TARC Communicator

Official Publication of the Titusville Amateur Radio Club

WWW.K4KSC.COM

"Titusville Amateur Radio Club's purpose is to conduct our Club programs and activities to help advance the general interest and welfare of amateur radio in our area communities."

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Inside this issue:

TARC Septemeber SITREP

Amateur radio continues to remains a vital hobby and public service, especially with rising interest in emergency communications amid climate events, digital integration and youth STEM engagement. Growing volunteer organizations like our club, ARES groups, or voice nets requires a mix of recruitment, retention, and community impact. After reviewing ARRL resources, club leader insights, and recent online discussion groups, here are some strategies we might explore that are tailored to today's landscape.

Focus on hybrid (in-person/ digital) approaches to appeal to diverse ages and tech-savvy newcomers.

Build a welcoming, inclusive culture by having a friendly entry point. Invite folks to low-pressure social gatherings to reduce intimidation for newcomers. Emphasize mentorship—pair new hams with experienced operators for one-on-one QSOs.

Foster belonging with "bring a friend" events or buddy systems where volunteers share stories of real-world impact, like supporting disaster response. This builds emotional ties, turning one-time visitors into regulars.

Recruit actively through targeted outreach programs and leverage schools and youth programs. Partner with STEM curricula or makerspaces for license prep classes. Tie into ARRL's Teacher Ambassador Program or integrate with local robotics clubs—data shows school-based initiatives can boost membership by 20-30%. Offer free gear loans or Fox Hunts to generate interest.

One thing that we might start with is for someone to step up into a new membership coordiniator role to help focus our efforts on getting the world out to our community.

Is there anyone within sight of these words that might be willing to step into that role? Please step forward!

73,

Planning Ahead for 2026 Amateur Radio Events and Gatherings

By Paul Fee N6PDF

If you're anything like me, there's nothing quite like the buzz of an amateur radio event—swapping gear, geeking out over antennas, and making new QSOs with folks from all over. With 2026 just around the corner, Florida's ham scene is shaping up to be epic.

The Sunshine State is calling all operators for some can't-miss gatherings. Let's have a quick chat about what's popping up in the coming months.

Kicking things off early is the Southwest Florida Regional Hamfest on January 16-17 in Fort Myers. Hosted by the Fort Myers Amateur Radio Club at Florida SouthWestern State College, this ARRL Southern Florida Section Convention is just the spot for vendors, forums, flea markets, and free radio programming sessions. Perfect for southwest coasters looking to kickstart the year with some hands-on tech talk.

Winter Field Day is January 24th-25th and promises to be a big kick off to the new contesting year. We will be looking for a coordinator and volunteers to sign up for this popular event.

Then, bam—February brings the big leagues with HamCation 2026 in Orlando, February 13-15 at the Central Florida Fairgrounds. This ARRL Southeastern Division Convention is a ham paradise: exhibits, tailgating, RV spots, and even family-friendly vibes since it's near Disney. Expect thousands of attendees haggling over rigs and attending workshops. Tickets are already going fast—grab yours online!

Spring heats up with the PARC Hamfest from the Playground Amateur Radio Club, tentatively March 20-21 in Vero Beach. It's a cozy, community-driven affair with swaps and club chats—ideal for East Coast hams.

Don't sleep on the classics, either: The Florida QSO Party in April (dates TBD) lets you work the state from your shack or portable setup, and ARRL Field Day in late June is always a nation-wide frenzy of radio operations. Be planning ahead for this big operation.

The 2026 lineup of Amateur Radio events promises connections, deals, and that electric radio magic.

Dust off your call sign, check www.k4ksc.com for updates, and let's make some memories on the air and off!

Who was Hiram Percy Maxim, and why should Hams care?

Hiram Percy Maxim, born on September 2, 1869, in Brooklyn, New York, emerged from a lineage of innovation as the son of Sir Hiram Stevens Maxim, the renowned inventor of the Maxim machine gun. Raised in a family steeped in mechanical ingenuity—his uncle Hudson Maxim advanced explosives technology—young Hiram displayed prodigious talent early on. By age 17, he graduated from the Massachusetts Institute of Technology in 1886 with a degree in mechanical engineering, launching a career that spanned automobiles, firearms, and ultimately, transformative contributions to radio.

