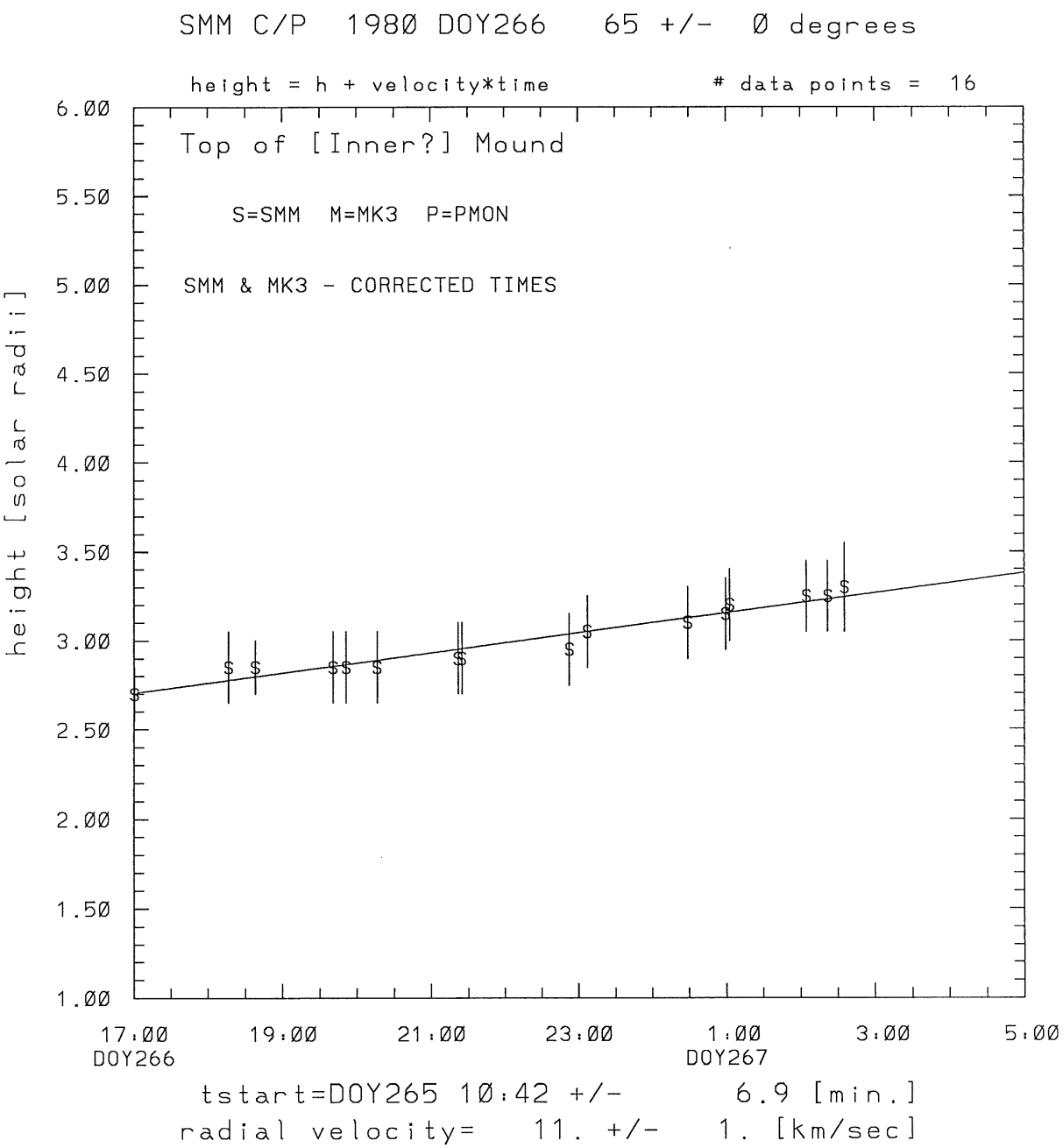
