

# The Nugget



## Mother Lode DX/Contest Club

### The Newsletter of the Mother Lode DX/Contest Club

#### MEETING DATE, LOCATION & PROGRAM

##### August Meeting Announcement

Our meeting on August 23<sup>rd</sup> will be held at Mountain Mike's Pizza 11974 California 88 #2082, Martel, CA. We have Norm, N6JV, giving a presentation on EME... **Earth-Moon-Earth communication**, also known as **moon bounce**, a radio communications technique which relies on the propagation of radio waves from an Earth-based transmitter directed via reflection from the surface of the Moon back to an Earth-based receiver. Did someone say Norm was talking to aliens???

See the club website for a map of meeting location.....

#### MLDXCC 2014 DUES

Our dues are voluntary; however you must pay dues, \$15/yr, to be eligible for any club awards. Dues can be paid at our meetings, or send them to me at the following address:

Ms. Carolyn Wilson  
P.O. Box 273  
Somerset, CA 95684

Thank you. 73, Carolyn, K6TKD – Treasurer.

#### -MLDXCC Meeting Dates:

September 20-HAM Radio Propagation  
October 18-TBD  
November 22-SO2R RTTY  
December (no meeting)

#### 2014-Officers

President – Bob, W1RH  
Vice President – Verne, W6VMT  
Secretary – Dick, K6LRN  
Treasurer – Carolyn, K6TKD  
Director – Rick, W6RKC  
Director – Shirl, AA6K

**Below are a few shots from our last meeting**



(Photos by Norm N6JV)

**FROM THE PREZ**

Hi Mother Lode'ers!

It's been a long, hot, and dry summer with most of my time spent on refinishing the deck and dealing with winemaking stuff.

I've been thinking about DX today. Been a while since I worked a new one and I thought that, for sure, the upcoming Tromelin dxpedition would be a new one for me. I checked DXBase and it appears I actually have it confirmed....on 80 Phone, of all bands. I have not worked Tromelin in any other band slots, however, so it should still be a lot of fun to jump into the pileups head first. The Tromelin dxpedition will be the first serious effort to activate Tromelin since 2002, and that one did not focus on the lower bands. I worked them on 80 in 2000.

I'm beginning to wonder if I'll ever work 'em all. A look at the log shows the following remaining:

ANDAMAN & NICOBAR ISLANDS

ANNOBON

BOUVET ISLAND

BURUNDI

CHESTERFIELD IS.

COCOS (KEELING) ISLAND

CROZET ISLAND

NORTH KOREA

GLORIOSO ISLAND

KERGUELEN ISLAND

MACQUARIE ISLAND

MOUNT ATHOS

NAVASSA ISLAND

PETER 1 ISLAND

PRATAS ISLAND

SOMALIA

SOUTH SANDWICH ISLANDS

TEMOTU PROVINCE

Frankly, it's really amazing that I've managed to work as many DXCC entities as I have. I tend not to follow dxpedition news and rarely look at the DX packet Cluster.

I'm sure that a few on the list could be pretty easily worked if I would just pay attention to the DX newsletters and packet. I've worked many of the rare ones during the bottom of the sunspot cycles, so the upcoming low doesn't bother me, as long as the dxpeditions are out there.

Speaking of propagation, I did 700+ Q's in NAQP SSB. Conditions were just brutal until the evening. Everything was weak. The fatigue can set in after dealing with hour after hour of pulling stations out of the mud. All things considered, and even though I had some great runs in the evening, this one was not a fun contest.

Which gets me thinking about CQP.....

I'm praying for rain, for several reasons, but it seems that a good rain storm prior to CQP, along with cooler weather, seems to quiet things down. If conditions were like they were for NAQP SSB, it will really help to have those insulators washed off, pumps turned off, air conditioners shut down.

We are in a serious battle this year for the CQP Top Club plaque. I seem to say this every year, but this year I really mean it. K6TU's CCCP group is convinced they will win this year. They have been recruiting operators fast and furious....good operators and big stations. I even had one of our Bay Area members ask me if I'd be upset if he joined in with CCCP instead of MLDXCC this year. He really is convinced that CCCP can win it.

I'm not convinced and I'm not upset. As a matter of fact, I like the three-way competition.

We have some big guns, but we also have a boat load of up and coming smaller stations, meaning lots of logs, and those scores all add up. We've also been doing our own recruiting and I want to single out Shirl, AA6K, for doing some serious recruiting for the group. We've been seeing a bunch of new membership applications, and that's a good thing!

NCCC has determined their focus contests for the upcoming year:

Sweepstakes  
NAQP

That leaves a bunch of contests open for us to jump into. The ARRL 10 Meter contest can be fun if the band's open. The ARRL RTTY Roundup might just, however, be the

perfect contest for our group to focus on. RTTY can be a lot of fun.

