



# FEEDBACK

FEBRUARY 2011



## THOUGHTS

Too often we ignore or fail to recognize the activities of our fellow club members. Phil, KD8KZB, recognized the need for getting the 440 club nets up and running and has done a very good job in getting them operational. He keeps looking for more hams to join in the UHF nets.

It must be noted that SARs, Station Activity Reports have not represented Calhoun county for several years, but now monthly reports of activity in this area is being reported by "Doc", K8OLY. He also has topped the Public Service Honor Roll by a score that doubles the next in line. Congratulations Doc!

Sometimes a person gets "volunteered" for work that is a real bear. In particular, the running the annual Ham-fest. John, W8JRD, is in that responsible position for the second year.

Of course, Don, W8RVT, has put forth much effort in expanding our 220 repeater capabilities, allowing 220 to be used by 440 equipment, expanding with Echolink and APRS functions.

There are many others within SMARS that also contribute without fanfare in activities that are necessary for the welfare of the club. If any feel left out, the coming Ham-fest at Marshall should provide an opportunity to exercise a little bit as well as patting yourself on the back! Of the many activities of our members, please share them with other members. Write it down. Don't worry about passing some writing class. The editorial staff will fix it up.

It seems as if I'm getting further and further behind in the producing of "Feedback." On top of the flu roaming around, the computer decided that it was working too hard and went on a slow down strike. Rose heard a re-statement of an old but ineffective vocabulary.

As usual, we have some information on the world of Hamdom, some tecky stuff and a little humor. This month, Larry W8VVG will be discussing the learning of Morse Code and perhaps organizing some training sessions. Larry is a serious contestor and use of the Morse.

## BEING A HAM HELPS

When General Motors -- the world's second largest auto maker -- encountered a problem with the AM/FM antenna on its 2011 Chevrolet Camaro convertible, it was at a loss as to what to do. Spy photographs showed a pre-production version of the car with a long whip-style antenna on its rear fender. After what GM called "an outcry among Camaro enthusiasts," the company decided to rethink the antenna. But how?

On hardtop Camaros, the antenna is integrated into the rear windshield, but given the disappearing nature of this car's roof, that wasn't possible on the convertible. So GM turned to two antenna engineers -- Don Hibbard, W8DBH, and Gregg Kittinger -- who were tasked with doing what some thought was impossible: concealing the AM/FM antenna without sacrificing radio reception, while not putting it inside the Camaro's windows.

ARRL

## ARISSat-1 Blasts Off

At 0132 UTC January 28, a Soyuz-U rocket lifted off from the Baikonur Space Center in Kazakhstan carrying the Russian Progress M-09M cargo vehicle to orbit for a rendezvous with the International Space Station (ISS).

In addition to delivering fuel, oxygen, food and other supplies, the Progress contains the new AMSAT ARISSat-1 Amateur Radio satellite. Progress is scheduled to dock with the space station on January 30 at 0240 UTC.

ARISSat-1 will be manually jettisoned from the ISS during a spacewalk on February 16. The satellite features a new software defined transponder that will provide simultaneous 2-meter FM, CW, BPSK transmissions, as well as a Mode U/V (70 cm uplink, 2 meter downlink) transponder.

More information is available at the AMSAT-NA website at <http://www.amsat.org/amsat-new/index.php>, and in the February 2011 issue of QST magazine.

ARRL



## ITU

If you were to ask most amateur radio operators what entity is responsible for granting privileges to use portions of the radio spectrum for amateur radio purposes the answer would likely be their own national telecommunication authority. However, that's only partially true. The ultimate authority for the use of the radio spectrum is the International Telecommunication Union (ITU). It is desirable that each amateur radio operator understand what the ITU is and why its work and decisions are important. Most countries are Member States of the ITU and by way of treaty generally agree to be bound by the decisions of the ITU when it comes to the usage of the radio spectrum. Each country can decide that a certain use determined by the ITU may not apply in their own jurisdiction. It is not common for countries to do that but it is within their sovereign authority to do so.

### Board of Directors

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N8QC  
n8qc@arrl.net

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k8oly@arrl.net

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w8jrd@arrl.net

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W8RVT  
w8rvt@arrl.net

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AC8GL  
Kings-boo@yahoo.com

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WB8WXS  
wb8wxs@mei.net

**Trustee**

Russ Beutler  
N8UU  
n8uu@mei.net

**Technical Engineer**

David Gerber  
AB8HK  
david@mei.net

**Editor**

Marion Davidson  
WA8MFL  
wa8mfl@arrl.net

**SMARS Web Site**  
[www.w8df.com](http://www.w8df.com)

**All correspondence should be addressed to**

**SMARS**  
**P. O. box 934**  
**Battle Creek, MI. 49016**

The International Telecommunication Union is a United Nations agency that deals with information and communications technology issues. They have an extensive web site at [www.itu.int](http://www.itu.int) that details much of their work. The ITU is based in Geneva, Switzerland and includes in its membership 192 Member States and more than 700 Sector Members and Associates.

