

SQUAKBOX

Issaquah Amateur Radio Club

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Issaquah, Washington

January 2019

ARRL's Logbook of The World Tops 1 Billion QSO Records

As of December 19, more than 1 billion contact records have been entered into ARRL's Logbook of The World (LoTW) system. And, while 1 billion QSO records represents a significant milestone, a more important statistic may be the nearly 187 million contacts confirmed via LoTW over its 15-year history.

The one billionth record was uploaded by 7X3WPL, the Sahara DX Radio Club, at 2332 UTC for a 20-meter SSB contact with Davide Cler, IW1DQS, that took place on December 28, 2016. The upload resulted in a match (QSL).

LoTW debuted in 2003 after a lot of behind-the-scenes planning and development. Initially, LoTW got off to a slow start. While user numbers gradually grew to about 5,000, a lot of hams didn't fully understand what LoTW was or how it worked, and opening an account could be cumbersome.

LoTW continued with few major changes until October 2011, when a perfect storm struck -- a large ingestion of logs after the CQ World Wide DX Contest and a freak snowstorm that knocked out power for more than a week in most places.

Field Services and Radiosport Department Manager Norm Fusaro, W3IZ, said uninterruptible power source (UPS) backup power quickly depleted in the days-long power outage. "When the system came back online, it was overwhelmed with the

(Continued on page 4)

Polish the Brass: Straight Key Night is Just Ahead

Every day is a good day to operate on CW, but set some time aside on New Year's Eve and into New Year's Day to enjoy Straight Key Night (SKN). The annual event begins at 0000 UTC on January 1, 2019 (New Year's Eve



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January Program

Help New Hams

Joe Decuir KF7BMD will be leading a short training session for new licensees to help them make their first contact. Bring your HT if you have one.

Future programs are as follows:
Feb - Digital Modes, W4MHI
Mar - SOTA, K7JRO

Contact Joe KF7BMD 425-985-1562 to volunteer.

At the last meeting . . .

December 5, 2018

The meeting was called to order by President Roger Weiss at 19:04. There were twenty-eight members and guests present.

The minutes of the November meeting were approved as published in the Squakbox.

Don Stewart was elected to the office of Treasurer for 2019 by acclamation.

A motion was passed for the club to fund a first year membership for graduates of the club sponsored license class. This would be granted when the new ham attends a club meeting?

We need a volunteer for Field Day chairman. Rod Johnson has a conflicting commitment and will be unable to attend. He will make club owned equipment and antennas available for use.

Bruce KG7OI will do some preliminary work on a 2019 club roster. He expects it to include names, calls and phone numbers (when provided) only. No addresses.

The December program was the ice cream feed.

The white elephant Christmas gift exchange was held.

Dinner before the January meeting will be held at Flying Pizza. The January program will be how to use your new radio for graduates of the club sponsored license class.

The meeting was adjourned at 20:05

- KA7GKP Jim Horn, Sec./Treas. – S

E-Mail Elmer

Got a HAM radio question and can't find an Elmer to talk to? Just send your question by E-Mail to our E-Mail Elmer at:

Elmer@w7bi.com - Ed. - S

2018 IARC Officers

President

Lara Flores (WA7LNF) - (Issaquah)

Vice President

Joe Decuir (KF7BMD) - (425) 985-1562 (Issaquah)

Secretary

Mihai Manolache (W4MHI) - (425) 647-7030 (Issaquah)

Treasurer

Don Stewart (KI7TTX) - (206) 450-1222 (Issaquah)

W7BI Trustee

Rod Johnson (WE7X) - (425) 392-8497 (Issaquah)

For Sale

1. New-in-the-box ICOM IC-7000 HF/6M/2M/ 70cm (430-450 MHz) All-Mode transceiver. \$800. Contact: Caesar Samsi W7HFF (425)246-0745 located in Issaquah Highlands, for more information.

2. Yaesu FT-991 (not 'A') model, All-Mode Transceiver in excellent condition. \$800

I have upgraded so I am selling my lightly used FT-991.

