



FEEDBACK

JUNE 2008



WEEKEND IN MARSHALL

Our revised number three trailer got its first workout

during a cooperative exercise with the Civil Air Patrol. The success of the weekend was not the making of contacts, but the learning of what can go wrong. Antennas were a big problem with a coax feeder causing much of the headaches.

Bill, KC8CDS, and Ned, WB4BKO, were prime movers with several of the club members showing up and pitching in. Jerry, W8FOK, did much to solve the problems. John, KC8WMM, towed the trailer to and from the site.

Of course, this was the first opportunity for many of the club members to view the modifications to the trailer that had been made by Dave, KC8NZY, our clubs master craftsman. Dave's special gofer, Lou, WB8WXS, was of some use. The interior was very well furnished and set up to be a workplace for two stations. At present it could serve as an emergency communications center with VHF and HF stations, together with separate computers for each. The coming Field Day will see its use in a little different scenario.

FIELD DAY

Traditionally the last full weekend in June is ARRL Field Day. This year the event will be on June 28 -- 29, 2008. With over 3,000 entries Field Day is the most participated on air activity in North America. For ARRL affiliated clubs Field Day is a great opportunity to puff out your chest, introduce new people to Amateur Radio and to bring club members together.

Bob Kingsbury, KC8PRL will be Chairing our Field Day efforts this year and will need all the help that can be found. He needs operators, gofers, loggers, cooks, grunts and a lot of other specialties that members of SMARS can give. However, Bob feels that one category is already filled --- that of supervisor!

He'll have the three trailers available, one of which will be the domain of the CW ops. The two Georges and hopefully one or even two others will be keying up as usual. There will be a VHF and up trailer with a need for ops and who knows what else. Come on in and get your feet wet. No one has caught the measles yet from participating in Field Day.

GO SMARSIANS!





SMARS E-MAIL

In the middle of May, the following message was sent to members of SMARS:

"The SMARS Board believes we can save a considerable amount of money if we were able to send Feedback to members by e-mail. It costs over a dollar a member each month to send Feedback by snail mail and as you know, the yearly dues of the members does not cover that mailing."

When we asked the question previously we found the sorting process that identified who were willing to receive Feedback by e-mail to be too time consuming to sort each month, however, with better record keeping this now becomes feasible. Would you be satisfied with an e-mail mailing of Feedback? Please respond to:

WA8MFL@ARRL.NET.

There were 16 members who responded and each of these said that they would accept an email Feedback. There were 15 members that had the email returned because the given address couldn't be served for some reason. Probably it wasn't correct.

Some of the data files on members are quite old and the information may have changed without being brought up to date. If you receive email and didn't get the above letter, please check with WA8MFL for an up to date address. Easiest way of all would be to send an email to WA8MFL@ARRL.NET listing your current email address.

Marion, WA8MFL

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Leon N8LH with eyes closed.



BALUN? WHAT'S THAT?

The incorrect use of words by different groups of people sometimes leads to poor understanding of what is really understood. An instance of this is the word "over" in describing a fraction. The fraction 6 divided by 5 is often stated as 6 over 5. This often leads to a misunderstanding of a complex problem especially by the less mathematically secure. We can blame the professional mathematician for this as it is much easier to say "over" as compared to "is divided by." And the trained math guy talking to another will leave very little uncertainty about his meaning. And when that math guy uses the word "over" while discussing math with a student the student picks up that usage of the word.

In the world of amateur radio, the word "balun" has become another word that is commonly misused. The word "balun" is defined as a short word replacing the phrase "a device connecting a balanced device to an unbalanced device." It is believed that the word originated with an English amateur. We many times use "balun" to describe items than do the balance to unbalance act but also to transform an impedance ratio and act as a choke. These three operations can be done separately or in any combination and we label any of these being accomplished by a balun.

The June issue of QST has an article on feeding on off-center-fed-dipole in which the author presents a device in which all three actions are present: the choke as a separate item and the balun and impedance transformer as a combined item. It would worthwhile to study the article to see how the individual components work as well as looking at the antenna itself. Not all of us can mount an antenna so as to easily feed it at the center.

WA8MFL

ECHOLINKS

Must be the cold weather has gone a bit as there were only about 175 echolink connections on W8DF/R during the month of May. One of the surprise connections was a W6 that made several unsuccessful attempts before I finally got to talk with him. Turned out to be Harlan-KM8U visiting his in-laws in Sacramento, CA. Harlan was using the in-laws computer and call sign.

