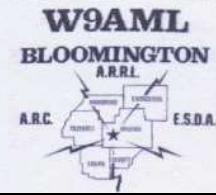


CENTRAL ILLINOIS RADIO CLUB

Short CIRCuits



May 2007

From the President

Repeater Problem

As I write this both Rich and I were at Dayton. I wasn't able to find the replacement transistors and do not know if he was. If not, we will try RF Parts.

VE Testing

We had a VE session on May 12. Four people tested and we had three successful passes, one new Technician and two upgrades. Congratulations to all, and thanks to everyone who showed up to help – Chuck and Connie, Rick, and Mark.

Field Day – May Planning Session

QST published the rules for Field Day 2007 in QST. Mike, KC9FWL, is going to dust off his planning work from last year and we are going to devote our May meeting to Field Day, it will be the last regular meeting before the event. I am looking forward to it, the premier operating event of the year. I read in QST or CQ recently that Field Day was the single Amateur event with the greatest participation. I think we are going to operate from the Red Cross building this year, I suspect we will also have an outside component. Details to be nailed at the May meeting.

April Meeting – April 25

I gave a demonstration of a nifty new piece of software that I came across in a QST article. It is called HAMCAP. Basically it provides a real time model of the ionosphere and propagation to any point in the world. It interfaces with another package called IONOPROBE, which provides

a real time feed from Boulder. This will give instantaneous warning of geomagnetic disturbances, solar flares as well as the current solar flux, and a and k indices. These two now run in a small window on my computer whenever I am on the air. I find HAMCAP particularly useful in dxing and in contests in that I can see where I have propagation and which are the optimal bands.

Dayton

The following are my thoughts from Dayton. It appears attendance was down a little, but that is just my impression. It was easily the most accessible of the conventions I have attended, the crowds did not seem as packed and I had a chance to have meaningful discussions with reps / engineers on topics I cared about. It is still the ham radio event of the year.

It is a great year for Ham Radio and radios in general. In the last two QSTs I have seen the following new radios advertised. They were all featured at Dayton, with factory reps on hand to tout their virtues and discuss their fine points.

FlexRadio – The new Flex-5000 was unveiled. This is an enhanced performance derivative of the SDR1000 and uses the same PowerSDR operating system. There is no front panel, the entire interface is on your PC and the radio proper consists of a black box, which feeds your personal computer as the main digital signal processor. FlexRadio appears to be on the cusp of a new radio paradigm, they claim outstanding close in dynamic receiver range and do not advertise any narrow roofing filters. When I asked, the engineer claimed they were basically

performing A to D at the input RF. Since their A to D has a really large range the radio supposedly has the same dynamic range at all spacing. It will be interesting to see what Sherwood Engineering and the ARRL report. This sounds like a fundamental paradigm shift away from analogue. Looks like pricing will be around \$2500 for the standalone box and rise for the integrated computer versions.

Hilberling represents the opposite end of the spectrum, as a \$13,000 to \$16,000 dollar radio founded on superbly done analogue circuitry. I spent some time with the US distributor, Array solutions, and the owner believes it is going to blow away everyone else in the market. If you like superb German over-engineering this looks like the radio for you. It is big, heavy, up to 600 watts output. The circuit boards were on display – works of art. The receiver input inductors looked like some radios output circuitry.

Elecraft appeared to sit somewhere in the middle. Again, they claim top performance numbers. Their design essentially looks like the Ten Tec Orion, with DSP following a full suite of roofing filters. Interestingly, the K3 will be offered as either a completely assembled product or as a bolt it together kit – all circuits boards assembled and fully tested, a no solder kit. This is by far the least expensive product, starting at less than \$2,000. A fully loaded radio with two receivers and a full set of roofing filters for each will easily be in the mid \$4,000s.

ICOM unveiled their new IC-7700 the “contester's rig”. It looks like half of a 7800, having only one +40dbm IP3 receiver. Unfortunately, there is no provision for listening to a second

frequency, because it uses a tracking preselector. I can't imagine this will be too attractive to DXers. When I mentioned this to the ICOM rep he said it allowed for use of a separate second receiver and that most people who would buy this one already have a 756Pro. Seems like a poor substitute, since an external receiver won't be integrated with the 7700, although I downloaded the IC-7000's manual today and it has a CI-V transceiver interface. Maybe a Pro will act like an integrated separate receiver. Otherwise an outstanding looking radio – reportedly \$6,000. Notice how the top end has suddenly gone way up on all these rigs.

