SOUTHERN MICHIGAN AMATEUR RADIO SOCIETY

FEEDBACK

SEPTEMBER 2008

SPECIAL SERVICE CLUB

OPINION

We feel the responsibility of presenting material each month with which the present day amateur should become familiar. In this issue we hope to cause you to think about several aspects of Amateur radio.
Hurricanes are a daily problem and a ham in Cuba describes the situation and how they handled the weather. Preparation for emergences is essential. Antennas are always a topic. All are included somewhere in this months “Feedback.”
When we got our license we agreed with the FCC Rules, especially Part 97 which is the amateur radio part. Note that the statement of basis and purpose contains several different items and that we must function in more than one to justify the awarding our ham license.

97.1 Basis and purpose.
The rules and regulations in this Part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:
(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to provid ing emergency communications.
(b) Continuation and extension of the ama teur's proven ability to contribute to the ad vancement of the radio art.
(c) Encouragement and improvement of the amateur service through rules which pro vide for advancing skills in both the communications and technical phases of the art.
(d) Expansion of the existing reservoir within the amateur radio service of trained opera tors, technicians, and electronics experts.
(e) Continuation and extension of the ama teur's unique ability to enhance international goodwill.

de WA8MFL

NATIONAL PREPAREDNESS MONTH

September is National Preparedness Month

Sign up your ARES group now for National Preparedness Month. Groups and individuals can register to become members by visiting <http://www.ready.gov>, and clicking on the National Preparedness Month banner.

The U.S. Department of Homeland Security said that more than 1,200 national, regional, state and local businesses and organizations have pledged their support and joined the 2008 National Preparedness Month Coalition. Sponsored by the department's Ready Campaign, National Preparedness Month helps to raise awareness and promote action by Americans, businesses, and communities on emergency preparedness.

The Ready Campaign and Citizen Corps <http://www.citizencorps.gov> are specifically encouraging individuals across the nation to take important preparedness steps.
These steps include: getting an emergency supply kit, making a family emergency plan, being informed about the different emergencies that may affect them, as well as taking the necessary steps to get trained and become engaged in community preparedness and response efforts.

Allen G. Pitts, W1AGP, ARRL Media and PR Manager stated: "Linking up with the Ready.gov people and participating in September's National Preparedness Month is an easy win. All you have to do is sign up. Most ARES groups are already engaged in activities that fit into their structure, so why not get credit for your actions? Of course if you do something more with this opportunity, so much the better. Go to <http://www.ready.gov>, and click on the National Preparedness Month banner."

ANNUAL SET

Simulated Emergency Test October 4-5

The venerable ARRL Simulated Emergency Test (SET) is slated for October 4-5 this year, although ARES groups are free to conduct their exercises anytime between September and December for convenience. All can participate. The exercise is not limited to ARES, but also RACES, NTS, SKYWARN, SATERN, and other groups.

Testing your plans and capabilities is mission critical, and the annual SET is designed specifically for this purpose. Make sure to participate. Individual operators should contact their ECs for schedules and plans.

[See the September issue of QST p62 also for its theme of Emergency Communications! The staff did an excellent job on this one - do not miss it. - K1CE]

BALLOON TRACKING

Ron Cathcart from Radio Communications has been building a high altitude balloon. He did a test launch a few months ago and the test balloon was tracked to an altitude of 96,000 feet. That balloon had radio equipment on board and was sending telemetry the whole time. Ron is requesting to meet with ham and SAR members who may be interested in taking part in this historic local event. There will be radio and GPS equipment on board to track where the balloon is at so that hams and SAR can recover it. We will be setting up the trailer to act as a command post to track the balloon in flight and relay information to teams in the field. If you are interested in participating in this event that will take place sometime in October, please plan to attend the following meeting.

DATE: Wednesday September 17, 2008
TIME: 7:00 PM
LOCATION: Battle Creek PD Briefing Room
Dave Smith KC8COT E-12 City of Battle Creek and Calhoun County RACES, Emergency Coordinator

AMATEUR RADIO EMAIL

There is new software entitled JNOS for passing e-mail messages over Amateur Radio during emergencies: <http://ronhashiro.htohananet.com/am-radio/packet/jnos.html>

Readers can download the program, and try it as noted in the documentation. Configuration is simple: it takes only ten to fifteen minutes editing in your call sign, password, and log-on banners to get started. The beauty of JNOS is the sending and receiving of e-mail messages over the Internet as well as Amateur Radio seamlessly. It can print incoming e-mail messages on a printer unattended, one message to a sheet, just like a fax machine.

JNOS will also take advantage of the ICOM ID-1 in digital data mode, and I'm in the process of testing and documenting that configuration. At some point, I'd like to implement this at Hawaii State CD and Oahu OEM, when a sufficient critical mass has been implemented. -- Ron Hashiro, AH6RH, Honolulu, Hawaii State Civil Defense RACES (Note: a later version of this software is available at: http://www.langelaar.net/projects/jnos2)

HURRICANE GUSTAV

An amateur, Arnie Coro, in Cuba reported on amateur radio in Cuba during Gustav.

