Chapter 3 - Orbit Geometries

Contents

Sub-Section		Page
3.0	Contents	1
3.1	Introduction to Chapter 3	2
3.2	E15 North Trajectory Pole View (apo to apo) ..	3
3.3	E15 North Trajectory Pole View (+/- 5 days) ..	4
3.4	E15 North Trajectory Pole View (+/- 2 days) ..	5
3.5	E15 North Trajectory Pole View (+/- 1 day) ...	6
3.7	Europa North Trajectory Pole View (+/- 6 hours)	7
3.8	Europa North Trajectory Pole View (+/- 1 hour)	8
3.9	Europa Groundtrack at Closest Approach	9
3.10	Jupiter Groundtrack at Closest Approach	10

Introduction to Chapter 3

This chapter contains diagrams of various aspects of geometry for the E15 Orbit.

The figure on page 3 is a North Trajectory Pole View of the E15 Orbit from apoapsis to apoapsis.

The figure on page 4 is a North Trajectory Pole View of the E15 Orbit from +/- 5 days of Europa closest approach.

The figure on page 5 is a North Trajectory Pole View of the E15 Orbit from +/- 2 days of Europa closest approach.

The figure on page 6 is a North Trajectory Pole View of the E15 Orbit from +/- 1 day of Europa closest approach.

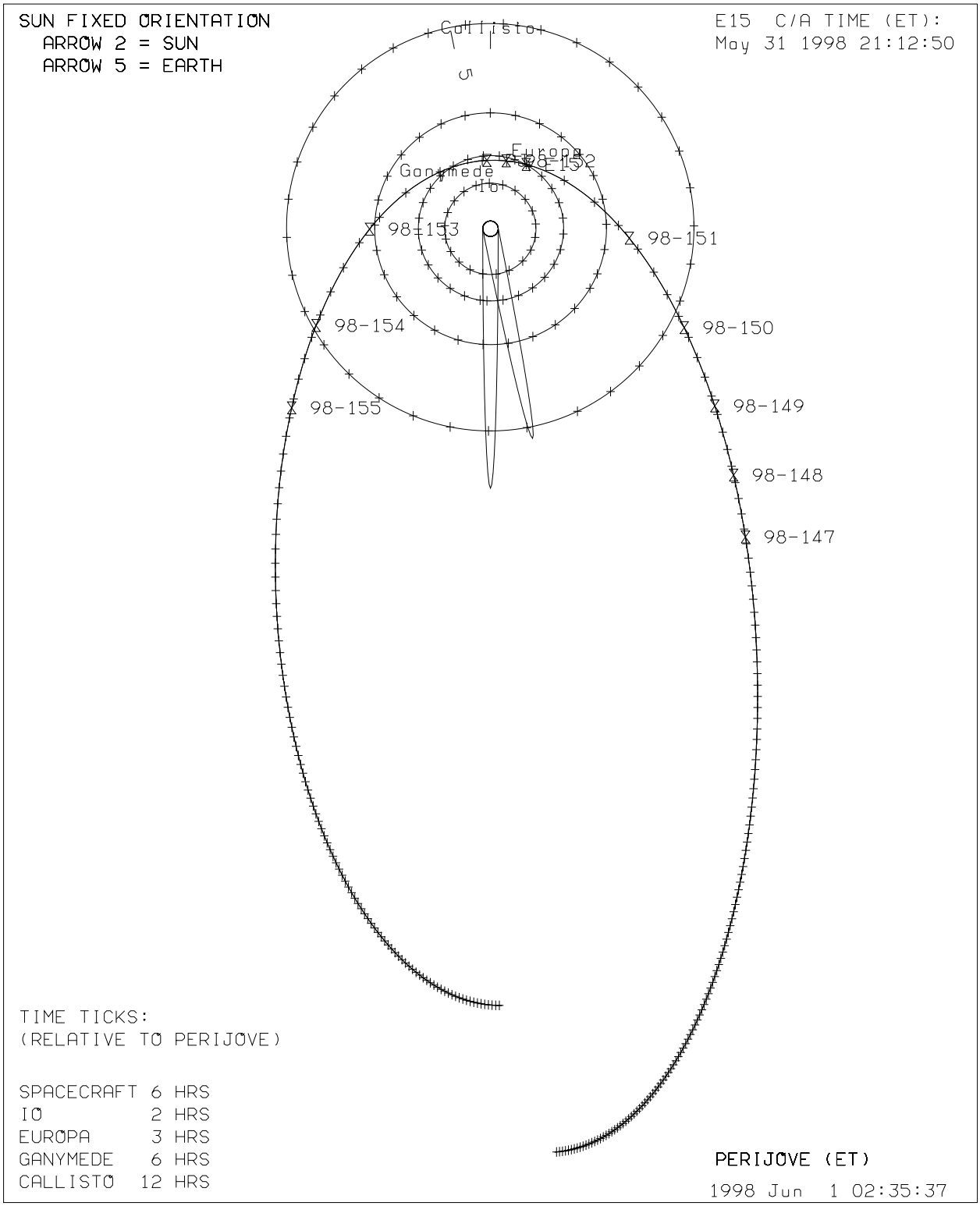
The figure on page 7 is a North Trajectory Pole View of the E15 Orbit from +/- 6 hours of Europa closest approach.

