



Central Michigan Amateur Radio Club
Lansing Civil Defense Repeater Association
P O BOX 27321
LANSING MI 48909

The Scope

June 2003



Inside this issue:

CMARC/LCDRA Board Member contact List	2
Zeigenbein Award	2
Increasing QRP Success, Part II	3
Delta Exercise (cont'd)	4
CMARC Treasurer's Report—May	5
CMARC Thank You	5
For Sale	5
Julie's Project	6
2N2222/40 Update	7
Astronaut Thrills Home-town Youngsters	7
CMARC Member Starts Unique Business	8
Calendar of Events	9
Upcoming Events	9
Birthdays/Anniversaries	9
2N2222/40 Update (cont'd)	10
Astronaut Thrills Youngsters (cont'd)	10
SkyWarn Training	11
Michigan Hamfests	11

Communication Problems Mar Delta Exercise

Delta Township – A mock dirty bomb was the focus of a joint exercise involving about 40 different agencies and more than 100 emergency responders. The exercise was staged by General Motors and Delta Township. Participants in the exercise came from as far away as Grand Rapids.

The joint exercise, the first ever between public and



Response Units in Action

private emergency responders, was held Tuesday, May 13, 2003 at GM Plant 5 located on Canal Road near Mt. Hope. The event was held in conjunction with a five-day national drill in several locations around the country.

While the exercise was generally deemed a success, communication problems caused concern as voiced by representatives from some of the participating agencies.

The exercise began when a GM Emergency Response Team received and

responded to reports of an explosion. Once on the scene, workers quickly determined that terrorist actions may have caused the explosion. GM emergency crews immediately began to assess the situation and to treat injuries.

Delta Township Fire Department coordinated the public side of the exercise and Township units were among to first to respond. Before long, surrounding communities also responded including Lansing, East Lansing, Potterville, Eaton Rapids, and Charlotte. The State Department of Environmental Quality, the FBI and military units also responded.

This exercise was also the first time locally that an exercise had attempted to setup the Emergency Operations Center in the field. Both the Eaton County Sheriff Department and the Michigan State Police responded with mobile command centers.

The State Police Bomb Squad was scheduled to respond with dogs but was diverted to an actual situation just as they were en route. The State Police did provide helicopter support however. The Michigan National Guard provided

support in several areas and set up a satellite



Steve, W8CRH & Geoff, N8CE Set Up Equipment

communications station on site.

Because of the number of independent organizations involved, some participants reported communication problems because a number of agencies were communicating on different frequencies and were not able to coordinate site operations between them. Additionally, some units were reporting that they were unable to communicate with the State LEIN system.

The Delta Township Auxiliary Communications Service (DTACS) was also on the scene operating as RACES (Radio Amateur Communications Emergency Service). Responding for DTACS were Steve (W8CRH), who brought his trailer to the exercise to use (cont'd on page 4)

CMARC BOARD MEMBER CONTACT INFORMATION

"Bruce" Rainey	KC8ODP	(517) 627-9118	kc8odp@arrl.net	President
Tom Shaver	KC8NJK	(517) 651-6694	kc8njk@arrl.net	Vice President
Dick McGuire	KI8C	(517) 782-1430	dickki8c@juno.com	Secretary
Randy Stortz	K8VY	(517) 393-0634	rstortz386@msn.com	Treasurer
Clint Hannahs	KC8EHR	(517) 882-1799	kc8ehr@arrl.net	Director
Gregg Mulder	WB8LZG	(517) 646-6257		Director
Kevin Mulder	KC8QZE	(517) 646-6257		Under 22 Director
John Ingraham	NG8L	(517) 484-8027	ng8l@arrl.net	Membership Chair

LCDRA BOARD MEMBER CONTACT INFORMATION

Dan Harger	W8BCI	(517) 882-8784	w8bci@juno.com
"Bruce" Rainey	KC8ODP	(517) 627-9118	kc8odp@arrl.net
Don Rickerd	W8BQD	(517) 339-8496	
Dennis Boone	KB8ZQZ	(517) 337-0857	drb@msu.edu
Troy Creed	W8TCC	(517) 323-6358	w8tcc@arrl.net
Hal Bell	W8LAY	(517) 484-0962	
Scott Newfer	W8SRN	(517) 373-0786	



Ziegenbien Award Winner

Each year, CMARC (Central Michigan Amateur Radio Club) honors a member who has contributed the most to CMARC and/or Amateur Radio in general at the annual Ladies Night Awards Banquet.