Yaesu unveiled the FT-450, a compact HF/50 MHz rig which looks like it is designed for portable / dpxpedition use. It is larger than the IC-7000, 706, FT-100, series, but full featured, DSP filtered, with a very large, clear display. I didn't get the price, but I am guessing it will be toward the lower end; I saw a Texas Towers ad today with it listed just under \$1,000.

I also saw the first use of Bluetooth integrated radio in Yaesu's FTM-10R. This is a 2/440 FM radio with a detachable, waterproof head, very bright display, and the wireless (Bluetooth) mic connection. Its brochures show it on a motorcycle and it looks like it is designed specifically for them. Interesting niche.

IC2820H – Icom's new D-Star 2/440 rig is full duplex and pricey – about \$900 at Dayton with the digital board – which also included GPS. I had my heart set on this when I went, but couldn't quite stomach the price. I have got to believe price is standing in the way of D-Star adoption. All the D-star products carry a \$200 to \$300 premium.

Kenwood unveiled a new 2/440 rig with full duplex and the unique ability to run the body of the radio with either side up – so you can choose the side the internal speaker is on. It also has EchoLink specific features. This is a sub \$400 standard type radio.

Finally, I am pleased to announce that some important things have not changed - Yaesu is still giving away caps and Icom still features pretty girls. ☺

Take care everyone. See you Wednesday, May 23 at 7:00pm in the Red Cross on Route 9 East, across from the Fire station.

Thanks –
Keith
AC9S

Central Illinois Radio Club

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The CIRC is a not-for-profit ARRL special service club whose purpose is to advance the service of Amateur Radio. Located in Central Illinois, CIRC and its members welcome all to use the 146.94 repeater and to attend club meetings.

Submissions for the newsletter must be received by the 10th of the month and may be snail or e-mailed to the editor at:

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The Evolution of Boy Scout Headquarters Station K2BSA

Walter Maxwell, W2DU

It's very likely that you've either heard, or heard, of K2BSA, the club station at the National Headquarters of the Boy Scouts of America, located in Dallas, Texas. Then it's also likely that you'd be interested in learning a little background on how the station originated.

In 1910, Lord Baden-Powell founded the Boy Scout movement in England. The movement soon caught on in the U.S., with its original Headquarters located at 2 Park Avenue, New York City until the early 1960s. After WWII, three top executives at Boy Scout Headquarters were radio amateurs who desperately wanted to have a Boy Scout Headquarters' club station, but there was no room in the crowded office complex for such a frill. These amateurs were Lloyd Eberhart, K2CVT, then publisher of all Boy Scout publications, the late Harry Harchar, W2GND, editor of all Boy Scout publications, including *Boys' Life*, and E.E. 'Hoisy' Hoisington, K2GDR (now W4YTA), Chairman of the Safety and Health Department.

Around 1960 these amateurs came upon some exciting news. Due to increasingly cramped office space, a move from New York was essential. To make the move possible, Headquarters had just acquired some pristine wooded acreage in North Brunswick, NJ; the location of station WII with its 200 kW Alexanderson alternator transmitter operating on 21.8 kHz. This was the station used to transmit President Wilson's ultimatum to Germany that resulted in the ending of WWI.

Our three amateurs descended onto the property with glee, because in addition to a long nature trail and large office complex building housing the Headquarters' business operations., a large, magnificent museum was built to display Boy Scouting memorabilia from all over the world. Their immediate thought was, "What a neat place to operate and display Ham Radio!" The main display room was about the size

of a standard basketball court. At one end of the room an attractive console was constructed of clear maple for the long desired amateur station.

Various manufacturers of amateur gear generously donated equipment to the station. Hallicrafters was the first, donating an SX-111 receiver, an HT-37 transmitter, and an HT-33 RF power amplifier. The late Al Khan, K4FW, (then with Electro-Voice, and later owner of Ten-Tec) donated an EV-664 microphone, and Telrex donated a tower and its then top-of-the-line three-band beam and rotator. Hammarlund donated its latest transceiver, and Heathkit donated an SB-101 transceiver and an SB-200 RF power amplifier.