The figure on page 8 is a North Trajectory Pole View of the E15 Orbit from +/- 1 hour of Europa closest approach.

The figure on page 9 shows the spacecraft’s groundtrack on Europa at Europa closest approach.

The figure on page 10 shows the spacecraft’s groundtrack on Jupiter at Jupiter closest approach.

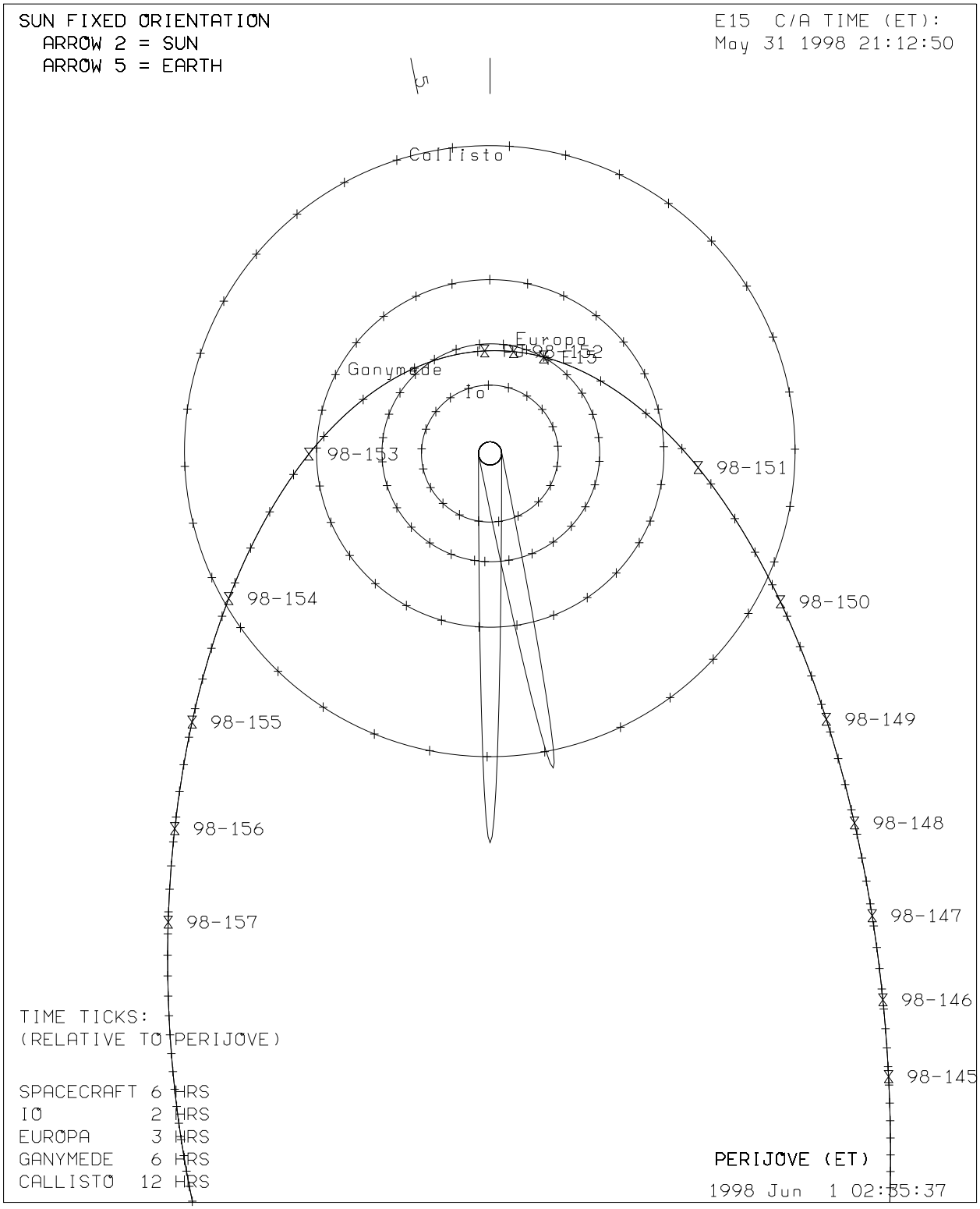
JUPITER 15: N. TRAJ. ~POLE VIEW (APO TO APO)