This award was created in honor of Ralph Ziegenbein (W8PLP [SK]), an active CMARC member and avid Amateur Radio enthusiast (known as "Mr. Ham Radio"). Following his death, an award was established in his honor.

The coveted Ziegenbien Award was posthumously awarded this year to Mark Humphreys, N8DEF. Ladies Night festivities were again held at Coral Gables in East Lansing with an attendance of less than 20 persons. The event was held on May 3, 2003 and replaced the first Friday regular CMARC meeting.

This year's committee was composed of Pamela Denomme (KB8PSF), Chair and the two latest recipients of the award, James "Erv" Bates, W8ERV & Jaymes Kenyon (KC8DJH). As the award was presented, Pam Denomme, committee chair, acknowledged the winner as she read the following....

The 2002 Ziegenbein award winner truly exemplifies

the spirit of "Mr. Ham Radio," with contributions to CMARC for 22 years.

This person dedicated his life to ham radio. He was always there for the new hams providing simple to understand knowledge on antennas and radio gear. He was always there to lend a hand by helping to install an antenna or set up a station.

He was a quiet leader. He was not about fan-fare or self-promotion, but rather he was there when called upon. He helped to set up and tear down at many club events, especially field day, during his 22 years of membership; and he was always there at club meetings.

He actively participated in transmitter hunts and was willing to share this knowledge, and his enthusiasm, with others. He donated time and energy to set up and establish a regional 440 repeater at the Delta Township Fire Station. He maintained the club web page and was the eyes of Wacousta for Skywarn.



Mark - N8DEF

The Central Michigan Amateur Radio Club names Mark Humphreys, N8DEF, as this year's Ziegenbein (cont'd on page 6)

Increasing your chances for QRP success Part II



Aside from good station equipment and a good antenna system, there are several other ways to get more QSOs into the log.

Let's start with the basics here. All too often, the simple things get forgotten about or don't get passed along. The ARRL operating manual is a good source for information, and I'll start with POLITE. Yes, polite. The simple words, 'please' and 'thank-you' will go a long way toward inviting a conversation. Be cheerful and upbeat about your radio operations. A positive attitude can help any QSO be more enjoyable to both ops.

Use good PROCEDURES & PRACTICES. Learn the proper ways to initiate a call and answer a call. There are a lot of bad habits heard on the air daily. We need to practice the good ones and discontinue the bad. Refrain from discussing certain topics such as politics, religion, race, sex, or things of a derogatory nature.

Learn to listen. Tune up and down the band a bit to see if any dx or special event stations may be only a few kilocycles away. Listen before calling CQ, then call QRL, "Is this frequency in use?" then wait a moment more to listen up for another station. When all seems clear, call CQ. I usually call 3 by 2 or 4 by 2. By that I mean, calling CQ...CQ...CQ...CQ de WB8LZG ...WB8LZG AR. Don't call endless strings of CQs. Short calls are more effective and will yield more. If in doubt about any operating procedure, please don't be afraid to ask. Many old timers will be very happy to share their expertise with you if asked. Better to get it right

than risk being labeled an LID!

Be PATIENT. Remember, the other guy's signal may be 599, but your QRP and your sigs may be only 429 or 319 on the other end. Be prepared to repeat if asked, or to QRS, "slow down," for the other op.

Advance your knowledge of the radio art. Whether you're a Novice, Extra, or somewhere in between, every ham can improve themselves in some way. Utilize spare time to study electrical theory so that you may upgrade and enjoy new privileges. Or use the new knowledge to better your station, or try a new mode. PSK31 lends itself quite nicely to QRP operation.

Learn and use MORSE CODE. SSB and FM are fine ways to communicate, but in the QRP world, CW is the "meat and potatoes" mode of choice. If you haven't learned Morse Code by now, SHAME ON YOU! Now is the time. CW is the very heart and soul of ham radio. Become proficient in it's use and your QRP operation will be most enjoyable.

