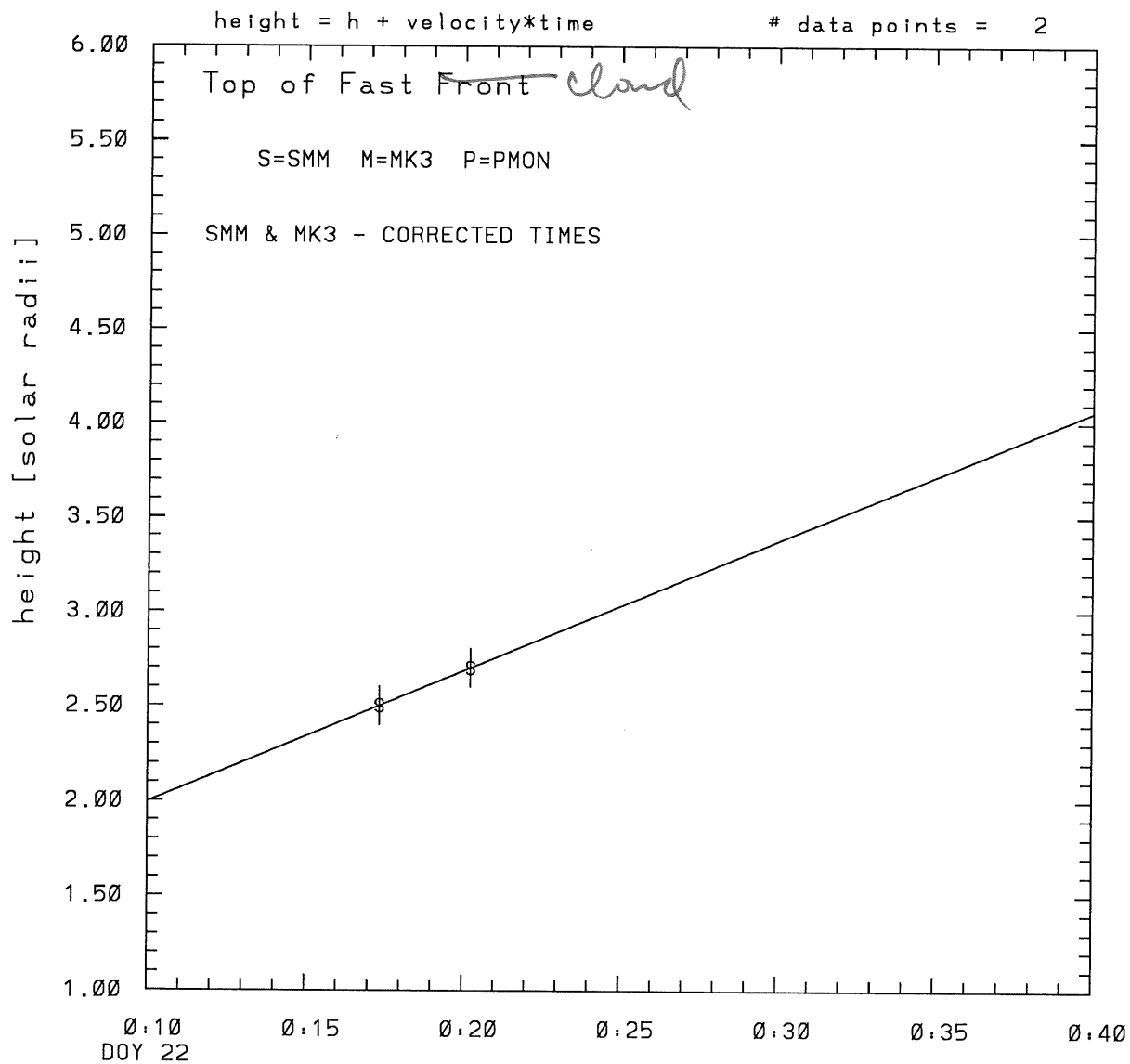


SMM C/P 1985 DOY 22 245 +/- 0 degrees



tstart=DOY 21 23:56 +/- 0.0 [min.]
radial velocity= 800. +/- 0. [km/sec]

