



## VE TESTING

Contact: Steve Maresso, KB9OLD at 847/ 477-3518

Testing is conducted quarterly at 7:00 PM on the third Tuesday for the months of February, May, August, and November. Walk-ins are welcome until 8:00 PM. No appointment is necessary. Testing requirements:

1. Cost for 2017 is \$15.00 (Cash or check made payable to ARRL). If initial test element is passed, the person testing may continue take the next test element(s) at no extra charge during the given session. Retesting of an element failed during the same testing session will require payment of an additional \$15.00 test fee.
2. Must show original and provide copy of Amateur Radio license and/or CSCE (if upgrading).
3. Must show a valid Government Issued Photo ID (Passport, Driver's License or State ID card) for identification.
4. Social Security or FRN number required.
5. Location: Free Methodist Church, 934 N. Seminary, Woodstock, IL 60098

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### International Crystal Manufacturing Going Out of Business:

International Crystal Manufacturing (ICM <https://www.icmfg.com/>) of Oklahoma City has announced that it will be going out of business, probably at the end of May. Royden Freeland Jr., son of the company's founder, posted a letter this week on the ICM website.

“We will be honoring all orders that we have already taken and will be able to fill a limited amount of new orders, dependent upon raw materials available,” Freeland said. “We would like to thank you for your past business. The success of ICM over the previous 66 years has been largely due to its amazing customer base.”

International Crystal produces RF control devices -- quartz crystals, oscillators, QCM crystals, filters, TCXOs/VCTCXOs, and precision crystals.

next column

## MEETING NOTICE

April 4, 2017

Socializing: 6:30 PM  
Meeting: 7:00 PM

Crystal Lake Bank  
5100 Northwest Hwy (Rt. 14)  
Crystal Lake, IL 60014

**PROGRAM:** “It's the Jack and Roger Show ” W9MU & KF9D will have a presentation on wire antennas. They'll tell you all you need to know about wire antennas and probably more than just hanging a hunk of wire out the window.

### International Crystal - cont'd

Royden R. Freeland Sr. founded International Crystal in 1950, at first operating out of his garage. One of his first contracts was to produce crystals for Collins Radio. The elder Freeland and his wife died in a 1978 air crash, and his son took over the company, which expanded into the production of other electronics in the 1980s.

In the 1990s, though, it sold off some of its equipment and distribution business to concentrate on its core enterprise -- the manufacture of crystal and oscillator products. The announcement caught some manufacturers off guard, and they are seeking to source the products they had been buying from ICM, one of the remaining US-based manufacturers of crystal products. Radio amateurs requiring crystals for projects or as replacement parts for older equipment also will have to look elsewhere. Read more

<http://www.arrl.org/news/international-crystal-manufacturing-going-out-of-business>.

Source: The ARRL Letter

STRAY Only fellow Hams know the feeling WE Hams have after having completed an actual DX contact or a 2-Meter “Roundtable” discussion!

[AA7LX](#)

# M.C.W.A.

April 2017



## GOOD DXPEDITIONS UNDER ROUGH CONDITIONS

Some dxpeditions go out without the pros at the controls, but most dxpeditions are seasoned in the art of doing the right thing at the right time. Having noted that not all operations are quite the same, I want to give special recognition to the 5U5R group. They made things happen 24/7. They used the bands and schedules well to log major portions of the globe. I worked them on 20m and 17m, but there were many opportunities to work them on the band of your choice. These guys put Niger in the spotlight. TU7C did almost as well as the group operating concurrently in Niger. Although I had these two countries from prior dxpeditions, I still like to log a new operations. One evening a TU7C operator set up an interesting split scenario. He was transmitting phone near 7.088mhz and was listening at 7.125 to 7.130. Legal operators from the USA had to stay at 7.128 to 7.130 to stay in band. Other regions of the world are permitted to do phone at the 7.125 mark. This split allowed for some separation from various regions. I stayed on 7.130 and worked the dxpedition on first or second call. It was something I had not seen before, but it worked. Good dxpeditions do things that work !

