The Nugget

Mother Lode DX/Contest Club

The Newsletter of the Mother Lode DX/Contest Club

January 2025 **Volume 30 Number 1**

Treasurers Report

MLDXCC Treasurer's Report - November / December 2024

10/31/2024 Opening Balance $2,549.07

Income $80.00

2024 Dues - Paypal $40.00

2025 Dues - Paypal $20.00

2024 Dues - Checking $20.00

Expenses $0.00

12/31/2024 Ending Balance $2,629.07

DELETED COUNTRIES
SARAWAK

Sarawak is located in northwest Borneo. It currently is a state of Malaysia along with Sabah which is to the northeast. The earliest settlement found in the area was at the Niah Caves which dates back 40,000 years. Archeology has dug up Chinese ceramics dating from the 8th century and beyond. It is an ancient Hindu-Buddhist kingdom that passed through several monarchs. It was first mentioned in Chinese historical archives in 518 A.D. The Bruneian Empire (1358-1888), a Malay sultanate came into power and established long term rule over the region. In 1841 James Brooke, a British explorer began exert rule over the region until 1946. It was occupied by Japan during WWII. After the war it became a colony of Britain. It became independent in 1963. After this several communist insurgents have attempted to overthrow the local government.

Sarawak is loaded with natural resources including their claim to part of the South China Sea. Gas, timber, oil and other products invite international corporations to explorer and export them. The resources also are being greedily eyed by China.

Kuching, the expansive city of cats, is the capital of Sarawak and is a beautiful city filled with historical sites, markets, and cafés. The city is surrounded by national parks and beaches. It is important to note that this region is known as a cultural hearth, an area where the major population centers and populations began and exploded. A city size of over a million is not unusual.

Thanks to the Southern California DX Club Newsletter

Tube of the Month

RS55I

After the first World War, the German company Telefunken continued to expand and innovate their product line of tubes. This was the period when commercial use of the radio spectrum became popular. Military designs were being improved and became more powerful. The RS55 was an early development. At over 8 inches long, it seems very conservative for a 12-watt tube. The maximum plate voltage is 700 at 35 ma. The Tungsten filament operated at 10 volts drawing 3 amps. The low output capacity allowed the tube to be operated up to 15 meters. The base has 3 banana plugs so a socket could be easily fabricated. The plate connection is a typical flat, knurled nut.

Telefunken marked the envelope of their tube using glass etching. Below the company name are the letters D.R.P. which stand for "Deutsches Reichts Patent" or German Empire Patent. This marking was common on German products of this period. Below the patent is marked Type RS55 I. The "I" indicates that there have been improvements to the original design, but nothing that would affect the original operating perameters. The 10 V filament marking is also included before the serial number.

Visit the museum at N6JV.com
Norm N6JV

Antenna of the Month

Antenna of the Month

Gary, NA6O

December, 2024

Using a 40 m Dipole on 15 m With a Better Match

It's possible to use any dipole on its third harmonic (or even higher, odd harmonics) while obtaining a usable match on both bands. This is very convenient, giving you two bands for the price of one, and is attempted most commonly with 40 and 15 m bands (7 and 21 MHz). However, the desired match does not occur exactly at the third harmonic, but rather at a somewhat higher frequency. For instance, a 40 m dipole resonant at 7.0 MHz will also be resonant at 22 MHz, which is way above the top of the 15 m band (Fig. 1). You'll find that the SWR is near 10:1 within the band, and it's quite possible that your antenna tuner can't match it very well, if at all.

