Chapter 3 - Orbit Geometries

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Introduction to Chapter 3

This chapter contains diagrams of various aspects of geometry for the C21 Orbit.

The figure on page 3 is a North Trajectory Pole View of the C21 Orbit from apoapsis to apoapsis.

The figure on page 4 is a North Trajectory Pole View of the C21 Orbit from +/- 5 days of Callisto closest approach.

The figure on page 5 is a North Trajectory Pole View of the C21 Orbit from +/- 2 days of Callisto closest approach.

The figure on page 6 is a North Trajectory Pole View of the C21 Orbit from +/- 1 day of Callisto closest approach.

The figure on page 7 is a North Trajectory Pole View of the C21 Orbit from +/- 6 hours of Callisto closest approach.

The figure on page 8 is a North Trajectory Pole View of the C21 Orbit from +/- 1 hour of Callisto closest approach.

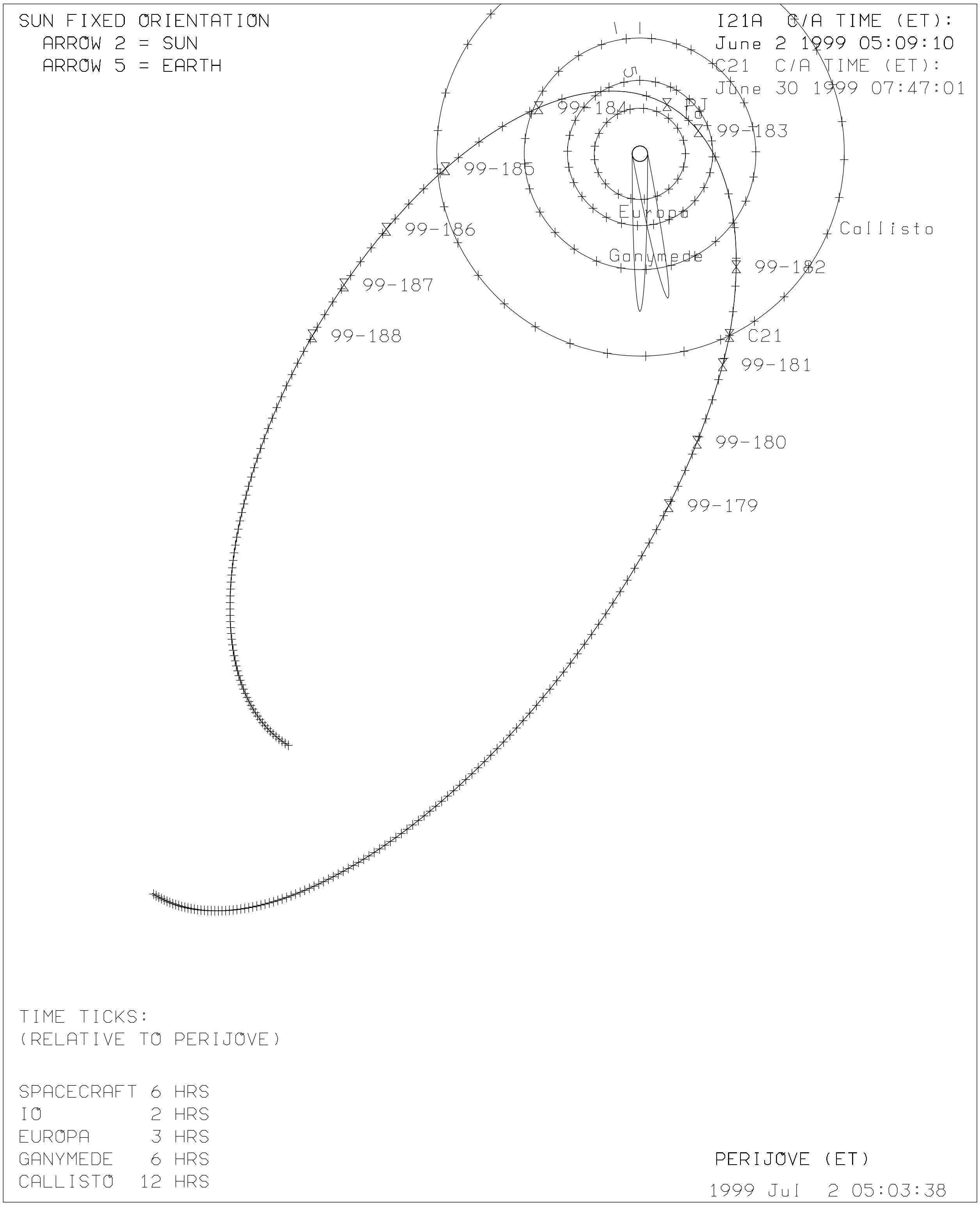
The figure on page 9 is a North Trajectory Pole View of the C21 Orbit from +/- 6 hours of Io closest approach.

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

The figure on page 11 shows the spacecraft’s groundtrack on Jupiter at Jupiter closest approach.

