

# IRVING AMATEUR RADIO CLUB

IRVING AMATEUR RADIO CLUB

Serving Amateur Radio Since 1955

## WA5CKF REPEATERS:

146.720 - PL 110.9 TSQ 110.9

224.400 - PL110.9

442.675 + PL 110.9

442.375 + PL110.9

July 2024



## June Meeting Information

Our next meeting will be on Thursday, 25 July 2024, at the club Shack at Betcha Bingo hall on 2420 W Irving Blvd, Irving, TX 75061. We will start the business meeting at 7:00 pm, and club meeting at 7:30 pm. Everyone is invited to all parts of the meeting.

## President's Corner

Ken Hansen N2VIP

President, Irving Amateur Radio Club, Inc.



So, there's a lot to go over, so let's get to it!

In the past month we've had a few activities and a few changes, lets take a look back and see what we've been up to.

On the Fourth of July several club members, along with the Irving ARES/RACES group assisted the organizers of the Fourth of July parade in downtown Irving. It was a fairly uneventful event, with the only issue being when a parade attendee needed medical attention inside the parade route. If you haven't helped with an Irving parade before, I'd encourage you to consider doing so - it's a pretty easy gig, and it gives you a chance to get out, practice participating in a "directed net", and exercise your HT.

You don't need to be in ARES/RACES to participate, and it can be a pretty good time.

The club shack continues to improve, with Kim Bacak and John Cheyney doing a lot of the heavy-lifting.

If you haven't been to the shack lately, keep an eye out for upcoming open houses - we've got an great new HF radio and two nice HF antennas, comfortable furniture, and beverages.

Recently the club bought a new, larger refrigerator, and Kim brought a Keurig K-cup "machine"(?) in. If you can't make it into the Club Shack, you can always get remote access to our club station and "work the world" with our Yaesu FTDX-10 and the fan dipole. A few antenna-deficient club members have started making regular use of the remote shack and I'd encourage everyone to check it out. As a reminder, the software we use is RemoteHams, a windows-only program that is free to use, and any licensed club member can request transmit privileges (everyone has been set up for receive-only access. For more information, reach out to John Cheyney.

The Thursday night net on the club's 2 meter repeater (146.720, -, 110.9 PL) is going strong, and as a reminder, anyone that lives outside the footprint of the 2 meter repeater or is unable to install an outside antenna to reach the repeater can always access it via EchoLink. If you aren't familiar with EchoLink, it's a free tool that allows a user to connect with a radio over the internet. We have an EchoLink node at a club member's house very (very!) near to the repeater location, reachable as WA5CKF-R in EchoLink. You can run EchoLink software on most computer platforms and smart phones, and it's a great way to keep in touch with club members when you're away from the area. Other local clubs have similar EchoLink setups for their repeaters - if you haven't looked into it, EchoLink may help you participate in various local nets/activities.

### President

Ken Hansen N2VIP

### Vice-President

Bill Byrom N5BB

### Treasurer

Kim Bacak N5KCB

### Secretary

John Cheyney KF5PFP

### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

### Newsletter Editor

Jerry Aberdeen KB3RWT

**General/Business Meeting:**  
25 April 2024 @ 7:00pm

**Weekly Meeting Nets:**  
7:00 pm each Thursday on  
the WA5CKF 2m repeater.

**Monthly VE Testing:**  
2nd Saturday of the month,  
Business Jet Center at Dallas  
Love Field. Check the IARC  
Calendar here for more  
details. —

### Contact Us

[Irvingarc.org](http://Irvingarc.org)

P.O. Box 153333

Irving, Texas 75015-3333

Facebook:

<https://www.facebook.com/irvingarc.org>

## President's Corner Cont'd

I recently started playing with AllStar Link, an interesting alternative to EchoLink, that typically involves setting up a small device (based on a Raspberry Pi with an RF "hat"), and connect it to the Internet. Once set up, you use an FM radio to "talk" with the device, and it sends your activity over the internet and onto a remote repeater.

