DELAWARE LEHIGH AMATEUR RADIO CLUB Inc.

AUGUST 2015

W3OK CORRAL

Club Meeting August 6th, 7:30PM At the Bethlehem Township Community Center

“Every Day Engineering & Better Living For It”
George / N3SQD

AUGEST MEETING PROGRAM
“Intro To Contesting / DXCC In A Weekend ”
Dave / NB3R

MINUTES FROM THE JULY MEETING

A general membership meeting of the Delaware-Lehigh Amateur Radio Club Inc. (the Club) was held on July 9, 2015, at the Bethlehem Township Community Center located in Bethlehem Township, Pennsylvania.

Call to Order: Jay / N3OW-President, called the meeting to order at 1932 hrs.

Pledge of Allegiance: Led by Jay / N3OW

Member Happenings: Bill / K3ANS told about *The Last Alaskans*, a show on the Animal Planet, that features a Ham living in the wilds who uses a battery powered rig to communicate. Ken / KB3MDT said that he made his first satellite contact using voice via SO50. Joanne / KC3EZS told of her trip to England and a visit to Bletchley Park National Radio Center. Ben / KB3CTX related that Jeff DePolo / WN3A, denied permission to erect a 180 feet tower under the PRB-1 statute, has turned down an offer by the town of Valley Forge to erect instead a 65 feet tower. Bob / NE2C asked that anyone finding a purple D cell flashlight left at Field Day please return it to mitigate the QRM he is dealing with at his QTH. Laura, his XYL's name, is on the wanted item.

Approval of the Minutes: Larry / AB3TY asked if there were any additions or corrections to the minutes as they appeared in the last newsletter. None were noted. Jay / N3OW asked for a motion to approve the minutes of the last meeting.

Motion: It was moved by Bill / W3MJ, second by Steve / K2OPA. **Motion carried.**

Treasurer's Report: Mike / KB3LOD presented the Treasurer's Report for May 2015. Jay / N3OW asked for a motion to accept the report as read.

Motion: It was moved by Barry / KU3X, second by George / N3SQD. **Motion carried.**

Visitors: Bill Elovski / KA3NRJ. Jamie Elovski / KC3ELT, Les Morrow / New Tech waiting for call sign, Mike Valenti / W3MIK and Mike Walters / KB3TEL.

Membership Report: George / N3SQD announced Bill Elovski / KA3NRJ. Jamie Elovski / KC3ELT, Les Morrow / New Tech waiting for call sign, Mike Valenti / W3MIK, and Mike Walters / KB3TEL.

Motion: It was moved by Al / W3CE, second by Steve / K2OPA. **Motion carried**.

Club Repeater: Jay / N3OW reported that there was intermodulation on the VHF repeater. Al / W3CE noted that the Paxinosa receiver on the Easton side was down. **Website Report:** Jamie / KC3ELT noted that one of the pages still had a banner with the old location of the General Meeting, Nancy Run.

Club Station: Al / W3CE reported that he had held a Winlink 2000 training session the previous evening attended by six members and W.T. Jones / WN3LIF, the Eastern PA Emergency Coordinator for ARES who said the club station has a 1000% better facility than 99% of the area clubs. W.T. / WN3LIF indicated that he would be available to present to the Club a talk on emergency preparedness. Al / W3CE also said that the Winlink 2000 Go Kit with the new computer is working well. Dave / NB3R reported that there have been no changes at the Milkhouse.

Field Day: Dave / NB3R noted that Jon / NJ3I provided invaluable help with 2 beam antennas, a Delta loop, and 3 complete stations with computers. Conditions were less than ideal with driving rain, cold temperatures, and wind. Bob / NE2C's suggestion to put up tarps to block the elements helped in keeping the stations in operation. His famous breakfast pancakes were greatly appreciated by the night crew.

Dave / NB3R reported the following scores: 960 CW QSOs; 20 Digital contacts; 890 bonus points; and 394 phone contacts. Total points were 5598.

Ed / AA3OU thanked all who helped with the food.

Larry / AB3TY asked for a round of applause for Stephanie / WX3K for all her efforts to make Field Day a success.

Club Trip: Doreen / K3PDL announced she is planning a trip to Rhinebeck, NY. She also has openings for several 2016 presentations.

Nominating Committee: Jay / N3OW announced the need to form a nominating committee and find a nominating committee chairperson. Bill / NC3P will not continue being the chairman. Elections are in October.