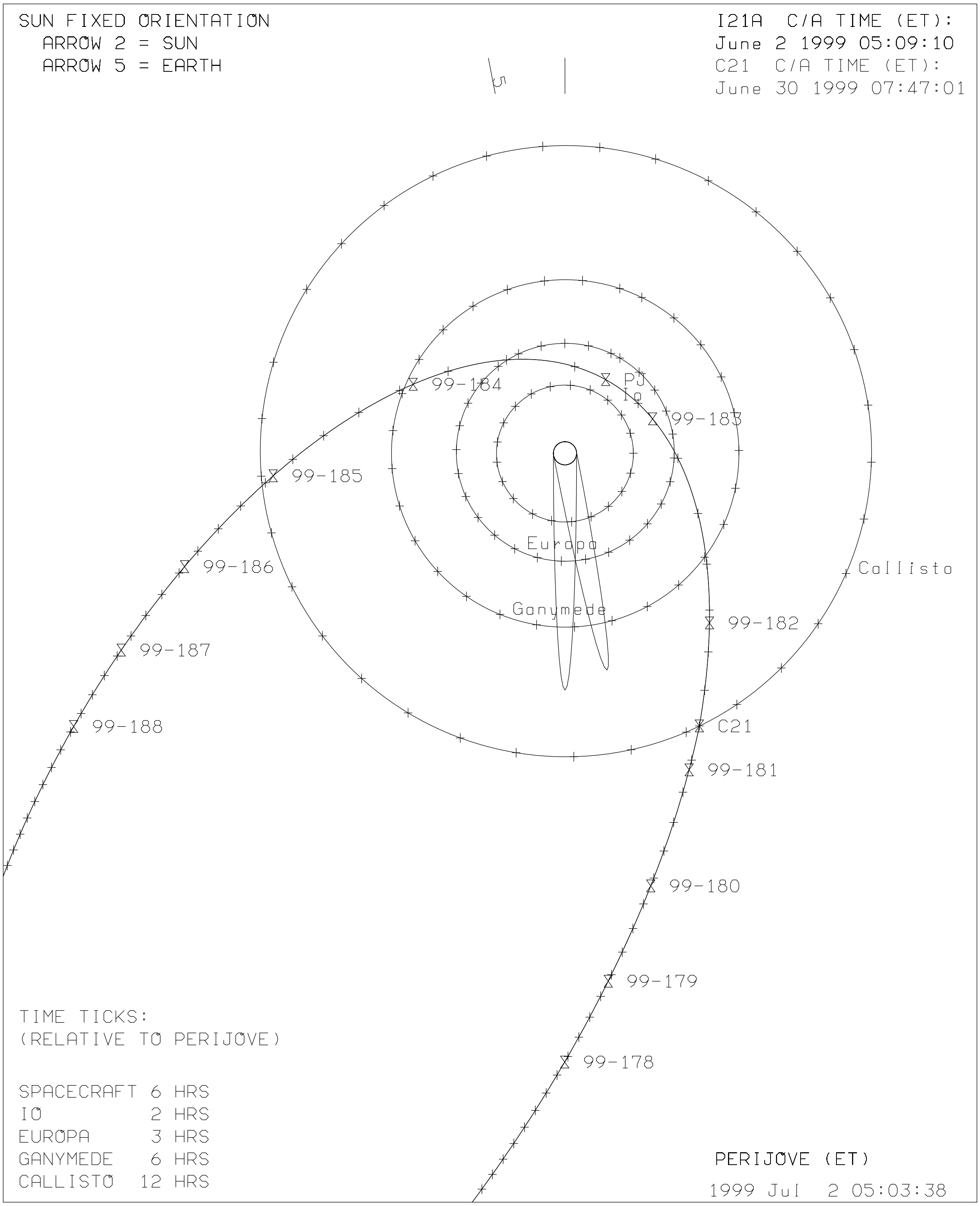
The figure on page 12 shows the spacecraft’s groundtrack on Io at Io closest approach.

JUPITER 21: N. TRAJ. POLE VIEW (APO TO APO)