It may or may not make sense for our club to set up an AllStar Link node on one (or more) of our repeaters – that's a discussion we can have if anyone is interested. Speaking of repeaters, our repeaters are working fine, but there has been a lot of work going on at the new EOC repeater site, so I haven't really had a chance to go and start working on our new Icom DStar repeater. The gateway software that puts the DStar repeaters on the internet, linked to other repeaters (and reflectors, DStar-speak for talkgroups or chat rooms) has just been updated, so hopefully I'll get a chance to set up the DStar repeater soon.

VE Testing continues, and while turnout has been low the last few months, it is a nice way to spend one Saturday morning each month. If you're interested in becoming a VE (Volunteer Examiner), reach out to our club VE Coordinator Roger Bacak.

The Foxhunt group is going well, interest is increasing and I hope we can organize more Foxhunt events in the coming months.

Well, that's about it from here – I hope you can join us this coming Thursday at the Betcha Bing Hall. As a reminder, the business meeting starts at 7:00 PM and all members are welcome to attend. We roll into the general meeting around 7:30 PM, and everyone is welcome to attend, member or not. I think we'll have a program this month (but as I write this I'm not sure what the topic is), and as always, after the meeting you can check out the club shack.



### **President**

Ken Hansen N2VIP

### **Vice-President**

Bill Byrom N5BB

### **Treasurer**

Kim Bacak N5KCB

### **Secretary**

John Cheyney KF5PFP

### **Directors**

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

Newsletter Editor

Jerry Aberdeen KB3RWT

# June 2024 Meeting Minutes

IARC June 2024 Meeting  
27 June 2024  
Betcha Bingo II



## Officers Present:

President: Ken Hansen N2VIP  
Treasurer: Kim Bacak N5KCB  
Secretary: John Cheyney KF5PFP  
Director: Barry MacGregor N5SMW  
Director: Ron Ford KF5OMH  
Director: Venzula Matthews KF5PJH

Meeting called at 19:00 by John Cheyney KF5PFP  
17 members and 0 guests

Pledge of Allegiance: John Cheyney KF5PFP  
Prayer: John Moss KI5WRQ

Introduction of members and guests

Presentation on RMNoise noise canceling software by Ron Ford KF5OMH.

Concerns: Bill Byrom N5BB is recovering from knee replacement surgery, also recently his brother passed away in California..

Treasurer's Report from May:  
Kim Bacak N5KCB read the report  
Motion to accept with no changes: Billy Geer KA5OZC  
Second: Ron Ford KF5OMH  
Unanimous

Minutes of the May meeting were posted in the June newsletter  
Motion to accept with change add Venzula Matthews as present: Billy Geer KA5OZC  
Second: Ron Ford KF5OMH  
Unanimous

Old Business:  
VE Testing: Three People tested, all people passed at least one test.  
ney KF5PFP is working on it.

Shack Update:  
ARRL Lending Library books are available for checkout. We also have equipment that can be checked out. Lists of both were published in the last newsletter.

Antenna Upgrade:  
On 19 May 2024 a team completed the installation of the MFJ cobweb on the roof. It is now complete and tuned and ready for use. One of the Yaesu FTdx-10's is installed on the HF desk and is operational. The RemoteHams setup is not working, but John Cheyney KF5PFP is working on it.

## President

Ken Hansen N2VIP

## Vice-President

Bill Byrom N5BB

## Treasurer

Kim Bacak N5KCB

## Secretary

John Cheyney KF5PFP

## Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

Newsletter Editor

Jerry Aberdeen KB3RWT

## June 2024 Meeting Minutes Cont'd

DFW Ham Expo:

Update given by Ken Hansen N2VIP

Field Day Committee Report:

Update given. John Cheyney KF5PFP announced he will not be managing the next Field Day.

Philmont Donation: Dale Finley is asking for \$200 to support his radio activities at Philmont Scout Camp to promote amateur radio.

Barry N5SMW suggested that he bring back some kind of information.

