

# LARK NEWS March 2025



*Livermore Amateur Radio Klub LARK is an ARRL affiliated club dedicated to Public Service Volunteer Emergency Communications. Meetings are once a month on the 3<sup>rd</sup> Saturday 9:30AM*

**VENUE: City of Livermore Meeting Hall  
1016 S. Livermore Ave., Livermore CA 94550**

*Available live via zoom by invitation only. Visitors Welcome*

Editor: Gregory Kiyoi KN6RUQ



Roger, KK6RD and Roberto, K6KM



CS131 Communications



John, WB6ETY

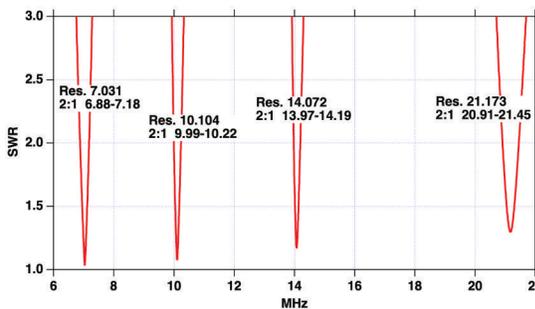


Chart by Gary, NA6O



Bill, K7WDS

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# Presidents Message

I want to thank **Noah N6TW** for making the coffee and picking up the refreshments for monthly meetings. This effort is appreciated by all who attend the meeting.

I wanted to let you know that the Events Chairperson (me) is following the upcoming events for 2025, and I have an update. The following events will be happening:

- **Livermore Half Marathon, Sunday, March 2<sup>nd</sup>**
- **Cinderella Bike Ride, Saturday, April 5<sup>th</sup>**
- **Devil Mountain Run, Sunday, May 4<sup>th</sup>**

We are in need of volunteer radio support for all events and any level of experience is welcome.

As more events are confirmed you will be kept advised. Make sure to sign up on the LARK website for these events for which LARK supports.

The yearly LARK elections will be at the April meeting. If interested in serving as an officer or board member please let me know.

I wanted to thank **Ron AD6KV** and **VE Team** for continuing to provide a way for hams to get their testing completed.

**Ian W6TCP** continues to work on enhancing the repeaters for use by all of us so please report any issues to Ian by email.

I encourage you to check in with the LARK Monday, Wednesday (10.10 Windfarms Net), and Thursday night nets, held every week. There are other nets available, and they can be

found on the LARK website. It is good experience getting on the air.

I want to thank **Ed Diemer AE6D** for coordinating the weekly nets. By participating in the nets, you'll hear what is going on in our Ham community.

We are meeting In-Person at the Livermore City Meeting Hall each month on third Saturday, and we are also offering the meeting on Zoom for those who prefer that way to attend.

Wishing you all stay healthy and stay safe.

**George KG6GEM** ([kg6wui1@comcast.net](mailto:kg6wui1@comcast.net))



# Notes from the Editor



Thank you to **Roberto, K6KM** for his Antenna presentation at the club meeting.

## March 2025 Events

- ARRL International DX Contest-SSB, March 1-2<sup>nd</sup> - <http://www.arrl.org/arrl-dx>
- North American Sprint-RTTY, March 9<sup>th</sup> - <https://ncjweb.com/Sprint-Rules.pdf>
- Loomis Hamfest, March 22<sup>nd</sup> - <https://www.w6ek.org/activities/hamfest>
- North American Sprint-SSB, March 23<sup>rd</sup> - <https://ssbsprint.com/dates/>
- CQ WW WPX Contest - SSB, March 29-30<sup>th</sup> - <https://www.cqwp.com>

It was a well attended meeting.



The newsletter is a collaborative process, please keep sending me your articles and ideas.

[Gregory KN6RUQ](#)



From January, Show and Tell - Bill, K7WDS FT-60 radio sling. He designed and 3D printed.



# Monthly Meeting Minutes



## **LARK General Meeting | February 15, 2025 | Minutes**

### **Call to Order**

1. Meeting called to order by George KG6GEM at 9:31am.
2. George started introductions, first of in-person attendees and then Zoom attendees.
3. Members: 42 / Zoom: 6 / Guests: 3 = Total of 51 attending the meeting.

### **Presentation**

1. George introduced Roberto Sadkowski K6KM for his presentation "Portable HF Antennas for SOTA Expeditions".

### **Treasurer's Report - Peter AI6RG**

1. LARK budget is stable
2. We are now prepared to accept tax exempt monetary donations
3. Matching contributions from employers can now be taken
4. The board voted unanimously to provide \$1,000 of funding for the Sunol Ridge Repeater, W6SRR as the club has done annually.

### **Activities - George KG6GEM**

1. Looking for activities for monthly meetings for the rest of the year

### **Repeaters - Nate N8MOR**

1. WA6ODP is on backup power. If it does not work give it 30 seconds to reboot

### **Newsletter - Greg KN6RUQ**

1. Sent out membership profile forms for the newsletter.
2. Provide your articles and pictures.

### **Events - George KG6GEM**

1. Signups are on the LARK Website for upcoming events including Livermore Half Marathon in March, Cinderella in April, and the Devil Mountain Run in May, so please volunteer.