Get your station projects in gear! You have some motivation:

Tromelin and CQP.

We have some good antenna guys in the club, like W6SR and N6JV, as well as several serious contesters. They're all willing to answer questions.

This month's meeting will be in Martel, with Norm, N6JV, talking about Earth-Moon-Earth DX'ing. September will feature Stu, K6TU, on HF propagation. October is still not locked in, although I may do a talk on the basics of RTTY DX'ing and contesting if nothing else materializes. In November, our RTTY guru and insane RTTY contester, Jef, WK6I, will talk about SO2R RTTY contesting. Thanks to our VP, Verne, W6VMT, for doing an outstanding job this year coordinating our meeting presentations. Verne was pretty involved with the Large Animal Rescue group during the Sand Fire, but he still seems to find time to take care of MLDXCC.

See you in Martel!

**73, Bob, W1RH**

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### **THE VP SEZ**

Well it's been a pretty busy month here in Downtown Pleasant Valley.

Last month I encouraged everyone to be very aware of the potential of wildfires. The night before our meeting, in Stockton, I was called out through our Large Animal Evacuation Team. It was located at the staging area for the Sand Fire in El Dorado County. We staged Friday night, Saturday after our club meeting and Sunday. We were able to evacuate large animals until our stand down order on Tuesday.

Our meeting, in Martell, on August 23<sup>rd</sup> will have Norm, N6JV, giving a presentation on EME... Earth-Moon-Earth communication, also known as moon bounce, a radio communications technique which relies on the propagation of radio waves from an Earth-based transmitter directed via reflection from the surface of the Moon back to an

Earth-based receiver. Did someone say Norm was talking to aliens???

At our September meeting on the 20<sup>th</sup>. at Rich's, WC6H, office located at 310 N. Cluff Ave., Lodi, we will have Stu, K6TU, give us a presentation on propagation, just in time for CQP. Since Stu's club, CCCP, think they have the huevos to take the club title away from us, we will have lunch at Habenero Hots (off the menu, separate checks) to load up for CQP. We will need every hand onboard for CQP this year!

**73, Verne, W6VMT**

**Treasurer's Report**

Balance: 31, July, 2014                      \$1289.86

Income:

|                    |              |
|--------------------|--------------|
| Antenna Sale       | 150.00       |
| Dues – N1DID, K6OQ | 30.00        |
| Name Badge         | <u>20.00</u> |
|                    | 200.00       |

Expenses:

|                  |              |
|------------------|--------------|
| Lunch Exp.       | 19.86        |
| Name Badge K6LRN | <u>19.90</u> |
|                  | 39.76        |

Balance: 4, August 2014:                      \$1450.10

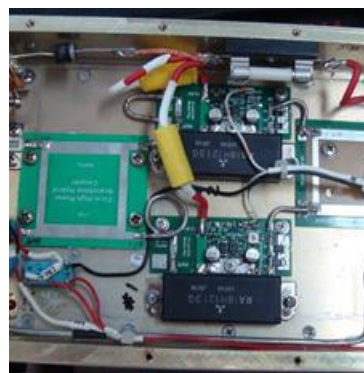
**Carolyn Wilson, K6TKD, Treasurer**

**Editor's Notes de Rick, W6SR**

Hi all.....  
Well not much radio stuff going on here in the last month, radio conditions were bad and it's too hot outside for antenna work.

This past weekend I operated in the 10GHz contest, it's always fun but valley conditions were not great on Saturday. Higher than normal humidity which translates into greater path loss? Plus the Cactus radio system repeater on Mt. Diablo was not on line. Last years burned the repeater building and the entire infrastructure. As a result many of us in Nor Cal. could not connect to the Cactus system and coordinate our 10GHz contacts. Three of the local 10GHz crazies went to Bald MT. (west of Zamora) and operated the contest on Sunday. Condition were very good and lots of stations were logged. Enough for now C U all on Saturday.

Last month I picked-up a 1296MHz (KK7B design) transverter and a 50W power amplifier from K0YW. The transverter and PA were pretty much a do it yourself kit, since neither was working properly. So for last month I have been trying to get it operating correctly, and reliably. I have included a photo of the little beast.



As you can see its mostly surface mount stuff, and really hard to work on with old eyes. Hi Hi

**de Rick, W6SR**

The following is the latest installment of a multi-part series that was suggested by Dave, W6DE. It was compiled and written by W2XOY; I found it very interesting and hope our readers do as well. de Ed.