For those just starting out, use a straight key. DO NOT start out with an electronic keyer or bug. Until you mastered the straight key at 15+ WPM, don't even try. Properly sent code will tend to get other ops to "want to" listen to your "fist." The really good CW ops send CW like music as if it were "sung by angels." Poor fists tend to be called LIDs and don't generate many QSOs. How do you get a good fist? Only one way. PRACTICE makes PERFECT.

Choose your operating times wisely. Calling CQ on a dead band is fruitless. Again, the secret is listening. Check several different bands to see which one may offer the best propa-

gation. Try calling the loudest stations, they will be more likely to hear you than the weak ones.

Have fun! If conditions are poor or you're having a hard time with a QSO at QRP levels, don't be afraid to increase your power and use the "big rig," if the other op can't hear you well. There are times when QRP just can't cut it. Remember a QSO should be pleasure and enjoyable, not a chore. Above all, have a good time. That's why we got into this hobby, Remember?!

Next month we will look at some of the different facets of QRP operation. Backpacking, contesting, and portable operation.

73s es BCNU
WB8LZG, Gregg Mulder

Insect-Sting Relief

If any family member is bitten by a bee, you can relieve the sting by heading to your spice rack.

Take out the meat tenderizer. Wet the bite area and sprinkle the meat tenderizer on it to neutralize the venom and stop the pain.

Communication Problems Mar Delta Exercise

(cont'd from page 1)

as a communications site (see related article on page 8), "Bruce" (KC8ODP), Geff (N8CE), Guy (KC8SLJ), Doug (KC8UUF) and Don (WB8NUS).

Often, information needing to be passed between other agencies regarding health and welfare and coordination among various other volun-



Doug, KC8UUF & Geff, N8CE

teer organizations is given to amateur groups to coordinate.

In this case, RACES did not become actively involved until Delta Township Fire Chief Vic Hilbert led a group of spectators and site evaluators to our location where he learned RACES had not received any communications from the Delta EOC. He then radioed the EOC to copy RACES with each Flash Report being sent to the State of Michigan EOC.

Chief Hilbert explained to EOC staff that he needed to test the reliability of each type of communication being used in the field. His EOC was using wireless fax, the State LEIN system and radio.

The wireless fax units used cellular telephone and proved to be exceptionally slow. For some reason, connections to the LEIN system were failing.

However, once the equipment was up, RACES began receiving Flash Reports and information began to flow rather quickly between the two EOCs.

From our observations, it appeared the planners of the exercise may have failed to take into account the overtaxing of normal communication channels even if they were operational. Of course, this is where ham radio could have been utilized to provide mobile communications as well as data and video.

After arriving on site, DTACS set up two packet stations to relay messages to the State EOC. One unit worked well after getting the bugs worked out. The other unit on loan from another agency failed to boot. Though it had been tested on the air the previous evening, we were unable to make it work at the scene.

About the time the first station was able to send messages, a second field unit was delivered by Larry St. George, N8SG, Emergency Coordinator from Clinton County. The unit was not tested previously but was found to be working. Fortunately, it was not needed but the equipment failure points to the need to have working backup equipment.

This was my first live exercise and I now realize the need to upgrade my emergency communication skills and to better support DTACS. This was a great learning experience and I encourage all ham radio enthusiasts to get involved in emergency and disaster communications training.

You never know when an actual event such as this might take place in your community. Nor will you realize how much your participation may help save others in a time of need.

Douglas E. Sitterson Sr., KC8UUF



Guy (KC8SLJ) Operates Voice Station



Breathing Apparatus



Emergency Apparatus on Scene



Chief Hilbert In Final Evaluation Discussion

CENTRAL MICHIGAN AMATEUR RADIO CLUB TREASURER'S REPORT

May 29, 2003

Account Balances
As of May 29, 2003

ASSETS:

Cash & Bank Accounts

Mich Nat'l Bank Checking	\$ 1,042.68
Mark & Marilyn Humphreys' Fund	\$ 445.00
TOTAL Cash & Bank Accounts	\$1,487.68

Other Assets:

