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Ionospheric irregularities and effects on GNSS navigation systems in the polar cap

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In this presentation we describe efforts that are currently ongoing at Svalbard to study ionospheric irregularities and their effects on GNSS navigation systems in the polar cap. We present initial measurements from a series of new multi-constellation TEC and scintillation receivers that we are installing around Svalbard. These data will be compared with multi-instrument observations from EISCAT, SuperDARN, ground-based optics, and sounding rockets.