Motion to accept and make the donation: Jerry Aberdeen KB3RWT

Second: Andrew Harmon KD5RKO

Survey:

Sent out by Ken Hansen N2VIP

New member vote

Peter Belkin KD5IGH

Motion to accept: Billy Geer KA5OZC

Second: John Moss KI5WRQ

Membership accepted.

Shane Outlaw KI5GBU will manage a Fox Hunt on 7 July 2024 starting at 1pm. This will be a test run. More information will be sent out as we get closer.

Newsletter Editor Jerry Aberdeen KB3RWT asked for content for the newsletter.

Motion to Adjourn: John Cheyney KF5PFP

Second: Billy Geer KA5OZC

Business Meeting Adjourned @ 2043



### President

Ken Hansen N2VIP

### Vice-President

Bill Byrom N5BB

### Treasurer

Kim Bacak N5KCB

### Secretary

John Cheyney KF5PFP

### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

### Newsletter Editor

Jerry Aberdeen KB3RWT

## Shack Update

### IARC Lending Library

The club has purchased a library of books from the ARRL. These books are in the shack and available for check out by club members only. We are working on a way for club members to get to them. For now you can check them out at any shack event, or by contacting Ken, John, or Kim and setting up a time to meet. Please only keep each book two weeks at a time.

- ARRL Technician, General, and Extra class manuals
- ARRL Handbook
- ARRL Antenna Book
- Basic Antennas
- RFI Book
- Understanding Basic Electronics
- Basic Digital Electronics
- And many others

### Club Equipment for Loan to Members

The club has several pieces of equipment that members can borrow for testing their stations, or for use at events. If you'd like to use some of this you can pick it up at any shack event, or make arrangements with John or Ken.

- Rig Expert AA-600 antenna analyzer
- IFR Service Monitor
- Anderson Powerpole crimp kit (you have to supply your own connectors)
- Soldering equipment
- Several desktop power supplies
- MFJ-557 Morse Code practice oscillator (for practicing CW)
- Multiple sets of HT's and tape-measure Yagi antennas for fox hunting
- 25 watt Retevis 2M mobile radio in an ammo can (great for events like the parades)

In addition we can lend out the UHF/VHF go box (contains two radios), the IC-7300, the PowerWrx battery box, and a number of antennas and coax runs to support special events or for testing.



#### President

Ken Hansen N2VIP

#### Vice-President

Bill Byrom N5BB

#### Treasurer

Kim Bacak N5KCB

#### Secretary

John Cheyney KF5PFP

#### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

#### Newsletter Editor

Jerry Aberdeen KB3RWT

## RACES/ ARES Corner

The Irving RACES/ARES group is always looking for amateur radio operators willing to join them in community service to the city of Irving, all you have to do is be a licensed amateur radio operator, and either work or live within the city of Irving. If you are interested feel free to contact Carry Johnstone KD5RFB.

Volunteers are needed to help test the Irving city's siren system every 1st Wednesday of the month. If you would like to volunteer, please contact Billy Geer KA5OZC at 214-587-8729 or email him at [wgeer@verizon.net](mailto:wgeer@verizon.net)



### President

Ken Hansen N2VIP

### Vice-President

Bill Byrom N5BB

### Treasurer

Kim Bacak N5KCB

### Secretary

John Cheyney KF5PFP

### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

### Newsletter Editor

Jerry Aberdeen KB3RWT

## Three Operator POTA Activation at Cedar Hill State Park

On Tuesday, July 23, KI5GBU (Shane Outlaw) N5TLH (Will Turk) and KI5WRQ (John Moss) completed a Parks On The Air "Three Operator Activation" at US-2996, Cedar Hill State Park.

When the trio arrived there was heavy rain at the Park, and they had to wait approximately 30 minutes for the storm to pass. They were eventually able to set up Shane's Yaesu FT-891 and his home brew End Fed Half Wave antenna in a park pavilion to make approximately 40 contacts all across the US - and in British Columbia. In a POTA Three Operator Activation, all three operators communicate with each Hunter who responds to their CQ POTA calls.

