



Short Skip

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REPEATERS

Freq	Location
147.000	Merrillville
147.240	St. John
442.075	Merrillville

All Lake County ARC Repeaters are open to all amateurs. All repeaters must have a PL of 131.8 set in order to access.

FROM THE PARADE STAND

by Tim, N9CA, LCARC President



Everybody's S-Meter Is Correct ! Ah, the "S" meter debacle. "Thanks for the call old man - you're 5 by 9 here - a truly beautiful signal -OH, and would you please repeat your call sign, QTH, and your name...."

"Thanks for answering my call. What's my signal there old man?" "Arm Chair copy here! You're peaking about 2 inches on my S-meter - mostly up to the meter face screw head - and sometimes even up to the "n" in Kenwood!

Personally, and I know for a fact - my S-meter is correct - everybody else's meter is wrong!

Signal grading for AM, SSB, and CW;

STRENGTH:

1. perceptible

2. very weak

3. weak

4. fair

5. fairly good

6. good

7. moderate

8. strong

9. like wow!

FOR FM MODES:

1. picket fencing

2. captured my receiver

3. full quieting etc.

READABILITY:

1. unreadable

2. occasional words

3. difficult readability

4. no difficulty

5. perfect copy

DIGITAL MODES:

1. yes

2. no

So, we should all be giving an honest signal report (unless of course it's that rare DX station you really really need).

What's Watt? On HF bands - per the IARU - the S-meter is supposed to indicate S9 when there is $50\mu\text{v}$ (-73dBm) at the antenna input. FYI on VHF, an S9 meter reading - per the IARU - should be $5\mu\text{v}$. Each S unit is supposed to represent a 6db change. We all know a 3db change means the signal is either 2x as strong or $\frac{1}{2}$ as strong. So, an S9 signal should be 6db stronger or 4x (2×2) as strong as an S8 or 16x ($2 \times 2 \times 2 \times 2$) stronger than a perfectly copy-able S7.

Like the gas gauge in my car, most S-meters are not linear. Add in that radios are just more sensitive to small signals on 80 meters than they are on 10 meters. There is the receiver AGC setting plus the local ambient RF noise floor. Let's see how that relates to the power received at the antenna input on your new Goshdarn 5000 radio.

S9 signal $S9 = 50\mu\text{v}$ or 0.00005v receiver input impedance is 50Ω ,

$$I = E/R \quad 0.00005\text{v}/50\Omega = 0.000001 \text{ amps}$$

$$P = E \times I \quad 0.00005\text{v} \times 0.000001 \text{ amps} = 0.000000000005 \text{ watts at your receiver input!}$$

S1 signal Some can copy CW when it is "perceptible" just 3db over the noise or about $0.2\mu\text{v}$

$$I = E/R \quad 0.2\mu\text{v} = 0.0000002\text{v} \quad 0.0000002\text{v}/50\Omega = 0.000000004 \text{ amps}$$

$$P = E \times I \quad 0.0000002\text{v} \times 0.000000004\text{a} = 0.0000000000000008 \text{ watts} \quad \text{Amazing!}$$

What was their transmitted power?

FIELD DAY 2018: 1:00pm CST Saturday June 23rd to 1:00 pm Sunday June 24th

73 - Buzz

MEETING MINUTES

May 11., 2018

Lake County Amateur Radio Regular Club Meeting\
May 11, 2018

- Meeting called to order at 7:30PM
- Introductions were made with 4 guests attending.
- Discussions about the Red Cross sells the building and we will have to deal with new owners and the tower.
- John will add a list of the Elmers on the club web site.
- Field day will be on June 23rd on a Saturday starting at 1:00PM and goes on for 24 hours. The club has use of the EMA trailer and we are able to operate off the grid on a generator. The club would need help setting up antennas and getting everything ready to operate. Will need to move the trailer out and make sure everything is ready.
- A live stream ham radio show is on every Tuesday night at 8:00PM on W5KUB.com and also on the air.
- In Short Skip an article about a special event station GR9RW call sign for the Royal Wedding Special event station which will be on the air to commemorate the Royal Wedding.
- Discussions on internet security and a warning about home routers. Also, the need to have password used that have more security with web sites.
- John, W9WY presented the program which started at 7:58PM about Home automation and Insteon Smarthome.
- Next meeting 23 of June Field day
- Next Program will be by Mark on 3D Printing.
- Meeting adjourned at 9:00PM

THEIR FAMILY HOME IS THEIR FAMILY SHACK

For Amateur Radio Newline I'm Don Wilbanks
AE5DW.

This week's newscast with the story of a ham family adventure. You'll recognize one of the names in this report - Neil Rapp WB-9VPG mentioned her in his report just a few minutes ago. Now let's hear the rest of the story from Don Wilbanks AE5DW.