Maxim's early endeavors reflected the industrial ferment of the Gilded Age. In the 1890s, he tinkered with internal combustion engines at the American Projectile Company, later joining Pope Manufacturing to pioneer electric and gasoline vehicles. His Columbia racer clinched victory in America's first closed-circuit auto race in 1899, cementing his automotive legacy. Yet, it was his 1909 patent for the Maxim Silencer—a device muffling firearm reports using baffles—that garnered commercial acclaim, extending to engine exhaust systems and influencing modern noise suppression.

Married to Josephine Hamilton in 1898, Maxim balanced family life with relentless invention, fathering Hiram Hamilton Maxim and Percy Maxim Lee, the latter a prominent civic leader.

Maxim's pivot to radio in the early 1910s marked his most enduring impact. Fascinated by wireless telegraphy amid growing amateur experimentation, he recognized the medium's potential for long-distance communication. In 1914, alongside Clarence D. Tuska, he co-founded the American Radio Relay League (ARRL) in Hartford, Connecticut, to coordinate "relay" networks of amateur stations, amplifying messages across vast distances where single transmitters faltered. Dubbed the "Father of Amateur Radio," Maxim's organizational genius fostered a global community, with his iconic rotary spark-gap transmitter, "Old Betsy," symbolizing early ham ingenuity—now enshrined at ARRL headquarters under his call sign W1AW.

World War I tested this nascent hobby, as government restrictions silenced amateurs. Undeterred, Maxim lobbied vigorously, contributing to House Resolution 217 in 1918, which lifted bans and revived the field. In his later years, he championed spectrum access, instrumental in unlocking shortwave and ultra-shortwave bands for hobbyists, enabling transoceanic links and advancing broadcast technology. Hiram Percy Maxim died on February 17, 1936, en route to Arizona's Lowell Observatory, at age 66.

Meshtastic - Can it be a viable backup communications method?

In an era of fragile infrastructure, off-grid communications demand resilience without complexity. Meshtastic, an open-source firmware platform for LoRa radios, emerges as a compelling solution, enabling decentralized mesh networks for text messaging, GPS sharing, and sensor data transmission. By leveraging low-power wide-area networking (LPWAN) via LoRa modulation, devices relay packets hop-by-hop, extending coverage dynamically without cellular towers or satellites.

Technically, Meshtastic runs on affordable ESP32 or RAK-based hardware, costing $30–$70 per node, with no licensing required in most jurisdictions. Typical ranges span 1–10 km in urban settings and up to 30 km line-of-sight, with a verified ground record of 331 km under optimal conditions. Power efficiency shines: nodes sip milliamps in sleep mode, supporting weeks on a single lithium battery or indefinite runtime with solar integration. End-to-end AES-256 encryption ensures secure, private channels, mitigating interception risks in contested environments.

For off-grid scenarios—hiking expeditions, disaster response, or rural deployments—Meshtastic excels in affordability and simplicity. Recent 2025 innovations, like the Heltec MeshPocket for plug-and-play setups and the T1000-E for rugged endurance, have broadened adoption among emergency responders and festival organizers. Its mesh topology self-heals around node failures, fostering community-scale networks.

Limitations persist: data rates cap at ~500 bps, restricting use to terse texts; terrain and node density dictate efficacy; and large meshes risk congestion without smart routing tweaks. Voice or high-bandwidth needs demand hybrids like satellite backups.

Ultimately, Meshtastic is viable for low-data, resilient off-grid ops, democratizing connectivity for preppers and professionals alike, solidifying a niche in tactical comms.

More Weather Satellite Data from Steve NA34SA

I mentioned last month that all of the U.S. polar orbiting weather satellites transmitting in the VHF band have been decommissioned, but the Russian Meteor satellites continue to operate in that band.

