RAGS review

PUBLISHED SEPTEMBER THRU JUNE BY THE RADIO AMATEURS OF GREATER SYRACUSE

MARCH 2026

UPCOMING ACTIVITIES

- **April 9, 2026**
ANNUAL RAGS AUCTION

- **May 14, 2026**
A U.S. ISLANDS POTA ROVE
Presentation by Matt Brown, K2EAG

- **May 23, 2026**
PORTABLE OPERATIONS PARTY
Clark Reservation State Park, Jamesville, NY
8A – 3P, Coffee, Donuts, Burgers & Dogs

- **June 11, 2026**
ANNUAL INSTALLATION DINNER
Scholarship Presentation, Great Fellowship

- **June 27-28, 2026**
ARRL FIELD DAY
Camillus Ski Association Facility
Operation, Fellowship, Food…FUN!

SO WHAT BUTTON DO I PRESS?

"The Journey Of A New Ham"

Presentation
By
Ian Stokes-Rees, KE2CHJ

PLEASE ATTEND!

NEXT MEETING – Thursday, March 12, 2026

IN PERSON AT 7:00P

Coffee is always on!

CHECK THE 31/91 REPEATER AFTER 3P FOR WEATHER CONCERNS

Dewitt Community Room
148 Sanders Creek Parkway
East Syracuse, NY 13057

John Perkins
K2VTT
Jp96166@gmail.com
315-399-8175

FROM OUR PRESIDENT

In theory, Spring is just around the corner. We shall see what Mother Nature has in mind for us.

Lots of activities coming up:
Mar 14 – St. Patrick's Day Parade – Need Additional Folks
Mar 29 – Engineering Fair – MOST
April 11 – Bull Thistle Hamfest – Norwich
April 18 – Drumlins Hamfest – Newark
May 23 – RAGS POTA DAY – Clark Reservation – Jamesville

Don't forget the RAGS Auction on April 9
Get involved and have fun.
73
John K2VTT

John

NEWS FROM LAST MONTH'S MEETING

We had a first-ever Elmer's Panel and it was a really interesting and fun event. Our Elmers were Doug, N2JOM, Walt, N2IK, Amir, K9CHP, and Ron, WB2WGH. Topics fielded included FT8, Batteries, Antennas, VHF/UHF Roving, and Contesting. There was a lot of fellowship and conversation, donuts eaten, and coffee consumed.

John, K2VTT listed the many upcoming RAGS activities and solicited all members to get involved.

Voyager 1 Will Reach One Light-day From Earth In 2026.

Voyager 1, NASA's deep-space probe, could soon become the first spacecraft to reach a historic milestone. In November 2026, the probe will be one light-day from Earth. Launched in 1977, Voyager 1 is the farthest spacecraft from our planet, currently exploring interstellar space 15.8 billion miles away. The term light-day refers to the distance at which it will take 24 hours for a signal or command traveling at the speed of light to reach the spacecraft from Earth, said Suzy Dodd, Voyager project manager at NASA's Jet Propulsion Laboratory. One light-day is equivalent to 16 billion miles (26 billion kilometers).

So if Voyager's team is asking the spacecraft to do something once it reaches that point, it will take another day for Voyager to respond. "If I send a command and say, 'good morning, Voyager 1,' at 8 a.m. on a Monday morning, I'm going to get Voyager 1's response back to me on Wednesday morning at approximately 8 a.m.," Dodd said.

Voyager 1 and its twin, Voyager 2, are the only spacecraft to operate beyond the **heliosphere**, the sun's bubble of magnetic fields and particles that extends well beyond the orbit of Pluto. After decades in space, both have had to turn off several instruments, but they are using their remaining tools to study this uncharted territory and provide data that could inform future missions. There are many challenges that come with staying in communication with such far-reaching probes, but Dodd and her team are taking necessary steps to ensure that their "senior citizens" reach their 50th anniversary in 2027.