Another sign of a good dxpedition is manifest in their logs. Does the log favor North America? Or does it favor Europe or Asia? A dxpedition in Nepal could have seen a wider distribution of regions and numbers in their log. Another dxpedition in Bangladesh could have also had greater distribution in their log. These two operations had a large number of European and Asian stations in the logs. No doubt, some of the issue could have been the lower solar numbers in terms of enhancing propagation on higher HF bands.

But conditions do not always dictate the situation. On a recent stretch of no sunspots I heard T2AQ calling CQ with few takers on 15m. I worked him on phone split. Our reports were 53 with QSB but the QSO was made. I put the station on the DX cluster and stations from many continents were soon working him. One element in our advantage these days is the increasing sunlight. Even with no sunspots and low flux, daylight helps on the higher HF bands. Another interesting factor during some of the 0 sunspot days were lower K and A indices. This cuts the noise down so the weaker signals can be heard. As we cross into April look for such calls as 9N1MD, CE0Y (in time for Easter), VP2MKX, P29VXG, YJ0YM, 5T3MM, XW4X4, A25UK and 4W calls, EA6 calls, and various E5 calls on the air. The announced DX operations for the future are not reduced by lower solar cycle expectations. If anything, it appears that more operations will be on the air as this cycle continues its decline than when the peaks of Cycle 24 occurred.

By the way, 20m DX is staying open much later as the daylight increases. This will increase up to 10m. However, I must admit that 10m has now become difficult but workable at times. Whatever propagation offers, I hope to hear you on the bands. 73 Dave KA9OZP

# M.C.W.A.

April 2017

## Wednesday Night 6 Meter Net

Thought I'd report on the success of the 6 meter net/forum that I started back in October 6, 2016.

So far we have had 32 check-ins see below:

Just as a reminder the 6 meter net/forum is held every Wednesday at 7-8:00 pm on 50.130 USB.

We talk about anything and everything except REL-STRAYigion and Politics. So fire up your 6 meter rigs, tune up your antennas and join in !

See you on Frequency.

Pierre K9EYE

Net Control

|            |        |              |         |            |        |                  |         |
|------------|--------|--------------|---------|------------|--------|------------------|---------|
| 1. K9BAG   | Peter  | Sycamore     | 21.9 mi | 14. N9DJ   | John   | Harvard          | 11.1 mi |
| 2. K9EM    | Jim    | McHenry      | 13.7 mi | 15. N9GUU  | John   | Lake Villa       | 20.4 mi |
| 3. K9EYE   | Pierre | Crystal Lake | 4.9 mi  | 16. N9VXD  | Paula  | McHenry          | 13.7 mi |
| 4. K9RUF   | Dave   | Ingleside    | 18.7 mi | 17. ND9G   | Mike   | McHenry          | 11.8 mi |
| 5. KA9CAR  | John   | Crystal Lake | 4.1 mi  | 18. NM1S   | Matt   | Ingleside        | 14.7 mi |
| 6. KA9OZP  | Dave   | Woodstock    | 12.6 mi | 19. NT9E   | Dave   | McHenry          | 14.7 mi |
| 7. KB9DIP  | Larry  | Algonquin    | 0.6 mi  | 20. W9AD   | Dave   | Barrington       | 7.1 mi  |
| 8. KC9JBA  | Bob    | McHenry      | 12.0 mi | 21. W9CL   | Claude | Gilberts         | 5.2 mi  |
| 9. KC9RP   | Hap    | DesPlaines   | 23.6 mi | 22. W9DWP  | Paul   | East Dundee      | 4.9 mi  |
| 10. KD9FML | Gary   | Crystal Lake | 8.6 mi  | 23. W9FY   | Olaf   | Algonquin        | 1.4 mi  |
| 11. KF9D   | Roger  | Algonquin    | 0.9 mi  | 24. W9JXN  | Tony   | East Dundee      | 4.9 mi  |
| 12. KG9X   | Fred   | McHenry      | 9.7 mi  | 25. W9NBG  | Tom    | Richmond         | 21.3 mi |
| 13. N7US   | Jim    | Woodstock    | 10.3 mi | 26. WA9HJZ | Peter  | Barrington       | 10.4 mi |
|            |        |              |         | 27. WA9WVX | Dan    | Elgin            | 6.4 mi  |
|            |        |              |         | 28. WB8BZK | Mike   | Algonquin        | 1.1 mi  |
|            |        |              |         | 29. WB9LZA | Jim    | Lake Bluff       | 24.2 mi |
|            |        |              |         | 30. K9KEU  | John   | Williams Bay, WI |         |
|            |        |              |         | 31. K9RE   | Edgar  | Northbrook       | 26.1    |
|            |        |              |         | 32. KC9ZAS | Tony   | Fox Lake         | 20.5    |
|            |        |              |         | 33. KC9Q   | Mike   | Algonquin        | 0.0     |