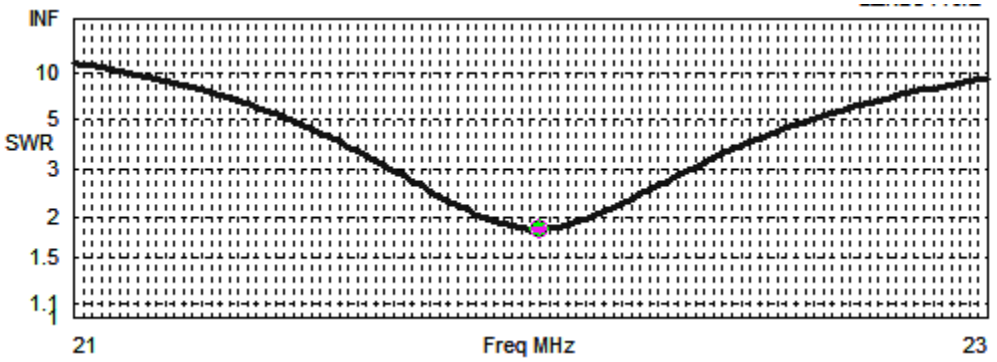

Figure 1. SWR of a basic 40 m dipole up 30 ft on 15 m. It's resonant at 22 MHz with an impedance of about 90 ohms. This could be difficult to match…

Here is a simple solution that I've been using for many years. All you have to do is add small "hats" about 1/3 of the way out on each side of the dipole, which is about 1/4 wavelength on 21 MHz. The diagram in Fig. 2 shows typical dimensions. The hats are pieces of wire soldered at their midpoints to the main conductor. I like to use 0.063 inch bronze brazing rod which is available at welding supply stores, but any kind of stiff wire will do. Bend it a little so it forms a bit of an inverted vee, then it won't spin around all the time.

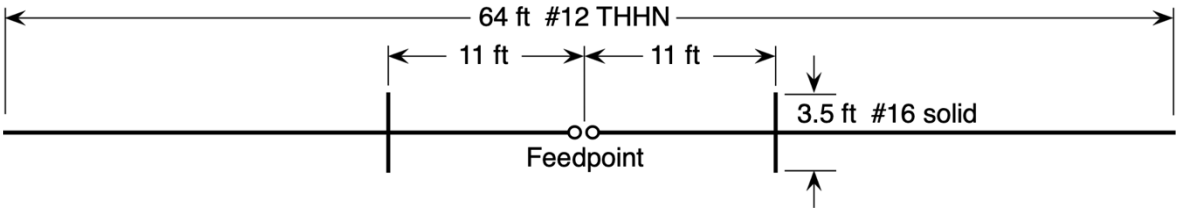

Figure 2. Typical dimensions of the 40/15 m dipole. Remember to leave your wires a bit long for trimming.

The exact location of the hats isn't too critical. I put them at 11 ft out from the center. Trim the overall dipole for resonance on 40 m, then check it out on 15. If you want to further refine the resonance on 15 m, you can trim the length of the hats. The tuning rate is about 33 kHz per inch,

so trim carefully. Changing the hats will also slightly affect the 40 m resonance at about 12 kHz per inch. In the end, you will easily cover the whole 15 m band with a reasonable SWR. It will be far better than without this trick! Note that this antenna will probably be a better match to 75 ohms, but it's fine with 50 ohm coax for any antenna tuner (Fig. 3).

