



RCA Amateur Radio Club Indianapolis, IN



ARRL Affiliated Club
www.w9rca.org

JANUARY 2025

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE TUESDAY, JANUARY 14,
6:30 PM AT NORTH SIDE EVENTS, FORMERLY THE KNIGHTS OF COLUMBUS,
2100 EAST 71ST, INDIANAPOLIS, IN

RCA ARC NEWS

DECEMBER MEETING SUMMARY – Thanks to all who attended the December meeting. Jim, K9RU, reported a Drake C-line donated to the club sold for \$500. Also, he has a possible buyer for a SB220 Linear Amp donated to the Club. The Club's certificate of deposit has been renewed. It was pointed out that DX Engineering is now selling MFJ branded products. Our Club will likely participate in the Indy United FD activity again as we've done in the previous few years. Ships on the air and a discussion on FT8 concluded the meeting.

AMATEUR RADIO LICENSE TEST SESSION

Date: Saturday, January 11, 2025
Time: Starting at Noon **by appointment only.**
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd
Indianapolis, IN 46254-2407
Contact: **James Kajder (505) 228-3704**
Email: testing@indyradioclub.org
Required: FCC FRN and a completed NCVEC 605 license application form.

Laurel VEC test sessions: <https://www.laurelvec.com/?pg=exams>

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Salvation Army Open Net, Thurs. 7PM, W9RCA repeater, 146.88 MHz, tone 88.5 Hz

Jan 18-10	ARRL January VHF Contest
Jan 25-26	Winter Field Day
Feb 8	Hendricks County Hamfest, ARRL Indiana Section Convention
Feb 8-9	CQ WW WPX RTTY https://www.cqwxprtty.com/rules.htm
Feb 10-14	ARRL School Club Roundup
Feb 15-16	ARRL Inter. DX Contest, CW https://www.arrl.org/arrl-dx
Feb 22	Dugger Amateur Radio Club Hamfest , Dugger, IN
Feb 21-23	CQ 160M SSB Contest http://www.cq160.com/rules.htm

WA7BNM expanded contest calendar, <https://www.contestcalendar.com/>

Visit the **ARRL Special Event Stations database** at www.arrl.org/special-event-station to find other on-the-air events and commemorations.

Hamfest or Convention: www.arrl.org/hamfests

Find a license exam in your area: www.arrl.org/exam

ARRL Home: www.arrl.org

BOB BEGEMAN, W9KVK SK

Bob passed away Christmas day, the results of a fall. He had moved to the Masonic Retirement Village with his wife, Marjorie in November. He had celebrated his 100th birthday in August.

Bob graduated from Purdue, was a Navy Veteran, retired from Naval Avionics and came to work for RCA till he retired.

He was active with the RCA ARC, with VE testing and always willing to help out at the RCA flea market tables at the Indianapolis Hamfest.

He was active with the RCA AEC VE team, later the Red Cross, Greenfield, W9IMS and the IRC team. He also helped at several Hamfest test sessions.

He was a member of the IEEE, WW2 Round Table, RCA ARC, Indianapolis Radio Club Indiana Historical Society and had put together the USS Indianapolis Memorial station.

Bob's interest in ham radio was mainly building and experimenting with circuits and antennas.

Even at 100, he was sharp and loved to discuss theory.

The club would like to thank Bob and Marjorie for the donation of his equipment and parts collection to the RCA ARC. --Jim K9RU

K9RU "PASSING THE TORCH" FOR THE IRC VE TESTING TEAM

Jim Kajder, AC9ZL will become the primary Volunteer Examiner Team Leader for the Indianapolis Radio Club's VE Team, effective January 1, 2025 replacing Jim Rinehart, K9RU.

According to ARRL records, Jim, K9RU has been an accredited VE since 1991, and has logged 273 sessions. He has been a VE with the RCA ARC, Indianapolis Motor Speedway ARC and the Indianapolis Radio Club. Thanks, Jim and Jim for all your work! – Ken KJ9B

ARRL HAS ENDED SUPPORT OF INCOMING DX QSL CARD BUREAUS

On June 21st the ARRL notified Incoming Bureau managers of the end of ARRL support on June 30th, but due to a technicality the end date was extended to December 31st, 2024. Thereafter the 14 bureaus must somehow support themselves.