### **Old Business**

1. Minutes from the January meeting were approved unanimously.

### **VE Session - Ron AD6KV**

1. 1 technician test following the meeting.

### **Technical Interest Groups - Ron AD6KV**

1. Robot Garden will hopefully be starting up again at the Livermore Airport.
2. Satellite communications group has been meeting.

### **Operating**

1. A club member shared that he is interested in satellite communications thanks to the technical interest group and he had a 5-minute contact with the crew on board the International Space Station.
2. Don W2DON has been practicing CW



3. Gary NA6O says the ARRL has the International DX CW contest going on this weekend.

**Adjournment**

1. George KG6GEM adjourned the meeting at 11:39 AM

Minutes submitted by:

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Ryan Mahoney (W6RAM) – LARK Secretary

# Board Meeting Minutes



## **LARK Board Meeting | February 10, 2025 | Minutes**

**Attendees:** George, Ryan, Peter, Roger, David, Jerry

**Absent:** Chris, Julian, Bernie, Nate

### **Call to Order**

1. Meeting called to order by George at 7:36 PM.

### **Treasure's Report - Peter**

1. The club's finances are healthy and stable.

### **Activities - Jerry**

1. February: SOTA Portable Antennas by Roberto K6KM
2. March: Working on trying to find a presentation.
3. Jerry and Steve K8YIP are working on 2025 and welcome any suggestions.

### **Events - George**

1. Sunday March 2<sup>nd</sup> Livermore Half Marathon
2. Saturday April 5<sup>th</sup> Cinderella
3. Sunday May 4<sup>th</sup> Devil Mountain Run
4. Need more volunteers for the event please signup early. Signups are available on the LARK website

### **Memberships - George**

1. 122 paid members.
2. Julian will send out individual emails to those that have not renewed.
3. Given Greg ideas for the member spotlight section of the newsletter

### **501(c)3 status- Peter**

1. LARK is now listed on the IRS website.
2. Peter presented a draft of the monetary draft form.
3. Peter suggested a donation page on the website.

### **Support of W6SRR Repeater - George**

1. Sunol Ridge Repeater group has faced increasing costs to operate the W6SRR repeater.
2. David motioned LARK to donate \$1,000 for the support of the W6SRR repeaters support of the W6SRR, Ryan seconded, the board will donate \$1,000 towards the expenses of the repeater. Motion passed unanimously.

### **Silent Key**

1. Long time member Jack Cutting W6UKW has gone silent key.
2. George asked David to work on a support basket. Jerry will handle the delivery of the basket.



## **Adjournment**

1. George adjourned the meeting at 8:21 PM.

Minutes submitted by:

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Ryan Mahoney (W6RAM)– LARK Secretary

# Community Activities



We NEED You!  
Sign Up NOW



## Livermore ½ Marathon - Sunday, March 2, 2025

Signup <https://www.signupgenius.com/go/10C0844AEAD28A6FA7-livermore>

Experience our event and course, with postcard views and a synchronized queue of our amazing wildlife, you'll enjoy a full sensory moment, as you pass through gorgeous vineyards, lush hop vine fields, mature olive groves and so much more.



## 48<sup>th</sup> Cinderella Bike Ride - Saturday, April 5, 2025

Signup <https://www.signupgenius.com/go/10C0844AEAD28A6FA7-cinderella1>

The Cinderella Classic, Challenge and Short rides are 65/100/35-mile recreational bicycle ride (not a race) for women & girls only.



## Devil Mountain Double Century - April 26, 2025

Signup link coming soon (Subject to change depending on support)

The event is 200 mile, one day, bike ride for about 50 riders. LARK's help is requested for the Mines Road segment (where cell phones don't work) starting South of Livermore to the summit of Mt Hamilton.



## Devil Mountain Run - Sunday, May 5, 2025

Signup <https://www.signupgenius.com/go/10C0844AEAD28A6FA7-devil1>

This event takes place in downtown Danville and is a foot race - 5K, 10K, and One Mile fun run.

# Antenna of the Month

## Fan (Parallel) Dipole by Gary, NA6O

Those who must live with simple wire antennas are always searching for a way to get as many bands as possible with a single feedpoint. We've looked at things like off-center fed dipoles which may work ok though it has issues with common-mode current and some unpredictability as to what bands may actually work, plus the fact that a tuner is mandatory. And then there's the **G5RV** which may be ok in some situations, and also some fairly nutty end-fed wires that leave many users rather dissatisfied. But I'm quite convinced that the most compromise-free choice is the fan, or parallel, dipole, which is simply a set of dipoles cut for different bands, all connected to a common feedpoint (Fig. 1).

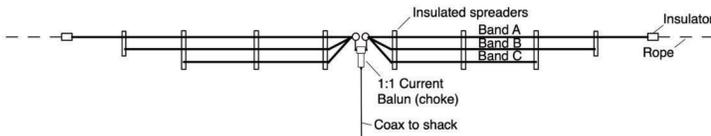


Figure 1. Plan for a basic fan, or parallel, dipole.