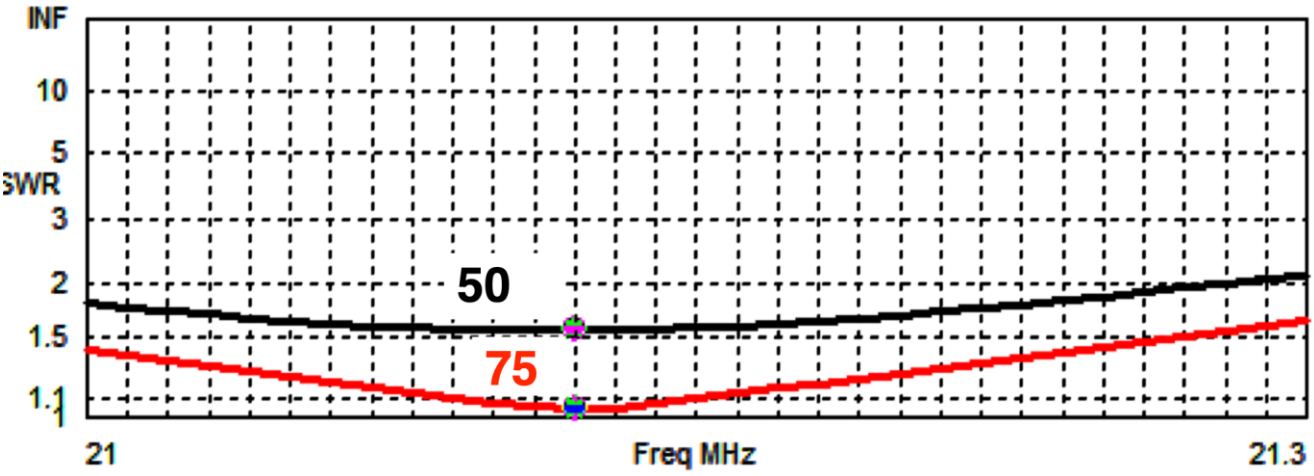

Figure 3. SWR plots on 15 m with the added hats. Note that it's a better match to 75 ohms which is typical of dipoles at this height (30 ft).

I should also mention that the radiation pattern (Fig. 4) on 15 m is quite complex since it's no longer a simple 1/2-wave dipole (the hats have nothing to do with that fact). Peak gain is actually greater than a dipole but there are also many nulls.

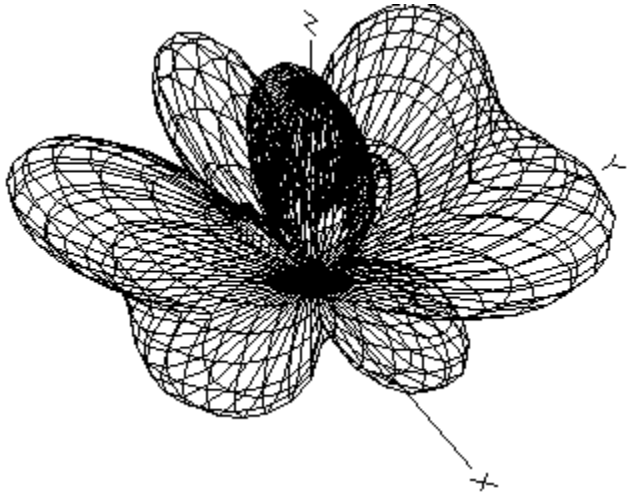

Figure 4. Three-dimensional radiation pattern on 15 m.

Figure 5 shows my original installation on a low-observable 4-band fan dipole (40, 30, 20, and 15 m). I used 18 AWG solid wire for the hats in this case and actually spliced some on because it was a first experiment. The thing has survived for 12 years so far.

Has this been published elsewhere? Yes, in the June 1991 QST it was mentioned in a general article about dipoles by NJ2L. Sadly, it's never made it into the ARRL Antenna Handbook. If you want to try simulation with EZNEC or some other tool, this makes a great exercise. Speaking of simulation, I wondered if this method would work on an 80 m dipole, making it usable on 30 m.

It will, however the hats are about 9 feet long. Perhaps this could be implemented with wires pulled out via insulators and string. Further simulation and experimentation is in order here.

