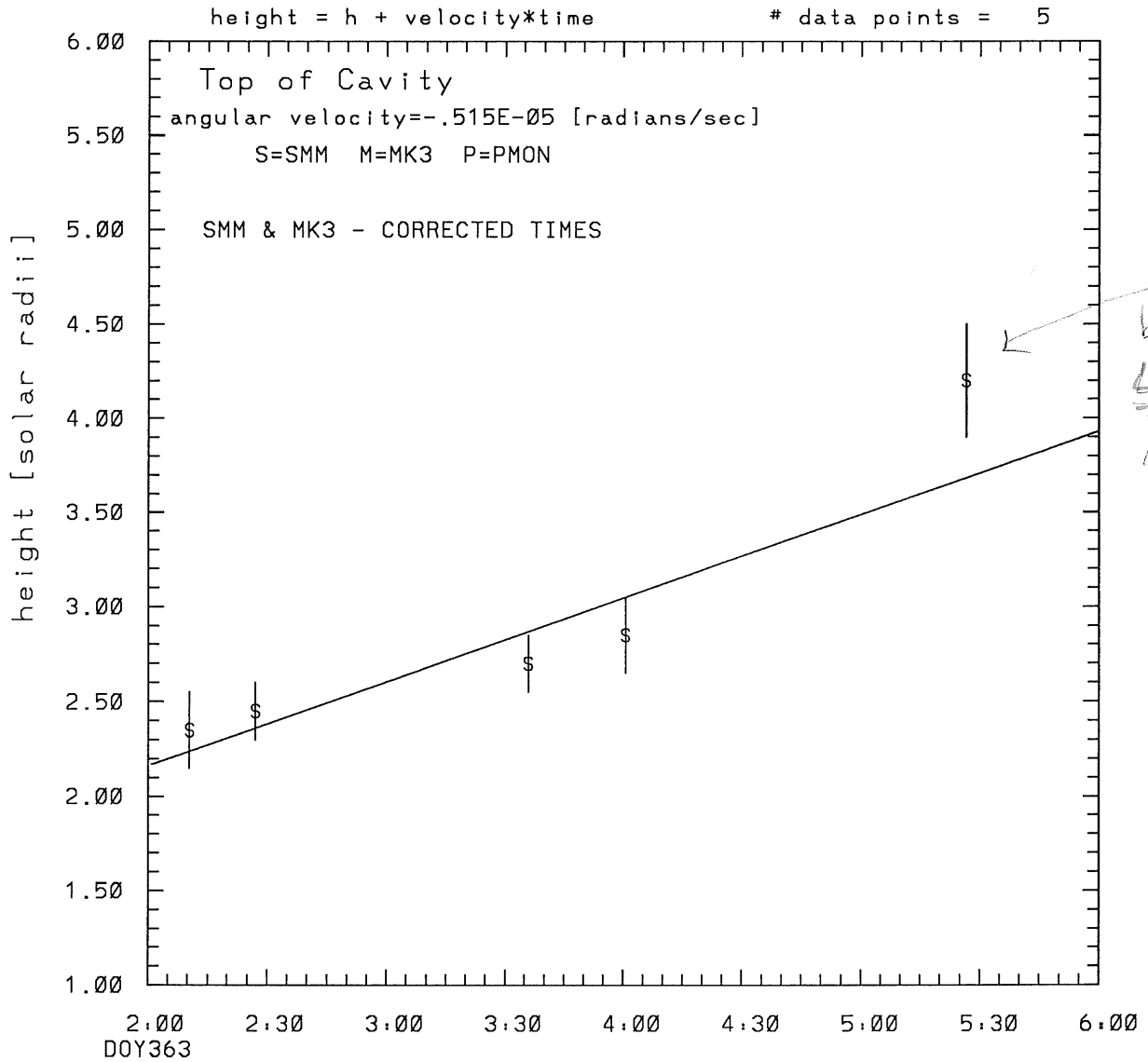