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	error in	datatype
1985	22	0:17:21	2.50	+/- 0.10	245.0	+/- 0.5	SMM	
1985	22	0:20:15	2.70	+/- 0.10	245.0	+/- 0.5	SMM	

Structure being measured:
Top of Fast ~~Front~~ *Cloud*

OUTPUT:

START TIME:

Event began at $t = 0 + -0.144E+02 +/- 0.000E+00$ [minutes]
In more convenient units:
Event began at DOY 21 23:56 +/- 0.000E+00 [minutes]

Origin defined at DOY 22 0:10

RADIAL INFORMATION:

RADIAL VELOCITY = 800. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.199E+01 +/- 0.104E-05 [solar radii]
c(2) = 0.690E-01 +/- 0.116E-06 [radii/min]
c(2) = 0.800E+03 +/- 0.135E-02 [km/sec]
c(3) = 0.000E+00 +/- 0.000E+00 [radii/min**2]
c(3) = 0.000E+00 +/- 0.000E+00 [km/sec**2]

ANGULAR INFORMATION:

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

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 245. +/- 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 0:17 = 0.000E+00 km/sec

The TOTAL velocity at 0:17 = 800. km/sec

The TANGENTIAL velocity at 0:20 = 0.000E+00 km/sec

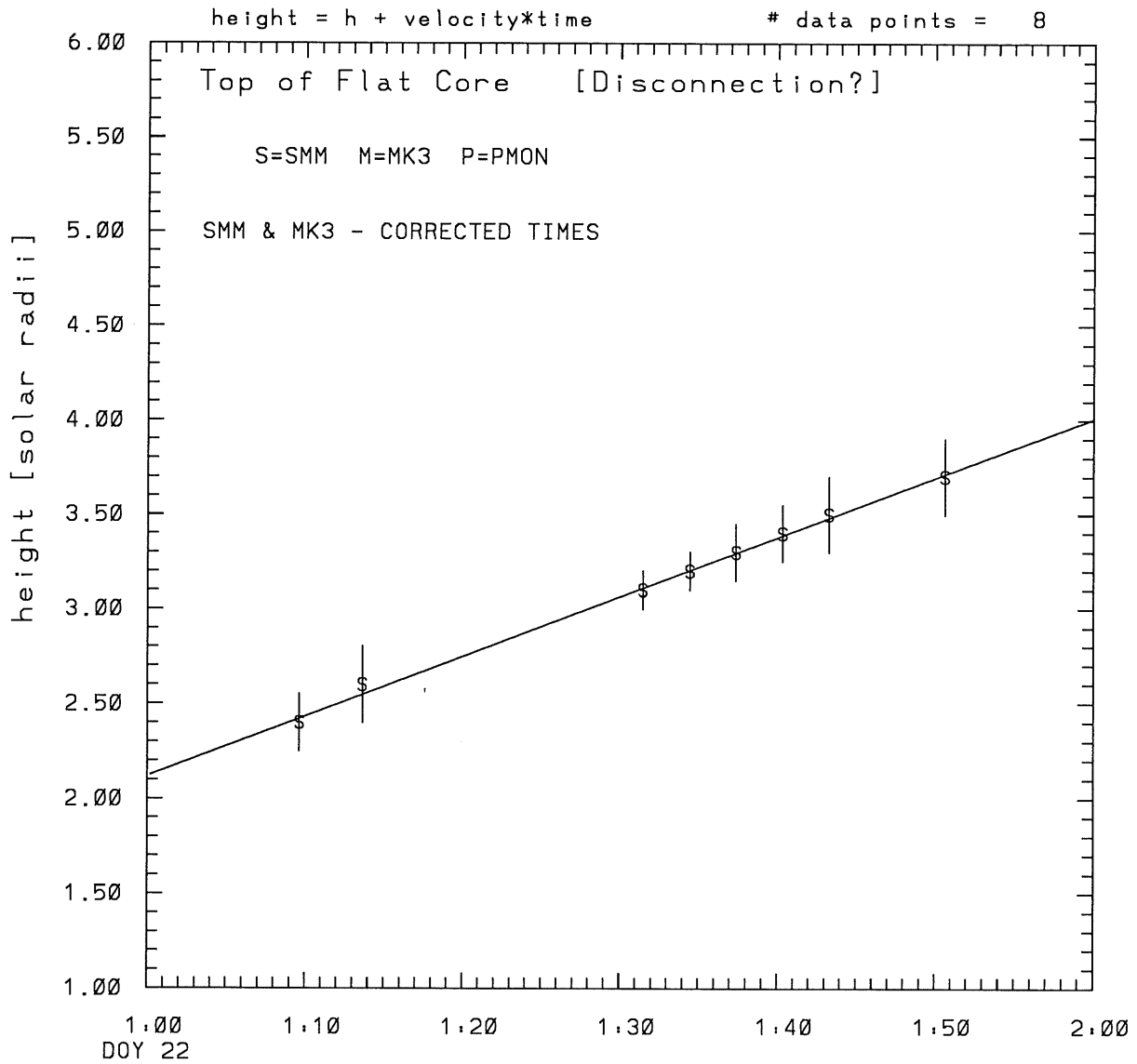
The TOTAL velocity at 0:20 = 800. km/sec