Stray XYL's don't need instructions or manuals. They just call Tech Support a/k/a the OM. [N9LCD](#) de eham

# M.C.W.A.

April 2017

## April DX (CQ WPX 3/25-26/17)

Contest DXCC Class QSL Callsign Entity Route

-----  
3V8SS Tunisia M/S LoTW; QSL via LX1NO  
3Z6V Poland SO LP LoTW; QSL via SP6DVP or (C)  
4M1K Venezuela SOSB 40M LoTW; QSL via OH0XX  
5J0NA San Andres & Providencia SOAB LW9EOC  
8P1W Barbados SOAB LP KU9C  
8P5A Barbados SOAB HP LoTW  
9K2K Kuwait SOAB LoTW  
A73A Qatar M/2 M0OXO  
BP0P Taiwan M/2 BP0P  
BW/JL3RDC Taiwan SOAB JL3RDC  
BW/JN3MXT Taiwan SOAB JN3MXT  
BW/JP3PZG Taiwan SOAB JP3PZG  
CQ3W Madeira M/? ClubLog  
CR6K Portugal SOAB  
CT3EE Madeira M/S  
D4C Cape Verde SOSB 20M LoTW  
D4CV Cape Verde SOSB 15M LoTW  
E2A Thailand SOAB LP LoTW; QSL via E21EIC  
E51DWC South Cook Islands SOAB HP LoTW  
E7DX Bosnia & Herzegovina M/S E77E  
EA8DO Canary Islands SOSB 160M LoTW  
EA9KB Ceuta & Melilla SOSB 20M EA7FTR  
ED8W Canary Islands SO LoTW  
EF9R Ceuta & Melilla SO LoTW; QSL EA5KB (d)  
HR2WW Honduras SOAB LP KD4POJ  
IE9K Italy M/? IT9DSZ  
IF9A Italy SOSB 15M IT9WDC  
IO9R Italy M/2 ON3AR  
IY4FGM Italy M/? IZ4AFW  
KP3H Puerto Rico SOSB 15M LoTW  
KP4RV Puerto Rico SOSB 15M KP4RV  
LY27A Lithuania M/2 LY5A  
M1E England SOSB LoTW; QSL via ClubLog  
M1U England SOSB LoTW; QSL via ClubLog  
NP2P US Virgin Islands SO LoTW  
OF5Z Finland M/2 LoTW  
PA10A Netherlands M/S LoTW  
PJ7PL Sint Maarten SO LP WA1ZAM  
RK90DR Russia (Asia) M/S R9XC  
S21KW Bangladesh M/? YL2GN  
S21L Bangladesh M/? S21L (B)  
S19AM Sweden M/S ON3UN  
T22TT Tuvalu SOSB 80M N7RO  
T40A Cuba M/S (d)  
T42A Cuba M/? LoTW; QSL via RW6HS  
TI5M Costa Rica M/2 TI2KAC  
TM3Z France SOAB HP F4DSK  
V31VP Belize SOAB HP WB0TEV  
V47JA St Kitts & Nevis SOAB LoTW; QSL via W5JON (d)  
V51/TA1HZ Namibia SO LoTW; QSL via LZ3HI  
VC2W Canada SOAB HP LoTW  
VC3T Canada SOAB HP VE3DZ  
VP5P Turks & Caicos M/2 LoTW; QSL via W2TT (d)  
VP9I Bermuda SOSB LP KO8SCA  
VR2HKS Hong Kong M/S VR2HKS (d)  
WX3B USA M/M WX3B  
XO1X Canada M/S KC1CWF  
YD3RJL Indonesia SOSB 80M  
YD3VRY Indonesia SOSB 40M