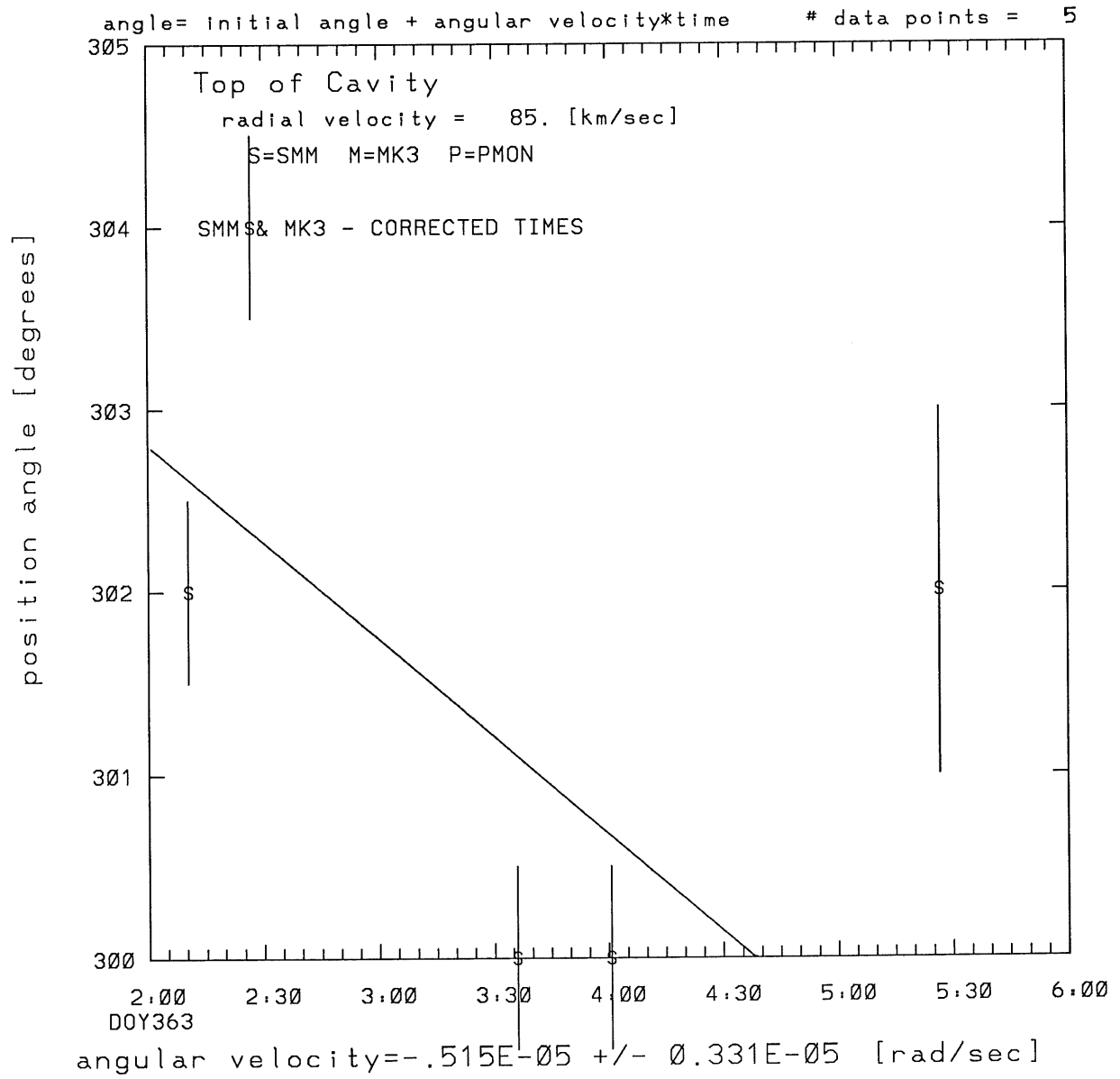