Comerica Bank \$1,000.00 CD	\$ 1,515.22
Interest due CMARC	\$ 2.55
CD Total worth to date	\$ 1,517.77

Mark & Marilyn Humphreys' Fund	\$ 445.00
TOTAL ASSETS:	\$1,962.77

LIABILITIES: \$0.00

TOTAL NET WORTH \$ 2,996.45

Income & Expenses
April 24 to May 29, 2003

INCOME:

Dues	\$ 45.00
Directory sales	\$ 2.00
Ladies Night	\$272.00
TOTAL INCOME:	\$319.00

EXPENSES:

Ladies Night and Awards Banquet	\$300.44
Scope	\$22.16
Service Charges, Bank Checking	\$ 10.00
TOTAL EXPENSES:	\$322.60

TOTAL NET PROFIT/LOSS: \$-13.60

Respectfully Submitted by:

Randall Stortz, K8VY
Treasurer

For Sale

Kenwood 530S Transceiver. 162 through 10 meters. Good condition. Contact Dick Stortz, K8JNZ, 517-323-4598.

Thank you

The Central Michigan Amateur Radio Club would like to thank the following persons/businesses for their contributions to the Mark and Marilyn Humphrey's Fund:

Melvin and Berle Reiter, East Lansing

Edward K & Betty M Fitzgerald, Lansing

Bernard F. Gaffney, Jr., Lansing

Ronald L. Travis, Lansing

Geraldine Ferguson, Lansing

Cecelia J. Kramer, Okemos

J. Wesley & Winifred Olds, Okemos

Church, Kritselis & Wyble, Lansing

Robert H. & Gloria M. Markley, Whitehall

Bruce G. Rainey, Grand Ledge

Kenneth Russeau, Grand Ledge

Did You Know?

The first safe commercial hair dye was created by the French Harmless Hair Dye Company. Its success may have been helped when the company changed its name to L'Oreal.

AMERICAN CANCER SOCIETY THANKS JULIE'S PROJECT

Lansing, Mich.—June 2, 2003—The American Cancer Society's Capital Area Service Center, servicing Ingham, Eaton and Clinton counties, is now able to transport non-ambulatory cancer patients through the Road to Recovery program using a handicap accessible van with a fully automatic wheelchair lift.

The Road to Recovery program provides cancer patients with free transportation to and from scheduled treatment appointments with the help of volunteer drivers.

This new van will be revealed to the community at a news conference on Tuesday, June 17 at 10 a.m. The conference will take place in front of the American Cancer Society, located at 1755 Abbey Road, East Lansing, MI. The celebration is open to the public.

This van is donated in honor of Julie Dible, a cancer patient who died of bone cancer in March 2002. Julie received transportation through the Road to Recovery program while she was ambulatory, but for the last two months of her life, Julie was in a wheelchair, and the American Cancer Society did not have a van equipped with a lift.

Her husband, Stephen Dible, launched "Julie's Project" as a memorial for his wife, and set out to raise funds for a new van with a lift. These funds have been made possible through the efforts of Stephen Dible, John Schneider from the Lansing State Journal, the VanDervoort Foundation, the Mulvaney Foundation and the community members who donated to "Julie's Project".

"Julie would be very pleased to know

that this van is now in use to help those persons with cancer get the transportation they need to fight this terrible disease" said Stephen Dible.

To learn more about the American Cancer Society's Road to Recovery program and how you can receive transportation or volunteer, please call the American Cancer Society Capital Area Service Center at 517-332-3300.

The American Cancer Society is the nationwide community-based voluntary health organization dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives and diminishing suffering from cancer, through research, education, advocacy, and service.

Tune Out Dust on Your Television Screen

Have you noticed that your television screen attracts dust? That's because of static electricity. To eliminate annoying static and prevent dust from settling back onto your screen, wipe it with a fabric softener sheet once a week. You'll cut down your dusting time and clear up your view of your favorite program at the same time. If you really want to give dust the heave-ho, spray the sheet with window cleaner before wiping.

Ziegenbien Award

(cont'd from page 2)

recipient. Even though his life was tragically cut short, he truly exemplified the spirit of Amateur Radio.