The echolink host computer at the repeater site has been working very well. I checked the logbook and discovered the last time the computer was re-booted was April 10. Wish I worked that well.

Once again, the logbook for May echolink activity should be available for examination on w8df.com.

Don W8RVT

TAK-TENNA

We found an experimenter who had measured the output of the Tak-Tenna and found it to be - 20 DBi. That would mean that if you put 100 watts into it, it would radiate 1 watt. He pointed out that QRPers have worked the world with one watt and if that was better than anything else you could do, go for it!

It seems that the consensus is that the feedline is doing the radiating and the Tak-Tenna is acting like a big capacity hat! Leaves a lot of room for experimentation doesn't it? Put a choke at the intersection of the feedline and the Tak-Tenna. Or, measure the temperature change in the Tak-tenna before and after use (if only one watt, where's the rest of 100 watts going?) Is the radiation horizontal (Tak-Tenna) or vertical (Feedline?) In what direction (if any) is the major lobe? Maybe it radiates up more than out (a cloud burner.)

WA8MFL

220 USE

The adding of Echolink ability to the 220 repeater has increased its use greatly. There have been at least 156 contacts through the 224.24 repeater. All USA zones other than one have been in contact with us and four foreign countries have also made contact with Battle Creek during the last month. Of course there have been many more contacts without using our repeater but using Echolink on the computer only.

Echolink affords you the opportunity to use the 220 repeater without having to buy a new rig. Join in with us on the Monday night net and enjoy a different group of hams.

There were 156 contacts with 9 of the call areas and 4 foreign nations mixed into the list. That's a lot more than most of the vhf crowd has ever thought of making.

WA8MFL

Ham Radio Is A Real Value

(Originally published in AIRWAVES, The newsletter of the Sierra ARC, May 2008.)

Mike Herr, WA6ARA

As a kid in the '60s I hung around my father, WB6MNX, and his ham buddies. The talk in those days was pretty much similar to now, what features their new rig had. But one thing I now note is that each ham had but one rig, yep, just one rig. It was usually a HF rig, and it was used both in the house and in the car. Before the 2 meter revolution everyone, except for the few brave experimenters in the VHF regions, was on the HF bands. But why did most ops have only one rig? The answer is simple economics; radio equipment was expensive back then.

As a novice I would lust over the Heathkit "perfect" novice station, the DX-60B, HR-10 receiver and HG-10B VFO. Wow! Ninety watts on CW or AM on 80, 40, 20, 15 and 10 meters (In my Novice days we only had privileges on 80, 40 and 15 meter). But with a price tag of \$200 it was way out of reach for a lot of people, especially for a teenager.

Today ham radios are much cheaper and offer much more features than rigs available to Amateurs in the mid 1960's. I cannot comment on every ham's financial situation but when comparing selling prices, average salaries and technological features, Amateur Radio is a bargain today.

Let's take a look at the previously mentioned DX-60B, HR-10 and HG-10B station. In 1965 it cost about \$200, only offered two modes (AM and CW), took up an entire desktop and it generated enough heat to warm half the house. Adjusted for inflation the "perfect" Heathkit novice station would cost \$1,323.00 today! Compared to entry level radios today that offer 100 watts on all Amateur bands, all modes (AM, FM, CW, SSB and digital), dual VFOs, general coverage receive and all sorts of bells and whistles, not to mention outstanding dynamic receivers and clean, stable transmitted signals, when adjusted for inflation, would have cost less than half the price of the 1965 model.

The Heathkit HW-101, an entry level SSB rig for many operators during the '60s and 70s, sold as a kit in 1971 for \$350. In today's dollars that same unit would be \$1,849, which buys a heck of a lot more radio than the old '101.

The biggest bang for the buck is in a piece of equipment that we all use, a 2 meter rig. Back at the time the 2 meter revolution was in full swing FM transceivers were selling for about \$300 to \$500 which translates to thousands of dollars today. There were a few synthesized models but most were crystal controlled which meant purchasing a pair of crystals, one each for transmit and receive for each channel that you wanted to operate and were limited to two to ten channels. They were about the size of a large book and operated at 2 to 5 watts output. Today you can buy a shirt pocket handheld or a 65 watt mobile transceiver, fully synthesized 100 channels, scanning, CTCSS encode/decode, etc for what amounts

to about \$28 in 1971 dollars.