Eric (K9EU) at NIDX indicated via email that the only impact due to this change was to increase the cost per envelope sent from the 9th district bureau from \$1.00 to \$1.17.

This is to cover the cost of the PO Box; I assume that was funded by the ARRL previously.
--WB9CIF

ARRL THE NATIONAL ASSOCIATION FOR AMATEUR RADIO LAUNCHES DREAM STATION SWEEPSTAKES

Newington, CT – January 3, 2025 – ARRL has introduced a sweepstakes, offering members the chance to win an Icom Dream Station including a limited-edition IC-7760 HF/50 MHz transceiver, IC-PW2 amplifier, and microphone, generously donated by Icom America.

Go to the ARRL Sweepstakes Now > www.arrl.org/DreamStation

The ARRL Sweepstakes will run from January 3 to December 31, 2025. It is an exciting centerpiece of a year-long campaign to encourage new membership, and a fun way for current members to extend their support for ARRL.

Dream Big!

The lucky winner will receive one grand prize that includes a dream station comprised of the latest amateur radio equipment from Icom:

- IC-7760 HF/50 MHz 200 W Transceiver – Icom 60th Anniversary Signature Edition
- IC-PW2 1 kW Linear Amplifier
- SM-50 Advanced Desktop Microphone

The winner will also receive a limited-edition Seiko watch celebrating Icom's 60th Anniversary.

Dream Now!

Participation in the sweepstakes is open to ARRL Full members in the US (see Official Rules). Members will automatically earn sweepstakes entries when they:

- Join or Renew Membership** – earn 1 entry
- Set up Auto-Renewal** – earn 2 entries
- Donate to the ARRL Diamond Club** – earn 1 entry for every \$50 donated

Members can earn up to six (6) entries during the year-long campaign.

For more information about the ARRL Sweepstakes, and Official Rules, visit the ARRL website at www.arrl.org/DreamStation.

CWOPS ANNOUNCES 2024 ADVANCING THE ART OF CW AWARD

Each year, CWops, an international organization that promotes and advances Morse code (CW) in amateur radio communications, accepts nominations for individuals, groups, and organizations for the CWops Award for Advancing the Art of CW. The award recognizes contributions made toward advancing the art or practice of radio communications by Morse code.

The Radio Officer's Association (ROA) is the recipient of the 2024 CWops Award for Advancing the Art of CW. ROA honors and preserves the history and accomplishments of radio professionals from across the Merchant Navy, Coast Station Service, and Civil Aeronautical industry. Its membership includes nearly 400 former professional radio officers, half of whom hold amateur radio licenses. CWops recognized ROA's efforts to preserve CW history through its journal, and for activities that span CW mentoring, on air nets, and CW-related museum displays and related activities.

The award was recently accepted by ROA's Bill Cross, G0ELZ, at the organization's annual meeting in Liverpool, England. It was presented by CWops President Stew Rolfe, GW0ETF.

ARRL AWARDS RECOGNIZE EXCELLENCE IN HAM RADIO

It probably isn't hard to think of someone you know in the hobby who goes above and beyond in service to amateur radio, their club, their fellow hams, or their community. Volunteers are the very core of the Amateur Radio Service, and that dedication is what carries the ARRL Field Organization. Excellence in on-air operating inspires the rest of us to be better, build better, and do better.

ARRL seeks your help in honoring the outstanding work done by hams, through the ARRL Service Awards. There are a host of different awards which are divided into four categories: Education Awards, Media/Public Relations Awards, Technical Awards, and Distinguished Service Awards.

Education Awards

Hiram Percy Maxim Memorial Award – Named for the Founding President of ARRL, this award goes to a licensed radio amateur under age 21 who has made exemplary contributions to amateur radio and the local community. Nominees must be current ARRL members. Nomination deadline: March 31, 2025.

ARRL Herb S. Brier Award for Instructors and Teachers – Honoring Herb S. Brier, W9AD (SK), ARRL sponsors this award in conjunction with the Lake County (Indiana) Amateur Radio Club to recognize the very best in amateur radio instruction and recruitment. The award goes to a licensed radio amateur and ARRL member who is an ARRL-registered volunteer instructor or ARRL-registered professional classroom teacher. Nomination deadline: March 15, 2025.

Technical Awards

ARRL Microwave Development Award – This award recognizes a radio amateur or group of radio amateurs who contribute to the development of the amateur radio microwave bands. Nomination deadline: March 31, 2025.

