

Small GEO satellite platform lands at ESA

August 29 2012

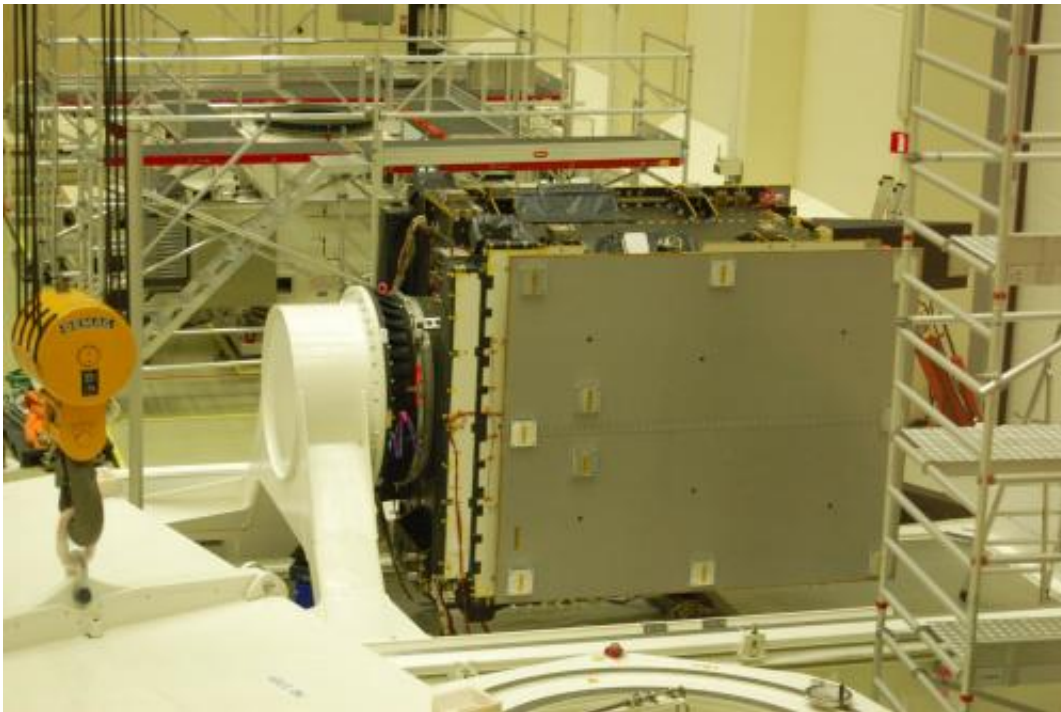


After a four-day trek from Switzerland, Small GEO arrives at ESA's ESTEC facility in Noordwijk, the Netherlands. Small GEO is a general-purpose small geostationary satellite platform that is giving European industry the opportunity to play a significant role in the commercial telecom market. Credits: ESA-R. Gruenagel

After a careful four-day road trek from Switzerland, the first model of the Small GEO communications satellite platform has arrived at ESA for testing.

During its time at ESA's ESTEC facility in the Netherlands, the Structural–Thermal Model will be exposed to the severe vibration and the tremendous noise the satellite will face during takeoff.

When these tests are completed, it will be moved to ESTEC's Large [Space Simulator](#) for thermal testing. The simulator is Europe's single largest [vacuum chamber](#) – a cylindrical container 10 m in diameter and 15 m in height.



Small GEO prior to lifting it out of its container. Small GEO is a general-purpose small geostationary satellite platform that is giving European industry the opportunity to play a significant role in the commercial telecom market. Credits: ESA–R. Gruenagel

The simulator results will be compared with the thermal models used by engineers to predict the conditions Small GEO will experience during its

lifetime in space.

The chamber's high-performance pumps can achieve a vacuum a billion times lower than our sea-level atmosphere, while [liquid nitrogen](#) circulated around the simulator approximates the [cryogenic temperatures](#) of space.

Testing is expected to last until December.

The 1:1 model of Small GEO replicates its mechanical and thermal characteristics. It was assembled by RUAG in Switzerland, with elements provided by Germany's OHB System and its consortium of European contractors.

Small GEO is part of the next generation of modular and flexible telecommunications platforms. It is being developed through a public-private partnership, ESA's new way of working with the space [telecommunications industry](#).



Small GEO is placed in the cleanroom at ESTEC's test centre. Small GEO is a general-purpose small geostationary satellite platform that is giving European industry the opportunity to play a significant role in the commercial telecom market. Credits: ESA-R. Gruenagel

ESA is focusing its support on research and development activities through its ARTES telecommunications programme, while industrial partners, led by Germany's OHB System, finance a substantial part of the development costs.

Small GEO's first use is for Spanish operator Hispasat's Advanced Generation 1 satellite, expected to be launched in 2014.

Hispasat will merge Hispasat-AG1 into its existing fleet of [communications satellites](#). OHB System will be responsible for assembling the satellite, testing it in orbit and early operations.

Provided by European Space Agency

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