IRVING AMATEUR RADIO CLUB

Serving Amateur Radio Since 1955

WA5CKF REPEATERS: 146.720 - PL 110.9 TSQL 110.9 224.400 - PL110.9 442.675 + PL 110.9 442.375 + PL110.9

November 2024

November Meeting Information

Due to Thanksgiving Celebrations our November meeting was held on Thursday, 21th November 2024, at the club Shack at Betcha Bingo hall on 2420 W Irving Blvd, Irving, TX 75061,. And as such this edition is produced after that meeting.

President's Corner

Ken Hansen N2VIP President, Irving Amateur Radio Club, Inc.



Welcome to November! As I write this, Thanksgiving Day is almost upon us, and with the holidays come multiple opportunities to help support Charity Runs (Like the Dallas Turkey Trot in in downtown Dallas on Thanksgiving Day morning, which I'll be volunteering at with the DARC), and the Irving Holiday Parade, the details of which we only just learned today. In addition, we have our own December Holiday Dinner at Spring Creek Barbecue on Friday the 13th. This is a great season, I hope you'll find an opportunity to participate in some club events, either with our club, or another.

As mentioned at the last club meeting, I made some changes at the (Future) EOC site regarding antennas – it seems the antennas were either incorrectly or ambiguously which led to some incorrect pairings between repeaters and antennas. I went to the EOC site to properly label the antennas and cables, but I quickly found some issues when I tested each of the antennas. Bottom line, it looks like our 220 MHz mono band repeater antenna – we have some more testing to do to confirm a problem, but for now the backup 220 MHz repeater (the primary is on-line and installed on top of the Hospital) is on a backup tri-band antenna.

Looking forward to the club Holiday Party I've asked each club office and director to put together a door prize for the Holiday Party. Like in previous years, every attendee will receive a number of tickets equal to the number of prizes offered. There may be some non Ham-related prizes for any "plus one" attendees, as in previous years. One change is the higher limit on the value of the prizes – this year we have set the hard-limit at \$100 per club officer, with the expectation that prizes will be around \$75. I've heard a few of the ideas for prizes, and they will be very popular! I sincerely hope everyone can attend the Holiday Party – it's at Spring Creek Barbecue in Irving, on Friday the 13th of December, from 6:00 PM to 9:00 PM (we won't start any club business, prize drawings until 7:00 PM.

Looking forward, the property in Granbury that houses my remote station in Granbury is on the market, so I will be looking to the Club HF Remote Station to keep myself on HF. If you haven't tried the remote HF station, you really should – the radio in the club shack, a Yaesu FTDX-10 HF/6M radio typically connected to a nice wire antenna. If you want to learn more about it, ask John Cheyney, KF5PFP.

As you have most likely heard by now, long-time club member Max Perry, N5BSA, passed away late last week. Information on the planned viewing, service and internment were shared with all club members in direct emails from HamClubOnline. Max was a friend and mentor to many in the club, and his humor, his support earned him a special place in the hearts of all who knew him, and his absence will leave a hole in the hearts of many. In memory of Max, the club officers approved a donation to a local Shriner's Hospital – Max was very active in his Masonic Temple, and it is our intention to honor Max with a donation in his memory.



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: 21 November 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 I<u>rvingarc.org</u> P.O. Box 153333 Irving, Texas 75015-3333

Facebook: https://www.facebook.com/ irvingarc.org Well, that's about it for now – since we already held our November meeting, our next club meeting will be the December Holiday Party at Spring Creek Barbeque on the 13th of December, I hope to see you there!



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September 2024 Meeting Minutes

IARC October 2024 Meeting 24 October 2024 Betcha Bingo II

Officers Present: President: Ken Hansen N2VIP Vice President: Bill Byrom N5BB Treasurer: Kim Bacak N5KCB Secretary: John Cheyney KF5PFP Director: Ron Ford KF50MH Meeting called at 19:14 by Ken Hansen N2VIP 11 members and 2 guests Pledge of Allegiance: Ken Hansen N2VIP Prayer: John Moss N2VIP Concerns: Jerry Aberdeen KB3RWT was hospitalized for hypertension. He is now home. Barry MacGregor N5SMW is out of the hospital and is at his daughter's house. Treasurer's Report from September: Kim Bacak N5KCB read the report Motion to accept with no changes: Second: Billy Geer KA50ZC Unanimous: Bill Byrom N5BB Minutes of the September meeting were emailed to members. Motion to accept with no changes: Second: John Moss KI5WRQ Unanimous: Ron Tabb KC5HPO

Old Business:

Yaesu Desk Mic sent back to Yaesu for repair. They have received it. Bridgecom 220 repeater is back after repair and is installed at the EOC site. It was successfully tested and turned off.