Launched on a journey to explore Jupiter and Saturn, Voyager 1 has been traveling away from Earth on the same trajectory and at the same speed — 38,000 miles per hour — since its flyby of Saturn in November 1980. With an understanding of Earth's location relative to Voyager 1, the spacecraft's speed and its trajectory, engineers are able to calculate how long it takes a signal to reach the probe. For example, Voyager 1's trajectory after the Saturn flyby took it up and out of the plane of the planets after it passed Saturn, while Voyager 2 passed over the top of Neptune after its 1989 flyby of the ice giant and moved down and out of the plane of the planets. Neither probe has had a trajectory adjustment since their last planetary flybys, meaning that both have been on decades-long uninterrupted cruises.

Voyager 2 isn't expected to reach one light-day from Earth until November 2035, and even the most ambitious estimates suggest the spacecraft won't be operating then. But both probes keep surprising the team. Every day, as the oldest functioning spacecraft, the Voyager probes hold a record just by continuing to operate. But it hasn't been an easy process. The probes send back data at a very low 160 bits per second, or a data rate similar to dial-up internet, Dodd said. "The distance that we are away from the Earth takes much longer to get a signal there, and the signal strength just dissipates," Dodd said. "It takes multiple antenna arrays to gather that signal back." The low data rate means that Dodd and her team receive sparse information about the health of each spacecraft, and if there is an issue, they aren't able to respond quickly.

However, both Voyagers are designed to be self-sufficient with plenty of onboard autonomy so they can save themselves if things go sideways billions of miles from Earth. "If they get something going wrong, they can put themselves in a safe state so that they can wait until we're able to talk to the spacecraft and figure out what the problem is and resolve that issue," Dodd said. For years, the team has made tough decisions to ensure the probes operate for as long as possible, Dodd said. That means turning off engineering systems and instruments to conserve power and ensuring that the spacecraft remains warm enough to function. In order for the Voyager probes to keep communicating with Earth, their antennae must also be pointed at our planet. If propellant lines freeze on either probe, causing the antennae to point elsewhere, "we would lose the mission because we could no longer get a signal to the spacecraft," Dodd said.

Before their 50-year anniversary in 2027, both spacecraft will likely need to have additional instruments and systems turned off. The team is hoping to keep the Cosmic Ray Subsystem running on Voyager 2, as well as the magnetometer and Plasma Wave Subsystems on both spacecraft. The instruments would enable both probes to essentially function like weather satellites in interstellar space, sensing the environment they're traveling through, Dodd said.

VOYAGER 1

LET'S KEEP K2MST ON THE AIR!

As part of RAGS outreach to the youth and potential new hams of the CNY area, RAGS is trying to keep the M.O.S.T. ham station (K2MST) in operation each week during its Thursday to Sunday hours of operation. K2MST is a very nice station with HF and VHF/UHF capabilities. It is easily seen and heard by visitors and is a great way to expose youth and their parents to the excitement of Amateur Radio.

Operators must complete a volunteer applicant form and several RAGS members are capable of familiarizing new operators with the equipment.

Contact John, K2VTT or Jerry, NK2C for more info and an application form.

So far RAGS has a small team of volunteer operators who have committed some time each month to station operation. The station currently has HF capabilities utilizing an Icom IC-7300 (donated by RAGS) and a 40/20 dipole and a large Loop antenna. Operation on 10 thru 80M, (CW, SSB, and Data} is possible and the antennas are quite high. There also is VHF/UHF repeater capability and the MOST 443.15 is regularly tied to the East Coast Reflector. This is fun because stations check in from all over the world. Coming, pending rotor repair, is VHF/UHF utilizing an ICOM IC-9700.

RAGS SCHOLARSHIP APPLICATION
2026-2027

As in past years, RAGS is offering a Scholarship to a selected qualified applicant. This year, the scholarship award will be in the amount of $500. The applicant requirements are as follows:

- **Must be a current member of RAGS**
- **A high school level graduate holding a valid amateur radio license.**
- **Accepted at an accredited university, college, or technical school for the application year**
- **Or enrolled in a continuing education program for advanced study.**

Request an application form by sending a written request to RAGS, P.O. Box 88, Liverpool, NY 13088. The deadline for Completed Applications is May 29, 2026.