## Officers & Staff

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Social Media Director .....Dave Whaley, NT9E

\* \* \* \* \*

STRAY Operating my K1 outside a coffee shop a guy asked "Who are you talking to?" I said "the mother-ship." He looked up!

AK4YH via eham

\* \* \* \* \*

## March 25-26 CQ WPX Contest SSB

YN2KW Nicaragua M/S N5ET  
YV1YL Venezuela SOSB 10M LoTW; QSL via OH0XX  
YW4D Venezuela SOSB LoTW  
Z60A Kosovo SO HP Z60A  
ZA/PA2LS Albania M/? PA2LS (PA-B/d)  
ZX5J Brazil SOAB NZ4DX  
(e) eQSL only (d) direct only (B) Bureau only (\*-B) DX's-  
Bureau  
(O) OQRS only (C) ClubLog only (L) LoTW only (\*) No QSL  
Needed

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## Another Stealthy Antenna

By KA9CAR

An MCWA club member, Dave, KD9ESL recently moved into a new home. He has an indoor antenna for his 2 meter radio that works fine for the local repeaters.

Dave is a General. He has a 20 meter QRP radio, and needs an antenna for that. He has limited mobility so he needs help getting an antenna up. The Land Lord has the usual concerns about an unsightly antenna.

A survey of the options revealed that although he has a balcony the nearest tree is about 150 feet away across a common area lawn, so a wire to the tree was not an option. The house is a tall "A" frame, and it would be nice to staple an inverted Vee to the eaves, but there is no way to get there up as there is not enough room for a ladder.

Standing on the balcony I noted that the second floor roof rain gutter is a seamless aluminum type, and is around 30 feet long. The gutter runs east to west. In the lower level of the home are three exposed sheet metal air handling ducts that run in parallel in a North South direction from the furnace at the far south end.

Given the above conditions I was able to set up an antenna for Dave.

Starting at his station, I ran a 300 ohm feed line from his tuner, down to the lower level through an existing hole left when I pulled out abandoned cable TV cables. At the lower level, I connected one side of the feed to the nearest duct using a self tapping screw, then used short jumpers and more screws to connect all three ducts together. Now I had a 25 foot by 3 foot conductive mass of metal. To the other side of the feed line, I connected a black 18 gauge wire which I ran out through a new 1/8 inch hole in the soffit, then about 2 feet over to the corner of the house. From there the wire went up to the second story aluminum gutter where it was attached to the top lip of the gutter with another self tapping screw. A few brown colored wire staples match the color of the home, and with the wire runs along a joint in the siding it is hardly noticeable, and is less visible than the cable TV wires.

I connected a multiband radio and ran some tests. I was able to get a match on all bands but 1, and at 100 watts we did not trigger any of the electronic devices in the home.

The ductwork, wire and gutter form a twisted Z, or an inverted L top loaded vertical or some other name. It probably has less than ideal radiation patterns on some bands, but it is an antenna.