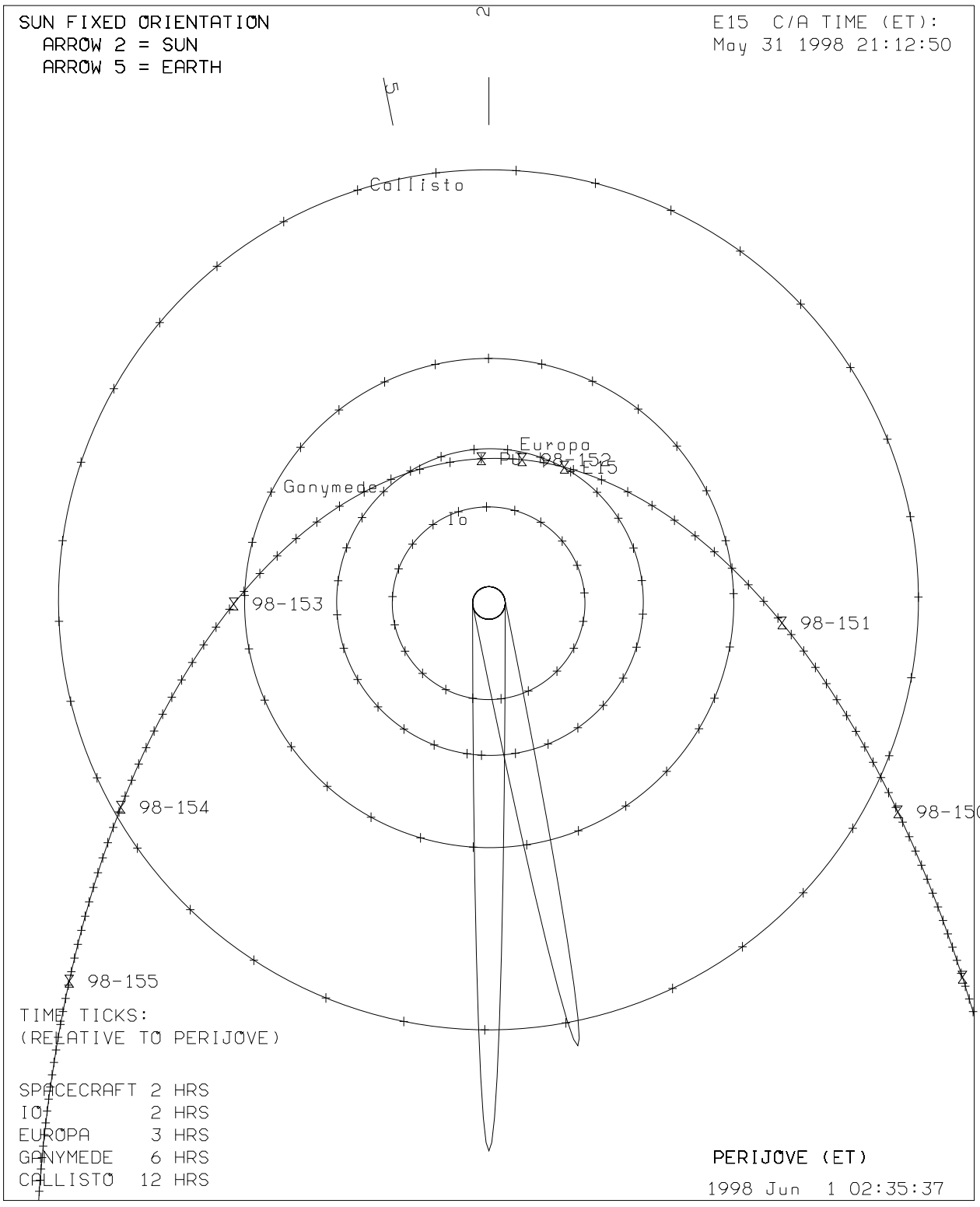
GEM-970401

NAV Apr 24, 1997

JUPITER 15: N. TRAJ. POLE VIEW (+/- 5 DAYS)