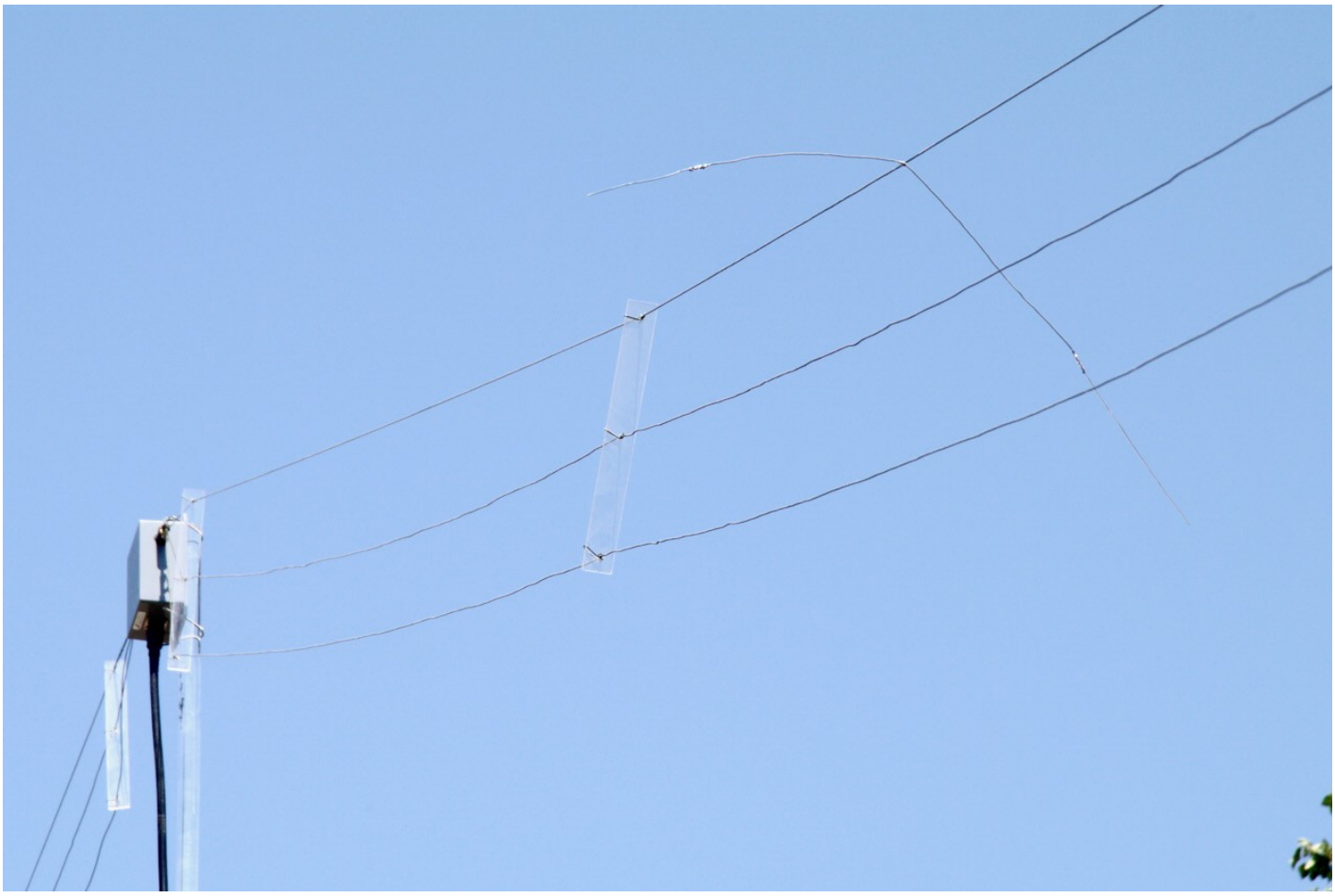

Figure 5. My fan dipole with the 15m hat.