Congratulations to Will - N5TLH - for successfully completing his first POTA Activation. Several IARC Members are currently involved in Parks On The Air. We have a lot of fun at the Parks, and we would love to get more IARC members involved. If you would like to go with a group out to a State or National Park to get started in Parks On The Air, please let us know and we will set up another park outing in the near future.



In this picture we see Shane -KI5GBU and Will-N5TLH at the operating table, Missing is John Moss-KI5WRQ who took the photo



**President**  
Ken Hansen N2VIP

**Vice-President**  
Bill Byrom N5BB

**Treasurer**  
Kim Bacak N5KCB

**Secretary**  
John Cheyney KF5PFP

**Directors**  
Venzula Mathews KF5PJH  
Ron Ford KF5OMH  
Barry MacGregor N5SMW  
Shane Outlaw KI5GBU

**Newsletter Editor**  
Jerry Aberdeen KB3RWT

# Technical Topic

## Alpha Antennas FMJ Portable HF Antenna

John Cheyney KF5PFP



The Alpha Antennas FMJ (Full Metal Jacket) is a portable HF vertical antenna owned by the club. We have used it at multiple outdoor events, including our most recent Field Day. After (finally) reading the documentation I discovered we weren't setting it up as recommended. To see if the instructions actually made any difference, I took it to the KF5PFP Antenna Testing Facility (my backyard) for a workout.

Alpha Antennas has designed this antenna to overcome issues with vertical whips for HF. HF verticals have two modes of propagation. They use ground waves for ranges that can vary from 25 to 70 miles based on terrain. They also use skywave propagation, which at the shortest range carries 200 to 400 miles. The skip zone in between is an area of poor to zero communication. For communications in that region we use Near Vertical Incidence Skywave (NVIS) propagation. NVIS sends the signal close to straight up and then back down, to fill in the gap of the skip zone. Typically NVIS is done with a horizontal wire antenna close ( $< \frac{1}{4}$  wavelength) to the ground on 80 meters or 40 meters. The Alpha FMJ combines all three of these modes into one antenna.

The antenna has a stated frequency range of 3.5 MHz to 29.7 MHz, and can go up to 54 MHz when mounted on the tripod. It is rated to 500W PEP on SSB, 250W on CW, and 100W on digital modes.

For a deeper explanation read the manual for this antenna, found at [https://www.alphaantenna.com/manuals/Z-Archived\\_Manuals/Alpha\\_FMJ\\_Antenna\\_Technical\\_Manual\\_v3.3.pdf](https://www.alphaantenna.com/manuals/Z-Archived_Manuals/Alpha_FMJ_Antenna_Technical_Manual_v3.3.pdf)

The antenna consists of:

- The matching network, encased in a stainless steel housing
- A 13 foot long, multi-piece aluminum whip
- An 8 foot long ground wire with a clip on the end
- A 35 foot long NVIS element wire with a spade connector on the end
- A stainless steel jaw mount
- A tripod
- A carrying bag

NOTE: In trying to adjust the tripod mount to take out some lean, the mount broke apart on me. The attached picture shows how to mount the matching unit to the tripod with the jaw clamp. The setup shown is based on the manufacturer's recommendation. The jaw clamp is clamped on the top of the tripod and the matching cylinder is screwed on. The coax is attached to the SO-239 connector. The ground wire is clamped on the hexagonal connector, stretched out, and the stake is pounded into the ground.

Adding the whip makes the assembly very likely to fall over, so at this point you should guy down the tripod. I found the jaw clamp a good place to tie the lines.

### President

Ken Hansen N2VIP

### Vice-President

Bill Byrom N5BB

### Treasurer

Kim Bacak N5KCB

### Secretary

John Cheyney KF5PFP

### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

### Newsletter Editor

Jerry Aberdeen KB3RWT



# Technical Topic

Alpha Antennas FMJ Portable HF Antenna, Cont'd



Picture of the antenna setup

**President**  
Ken Hansen N2VIP

**Vice-President**  
Bill Byrom N5BB

**Treasurer**  
Kim Bacak N5KCB

**Secretary**  
John Cheyney KF5PFP

**Directors**  
Venzula Mathews KF5PJH  
Ron Ford KF5OMH  
Barry MacGregor N5SMW  
Shane Outlaw KI5GBU

**Newsletter Editor**  
Jerry Aberdeen KB3RWT

## Technical Topic



### Alpha Antennas FMJ Portable HF Antenna, Cont'd

Assemble the whip and screw it onto the threaded connection on top of the matching cylinder.