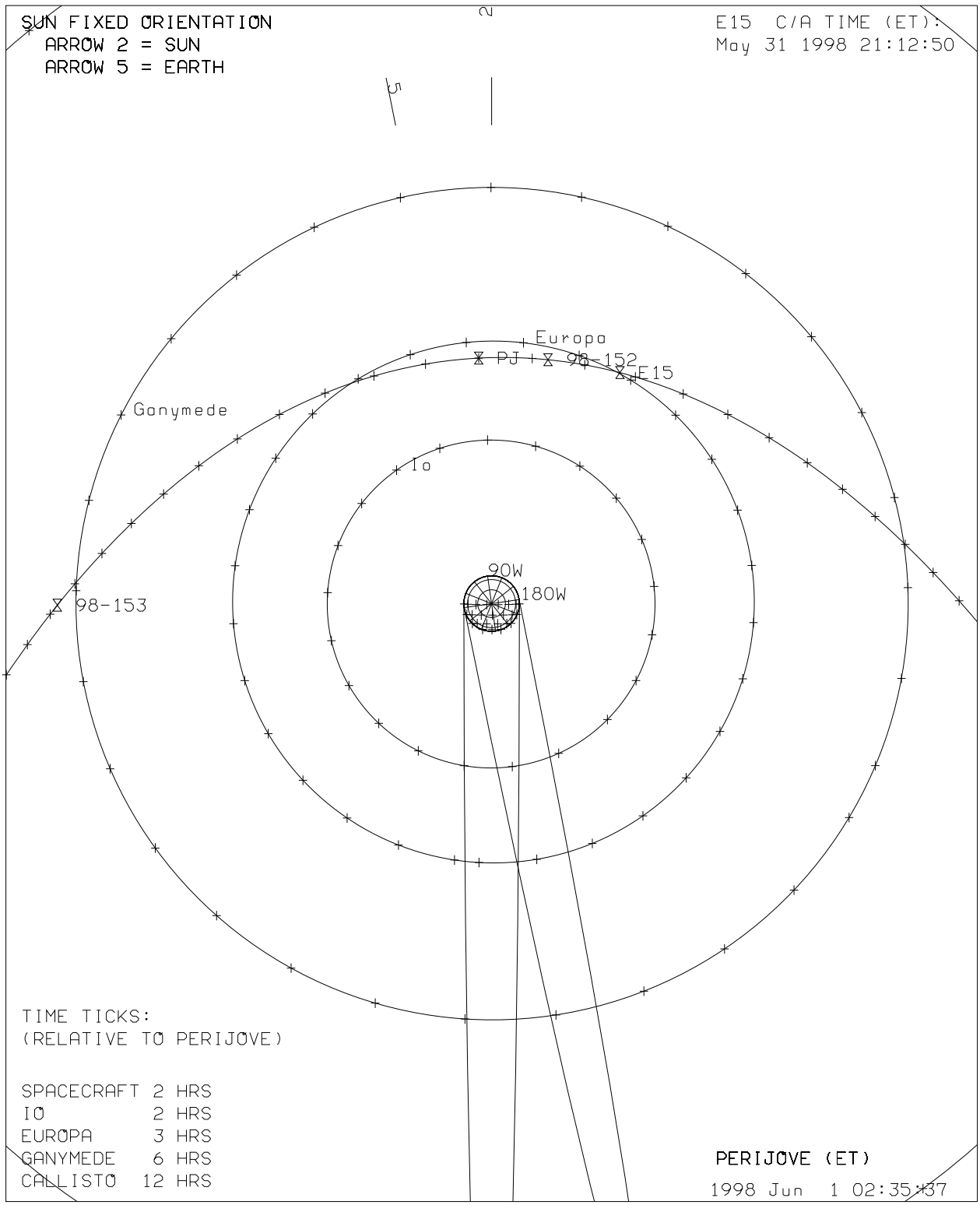
JUPITER 15: N. TRAJ. POLE VIEW (+/- 2 DAYS)



