**Tracking satellites from the Arctic**

September 2019

A-roll

Duration: 2:58

Text intro:

Many of the satellites that gather information on the health of our planet pass over the polar regions pass above the North and South Poles. Satellite ground stations located in these remote areas are best positioned to collect the data and talk to the missions passing above them. This video presents the most northern ground station ESA is using – SvalSat, located within the Arctic Circle – where contact is made with many of ESA’s Earth observation missions. The Svalsat station contributes to ESA's global tracking station network, Estrack.

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| **Timecode** | **Footage** | **Voiceover** |
| 10:00:04:05 | Opening titles |  |
| 10:00:10:00 | GVs  Aurora borealis over Svalbard Satellite Station | A rather unique view: auroras dancing above the satellite antennas at the Svalbard Satellite Station high in the Arctic. |
| 10:00:21:05 | GVs  Longyearbyen, Svalbard, March 2019  Svalbard Satellite Station | Here, next to one of the most northern cities in the world, is the perfect location to track polar-orbiting satellites – including some for ESA. |
| 10:00:32:05 | Soundbite: **Ole Petter StorstadSvalsat Station Director, KSAT** | *“Here at the KSAT station in Svalbard we have about 80 tracking antennas. This station is very unique: we have the perfect location for tracking polar-orbiting spacecrafts. The main reason being that we can see 14 out of 14 daily orbits.”* |
| 10:00:53:02  10:01:11:03  10:01:21:21 | GVs  Svalbard Satellite Station radomes and antennas  Animations: ESA’s Aeolus satellite  Copernicus Sentinel-1 satellite  Svalbard Satellite Station radomes | The spherical radomes protect the antennas from the harsh weather conditions of the Arctic environment. Inside, the antennas work like any other ground station, following a satellite to collect its data, check its health and send commands back.  Data from ESA’s Earth Explorers such as Aeolus and SMOS, are downlinked to SvalSat, as well as from the Sentinel satellites for Europe’s Copernicus environment-monitoring programme.  Eight of these antennas are dedicated to tracking the Copernicus Sentinels. |
| **10:01:27:03** | Soundbite: **Jenny Jonsson**  **Sentinel Service Manager, KSAT** | *“The visibility of the Sentinel satellites up here are about 14 minutes from the time they come up from the horizon and the time they are not visible. And during that time we download the payload data, the housekeeping data, and sometimes we speak to the satellite – that means commanding the satellite.”* |
| 10:01:49:20 | Animation: Europe’s Galileo navigation network | In addition to the Earth observation satellites, the ground station also supports Europe’s Galileo network for navigation, as well as for search and rescue. |
| 10:02:01:08 | GVs  Longyearbyen, Svalbard, March 2019 | While this location is optimal for communicating with the satellites orbiting close to the North Pole, the snow, cold and long periods of darkness makes life for people working here a challenge. To ensure that the environmental conditions do not affect the ground operations, teams of 2 people work in 24 hour shifts to monitor each satellite pass. |
| 10:02:23:12 | Soundbite: **Jenny Jonsson**  **Sentinel Service Manager, KSAT** | *“All the data from these satellites are very important for a lot of people around the world when it comes to the weather, the health, the future of the planet. So it’s really nice to be part of that and to help people get this information and distribute it.”* |
| 10:02:42:21 | GVs  Svalbard Satellite Station | Across the globe, teams at ground stations work around the clock to download vital information and track the health of satellites that are checking the health of our planet. |
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| **00:00:04:14** | Tracking satellites from the Arctic : B-Roll | |
| 00:02:53:24 | Soundbites : **Ole Petter Storstad*,* Svalsat Station Director, KSAT [English]** | |
| 00:04:08:22 | Soundbites : **Ole Petter Storstad*,* Svalsat Station Director, KSAT [Norwegian]** | |
| 00:05:23:20 | Soundbites : **Jenny Jonsson, Sentinel Service Manager, KSAT [English]** | |
| 00:07:13:23 | Soundbites : **Jenny Jonsson, Sentinel Service Manager, KSAT [Swedish]** | |
| 00:09:46:16 | GVs Svalsat satellite station, Svalbard, March 2019 | |
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