DON'S REPORT: It seems the Latham family almost didn't need to leave their home to attend Hamvention in nearby Ohio. Every day at their house in Greencastle, Pennsylvania is Hamvention. Of the seven children, six have licenses as do parents Rachel KM4ATS and Shannon KA8JRQ. The Lathams were all at Xenia together recently and Violetta, KM4AT'T, who is 13, spoke at the Saturday morning Youth Forum. The family's youngest ham is Aaron KM-4LEJ, who's 10 but has had his ticket for two years. Ohio, however, is a short trip compared to one of their next journeys - they're heading to Curacao. Don't expect to find the Lathams lounging on the beach, however. They're going on DXpedition and the only waves they'll be surfing are radio waves.

NEED HELP?

Call on these Elmers

Tim, N9CS, asked people to be Elmers. Here is the list: Tim N9CA, Bill N4GIX, Bill Young N9QLS, Russ KB9HO, and Andy W9FXT. Also it was mentioned ark K9MQ is an ARRL Tech Specialist and can be called on.

JUNE/JULY PROGRAMS

presented by

June - Adam (KD9JCX) will be presenting: "Proper Storm Spotting Techniques".

July - Mark (K9MQ): "3D Printers"



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NEW FIELD DAY SCORE MULTIPLIERS AND BONUS POINTS ANNOUNCED

By WBØRUR, on the scene

NEWINGSTEAD, Vt. — In a last minute decision designed to encourage a wider variety of amateur radio operating styles and practices, the National Radio ReTransmission Legion (NRRL) has announced a new set of “multipliers and bonuses” for Field Day.

“We believe these increased scoring opportunities will allow a wider and more diverse group of operators to participate in Field Day,” says Dr. Johnson Longville, Director of NRRL Contests and Promotional Outreach.

“While some of these may seem ever so slightly out of the norm, the League believes it is important to encourage participation through a variety of means. Recently, we implemented “non petroleum” power bonus, satellite QSO bonuses and several others. This is just a continuation of that on-going review and analysis.”

The new multipliers and bonus points are listed in the table below, along with common nicknames.

NICKNAME	POINTS	DETAILS
OSCAR MEYER	100 points	Operators eat nothing but bologna sandwiches for the duration of the contest
HOSTAGE Multiplier	2x score multiplier	All QSOs are made while blindfolded
FRUIT OF THE LOOM	150 points	Primary operator wears nothing but t-shirt and boxers
I JUST LEARNED TO TYPE	50 points	Logging operator uses one finger on the computer keyboard
NOW WE'RE COOKING	2x score multiplier	CW Operators must roast a small chicken on the charcoal grill while making 10 QSOs
STAY OFF MY YARD	250 points	Yell at the neighbor kids while making a SSB transmission
THE AUSTRALIAN CRAWL	4x score multiplier	All on-air operators must simultaneously drink a pint of Foster's
MONKEY SEE, MONKEY DO	100 points	One operator per transmitter must climb a tree and hold onto the station's feedline for 2.5 hrs
THE DIGITAL INSPECTION, IF YOU KNOW WHAT I MEAN	3x score multiplier	PSK31 /JT65 operators must live type all QSOs – NO MACROS
AND IT'S DEEP TOO!	50 points	Teach a class on building a camp-site latrine

HAMVENTION: MORE THAN A FAIR AT THE FAIRGROUNDS

For Amateur Radio Newline Kevin Trotman N5PRE



With Hamvention 2018 a memory, plans for next year have already begun - but first, Kevin Trotman N5PRE takes stock of this year's experience.

Are you ready for Hamvention 2019? OK - not so fast - it's only days since the big gathering in Xenia wrapped things up. General chair Ron Cramer KD8ENJ told Newline the final attendance count wasn't in yet, but he expected this year's attendance to top the nearly 30,000 ama-

teurs who visited the fairgrounds in 2017. The theme of "Amateur Radio, Serving the Community" didn't just find its way into various award ceremonies and forums but even turned up in informal gatherings near the food trucks where hams from Puerto Rico and other storm-ravaged places enjoyed eyeball QSOs for the first time with hams who shared last year's storm assistance efforts with them. Ron said some of the greatest strengths of the weekend event were the new weather-resistant tents and the 767 volunteers who came in from around the world to keep operations running smoothly. Meanwhile there were special hours at the Voice of America Museum in nearby West Chester Ohio which opened its doors to more than 250 hams from around the world who got immersed in broadcast history and even got on the air. To quote Ron, when Newline asked him about the overall positive feedback so far: "If you have any complaints about Hamvention 2018 you probably weren't there."