## Advantages and Disadvantages

The main advantage of a fan dipole is that it's... a plain old dipole. That means it's balanced so you don't have to battle with excessive common-mode current on the feedline as you would on an off-center fed design. It's also highly predictable when it comes to the radiation pattern, which is primarily driven by how high you install it. Finally, it's impedance at resonance on all selected bands typically will be in our very friendly range of about 50 to 75 ohms without the need for any transformers or odd feedlines, again height-dependent.

The main drawback is that you can't realistically expect to access more than about four bands on a single fan. There are several reasons for this. First, the various lengths of wire do interact and an overly-complicated array becomes very difficult to tune. Second, the SWR bandwidth may be slightly reduced on some bands. Third, certain band

combinations are not recommended because they may produce an undesirable feedpoint impedance.

An example would be where the frequencies are rather close (12 and 10m).

Here are some common combinations which you may also find in commercial products such as those from Alpha Delta:

- 80, 40, 20, 15 (via third harmonic of 40) using 3 dipoles
- 40, 30, 20, 15 (via third harmonic of 40) using 3 dipoles
- 40, 20, 15 (via third harmonic of 40), 10 using 3 dipoles

## Construction

Most commonly we hang the shorter wires under the longest one via insulating spacers. Spacing between wires really isn't critical. A few inches is acceptable and commonly used. The longest wire needs to be the strongest and is firmly anchored and tensioned at each end. Spacers can be made of things like small PVC pipe, acrylic, or Lexan strips with holes for each wire. With close spacing, the higher frequency dipoles tend to be longer than expected (10-15%), so be sure to start out with excess wire to trim off. Also, the SWR bandwidth on those higher bands is reduced somewhat. If you want lots of separation, run each wire to a separate tie point. Some comparative data is presented in Ref. 1.

You can potentially add all kinds of dipole enhancements including loading coils or bent ends to shorten things up, inverted-vee format, or my famous third-harmonic capacity hat that was discussed in a recent Antenna of the Month article (Fig. 2). Traps are possible but tuning such a contraption could be frustrating.

At the feedpoint, always use a good common-mode choke. **K9YC** [Ref 2] has all the design information if you want to make one that is fully optimized to reduce receive noise and improve the radiation pattern.



Figure 2. Closeup of my backyard fan dipole (40/30/20/15m) with a 15m hat. Wire is Teflon-insulated 20 ga. Spreaders are 1/8-inch acrylic strips about an inch wide. It's been up for 12 years.

### Tuning and Typical SWR

A good antenna analyzer is highly recommended when tuning. Begin with the lowest frequency band first and work progressively to the highest frequency band. Expect to go through all the bands at least twice to walk them in to desired resonant frequencies. I prefer to fold the ends of wires back on themselves and twist them when tuning. That way, it's easy to "add" wire if needed. Figure 3 shows the SWR of my 40/30/20/15m installation. SWR bandwidth (2:1) was at least 200 kHz on each band. I ran it for many years at 500 W and even though it's quite low (only 15 ft up!) it was effective enough and trouble-free for my DXing and casual contesting activity in an HOA community.

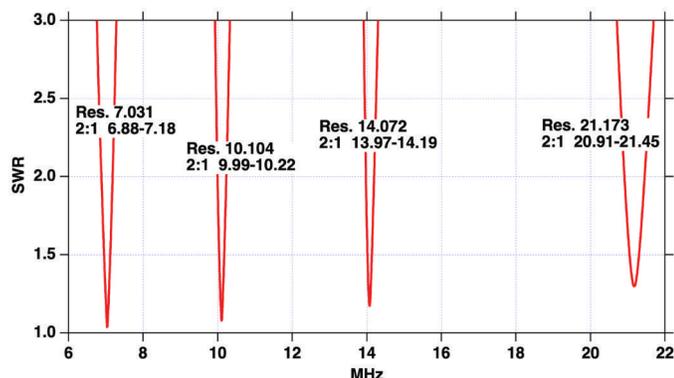


Figure 3. SWR of my 40/30/20/15m fan dipole showing 50-ohm 2:1 SWR bandwidths.

### References

1. L. B. Cebik, W4RNL, "My Top Five Backyard Multi-Band Wire HF Antennas." <http://on5au.be/content/fdim/fdim9.pdf>
2. Jim Brown, K9YC, "A New Choke Cookbook for the 160-10m Bands." <http://k9yc.com/2018Cookbook.pdf>

Everyone should explore **EZNEC** a free and very powerful program, available from <https://www.eznec.com/> and discussed in the *ARRL Antenna Handbook* among other places.

# APRS Portable Digipeater for Events

## Arnold Harding, KQ6DI

APRS trackers are used by many hams in their vehicles, while walking, bike riding, etc., but they aren't always received. Might be due to power, antenna, or location to name a few reasons. Due to these potential problems I made a portable APRS digipeater. This was purpose built to be used at events so net control can track rovers and sweeps. This reduces voice traffic for the rovers and sweeps providing position reports.