Where there is a will, there is a way to get on the air!

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## Determining Display Screen Sizes for Ham Shack Video Monitors

By Jeff Wayne, K1YLV

How large should your flat panel display be? Today, we have more and more digital radios being sold that accept external video/data monitors to supplement the displays built into the radios. Some think that "Bigger is better".

I have been in the audio visual industry for about 45 years. First as a school district's Director of Media Services, and then in sales for several major AV system integration companies. We actually have a rationale for specifying display screen sizes, and you will probably be surprised to find out what is recommended and why.

Whether you need to add one or more video/data displays to your ham shack, or need a basic computer monitor, or TV for your entertainment room, as professionals, we begin conducting site surveys to determine several pieces of data including the following:

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## April 2017

### Ham Shack Monitors - cont'd

1. What is the maximum viewing distance from the video monitor or projection screen?
2. What is the minimum viewing distance (Front row)?

We use "Architects' and Engineers'" specifications to determine an appropriate display image size. After that, if the customer wants to go large, we will sell him whatever he wishes to purchase.

Ergonomics and operator fatigue are critical when dealing with displays. Not only do you have to be able to see all of the data on the "Screen", you should be able to do so without racking your head from side to side, and up and down. When I was a kid, many years ago, we would go to the movies for a Saturday matinee, and sit in the front row.

When you were nine or ten, you could watch the cartoons and movies close to the screen, and still walk out of the theater without neck and back pain.

The screen size calculation has two standard numbers to consider and they depend on the content appearing on the screen. The formula is as follows: Screen Height = Distance from the screen to that last row of the room\* DIVIDED BY 6\*\*

Example: 12' Max Viewing Distance = 2' or 24" Display Screen Height 6

With a consumer LCD which has a 16:9 aspect ratio (Width-to-Height ratio), this would call for a 50" diagonal display for a 12' maximum viewing distance.

\*Last Row also means where your eyes will be when viewing the data at your equipment console.

\*\*For small fonts or a display packed with data, use "6" as the divider. For general video viewing and large font content such as "PowerPoint", you can use "8" as the divider for a smaller screen.

A second consideration is the minimum viewing distance that should be maintained. This is stated in the specifications as no less than twice the height of the display screen. If the display is too large, you will not be able to view all of the content without giving your neck fatiguing and possibly painful workout while tracking data all over the screen surface. I am composing this article on a notebook computer that has almost a 14" diagonal LCD screen. My eyes are approximately 24" away from it. The screen height is a little less than 7". By formula, I am viewing the screen beyond

the minimum recommended viewing distance of twice the screen height or 14". I am OK.

Another ergonomic consideration is Angle of View. When viewing a video/data display, you should not have it positioned more than +/- 15o from the horizon. Have you ever visited a hospital's emergency room and watched a TV (Which was usually on a channel that you hated) that was positioned high on a wall?

Watching a TV that is too high is difficult, especially over a long period of time. Your home TV should be mounted or placed within this range as well since you will be watching long programs and want to relax while doing so.

Basically, I have provided you with some guidelines that the "Industry" uses to size display screens appropriately. You do not have to follow these recommendations. They are starting points, and if you want a larger or smaller display, you can do whatever makes you happy.

If you want to scientifically select display monitors for your ham shack, use these guidelines and save yourself some money and a possible visit to a Chiropractor, especially after a long contest.

I am including a chart that I developed to simplify determining recommended display/projection screen sizes. I used the "6" factor that addresses small fonts and packed data displays. I hope that this will help you when adding video displays to your stations. The chart formats the formula to enable you to take the viewing distance and easily match up a display screen size.