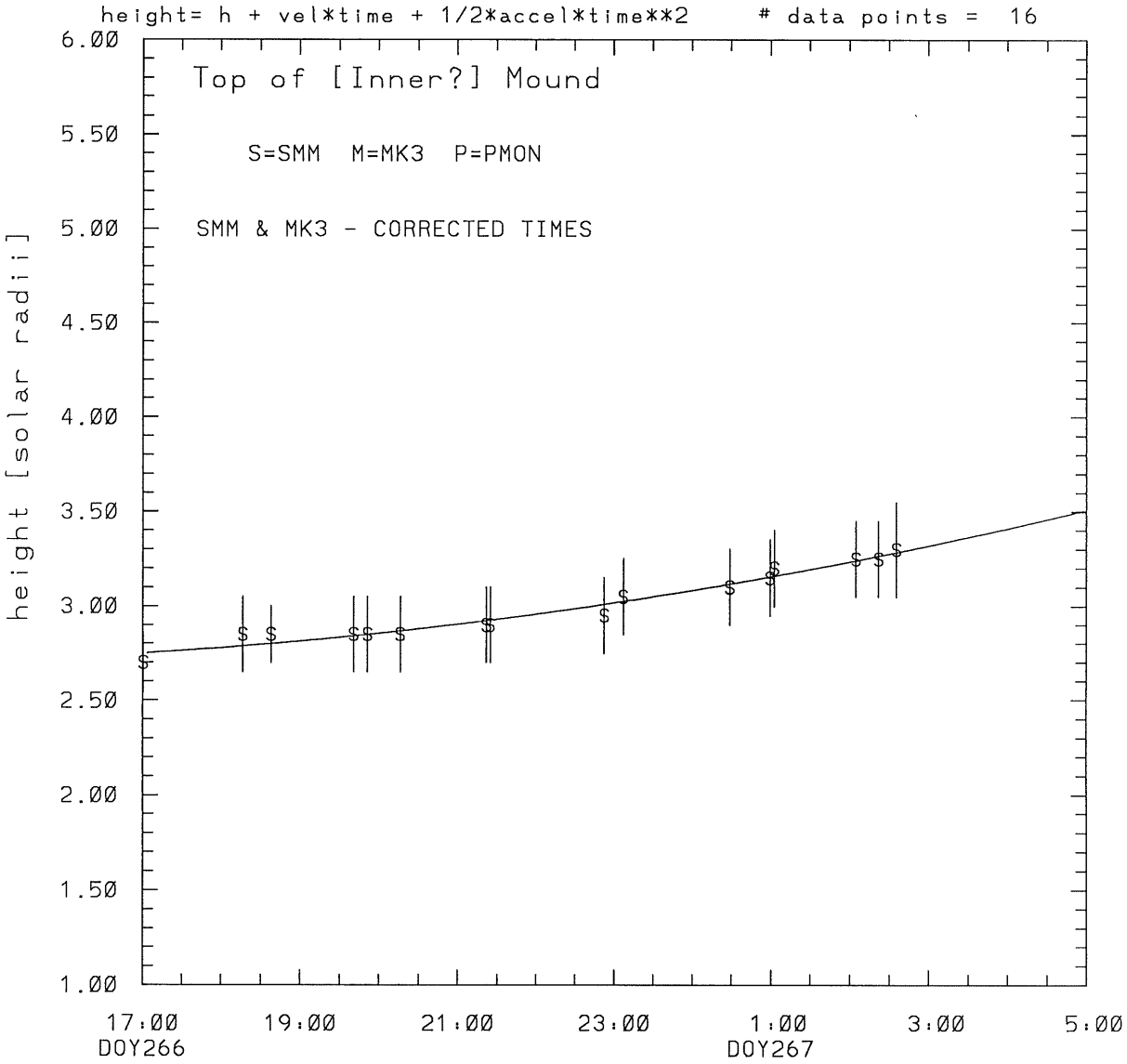