ITU has coordinated the shared global use of the radio spectrum, promoted international cooperation in assigning satellite orbits, worked to improve telecommunication infrastructure in the developing world, established the worldwide standards that foster seamless interconnection of a vast range of communications systems and addressed other global concerns, such as mitigating climate change and strengthening cybersecurity. The top staff official of the ITU is its Secretary-General, Dr. Hamadoun Toure who is also a licensed radio amateur with the call sign HB9EHT.

There are three sectors in the ITU: Radio-communication (ITU-R), Development (ITU-D) and Standardization (ITU-T). The IARU is a Sector Member in both the ITU-R Sector and the ITU-D Sector. The IARU fully participates in both of those sectors by attending any and all meetings that involve issues that may impact the amateur or the amateur-satellite services. The Secretary-General, the Deputy Secretary-General and the Directors of the three ITU Sectors are elected to four-year terms by the Member States at Plenipotentiary Conferences held every four years. The IARU is a recognized international telecommunication organization and is invited to participate as an observer at the Plenipotentiary Conferences. The most recent "Plenipot" was held in October, 2010 in Guadalajara, Mexico.

(Ed. Note: The above is the opening statement in the current IARU E-Letter from the ITU.)

## 259 AND 239 CONNECTORS

If there is difficulty in soldering your connectors, there are a couple of ways to make the job easier. Make sure that you have brass connectors rather than steel and at least silver plated rather than nickel. You also buy a crimp on connector with the necessary tool — that's an industry satisfactory alternative -- if a little more expensive. Or there is a newer design using teeth that bite into the coax for only \$11.

Best to learn how to solder. To protect the connection from the elements, Joe KQ4BX recommends along with the crimping connectors, you find some heat shrink that is thick walled, and has a layer of hot glue lining the inside. Then find a roll of self bonding rubber tape. Before you crimp the connector, you put a piece of heat shrink on the cable. Once you have your crimping done, wrap the coax and part of the connector with the self bonding rubber tape, then shrink the heat shrink over it, overlapping the edges of the tape. Heat it until it shrinks and you can see glue come out past the edge. This will be water tight.

## ANTENNA ANALYSERS

An antenna analyzer is a useful tool, but like most tools, it can be misused. Most often, the reading of the lowest SWR is assumed to be the resonant point of the antenna. It is too easy to ignore the usually lengthy coax between the antenna and the analyzer. If we start at one end of the coax and proceed towards the other end in electrical quarter waves the other end will probably be not a full quarter wave in length. Depending upon the number of quarter waves, odd or even, reactance will be introduced. If that reactance is balanced by the reactance of the antenna, a SWR of 1:1 will appear and the operator will conclude that the antennas resonant point has been found. If the balance is not accomplished, a minimum reading for SWR will be seen and the unwary will conclude that the resonant point of the antenna has been found. NO! The antenna must have no reactance at its resonant point. Of course, if that SWR is reasonable, the transmitter will operate nicely, but the antenna will not contribute its full share.

Note that while we want to know the input impedance the antenna, we introduced a variable by the insertion of the coax. So what do we do about this problem? Easy! Using the analyzer properly by using the shortest possible coax. No more than a couple of inches long - inches not feet! Any other reading is suspect.

## MORE TECH STUFF

When we work with antennas and try to make them more efficient, we have recognize that there are many sources of loss in making up the input impedance of the antenna. A part of that loss is the Radiation Resistance. The more of that the better the installation. How much is good? We'd like to have 50 ohms Radiation Resistance, but for instance in a mobile situation there probably would be about .02 ohms on an 80 meter mobile up to maybe 30 ohms (MAYBE) on a 10 meter mobile. Since Radiation Resistance is a function of the electrical length - not physical -- the antenna is made as long as possible in the mobile. In the mobile we are restricted to 8 or 9 feet. How important is this? The rate of change in the radiation resistance is proportional to the square of the electrical length such that a 9 foot antenna has twice radiation resistance of a 6 foot antenna and a 12 foot antenna (we can't have mobile towers) has 4 times the resistance of a 6 foot antenna. Always we're trying to move the maximum current node to the highest point possible.

