



FEEDBACK



Warminster Amateur Radio Club Web Page www.k3dn.org

August 1999

President's Message

It's hard to believe that summer is already half over. We had a successful Field Day thanks to the planning and organization by Doc (W3GAD) and Stu (K2QBU) along with the active participation of many club members. The weather also cooperated albeit a bit on the warm side but it sure beats rain! Good food, good weather, and good operating conditions, what more could one ask for. I hope you had a chance to participate in the biggest (and I think the most fun) amateur event of the year.

Speaking of summer, I am reminded of thunderstorm season. Is your station well grounded and protected from lightning? It may be a good time to implement some of the some of the ideas and information presented by Ron Cohen (K3ZKO) at the March meeting. I know my station can use some work in this area. In depth information is available on the web at <http://www.polyphaser.com>.

Let's all welcome our recent new members: Olaf Markert KB3DWR, Joe Gormley KB3DXM, Ray Force N2RVV, Rich DeMoske KC2EFA and Derek Maxwell KB3DZZ.

I am looking forward to the program this month (August) on High Definition Television that Mark (N3GNW) has set up. I have not seen HDTV but have heard the picture is quite remarkable. It will be interesting to learn how this system works.

Several members had a chance to get some gear checked out at the last meeting at equipment check out night. I'm sure we all appreciate the efforts of Dick (N3AOG), Brian (N3EXA) and Tom (KA3FQS) who hauled out the equipment and performed the tests. I even found out my new HT is over deviating! Thanks guys.

The club purchased a brass mail slot needed for a door at the Ben Wilson Center and thanks to the work of George (N3HBT) and Vahan (KB3DHU) it is installed and looks great. It's nice to be able to do something for the center that provides us with a place for our club station and to hold our meetings.

It looks like we are bit light on upcoming public service events, so why not try to get out to the Grange Fair this month and help out with the booth or pass some of the traffic that gets generated. You never know when you may need those skills in an actual emergency!

Interested in extraterrestrial intelligence? You can become part of the SETI experiment. Read the article "Search for Extraterrestrials" in this issue of FEEDBACK.

That's all for now. See you at the next meeting.

73 de Rocky, N3FKR

Special Announcements:

The 1999 Maryland/DC QSO Party August 14th and 15th. Information at www.qsl.net/w3cwc

Gloucester County Amateur Radio Club Hamfest, Mullica Hill, NJ August 11, 1999 Information at <http://users.snip.net/~gradywhite/>

See Rocky N3FKR at the August general meeting for flyers for both these events.

1999 Grange Fair August 18-22

Our next public service event is our annual participation at the Middletown Grange Fair being held from Wednesday August 18th through Sunday August 22nd. The event will be chaired this year by Frank O'Neill, N3UQP. Please see him at the general meeting or call him at 699-9549 to sign up for either an on-site shift at our booth or to deliver local messages by telephone from home. Over 20,000 people attend the Grange Fair each year, which gives WARC tremendous public exposure. In addition to handling message traffic we get lots of inquiries about ham radio, especially license preparation classes offered by our club and others in the area. Take the family to a great country fair and help represent WARC and the great amateur radio community.

WARC 1999 Picnic

The Warminster Amateur Radio Club's 1999 picnic will be held on Sunday September 19, 1999 at Core Creek Park's Pavilion 8. As in the previous years this is again located in the Duchess Lane section of the park. Core Creek Park is part of the Bucks County Parks System and is located in Middletown, Bucks County behind Saint Mary's Hospital.

The picnic will be starting at 12:00 and run to 5:00 or so. As always the club will furnish hamburgers, hot dogs, buns, soda and condiments. We ask each family to bring a covered dish or desert so all can sample your best cooking.

As always, the WARC picnic is a great chance to get together with other members of the club as well as their families. There are always enjoyable discussions of things that have gone on in the past year, meeting our newest and youngest associates of the club and comparisons of HT's. We may have a fox hunt again as part of the activities. A playground is located next to the pavilion for the children's enjoyment.

To help the preparations for the picnic go smoothly and not leave too much work for any one person, I am looking for a few volunteers to help me out. We have quite a few supplies left over from Field Day. So we will not need to get much more than the food and charcoal as well as bring the cooking utensils and a few other odds and ends. So if you can spare a few hours the week before the picnic and gather some of the supplies I would appreciate it. Please call me at home (215-953-1493) or send me e-mail mkempisty@pavcal.com Your assistance will be appreciated.

