



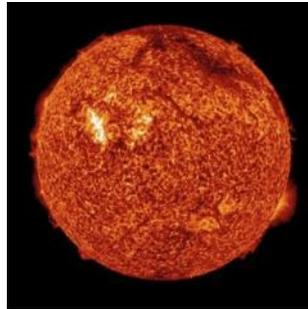
The Feedline

Active Sun Could Cause Havoc on Earth

From ARRLWeb, 8/2/10

It was quite a busy weekend for our Sun. During the late hours of Friday, July 30, a magnificent coronal mass ejection (CME) billowed away from the eastern limb of the Sun; the source of the blast was apparently sunspot 1092. On Sunday, August 1 at approximately 0855 UTC, Earth-orbiting satellites detected a C3-class solar flare, and again, the blast came from sunspot 1092. At about the same time as the solar flare, an enormous magnetic filament erupted, stretching across the Sun's northern hemisphere, a complex global eruption involving almost the entire Earth-facing side of the Sun.

According to NASA, if a CME like this hit Earth, polar sky watchers would likely see bright auroras. In this case, however, the cloud is not aimed in our direction. At most, it would deliver a glancing blow to Earth's magnetic field around August 2, producing only minor geomagnetic activity. Future CMEs could be more geo-effective as the sunspot turns to face Earth in the days ahead. Auroras are glowing, dancing curtains of light that appear in the upper atmosphere of a planet and are caused by the interaction between the planet's magnetic field and charged particles from Earth's magnetosphere.



High speed coronal mass ejections produce major disturbances in the solar wind. Often loop-like in appearance, CMEs rise as massive clouds of material from the solar atmosphere. Dangerous, high energy, charged particles are often produced in these disturbances and, when they are directed toward Earth, often produce large magnetic storms in the magnetosphere.

A solar flare is an explosion on the Sun that happens when energy stored in twisted magnetic fields (usually above sunspots) is suddenly released. Flares produce a burst of radiation across the electromagnetic spectrum, from radio waves to x-rays and gamma-rays. Scientists classify solar flares according to their x-ray brightness in the wavelength range 1-8 Angstroms. There are 3 categories: X-class flares

Continued on Page 8

Upcoming Program

Brian DeYoung, K4BRI, will be presenting a program on **Radio Direction Finding** (aka "Fox hunting") at the next meeting of the Northern Kentucky Amateur Radio Club. Brian is an expert in this field, so you won't want to miss this! Please join us at 7:30 p.m. on **Monday, August 9**, at the [Hilltop Church of Christ](#) in Taylor Mill.

The deadline for submissions for the September Feedline is **Saturday, Sept. 4**.

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Dates to Remember:

- Aug 9 – NKARC membership meeting
- Aug 15 – [ARRL Rookie Roundup](#)
- Aug 28 – [Ohio QSO Party](#)
- Sep 11 – [Ohio State Parks on the Air](#)
- Sep 13 – NKARC membership meeting

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NKARC Net: Tuesdays, 8:30 PM on the 147.255 repeater

VE Testing: Testing sessions are held by appointment only on the 2nd Monday of each month, prior to the NKARC membership meeting. Testing begins at 6:00 pm. To make an appointment, contact Lyle Hamilton at ab8sh@arrl.net or tel. 513-315-4032

NKARC Web Site: <http://www.k4co.org>

NKARC Membership Meetings: 2nd Monday of each month at 7:30 pm at the [Hilltop Church of Christ](#), 5300 Taylor Mill Rd (Ky. 16), Taylor Mill, KY. Visitors are always welcome!

The Feedline is published monthly by and for the members of the Northern Kentucky Amateur Radio Club. It is distributed via direct email to current NKARC members. **If you are a member in good standing but are not receiving your copy, please notify the Feedline editor.** Permission is hereby granted to any non-profit amateur radio group to quote or reprint from this publication provided appropriate source credit is given. Submissions, ad-

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Top of the Tower

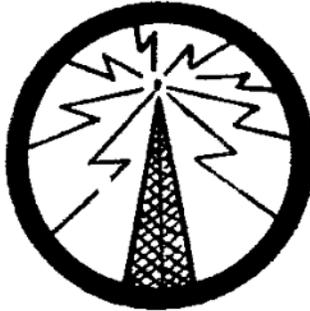
Using your license

How did you get your license? For most of us, it started with some interest in the world of electronics and radio or maybe emergency communications. Eventually, you heard about Amateur Radio – discovered all of the neat facets and learned about all of the fun things you can do. And, of course, how it can be used to assist with emergency communications and help save lives – from weather spotting to disaster support. It is an amazing hobby for sure.