GEM-970401 NAV Apr 24, 1997

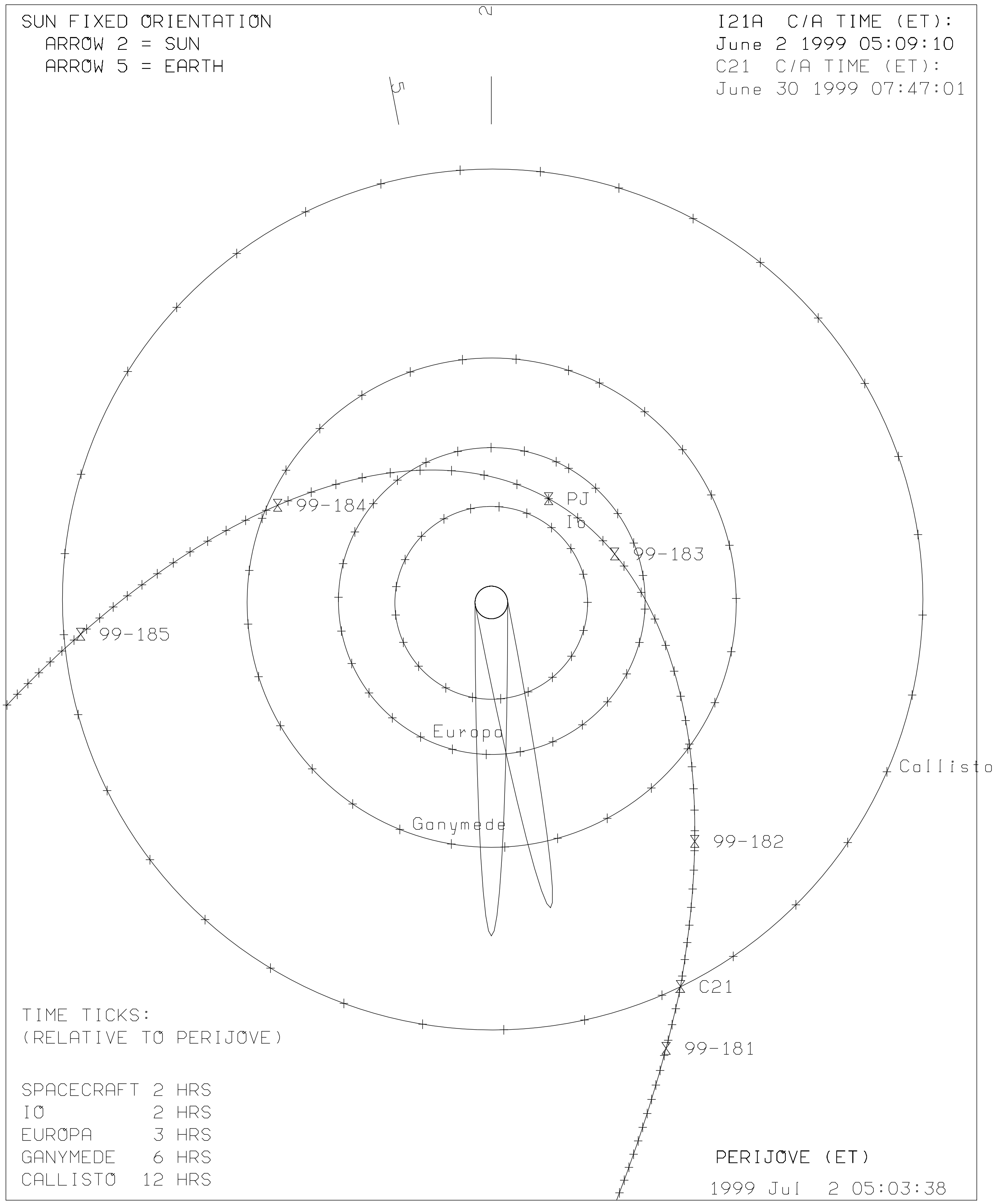
JUPITER 21: N. TRAJ. POLE VIEW (+/- 5 DAYS)



GEM-970401

NAV Apr 11, 1997

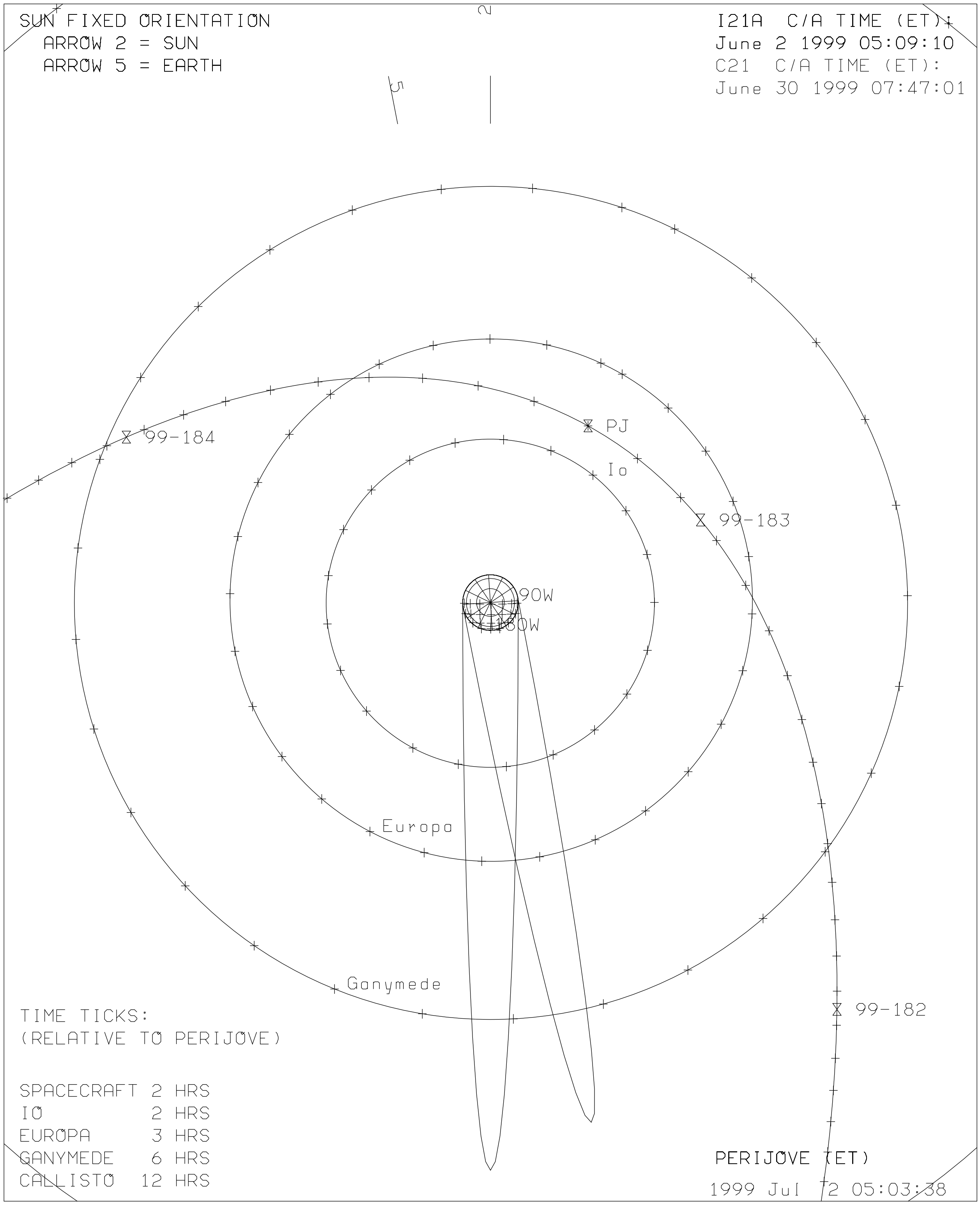
JUPITER 21: N. TRAJ. POLE VIEW (+/- 2 DAYS)