SMM C/P 1988 DOY363 301 +/- 3 degrees

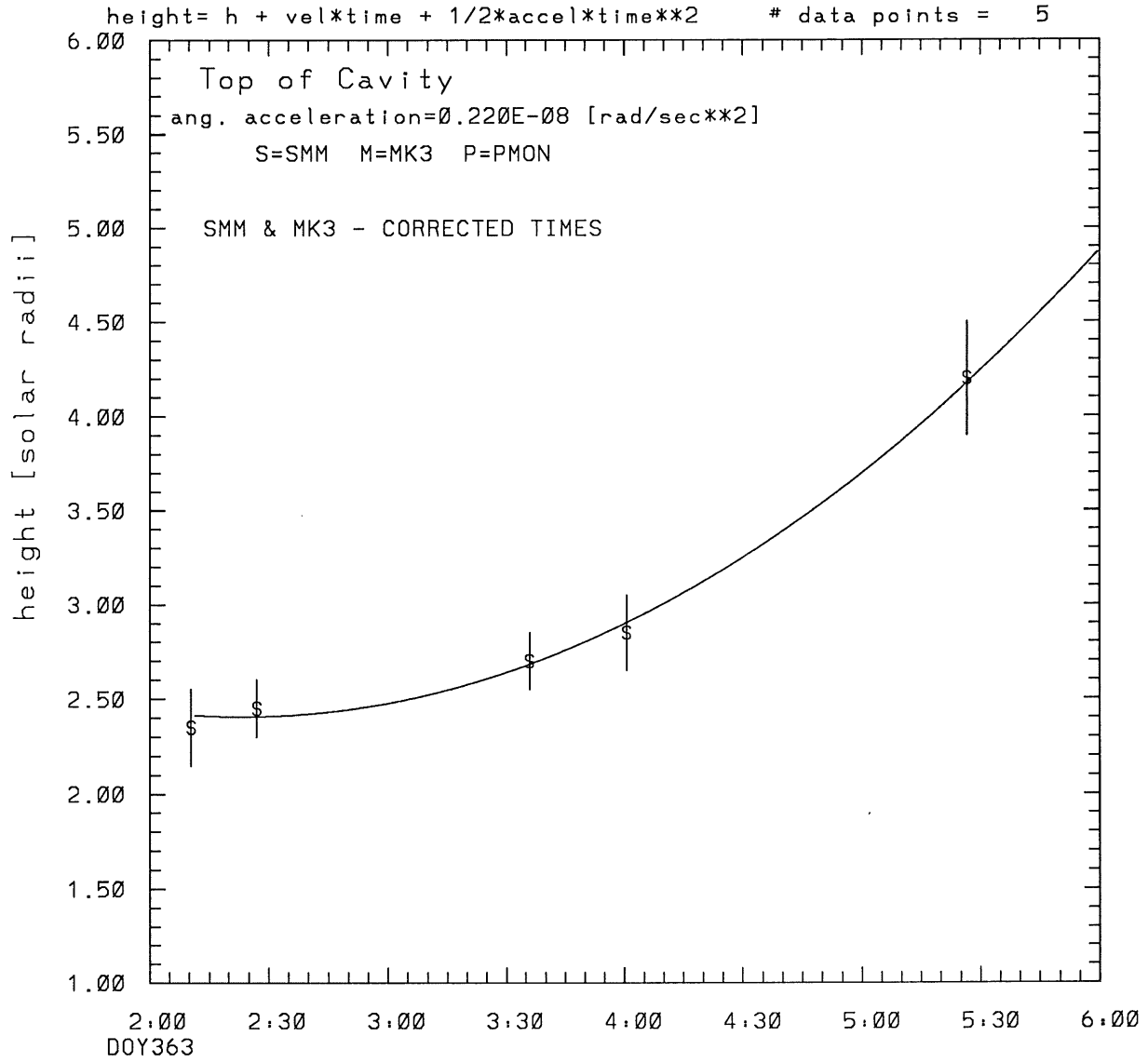


tstart=DOY362 23:24 +/- 18.5 [min.]
radial velocity= 85. +/- 21. [km/sec]

