



Club Elections & Kit Development Workshop/ Mike Riley KN4OAK

You may be thinking "Club Elections & Kit Development Workshop.... How can they be related?" Well, there's a straight forward answer; it's October.

This may be a trivial matter to some, but as of our October club meeting date there will 73 days remaining in 2021. Eighty percent of calendar year 2021 will have passed by as of the meeting time! Will you be ready for four key events coming in the next 90 or so days? Who's going to help lead the club to its successes in 2022? What are we going to do at Stone Mountain Hamfest 2021? What about HamJam 2021? How about TechFest 2022?

So... here are some things we as a club can do to ensure our time has a chance of being considered as being effectively utilized between now and the end of beginning of next:

- Club officer elections
- HamJam 2021 Ticket sales at Stone Mountain Hamfest
- HamJam 2021!
- TechFest 2022 event planning & staging

Why?

- HamJam takes place of November club meeting
- December traditionally is when we hold our Christmas Holiday event
- TechFest is planned for January. Club leaders need to be getting the club members 2022 expectations organized so club members can participate and enjoy in upcoming calendar events.
- Most of all, your contributions towards making all our events a success are what makes this a great club to be associated with!

So, at our October 2021 meeting, the Nominating Committee will report its slate recommendations, any nominations from the floor will be heard, candidates will provide a brief synopsis of why they fit the nominated position recommendations and voting will occur. The annual election is an important part of our club operations. We sincerely hope you are able to join us for this event.

Once the business update and elections are completed, we'll move to begin three activities: Resistor Colour Wheel fabrication (HamJam ticket sales tchotchke), CPO Kit packaging, and development of the proposed TechFest clock kit assembly instructions. These will be run

(Continued on page 2)

Club Elections & Kit Development Workshop/ (continued)

simultaneously. You can participate in any or all of the three to help us get ready for Hamfest, HamJam, and TechFest. We'll also have a signup sheet for selling HamJam tickets at Stone Mountain Hamfest (tables and floor walkers).

Join us Tuesday evening October 19, 2021 at Preston Ridge Community Center, 3655 Preston Ridge Road Suite 100, Alpharetta, GA 30005.

- Doors open at 6:30 PM EDT.
- Social gathering from 7-7:30 PM.
- Meeting begins at 7:30 PM starting with our greeting and business update.

Join Zoom Meeting

<https://us06web.zoom.us/j/87659197924?pwd=QW5DMGt4ZDFIRm9CNEZzOTZBRUFWdz09>

Meeting ID: 876 5919 7924

Passcode: 404166

One tap mobile

+19292056099,,87659197924#,,,,*404166# US (New York)

+13017158592,,87659197924#,,,,*404166# US (Washington DC)

President's Corner / John Norris, N4IHV

It is now October 2021 and the first thing that comes to mind is Autumn Reflections. What a great time of the year watching all the fall colors with the leaves changing. It always reminds me how designs work. They are like the seasons, ever changing with new concepts. That is one of the things that keeps Ham Radio alive and well. Where nature sees new colors, we see new designs which brings on the birth of new ideas.

As you remember, this is always the month for "Trick or Treat". Electronic and software designs are true relatives of October. They trick you many times during the design process, but finally give you a treat if you don't give up. We have all traveled down this road while working on projects. NFARL has so many talented members involved in so many aspects of Ham Radio. Just come to our meetings and meet them and learn new things from each other. It is so important to participate in person and experience the excitement of learning as I have from each club meeting.

Don't forget that October is the month that the NFARL elects new officers. Come to the meeting to insure you elect the members you desire in the various positions. The Nominating committee will present their suggestions for each position.

Speaking of treats, we have received many wonderful prizes for HamJam(November 13, 2021). Tickets are available on our web site now. Don't miss the opportunity to hear good speakers, talk with other hams from our club and others, and have the chance to win something special.

73,

John, NFARL President

N4IHV

2021 Nominating Committee Report / Bill Cobb, K4YJJ

The 2021 nominating committee members Steve Mays KS4KJ, Jim Paine N4SEC and Bill Cobb K4YJJ, met and selected a slate of club officers for 2022. These nominees were selected in accordance with the NFARL bylaws: all are members in good standing, all have been members for the past twelve months, all are active members, and all have agreed to serve for a twelve month term of office. Additionally, we feel all have made outstanding contributions to the club and will effectively manage the club during the upcoming twelve months.