After you studied, took about as many on-line exams as you could stand, you finally took the actual test and passed it! You were a licensed Ham Radio operator!!!! You purchased a radio and off you went. But, then what? After talking on the repeaters, what else is there? Did your interest wane a bit?

As one of my Martial Art instructors told me several years ago, interest in anything is like the ocean tides – at times, tides are high and coming in. Other times, they are low and fading out. Of course, the tides change from high to low and back again – as do our interests. Ham radio is no exception.

One way to get recharged is to discover a new aspect of the hobby. Maybe it is building new antennas and seeing what they can do. Maybe it is a new mode such as [satellites](#) or packet APRS. Or, maybe something like [Radio Direction Finding](#) (RDF) is the ticket. This doesn't mean you have to spend a lot of money in new radios or other such things. You can home brew many projects – from antennas to sound card interfaces. Or, you can find new ways to use your existing equipment and hone your radio skills. Did you know that most, if not all, weekends have some kind of contest and / or Special Event going on? What's neat about these is that you can have quick contacts and get some QSOs under your belt, or find an event that you can rag chew with other Hams and talk for hours on end. And, with Cycle 24 finally making some headway, 10 meters is finally opening up a bit. Did you remember that all Hams now have access to SSB on 10 meters?



A great way to get your feet wet in trying out contests is the new ARRL [Rookie Roundup](#). Designed for the new Hams among us (licensed less than 3 years), it offers an opportunity to get on the air! If you have HF or can work 6 meters – many HF radios today have 6 meters, 2 meters, and sometimes even 70cm, so you may already have the radio at your disposal – you are all set! (For those Hams licensed over 3 years, you are still welcome to join in the fun! Everyone can participate in the event). Only have VHF / UHF equipment? That's OK too – there are many VHF and UHF contests and events that you can participate in (including our very own Halloween Haunt)! The ARRL UHF contest is coming up on August 7-8 and the North American QSO Party is coming up on 8/21-8/22 which includes both VHF and

UHF operations. (It was during that contest a couple of years ago that I had my first Aeronautical Mobile contact. I called CQ on 146.520 and walked away with a really cool contact – on FM to boot!)

We have a link on our web site to the ARRL Contest Corral where you can find all kinds of information about the various contests going on. Check it out! You may be surprised at what is going on even as you read this.

[Another great web site for learning about upcoming contests is <http://www.hornucopia.com/contestcal/weeklycont.php> — Ed.]

So, if you have some dust on that radio and the tide has gone out, maybe it is time to blow off the dust and try something new. Hey, maybe you can even contact the Space Station! There is just so much available to us, the hardest part may be deciding which thing to try next.

Hope to catch you on the air soon.

73 for now,

Robert Kluck – N4IJS

June Meeting Minutes

MINUTES OF THE JULY 12, 2010 MEETING OF THE NORTHERN KENTUCKY AMATEUR RADIO CLUB

- Meeting called to order – 1935
- Allegiance to the Flag / Roll call
- One candidate passed their exam and became a General – congrats!
- Approval of minutes from last meeting:
 - Motion to accept: Tony, AI4IP
 - Second by: Robert, AK3Q
 - All in favor: All
 - All opposed: None.
- Business
 - Field Day recap – successful! Everyone who wanted to operate was able to. ~470 contacts, 110 CW, rest SSB.
 - Paddlefest recap – Participation was the largest ever. They even made money this year. (More information will be available after their August meeting). They have also moved to a new office, which will make organization easier than in the past. Next year the event will be their 10th anniversary and should be a huge deal. The date is 6/25/2011.
 - Fund raising update.
 - LaRosa buddy cards. There are two options. Two weeks to sell cards or \$500 up front to buy 100 cards. (The expiration date is approximately one

- year after purchase).
- Board to discuss options and report back in the next meeting.
- DF Championships – 37 competitors from around the world. While the weather did not cooperate, the event was fun! There were winners in all kinds of different brackets.
- Club gave check to church for using building. Total of the check was \$100.
- Nominating committee – to be discussed in more detail next meeting.
- VHF SSB net will be put together. More information forthcoming... Stay tuned!
- Looking at putting more specific contest information per weekend on our web site.