All-mode 160M through 10M; plus 6M, 2M, and 70cm bands. Lightweight, so it is easily take portable.

Does Yaesu C4FM digital mode. Has built-in 'sound card' so does not need external modem for most digital modes. Radio is 2-1/2 years old. Updated firmware (7/2018) for digital modes but never on the air with those modes. I have used it mainly for VHF/UHF SSB/CW activities. Comes with original boxes and packing, mike, power cord (fitted with Power Poles), manual, ' Nifty' condensed manual, and a Harbor Freight aluminum travel case.

Contact: Rod Johnson

WE7X@aol.com or (425) 392-8497

3. Icom 730 All-Mode HF transceiver (160-10M), in good used condition, with microphone, manual and matching 12V power supply. This was donated to the IARC, and is working properly. \$ 275.

4. The Issaquah ARC also has several serviceable Tri-Band beams for reasonable cost, and some random Rohn 25 tower

(Continued on page 4)

ARRL Petitions FCC to Incorporate Parity Act Provisions into its Amateur Radio Rules

The ARRL has filed a Petition for Rulemaking (PRM) asking the FCC to amend its Part 97 Amateur Service rules to incorporate the provisions of the Amateur Radio Parity Act. The Petition has not yet been assigned a rule making (RM) number and is not yet open for public comment. In the past, the FCC has said that it would not take such action without guidance from the US Congress, but, as ARRL's Petition notes, Congress "has overwhelmingly and consistently" offered bipartisan support for the Amateur Radio Parity Act.

"Private land use regulations which either prohibit or which do not accommodate the installation and maintenance of an effective outdoor antenna in residences of Amateur Service licensees are unquestionably the most significant and damaging impediments to Amateur Radio Service communications that exist now," ARRL said in its Petition. "They are already precluding opportunities for young people to become active in the avocation and to conduct technical self-training and participate in STEM [science, technology, engineering, and mathematics] learning activities inherent in an active, experiential learning environment. Without the relief in this Petition, the future of Amateur Radio is bleak indeed." The proposed amendments would have no effect on the FCC's limited preemption policy in §97.15(b), which pertains to state and municipal governing bodies, ARRL said.

Specifically, ARRL is proposing

that the FCC amend Part 97 by adding a new subsection under §97.15 that prohibits and ceases the enforcement of "any private land use restriction, including restrictive covenants and regulations imposed by a community association," that either fails to permit a licensee to install and maintain an effective outdoor antenna capable of operation on all Amateur Radio frequency bands; on property under the exclusive use or control of the licensee; precludes or fails to permit Amateur Service communications, or which does not constitute the minimum practicable restriction on such communications to accomplish the lawful purposes specifically articulated in the declaration of covenants of a community association seeking to enforce such restriction. ARRL's proposed rule would not affect any existing antenna approved or installed before the effective date of a Report and Order resulting from ARRL's petition.

The proposed provisions reflect the accommodation reached in the ultimate version of the Parity Act bill at the urging of federal lawmakers between ARRL and the Community Associations Institute (CAI), the only organization representing homeowners' associations. "That legislation was passed unanimously by the House of Representatives four separate times and has the support of the Senate Commerce Committee and the current Administration," ARRL stressed.

"Private land use regulations are

not 'contracts' in the sense that there is any meeting of the minds between the buyer and seller of land," ARRL said. "Rather, they are simply restrictions on the use of owned land, imposed by the developer of a subdivision... They bind all lots in the subdivision." ARRL noted in its Petition that an increasing number of homes available for purchase today are already subject to restrictive covenants prohibiting outdoor antennas.

In addition, ARRL pointed out that the Telecommunications Act of 1996 gives the FCC jurisdiction "to preempt private land use regulations that conflict with federal policy..."

"It is now time for actual and functional parity in the Commission's regulations in order to protect the strong federal interest in Amateur Radio communications," ARRL said. – ARRL Letter, 12/20/2018 - S

SK Night Cont.