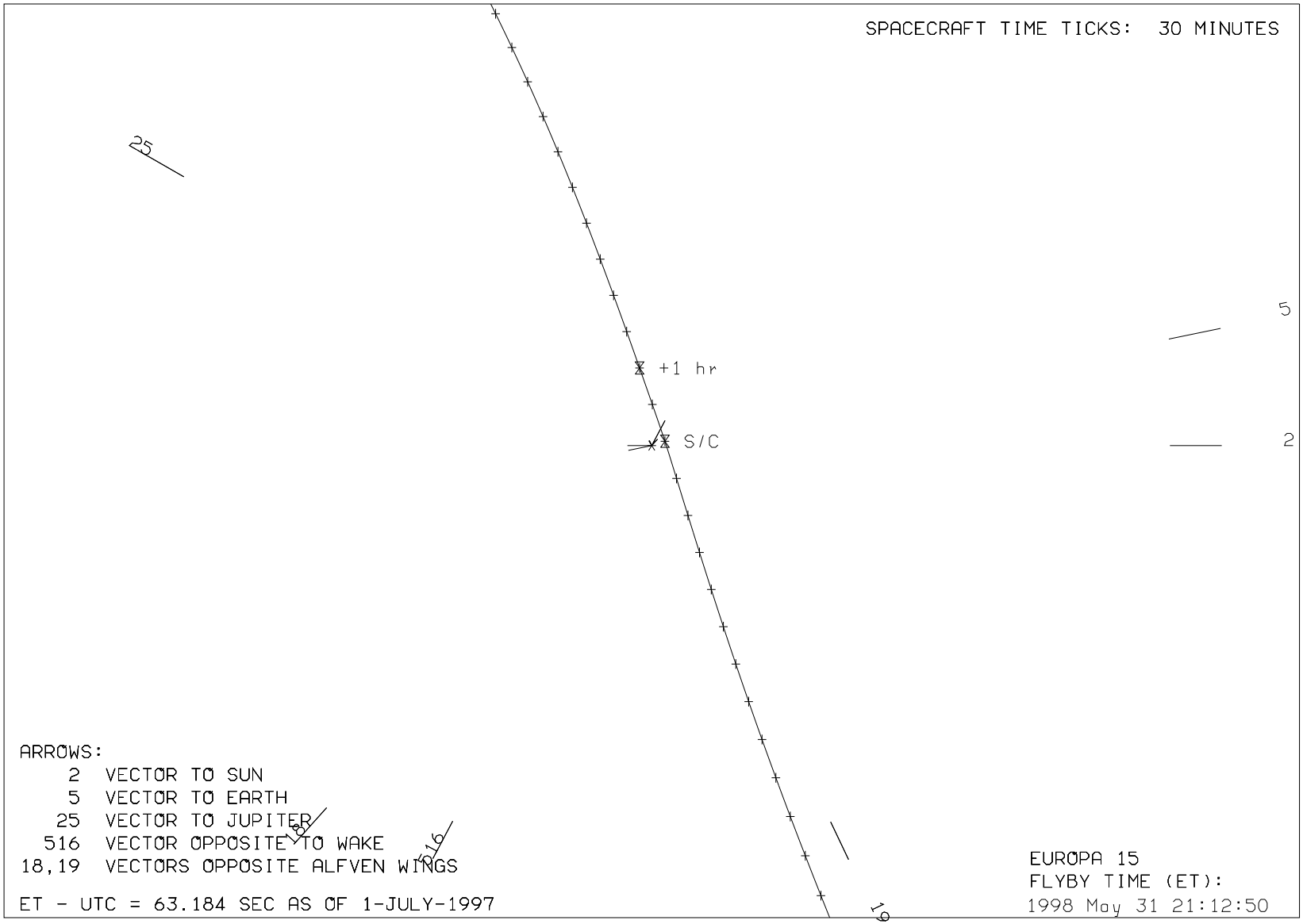
GEM-970401

NAV Apr 24, 1997

JUPITER 15: N. TRAJ. POLE VIEW (+/- 1 DAY)

