Natural Radio

News, Comments and Letters About Natural Radio

June 2005

Dayton Hamvention – I just returned from a road trip to the Dayton Hamvention. We weren't able to stay for the whole weekend -- My son Jeff and I drove out early Friday and returned on Saturday night – but we had enough time to see all the exhibits and walk through the flea market. The weather was pleasant, and although a bit cloudy and cool on Friday, it was great for touring the outdoor bargains in the flea market.. On Saturday, the clouds cleared out and it was a perfect day.

It seemed like the number of exhibitors was down a bit, especially in the flea market area, but the crowds were still there, as evidenced by the long lines at lunchtime, and the packed exhibit halls. The major equipment manufacturers were all there showing off new equipment, and the ARRL had a massive display.

As usual, there were no seminars or exhibits relating to VLF or Natural Radio, so as a club, we might want to think about establishing some kind of presence there in the future.

I did see two publications that might be of interest to VLF enthusiasts, published by the RSGB, the Radio Society of Great Britain. There is much interest in VLF there, of course, because of the 136 kHz ham band.

LF Today by Mike Dennison, G3XDV

LF Today is first and foremost a practical handbook. It takes the reader step-by-step through the various parts of the station, explaining the options available and how to avoid pitfalls. With care and a little perseverance, an efficient station can be produced, capable of ranges of hundreds - perhaps thousands - of kilometres, even from a relatively small suburban garden.

Written by the leading authority on LF, Mike Dennison, G3XDV, this book is aimed at those who want to try out this fascinating amateur allocation, but it is also of great value to anyone already active on the band. It contains everything needed to succeed on 136kHz without unnecessary effort.

The Low Frequency Experimenter's Handbook by Peter Dodd, G3LDO

The LF Experimenter's Handbook has been written to meet the needs of amateurs and experimenters who have an interest in low power radio techniques below 200kHz. Most of the techniques described are targeted at those using the 136kHz band, but they are also of great interest to readers in New Zealand and Australia with the 183kHz band and the Lowfers in the USA on 180kHz.

These books are available directly from the RSGB at http://www.rsgb.org.uk/, or from select ham radio book dealers.

I didn't see much used LF gear, although there was some new gear with VLF capabilities. The WiNRADiO Software Defined Shortwave Receiver, which is available on a PCI card or a USB controlled box, will tune down to 9 kHz with good sensitivity. http://www.winradio.com.

Ramsey is now offering a VLF converter kit for $39.95. The unit up-converts to 4 MHz, so a 186 kHz signal would appear at 4.186 MHz on your SW receiver. There is a 7 pole low pass filter on the front end along with an overload resistant switching mixer. The unit is also available pre-assembled. http://www.ramseykits.com

I stopped by the Far Circuits booth and bought a board for the Stokes gyrator tuned VLF receiver for monitoring Sudden Ionospheric Disturbances (SIDS) and a board for the RS-4 receiver. If you are interested in purchasing an RS-4 board, the RS-4 is listed on their website as a "Joe Carr VLF Receiver". http://www.farcircuits.net/.

NASA VLF Balloon Flight – I received the following correspondence from Dennis Gallagher at NASA – here's an opportunity to participate in a VLF experiment.

Sometime in May-July this year we will be flying the INSPIRE VLF receiver previously named "Marina" after the then newborn daughter of Flavio, one of our active VLF researchers in Italy. I hear she is about to turn 10 years old. The receiver will fly on maiden test flight for NASA's Deep Space Test Bed. The flight involves a large gondola and zero pressure balloon that is planned to ascend to 120,000 feet altitude for anywhere from 1 hours to 12 hours flight during the day. It will fly out of Fort Sumner, New Mexico.

Our experiment is a simple one involving students here in Huntsville, Alabama who are members of a Venture Scouting group. They are currently building their own receiver, a VLF-3 provided by the INSPIRE project. They plan to operate their receiver in northern Alabama at the same time as the balloon flight is taking place.

The first window of opportunity to fly open on May 14 and the window runs through into July. Although, if they haven't flown by July, the launch site moves to Palestine, Texas. I hope to have two days notice before a likely launch of the balloon. I will be onsite when it flies and plan to send out a notice to those who are interested at that time, including making available pictures or video when possible.

If you are interested in making observations yourself during the flight and in providing those to the kids here for analysis afterwards, you can drop me a note by email to dennis.l.gallagher@nasa.gov. Of course I'd be happy to share anything the group would be interested in seeing before, during, or after the flight.