WERA
Ocean Remote Sensing

WRC-12 Outcome and Consequences on Ocean Radar

At the World Radiocommunication Conference 2012 (WRC-12) the ITU (International Telecommunication Union) has officially recognized oceanographic radars. In the future primary (under some restrictions) and secondary bands will be allocated worldwide.

Benefits for future ocean radar users: The process to apply for a radio transmission approval will be smoother and faster.

Consequences for existing ocean radars: there is no action required at present as it is a lengthy process until the local agencies have adopted to the new regulations.

Existing experimental licenses will continue to be valid and depend on the local authorities.

If changes in existing deployments are required, we would like to ask you to consult factory to check if software and hardware modifications are required.

The allocated bandwidth ranges from 25 to 650 kHz. The individually allocated bandwidth depends on country specific regulations. It might be possible to get extended bandwidth on non-interference basis for experimental applications.

Region 1 (Europe & Africa)	**Region 2** (America)	**Region 3** (Asia & Australia)
Frequency in MHz	Frequency in MHz	Frequency in MHz
4.438-4.488 (50 kHz secondary)	**4.438-4.488** (50 kHz primary)	**4.438-4.488** (50 kHz secondary)
5.250 -5.275 (25 kHz secondary)	**5.250-5.275** (25 kHz primary)	**5.250-5.275** (25 kHz secondary)
9.305-9.355 (50 kHz secondary)	-	**9.305-9.355** (50 kHz secondary)
13.450-13.550 (100 kHz secondary)	**13.45-13.55** (100 kHz secondary)	**13.45-13.55** (100 kHz secondary)
16.1-16.2 (100 kHz secondary)	**16.1-16.2** (100 kHz primary)	**16.1-16.2** (150 kHz secondary)
24.450-24.600 (150 kHz secondary)	**24.45-24 65** (200 kHz primary)	**24.45-24.6** (150 kHz secondary)
26.200-26.350 (150 kHz secondary)	**26.200-26.420** (220 kHz primary)	**26.2-26.35** (150 kHz secondary)
39-39.500 (500 kHz secondary)	-	**39.5-40.0** (500 kHz primary)
-	**41.015 – 41.665** (650 kHz primary)*	**41.015 – 41.665** (650 kHz primary)*
42-42.500 (500 kHz secondary)	**43.35 – 44.0** (650 kHz primary)*	**43.35 – 44.0** (650 kHz primary)*

* U. S. * Republic of Korea

Call Sign
In the future, each radar has to identify itself every 20 minutes by means of a call sign (morse code). The exact method and syncronization of these call signs need to be defined by a working group consisting of the manufacturers of the ocean radar systems.

Frequency Sharing
Regarding frequency sharing between ocean radars, the working group should work out a method to share the same frequency within a region even if stations of different manufacturers are used.