GEM-970401

NAV Apr 24, 1997

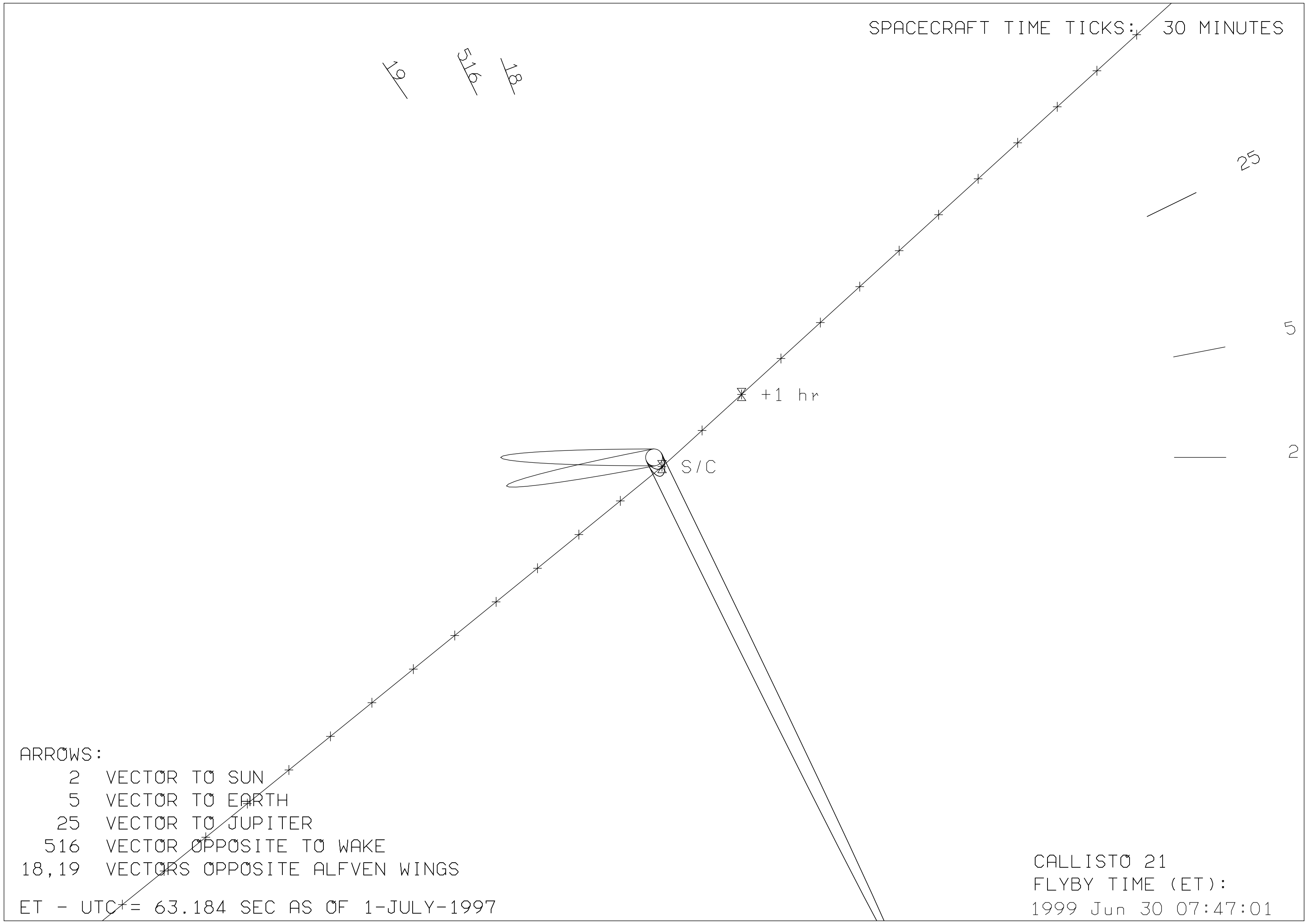
JUPITER 21: N. TRAJ. POLE VIEW (+/- 1 DAY)