It was my good fortune to live in Dayton, NJ, only eight miles south of the new Headquarters (800 miles east of Hamvention Dayton). By sheer coincidence Hoisy, K2GDR, moved in just down the street from me, and naturally, both being Hams, we became good friends. What was even more fortunate for me was that he invited me to join with him, Lloyd, and Harry to assemble the station. Guess what? Among other tasks, they gave me the responsibility for the antennas! What a joy that task was. We four then formed the 'Boys Life Radio Club' and the original call assigned to the new station was K2BFW.

The station operation was very successful. Any scouts and visitors who were licensed were given the opportunity to, operate.

But as luck(?) would have it, the K2BFW operations seemed to go awry during the week-ends of JOTA, the annual October World-Wide Jamboree on the Air. This was the time when we expected to have an exciting bit of operation with the new station, when Boy and Girl Scouts visit nearby amateur stations to talk with other Boy and Girl Scouts over Amateur Radio. And every year, we at Headquarters had licensed scouts and scouters lined up for twenty-four hour operation of K2BFW throughout the entire JOTA weekends.

But alas, a distressing problem arose during JOTA every year. A scoutmaster, a licensed amateur in Pennsylvania right across the Delaware River from us, obtained a

special event call sign for the JOTAs, K3BSA! Wow, the pile-ups he drew! Everybody thought he was the Headquarters station. Oh! K2BFW was left in his dust, and when we announced during every contact that we were the Headquarters station, many of our contacts disbelieved us, and told us to get off Headquarter's frequency.

After several years of the distressing problem emanating from K3BSA I decided we needed more recognition and visibility. I decided to get a new call sign that would give us the clout we needed. On checking the Call Book

it was obvious that both W2BSA and K2BSA were in use. W2BS wasn't in use but better than nothing, still stands for Boy Scouts.

As a former monitoring officer with the Radio Intelligence Division of the FCC I was personally acquainted with Rosel H. Hyde, then Chairman of the FCC. I told him of the situation and asked his advice on how to proceed in obtaining a permanent assignment of the call sign W2BS to the Boy Scout Headquarters station. He suggested that I present the situation in the form of a draft petition that he would take to the Chief of the Safety and Special Services Bureau for his comments. (At that time, the Amateur Division fell under this Bureau's jurisdiction.) Chairman Hyde was in complete agreement with our request. However, Bureau Chief James Barr rejected the petition, saying there were no administrative rules allowing a special call sign to be assigned permanently in cases such as ours. In addition, he stated that old-timers who already had two-letter calls would object to a Boy Scout station having a two-letter call. This last comment in his response 'seemed to me to be a lame excuse. I started some research; on pouring 'over old Call Books from between 1921 and 1928, to my surprise I found more than 50 two-letter calls assigned to Boy Scout troops all over the Country during that early era. (I also discovered the early FRC policy of assigning two-letter call signs to universities and colleges, all with suffixes beginning with 'y'.)

My revised petition included a report on my findings concerning the two-letter calls assigned to Boy Scout

troops in those early days. By this time Chairman Hyde's tenure had expired, and he was replaced by Chairman Dean Burch. However, Chairman Hyde remained as my advisor, and heartily approved of the revised petition.

On Chairman Hyde's advice, I submitted the new petition directly to the FCC commissioners on 16 April 1968. One of the arguments in the new petition for a permanent assignment of a call sign for the Headquarters' station

I thought would help our position was that in addition of its use at Headquarters, the call could also be used by other scouting groups for their activities in all parts of the country, simply by obtaining permission from the current trustee of W2BS, and applying the appropriate *In* for the District in which the operation occurs. This aspect of the permanent call sign would then relieve the FCC staff from the paperwork required to process special-event call signs for other official Scouting activities, such as Jamborees.

After the usual long wait for bureaucratic action, on April 1, 1969, I received a letter directly from the Chairman of the FCC himself, Dean Burch, saying the Commission found that they believed the call sign K2BSA would give Boy Scout Headquarters the recognition and prestige required to let the amateur community know who we were every time we went on the air. Petition request granted.