- Other information
 - Please remember our Net Contest is running again this year. Join the Net every Tuesday for your chance to win the prize this year!
- Adjournment
 - Motioned by: Tony, AI4IP.
 - Seconded by: Lynn, WD8JAW
 - Meeting adjourned at 1940.

Respectfully submitted by Robert Kluck, N4IJS

July NKARC Net Report

By Robert Kluck, N4IJS

DATE	NCS	CHECKINS	TIME (MINS)	TRAFFIC
July 6	AJ4DK (Don)	12	31	0
July 13	KB4VKS (Mike)	10	29	0
July 20	KB4VKS (Mike)	12	10	0
July 27	KB4VKS (Mike)	12	25	1
TOTALS:		46	95	1

Mark's Mutterings

An Ode to The Shack

No, not *that* shack — the shack that I have in mind is the one with the big red sign out front that is still found in malls across America. I recently stumbled across an [article](#) in Wired magazine titled *The Lost Tribes of RadioShack: Tinkerers Search for New Spiritual Home*, that started me on a very nostalgic trip down memory lane.

Radio Shack

The first Radio Shack I can remember visiting was on Dundas Street in downtown London, Ontario, circa 1973. I was in high school, and when classes ended in the afternoon I would wander down to this store to kill time while waiting for a ride home with my Dad, who worked on a construction site nearby.

One of my earliest purchases was the Science Fair 150-in-1 electronic project [kit](#). One of the projects I remember building was a low-power AM transmitter. I got a real kick out of fooling my family with my “broadcasts” from my bedroom.

It was around this time that I became quite interested in shortwave listening, and acquired the [first](#) of many receivers from Radio Shack. This was one of their popular “[P-Box](#)” kits. To this day, I can vividly recall the smell of melting red polystyrene when I got a bit too careless with my soldering iron! I soon upgraded to their [Globe Patrol](#) kit, and over the next couple of decades also acquired the Realistic [DX-160](#), [SX-190](#), [DX-302](#) (what a dog that one was!), and [DX-440](#). I still own the SX-190 and DX-440, though my Elecraft K3 with general coverage receiver is far superior to either of these.

Radio Shack never had the lowest prices on components, but they sure were convenient when you didn't want to wait a week for a part to arrive by mail! Many of the projects I built came from Radio Shack's “Engineer's Notebook” by [Forrest M. Mims III](#). My dog-eared copy still sits in a place

of honor on my bookshelf. Some stores still carry a surprisingly wide assortment of components (who buys them these days??), though now they are usually hidden away in drawers.

One of Radio Shack's more popular marketing ploys was their “Free battery-a-month” card. If there were several stores in your town, you could almost meet all of your battery needs this way.

Radio Shack always carried a wide assortment of audio gear, and they would package their stereo systems as “good”, “better” and “best”. There was usually one day in the year when they would offer a 20% discount on all store items, and I would patiently await this sale before making any major purchases.

When their annual catalog came out, I would spend hours scrutinizing it from cover to cover to find out about the latest advances in consumer electronics (this is how we did things in the pre-internet days!). One the biggest advances to come along was of course the personal computer. In late 1977 Radio Shack introduced the [TRS-80](#). I was attending community college and could not afford one, but in a stroke of amazing luck, the manager of the local store asked me to try selling them to local businesses and provided me with a demo unit! Well, I turned out to be a better programmer than salesman, and I eventually had to return it, but I had a lot of fun playing [MicroChess](#) and other games on it in the meantime.

I must not be the only person with a soft spot for Radio Shack: Somebody has gone to the effort of scanning almost every catalog they ever issued and made them available on the web: <http://www.radioshackcatalogs.com/>

I waited until the end of my column to provide this link, because I expect that many of you will now get lost on your own trips down memory lane. Have fun!

73,

Mark Volstad, AI4BJ

Weaver's Words

Summertime (phew!)

Jim Weaver, K8JE
Great Lakes Division Director, ARRL
E-mail: k8je@arrl.org; Tel.: 513-459-0142

The New ARRL Web Site

The main construction of the new ARRL Web Site is complete. Most features from the old site are now available on the new site. We are now mainly in the phase of tweaking to get it the way we want it to be.

