Natural Radio

News, Comments and Letters About Natural Radio

April 2004

Our Fleeting Moment of Fame - Let's face it, Natural Radio listening is probably one of the most esoteric hobbies that people engage in. Passengers in my van are intrigued by my whistler receiver, recorder and various other pieces of electronic hardware that sit atop the console. The inevitable question, "What's that?" brings the best response I can muster while driving and is usually met by a blank stare or a polite "hmmm." If my wife is in the car she clarifies my explanation by adding, "My husband is weird, he listens to static." So it is nice when our offbeat hobby makes the big time media.

Last year, Dan Brown's book, *The Da Vinci Code*, caused quite a stir. There were TV specials, news features and many discussions in both religious and secular settings. It seemed like the book just kept popping up in various conversations -- more than any other fictional novel that I can recall in the recent past.

Brown is no dummy and since he was on a roll and since conspiracy plots always seem to do well in America, he cranked out another book using the same formula -- this one titled *Deception Point*. My middle son, knowing my penchant for pseudo-science adventure books, gave me a copy for Christmas.

The setting of the story is in the winter blackness of the far north on Ellesmere Island with the katabatic wind sweeping across the ice shelf. As in all good conspiracy novels, the story frequently switches back to Washington DC. NASA and an upcoming presidential election are central to the plot.

The book contains Brown's trademark author's note that the major organizations discussed are real organizations and "All technologies described is this novel exist." Upon later reflection, this conjured up memories of a person who had tried to convince me that Astrology is 100 percent scientific because Astrologers use the same mathematical methods to calculate the positions of the stars and planets that Astronomers use.

In the prologue of the novel, Geologist Charles Brophy is leading his sled dogs across the frozen tundra on a sled loaded with geological equipment. A mysterious helicopter appears, lands, and he is confronted by very persuasive men with rifles who command him to take his radio out of his parka, set the frequency for 100 kHz, and transmit a mysterious message. He and the dogs are then herded into the copter, taken up to 4000 feet and then pushed out of the door.

Let's see, he's out in the middle of nowhere, transmitting at 100 kHz, maybe into a 30 inch whip with probably 2 watts or less of power – oh yes, right on top of LORAN. Who could possible hear him? Well I'm glad you asked that question, but we have to wait until near the end of the book to find out.

After 250 more pages of a riveting plot flip-flopping between Ellesmere Island and the Capitol, we learn as the conspiracy starts to unravel, that Brophy was "…broadcasting at the lowest possible frequency to get the maximum distance on his transmission. He was in the middle of nowhere, a standard frequency transmission probably would not have made it far

enough to be heard." Those "standard" frequencies just never seem to work! But with all the ships using the LORAN system there should be lots of people listening on 100 kHz, right? Wrong!

This is a story about NASA, so who do you think intercepts the transmission? You guessed it, the INSPIRE program!

In case you didn't know, the INSPIRE program consists of "…a series of very low frequency radio receivers near the North Pole that listen to the sounds of the earth – plasma wave emissions from the northern lights, broadband pulses from lightning storms, that sort of thing." I wasn't aware of an INSPIRE group that far north, but I suppose it gives Santa's elves something to do in the off-season. At least he got the part right about listening to the sounds of earth.

In fairness to Dan Brown, this book *is* fiction and it was enjoyable and captivating reading and pretty hard to put down if you enjoy this type of book.

So our obscure hobby just got a little less obscure by getting mention in a best-selling novel. I wonder if we had a surge in LWCA membership?

In any case, the next time someone asks about the whistler receiver in the van – I've got a new and much more interesting explanation.

Carl & Jerry -- As long as we're talking about Natural Radio in the media, back in the 1950's or early 60's in Popular Electronics there was a Carl & Jerry story where they built a whistler receiver. The magazine also had a construction article for a whistler receiver. I've been digging through old boxes of Popular Electronics at hamfests, but haven't found that one yet. If anyone has a copy of that article, I would be most appreciative for a copy.

Spring Equinox – We are at equinox time again which denotes a peak in Natural Radio activity. Although we're not doing coordinated listening, it's still a good time to get out in the fresh air in the hopefully balmy spring weather and listen for some whistlers or chorus.

November 4, 2004 Solar Flare Upgraded to X45 -- Physicists in New Zealand have determined that last November's massive solar flare was much more intense than originally believed. Their findings have been accepted for 17 March publication in *Geophysical Research Letters*, published by the American Geophysical Union.

The November 4th flare blinded the X-Ray detectors on the GOES satellite, forcing scientists to use other methods to estimate the intensity of the flare.

Researchers Neil Thomson, Craig Rodger, and Richard Dowden from the University of Otago measured the phase shift due to enhancement of very low frequency (VLF) radio transmissions across the Pacific Ocean from Washington State, North Dakota, and Hawaii to their receivers in Dunedin, New Zealand. They were thus able to estimate the amount the bottom of the ionosphere was lowered by X-Rays from the flare .

New calculations indicated that it was an X45 flare, almost twice as large as the originally calculated X28, making it the largest solar flare ever observed. The biggest previous solar flares on record were rated X20, on 2 April 2001 and 16 August 1989.