APPENDIX F

THE HIPPARCOS SATELLITE DURING DEVELOPMENT

Figure F1. *(top): the beam combiner at REOSC during verification. The clearly defined inner reflective part of each mirror half was a flat surface for alignment purposes. The support structure minimised loads during on-ground activities.*

Figure F2. *(bottom): preparation of the spherical mirror wavefront error test, Zeiss, Germany (1987).*

ESA 86.09.026-025

ESA 86.09.026-118

Figure F3. *(top): integration of the spherical mirror into the flight model telescope structure, Matra, Toulouse (1987).*

Figure F4. *(bottom): alignment of the flight model telescope at Matra (1987); the baffle entrance aperture is visible at the front.*

Figure F5. *The payload, in its 'clean tent', in preparation for thermal vacuum testing, Liège, October 1986 (courtesy D. Morin).*

ESA: picture report 88077.1

Figure F6. *Integration of the satellite flight model. The payload is at the top, enclosed in its thermally protective multi-layer insulation. The satellite subsystems are the black boxes lying between the two lower horizontal plates. The apogee boost motor is at the bottom.*

Figure F7. *The Hipparcos spacecraft qualification model in preparation for vibration tests at Intespace, Toulouse.*

Figure F8. *The satellite flight model in ESTEC's Large Solar Simulator undergoing thermal vacuum testing, at a spin rate of 5 rpm.*

Figure F9. *Testing of the Hipparcos satellite thermal model using the solar simulation facilities at IABG, München (1987).*

ESA: 88.04.022.002

Figure F10. *Satellite testing (including electrical checkout tests) at ESTEC (1988).*

ESA: picture report 88075.2

Figure F11. *The Hipparcos satellite in the Large Solar Simulator, ESTEC, February 1988. In these tests of the satellite's thermal equilibrium under simulated solar illumination, the solar panels are in their stowed (launch) configuration.*

ESA: picture report 88096.2

Figure F12. *The Hipparcos satellite in the Large Solar Simulator, ESTEC, February 1988, with solar panels deployed.*

Figure F13. *The Main Control Room at ESOC.*

Figure F14. *The Hipparcos satellite before launch, at CSG, Kourou (Photo CSG Kourou).*