



Irving Amateur Radio Club Inc.

Ken Hansen N2VIP, President; Bill Byrom N5BB, Vice-President;
Tom Schuessler N5HYP, Secretary/Treasurer; James Shugart N5BKL,
Director; Max Perry N5BSA, Director; Ron Tabb KC5HPO, Director;
Dave Dobbins KF5STS, Director

October

2019

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Events

General/Business Meeting *Thursday, Oct. 24 at 7:00PM Senter Park East in Irving*

VE Test Session
Saturday Nov 16 at 8:30 AM at Betcha Bingo Hall #2, 2420 Irving Blvd., Irving

November Birthdays!

N5AET Landen Eifenbein
AG5KS Barrett Goad
Assoc Melodye Green
KF5JAV Duncan Parkes

Contact Us

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October 2019

IARC Tools for Antenna Testing

The Irving Amateur Radio Club has a cool tool that members can check out and borrow to check out the functionality of antenna systems you have. It is a Rig Expert AA-600 graphical antenna analyzer. This handy unit can provide SWR and complex impedance measurements from 100 KHz to 600 MHz so it can cover any antenna system from our 2200 Meter band all the way up beyond the 70CM band clear to the end of the newly repacked Television broadcast band at RF Channel 36.

Our unit is stored in a small padded flight case and includes the AA-600 unit with N connector, RF adaptors to go to SO239 or BNC female, a 50 Ohm dummy load, rechargeable batteries, a NiMH charger, software CD, USB cable, and printed manual.

It can be operated in stand alone mode or connected to a PC for additional functionality. This article will focus on basic stand-alone operations. Your use and needs may vary.

For the demonstration, I used one of the 2 Meter Tape Measure Yagi antennas we put together

as a club some months ago at a monthly meeting. (Figure 1).



Figure 1 Demonstration configuration

Repeaters

146.72/224.40/442.675 MHz (all 110.9Hz)

Mission Statement

To provide radio communications with honor and integrity and
To honor the amateur radio code of ethics and
To provide technical support services to others so interested and
To support citizens of our community in times of need and disaster and
To provide radio communications as needed during local emergency situations.

Links

Irving ARC Website
<http://irvingarc.org/>

Great Days of Service
<http://gdsirving.org/>

ARRL – North TX
<http://www.arrlntx.org/>

Dallas Amateur Radio Club DARC
<http://www.w5fc.org/>

Richardson Wireless Klub RWK
<http://www.k5rwk.org/>

Metrocrest Amateur Radio Society MARS
<http://www.kb5a.org/>

UT Dallas Radio Club
<http://facebook.com/K5UTD>



Figure 2 Basic Menu

After powering on, you are presented with a menu of 8 choices. As seen in figure 2. Main menu items are: 0=Settings, 1=Help, 2=Set Frequency, 3=Set Range, 4=Scan SWR, 5=Scan RX, 7=Show SWR, 8=Show All and F=More functions. (There is no number 6 menu item).

First you set frequency in MHz. Press 2 on the keypad. For this test, I initially entered 145.000 as the frequency. Press the Check mark to enter the selection. Next set a Range. Press 3 and enter a span in MHz. I entered 5.000 which will scan 2.5 MHz +/- the center frequency. The next step is to select 4 and then press the Check mark. A plot of SWR will be drawn centered on the frequency you selected and +/- the range you selected. If you want more complex measurements, you can select the 8=Show all or the additional functions under the "F" key. The 7=Show SWR will give you a real time view of the SWR at the frequency you entered from 2=Set Frequency.

I discovered that the antenna showed a dip in SWR at frequency about 148 MHz so for Figure 3, I changed the 2=Set Frequency to 148.000 before I ran the graph. Figure 4 shows the real time SWR at 148.000 MHz.

