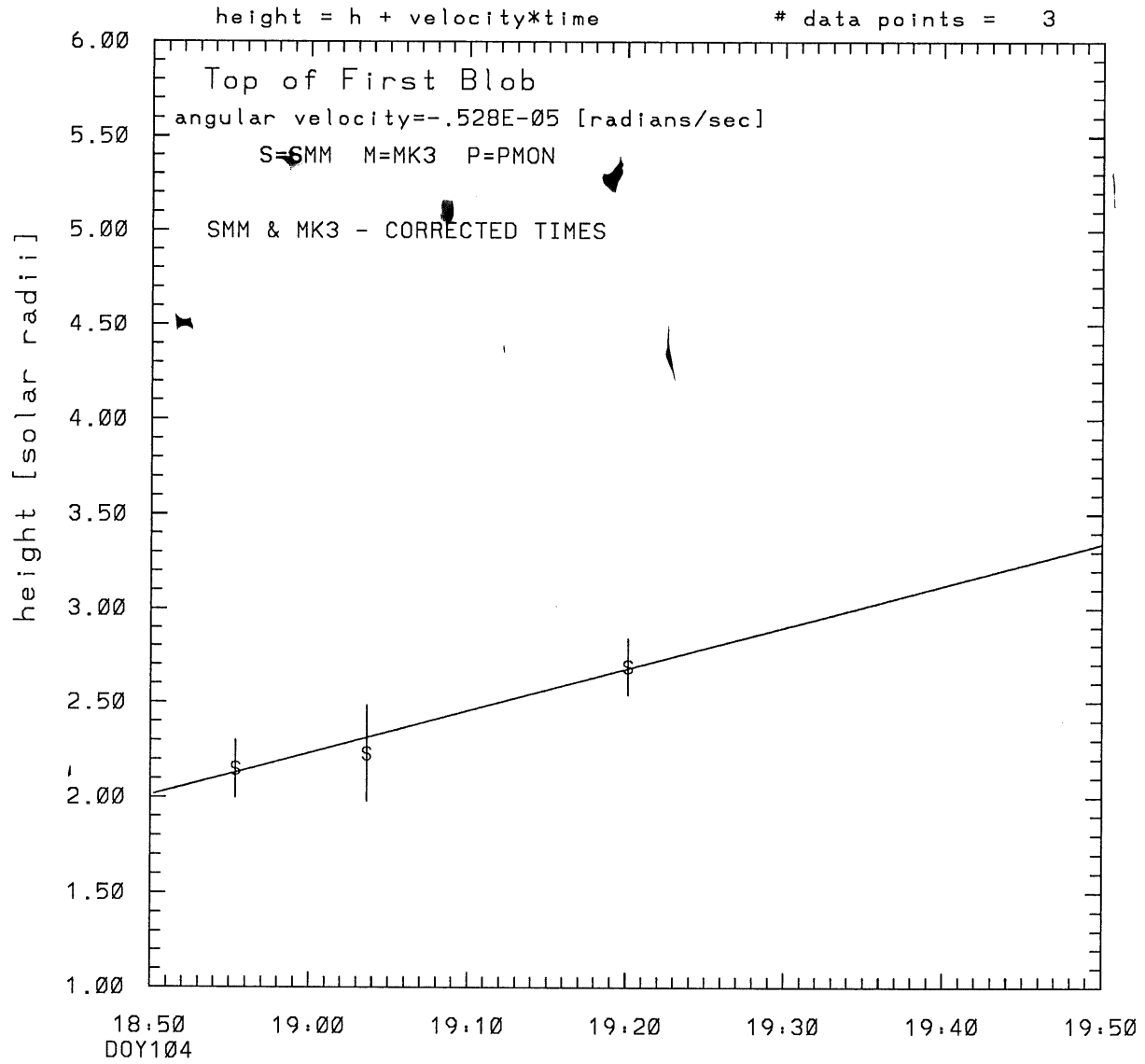


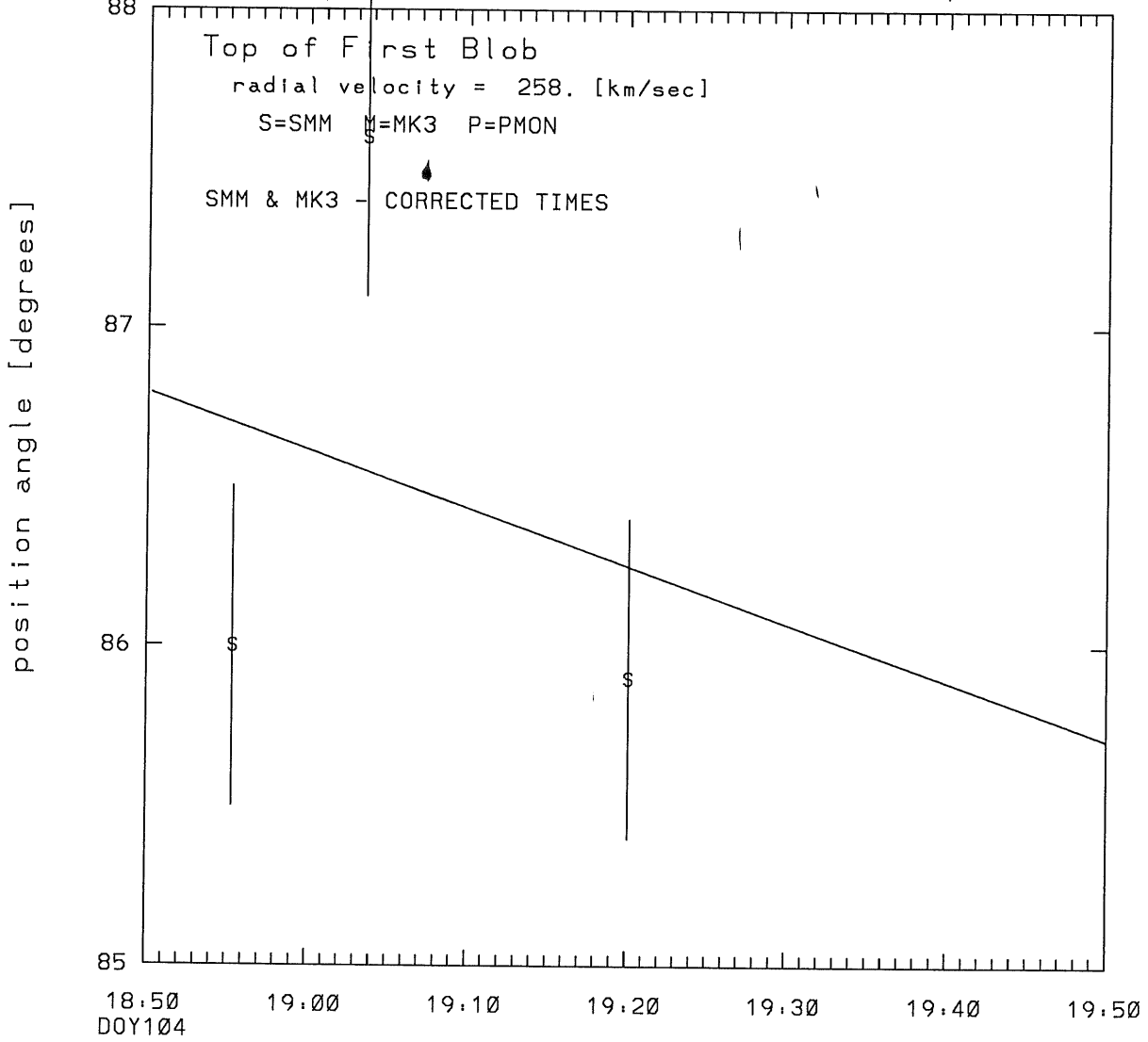
SMM C/P 1988, DOY104 86 +/- 1 degrees



tstart = DOY104 18: 6 +/- 1.9 [min.]
radial velocity = 258. +/- 26. [km/sec]