Ham radio is CHEAP. In the 60s the typical ham had to work for a month to buy a rig, today it is more like one week. I remember in 1965 when dad bought a SBE-34 and he had to buy it on time because it was just so expensive. Compared to other hobbies and recreation, ham radio is a steal. You can be on the air with the local repeater for about \$150. A complete 100 watt HF station including an antenna is less than \$1000. If you are a builder, parts have never been cheaper or more available. A couple of minutes on the internet and you can order parts and have them at your house in a couple of days. No more waiting for the once a year trip to the Hamfest.

Of course you can spend tens of thousands of dollars creating the ultimate station. There is no limit as to what you can spend on any hobby but there a tremendous value to anyone who is attracted to Amateur Radio. Let's compare Amateur radio to other past times. A decent 4 wheel drive vehicle, with the extras to keep up with others in the local 4 WD club might set you back \$30K. That boat for water skiing or fishing during the summer is about the same. How about the home computer? Again, about the cost of a HF rig and you buy a new one every couple of years or so. Ham radio cost a fraction of what it did in the past and offers twenty times the features. So get out and enjoy ham radio and stop feeling guilty about the money.

ARRL CLUB NEWS

CONSIDER THESE 3 THOUGHTS

(1) Zero Gravity

When NASA first started sending astronauts into space, they quickly discovered that ball-point pens would not work in zero gravity. To combat this problem, NASA scientists spent a decade and \$12 billion developing a pen that writes in zero gravity, upside-down, on almost any surface including glass and at temperatures ranging from below freezing to over 300 C. The Russians used a pencil. Your taxes are due again - enjoy paying them.

(2) Our Constitution

Officials keep talking about drafting a Constitution for Iraq. Why don't we just give Iraq ours? It was written by a lot of really smart guys, and it's worked for over 200 years. And, we're not using it anymore.

(3) Ten Commandments

The real reason that we can't have the Ten Commandments in a courthouse is that you cannot post 'Thou Shalt Not Steal,' 'Thou Shalt Not Commit Adultery' and 'Thou Shall Not Lie' in a building full of lawyers, judges and politicians. It creates a hostile work environment.

Tom Austin K4OTM

GOOD OLD DAYS?

Note that the following list tells you what the price of each piece of equipment was originally and what that would be in today's monies. Rose and I each had one of the Wilson 1405 handhelds. We saved for a long time to get those units.

Here are some prices taken from advertisements in January 1976 QST and adjusted for inflation using an inflation calculator. <<http://www.westegg.com/inflation/>>

VHF Gear 1976 % mean income 2007

Tempo VHF/ONE 2m synth xcvr-2 chan-10 watts \$495.00 3.31% \$1,887.98

Yaesu FT-620B 6m AM/CW/SSB \$449.00 3.00% \$1,712.53

Yaesu FT-221 2m AM/FM/CW/SSB \$679.00 4.54% \$2,589.77

Midland 13-505 2m FM (plus crystals @ \$6.95 ea) \$309.95 2.07% \$1,182.18

Heath HW-2026 (kit) 2m synthesized \$289.95 1.94% \$1,105.90

Handheld VHF/UHF

Wilson 1405 SM 5 watts 6 chan (plus crystals @ \$6.95 ea) \$279.95 1.87% \$1,067.76

