

Our radar in Clyde River looks over the **north of Canada towards Alaska**. It is one of nearly 40 radars that all measure the ionosphere and how it is moving.

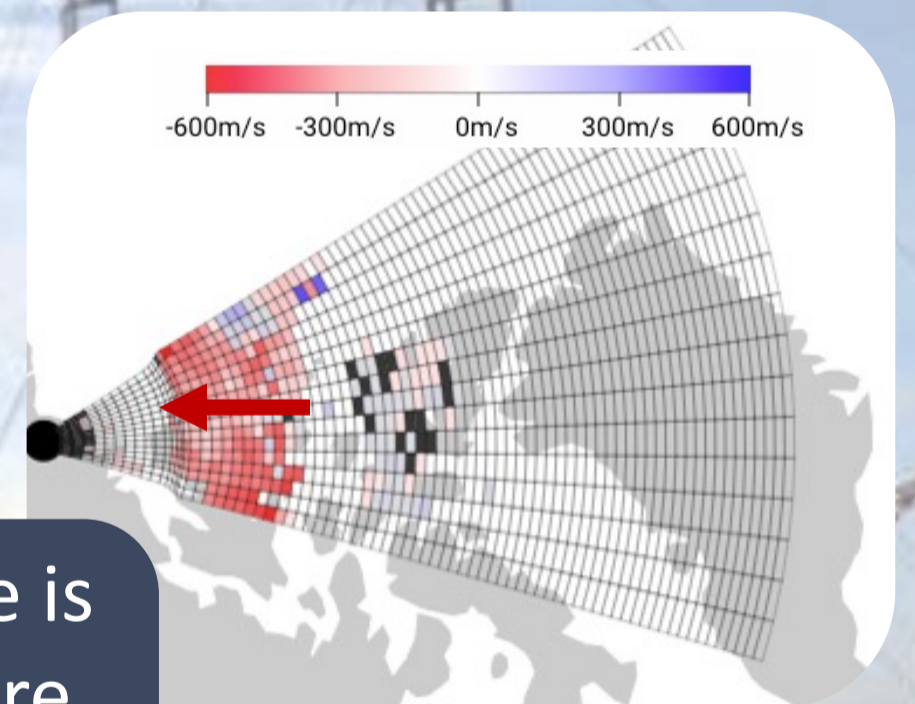
We make an electronic signal from the computers in the sea can. This signal is made larger and transported to the towers in wires. The antennas then use this signal to **make radio waves** from the long wires strung between towers.

The radio waves are sent up and across **into the ionosphere** over Northern Canada and Alaska

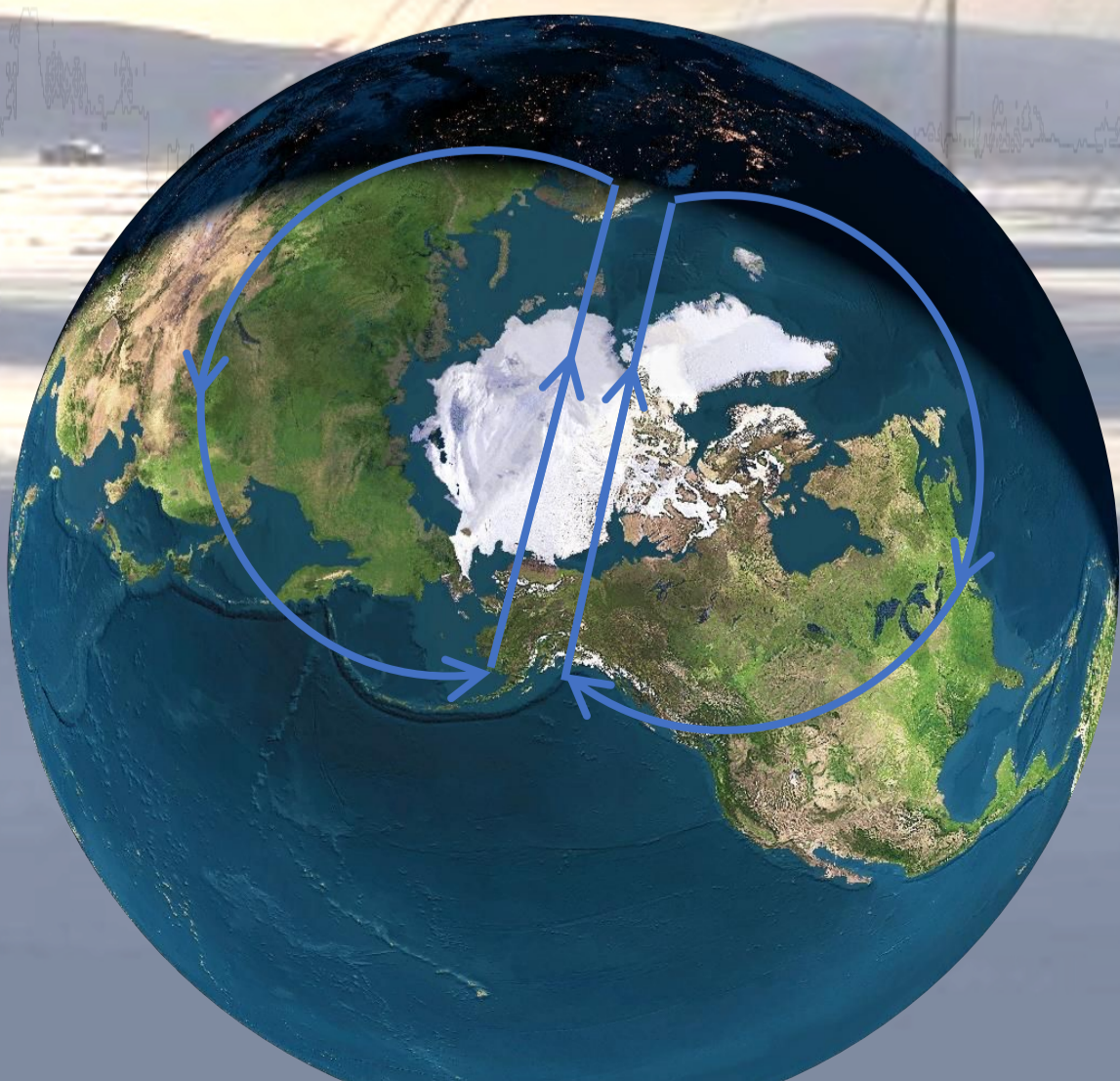
This may sound like a lot of energy, but our radar uses about as much **electricity as a toaster!**

WHAT DOES THE RADAR DO?

The ionosphere **bends** the radio waves and **reflects** them. The radar can **listen to returning radio waves**, and from what those waves look like, scientists can learn what the ionosphere is doing.



We especially watch for which direction the ionosphere is moving in. We can measure if patches of the ionosphere are moving **towards and away from our radar**. In this example, patches are moving towards the Inuvik radar.



Now we know if parts of the ionosphere are moving towards or away from the radar, we can take returning data from **other radars around the world** and learn about the movement of the **whole ionosphere**.