It seems that during the time I was doing the research, the call sign K2BSA had become inactive, and was therefore available. K2BSA was thus assigned to the club station of the Boy Scouts of America Headquarters! As word got around concerning the new call sign, our local scouts and scouters started increasing our visibility by putting in more time on the air, and the positive responses we received proved that our recognition as Scouting National Headquarters was also increasing dramatically.

During the first years of operation with the original call sign K2BFW, Harry Harchar was trustee of the station, but from the time of the new call sign until Headquarters moved to

Dallas, I was the trustee, and also the National JOTA coordinator.

However, all did not bode well for the Headquarters' move from New York to New Jersey. It appears that Scouting organizations in the Western portion of the country felt that the new location should have been more centrally located between East and West to provide a more equalized service to the West. The situation simmered until the 1990s, when the tough decision was made to move to Dallas.

Alas, a firm, unbendable high-level Headquarters decision was made that there would be no Amateur Radio operation and no antennas erected at the new building in Dallas. Fortunately, a Dallas Scouter who was' also an ardent amateur, the late' Walter 'Dan' Dansby, Jr., W5U RI, considered it untenable that K2BSA operation was killed simply by

bureaucratic executive order. Dan then started a search for a suitable location to house K2BSA and get it back into operation. He initially found a place to house the station at Camp Shuman on Lake Worth near Azle, Texas, and later moved to its permanent home at Camp Wisdom in Dallas. The station's trustee is Ray Moyer, WD8JKV, and the station manager is Frank Krizan, KR1ZAN. K2BSA's equipment consists of two HF operating positions, a VHF! UHF satellite position, VHF/UHF voice and packet position and amateur TV (ATV) operating position. The station is operated during Jamboree on the Air (JOTA) and several other weekends of the year. Maintenance is done by Crew 73 members and Advisors of Richardson, TX.

Beginning in September, 2000, K2BSA has been operating and open certain Saturdays of each month for

visiting Scout groups to tour and talk with other Hams and, perhaps, other Scouts around town, around the country and, often, the world. Watch the K2BSA website for details or call the Circle Ten Council reservations desk 214-902-6764 (beginning in July 2000) to schedule a visit.

Finally, it is comforting to know that through the operation of K2BSA, Amateur Radio is being kept alive within the Boy Scout movement, giving its youth an introduction to our hobby and service, and hopefully instilling a desire in them to become a part of our great Amateur Radio Community.

Courtesy of WorldRadio April 2007

Nets in the Area

Mon thru Sat	9:00 A.M. CT	14.2475 (HF)	Displaced Peorians
Monday	9:00 P.M.	146.730	123.0 PL Open Net
Tuesday	9:00 P.M.	146.255	(103.5 PL) Woodford County
Tuesday	7:15 P.M.	146.910	Tazwell County ESDA Net
Tuesday	8:30 P.M.	28.450	CIRC Open 10 meter Net
Tuesday	9:00 P.M.	146.940	(103.5 PL) CIRC Open Net
Wednesday	9:00 P.M.	147.060	Open Net Has Newslines
Wednesday	9:00 P.M.	442.250	103.5 PL ARES Open Net
Wednesday	Varies	147.100	103.5 PL <i>Sometimes</i> Trader's Net follows ARES Net held on 442.250
Thursday	9:00 P.M.	146.760	(162.2 PL) Open Net with Newslines
Thursday	9:00 P.M.	146.850	(103.5 PL) Open Net Peoria
Thursday	9:00 P.M.	146.895	North central IL Traders Net
Sunday	08:15 A.M.	1.815	Open 160 meter AM net
Sunday	7:00 P.M.	146.985	Clinton ARC net (NEW)
Sunday	8:30 P.M.	147.075	Open Net with Newslines

(Please help me keep this list correct. I know it may not be up to date at this time. Norm N9ZKS)

