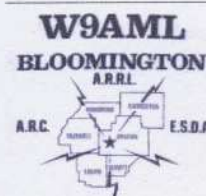


CENTRAL ILLINOIS RADIO CLUB

Short CIRCuits



April 2006

FROM THE PRESIDENT

Heartland Class Update

Congratulations to Three new hams in the area. John A Boomgarden, Scott D Hume, and David A Milam all earned Technician class licenses. Welcome to the best hobby in the world!! We are basically at the bottom of the sunspot cycle, so you can look forward to 5 years of improving conditions, at least on HF.

April Meeting

Our April meeting will feature Eric Hodges of the McLean County Emergency Management Agency. He and Rich Ranson, N9YAY are going to bring the mobile command center to our meeting for a demonstration. This is a very high end vehicle fully fitted out with multiple communications stations, one of which is destined for Ham Radio. In addition to showing us the mobile command center Eric has a presentation and pictures of emergency communications during Katrina. Rich Ranson will also describe our incipient ARES organization which will be the key to participating in county emergency communications. This is great timing since the spring weather season is going full bsast. I look for you all at the presentation / demonstration – Wednesday, April 26, at 7:00pm in the Red Cross Building across from the Fire Station on East Route 9.

Storm Spotting Class

The storm spotting class put on by the McLean County Emergency Management Agency (EMA) on April

4 was very well attended; I heard estimates as high as 200 people with standing room only and every spare nook and cranny of the presentation room filled with extra chairs. Attendance at a formal spotting class is required prior to participating in storm spotting activities, which we hopefully will get going via ARES.

ARES

Rich Ranson, N9YAY, has scheduled an initial meeting for those interested in ARES for Saturday, April 29th. We should know more specifics at our April meeting.

Repeater Problem

We have had a very intermittent problem with audio dropping out on the repeater. Thanks to Gary, AB9M, Norm, N9ZKS, and Earl, WB9UWA for troubleshooting and working on it.

Contests

I spent a few hours on the CQ WPX contest last month. Although we are close to the bottom of the sunspot cycle conditions were remarkably good. I had fine openings on 15 to Central and South America each evening. One day we had a great evening opening into Japan, and the next day a good one to Australia, New Zealand and the Central and South Pacific. Europe was open on 15 and 20 both Saturday and Sunday mornings. The bottom line is that even at the bottom of the cycle conditions can still be pretty good with the ability to work almost any part of the world on HF with a little care. I think a lot of us tend to write off the higher HF bands at the bottom of the cycle and contests show that there is probably more propagation than we

are taking advantage of. Even when the bands appear dead, it doesn't hurt to call CQ a little; we can be pleasantly surprised.

Hamfests

We are getting into the heart of the Hamfest season again with good ones available almost every weekend if you are willing to travel a little. The granddaddy of them all is Dayton, this year on May 19, 20, and 21. Nettie and I are planning another of what has become an annual affair for us. I really enjoy seeing all the new gear, the opportunity to meet manufacturer's representatives and provide my input on their wares, the gargantuan flea market and just plain mingling with 25,000 or so other hams. Plus, there are generally some great "Dayton Specials" on new gear and great buys in the flea market it you are in the mood for a change of equipment. I also really enjoy the first class seminars and presentations that run continuously throughout all three days on a variety of topics; they are a great way to learn about our continually evolving hobby. The Hamvention is a unique experience in amateur radio. If you have never attended one I encourage you to give it a try, it is an outstanding opportunity only a 4 hour drive to the east.

We will see you at the club meeting Wednesday, April 26 at 7:00pm at the Red Cross building on Route 9.

Thanks –

Keith
AC9S

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 Newsline
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	Open Net with Newsline
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 Newsline

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
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)

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

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.

CIRC Mar 22 meeting minutes

The scheduled speaker was Dan Smith, National Weather Service, Lincoln, IL

Keith AC9S decided to have program first, meeting after if necessary.

Their website: <http://www.weather.gov/lincoln>

Dan showed numerous charts on projection display: radar types, precipitation, motion, classification, how NWS issues warnings. GEOS satellite, visible, water vapor, other.