After some antenna modifications, I've been able to receive clean images from both Meteor M2-3 and M2-4. I've added a reflector below the v-dipole antenna. This eliminates the deep nulls in the antenna pattern that result from elevating the antenna more than about .5 meters above ground.

The image shown is from Meteor M2-4 on September 22. Florida and Cuba are on the left and the eye of Hurricane Gabrielle is just visible on the right. I did a presentation on my system at the September club meeting.

If you want to view the complete presentation, it's posted on the Club website at http://k4ksc.com/wesat-presentation.pdf.

Feel free to contact me if you have questions.

73,

Steve, NA4SA

Meteor M2-4 on Sept 22, 2025

Ham Radio Population Rising or Falling?

The amateur radio population in the United States has experienced fluctuating trends in recent years, with evidence suggesting a slow decline overall. According to the American Radio Relay League (ARRL), the number of licensed amateur radio operators peaked at around 750,000 in the early 2010s but has since hovered around 700,000. This slight decrease is attributed to an aging demographic, with many older operators passing away or becoming inactive, outpacing new licensees. However, there are signs of resilience. The hobby has seen renewed interest among younger generations, driven by emergency communication needs, STEM education, and the rise of digital modes like FT8, which appeal to tech-savvy individuals. Clubs and organizations actively promote licensing through classes and outreach, particularly targeting students and preppers. Despite these efforts, challenges like urban antenna restrictions and competition from modern communication technologies hinder growth. While precise data for 2025 is unavailable, recent discussions indicate steady licensing activity but no significant surge. The amateur radio community is likely stabilizing rather than growing for now, but it could grow soon! .

Florida Homeowners Associations and Amateur Radio

Florida House Bill 1203 (HB 1203), signed by Governor Ron DeSantis on May 31, 2024, and effective July 1, 2024, makes several reforms to the Homeowners' Association Act (Florida Statutes Chapter 720).

HB 1203 does not explicitly reference amateur radio antennas or equipment. However, its reinforcement of the "any items" protection indirectly affects HOAs' ability to prevent their installation in limited scenarios: "If the antenna is not visible" from the frontage, adjacent parcels, common areas, or golf course, the HOA "cannot prohibit, fine, or enforce rules against" its installation, display, or storage. This was already true under the pre-2024 law, but the bill's expanded examples may help clarify judicial interpretations by signaling legislative intent to broadly protect personal property uses.

- "If the antenna is visible** from those areas, HOAs "can still restrict or prevent" it through their governing documents, covenants, or architectural review processes, as § 720.3045 does not apply. Florida has no state law specifically preempting HOA restrictions on amateur radio antennas.

In summary, HB 1203 slightly strengthens homeowners' rights by broadening examples of protected non-visible items, potentially making it easier to argue for discreet amateur radio setups. But it does not fundamentally alter HOAs' broad authority to

Florida HOA Rules, Continued

ban visible antennas. Homeowners challenging restrictions should consult the full statute, their HOA documents, and legal counsel, as violations could still trigger fines (now capped at $100 per day/$1,000 total under other HB 1203 provisions, with stricter notice requirements).

For the full enrolled bill text, see [Florida Senate archives](https://www.flsenate.gov/Session/Bill/2024/1203/BillText/er/PDF). Updated statute: [§ 720.3045, F.S.](https://www.flsenate.gov/Laws/Statutes/2025/0720.3045).

Project Pictures for your Enjoyment!

Dave AD6Q high atop Titusville Towers where we were inspecting the repeater antenna and testing the meshtastic system. Quite a view from up there!

Does PVC electrical conduit make a good antenna radome? You betcha!