SMM C/P 1988 DOY363 301 +/- 3 degrees



SMM C/P 1988 DOY363 301 +/- 3 degrees

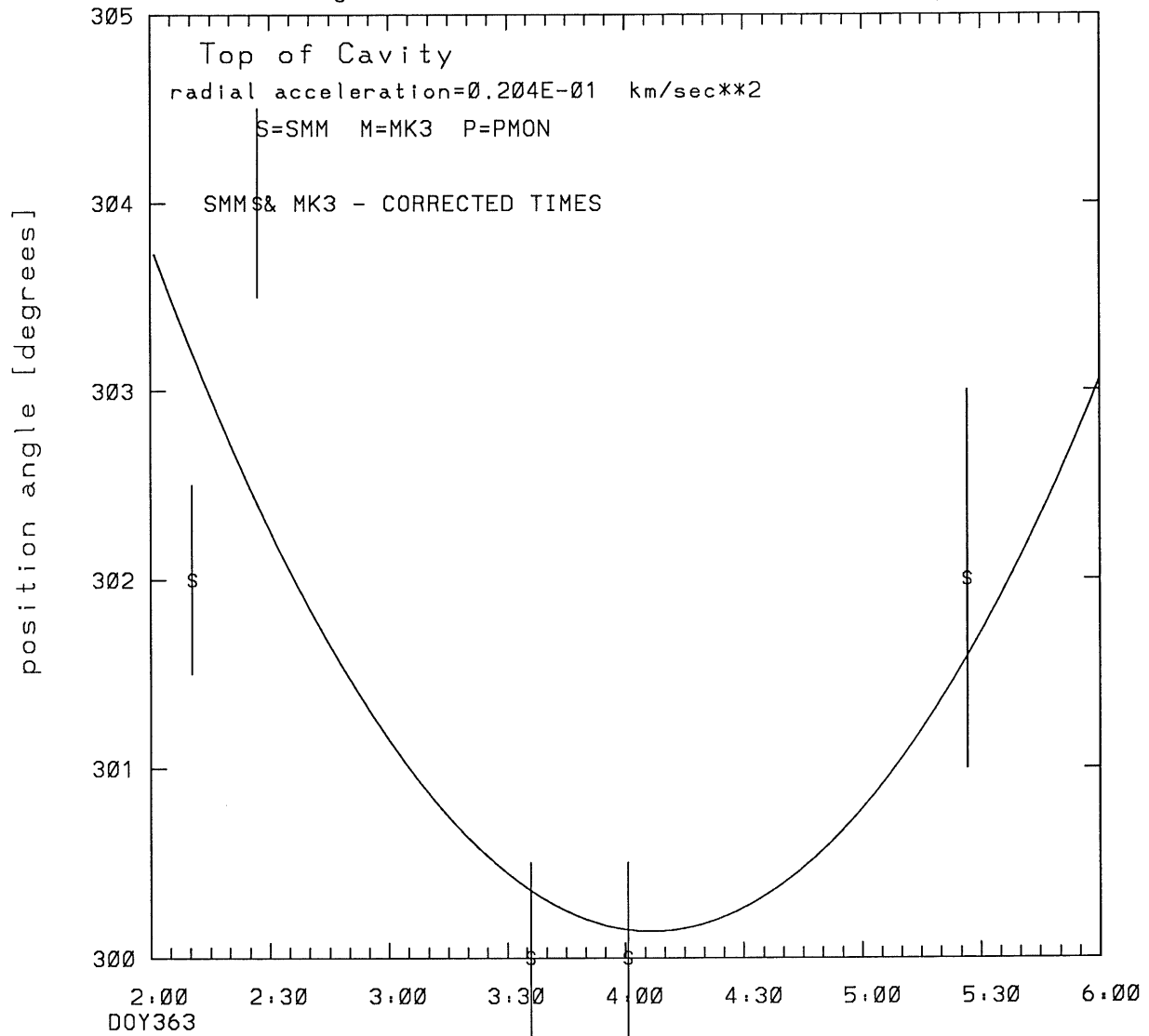


tstart=DOY363 2.23 from derivative=0
Event begins at 2.41 Solar Radii
radial acceleration = 0.0204 ± 0.0026 [km/sec**2]

