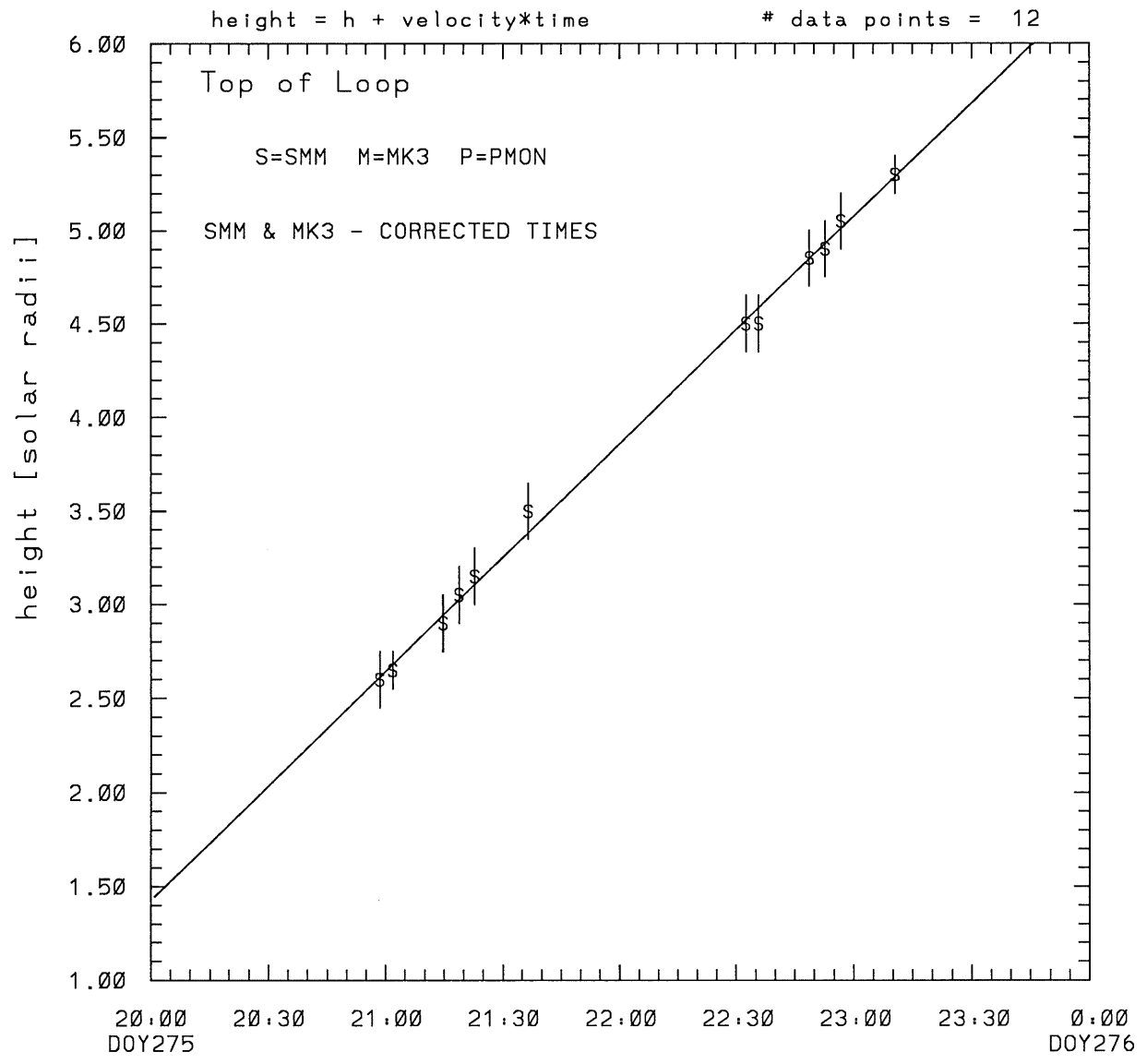
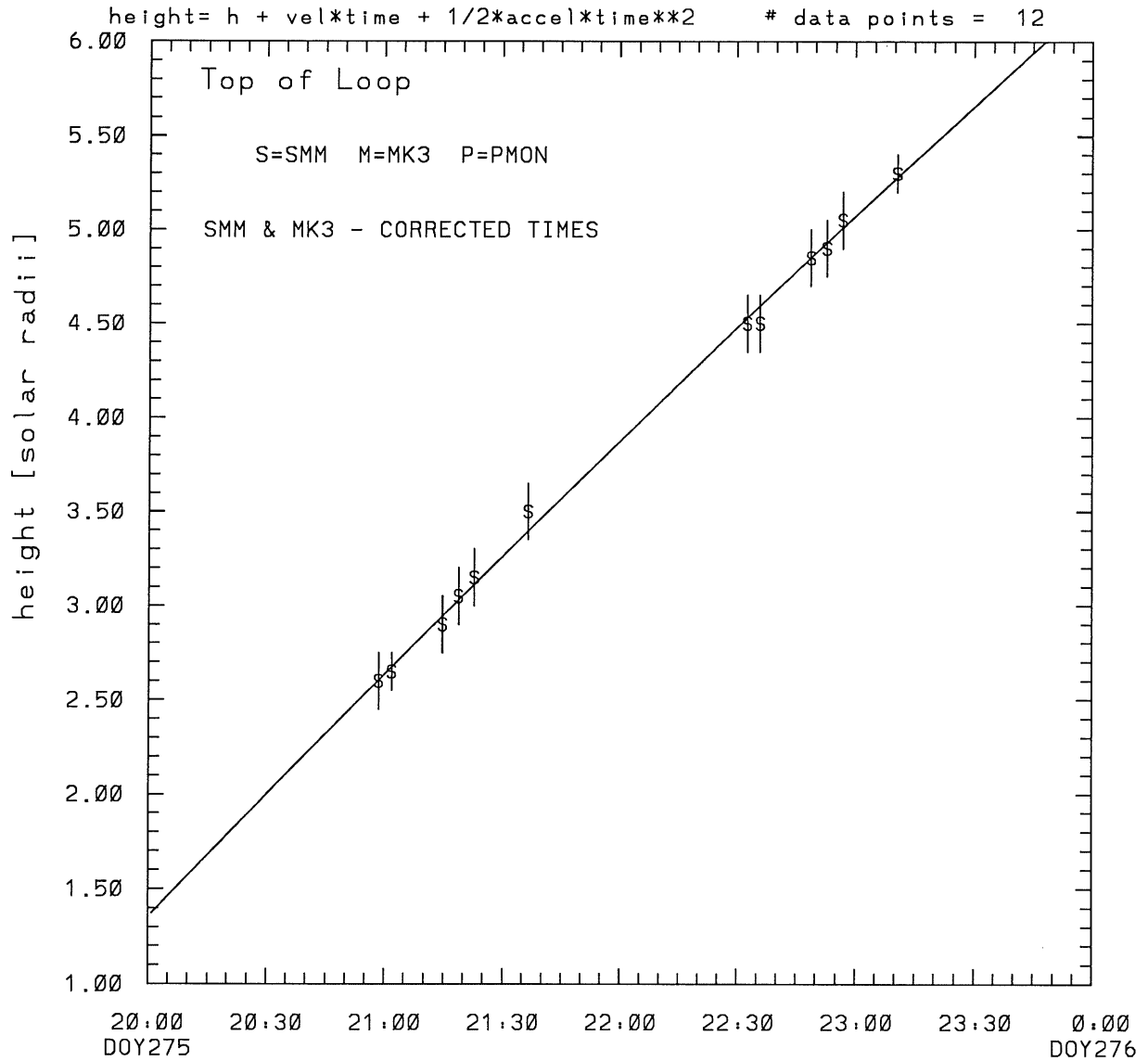