Central Illinois Area Repeaters

Freq	Callsign	Location	PL
145.390	N9EZJ	Lincoln	103.5
146.730	K9HGX	Decatur	123.0
146.790	WD9HRU	Bloomington	
146.850	W9UVI	Peoria	
146.940	W9AML	Bloomington	103.5 CTCSS
146.985	KA9YPK	Clinton	
147.015	NX9M	Normal	88.5 (open*)
147.075	W9UVI	Washington	103.5 CTCSS
147.100	WA9RTI	Decatur	103.5
147.150	WD9FTV	Bloomington	
147.345	K9ZM	Lincoln	103.5
147.390	WB9DUC	Pontiac	127.3
442.250	WA9RTI	Decatur	103.5
442.700	WB9UUS	Normal	107.2 (open**)
444.350	W9EX	Normal	107.2

* Repeater is currently in open mode with pl for those with QRM

** Repeater RX with tight carrier squelch and loose tone squelch (107.2)

LOCAL DX PACKET CLUSTER INFORMATION

"DX spotting network" - N9PE (Memorial Station) 144.91 MHz - 1200 baud - Connect to N9PE - Contact AB9M or KB9LNS for more info.

Another Dayton Perspective

Norm N9ZKS

As some of you know, the first hamfest I ever attended was Dayton. I was a brand-new ham in 1992. At the monthly CIRC meeting, I said I had no radio after three months of

being a ham. I was told no problem, there's a hamfest this weekend, and you should have no problem finding a radio. I've been loving the show ever since.

As the first time, my primary reason for going to Dayton is to acquire knowledge. I jokingly say I'd never recognize the diamonds in the coal dust that is spread across the flea

market. I wasn't sure if I was going to Dayton this year but, because of my association with the Bicycle Mobile Hams of America, I had to make an appearance.

Oh, early Friday morning. I mounted up on Rex and headed east on 74 toward- Dayton.

(Continued on Page 5)

Calendar of Events

Sun	Mon	Tue	Wed	Thu	Fri	Sat

Weekly 10 Meter Net

Every Tuesday evening at 28.450 MHz- at 8:30 p.m.

Weekly 2 Meter Net

Every Tuesday is evening on the 146.940-repeater at 9:00 p.m.

10/10 Breakfast

First Saturday of every month at 8 a.m. in the Baker's Square at Vernon Ave. and Veterans (Just south of College Hills Mall).

CIRC Meeting

Fourth Wednesdays of the month at 7:00 p.m. at the Red Cross building in Bloomington (Just north of the airport).

rather than actual merchandise, so I spent most of my time in forums and talking to vendor representatives.

I left the show after the last forum Friday and headed over to Wright Paterson Air Force Base where I had reserved a room in the temporary quarters. After checking in I went up to my room to find it was a suite. There are some advantages to being a retiree! All for \$37.50 per night.

I continued to enjoy the show Saturday and Sunday with the exception of failing to hear my name called for any of the grand prizes for yet another year. It is a great show favored this year with the greatest weather I've seen since I first went. All in all it was great weekend.

motion forward, Norm N9ZKS 2nd suggested to use funds for FD expenses. Will use for food, etc. carried.

Dean AA9BS suggested we need FD committee, Mike W9FWL planning to do that

Dayton weather excellent, good event to have discussion on new equipment, attendance up from last year.

New technology radios & accessories SDR converts RF into digital stream.

Flex radios (DSP front end):

TenTec Orion has roof filters to do some of these to improve dynamic range

Elecraft has a similar unit with roofing filters.

Dr. Helberling, Ray Solutions bringing them into the country with flex radio, analog radio with DSP.

Side conversations ensued on various radios, APRS, Tiny-Tracker bug...

Yaesu FT450 like 570 with IF DSP, perfect for portable, use , DX radio, bright display

Keith looking at Icon D-Star I-2820, but still a bit high yet.

Norm presented at Bicycle Mobile Hams of America, Ralph K9ZO did a presentation there on Scarborough Reef, Kermadec Island dxpedition - well accepted.

Norm mentioned 2 college professors had 10 computers in a room doing antenna design/systems to switch antennas while running, designed to not have hairpins, etc. Wrote software to do this

Keith AC9S spent a day at Dayton getting parts, talked to Bencher to get replacement boom and or parts

CIRC meeting Minutes May 23, 2007

(Another Perspective – Continued)

It wasn't too long before I realized it was a chilly morning. It was 37° as I rode through the predawn light and required turning on the heat. As I approached Indianapolis. I asked about travel conditions and was advised to take the long way around. That individual did admit to being very impatient. So I decided to take the normal route through town. Turned out to be no problem at all. They have banned all heavy trucks from the Interstate 70 construction area. So with the three remaining lanes in each direction, traffic moved well. The hams I had been talking to mention stopping for breakfast at a truck stop on the route. As I approached one exit, I saw the sign for the truck stop so I pulled off and joined three Indianapolis hams for breakfast.