The Race to the Flagpole, last January 25<sup>th</sup>, is one of those events. This year with **W6SRR-3** iGate down for maintenance, the results proved this portable digipeater was absolutely necessary.

Approximately 72% of the position reports were only heard directly by the portable digipeater. In other words, only 28% of the positions sent by APRS trackers would have been received into the internet without the portable digipeater.

The chart below shows how position reports (packets - Pkts) reached the internet. Since a digipeat (relay) by the portable takes time, any packet first transmitted to the internet via the portable was not received by any other APRS iGate or digipeater. The "Pkts via portable" column represents the count of packets that would have been lost without the portable.

Tracker	Function	Ham	Mode	First pkt	Last pkt	Total pkts	Pkts via portable	Pkts direct to WA6ODP-3	Pkts direct to WA6ODP-4	Pkts direct to W6CX-3
wa6odp-10	10K Sweep	AK6FB	Bike	7:43	10:20	85	85	0	0	0
wa6odp-11	10K Rover	W6JMK	Bike	7:39	9:57	77	59	1	1	16
wa6odp-15	5K Sweep	K6TDG	Walk	7:44	10:18	87	84	2	0	1
k6woo-12	5K Rover	K6WOO	Bike	7:44	10:09	82	12	25	44	1

Chart by John, WB6ETY

Sycamore Grove Park is in a wide gully created by the creek, and radio have a difficult time getting out without some help. The portable digipeater provides that help.

The LARK APRS trackers are set to 10W and with new batteries they are close to 10W output. The quarter wave antennas only work properly if there is a proper ground plane. It is difficult to have that

ground plane when the tracker is a plastic case. Half wave antennas do not need the ground plane and work better, but the 39" antenna doesn't fit well in a backpack.

Last year, during the 10K Sweep using a LARK tracker, out of 40 packets that reached the internet, 16 were injected by the **W6SRR-3** iGate, 12 were relayed via the portable digipeater, and 10 were transmitted by an iGate with relatively poor receive sensitivity located in the net control vehicle. Per **John, WB6ETY**.



# Member Spotlight

This month **Bill, K7WDS** is our member spotlight.



**Name/Call Sign:** Bill  
Spencer, K7WDS

**Past call(s):** KO6GLZ - I recently received my Technician license at Pacificon 2024, but changed to a vanity callsign incorporating my initials.

**Home Location:** Livermore

**Property/Lot size:** 17,000 sq. ft.

## **Antenna(s):**

Ed Fong J-Pole, Signal Stick, and Diamond SRH77CA

## **What's in your shack?**

When my interest in getting a Ham license originally sparked early last fall, I made the almost mandatory purchase of a Baofeng UV-5R, and Nagoya antenna. It turned out to be a useful tool for learning the basics of programming an HT, and the use of CHIRP software. While studying for my test I found many recommendations for a first real HT radio with the Yaesu FT-60R seeming quite popular. My "shack" is an upstairs bedroom where I use my Yaesu, and J-Pole; which I find is the best antenna from my small collection. I fabricated a portable pvc mast to hold the antenna, and a 3D printed stand for the HT and speaker mic.

## **What is your career (or what was your career)?**

I have a degree in Computer Science from the punch card days, and had an incredibly rewarding 35 year career as a software engineer. I originally worked in defense, primarily with flight simulators, then in banking and insurance, and finally worked for several well known tech companies. When people would ask what I did for a living I would tell them I was a "professional hobbyist", because that is how much I enjoyed my work. I have been retired for several years, but still like coding as a hobby.

## **Married, Kids, Grandkids?**

Married, with two married daughters, and two granddaughters.

## **What type of operating do you do?**

It has been eye opening to see how many facets of this hobby there are. Currently I call into the weekly Nets, and very much enjoyed volunteering for the Race to the Flagpole. I have tried learning CW through LICW, but have come to the conclusion that perhaps I am not cut out for it. I'd like to learn more about antennas, and plan to explore my options for an HF radio. I am also casually studying for the General.

## **Any other hobbies besides ham radio?**

I have been a private pilot for 45 years, and currently own my 7th airplane that I keep at Livermore airport. My first two planes I built from kits. That hobby consumes much of my time. I also enjoy doing mechanical design, and 3D print solutions almost every day. One of my current projects is an aircraft landing aid using an Arduino and Garmin LIDAR for accurate height display when near the ground. I also build watches, hike, and ride motorcycles (well, now it's a 150cc Vespa). Finally, I am what is commonly known as an AFOL (adult fan of Lego), and am almost always building a kit on a large table shared with my wife doing her jigsaw puzzles.

## **Misc.**

It was my pleasure to meet several LARK members at Pacificon who were tirelessly manning the booth. I figured if there are more folks like these in the Klub then please sign me up. It was a good decision.

# Race to the Flagpole

## John Street, WB6ETY

On Saturday, January 25, 2025, LARK supported the 14<sup>th</sup> Race to the Flagpole (RttFP), continuing our tradition started in 2011 at the second RttFP. Only five radio amateurs supported the 2011 event, which grew to 23 that helped in 2025.