SMM C/P 1985 DOY275 265 +/- 0 degrees



tstart=DOY275 19:41 +/- 0.1 [min.]
radial velocity= 235. +/- 3. [km/sec]

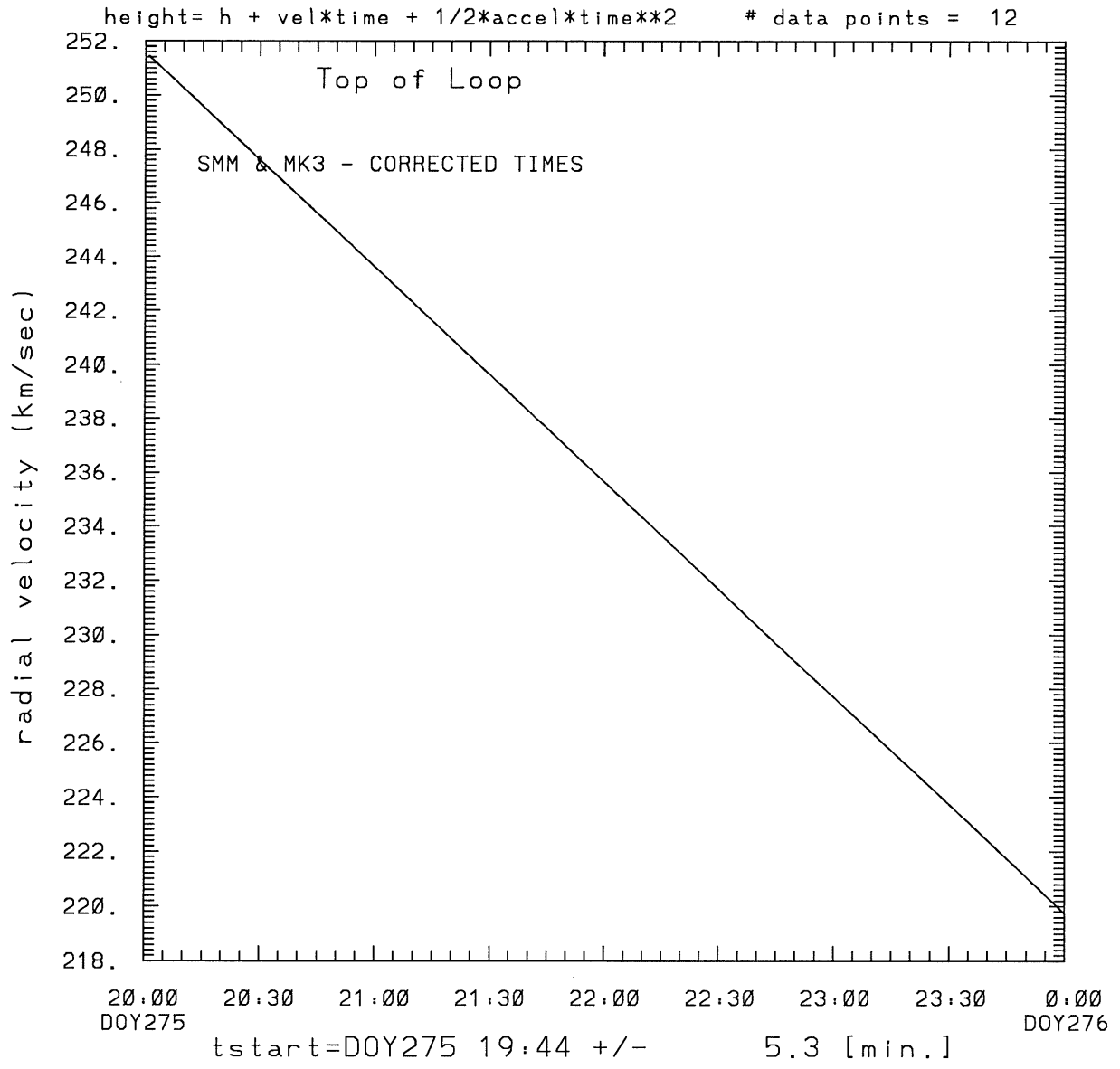
SMM C/P 1985 DOY275 265 +/- 0 degrees



tstart=DOY275 19.44 +/- 5.3 [min.]

radial acceleration = -0.0022 ± 0.0042 [km/sec**2]

SMM C/P 1985 DOY275 265 +/- 0 degrees



This is a 1 order run

INPUT:

| year | doy | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|--------------------|-------|-------------------|----------|
| 1985 | 275 | 20:58:35 | 2.60 | +/- 0.15 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21: 1:51 | 2.65 | +/- 0.10 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:14:50 | 2.90 | +/- 0.15 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:18:51 | 3.05 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:22:52 | 3.15 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:36:35 | 3.50 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:32:36 | 4.50 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:35:50 | 4.50 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:48:51 | 4.85 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:52:50 | 4.90 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:56:51 | 5.05 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 23:10:34 | 5.30 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.210E+02 +/- 0.811E-01$ [minutes]

In more convenient units:

Event began at DOY 275 19:41 +/- 0.811E-01 [minutes]

Origin defined at DOY275 20: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 235. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.143E+01 +/- 0.356E-01$ [solar radii]

$c(2) = 0.203E-01 +/- 0.267E-03$ [radii/min]

$c(2) = 0.235E+03 +/- 0.309E+01$ [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)= 0.42209E-01 [radii] see Bevington pg. 114

error in c(2)= 0.31998E-03 [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) = 265. +/- 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 20:58 = 0.000E+00 km/sec

The TOTAL velocity at 20:58 = 235. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec

The TOTAL velocity at 21: 1 = 235. km/sec

The TANGENTIAL velocity at 21:14 = 0.000E+00 km/sec

The TOTAL velocity at 21:14 = 235. km/sec

The TANGENTIAL velocity at 21:18 = 0.000E+00 km/sec

The TOTAL velocity at 21:18 = 235. km/sec

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

The TOTAL velocity at 21:22 = 235. km/sec

The TANGENTIAL velocity at 21:36 = 0.000E+00 km/sec

The TOTAL velocity at 21:36 = 235. km/sec

The TANGENTIAL velocity at 22:32 = 0.000E+00 km/sec

The TOTAL velocity at 22:32 = 235. km/sec

The TANGENTIAL velocity at 22:35 = 0.000E+00 km/sec

The TOTAL velocity at 22:35 = 235. km/sec

The TANGENTIAL velocity at 22:48 = 0.000E+00 km/sec

The TOTAL velocity at 22:48 = 235. km/sec

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

The TOTAL velocity at 22:52 = 235. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec

The TOTAL velocity at 22:56 = 235. km/sec

The TANGENTIAL velocity at 23:10 = 0.000E+00 km/sec

The TOTAL velocity at 23:10 = 235. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.03
Standard Deviation in start time measurement = 0.487E+02
Error in time = 0.84216E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.229E-02
Reduced Chi Squared = 0.188E-01
Chi Squared = 0.188E+00
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.999E+00
The probability that no LINEAR correlation exists between the variables = 0.5834E-08
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

| year | day | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|-----------------|-------|----------------|----------|
| 1985 | 275 | 20:58:35 | 2.60 | +/- 0.15 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21: 1:51 | 2.65 | +/- 0.10 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:14:50 | 2.90 | +/- 0.15 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:18:51 | 3.05 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:22:52 | 3.15 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:36:35 | 3.50 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:32:36 | 4.50 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:35:50 | 4.50 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:48:51 | 4.85 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:52:50 | 4.90 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:56:51 | 5.05 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 23:10:34 | 5.30 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.162E+02 +/- 0.528E+01$ [minutes]
In more convenient units:
Event began at DOY 275 19:44 +/- 0.528E+01 [minutes]

Origin defined at DOY275 20: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.221E-02 +/- 0.424E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.135E+01 +/- 0.144E+00 [solar radii]
c(2) = 0.217E-01 +/- 0.273E-02 [radii/min]
c(2) = 0.252E+03 +/- 0.317E+02 [km/sec]
c(3) = -0.572E-05 +/- 0.110E-04 [radii/min**2]
c(3) = -0.221E-02 +/- 0.424E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.17486E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.18810E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.32932E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.42477E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.13355E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.18569E-05 [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) = 265. +/- 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 20:58 = 0.000E+00 km/sec
The TOTAL velocity at 20:58 = 244. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec
The TOTAL velocity at 21: 1 = 243. km/sec

The TANGENTIAL velocity at 21:14 = 0.000E+00 km/sec
The TOTAL velocity at 21:14 = 242. km/sec

The TANGENTIAL velocity at 21:18 = 0.000E+00 km/sec
The TOTAL velocity at 21:18 = 241. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec
The TOTAL velocity at 21:22 = 241. km/sec

The TANGENTIAL velocity at 21:36 = 0.000E+00 km/sec
The TOTAL velocity at 21:36 = 239. km/sec

The TANGENTIAL velocity at 22:32 = 0.000E+00 km/sec
The TOTAL velocity at 22:32 = 231. km/sec

The TANGENTIAL velocity at 22:35 = 0.000E+00 km/sec
The TOTAL velocity at 22:35 = 231. km/sec

The TANGENTIAL velocity at 22:48 = 0.000E+00 km/sec
The TOTAL velocity at 22:48 = 229. km/sec

The TANGENTIAL velocity at 22:52 = 0.000E+00 km/sec
The TOTAL velocity at 22:52 = 229. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec
The TOTAL velocity at 22:56 = 228. km/sec

The TANGENTIAL velocity at 23:10 = 0.000E+00 km/sec
The TOTAL velocity at 23:10 = 226. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.03

Standard Deviation in start time measurement = 0.487E+02

Value of reduced Chi Squared returned from nllst2 = 0.245E-02

Reduced Chi Squared = 0.214E-01

Chi Squared = 0.193E+00

The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

(Using equation of motion: $r = a + bt + at^{**2}$)

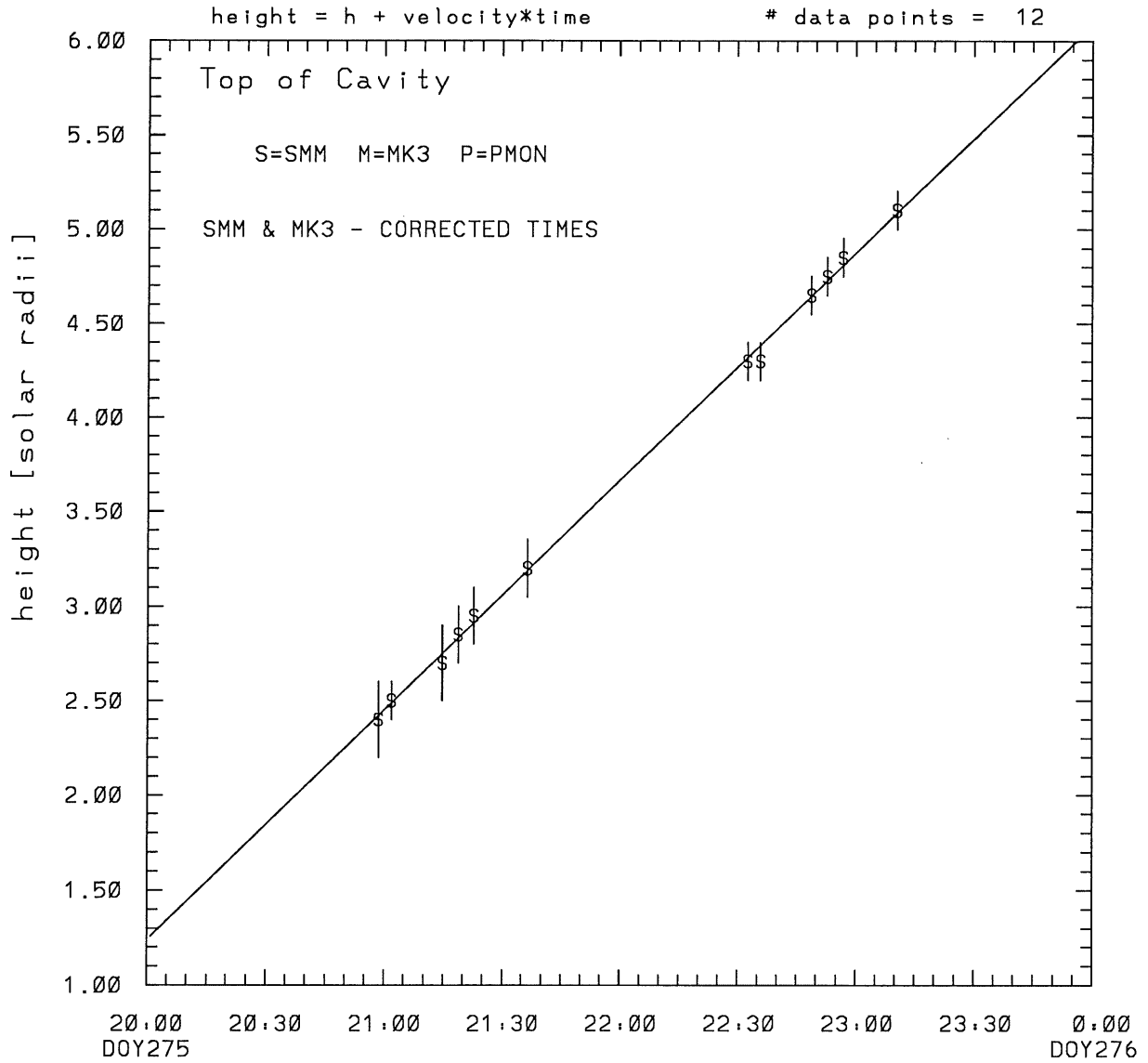
The correlation between the data and the term linear in time = 0.1062E+01