The following info is for estimating goodness of the fit

Number data points = number of coefficients. No error analysis is possible.

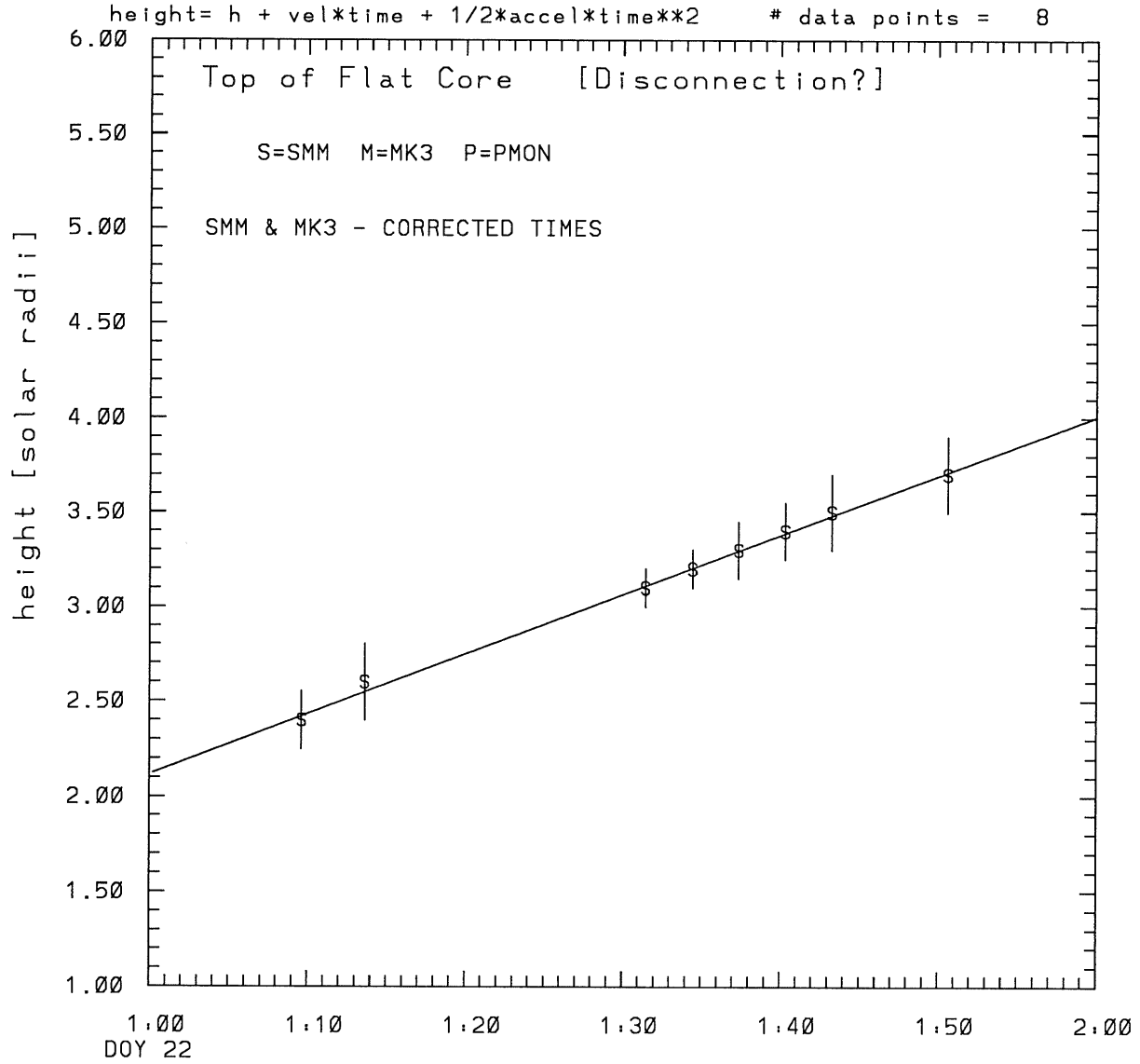
Correlation coefficient is not computable!