Upper Atmosphere (UA) balloon launches 2x a day, 5a/5p, Hydrogen filled, radiosond measures & transmits temp, humidity & wind. More times as needed

An interesting point: Doppler acceptance angle increases due to curvature of the Earth & amount of rain; still need trained spotters to check for conditions radar may not see.

NOAA WX is now responsible to warn of All Hazards for the public,

options to allow, block available on new scanners.

Dan gave us a detailed look inside Severe Weather Operations; task assignments, process, continued training, yearly radar certification, more.

=====

WES - Warning Event Simulator helps document and improve wx response, reactions, etc.

Process consists of: Education, Training, Operations, Verification, then back again...

WCO - Warning CoOrdinator - staffing & task assignments

WM - Warning Meteorologist - evaluates data

COP - COmmunications Person - manages storm reports, phone calls

CRS Monitor - NOAA WX radio manager

HAMs - broadcast over amateur, solicits, sends reports with EOC, ham spotters

LTF - Long Term Forecaster - zone forecast, gap fill

STF - Short Term Forecaster - MESO cyclone forecasts, updates, issues forecasts

Routine HMT/Intern duties - lanch coordinators. SWOP, routine climate reports

ET - Electronics Tech, maintains equipment, radiosonds, gap fill assist other tasks

FFA - Flash Flood Analyst - monitors data, issues reports

=====

Pre-event, notify public, plan staffing, HWO (Hazardous Weather Outlook), conduct conference calls.

Minor event, 1 person per workstation (1 sector)

Moderate event (2 sector, 2 per workstation)

Major event (2 or 3 sectors, multiple people at workstations, crowded)

Post-event, get add'l reports, call back for damage info, surveys, plan

staffing, media contacts, necessary reports, deaths, etc. create web pages.

Performance evaluations - how did we do? analysis, time of day effects.

Distraction factors - equipment, report timeliness or quality, fatigue, hunger, personal issues, life threatening reports.

Dan showed historical image when it was called the Severe Weather Service (SWS).

Bow-echo winds greater than 64 knots on radar. Can create spin-up tornadoes.

Discussions of recent WX events (Springfield March 12-13, 2006)

Contact person at Lincoln WX (ILX): CHRIS MILLER

Dan finished his program to a round of applause.

=====
DWIGHT KA9CYJ motioned to close the meeting, Mike KC9FWL 2nd'd, all in favor, Aye!

Reminder: APRIL 4TH WX CLASS AT LAW & JUSTICE CENTER, 7PM, Rich Ranson N9YAY AT ESDA

STATE FARM will provide booth at Challenger Center Science Night

Meeting adjourned for many to Denny's restaurant for snacks & chat.

de Chuck N9RZV

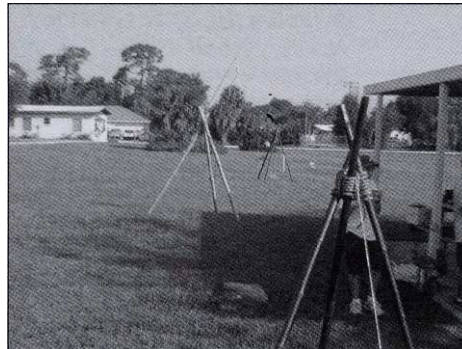
JOTA 2005

George Cannon, KF4XB, KF4XB@amsat.org

Over the past few years, several ham radio friends that work satellites have set up a modest station for JOTA at the Troop 393 meeting location on, Merritt Island, Florida. We have always had fun, but this year was especially noteworthy for the reason I will describe later in this article.

Some months prior to JOTA the special event call sign, W4J, was requested and assigned by the

ARRL. Lee, KU4OS, ran the passes for the usual suspects, ISS, SO-50, AO-7, FO-29, AO-51 and VO-52. This year the passes were conveniently clustered between 0830 and 1230 local, Eastern Daylight time.