The correlation between the data and the time**2 term = 0.1065E+01

The correlation between the data and the complete equation of motion = 0.9982E+00

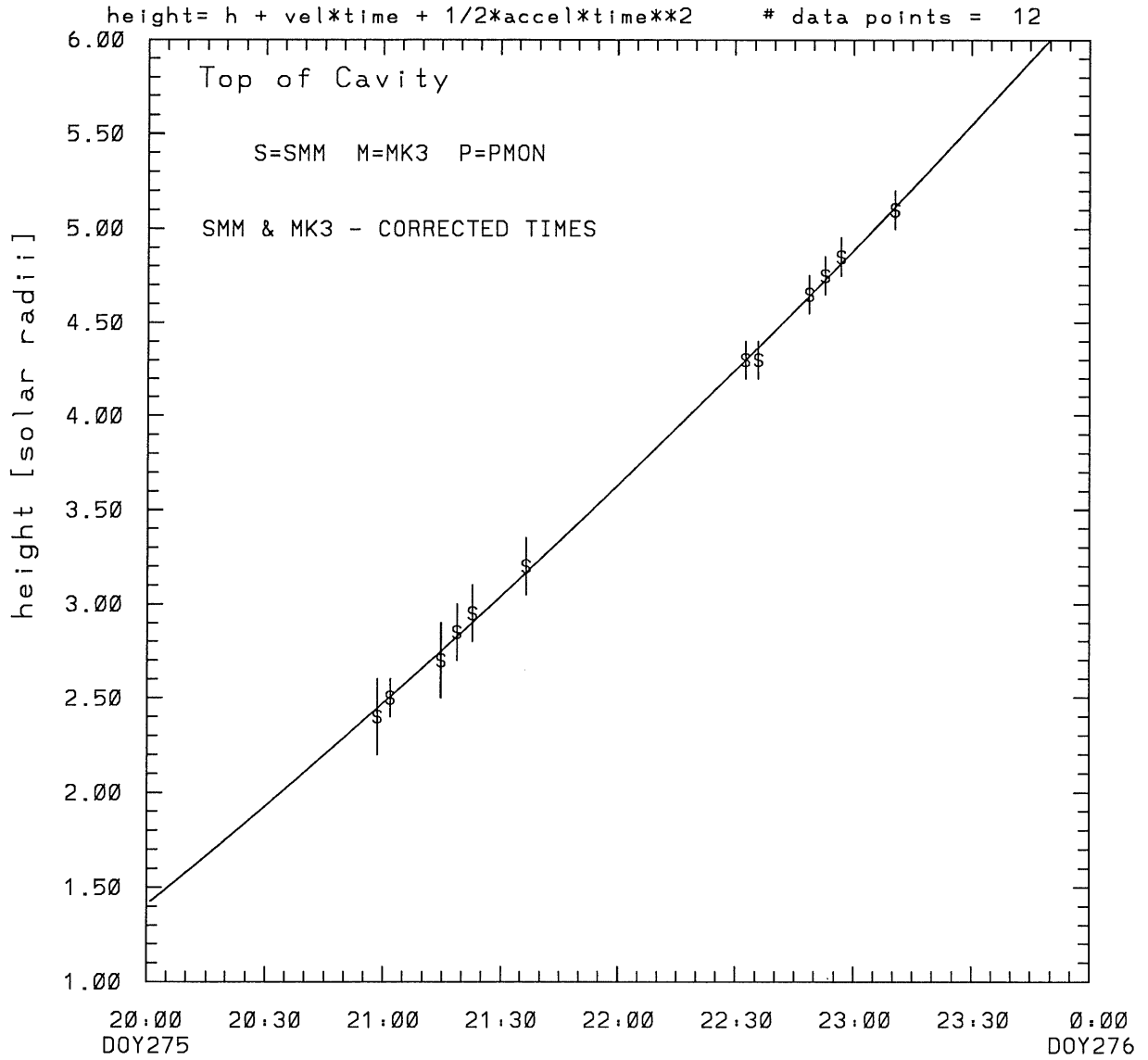
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1985 DOY275 265 +/- 0 degrees



tstart=DOY275 19:50 +/- 0.0 [min.]
radial velocity= 234. +/- 3. [km/sec]