Trap the spade connector on the NVIS element between the cylinder and the whip when you tighten the whip down. Stretch the NVIS element out and pound the stake into the ground, or attach the NVIS element to something elevated. The NVIS element should not touch the ground.

As assembled the propagation on the antenna is directional. It is toward the ground wire and away from the NVIS element. The pattern can be made omnidirectional by removing the NVIS element.

After assembling this at the Test Range, I connected my NanoVNA to the coax for an SWR check. I tried three different configurations to see if the change made any difference.

1. Assembled as instructed, with ground wire and NVIS element.
2. Ground wire disconnected. This is how we had been using it.
3. As instructed, but with a line isolator installed. In the bag was a RadioWavz line isolator and a 16 feet piece of coax. I have always assembled the antenna this way because the isolator was in the bag and I assumed it was needed. Since that isolator didn't come with the antenna I added and tested it separately.

Below is the SWR as measured using the NanoVNA on 20 feet of coax.

Band	Frequency	As Manual	No Ground	Isolator Added
40M	7.0 MHz	2.8:1	3.7:1	4.2:1
	7.35 MHz	2.5:1	3.4:1	3.8:1
20M	14.0 MHz	1.7:1	1.8:1	1.3:1
	14.35 MHz	1.6:1	1.7:1	1.2:1
15M	21.0 MHz	1.7:1	2.1:1	1.2:1
	21.45 MHz	1.4:1	2.3:1	1.3:1
10M	28 MHz	1.7:1	2.3:1	3.5:1
	29.7 MHz	1.9:1	2.3:1	3.6:1

I also did a full sweep of the bands from 7.0 MHz to 30 MHz and the highest SWR across the bands was found at 7.0 MHz for all variations.

Takeaways:

1. To use the entire band from 40M down to 10M, the antenna requires a tuner. However, the internal tuner on any radio should be fine.
2. Best overall results are as described in the manual, with the ground and without the line isolator.
3. The line isolator, while it makes the SWR marginally better on 20M and 15M, doesn't appear to be needed unless you have a specific issue you are trying to address. It is still in the bag if needed.

Having used the Alpha at several events, it is a lightweight, easy to set up, multi-banded vertical that both transmits and receives well. It is available to borrow if you need it for testing or for an event.

#### President

Ken Hansen N2VIP

#### Vice-President

Bill Byrom N5BB

#### Treasurer

Kim Bacak N5KCB

#### Secretary

John Cheyney KF5PFP

#### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

#### Newsletter Editor

Jerry Aberdeen KB3RWT

## From the desk of the editor

Let me take the opportunity to thank all our contributors to the current and past editions of the IARC club newsletter. I am always looking for articles that are ham related for the newsletter.

If you would like to contribute to the newsletter, please email your contribution to me at [jerry.aberdeen@gmail.com](mailto:jerry.aberdeen@gmail.com), with the subject "IARC Newsletter and your callsign" e.g. IARC newsletter -KB3RWT

Going forward, I would like to have all articles for the newsletter sent to me on or before the Sunday of the week in which our in-person meetings are held., but I will accept articles as late as 8pm on the Tuesday before the meeting. This gives me time to organize, create and send out the newsletter in a timely manner. Thanks.

De KB3RWT



### President

Ken Hansen N2VIP

### Vice-President

Bill Byrom N5BB

### Treasurer

Kim Bacak N5KCB

### Secretary

John Cheyney KF5PFP

### Directors

Venzula Mathews KF5PJH

Ron Ford KF5OMH

Barry MacGregor N5SMW

Shane Outlaw KI5GBU

### Newsletter Editor

Jerry Aberdeen KB3RWT