Mark Kempisty - N3GNW

Search for Extraterrestrials?

Yes, you can search for extraterrestrial intelligence and you can do it at home! Talk about expanding an Internet search! Although not directly related to amateur radio, it is related to radio and you may find it interesting and exciting.

SETI (Search for Extra-Terrestrial Intelligence) is an experiment that searches space for radio signals that may originate from extraterrestrial intelligent life forms. When you consider the vast number of

galaxies and solar systems in space, it would not take a huge stretch of the imagination to consider that other intelligent life may exist out there. If you saw the movie "Contact" starring Jodi Foster you are familiar with the experiment. SETI uses the world's largest radio telescope, the Arecibo Radio Telescope in northwestern Puerto Rico, to scan the Universe for radio signals. This telescope receives massive amounts of radio data. The analysis of the data to find that elusive extraterrestrial signal takes mucho (spelled expensive) computer time.

Here is where you can take part in the search. SETI@home is a free software program that allows anyone with a home computer and an Internet connection to perform the search analysis on the radio telescope data in the comfort of your own home and it is all done automatically! This unique program works like a screen saver running in the background when your computer would normally be sitting idle. A small block of radio telescope data is download via the Internet (about 4 minutes) and the analysis are performed piecemeal either in the background or when there is no active screen. Once completed, in about 24 hours of computer time, the results are uploaded and a new block of data downloaded. A nice looking graph showing the progress is displayed while the program is working. By sharing this massive processing task with thousands of personal computers, it can be easily accomplished.

If your computer sits idle much of the time, as does mine, you can make good use of it by helping in the search for extraterrestrial intelligence. And, if you discover a signal on your computer, you will be partially credited for the discovery. Check out <http://setiathome.ssl.berkeley.edu> for more information and happy hunting!

Rocky, N3FKR

Earth and Space Science

The Tears of St. Lawrence

The Tears of St. Lawrence, better known as the Perseid meteor shower, occur every August. A meteor, more commonly known as a shooting star, is debris or dust, usually left over from an orbiting comet (or less often a piece of asteroid), which reenters the Earth's atmosphere and vaporizes forming a trail of glowing gas. In space, this solid particle usually composed of rock and metal, is known as a "meteoroid." As it enters the Earth's atmosphere at speeds anywhere from 10 to 40 kilometers per second (6 to 25 miles per second), it becomes known as a "meteor." As the object collides with atmospheric molecules and atoms, air friction results in some of the object's energy of motion being converted into heat. This vaporizing of the surface layers of the meteor is extremely violent and results in a trail of hot evaporated matter and atmospheric gas which emits light, causing the glow that we see. Most meteors that we see are made by meteoroids the size of a raisin or smaller. Occasionally, a larger piece, despite being partially vaporized, survives to reach the ground. We call these fragments found on earth "meteorites."

While meteors can usually be observed at the rate of one every ten or fifteen minutes throughout the year, every year around August 10, the Feast of Saint Lawrence, the Earth's orbit takes it into the path of the remnants of comet 109P/Swift-Tuttle. The result is a "meteor shower", an event in which many meteors occur in a short period of time and seem to radiate from the same general direction in the sky. The most famous of the meteor showers is the Perseid meteor showers, so-named because their radiant (divergence from a common point) lies from the direction of the constellation Perseus, which occupies the north to northeastern sky during the late evening hours of the midsummer months. During this meteor shower, you can expect to see a meteor every few minutes. The Perseids are active from about July 24th thru August 25th peaking around August 11th to the 13th.

However, talking about shooting stars is kind-a-like talking about other things in life: talk is cheap- the actual experience is much better. Like everything else in life, there are rules involved in "meteor-watching" etiquette. First, location, location, location! To view the Perseids, find a spot where you have a view of a wide expanse of the northeastern sky without obstructions, i.e. a golf course, desert, or

cemetery. Second, stay away from light pollution and find a dark-sky area (minimal light); and, do not try to observe on a night when the moon is lighting up the night sky. Third, lie on a blanket or lounge chair to help avoid neck strain. Next, leave behind the binoculars and telescope. Naked-eye viewing is best because it allows you to scan as much of the sky as possible. Finally, keep your eyes glued to the sky panning from north to northeast and back. Most of the time the meteor streaks you observe will be caught out of the corner of your eye and will last for only a few seconds. Happy meteor shower!

