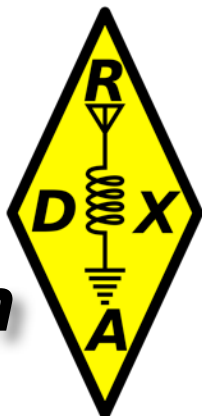# Rochester DX Association

April's Meeting Presentation

Ken Boasi, N2ZN, will be doing a presentation on SO2R

Tuesday, April 15th, 7:30pm
Monroe County EOC
1190 Scottsville Road

Last Call!

Deadline for RSVP is April 18

The Annual Joint RDXA/RVHFG Awards Banquet.

DETAILS:

When: Saturday, April 26th at 7PM, 2014

Where: Lilian's Restaurant and Party House

Address: 2200 Penfield Rd.
Penfield, NY 14526

Time: 6PM Cocktails & 7PM Dinner

Entrees:

Prime Rib
Chicken French
Fish (Haddock Florentine)
Pasta (Lasagna or Ravioli)

Using Rig Control for Antenna Switching

As our shack computers become more involved with the function of the station and as software becomes more demanding on computer resources, it is not unlikely that all of a sudden you have to come to grips with your computer slowing down. In my case, adding more memory is out (Dell Dimension 8200 – 1GB RAM max.). When weighing replacing the computer with the minimal cost of this change, I opted for the change. This is a small narrative on how I decoupled my rig from the computer for antenna switching.

Most, if not all rigs and antenna controllers use BCD encoding/decoding as the means of control. Now just a bit on BCD. Binary- coded Decimal (BCD) allows for one number to be represented in a 4-bit binary group. See table:

| Decimal Digit	BCD 8 4 2 1
0	0 0 0 0
1	0 0 0 1
2	0 0 1 0
3	0 0 1 1
4	0 1 0 0
5	0 1 0 1
6	0 1 1 0
7	0 1 1 1
8	1 0 0 0
9	1 0 0 1

So, let's say I program Band 6 to be 17M. In BCD, I send BCD output 0110. Since this output is understood by my controller, if I do not change how the output signal is directed from the default, then the relay that is associated with that output switches on. I assume that BCD encoding for band data in amateur radios is standard across manufacturers. Always check your radio's manual to be sure.

My Antenna Switch box and computer control with Logger32.

I use a Top Ten Band switch decoder and relay box. The input and output of the decoder uses DB25 connectors, so you can interface directly to the parallel port of a computer, or as we will see shortly the accessory port of a radio that provides band control data. U4 of the Top Ten decoder is a programming header that allows standard BCD band data code to switch any combination of band to antenna configurations at the switch. You "program" the header by soldering jumpers or diodes across the pins.

Below is a diagram of the decoder input, program header and output along with a table of connections. As you can see, it is pretty simple. Assert a signal on Band decoder J1, determine where the output signal will go using the programming header. That output connects to the input of the relay box located in the back yard. When that relay box input is asserted, the relay connected to that input closes and RF moves from J7 to an output port (J1-J6).
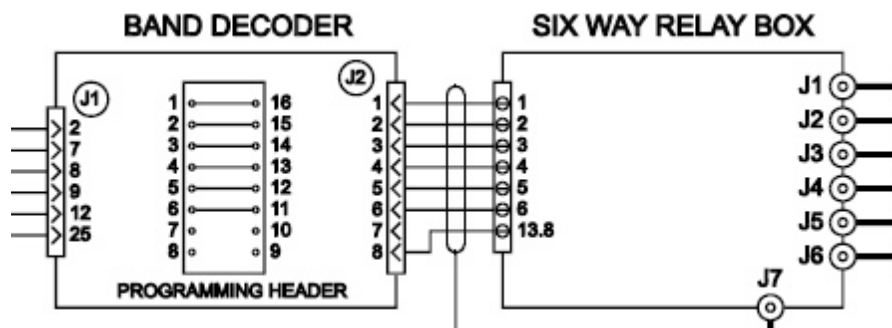
Band Decoder:

Value	BCD	J1
Band Data A (0)	1	2
Band Date B (1)	2	7
Band Data C (2)	4	8
Band Data D (3)	8	9
12V	–	12
GND	–	25

For standard logging, I use Logger32 which uses a lookup table for setting BCD band data to antenna values. Leaving the U4 Programming header in the Top Ten antenna controller as a set of straight through jumpers (see above), you can use the look up table in Logger32 to set up your band to antenna configuration. This makes the decoder plug and play. However, for each logging program you use, you have to make sure it supports band data look up tables and is configured the same way. Change one and you have to change the other. I learned that the hard way when I was in a contest and N1MM wasn't using the right antenna.