With the PC software and a PC or laptop, you can do some more complex analysis and have more precise graphing as you can see in

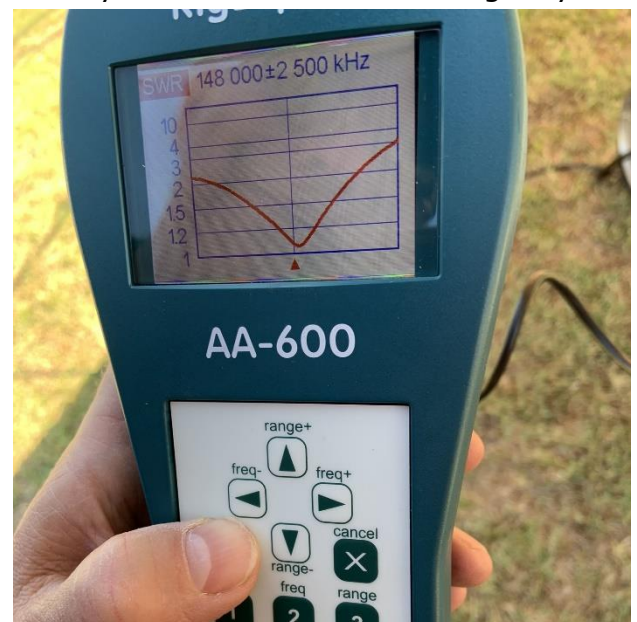


Figure 3 SWR Graph with Center Frequency shifted to 148.00 MHz



Figure 4 Real time SWR reading at 148.000 MHz

figure 5.

Analyzers like this are powerful tools when determining the functionality of any antenna system. If any Irving ARC club members would like to borrow this device for short periods to work on their systems, they are welcome to do so. Please contact Ken Hansen, Dennis Brady, or myself, to check out the unit.

May you have low SWR and strong signals. - Tom Schuessler, N5HYP, IARC Secretary/Treasurer



Figure 5 Graph of my badly mis-adjusted 20 Meter antenna elements as drawn on PC software

October Meeting 10/24/19 - Be There!

Our October meeting is this Thursday, Oct. 24, and we are meeting at Senter Park East at 7:00 PM. Directions can be found here: <https://www.cityofirving.org/Facilities/Facility/Details/Senter-East-Building-111>

MOTA (Meeting on the Air) Report 9/12

The 2nd IARC Meeting On The Air was held on the 2nd Thursday of October (Oct 10, 2019) at 7:00 to 7:49 PM. N5BB was Net Control and we had 10 participants: N5BB, KB3RWT, KI5ELP, KAC5OZC, KF5IVJ, W5FRS, KE5YCJ, N5HYP, KD5RKO, and KC5HPO.

Topics discussed included:

(1) A new General class is starting in Garland on Tuesday, November 12. It will last 5 weeks.

(2) The possibility for an ARISS (International Space Station) contact with some school in Irving. The next deadline for applications is November 30, 2019, and those present agreed that this is too soon for us to get a school lined up with an appropriate application. The next deadline for applications is May 30, 2020, and that would be a goal we should be able to meet. It was suggested that people do a web search to read about VK5ZAI (Tony Hutchison) to learn more about satellite and ARISS operation.

The 3rd IARC Meeting On The Air will be held on Thursday, November 14, at 7:00 PM on the 146.72 MHz. All local hams are invited to participate. -- *Bill Byrom N5BB, Vice-President IARC*

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JOTA 2019

Tom N5HYP and Chris Shanahan helped local Scouts participate in JOTA (Jamboree on the Air) at the Longhorn BSA Council HQ for Jota. Tom had kids passing along azimuth and elevation numbers while he overcame bad nearby power line noise. – Tom N5HYP

See drone photo courtesy Chris Shanahan KE5KPC below.



Pacificon Hamfest Report - Ken N2VIP

I attended the Pacificon Hamfest <http://www.pacificon.org/> in San Ramon last weekend, and it was very interesting. Size-wise Pacificon felt well-attended, but in looking at the event carefully, it appeared to be about half the size of our own Plano Ham-Com – the vendor area was about half the size of Ham-Com's, and the swap that occurs over all three days in Plano was only offered on Sunday morning.

Pacificon started for me on Friday, with a full-day Antenna Seminar with several interesting seminars – one on Towers, slot antennas, minimal EME station considerations, portable operation considerations, Dipole fundamentals, and others. The Antenna Seminar was an additional \$20 fee over the admission price of \$25 for all three days. I found the Antenna Seminar very rewarding, both in that the slot antenna session discussed a very interesting antenna design for an HF antenna AND that I won a door prize, an Elk dual-band 2m/440 Log Periodic Antenna, carry bag and hat.