Purchase OF New Club Radios: Jay / N3OW reviewed an action taken at the June general meeting where it was voted on and passed that the Club purchase two ID-5100 D-STAR radios with the provision that the Club's IC 706 Mark II radio be sold to defray the cost as per a motion by Pete / NL7XM. Jay related that the Board discussed not selling the IC 706 since the funds to purchase the new radios had been covered with the proceeds from the WO4H equipment estate sale. In addition, the IC 706 is a small radio that can be easily moved in a Go Bag to provide emergency HF communications. Bob / NE2C noted the IC 706 can run on just 11V.

Motion: Jay asked for a motion to keep the IC 706 Mark IIG. It was moved by Pete / NL7XM, seconded by Dave / NB3R. **Motion carried.**

Wheelman's Century Ride: Al / W3CE announced the Club will participate in the Wheelman's Century Ride which will take place the last weekend in September.

Corner: Pete / NL7EM presented to the Mike / KB3LOD cash in the amount of $18 representing Club sale items from the May meeting and a check for $50 from Redner's precipitating program..

Adjournment: There being no further business before the Club, Jay / N3OW adjourned the meeting at 2005 hrs.

Respectfully submitted by Larry / AB3TY, Secretary

VE TEST SESSION

There will not be a test session this month. The next session will be on September 4th at 7 PM at the Northampton County 911 center. Pretest registration is required. Contact George / N3SQD at george@bioserv.com or Al / W3CE at w3ce@arrl.net.

AUGUST QUICK CHECK CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3	4	5 DLARC Net (KC3AHT)	6 DL ARC MEETING 7:30 PM	7 NO VE SESSION	8
9	10	11	12 DLARC Net (NB3EI)	13	14	15
16	17	18	19 DLARC Net (W3CEI)	20 DLARC BOARD MEETING	21	22
23	24	25	26 DLARC Net (KC3II)	27	28	29
30	31					

AUGUST CONTESTING AT THE OK CORRAL

August 1 & 2 – 10–10 Int. Summer Contest - SSB
-- ARRL August UHF Contest
August 8 & 9 – WAE DX Contest- CW
– Maryland / DC QSO Party
August 15 &16 – Keyman's Club of Japan Contest
– CVA DX Contest - CW
August 22 & 23 – CVA DX Contest - SSB
– Hawaii QSO Party
August 29 & 30 – YO DX HF Contest
-- SCC RTTY Championship .

MONTHLY BRAIN TEASER

"A special prize awaits the first Club Member to submit the correct answer to this month's Brainteaser to the Pete / NL7XM, *only,* at nl7xm@arrl.net The winner must be present at the next Meeting to receive it, or it goes unrewarded. Officers, Board members, Newsletter staff, and Brain Teaser Authors are not eligible to win."

de Pete / NL7XM

JULY BRAINTEASER ANSWER

The numbers in A have one syllable, those in B have 2 syllables, and so on.
So 4 belongs in A,7 goes in B, 11 goes in C and 97 goes in D.

Winner – Ken / KB3MDT

AUGUST BRAINTEASER

There are 8 hams in the milk house, each of whom operates for an equal period of time.
With only five hams actually on the air at any one time (including send and/or receive)
How many minutes will each ham be on the air during a 48-minute propagation window?

NEW MEMBERS

The DLARC is continuing to grow, so be sure to greet our new members, shake their hands, and give them a warm welcome to our club. The newest members are Bill Elovski / KA3NRJ, Jamie El0vski / KC3ELT, Les Morrow / KC3FGA, Mike Valenti / W3MIK and Mike Walters / KB3TEL

REDNERS' SUPERMARKETS SAVE-A-TAPE PROGRAM

Here's how it works:

Redner's has a terrific program to support the Club **AT NO COST TO THEM**, if our members simply sign up for a Gas Card that records their shopping points, and give their cash register receipts to, **Pete / NL7XM,** He'll do the rest.

Note: This does not affect your gas points in any way.

HELP THE ENVIRONMENT

Donate your old, empty printer ink cartridges to the Club for recycling. Any brand, model, size or shape; color or black. Please bring them to the meeting in a leak proof ziplock type baggie and give them to Pete / NL7XM. This simple act can help your Club by reducing recurring expenses, and make you feel a lot better about our environment.

FOR SALE

Icom PRO 3 **$1575**
Includes: Original boxes, operator manual, service manual, HM-36 microphone, DC power cable. I am the original owner. Selling because I upgraded to an Icom 7600.
Icom PS15 power supply **$40**.