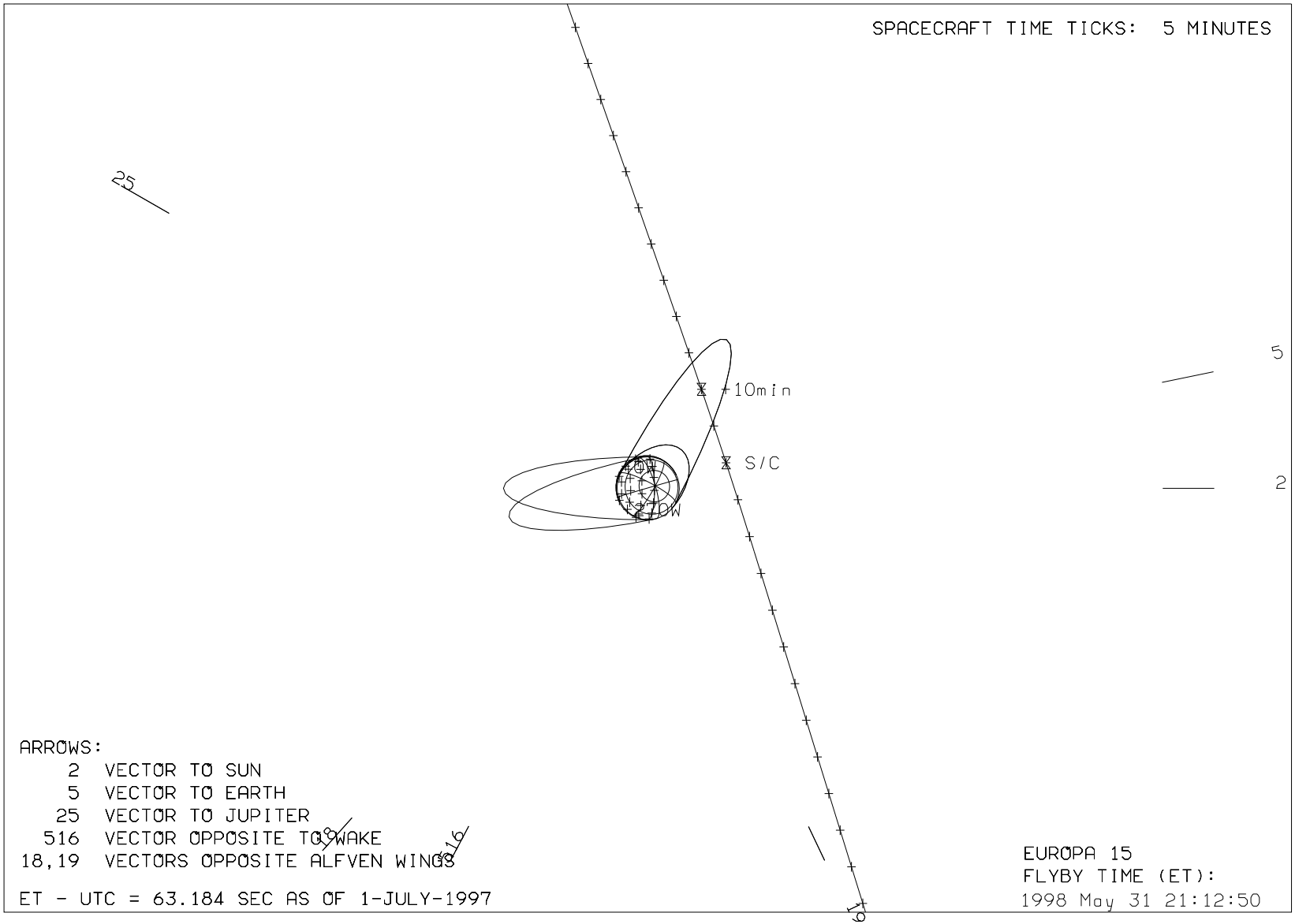


EUROPA 15: N. TRAJ POLE VIEW (+/- 6 HRS)