There is no question that the site has had a bumpy introduction. Compared with most other sites on the Internet it is huge and was a substantially bigger job than anyone anticipated. In addition to the bumpy introduction of the site, we users are going through a developmental stage as we adapt to new forms, locations and presentations of information. This acclimatization we are going through and the tweaking of the site will continue for an additional period of time; a period that we hope is relatively short.

I will not attempt to sugar-coat the situation by saying everything has proceeded just as planned and on schedule. It hasn't. On the other hand, we will end up with a web site that is much more appropriate for the leading technical organization ARRL is than we previously had. For one thing, it will present Amateur Radio in a much more positive light to young people than did our old site.

So, what can we all do to help get the task at hand finished as quickly and smoothly as possible? Ranting about problems is not helpful and draws focus from real issues. We have a technical situa-

tion.

Technical situations are seldom solved by becoming emotional. The best way to resolve situations with the new site is to remain calm and report them in a helpful manner.

What is helpful is to report where you were (the internet address or page name), where you wanted to go and specifically what you did to get there (e.g. clicked on link XYZ). Include the message you received after you got wherever you ended up and its internet address. Report this information to

Katie Glass, KB1ULQ at kglass@arrl.org. Doing this will give Katie the information needed to get the problem fixed by the correct person in the shortest possible time.



ARDF Championships Successful

Congratulations to Dick Arnett, WB4SUV of Erlanger, KY and Bob Frey, WA6EZV of Cincinnati on a very successful 10th Annual US ARDF Championships. In spite of considerable rain during the weekend, the Championships hosted amateurs and future amateurs from four foreign countries as well as 15 US states. Contestants ages 12 and up converged on the Franklin, OH area in Southwest Ohio for two days of pre-competition training and two days of competition.

Winners in the US Championships from the Great Lakes Division are: Men and boys 2 meters — Addison Bosley, KJ4VCV, of Erlanger, Kentucky, first in category M19 and Matthew Robbins, AA9YH, of Cincinnati, Ohio, first in M40. Addison also won the category in 80 meters.

Relative to ARDF contests, ARRL Chief Financial

Officer, Barry Shelley, N1VXY is investigating “ways that (insurance) coverage can be secured by the sponsors of such events.”

ARRL Board Meeting

The second yearly meeting of the ARRL Board of Directors for 2010 was a good one. In addition to addressing a number of pieces of routine business, there were very serious and deep discussion of non-routine topics. My takeaway from the meeting is that I believe it will prove to be one of the most significant in years.

Minutes of the meeting can be found at <http://www.arrl.org/files/file/About%20ARRL/Board%20Meetings/2010%20July%20BOD%20minutes%20FINAL.pdf>.

Ohio Section Manager Election in Progress

As I mentioned last month, election for Ohio Section Manager is in progress. Ballots for the election were sent by Second Class US mail. All active members of record in Ohio should have received their ballot by now; however, please allow another week for it to arrive, just in case it was slowed in the mail.

Ohio QSO Party

The Ohio QSO Party is from 1600Z August 28 to 0400Z August 29. Full information and rules are on its web site, <http://www.ohqp.org/>.

W8TM wins Wisconsin QSO Party

Paul Kirley, W8TM of Cincinnati walked off with a winner's plaque for his effort in the 2010 Wisconsin QSO Party. Paul was the winner of the Single-Op, Out-of-State category. Tom Hain, KV8Q of Galloway, OH copped 5th Place in the same category.

The Party was March 14-15. Paul made 157 CW, and 43 phone contacts with 58 Wisconsin counties. Nice jobs, Paul and Tom. Tnx to Jim Barrie, WA8SDF for the information.

Who says life is too short for QRP?

Want a Speaker for an Amateur Radio Convention?

ARRL-affiliated groups that would like speakers for an event should contact your Section Manager or me. In addition, speakers may often be obtained from League HQ for conventions and very special occasions. To request a speaker from HQ, please send a request to Gail Iannone, Hamfest and Convention Coordinator at giannone@arrl.org. Please copy me on the request.



This Month's Final

I am extremely pleased to be able to say that ARRL Vice President and friend, Rick Roderick, K5UR of Little Rock, Arkansas has achieved Fred Fish Memorial Award FFMA) No., 3. This award is given to amateurs who have confirmed two-way 6 meter contact with each of the 488 grid squares in the Continental US. Confirmation of Rick's 488th grid square was received at HQ July 28.

