

IAF SPACE OPERATIONS SYMPOSIUM (B6)
Ground Operations - Systems and Solutions (1)

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INUVIK GROUND STATION: EXPERIENCE FROM THE OPERATIONS OF SENTINEL-5P

Abstract

The Inuvik Satellite Station Facility (ISSF) located in the Canadian arctic circle hosts satellite ground stations owned by the Canadian Government, DLR, SSC, and CNES. The geographic location of ISSF makes these antennas ideal for tracking polar orbiting spacecraft. The Sentinel-5P mission was the first spacecraft controlled from ESA's European Space Operations Centre to utilize antennas located in Inuvik to support operations. This paper will present operational experience using ISSF antennas to support Sentinel-5P including S-Band TTC services during LEOP and X-Band downlink telemetry services during commissioning and routine operations. An overview of the Sentinel-5P mission will be included along with a description of the ground network used to support the mission during each phase of operations. Details of the Inuvik station will be provided including technical specifications, communications architecture, types of service, and how Inuvik complements the overall ground network. Operational experience and statistics will be included. The future outlook for ISSF will be examined including additional missions, expansion opportunities, and planned upgrades.