```
; dpfil-960730-od126-probe.bsp LOG FILE
;
; Created 1996-08-05/12:16:24.00.
;
; BEGIN NIOSPK COMMANDS

LEAPSECONDS_FILE    = /usr/nav/naif/data/gll00007.tls
SPK_FILE            = dpfil-960730-od126-probe.bsp
  SPK_LOG_FILE      = S960730A.log
  NOTE              = Probe Reconstruction Based on OD126
  INCLUDE_TEXT_FILE = S960730A.include-text
  SOURCE_NIO_FILE   = dpfil-960730-od126-probe.nio
    BODIES          = -344
    BEGIN_TIME      = 13 JUL 1995 05:30:01.333
    END_TIME        = 07 DEC 1995 22:05:58.815
  SOURCE_NIO_FILE   = sateph-OD124.nio
    BODIES          = 501 502 503 504 599
    BEGIN_TIME      = 01 SEP 1995 00:00:00.000
    END_TIME        = 07 DEC 1995 22:05:58.815
  SOURCE_NIO_FILE   = eph-OD126.nio
    BODIES          = 3 5 10 301 399
    BEGIN_TIME      = 13 JUL 1995 05:30:01.333
    END_TIME        = 07 DEC 1995 22:05:58.815

; END NIOSPK COMMANDS

   FINAL UPDATED EPHEMERIS FILE FOR PROBE RECONSTRUCTION [960730-OD126]

DATE/TIME:   5-Aug-1996  1:00 P.M.
TYPE FILE:   Spacecraft Ephemeris File (P-File)
FILE NAMES:
       GLLSVC:$10$DKA200:[GSC.SPICE.SPKER.BIN]S960730A.BSP
       GLLSVC:$10$DKA200:[GSC.SPICE.SPKER.LAB]S960730A.BSP_LBL  (label file)
       GLLSVC:$10$DKA200:[GSC.SPICE.SPKER.BIN]S960730A.TSP
       GLLSVC:$10$DKA200:[GSC.SPICE.SPKER.LAB]S960730A.TSP_LBL  (label file)
       biollante: /incoming/S960730A-probe.TSP
       biollante: /incoming/S960730A-probe.BSP_LBL  (label file)
       lewis:/usr/nav/traj/pfiles/dpfil-960730-od126-probe.nio
       navigator:/galileo/pfiles/dpfil-960730-od126-probe.ftp
       Use with files
            lewis:/usr/nav/od/deliveries/OD126/eph-OD126.nio
            lewis:/usr/nav/od/deliveries/OD126/sateph-OD124.nio
            navigator:/galileo/pfiles/plneph-OD126.ftp
            navigator:/galileo/pfiles/sateph.GLL124.ftp

FILE IDENTIFIERS:     960730-OD126-PROBE

REPLACES:        P-files based on OD116
                 GLLSVC:$10$DKA200:[GSC.SPICE.SPKER.BIN]S960612A.BSP
                 GLLSVC:$10$DKA200:[GSC.SPICE.SPKER.LAB]S960612A.BSP_LBL

EXECUTION PERIOD:  BEGIN:  13 JUL 1995 05:31:00.517  ET  DOY:  95-194
                   STOP:   07 DEC 1995 22:06:00.000  ET  DOY:  95-341

TIME OF PREPARATION:   30-July-1996 (Ephemeris file)

PREPARED BY:   Julia Bell, Galileo Navigation Team, Trajectory Group
               (818) 354-1243,  e-mail:  Julia.Bell@jpl.nasa.gov

INPUT FILES:
   Planetary ephemeris file: /usr/nav/od/deliveries/OD126/eph-OD126.nio
   Satellite ephemeris file: /usr/nav/od/deliveries/OD126/sateph-OD124.nio
   GIN file:                 /usr/nav/eph/gin-0894.nio

COMMENTS:  The pfile represents the final reconstruction for the probe
           exo-atmospheric trajectory (probe release to probe entry).
           It is based on the OD126 solution which includes the probe entry time
           as determined by the Probe Engineering Team as an observational data
           point.  An additional iteration to refine the probe atmospheric
           trajectory (below 450 km altitude) is possible.

           Starting conditions are based on orbit determination solution OD126.
           The file begins at probe release and ends shortly after the probe
           entry time.  Probe entry, defined at 450 km altitude above the 1 bar
           pressure level, occurs at 7-DEC-1995 22:05:45.0 (ET) (22:04:43.8 UTC)
           (see table).

           The probe is identified as body ID 344 on the NAVIO file and
           body -344 on the SPK file.  The file is Sun-centered until
           14-SEP-1995 02:59:34 (ET) (02:58:33 UTC) and Jupiter centered
           thereafter. ET-UTC = 61.184 seconds.

           The following table includes probe entry parameters.
```

Parameter	Achieved	1-sigma uncertainty
Entry Time (UTC)	22:04:44	3 sec
Relative angle of attach (AOA), deg	0.32	0.02
Inertial flight path angle (FPA), deg	-6.65	0.03
Relative flight path angle (FPA), deg	-8.41	0.04
Latitude, deg	6.53 N	0.01
Longitude, deg	4.94 W	0.07

The AOA value is evaluated at 420 km altitude; other entry conditions are evaluated at 450 km altitude. Inertial flight path angle is stated in EME50 coordinates; relative flight path angle is provided in Jupiter True Equator of Date. Latitude is planetocentric, relative to the Jupiter True Equator of Date. Longitude is stated in Jupiter True Equator of Date Coordinates. All of the listed `achieved parameters' are quoted from the DPTRAJ/TWIST output that is associated with the file, with the exception of the relative angle of attack. That quantity was computed with the ATMINT program. The uncertainties are consistent with orbit determination solution OD126.