If you are interested in obtaining more information on visual meteor showers, visit the web site of the International Meteor Organization (IMO) at <http://imo.net> or the American Meteor Society at <http://www.amsmeteors.org>. If you are interested in attending an organized Perseid meteor watch, the Bucks-Mont Astronomical Association will be sponsoring a watch on Thursday, August 12th at 8 o'clock pm at a site yet to be arranged. Visit their website at <http://freeyellow.com:8080/members2/bmaa/page1.html> to obtain more details.

Those amateur radio operators not interested in recreational meteor watching can put the Perseid meteor shower to more constructive use by operating via meteor scatter mode, i.e. propagation via ionized meteor trails. When meteors enter Earth's atmosphere, they ionize a small trail through the "E layer." This ionization is short-lived. However, before it dissipates, this ionization can scatter or reflect VHF radio waves. This type of propagation is identified by very brief but strong signals. It usually involves the 6 meter or 2 meter band, and rarely 432 MHz or 222 MHz. There are many factors involved in using the meteor scatter mode and it best to consult an experienced scatter mode operator or the ARRL Operating Manual for more specifics.

Keep Looking Up!
Mike (W3MJP)
w3mjp@amsat.org

Warminster Amateur Radio Club
General Meeting
July 1, 1999

1. Meeting called to order at 7:42 PM by N3FKR. 45 people signed the log.
2. Round of introductions and one visitor Arnold, AA3HO
3. Secretary (Ron NY3J)- waive reading of minutes. No additions or corrections. Motion to approve.
4. Officer Reports
 - a. President (Rocky N3FKR)
 - (1) WARC thank you to outgoing executive officers Bill K3MFI, president, Al KY3T, treasurer, Tom WA3TQJ, past president serving on the board.
 - (2) New officers President; Rocky N3FKR, Vice-President; Mark N3GNW, Secretary; Ron NY3J, Treasurer; John N3ZMJ, Past President; Bill K3MFI
 - (3) Tina Pistilli, Tony N3YNH, Burt N3YVH replacing Don KA3N as membership chairs. KA3N completed his 4th year as membership chairperson.
 - (4) Randy N3LJE replacing Burt N3YVH as refreshment chair.
 - (5) Thanks to all who participated in making Field Day a success

b. Vice President (Mark N3GNW)

(1) Future Meeting Programs

There are changes in the programs for July and August. July 1, 1999: equipment check with Dick N3AOG. August 5, 1999: High Definition Television. We still need a Sept program

c. Treasurer (John N3ZMJ)

(1) As of July 1st we have \$10,066.29 in the treasury

d. Secretary (Ron NY3J)

(1) No report

5. Committee Reports

a. Membership - (Burt, N3YVH)

(1) We have 126 paid up members. New members: Derek (KB3DZZ); Ray (N2RVV); Olaf (KB3DWR); Joe (KB3DXM); Rich (KC2EFA)

b. Classes- (George KA3WXV)

(1) George was not present. We need to talk up the classes and get participation.

c. Repeater- (Brian N3EXA)

(1) 2 meter repeater seems to be working ok. There is a possibility of a move. Working on 440 repeater projects.

d. Field Day 99- June 26-27 (Doc W3GAD)

(1) We were running 8 Alpha and made all bonus points except satellite. We had 40 participants from the club.

KA3VKU's generator worked well. It ran very efficiently with few stops for refueling. K2QBU to chair in 2000.

e. Picnic 99- September 19 (Mark N3GNW)

(1) Picnic to be held at Core Creek Park, Sept 19th. Volunteers for supplies are needed. There will possibly be a fox hunt.

f. Grange Fair 99- August 18-22 (Frank N3UQP)

(1) Day captains are needed and help for setup needed on the 17th. Review of message handling to be held during August meeting. Lots of help needed to move the messages generated at the fair.

g. Award to WARC- (Doc W3GAD)

(1) Honoring WARC for service on the March Of Dimes Walk-a-thon.

h. Ham Wear- (Bob K3SRO)

(1) Need orders to get quantity discounts on items.

6. Public Service events- (George N3HBT)

(1) Memorial Day Parade and Antique Car Show both successful. Program officials appreciate our help. Next event possibly golf outing October 1, 1999.