The event was successful; there were no reported injuries - the EMT vehicle remained parked at Independence Park the entire time. It was a nice day when the sun was shining, pretty cool when behind a cloud.

This year 435 runners were registered with 364 finishing (102 in the 10K, 192 in the 5K, and 70 in the one mile). That is less than 2024's 431 finishers, but more than 2023's 307 finishers.

The Net Control Station (NCS) operators met in the cold at Independence Park at 0600 hours to set up.



**Rand, W6TRM**, brought the San Ramon Valley Fire Protection District's CS-131 communications vehicle, to be our NCS on wheels.

**Rand, W6TRM; Ryan, W6RAM; Steve, K8YIP; Bill, N6SGT; and George, KG6GEM** were our NCS radio operators.

**John, WB6ETY**, set up a portable APRS digipeater (WB6ETY-3, supplied by **Arnold, KQ6DI**) close to the CS-131. Its antenna was a 10 foot vertical collinear antenna on a 15 foot mast. APRS



worked well, with the event APRS logs showing that nearly all packets from the LARK APRS trackers (carried by our sweep and rover Hams) were relayed by the portable digipeater to iGates and then received at the NCS. Look for another article in this issue of the LARK newsletter for more about our use of APRS.

At 0715 hours we all gathered at Independence Park, next to the CS-131. We had a brief meeting to check-in, discuss our plans and assignments, and perform radio checks to ensure we all were accessing our primary repeater, the W6SRR Sunol Ridge repeater (backups were the AD6KV repeater, the WA6ODP repeater and our local simplex frequency). We had time to pick up a cup of coffee and bagel (provided by the Boosters!) before dispersing to our assignments.

Most assignments were in Livermore's Sycamore Grove Park, so for many of us, that required driving to the park, parking in the parking lot (either on Wetmore Rd or on Arroyo Rd), and then walking to an assignment. The longest walk was about 1.25 miles. The NCS called roll before the first race started, with everyone checking in successfully.

Thanks to these operators for hauling more than an HT to their assignment. **Alan, KM6BRQ** set up his 50W portable station/mast/antenna at Station 13A.



**Larry, KI6LNB** was prepared to raise an antenna but his HT/rubber duck worked well at Station 13.

**David, K6WOO** set up his portable station/mast/antenna on his bicycle (and thus was prepared to respond to an incident if needed) at Station 10.



**Greg, KN6RUQ** and **Kole, KO6CES** set up their 10W portable station/mast/antenna at Station 12.



### 2024 ideas for 2025 / How did we do?

1. Define key events that need to be announced on the net for the benefit of all of us and especially for use by the Public Address Announcer at Independence Park. **Ans: Added Station #0 at entrance to Independence Park to ensure NCS learned when lead and sweep bikes returned (5K Sweep was on foot).**
2. Work with the event organizer to reduce instances of runner confusion at several trail intersections. More visible signs and assigning volunteers to a few key locations are possibilities. **Ans: Event organizer had recruited lots more race volunteers this year, so runner trail confusion was much reduced this year.**



**Bill, AJ6UU** set up his 20W portable station/mast/antenna at Station 8.



### Ideas for 2026

1. Make LARK's two event communications protocol documents available to all volunteers.
2. Record all voice communications on event net frequency so that everyone can learn what their signal sounds like to others, thus motivating improvement in equipment and/or operating procedures where needed.
3. Make APRS tracker callsigns-SSIDs available to all event volunteers so they can monitor our trackers if they wish.
4. Have better visual identity for all radio operators; safety vests for all, perhaps ID bibs for Sweeps and Rovers.
5. For radio operators near the very loud event PA announcer, have a better way to block that noise so they can hear radio traffic and yet still be able to talk to people in the area when needed.
6. Invite the EMTs (staged at Independence Park) to join our pre-event meeting.
7. Add traffic cones to help guide runners at Station #3 and #12 (this is for event organizer).

Thanks to the Sweep and Rover operators (**Allen, AK6FB** 10K Sweep Bike; **John, W6JMK** 10K Rover Bike; **Tam, K6TDG** 5K Sweep 'on foot'; **David, K6WOO** 5K Responder Bike) for burning lots more calories than the rest of us. Keeping track of the "first" and "last" runner locations is important to the NCS and to the race organizers. "First Runner" and "Last Runner" locations were also relayed to the public address announcer several times during the morning so the crowd at Independence Park was kept up-to-date.

Thanks to everyone for sending pictures, comments, and suggestions for improvement. There was a common thread to many of the suggestions. I'll be forwarding several suggestions to the race director for consideration when planning the next RttFP.

Thanks to all the volunteer radio operators who provided this public service to the race participants and the Livermore Granada Boosters

A replacement for CS131 should arrive for the Livermore ½ Marathon. This was the last LARK event with her. Thank you for your years of service.