## ROTATOR PROBLEM?

Go to K5LAD's site and read his article on repairing rotators. He discusses a variety of rotators including the popular Ham series.

## DEAR MOM N' DAD

A Letter from a Farm Kid who Joins Marines:

Dear Ma and Pa,  
I am well. Hope you are. Tell Brother Walt and Brother Elmer the Marine Corps beats working for old man Minch by a mile. Tell them to join up quick before all of the places are filled.

I was restless at first because you get to stay in bed till nearly 6 a.m. But I am getting so I like to sleep late. Tell Walt and Elmer all you do before breakfast is smooth your cot, and shine some things. No hogs to slop, feed to pitch, mash to mix, wood to split, fire to lay. Practically nothing.

Men got to shave but it is not so bad, there's warm water.

Breakfast is strong on trimmings like fruit juice, cereal, eggs, bacon, etc., but kind of weak on chops, potatoes, ham, steak, fried eggplant, pie and other regular food, but tell Walt and Elmer you can always sit by the two city boys that live on coffee. Their food, plus yours, holds you until noon when you get fed again. It's no wonder these city boys can't walk much.

We go on 'route marches,' which the platoon sergeant says are long walks to harden us. If he thinks so, it's not my place to tell him different. A 'route march' is about as far as to our mailbox at home. Then the city guys get sore feet and we all ride back in trucks.

The sergeant is like a school teacher. He nags a lot. The Captain is like the school board. Majors and colonels just ride around and frown. They don't bother you none.

This next will kill Walt and Elmer with laughing. I keep getting medals for shooting. I don't know why. The bulls-eye is near as big as a chipmunk head and don't move, and it ain't shooting at you like the Higgett boys at home. All you got to do is lie there all comfortable and hit it. You don't even load your own cartridges. They come in boxes.

Then we have what they call hand-to-hand combat training. You get to wrestle with them city boys. I have to be real careful though, they break real easy. It ain't like fighting with that ole bull at home. I'm about the best they got in this except for that Tug Jordan from over in Silver Lake. I only beat him once. He joined up the same time as me, but I'm only 5'6" and 130 pounds and he's 6'8" and near 300 pounds dry.

Be sure to tell Walt and Elmer to hurry and join before other fellers get onto this setup and come stampeding in.

Your loving daughter,  
Alice

# ARES/RACES Report for Calhoun County January 2011

## HAMFESTS As listed by ARRL

		Total
<u>RACES/Skywarn Nets and Training</u>		
1 local meeting	20 people @ 1.5 hrs	30
5th District meeting	2 people @ 2 hrs	4
5 nets on three frequencies	131 checkins @ 1 hr	131
<u>Public Service Events</u>		
Monthly siren test	17 people @ 1 hr	17
<u>Administration Hours</u>		
Reports and acquiring ID cards and keys for	3 people @ 2 hrs	6
5th District Hospital Net		
<u>Emergency Operations</u>		
none		
<u>Equipment Hours</u>		
trailer maintenance	2 people @ 2 hrs	4
<u>Travel Hours</u>		
5th District Meeting and ID cards and keys	2 people @ 4 hrs	8
<u>Expenses- Out of Pocket</u>		
	\$	35.00
<u>Travel Miles</u>		
		65
<u>Members (ARES/RACES)</u>		
		35
<u>Total Nets, Events, Sessions</u>		
		7
<u>Total Hours</u>		
		200
<u>Contributed Value</u>		
	\$	3,700.00

Kenneth Nierman  
KC8QNQ E-46  
City of Battle Creek and Calhoun County  
RACES, Emergency Coordinator

Cherryland ARC Swap-n-Shop  
HAMFEST/CONVENTION  
02/12/2011  
Location: Immaculate Conception Elementary School  
218 Vine Street  
Traverse City, MI 49684  
Website: <http://cherrylandarc.com>  
Sponsor: Cherryland Amateur Radio Club  
Type: ARRL Hamfest  
Talk-In: 146.86  
Public Contact: Joe Novak , W8TVT  
201 South Spruce Street Traverse City, MI 49684  
Phone: 231-947-8555  
Email: [jjnovak@charter.net](mailto:jjnovak@charter.net)

Livonia Amateur Radio Club Swap-N-Shop  
HAMFEST/CONVENTION  
02/20/2011  
Location: Livonia Civic Park Seniors Center  
15218 Farmington Road  
Livonia, MI 48154  
Website: <http://www.livoniaarc.com/Swap.htm>  
Sponsor: Livonia Amateur Radio Club  
Type: ARRL Hamfest  
Talk-In: 145.35 (PL 100) or 146.52 Simplex  
Public Contact: Mike Rudzki , N8MR  
PO Box 51532 Livonia, MI 48151  
Phone: 734-941-5043  
Email: [k8uns@arrl.net](mailto:k8uns@arrl.net)