October Fox Hunt: All participants found the fox. Tom Schuessler N5HYP will run the next one on 3 October 2024. Shane Outlaw KI5GBU won the coin flip for the gift card. Club held Radio In The Park Sunday 20 October 2024. Five members participated. VE Testing wasn't held because of OU-Texas weekend.



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September 2024 Meeting Minutes Cont'd

Breakfast Bunch moved its meeting to Wednesday mornings at 10am at Good Day Cafe.

New Business:

Steve Lott Smith KG5YK ARRL North Texas Section Manager presented a North Texas Section Certificate of Merit to John Cheyney KF5PFP. Steve also answered information about the North Texas Section and ARRL Activities. Steve held a drawing for two ARRL books:

POTA Book: Andrew Harmon KD5RKO

Six Meter Antenna Book: John Moss KI5WRQ

Jerry Aberdeen KB3RWT is looking at a 2M contest for November. Ken Hansen N2VIP has sent notes to him.

Holiday Party in place of the December meeting. Bill Byrom N5BB will contact Spring Creek BBQ about getting a meeting place. Tentative date is 12 December 2024.

Door Prizes (\$25 Gift Certificates)

Ken Hansen N2VIP

Ron Tabb KC5HPO

Motion to Adjourn: Ken Hansen N2VIP

Second: John Cheyney KF5PFP

Business Meeting Adjourned @ 20:35

Annual Christmas party

The clubs annual Christmas party will be on Friday the 13th of December, from 6:00 PM to 9:00 PM at the Spring-creek barbecue located at the corner of Hwy 183 and Beltline roads.The address is: 3514 W Airport Fwy, Irving, TX 75062. See you there.



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There is no reason to reinvent the wheel and write a new article when Wikipedia already has something in place that is as good or better that I could do.

The National Traffic System (NTS), as explained in Wikipedia, is an organized network of <u>amateur radio</u> operators sponsored by the <u>American Radio Relay League</u> for the purpose of relaying messages throughout the U.S. and Canada.

During normal times, these messages are routine greetings ("Happy birthday Aunt Mary") and keep the system well-oiled and the operators trained so that everything works when needed. When there is an emergency or disaster NTS works closely with the <u>Amateur Radio Emergency Service</u> to provide <u>emergency communications</u>. The most common type of disaster-related messages are "health and welfare" inquiries and notifications into and out of the area affected by the disaster.

In time of disaster, it is easy to expand the system by simply creating additional meeting times for the nets with high volume, or by setting up a specific "trunk line" between two points.

HISTORY

Traffic passing by formal relay (via amateur radio) originates from the founding of the <u>American Radio Relay League</u>. The NTS as it exists today was first outlined by George Hart, W1NJM (died 24 March 2013) in "New National Traffic Plan: ARRL Maps New Traffic Organization for All Amateurs" as part of the September 1949 issue of <u>QST</u>. While traffic passing between amateur radio operators was nothing new, Hart's system extended coverage of traffic capability in a uniform manner across the U.S. and Canada, creating formal section and area nets devoted to handling NTS-organized traffic.

ORGANIZATIONAL STRUCTURE

NTS is defined using geographic areas. The U.S. is divided into areas that approximate <u>time zones</u>. Areas are divided into regions, and regions into sections that correspond to a state. Each of these subdivisions has <u>nets</u> for collecting and distributing traffic. A net is nothing more than a time of day and a <u>radio frequency</u> where the appropriate group of amateur operators can meet to send the messages on their way. <u>ARRL Radiogram</u> traffic typically begins and ends its journey at local nets, often through nearby <u>repeaters</u>. Local nets typically involve city or county-wide coverage on VHF (2-metre band) or UHF (70 cm band), and although the ARRL does not endorse a single mode for traffic passing, messages are typically relayed by voice at this level.

Representatives from section nets relay traffic collected from local nets up to the appropriate region net, or relay to a nearby section for further delivery. Messages are exchanged between section and region representatives, which are then passed to area nets, the highest level in the system. Nets at these upper levels usually take place on HF band modes for their distance capabilities (e.g. 20 or 10 meters) and can be passed by voice, CW, digital, and even packet modes.

As traffic trickles back down through the area, region, section, and local nets, messages are typically delivered via a local telephone call, depending on handling instructions. Messages can also be delivered by hand or via message carrier, including the postal service, however <u>Part 97</u> dictates that ham radio operators cannot receive financial restitution for their service. If a message is undeliverable, <u>handling instructions</u> may dictate that a service message be originated back to the sending station.