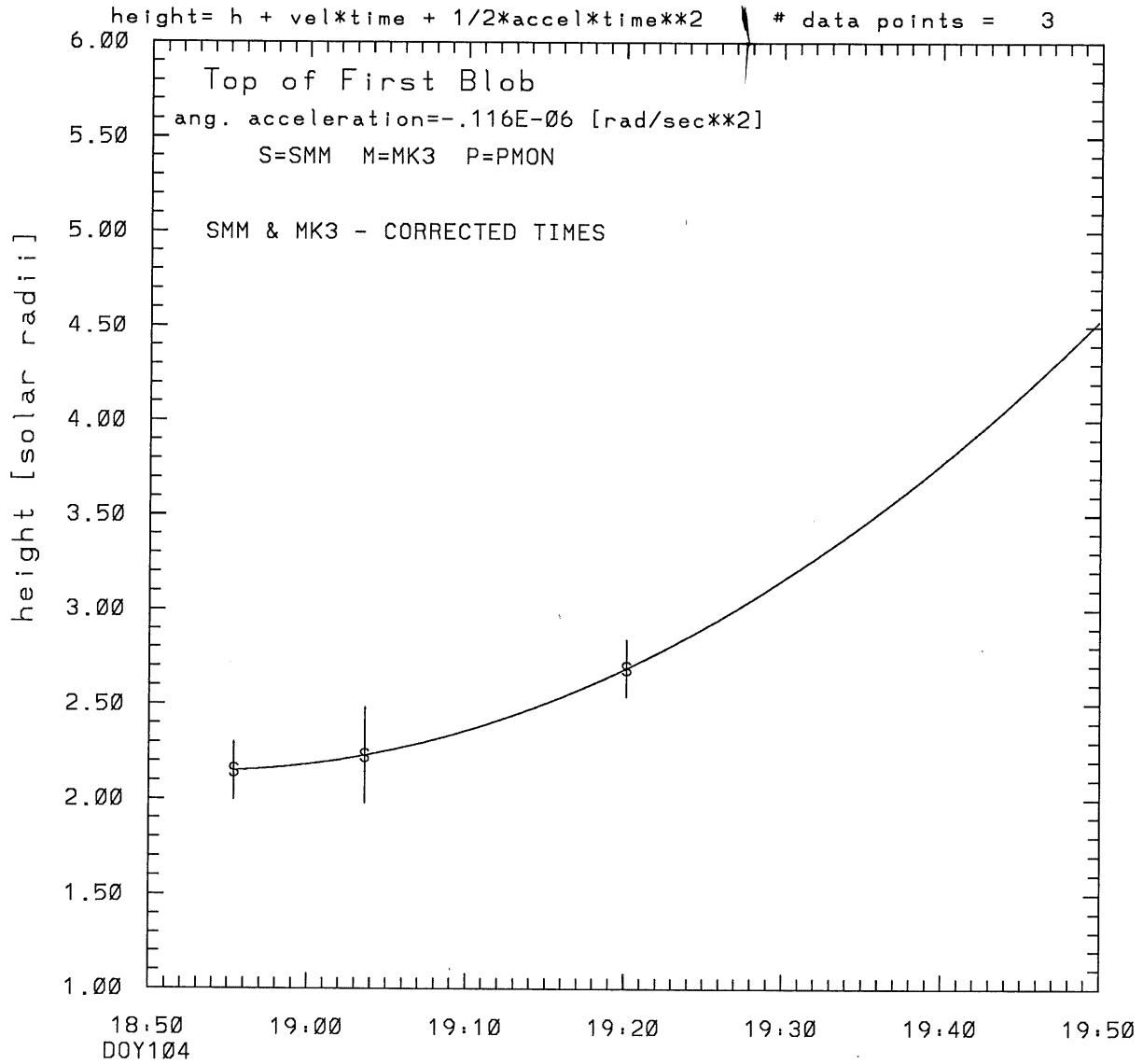
SMM C/P 1988 DOY104 86 +/- 1 degrees

angle = initial angle + angular velocity * time # data points = 3



angular velocity = $-0.528 \times 10^{-5} \pm 0.151 \times 10^{-4}$ [rad/sec]