SMM C/P 1988 DOY363 301 +/- 3 degrees

angle = initial angle + angular velocity*time
+ 1/2 angular acceleration*time**2

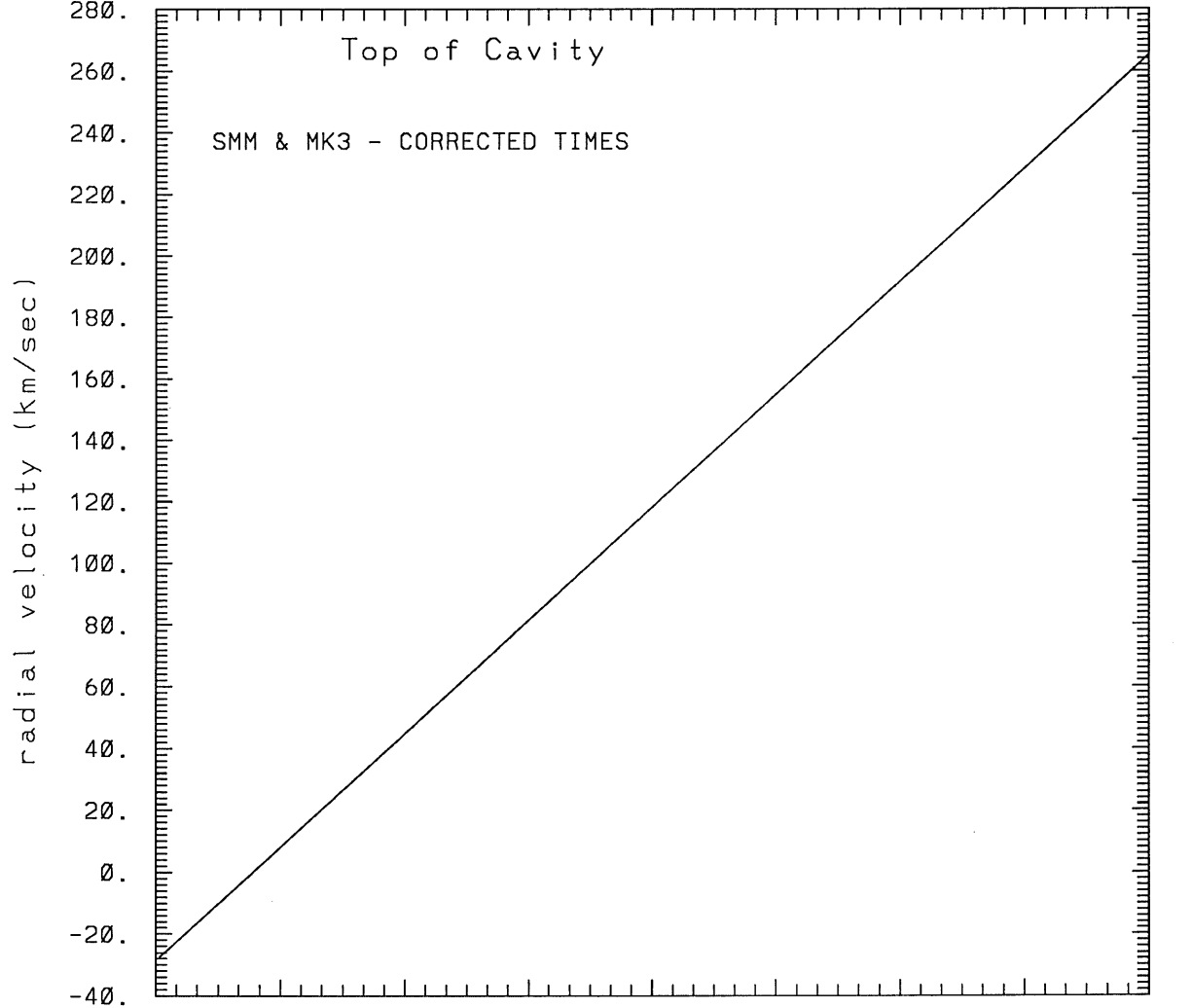
data points = 5



Event begins at 2.41 Solar Radii
angular acceleration=0.220E-08 +/- 0.160E-08 [rad/sec**2]