**Pictured Left to Right: Tam K6TDG, Larry KI6LNB, Allen AK6FB, EMTs, Rich KN6HSR, John WB6ETY, John W6JMK, Bill K7WDS, Peter AI6RG, George KG6GEM, Brian KM6EMU, David KG6WIR, David K6WOO, Bill AJ6UU, Dan KB6FF, Kole KO6CES, Keith KC6JHF, Rand W6TRM**

**Not pictured: Ryan W6RAM, Steve K8YIP, Bill N6SGT, Alan KM6BRQ, Clancy N6FQQ, and Greg KN6RUQ**

# Training

## **USS Hornet Ham Class**

The Hornet ARC will be hosting a one-day Technician Class licensing session on board the USS Hornet on March 1, 2025.

The class will be taught by Rich Harrington, KN6FW and Paul Shinn, K6FRC. There is a \$15 fee for the exam and a \$35 licensing fee to the FCC. Applicants must first obtain an FRN from the FCC in order to attend the class and take the exam.

**When** March 1, 2025 7:30am-5pm

**Where** USS Hornet, Ship's Wardroom

**Questions** Rich Harrington at 925-462-1467 or <http://nb6gc.org>

Study materials for the class can be downloaded at the rdf-sf Library page: <https://qsl.net/s/sfthunt/rdf-sf/library/> Click the "Tech Class 2024" link to download the study materials.

FCC FRN Registration <https://www.fcc.gov/wireless/support/knowledge-base/universal-licensing-system-uls-resources/getting-fcc-registration>

## **MDARC General Class**

Beginning March 25, 2025, Mount Diablo Amateur Radio Club is offering a 9-week course plus a Get On The Air (GOTA). Course and GOTA cost is \$15.

**When** Starting March 25, 2025 7-9pm, 9 sessions through May 20<sup>th</sup>

**Where** Clayton Valley Presbyterian Church  
1578 Kirker Pass Rd.  
Clayton, CA 94517 or Zoom

**Questions** See <https://www.mdarc.org/education-and-testing/class-details> for more information.

# Crossword Puzzle

by Chris Codella, W2PA

1/10/2008

## Chasing DX

### Across

1. Old freq. units
4. HH-land
9. Fourteen \_\_\_\_ (weight)
14. Enable, as a weapon
15. Over
16. Signs
17. Expected
18. John Glenn's ride
19. "that \_\_\_\_ for the course"
20. With 22, 55, 56, and 61 across - What you collect for 35 across
22. See 20-across
23. The 18 and 21 MHz bands?
24. "Is that really necessary?"
26. New fangled rigs (abbr.)
27. Work on GUIs and others
30. This began, the July after 24-down
31. An ARRL section official, in 1-land (abbr.)
33. All but KH6 and KL7
35. You need more than 999 for this award
38. Power units
39. One of the things Elmers do
40. School org.
41. One place where the DX might be listening?
42. Heading 180 from NC
46. 9H operator, probably
49. Early radio parts manufacturer
50. 1960's TV host, with Martin
51. Open wire (line)
54. Equipment reviewer, sometimes
55. See 20-across
56. See 20-across
57. What many towers are made of

58. The word that explains a UK prefix assignment
59. Digital ckt. family
60. Hamshacks, on Field Day
61. See 20-across
62. Beam heading to work PY from W2

### Down

1. "... no space \_\_\_\_."
2. Trimmed, as a dipole (if not a bush)
3. It moves with a signal
4. What an amp also does in the shack
5. Prefix with VOX
6. What an un-keyed transmitter is
7. Some are green, some black, some orange
8. Gives a callsign
9. Nickels and dimes
10. Org. in charge of 43-down
11. What a DXpedition station spends most of the time doing
12. Non-digital, in G-land

13. DOS background job (remember?)
21. Non-ham pesky visitor on FD
22. C in F-land
24. A peak year in cycle 19
25. Some Ukraine prefixes
27. It's between the DSP and the speaker
28. How some DF antennas look
29. Listings for selling small VHF xcvr's
32. MHz predecessor
33. Those in Chile
34. House current, familiarly, if imprecise
35. Like 38-down, but for (other) digital modes
36. Keeps your rig's rock steady
37. A good signal report, in ancient Rome
38. Speed on CW
41. Biggest non-amateur user of radio in the early days
43. Awards for performances by hams in space?
44. Warm tubes and solder resin, among others

45. Pamper
47. What a birdie in your RX sounds like?
48. G-land noblemen
49. Tower-top antenna supports
51. Repeated, it's part of FO0-land
52. 70 city
53. The part of a part you solder
54. Use 3-Down to give out one of these
55. Cute 1960's mobile hamshack

1	2	3		4	5	6	7	8		9	10	11	12	13
14				15						16				
17				18						19				
20			21					22						
23								24						25
26					27	28	29					30		
				31	32					33	34			
	35	36								37				
38							39							
40					41					42	43	44	45	
46			47	48						49				
	50							51	52	53				
54							55					56		
57								58					59	
60								61					62	