This process is best explained by an example. Let's say that someone in <u>Wisconsin</u> wants to send a birthday greeting to Aunt Mary in <u>California</u>. They telephone their local ham friend and give him the message.

• At 6:30 local time, the Wisconsin ham attends ("checks into") the Wisconsin Section net. One station there has been designated to accept all outgoing messages, and Aunt Mary's message is sent to that station.



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Newsletter Editor Jerry Aberdeen KB3RWT

The National Traffic System (NTS)

by Ron KF5OMH

- At 7:45, the station who received the message checks into the Region net. This net consists of representatives from all the section nets in the region, and one station has been designated to accept all traffic that flows out of the region. Aunt Mary's greeting will be sent to this station.
- At 8:30, the station from the region checks into the Area net and sends Aunt Mary's greeting to the designated representative from the Pacific area.
- At 8:30 Pacific Time, the Pacific Area net meets. (All the area nets meet at 8:30 local time; since they are in different time zones there is no overlap.) At this point the process is repeated in the opposite order
- The area representative sends the message to the appropriate region representative,
- The region representative meets a later session of the region net and sends the message to the appropriate section representative,
- The section representative meets a later section net and sends the message to the closest operator to Aunt Mary's home
- The final recipient calls Aunt Mary on the telephone and delivers the greeting.
- Perhaps this sounds rather complex, but it really is not. Each net uses the same procedure and operating techniques, so as novice operators gain experience they can "graduate" from section to region to area nets. Every message is placed into the same format. The operation is disciplined but not unduly complex.



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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 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 PowerWerx battery box, and a number of antennas and coax runs to support special events or for testing.



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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.

Siren Test

Reminder to all,

Both the IARC and Irving RACES ARES group have committed to support the monthly Irving siren (ENS -Emergency Notification System) test.

Irving has 26 sirens located through the City, on City property. All sirens rotate and make a LOUD siren type noise, with the exception of the one that is located on top of the Irving Convention Center that does not rotate.

There is always a monthly test that occurs on the first Wednesday of each month at 1:00 PM and lasts 3 minutes. There are two types of tests, a full function test, siren and rotation (if it is designed to rotate), and a silent test (rotate only if it is designed to rotate). The silent test is only done if there is any possibility of a weather threat, or any other reason the OEM (Office of Emergency Management) feels it may confuse the citizens.

We will only monitor the test for full functionality, NOT the silent test. I will notify all that has a siren assignment if the test is silent (usually before noon on the day of the test), and get confirmation you received that notification.

The individual effort will take only around 5 minutes at the location, but may take a total of 15-45 minutes, depending on travel time to and from. You MUST be close enough to your assigned location to see it rotate and sound for the full 3 minutes (ear muffs and/or ear plugs are recommended).

A list of all the sirens with the ones needing to be observed identified to choose from will be sent to all the IARC and Irving RACES ARES group members the weekend before the test. You will need to notify me of your choice, and I will conform it is yours to observe, or request you to pick another because somebody else has picked it.

We, as Amateur Radio Operators, enjoy this hobby, and this is one way we can give back to the community. This is one of the reasons the FCC has allowed us to have assigned frequencies/bands to operate on, as HAMS, to enjoy and have the skills needed to support any government entity if needed, or during times of a national emergency. It is a GREAT and fun hobby.

Regards, Billy KA5OZC

Note: Volunteers are needed to help test the Irving city siren system every first Wednesday of the month. If you are interested in helping, please contact Billy KA5OZC at 214 587 8729 or via email: wgeer@verizon.net



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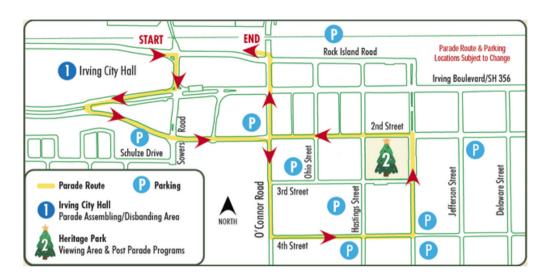
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RACES/ ARES Corner

City of Irving Christmas Parade

The City of Irving will be having its annual Christmas parade on Saturday 7th December starting at 6pm. The City would like to have us provided communications for the parade the same as we do for the July 4th parade. If you are interested in working the parade, please contact Carrye Johnstone-KD5RFB at Cell: 214-797-1304. The route is shown below.