OPERATING ON THE LOW BANDS – 160M & 80M

Mark Haverstock, K8MSH

There are very good reasons why you should use the 160 and 80 meter bands. They are usually the least likely to fail under adverse propagation conditions. In times of regional disasters when a repeater is down, they can provide a reliable alternative. And both are suitable for NVIS (Near Vertical Incidence Skywave) mode propagation for local contacts. These bands provide the best coverage at nighttime. Signals on 160 and 80 meters make fairly rapid transitions around dawn and dusk. Signals between stations operating on 160 and 80 meters often exhibit a peak in signal strength when the easternmost stations are close to sunrise–this is known as the dawn enhancement. It's a good time for stations to be on the air and take advantage of the stronger signals and chase DX.

160 Meters In the early days of radio, it was believed that anything above 200 meters was unusable, so amateurs were allowed to experiment with the leftover frequencies nobody wanted. Amateurs began with frequency allocations from 200 meters to 150 meters (1.5 MHz to 2 MHz). To accommodate the growing number of AM broadcast stations and other services, the 160 meter band was eventually changed to 1.8 to 2.0 MHz.

Known as "top band," 160 meters is usually considered part of the HF bands and is the lowest frequency band commonly in use by amateurs, though it's technically an MF (medium frequency) band. Most modern HF radios cover 160 meters, providing hams with an introduction to the band.

It's also known as "The Gentleman's Band" for a good reason. The QSOs are casual and people generally treat each other with respect. If you want to hear what amateur radio was like years ago, give it a try. You'll experience less crowding and better manners.

The primary reason you won't hear much traffic on 160 meters is due to antenna requirements. A 160 meter vertical is huge at 123 feet tall; an inverted V or dipole is massive at 246 feet long. Not all amateurs have enough real estate to accommodate them. But there's good news–you can fit a full-sized 160 meter antenna in a small 100 x 60 foot lot without loading coils or complicated matching systems. An inverted L is a solution that has a relatively small footprint and works well with a few radials. Also, **DX Engineering's 160 Meter Thunderbolt Vertical Antenna**, which comes with a custom-designed capacity hat system, checks in at only 55 feet.

At night, when the D-layer in the ionosphere disappears, communication distances increase and it may be possible to hear stations several hundred or more miles away. Grey line, the area where night and day meet, is important to propagation on 160 meters. Grey line is also known as the terminator. Stations in this grey line zone have an increased chance of making long-distance QSOs, especially if the other station is also in a grey line zone. Ducting, where the signal propagates along the ionosphere rather than repeated hops between ground and the F-layer, appears to be another contributor to long-distance propagation on 160 meters.

The 160 meter band utilizes lower sideband (LSB) for voice and includes all the other popular modes like CW and digital (see Table 1 at end of aticle). It's a regional band with good ground wave coverage for nearby contacts, but under the right conditions it can open up. If you're only interested in local QSOs (rag-chewing, nets, etc.), then 160 meters is good just about anytime. If you want to work DX on 160 meters, some persistence, time, and effort are required. An amplifier also helps.

Unlike the higher HF bands, long-distance propagation for this band is often better around sunspot minimum when solar activity is low and noise levels are lower. As a general rule, the probability of long-distance contacts improves in winter because of the longer hours of darkness and lower levels of static. December through March is prime time for this band. It's also when the 160 meter contests are scheduled.

80 Meters Because 160 meters is relatively close in frequency to 80 meters, you would assume the two would have very similar propagation characteristics. But there are some significant differences in coverage. During the day, stations up to a few hundred miles away can be heard, making 80 meters a better choice for medium- distance contacts than 160. At night, you can pull in ham radio stations from distances of 1,000

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Public Service & Emergency Preparedness News

Our next EVENT IS the St. Patrick's Day Parade in downtown Syracuse on March 14, 2026. We need volunteers for this event. Please email Walt, n2ikwkb@gmail.com or Andriy, kd2kub@proton.me or sign-up on the website, www.ragsclub.org.

To join the P/S gang, you can sign-up online on the Rags website, www.ragsclub.org or you can give Walt, n2ikwkb@gmail.com, or Andriy, kd2kub@gmail.com a shout and volunteer!