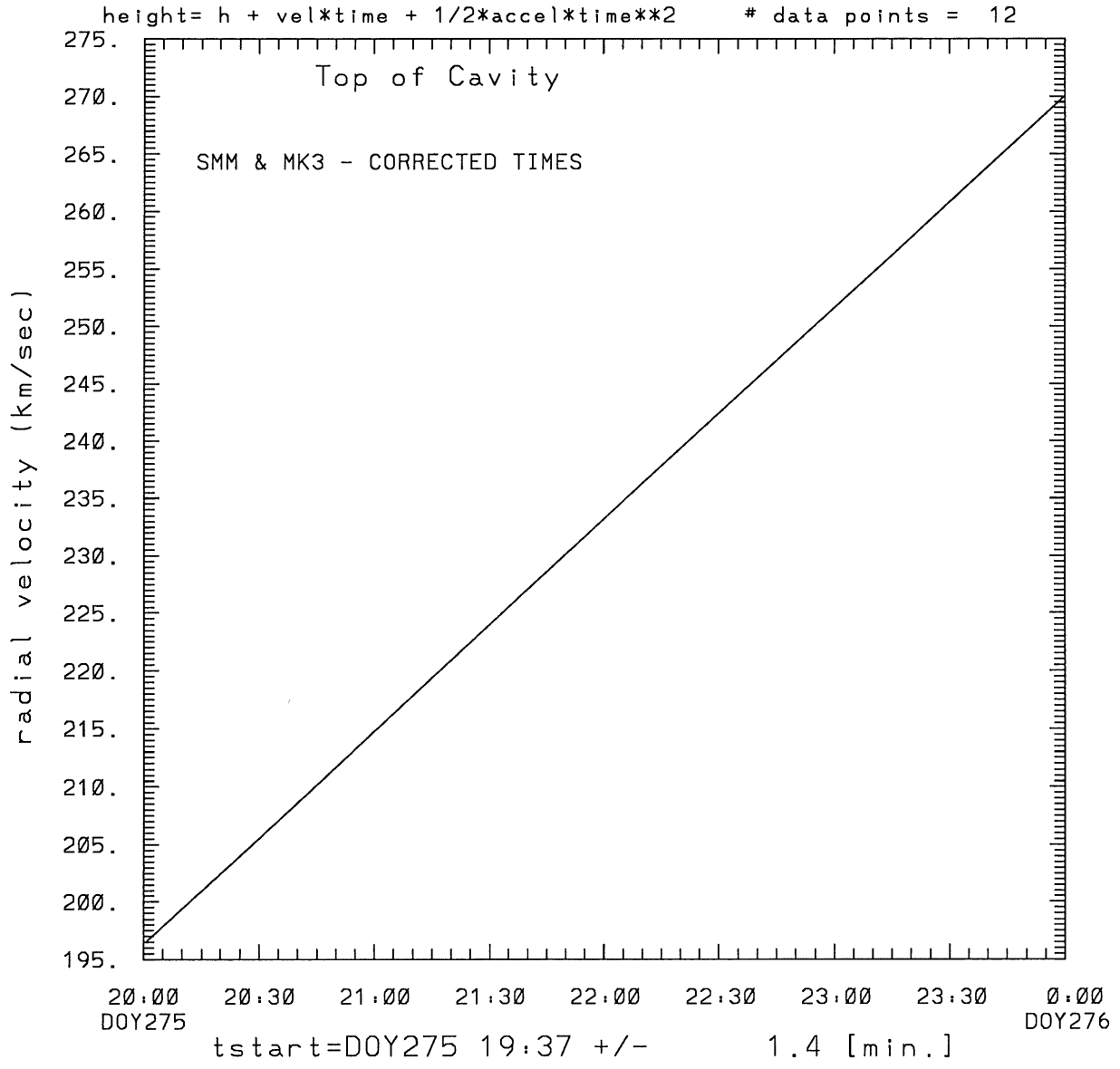
SMM C/P 1985 DOY275 265 +/- 0 degrees



tstart=DOY275 19:37 +/- 1.4 [min.]

radial acceleration = 0.0051 +/- 0.0032 [km/sec**2]

SMM C/P 1985 DOY275 265 +/- 0 degrees



This is a 1 order run

INPUT:

| year | doy | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|--------------------|-------|-------------------|----------|
| 1985 | 275 | 20:58:35 | 2.40 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21: 1:51 | 2.50 | +/- 0.10 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:14:50 | 2.70 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:18:51 | 2.85 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:22:52 | 2.95 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:36:35 | 3.20 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:32:36 | 4.30 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:35:50 | 4.30 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:48:51 | 4.65 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:52:50 | 4.75 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:56:51 | 4.85 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 23:10:34 | 5.10 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.118E+02 +/- 0.415E-01$ [minutes]

In more convenient units:

Event began at DOY 275 19:50 +/- 0.415E-01 [minutes]

Origin defined at DOY275 20: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 234. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.124E+01 +/- 0.347E-01$ [solar radii]

$c(2) = 0.202E-01 +/- 0.237E-03$ [radii/min]

$c(2) = 0.234E+03 +/- 0.274E+01$ [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)= 0.30261E-01 [radii] see Bevington pg. 114

error in c(2)= 0.22940E-03 [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) = 265. +/- 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 20:58 = 0.000E+00 km/sec

The TOTAL velocity at 20:58 = 234. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec

The TOTAL velocity at 21: 1 = 234. km/sec

The TANGENTIAL velocity at 21:14 = 0.000E+00 km/sec

The TOTAL velocity at 21:14 = 234. km/sec

The TANGENTIAL velocity at 21:18 = 0.000E+00 km/sec

The TOTAL velocity at 21:18 = 234. km/sec

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

The TOTAL velocity at 21:22 = 234. km/sec

The TANGENTIAL velocity at 21:36 = 0.000E+00 km/sec

The TOTAL velocity at 21:36 = 234. km/sec

The TANGENTIAL velocity at 22:32 = 0.000E+00 km/sec

The TOTAL velocity at 22:32 = 234. km/sec

The TANGENTIAL velocity at 22:35 = 0.000E+00 km/sec

The TOTAL velocity at 22:35 = 234. km/sec

The TANGENTIAL velocity at 22:48 = 0.000E+00 km/sec

The TOTAL velocity at 22:48 = 234. km/sec

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

The TOTAL velocity at 22:52 = 234. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec

The TOTAL velocity at 22:56 = 234. km/sec

The TANGENTIAL velocity at 23:10 = 0.000E+00 km/sec

The TOTAL velocity at 23:10 = 234. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.03
Standard Deviation in start time measurement = 0.487E+02
Error in time = 0.60635E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.144E-02
Reduced Chi Squared = 0.104E-01
Chi Squared = 0.104E+00
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.999E+00
The probability that no LINEAR correlation exists between the variables = 0.5514E-08
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

| year | day | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|-----------------|-------|----------------|----------|
| 1985 | 275 | 20:58:35 | 2.40 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21: 1:51 | 2.50 | +/- 0.10 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:14:50 | 2.70 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:18:51 | 2.85 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:22:52 | 2.95 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 21:36:35 | 3.20 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:32:36 | 4.30 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:35:50 | 4.30 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:48:51 | 4.65 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:52:50 | 4.75 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:56:51 | 4.85 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 23:10:34 | 5.10 | +/- 0.10 | 265.0 | +/- 1.0 | SMM |

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.246E+02 +/- 0.144E+01$ [minutes]
In more convenient units:
Event began at DOY 275 19:37 +/- 0.144E+01 [minutes]

Origin defined at DOY275 20: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $0.512E-02 +/- 0.324E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.141E+01 +/- 0.112E+00$ [solar radii]
c(2) = $0.169E-01 +/- 0.208E-02$ [radii/min]
c(2) = $0.196E+03 +/- 0.241E+02$ [km/sec]
c(3) = $0.132E-04 +/- 0.838E-05$ [radii/min**2]
c(3) = $0.512E-02 +/- 0.324E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.12701E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.85310E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.23920E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.16943E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.97003E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.75822E-06 [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) = 265. +/- 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 20:58 = 0.000E+00 km/sec
The TOTAL velocity at 20:58 = 214. km/sec

The TANGENTIAL velocity at 21: 1 = 0.000E+00 km/sec
The TOTAL velocity at 21: 1 = 215. km/sec

The TANGENTIAL velocity at 21:14 = 0.000E+00 km/sec
The TOTAL velocity at 21:14 = 219. km/sec

The TANGENTIAL velocity at 21:18 = 0.000E+00 km/sec
The TOTAL velocity at 21:18 = 221. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec
The TOTAL velocity at 21:22 = 222. km/sec