# Crossword Solution

C	P	S		H	A	I	T	I	C	A	R	A	T		
A	R	M		E	N	D	E	D	O	M	E	N	S		
D	U	E		A	T	L	A	S	I	S	P	A	R		
E	N	T	I	T	I	E	S	O	N	A	L	L			
T	E	N	S					M	U	S	T	Y	O	U	
S	D	R	S		D	O	H	C	I			I	G	Y	
				E	M	A	S	T	M		C	O	N	U	S
	D	X	C	C	H	A	L	L	E	N	G	E			
W	A	T	S		A	D	V	I	S	E					
P	T	A			U	P	S	I	X		T	O	S	C	
M	A	L	T	E	S	E				M	E	S	C	O	
	R	O	W	A	N		B	A	L	A	N	C	E	D	
R	A	V	E	R		M	O	D	E	S		A	N	D	
S	T	E	E	L		G	R	E	A	T		R	T	L	
T	E	N	T	S		B	A	N	D	S		S	S	E	

# Swap n' Shop Cave

Welcome the New Shop Keeper **Mark Bowers, KK6UKU.** Featured deals coming soon.



# March Calendar

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>	<u>Sunday</u>
					1	2
3 Net	4	5 10-10 Net HH Net	6 Tech Net	7	8	9
10 Net	11	12 10-10 Net HH Net	13 Tech Net	14	15 LARK Meeting	16
17 Net	18	19 10-10 Net HH Net	20 Tech Net	21	22	23
24 Net	25	26 10-10 Net HH Net	27 Tech Net	28	29	30
31 Net						

**LARK MONDAY NIGHT NET**  
**147.120 MHZ + offset, PL 100 AD6KV**  
**Every Monday 7 PM local time**  
**Visitors welcome to join in**

# Net Control Operator Schedules

## Monday Night Net Control Operator Schedule

### January

Date	Net Control
1/6/2025	Jon / WB6AEA
1/13/2025	EOC
1/20/2025	Ron / AD6KV
1/27/2027	Ed / AE6D

### February

Date	Net Control
2/3/2025	John / WB6ETY
2/10/2025	EOC
2/17/2025	Jon / WB6AEA
2/24/2025	Ron / AD6KV

### March

Date	Net Control
3/3/2025	Ed / AE6D
3/10/2025	EOC
3/17/2025	John / WB6ETY
3/24/2025	Jon / WB6AEA
3/31/2025	Ron / AD6KV

**EVERYONE** is invited to check in to the net. Please contact AE6D [ae6d@sbcglobal.net](mailto:ae6d@sbcglobal.net) if you need more information or would like to become a Net Control Operator. After the net please call Ed AE6D with the AC/DC statistics or send him the information by email.

## Thursday Night Net Control Operator Schedule

Date	Primary Net Control	Backup Net Control
1/2/2025	Nate / N8MOR	Noah / N6TW
1/9/2025	Rich / KN6HSR	Brian / KA6ZED
1/16/2025	Bill / AJ6UU	Don / W2DON
1/23/2025	David / K6WOO	Peter / AI6RG
1/30/2025	Noah / N6TW	Nate / N8MOR
2/6/2025	Brian / KA6ZED	Rich / KN6HSR
2/13/2025	Don / W2DON	Bill / AJ6UU
2/20/2025	Peter / AI6RG	David / K6WOO
2/27/2025	Nate / N8MOR	Noah / N6TW
3/6/2025	Rich / KN6HSR	Brian / KA6ZED
3/13/2025	Bill / AJ6UU	Don / W2DON
3/20/2025	David / K6WOO	Peter / AI6RG
3/27/2025	Noah / N6TW	Nate / N8MOR

## Regularly Scheduled Nets

LARK/LIVERMORE NET	Every Mon	1900 local 147.120+	PL 100
RACES Net	Every MON.	1900 local	
Windfarms 10-10 NET	Every WED.	1930 local 28.485	USB
HamShack Hotline Net	Every WED.	1900 Bridge 363	PIN 0331
LARK TECH NET	Every THURS.	1930 local 147.120+	PL 100
LLNL Retiree Net	Every FRI 8:30 am	0830 local	7.2630 LSB
SWOT	Every Sun. & Tues.	2000 LOCAL	144.250 USB
THE NOON TIME NET	EVERYDAY	1200-1400 LOCAL	7.2685 LSB & 3970 LSB
RV RADIO NET	MON - FRI	0800-0930 LOCAL	7.2685 LSB

# LARK Contacts

**LARK—LIVERMORE AMATEUR RADIO KLUB P.O. BOX 3190,  
LIVERMORE, CA 94550-3190. Web: <http://www.livermoreARK.org>  
E-mail list: [livermoreark@groups.io](mailto:livermoreark@groups.io)**

**GET YOUR HAM LICENSE OR UPGRADE.** LARK conducts all levels of license testing (upon request) at the Livermore City Council Chambers following club meetings (3rd Sat. each month). Contact Ron Kane, AD6KV (AD6KV at arrl.net) 2 weeks in advance.