FFMA No. 1 was awarded to Fred Fish, W5FF (SK) posthumously in January 2008 when the award was established by the Board of Directors. Fred became a Silent Key in 2005. The award was presented to his widow, Lee Fish, K2FF an award-winning VHF/UHF operator, herself. Pat Rose, W5OZI of Junction, TX nosed out Roderick for FFMA No. 2 when his final grid square was confirmed July 8, 2010. It appears to be a pretty good year for 6 M.

More information on the Fred Fish Memorial Award can be found on the ARRL web site at <http://www.arrl.org/ffma> .

73,
Jim

Tentative Travel, Hamfest and Activity Schedule

Hamfests in the following list have received ARRL sanctioning as of press time. Hamfests and other events for which a Great Lakes Division representative is scheduled to attend are identified with the representative's name. The schedule can be expected to be fine-tuned from time to time.

Patronize ARRL-sanctioned hamfests. Hamfests, conventions, symposia and similar events sponsored by ARRL-affiliated clubs may be eligible to be sanctioned by the League. For information on sponsoring and sanctioning a hamfest or convention, go to www.arrl.org/hamfest-sponsor-support. To have your hamfest sanctioned, go to <http://www.arrl.org/hamfest-convention-application> to apply on line. Hamfests are already being sanctioned for 2012!.

Support our Division hamfests and swaps:

7 Aug: UP Hamfest, Escanaba, MI
7 Aug: Voice of Aladdin ARC, Columbus, OH - Jim
8 Aug: Seaway Trunk Swap, Port Huron, MI
15 Aug: Warren ARA Hamfest, Cortland, OH
15 Aug: Central KY Hamfest, Lawrenceburg, KY - Jim, John
15 Aug: Lapeer Swap & Shop, Lapeer, MI
21 Aug: SARA Inside/Outside Trunk Sale, Owosso, MI
22 Aug: Cambridge Hamfest, Cambridge, OH
25 Aug: Directors webinar - Jim
26 Aug: Summit Co. ARES Mtg., Akron, OH - Jim
11 Sep: Greater Louisville ~fest, Shepherdsville,

KY

11 Sep: GRAHAM fest, Wyoming, MI
12 Sep: Findlay Hamfest, Findlay, OH - Jim, John
18 Sep: Central KY ARES Hamfest, Richmond, KY - Jim, John
19 Sep: Greater Cincinnati ARA Hamfest, Cincinnati, OH - Jim
19 Sep: Adrian ARC Hamfest, Adrian, MI
22 Sep: Directors webinar - Jim
26 Sep: Cleveland Hamfest, Cleveland, OH - Jim, John
16 Oct: Ohio Section Conf., Columbus, OH - Jim
16 Oct: Great Lakeshore Super Swap, Holland, MI
17 Oct: Kalamazoo Hamfest, Kalamazoo, MI
27 Oct: Directors webinar - Jim
30 Oct: Hazard Hamfest, Hazard, KY
31 Oct: Massillon Hamfest, Massillon, OH
6 Nov: Grant ARC Georgetown, (OH) Hamfest
20 Nov. A&F Meeting, Newington, CT - Jim
24 Nov: Directors webinar - Jim

Active Sun, cont'd from Cover

are big; they are major events that can trigger planet-wide radio blackouts and long-lasting radiation storms. M-class flares are medium-sized; they can cause brief radio blackouts that affect Earth's polar regions and minor radiation storms sometimes follow an M-class flare. Each category for x-ray flares has nine subdivisions (C1-C9, M1-M9 and X1-X9). Compared to X- and M-class events, C-class flares are small with few noticeable consequences here on Earth.

According to Spaceweather.com, the timing of these events suggests they are connected, and a review of movies from NASA's Solar Dynamics Observatory ([SDO](#)) strengthens that conclusion. Despite the ~400,000 km distance between them, the sunspot and filament seem to erupt together; they are probably connected by long-range magnetic fields. In [this movie](#) (171 Å) from SDO, a shadowy shock wave (a "solar tsunami") can be seen emerging from the flare site and rippling across the northern hemisphere into the filament's eruption zone. That may have helped propel the filament into space.



The 2nd Annual NKARC



Halloween Haunt Sprint



Information coming soon...

Get ready for a Hauntingly Ghoul time!!!!

Return to:
Northern Ky. Amateur Radio Club
P.O. Box 1062
Covington, Ky. 41012

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