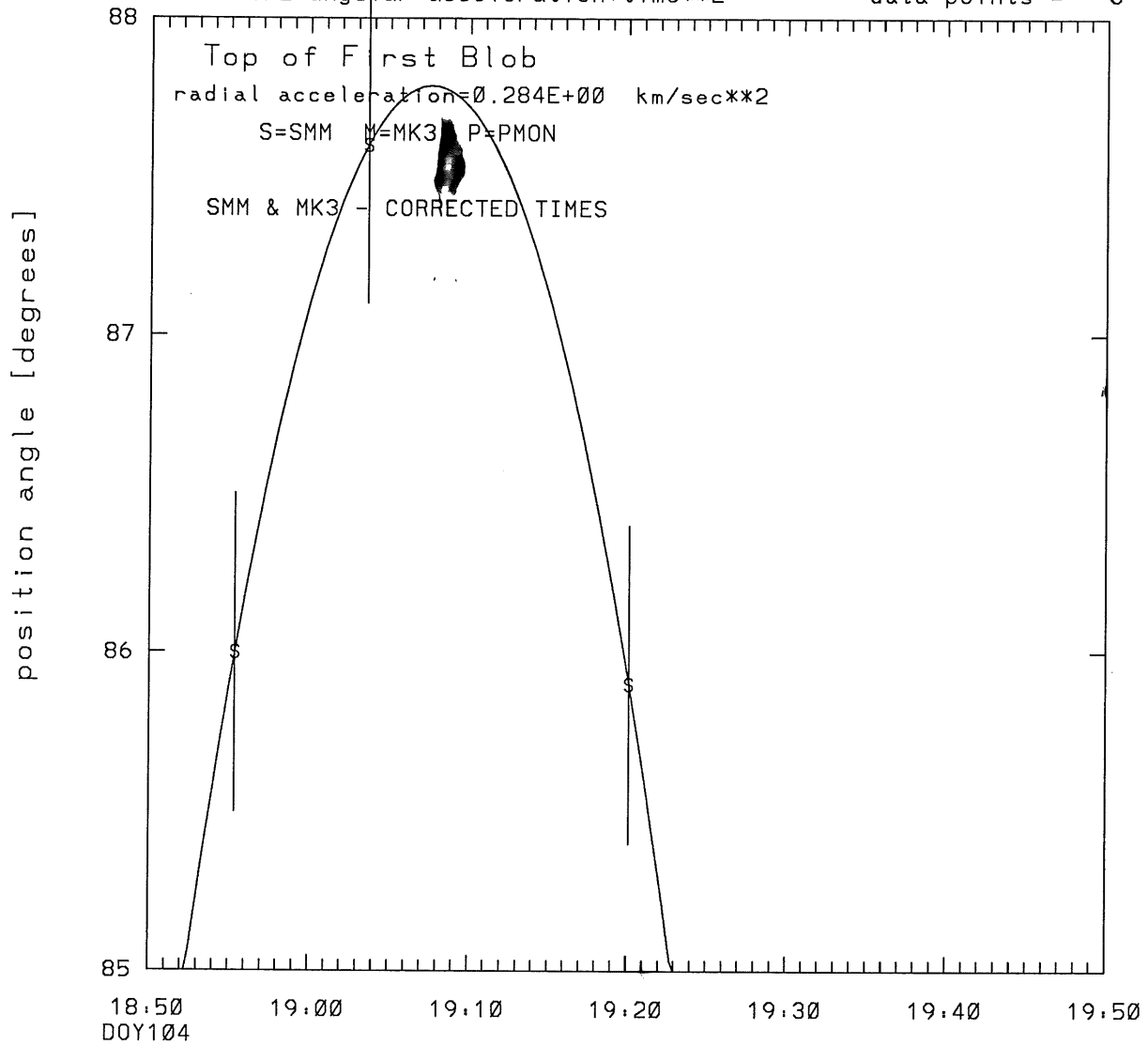
SMM C/P 1988 DOY104 86 +/- 1 degrees



tstart=DOY104 18:52 from derivative=0
Event begins at 2.15 Solar Radii
radial acceleration = $0.2842 +/- 0.0000$ [km/sec**2]