AMATEUR RADIO PARITY ACT LANGUAGE INSERTED IN NATIONAL DEFENSE AUTHORIZATION ACT

By ARRL 2018-05-16 @ 2213 UTC



ARRL has praised the work of US Representatives Joe Courtney (D-CT[2]), Vicky Hartzler (R-MO[4]), and Mike Rogers (R-AL[3]) for their successful efforts in securing language in the FY 2019 National Defense Authorization Act (NDAA) that asks the FCC to grant radio amateurs living in restricted communities the right to install effective outdoor antennas. Text from the proposed Amateur Radio Parity Act (HR 555) formed the basis for the

Courtney-Hartzler-Rogers Amendment to the NDAA.

“The bill does entitle each and every Amateur Radio operator living in a deed restricted community to erect an effective outdoor antenna. Full stop. That is the principal benefit of this legislation,” ARRL General Counsel Chris Imlay, W3KD, stressed. “There are tens of thousands of ham radio licensees who now, absent the legislation, cannot erect any outdoor antenna at all. This enables them in the same way PRB-1 has enabled hams to address unreasonably restrictive zoning ordinances during the past 33 years.” Imlay points out, though, that certain conditions apply. Prior to erecting an antenna in a deed-restricted community, an applicant for an outdoor antenna may have to apply to the homeowners association (HOA) for prior approval of the particular antenna system proposed by the ham. The Act would not empower an HOA to deny approval of all outdoor antennas. But neither does it entitle radio Amateurs residing in deed-restricted subdivisions to erect whatever antennas they want.

“This legislation is a good solid balance that favors hams and, as I say, allows tens of thousands of hams to erect effective antennas that they have no right to erect now,” Imlay said.

The amendment, offered by the bipartisan trio and accepted by

the House Armed Services Committee by voice vote, will ensure that Amateur Radio operators will continue to play a vital role in supporting communications in a disaster or emergency. Amateur Radio has long-standing relationships with the Department of Defense through the Military Auxiliary Radio Service (MARS) and spectrum sharing.

The Armed Services Committee passed the NDAA by a 60-to-1 voice vote after a 14-hour markup that ran well into the night. The bill now awaits House floor action. The Senate will begin its markup of the NDAA during the week of May 21.

Representatives Courtney and Adam Kinzinger (R-IL/16) spearheaded the effort to include the Parity Act language in the NDAA. Both are cosponsors of the Parity Act, which has passed the House by voice vote twice in the past 2 years.

Recognizing the long-standing relationship between Amateur Radio and the Department of Defense, Congressman Kinzinger — who served multiple tours for the USAF as a fighter pilot and is still a Major in the Air National Guard, and Courtney have been champions of the legislation in Congress.

“The steadfast support of the Amateur Radio community continually demonstrated by Congressmen Kinzinger and Courtney has been a godsend,” said Hudson Director Mike Lisenco, N2YBB. “The Parity Act wouldn’t be anywhere close to this stage without their strong support, and our organization is extremely grateful.”

Lisenco, who serves as Chairman of the ARRL Board’s Legislative Advocacy Committee, also recognized other promoters of Amateur Radio, including House Energy and Commerce Committee Chairman Greg Walden, W7EQI (R-OR/2), Energy and Commerce Ranking Member Frank Pallone (D-NJ/6), and House Armed Services Committee Chairman Mac Thornberry (R-TX/13). “We are deeply grateful for their continued understanding and support,” Lisenco said.

ARRL has pledged to continue pressing for support to enact the Amateur Radio Parity Act throughout the legislative process.

NOTE: this is PENDING legislation. This does not mean it has passed into law — ed.

ORLD OF DX

By OHIO PENN DX

In the world of DX, Mike, VK4DX, will be active as VK4DX/P from Russell Island in the Southern Moreton Bay Islands, between June 1-3rd. Listen for him on 80-20 meters where he will be using CW and SSB. QSL via VK4DX, direct, LoTW or OQRS.

Listen for Eric, K0EAP, Eric, active as KH6/K0EAP from the Big Island of Hawaii through June 2nd. He is on 40/30/20/15 meters using CW and SSB and has plans to activate at least 1 SOTA and WWFF. QSL via LoTW, QRZ, by the Bureau or Direct.

On Bonaire Island, Lauren/W0LD and Jon/N0JK will be active on 6 meters with a special PJ4 callsign from the PJ4G station during the ARRL VHF Contest which is June 9 and 10th). Before and after the contest, find them on HF and 6m using CW, SSB and FT8. QSL via W0LD.