The TANGENTIAL velocity at 21:36 = 0.000E+00 km/sec
The TOTAL velocity at 21:36 = 226. km/sec

The TANGENTIAL velocity at 22:32 = 0.000E+00 km/sec
The TOTAL velocity at 22:32 = 243. km/sec

The TANGENTIAL velocity at 22:35 = 0.000E+00 km/sec
The TOTAL velocity at 22:35 = 244. km/sec

The TANGENTIAL velocity at 22:48 = 0.000E+00 km/sec
The TOTAL velocity at 22:48 = 248. km/sec

The TANGENTIAL velocity at 22:52 = 0.000E+00 km/sec
The TOTAL velocity at 22:52 = 249. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec
The TOTAL velocity at 22:56 = 251. km/sec

The TANGENTIAL velocity at 23:10 = 0.000E+00 km/sec

The TOTAL velocity at 23:10 = 255. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.03

Standard Deviation in start time measurement = 0.487E+02

Value of reduced Chi Squared returned from nllst2 = 0.127E-02

Reduced Chi Squared = 0.964E-02

Chi Squared = 0.868E-01

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 = 0.1009E+01

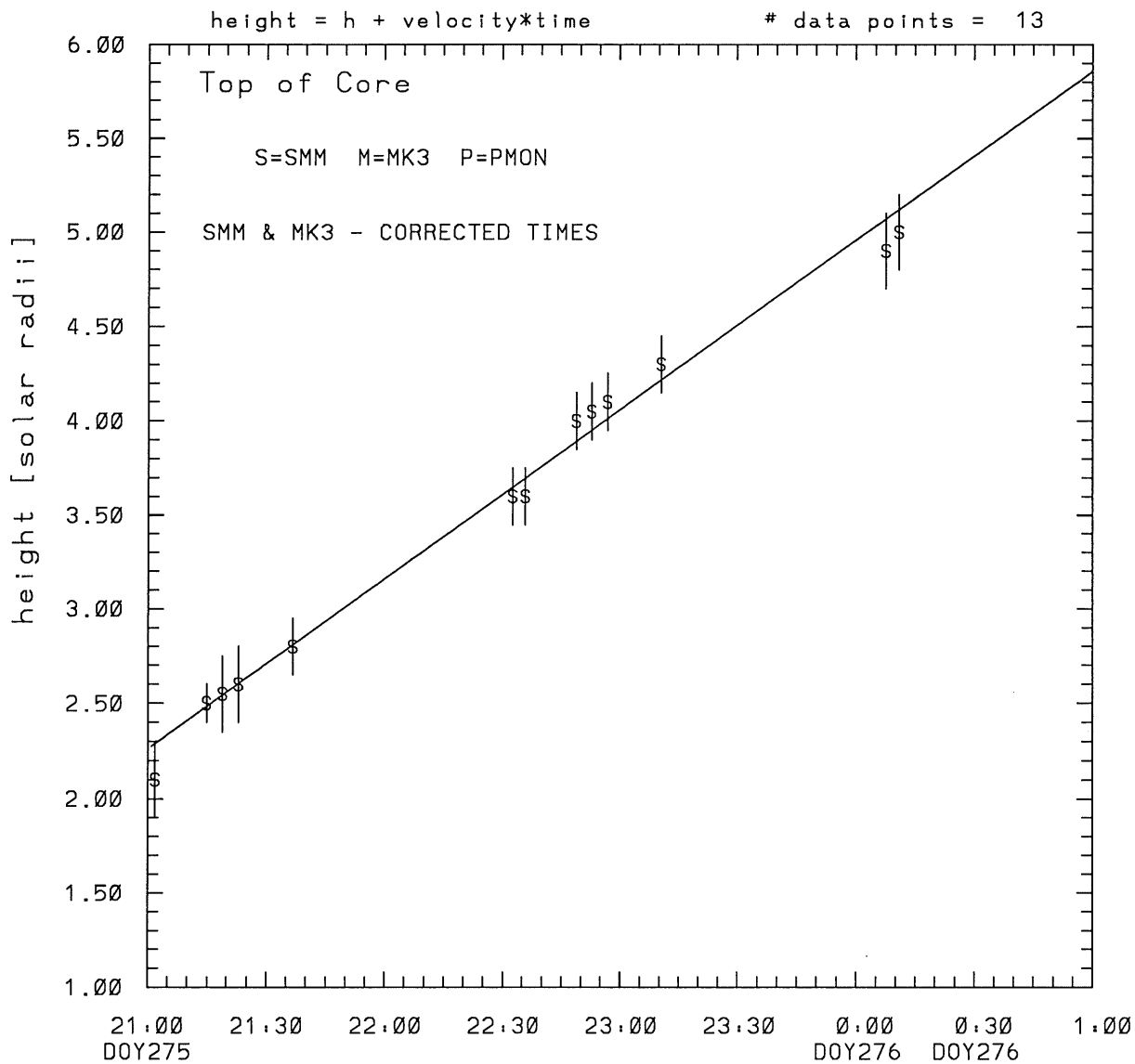
The correlation between the data and the time**2 term = 0.1011E+01

The correlation between the data and the complete equation of motion = 0.9986E+00