SMM C/P 1985 DOY 22 270 +/- 0 degrees



tstart=DOY 22 0.25 +/- 0.3 [min.]
radial velocity= 366. +/- 7. [km/sec]

SMM C/P 1985 DOY 22 270 +/- 0 degrees

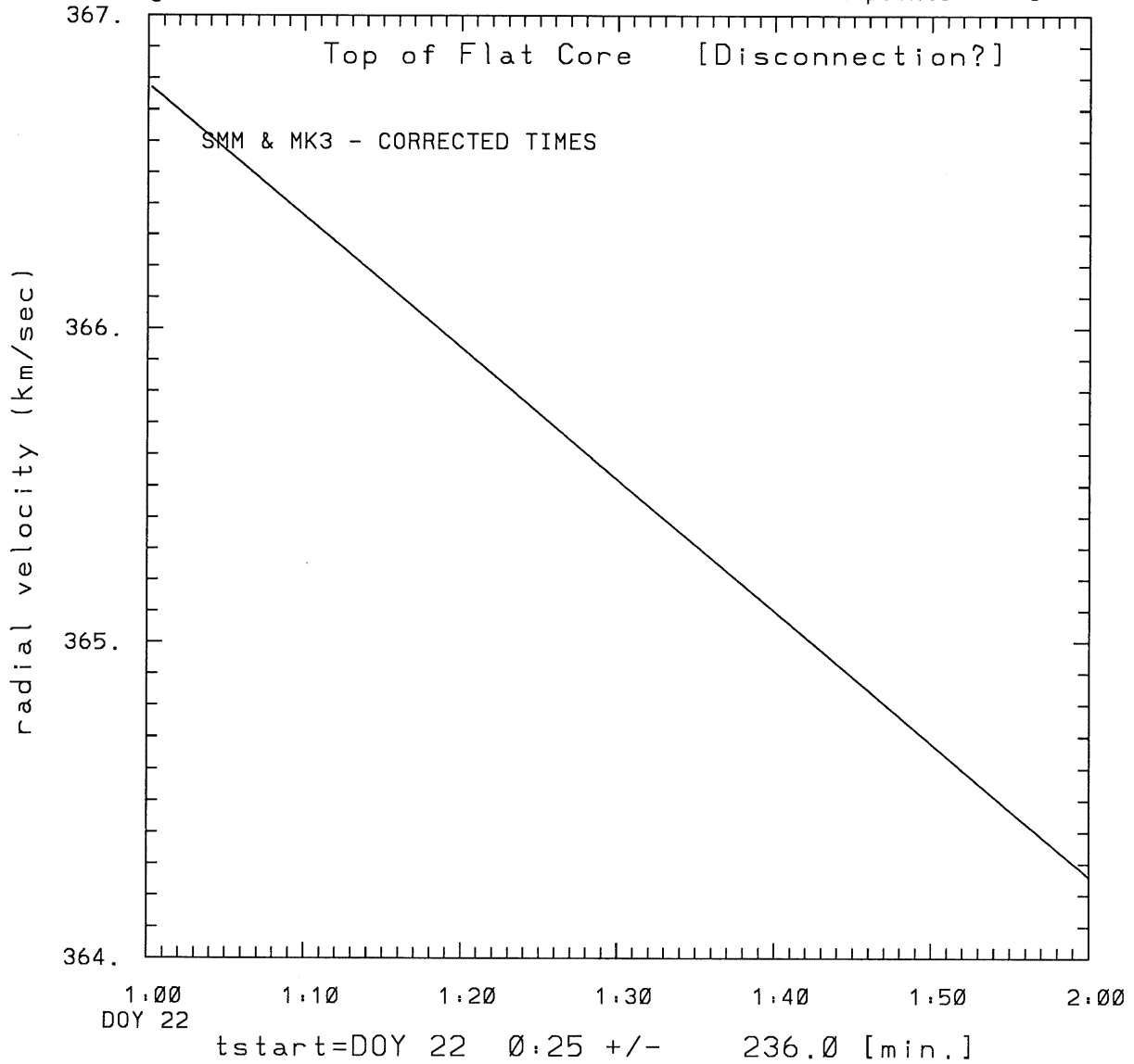


tstart=DOY 22 0:25 +/- 236.0 [min.]

radial acceleration = -0.0007 +/- 0.0191 [km/sec**2]

SMM C/P 1985 DOY 22 270 +/- 0 degrees

height= h + vel*time + 1/2*accel*time**2 # data points = 8



radial acceleration=-.701E-03 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in	angle	angle	datatype
1985	22	1: 9:37	2.40	+/- 0.15	270.0	+/- 0.5	SMM	
1985	22	1:13:37	2.60	+/- 0.20	270.0	+/- 0.5	SMM	
1985	22	1:31:29	3.10	+/- 0.10	270.0	+/- 1.0	SMM	
1985	22	1:34:27	3.20	+/- 0.10	270.0	+/- 1.0	SMM	
1985	22	1:37:23	3.30	+/- 0.15	270.0	+/- 1.0	SMM	
1985	22	1:40:20	3.40	+/- 0.15	270.0	+/- 1.0	SMM	
1985	22	1:43:17	3.50	+/- 0.20	270.0	+/- 1.0	SMM	
1985	22	1:50:37	3.70	+/- 0.20	270.0	+/- 1.0	SMM	

Structure being measured:
Top of Flat Core [Disconnection?]

OUTPUT:

START TIME:

Event began at $t = 0 + -0.354E+02 +/- 0.260E+00$ [minutes]
In more convenient units:
Event began at DOY 22 0:25 +/- 0.260E+00 [minutes]