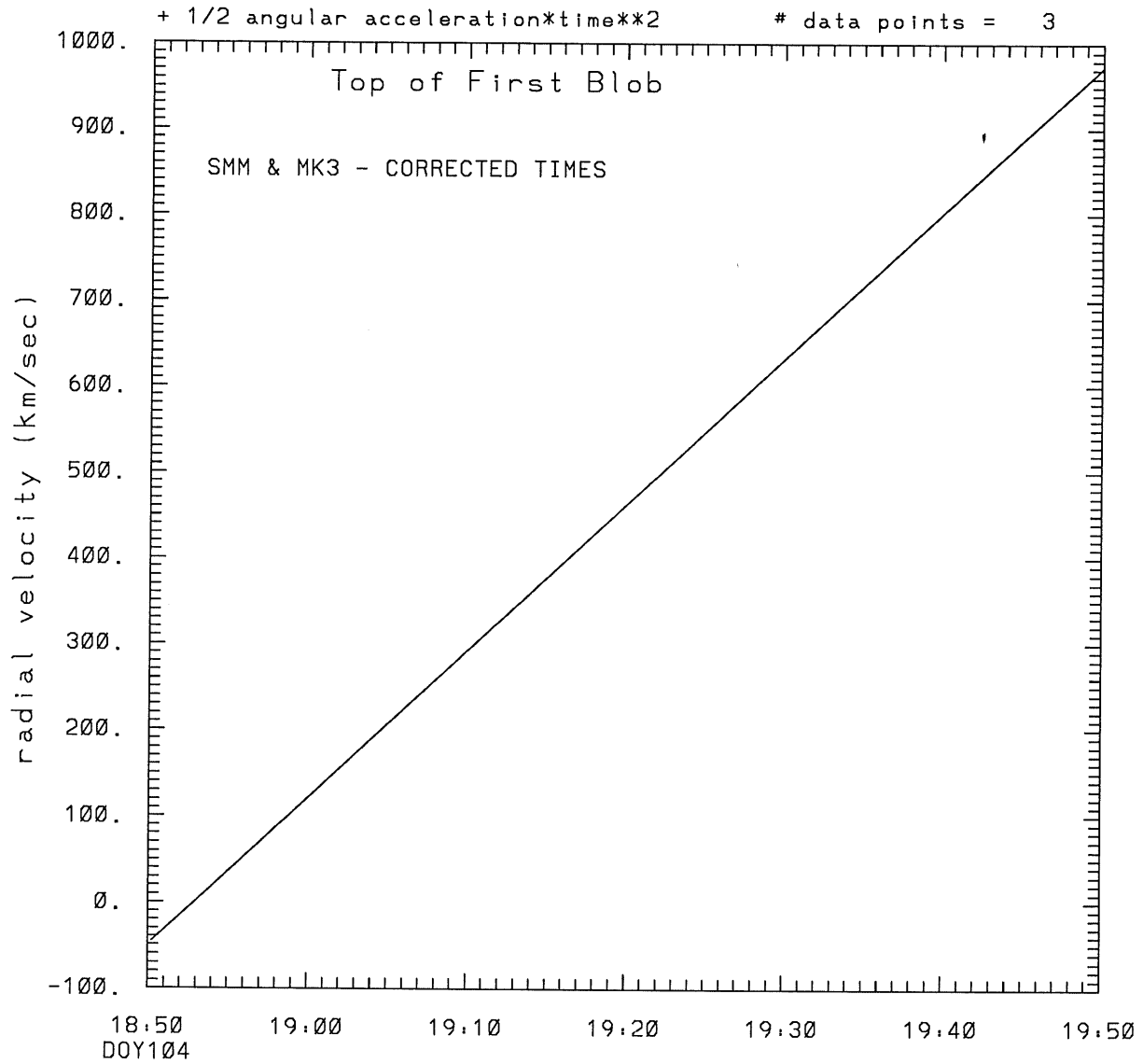
SMM C/P 1988 DOY104 86 +/- 1 degrees

angle = initial angle + angular velocity*time
+ 1/2 angular acceleration*time**2 # data points = 3



Event begins at 2.15 Solar Radii
angular acceleration=-.116E-06 +/-0.676E-12 [rad/sec**2]

