



THE LED

March 2012

Published by the Livingston Amateur Radio Klub
Howell, Michigan

Livingston Amateur Radio Klub
PO Box 283
Howell, Michigan 48844

www.W8LRK.org

**NET 146.680
SUNDAY 9PM**

CLUB CALL IS: W8LRK

**NEXT KLUB MEETING
Thursday, March 9, at 7:30PM
EOC, 300 S. Highlander Way
Howell, MI**



BOARD MEMBERS

President	Jim	WB8AZP
Vice-President	Van	N8GVD
Secretary	Mary	KC8SER
Treasurer	Patrick	W8LNO
Program Manager	Jon	KC8VAB
Tech Director	Les	W8MSP
Director	John	KD8CCR

COMMITTEE CHAIRPERSON'S

Repeater Trustee	Jim	WB8AZP
LED Editor	Michelle	KD8GWX
VE Coordinador	Jim	WB8AZP
Web Site	Jim	KB8DAD

The Livingston Amateur Radio Klub maintains the 146.680 (Negative Offset, 162.2 CTCSS) and also the 444.525 (Positive Offset, 100.0 CTCSS) repeaters in Livingston County.

Jim's Jive

The sights and sounds of spring are starting to peek through the grey wintry skies! I'm looking forward to a quick and warm spring, and along with it, those outdoor ham swaps!

I've had time during the colder weather to make some rough plans for a few new antenna additions at the QTH, and it will be nice to get those projects underway. Hopefully, you're all making plans for the coming summer as well.

Elections are only a few months away. To refresh your memory, here's a handy table:

OFFICE	INCUMBENT	TERM	ELECTED
President	WB8AZP	2 Years	Odd Years
Vice President	N8GVD	2 Years	Even Years
Secretary	KC8SER	2 Years	Odd Years
Treasurer	W8LNO	2 Years	Even Years
Program Director	KC8VAB	2 Years	Odd Years
Tech Coordinator	W8MSP	2 Years	Even Years
Director At Large	KD8CCR	1 Year	Annually

Since 2012 is an even year, we need to elect a Vice President, Treasurer, Technical Coordinator, and of course, Director At Large. We'll be looking for nominations during the March and April meetings, with the elections to take place in May. Perhaps you're ready to step up to the interesting challenges of leading the largest organized amateur radio club in Livingston County?

Our April and May meetings will NOT be held at the EOC, do to a special long term training requirement there that will tie up the meeting room for several months. John Waters, KD8CCR, made arrangements for us to meet at the Livingston EMS base location on Burkhart road, collocated with the LETS garage. As has been customary in previous years, we'll be supplying dinner at these special meetings. If you have any special requests for food, or would like to serve on the committee to make this all happen, please let me know as soon as possible.

Please note that the smaller "library" room at the EOC will still be available for our monthly VE sessions. We'll be there every month, waiting for you to take that upgrade test, or bring in a new recruit to get them on their way to an exciting hobby.

We're still looking for ideas from all of you on two other issues. The first one is "what radio(s) would you like to potentially win when you buy a ticket in this years LARK radio raffle? Additionally, we're soliciting ideas for an upcoming club construction project. Contact any LARK board member with your thoughts.

Jim's Jive continued

Don't forget the Sunday night net. This is a great chance to ask questions, and get involved in what's happening!

And of course, remember the LARK breakfast, held every 1st and 3rd Saturday at the Grand River Grill. Full members in good standing are always entered into a raffle for a free breakfast!.

It's never too early to begin planning for Field Day! Let's start talking about this before summer is here!

See you at the meeting....

73



DE WB8AZP

LED Newsletter Editor on hiatus

Don't worry, I won't be gone for long, lucky you!!! I will be deploying to Kentucky for the next couple of weeks to help out in the areas affected by the tornados so will be unavailable and won't be at the meeting. I also wanted to let you know that I have a new Red Cross email address effective 3/1/12. michelle.Roderick@redcross.org Please make sure you update any email groups/lists you have me in and while I'm away, you can send all your articles for the April LED Newsletter to this email address! Thank you! See you soon!!!

LARK General (2-9-2012) & Board (2-16-2012) Meeting Minutes

No minutes submitted at this time for the March LED Newsletter.

Finance Report

No report submitted at this time for the March LED Newsletter.