GEM-970401

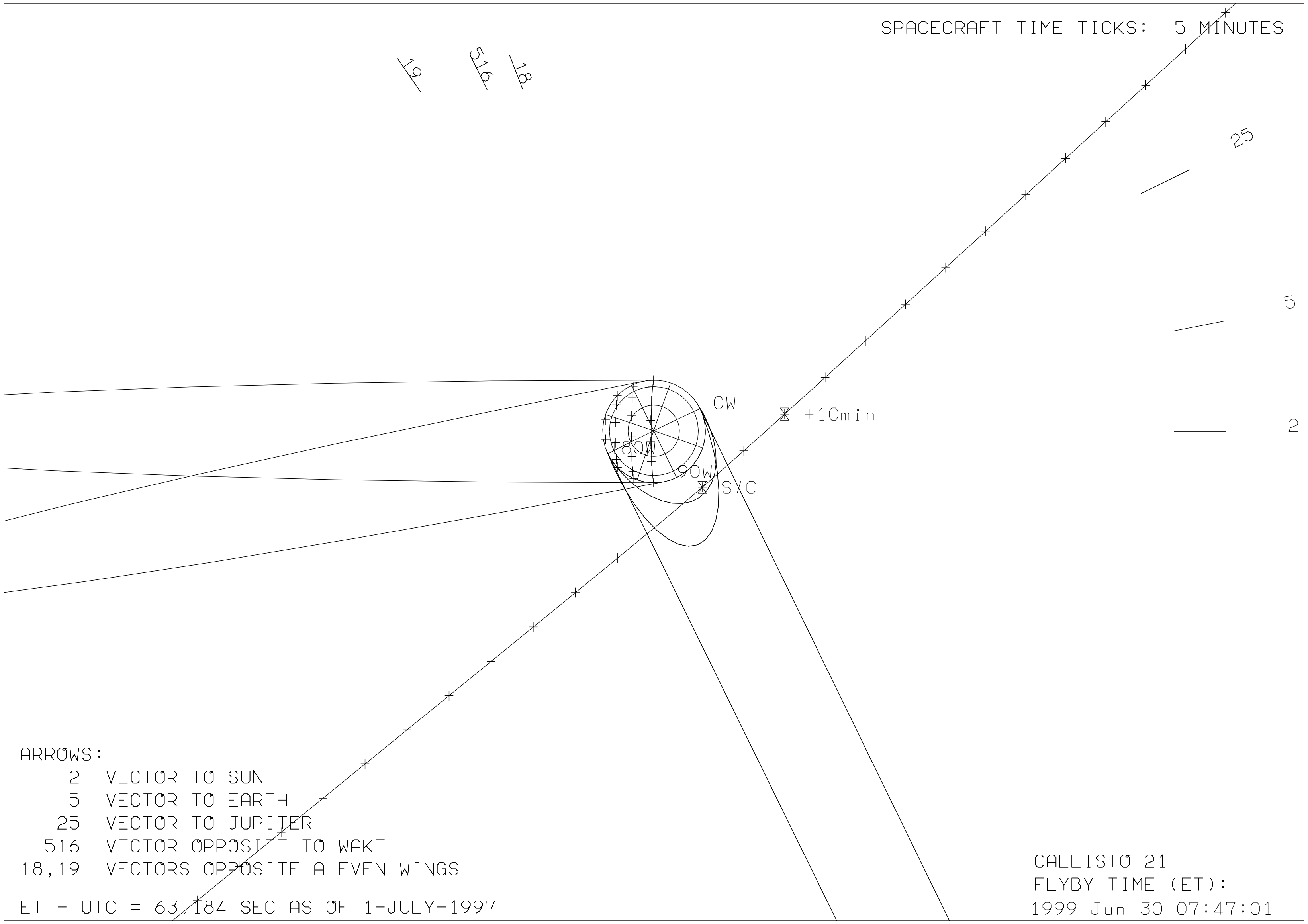
NAV Apr 6, 1997

CALLISTO 21: N. TRAJ POLE VIEW (+/- 6 HRS)