SMM C/P 1988 DOY363 301 +/- 3 degrees

+ 1/2 angular acceleration*time**2 # data points = 5



DOY363

tstart=DOY363 2:23 from derivative=0

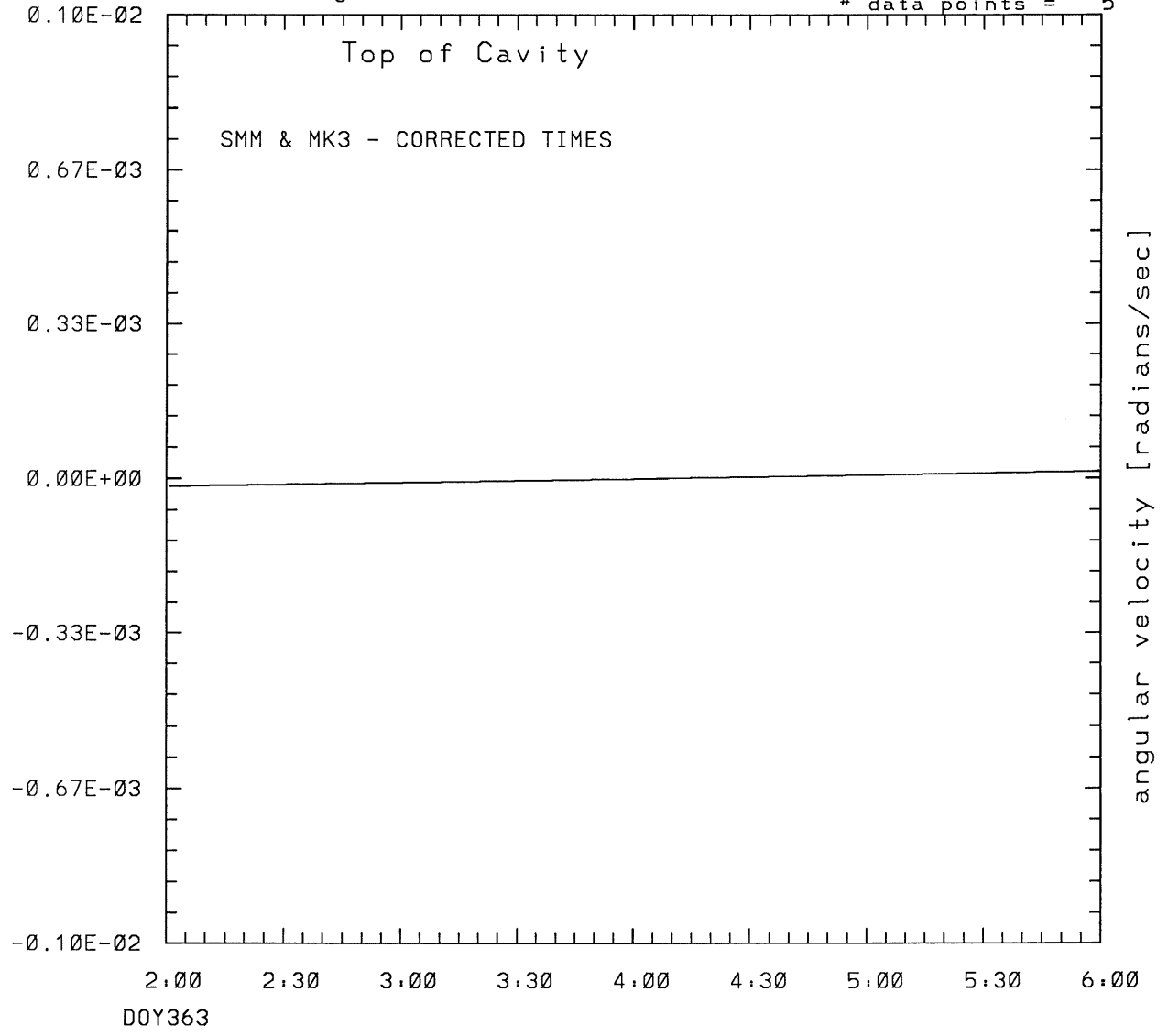
Event begins at 2.41 Solar Radii

radial acceleration=0.204E-01 km/sec**2

SMM C/P 1988 DOY363 301 +/- 3 degrees

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

data points = 5



angular acceleration = $0.220E-08 \pm 0.160E-08$ [rad/sec**2]