**The History Of Amateur Radio Chapter 8**

OK, as you can probably guess, with all the recent attention on the Vanity Call Sign System, not to mention the half dozen calls that I've held in the past 27 years, this month's Wayback Machine is going to focus on call signs in amateur radio history. Prior to 1912, getting a call sign was easy, just make one up and get on the air. Legend has it that's how the word "ham" came to mean amateur radio-the letters H-A-M were in fact the initials of the three operators of a powerful station in the early 'teens. With the passage of the Radio Act of 1912, the first licenses were issued. Call signs at that time for "private stations" (amateurs) consisted of a number followed by two (later three) letters, i.e. 1AW, 1TS, 8XK etc.. Other countries adopted this system. This was adequate in the early, spark days of amateur radio, but as the shortwaves were developed, and c.w. became universal, problems appeared. Dave Sumner, Executive Vice President of the ARRL, and Trustee of NU1AW, the station of the International Amateur Radio Union, picks up the story.

"When transoceanic amateur communication started becoming commonplace in 1924, a problem immediately became apparent: call signs were all of the "one numeral followed by two or three letters" format, with no built-in means of determining who was where. At first, an informal system of prefixes (called "intermediates" at the time) was used by amateurs where "a" stood for Australia, "b" for Belgium, "c" for Canada, "f" for France, "g" for Great Britain, "j" for Japan, "u" for United States, "z" for New Zealand, etc. The single-letter system was fine until it became apparent that Amateur Radio was spreading to too many countries for this system to accommodate.

In January 1927 QST, a new intermediate list was unveiled as the work of the Executive Committee of the International Amateur Radio Union. The new list took effect at 0000 GMT (UTC) February 1, 1927. It was a two-letter system with the first letter indicating the continent (E for Europe, A for Asia, N for North America, F for Africa, etc.) and the second letter indicating the country (mostly following the old system). Thus, stations in the 48 United States used the intermediate "NU."

The new system was quickly overtaken by events. The regulations adopted by the Washington International Radiotelegraph Conference later the same year included the allocation of a series of "call signals" such as K, N, and W for the United States, and mandated that stations have a call signal from the series. The Washington regulations were to become effective on January 1, 1929, but August 1928 QST noted that Canadian amateur calls had changed to VE in April and September 1928 QST announced the effective date of October 1, 1928, in the United States for the W prefix (K outside the 48 states). Thus, United States amateurs sported voluntary NU prefixes for just 20 months before they became Ws. The founding president of the International Amateur Radio Union was, of course, Hiram Percy Maxim, 1AW, who remained in that office until his death in 1936.

The call sign NU1AW commemorates HPM and the IARU's creative, if short-lived, solution to the problem of international identification of stations.

As trustee of NU1AW it is my intention to use the call sign as a "permanent special event station" operating in connection with World Telecommunication Day, significant IARU anniversaries, the IARU HF World Championship, and other events that will call attention to the contributions of the IARU to organized Amateur Radio. 73, David Sumner, K1ZZ (My thanks to K1ZZ for allowing me to reprint the above). Thus, the call sign structure was set up for the rest of the '20's and the 1930's. Stations in the 48 States had a 1x2 or 1x3 call sign beginning with "W" and

containing a numeral from 1 to 9. Stations in Alaska, Hawaii, or other U.S. Possessions had a "K" prefix. Incidentally, note that I said 1 thru 9; this is because the numeral -0- WAS NOT available to amateurs at that time. As a result, the call sign districts had different boundaries than they do today; for example, the western sections of New York and Pennsylvania were in the 8th call district then, as opposed to the 2nd and 3rd today.

When amateur radio resumed after World War II, the increased number of amateurs necessitated the addition of the tenth call district and the numeral -0-. Except for the redrawing of the boundaries, things remained the same until 1951-53. In 1951, the FCC eliminated the old Class A, Class B, and Class C licenses, and replaced them with the Novice, Technician, Conditional, General and Extra Class licenses. (What happened to the Advanced Class? The Wayback Machine will tell you in a few months). With this change came the first "distinctive" call signs. Novices, who at that time could only get a one year, non-renewable license, had a special 2x3 call sign with the letter "N" following the "W"; i.e. WN2ODC, WN6ISQ etc.. When they upgraded, the "N" would be dropped. This system barely had a chance to settle in before the next change hit in 1953. Due to the increase in the number of amateurs, the FCC was running out of "W" 1x3 call signs. So 1x3 "K" calls began to appear in the 48 states, with the U.S. Possessions receiving 2x2 and 2x3 "K" calls, such as those issued today. Novice calls in the 48 states continued to have the distinctive "N" (such as KN4LIB) which disappeared upon upgrading.

Barely 5 years later, the growth of amateur radio, particularly in the 2nd and 6<sup>th</sup> call districts, caused another problem for the FCC, they were running out of "K" and "W" calls. So, in 1958, the FCC began issuing 2x3 "WA" calls, to be followed by "WB" when necessary. For some reason, Novices under this new system were given "WV" instead of "WN" as their prefix. The "V" would change to an "A" or "B" upon upgrading. (After only a few years of this, the FCC decided that their original idea was better, and went back to the Novice "N" prefix). With the uneven amateur population in the ten call districts, it took time for the "K" calls to run out in the other areas. As late as 1964, you could still get a "K" call in the 1st, 3rd or 7th call areas, while the 2nd and 6th districts were well into the "WB's."