SMM C/P 1980 DOY266 65 +/- 0 degrees
height = h + velocity*time
# data points = 16
Top of [Inner?] Mound
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
17:00
DOY266
19:00
21:00
23:00
1:00
DOY267
3:00
5:00
tstart=DOY265 10:42 +/- 6.9 [min.]
radial velocity= 11. +/- 1. [km/sec]

SMM C/P 1980 DOY266 65 +/- Ø degrees

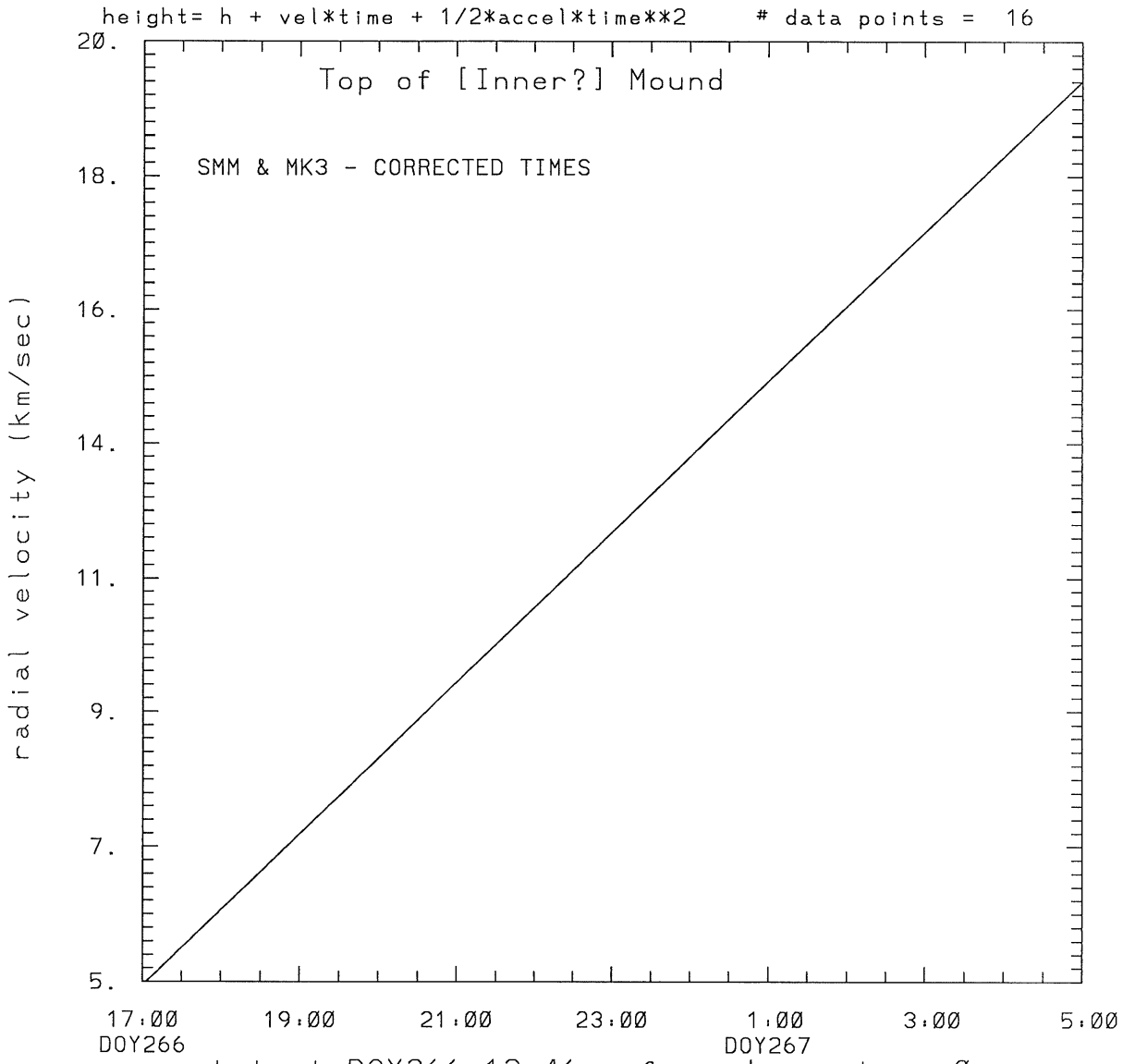



tstart=DOY266 12:46 from derivative=Ø

Event begins at 2.69 Solar Radii

radial acceleration= Ø.ØØØ3 +/- Ø.ØØØ1 [km/sec**2]

SMM C/P 1980 DOY266 65 +/- 0 degrees




tstart=DOY266 12:46 from derivative=0

Event begins at 2.69 Solar Radii

radial acceleration=0.331E-03 km/sec**2

This is a 1 order run
**********

*******
INPUT:
*******

| year doy | time | radii | error in radius | angle | error in angle | datatype |
|---|---|---|---|---|---|---|
| 1980 266 | 17: 0:33 | 2.70 | +/- 0.15 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 18:16:29 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 18:38: 7 | 2.85 | +/- 0.15 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 19:40:49 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 19:51:29 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 20:16:29 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 21:22: 4 | 2.90 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 21:25:18 | 2.90 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 22:52:49 | 2.95 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 23: 7:21 | 3.05 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 0:28:49 | 3.10 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 0:59:32 | 3.15 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 1: 2:48 | 3.20 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 2: 4:49 | 3.25 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 2:22: 7 | 3.25 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 2:35:32 | 3.30 | +/- 0.25 | 65.0 | +/- 1.0 | SMM |