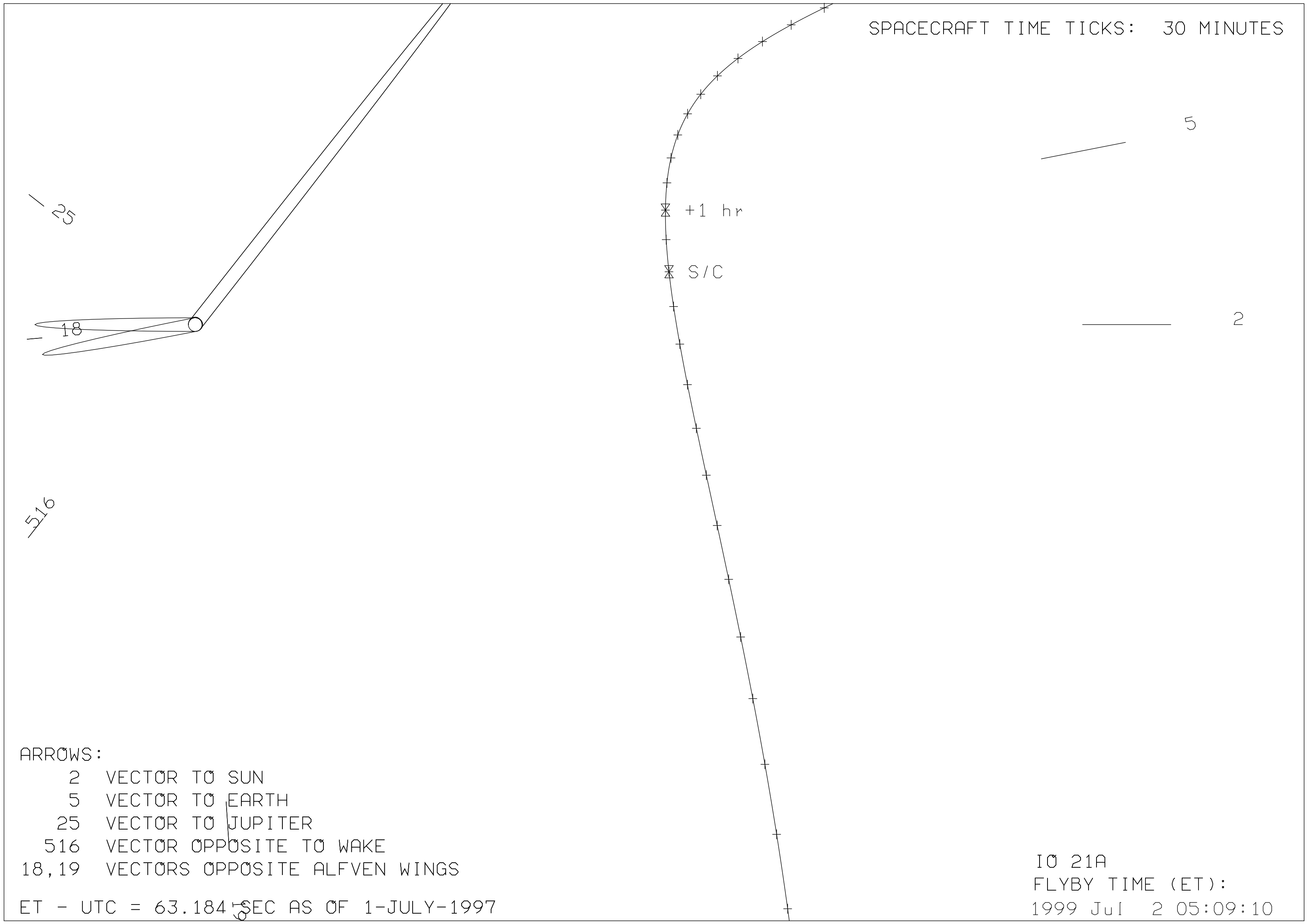
NAV 4/30/97

CALLISTO 21: N. TRAJ POLE VIEW (+/- 1 HR)



NAV 4/30/97

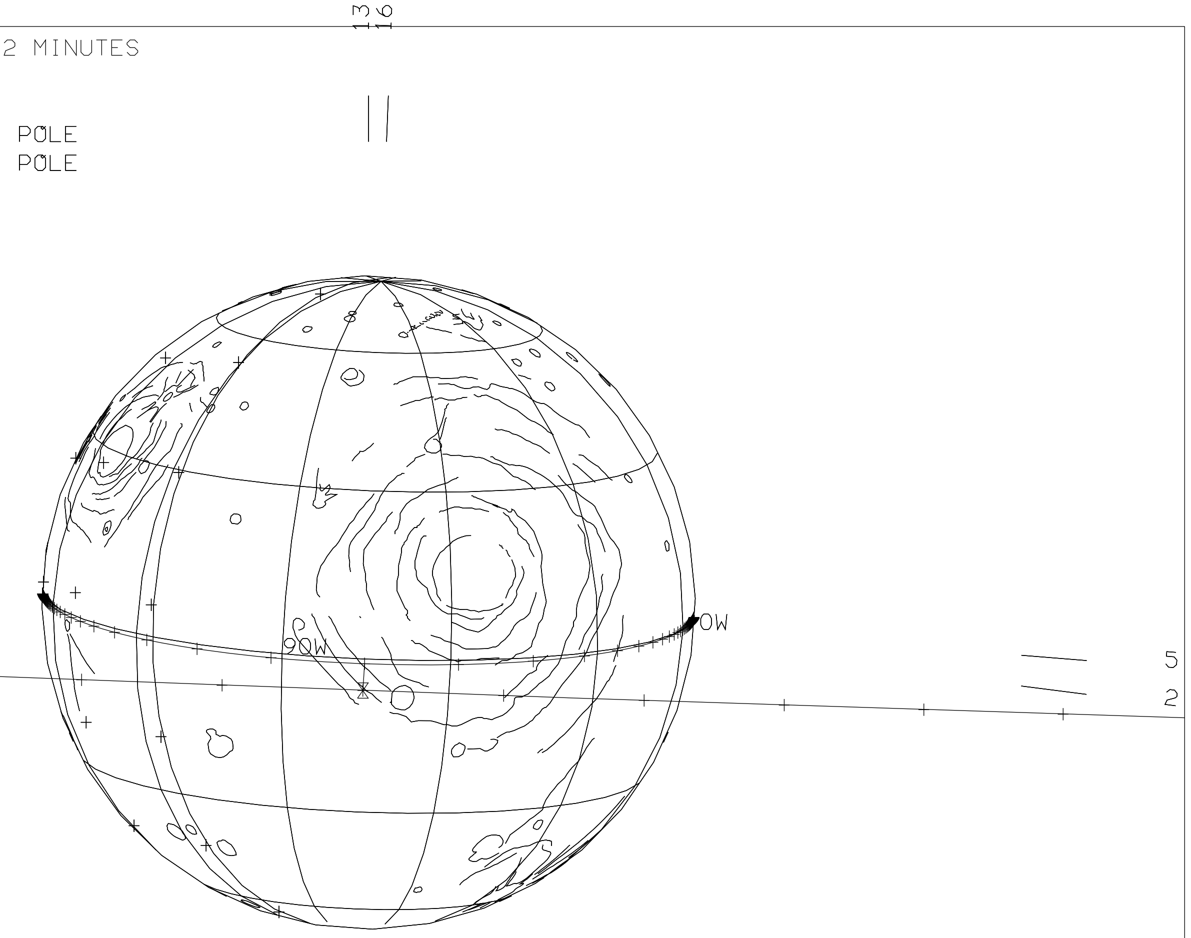
IO 21A: N. TRAJ POLE VIEW (+/- 6 HRS)