Here is an example of a band data look up table from Logger32. If you look at 17M (sorry about the screen capture) you see Aerial column has a 5 in it for the 3 modes (USB, RTTY, CW). When Logger32 sees 17M is active on the rig, the parallel ports connected to Band Data A&C are asserted. The Top Ten controller then sets the "configured output" turning on the 17M antenna. The configured output is the result of my wiring the output of the controller to the input of the relay box (and possibly using the programming header in combination) to make sure the RF passes from J7 to the proper output of the relay box.
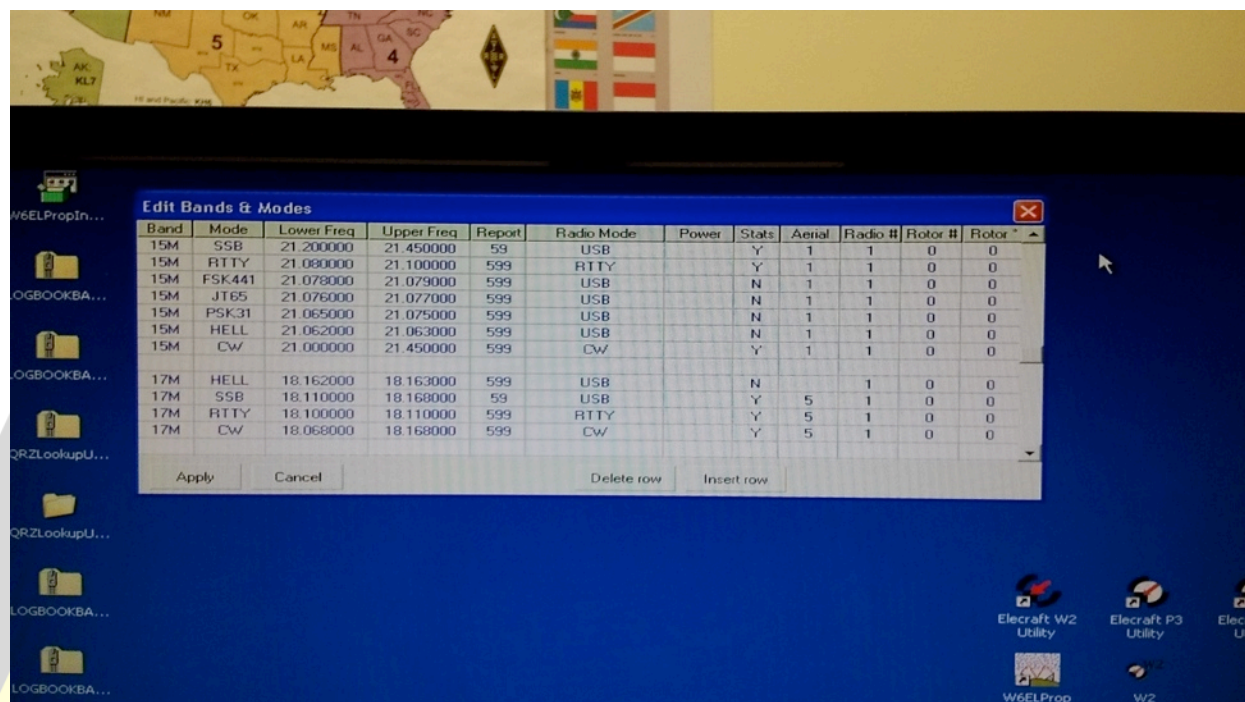
Moving Antenna selection to the Elecraft K3.

The Elecraft K3's 15-pin ACC port on the KIO3 module has outputs for BCD antenna control and uses BCD Band data as shown from the table below.

Band	BAND3	BAND2	BAND1	BAND0
160 m	0	0	0	1
80 m	0	0	1	0
60 m	0	0	0	0
40 m	0	0	1	1
30 m	0	1	0	0
20 m	0	1	0	1
17 m	0	1	1	0
15 m	0	1	1	1
12 m	1	0	0	0
10 m	1	0	0	1
6 m	1	0	1	0

Making up the interface cable from the K3 to the Top Ten decoder box is straight forward. Here is how I did mine. I used a shielded cable to help ward off any stray RF.

All that was left was setting up the Top Ten decoder programming header to insure the proper antenna was selected based on the BCD value coming into it from the rig.

The total cost in parts was $10 in the 15 pin and 25 pin connectors and shells. This freed up antenna switching from the computer rig control software and placed it in the hands of the radio. Sure, I have to still get that shack computer upgraded, but now I can put it off for a while longer.