ARRL Technical Service Award --This award recognizes a radio amateur or group of radio amateurs who provide amateur radio technical assistance or training to others. Nomination deadline: March 31, 2025.

ARRL Technical Innovation Award --This award recognizes a radio amateur or group of radio amateurs who develop and apply new technical ideas or techniques in amateur radio. Nomination deadline: March 31, 2025.

Public Relations Awards

ARRL Philip J. McGan Memorial Silver Antenna Award – Honoring Phil McGan, WA2MBQ (SK), this award recognizes a radio amateur and ARRL member who has demonstrated leadership in successfully promoting amateur radio to the public. Nomination deadline: March 31, 2025.

ARRL Bill Leonard Award – Honoring Bill Leonard, W2SKE (SK), three annual awards are given to professional journalists or journalistic teams whose outstanding coverage highlights the enjoyment, importance, and public service contribution of the Amateur Radio Service. The award is given in three media categories: audio, visual, and print. Nomination deadline: March 31, 2025.

Distinguished Service Awards

Knight Distinguished Service Award – Honoring Joe T. Knight, W5PDY (SK), the award recognizes exceptional contributions by a Section Manager to the health and vitality of ARRL.

Nomination deadline: March 31, 2025 (for consideration during the July ARRL Board meeting).

George Hart Distinguished Service Award – Honoring George Hart, W1NJM (SK), the award recognizes an ARRL member's lifetime of activities within the ARRL Field Organization, including the National Traffic System and the Amateur Radio Emergency Service®. Nomination deadline: November 1, 2025.

WSJT-X FT8 ONLINE COMMENTS AND **WSJT-X 2.7.0-RC8**

Joe K1JT, comments on on-line comments – “This thread includes multiple comments from G5xxx that apparently seek (1) to instruct us (the WSJT-X Developers) on how we should manage our RC and GA releases, and (2) to tell you (normal WSJT-X users) that the SF (Super Fox) mode was developed somehow in the dark, with no consideration of how well it would work in the real world.”

[Editors note: We won't print all of G5xxx's comments, but Joe's answers give you some insight to the WSJT team.]

On item (1): No member of the WSJT Core Development Team is primarily a software developer, professional or otherwise. Most of us are scientists or engineers, and software development is definitely not our first-and-foremost main focus. We work on WSJT and its sister programs just for fun, and because we think we can contribute innovations that advance the state of the art in the inherently experimental hobby we all enjoy.

There are lots of software packages for hams developed by professional software developers. If those kinds of product are important to you, you should use them. However, I don't believe any such example has gained the widespread popularity of WSJT and its sister programs, or has had anywhere near the impact on ham radio that the weak-signal modes developed in WSJT have had, over the past quarter century.

On item (2): The G5xxx comments about how SF mode was developed contain almost nothing that is true. Like most important capabilities in WSJT, SF mode was developed over time with extensive input from users -- both before and after the first serious use by a rare DXpedition.

We tested with real pileups, with people calling in the wrong time slot, with deliberate QRM, and many other problem situations. We made actual measurements of achievable QSO rates. We compared the performance of SF and old-style FH over a wide range of signal strengths. We publicized the results of these tests in a variety of ways.

Finally, I will mention that all of us on the Core Development Team are getting on in years. (I was first licensed in 1954, at age 13.) Perhaps even more importantly, I'll share the unwelcome news that four of the seven of us are dealing with serious medical issues, either personally or of a close family member.

Yes, our schedule has been somewhat delayed recently, for unavoidable reasons.

Release Candidate WSJT-X 2.7.0-rc8 (Mon. 06 Jan 2025) We are pleased to announce that Release Candidate WSJT-X 2.7.0-rc8 is ready for download and use by beta testers. This revision introduces a new Message System primarily intended for contests. Otherwise, RC8 is mostly a bug-fix release of the well-functioning RC7.

The WSJT-X Message System can be used to invite your QSO partner to QSY to another frequency or mode (e.g. during contests), or to send some general short messages. It consists of the Message Creator and the QSY Monitor. Received messages are displayed as popups. To understand how to use the Message System, be sure to read Section 8 of the updated WSJT-X User Guide for RC8.