Maximum Viewing Distance Chart for 16:9 Display Screens:

Note: Actual viewable screen sizes vary with manufacturer. Bezel widths and manufacturer's true glass sizes vary, so please consider these calculations to be approximate. The Architects' & Engineers' formula of Screen Height x 6 = Maximum Viewing Distance was used, and is especially applicable for the display of smaller fonts, as used in spread sheets and AutoCAD

-----> cont'd page 7

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## Ham Shack Monitors - cont'd

Distance was used, and is especially applicable for the display of smaller fonts, as used in spread sheets and AutoCAD.

| Screen Diagonal | Screen Height | Max Viewing Distance |
|-----------------|---------------|----------------------|
| 12 d            | 6.4 H         | 3.2                  |
| 16 d            | 8.5 H         | 4.25                 |
| 20 d            | 10.6 H        | 5.3                  |
| 26 d            | 12 H          | 6                    |
| 32 d            | 16 H          | 8                    |
| 40 d            | 19 H          | 9 6                  |
| 42 d            | 20 H          | 10                   |
| 46 d            | 22 H          | 11                   |
| 50 d            | 24 H          | 12                   |
| 60 d            | 29 H          | 14 6                 |
| 65 d            | 32 H          | 16                   |
| 70 d            | 34 H          | 17                   |
| 80 d            | 39 H          | 19 6                 |
| 90 d            | 44 H          | 22                   |
| 100 d           | 53 H          | 26.5                 |
| 120 d           | 63.6 H        | 31.8                 |

\* \* \* \* \*

## It'll Be Here Soon!

The continued uncertainty surrounding the future of Ten-Tec brings to mind a story I heard many, many years ago, with several non-approved factory modifications.

A millionaire, from back east, who lived for practical jokes, bought the only billboard in this small country village and hired a painter. The seldom-used billboard was located between the Great Plains Feed Mill and the Beer, Bait, and Ice convenience store. The billboard was seen by all of the farmers that were going to get corn ground or to purchase cattle cubes at the feed mill and everyone who could not drive 17 miles to the nearest gas station from the convenience store. In addition, the three pinball machines in the convenience store attracted many high schoolers after school.

One Tuesday morning a sign painter pulled back a makeshift curtain to reveal a simple sign on the billboard that said, "WATCH FOR IT!"

Speculation as to what the sign meant started to be a part of

most conversations. Some farmers came to the mill early the

following Tuesday as the sign painter pulled the curtain to once more display a simple announcement that heralded, "IT IS COMING!" Soon a newspaper photographer in the next larger town came and took a picture that made the front page. The 25 copies the convenience store received on Saturday were sold in less than an hour.

The following Tuesday the painter had about 30 local residents to review his latest handiwork as he pulled the curtain back. The sign read, "NEXT WEEK FOR SURE!" The same photographer from last week and his managing editor, got a couple of photos and interviewed several excited residents.

The next Tuesday would be a day long remembered in this rural assembly of old people who did not have enough money to move out and younger families who were saving every penny to leave, even though it meant taking a large hit, assuming they could even sell their home. But for one month economic concerns took a distant back seat to the excitement created by the sign.

Two television stations from down state sent film crews, one even had a helicopter overhead, the lieutenant governor was there, the school had dismissed and the 17 members of the school marching band were playing patriotic tunes, although somewhat off key. The part-time mayor, in a rented tuxedo, all three city council members, and two regular convenience store vendors waited with unabated anticipation.

What could it be? Perhaps a new business was coming to town? Maybe a Hollywood movie was to be shot on location in this backwater community? Was it possible a former resident struck it big in Alaska and was going to share his good fortune? There were as many possibilities as the 324 people standing in front of the billboard.

At 10 AM a local pastor led a prayer, followed by the band playing the "Battle Hymn of the Republic." Everyone was focused on the billboard, except the millionaire practical joker who was parked about a block away sitting in his big caddy pointed out of town. A thirty second drum roll and the curtain was pulled back. The joker briefly looked in his rear view mirror and smiled as he sped out of town. The curtain was pulled back to reveal: "IT'S GONE!!!"

