Chapter 3 - Encounter Geometries

Contents

Introduction to Chapter 3

This chapter contains diagrams of various aspects of geometry for the Gaspra Encounter.

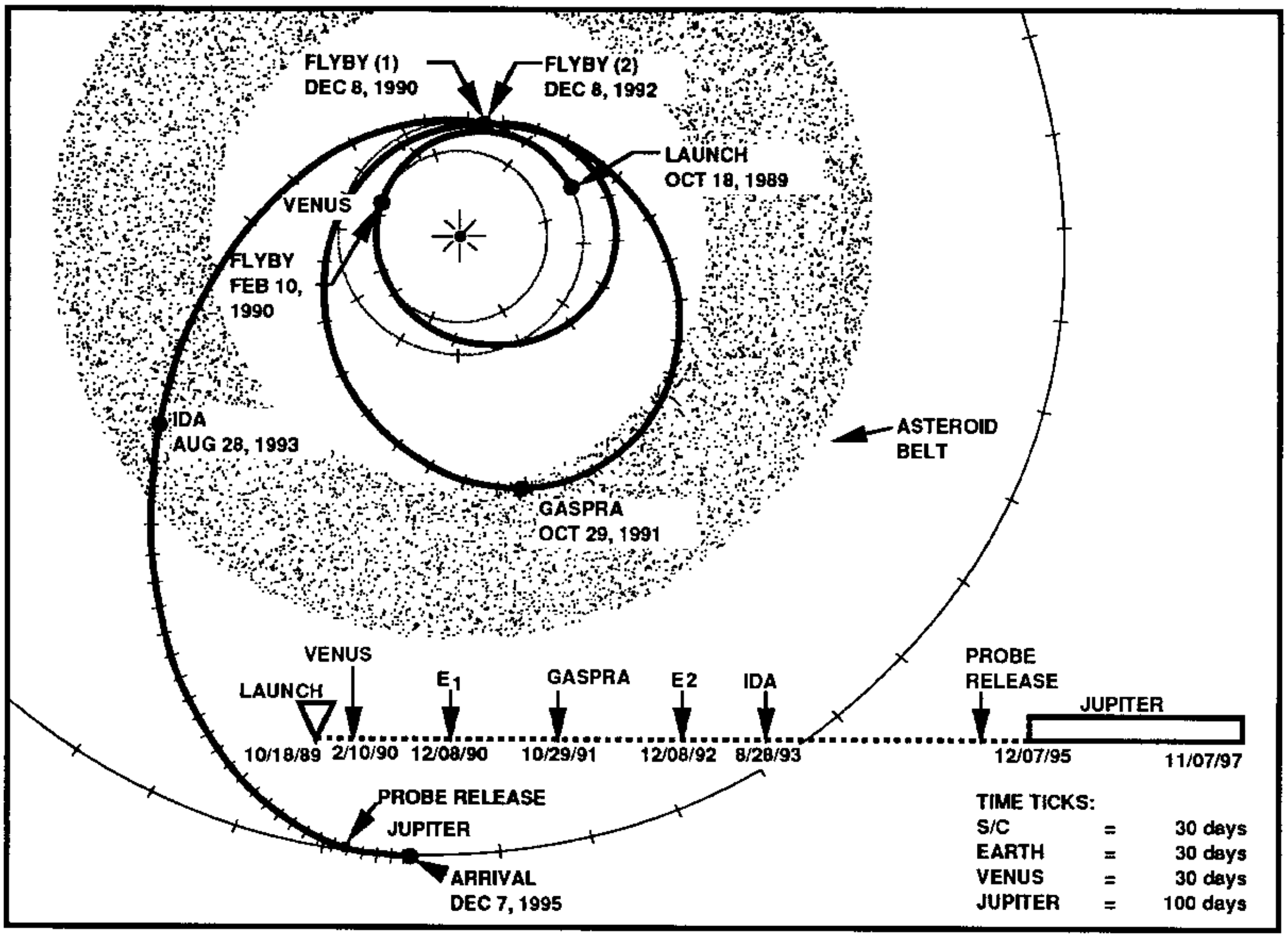
The figure on page 3 shows the entire Galileo VEEGA Trajectory from launch through Jupiter arrival with various ’milestones’ labeled along the trajectory.