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Technical Topic

A little more fascinating Amateur Radio satellite history: AO-7

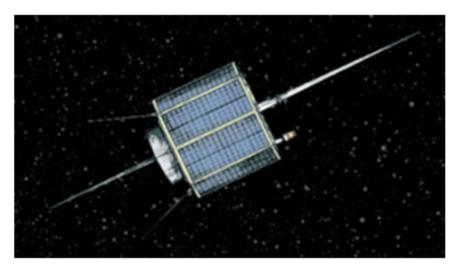
By Tom Schuessler, N5HYP

Before we move on for this series about learning to make contacts through Amateur Radio satellites, I thought we would do a bit more history as this month marks a major satellite milestone. Read on and see.

Jan King, W3GEY, AMSAT AO-7 Project Manager posted this in the AMSAT News Service Bulletin for November 3rd. I am re-publishing it here.

AMSAT AO-7 to Celebrate 50th Anniversary.

It has often been reported that the oldest satellites still working in space are the space probes Voyager 1 and Voyager 2. The Voyagers were both launched in 1977 to take advantage of the planetary alignment called, back then, the "Grand Tour". Their images changed the human vision of our solar system.



But, are they really the oldest, still functional spacecraft in outer space? What if we include spacecraft that remained behind in Earth Orbit? Is it even believable that the oldest still working satellite in space wasn't even designed or operated by NASA, USAF, ESA or any other space agency? What if this satellite was designed by Radio Amateurs and the final assembly occurred in a basement laboratory not far from Goddard Space Flight Center? Then all things considered, AO-7, a SmallSat launched on November 15, 1974 is the oldest working satellite and is still providing service to hundreds of Amateur Radio operators around the world. In its first life, AO-7 lived a very healthy lifetime of 6.5 years. Not to overstate the case, AO-7 outlived both its commercial and government co-passengers launched by Delta-104.

In late 1980, AO-7's poor, abused, NiCad battery began to show serious signs of increased series resistance. This was a sure sign to AMSAT command stations that the end was in sigh. The cells had been originally matched for capacity by NASA. And, indeed the cells all failed within a matter of weeks of one another.

AO-7 stayed asleep for 21 years, to the nearest month. Then one day AO-7 woke up again. This was only possible if something caused an open circuit in the battery. A very active user of AO-7, Pat Gowain, G3IOR, from the UK, made a telephone call to Perry Klein, W3PK, (first AMSAT President and designer of the AO-7 VHF/HF transponder). This was on June 21, 2002. Pat wondered if we had launched a new LEO spacecraft? He was hearing Morse Code Telemetry again on the old beacon frequency of AO-7. He played Perry a tape recording. It sure sounded like AO-7 telemetry!



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A little more fascinating Amateur Radio satellite history: AO-7

By Tom Schuessler, N5HYP

Many radio amateurs who were satellite enthusiasts very quickly began to observe the signals from AO-7 and the second life of the "Sleeping Beauty" of satellites began.(Because of it's orbital altitude, about 900 or so miles up, it's orbit has remained very much as it was in the mid 70's. ed;)

Over the next three weeks in November AMSAT News Service will honor this historic achievement with a series of short articles highlighting the life of AMSAT OSCAR 7. In the meantime be sure to visit a special page on the AMSAT website where you will find a collection of AO-7 articles and links at:

https://www.amsat.org/amsat-ao-7-a-fifty-year-anniversary/.

(Editors note: Goes to show that simpler is better sometimes. I kind of doubt that modern satellites, with their microcontrollers and radiation sensitive memory running the show would be able to bounce back after their batteries completely die).

Next issue, we will begin the process of describing how to get started with Amateur Radio FM cross band satellites. See you then.



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From the desk of the editor

Silent Key- N3BSA- Max Perry

As we went into this months production of our newsletter, we were learnt of the passing of one our club ,members, Max Perry N5BSA. Max was a good person and one of the persons who when i joined the IARC gave me a lot of encouragement. I would remember him for always encouraging me too find him on the band so we could do dx hunts together. Let me express our deepest sympathy on the behalf of my family and the IARC to his family. May god be with us all in this time of loss.

Happy Thanksgiving

Some useful ham radio websites.

- 10-10 Organization- https://ten-ten.org/
- QSL https:// qsl.net/
- QRZ https://www.qrz.com
- QTH https://qth.com/
- Gigaparts store https://www.gigaparts.com/
- Ham Radio Outlet- https://www.hamradio.com/
- OMISS https://omiss.net/
- Icom America https://icomamerica.com
- Yaesu https://yaesu.com
- Kenwood USA https://kenwood.com

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, 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



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