Heath HW-2021 (kit) (plus crystals @ \$6.95 ea) \$169.95 1.14% \$648.21

HF Gear \$449.00 3.00% \$1,712.53

Yaesu

Yaesu FT-101E HF xcvr \$749.00 5.01% \$2,856.76

FV 101B ext VFO \$99.00 0.66% \$377.60

XCVR + VFO \$848.00 5.67% \$3,234.36

Collins

Collins KWM2A xcvr \$1,760.00 11.77% \$6,712.82

Drake

Drake TR4C \$599.00 4.00% \$2,284.65

RV4C remote VFO \$110.00 0.74% \$419.55

XCVR + VFO \$709.00 4.74% \$2,704.20

R4C rcvr \$549.00 3.67% \$2,093.94

T4XC xmtr \$580.00 3.88% \$2,212.18

RX + TX \$1,129.00 7.55% \$4,306.12

Kenwood

TS-520 \$629.00 4.21% \$2,399.07

R 599D rcvr \$459.00 3.07% \$1,750.67

T 599D xmtr \$479.00 3.20% \$1,826.95

RX + TX \$938.00 6.27% \$3,577.63

HF Amplifiers

Henry 2K-4 Legal Limit HF Amplifier \$995.00 6.65% \$3,795.03

Yaesu FL-2100B linear 600 watts out \$359.00 2.40% \$1,369.26

ARRL CLUB NEWS

ARES / RACES Report for MAY in Calhoun County

RACES / Skywarn Nets and Training

4 Skywarn Training Nets 1 hr each @ 76 People = 76hrs

Total NETS and Training Seminars, 76 People =76hrs

Public Service Events

1 Warning Siren Tests, 1.5hrs @ 15 People = 23hrs

Total Public Service Events, 15 People = 23hrs

Emergency Operations

1 Thunder Storm Warning Net, Total 3hrs @ **20 People = 60hrs**

Administration Hours, Total for MAY Total = 25hrs

Travel Hours for MAY 6hrs

Total Hours for APRIL 130hrs

Expenses- Out of Pocket Total = \$100.00

Travel Miles for April 100 Miles

Members 34

Dave Smith

KC8COT

E-12

City of Battle Creek and Calhoun County

RACES, Emergency Coordinator

QUESTIONS

Why is it that no matter what color of bubble bath you use the bubbles are always white?

Is there ever a day when mattresses are NOT on sale?

Why do people constantly return to the refrigerator? With hopes that something new to eat will have materialized?

Why do people keep running over a string a dozen times with their vacuum cleaner, then reach down, pick it up, examine it, then put it down? To give their vacuum one more chance?

Why is it that no plastic garbage bag will open from the end you first try?

Considering all the lint you get in your dryer, if you kept drying your clothes would they eventually just disappear?

When we're in the supermarket and someone rams our ankle with a shopping cart, then apologizes for doing so, why do we say 'Its all right'? It isn't all right, so why don't we say, 'That hurt, you moron!'?

Is it true that the only difference between a yard sale and a trash pickup is how close to the road the stuff is placed?

Why do we try to keep the house as warm in the winter as it was in summer when we complained about the heat?

Why are the needy only thought of during the holidays? Aren't they just as needy the rest of the year?

How come we never hear any father-in-law jokes?

ANON

REPEATERS DOWN, HF IS NOISY, HOW TO MESSAGE?

Add a satellite capability to your EmComm arsenal. If terrestrial platforms are out, a satellite may be all you have left. Operating through low earth orbiting satellites also improves operating skill: it's like driving your car with the road moving. You must tune your uplink and downlink frequencies to compensate for a fast Doppler shift, as you send and receive your CW or SSB signal. It's not easy at first; but like anything, the more you practice, the better you get.

Try the FM repeater bird AO-51 first, with an uplink of 145.90 MHz, and a downlink of 435.225 MHz. No fancy tracking software is necessary: Use AMSAT's pass predictor at: <<http://www.amsat.org/amsat-new/tools/predict/>>.

You won't be satisfied for long on AO-51. Move up to VO-52 for real operating on a wide transponder pass band: the uplink is 435.220 MHz to 435.280 MHz and the downlink is 145.870 to 145.930 MHz. Both SSB and CW work just fine. Signals are good without pre-amplifiers, nor even rotating beam antennas. Believe it or not, I use a cheap, simple fixed 2-meter/70 cm beam <<http://www.arrowantennas.com>> pointed skyward at a 45 degree angle. Prior to the pass, I check the AMSAT predictor for the access times and the highest elevation azimuth, and walk out to the backyard and hand turn the mast accordingly. I usually get a ten-minute window and decent signals to work a few CW contacts, including a recent one with Honduras. For upgrades, I am planning to add a separate 70 cm beam to reduce a bit of de-sense on voice operation, and a used/rebuilt Alliance U-110 rotator from <<http://www.rotorservice.com>>.

It's not rocket science (pun intended): if I can do it, anybody can do it. Satellites may be all you have in a doomsday scenario, and are great ways to improve your operating skill. (And frankly, they are a blast of fun to play with!)

The ARES E-Letter

May 21, 2008

Rick Palm, K1CE, Editor

SMARS Club Meeting

May 15, 2008

Called To Order: 7:00pm

Officers Present: Rene KC8SLI, John KC8WMM, Lou WB8WXS, Ned WB4BKO, Bill KD8CDS

Presentation: Mark Tomlonson, Chief Engineer for WMUK/WIDR, gave a presentation on digital radio/TV.