N8DEF, became a silent key on January 17, 2003. Born May 18, 1962, Mark was only 41 at the time of his death.

2002 Ziegenbein Committee
Pamela Denomme, KB8PSF
James Erv Bates, W8ERV
Jaymes Kenyon, KC8DJH

2N2222/40 Update: A Portable QRP Transceiver

Submitted by Gregg Mulder, WB8LZG

For those of you who haven't been following my progress, here is some background.

A few years ago, back in 1998, the Nor-Cal QRP club came up with an interesting contest. What if...World War III occurs, wiping out most of the world's electronics component manufacturing and all that's left are 2N2222 transistors (probably the most common transistor in use throughout the world).

The contest--to build a complete transceiver using only 22 2N2222s. There were several entries but the winning design went to Jim Kortage, K8IQY. A complete 40 meter transceiver, built from scratch, dead bug or "Manhattan Style." The circuit looked interesting and the claimed performance rivaled 'big

rigs.' "Neat!" I thought to myself as I put the article away and forgot about it.

A couple of years later, after building several small QRP transmitters and transceivers from kits, I decided I wanted more of a challenge. I had never built a rig from scratch. Hmm...why not? So, in the summer of 2001, I decided to give it a try.

Being the frugal ham that I am (i.e., skin flint, cheapskate, tightwad, etc.), I decided to do it with all scrounged parts. After about six months and a few hamfests, I had the basics to start. I did have to buy some parts NEW (crystals for filters, oscillators and toroids). But everything else came from the junk box. Keeping the cost below \$30, this kept the satisfaction level high in keeping with the QRP philosophy of

doing more with less!

About the beginning of 2002, I started building the rig. The rig was divided into sections so you could build one section and get it operational before moving onto the next. The sections included: the T/R switch; VFO; Receiver front end; crystal filter; IF amp; BFO and detector; Audio; transmitter driver; and power amp.

The transmit/receive switch went great. The VFO was okay (I had to experiment with the number of windings on the main coil to get it to oscillate when it was suppose to). The receiver front end went together great and tests now had me receiving actual signals with a general coverage receiver timed to 4.5 MHz for I.F.

Then I came to the crystal filters and I. F. amp. Enter Murphy!! Signals were (cont'd on page 12)

ASTRONAUT THRILLS HOMETOWN YOUNGSTERS VIA AMATEUR RADIO

NASA ISS Science Officer Ed Lu, KC5WKJ, told youngsters at his hometown alma mater via ham radio this week that zero gravity (G) feels a bit like going over the top on a roller coaster.

The May 27 Amateur Radio on the International Space Station (ARISS) contact with Klem Road South School in Webster, New York, was the first for a member of the two-ham ISS Expedition 7 crew and for Lu, who had attended the kindergarten through grade 5 school some three decades ago.

"If you've ever been on a roller coaster and you go over the top of the roller coaster you feel that feeling like you're kinda light--you're floating up on your feet," Lu explained. "It's almost exactly like that but a lot stronger."

Weightlessness "feels great." After some time in zero gravity, however, "it feels like your legs weigh a ton," he added, describing his own post-space shuttle experience.

Lu told the youngsters that while he was speaking to them from NA1SS, he was floating--and relax-

ing--about a foot above the floor and about to have a lunch of lamb, a chicken omelet and cookies for desert.

"I like the food up here a lot," he remarked later. Most of the current cuisine is Russian, he said, but he anticipated some Chinese and Hawaiian fare to arrive aboard the next Progress supply rocket. The ISS crew typically eats three meals a day, he said.

The lack of gravity does make it necessary to secure everything, including eating utensils, so they don't float off. (cont'd on page 10)

CMARC Member Starts Unique Business



It seems almost everyone covers their windows with blinds, which leaves many wondering what they do when they need to be cleaned. We take them into our backyards and use our hoses on them or put them in a bathtub full of soap and water, but they still don't get as clean as we would like them to be.

Well, thanks to Steve Dible, W8CRH, we don't have to wonder any more about how to best clean our blinds. Blind owners in the 488 and 489 zip codes need no longer worry about finding the time in their busy schedule to have the blinds removed, cleaned and returned, thanks to Tri-county Dirtyblinds.com.