On Saturday night there was a Banquet, with an estimated 400 attendees. Aside from a typical Marriott Banquet meal, the speakers

included Carol Perry, who introduced the Young Ham of the Year, Dhruv Rebba, KC9ZJX and a keynote speech by Bob Inderbitzen, NQ1R, ARRL Product Development Manager. Bob's speech was on the new direction the ARRL is taking to promote the hobby – the highlights of which are a renewed focus on affiliated clubs and attempting to engage students with activities that build on interests they already have. An example of this was at the OshKosh Air Show, the organizers had a kit-building event with a kit that had the students go home not with a blinking LED board or code practice oscillator, but with a working receiver they could listen to VHF Air Traffic.

All the major manufacturers, except Kenwood, were in attendance – along with a nice selection of antenna and accessory manufacturers. In addition, many of the seminar speakers were QST authors or subject matter experts with deep knowledge of their topics.



The sponsoring club, The Mt. Diablo Amateur Radio Club, is a very active club, while in San Ramon I was able to tune-in (via streaming) to their weekly ATV Net in which about 8 or 10 local stations beamed their 1.2 GHz TV signals towards their Mt. Diablo ATV repeater. There was also a demonstration of something called Parachute Portable making QSOs as he parachutes out of a plane via the club's Mt Diablo 2m repeater.

The Pacificon Hamfest is a good event, and if you ever find yourself in the San Francisco area the third weekend in October – the seminars are good, there is good vendor participation, and the facility is top-rank, since it is a Marriott after all. -- *Ken Hansen N2IP, President*

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Get On The Air! Local Nets

*****2nd Thursday of each month at 7PM on the Irving ARC Repeater 146.720, pl 110.9 – the Irving ARC Club Net*****

Every night at 10:30PM on the Irving ARC Repeater 146.720, pl 110.9 – The ARRL late night traffic net. Info: <https://www.dfwtrafficnet.org/>

Every Monday Night – Simplex Roundtable on 146.480 (Thanks Jim!)

Mondays at 1:30PM on 7.225 - 40m Get-together (Thanks Jim!)

Every Thursday at 9PM on the NRH repeater 145.37, pl 110.9

Every Wednesday at 7PM on the Arlington repeater 147.14, pl 110.9

If anyone knows of other nets/roundtables/get-togethers, please let me know and I will add them to the list – Lance KE5YCJ

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Upcoming Hamfests/ARRL Events

1/17/2020 Cowtown Hamfest, Forest Hill, TX, Sponsored by The Cowtown ARC and other local clubs. <http://www.cowtownhamfest.com>

11/02/2019 Parker County Hamfest and Emergency Preparedness, Springtown, TX, Sponsored by Amateur Radio Club of Parker County & Tri-County Amateur Radio Club. <http://www.arrl.org/hamfests/parker-county-hamfest-emergency-preparedness-expo>

Source: <http://www.arrl.org/hamfests>

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IARC Breakfast Bunch

A group of IARC, Inc. members and guests meet for breakfast, coffee, fellowship, tall tales, etc. every Wednesday at 8:30 am at McDonald's, 2410 N Story Rd and 183 (East side of Story, before Rochelle).

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Irving RACES/ARES Report

The following are volunteer man hours for activities and/or activations performed by the Irving RACES/ARES group.

IPD Dispatch, IFD Dispatch and MCLC radio checks
4.5 hours

Two Dallas and one Irving Training Nets
38.5 hours

Volunteer Fair
16.0 hours

Total for September 59 man hours

Irving RACES/ARES has reinstalled the Radio and P/S in the MCLC designated location in the newly built ambulance MT paperwork area.

Irving RACES/ARES and IARC have been working with Baylor (183&MacArthur) to check existing hospital owned coax runs to a HF and VHF/UHF antenna on the roof, runs and VHF/UHF antenna ok, but HF antenna looks bad. We are trying to work with Baylor to reinstall a Irving RACES/ARES station there.

I need more members.

I do NOT have enough members to cover Irving as large as it is.

The training required to join the Irving RACES/ARES group is mandated by RACES, and by the ARRL, not by me. I am trying to only require the minimum amount of training and participation, with the background check, to enable you to be utilized as needed for any Irving activation, and to assist in mutual aid requests from surrounding Cities.

Billy

William (Billy) Geer KA5OZC

Irving RACES Radio Officer

Irving RACES EC

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Irving Amateur Radio Club, Inc.

