Natural Radio

News, Comments and Letters About Natural Radio

August 2005

Finding Information – As a Natural Radio enthusiast, it is important to have up-to-the-minute information on space weather. I have missed out on many active geomagnetic conditions and other events because I got busy and forgot to check the Space Weather. Here's some new developments in Internet and other technologies that will make it easier to be abreast of geomagnetic and solar conditions and not to miss that next geomagnetic storm.

Spaceweather Phone – While the telephone isn't really new technology, the automated systems that can digitally call many callers with a broadcast alert is a new development. Now that I have finally moved into the 21st century and acquired a cell phone, I have signed up for the Space Weather Alerts from spaceweather.com.

I will receive a phone call for X-class flares, when the Kp goes over 7, when there is a CME or a solar radiation storm, or a chance of auroras in my locale. The service is somewhat customizable – I can set the hours during which I want to receive calls and the level of Kp that will trigger a phone call, and what type of alerts I would like to receive. The service costs $4.95 per month. Check out http://www.spaceweather.com for more information.

Spaceweather Phone also offers a Backyard Astronomy Alert service for $6.95 per month that will alert you to meteor showers, space station flybys in your locale, comets, interesting phenomenon concerning the moon and planets, and other unexpected events.

SEC's Email Product Subscription Service – If Spaceweather phone is a little more intense than you need, the Space Environment Center (Part of NOAA/National Weather Service) is offering free email space weather alerts.

There are a variety of products that you can subscribe to, starting with longer term Forecasts, Summaries and Advisories such as Space Weather Outlooks and 3-day Solar Forecasts. For sudden events there are the alerts for Radio Blackouts, Geomagnetic Storms and Solar Radiation Storms. The alerts are customizable and you can set the level of activity that will trigger an alert for each product.

There is a link to this service at the top of the SEC page at http://www.sec.noaa.gov/index.html.

RSS Feeds – RSS stands for *Really Simple Syndication* and is a method to allow people to subscribe to news from a particular website. If you've ever visited a website that has constantly updating news articles from a variety of sources, that listing is probably created using RSS.

What RSS allows you to do is create your own list of news headlines that will automatically download to your computer and be displayed in your RSS aggregator. So rather than visiting 5, 10 or more sites to get news of interest to you, you can subscribe to your favorite news sites and have all the headlines displayed on your RSS aggregator. Then, without opening your Internet browser, you can quickly scan through them and read the articles of interest.

Most readers will also allow you to apply filtering, so that only headlines containing specific key words will be displayed.

While I haven't found any specific Natural Radio RSS feeds yet, NASA has 6 or 7 different news feeds and there are a large variety of science and technology news feeds.

Most RSS aggregators are available as freeware. There are both client side (reader resides on your computer) and server side (you visit a website and configure your own news page) readers. You can find them by searching for RSS Reader of RSS Aggregator on Google. Be aware that some aggregators or services may contain pop-up advertising.

I am using SharpReader, which is a freeware client side aggregator that seems to be free of advertising. It is available at: http://www.sharpreader.net/. SharpReader has a list of RSS feeds built in that you can search through, and then subscribe to the ones of interest.

A list of the NASA RSS feeds is at http://www.nasa.gov/rss/.

Podcasting – Podcasting is built on the RSS protocol -- the term is a combination of the Apple i*Pod* and Broad*casting*. Podcasting simply allows your computer to automatically retrieve audio files, usually in the MP3 format, from sites that you subscribe to. The advantage is that rather than waiting for a streaming audio file to load, podcasts download automatically in the background and are ready to play when you want them. To take the most advantage of this system, you can have your computer automatically load the podcasts into your Apple iPod or other personal digital music player. Then you can listen to broadcasts of your choice while jogging, riding to work, or wherever.

It's easy to create a podcast. All you have to do is record some audio and convert it to an MP3 file and upload it to your website with some simple XML code. Since it is that simple, of course there is lots of garbage and useless rambling out there. Nevertheless, there are many good programs. NASA Science News is available as a podcast, as is Radio Frontier Channel, Science Friday and Universe Today.

If you have iTunes on your computer the latest version will allow you to subscribe to podcasts. There are a variety of Podcast Clients available, most of which are freeware. I am currently using RSS_Radio which is available at http://www.dorada.co.uk/.

Podcasting seems to be a hot technology at the moment and it probably won't be long before more and more information is disseminated in this way.

Konfabulator – When Yahoo buys a company you have a good indication that the technology that they went after is likely a hot item. I had never heard of Konfabulator before (strange name), until I caught a headline in my RSS reader that they had been purchased by Yahoo. I downloaded this now free program and was extremely impressed.

From a technical standpoint, Konfabulator lets you display XML data on your desktop without using an Internet browser. The code for building the "widgets" that reside on your screen is open-source and uses XML and Javascript. So you and I can build these widgets and share them with other users.

From our standpoint, it would be possible to easily build things like a UTC clock, display of local weather radar, and possibly real time space weather data.

The widget at the right shows the Konfabulator display of local weather on my computer. This widget is on my desktop and is continually updated with the local weather.

Describing Konfabulator is difficult. The best way to see just what's available is to download it and play with it a bit. There are many widgets available for download and the list is growing. The program is available for free at http://www.konfabulator.com. Versions are available for both the Mac and Windows operating system.

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The way that we get information is evolving. We looked at some new methods of getting data over the Internet that do not use the traditional browser environment. While there may not have immediate application to the VLF or Natural Radio hobby, they surely will in the future. As we're in this waning part of the solar cycle, take some time to investigate some of these new technologies.

As for myself, I plan to spend some time on Konfabulator this month. Hopefully I'll have some widgets to share by the next issue. I'd like to hear about any widgets that you develop, or about any RSS feeds or podcasts that are useful to you.