"The world is full of blinds, and nobody is really doing an adequate job of cleaning them," said Stephen Dible of the Tri-county Dirtyblinds.com. "Millions of blinds are manufactured a year and nobody really cleans them."

Steve runs Tri-county Dirtyblinds.com out of a mobile unit (see picture below) which comes to your home or business to clean your blinds. "We can come to their home, take their blinds down, take them out and clean them in 30 minutes," he said. "We can also do minor repairs on site." Tri-county Dirtyblinds.com has flexible hours, making cleaning more convenient.

The cleaning process, ultrasonic, uses sound waves and cleaning agents to clean, deodorize, and kill bacteria on dirty blinds, leaving the blinds looking and working like new. The process works for all kinds of blinds, from wood blinds to pleated shades.

Steve is also offering a referral program card. The bearer gives the card to a friend, who gets 10 percent off their cleaning with the card. The card is then sent back to the cardholder who receives 10 percent off each punch received on the card.

Dirtyblinds.com is a national company that cleans blinds—and only blinds—for residences and businesses alike.

For more information about Tri-county Dirtyblinds.com, call Steve at 627-7979.

Evelyn Sitterson

Excerpts from The Grand Ledge Independent, January 26, 2003



Did You Know??

Most inventions go through many changes and many names before becoming the product we know today, and the zipper is no exception.

Back in 1851, the first device to hold pieces of fabric together was called the Automatic Continuous Clothing Closure. Over the next 50 years, the design and the name were modified several times.

It became the Clasp Locker, the Judson C-curity Fastener, the Separable Fastener, and then, finally, the zipper.

June 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May Schedule of Events

- June 2 DTACS Meeting**
7:00 p.m., Delta Township Fire Station
- June 6 CMARC Meeting**
7:30 p.m., Red Cross Building, Lansing
- June 7 539 Breakfast**
Cuby Jack's
6527 S. Cedar, Lansing
8:00 a.m.

Birthdays

- June 7 Al Sevrey, KC8ODW
- June 24 Keith Colister, K8CWQ
- June 25 Gregg Mulder, WB8LZG
- June 26 Roxanne Hannahs, KC8GAK
- June 27 Jordan Mulder, KC8QYU

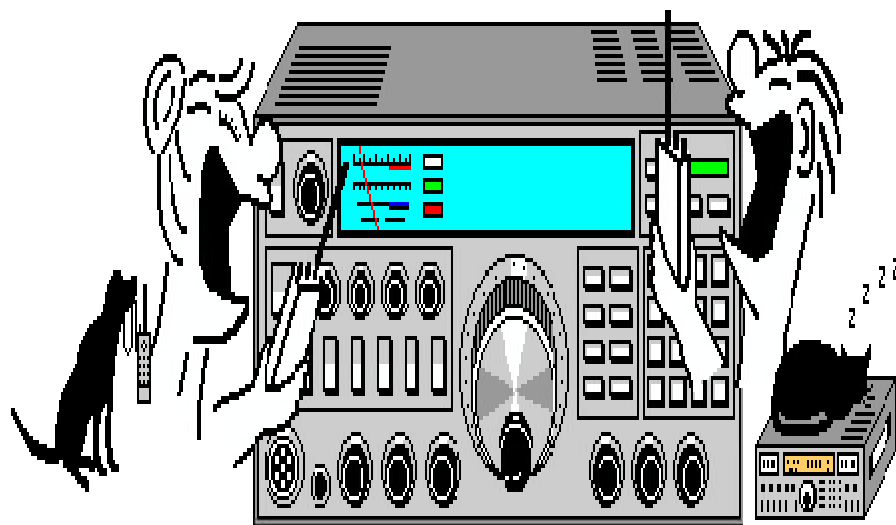
Anniversaries

- June 9 John Kreer
- June 14 Russell Fitzgerald
- June 20 Benjamin Hassell
- June 25 Keith Colister

Upcoming Events

Mark Your Calendars!!!