Contact Rick k3oo@k3oo.com

LEHIGH WHEELMEN 2015 GAP GALLUP

September 20th is The Gap Gallup. Great scenery, varied terrain and lightly traveled roads make it one of the most enjoyable rides in the Northeast. The route will start at DeSales University in Center Valley, PA. This scenic and challenging bicycle century will take you from the heart of the Lehigh Valley to the shores of the Delaware River where we will cross into New Jersey. Following the river north, the ride will pass through Phillipsburg, NJ to the first of 5 rests stops all stocked with great food and beverages to keep you fueled. After the first rest stop just north of Phillipsburg, the route will climb out of the river valley to a height of land with fantastic views of the valley below. Our second rest stop is in Belvidere, NJ. On the way you'll have the option to challenge your heart, lungs and legs with a climb of the famous, or infamous, Fiddler's Elbow. We'll be waiting at the top with a token to remember your achievement. Leaving Belvidere, the route continues north to Columbia, NJ then crosses the pedestrian bridge over the Delaware River to Portland, PA. It is on this bridge that you will be treated to one of the best views of the Delaware Water Gap, the geological formation for which the event is named. The third rest stop is at Driftstone Campground just south of Portland. From here it is a delightful ride in the river valley with great views along the way as we head south before crossing the river once more at Belvidere. The forth rest stop is the one you visited earlier on the way north. A different route from the one used on the way north takes you back to Phillipsburg, where you'll have the final rest stop where you had the first one so many miles ago.

Then we cross the Delaware one more time and head up the Lehigh River for the last leg of the century. Al / W3CE is looking for operators to man the SAG wagons and the various check points. Al can be contacted at w3ce@arrl.net.

NOMINATIONS FOR CLUB OFFICERS

September is the month when Officers and the Board of Directors (Executive Committee) are nominated for the forth coming club year. This year we will need a nominating committee chair man, Bill / NC3P is stepping down. The new committee chair will be looking for volunteers to assist on the committee. Also any members who have considered running for office, now is the time to make your final decision. This is also the time to think of nominating some one for one of the offices, this procedure is the way the club fills the offices and in that way keep the club functioning to its best ability. So think about it, come to the September meeting and be ready to nominate members or accept a nomination, that will keep the DLARC a club worthy of membership.

REPEATER ETIQUETTE

Atlantic County ARES Web Page Via **Bob Green / KE3AW**

Every couple of years it seemed we used to "remind" operators using our repeaters of the proper etiquette to be used on W3OK. With numerous new hams over the past couple years, or hams new to this area, it may be worth considering using/altering to suit us some such guide to operators in our club. I know, from recent questions to me about a number of points covered in this article, below...

Here is the Delaware-Lehigh Amateur radio Club Repeater Etiquette.

Use of the W3OK Repeater

1-Usage will be in accordance with FCC Rules Part 97.
2-Users will comply with directives of the control operator.
3-Transmissions will be courteous and professional. (See Basic Repeater Etiquette Below)
4-The time out timer is set for 90 Seconds. Keep transmissions under that time. Leave breaks between transmissions so the repeater can drop and the time out timer resets.

Basic Repeater Etiquette

1-Starting a QSO via a directed call. There are two main ways by which a QSO can begin, one is via a directed call and one is via monitoring. A directed call is where one amateur calls another amateur individually, such as "N3XYZ from K3ABC". In such a case, K3ABC is looking for one particular individual, N3XYZ. It generally is not an invitation for anyone other than N3XYZ to return the call. If N3XYZ doesn't answer the call, K3ABC may just clear off by saying "K3ABC clear", or may clear and listen for other calls by saying "K3ABC clear and listening". The "and listening" or "and monitoring" implies they are interested in hanging around to QSO with anyone else who might be listening at that time. "Listening" and "monitoring" don't mean you are listening to somebody else's conversation, they mean you are listening for other people who may want to call you to start a new QSO. Likewise, just saying your call by itself with nothing following it is meaningless. If you were to say "N3XYZ", people listening wouldn't know if that means you were monitoring for calls, whether you were testing, or whether they missed the callsign of a party you were calling. Be concise, but be complete.

2-Starting a QSO via a monitoring call. If the repeater is not in use, simply stating your callsign followed by "listening" or "monitoring" implies that you are listening to the repeater and are interested in having a QSO with anyone else. Calling CQ on a repeater is generally not common, a simple "N3XYZ listening" will suffice. There is no need to repeat the "listening" message over and over again as you might do when calling CQ on HF. Once every few minutes should be more than sufficient, and if someone hasn't answered after a few tries, it probably means there is nobody around. If someone is listening and wants to QSO, they will answer back. Avoid things like "is anybody out there" or "is there anybody around on frequency"; it sounds like a bad sci-fi movie.