Additional details on program changes since RC7 can be found in the Release Notes:

https://wsjt.sourceforge.io/wsjsx-doc/Release_Notes_2.7.0-rc8.txt

Release Candidates are intended for beta testers. If you download and use WSJT-X 2.7.0-rc8, please provide relevant feedback on the new features and anything that does not seem to work properly for you. If your report involves something related to received signals, be sure to provide one or more saved *.wav files that illustrate the perceived problem. As a general matter, you should use the option "Save all" when testing.

Direct links to installation packages for Windows, Linux, and macOS can be found on the WSJT-X page <https://wsjt.sourceforge.io/wsjsx.html>

Scroll down to the heading "Candidate release: WSJT-X 2.7.0-rc8".

For those who like to compile from source, a source-code tarball is available on the WSJT-X page.

WSJT-X is licensed under the terms of Version 3 of the GNU General Public License (GPL). Development of this software is a cooperative project to which many amateur radio operators have contributed. If you use our code, please have the courtesy to let us know about it. If you find bugs or make improvements to the code, please report them to us in a timely fashion.

The authors and Copyright holders of WSJT-X request that derivative works should not publish programs based on features in WSJT-X before those features are made available in a General Availability (GA) release of WSJT-X. Currently this caution applies to all SuperFox and SuperHound features. We will cease making public Release Candidates if this request is ignored.

Feedback should be sent to this email list or one of the others mentioned here in the User Guide:

<https://wsjt.sourceforge.io/wsjsx-doc/wsjsx-main-2.7.0-rc8.html#SUPPORT>

We hope you will enjoy using WSJT-X 2.7.0-rc8, and that you will help us to create a new General Availability (GA) release soon.

-- 73 from Joe, K1JT; Steve, K9AN; Nico, IV3NWV; Uwe, DG2YCB;
Brian, N9ADG; John, G4KLA; and Charlie, DL3WDG.

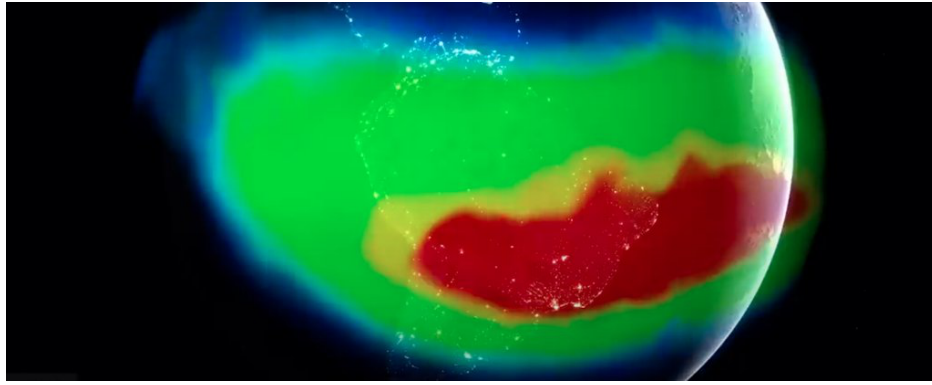
TECHNICAL

Attention SDR owners: SDR CONSOLE ! There are many Youtube videos. Maybe every one already knows about this. If so, what are your thoughts?

<https://www.youtube.com/watch?v=kAiGIIJdhbw>

I happened upon this video accidentally. What caught my eye was that this software looks very much like "PowerSDR OpenHPDR" that I use. I love it! PowerSDR was originally developed by Flex Radio for their early SDRs and then they made it open source. Many updates have followed.

So, the displays look very much like mine. There is a rather extensive list of the low cost SDRs which will supposedly work with this software. If you have one of those on the list, you might want to give it a try. Looks like it's specifically designed for ham radio unlike much of the other software available for the cheap SDRs. You can also use this with some of the web SDRs. --AF9A



NASA Is Watching a Vast, Growing Anomaly in Earth's Magnetic Field

NASA has been monitoring a strange anomaly in Earth's magnetic field: a [giant region of lower magnetic intensity](#) in the skies above the planet, stretching out between South America and southwest Africa.

This vast, developing phenomenon, called the [South Atlantic Anomaly](#), has intrigued and concerned scientists for years, and perhaps none more so than NASA researchers.

The space agency's satellites and spacecraft are particularly vulnerable to the weakened magnetic field strength within the anomaly, and the resulting exposure to charged particles from the Sun.