Crossroads Hamfest  
HAMFEST/CONVENTION  
03/19/2011  
Location: Marshall Activity Center  
15325 West Michigan Avenue  
Marshall , MI 49068  
Website: <http://www.w8df.com/hamfest.html>  
Sponsor: Southern Michigan Amateur Radio Society  
Type: ARRL Hamfest  
Talk-In: 146.66 (PL 94.8)  
Public Contact: John Davidson , W8JRD  
30 Mill Road Battle Creek, MI 49014  
Phone: 269-339-1908  
Email: [crossroadshamfest@gmail.com](mailto:crossroadshamfest@gmail.com)

Income and Expense Statement  
1/1/11 Through 1/31/11

**SMARS Club Meeting**  
January 20, 2011

Category Description	1/1/11- 1/31/11
<b>INCOME</b>	
50 50 Dues: 2011	7.00
	51.00
<b>TOTAL Dues</b>	51.00
Hamfest Inc: Tables	780.00
Tickets	145.00
<b>TOTAL Hamfest Inc</b>	925.00
Interest Inc: Checking	0.47
<b>TOTAL Interest Inc</b>	0.47
<b>TOTAL INCOME</b>	983.47
<b>EXPENSES</b>	
Feedback: Postage	26.40
Printing	49.61
<b>TOTAL Feedback</b>	76.01
Hamfest2011: Tickets	96.80
<b>TOTAL Hamfest2011</b>	96.80
Utilities: Telephone	66.46
<b>TOTAL Utilities</b>	66.46
<b>TOTAL EXPENSES</b>	239.27
<b>TOTAL INCOME - EXPENSES</b>	744.20

**SMARS Board Meeting**  
January 31, 2011

Called to Order: 5:05 PM

Officers Present: Gary N8QC Doc K8OLY John W8JRD Don W8RVT Bob AC8GL

Others: Howard KC8MUF

**Topics:**

Financial Report was distributed.  
Qualifications for auxiliary positions were discussed.  
Potential club activities were discussed including: a code class (Larry W8VVG has volunteered), a picnic/Fox Hunt, or perhaps a visit to a hamshack.  
The Board is due to review the Club Constitution and submit changes to the membership.  
Ongoing plans for the Hamfest were discussed, including various volunteer positions needed.  
A decision was made to pursue setting up a special station at the County Fair.  
The importance of greeting new members at meetings was reiterated.

Adjourned: 6:04 PM  
Respectfully Submitted,  
John Davidson W8JRD  
SMARS Secretary

Called To Order: 7:00 PM

Officers Present: Gary N8QC Doc K8OLY Don W8RVT John W8JRD Bob AC8GL

Pledge of Allegiance

Introductions

Secretary's Report: approved as published in Feedback.

Treasurer's Report: approved as reported at the Club Meeting.

**Committee Reports:**

Hamfest: Awaiting reservation letters to arrive. Planning continues for the event.

Field Day: No report.

ARES/RACES: Plans for a digital test for the hospital every 3 months. Results of the SET were 1500 points and 22 pages.

VE Testing: Next SMARS session is February 24, 2011.

There will also be a session at the Hamfest.

Technical Engineer: Everything is working fine.

**Old Business:**

New officers were presiding, Auxiliary appointments such as Trustee, Technical Engineer, PIO and Feedback Editor were discussed.

**New Business:**

There is a desire for CW classes. Marion WA8MFL is currently the training officer for SMARS.

Attempts to raise club membership by mailing postcards, handouts at the Hamfest and possibly setting up a booth at the County Fair.

Entertainment: John W8JRD displayed some videos.

Adjourned: 8:45 PM

Respectfully Submitted,  
John Davidson W8JRD  
SMARS Secretary

SOUTHERN MICHIGAN AMATEUR RADIO SOCIETY

# FEEDBACK



FEBRUARY

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 8:00 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

B4LUNCH BUNCH LUNCH FEB 10  
HAMFEST TRAVERSE CITY FEB 12  
THIS MONTH SMARS CLUB MEETING FEB 17  
HAMFEST LIVONIA FEB 20  
VE SESSION FEB 24  
SMARS BOARD FEB 28  
SMARS BREAKFAST MAR 5  
NEXT MONTH SMARS CLUB MEETING MAR 17  
HAMFEST MARSHALL MAR 19