Homebrew HF dipole supports built by Troop 393. (Credit: Roger, WB9NOE)

About 0800 on 15 October, KU4OS, and I arrived at the Troop 393 headquarters and began setting up a portable satellite station consisting of a dual-band hand held, a small UHF Yagi antenna and the two meter mag-mount vertical on Lee's car. Don, AG4FC, arrived later with his dual-band handheld and portable V/U Arrow antenna. Al, N4TME, then came with his HF transceiver and two homebrew



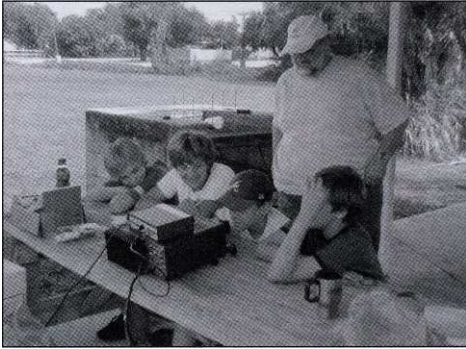
Scouts gather around the car of Lee, KU4OS, for an ARISS contact. (Credit: Roger, WB9NOE)

loop antennas, one for 80 meters, the other for 40 meters. Our troop contact Roger, WB9NOE, had the scouts construct two lashed together tripods to support an HF trap dipole. Older scouts mentored the younger ones in the proper technique of lashing three poles together to form a stable tripod support. We also provided a basic introduction to amateur satellites and how we were going to attempt to make contacts.

While waiting for the first of the satellite passes the HF radios were put on the air and tuned to the JOTA frequencies, primarily on 20 meters. Scouts gathered around the rigs and contacts began to be made. The scouts were very interested in talking to other scouts via ham radio. WB9NOE had a prefix map setup on an easel that the scouts could use to locate the particular area of the country where the contact was located. This was especially helpful for the Canadian hams that were heard and contacted. We also had a grid square map showing how the US was divided up into squares for identification.

The first satellite contact of the day was made with the International Space Station, NA1SS on the 1320Z pass. Not surprisingly there was a lot of traffic into the ISS making it a challenge to get through, but near the end of the pass we succeeded. Immediately after the pass almost every scout whipped out a cell phone because they just had to tell someone about actually talking with the astronauts. SO-50 provided the next contact with NX2X in New Jersey. The 1423Z pass for AO-51 turned out to be the most productive of the day with 7 contacts being made. A number of the scouts were able to talk with other operators and exchange information, such as grid square and weather. The scouts were also quite impressed that AO-51 command station operator Mike Kingery, KE4AZN, took the time to have a nice chat with them. Having AO-51 in dual voice mode really enabled a lot more contacts to be made.

The highlight of the event came on the next ISS pass at 1455Z. This pass was unique for our location on the East coast of Central Florida in that ISS set at 162 degrees to our southeast, which meant we were among the last US locations within the Station's footprint. We waited until the traffic thinned out, made a call, and the ISS Commander, William Me Arthur, came back acknowledging our call with a solid copy. After a quick exchange the



Scouts making HF contacts between satellite passes. (Credit: Roger, WB9NOE)

Commander again called "CQ JOTA" but apparently no other calls were made to ISS and Commander McArthur then called back to our Station and carried on a conversation with one of the scouts, Colin, for several minutes, until the ISS was out of range. As the conversation progressed, all of the scouts and adults gathered around to listen as Commander McArthur described the earth features the ISS was flying over. Needless to say everyone was very excited to hear an actual conversation with the ISS rather than just the usual quick station acknowledgement. Colin was so excited that he immediately called his parents. Even those of us who have been working satellites for some time were pumped since none of us have had an extended conversation with anyone on ISS beyond the usual exchange. As a result of that contact we have remained not only excited but have a renewed sense of purpose and dedication to extend our satellite communications capability into other modes and explore other station possibilities relating to amateur space communications.

JOTA provides a rare, once a year opportunity for hams to interact with young people, to share the joy of ham radio and at the same time, provides a wonderful educational forum. Our small group has thoroughly enjoyed the experiences we have had over the years participating in JOTA, not to mention getting a really cool commemorative patch. Hopefully, we have been able to convey our enthusiasm for the hobby and impart to the scouts and adults some of the

technical aspects of Amateur Radio and satellite communications.

