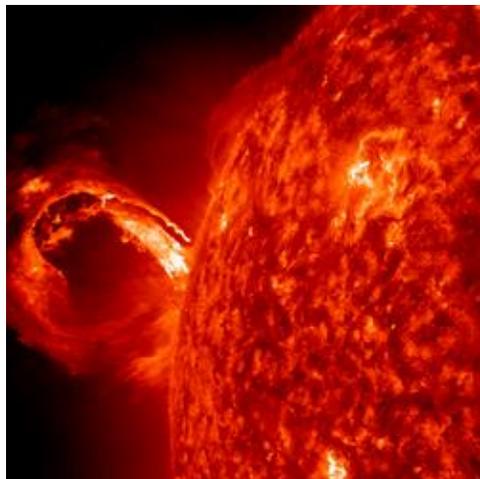
The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio.

Groups are encouraged to promote their WARD activity on social media by using the hashtag **#WorldAmateurRadioDay** on Twitter, Instagram, and Facebook. [Visit](#) the IARU World Amateur Radio Day web page for a listing of on-the-air activities.

Solar Cycle 25 Predicted to be Similar to Cycle 24

Scientists predicting the sun's activity for Solar Cycle 25 say it's likely to be much like that of current Cycle 24, which is declining and predicted to bottom out in 2019 or 2020. Solar Cycle 25 Prediction Panel experts said Solar Cycle 25 may get off to a slow start, but is anticipated to peak between 2023 and 2026 with a sunspot range of 95 to 130. This is well below the typical average of 140 to 220 sunspots per solar cycle. The panel expressed

high confidence that the coming cycle should break the trend of weakening solar activity seen over the past four cycles. The Solar Cycle Prediction Panel forecasts the



A 2013 coronal mass ejection. [Photo courtesy of NOAA]

number of sunspots expected for solar maximum, along with the timing of the peak and minimum solar activity levels for the cycle. The outlook was presented on April 5 at the [2019 NOAA Space Weather Workshop](#) in Boulder, Colorado.

"We expect Solar Cycle 25 will be very similar to cycle 24: Another fairly weak cycle, preceded by a long, deep minimum," said panel co-chair Lisa Upton, a solar physicist with Space Systems Research Corp. "The expectation that Cycle 25 will be comparable in size to Cycle 24 means that the steady decline in solar cycle amplitude, seen from cycles 21 - 24, has come to an end and that there is no indication that we are currently approaching a Maunder-type minimum in solar activity."

The solar cycle prediction gives a rough idea of the frequency of space weather storms of all types, from radio blackouts to geomagnetic storms and solar radiation storms. In addition to its effects on Amateur Radio signal propagation, space weather can affect power grids; critical

military, airline, and shipping communications; satellites and GPS signals, and can even threaten astronauts through exposure to harmful radiation.

Solar Cycle 24 reached its maximum in April 2014, with a peak average of 82 sunspots. The sun's northern hemisphere led the sunspot cycle, peaking more than 2 years ahead of the southern



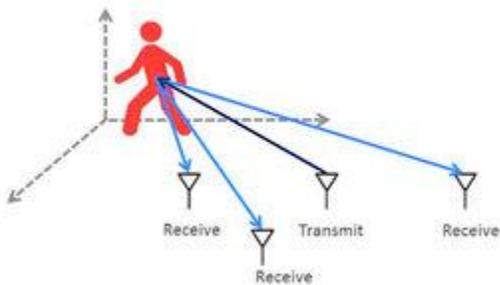
hemisphere sunspot peak. Given that the sun takes 11 years to complete one solar cycle, this is only the fourth time that US scientists have issued a solar cycle prediction. The first panel convened in 1989 for cycle 22.

For Solar Cycle 25, the panel hopes for the first time to predict the presence, amplitude, and timing of any differences between the northern and southern hemispheres on the sun, known as hemispheric asymmetry. Later this year, the panel will release an official sunspot number curve showing the predicted number of sunspots during any given year and any expected asymmetry. The panel will also look into the possibility of providing a solar flare probability forecast.