*Combined Meeting Minutes,
August 22nd, 2019*

Meeting

1. Concerns for members, family, friends; Vern KF5ELP, Dennis Riise
2. Prayer/Pledge of Allegiance
3. Introductions

Business Meeting

4. Minutes
5. Treasurer Report
6. Old Business
 - a. None
7. New Business
 - a. Webhosting Invoices
 - i. Ken Hansen, N2VIP, club president, reported that when we transitioned from iPower to Hostgator we failed to cancel iPower hosting contract, as a result he had been continuing to pay for, without realizing it, for iPower webhosting on behalf of the club. The invoice total that he says he incurred appears to be \$1,01.36. He did feel that more research was still needed. Ken will mend his notes and resubmit.
 - ii. Ken also discussed the need for the club to get a debit card tied to the club bank account to avoid similar issues in the future and facilitate recurring and other online charges.
 - b. Ken had asked about the whereabouts of one of the BridgeCom 220 Mhz repeaters he thought should have been in the shack storage. Ron, Tom and Dennis brady stated that they believed it in fact was at the shack storage. Ken will re-investigate.
 - c. Ken reported that Dennis Riise had offered the opportunity to purchase a mobile UHF duplexer personally owned by him that was previously deployed for our UHF repeater for future use at the City

EOC location. Offered price is \$200, and the unit handles 50 watts and is pre-tuned to our repeater freq. Motion made to approved the cost was approved.

8. New Member applications; No new member applications to approve at this month's meeting.

General Meeting

1. Old Business

a. Betcha Bingo Shack Renovation

- i. Ken Hansen reports that a Single line antenna actuator was purchased, dual line units backordered with no ETA
- ii. Assorted tools and accessories for Betcha Bingo Shack – Anderson PowerPole kit, coax crimp connector install kit, two PowerPole power distribution units (one for each workstation), braided wire to ground radios, etc. that were approved last meeting were not purchased (yet)
- iii. Offered an AREDN node (radio unit and antenna) for \$200 by local ham that ordered wrong part (needed larger mast than they had). A check was cut and the node was purchased and delivered to the Betcha Bingo Hall shack.
- iv. Need to approve \$300 for roof-top mounting hardware and supplies (non-penetrating mount, cable, coax, mast, etc.) for AREDN node hardware AND additional dual/triple-band V/UHF antenna (CX-333, 2m, 1.25m, 70cm). James Shugart, N5BKL motion to approve \$500 tops for all needs. Aproved.
- v. Adjustable Wire-frame risers found at Home Depot, 16”H x30” W x14” D, \$17.99/ea, suggest 4x for shack.
- vi. Betcha Bingo Shack Inventory work party update; Ron, Dennis and Tom July 27 updated the 2015 inventory. Will continue this weekend.

b. Repeater Committee

- i. Need to promote meeting programs on club repeater

c. EOC Project

- i. Secondhand reports indicate project moving along, no ETA on antenna install on new tower

- ii. Two additional Yaesu Repeaters arrived, placed in Betcha Bingo shack.
 - d. Boy Scouts
 - i. Upcoming Events: Tom Schuessler reports in talks on helping another club's JOTA activation on August 19th and a potential Radio Merit Badge opportunity for November.
- 2. New Business
 - a. AREDN Node pieces need to be Installed on Betcha Bingo rooftop
 - b. Invited to participate with ARES/RACES in Irving Volunteer Day event to promote ARES, RACES, and IARC in mid-September
 - i. would like to have an example Go-Box completed for event – need to scope out project and authorize funds
 - c. Repeater Activity Committee
 - i. Activate 4th Repeater Pair (UHF)
 - ii. Organize weekly (?) Net on club repeater(s) Motion to hold a 2nd Thursday net. Approved by club.
 - d. Staffing of Positions
 - i. Program Committee Chair
 - ii. Public Information Official Bill N5BB volunteers
 - iii. Recruitment Effort
 - iv. Hamfest Chairman
 - v. Others
 - e. One Task Challenge
 - f. Assistant Section Manager, ARRL NTX Section
- 3. Program
 - a. Roundtable discussion of one-radio go-boxes, Ken Hansen, N2VIP
- 4. Door Prize, 50/50 Drawing
- 5. Close

Submitted by Tom Schuessler, N5HYP

IARC Secretary / Treasurer