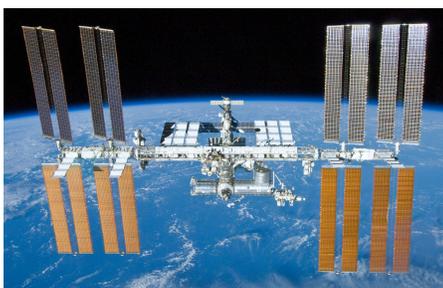
in US time zones). The 24-hour event is not a contest, but a day dedicated to celebrating our CW heritage.

Participants are encouraged to get on the air and simply enjoy conversational CW contacts, preferably using a straight key (hand key) or a semi-automatic key (bug). Activity traditionally centers on CW segments in the HF bands. There are no points or obligatory exchange -- the only

(Continued on page 5)

New Amateur Radio Packet Gear Awaits Unpacking, Installation on Space Station

New Amateur Radio on the International Space Station (ARISS) packet equipment awaits unpacking and installation on board the station after arriving in November as part of the cargo transported via a Russian 71P Progress resupply vehicle. The new packet module for NAISS will replace the current packet gear, which has been intermittent over the past year.



"With the arrival of Progress complete, the crew has to find free time to unpack Progress, uninstall the intermittent module, and then set up and test the replacement packet module," explained Dan Barstow, KA1ARD, senior education manager of the ISS National Laboratory (CASIS), an ARISS sponsor.

The ISS packet system was reported to have gone down in July 2017, although it unexpectedly came back to life the following summer. At the time of the failure, NASA ISS Ham Radio Project Engineer Kenneth Ransom, N5VHO, said the revived system would fill the gap until the replacement packet module arrived. The packet system operates on 145.825 MHz. ARISS hardware

team members on the ground were able to locate a functional duplicate of the ISS packet module that has been in use on the ISS for 17 years. ARISS said the subsequent installation will depend on the crew's busy schedule.

In an email to ARISS and other groups CASIS supports, Barstow pointed out that ARISS is an official backup system for astronauts to talk with Mission Control in the unlikely failure of the station's primary communication systems.

Bartow said that in 2017, hams relayed nearly 89,000 packet messages via the ISS -- an average of 243 every day. The statistic so intrigued and amazed Barstow that he decided to get his Amateur Ra-

(Continued on page 5)

For Sale Cont.

parts.

5. Four element 6M beam in good condition (KLM? or Hy-Gain?)- \$75

6. Need any 'odd' pieces of aluminum tubing?? I have lots of short and medium length pieces, removed from damaged or donated antennas, and some booms and elements of HF beams.

See Rod J (425) 392-8497 or WE7X@aol.com

Rod Johnson WE7X, 12/20/2018 - S

LoTW Cont.

amount of data coming in and could not keep up," Fusaro said. "The water was coming in faster than the pumps could pump it out. Crash!"

The disaster was a blessing in disguise, though, because it revealed weaknesses in the LoTW software and hardware.

Today, LoTW boasts some 112,000 users in all 340 DXCC entities, and 75% of all DXCC applications are filed via LoTW.

Fusaro said the League spent tens of thousands of dollars for new hardware. IT Manager Mike Keane, K1MK, implemented code changes to expedite log processing by giving priority to small- to medium-sized logs and inserting mega-files as openings occurred. Fusaro said a lot of the large files contained duplicate data, bogging down the process so much that users were resending logs already in the queue. Through all of this, not one QSO record was lost, because LoTW uses a redundant backup process, Fusaro said.

A LoTW users' group reflector and a queue-processing status page were set up. With better communication, Fusaro said, the system attracted additional numbers. Today, LoTW boasts some 112,000 users in all 340 DXCC entities, and 75% of all DXCC applications are filed via LoTW, which accounts for 86% of confirmations applied.