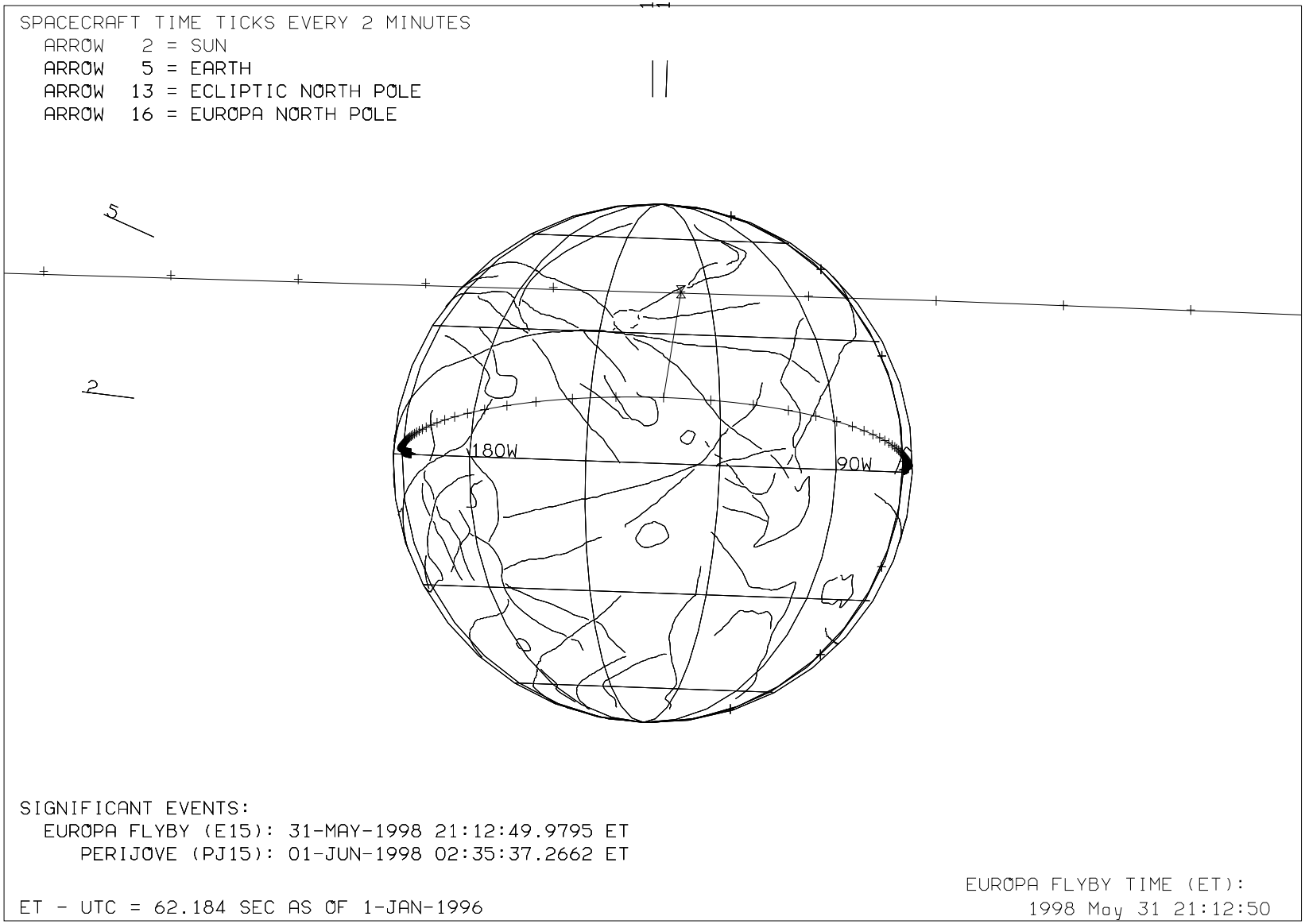
NAV 4/30/97

EUROPA 15: N. TRAJ POLE VIEW (+/- 1 HR)