Origin defined at DOY 22 1: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 366. +/- 7. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.212E+01 +/- 0.204E-01 [solar radii]
c(2) = 0.315E-01 +/- 0.599E-03 [radii/min]
c(2) = 0.366E+03 +/- 0.695E+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)= 0.24271E-01 [radii] see Bevington pg. 114
error in c(2)= 0.68940E-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) = 270. +/- 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 1: 9 = 0.000E+00 km/sec

The TOTAL velocity at 1: 9 = 366. km/sec

The TANGENTIAL velocity at 1:13 = 0.000E+00 km/sec

The TOTAL velocity at 1:13 = 366. km/sec

The TANGENTIAL velocity at 1:31 = 0.000E+00 km/sec

The TOTAL velocity at 1:31 = 366. km/sec

The TANGENTIAL velocity at 1:34 = 0.000E+00 km/sec

The TOTAL velocity at 1:34 = 366. km/sec

The TANGENTIAL velocity at 1:37 = 0.000E+00 km/sec

The TOTAL velocity at 1:37 = 366. km/sec

The TANGENTIAL velocity at 1:40 = 0.000E+00 km/sec

The TOTAL velocity at 1:40 = 366. km/sec

The TANGENTIAL velocity at 1:43 = 0.000E+00 km/sec

The TOTAL velocity at 1:43 = 366. km/sec

The TANGENTIAL velocity at 1:50 = 0.000E+00 km/sec

The TOTAL velocity at 1:50 = 366. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.44