- July 12-13 MS Bike-a-thon**
Howell to Lansing
- July 19 Women on**
Wheels
Mason High School
- October 11 Ham Fair**
Lakeside Christian School
Old 78 Highway 69 and Marsh Road



Address or Email change?
Please make corrections on this page and mail to:

John Ingraham/NG8L, Membership Chairman
2807 Greenbriar Avenue
Lansing, MI 48912

Or email changes to: NG8L@arrl.net

www.qsl.net/cmarc
80 Years of Service to Our Community!
www.qsl.net/lcdra

2N2222/40 Update: A Portable QRP Transceiver

Submitted by Gregg Mulder, WB8LZG

(cont'd from page 9)

getting through the variable crystal filter but they were not any louder coming out of the I.F. amp. I rebuilt the circuit several different times using different parts but nothing seemed to work. I tossed it on the bench in frustration and left it there.

Returning a few months later, I tried again. Building everything up in the I.F. from ground zero. Finally, I got some signals through. I then proceeded to the rest of the receiver stages. The detector went okay but the audio amp sensitivity still offered only 50/50 performance.

I decided to scrap the original audio circuit and substitute an LM386 audio IC for the output. After experimenting with several circuit configurations (pre-amp or no pre-amp), I found a circuit that yielded nice sounding audio.

The transmitter section was a breeze compared to the receiver section. Everything was fitting together nicely, as planned. Finally, in a last dash effort, I built and completed the power amp section. Now for alignment.

Luckily, I have another radio to help tune it up. I was almost ready. I hooked it up to my 40 meter dipole and hooked up all the cables. I tuned the receiver a bit to listen to a few stations. Signals were coming in Loud

and Clear!! I tuned the VFO to a clear frequency and started to align, 'tweek', the tuning and drive capacitors to obtain output. As I did, I heard another chap tuning too.

He soon called CQ. N9TNQ. I answered the CQ with eager anticipation. Would he hear me? As I signed de/WB8LZG. I waited. Silence, for what seemed an eternity! Yet I know it was only a second or two. Then...yes, my call was coming back. Cool! Wow! Neat-O! Bob in Oquawka, Illinois. No, he wasn't rare DX (only about 400 miles) but the joy of working the first one on a rig built from scratch was outstanding!

I've still not put it in the case yet. (I'm going to add a frequency output yet). So far, I've worked 13 states with this little gem, all while just sitting on the bench with all the wires exposed. Best DX so far is Georgia and I got an RST of 599! Not bad for one watt.

I've got a real pretty box to put it in so I'll be showing it off soon. Building this radio was certainly a learning experience. I learned more about filters, mixers, amplifiers, and other electronics than I ever would from a book or class. I learned a lot about innovation, substitution, and experimenting to get the desired results.

I also learned a few lessons in frustration, humbleness, and patience. Was it worth it?? You bet it was!!

73s

ASTRONAUT THRILLS YOUNGSTERS

(con'td from page 7)

Another downside of zero G is that the astronauts aboard the ISS must exercise regularly. "If you don't exercise, all of your muscles get smaller, and that includes your heart," he explained in response to one boy's question.

In all, Lu answered about a dozen questions, although apparent signal dropout and noise plagued the last minute or two of the QSO, rendering his replies barely intelligible.

Lu advised the youngsters that, while expertise in science and math was most important to becoming an astronaut, skills and specialties vary among those in the Astronaut Corps. "The common thing among all of them is that all of them did pretty well at whatever it was they chose to do," he said.

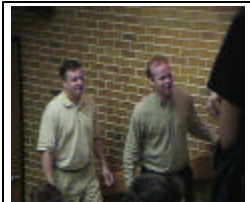
With the ISS over Hawaii at the time, radio contact with NA1SS was established via Nancy Rocheleau, WH6PN, in Honolulu, who

arose before 3 AM to serve as control operator for the QSO. An MCI teleconferencing circuit linked the school with WH6PN.

ARISS is an international program with participation by ARRL, AMSAT and NASA.

Amateur Radio and Relay League
ARRL Letter
May 30, 2003

SkyWarn Training



Rob Dale & Clint Hannahs

Kudos to Clint Hannahs, KC8EHR, for an awesome job pulling the presenters together for the Skywarn Training held at Lansing Community College on Saturday, May 10, 2003.