OFFICE	CONTACT	CALL	E-mail	Phone
President & Events	George Moorehead	KG6GEM	<a href="mailto:kg6wiu1@comcast.net">kg6wiu1@comcast.net</a>	925-516-2676
Vice President	Chris Quirk	W6CJQ	<a href="mailto:w6cjq@yahoo.com">w6cjq@yahoo.com</a>	925-202-1198
Secretary	Ryan Mahoney	W6RAM	<a href="mailto:ryan.andrew.mahoney@gmail.com">ryan.andrew.mahoney@gmail.com</a>	925-786-0640
Treasurer	Peter Bedrossian	AI6RG	<a href="mailto:p.bedrossian@comcast.net">p.bedrossian@comcast.net</a>	925-606-1342
Board (PP)	Roger Deming	KK6RD	<a href="mailto:rogerdeming@yahoo.com">rogerdeming@yahoo.com</a>	925-484-1285
Board	David Counts	KG6WIR	<a href="mailto:dlicounts@sbcglobal.net">dlicounts@sbcglobal.net</a>	925-895-4698
Board	Nate Moore	N8MOR	<a href="mailto:nate@nateandamy.org">nate@nateandamy.org</a>	925-577-4916
Activities	Jerry Benterou	N5KA	<a href="mailto:benterou@gmail.com">benterou@gmail.com</a>	925-321-3263
	Steve Nissen	K8YIP	<a href="mailto:s.nissen55@gmail.com">s.nissen55@gmail.com</a>	650-270-3796
Repeater Chair	Ian Parker	W6TCP	<a href="mailto:w6tcpian@gmail.com">w6tcpian@gmail.com</a>	
Web Site	Arnold Harding	KQ6DI		
Newsletter Editor	Gregory Kiyoi	KN6RUQ	<a href="mailto:gkiyoi@gmail.com">gkiyoi@gmail.com</a>	925-456-4734
Membership	Julian Riccomini	WB6BDD	<a href="mailto:wb6bdd@gmail.com">wb6bdd@gmail.com</a>	
Net Coordinator	Ed Diemer	AE6D	<a href="mailto:ae6d@arrl.net">ae6d@arrl.net</a>	
RFI	Gary Johnson	NA6O	<a href="mailto:gwj@me.com">gwj@me.com</a>	
T-Hunts	Brian Zoraster	KA6ZED	<a href="mailto:ka6zed@gmail.com">ka6zed@gmail.com</a>	925-786-8412
	Rich Harrington	KN6FW		
Swap n Shop				
Ask the Elmer	Lee Zalaznik	KI6OY	<a href="mailto:lee.zalaznik@sbcglobal.net">lee.zalaznik@sbcglobal.net</a>	925-699-5998



Facebook—<http://www.facebook.com/LivermoreARK>  
Twitter link : <https://twitter.com/LivermoreARK>



**Special interests:** View: AREDN Mesh <http://www.aredn.org>.

**CERT NEWS:** CERT contact - Email: [cert@lpfire.org](mailto:cert@lpfire.org) or (925) 454-2361

Meetings 3rd Wednesdays. Remillard RM 3333 Busch Rd. Pleasanton.

# LARK Membership Form



**LARK LIVERMORE AMATEUR RADIO KLUB.**  
**P.O. BOX 3190, LIVERMORE, CA 94551-3190**  
**An ARRL Affiliated Club**

LARK MEMBERSHIP FORM - Print, fill out, mail in with check.	
<b>Circle all that apply:</b> New / Renewing / Family <b>Today's Date:</b> _____	
<b>NAME:</b> _____ <b>CALL SIGN:</b> _____ <b>ARRL MEMBER?</b> Yes / No	
<b>Address:</b> _____	
<b>PHONE:</b> (     )     - <b>UNLISTED?</b> ___YES ___NO	
Enter your E-mail here and stay connected: _____ <b>LARK NEWS</b> featuring upcoming club events and articles is available monthly via email. <a href="http://www.livermoreark.org/">http://www.livermoreark.org/</a> Access the current and back issues on our website.	
<b>ADDITIONAL FAMILY MEMBERS (At the same mailing address, only \$2. membership per person)</b>	
<b>NAME</b>	
<b>PHONE</b>	
<b>EMAIL</b>	
<b>AARL MEMBER</b>	
<b>ANNUAL DUES #</b> _____ <b>PRIMARY (\$20.00)</b> <b>ADDITIONAL MEMBERS #</b> _____ <b>(\$2.00 each)</b>	
<b>TOTAL: \$ MAKE CHECKS PAYABLE TO: LARK. Thank You.</b>	
<p><b>Membership is \$20.00. per calendar year starting on Jan 1 through Dec. 31.</b> To complete membership by mail: print and fill out this form, include a check payable to LARK, and mail to: LARK Membership Chairman, P.O. Box 3190, Livermore, CA, 94551-3190. Please be sure your complete mailing address, e-mail, and call sign are on your check. Questions? Contact the Membership Team via email: <a href="mailto:membership@livermoreark.org">membership@livermoreark.org</a> You may also complete membership application and payment by: Bringing this form filled out and pay by cash or check to either the Membership Chairman or Treasurer at any general meeting. Or: pay with a credit card or PayPal account on the Club's membership page: <a href="http://livermoreark.org/membership/membership.html">http://livermoreark.org/membership/membership.html</a>.  <b>Thank you and welcome aboard from LARK and the Membership Team.</b></p>	