This was a super storm, reaching 340 kilometers per hour (that's about 210 mph) at Paso Real de San Diego, in the Pinar del Rio province, before the wind gauge blew away. At that point Gustav would be a Category 5 hurricane on the Saffir-Simpson scale decreasing to a Category 4 as it plowed through the Isle of Youth later on. Gustav is considered to be the worst storm to hit Cuba in 40 years!

He stated that the amateur emergency communications network worked like clock work, being in some locations the only means available. Using 40 meters in NVIS mode and 2 meters direct with one repeater in downtown Havana atop a high rise building providing links formed an effective net. The Inverted L 40 meter NVIS antenna worked well over a range of 90 to 700 miles.

HAM RADIO IN SPACE: NEW P5-A MOVIE ON YOUTUBE

Amsat says that its Phase 5-A will be the first spacecraft built by radio amateurs to go to the Red planet and now there's a movie about it.

Titled "With AMSAT P5-A to Mars," the 10 minute video was produced by AMSAT Germany and covers almost every aspect of the AMSAT organization since its very beginning before taking us through the development cycle of P5-A. Here's a sample of the Phase 5 A story from the movie:

Phase 5-A will not only be the first ham radio satellite to go to another world. It will also become the first ever private interplanetary spacecraft. Once on station in orbit around Mars, it will use frequencies in the Amateur Satellite Service at 2.4 and 10 GHz to communicate back home.

A NEW AMATEUR

10 year old KD8JGO-Kira Hamelink proudly shows her CSCE at the Aug 28 VE session in Battle Creek. Last winter, Grandpa-W8RVT gave the family a speech as to why someone should get involved in amateur radio. A couple weeks later, Kira told Grandpa she wanted to get a license and the studies began.

THE CLUB

SMARS conducts a VE session every other month on the fourth Thursday of the month. Anyone who passes their test for the Technician license is given membership in SMARS for the remainder of the year as well as a G5RV antenna made by Walt K8AEM. SMARS has conducted classes for new licensees and will be offering a class for the General class ticket soon.

THE TEAM

The VEs that monitored Kira during her exam have been working as volunteers for many other VE sessions. Seated from left to tight around the table are Walt K8AEM, Erv N8YEA, Gary KC8H, Don W8RVT and Russ N8UU. W8RVT was not allowed to monitor the exam as he is the proud grandfather.

APRSC

By now you have read that Michigan hams have an opportunity to participate in the National Priorities to Strengthen Communications Capabilities through our Amateur Radio Public Service Corps. As you know, ARPSC is the integrated ARES, RACES and NTS program in Michigan. This effort is part of our state's plan for Emergency Preparedness and incorporates the National Incident Management System, Protection of critical infrastructure, improving citizen preparedness etc, all-in-all, eight specifically detailed categories.

The ARPSC effort will encompass three areas: 1, Maintain and enhance the statewide Amateur Radio communications system, 2, Establish suggested standards for Amateur Radio Capabilities in local EOC's and 3, Develop a Public Awareness and Education program to bolster the ranks of Amateur Radio participants. Procedures will be developed over the next few months through a detailed planning process involving our ECs, DECs and the SEC/ STM, with input from the state's NTS Net Managers. We will be producing specific guidelines that will open the doors for grant funding opportunities, based upon needs and meeting state and nationally established milestones.

This all comes about due to the clearly recognized professionalism of the members of the ARPSC program in the state. Our ready endorsement of National Incident Management System (NIMS), the Incident Command System (ICS) and meeting the challenges of training were some the strategic hurdles that allowed up to meet this goal.

SEC/STM John WB8RCR

SNAKE ANNTENNA

A snake antenna is very popular for people who are business travelers and stay in motels. It is 1/4 wavelength of coax shorted at the end opposite the radio. At the radio you only connect the center conductor. Connect it to an antenna tuner and you can obtain a perfect 50 ohms it is nothing more than a end fed 1/2 wavelength antenna. I have used this antenna many times when camping for 40 m simply pull the end up to a tree limb and you have a fairly decent vertical. You can even lay it on the ground and it will still work on 80/160m.

Lou KE4UYP

COAX VELOCITY FACTOR

Have you ever needed to know the actual electrical length of coax? Were you trying to make a coaxial collinear or a 4 to 1 balun or checking on a new antenna where you needed to feed it with a half wave of coax?

If you've ever been caught in one of those scenarios, you needed to know the correct velocity factor of the coax that you were using. AND, surprize! It isn't always those nice numbers of .66 or .8 as given in handbooks. So how do you find the correct values for velocity factor? Get your thinking caps on and follow John Tait, EI7BA, in his demonstration.

I would cut a half wavelength of coax, using a higher VF than I would expect for that coax. I think that .8 VF would be safe for most, and if you're using good foam dielectric coax or hardline, I'd start with .9 Velocity Factor. So.. a half wave at .8 VF is 468/F * .8 which is 468/ 1.850 = 253, 253 * .8 = 245 ft.

Now, get your Antenna Analyser.. Connect a T piece to the antenna socket, with a 50 Ohm resistor across one input, and your 245 ft of coax to the other. Your 245 ft is open circuit at the far end. Find your 1:1 SWR frequency nearest to top band (160 meters.) Let's say that it measures 1:1 at 1.680 MHz.