Now, ARRL is looking at the development of LoTW 2.0, Fusaro said. "Over the years, we have added more awards that can be

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First FT8 Roundup is a Huge Hit

The first FT8 Roundup over the December 1 - 2 weekend attracted some 1,300 logs from those taking advantage of the ever-more-popular digital protocol. This, despite its having been announced on fairly short notice and with other events such as the ARRL 160-Meter Contest on the same weekend. More than 400 of the logs were from US radio amateurs in the 48 contiguous states, plus the District of Columbia. Overall, some 131,200 contacts were recorded. Participants from 91 countries submitted logs, testifying to the fact that FT8 is not just a US phenomenon.



"The FT8 Roundup was the last shakedown for the WSJT-X 2.0-rc5 beta software," said well-known RTTY contesting enthusi-



Ed Muns, W0YK.

ast and expert Don Hill, AA5AU, an FT8 cosponsor with Ed Muns, W0YK. "It performed with no major complications." The general availability release of WSJT-X 2.0 is now out, and it's not backward compatible with WSJT-X 1.9 or earlier versions. Developer Joe Taylor, K1JT, has



Don Hill, AA5AU, and second op Sophie (SK).

urged users to upgrade by January 1 to what now is the new world standard. Muns, who's NCJ "Digital Contesting" contributing editor, said FT8 Roundup partici-

LoTW Cont.

applied for using LoTW QSL credits: VUCC, Triple Play, and two CQ awards -- WPX and WAZ."

"The service still has room for a lot of improvement, but it continues to grow and is the preferred method of confirming QSOs because it strives to protect the integrity of DXCC and all awards," Fusaro said. – ARRL Letter, 12/20/2018 - S

pation compared favorably with that for the ARRL RTTY Roundup, which has averaged around 1,700 logs in recent years.

"Don and I expected the contest to be popular," Muns said, "but the participation far exceeded our expectations. I think it bodes well for future FT8 contesting. Don and I are pretty bullish about continuing the FT8 Roundup on the first full

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Space Station Cont.

dio license and gear to join in the activity.

Satellite stalwart and ARISS supporter Patrick Stoddard, WD9EWK, won the December 2018 QST Cover Plaque Award for his article, "Making Digital Contacts through the ISS."

Current International Space Station (ISS) crew members Serena Auñón-Chancellor, KG5TMT, Alexander Gerst, KF5ONO, and cosmonaut Sergey Prokopyev were scheduled to return to Earth on December 20. – ARRL Letter, 12/20/2018 - S

SK Night Cont.

requirement is to have fun.

Send your SKN list of stations contacted and your votes for "Best Fist" and "Most Interesting QSO" by January 31. – ARRL Letter, 12,13,2018 - S

Broadcasters Intruding on Exclusive Amateur Radio Frequencies

The International Amateur Radio Union Region 1 (IARU-R1) Monitoring System (IARUMS) reports that Radio Hargeisa in Somaliland has returned to 7,120 kHz after a break of several weeks, while Radio Eritrea has been reported on 7,140 and 7,180 kHz. Radio Sudan has been transmitting on 7,205 kHz with excessive splatter, IARUMS said. Ger-



man telecommunications authorities have filed official complaints. The signal of a Russian over-the-horizon radio on 20 meters. [Photo courtesy of Wolf Hadel, DK2OM]

IARUMS has also reported digital signals attributed to the Israeli Navy on 7,107 and 7,150 kHz. In addition, a Russian military F1B signal was observed in mid-November on 7,179 kHz. A Russian over-the-horizon radar has returned to 20 meters on 14,335 - 14,348 kHz. It was monitored on November 22.

Earlier this fall, IARUMS reported digital signals from the Polish military daily on 7,001.8 kHz where Amateur Radio has a worldwide primary allocation. Telecommunications officials in Germany filed a complaint.