3-Joining a QSO in progress. If there is a conversation taking place which you would like to join, simply state your callsign when one user unkeys. This is the reason for having a courtesy tone: to allow other users to break into the conversation. One of the stations in QSO, usually the station that was about to begin his transmission, will invite you to join, either before making his own transmission or afterward. Don't interrupt a QSO unless you have something to add to the topic at hand. Interrupting a conversion is no more polite on a repeater than it is in person.

4-Interrupting a QSO to make a call. If you need to make a directed call to another amateur but there is already another QSO going on, break into the conversation during the courtesy tone interval by saying "Call please, N3XYZ". One of the stations will allow you to make your call. If the station you are calling returns your call, you should quickly pass traffic to them and relinquish the frequency to the stations who were already in QSO; don't get into a full QSO in the middle of someone else's conversation. If you need to speak with the party you call for a significant length of time (say, more than 15 seconds), ask them to either wait until the current QSO has cleared, or ask them to move to another repeater or simplex channel to continue the conversation.

5-Round tables and "Turning it Over". When more than two amateurs are in a QSO, it is often referred to as a "round table" discussion. Such a QSO's usually go in order from amateur A to amateur B to amateur C ... and eventually back to amateur A again to complete the round table. To keep everyone on the same page, when any one amateur is done making a transmission, they "turn it over" to the next station in sequence (or out of sequence, if so desired). Without turning it over to a particular station when there are multiple stations in the QSO, nobody knows who is supposed to go next, and there ends up either being dead silence or several stations talking at once. At the end of a transmission, turn it over to the next station by naming them or giving their callsign, such as "...and that's that. Go ahead Joe." or "....and that's that. Go ahead XYZ." If it's been close to 10 minutes, it's a good time to identify at the same time as well, such as "...and that's that. N3XYZ, go ahead Joe."

6-IDing and Who's Who? By FCC regulations, you must always identify at 10 minute intervals and at the end of a transmission. If you are making a test transmission or calling another party, this is a one-way transmission. Since it has no "length" as there is no QSO taking place, you should identify each time you make a call or a test transmission. When identifying yourself and another party (or parties), or when making a directed call, your callsign goes **LAST.** "N3XYZ, K3ABC" means that K3ABC is calling N3XYZ, not the other way around. There is no need to identify each time you make a transmission, only once every 10 minutes. You do not need to identify the station with whom you are speaking, only your own callsign, but it is generally polite to remember the call of the other station. Avoid phonetics on FM unless there is a reason for using them, such as the other station misunderstanding your callsign. When phonetics are needed, stick to the standard phonetic alphabet.

7-Demonstrations. From time to time, an amateur may want to demonstrate the capabilities of amateur radio to another non-amateur. The typical way to do this is to ask for a "demo" such as "N3XYZ for a demonstration." Anyone who is listening to the repeater can answer them back. Usually telling the calling party your name, callsign, and location is what they are looking for, not a lengthy conversation. Someone doing a demo may ask for stations in a particular area to show the range of amateur radio communications, such as if the calling station is in the Poconos they may ask for any stations in south Jersey or Harrisburg areas, which is more interesting than demonstrating that they can talk to someone in the same town as they are in.

8-Signal Reports. If you are unsure how well you are making it into the repeater, **DO NOT** kerchunk the repeater. Any time you key up the repeater, you should identify, even if you are just testing to see if you are making the machine. "N3XYZ test"is sufficient. Do not use the repeater as a "target" for tuning or aiming antennas, checking your transmitter power, etc. Use a dummy load where appropriate, or test on a simplex frequency. If you need someone to verify that you are making the repeater OK, ask for a signal report such as "N3XYZ, can someone give me a signal report?" "Radio check" is a term most often used on CB, "signal report" is what most amateurs ask for.

9-Language. Aside from some of the techno-syncracies inherent in amateur vernacular, use plain conversational English. The kind of English that would be suitable for prime-time television, not R rated movies. Avoid starting or encouraging conflicts on the air. If a topic of conversation starts to draw strong debate, change the subject. Avoid "radio-ese" lingo whenever possible. CB has its own language style and so does amateur radio, but the two are not the same. Amateurs have "names",

not "personals". Although many new hams have graduated from the CB ranks, let's try to keep CB lingo off the amateur bands. When visiting a new repeater, take some time to monitor before jumping in to get a feel for the type of traffic and operating mannerisms of that particular system. Some repeaters are very free-wheeling in that there are people jumping in and out of conversations constantly. Others primarily have directed calls on them and discourage ragchewing. Others are member-exclusive repeaters. Listen before you talk, when in Rome do as the Romans do.