**********
Structure being measured:
Top of [Inner?] Mound
**********

********
OUTPUT:
********

START TIME:

Event began at t = 0 + -0.182E+04 +/- 0.693E+01 [minutes]
In more convenient units:
Event began at DOY 265 10:42 +/- 0.693E+01 [minutes]

Origin defined at DOY266 17: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 11. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.271E+01 +/- 0.200E-01 [solar radii]
c(2) = 0.937E-03 +/- 0.587E-04 [radii/min]
c(2) = 0.109E+02 +/- 0.681E+00 [km/sec]

c(3) = 0.000E+00 +/- 0.000E+00 [radii/min**2]
c(3) = 0.000E+00 +/- 0.000E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.23189E-01 [radii] see Bevington pg. 114
error in c(2)= 0.63761E-04 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00 +/- 0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 65. +/- 0. [degrees]
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min**2]
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec**2]

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:
The TANGENTIAL velocity at 17: 0 = 0.000E+00 km/sec
The TOTAL velocity at 17: 0 = 11. km/sec

The TANGENTIAL velocity at 18:16 = 0.000E+00 km/sec
The TOTAL velocity at 18:16 = 11. km/sec

The TANGENTIAL velocity at 18:38 = 0.000E+00 km/sec
The TOTAL velocity at 18:38 = 11. km/sec

The TANGENTIAL velocity at 19:40 = 0.000E+00 km/sec
The TOTAL velocity at 19:40 = 11. km/sec

The TANGENTIAL velocity at 19:51 = 0.000E+00 km/sec
The TOTAL velocity at 19:51 = 11. km/sec

The TANGENTIAL velocity at 20:16 = 0.000E+00 km/sec
The TOTAL velocity at 20:16 = 11. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec
The TOTAL velocity at 21:22 = 11. km/sec

The TANGENTIAL velocity at 21:25 = 0.000E+00 km/sec
The TOTAL velocity at 21:25 = 11. km/sec

The TANGENTIAL velocity at 22:52 = 0.000E+00 km/sec
The TOTAL velocity at 22:52 = 11. km/sec

The TANGENTIAL velocity at 23: 7 = 0.000E+00 km/sec
The TOTAL velocity at 23: 7 = 11. km/sec

The TANGENTIAL velocity at 0:28 = 0.000E+00 km/sec
The TOTAL velocity at 0:28 = 11. km/sec

The TANGENTIAL velocity at 0:59 = 0.000E+00 km/sec
The TOTAL velocity at 0:59 = 11. km/sec

The TANGENTIAL velocity at 1: 2 = 0.000E+00 km/sec
The TOTAL velocity at 1: 2 = 11. km/sec

The TANGENTIAL velocity at 2: 4 = 0.000E+00 km/sec
The TOTAL velocity at 2: 4 = 11. km/sec

The TANGENTIAL velocity at 2:22 = 0.000E+00 km/sec
The TOTAL velocity at 2:22 = 11. km/sec

The TANGENTIAL velocity at 2:35 = 0.000E+00 km/sec
The TOTAL velocity at 2:35 = 11. km/sec

**********
The following info is for estimating goodness of the fit
**********

Fit is ok [ier=1]

Standard Deviation in the height = 0.19
Standard Deviation in start time measurement = 0.181E+03
Error in time = 0.18455E+03 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.192E-02
Reduced Chi Squared = 0.170E-01
Chi Squared = 0.239E+00
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.971E+00
The probability that no LINEAR correlation exists between the variables = -0.1140E-07
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