SMM C/P 1988 DOY104 86 +/- 1 degrees

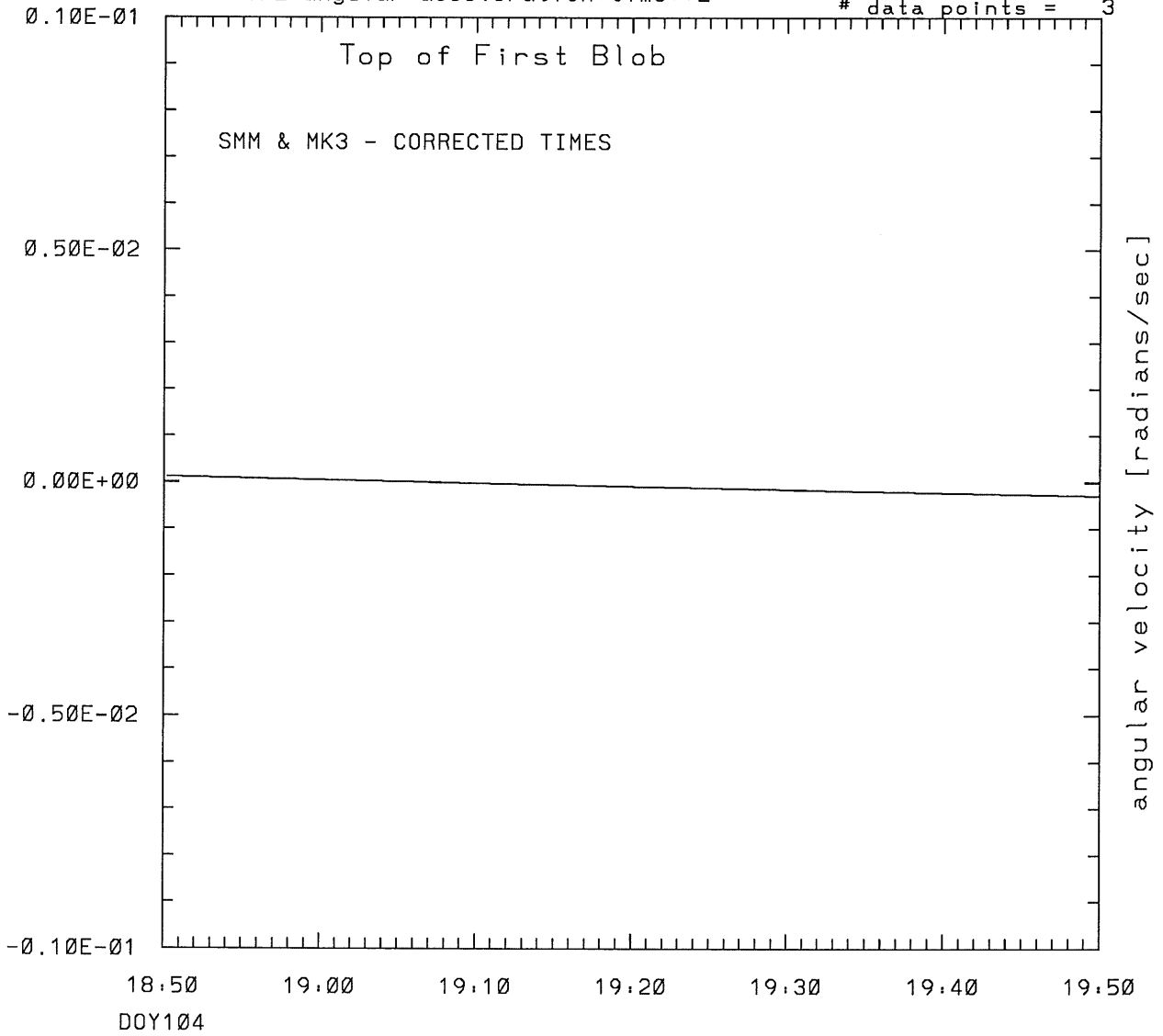


tstart=DOY104 18:52 from derivative=0
Event begins at 2.15 Solar Radii
radial acceleration=0.284E+00 km/sec**2

SMM C/P 1988 DOY104 86 +/- 1 degrees

$$\text{angle} = \text{initial angle} + \text{angular velocity} * \text{time} + \frac{1}{2} \text{angular acceleration} * \text{time} ** 2$$

data points = 3



angular acceleration = $-.116E-06$ +/- $0.676E-12$ [rad/sec**2]

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1988	104	18:55:22	2.15 +/-	0.15	86.0 +/-	0.5	SMM
1988	104	19: 3:38	2.23 +/-	0.25	87.6 +/-	0.5	SMM
1988	104	19:20: 8	2.69 +/-	0.15	85.9 +/-	0.5	SMM

Structure being measured:
Top of First Blob

OUTPUT:

START TIME:

Event began at t = 0 + -0.455E+02 +/- 0.192E+01 [minutes]
In more convenient units:
Event began at DOY 104 18: 6 +/- 0.192E+01 [minutes]

Origin defined at DOY104 18:50

RADIAL INFORMATION:

RADIAL VELOCITY = 258. +/- 26. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.201E+01 +/- 0.453E-01 [solar radii]
c(2) = 0.222E-01 +/- 0.220E-02 [radii/min]
c(2) = 0.258E+03 +/- 0.255E+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]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.93834E-01 [radii] see Bevington pg. 114
error in c(2)= 0.48505E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = -0.5275E-05 +/- 0.1511E-04[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 87. +/- 1. [degrees]
a(2) = -0.181E-01 +/- 0.519E-01 [degrees/min]
a(2) = -0.528E-05 +/- 0.151E-04 [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 RADIAL velocity at 18:55 = 258. km/sec

The RADIAL velocity at 19: 3 = 258. km/sec

The RADIAL velocity at 19:20 = 258. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.29
Standard Deviation in start time measurement = 0.103E+02
Error in time = 0.38950E+01 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 = 0.147E-01
Chi Squared = 0.147E-01
The probability for exceeding chi square = 0.965E+00

The correlation coefficient = 0.981E+00
The probability that no LINEAR correlation exists between the variables = 0.1250
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in angle	error in angle	datatype
1988	104	18:55:22	2.15 +/- 0.15		86.0 +/- 0.5	0.5	SMM
1988	104	19: 3:38	2.23 +/- 0.25		87.6 +/- 0.5	0.5	SMM
1988	104	19:20: 8	2.69 +/- 0.15		85.9 +/- 0.5	0.5	SMM

Structure being measured:
Top of First Blob

OUTPUT:

START TIME:

tstart=DOY104 18:52 from derivative = 0
Event begins at 2.15 Solar Radii
Origin defined at DOY104 18:50