If your rig supports output for standard BCD band data, I highly recommend using that instead of the computer control to switch your antennas with. It helped me a great deal.

— Carey Magee, K2RNY

The Unknown

I wish to attempt to describe one aspect of amateur radio that most appeals to the operations part of the hobby - for me.

I had a few minutes two nights ago where I had time to descend to my tiny shack area in the basement, and, listen to the bands. All work done, kitchen clean, kids at swim practice, wife out of town.

I arrived to the basement, and, for a moment, took a chance to just look at the desk. My FT-1000MP is a visual work of art, and, I like to just look at it for a minute before turning it on.

I turned it on (around 8:30pm), and, scanned through 10m, 12m, 15m, 17m. Sounded like 10m was dead.

I waited at 28.4Mhz for a few minutes...listening to white noise. Nobody on, whole band quiet. I did not check the "spots" to spoil the mystery of who might be out there.

Then, I called CQ twice.   For a few seconds.....nothing. But during those seconds, the anticipation of who, on earth, may respond....is wonderful!

In this situation, on 10m, a LOT of times nobody responds because the band has died.

However, on this evening, suddenly, a very nice, professional S8 signal appeared!

A J station right outside Yokohama! In the Japanese professional benchmark style(professionalism + enthusiasm) we traded our call signs, names, location and signal report. Also, we traded station setup (he had a 6 element monobander pointed my way).

I had visited Yokohama in 2004 on a work project, and, had been intrigued by Yokohama Station. One of the world's largest train stations, and, one of the most interesting places on earth. It had taken me a bit of time to find my way out of the station the night I arrived by myself. The next morning, I went back just to watch the flow of humanity.

It was fascinating. The various waves of different homogenous groups. At one point, the entire train station filled up with children, all by themselves, literally around 5-7 years old.

This J operator, who so kindly and professionally responded to my call, and I, discussed Yokohama Station, and, its significance in Japan, for a bit. We shared our fascination with that station in a clear, S8 conversation. The bridge of our differences, Yokohama Station, provided the platform to walk on.

Two strangers, each brought together out of the mystery of the evening, to find what we had in common across our great difference divide.

Brought together by Amateur Radio.

It was awesome.

—*Michael Sanchez, N2UJN*

What Started Your Path To Amateur Radio?

The starter for me was, as almost still a pre teen, finding that with a coil wound on a Pabulum box, a capacitor from a an old discarded radio and a little crystal mounted in some lead along with a little wire called the "catwhisker", and no additional source of energy, I could extract from the air enough energy to accomplish the physical task of driving an earphone diaphragm to create sounds I could listen to. And, although I have expanded on that considerably in the ensuing decades, the fascination of the communications remains.

— Gene Fuller, W2LU

The above article by Gene Fuller, W2LU, was written in response to Michael Sanchez's experience (also above). It has been suggested to me to ask others to submit their stories concerning a moment of inspiration or their first experiences in amateur radio.
E-mail to alesny@rochester.rr.com, and I will be sure to get them into the next newsletter.
 —*Editor*

Update On Crimea

From Bill Moore – ARRL DXCC
April 9, 2014

To: DXAC

Upon request of the CEO, the ARRL Awards committee evaluated the situation at present in Crimea against the DXCC rules. As the interpreter of the rules, the following is the Awards Committee's decision on how to "count" QSOs with stations operating from Crimea.

Crimea is not a DXCC entity. Neither Russia nor Ukraine is a rare entity and the vast majority of confirmations used for DXCC credit for either entity do not involve Crimea.

DXCC Rule 4 reads:

"4. Confirmation data for two-way communications must include the call signs of both stations, the entity name as shown in the DXCC List, mode, date, time and band. Except as permitted in Rule 1, cross-mode contacts are not permitted for DXCC credits. Confirmations not containing all required information may be rejected."

A QSL with a call sign issued by the administration of Ukraine and showing the entity name as Ukraine counts as Ukraine.

A QSL with a call sign issued by the administration of Russia and showing the entity name as Russia counts as Russia.

A QSL that satisfies neither condition does not count for either entity.