"While we are not predicting a particularly active Solar Cycle 25, violent eruptions from the sun can occur at any time," said Doug Biesecker, panel co-chair and a solar physicist at NOAA's Space Weather Prediction Center ([SWPC](#)).

MIT Requests FCC Rules Waiver for Medical Monitoring Device

The Massachusetts Institute of Technology (MIT) is seeking a waiver of some Part 15 rules in order to obtain FCC certification of its WiTrack System, a swept-frequency ultra-wide band (UWB) indoor medical monitoring device. According to MIT, the WiTrack System uses an indoor swept signal of up to 2.5 GHz in the 6 - 8.5 GHz band to passively monitor mobility, breathing, and other physiological signals in patients and senior adults. Because the system would transmit an RF signal and receive its reflection from the environment, it would not

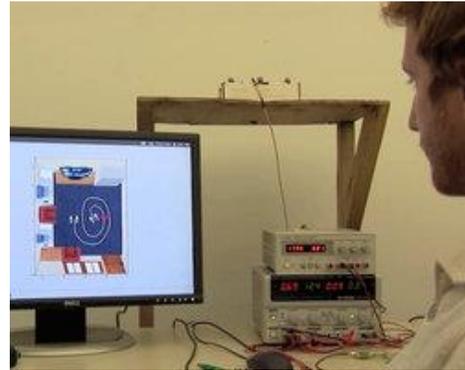


require the use of body-worn sensors. MIT has indicated that different versions of the devices would sweep slightly different frequencies within the 6 - 8.5 GHz range.

According to MIT [publicity material](#), WiTrack tracks the 3D motion of a user from the radio signals reflected off a person's body. It works even if the person is occluded from the WiTrack device or in a different room. WiTrack does not require the user to carry any wireless device.

"WiTrack localizes the center of a human body to within 10 to 13 centimeters in the x and y dimensions (about the size of an adult hand), and 21 centimeters in the z dimension. It also provides coarse tracking of body parts, identifying the direction of a pointing hand with a median of 11.2 degrees. It can also detect falls with 96.9% accuracy. WiTrack can be

incorporated into consumer electronics and has a wide set of applications," MIT says.



Section

15.503(d) of the FCC's rules defines a UWB transmitter as an intentional radiator that, at any point in time, has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth. The WiTrack System would not satisfy this definition, because each frequency step is less than 500 MHz in bandwidth "at any point in time," MIT says, even though the total bandwidth needed for optimal performance exceeds 500 MHz. MIT states that the waiver it seeks is similar to those previously granted by the Commission, and that grant of a waiver for the WiTrack System would be in the public interest.

The waiver request has been folded into ET Docket 19-89, and interested parties have until April 18 to comment and until May 3 to file reply comments.

AMSAT, ARRL Comment in FCC Orbital Debris Mitigation Proceeding

AMSAT [has told the FCC](#) that several proposed rule changes related to the mitigation of orbital debris would have an extremely detrimental effect on both the Amateur Satellite Service and AMSAT's ability to launch and operate new satellites, including AMSAT's upcoming GOLF satellites. AMSAT filed comments on April 5 on an FCC *Notice of Proposed Rule Making* in IB

Docket 18-313. AMSAT argues that amateur satellites often have longer mission lifespans than other small satellites and that the FCC should take a mission duration of 5 to 10 years into account when determining whether or not an amateur satellite will meet the orbital debris regulations, either by transferring to a parking orbit or re-entering the atmosphere within 25 years of mission completion. Current practice is to assume a "zero-year" mission and to require that amateur satellites meet the debris regulations.

AMSAT also urged the



Commission to consider alternatives to a proposed rule that would restrict to altitudes of 650 kilometers or less satellites in low-Earth orbit that plan to meet the orbital debris mitigation guidelines through atmospheric re-entry. AMSAT noted that, had this rule been in place, it would not have been permissible to deploy AO-85 and AO-91 in their current elliptical orbits with apogees of approximately 800 kilometers, even though both will re-enter within 25 years due to their low perigees.