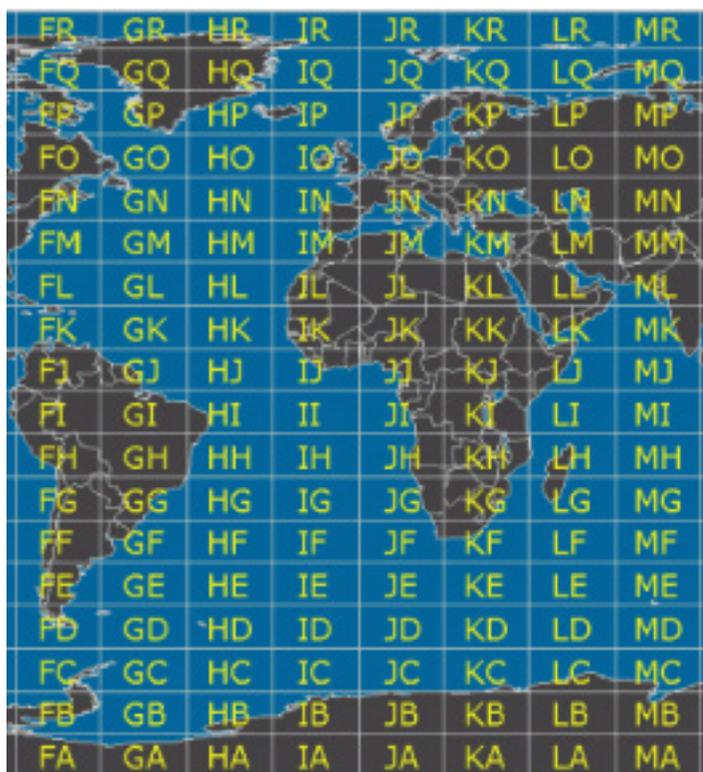
THINGS ON THE AIR (TOTA) LAUNCHED

By Bob, K0NR

The Sundance Mountain Radio Association (Palmer Lake, CO) today announced the creation of the Things On The Air (TOTA) program. The radio association's Need More Lists Committee spent the past year analyzing the effect of various "on the air" programs, including the Islands On The Air (IOTA), National Parks On The Air (NPOTA) and Summits On The Air (SOTA).

The overall trend is clear. The ham radio community used to be satisfied with the basic DXCC list (a list of countries that aren't really countries so we have to call them entities). But over time, additional lists to be worked have been created. For example, the Islands On The Air (IOTA) was created in 1964. More recently, the Summits On The Air program was established in 2002. It seems that every year or so we hear of another "something" on the air program. Even the normally docile satellite grid chasers created a Walmart Parking Lots On The Air (WMPLOTA) event.

Unfortunately, this has created a miss-mash of programs with-



inconsistent and conflicting rules. The Need More Lists Committee concluded that the best solution to this problem is to fast-forward to the likely end state: pretty much everything can be put on the air. Inspired by the latest technical hype called Internet Of Things (IoT), the committee named this program Things On The Air (TOTA).

To be comprehensive and inclusive, the TOTA program is based on the existing Maidenhead Grid system. There are 324 fields defined (AA through RR), each having 100 squares (although they really are not square). Each square contains 576 subsquares indicated by aa through xx. So using the six-character locator results in $324 \times 100 \times 576 = 18,662,400$ unique locators. Or, as the Committee likes to say, about 18 million locators. In North America, the six-char-

acter locator represents a rectangle about 3 miles by 4 miles. This raises the question of how many things need to be on the list inside a typical 3 x 4 mile rectangle. An in-depth study revealed there are a lot of things that might need to be listed in even a small area.

For TOTA to achieve the vision of being the "last list of things on the air", it must accommodate an unlimited number of listed things. To start out a 15-digit serial number is appended to the 6-character locator to indicate a TOTA thing. As the program grows and new Things are added to the list, the 15-digit number can be extended indefinitely.

Here's an example listing of some of the first TOTA designators:

Locator	Serial Number	Description
DM79nb	000000000000001	Walmart Parking Lot
DM79nb	000000000000002	Home Depot Parking Lot
DM79nc	000000000000001	Leroy's home QTH
DM79nc	000000000000002	Leroy's barn
DM79nc	000000000000003	The big tree behind Leroy's house
DM79db	000000000000001	Charlie's home QTH
DM78lu	000000000000001	Pikes Peak Summit
DN70di	000000000000001	Rocky Mountain National Park

When making a valid TOTA contact, the activating station must give a signal report and the TOTA designator: 6-character locator followed by the serial number (at least 15 digits but may be longer). The official TOTA list is currently be maintained on an Excel spreadsheet on Leroy's computer but a HDFS database is under construction to handle the expected large dataset.

The Committee requests the help of all amateur around the world to submit additional entries into the TOTA list. Eventually, this process will be automated via the ThingsOnTheAir.com web site but for now submissions can be made in the comments field below.

The post Things On The Air (TOTA) Launched appeared first on The K0NR Radio Site.



The Hamuniverse.com "Hammobile" prototype just back from a "Far Out" DXpedition