NAV 4/30/97

CALLISTO 21: GROUNDTRACK AT CLOSEST APPROACH

SPACECRAFT TIME TICKS EVERY 2 MINUTES
ARROW 2 = SUN
ARROW 5 = EARTH
ARROW 13 = ECLIPTIC NORTH POLE
ARROW 16 = CALLISTO NORTH POLE

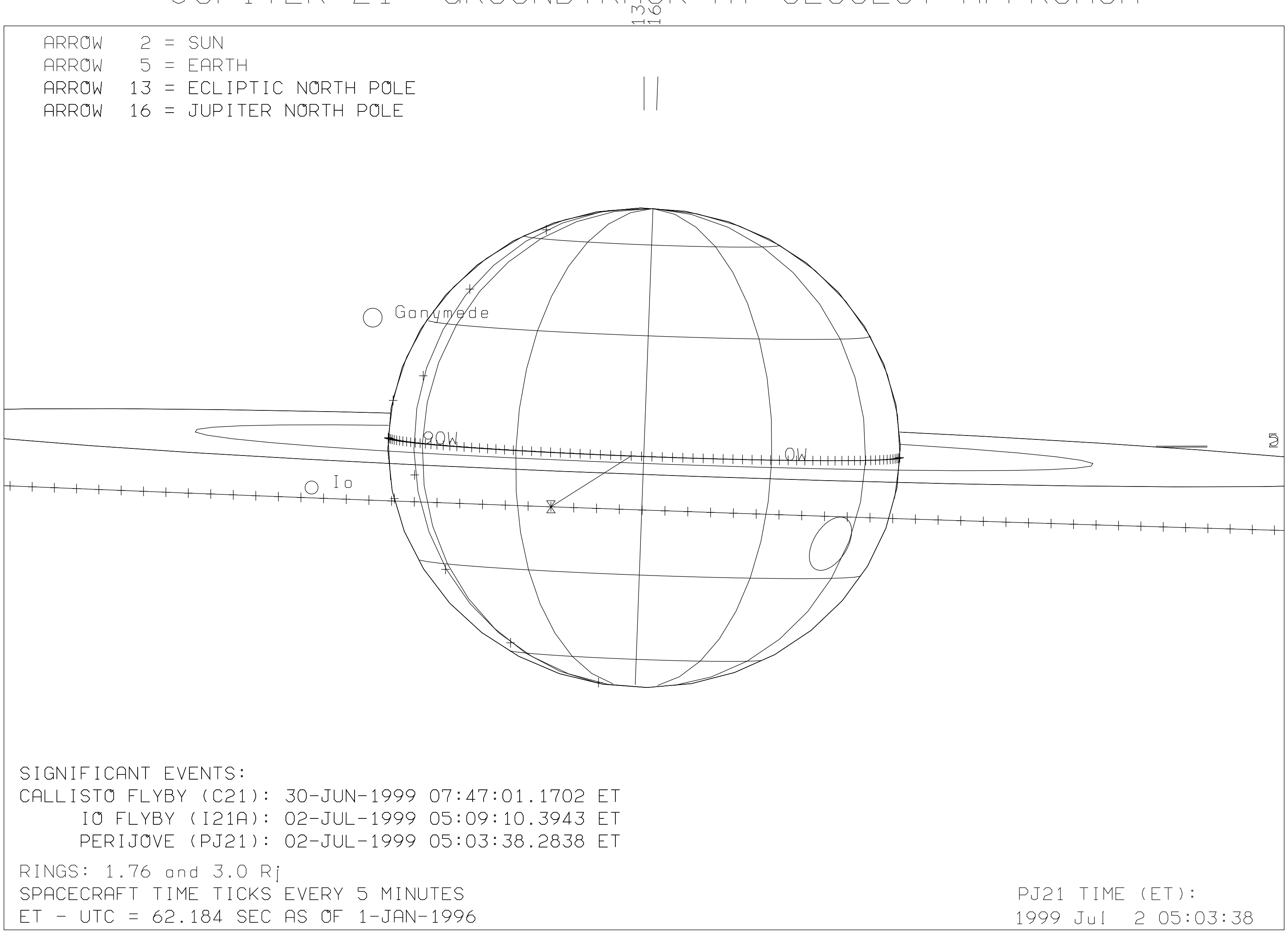


SIGNIFICANT EVENTS:
CALLISTO FLYBY (C21): 30-JUN-1999 07:47:01.1702 ET
IO FLYBY (I21A): 02-JUL-1999 05:09:10.3943 ET