10-Emergencies. If there is a QSO going on, break into a conversation with the word "Break" or "Break for priority traffic**."** **DO NOT USE THE WORD BREAK TO JOIN IN A QSO UNLESS THERE IS AN EMERGENCY!** All stations should give immediate priority any station with emergency traffic.

11-Malicious Interference. If there is malicious interference, such as kerchunking, touch-tones, rude comments, etc. **DO NOT ACKNOWLEDGE IT!** Continue the QSO in a normal fashion. If the interference gets to the level where it is impossible to carry on the QSO, simply end the QSO as you normally would.

12-Power. Use the minimum power necessary to complete a QSO. However, the minimum power necessary doesn't just mean you are barely tickling the repeater receiver squelch. If someone says that you are noisy, increase power or relocate or take whatever measures you can to improve your signal. Continuing to make transmissions after being told your signal is noisy is inconsiderate to those listening. The amateur radio manufacturers continue to come up with newer, smaller handheld radios, many with power levels well under a watt. Many new amateurs start out with a handheld radio as their "first rig". Although convenient, they aren't the most effective radios in terms of performance. Without a good external antenna, operating a handheld radio indoors or inside a car is going to result in a lot of bad signal reports.

INTERFERENCE FROM OLD POWER AMPLIFIERS

Igor Grigorov / RK3ZK

One of the possible causes of interference to reception of the radio and television from Power Amplifiers (PA) is degradation of an output tube or an output transistor of the Power Amplifier (PA).

Let's put the basic signs directing this cause.

First,

There are stable heavy interference to radio equipment when the PA (or transceiver, in which one the PA is) works even on low - frequency amateur ranges 160- and 80 meters, where, as usual, such interference are absent.

Second,

It is very possible that the PA is "excited" at some restricted segments of amateur ranges, or at an amateur range, or when this one is operated at a definite mode – CW, SSB or RTTY. For example, a PA is excited by operation on SSB, but ensures stable running on CW. One more version, a PA is excited when it works in the beginning of an amateur range, but this one works good in the middle or in the upper end of this range.

T**hird**,

Usually the invalid PAs consume a large dc. current but give a small RF power. When the Pas consume a large dc. current they, as usual, give a large level of interference. When the Pas work at a small consumed dc. current, they do not give interference at all!

To improve this situation can only changing the degraded tube or transistor for a new one. Or, to reduce output power helps to remove the interference.

Tubes…

It is quite possible to detect the degraded tube with metal anode in visually way. An anode of a new tube has evenly color, usually gray. An anode of a degraded tube has unnaturally color often the anode has an undulating spots. Joints of the degraded anode quite often have distortions.

Pins of some output tubes after a long-period operation are covered with oxides, especially if a power amplifier was maintained in a wet location, ever on open air, or in a location, where aggressive gases are in air. Sometimes, a non-hermetic lead-acid or alkaline accumulator placed near a PA causes to cover the pins by a layer of oxides. The cleaning of pins of tube socket often gives only short-term effect. Only soldering the oxidation pins of tube to pins of tube socket improves the situation.

Transistor…

Power transistors do more harm then tubes. All modern RF bipolar transistors have a structure consisting of many independent emitters. When only one emitter is degraded the whole transistor is degraded, too. The degraded emitter can produce harmonics of the base signal that causes RFI and TVI.

The degradation is quite possible at a current overload or just long-lived operation of a transistorized PA. The overload can be as on the input signal - overflow of a base current, so on the output signal – overflow of a collector current. Even a short-term overload can damage a power transistor. Very often when the degraded transistor is checked at dc., it behaves as operable. Only changing of a degraded transistor for a good one allows to find the true source of the interference

Cold soldering…

Cold soldering represents especially unpleasant phenomenon for both, as transistor as tube PA. It can reduce to appearance of heavy radio interference. All suspicious soldered places are knocked by wooden or plastic stick and monitoring at thus for interference. After that the fond cool soldering is thoroughly soldered. **Remember, a long term service of any PA is possible only when all modes of operation of output transistor or output tube are at right conditions.**

CORONAL MASS EJECTIONS SLAMS THE EARTH

Sunspot region 2371 (N13W14) erupted with a Coronal Mass Ejection (CME) at 0142 UTC, producing an M2-class solar flare and a full-halo.