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.284E+00 +/- 0.985E-05 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.215E+01 +/- 0.537E-05 [solar radii]
c(2) = -0.429E-02 +/- 0.925E-06 [radii/min]
c(2) = -0.497E+02 +/- 0.107E-01 [km/sec]
c(3) = 0.735E-03 +/- 0.255E-07 [radii/min**2]
c(3) = 0.284E+00 +/- 0.985E-05 [km/sec**2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= -0.1161E-06 +/- 0.6764E-12[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 84. +/- 0. [degrees]
a(2) = 0.421E+00 +/- 0.259E-05 [degrees/min]
a(2) = 0.122E-03 +/- 0.755E-09 [rad/sec]
a(3) = -0.120E-01 +/- 0.698E-07 [degrees/min**2]
a(3) = -0.116E-06 +/- 0.676E-12 [rad/sec**2]

The RADIAL velocity at 18:55 = 42. km/sec

The RADIAL velocity at 19: 3 = 183. km/sec

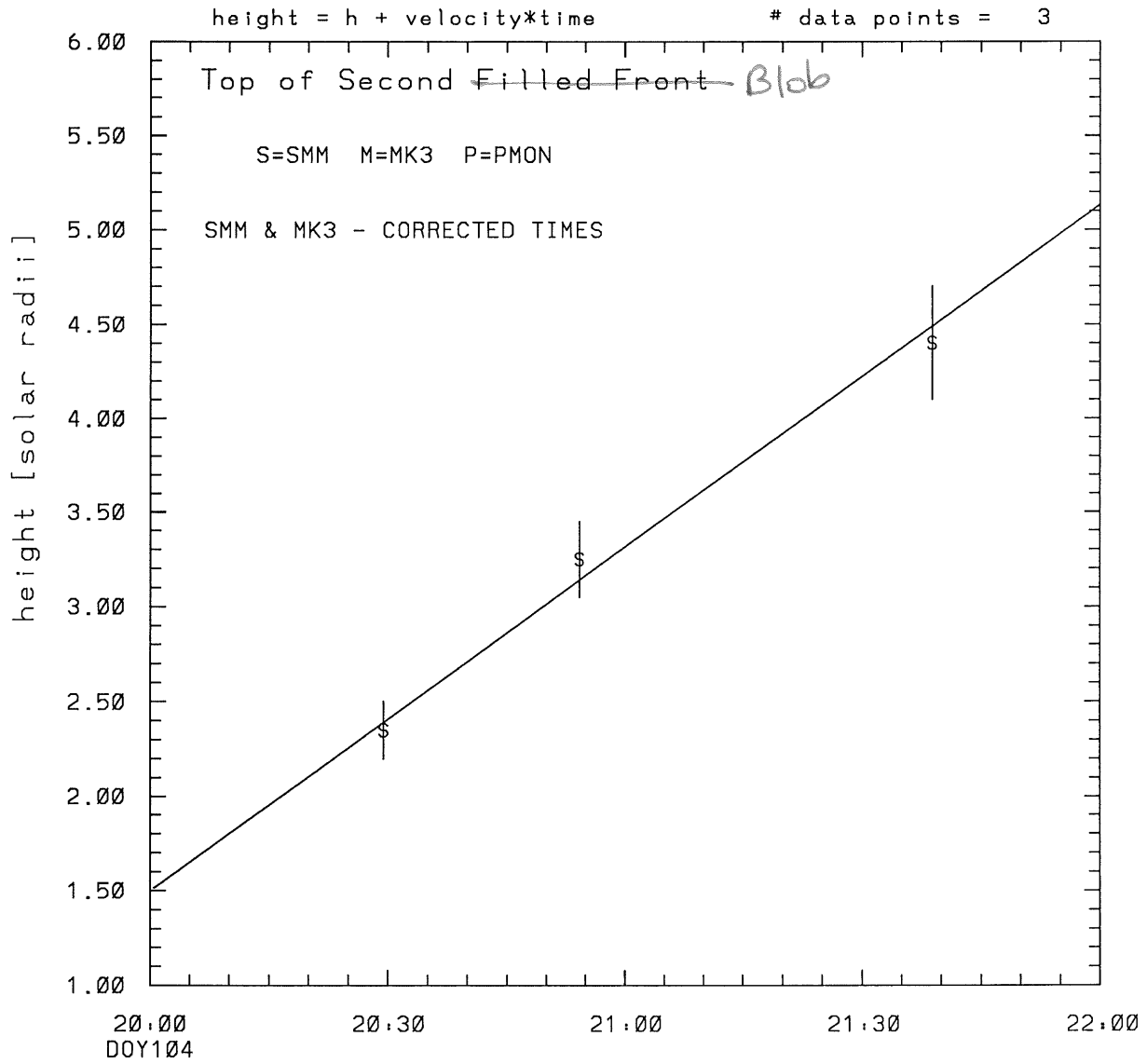
The RADIAL velocity at 19:20 = 464. km/sec