The 60's had some other call sign oddities. For a period of time, you could hold BOTH a Novice and Technician Class license simultaneously; the FCC gave you 2 call signs at once (such as WA/WN2ORS) and you used the appropriate call based on the amateur band and your privileges on it. The FCC also allowed you to have two calls if you maintained two homes in separate call areas;

for example, Senator Barry Goldwater, K7UGA, also held K3UIG which he used while he was in Washington. (In theory, under this system, an amateur could hold four call signs if he/she had a Novice/Technician license and two separate addresses).

Except for the Novice and the distinctive "N", there was no way under this system to tell what class of license an amateur held. As older hams became Silent Keys and the number of available 1x2 calls slowly increased, the FCC instituted a program whereby those who held an Extra Class license for more than 25 years would be eligible for a 1x2. The length of time one needed to be an Extra was gradually reduced, until July 1977, when any Extra Class could apply for a 1x2. There was one block of call signs that were unavailable to ANY amateur, regardless of license class. These were calls in which the suffix began with "X", such as W1XW, W3XCV, WB6XXK etc.. The FCC reserved these calls for experimental stations; for example, W2XB, W2XOY, W1XMN and KE2XCC were originally call signs of early TV and FM broadcast stations. While the FCC has relaxed their position on the 1x2 and 1x3 "X" suffix calls, the 2x3 call signs (such as KA6XYZ) are still reserved for experimental use. By the mid 70's the 2nd, 4th, 6th and 8th call areas had run out of "WB's." For a period of time, the FCC recycled older "WA" and "WB" calls that had been vacated, but when those ran out, they went to "WD's." Before the "WD" prefix could become popular, however, an incident occurred that would change the whole call sign structure.

In early 1977, an FCC employee was indicted for taking bribes offered by amateurs wanting special call signs. He was convicted and sent to jail. Partly as a result of this scandal, the FCC on February 23, 1978, adopted the call sign structure we have in place today. For 18 years, until the opening of the Vanity System, it had been impossible to request a specific individual or club call. Given the passionate love affair that some of us have with our calls, the FCC stands to make millions.

So, as you contemplate the call of your dreams, Form 610V in hand, take a moment to tune in NU1AW and work a piece of history. Meanwhile, the Wayback Machine is preparing for it's next journey to another moment in amateur radio

**"William Continelli, W2XOY, Copyright 1996, 2001, All rights Reserved. Reprinted with permission."**

## **Member News, Items For Sale & Feedback**

### **Radio For Sale**

I have my Icom 765 PRO III for sale. This is a late production run (high serial number) radio that has the 7600 type finals in the output stage. The radio is in perfect condition, includes the original manual, hand mic., Icom original box and power cord. . \$1700 picked up in Placerville California.

**Contact Dave @ 530-409-7877.**

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### **For sale:**

(2) KLM KT34A 4 element antennas refurbed and ready to use. With boom to mast brackets (nicely painted) and instructions. \$300 each. We have been using them for Field Day so they have been spending most of their life in a storage locker.

(2) Swing brackets made out of professionally welded ¼" steel plate – very heavy duty. Painted. Designed to accept a variety of U-Bolts. These mount to the tower mast when it is horizontal. You mount the antenna to the bracket in a horizontal configuration. When you go vertical with the tower the antenna remains horizontal. \$300 each. Ideal for tower trailers and tilt-over towers.

Cushcraft (pre-MFJ) XM 240 2 element 40 meter beam new-ish – used it for one field day – just too much antenna for a one day event – rest of time has lived in the storage locker. \$700.

If interested send me an email to my call at ARRL.NET and I can send photos.

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### **David W6DR**

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### **I have for sale**

ICOM 746Pro Includes original manual, box, hand mic and power cord. Very good condition from a non-smoking shack. \$850.

**de Doc NM6K placerdoc@sbcglobal.net**

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The XYL and I are moving back to Amador County as soon as well sell off our property over here. We have a rental on the east coast that we are just about to put on the market. Once that is sold we will sell our new home at the south end of the island. **So our HI QTH is for sale/trade.**



The property is three acres with a new 4000 sq. foot home. Large Radio Shack with full bath and extra bedroom, plus 4 more bedrooms and 2 baths. A number of records have been made from this very quiet site.

We are asking \$485k for the home and that includes the 100 foot (permitted) tower, a four square, and 30 foot Rohn tower next to the house. Also it has a net metering solar system 4KW, power bill is \$20 per month. We can also do private financing. I really do not want to leave but my wife wants to be closer to friends and family. If your interested we can give all the details.

