



# MACON COUNTY ARC NEWSLETTER

OCTOBER 2017

Dale Bagley KØKY Editor

**THE NEXT MACON COUNTY AND MACON AREA REPEATER MEETING WILL BE HELD THURSDAY 7:00 P.M. OCTOBER 26<sup>TH</sup> AT THE MACON CITY COMMUNITY DEVELOPMENT BLDG. NEXT TO BEN FRANKLIN IN DOWNTOWN MACON**

## 2017 Macon County ARC Fall Picnic



There were 15 Radio Club members and guest at this year's Fall Club Picnic. The Food was outstanding and there were even a few Radio QSOs to make the evening complete. One of the only issues was the sun disappeared before we could get the antenna and tower down. Dave Krueger, ABØDK, and Matt Chambers, NRØQ, operated Larry Ballew, ABØHP's Kenwood Radio and G5RV antenna and made some contacts. Matt logged the contacts with his computer and Mel, AAØRV, took some pictures of all the activities. Charles, WBØHLW, put up a tarp as a wind break, cleaned up the site and brought some needed Table Cloths. Curtis, KEØBCO's XYL won the prize for the best Baked Beans according to Todd Anderson, AKØAK, a well-known HAM and Bean expert. Larry Ballew, ABØHP, did a great job cooking the brats and burgers and held a brief Business Meeting during the dinner.



## WØD – 2017

The 2017 Lester Dent – Doc Savage Special Event is history. All that remains is the QSLing with those contacts that want a certificate or QSL card.



Rex, KEØMHJ, Matt, NRØQ, Larry, ABØHP, and Jesse, KDØETU raising tower and G5RV antenna.

There were 9 Club Members at the Special Event Site this year. In addition to the Antenna Crew, we had Larry, KØARS, Joe, NØWPI, Dave, ABØDK, Ralph, WD6BGN, and Dale, KØKY. Even with lots of QRM from QSO Parties and Solar minimums, we made quite a few contacts. So far we have 224 contacts including 153 contacts made by Rex, KEØMHJ, using FT 8 digital mode.

If you want to have a little more information about FT 8, check out the link below which provides a simple overview of the mode.

<http://www.arrl.org/news/ft8-mode-is-latest-bright-shiny-object-in-amateur-radio-digital-world>



### CLUB LICENSE UPDATE

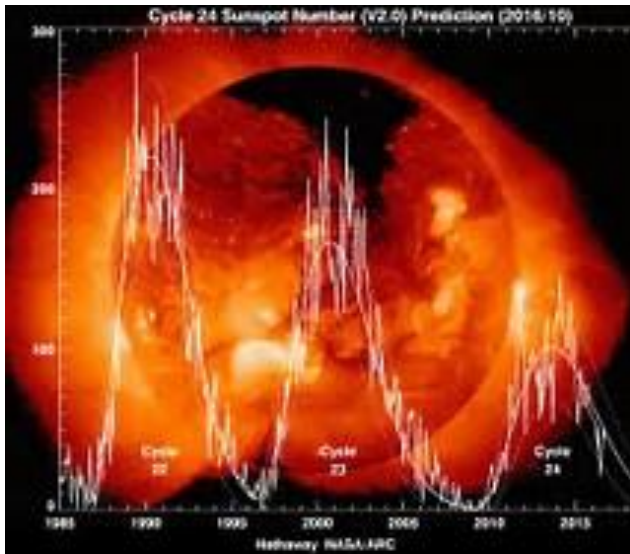
The Macon County Amateur Radio Club, NØPR, License has been renewed. It will expire December 3, 2027. The Custodian is Dale Bagley, KØKY, whose license expires on 11-4-2016. The renewal was done through the ARRL Volunteer Examination and is one of the perks of being an affiliated ARRL member. It cost nothing and it was very simple to do.

The WBØZOL, Macon High ARC License was also renewed until December 21, 2027, and will be available for the School Radio Club for the next 10 years.

in the Atmosphere has an effect on path of electromagnetic traveling through those ionized atmospheric layers. We all remember them as D region, E region, F<sub>1</sub> region and F<sub>2</sub> region if listed from the lowest ionized layer to the highest ionized layer.

**Solar Flux**, is the measurement of the amount of radio noise or flux emitted by the sun at a frequency of 2800 MHZ. This number is reported daily by the Penticton Radio Observatory located in British Columbia, Canada. Solar flux ranges from a low of 50 to a high of 300 (Solar Flux Units) A low number means that the Maximum Useable Frequency (MUF) will be low and over all conditions will be poor. Even when the Solar Flux increases it takes some time for conditions to improve on higher frequencies.

**K index and A index** are used to measure the level of geomagnetic activity. The K index is measured every day at 0000 UTC in three hourly observations using calibrated magnetometers. The deviation from the "quiet day" can be mathematically manipulated the K index calculated for every location of observation. The K index is quasi logarithmic and can't be averaged to provide a longer term view of the earth's magnetic field. The ap index is a measure of the general level of geomagnetic over the globe based on the K index measured at 11 sites in the Northern Hemisphere and 2 in the Southern Hemisphere. This makes it possible to develop the A<sub>p</sub> index which is a daily index determined from eight ap index values.



### SOLAR CYCLE 24 UPDATE

The sun is really important to HF communication and how it effects radio signals changes as the result of activities on the sun's surface. In an article in QST Sept. 2002, Ian Poole, G3YWX provided a lucid explanation of how to understand the meaning of three of the Solar indices. Those are Solar Flux, A<sub>p</sub> and K<sub>p</sub>. The atmosphere becomes ionized from radiation and particles emitted from the sun. That increases when the sunspots are present. The ionized layers

THE GENERAL RELATIONSHIP BETWEEN A and K VALUES		
A	K	Comments
0	0	Quiet
2	1	Quiet
3	1	Quiet
4	1	Quiet to unsettled
7	2	Unsettled
15	3	Active
27	4	Active
48	5	Minor storm
80	6	Major storm
132	7	Severe storm
208	8	Very major storm
400	9	Very major storm