Upcoming Hamfests

Crossroads Hamfest 2012

WHEN: Saturday, March 17, 2012
TIME: 8 am to 12 noon
WHERE: Marshall Activity Center
15325 West Michigan Avenue
Marshall, MI 49068
COST: \$5
Talk-In: 146.660 (PL 94.8)
Contact: David Ashbolt , K8OLY @ Phone: 269-223-7141

ARGYL Hamfest & Computer Show

WHEN: Saturday, April 7, 2012
TIME: 8 am to 12 noon
WHERE: Lowell High School
11700 Vergennes Street
Lowell, MI 49331
COST: \$5
Talk-In: 146.620 (PL 94.8) & 145.270 (PL 94.8)
Contact: Al Eckman , WW8WW
725 Bowes Road, Apt. K6 Lowell, MI 49331
Phone: 616-450-4332
Email: al.eckman@comcast.net

A Little Bit about Mars ...

The 2nd in a series by Mark Sharef, WQ8S/AAV5QK

One of the first problems new members encounter is getting a single on the air. Once you open up your radio to run MARS frequency's you have to get it into the ether.

For most of our work we run N.V.I.S. antennas, or cloud warmers. shoot a signal straight up and it will return almost straight down. If we choose the right band this will give us a good solid coverage from 25 to 250 miles in the daytime and out to 400 miles at night.

When I started in MARS back in 1990 the most common antenna was a G5RV as a inverted "V" with the center 35 or so feet up. This was not a bad choice. Back then we ran just above 4MHz. Also the inverted "V" has a bowling ball pattern sending much of the signal straight up at 4MHz. The tuner did the rest.

Today we run below 3.3MHz and around the 60M band. The G5RV still does a fair job when quality feed line is used. The worst antennas I've heard are the 200" long wire fed with 200" of RG8X.

One of the loudest signals come from a 100 foot dipole fed with 5" open wire feed at 17 feet as a flat top. You don't need an acre to have a good antenna for MARS. My 5.4MHz antenna is just a folded dipole, ten feet high. Yet I'm loud a clear to most stations some 15 to 20 minutes after sunrise. With the antenna only 10' off the ground my noise level has never gotten above S5 with most stations 2S louder.

Many of our MARS and National Guard stations use the B&W " Terminated Folded Dipole " The ones located at the Michigan National Guard armories are 180" long. While most MARS members only have room for the 90 footers. The MI. N. G. units are only running 20 watts, yet I hear most of them just fine. These antennas let you move to any frequencies without a tuner. Though they have losses of 3-9db on most frequencies (4.0-30MHz for 90') (1.8-30MHz for 180') this can be far less than the losses for feed line mismatch.

One system that is often overlooked is the trap dipole. Simple traps can be made with RG58 or RG59 co-ax. I could add a set of traps to my 60M antenna and be able to use it on both the 5.4 and 7.3+MHz MARS frequency's. If you only just have room for an 80M dipole, a trap dipole could be made for the four most commonly use MARS bands from 3.3-7.3+MHz and only be about 110' long.

At one time I had visions of building a log periodic antenna pointed straight up. I would use close spacing and have a real gain antenna. I'd show them! When I crunched the numbers, I discovered it would have to be 136' 2 5/8" tall just to get 3-4db. Also I would have to buy 576' of wire to build it. That B&W is starting to look better and better. In the mean time I'll stick to my loop and folded dipole. Instead I'll work on building a remote antenna coupler to match the feed line and cut my losses that way.

If you would like to learn more about MARS please feel free to E-mail me at msharef@dishmail.net

Active Sunspot Region 1429 Produces Solar Flares, Coronal Mass Ejections ...

An X-1.1 class solar flare erupted from the Sun on Sunday, March 4 at 11:13 PM EST (0413 UTC March 5), sending an explosion of plasma and charged particles -- a coronal mass ejection (CME) -- hurtling through space. Forecasters at NOAA's Space Weather Prediction Center (**SWPC**) are saying that the CME should miss Earth, but will hit Mercury and Venus.

Even if this CME misses, high-latitude sky watchers should still be alert for auroras in the nights ahead. An M3-class eruption from the same sunspot just a day before produced another, wider CME that might intersect Earth. The cloud is expected to deliver a glancing blow to Earth's magnetic field on March 6 around 0430 UTC. Sunday night's solar flare is only the **second X-class eruption so far this year**. X-class flares are the most powerful type of solar storm; M-class eruptions are considered midrange and C-class flares are the weakest.