Rob Dale (our own local meteorologist) was the first speaker of the afternoon. His topic was on the Emergency Management Weather Information Network or EMWIN. EMWIN is a computerized

software that enables you to get the weather from anywhere in the country at the touch of your mouse. You can set the system up to notify you, through tones on your computer or by pager, of incoming bad weather.

Jim Zos followed Rob with more information regarding EMWIN as well as the radar setup in the Battle Creek area and how it works.



Kaz Fujita & Jim Zos

After a nice lunch downtown, Kaz Fujita did a wonderful PowerPoint presentation detailing his father's work in spacial movements including the founding of the Fujita scale for tornadoes.



F-Scale drawing by Mr. Fujita

The afternoon was topped off with Mike Heathfield from the National Weather Service. He explained the differences between tornadoes and straight line winds and how to tell the difference when checking out the damage after the storm. He also went on to explain the different types of storms, such as a single cell storm, a multi-cell storm and a super-cell storm.

Mike also explained how and when to report bad weather to the National Weather Service. Some of his suggestions were to listen and pay attention to radio traffic so as not to report something that has already been reported. Use first hand accounts only and keep reports short and brief. After reporting, stick around for checkouts in case you are needed for more information.



For those of you who were unable to attend and have never been to a SkyWarn Training before, I highly recommend attending in the future. The information provided was very enlightening and informative.

Evelyn Sitterson

Michigan Ham Fests for June

June 1—Chelsea ARC

Contact: Derek Sheehan, W7REX
7515 Lake Street
Dexter, MI 48130
Phone: 734-424-0130
Email: w7rex@arrl.net

June 7—Independent Repeater Assn

Contact: Kathy Werkema, KB8KZH
562 92nd Street SE
Byron Center, MI 49315
Phone: 616-698-6627
Email: kwerkema@juno.com

June 14—Midland ARC

Contact: William French, AB8JF
940 West Stewart Road
Midland, MI 48640-9167
Phone: 989-835-5562
Fax: 989-835-3205
Email: AB8JF@arrl.net

June 15—Monroe Co Radio Communications Assn.

Contact: Fred VanDaele, KA8EBI
4 Carl Drive
Monroe, MI 48162
Phone: 734-242-9487
Email: ka8ebi@arrl.net

June 28—Ham Radio & Computer Swap

Barry ARA
Contact: Jack Hill, K8YPW
PO Box 370
Hastings, MI 49058
Email: field_day_swap2003@yahoo.com

Home-Style Grass Killer

Are weeds or grass sprouting up between the cracks on your sidewalk? Instead of using harsh chemicals, just pour full-strength vinegar or a healthy dose of plain table salt onto the weeds and they will bite the dust.

Remember America's Heroes



Central Michigan Amateur Radio Club
Lansing Civil Defense Repeater Association
P O BOX 27321
LANSING MI 48909



CMARC— Full membership: \$10 per year.
Associate membership: \$5 per year.

Please make check or money order payable to CMARC and mail to: John Ingraham/NG8L, Membership Chairman, 2807 Greenbriar Avenue, Lansing MI 48912.

Name: _____ Call: _____

Address: _____

City: _____ State _____ Zip _____

Phone: () _____ License Class: _____

ARRL Member? ☐ Yes ☐ No

Email SCOPE? ☐ Yes ☐ No

Email Address: _____

Birthday: _____

Wedding Anniversary: _____

As a licensed Amateur, you can sign up today as a FULL member of CMARC. You will have voting rights as well as an annual subscription to the SCOPE. As an ASSOCIATE, you have an annual subscription to the SCOPE, but no voting rights.

LCDRA— Membership: \$15 per year (January to January)
Additional family members: \$7.50 per person

Send check or money order payable to:
L.C.D.R.A., PO Box 80106, Lansing MI 48908

Name: _____ Call: _____

Address: _____

City: _____ State _____ Zip _____

Phone: () _____ License Class: _____

ARRL Member? ☐ Yes ☐ No

Email SCOPE? ☐ Yes ☐ No

Email Address: _____

Birthday: _____

Wedding Anniversary: _____

Use of the repeater does not REQUIRE membership, but your support is GREATLY appreciated.