(2) George also reported that the club is donating a mail slot to be installed for the office door of the Manager of the Ben Wilson Senior Center. A volunteer is needed for the installation.

7. Old Business

a. K3DN Special Event Station- (Bob K3SRO)

(1) Pearl S. Buck House September 26. This is the 50th anniversary of the Welcome House, the 35th anniversary of the foundation, and the 20th anniversary of the Voluntary Service Organization. We will be issuing certificates for QSOs on possibly 4 bands. There is 60 acres so lots of room for antennas. Sign up sheets were passed around.

b. PA Adopt a Highway Program- Jacksonville Road (Hugh N3SOQ)

(1) Paper work has been sent in. Signs will be going up.

8. Motion to adjourn at 20:15

Respectfully submitted, Ron Wenig - NY3J

LAST SHUTTLE SAREX MISSION IN SPACE!

The third time was the charm for shuttle Columbia mission STS-93--the last shuttle that will carry the Space Amateur Radio EXperiment. Future Amateur Radio in space activities will involve the International Space Station.

After a faulty sensor Tuesday and thunderstorms Thursday prevented Columbia from blasting off with Eileen Collins, KD5EDS, at the helm, the shuttle took off early Friday, July 23, but not without a glitch. Collins reported a fuel cell problem nine seconds after liftoff. Some seven hours after launch, the STS-93 crew deployed the world's most powerful X-ray telescope, the Chandra X-Ray Observatory.

Collins is the first woman to lead a US space flight. In addition to Collins, the STS-93 crew includes Pilot Jeffrey Ashby; and Mission Specialists Cady Coleman, KC5ZTH; Steven Hawley; and Michel Tognini, KD5EJZ, a French astronaut.

STS-93 carries the 25th SAREX payload, and students at five US schools in Virginia, Texas, and Florida, have scheduled Amateur Radio QSOs with the astronauts. Earthbound stations may be able to listen to the astronaut side of the QSO on 145.80 MHz FM, but they will not be able to transmit to them. If all goes as planned, students at each school will get a chance to directly interview the astronauts via the SAREX ham radio linkups. Typical passes last approximately 10 minutes.

The crew may have time for some random Amateur Radio contacts as well. This crew prefers voice mode over packet, but the packet robot will be on when the crew is occupied elsewhere. For all voice contacts, stations should listen on the downlink for the crew to call "CQ."

The downlink frequency to listen for the STS-93 crew is 145.80 MHz FM. There are two uplink frequencies--144.47 and 144.45 MHz FM (over Europe, the single uplink frequency is 144.49 MHz). The crew will not favor either uplink frequency.

The packet robot downlink frequency is 145.80 MHz FM, and the uplink is 144.49 MHz FM worldwide. The connect on packet should be to W5RRR-1; stations will get a connect number if they are successful. Stations are asked to make only one packet connect to let other stations have a chance. The robot should never be used to connect to another station. APRS UI frames are welcome. If you send an APRS packet, once you see it digipeated, cancel your request to avoid unnecessary QRM and keep your comments very brief.

The QSL route for random STS-93 SAREX contacts is care of Dan Miller, K3UFG, ATTN: STS-93, ARRL, 225 Main St, Newington, CT 06111. The Dayton Amateur Radio Association has volunteered to handle QSL duties for this mission.

SAREX Principal Investigator Matt Bordelon, KC5BTL, says that future shuttle missions will be "way too busy" to accommodate SAREX. The Amateur Radio on the International Space Station program is working toward establishing a permanent Amateur Radio presence in space aboard the ISS. An interim Amateur Radio station should be operational from the ISS by early next year.

Courtesy The ARRL Newsletter

SOLAR UPDATE

Propagation prognosticator Tad Cook, K7VVV, Seattle, Washington, reports: Solar flux and sunspot numbers were down again this week, with the average sunspot numbers down nearly 60 points and the average solar flux down over 10 points. Conditions are improving though, with the predicted solar flux rising over the next few days to 160, 165 and 170 for Friday through Sunday, July 23-25. Planetary A indices are forecast at 10, 9 and 9 over the same days. Beyond the weekend the solar flux may rise as high as 180 over the next week, then fall to 165 by August 6, 155 around August 9, and 140 around August 12.

Courtesy The ARRL Newsletter