All this with a few printouts, a compass, handhelds and portable antennas!

Thanks to Lee, KU4OS, for review and comments for this article. *j>

The AMSAT Journal» January/February 2006 » www.amsat.org

Bloomington VEC Exam Dates - 2006

5/06	Bloomington Police Department – Osborne Room
7/22	Osborne Room
11/11	Osborne Room

1:00pm

Osborne Room
Bloomington Police Department
434-2290
305 S East St
Bloomington, Il

Keith R Hanson
AC9S

(309) 378-4416
AC9S@mchsi.COM

Morton Testing:

Generally, testing will be held on the third Saturday of the even numbered months.

Testing starts at noon and will end at my discretion.

If you plan on testing be sure to be there by noon.

Testing fee is \$14.

Dates are as follows:

02/18/06
04/22/06
06/17/06
08/19/06
10/21/06
12/16/06

Test location:

Morton Public Library
315 W Pershing St.
Morton, IL

Call (309) 263-2200 for more info

Central Illinois Radio Club

P.O. Box 993
Bloomington, IL 61702-0993

<http://www.qsl.net/w9aml/>

President: Keith Hanson AC9S
(309) 378-4416

Vice President: Dan Beer N9NSN

Secretary: Chuck Kostelc N9RZV
(815)-842-4058

Treasurer: Norm Huber N9ZKS
(309) 378-4674

Newsletter Editor: Norman Huber,
n9zks@earthlink.net
(309)-378-4674

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:

Norm Huber
19266 US Highway 150
Bloomington, IL 61704-5855

e-mail n9zks@earthlink.net

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NEW MEXICO FUNDS EMERGENCY COMMUNICATION NETWORK

From the ARRL Letter and The American Radio Relay League

New Mexico has allocated \$500,000 to design, construct and install a statewide Amateur Radio emergency communication network. Rep Tom Anderson (R-Bernalillo), KB5YSG, sponsored the funding bill in the 2006 New Mexico legislative session.

"After hurricane Katrina, we've seen firsthand just how valuable Amateur

Radio can be in a disaster," Anderson said. "The Gulf Coast hurricanes destroyed communications infrastructure and overwhelmed government resources. It was Amateur Radio operators who helped to save the day."

The state Department of Public Safety will pay for the equipment for Amateur Radio volunteers to use in disasters and emergencies. All of the equipment will be state-owned. Early plans call for the installation of strategically located, interlinked VHF and UHF repeaters to handle both voice and digital communication.

In New Mexico, the potential exists for disastrous wildfires, tornadoes and floods. This year, when range fires broke out near Hobbs, Amateur Radio Emergency Service (ARES) volunteers provided communication support. Over the past several years, radio amateurs in New Mexico have been called upon to support communication during fires, for severe weather spotting (SKYWARN), during public service events and to assist Albuquerque with Hurricane Katrina refugees.

WHO AM I

At the suggestion of our board we are publishing short bios of our members. The following is your newsletter editor and treasurer.

Norm - N9ZKS - Central Illinois
Motorcyclist, Bicyclist, Ham, Scouter
'05 Goldwing - Yellow - Rex - 17,000 miles
'87 Goldwing Interstate - Lagniappe
Too - 64,000 miles
LAISSEZ LES BON TEMPS
ROULER!
MARC, WOTI, GWRRA, AMA,
ARRL
http://www.findu.com/cgi-bin/find.cgi?call=n9zks-10&radar=***

This signature describes my interests and my life. Looking into it I see some things not so obvious on the surface that do an even better job of defining my personality.

Norm - N9ZKS - Central Illinois

The call sign N9ZKS is a part of the public record and includes information on my address, phone, email and proficiency in amateur radio. It is mine alone as long as I want it. Filling that out a little, here is a brief synopsis of my life. I was born in Lackawanna, New York living near Niagara Falls until I was five. My family moved to Western Pennsylvania where I lived till enlisting in the Army in 1958. I started as an Operating Room Technician and shifted to Nuclear Energy when the opportunity came up. I specialized in the Radiation Protection specialty and returned to Walter Reed Army Medical Center in DC where I spent 17 of my 20 years in the Army.