73 es DX,

Chris Shalvoy
Atlantic Division DXAC

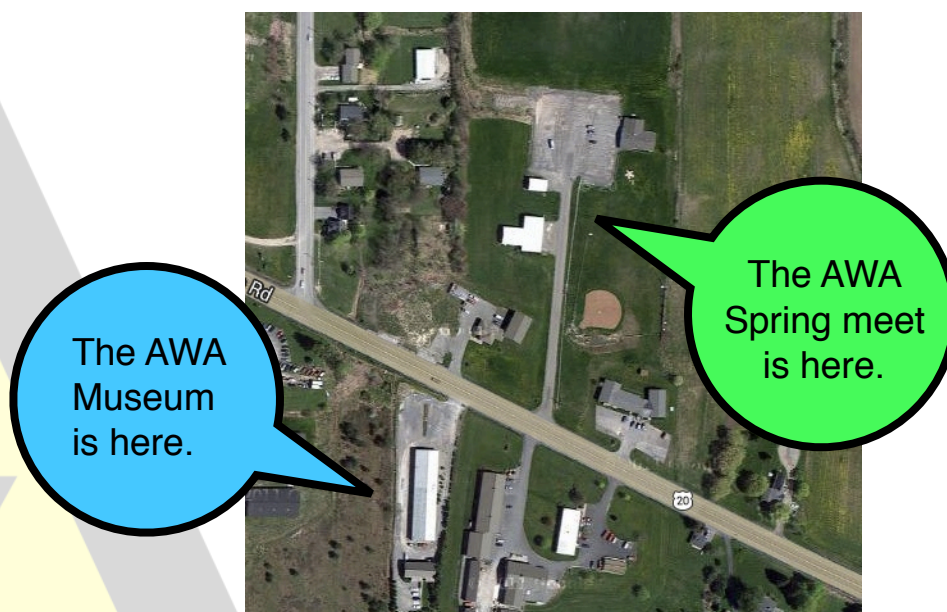
Reminder To All RDXA Members

Update your score on the RDXA website score grid. These scores are important to the club and make tracking of participation and also awarding top scoring members.

AWA "Spring Meet" May 3

The Spring Meet will take place at the former Old Museum Annex about 150 yards on your left. Watch for the sign out front. (It's 7 miles from Victor to the destination.) The Museum is across the road on the right, by the way.

The entrance fee is the same as last year: $5. The cost to sell, whether inside or tailgating, is an additional $7, and the reduced entrance ticket for the Museum will be $5. However, if you are an AWA member, admission to the Museum is always FREE. Remember, the Museum opens at noon. And of course, there will be coffee and donuts at the Veterans Hall.

The AWA Museum is here.

The AWA Spring meet is here.

W1AW/2 Sign Up Reminder

Only about 5 weeks till take off !!!

Go to: www.rdxa.com and click on the W1AW/2 Operating Event calendar & follow the link at the top of the page "Host Station Request"

Fill out the form and click on SEND

I will take it from there.

Please forward as needed.

— *Paul Mackanos, K2DB*

Sweet Hawaiian "KH6" Crock-Pot Chicken

2 lb. Chicken tenderloin chunks
1 cup pineapple juice
1/2 cup brown sugar
1/3 cup soy sauce
Combine all together, cook on low in Crock-pot 6-8 hours...that's it! Done!
Serve with brown rice and you have a complete, easy meal!

Rochester DX Association

Club Station — W2RDX

Club Website — http://www.rdxa.com

This Bulletin is the official publication of the Rochester DX Association and is published monthly, September through June. Email your articles, tips, ham ads, etc. to Andrew, W2FG at alesny@rochester.rr.com by the second Tuesday of the month for inclusion in that month's issue.

All those with an interest in amateur radio and DXing and contesting are cordially invited to any meeting and to join RDXA. Meetings are held at 19:30 Local time on the 3rd Tuesday of each month, September through June.

President ....Mark Hazel – K2MTH

mthazel2151@yahoo.com

Vice President.......................Brent Hungate — KC2QLJ

brenthungate@yahoo.com

Treasurer ....Irv Goodman – AF2K

af2k@juno.com

Secretary ....Bill Rogers – K2TER

k2ter@rochester.rr.com

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Dan Guyor – N2DD........................drguyor@earthlink.net

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Max Kelley – KC2SPY ....max@maxkelley.com

Mark Hazel – K2MTH..............mthazel2151@yahoo.com

Brent Hungate – KC2QLJ.......brenthungate@yahoo.com

Appointed Positions

Webmasters ....Carey Magee, K2RNY

....Paul Mackanos, K2DB

Contest/DX Chairman ....Chris Shalvoy, K2CS

Membership Chairman ....Dan Guyor, N2DD

Calendar Chairman................................Don Vlack, K2DV

Newsletter Editor ....Andrew Lesny, W2FG

Banquet Coordinator ....Nikki Hungate

Media Coordinator ....Paul Kolacki, K2FX

Membership Dues can be sent to:

Daniel R Guyor
305 Wood Road
Rochester, NY 14626

Regular Membership	$20.00
Family Membership	$5.00
Full-Time Student	$5.00
Lifetime Membership	$200.00

Any other correspondence to: Irv Goodman, AF2K