The following info is for estimating goodness of the fit

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

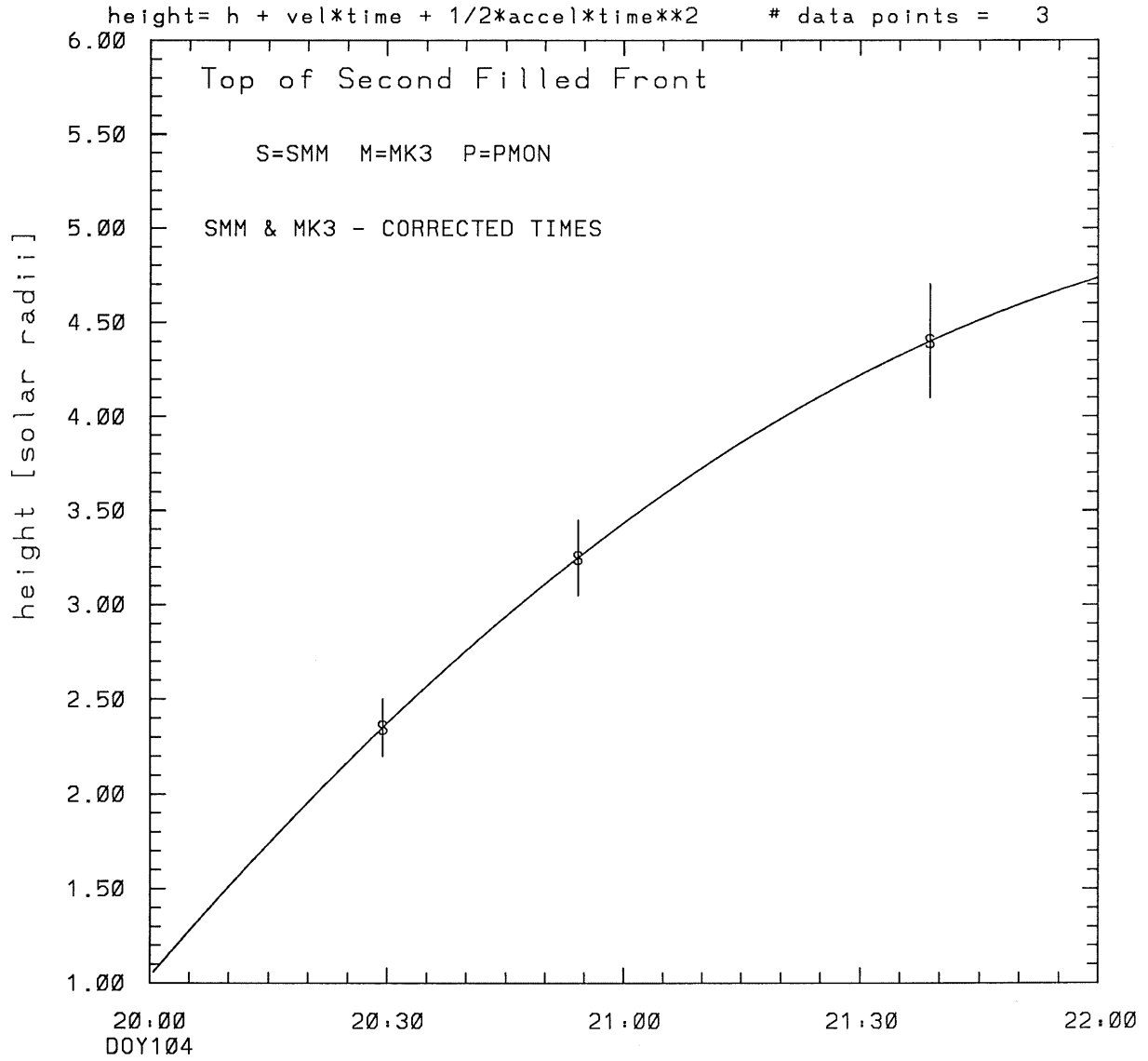
Correlation coefficient is not computable!

SMM C/P 1988 DOY104 85 +/- 0 degrees



tstart=DOY104 19:44 +/- 1.1 [min.]
radial velocity= 351. +/- 26. [km/sec]