**********
This is a 2 order run
**********

*******
INPUT:
*******

| year doy | time | radii | error in radius | angle | error in angle | datatype |
|---|---|---|---|---|---|---|
| 1980 266 | 17: 0:33 | 2.70 | +/- 0.15 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 18:16:29 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 18:38: 7 | 2.85 | +/- 0.15 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 19:40:49 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 19:51:29 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 20:16:29 | 2.85 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 21:22: 4 | 2.90 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 21:25:18 | 2.90 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 22:52:49 | 2.95 | +/- 0.20 | 65.0 | +/- 0.5 | SMM |
| 1980 266 | 23: 7:21 | 3.05 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 0:28:49 | 3.10 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 0:59:32 | 3.15 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 1: 2:48 | 3.20 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 2: 4:49 | 3.25 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 2:22: 7 | 3.25 | +/- 0.20 | 65.0 | +/- 1.0 | SMM |
| 1980 267 | 2:35:32 | 3.30 | +/- 0.25 | 65.0 | +/- 1.0 | SMM |

**********
Structure being measured:
Top of [Inner?] Mound
**********

********
OUTPUT:
********

START TIME:

tstart=DOY266 12:46 from derivative = 0
Event begins at 2.69 Solar Radii
Origin defined at DOY266 17: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.331E-03 +/- 0.127E-03 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.275E+01 +/- 0.237E-01 [solar radii]
c(2) = 0.436E-03 +/- 0.198E-03 [radii/min]
c(2) = 0.506E+01 +/- 0.229E+01 [km/sec]
c(3) = 0.857E-06 +/- 0.327E-06 [radii/min**2]
c(3) = 0.331E-03 +/- 0.127E-03 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.27438E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.56437E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.20970E-03 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.43739E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.33015E-06 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.64281E-07 [radii/min**] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 65. +/- 0. [degrees]
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min**2]
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec**2]

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:
The TANGENTIAL velocity at 17: 0 = 0.000E+00 km/sec
The TOTAL velocity at 17: 0 = 5. km/sec

The TANGENTIAL velocity at 18:16 = 0.000E+00 km/sec
The TOTAL velocity at 18:16 = 7. km/sec

The TANGENTIAL velocity at 18:38 = 0.000E+00 km/sec
The TOTAL velocity at 18:38 = 7. km/sec

The TANGENTIAL velocity at 19:40 = 0.000E+00 km/sec
The TOTAL velocity at 19:40 = 8. km/sec

The TANGENTIAL velocity at 19:51 = 0.000E+00 km/sec
The TOTAL velocity at 19:51 = 8. km/sec

The TANGENTIAL velocity at 20:16 = 0.000E+00 km/sec
The TOTAL velocity at 20:16 = 9. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec
The TOTAL velocity at 21:22 = 10. km/sec

The TANGENTIAL velocity at 21:25 = 0.000E+00 km/sec
The TOTAL velocity at 21:25 = 10. km/sec

The TANGENTIAL velocity at 22:52 = 0.000E+00 km/sec
The TOTAL velocity at 22:52 = 12. km/sec

The TANGENTIAL velocity at 23: 7 = 0.000E+00 km/sec
The TOTAL velocity at 23: 7 = 12. km/sec

The TANGENTIAL velocity at 0:28 = 0.000E+00 km/sec
The TOTAL velocity at 0:28 = 14. km/sec

The TANGENTIAL velocity at 0:59 = 0.000E+00 km/sec
The TOTAL velocity at 0:59 = 15. km/sec

The TANGENTIAL velocity at 1: 2 = 0.000E+00 km/sec
The TOTAL velocity at 1: 2 = 15. km/sec

The TANGENTIAL velocity at 2: 4 = 0.000E+00 km/sec
The TOTAL velocity at 2: 4 = 16. km/sec

The TANGENTIAL velocity at 2:22 = 0.000E+00 km/sec
The TOTAL velocity at 2:22 = 16. km/sec

The TANGENTIAL velocity at 2:35 = 0.000E+00 km/sec
The TOTAL velocity at 2:35 = 17. km/sec

**********
The following info is for estimating goodness of the fit
**********

Fit is ok [ier=1]

Standard Deviation in the height = 0.19
Standard Deviation in start time measurement = 0.181E+03
Value of reduced Chi Squared returned from nllst2 = 0.138E-02
Reduced Chi Squared = 0.773E-02
Chi Squared = 0.100E+00
The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:
(Using equation of motion: r = a + bt + at**2)
The correlation between the data and the term linear in time = 0.1015E+01
The correlation between the data and the time**2 term = 0.9647E+00
The correlation between the data and the complete equation of motion = 0.9632E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]