I retired in 1979 and moved to the New Orleans area to take a job at the Waterford Nuclear Power Plant nearby. I left New Orleans for central Illinois in 1986 to take a better job at the Clinton Nuclear Station. I took early retirement from Clinton during their rightsizing efforts of the late 1990's. I worked as a contract worker until my retirement in 2005.

LAISSEZ LES BON TEMPS ROULER

This phrase, so popular in New Orleans, represents the fact that I am retired and as the phrase suggests letting the good times role.

Motorcyclist

While I was stationed in the Panama Canal Zone I was involved in an impromptu barracks party. My friend invited me to take a ride down to the Yacht Club on his big 750 cc motorcycle. Lacking inhibition due to the amount of adult beverage I had consumed, I went. Despite the foot peg scraping, I decided I wanted to do it again. I purchased a 185 cc Street-Trail motorcycle and enjoyed riding it on the roads, roads that looked like trails and trails of the jungle. I even supported bicycle races of the local Panamanian Club. Later in my assignment I purchased that 750 cc Suzuki two stroke water cooled motorcycle known as the "Water Buffalo" on which I had had

my first ride and had what my Panamanian friends called a "Motto Grande."

I'm still riding and have ridden in 41 of the 50 states. I hope to get 8 of the remaining states soon.

Bicyclist

I returned to bicycling as an adult one summer afternoon in 1971, when my wife and I rented a couple of bikes in a park in D.C. I enjoyed it so much I was soon on a high end racing bike and cycling thousands of miles a year. I acquired a license from the Amateur Bicycle League of America, which became the United States Cycling Federation and competed on a club level gaining a lot of fitness and enjoyment.

I also was very active in the local touring club the Potomac Pedalers. My bicycling is at a low point at the present time. I currently referee some road races from my motorcycle.

Ham

While in Panama a phenomenon known as CB took over the country. I had heard of it before I left, but while I was there it blossomed. I even had a friend who would park his CB equipped car by Lemon Bay and stretch a cable from his car to ground it in the salt water of the bay to improve his chances of shooting skip to the United States. When I returned to the States I purchased a radio and antenna and entered the hobby. I even equipped my bicycle and joined the traffic nets on my ride to work. Imagine the surprise when I showed up at a coffee break and they met the Panama Pedaler and realized it was PEDALER, not PEDDLER. Think of that in the context of the 70's.

I joined REACT and was using the CB for communications and public service but lost interest when band deteriorated into the mess we now call the children's band.

A few years ago I found the rules had been changed and I could get a license without learning code, which is not one of my natural abilities. I am now an amateur radio operator, I have been the clubs newsletter editor

for almost as long as I have been a member and held the offices of Secretary/Treasurer and Treasurer and enjoy public service, ragchewing and some experimentation on accessories and antennas.

Scouter

35 years ago I went to a meeting hoping to enroll my sons in the Cub Scouts. I found that I had to pay a price. I became Cubmaster that night. When I went to Panama I volunteered to help with Scouting and created some surprise in the office where they usually had to cajole people to support the program. I've held the positions of Webelos Leader, Assistant Scoutmaster, Scoutmaster, Training Committee Member, Training Committee Chairman, Round Table Staff Member, and Unit Commissioner as well as Dance Team Advisor and Chapter Chief Advisor. I've tied my bicycling and amateur radio into scouting by teaching the associated merit badges. It has been a rewarding experience, especially when I have had the opportunity to attend the Eagle Courts of Honor for the young men who have been successful members of the program and being some small influence in their accomplishment.

Now I must tie this all together and the search for meaning.

I found a tendency to hobbies that take me out of doors and give me the chance to see the country. I love riding on the "Roads Less Traveled". I enjoy camping and observing nature as a part of my scouting. I enjoy the fellowship of people with similar interests. I see a tendency in both my former career in Health Physics, whose ultimate purpose is the protection of the public, and my amateur radio and Scouting activities to attempt to provide some payback to society.