73, Walt, N2IK
Public Service Chair

The **ARES/RACES** Group is beginning a new monthly repeater net for all to learn net control protocols. It is planned for the 3rd Thursday of every month at 7P. The next net will be March 19 on the 146.775 repeater. Please check-in and join in the learning process!

Hams Help Forecasters with Real-Time Data on Northeast Blizzard *02/27/2026*

A severe blizzard left its mark on Southeast New England with massive amounts of snow, vehicles and even plows getting stuck, damaging winds gusts to hurricane force causing ~350,000 customers to lose power in MA and RI, and some coastal flooding issues at high tide. The blizzard broke Rhode Island's state record for snowfall with 37.8 inches of snow in Providence. ARES SKYWARN Nets across southern New England were activated with the WX1BOX amateur radio team to support the National Weather Service (NWS) Boston Norton office, as well as local and state emergency management and broadcast media, with timely updates on the storm.

ARES-SKYWARN nets activated on an every 1-2 hour basis providing snowfall, wind gust, wind damage and coastal flood reports. The nets were very active with great participation, allowing a comprehensive situational awareness. We also interacted with many non-amateur radio SKYWARN spotters via social media. Reports of snowfall as high as 43 inches in Tiverton, Rhode Island, and 41 inches in Fall River, Massachusetts, were received from SKYWARN spotters. New Bedford, MA recorded 37 inches of snow. Amateur Radio SKYWARN Nets were active on over a dozen repeaters across southern New England.

SUPPORT YOUR LOCAL CLUBS

LARC

Liverpool Amateur Repeater Club
4th Thursday of each month – 7P
N. Syracuse Community Center
700 South Bay Rd, N. Syracuse

QCWA

Quarter Century Wireless Assoc.
Last Friday of each month – 10A
Denny's Restaurant, 6591 Thompson Rd, Syracuse, NY 13206
ALL ARE WELCOME

Yay!!! - Upcoming Hamfests – Yay!!!!

- **Flea at RPI – 03/21**
- **Bull Thistle – 04/11**
- **Drumlins – 04/18**
- **RAGS – 07/11/26**

Nets Of Note

OCTEN Traffic Net - Nightly at 8:00P
Oneida 145.17- MHz, Auburn 147.00, Syracuse 147.30

CNY Amateur Radio Swap and Information Net
Weekly, Wednesdays at 7:00PM
Auburn 147.00 +, 71.9 tone Cortland 147.225 +, 71.9 tone
Remsen 145.33 -, 71.9 tone Ithaca 146.97 -, 103.5 tone
Lafayette 145.15 -, 123.0 tone Syracuse 53.67 -, 103.5 tone

Rock City Net - Weekly, Wednesdays @ 8P
3.986, SSB

RAGS Chat Net – Sunday Nights at 7:00PM
75 Meters - 3.986 MHz – LSB

CNY Fireside Chat Net
Weekly, Monday, 7P 146.670 -, 103.5 tone

CNY Information Net
Weekly, Monday, 8P 146.670-, 103.5 tone

QCWA Social Net
Weekly, Tuesday, 7:00P, 53.050-, 71.9 tone
(linked to 53.67 -, tone 103.5)

220 VHF Net
Weekly, Friday, 7P 224.12-, 103.5 tone

Easy-Pal Digital Slow Scan
Weekly - Saturday Nites 146.67-, 103.5 tone
Daily – 3.857 HF
Note that 147.390 is an ECHOLINK Repeater

General Ham Info
www.upstateham.com and www.kd2sl.com

ST. PATRICK'S DAY!!!

Irish Whiskey Float

Kitchen Corner by Rita Colson, KC2GFT

1 scoop vanilla ice cream
1 c cola
1 ounce whiskey

Place ice cream in a tall glass; top with cola and whiskey. Serve immediately.

Corned Beef & Cabbage Casserole

4 c chopped cabbage
1 c sliced celery
½ c chopped onion
¼ c butter
8 oz mostaccioli noodles (cooked & drained)
1 can corned beef (crumbled)
½ c milk
½ tsp dry mustard
½ tsp caraway seed
1/8 tsp pepper
1 c (4oz) shredded Swiss cheese

Preheat oven to 350. Saute' cabbage, celery & onion in butter. Add remaining ingredients and mix well. Spoon into a 2 qt casserole. Cover and bake 45 – 50 mins.