Coronal Mass Ejections Slam Earth after the longest day and shortest night of the year (June Soltice) in the northern hemisphere, and the opposite in the southern hemisphere down under in Australia. The exact moment of the solstice occurred Sunday, June 21 at 12:38 pm EDT (1638 UTC) when the sun reaches its highest declination on the celestial sphere (+23.5o). This marks the beginning of summer in the north and winter in the south. The M2-class solar flares hit Earth's magnetic field at approximately 1600 UTC.

At 1820 UTC a second eruption occurred producing an lower M1-class flare. Movie of the storm cloud, which headed directly for Earth. - http://www.spaceweather.com/images2015/21jun15/cme_anim.gif?PHPSESSID=befihb685egm0ic3usovmnoc04

Sunspot 2371 erupted a third time producing a stronger M6.6 class solar flare. NASA's Solar Dynamics Observatory captured the flare's extreme ultraviolet flash at 1823 UTC. - http://www.nasa.gov/mission_pages/sdo/images/index.html?id=363930 During the 2000 UTC hour NASA GOES 13 &15 magnetometer took a steep free fall from 125 NanoTesla (nT) to over negative 150 nT. Within the next hour, X-ray flux (Angstrom) and Ultra-violet radiation from the flare ionized the upper layers of Earth's atmosphere, producing a moderately-strong Radio Blackout with up to10 db of attenuation at 35 MHz over both Poles, North America, Central America, and northwest South America.

NASA GOES-15 Xray Flux chart:
- ftp://ftp.swpc.noaa.gov/../../../pub/plots/xray/20150623_xray.gif

NASA GOES-13 Proton Flux chart:
- ftp://ftp.swpc.noaa.gov/../../../pub/plots/proton/20150623_proton.gif

At this time the Fredericksburg, Maryland 'K indices' jumped up to 8. The K-index scale has a range from 0 to 9 and is directly related to the maximum amount of fluctuation (relative to a quiet day) in the geomagnetic field over a three-hour interval. With three M-class CME's impacting Earth's magnetic field within 24 hours, it induced a severe G4-class geomagnetic storm that strongly coupled to Earth's own magnetic field that sustained the geomagnetic storm for over ten hours. - ftp://ftp.swpc.noaa.gov/../../../pub/plots/electron/20150623_electron.gif

During a geomagnetic storm possible widespread voltage control problems might exist from power system grids, spacecraft experiencing surface charging and tracking problems, induced pipeline currents, sporadic HF radio propagation, satellite navigation, low-frequency radio navigation being degraded for hours. Solar protons and electrons are funneled into the polar regions by Earth's magnetic field. A blackout map from NOAA shows the geographical distribution of the radio disturbances.- http://spaceweather.com/images2015/22jun15/blackout.gif?PHPSESSID=1gttlr1flk9jfv96gc63ku7r43

Disturbance of the geomagnetic field is measured by an instrument called a magnetometer.

Solar wind speed, as measured by the ACE spacecraft, reached a peak speed of 737 km/s (458 miles/s) at 1830Z. Protons greater than 10 MeV at geosynchronous orbit reached a peak level of 1066 pfu at 1900Z then lowered to 529 pfu by 2130 UTC. Electrons greater than 2 MeV at geosynchronous orbit reached a peak level of 4102 pfu, then were contaminated by proton flux and therefore unreliable.

Now the Aurora Borealis (Northern Lights) are being created across the Canadian border and into more than a dozen US states, as far south as Alabama and California (typically 45° geomagnetic latitude). Solar wind speed, as measured by the ACE spacecraft, reached a peak speed of 791 km/s (492 miles/s) at 0529Z on June 23 with Fredericksburg Geomagnetic Observatory, Virginia three hour K Indices dropping down to 7.

Protons greater than 10 MeV at geosynchronous orbit reached a peak level of 1066 pfu, electrons greater than 2 MeV reached a peak level of 4102 pfu at 1900 UTC. Total Interplanetary Magnetic Field (IMF) reached 42 nT at 2000Z then lowering down to 38 nT at 2102 UTC.

At 2114 UTC Sporadic-e was noticed on the FM broadcast band. The first station heard was on 89.1 KWFC 'Southern Gospel Radio' in Springfield, Missouri. The transmitter tower is 982 miles away at an azimuth of west (262 degrees).