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

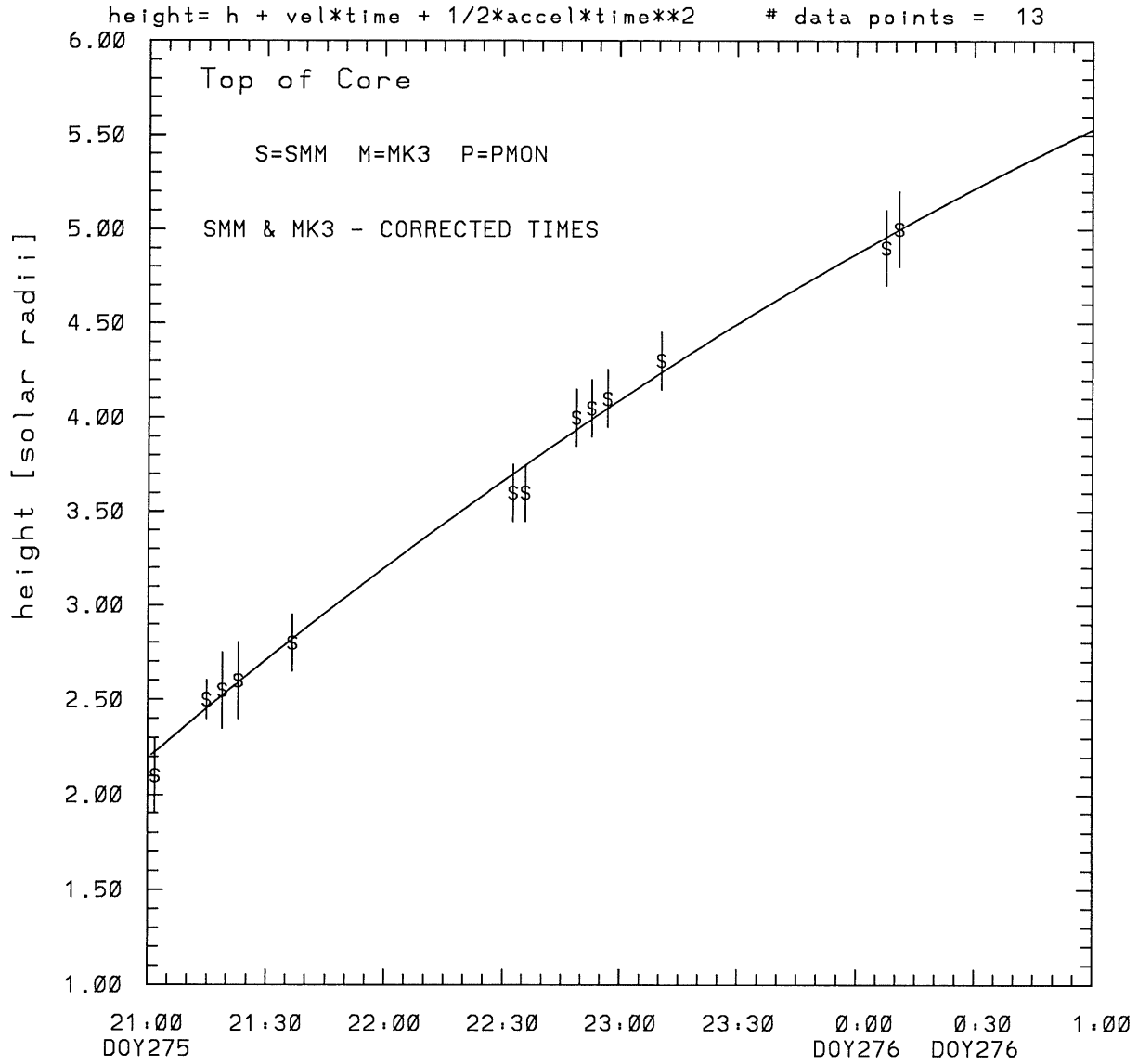


SMM C/P 1985 DOY275 265 +/- 0 degrees



tstart=DOY275 19:36 +/- 0.5 [min.]
radial velocity= 174. +/- 5. [km/sec]

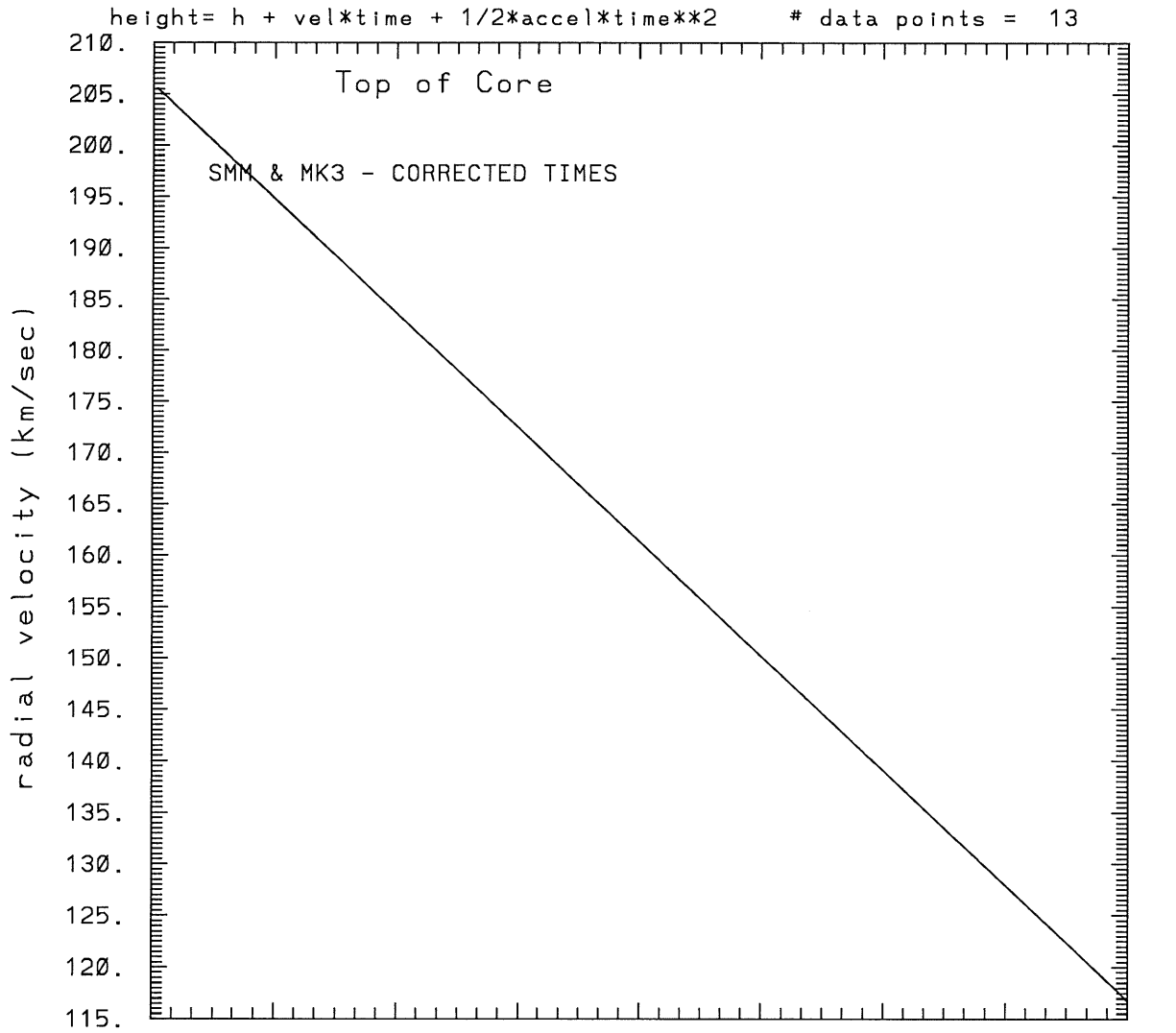
SMM C/P 1985 DOY275 265 +/- 0 degrees



tstart=DOY275 19:58 +/- 4.8 [min.]

radial acceleration = -0.0062 ± 0.0027 [km/sec**2]

SMM C/P 1985 DOY275 265 +/- 0 degrees



21:00 21:30 22:00 22:30 23:00 23:30 0:00 0:30 1:00
DOY275 DOY276

tstart=DOY275 19:58 +/- 4.8 [min.]