Corned Beef Hash

3 lbs cooked & cooled corned beef brisket
3 c potatoes, boiled & diced
1 c diced onion
½ tsp salt
1 tsp pepper

Dice the corned beef into small pieces. Mix together the potatoes, meat, onion, salt & pepper. Place mixture into roasting pan. Bake at 350 For 30 mins or until brown.

miles or more. Greater distances can be achieved with good antennas and higher transmitting power. The 80 meter band opens up during the years of the sunspot minimum, but it can perform well at anytime.

The 80 meter band has numerous evening nets operating on LSB. It's also very popular for rag-chewing. If chatting with other hams in the evening for an hour or two interests you, check out 80 meters. However, be aware that you'll sometimes run across some loose cannons and LIDS (rude operators)–it's best to avoid them.

There's plenty of room for other modes, given that the total amount of spectrum space is more than double that of 160 meters at 500 KHz. You'll find digital, CW, RTTY, SSTV, and AM (see Table 1). With dipole antenna sizes around 125 feet in length, this is often the lowest band on which many amateurs choose to operate.

As far as 80 meter propagation along the grey line, you can achieve good results when contacting stations from the other side of the globe, with signal strengths rivaling those of many local stations. However, this can be short-lived and selective in terms of location. Grey line propagation tends to be best during spring and autumn on 80 meters.

QRN: **Good News/Bad News**

In general, 160 and 80 meters are best at night–a viable alternative to other HF frequencies 15 meters and above following sunset. However, they sometimes suffer from interference.

There are two sources of noise that make receiving difficult: man-made and atmospheric. The primary problem is thunderstorm activity, which can make copying signals a challenge. Lightning creates radio noise that is reflected off the ionosphere just like regular radio signals. However, the good news is thunderstorm activity drops off during the winter, allowing good 160 and 80 meter operating conditions.

The combination of day/night, summer/winter, and sunspot cycle variations keeps HF operation on 160 and 80 meters interesting. You may be surprised at what you'll find when you tune across these bands.

When All Else Fails!

CLUB INFORMATION

CLUB CALL SIGN: W2AE

Website:
www.ragsclub.org

Mailing Address:
Box 88, Liverpool, NY 13088

Meetings:
2nd Thursday of month from Sept. to June

President	>> John Perkins	>> k2VTT	>> 315-399-8175 >>	
Vice President	>> Mark Sloan	>> KD2YVB	>> 315-415-7789 >>	
Vice President	>> Doug Falcon	>> N2JOM	>> 315- 677-5124 >>	
Secretary	>> Jeff Plumb	>> KD2CPT	>> 315-755-8964 >>	Common email for all
Treasurer	>> Jerry Wright	>> NK2C	>> 315-488-5383 >>	
Hamfest Contact	>> Jerry Wright	>> NK2C	>> 315-727-2762 >>	is auto forwarded to each
Public Service	>> Walt Bordett	>> N2IK	>> 315-445-8161 >>	Officer and Committee Head
Health and Welfare	>> Jerry Wright	>>NK2C	>> 315-488-5383 >>	
Field Day	>> Dave Rice	>> KC2HO	>> 315-469-6009 >>	**w2aerags@gmail.com**
Membership	>> Jerry Wright	>> NK2C	>> 315-488-5383 >>	
Newsletter Editor	>> Jerry Wright	>> NK2C	>> 315-488-5383 >>	
Webmaster	>> OPEN	>>	>>	>>
Historian	>> OPEN	>>	>>	>>
Nominating Chairman	>> Mark Eckert	>> K2MTE	>> 315-672-5605 >>	

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About Us
RAGS Review is our official newsletter.
We are a non-profit organization incorporated by NYS in 1975.
Dues are payable yearly on April 1st
To join or renew, membership applications are available at meetings and online.

NEXT MEETING:
MAR 12, 2026 @ 7P

RAGS
PO Box 88
Liverpool, NY
13088