IASI-NG : Preliminary System Performances

Quentin CEBE [(1)], Pierre RIEU [(1)], Jérémie ANSART [(1)], François BERMUDO [(1)], Elsa JACQUETTE [(1)], Dimitrios Kilymis [(1)], Clemence LE FEVRE [(1)], Antoine PENQUER [(1)], Emmanuel HILLAIRET [(2)]

*[(1)] **CNES***
18 Av. Edouard Belin, 31401, Toulouse, France
EMail: quentin.cebe@cnes.fr

*[(2)] **CS Group***
Europarc 2, 31300, Toulouse, France

ABSTRACT

Developed by Airbus Defense and Space under CNES overall responsibility in partnership with EUMETSAT, the Infrared Atmospheric Sounding Interferometer New Generation (IASI-NG) is a key payload element of the second generation of European meteorological polar-orbit satellites (METOP-SG). IASI-NG instrument has been designed to ensure continuity the IASI acquisitions, while improving by a factor two compared to IASI with regards to spectral resolution and radiometric accuracy.

In order to meet this high standard of performances, several budgets are established at system level during the development of the project.

The requirements at system level are derived from the IASI-NG mission specification, established by users. Then they are split between space and ground segment with a list of contributions such as instrument budget, Non-Linearity residuals, ground processing contribution, micro-vibration residuals, internal calibration target knowledge, scan mirror reflectivity knowledge, and atmospheric scene contributions.

The best evaluation of the complete performance budget pre-launch is done using a mix of measurements acquired during the Thermal Vacuum tests and simulations of atmospheric scenes.

The objective of this presentation is to give details of the system performance budget calculation as well as presenting the most recent results of this budget for IASI-NG.