radial acceleration = $-.619E-02$ km/sec**2

This is a 1 order run

INPUT:

| year | doy | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|--------------------|-------|-------------------|----------|
| 1985 | 275 | 21: 1:51 | 2.10 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:14:50 | 2.50 | +/- 0.10 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:18:51 | 2.55 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:22:52 | 2.60 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:36:35 | 2.80 | +/- 0.15 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 22:32:36 | 3.60 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:35:50 | 3.60 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:48:51 | 4.00 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:52:50 | 4.05 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:56:51 | 4.10 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 23:10:34 | 4.30 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 276 | 0: 7:34 | 4.90 | +/- 0.20 | 265.0 | +/- 1.0 | SMM |
| 1985 | 276 | 0:10:51 | 5.00 | +/- 0.20 | 265.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Core

OUTPUT:

START TIME:

Event began at $t = 0 + -0.842E+02 +/- 0.482E+00$ [minutes]

In more convenient units:

Event began at DOY 275 19:36 +/- 0.482E+00 [minutes]

Origin defined at DOY275 21: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 174. +/- 5. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.226E+01 +/- 0.440E-01$ [solar radii]

$c(2) = 0.150E-01 +/- 0.449E-03$ [radii/min]

$c(2) = 0.174E+03 +/- 0.521E+01$ [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)= 0.51851E-01 [radii] see Bevington pg. 114

error in c(2)= 0.48746E-03 [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) = 265. +/- 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 21: 1 = 0.000E+00 km/sec

The TOTAL velocity at 21: 1 = 174. km/sec

The TANGENTIAL velocity at 21:14 = 0.000E+00 km/sec

The TOTAL velocity at 21:14 = 174. km/sec

The TANGENTIAL velocity at 21:18 = 0.000E+00 km/sec

The TOTAL velocity at 21:18 = 174. km/sec

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

The TOTAL velocity at 21:22 = 174. km/sec

The TANGENTIAL velocity at 21:36 = 0.000E+00 km/sec

The TOTAL velocity at 21:36 = 174. km/sec

The TANGENTIAL velocity at 22:32 = 0.000E+00 km/sec

The TOTAL velocity at 22:32 = 174. km/sec

The TANGENTIAL velocity at 22:35 = 0.000E+00 km/sec

The TOTAL velocity at 22:35 = 174. km/sec

The TANGENTIAL velocity at 22:48 = 0.000E+00 km/sec

The TOTAL velocity at 22:48 = 174. km/sec

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

The TOTAL velocity at 22:52 = 174. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec

The TOTAL velocity at 22:56 = 174. km/sec

The TANGENTIAL velocity at 23:10 = 0.000E+00 km/sec

The TOTAL velocity at 23:10 = 174. km/sec

The TANGENTIAL velocity at 0: 7 = 0.000E+00 km/sec

The TOTAL velocity at 0: 7 = 174. km/sec

The TANGENTIAL velocity at 0:10 = 0.000E+00 km/sec

The TOTAL velocity at 0:10 = 174. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.95

Standard Deviation in start time measurement = 0.612E+02

Error in time = 0.23817E+02 using best fit method

See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.837E-02

Reduced Chi Squared = 0.898E-01

Chi Squared = 0.988E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.994E+00

The probability that no LINEAR correlation exists between the variables = -0.4361E-10

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

| year | day | time | radii | error in radius | angle | error in angle | datatype |
|------|-----|----------|-------|-----------------|-------|----------------|----------|
| 1985 | 275 | 21: 1:51 | 2.10 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:14:50 | 2.50 | +/- 0.10 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:18:51 | 2.55 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:22:52 | 2.60 | +/- 0.20 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 21:36:35 | 2.80 | +/- 0.15 | 265.0 | +/- 0.5 | SMM |
| 1985 | 275 | 22:32:36 | 3.60 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:35:50 | 3.60 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:48:51 | 4.00 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:52:50 | 4.05 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 22:56:51 | 4.10 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 275 | 23:10:34 | 4.30 | +/- 0.15 | 265.0 | +/- 1.0 | SMM |
| 1985 | 276 | 0: 7:34 | 4.90 | +/- 0.20 | 265.0 | +/- 1.0 | SMM |
| 1985 | 276 | 0:10:51 | 5.00 | +/- 0.20 | 265.0 | +/- 1.0 | SMM |

Structure being measured:

Top of Core

OUTPUT:

START TIME:

Event began at $t = 0 + -0.635E+02 +/- 0.479E+01$ [minutes]

In more convenient units:

Event began at DOY 275 19:58 +/- 0.479E+01 [minutes]

Origin defined at DOY275 21: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.619E-02 +/- 0.266E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.219E+01 +/- 0.476E-01$ [solar radii]
c(2) = $0.178E-01 +/- 0.125E-02$ [radii/min]
c(2) = $0.206E+03 +/- 0.145E+02$ [km/sec]
c(3) = $-0.160E-04 +/- 0.687E-05$ [radii/min**2]
c(3) = $-0.619E-02 +/- 0.266E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.50944E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.65705E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.12734E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.25656E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.65514E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.11829E-05 [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) = 265. +/- 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 21: 1 = 0.000E+00 km/sec
The TOTAL velocity at 21: 1 = 205. km/sec

The TANGENTIAL velocity at 21:14 = 0.000E+00 km/sec
The TOTAL velocity at 21:14 = 200. km/sec

The TANGENTIAL velocity at 21:18 = 0.000E+00 km/sec
The TOTAL velocity at 21:18 = 199. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec
The TOTAL velocity at 21:22 = 197. km/sec

The TANGENTIAL velocity at 21:36 = 0.000E+00 km/sec
The TOTAL velocity at 21:36 = 192. km/sec

The TANGENTIAL velocity at 22:32 = 0.000E+00 km/sec
The TOTAL velocity at 22:32 = 172. km/sec

The TANGENTIAL velocity at 22:35 = 0.000E+00 km/sec
The TOTAL velocity at 22:35 = 170. km/sec

The TANGENTIAL velocity at 22:48 = 0.000E+00 km/sec
The TOTAL velocity at 22:48 = 165. km/sec

The TANGENTIAL velocity at 22:52 = 0.000E+00 km/sec
The TOTAL velocity at 22:52 = 164. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec
The TOTAL velocity at 22:56 = 163. km/sec

The TANGENTIAL velocity at 23:10 = 0.000E+00 km/sec

The TOTAL velocity at 23:10 = 157. km/sec

The TANGENTIAL velocity at 0: 7 = 0.000E+00 km/sec

The TOTAL velocity at 0: 7 = 136. km/sec

The TANGENTIAL velocity at 0:10 = 0.000E+00 km/sec

The TOTAL velocity at 0:10 = 135. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.95

Standard Deviation in start time measurement = 0.612E+02

Value of reduced Chi Squared returned from nllst2 = 0.611E-02

Reduced Chi Squared = 0.411E-01

Chi Squared = 0.411E+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 = 0.9246E+00

The correlation between the data and the time**2 term = 0.8123E+00

The correlation between the data and the complete equation of motion = 0.9940E+00

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]