Elections for the 2022 club officers will take place at our October meeting on Tuesday, October 19, 2021. The election process will conform to section 3.30 in the current NFARL Bylaws. You can review the bylaws on the website at http://nfarl.org/bylaws/NFARL_ByLaws_Rev_6.3b_May_18_2021.pdf prior to the meeting.

Following are the 2021 Nominations Committee nominations for 2022 Officers within North Fulton Amateur Radio League:

- President John Norris, N4IHV
- Vice President Mike Riley, KN4OAK
- Secretary Martha Muir, W4MSA
- Treasurer John Tramontanis, N4TOL
- Activities Chairman Steve Randall, KO4VW
- Membership Chairman Wes Lamboley, W3WL

HamJam in a Nutshell / Wes Lamboley, W3WL

YOU DO NOT WANT TO MISS THIS EVENT!

Time - November 13, 2021 8:30 AM to 1:00 PM

Place - The Metropolitan Club, Alpharetta, GA

Admission - FREE

Speakers - Theme - "What's New and Coming in Ham Radio"

Jack McElroy —KM4ZIA, and Audrey McElroy—KM4BUN, on the technologies behind around -the-world balloons carrying ham telemetry. A balloon will be launched at HamJam.

Greg Marco —W6IZT, on the "Ultimate KW Rig In a Box."

Stephan Hicks —N5AC, on "New Technologies and their effect on Ham Radio".

Prizes - Over \$5000.00 value so far!

Door Prize - SDR PLAY RSP1A (\$100.00 value)

Raffle Tickets - Available on-line or at the door. All proceeds go for Youth Education, Scholarships and Activities. You do not need to be present to win!

Please go to our website <http://hamjam.info> for all the details!!

Trouble Above - Pulley Below

Last month I wrote about some of the dangerous ham-radio-related things I've done over the past 60 years. One topic in that column might have left a wrong impression however, so a few additional words are necessary. The topic is the dangers associated with tower work.

I suggested equipping oneself as the professionals do. Professionals use a hard hat, safety belt, steel-toed work boots, gloves, a fall arrester, a secondary tie-off rope, a deep tool bag, an assistant, training and experience. I asked: "What hams among us actually do all this?" I'm afraid we all know the answer to that question. Most of us do some of it; nearly none of us do all of it.

What was not mentioned last month is that professionals, using all the personal protection equipment listed above together with best-practice safety procedures and tower equipment, still find themselves in trouble from time to time. How much trouble? Commercial tower deaths average 10 per year. (Source: Wirelessestimator.com)

This column is not the place for a complete discussion of tower safety. There are books on the subject. But there is one specific hazard I'd like to address. One that's important, typically ignored and can be avoided. The hazard I'm referring to is the hazard to the ground crew from things occurring above them. Standing at or near the base of a tower is dangerous and unnecessary. Things fall. Hard hats offer limited protection for the head and no protection for the shoulders. Things as small as nuts and bolts pose risk when falling from significant heights. Heavier things can have fatal consequences.

Here is the story of a tower incident that occurred at my friend Jim Garrett's (WB4VVF*) QTH in the 1970s. It's relevant today; the basics never change. Jim was into DXing and owned a 125 foot tower at that time. The 1970s saw the advent of two-meter repeaters and DX clubs saw those as "the new thing" to pass spotting information. Jim graciously volunteered the top of his tower for the Central Florida DX Association's (CFDXA) first repeater. Jim was installing the CFDXA repeater antenna above his TH6DXX HF antenna when the later broke free and fell 125 feet. Jim was uninjured but he did have a bird's eye view of the disaster unfolding below him.

I don't recall what caused WB4VVF's large tribander to break free but I clearly remember N4SA (sk) and I were the ground crew and standing near the base of the tower. Also, I don't recall what our first indication of trouble was. One of us might have been watching the top of the tower (as we should) or perhaps we simply heard a loud snap or a bang. Either way, the 125 foot fall of the TH6DXX caught our attention and our time to react was at most a few seconds.