The figure on page 4 shows the geometry of the 5 OPNAV images taken on approach to Gaspra.

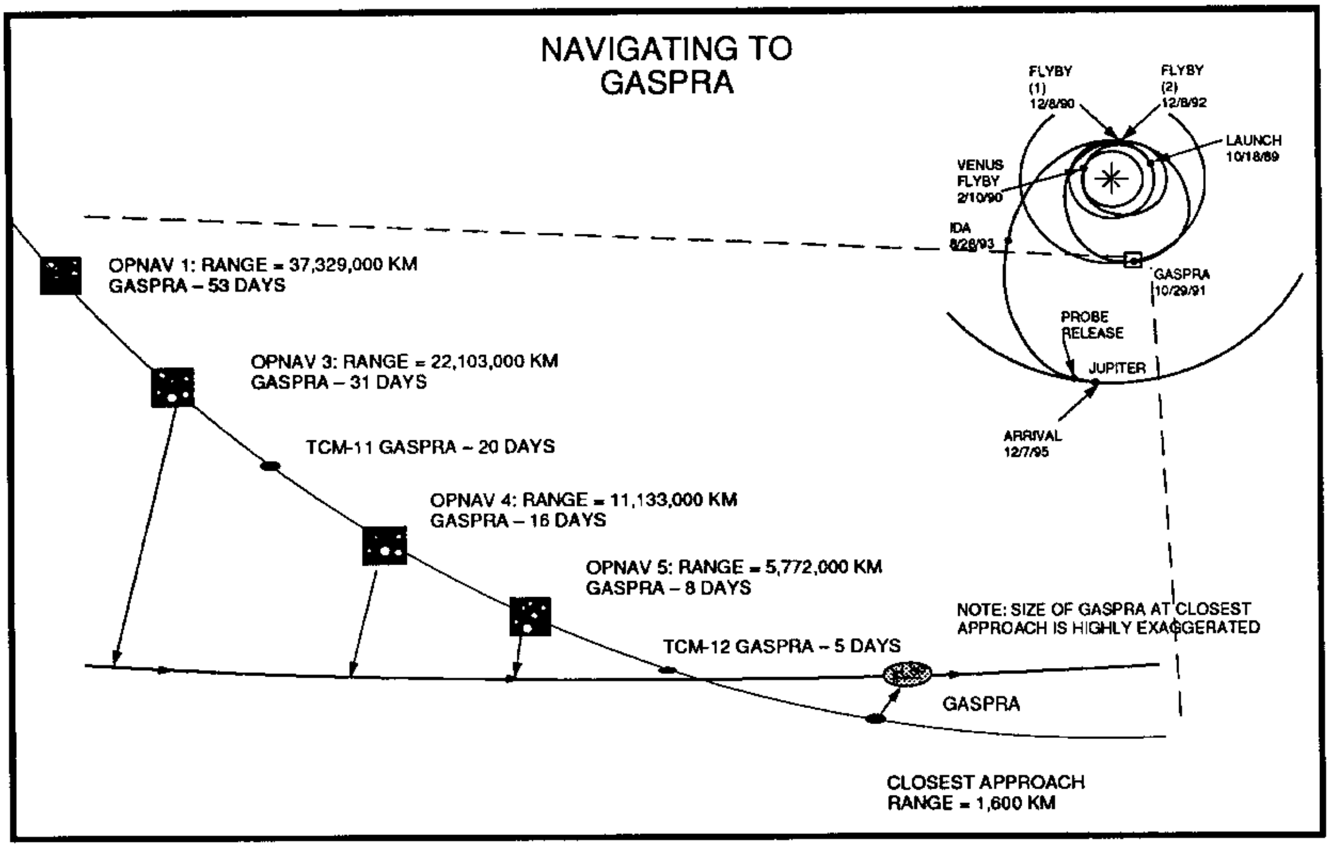
The figure on page 5 is a cartoon of the geometry of the Galileo Flyby of Gaspra.

The figure on page 6 is a Pole View of the Trajectory of Galileo during the Gaspra Flyby produced by the Galileo NAV Team.

