CGMS-XXXI USA-WP-18
Prepared by USA
Agenda Item: I.3

USA Request for Temporary Use of International Channels for High Data Rate transition

This paper provides a summary of the USA request for the use of international channels to support the transition for 100 bps data collection platform to 300/1200 bps platforms.

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The National Oceanic and Atmospheric Administration (NOAA) has begun the deployment of High Data Rate (HDR) transmitters, at 300 and 1200 bits per second (bps). Currently NOAA has almost 3000 transmitters assigned at the two higher data rates. The transition plan developed by NOAA, in conjunction with its user community, involves changing the current low data rate channels (100 bps) to high data rate channels (300/1200 bps) after they have been emptied. Presently, NOAA utilizes approximately 120 channels for low data rate usage. With some channels used for purposes such as a pilot signal, manufacturer test channels, and random (alert) channels, this leaves approximately 28 channels for use at high data rate. Of the channels used for high data rate conversion, the equivalent of 20 channels for 1200 bps transmissions (every 1200 bps transmitter requires 2 channels). NOAA plans to increase the high data rate channels by beginning an organized compression of the higher numbered 100 bit per second channels, moving 100 baud transmitter assignments from those channels to other channels, and reassigning them as 300 baud channels. This will mean that some users may have to move their transmitters several times in the process. The reason for this staggered approach is that there are not enough available channels to fill all of the requests for new and modified assignments. A "shuffling" of existing channels is expected to assist with that problem, but will create much more work for NOAA, and for the user community.

An alternate solution to this shuffling is to acquire a block of channels for temporary staging of some of the 100 baud transmitters. NOAA is requiring that users dispose of all of their 100 baud transmitters by June 1, 2013, ten years after the certification of the third high data rate transmitter manufacturer. By that time all channels should be converted to high data rate. In order to ease the transition, NOAA requests that the CGMS grant permission to temporarily utilize unused international channels for staging of 100 bit per second transmitters. A block of 5 international channels, with a bandwidth of 3.0 khz, a total of 15 khz, would allow NOAA to move large blocks of assignments, freeing up channels more quickly for high data rate use. The faster NOAA can convert users to higher data rates, the faster NOAA can eliminate the 100 bps transmitters from the system. NOAA proposes to use these channels until June 1, 2013 (unless all channels are converted to high data rate before that time, meaning that all USA domestic users have eliminated all 100 baud transmitters). If that occurs, the channels would be freed up sooner.

In summary, NOAA requests the CGMS to grant the U.S. permission to utilize a block of unused, or underused, international channels, consisting of 15 khz of consecutive bandwidth. NOAA would use this bandwidth for up to 10 years to aid in our high data rate transition, but would make every effort to release them sooner if possible. In the event that a high demand for international channels for mobile platforms arose, NOAA would comply with a request from the CGMS to release the channels within 6 months of the request.