I grabbed N4SA by the arm and we dove for WB4VVF's open garage door. The tribander wound up a tangled wreck, partly on Jim's driveway and partly on the roof of the garage. We were lucky. Jim was lucky too. Even though the beam fell from just below him, it did what large beams on tall towers always do. It scraped and bounced off the guy wires on the way down. Towers sometimes fail under such circumstances. Jim got quite a ride at the top. Heavy objects banging off guy wires will make the top of a tower jerk and sway, sometimes violently. Jim was saved by his safety belt and the fact that the tower guying system had a lot of margin.

Anyone who has ever had the task of installing a large beam on a tall tower knows one of the fundamental problems is getting the beam around guy wires on the way up. There are various methods for doing it, including using a tram system, assembling the beam at the top of the tower or simply snaking the beam through the guy wires with carabineers, ropes and an

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alert ground crew. Cranes and helicopters occasionally come into play as well. All of those methods imply, hopefully, that the beam and ancillary tools and hardware are always under control as the beam moves up the tower. That's not always the case, of course, and antennas do break loose on the way up. Assembling antennas at the top of the tower, or at least above the highest set of guy wires, is a recipe for everything from nuts and bolts to boom sections falling.

In my experience falling antennas and antenna parts often occur on their way up a tower, precipitated by mechanical problems occurring anywhere from just above the antenna to the top of the tower. Pulleys break, shackles break, gin poles fail, carabineers slide and ropes break. Sometimes this is at installation, other times it's when tower work requires the temporary loosening of bolts and other mechanical changes while adding or changing antennas and feedlines.

Such a failure is available to watch on YouTube. Search for "Seven die in TV tower collapse." Warning: It can be hard to watch. The incident occurred on the 1750 foot KTXH tower in Missouri City, Texas. The precipitating failure was a U-bolt securing a pulley breaking well above the antenna. What can clearly be seen at the 2:45 mark, and again at 3:38 is the antenna system riding down a guy wire. Out-of-control antennas riding down guy wires send up what looks like white smoke. It's the galvanizing and oxidation on the guy wires being scraped off. The white smoke is accompanied by grinding and scraping noises. I witnessed the white smoke and the sound when WB4VVF's TH6DXX fell. Once seen and/or heard it's not forgotten. The beginning of the YouTube video shows the ground crew lollygagging (a non-technical term) around at the base of the tower in violation of established safety procedures and common sense.

Once a heavy load is bouncing and riding guy wires during an uncontrolled fall, there is a high risk of tower failure. The falling antenna system at KTXH weighed tons. The antenna system broke two four-inch diameter guy wires on the way down and the tower fell. Three of the deceased were on the antenna, but the four others who perished were the ground crew near the base of the tower. They did not need to be there. The short answer to how this could have been prevented was to add a 90 degree pulley at the base of the tower. I will cover the approach below. Such a pulley could have saved lives.

Wheeeee! I'm on a Boson's chair! I've seen ham radio tower "climbers" use Boson's chairs and to me they are enigmatic and unsafe. For those unfamiliar with a Boson's chair, it's often no more than a plank of wood, a bridle and a rope to a pulley at the top of the tower. Someone or something (I've seen lawn tractors used) pulls you up. It takes 15 to 20 minutes to climb a 100 foot tower safely. You can reach the top of a 100 foot tower in 30 seconds riding a Boson's chair.

Here is the enigma. Getting to the top in 30 seconds requires being attached at only one place. The climber is attached to the tower at the top via the pulley and the shackle securing it and nowhere else. This violates the cardinal rule of always being attached twice. Meanwhile, you can go up a tower in a Boson's chair and move a safety line attachment up as you go along, but this negates the time savings. There is no way to do it quickly and safely - which taken in the abstract should come as no surprise. Fast and safe is an oxymoron.

There was a ham fatality last year when a pulley and/or shackle carrying the load of a Boson's chair failed at the top of a tower.

That's enough examples I think. Tower work is dangerous even when everything seems "just right." You can read about tower accidents all day on the internet. There is a common thread to the stories above. They were all caused by a failure at or near the top of the tower, presenting great peril to the ground crew.

Nothing associated with tower work is 100% safe.