The figure on page 7 is a plot of Phase Angle (Sun-Gaspra-S/C) as a function of time during the Gaspra Flyby.

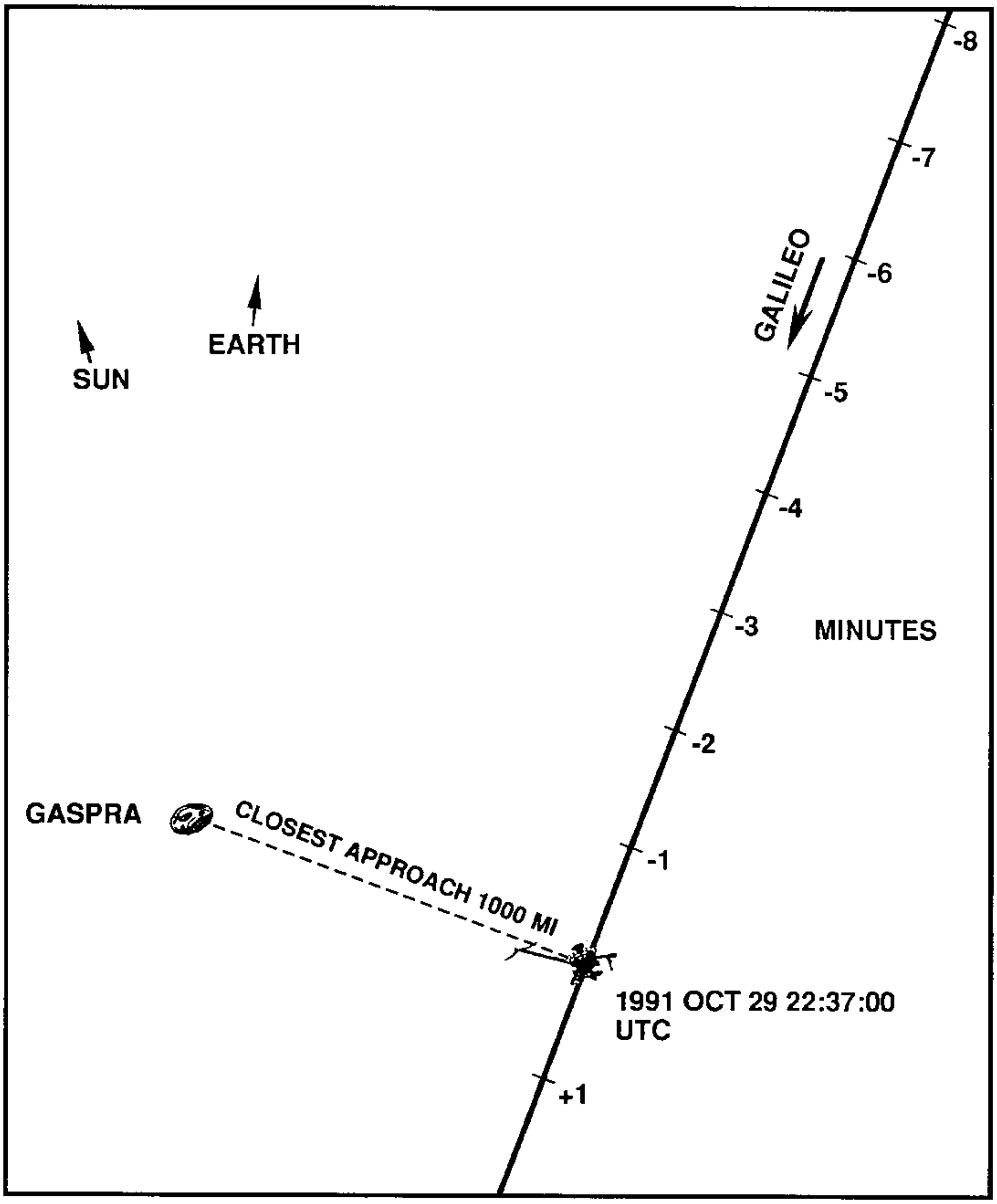


VEEGA TRAJECTORY

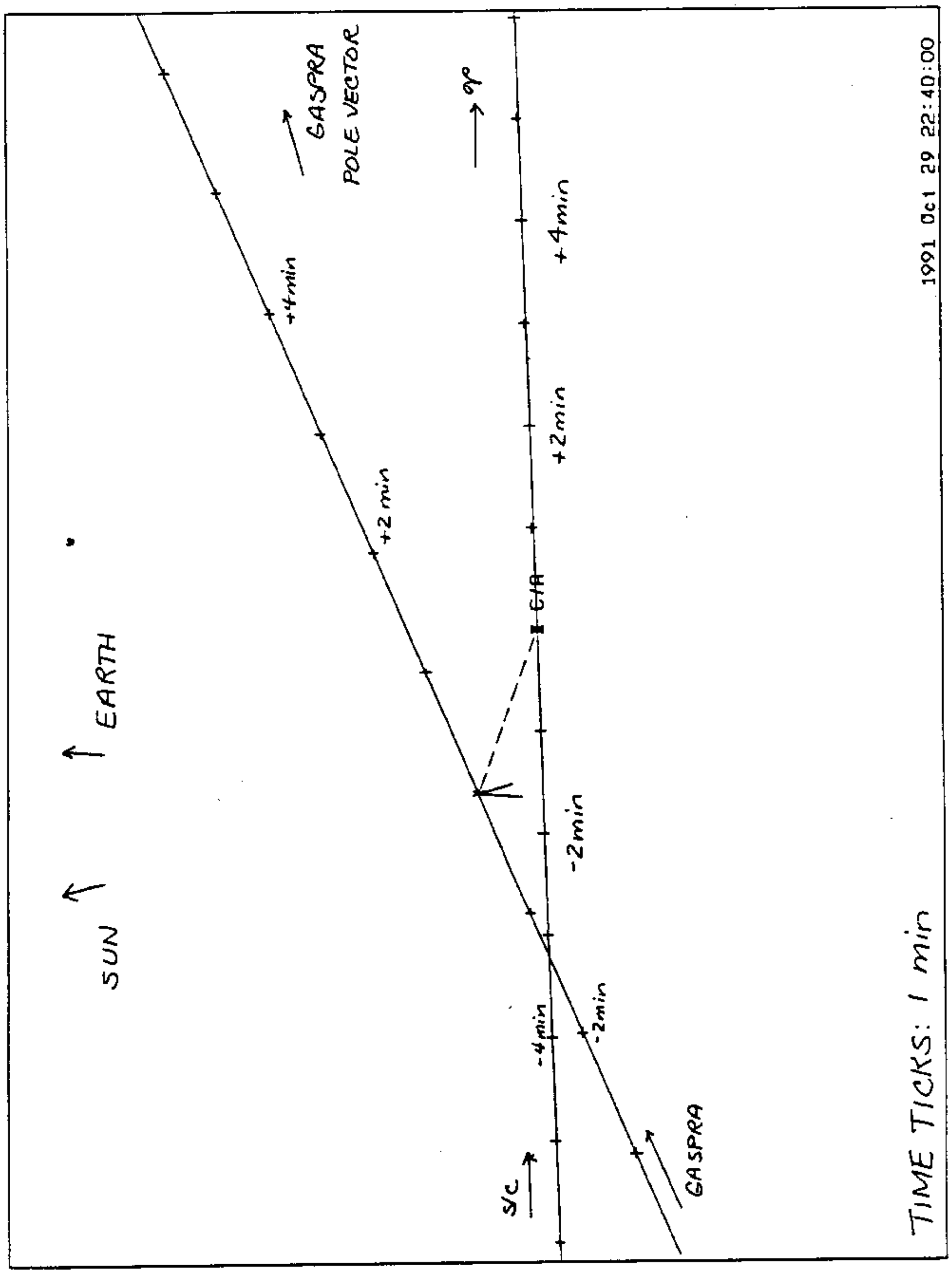