KE5GK -- Hopeless Ten Tec Fanatic (de eham)

STRAY Anyone else notice that JT-65 sounds like a preschooler with a Flutaphone?

[K9CTB via eham](#)

STRAY If 100 people rate a piece of equipment 4-5 and you rate it 0-1, maybe it's not the equipment.

[N7KFD via eham](#)

# M.C.W.A.

APRIL 2017

## Cuba Institutes New Amateur Radio Regulations

03/21/2017 Radio amateurs in Cuba are scrutinizing and debating the details of new Amateur Radio [regulations](#) for the island nation. The Cuban Ministry of Communications adopted the new regulatory scheme on February 28. International Amateur Radio Union Region 2 (IARU-R2) posted the new Amateur Radio Service regulations (in Spanish) as a PDF.

The detailed regulations governing hams in Cuba comprise 17 chapters and 182 articles and are said to include some significant changes from the previous rules and regulations that affect authorized bands, license terms, on-the-air practices, and the importation of equipment, antennas, and accessories. The rules in Cuba require license applicants to be at least 18 years old “or authorized by parent or guardian” for prospective radio amateurs older than age 12. Those older than 15 must at least be in ninth grade.

Three license classes are available in Cuba: First Class licensees have CO-prefix call signs and may run up to 2,000 W on authorized bands; Second Class licensees have CM-prefix call signs and may run up to 100 W; Third Class licensees have CL-prefix call signs and may run up to 10 W. Upgrading from Second to First Class requires 3 years’ experience in the lower license category, while upgrading from Third to Second Class requires 2 years’ experience in the lower license category.

First and Second Class licensees must pass a 5 WPM Morse code test.

The Federation of Cuban Radio Amateurs (FRC) develops the questions for the written tests, which must have government agency approval before being administered. Having a license does not automatically give permission to build a transmitting station, which must have prior approval.

The new Cuban regulations stipulate that communications with Amateur Radio stations in other countries be “in clear language” and limited to messages of a technical nature that do not justify the use of public telecommunications. Messages of a technical nature should refer to the exchange of information regarding experiences or experiments carried out during radio communications, and the coordination of schedules. An Amateur Radio station in Cuba may not engage in international third-party communications.

Cuba has adopted an approach of listing permitted modes by band, specifying up to 31 emission designators for some bands. —Thanks to Southgate Amateur Radio News via Joel Carrazana, CO6JC, FRC Information System (de ARRL)

{Ed. - Looks like better times for Cuban hams. Perhaps it's better regulation than FCC regulations in some ways ? This editor like the idea waiting 3 years and gaining some experience before upgrading to a higher class license. Many U.S. hams on the air presence seems like they have no clue how to act. In the past few years more & more Cuban stations have been appearing on the air which may also be good in the political arena since Ham Radio is supposed to spread international good will after all. Your comments/opinions are invited. ???}

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### Contesting - good to know

Every once in a while one runs into a little gem of info while reading through some of the forums. Today's gem come from Eham.net. N3QE answered a question about contesting with N1MM's software and seeing multipliers ... his answer was “ It is very very easy for a newbie to wait in line chasing a desirable (either loud or rare) station, instead of actually boosting their score by working more workable stations without a pileup. If the N1MM display of mult-to-Q ratio reminds them not to waste time and instead make QSO's, then maybe that's good enough. ”



## FROM THE EDITOR'S DESK

### Odd Call Signs on the Loose -- Be on the Look-out!

Special event stations sporting unusual call signs are -- or will be -- on the air this spring and later in the year.

From Canada's Yukon Territory, keep an ear open for [XOIX](#), now on the air for the remainder of 2017, with plans to be active March 25-27 for the CQ World Wide WPX (SSB) contest. The special call sign prefix is permitted as part of Canada's sesquicentennial celebration, as is XK150YUKON, another Yukon Canam Contest Club call sign for the sesquicentennial, operating VY1JA remotely. Operators will include Gerry Hull, W1VE/VE1RM, Cary Rubenfeld, VE4EA, and others.

