

# IASI-NG

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Since 2006, the IASI instrument has equipped European Metop satellites. Its strength: in addition to temperature and humidity, it measures more than 25 atmospheric components with great precision. So that this essential data for weather forecasts, pollution and climate monitoring does not stop, CNES is working on its "evolution": IASI-NG.

## Context

Comat is developing the mechanical part of the SCan Mechanism (SCM) of the IASI-NG instrument (Infrared Atmospheric Sounding Interferometer, New Generation), which belongs to the series of MetOp-SG satellites (Meteorological Operational Satellite, Second Generation).

This development is performed in collaboration with ADS, in charge of building the IASI-NG instrument (and also of supplying the electronic part of the SCM).



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## Equipment characteristics

### 2-axis pointing mechanism

- › Stop-and-stare motion to scan the Earth (across the spacecraft track)
- › Continuous motion to offset spacecraft velocity

### Innovative parallel architecture

#### Pointing performances (requirements)

- › Accuracy:  $\leq 250 \mu\text{rad}$  ( $1\sigma$ )
- › Stability:  $\leq 50 \mu\text{rad}$  ( $1\sigma$ )

### Environments

- › Mechanical stress during launch
- ›  $-25^\circ\text{C}$  to  $+55^\circ\text{C}$  (non-operational)
- ›  $0^\circ\text{C}$  to  $35^\circ\text{C}$  (operational)

7.75 years lifetime + 15 years storage



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Mechanism