PERIJOVE (PJ21): 02-JUL-1999 05:03:38.2838 ET
ET - UTC = 62.184 SEC AS OF 1-JAN-1996

CALLISTO FLYBY TIME (ET):
1999 Jun 30 07:47:01

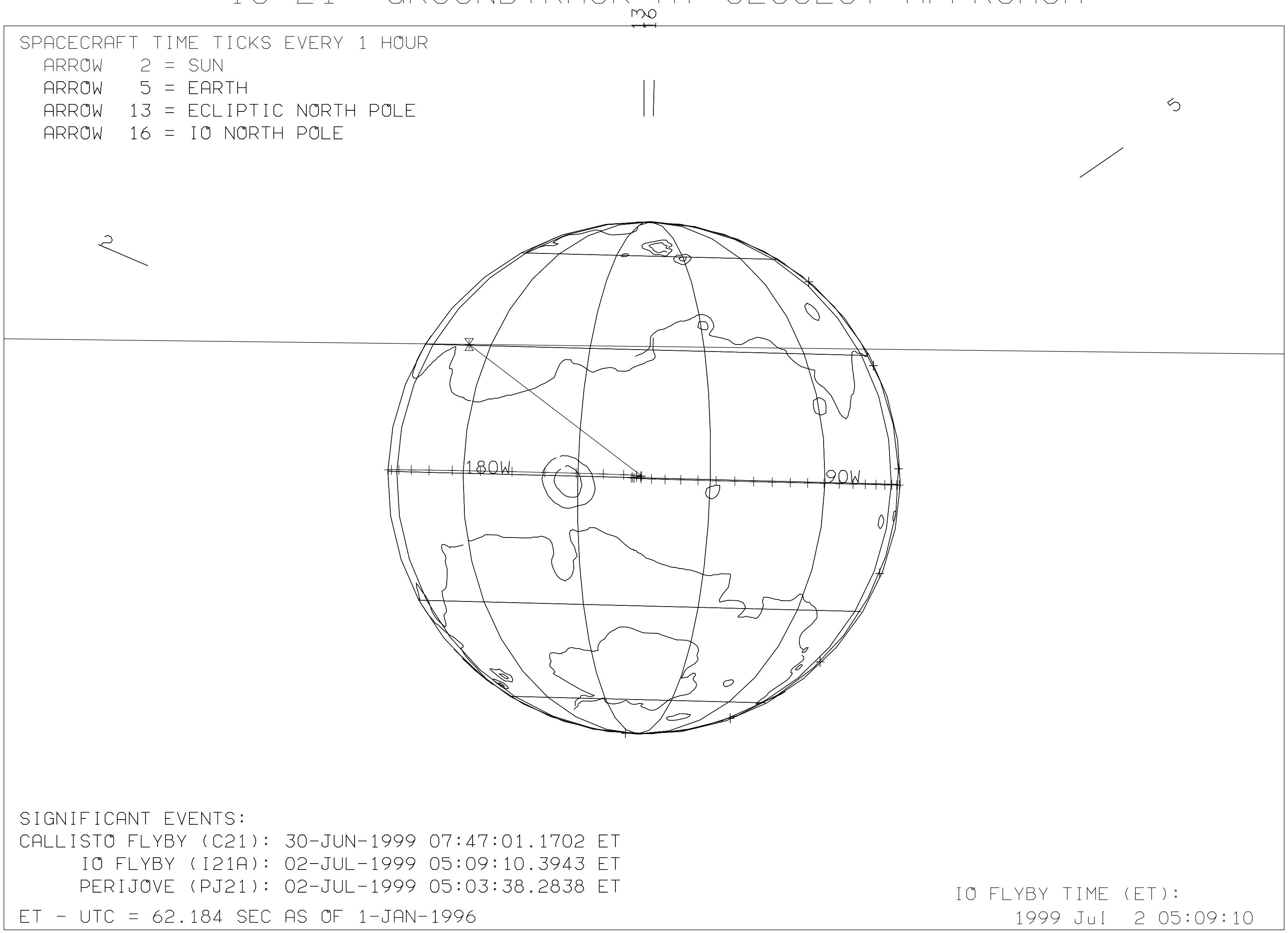
NAV Apr 6, 1997

JUPITER 21: GROUNDTRACK AT CLOSEST APPROACH



NAV Apr 6, 1997

IO 21: GROUNDTRACK AT CLOSEST APPROACH



NAV Apr 6, 1997