Standard Deviation in start time measurement = 0.133E+02

Error in time = 0.20151E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.335E-03

Reduced Chi Squared = 0.184E-02

Chi Squared = 0.110E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = $0.999\text{E}+00$

The probability that no LINEAR correlation exists between the variables = $-0.4501\text{E}-07$

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

This is a 2 order run

INPUT:

year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1985	22	1: 9:37	2.40 +/- 0.15	270.0 +/- 0.5			SMM
1985	22	1:13:37	2.60 +/- 0.20	270.0 +/- 0.5			SMM
1985	22	1:31:29	3.10 +/- 0.10	270.0 +/- 1.0			SMM
1985	22	1:34:27	3.20 +/- 0.10	270.0 +/- 1.0			SMM
1985	22	1:37:23	3.30 +/- 0.15	270.0 +/- 1.0			SMM
1985	22	1:40:20	3.40 +/- 0.15	270.0 +/- 1.0			SMM
1985	22	1:43:17	3.50 +/- 0.20	270.0 +/- 1.0			SMM
1985	22	1:50:37	3.70 +/- 0.20	270.0 +/- 1.0			SMM

Structure being measured:

Top of Flat Core [Disconnection?]

OUTPUT:

START TIME:

Event began at $t = 0 + -0.352E+02 +/- 0.236E+03$ [minutes]

In more convenient units:

Event began at DOY 22 0:25 +/- 0.236E+03 [minutes]

Origin defined at DOY 22 1: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.701E-03 +/- 0.191E-01$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.212E+01 +/- 0.374E-01$ [solar radii]
c(2) = $0.316E-01 +/- 0.278E-02$ [radii/min]
c(2) = $0.367E+03 +/- 0.323E+02$ [km/sec]
c(3) = $-0.181E-05 +/- 0.494E-04$ [radii/min**2]
c(3) = $-0.701E-03 +/- 0.191E-01$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = $0.48542E-01$ [radii] Bevington pg 154 (8-30)

Exact error in c(1) = $0.14965E-01$ [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = $0.37948E-02$ [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.82745E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.65032E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.12142E-04 [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) = 270. +/- 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 1: 9 = 0.000E+00 km/sec

The TOTAL velocity at 1: 9 = 366. km/sec

The TANGENTIAL velocity at 1:13 = 0.000E+00 km/sec

The TOTAL velocity at 1:13 = 366. km/sec

The TANGENTIAL velocity at 1:31 = 0.000E+00 km/sec

The TOTAL velocity at 1:31 = 365. km/sec

The TANGENTIAL velocity at 1:34 = 0.000E+00 km/sec

The TOTAL velocity at 1:34 = 365. km/sec

The TANGENTIAL velocity at 1:37 = 0.000E+00 km/sec

The TOTAL velocity at 1:37 = 365. km/sec

The TANGENTIAL velocity at 1:40 = 0.000E+00 km/sec

The TOTAL velocity at 1:40 = 365. km/sec

The TANGENTIAL velocity at 1:43 = 0.000E+00 km/sec

The TOTAL velocity at 1:43 = 365. km/sec

The TANGENTIAL velocity at 1:50 = 0.000E+00 km/sec

The TOTAL velocity at 1:50 = 365. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.44

Standard Deviation in start time measurement = 0.133E+02

Value of reduced Chi Squared returned from nllst2 = 0.390E-03

Reduced Chi Squared = 0.219E-02

Chi Squared = 0.110E-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 = 0.8108E+00

The correlation between the data and the time**2 term = 0.7664E+00

The correlation between the data and the complete equation of motion = 0.9967E+00

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