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1988	363	2:10:30	2.35 +/- 0.20	302.0 +/- 0.5			SMM
1988	363	2:27: 2	2.45 +/- 0.15	304.0 +/- 0.5			SMM
1988	363	3:35:56	2.70 +/- 0.15	300.0 +/- 0.5			SMM
1988	363	4: 0:41	2.85 +/- 0.20	300.0 +/- 0.5			SMM
1988	363	5:26:36	4.20 +/- 0.30	302.0 +/- 1.0			SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.158E+03 +/- 0.185E+02 [minutes]
In more convenient units:
Event began at DOY 362 23:24 +/- 0.185E+02 [minutes]

Origin defined at DOY363 2: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 85. +/- 21. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.216E+01 +/- 0.164E+00 [solar radii]
c(2) = 0.737E-02 +/- 0.177E-02 [radii/min]
c(2) = 0.855E+02 +/- 0.205E+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)= 0.25347E+00 [radii] see Bevington pg. 114
error in c(2)= 0.21849E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = -0.5155E-05 +/- 0.3313E-05[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 303. +/- 1. [degrees]
a(2) = -0.177E-01 +/- 0.114E-01 [degrees/min]
a(2) = -0.515E-05 +/- 0.331E-05 [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 2:10 = 85. km/sec

The RADIAL velocity at 2:27 = 85. km/sec

The RADIAL velocity at 3:35 = 85. km/sec

The RADIAL velocity at 4: 0 = 85. km/sec

The RADIAL velocity at 5:26 = 85. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.75
Standard Deviation in start time measurement = 0.705E+02
Error in time = 0.80953E+02 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.491E-01
Reduced Chi Squared = 0.536E+00
Chi Squared = 0.161E+01
The probability for exceeding chi square = 0.986E+00

The correlation coefficient = 0.937E+00
The probability that no LINEAR correlation exists between the variables = 0.18871
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	363	2:10:30	2.35 +/-	0.20	302.0 +/-	0.5	SMM
1988	363	2:27: 2	2.45 +/-	0.15	304.0 +/-	0.5	SMM
1988	363	3:35:56	2.70 +/-	0.15	300.0 +/-	0.5	SMM
1988	363	4: 0:41	2.85 +/-	0.20	300.0 +/-	0.5	SMM
1988	363	5:26:36	4.20 +/-	0.30	302.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

tstart=DOY363 2:23 from derivative = 0
Event begins at 2.41 Solar Radii
Origin defined at DOY363 2: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.204E-01 +/- 0.264E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.243E+01 +/- 0.545E-01 [solar radii]
c(2) = -0.247E-02 +/- 0.135E-02 [radii/min]
c(2) = -0.286E+02 +/- 0.157E+02 [km/sec]
c(3) = 0.527E-04 +/- 0.684E-05 [radii/min**2]
c(3) = 0.204E-01 +/- 0.264E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.68782E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.36609E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.16288E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.163504E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.73680E-05 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) = 0.24128E-05 [radii/min**2] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.2200E-08 +/- 0.1596E-08[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 304. +/- 1. [degrees]
a(2) = -0.575E-01 +/- 0.306E-01 [degrees/min]
a(2) = -0.167E-04 +/- 0.891E-05 [rad/sec]
a(3) = 0.227E-03 +/- 0.165E-03 [degrees/min**2]
a(3) = 0.220E-08 +/- 0.160E-08 [rad/sec**2]

The RADIAL velocity at 2:10 = -16. km/sec

The RADIAL velocity at 2:27 = 4. km/sec
The RADIAL velocity at 3:35 = 89. km/sec
The RADIAL velocity at 4: 0 = 119. km/sec
The RADIAL velocity at 5:26 = 224. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.75
Standard Deviation in start time measurement = 0.705E+02
Value of reduced Chi Squared returned from nllst2 = 0.314E-02
Reduced Chi Squared = 0.119E-01
Chi Squared = 0.238E-01
The probability for exceeding chi square = 0.997E+00

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 = 0.7608E+00
The correlation between the data and the time**2 term = 0.7708E+00
The correlation between the data and the complete equation of motion=0.9980E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]