After breakfast, it seemed like a short trip before I was rolling down Shiloh to Hara Arena.

I checked into the form's office to get my pass and then went to the ticket booth to ensure a chance for the BIG prize.

I then started off through the main building to find the treasures. Truth be told I was looking for information

19:03 start
Introductions
New visitor KO2R Doug from Belvidere, IL

Treasurer report from Norm, N9ZKS
No activity
Balance \$515.16 in checking, \$641.81 in Savings
Gary AB9M moved to accept as read, Rick WD9HRU second, carried

Keith AC9S re-read minutes from last month

Gary AB9M moved to accept as read, Norm N9ZKS second, carried

Keith AC9S found about 1/2 of his list at Dayton.

Mike W9FWL manages FD activities.

Jerry KB9ZDY moving, has club antenna support, Mark AB9MP to call & get from Jerry, test.

Keith AC9S renewed club status with ARRL.

\$100 collected for Dayton booth wasn't used, Gary AB9M brought

Floyd W9EX has tickets for Princeton & Peoria hamfests, \$6 double stub, \$8 at the gate with 1 stub.

Gary AB9M motioned to close, Don 2nd, carried.

FD planning discussion by Mike W9FWL, reviewed last year's activity planning.

Norm asked ARC if he was able to leave his trailer here in parking lot while he is away at summer scout camp. ARC said there are 2 classes both Sat & Sun, plus church Sun AM

Breakfast Saturday morning. Bob Evans 8AM

of Stations - Gary AB9M mentioned new rules may change # of stations, Doug KO2R asked about 6M activity
Manlift rental -
Omni VI - State Farm
Corsair AB9M - keyer, paddle, digital FT100 -
IC706IIG - State Farm
Satellite Grant Zehr
Cushcraft R7 at ARC

Rick WD9HRU has G5RV available
Chuck N9RZV to bring solar panels for Doug's QRP rig/charger (with regulator).

Beam - ?

Jim WB9UWA suggested R7 on lift was pretty good performance compared to beam

Use ARC and add'l generators as backup to maintain points

Tents, open shelter, tables, chairs

Keith AC9S to bring bandpass filters.

Chuck N9RZV to do network setup logging, PC's from Keith, Norm, Mike & Dan Beers - Dan has logging software. I can bring wireless router, etc. and 1 laptop.

Rick asked about Friday before activity?

Need to send email invites out, also media coverage (Norm did last years)

□

□

Plan to do a Wednesday before FD to finalize event planning, 7PM ARC

Rick asked if we should bring our "To Go" kits, there has to be a plan beforehand.

Remember the ARRL bulletin, Friday night best to catch RTTY

Invite public.

□

Connie KB9IGT and Chuck N9RZV to contact Rachael KC9CXO to get young people to visit site & work during daylight hours. If we can get media out here then, we can get more points and media coverage with one swoop.

Keith AC9S got some additional QST magazines to give out to successful exam takers.

Gary AB9M motioned, Norm N9ZKS 2nd. meeting closed at 20:25

SPECIAL ANNOUNCEMENTS

PRE FIELD DAY LAST MINUTE PLANNING MEETING

WEDNESDAY JUNE 20

We will be finalizing our plans and insuring we have everything ready so we can have a fun and productive day.

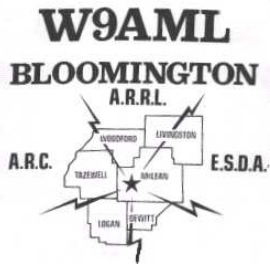
POST FIELD DAY MEETING

WEDNESDAY JUNE 27

On our regular meeting day we will have a post field day meeting designed to capture information to make next years field day even more successful along with the normal meeting topics.

**Meeting Wednesday May 23
Yep, the newsletter is late**

Central Illinois Radio Club May 2007 Newsletter



Central Illinois Radio Club
P. O. Box 993
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