The Alabama Historical Radio Society Newsletter

June 2011

A NOTE FROM PRESIDENT DEE

Good things are happening down at the bank building. And, it's about time that I stopped calling it the bank building. From now on, I will refer to it as the "shop", cause that is just what it is.

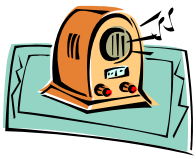
We have successfully found a good site with our highly directional yagi antenna. Dave and I spent several hours fine tuning the signal and this past Saturday we managed to get over 5 mbps on the speed test. That's Great!!! We still have cat5 cable all over the floor, but as soon as we get some work parties organized, that will be fixed. Just one minor problem, we don't know who we are getting the WIFI from. So if there are any computer gurus out there, we would welcome your helping us identify what site it is.

Joe Minor has found some good videos on YouTube that will help you with radio repairing. The video is very good and shows you step-by-step just how the signal goes through a superhet receiver. I know you will enjoy watching them. So here they are:

http://www.youtube.com/watch?v=oHMbrXRi3Uw&feature=feedu this is a TRF radio.

http://www.youtube.com/watch?v=i5vNJukkOCE&feature=feedwll this is a superhet.

Dee Haynes
243-4630 or k4hfx@bellsouth.net



LISTEN TO THE RADIO!!

Hello folks,

As I said in my last letter, I think I'll listen to a few Henry Aldrich shows. And, so I did. Instead of digging them out of my collection, I just went to http://www.archive.org/ and typed Henry Aldrich in the search box and found 97 episodes. When I am "piddling"

around on the computer, I just let the show run in the background. Life Is Good! By the way, a little Henry Aldrich goes a long way. Don't think I can sit through all 97 shows.

See you soon,

Dee Haynes
243-4630 or k4hfx@bellsouth.net

NOTE FROM DAVE CISCO

The article below is the third part of a four-part article for the newsletter, which was written by well-known author and photographer, Joe Veras. Joe has written several books, written for ***CQ*** and ***QST*** Magazines, and is on the ARRL publishing staff. He recently produced a calendar of old radios for ARRL and included a Tuska radio that AHRS owns. I am proud to have him contribute to our newsletter.

JAMES MILLEN – Part Three

By Joe Veras, K9OCO

Despite his success at making the National Company a major player in the amateur and commercial/government shortwave markets, James Millen did not always see eye-to-eye with the businessmen running the company. Compromise was not a concept he willingly embraced, whether it was in engineering standards or component and manufacturing quality.

For as long as he could, Millen held the line on using consumer-level, broadcast receiver components in National's short wave sets. He said, in print advertising, those were, "For the other manufacturers." He was apologetic in the same medium when his company introduced the entry-level NC-44, saying (in National's full-page *QST* ad), "We miss the usual thrill that comes when we add a new receiver to the National line, because we have had to cut corners for the sake of price." The set used a broadcast-type tuning capacitor, iron-core I.F. transformers, and less expensive coils than one would expect in a National receiver.

Nevertheless, there were bright spots in the National product line during the company's final years under Millen. The HRO continued to be developed and refined. With the NC-100 and its successors, the moving coil catacomb technology was introduced. Millen felt that a receiver could not be both high-performance and at the same time employ band switching. The moving coil device was an electro-mechanical way around this problem.

A super regenerative VHF receiver, the 1-10 (so-named because it covered wavelengths from 1 to 10 meters) was introduced in 1936. A National oscilloscope, the CRO appeared in 1934, followed by a CRM model three years later.

Known mostly for its receivers, the company brought out the NTX-30 transmitter in 1938. The crystal-controlled, 30 watt CW rig covered 80–10 meters. An optional and separate speech amplifier/modulator put it on AM phone. A lower-power NTE exciter including the speech amp/modulator on the same chassis followed. National also marketed a 600 watt phone and CW transmitter. The RF buffer stage, modulator, and power supplies were mounted together in a tall, floor-standing rack. These components were driven by the NTE exciter. This big transmitter is a rare item today and only a few National collectors can boast of one in their inventory.

Few things created during the Millen years at National could were more of a signature or legacy than the PW dial that graced the front panel of the HRO and several other receivers. In an era when individual ham bands on some competing receivers occupied only a few inches or less of dial calibration, the PW gave an effective 12 feet of band spread. Its 0 to 500 scale allowed accurate and repeatable frequency setting. A graph affixed to each coil set supplied frequency readout. Millen was schooled as a mechanical engineer and the PW dial is a mechanical masterpiece. It was even incorporated into the National's logo for a time.

One of the factors hastening Millen's departure from National in May of 1939 was a desire from the company's leadership that it enter the consumer electronics market. Millen felt that market was shabby territory for his ideas and ambitions.