Continued on next page-

Around the Shack / Trouble Above—Pulley Below -continued from Page 5

Beyond recounting tragedies, is there a point to this month's column? Yes, it's highlighting a simple practice involving a simple item that provides great protection to a ground crew. It's called a pulley.

Ground crew protection from falling items is surprisingly easy to mitigate. For this article most of Figure 1 can be ignored; I'd like to draw your attention to the item labeled "snatch block pulley" at the base of the tower. The figure is from the ARRL Handbook. The hauling line makes a 90 degree turn at the base of the tower, allowing the ground crew to be as safely far removed from the tower base as necessary. I first encountered this approach at K4JA, where there were five 205 foot towers and 14 Yagis each on 48 foot booms. Ninety degree pulleys were always used at the tower bases for ground crew protection. 90 degree pulleys at the base of towers also have a highly important secondary benefit. They allow the ground crew to clearly see what's happening at the top of the tower. You don't get this view looking straight up from the base of a tower.

Figure 2 shows how it's done. The photo is courtesy of Jim Idelson, K1IR. Notice how simple this is! Are you doing it? Every time? Why not?



Figure 2. Use of a shackle and pulley to perform a 90 degree bend at the tower base. Courtesy of K1IR. This is a best practice.

Figure 3 shows a product available for sale on eBay. I much prefer K1IR's approach. No pulley, for any purpose, should be used for tower work unless it comes with a rating. I wrote a few years ago about examining every single component in one's shack to aid in maximizing reliability. Nothing is more important than reliability in tower work. Take a good look at Figure 3 – this is a good object lesson in assessing "everything." What are we relying on? There are two bolts. Do they have tensile strength markings on the heads? I can't tell from the picture. There are four welds and two don't run the length of the seam they join. How good are those welds? What is the rating of the pulley and axle? I can't tell but it doesn't look robust and the advertising copy doesn't say. This pulley assembly might be sufficient to haul up a six meter

beam, or maybe not. Just by looking, I can tell it won't support a 4 element 40 meter Yagi on a 48 foot boom. Meanwhile, you can't rely on how it looks. I wouldn't buy it given the superiority K1IRs straightforward approach.

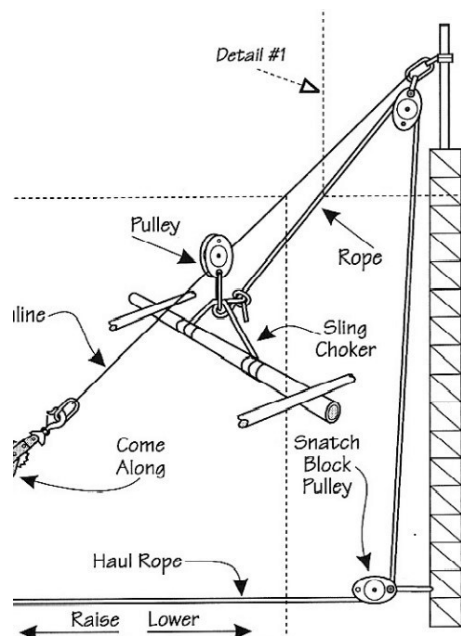


Figure 1. Use of a snatch block to provide the ground crew safe separation from the base of a tower and visibility of the top.



Figure 3. An eBay sourced 90 degree pulley sold without specifications of any kind. To be avoided!

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Safety to a large degree is about mitigation. Planning and acting in advance of what could go wrong. There are books written on the subject and research should be undertaken before a tower project is begun. Old-hand tower experts pack the 90-degree crew protection pulley right along with their safety belt. They don't leave home without one.

73,

Hal N4GG

* If you are an old-timer, the callsign WB4VVF might seem vaguely familiar. That callsign still belongs to Jim Garrett, the inventor of the WB4VVF Accu-Keyer. The Accu-Keyer was followed two years later by the Accu-Memory. Both were designed in the early 1970s. The articles for both are in the QST archives. Jim and I shared a cubicle at Martin Marietta at that time and I built Accu-Keyer S/N 001 to Jim's design. I still have it. Jim went on to sell over 10,000 Accu-Keyer PC boards. He used the profits to buy a new Corvette, which became known around Orlando as the Accu-Vette. Good times.