**Email [kh7y@alohabroadband.net](mailto:kh7y@alohabroadband.net) or call 808-557-9022. Aloha, Fred, KH7Y**

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I'm still selling some of KF6T's stuff. Here's the list:

Ham Gear:

HB 3CX1200A7 Amp - \$500 OBO

MFJ 9020 20 Meter CW Transceiver - \$40

Test Gear:

HP Model 53131A Frequency Counter - \$600 OBO

Tektronix Model 2246 100 Mhz Scope with Rolling Stand - \$350 OBO

Boonton Model 41A Microwatt Meter - \$200 OBO

Signotek Model ITC-3 High Resolution Counter - \$45

HP 6217A 0-50V, 200 ma. Power Supply - \$30

Instek PS-1830 0-18V, 3A Power Supply - \$50

Simpson 464 Digital Multimeter - \$30

Tektronix Model 130 L-C Meter - \$75

Micronta 22-204C Analog Multimeter - \$25

HP Model 500C VHF Signal Generator - \$10

Miscellaneous:

Ohmite VT-8 120V, 7.5A Variac - \$75

Powerstat Model 236 220/120V, 9A Variac - \$150

Trippe PV-400 400W Inverter - \$ 40

Jennings JBS-400 Vacuum Capacitor - offer?

JAN 872A Tubes in boxes - \$10 each

Several 6146B Tubes in boxes -\$20 each

**de Jim WX6V**

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### **Eight Annual Sacramento Valley Hamfest**

**Saturday, Sept 6, 2014**

**0700 to 1200 Hours**

Presented by Western Placer Amateur Radio Club

65 McBean Park (Hwy. 193), Lincoln CA

Bandstand Parking Lot

License Exam Sessions

Exam Info - [Dennis KI6HHA@aol.com](mailto:Dennis.KI6HHA@aol.com)

Drawing Prizes

Buy and Sell

Ham Radio Related Stuff Only

\$10 per space Approx. 10' x 10'

Bring your own tables

Hamfest Info at [WWW.WPARC.US](http://WWW.WPARC.US)

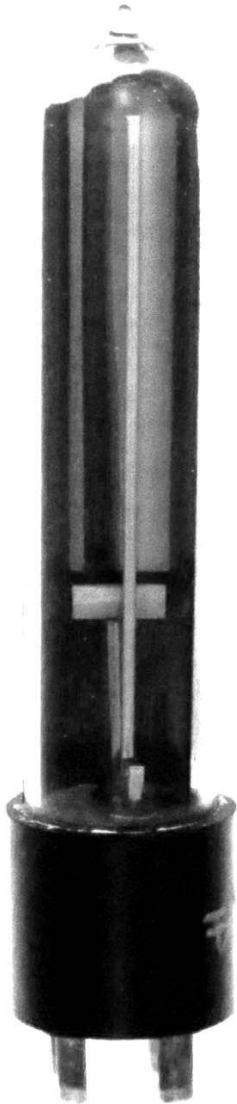
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### **Tube of the Month de Norm, N6JV**

#### **Tune-A-Lite**

If you went into an electronics store and ordered a Tune-A-Lite, you would probably be referred to a nearby restaurant as they didn't serve any low-cal fish dishes there. You were about 80+ years too late for the electrical version.

In about 1931, a Professor Senauke of New York University invented a neon tube that could be used as a tuning device. Senauke made a bulb that contained a very long cathode and a very short anode. As you applied voltage, the neon would start to glow at the bottom and extend up as the voltage increased. The new AC powered sets were equipped with automatic volume control (AVC) which could supply a varying voltage as a station was tuned in. Duovac of Brooklyn initially produced and marketed these tubes and Atwater Kent built several sets that used the lamp. When Duovac failed, the production was taken over by another Brooklyn company, Amplex, which failed soon after. Some of the European tube companies developed additional features for the tube and variants were produced for several years.



One interesting variant used a wire inside a small probe that ran up the inside of the bulb. When a strong station produced enough voltage to bring the glow level to the top of the probe, it would conduct and turn the audio on. No more tuning across any weak stations that would just make noise. Some tubes were calibrated up the side and these became some of the original S-meters. The applications were largely filled when they invented the "magic eye" tube in the mid-1930s.

Visit the museum at: <http://n6jv.com>.

### Meeting Minutes, 26 July 2014

Meeting was called to order at 12:05 PM by President Bob Hess. Introductions followed.

NCCC Pres. Rick Karlquist invited people to join for contest participation. Mentioned more meetings to north & suggested people tune in to 'Web-ex' presentations where possible. Other topics included joint meeting, RM-4969 (PRB-1 like legislation to relax some CC&R regulations).

Bob presented a membership application from Emily Clark N1DID which was promptly accepted. Welcome aboard Emi!!