The South Atlantic Anomaly (SAA) – [likened by NASA](#) to a 'dent' in Earth's magnetic field, or a kind of 'pothole in space' – generally doesn't affect life on Earth, but the same can't be said for orbital spacecraft (including the International Space Station), which pass directly through the anomaly as they loop around the planet at low-Earth orbit altitudes.

During these encounters, the reduced magnetic field strength inside the anomaly means technological systems onboard satellites can short-circuit and malfunction if they become struck by high-energy protons emanating from the Sun.

These random hits may usually only produce low-level glitches, but they do carry the risk of causing significant data loss, or even permanent damage to key components – threats obliging satellite operators to routinely shut down spacecraft systems before spacecraft enter the anomaly zone.

Mitigating those hazards in space is one reason NASA is tracking the SAA; another is that the mystery of the anomaly represents a great opportunity to investigate a complex and difficult-to-understand phenomenon, and NASA's broad resources and research groups are uniquely well-appointed to study the occurrence.

"The magnetic field is actually a superposition of fields from many current sources," geophysicist Terry Sabaka from NASA's Goddard Space Flight Centre in Greenbelt, Maryland [explained in 2020](#).

The primary source is considered to be a [swirling ocean of molten iron](#) inside Earth's outer core, thousands of kilometers below the ground. The movement of that mass generates electrical currents that create Earth's magnetic field, but not necessarily uniformly, it seems.

A huge reservoir of dense rock called the [African Large Low Shear Velocity Province](#), located about 2,900 kilometers (1,800 miles) below the African continent, is thought to disturb the field's generation, resulting in the dramatic weakening effect – which is aided by the tilt of the planet's magnetic axis.

"The observed SAA can be also interpreted as a consequence of weakening dominance of the dipole field in the region," [said](#) NASA Goddard geophysicist and mathematician Weijia Kuang in 2020.

"More specifically, a localized field with reversed polarity grows strongly in the SAA region, thus making the field intensity very weak, weaker than that of the surrounding regions."

While there's much scientists still don't fully understand about the anomaly and its implications, new insights are continually shedding light on this strange phenomenon.

For example, [one study](#) led by NASA heliophysicist Ashley Greeley in 2016 revealed the SAA slowly drifts around, which was confirmed by subsequent tracking from CubeSats in research [published in 2021](#).

It's not just moving, however. Even more remarkably, the phenomenon seems to be in the process of splitting in two, with researchers in 2020 discovering that the SAA [appeared to be dividing into two distinct cells](#), each representing a separate center of minimum magnetic intensity within the greater anomaly.

Just what that means for the future of the SAA remains unknown, but in any case, there's evidence to suggest that the anomaly is not a new appearance.

A study published in July 2020 suggested the phenomenon is not a freak event of recent times, but a recurrent magnetic event that may have affected Earth [since as far back as 11 million years ago](#).

If so, that could signal that the South Atlantic Anomaly is not a trigger or precursor to the [entire planet's magnetic field flipping](#), which is something that actually happens, if not for hundreds of thousands of years at a time.

A more recent study published this year found the SAA also [has an impact on auroras seen on Earth](#).

Obviously, huge questions remain, but with so much going on with this vast magnetic oddity, it's good to know the world's most powerful space agency is watching it as closely as they are.

"Even though the SAA is slow-moving, it is going through some change in morphology, so it's also important that we keep observing it by having continued missions," [said Sabaka](#).

"Because that's what helps us make models and predictions." – By [Peter Dockrill](#)