Additionally, AMSAT noted that current plans for the GOLF-1 satellite are to meet orbital debris mitigation guidelines through atmospheric re-entry by deploying a drag device that will ensure re-entry within 25 years, despite deployment at an altitude higher than 1,000 kilometers. This proposed rule would prohibit GOLF-1's deployment at that altitude.

The Commission's proposed rules would further require that Amateur Satellite licensees indemnify the government against any claims made against the US due to the operation of a satellite. AMSAT believes this proposal would end the ability of AMSAT, or any other entity in the US, to launch and operate amateur satellites and urged the FCC to consider alternatives.



In

[separate comments](#), ARRL said it supports "reasonable efforts to mitigate orbital debris" but that the FCC "must tailor its regulations for the Amateur Satellite service" and "not inadvertently impair the service's continuing vitality by applying rules crafted for commercial satellite services."

In this regard, ARRL supports AMSAT's positions, which suggest that "the nature of the modifications needed [should] achieve the Commission's expressed regulatory objectives without needlessly impairing the Amateur Satellite service."

ARRL said the FCC should exempt amateur satellites or otherwise ameliorate its proposed indemnification requirement and said that only telemetry "used to command onboard propulsion systems" should be subject to encryption.

ARRL also said amateur satellites proposed for disposal by atmospheric re-entry should not be restricted to orbital altitudes of 650 kilometers or lower, and that the longer duration of amateur satellite missions should be factored into the time required for a satellite to naturally de-orbit or be transferred to "a parking orbit."

Interested parties may file reply comments by May 5 via the FCC Electronic Comment Filing Service ([ECFS](#)). Read [more](#). -- Thanks to AMSAT News Service

ARRL Seeks Contest Program Manager

ARRL is inviting qualified candidates to apply for the position of Contest Program Manager. This is a permanent, full-time position at ARRL Headquarters in Newington, Connecticut.

The Contest Program Manager is responsible for all aspects of ARRL's Contest Program, including receipt and processing of entries, quality of results, awards fulfillment, public outreach, program development and promotion, and volunteer coordination and management. Job duties include:

- Promoting the ARRL contesting program in print, on the web, and in person.
- Managing a team of



approximately 20 volunteer log adjudicators, results authors, and data entry assistants, both inside Headquarters and around the country on a cost-efficient basis.

- Ensuring an accurate listing of ARRL contest results, while meeting web and print publishing deadlines.

- Accurately distributing contest awards plaques, certificates, and other awards in a cost-effective and timely manner.
- Effectively interfacing with contractors and management as well as cheerfully accommodating guests, members, visiting dignitaries, and industry representatives.
- Interacting with the Amateur Radio contesting community in person and via electronic means. This individual will represent ARRL at conventions and meetings, domestically and internationally.
- Developing new on-air events that cater to a wide range of radio amateurs.
- Conferring with the Contest Advisory Committee.

Applicants should have at least 5 years of experience managing personnel and/or volunteers, software, and processes, plus a minimum of 5 years of active participation in Amateur Radio contesting.

For more information on how to apply, visit the [ARRL Employment Opportunities](#) web page.

Florida ARES, State of Florida Considering Memorandum of Understanding

Amateur Radio Emergency Services (ARES®) Section Emergency Coordinators (SEC) from the ARRL Northern, West Central, and Southern Florida sections met recently with state Emergency Management Communication leaders to discuss improved integration of Amateur Radio during emergencies. A draft *Memorandum of Understanding (MOU)* between ARES and the State of Florida was presented for further consideration.

If



From left to right: Florida Telecommunications Specialist III Bob Little, N4RGL; West Central Florida Section Emergency Coordinator (SEC) Ben Henley, KI4IGX; Florida Department of Emergency Management Telecommunications Administrator Ben Bass, KI4OEE; Northern Florida SEC Karl Martin, KG4HBN; Southern Florida SEC John Wells, W4CMH; West Central Florida Assistant SEC Brad Haag, KM4VRU, and FDLE Statewide Communications Coordinator Nick Simoncini, KG4NJS.

agreed upon, the *MOU* would make ARES and Amateur Radio a valid resource that can be easily requested during an incident.