IARUMS has received reports of short "beeps" exactly 1 second

apart, as well as frequency hopping between 10,108 and 10,115 kHz and 18,834 and 18,899 kHz. The signals are believed to emanate from a site near Chicago associated with an FCC-licensed experimental operation involved with low-latency exchange trading on HF (see "Experiments Look to Leverage Low-Latency HF to Shave Microseconds off Trade Times"). Although Amateur Radio is secondary on 30 and 17 meters, Experimental licenses may not interfere with Amateur Radio operations. - ARRL Letter, 12/13/2018 - S

FT8 Cont.

weekend of December each year." Nonetheless, Muns said he doesn't see FT8 to "really take off" and displace RTTY until the contact rate can be significantly increased through parallel QSO techniques.

Hill agreed on the event's popularity. "I have to say it was a huge success," he said. "Ed and I never dreamed it would be this popular. It didn't make sense to continue the Ten-Meter RTTY Contest during this part of the sunspot cycle. Replacing it with an all-FT8 HF contest was the logical choice." Hill and Muns have cosponsored the Ten-Meter RTTY Contest.

Hill said final results of the inaugural FT8 Roundup should be out in a few days. "After the New Year, we hope to have downloadable online certificates available to all participants. We will definitely do it again next year," he said.

The 2019 ARRL RTTY Roundup will permit the use of FT8. ARRL Letter, 12/13/2018 - S

ExseedSat has been designated as VO-96

At the request of Exseed Space, AMSAT has designated the 1U ExseedSat CubeSat, launched on December 3 on a Falcon 9 vehicle from Vandenberg Air Force Base in California, as VUosat-OSCAR 96 (VO-96).

ExseedSat was built by a team of Indian radio amateurs, including Ashhar Farhan, VU2ESE; George Philips, VU2GT; Gurudatta Panda, VU3GDP; Sasi

Bhushan, VU3ELR, and Nitin



Gurudatta Panda, VU3GDP, with ExseedSat, now VO-96. [Photo courtesy of The Hindu]

(Continued on page 8)

Inaugural "Green Keys Night" Set for January 1

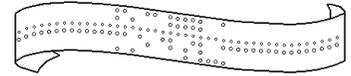
"Green Keys Night" -- an event aimed at promoting the restoration and use of vintage mechanical teleprinters -- will take place on January 1, 2019 (UTC), concurrent with Straight Key Night (SKN). As with SKN, GKN is an operating event and not a contest. "Green keys" refers to the color of the keys on Teletype Corporation machines. Participants are encouraged to get on the air and enjoy making casual contacts on RTTY. Call "CQ GKN."



A model 28ASR radioteletype machine. [1974 ARRL Radio Amateurs' Handbook photo]

"The use of mechanical teleprinters is preferred, or simply get on the air with the oldest equipment you can scrape together," said Jeff Stai, WK6I. "Real heavy-metal teletypes to be sure, but if that isn't available, analog hardware modems, VT100 terminals, pre-Windows computers, etc. And vacuum tubes. And maybe fire up that boatanchor rig that never gets enough air time."

RYRYRYRY...



DE KA7TTY

Hello again. Hope your Holiday Season is going well. We have some interesting programs lined up for the 2019 meetings, as well as our normal events. We have new officers for the new year, so we need to come out and support them.

One thing I have never mentioned here is the E-Mail group the clup has which allows members to send and receive E-Mail to and from the whole group. If you are not signed up, be sure to Joe KB7BMD, Barry K7BWH, or myself, John KA7TTY and we can get you signed up.

Our big Summer event is always Field Day and this year we will be using a new location. Stay tuned. We will have lots of decisions to make to make this Field Day a success.

Enough for now. Take care and I'll see you at the meeting,
John KA7TTY

Sponsors request no pre-recorded messages or "brag tapes," just "a real conversation by hand typing it keyboard to keyboard." Even those who do not own or have access to any old RTTY gear are invited to get on the air too, doing RTTY "the old-fashioned way," keyboard to keyboard.

Stai asks participants to let him know if they were active in the event and to share a favorite or most interesting QSO (worked or heard), a log, and equipment operated (including photos).

The SARTG New Year RTTY Contest runs from 0800 to 1100 UTC on January 1. Stai suggested operating in that event as well.