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Club Log Standings 2025

Overall

1	NK7I	Rick Bates	161
2	K7QDX	Mike Steiner	113
3	W6DE	Dave Engle	100

CW

1	K6YK	John Lee	45
2	NO5Z	Fred Honnold	32
3	NK7I	Rick Bates	17

Phone

1	NC6R	Steve Allred	27
2	K6YK	John Lee	18
3	K6LR	Frank Marshall	14

Data

1	NK7I	Rick Bates	151
2	K7QDX	Mike Steiner	113
3	W6DE	Dave Engle	100

Awards Checkers ARRL

Rick Samoian, W6SR

(DXCC, WAS, VUCC, 160M)

MLDXCC Focus Contests

ARRL SS CW/PH
California QSO Party

The NOAA Solar Update

Click the link below to display the latest NOAA solar predictions.

http://www.swpc.noaa.gov/products/weekly-highlights-and-27-day-forecas

Upcoming DX and DXpeditions

Click the link below to display upcoming DXpeditions.

http://www.ng3k.com/Misc/adxo.html

Upcoming Events

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

http://www.contestcalendar.com/contestcal.html

MLDXCC Reflector

The MLDXCC reflector is maintained at groups.io. Visit https://groups.io/g/mldxcc

We also maintain a spotting reflector at https://groups.io/g/MLDXCC-Spots

We are also on Facebook! https://www.facebook.com

Classifieds

Members are requested to review their classified ads each month for accuracy and to resubmit their ads or confirm their desire to keep it running in the next issue.

Need QSL cards, business cards, club banners?
Contact Vina K6VNA vina@sign-tek.com

NK7I

Kenwood TS-940 with internal tuner **WITH** SM-220 scope (cables went astray) $700 with original manuals; working when put into storage serial port installed (for rig control, logging etc) NO mic,, This is an EXCELLENT first (desktop) rig for a new ham on HF

Icom IC-7300 PACKAGE one of the first run models; used a little at home once at Field Day (in my RV); pristine with the following items: IC-7300; with power cable, microphone; USB-A cable; original papers Heil Pro Headset (with home brew mic button) Icom external speaker. Home brew interface for FSK/CW keying (2nd com port required) * Harbor Freight padded case (**all the above fits in it**) Icom BA-1 control/remote software WITH a key (don't ask) AH-4 tuner, with some basic wire antennas and some basic wire antenna (when I dig that box out of the RV) plus a 50' control extension cable Current selling at ~$550

PACKAGE PRICE ALL or nothing; you buy then parcel it $1375

Pictures on request. Offers will be entertained (entertaining?) but take it to direct email please for the sake of the email list.

* A perfect example of function before form; it works but is not 'pretty' (limited access to supplies to package it). The USB for rig control, the 2nd com port for FSK/CW keying.

W6SR

I have two items for sale/trade.

1. Recently I acquired a Johnson KW tuner (site unseen) from a friend. My plan was to modify it for the remote radio setup at W1RH. However, after I inspected the unit, it is way too nice to modify. It's (IMHO) collector quality, original in and out. It even has the original, working SWR meter, relay, relay power supply and directional coupler cable. But not the directional coupler. Couplers are more available than the KW tuners since they were used on the 250W tuners also. I hate to see a vintage piece of collector quality gear hacked. Anyone interested in one of these? Price, you tell me, best offer takes it.

My portable Honeywell generator is excess to my needs, and needs a good home.
Used very little, mostly for microwave (10GHz) contesting and to power up tools in the field at the old place.
I always ran it out of gas when stored, and it was EZ start. Runs hours on 1 gal of gas.
What's it worth? You tell me, offer.

Contact me at ricksamoian@outlook.com
de Rick, W6SR

KN6TZK is looking for an amplifier. Any suggestions may contact him on the reflector.

Area Clubs

Northern California Contest Club -
https://www.nccc.cc

Lodi Amateur Radio Club -
http://www.lodiarc.org

Stockton Delta Amateur Radio Club -
http://www.w6sf.org

Pizza Lovers 259 –

https://www.pl259.org

El Dorado Amateur Radio Club -
http://edcarc.net

Sierra Foothills Amateur Radio Club -
http://www.w6ek.org

Redwood Empire DX Association -
http://www.redxa.com

Calaveras Amateur Radio Society
http://calaverasars.org/

Tuolumne County Amateur Radio Electronics Society (TCARES)
https://tcares.net/

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The MLDXCC NEWSLETTER