Announcements, etc.; Steve K6SCA has achieved DXCC. (I have a cryptic note about W6RD & TX-455) and K6KM's widow N6RER will be disposing of equipment.

Bob turned meeting over to Rick Eversole N6RNO who gave an interesting talk on other methods of copying Morse code.

Meeting concluded about 2:30 PM PDST.

Respectfully submitted,  
**Dick Wilson K6LRN**  
**Secretary, MLDX/CC**

### List of June meeting attendees

|        |       |
|--------|-------|
| W6HFM  | Harry |
| W6VMT  | Verne |
| N6MCM  | Mel   |
| WD6IEW | John  |
| KR6N   | Bob   |
| K6OLY  | Jim   |
| K6SCA  | Steve |
| AA6K   | Shirl |
| W6RD   | Chuck |
| K6LE   | Rick  |
| K6OQ   | Pat   |
| WC6H   | Rick  |
| N1DID  | Emily |
| N6RNO  | Rick  |
| K6OK   | Jim   |
| N6RK   | Rick  |
| K6KO   | Kay   |
| K6TA   | Ken   |
| N6JV   | Norm  |



W6SR Rick  
K6TKD Carolyn  
K6LRN Dick  
W1RH Bob

**Dick Wilson K6LRN**

### **UP-COMING DX and Dxpeditons**

**Click the link below to display up-coming Announced DXpeditions:**

**<http://www.ng3k.com/Misc/adxo.html>**

DX Bulletin 33 ARLD033  
From ARRL Headquarters  
Newington CT August 14, 2014  
To all radio amateurs

SB DX ARL ARLD033  
ARLD033 DX news

This week's bulletin was made possible with information provided by CX3AL, the OPDX Bulletin, 425 DX News, The Daily DX, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites.  
Thanks to all.

MADAGASCAR, 5R. Jack, AI4SV plans to be QRV as 5R8SV from Antananarivo, IOTA AF-013, during the next 3 years. Activity will be on the HF bands using mainly CW. QSL via G3SWH.

TONGA, A3. Operators Stan, AC8W, Brian, KG8CO, Charles, KN8R and Lee, N8LJ will be QRV as A35AC, A35CO, A35LT and A35TR, respectively, from Tongatapu Island, IOTA OC-049, from August 16 to 24. Activity will be on 160 to 10 meters using CW, SSB and RTTY. QSL A35AC, A35CO and A35LT via K8ESQ, and A35TR via K8AQM.

URUGUAY, CX. Members of the Radio Club Uruguayo will be QRV as CW1R from the Punta del Esta Lighthouse, ILLW UY0005, during the International Lighthouse/Lightship Weekend. Activity will be on 80 to 10 meters using CW, SSB and various digital modes with at least two stations. QSL via bureau.

CAPE VERDE, D4. Carlo, ON4BR will be QRV as D44TLO from Boa Vista Island, IOTA AF-086, from August 16 to 23. Activity will be on 40 to 10 meters using CW. QSL to home call.

FEDERAL REPUBLIC OF GERMANY, DA. Look for DK0FC to be QRV as DK0FC/LGT from the Wangerooge Lighthouse, ILLW DE0030, during the International Lighthouse/Lightship Weekend. QSL via DB1BAC.

SPAIN, EA. Hans, DK6EA and Heike, DC2CT will be QRV as EA1/home calls from the Faro de Cabo Silleiro Lighthouse, ILLW

ES00039, during the International Lighthouse/Lightship Weekend. QSL to home calls.

IRELAND, EI. Members of the South Eastern Amateur Radio Group are QRV as EI1100WD until the end of 2014 to celebrate the 1100<sup>th</sup> anniversary of the founding by Vikings in 914 of the town of Waterford. QSL via EI2HZB.

FRANCE, F. Helmich, PA0HEL and Peter, PA0RLM will be QRV as TM0LHG from the Gravelines Lighthouse, ILLW FR0002, during the International Lighthouse/Lightship Weekend. Activity will be on 80, 40, 20, 17, 15, 12 and 2 meters using SSB. QSL via PA0HEL.

PUERTO RICO, KP4. Operators Carlos, KP4CPC, Eduardo, NP4GE, Anthony, WP4I and Rafael, KP4ROS are QRV from Culebrita Island, IOTA NA-099, from the Culebra Lighthouse, ILLW PR0013, during the International Lighthouse/Lightship Weekend. QSL via WP4I.

DENMARK, OZ. Members of the MF-Runde will be QRV as OZ0MF and 5P0MF/LH from the Nordborg Lighthouse, ILLW DK0006, during the International Lighthouse/Lightship Weekend. QSL via DF5LW.

