

## **Three way validation of Rankin velocity measurements: Saskatoon radar, Resolute CADI and DMSP**

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The Rankin Inlet PolarDARN radar uses a new type of antennae that might let echo reception from its back lobe overseeing the auroral zone with high occurrence of ionospheric irregularities. Despite the fact that a special screen has been installed, there is nonzero chance to get such echoes so that validation of the radar operation is need. In addition, the radar is to work in cooperation with Saskatoon radar (the same MLT sector but lower latitudes), Resolute Bay CADI and DMSP satellites. This gives additional incentive to validate/compare Rankin Inlet measurements. In this study, velocity observations from Rankin Inlet are compared with data of all the above instruments for the entire month of October 2006. Although data spread and the degree of agreement vary from one comparison to another, the overall conclusion is that Rankin velocities are very comparable to what one gets from other instrument outputs.