During the reception of KWFC, a severe thunderstorm was coming in from the west of the Lehigh Valley, remnant from tropical storm Bill. Five minutes later the heavy downpour from Bill blew across Easton, PA. Even with the heavy downpours Sporadic-e was still coming through, attenuated. Minutes later two other stations were heard; 89.1 KUAR Little Rock, Arkansas 'FM 89'. The transmitter tower Is 1,027 miles at an azimuth of west-southwest (252 degrees), 88.3 KWND '88.3 The Wind' from Springfield, Missouri.

At 2240 UTC the line of thunderstorms were blowing out of the area across the Delaware River into New Jersey. Aurora Borealis (Northern Lights) glowing as far south as Texas. - http://www.washingtonpost.com/blogs/capital-weather-gang/wp/2015/06/23/aurora-borealis-glows-in-central-virginia-seen-as-far-south-as-texas-photos/

Northern Noctilucent Clouds (NLCs) were first spotted by NASA's AIM spacecraft over the Arctic Circle on May 19th. On the day of the CME impacts it look like this: - http://www.spaceweather.com/DAISY_PICS/current_daisy.png?PHPSESSID=1gttlr1flk9jfv96gc63ku7r43

Keep your radios and audio recorders turned on because you never know what you might hear when a CME slams into Earth.

Good DX everyone

Mike Schaffer / KA3JAW ,Easton, PA FN20jq

FCC SPEEDLY DISMISSES PETITIONS TO ALTER AMATEUR SERVICE RULES

Acting with near lightning speed, the FCC has dismissed two petitions for rule making calling for separate amendments to the Part 97 Amateur Service rules. Willison H. Gormly, WD0BCS, of Des Moines, New Mexico, filed both petitions on June 16, and the FCC turned them away on July 1. Gormly had requested that the FCC amend Part 97.301(e) of the rules by dividing it into separate sub-paragraphs for technician and Novice class privileges. He had also asked the FCC to amend Part 97.305(c) to authorize spread spectrum emissions in the 2 meter band.

"The rule changes you propose were previously rejected by the Commission," Scot Stone, deputy chief of the Mobility Division in the Wireless Telecommunications Bureau, told Gormly in the FCC's dismissal letter. "Your petitions do not demonstrate or even suggest that any relevant circumstances have changed such as to merit reconsideration of these decisions."

The FCC noted that while Part 97.301(e) had been divided into two paragraphs in the past, these were consolidated when the Commission streamlined the rules in 1999. Gormly argued that the present configuration was confusing, but the FCC pointed out that Part 97.301 "has been in this arrangement for a number of years without any reported difficulty."

Regarding Gormly's second petition, the Commission noted that it had sought comment in 2004 as to whether it should expand the bands authorized for spread spectrum to permit such emissions on the 50 MHz, 144 MHz, and 222 MHz bands. Agreeing with the majority of comments, the FCC subsequently determined that authorizing spread spectrum was not warranted on 6 meters and 2 meters, "because of concerns over the compatibility of spread spectrum emission types and other Amateur radio operations in those bands," the FCC explained in its denial letter.

The FCC had said it was concerned about raising the noise floor on the band, with potential adverse effects on so-called "weak signal" communications or "otherwise affecting experimentation." The Commission also had noted that both bands are heavily used for other types of communication.

THE AMATEUR RADIO PARITY ACT OF 2015

Politicians *Do* Listen, ARRL President Says

ARRL President Kay Craigie, N3KN, said in the July ARRL Legislative Update Newsletter that Washington politicians *are* paying attention to League members who have contacted lawmakers to urge their co-sponsorship of the Amateur Radio Parity Act of 2015. Essentially identical bills have been introduced in both the US House (H.R. 1301) and Senate (S. 1685). Both measures would direct the FCC to extend its rules relating to reasonable accommodation of Amateur Service communications to private land-use restrictions. “Many visits have been made to the offices of Senators and Congressmen on behalf of H.R. 1301 and S. 1685 by members of the ARRL Board and ARRL Headquarters staff," President Craigie said. "ARRL Section Managers have encouraged members to speak out. ARRL members around the country have talked with your elected officials in their home-district offices and town hall meetings. This is a full-team advocacy effort." To date, H.R. 1301 has attracted 86 cosponsors; the just-introduced Senate bill, S. 1685, has one original cosponsor.
President Craigie said The Amateur Radio Parity Act of 2015 is aimed at helping to ensure the future of Amateur Radio, as more and more neighborhoods impose deed restrictions that prohibit Amateur Radio antennas and keep today's youngsters from becoming active radio amateurs. "What if their parents have bought houses in neighborhoods with deed restrictions prohibiting antennas?" she speculated. "Those kids' interest in ham radio gained from school, Scouts, or family friends will have no way to blossom into the life-changing experience of being radio amateurs."

