

## **Requirements for the Temporary Use of IDCS Channels**

NOAA-WP-17 provides a summary of the NOAA request for the use of international channels to support the transition for 100 bps data collection platform to 300/1200 bps platforms. The 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. 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. NOAA requests the use of international channels I1 –I5 to support the transition for 100 bps data collection platform to 300/1200 bps platforms. NOAA proposes to use these channels until June 1, 2013. If all the NOAA 100 bps channels are converted to high data rate before that time, then the international channels would be freed up sooner.

## Requirements for the Temporary Use of IDCS Channels

### 1. INTRODUCTION

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.

The exercise to clear 100 baud channels for 300 baud use is progressing well, but a block of random channels sitting between channels 100 and 130 are blocking the way. NOAA hopes that the CGMS will consider our request for 5 international channels (which we will then use as 10 1.5 KHz channels) in order to expedite the transition of those channels to 300 baud use.

### 2. Proposal for Temporary Use of Unused International Channels

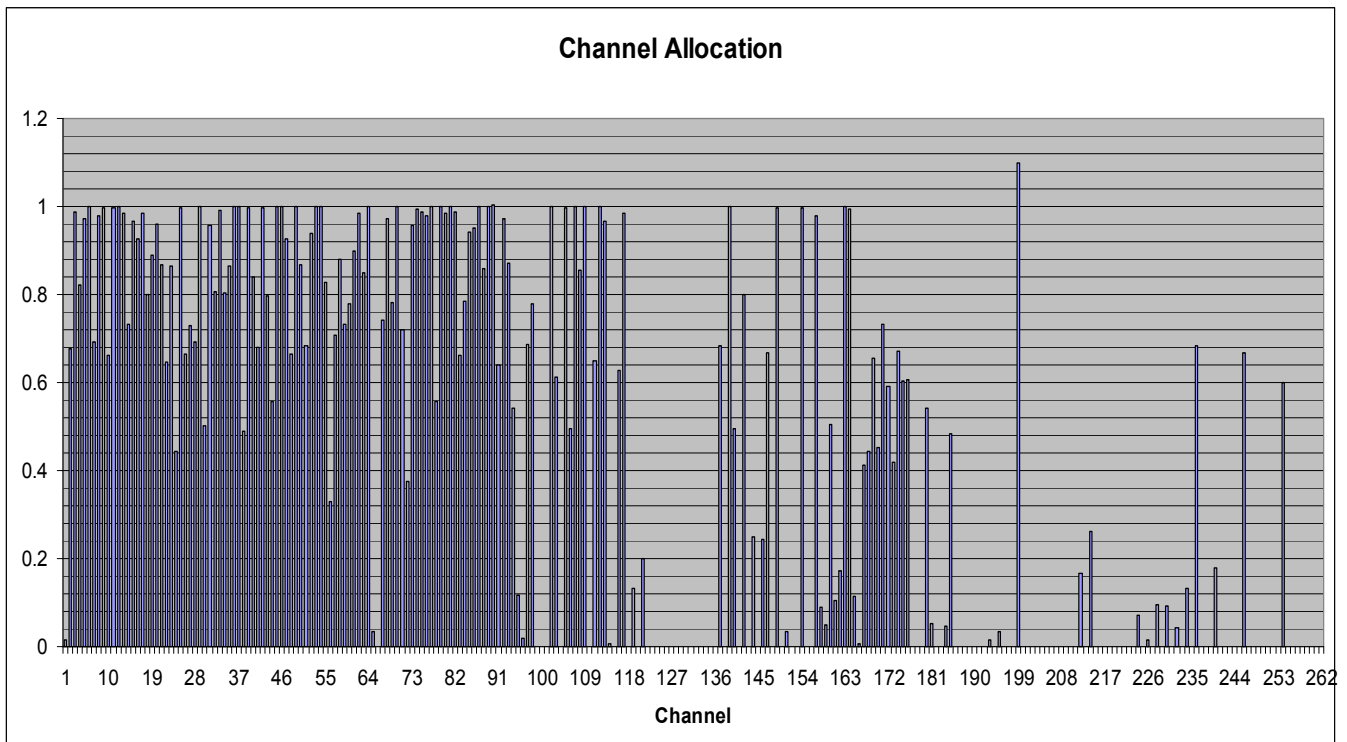
The National Oceanic and Atmospheric Administration (NOAA) has begun the deployment of High Data Rate (HDR) transmitters, at 300 and 1200 bits per second. NOAA is requiring that users dispose of all of their 100 baud transmitters by June 1, 2013, ten years after the certification of the third high data rate transmitter manufacturer. Currently NOAA has almost 4000 transmitters assigned at the two data rates. The transition plan developed by NOAA, in conjunction with the user community, involves changing low data rate channels to high data rate channels after they have been emptied. NOAA currently 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 (allowing for the equivalent of 2 channels for 10 1200 baud channels). NOAA plans to increase the number of 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 block of approximately 30 channels in the path of that transition are currently used for random (emergency or alert) transmissions. Moving these random assignments into a

different range would allow NOAA use of those 30 channels almost immediately for transition, and would speed up the process of emptying the lower range channels. In order to ease the transition, NOAA requests that the CGMS grant permission to temporarily utilize unused international channels 1 through 5 for staging of 100 bit per second transmitters. A block of 10 channels, with a bandwidth of 1.5 khz, a total of 15 khz (5 international channels), would allow NOAA to move large blocks of assignments, freeing up channels more quickly for high data rate use. NOAA plans to move the random channel assignments into this block. Since these types of messages do not come through as often, the impact (and chances of interference) on nearby international channels should be minimized. NOAA proposes to use the channels until June 1, 2009 unless all channels are converted to high data rate before that time, meaning that all users have eliminated all 100 baud channels. If that occurs, the channels would be freed up sooner.

### 3. CHANNEL SATURATION

Over the past several years, requests to use the DCS domestic channels have increased rapidly. As existing users increase their network of data collection platforms and new users realize the value of remote observations, channel allocations become a premium. Considering the influx of the new generation of high data rate platforms, transition from the old technology to the new requires temporary additional bandwidth. The chart below is an illustration of the NOAA domestic channel that displays the saturation of the channels in reference to time available for use.



**5. CONCLUSION**

NOAA requests the use of international channels I1 –I5 to support the transition for 100 bps data collection platform to 300/1200 bps platforms. NOAA proposes to use these channels until June 1, 2013. If all the NOAA 100 bps channels are converted to high data rate before that time, then the international channels would be freed up sooner.