https://www.youtube.com/watch?v=qpdQcw_52iM&t=12s

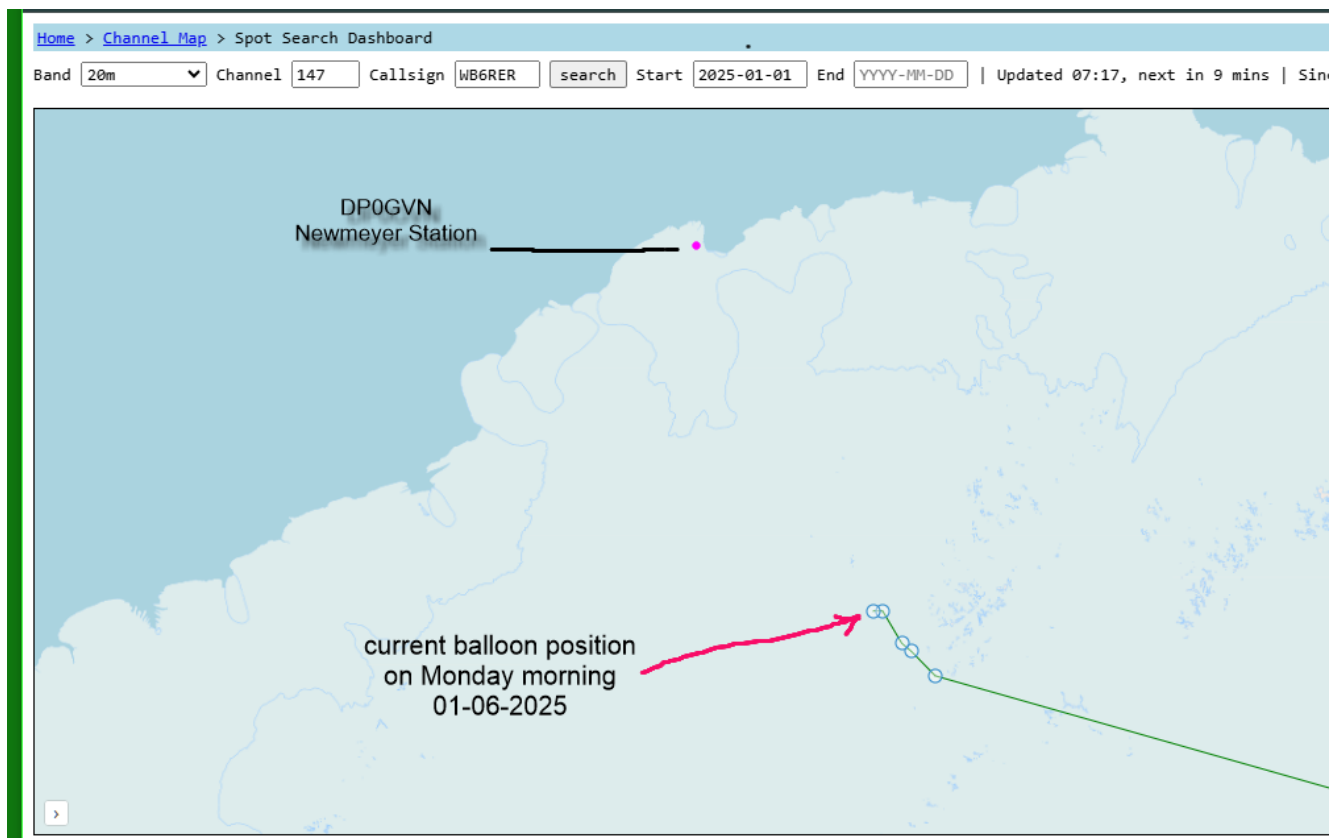
An earlier version of this article was published in August 2020

SHORTS

TECHNICIAN CLASS COMING UP --There will be a 2-day Technician license preparation class offered at McKenzie Career Center, 7250 E 75th St., Indianapolis, on Jan. 18, 9:00 am to 5:00 pm and Jan. 25, 9:00 am to 1:00 pm with testing after. Contact Frank Merrill, K9LX to register at k9lxradio@gmail.com

DP0GVN still spotting WB6RER Pico Balloon, 01-06-2025 – The WB6RER Pico Balloon (a 10 meter WSPR transmitter) current position over Antarctica this morning and still at 44,300ft. Looks like it will fly right over or very close to the Neumayer Station III, DP0GVN, within the next day or two. The Neumayer Station is apparently the only 10 meter WSPR spotting station in Antarctica as we have only seen spots from that station. We very much appreciate their help keeping track of this world traveling balloon. It flew north of the Arctic Circle during its early orbits so it has flown over almost every part of our world.

Distance Traveled: 143,083 + miles
Spots: 888
Flight duration: 597 days, 22 hours, 40 mins --QRZ.com



Neumayer Station III, Antarctica

2025-01-09 UTC 02:20:02



THANKS FOR READING

THE RCA ARC MONTHLY NEWSLETTER IS COMPILED AND EDITED BY JIM RINEHART, K9RU AND JIM KEETH, AF9A. ALL MATERIAL CONTAINED HEREIN IS OBTAINED FROM THE SOURCES CREDITED AND EDITED FOR THIS NEWSLETTER.