President
Paul Fee ~ N6PDF
(321) 264-8985 Cell/TXT
president@k4ksc.com

Vice President
Keith DeSoto ~ KN4AQJ
vice.president@k4ksc.com

Secretary
Stephanie Merritt ~ K4MVO
spmerrittflorida@yahoo.com

Treasurer
Steve Schindler ~ NA4SA
treasurer@k4ksc.com

TARC General Membership Meeting 09/23/2025 Minutes
Masonic Lodge, 19N Washington Ave., Titusville FL

Club President Paul, N6PDF, welcomed everyone and called the meeting to order at 7:00 pm; followed by Vice -President Keith, KN4AQJ, led us in the Pledge of Allegiance. Attendees and members introduced themselves; and President, N6PDF established that we had a Quorum.

A Motion was made, seconded, and unanimously approved to accept the Meeting Minutes for 8/26/2025, as published and distributed in the August newsletter and a motion was made, seconded, and unanimously approved to accept the Treasurer's Report as read by our Treasurer, Steve, NA4SA.

President, N6PDF, announced/reminded us of our Weekly Net Times and Net Controls as published in our Monthly Newsletter.

Repeater Trustee, Dave, KY4F, stated that the TARC Repeater 146.970, has a directional (to the south) receive issue/problem that needs to be investigated; and other repeaters are functioning properly. Paul, N6PDF, stated that a work party will be formed when the weather cools.

The following Old/Unfinished Business will be discussed next month – all are currently in the ongoing status: New club By-Laws, 501 (c) (3) Application; and Mission Statement and Club Future survey.

Our Guest Speaker was Member, Steve, NA4SA, who gave an informative presentation about SatDump Software and Weather Satellite information. He also showed us his 'homebrew' antenna he uses for receiving the signals and showed us some graphic weather images received over his system.

The following New Business was discussed:

a. It had been previously approved by the BoD to spend an additional $34.00, for Electricity for the Annual Mosquito Net TailGate event at Fox Lake Park on March 28, 2026.

b. Our Traditional Pot Luck Dinner is confirmed for our October meeting and will start one hour earlier at 6:00 pm, Stephanie, K4MVO, passed around a sign-up sheet for Side Dishes and Number of Participants. She added that she will call members to remind them of this fun and enjoyable social get together where TARC Provides the Main Course/Meat.

c. A Motion was made, seconded, and Unanimously Approved to participate in the upcoming Melbourne PCARS HamFest and ARRL State Convention, by purchasing a $40.00, Indoor Table. POC is Greg Hand, KK4LWB. Stephanie, K4MVO, offered to be there the entire day on Friday, October 10, 2025.

d. Our annual Christmas Party has been set for Thursday Dec 11th at 6:00 PM, at Dixie Crossroads. Stephanie, K4MVO, offered to be the POC for the Decorating Committee who will decorate the room at 5:30 PM. There will be a canned goods collection for area Food Pantries, and we will again have a fun gift exchange. $1.00 Tickets will be for 'reserving' participation/headcount, and party favors/door prizes.

e. As a response to Paul's call for membership input, ideas, items of interest, and discussion, Keith presented his Channel Master FM Filter for a show and tell. And Paul added an update to the MeshTastic Node at the Titusville Towers.

Our Meeting was Adjourned at 7:50 PM.

The AA4HP Radio Sport Club, Inc. sponsored the 50/50 Raffle. The winner was Jay, KB4B, for $30.00, who donated it back to the Club. Stephanie, K4MVO, also raffled off door prizes provided by the AA4HP Radio Sport Club, Inc., and a lively social time followed.

Respectfully submitted by
TARC Secretary, Stephanie Merritt, K4MVO

Weekly On-the-Air Nets

Name	Frequency	Day	Time	Net Control
2 Meter SSB Net	144.210 MHz USB	Monday	7:00 PM	George WG4ES
Skywarn Net	146.970 MHz	Tuesday	7:00 PM	Barry N4NMF
Mosquito Net	28.333 MHz USB	Wednesday	7:00 PM	George WG4ES
Friendship/Traders Net	146.970 MHz	Thursday	7:00 PM	Keith KN4AQJ

TARC 2025 Christmas Party!

We are confirmed for Thursday, Dec 11 2025 for our Christmas Party 6 PM at Dixie Crossroads!!

Mark your Calendars!!!