According to Spaceweather.com, SWPC forecasters are estimating a 75 percent chance of M-class solar flares and a 30 percent chance of an X-flare from big sunspot 1429, which emerged on the Sun on March 2 and is estimated to be at least four to five times larger than Earth. The active region is slowly turning to face Earth, so if any such eruptions do occur, they are increasingly likely to be geoeffective. Forecasters say there is a 30-40 percent chance of polar geomagnetic storms through the rest of the week. The 1429 sunspot region continues to be quite active since it emerged on March 2, and scientists are predicting it will spew more flares as the week goes on.

When a CME hits the Earth's atmosphere -- approximately 72 hours after exploding on the Sun -- the low bands will be depressed and signals will be weaker the lower the frequency. The absorption rate will be most severe on 160 meters, less on 80 and somewhat better on 40 meters. The maximum usable frequency (**MUF**) -- the highest frequency by which a radio wave can propagate between given terminals by ionospheric propagation alone, independent of power -- will be lower and auroral propagation on the VHF bands is quite possible.

When aurora occur, the electrons hit the ionosphere at the North and South geomagnetic poles, creating ionization. Waves that would normally travel off into space are bouncing off the aurora and being redirected back toward Earth. This can create opportunities for long-distance propagation via VHF and UHF.

VHF operators greet CMEs as a welcome opportunity for unusual, enhanced propagation. "CMEs can trigger the Aurora Borealis," explained ARRL Contest Branch Manager and VHF aficionado Sean Kutzko, KX9X. "If the aurora is intense enough, you can use it as a 'wall' to bounce signals off of on 6 and 2 meters -- and sometimes higher. If you have a beam on the VHF bands, point it north (or south, if you're in the Southern Hemisphere) and listen for strange-sounding signals."

Kutzko noted that aurora can cause audio signals to become very distorted: "On 6 meters, SSB signals become quite difficult to understand, and on 2 meters, it renders sideband practically unusable. CW is the preferred mode of communication during an aurora opening. Even so, the pure tone of a CW signal becomes distorted as well, reducing the pure 'beep' tone to a whisper-like 'pffft.'"

Active Sunspot Region 1429 Produces Solar Flares, Coronal Mass Ejections continued ...

In 2013, solar activity levels are expected to peak with the next solar maximum within the 11-year solar activity cycle. "We now know how powerful space weather can be and how events that begin on the surface of the Sun can end up wreaking havoc here on Earth," said SWPC Director Tom Bogdan. "This is why NOAA has a Space Weather Prediction Center -- to forecast when space weather is coming our way, so we can avoid or mitigate damages. We're coming up to the next solar maximum, so we expect to see more of these storms coming from the Sun over the next three to five years."

Thought for the day ...

"If you want to lift yourself up, lift up someone else."

- Booker T. Washington

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Please bring any articles you'd like to have in the next meeting. If you are unable to attend, have a friend bring the information to the meeting for you, email it to me at the above address or feel free to fax it to my work at the above number.

Thanks to everyone for the articles submitted to make the LED a success.

March 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3 LARK Breakfast 8 am The Grand River Grill
4	5	6 Skywarn Training 7 pm Hamburg Fire Station	7	8 LARK Meeting 7:30 pm Howell EOC	9	10
11	12 Severe Weather Awareness Summit Lansing \$\$	13 VE Testing 7 pm Howell EOC	14	15 LARK Board Mtg 7:00 pm Teleconference	16	17 LARK Breakfast 8 am The Grand River Grill Crossroads Hamfest
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Future events:

April & May meetings held at the Livingston EMS base location on Burkhart road, co-located with the LETS garage.

Dayton Hamvention, May 18th – 20th

Detroit Maker Faire, Saturday & Sunday, July 30th & 31st, 9:30 am – 6pm both days

April 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7 LARK Breakfast 8 am The Grand River Grill
8	9	10	11	12 LOCATION CHANGE! LARK Meeting 7:30 pm <i>Livingston EMS/ LETs Garage</i>	13	14
15	16	17 VE Testing 7 pm Howell EOC	18	19 LARK Board Mtg 7:00 pm Teleconference	20	21 LARK Breakfast 8 am The Grand River Grill
22	23	24	25	26	27	28
29	30					