The other thing that helped send James Millen on his way had nothing to do with radio and everything to do with business. Some officers of the company worked its finances in such a way as to maximize their own returns while minimizing Millen's. For him, that was enough. June, 1939 ***QST*** carried a simple, full page announcement that James Millen had withdrawn from the National Company in order to establish a new firm.
The next installment concludes this series with a look at the James Millen Manufacturing Company.

Satellite Building on the Plains

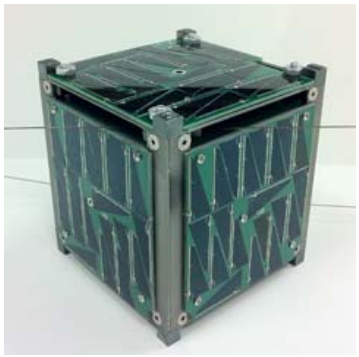
As many of you have probably heard, I'm working down in Auburn this summer. I'm building AubieSat-1, Auburn's (and the state of Alabama's) first student satellite. AubieSat-1 is a small 10cm cube with solar cells covering all sides. Its mission is very basic: to test the durability of solar panel coatings. It will relay the information back to our ground station in the 70cm band.

We have encountered several problems with the electronics, and with some luck, I was able to fix a few of them. Our primary receiver was not working at all, and it turned out there was a short from a solder blob. Then I noticed a few components were in the wrong place. Finally, it started receiving a bit better. However, the serial decoder wasn't decoding. It turns out that for whatever reason, a resistor was installed which never should have even been in the circuit from the first place. After shorting it, everything began working as expected.

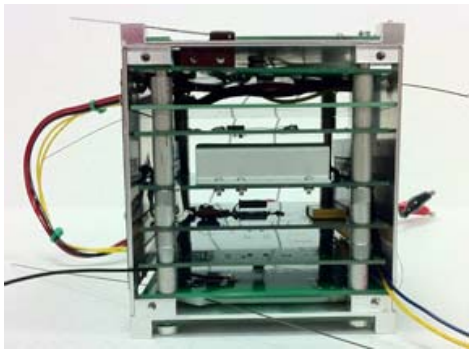
All in all, the building process is going very well. To date, we have finished assembling 14 circuit boards, all of which will be functionally tested prior to integration. Hopefully we have worked out the majority of the problems through earlier testing. I will be going to California on June 20th to give a presentation on our satellite with two other students and our advisor. We are scheduled to hand over the satellite to California Polytechnic State University (Cal Poly) on July 25th, and we expect to see the launch on the 25th of October. As soon as we hand it over and finish celebrating (after all, this satellite has been nearly a decade in the making!), we will start planning for AubieSat-2.

I haven't had a whole lot of time for ham radio unfortunately. I work from 9:00am 'til 5:30pm or so every day, and I start an hour earlier on Mondays. The condo I am currently living in is not conducive for hanging an antenna, so I may have to work something out in order to get back on the air. I am planning to be back up to Birmingham in the next few weeks, so I hope to see you guys then!

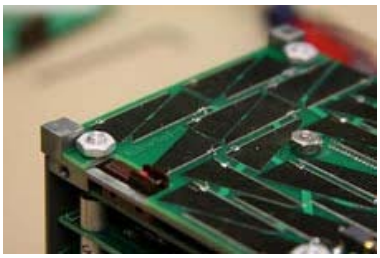
Kyle



Aubiesat 1



Aubiesat1 Open



Uncoated

MEETING TIMES

We meet nearly every Saturday of the month at 09:00 AM in the one-story building at the corner of 8th Avenue North and 18th Street (1801 8th Avenue North, Birmingham, AL 35203). Use the rear (Southeast) entrance.

Come to the Monday Night Meetings, TOO, on the 4th Monday of the month at 7 PM!

FREE ELECTRONICS CLASSES

The first Saturday of the month, there are electronics classes free to members. Topics include test equipment, Resistors and Capacitance testing, Inductors and coil winding, to name only a few subjects!

We hope to see you there!

DUES ARE NOW DUE

Membership dues are $25 a year, payable beginning in January. If you have questions about your dues, you can contact Tom at 205-967-7000.

Dues can be mailed to AHRS @ P.O. Box 131418, Birmingham AL 35213.

WHO TO CONTACT

President – Dee Haynes
243-4630
k4hfx@bellsouth.net

Member and Instructor – Robert Frye
205.631.6680
RLF100243@aol.com

Web site – Bob Lovell
bob@dixiewebdesigns.com

Web Address:
http://alhrs.org

E-mail Address:
ahrs2000@gmail.com

Newsletter – Patsy Desaulniers
patwrite@gmail.com