STUDENTS IN ITALY, CANADA, US EXPLORE SPACE VIA HAM RADIO

From the ARRL Letter and The American Radio Relay League

Tuesday, March 21, was a banner day for schools in Italy, Canada and the US, when students got the rare opportunity to hook up via Amateur Radio with the commander of the International Space Station. The Amateur Radio on the International Space Station (ARISS) program arranged contacts between NA1SS and IZ7EVR at the Giuseppe Settanni School in Rutigliano, Italy, and VE6AFO at Sir James Lougheed Elementary School in Calgary, Alberta, in advance. A couple of contacts the same day with KG4EDK at Coloma Junior High School in Michigan came about through luck and happenstance. During the Rutigliano contact, ISS Expedition 12 Commander Bill McArthur, KC5ACR, predicted that humans one day will settle elsewhere in the universe.

"I think that is the destiny of mankind to leave the earth and colonize and settle other planets, and we will start by learning how to settle and live on the moon," McArthur said. In a similar vein, McArthur hypothesized in response to another question that the universe is larger than humans can fully understand. "And there are so many other stars and so many planets that the probability of life elsewhere in the universe is very, very high. I do not think we have ever met any however."

McArthur said he believes humans can remain in orbit as long as they have food, water and air and can get regular exercise, and he said he feels wonderful living in space.

Princess Elettra Marconi, the youngest daughter of the wireless pioneer, was on hand for the event and greeted McArthur. "My father was also very keen to share his inventions with school children," she said in part. "I am sure that it will inspire these young adults to follow a path of scientific exploration."

Responded McArthur: "We are able to do such grand things as explore space because of the inventions of your father. We are very grateful for the wonderful scientific work he did

and are very honored to speak with you."

In January 2003, Elettra Marconi greeted ISS Expedition 6 Commander Ken Bowersox, KD5JBP, during events marking the 100th anniversary of Marconi's first transatlantic wireless message.

Later that day, a dozen pupils at Sir James Lougheed Elementary School in Alberta, Canada, quizzed McArthur on a variety of topics related to living in space. McArthur told the youngsters he believes there will be commercial space travel in their lifetimes, and the space station is one key to making that a reality.

"We think we need a space station because people want to explore, they want to learn new things, and many people would like us to go to other planets such as Mars," McArthur said. "And so, on the space station, we can learn how people can live and work in space and stay healthy."

Becoming an astronaut involves a lot of schooling, he advised the youngsters. "I never stopped studying to be an astronaut," he said. "Part of being an astronaut is you never stop learning."

The Lougheed kids asked 14 questions before the ISS slipped over the horizon and out of radio range. Past Radio Amateurs of Canada President Ken Oelke, VE6AFO, loaned his call sign for the occasion, while a team of radio amateurs coordinated through QCWA Wild Rose Chapter 151 set up the Earth station.

Not long after the Lougheed QSO, teacher Matt Severin, KG4EDK, at Coloma Junior High School lucked out by briefly contacting McArthur while his earth science students listened in. McArthur told the class that earth science is an important topic. "We live it everyday as we observe the earth, and it's truly spectacular," he said.

On a subsequent pass, Severin reports, 13 somewhat better-

prepared Coloma students had the opportunity to question McArthur themselves. Responding to a question, McArthur described the crew's work in space.

"Our activities can range from anything from doing experiments--most of our experiments are on ourselves--or we can do

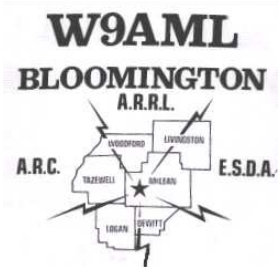
maintenance around the space station, replace components or take them apart and repair," McArthur said. "We also may spend several hours a day just cleaning the space station."

Said Severin afterward: "Never in my wildest dreams did I think I'd be able to provide this opportunity to my

kids. This was the ultimate teachable moment. I couldn't let it pass by." Severin's classroom station is remarkably modest--a handheld VHF transceiver and a homemade "copper cactus antenna stuck in a bucket of sand on the roof of the school," he said.

Meeting April 26

Central Illinois Radio Club April 2006 Newsletter



Central Illinois Radio Club
P. O. Box 993
Bloomington, IL 61702-0993