"The XO1 prefix has not been on the air in 35 years," Hull told ARRL. "My friend Andy, VE9DX, last put it on the air as XO1ASJ." That prefix block was subsequently moved to Yukon Territory, he explained. [OE17ATOM](#) will be active from Austria starting at 2200 UTC on April 21 until 2200 UTC on April 22, operating on HF, VHF, and UHF from the only nuclear power plant that never was. The station will be set up inside the reactor hall and control room, and there will be a live video stream. Lower Austria radio clubs, the Icom Radio Club and Johanniter Unfall Hilfe-Austria organized the event.

From Croatia, 9A21RBM, on the air April 1-15, will commemorate the 21st anniversary of the plane crash near Dubrovnik in 1996 that claimed the lives of US Commerce Secretary Ron Brown and 34 others. Presumably the suffix stands for "Ron Brown Memorial." Members of Radio Club Libertas (9A4J) will helm the operation.

Another pending special event with an atomic connection is [VISANTLER](#), operating from Maralinga Village in South Australia, is planned for September 14-October 9. That area of northwest and south Australia is where the British carried out atomic tests in 1957 under the code name "Project Antler." Organizers say that this may be the first ham radio activity from the Maralinga Section 200 Restricted Area since that era. They are awaiting authorizations. -- Thanks to [The Daily DX](#), Gerry Hull, W1VE/VE1RM, and others

**Comment on above** So, while the rest of the world has some really neat special event call signs, why or why is the U.S. stuck with all those boring 1 x 1 calls which get used and reused, over and over again ??? This program in U.S. is administered by the ARRL and is about as exciting as watching paint dry! Some of those 1 x 1 calls get used by one group one week and another group the next and it gets confusing unless one consults the sometimes hard to locate ARRL page for those calls. Think it's time that perhaps the FCC stepped in and took over special event call sign allocations. What do others think ???

### Transmitter Hunting by FM Transmitter 'Finger Printing'

By Sherlock W0RW

The signals intelligence method of 'Finger Printing' has been used for a long time and is very simple. It consists of an FM Receiver and a discriminator pick off that goes to an oscilloscope. Here is how it works: When an FM transmitter is keyed up the radiated signal varies depending on what type of radio it is. An old crystal controlled radio will come right up on frequency with little overshoot deviation or drift. There are not many of those on the air today.

All of the other newer radios use a PLL/VCO to generate the transmit frequency and when they start there can be positive or negative overshoot, sometimes up to 1 KHz. All this takes place within a few milliseconds so you don't hear it but you can see it on a scope set to DC.

Some transmitters are so slow starting there is an audible click at the beginning of the transmission. The polarity and amplitude of the overshoot gives you the fingerprint of the transmitter. After the transmitter is on there can be additional drift depending on the length of the transmission. Of course if there is CTCSS/PL on the carrier that adds another fingerprint element. A storage oscilloscope is very helpful recording this data.

Some newer FM receivers use a FM demodulator chip which won't allow you to have access to the discriminator but any older FM Radio will have access. Pin 4 on the meter socket of an old Motorola is the discriminator output.

Then you compare the 'finger print' to your history data base to identify the owner of a transmitter.

If you are unfamiliar with it you can read a paper on Finger Printing at:

<http://onlinelibrary.wiley.com/doi/10.1029/2000RS002345/pdf>.

Paul, W0RW

### Hamfests

4/1 MRAC/MAARS - Milwaukee WI

<http://www.w9rh.org/club-events/swapfest>

4/8 Madison (Stoughton)

[www.qsl.net/mara](http://www.qsl.net/mara)

5/7 Dekalb

Other hamfests in April in Illinois are in places like Galva, Godfrey, Noble and Sullivan. Where the heck are these places? Must be down in 4-land .. anything South of I-80!