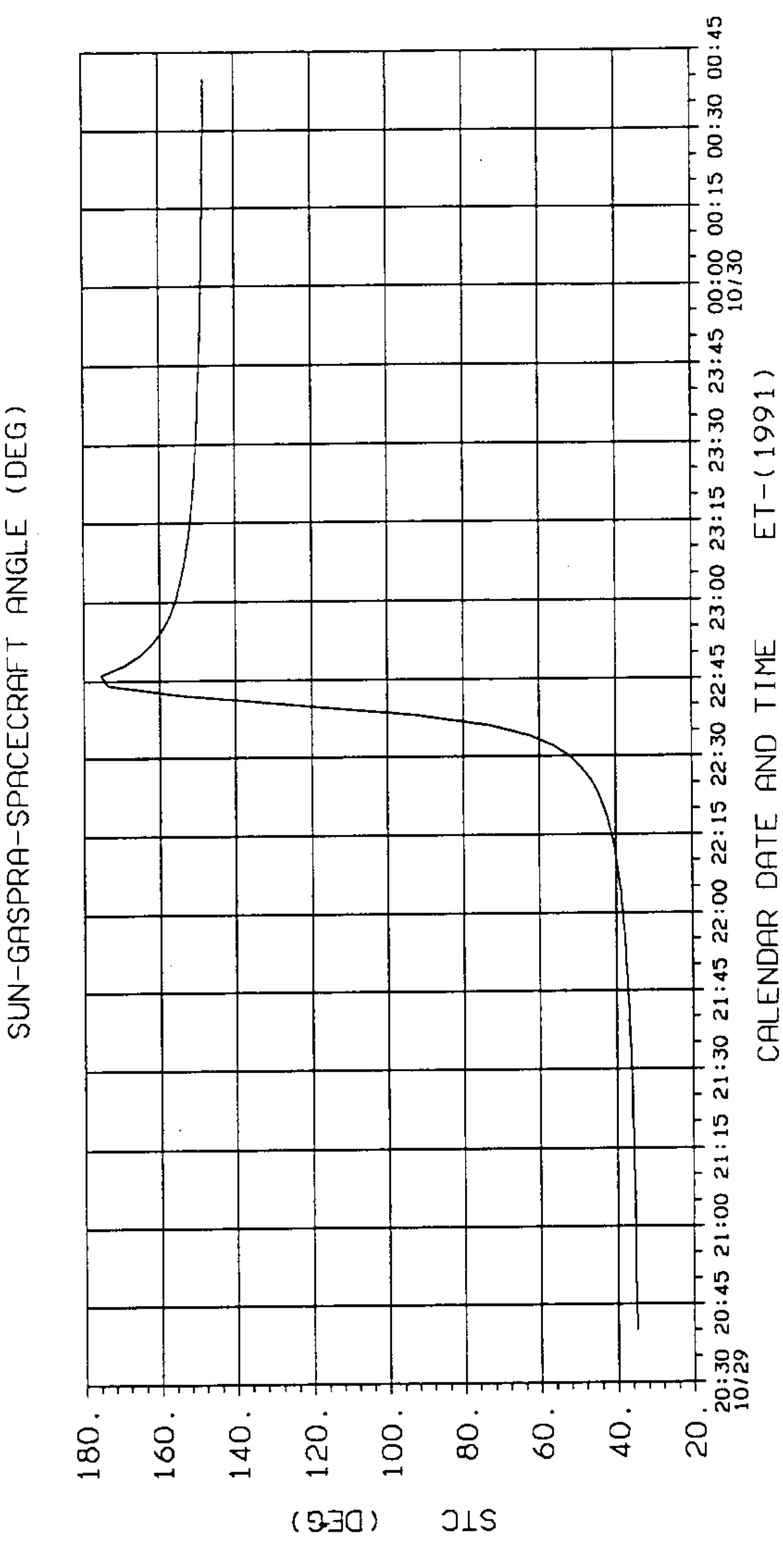
Path of Galileo past Gaspra showing OPNAV locations and ranges.

GALILEO AT ASTEROID GASPRA



DARKSIDE FLYBY
SUN-CENTERED N. ECLIPTIC POLE VIEW: CA -/+ 6 MIN




SUN-GASPRA-SPACECRAFT ANGLE (DEG)
STC (DEG)
180.
160.
140.
120.
100.
80.
60.
40.
20.
20:30 10/29
20:45
21:00
21:15
21:30
21:45
22:00
22:15
22:30
22:45
23:00
23:15
23:30
23:45
00:00 10/30
00:15
00:30
00:45
CALENDAR DATE AND TIME ET-(1991)