

To: US HF Radar Operators and PI's

Date: 26 February 2012

Outcomes of the 2012 World Radiocommunication Conference-

NOTE: No action is necessary by any US HF radar operators until the service rules and licensing regulations are developed by NTIA and FCC. This is likely to occur after many months and possibly a year or more of continued WRC Working Party 5B meetings and agreement among US domestic agencies and commercial interests.

Once the implementation of the WRC decision is complete, U.S. oceanographic radar operators will need to begin transitioning licenses to the new allocated bands, operating under the new service rules. Use of the new bands should not begin until the service rules are in place and a new license has been issued to an oceanographic radar operator. In most cases, transitioning to the nearest allocated band should not require major hardware modification.

Some notable outcomes:

1. The WRC provided primary allocations for oceanographic radar worldwide. However, there is a footnote in the documents that essentially means that oceanographic radars can be shut down if interfering with another existing or future system that requires a primary license. This footnote was inserted by the US Dept of Defense and was non-negotiable.
2. Each radar will have to transmit a call sign, in Morse code, at least once every 20 minutes. The exact method for doing this will be developed at WRC Working Party meetings over the course of the next several months or longer.
3. Each radar will have to minimize its interference potential. The exact wording is "should, where applicable, use techniques that allow multiples of such radars to operate on the same frequency, reducing to a minimum the spectral occupancy of a regional or global deployment of radars." Note the phrase "should, where applicable" may leave some room for compliance. Most lower-frequency Codar SeaSondes are delivered with a standard GPS synchronization package that provides this capability.
4. Each radar "should use directional antennas, where applicable and as required, to facilitate sharing". This applies to transmit antennas. Again, note the phrase "should, where applicable"; this allows flexibility. There are tradeoffs involved, and existing antenna configurations should not need to be changed.
5. The WRC-allocated bands and total bandwidths are:

4.438 - 4.488 MHz	50 kHz
5.250 - 5.275 MHz	25 kHz
9.305 - 9.355 MHz	50 kHz (not usable in North, Central or South America)
13.450 - 13.550 MHz	100 kHz (this band is actually for a secondary allocation)

16.100 - 16.200 MHz 100 kHz
24.450 - 24.650 MHz 200 kHz
26.200 - 26.420 MHz 220 kHz
41.015 - 41.665 MHz 650 kHz
43.350 - 44.000 MHz 650 kHz

6. Some of these slots will likely be broken into sub-bands when licenses are issued. For example, the 50-kHz slot between 4.438 - 4.488 would become two adjacent 25-kHz channels, allowing each user a 6-km range cell.

7. The disposition of existing experimental licenses in bands not listed above is still to be determined. There may still be a way for short-term experimental licenses to be granted outside of these bands for research purposes. Again, that is to be determined by FCC and NTIA.