ARRL School Club Roundup / Mike Riley, KN4OAK

ARRL School Club Roundup Runs October 18-22, 2021

ARRL, The National Association for Amateur Radio® holds a number of radio sport contests during the year. One is held during two operating periods; February and October, identified as the ARRL/LIMARC School Club Roundup. While the focus is on school participation, non-school individuals and other clubs may participate. It's another great opportunity to foster youth participation in amateur radio! So, take advantage of it! See more information at the following links.

<http://scr.limarc.org/>

<http://www.arrl.org/school-club-roundup>

<https://contestcalendar.com/contestedetails.php?ref=254>

NFARL VEs TEST 5 NEW HAMS & 2 UPGRADES/ Wes Lamboley, W3WL

Slope's Barbecue again hosted the NFARL test session this month, and 7 of 7 folks met their objective! Ricky Escobar, Jim Harlow, Kent Harrington, Wendall Holbrooks, and Ed Sinyard are new Technicians, and Scott Campbell-WD4HEN and Steve Redekopp - KO4TEK upgraded to General. Please do congratulate these guys when you see them at a Club meeting!

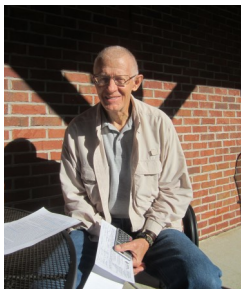
Just for the record, Slope's offers their restaurant to us for free; renting the YMCA facility costs us \$150 per VE session! Thank you again, Slopes, and try not to forget them when you are hungry for Barbecue!!



NFARL VE Test Candidates on October 9, 2021

Clockwise from top left: Ricky Escobar, Jim Harlow, Kent Harrington, Scott Campbell- WD4HEN, Ed Sinyard and Steve Redekopp—KO4TEK

Missing: Wendall Holbrooks



Extra Extra! / From the Extra Class Question Pool

New info for Technicians and Generals and a refresher for Extra Class Licensees!



E0A04

When evaluating a site with multiple transmitters operating at the same time, the operators and licensees of which transmitters are responsible for mitigating over-exposure situations?

- A. Only the most powerful transmitter
- B. Only commercial transmitters
- C. Each transmitter that produces 5 percent or more of its MPE limit in areas where the total MPE limit is exceeded.
- D. Each transmitter operating with a duty cycle greater than 50 percent

See answer on the last page!

The new Amateur Extra-class license examination question pool, effective from July 1, 2020, through June 30, 2024, has been released and is available at the National Conference of Volunteer Coordinators (NCVEC) [website](#).


Ian NV4C and his team hold license test sessions on the second Saturday of each month. For more information including upcoming test dates, [click here](#).

Contest Corner

These are some contests and events besides the "routine K1USN, CWops, and other organizational events" scheduled to occur the near future

+ ARRL School Club Roundup	1300Z, Oct 18 to 2359Z, Oct 22
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Oct 21 and 0200Z-0300Z, Oct 22
+ North American SSB Sprint Contest	0000Z-0400Z, Oct 24
+ RSGB 80m Autumn Series, SSB	1900Z-2030Z, Oct 28
+ Zombie Shuffle	1600-2400 local, Oct 29
+ ARRL Sweepstakes Contest, CW	2100Z, Nov 6 to 0300Z, Nov 8
+ Day of the YLs Contest	0000Z, Nov 13 to 2359Z, Nov 14

NFARL Upcoming Events and Dates

- **Every Sunday — NFARES net** - 8:30 PM - 147.06 MHz (+) PL 100
All licensed hams are welcome, you do not need to be an ARES member!
Check NFARES.org for more information.
- **Every Monday — Tech Talk** - 8:30 PM - 145.47 MHz (-) PL 100
NFARL's flagship technical based "non check-in" net. The net is always better when using the web based chat room (Discord) but Internet is not required to join the net. Check [NFARL Nets](#) for more information and "how to". Here's the link to the NFARL server on Discord web app <https://discord.gg/spr2a9D>
- **Every Wednesday — Hungry Hams Lunch Bunch** - 11:15 AM
Location: Slope's BBQ, 34 East Crossville Road, Roswell, GA 30075 (770) 518-7000