"For the first time ARES will be integrated into the state communication team," said West Central Florida Section Emergency Coordinator (SEC) Ben Henley, KI4IGX.

To facilitate deployment of communication resources more effectively, the three Sections have previously agreed to work as a single entity during an incident. Also discussed was the necessity of changing the way ARES volunteers are credentialed, trained, and deployed.

"This is a team effort," said Northern Florida SEC Karl Martin, KG4HBN. SECs and state leaders anticipate working together in the future to overcome shortcomings in disaster and emergency preparation to ensure an

effective response when Amateur Radio support is requested.

FCC Agrees to 90-Day Pause in Consideration of WT Docket 16-239

It has been almost 6 years since the ARRL requested the FCC to consider changes to the Amateur Radio digital rules in 11-708 and almost 3 years since ARRL filed comments in the resultant proceeding, identified by the FCC as 16-239.



The Commission's proposed changes differed from the ARRL's initial filing and caused ARRL to be concerned about possible

interference to current users resulting from the deletion of ARRL's requested 2.8 MHz bandwidth limitation. Due to those concerns, ARRL filed comments with the FCC opposing the deletion of the requested bandwidth.

Since ARRL's initial filing, many individuals and groups have commented to the FCC and publicly regarding issues and potential consequences they passionately believe are implicated by the FCC's proposals embodied in 16-239/11-708. Additionally, in the six years since the initial filing of 11-708, new information has been presented by individuals and groups who support and oppose the FCC's proposed adoption of 16-239.

Due to the time that has elapsed since ARRL's initial digital rules change request, the new information that has become available and the extent of both support and opposition to the proposed rules change, ARRL asked the FCC to grant a delay in its consideration of the proposed rules change to provide the League

the opportunity to clarify the issues and determine whether a consensus can be reached on some or all of the issues raised by the FCC's proceeding.

At ARRL's request, the FCC Staff has agreed to a 90-day pause in the consideration of WT Docket 16-239.

JARS Officers

President	Mike	KD4MC
Vice Pres	Scott	KJ4TUC
Secretary	Velda	K4VJC
Treasurer	Paul	KD4BJD
Membership	Dianne	KE4VNX
Net Whip	Stephen	KJ4QNW
Media/Organ	Mike	KD4MC
Parliamentarian	Ryan Leathers	N4RL

Members at Large:

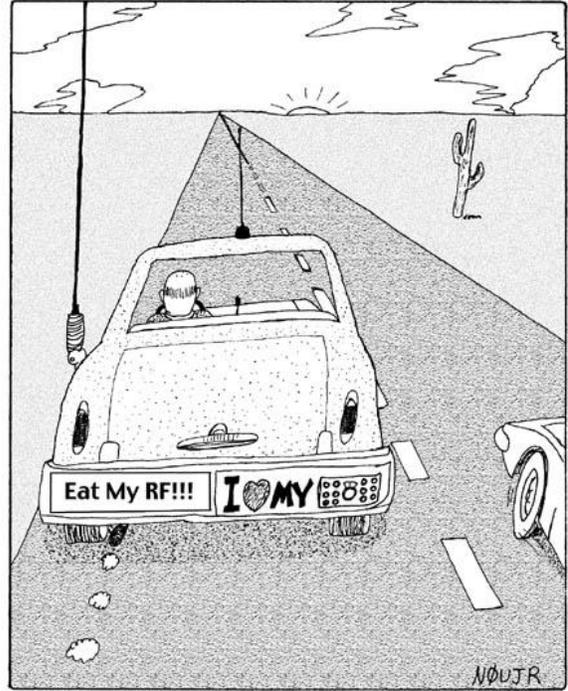
Stan Disbrow WA2KQY

Doug Williams KS4TI

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Inc.

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QCWA members with an attitude...

That does it for another edition of the "Official Organ"

I am looking forward to seeing everyone at the meeting Thursday.

73 de KD4MC