



# Helping Hand

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*Helping Hand is a column that focuses upon questions, advice, assistance and other items of discussion that our readership requires from time to time. This 'post-it' column will allow hobbyists to inquire about various aspects of radio listening and receive answers from the readership either directly or through this column.*

## Helping Hand Column for July 2009

I hope your summer has been good so far in the early going! Again this month we have a relatively short column, and I would ask that even in the summer months, if you have any questions (and especially answers to questions posed) please send them along and we'll try to find the information for which you may be searching.

The main question this month comes from Des Walsh, who writes to say, "I just happened to view your on-line edition of the ODXA magazine whilst searching for some shortwave information. I shall be visiting odfa.on.ca regularly from now on.

"The reason for my e-mail is the subject of interference to shortwave broadcasts, again increasing. I am not talking about deliberate jamming, so widespread in Cold War days, but a much more insidious form of interference over many hundreds of kHz of the spectrum. Many will remember the days of the 'Russian Woodpecker' which spread over tens of kHz across the shortwave. But about 3 years ago I was hearing a pulsing noise, not unlike a vehicle ignition, spreading from about 6.5MHz right up to 25 MHz, and surprisingly during the night above 15MHz when those frequencies were usually dead. It definitely was not a local source as I could hear it in other locations, and even whilst on vacation in S E Spain. Initially the noise pulses, about 5 or 6 per second often gave an S-meter reading of half scale around 15Mhz but over a period of

time lessened until they became objectionable only on weaker signals.

"Now unless you are in a relatively quiet RF area you will not hear the pulse noise. It mainly affects the 41 and 15 metre BC and adjacent Ham bands. There has been very little mention of it in the radio hobby magazines or Internet chat rooms. Source seems to be some form of over-the-horizon radar on Hainan Is. S W China."

Des continues with an interesting twist in the QRM problem: "But in the last 10 days a much more ominous and strange interference source has briefly shown itself on shortwave, and definitely is a conventional pulse radar signal, more like that in the microwave bands. The classic radar signal if tuned with a narrow-band receiver will show a very strong 'nose' perhaps 100 to 200kHz wide with strength falling off either side out to perhaps 200kHz and down into noise at 500kHz. There will also be dips in signal along its spread, kind of sidebands due to the fundamental high-energy pulse shape of the modulation.

"This was what I noted on the mornings (ca 0930 1130GMT) of June 11 and June 12. Initially I was trying for R Australia 9475kHz and noted just a buzz on the frequency and tuned across the band to be flabbergasted by an enormous signal centred on 9800kHz, about 100kHz wide, massive signal level, enough to light the LED tuning on a cheap multiband radio with the telescopic rod unextended. I could hear the pulse signals

out 400kHz either side and the only BC station to be heard was the usual S9 R Nederland on 9895kHz. I can only surmise that this radar signal came from E/SE Europe or Middle East. Another listener about 10 miles away heard it too. I cannot imagine what technology, what transmit power could blanket a whole broadcast band with such high field strength. To me in over 40 years of radio listening it is the greatest mystery signals that I have ever heard. The pulse rate was I estimate about 30 per second, slow, to give a long radar range. The dips were at regular 20kHz intervals. I shall be monitoring the bands closely to see if it reappears again. Did anyone else hear it?"

Des, thank you very much for your kind comments and for your questions. I should explain that Des' amateur calls are EI5CD, which places him in Ireland, so this may have a bearing on what he has been hearing on the shortwave bands. If anyone can surmise what he has been listening to as far as to the type and nature of the interference, please let me know and I will forward the info to him and present the info in this column.

Dick Burke in Tallahassee, Florida asks, "Has anyone done an article on running a car radio in a home using wall power (ac to dc)? Also, is this even worth doing for results achieved? I realize some car radios are excellent at pulling in distant stations. Thanks very much." I've looked through our list of past articles and cannot find anything on running a car radio at home. Does anyone know of any article that has been written about car radios used in this fashion?

That's all for July. Please continue to send in those questions, comments, advice and information. Have a wonderful summer filled with outdoor activities (but don't forget to turn on the radio once in a while)!