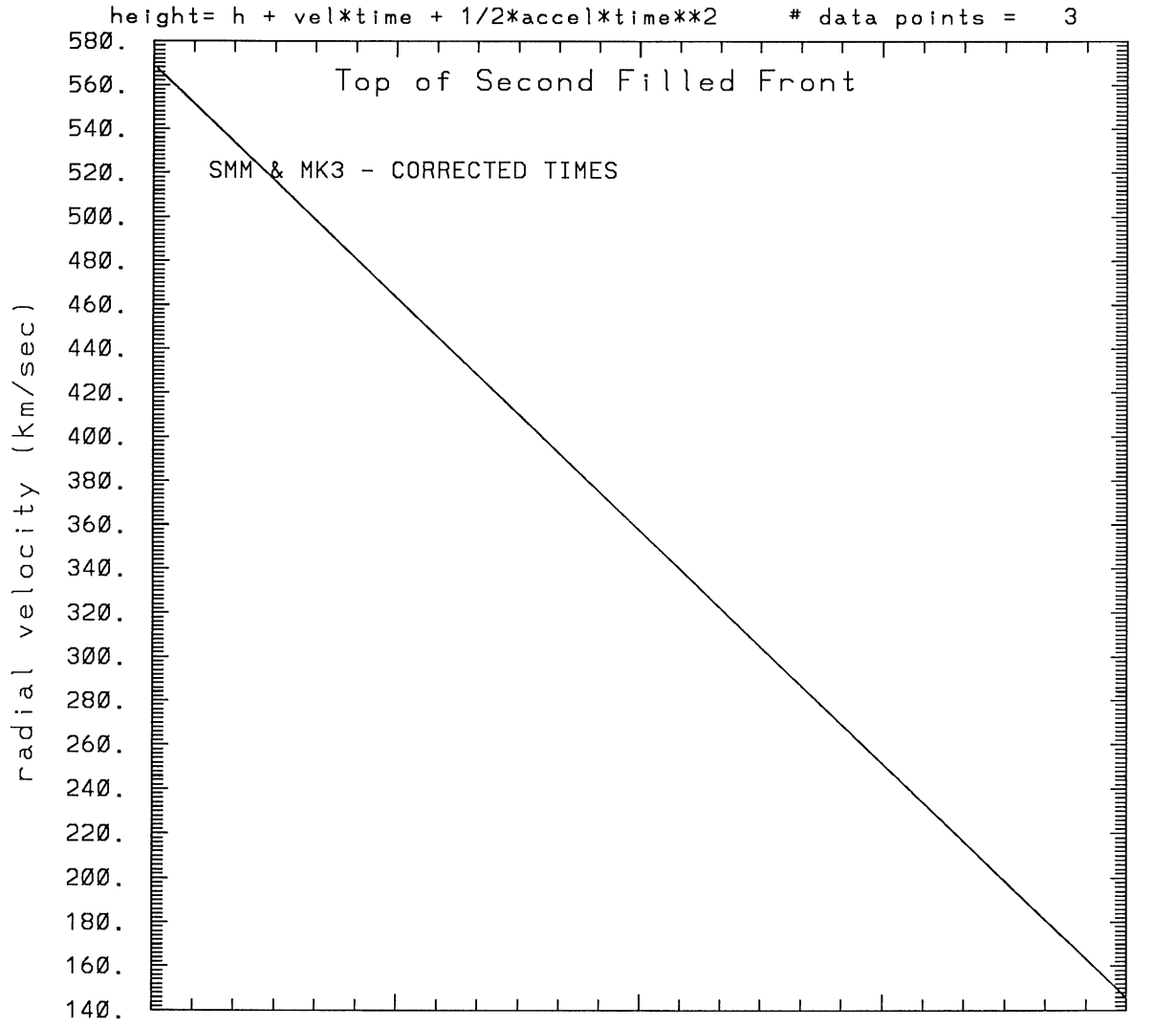
SMM C/P 1988 DOY104 85 +/- 0 degrees



tstart=DOY104 20: 1 +/- 0.0 [min.]

radial acceleration=-0.0588 +/- 0.0000 [km/sec**2]

SMM C/P 1988 DOY104 85 +/- 0 degrees



20.00
DOY104

20.30

21.00

21.30

22.00

tstart=DOY104 20: 1 +/- 0.0 [min.]

radial acceleration=-.588E-01 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1988	104	20:29:27	2.35	+/- 0.15	85.0	+/- 0.5	SMM
1988	104	20:54:13	3.25	+/- 0.20	85.0	+/- 1.0	SMM
1988	104	21:38:48	4.40	+/- 0.30	85.0	+/- 1.0	SMM

Structure being measured:
Top of Second Filled Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.165E+02 +/- 0.106E+01$ [minutes]
In more convenient units:
Event began at DOY 104 19:44 +/- 0.106E+01 [minutes]

Origin defined at DOY104 20: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 351. +/- 26. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.150E+01 +/- 0.119E+00 [solar radii]
- c(2) = 0.303E-01 +/- 0.228E-02 [radii/min]
- c(2) = 0.351E+03 +/- 0.264E+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]

The computed ERRORS in coefficients [BEVINGTON] are:

- error in c(1)= 0.19928E+00 [radii] see Bevington pg. 114
- error in c(2)= 0.29632E-02 [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) = 85. +/- 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 20:29 = 0. km/sec

The TOTAL velocity at 20:29 = 351. km/sec

The TANGENTIAL velocity at 20:54 = 0. km/sec

The TOTAL velocity at 20:54 = 351. km/sec

The TANGENTIAL velocity at 21:38 = 0. km/sec

The TOTAL velocity at 21:38 = 351. 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 = 0.287E+02

Error in time = 0.48662E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.864E-02

Reduced Chi Squared = 0.497E-01

Chi Squared = 0.497E-01

The probability for exceeding chi square = 0.926E+00

The correlation coefficient = 0.996E+00

The probability that no LINEAR correlation exists between the variables = 0.5934E-01

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

This is a 2 order run

INPUT:

year	doy	time	radii	error in radius	error in angle	angle	datatype
1988	104	20:29:27	2.35	+/- 0.15	85.0	+/- 0.5	SMM
1988	104	20:54:13	3.25	+/- 0.20	85.0	+/- 1.0	SMM
1988	104	21:38:48	4.40	+/- 0.30	85.0	+/- 1.0	SMM

Structure being measured:
Top of Second Filled Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.753E+00 +/- 0.000E+00$ [minutes]
In more convenient units:
Event began at DOY 104 20: 1 +/- 0.000E+00 [minutes]

Origin defined at DOY104 20: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.588E-01 +/- 0.107E-06$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.104E+01 +/- 0.891E-06$ [solar radii]
c(2) = $0.491E-01 +/- 0.346E-07$ [radii/min]
c(2) = $0.569E+03 +/- 0.401E-03$ [km/sec]
c(3) = $-0.152E-03 +/- 0.276E-09$ [radii/min**2]
c(3) = $-0.588E-01 +/- 0.107E-06$ [km/sec**2]

ANGULAR INFORMATION:

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

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = $85. +/- 0.$ [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]

$$a(3) = 0.000E+00 \pm 0.000E+00 \text{ [rad/sec**2]}$$

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 20:29 = 0. km/sec

The TOTAL velocity at 20:29 = 465. km/sec

The TANGENTIAL velocity at 20:54 = 0. km/sec

The TOTAL velocity at 20:54 = 378. km/sec

The TANGENTIAL velocity at 21:38 = 0. km/sec

The TOTAL velocity at 21:38 = 221. 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!