Dining Room is OPEN . Get Take Out if you can't stay!
- **Every Thursday — YL Net** — 8:00 PM - 9:30 PM - 145.47 MHz (-) PL 100
Check NFARL Nets [website](#) for "how to." This is a great opportunity for YL's to get on the radio with other YL's! OM's (guys) are welcome to listen in to this YL net.
- **Every Wednesday — CW SIG** — 8:00 PM on ZOOM. Meeting ID is 815 5160 3634; password is CW-CHAT (all CAPS)
- **Every Saturday — Royal Order of the Olde Geezers "Breakfast"** - 8:45AM-10AM
This informal breakfast group on Saturday mornings is NOW ***AGAIN*** meeting IN PERSON. **A notice that Lodge Number 1 of The Royal Order of the Olde Geezers, will convey its weekly soiree at Reveille Cafe**, 2960 Shallowford Road, Marietta 30066 in the Kroger shopping center (Shallowford Rd and Sandy Plains). The festivities commence at 8:45 am on Saturday.
- **Second Tuesday — NFARES Meeting - November 9, 2021** ***Presently- Online meetings only*** Check NFARES.org for more information.
- **Second Saturday – VE Testing - NFARL November 13, 2021 session: *COVID-19 Restrictions in place. By reservation only.*** See the "[Test Sessions](#)" web page for details & registration process. Contact Ian at nv4c.ian@gmail.com for questions / concerns / reservations.
- **Third Tuesday — NFARL Club Meeting** - October 19, 2021, 7:30 PM
LIVE meeting! Preston Ridge Community Center - Zoom Included!
— October 2021 Meeting: Club Elections & Kit Development Workshop
Door opens at 7PM for Social Networking. Meeting begins promptly at 7:30. See Page 1
- **Fourth Tuesday – NFARL Executive Team Meeting** - October 26, 2021, 7:00 PM ***Online meeting only*** — monitor website and NFARL Groups.io reflector for updates.
- **Stone Mountain HamFest**— November 6 & 7, 2021 Gwinnett County Fairgrounds
<https://stonemountainhamfest.com/>
- **HamJam 2021**—November 13, 2021 The Metropolitan Club, 5895 Windward Parkway Alpharetta, GA 30005 Doors open 8:15 AM. Speakers begin at 9AM. <http://hamjam.info>

Contact Us

President	John Norris N4IHV	President@nfarl.org
Vice President	Mike Riley KN4OAK	VicePresident@nfarl.org
Secretary	Martha Muir W4MSA	Secretary@nfarl.org
Treasurer	John Tramontanis N4TOL	Treasurer@nfarl.org
Activities Chair	Fred Ackerly W4FRA	Activities@nfarl.org
Membership Chair	Wes Lamboley W3WL	Membership@nfarl.org
Past President	Daryl Young K4RGK	PastPresident@nfarl.org
Mentors / Elmers	Chuck Catledge AE4CW	Elmers@nfarl.org
Field Day Chair	Mike Riley KN4OAK	FieldDay@nfarl.org
Scout Coordinator	Jon Wittlin K4WIT	k4wit@nfarl.org
ARES Liaison and Community Relations	Jim Paine N4SEC	n4sec@nfarl.org
Repeater Operations	Mike Roden K5JR	Repeaters@nfarl.org
Web Master	Bill Cobb K4YJJ	Webmaster@nfarl.org
eNEWS Team	Mike Riley KN4OAK, Tony Santoro, W3TRA, Martha Muir, W4MSA!!	enews@nfarl.org

North Fulton Amateur Radio League

P.O. Box 1741
Roswell, GA 30077

nfarl.org

eNEWS can be located online at:
<https://www.nfarl.org/enews/eNewsIndex.html>

Club Repeaters

Frequency—Description	P.L. Tone	Location
145.470 (-) EchoLink Node 560686 NF4GA-R	100 Hz	Morgan Falls
147.060 (+) Primary ARES Repeater	100 Hz	Roswell Water Tower
* 224.620 (-) Joint Venture with MATPARC	100 Hz	TBD
443.150 (+)	100 Hz	Roswell Water Tower
444.475 (+)	100 Hz	Morgan Falls
* 927.0125 (-)	146.2 Hz	TBD

* Currently off the air

Club Call signs: NF4GA and K4JJ

Extra Extra answer: C (question E0A04)

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