



Weak Signal Propagation Reporting System (WSPR) Project

High frequency propagation from a beacon installed on a retired icebreaker along a route through the Canadian Arctic

Barrie Crampton VE3BSB amateur radio team leader

Canada C3 was a unique 150-day voyage of a retired Canadian Coast Guard icebreaker, the *Polar Prince*, commencing in Toronto, Ontario and travelling down the St. Lawrence River and following the three coastlines of the Atlantic, Arctic and Pacific Oceans, via the Historic Northwest Passage, terminating in Victoria, B.C.

Canadian radio amateurs led by Barrie Crampton VE3BSB installed a WSPR beacon that provided round the clock transmissions at three amateur radio frequencies throughout the 150 day voyage.

WSPR (pronounced "whisper") stands for "Weak Signal Propagation Reporter". It is a protocol, implemented in a computer program, used for weak signal radio communication between radio amateurs. A tracking link allowed gathering information worldwide from those receiving WSPR transmissions from the beacon. Many of the locations visited by Canada C3 lie in areas where radio communication is difficult. Phenomena such as "arctic flutter" and disturbances from the aurora have traditionally been a problem in the north and there had been little continuous information on high frequency propagation from these areas.

