

4. Missions Under Study

4.1 Introduction

Four studies have been started for the three new Cornerstones: a mission to Mercury, an Interferometry Observatory (in two options, one an astrometric interferometer, GAIA, the other, IRSI, Infrared Space Interferometer, to search for Earth-like planets) and a Gravitational Wave Observatory, LISA. The studies will lead to a selection of the fifth Cornerstone by the end of 1999.

The studies for the first F-type mission concern two fields already singled out in the Horizons 2000 programme: participation in the International Mars Programme (now Mars Express) and in the Next Generation Space Telescope (NGST).

Studies for a small participation in a fundamental-physics mission (Mini-STEP) are also underway.

In addition, intensive studies are taking place for the first SMART mission (to test navigation with solar electric propulsion).

The decisions for implementing Mars Express and SMART-1 will be taken in Spring 1998. Those for Mini-STEP and NGST, both collaborations with NASA, will be taken in coordination with this partner.