SWEDEN, SM. Members of the Enkoping Radio Klubb will be QRV as SK5WB from the new Understen Lighthouse, ILLW SE00061, and the old Understen Lighthouse, ILLW SE00062, during the International Lighthouse/Lightship Weekend. Activity will be 80 to 10 meters, including 6 and 2 meters, and 70 cm. QSL via SK5WB.

DODECANESE, SV5. Members of the Radio Amateur Association of Dodecanese will be QRV as SZ5RDS/p from Strogilii Islet, IOTA EU-001, and from the Ipsili Lighthouse, ILLW GR0003, during the International Lighthouse and Lightship Weekend. Activity will be on 80 to 2 meters using CW, SSB and RTTY. QSL via SV5AZP.

TURKEY, TA. Look for TC1LHW and TC6LHW to be QRV during the International Lighthouse/Lightship Weekend from the Istanbul Terkos Karaburun Lighthouse and Samsun Bafra Lighthouse, respectively. QSL via bureau.

AUSTRALIA, VK. Alan, VK5PBZ will be QRV as AX5PBZ from the Port Germein Lighthouse, ILLW AU0069, during the International Lighthouse and Lightship Weekend. QSL to home call. In addition, look for Trevor, VK3ATX to be QRV from lighthouse ILLW AU0080 on Gabo Island, IOTA OC-196, during the International Lighthouse and Lightship Weekend. QSL to home call.

INDIA, VU. Operators VU2LU, VU2GGM, and VU2JHM are QRV as AT5RP from Pamban Island, IOTA AS-173, until August 17. They are active from the lighthouses Pamban Channel,

ARLHS IND-048, and Rameswaram, ARLHS IND-058. QSL via VU2LU.

VIET NAM, XV. Andy, UA3AA is QRV as XV2G until November 23. Activity is on the HF bands using mainly CW. QSL direct to home call.

SPECIAL EVENT STATIONS. W1AW Centennial Station W1AW/5 in Oklahoma is QRV until 2359z on August 19. In addition, W1AW Centennial Stations W1AW/8 in Ohio and W1AW/0 in North Dakota will be QRV starting at 0000z on August 20. They will be active until 2359z on August 26.

|                                 |                                |
|---------------------------------|--------------------------------|
| Contest                         | local, Sep 21                  |
| + Washington State Salmon Run   | 1600Z, Sep 20 to 2400Z, Sep 21 |
| + BARTG Sprint 75               | 1700Z-2100Z, Sep 21            |
| + NCCC RTTY Sprint Ladder       | 0130Z-0200Z, Sep 26            |
| + CQ Worldwide DX Contest, RTTY | 0000Z, Sep 27 to 2400Z, Sep 28 |
| + Texas QSO Party               | 1400Z, Sep 27 to 2000Z, Sep 28 |

**Click on the Hyperlink below to check-out the MLDXCC scores in the latest contests.**

<http://mldxcc.org/scores.html>

### **The K7RA Solar Update**

SB PROP ARL ARLP033  
ARLP033 Propagation de K7RA

### **UP-COMING CONTESTS (complete)**

**For the latest contest info. click on the following link:**

<http://hornucopia.com/contestcal/contestcal.html>

|                                 |  |
|---------------------------------|--|
| + ARRL 10 GHz and Up Contest    | 0600 local, Aug 16 to 2400 local, Aug 17 |
| + North American QSO Party, SSB | 1800Z, Aug 16 to 0559Z, Aug 17           |
| + NCCC Sprint Ladder            | 0230Z-0300Z, Aug 22                      |
| + Hawaii QSO Party              | 0400Z, Aug 23 to 0400Z, Aug 25           |
| + Ohio QSO Party                | 1600Z, Aug 23 to 0400Z, Aug 24           |
| + NCCC Sprint Ladder            | 0230Z-0300Z, Aug 29                      |

### **September 2014**

|                               |                                |
|-------------------------------|--------------------------------|
| + NCCC RTTY Sprint Ladder     | 0130Z-0200Z, Sep 5             |
| + All Asian DX Contest, Phone | 0000Z, Sep 6 to 2400Z, Sep 7   |
| + AGCW Straight Key Party     | 1300Z-1600Z, Sep 6             |
| + North American Sprint, CW   | 0000Z-0400Z, Sep 7             |
| + NCCC RTTY Sprint Ladder     | 0130Z-0200Z, Sep 12            |
| + FOC QSO Party               | 0000Z-2359Z, Sep 13            |
| + WAE DX Contest, SSB         | 0000Z, Sep 13 to 2359Z, Sep 14 |
| + Arkansas QSO Party          | 1400Z, Sep 13 to 0200Z, Sep 14 |
| + ARRL September VHF Contest  | 1800Z, Sep 13 to 0300Z, Sep 15 |
| + North American Sprint, SSB  | 0000Z-0400Z, Sep 14            |
| + NCCC RTTY Sprint Ladder     | 0130Z-0200Z, Sep 19            |
| + ARRL 10 GHz and Up          | 0600 local, Sep 20 to 2400     |

Solar activity showed further signs of weakness this week, with the average daily sunspot number dropping 41.8 points to 94.9, while average daily solar flux declined 36.5 points to 113.1.