Treasurer's Report: approved as published in Feedback.

Secretary's Report: approved as published in Feedback.

Committee Reports:

Field Day: Bob discussed various classifications, some depending on whether the Hippo is going to be present. Bob relayed various ways of getting extra points. He needs lists of operators and Band Captains before Field Day. As usual, help is needed.

ARES/RACES: Had Skywarn training session that was well attended. There was also good participation for the March of Dimes Walk.

Old Business:

Trailer: Dave Kellogg finished up the cabinet work inside. A suggestion was made to change some lighting fixtures and add a clock. The Club banner should be hung on the trailer when it's being used at public venues.

Operation Pine Tree: Details still to be worked out on frequencies to be used. Participation by other clubs isn't looking very good. Trailer needs to be at Marshall Airport on 5/23 with everything ready to go at 8am.

VE Testing: 2 upgrades in April, 1 extra and 1 general. A special session needs 2 weeks to receive paperwork from the FCC.

Training: Still moving along. Some have indicated they would ready to take their exams by the end of June.

New Business:

All new SMARS members are supposed to get a membership package when they join. The Club has been lax about this.

Drawing: won by Dave Kellogg KC8NZY.

Adjourned: 8:50pm

Respectfully submitted,

John Davidson KC8WMM
SMARS Secretary

SMARS Board Meeting

June 5, 2008

Called to Order: 7:11pm

Officers Present: Bill KD8CDS Rene KC8SLI John KC8WMM

Others Present: Marion WA8MFL Bob KC8PRL Stephanie W8AEZ Russ N8UU

Matters Discussed:

The next Board meeting to be held Tuesday, July 1, 2008. The change was made due to the July 4 holiday.

The campaign to mail Feedback electronically isn't going well. Many e-mails bounced and many club members haven't filled out info sheets. This (info sheets) will be again published in Feedback and announced at Club meetings.

Post Office Box fee is \$48/year, not \$40 as estimated.

Trailer redo costs not all in yet, but will be below \$300 limit.

The moneys collected for the training classes not yet turned in.

Field Day is on track. Bob is planning on using all 3 trailers.

The inventory of club assets needs to be updated. The old inventory was lost in a computer crash.

Operation Pine Tree went off. No contacts were made, but it was a useful dry run for Field Day. Problems were discovered with one of the antennas and with a power junction box.

The Hamfest final costs are in finally. Plans and suggestions for next year's Hamfest are starting.

Adjourned: 8:20pm

Respectfully submitted,

John Davidson KC8WMM
SMARS Secretary

HAMFEST CALENDAR

14 Jun Midland, MI

Midland Hamfest --- 8AM at the County Fairgrounds --- 6905 Eastman Ave --- Admission \$5 at the door; talk-in on 147.00 (105.3 Hz) repeater --- www.qsl.net/w8kea.

15 Jun Monroe, MI

Monroe Hamfest --- 7:30 AM at the County Fairgrounds --- M-52 at Raisinville Rd --- Admission \$6 at the gate; talk-in on 146.72 repeater --- www.mcrca.org/hamfest.htm

28 Jun Elmira, MI

Elmira Hamfest --- 8 AM at Davis Tree Farm --- 8278 Vantyle Rd --- Free Admission; Talk-in on 146.52 simplex and 442.4 (103.4) repeater --- www.mares.net

Paul WD8JOM

SOUTHERN MICHIGAN AMATEUR RADIO SOCIETY

FEEDBACK



JUNE 2008



SMARS
P.O. BOX 934
BATTLE CREEK MI 49016

FIRST CLASS MAIL



SMARS NETS

Before Lunch Bunch
Monday-Friday 11:30 A.M.
146.66

Sunday Evening 8:00 P.M.
146.66

Monday 7:30 P.M.
224.24

Wednesday 7:00 P.M.
443.95

Wednesday 8:00 P.M.
28.365

Saturday 8:00 P.M.
443.95

ARES/RACES/SKYWARN.NET
Monday 7:00 P.M. 147.12

ACTIVITY CALENDAR

HAMFEST MIDLAND JUNE 14
HAMFEST MONROE JUNE 15
THIS MONTH SMARS CLUB MEETING JUNE 19
HAMFEST ELMIRA JUNE 28
SMARS BOARD JULY 1
SMARS BREAKFAST JULY 5
B4LUNCH BUNCH LUNCH JULY 10
NEXT MONTH SMARS CLUB MEETING JULY 17