The GreenKeys online group is an email list devoted to the discussion of older RTTY gear, including mechanical teleprinters, terminal units, paper tape, gears, cams, oil, and anything else related to TTY/RTTY. – ARRL Letter, 12/13/2018 - S

Jordan's first CubeSat, JY1Sat, is now JO-97

JY1Sat, launched on December 3 from Vandenberg Air Force Base in California as part of the SpaceX SSO-A: SmallSat Express launch, has been designated as Jordan OSCAR 97 (JO-97). The 1U CubeSat is a project of the Crown Prince Foundation of Jordan. Telemetry has been received and decoded around the world since the launch.

The spacecraft's name recalls the Amateur Radio call sign of Jordan's late King Hussein, JY1. JO-97 carries a 435/145 MHz SSB/CW inverting Amateur Radio transponder and a Slow-Scan Digital Video (SSDV) system to transmit stored images. The te-

SQUAKBOX

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The IARC is affiliated with the American Radio Relay League (ARRL). Visit our WEB page at: <http://www.w7bi.com>

Membership is open to anyone regardless of age, sex, race, national origin, religion, or amateur radio license status. Dues are \$15 per year for a family membership, free for those under 19 years of age.

A two-month courtesy mailing of this newsletter will be made to meeting visitors and others upon request.

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– Coming Events –

- **January 2, 2019** - Monthly Issaquah ARC meeting at the Issaquah Valley Senior Citizens Center, 75 NE Creek Way, Issaquah. Doors open at 6:45 PM, the meeting begins promptly at 7:00 PM and the program begins at 8:00 PM. Refreshments are provided.
- **January 28, 2019** - Issaquah Communications and Support Team meeting, Issaquah Public Works, Issaquah, talk-in 146.56 MHz at 6:45 PM, Meeting at 7:00 PM.
- **February 6, 2019** - Monthly Issaquah ARC meeting. See Jan 2nd for time and location.
- **February 16, 2019** - Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, OR at the Polk County Fairgrounds. <http://www.w7sra.com>
- **March 9, 2019** - Mike & Key 38th Electronics Show & Flea-market. Puyallup fairgrounds exhibition hall, Puyallup, WA. <http://www.mikeandkey.org/index.php>
- **March 23, 2019** - MicroHams Digital Conference. Redmond, WA. <https://www.microhams.com/mhdc/>
- **April 13 -14, 2019** - Communications Academy. South Seattle Community College, Seattle, WA. <http://commacademy.org/>

ARRL NW Division Election

Recently the ARRL NW Division elected a new Director and Vice Director. The new Director is Mike Ritz W7VO and the new Vice Director is Mark Tharp KB7HDX. Congratulations to our new ARRL officials. – ARRL Western Washington Section Manager, Monte Simpson AF7PQ 11/16/2018 – S

Dues Are Due

It is that time of year when we need to collect dues so we can keep the club going. So if you haven't done so already, you need to see our new Treasurer and pay your dues. [Ed.]

JO-97 Cont.

lemetry downlink is on 145.840 MHz, the transponder downlink passband is 145.855 - 145.875 MHz, with an inverting uplink on 435.100 - 435.120 MHz. -- Thanks to AMSAT – ARRL Letter, 12/13/2018 - S

VO-96 Cont.

Muttin, VU3TYG. Initial telemetry has been received around the world. The downlink is 145.900 MHz for the FM repeater (CTCSS = 67 Hz) and digipeater, plus telemetry, and 435.340 MHz for FM repeater and digipeater uplink. Visit the IARU Satellite Frequency Coordination page for more information. -- Thanks to Drew Glasbrenner, KO4MA, AMSAT VP Operations/OSCAR Number Administrator – ARRL Letter, 12/13/2018 - S

New Ham Club

There is a new ham club in the area, Edmonds-Woodway Club. Check them out at <http://edwaynet.com/> - Barry K7BWH via John KM7O, 12/15/2017 - S