In the 45-day forecast for solar flux, it was surprising back on August 3 to see a new solar flux prediction of 150 for August 31 through September 3. I suspected this prediction would come down to a lower level, more in line with predicted values before and after that period, and in the August 11 forecast, that is what happened. The predicted solar flux for those dates was changed to 125 on August 31 through September 2, then 120 on September 3, where it remains today.

From that 45-day forecast, solar flux at 105 is predicted for August 15, 110 on August 16 to 18, 105 on August 19 and 20, then 100 and 110 on August 21 and 22, 115 on August 23 and 24, 120 on August 25 and 26, then 125 and 130 on August 27 and 28, 125 on August 29 through September 2, 120 and 115 on September 3 and 4, and 110 on September 5 to 7. Flux values are expected to go as low as 100 on September 13 to 16, then rise to 135 by September 24, the day following the fall equinox.

Predicted planetary A index is 8 on August 15 and 16, 5 on August 17 to 23, 8 on August 24, 5 on August 25 to 27, 8 on August 28 and 29, then 5, 12, 10 and 8 on August 30 through September 2, 5 on September 3 to 5, 8 on September 6, 5 on September 7 and 8, 8 on September 9, and 5 until September 18.

Not all looks weak or bleak. On Thursday, August 14 there were four new sunspot regions emerging. We have not seen four or more new regions emerge in one day since December 31, 2013. And solar activity is certainly higher now than it was a year ago. Average daily sunspot numbers for propagation bulletins 31-33 this year (representing the past three weeks) were 107.7, 136.7 and 94.9. For the same weeks in 2013 the averages were 79.6, 85.4 and 85.

OK1HH believes we should expect quiet to unsettled geomagnetic conditions on August 15, mostly quiet conditions August 16, quiet on August 17 and 18, mostly quiet August 19 to 21, quiet to unsettled August 22, active to disturbed August 23, quiet to unsettled August 24, mostly quiet August 25, quiet to active August 26 to 29, active to disturbed August 30, quiet to active August 31, mostly quiet September 1 and 2, quiet to unsettled September 3, quiet September 4 and 5, quiet to unsettled September 6, quiet on September 7, mostly quiet September 8, and quiet to unsettled September 9. He thinks we will see increased solar wind on September 7 to 9.

Penn State has an article and impressive video on the 2.5 meter telescope at Apache Point Observatory, Sunspot, New Mexico. Read about it here:  
<http://news.psu.edu/video/322684/2014/08/12/research/sloan-foundation-25m-telescope-apache-point-observatory-sunspot-new>

The video on that page is a wonderful time-lapse movie of this very busy telescope over one night. Be sure to select the HD option and expand to full screen. Watch the stars track across the sky, while a technician scurries around tending to this telescope. Eventually the sun rises. Separately, the video is available at:

[https://www.youtube.com/watch?feature=player\\_embedded&v=AHsS57NMQjE](https://www.youtube.com/watch?feature=player_embedded&v=AHsS57NMQjE)

Here is a great big representation of smoothed sunspot numbers, back to 1985, for cycles 22 to 24. Note you can click on it to make it appear even larger:

<http://solarscience.msfc.nasa.gov/images/Cycle22Cycle23Cycle24big.gif>

David Moore of Morro Bay, California frequently sends interesting items about our sun, and here is one explaining why the sun's atmosphere is so much hotter than its surface:

<http://www.sciencealert.com.au/news/20140408-25970.html>

For more information concerning radio propagation, see the ARRL Technical Information Service at <http://arrl.org/propagation-of-rf-signals>. For an explanation of the numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere>. An archive of past propagation bulletins is at <http://arrl.org/w1aw-bulletins-archive-propagation>. More good information and tutorials on propagation are at <http://k9la.us/>.

Monthly propagation charts between four USA regions and twelve overseas locations are at <http://arrl.org/propagation>.

Instructions for starting or ending email distribution of ARRL bulletins are at <http://arrl.org/bulletins>.

Sunspot numbers for August 7 through 13 were 158, 101, 111, 64, 82, 80, and 68, with a mean of 94.9. 10.7 cm flux was 136, 123, 113, 108, 105, 104, and 103, with a mean of 113.1. Estimated planetary A indices were 6, 8, 4, 9, 7, 12, and 6, with a mean of 7.4. Estimated mid-latitude A indices were 6, 9, 4, 9, 7, 11, and 8, with a mean of 7.7.

### **The MLDXCC NEWSLETTER**

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