

SPACE EXPLORATION SYMPOSIUM (A3)
Space Based Astronomy (4)

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THE HERSCHEL / PLANCK PROGRAMME - TWO SCIENCE MISSIONS LAUNCHED

Abstract

The two science missions Herschel, an observatory-type mission, and Planck, a survey mission, are combined in one programme within ESAs long-term science programme.

Herschel, an observatory mission, will target the largely unexplored infrared and sub-millimetre part of the electromagnetic spectrum from 60 to 670 microns with three scientific instruments.

As a survey mission, the objective for Planck is to image systematically the whole sky simultaneously with two scientific instruments in nine frequency channels between 30 and 900 GHz to unravel the temperature fluctuations, the anisotropy, of the cosmic background radiation.

For both satellites, which have now been launched from the European Space Port in Kourou, French Guiana, on a single Ariane 5 launcher, the orbits will be Lissajous orbits around the 2nd Lagrange Point L2 of the Earth-Sun system.

Having surpassed the technological problems and the validation of the instruments, this paper will recall the Herschel & Planck spacecraft's characteristics, the mission aspects and the science requirements.

The integration and acceptance verification of both spacecraft flight models having reached completion and the two satellites having been launched, this paper will highlight the last stages of development of the spacecraft level acceptance tests and focus on the major milestones up to the launch from Kourou in the first half of 2009.