You now know, that 245 ft of this particular coax is a half wave (180 degrees) at 1.680 MHz. This information allows us to calculate the VF as follows. 468/ 1.68 MHz = 278.6 ft, which is a 1/2 w/l on 1.680 MHz in free space. So.. 245 is to 278.6 as X is to 100, so X = 87.9%. A Velocity factor of .879. You would expect to see this .879 VF only in good quality foam dielectric coax. You'd expect around .68 VF for cheap RG58 and RG8.

The reason for using top band or 160 Meters for the measurement is it will result in less error in measurement. Once the measurement has been made for the velocity factor, the rest is straight forward as you now know the velocity factor of the coax..

You should always calculate the VF of each new drum of coax, as it varies even with the same type from the same manufacturer, unless they're from the same production run. I usually find that RG58 can have velocity factors ranging from about .68 to .75 depending on the dielectric etc, so unless you know the VF of your coax, it's guesswork.

I hope this helps.
73
John EI7BA

SMARS Club Meeting

August 21, 2008

Called to Order: 7:01 pm

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

Treasurer's Report: published balance in Feedback amended to read $1996.93. Approved.

Secretary's Report: as published in Feedback, approved.

Committee Reports:
Field Day: Waiting on results from ARRL. Should be in November or December QST.
ARES/RACES: New trailer is being outfitted. It is currently stored at the Police station.
VE Testing: Next session August 28. Account is up-to-date with Maple Methodist.

Old Business:
Missing Club Property: Tentec equipment sold to Austin ? and was never paid for.
Discussion about taking him to Small Claims Court. This could cost more than the equipment is worth and may not succeed since there wasn't any documentation.
Bill KD8CDS will try one last time to get either payment or the equipment back.

New Business:
Trailers: need to move trailers before winter. The outfitted trailer needs to be where it can be easily retrieved. Final location to be near the garage where a path can be made.
Marshall Fly-in: September 6 with setup on Friday.
Tower: area around 440 repeater needs to be cleared. Not sure if it is the whole lot or just the area inside the fence. Howard and Don will take a look.

Presentation: none this month

Drawing: won by Velma

Adjourned: 7:58 pm

Respectfully Submitted,
John Davidson KC8WMM
SMARS Secretary

SMARS Board Meeting

September 4, 2008

Called to Order: 7:00 pm

Officers Present: Bill KD8CDS, Renee KC8SLI, John KC8WMM
Others Present: Stephanie W8AEZ,, Bob KC8PRL Marion WA8MFL

Topics:
Marshall Fly-in. Location by fence ok'd by airport. Discussion of which antenna to use for HF. There is supposed to be a new one in one of the trailers. Meet at 10am Friday for setup. Event runs 8am to noon.
Missing Club equipment. Bill went to the guy who had had it for all this time. Since he couldn't pay for it, Bill retreived it all. The equipment found by Bill matched the list of equipment drawn up by the lawyers.
Bill expressed an interest in buying the gear and will bring it up at the regular Club meeting.
Presentation: John has a friend who does Oragami. Will see if she is available for this month's meeting.
Computers: SMARS has received several monitors and computers to replace some of the units in the trailers. They will need to be checked out before use. May try to do this at Marshall.
Field Day: nothing new to report. We're still waiting for the results.
Hamfest: Stephanie will put on registration forms that only FCC approved gear can be sold. Nothing has been heard about last years incident.
This year, SMARS may offer chair rentals. Costs for these are to be determined. Tickets may not be pre-sold this year, as there is a lot of abuse of the system.
UPS: purchase of the unit to replace the one at the repeater site has been delayed on the advice of the Technical Engineer, Dave AB8HK
Elections: nomination process is to begin in September. Bill and Rene will not run again as they are moving out of the area.

Adjourned: 8:10 pm

Respectfully Submitted,
John Davidson KC8WMM
SMARS Secretary

HAMFEST CALENDAR

12 OCT Kalamazoo MI
Kalamazoo Hamfest and Michigan ARRL State Convention. Hamfest will be at the Kalamazoo Fairgrounds. Banquet follows morning hamfest at 1:00. Banquet reservations must be made by Oct 1. Speaker will be Dan Henderson, N1ND, the Regulatory Information Specialist at ARRL HQ.

18 OCT Holland MI
Great Lakes Super Swap 8 AM at West Ottawa High School South Campus, 3600 152nd Ave. GPS coordinates N 42 49.978 W 086 09.361. Admission $6. Info www.HollandArc.org
Paul WD8JOM

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FEEDBACK

SEPTEMBER 2008

SPECIAL SERVICE CLUB

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

THIS MONTH SMARS CLUB MEETING SEP 18
SMARS BOARD OCT 2
SMARS BREAKFAST OCT 4
B4LUNCH BUNCH LUNCH OCT 9
KALAMAZOO HAMFEST AND STATE CONVENTION OCT 12
NEXT MONTH SMARS CLUB MEETING OCT 16
HOLLAND HAMFEST OCT 18