



CENTRE NATIONAL D'ÉTUDES SPATIALES

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PRESS RELEASE

CNES SUCCESSFULLY POSITIONS AMC23 SATELLITE

Teams at the Toulouse Space Centre have successfully positioned the AMC23 telecommunications satellite, orbited by a Proton-M/Breeze-M launcher during the night of 28 to 29 December 2005 from the Baikonur Cosmodrome in Kazakhstan, for Alcatel Alenia Space and its customer SES-Americom.

Operations teams at CNES's Toulouse Space Centre have successfully positioned the AMC23 satellite for Alcatel Alenia Space and its customer SES-Americom.

Weighing about 5 tonnes at lift-off, AMC-23 is built around Alcatel Alenia Space's SpaceBus 4000 bus and is the third satellite in the AMC series to be positioned by CNES, after AMC9 in 2004 and AMC12 in 2005.

CNES teams acquired the satellite immediately after its separation from the launch vehicle. Positioning operations were accomplished using a network of Panamsat C-band ground stations in Fucino (Italy), Uralla (Australia) and Fillmore (United States).

The teams in Toulouse coordinated all these stations, performing operational processing tasks (calculation of orbital parameters, manoeuvres, etc.) and planning and executing all satellite operations with support from Alcatel Alenia Space's experts. CNES directed positioning operations carried out by a joint CNES-Alcatel Alenia Space team.

Positioning involved taking the satellite from a transfer orbit to its allocated geostationary orbital slot at 36,000 km, using three apogee manoeuvres to raise the perigee and correct the orbit inclination. Once on station, AMC23 was configured to commence operations with its solar panels and payload reflectors fully deployed. The satellite was then oriented in its final Earth-pointing attitude and two orbit manoeuvres were executed to finely position the satellite in its orbital slot.

Satellite positioning nominally lasts 10 days and is a vital phase in determining mission success. It must be kept as short as possible, to reduce fuel consumption and maximize satellite service life. For AMC23, positioning operations were completed in a record time of 8 days and a few hours.

With more than 58 successful satellite positioning missions to its credit, 43 of them involving geostationary satellites, CNES thus undertook its last satellite positioning mission in 2005—and also its first in 2006!

Teams at the Toulouse Space Centre are all set for another busy year, with a number of geostationary satellites (Koreasat5, Syracuse3B, StarOne C1) to be positioned, as well as Calipso and COROT. They will join the fleet of 14 satellites for which CNES is already conducting orbit control operations.

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