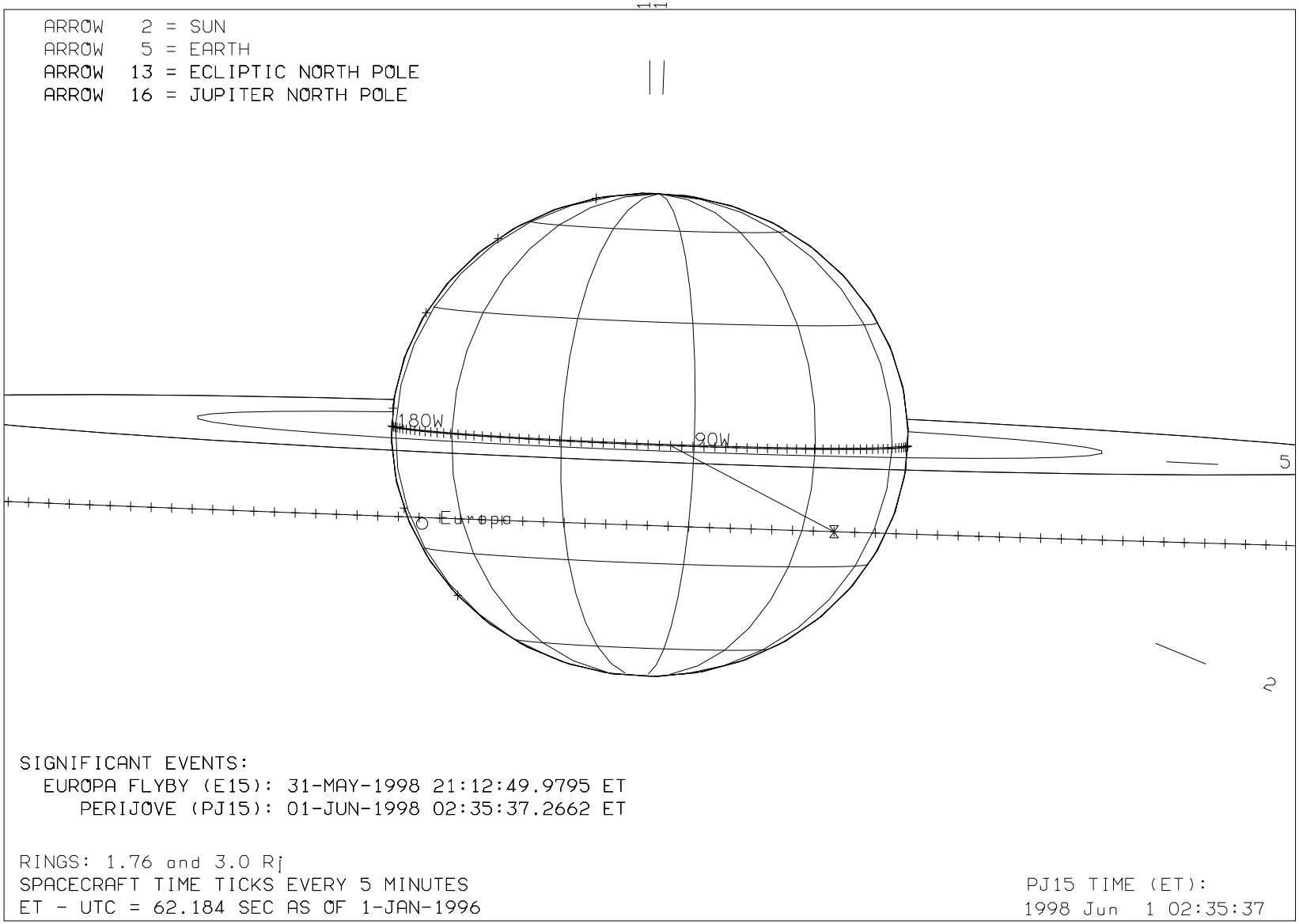
NAV 4/30/97

EUROPA 15: GROUNDTRACK AT CLOSEST APPROACH



NAV Apr 7, 1997

JUPITER 15: GROUNDTRACK AT CLOSEST APPROACH



SIGNIFICANT EVENTS:
EUROPA FLYBY (E15): 31-MAY-1998 21:12:49.9795 ET
PERIJOVE (PJ15): 01-JUN-1998 02:35:37.2662 ET

RINGS: 1.76 and 3.0 Rj
SPACECRAFT TIME TICKS EVERY 5 MINUTES
ET - UTC = 62.184 SEC AS OF 1-JAN-1996

PJ15 TIME (ET):
1998 Jun 1 02:35:37

NAV Apr 7, 1997