ARRL members, she continued, "are working together so that both today's amateurs and the kids who will be amateurs in the future have the chance to operate from their homes." Letters from members urging support of the bills are what make the difference between being ignored and being heard on Capitol Hill.

"Earlier this year, I visited a North Carolina Congressman's office and got a friendly reception -- but no co-sponsorship," President Craigie recounted. "More recently, another ARRL person followed up at the same office, with the same staff member, but with about 40 letters in hand. The Congressman became a cosponsor."
The newsletter suggested several ways ARRL members can get involved in the Amateur Radio Parity Act grassroots effort.

One idea is to have a "letter party" at your next club meeting.
Take pre-addressed copies of letters to all three of your lawmakers -- one in the House, two in the Senate -- and have club members add their names, addresses, and signatures to letters for each Member of Congress. Have enough copies, so that each individual can sign his or her own letter. In some cases, club members in a given area may reside in more than one Congressional district.

Names and addresses of US House and Senate members are available on the ARRL website. Mail the collected letters to the ARRL (c/o The Amateur Radio Parity Act, ARRL, 225 Main St, Newington, CT 06111), which will collate them for hand delivery on Capitol Hill.

Members also may e-mail their lawmakers, post comments on their US House or Senate member's website, or call their lawmakers on the telephone. Be courteous, make your points, and be brief. In all cases, thank lawmakers for considering your point of view.

"Grassroots politics is about you -- the individual -- making your voice heard," the July *Legislative Update* pointed out. "It requires a good deal of preparation and effort to achieve the end results."

The League now has a combined web page to accommodate activities on behalf of both the House and Senate bills. The Amateur Radio Parity Act of 2015 is H.R. 1301 in the US House of Representatives and S. 1685 in the US Senate. The Amateur Radio Parity Act of 2015 page provides a clearing house for all information on these identical pieces of legislation.

HELPHFUL HINT

F.Y.I.

The September Program will be “VHF Operating and grid Squares” - Bill / W0RSJ

The D.L.A.R.C. meets the “FIRST” Thursday of each month. Membership, friends and interested persons meet at the Bethlehem Township Community Center, 2900 Farmersville Road, Bethlehem, Pa. 18020) at 7:30 PM. Committee reports and announcements of all present and future activities will be presented at that time. Followed by that month's program.

ARES, RACES AND DLARC NET

All Radio Amateurs are welcome to participate in the ARES, RACES and DLARC net. This net meets Wednesday at 1900 hours local time, on the W3OK Repeater 51.76, 146.70 and 444.90 (pl 151.4). With an alternate frequency of 147.370 (DCS 315) W3OI Repeater.

The EASTERN PENNSYLVANIA District 2 ARES Net meets every Wednesday at 1930 hours local time. (Just after the DLARC Net) On 147.255 (pl 162.2). And linked to 449.375 on Blue Mountain, 443.350 in Allentown and 147.180 in Berks County.

QCWA Chapter 17 holds a net Monday evenings at 8:30 PM on 3960 +/- depending on conditions.

Mid-Atlantic D-Star Net meets each Tuesday at 7:30 PM. The following repeaters Dstar repeaters are available in the Lehigh Valley. W3OK -145.11000MHz -0.600 Port C – W3OI -147.16500MHz +0.600 Port C, – W3OI - 445.02500MHz -5.000 Port B All repeaters on the net are linked through **Reflector 020 port A**, so all stations checking into the net should make sure that they have *their local repeater call sign followed by the letter “G” in the eight position of the RPT2 field***.** Otherwise, you will only be heard locally and not over the Reflector. Dongle users wishing to check into the net should Log On by connecting directly to Reflector 20, port A, rather than through your local repeater in order to conserve local bandwidth.

The OK Corral is an organization publication for the purpose of informing members of the D.L.A.R.C. of educational and training opportunities, club events, relevant news articles and a monthly calendar of daily activities, meetings and dates.

The Clubhouse telephone number is 484-895-7038.

EXECUTIVE COMMITTEE 2014– 2015

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PHONE NUMBERS FOR THE EXECUTIVE COMMITTEE OF THE DLARC CAN BE FOUND ON THE WEBSITE / MEMBERSHIP LISTING

CLUB MEETINGS

All regular meetings of the D.L.A.R.C. Are held on the first Thursday of each month at 7:30 PM at the Bethlehem Township Community Center
TALK IN ON 146.700 (PL 151.4)

THE W3OK TRUSTEE --- Barry Vogt / N3NVA

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