

PHOTO: BJØRN-OWE HOLMBERG

The Norwegian Mapping Authority's geodetic Earth observatory in Ny-Ålesund is being upgraded with new technology. The facility now under construction in Ny-Ålesund will improve the accuracy of the measurements collected as part of a worldwide observation and research network. The measurements are fundamental for monitoring climate change and for all mapping.

Northernmost geodetic observatory

The Norwegian Mapping Authority's (NMA) new geodetic observatory will rank as the northernmost facility of its kind when it is ready in 2018. From Ny-Ålesund, NMA will use various techniques in one and the same place to map movements in the Earth's surface, planetary rotation, and the Earth's exact position in space.

Components

The new observatory will combine several geodetic measuring techniques:

- VLBI – Very Long Baseline Interferometry (VLBI2010 Global Observing System – VGOS standard)
- SLR – Satellite Laser Ranging
- Absolute gravimeter point
- Super conducting gravimeter (existing)
- GNSS (existing)
- Tide gauge (existing)
- DORIS (existing, operated by AWI-IPEV)

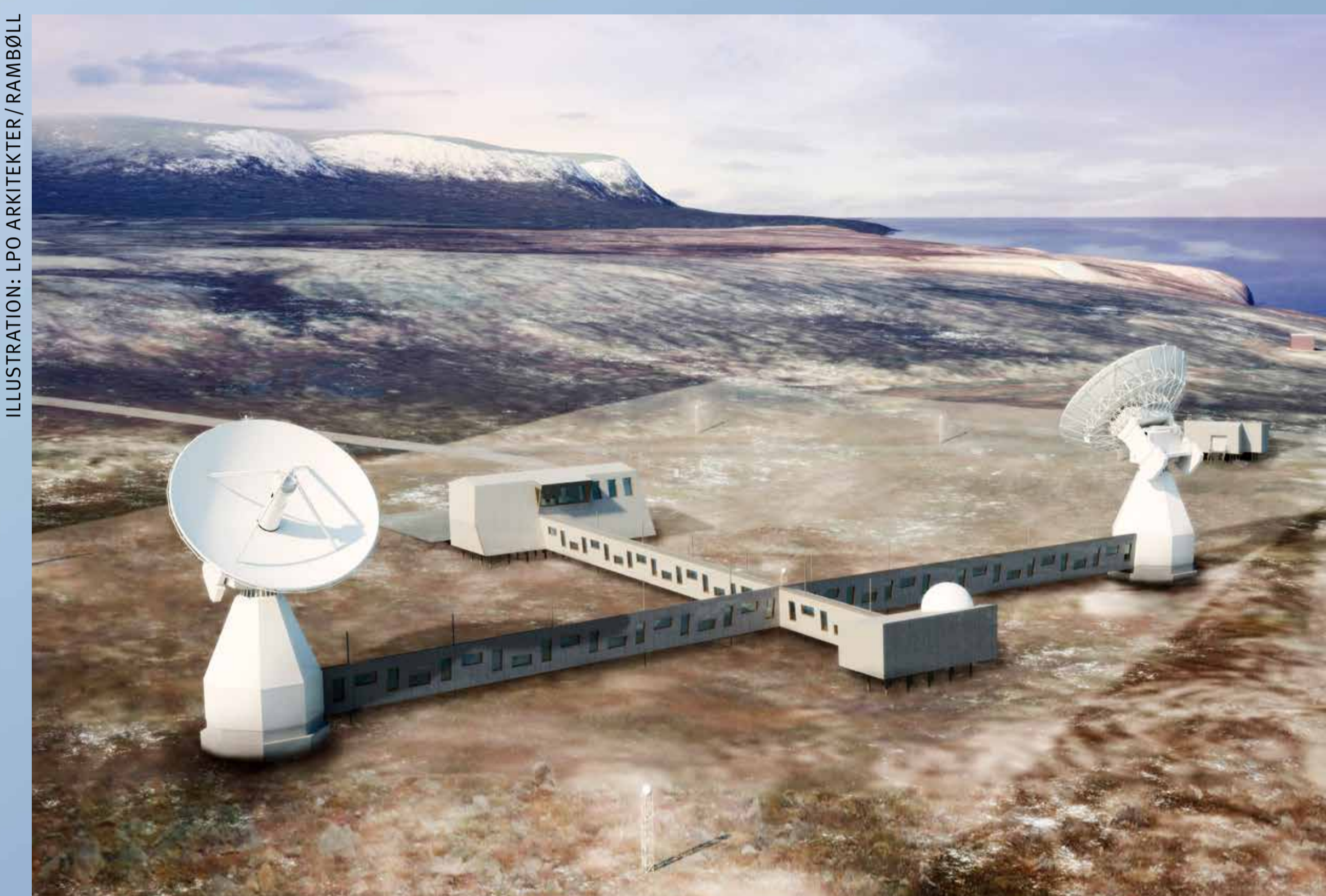
Fiberoptic cable in place

A fiberoptic cable has been laid on the seabed to link Ny-Ålesund with Longyearbyen, the administrative centre for Svalbard. This will be beneficial for the whole research community in Ny-Ålesund.

Ny-Ålesund – an international research base

Situated at 78° 55' N, 11° 56' E, Ny-Ålesund has since the mid sixties formed an international research community. The site comprises 14 permanent research stations from 10 countries. Ny-Ålesund is one of the world's northernmost settlements. Distance from the Northpole: 1.231 km.

THE NEW GEODETIC EARTH OBSERVATORY IN NY-ÅLESUND, SVALBARD



The Norwegian Mapping Authority's (NMA) new geodetic Earth observatory in Ny-Ålesund is due to be completed in 2018 at an estimated cost of about NOK 300 million. Veidekke Arctic is the turnkey contractor for the station site and the new instrumentation building, while MT Mechatronics will deliver the new VLBI antennas.



The Norwegian Mapping Authority's new geodetic Earth observatory is under way after the first pile was driven in the autumn of 2014. Performed by Jan Tore Sanner, Norway's Minister of Local Government and Modernisation, that ceremony marked the start of building work.

“Data acquired here are important for climate research and monitoring, and crucial for ensuring accurate GPS information.”

Jan Tore Sanner, Norway's Minister of Local Government and Modernisation



Kartverket

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