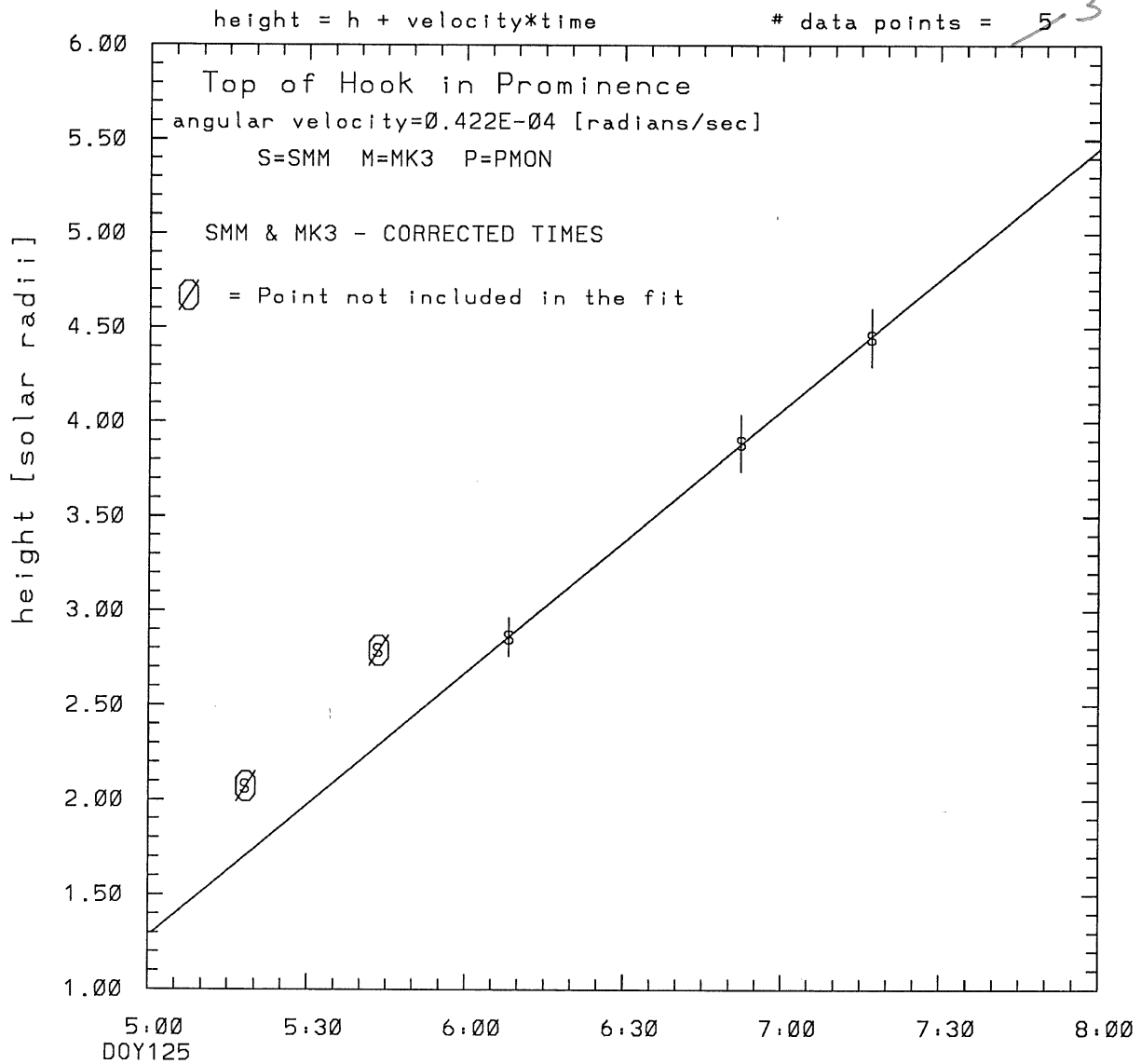


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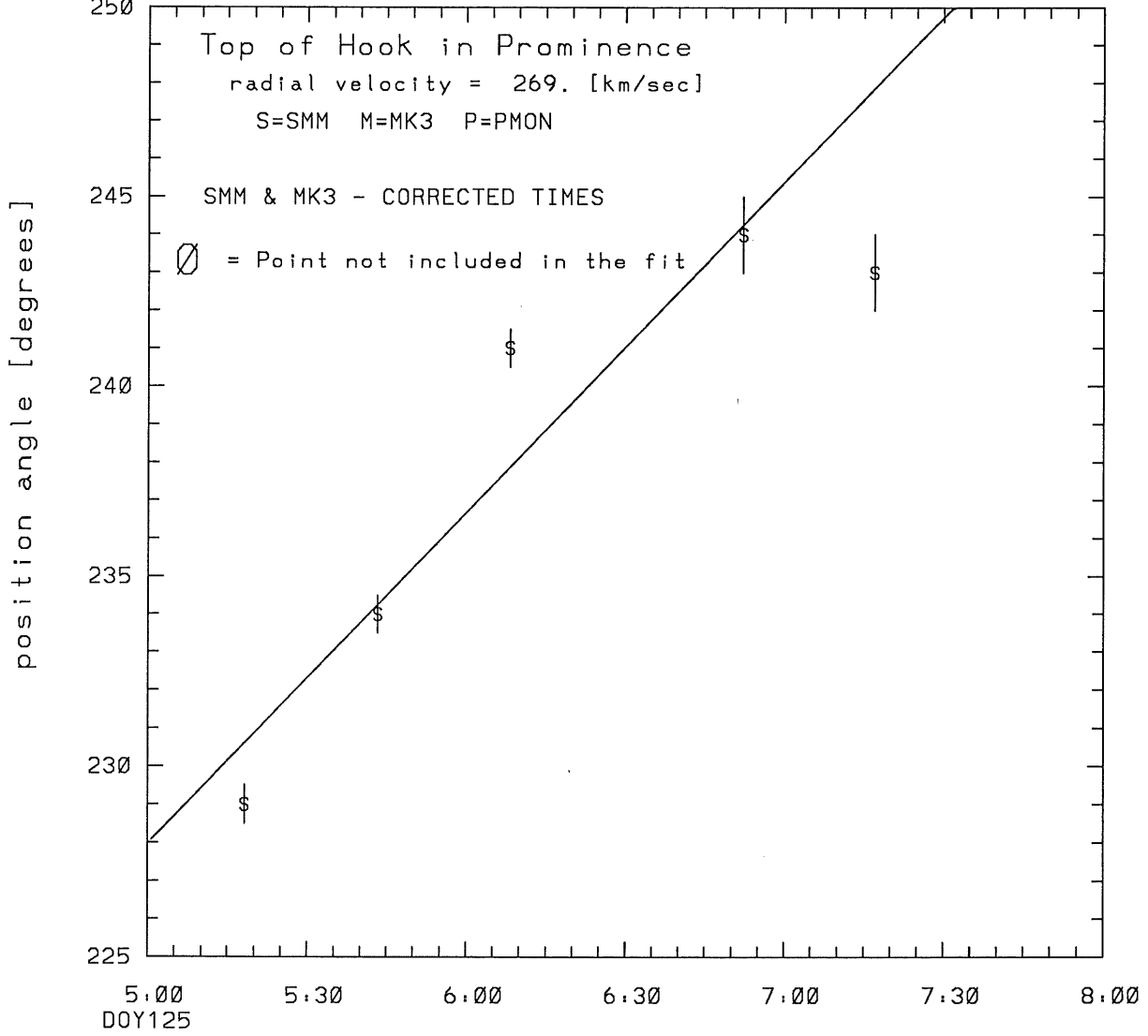
SMM C/P 1988 DOY125 238 +/- 9 degrees



tstart=DOY125 4:48 +/- 0.0 [min.]
radial velocity= 269. +/- 1. [km/sec]

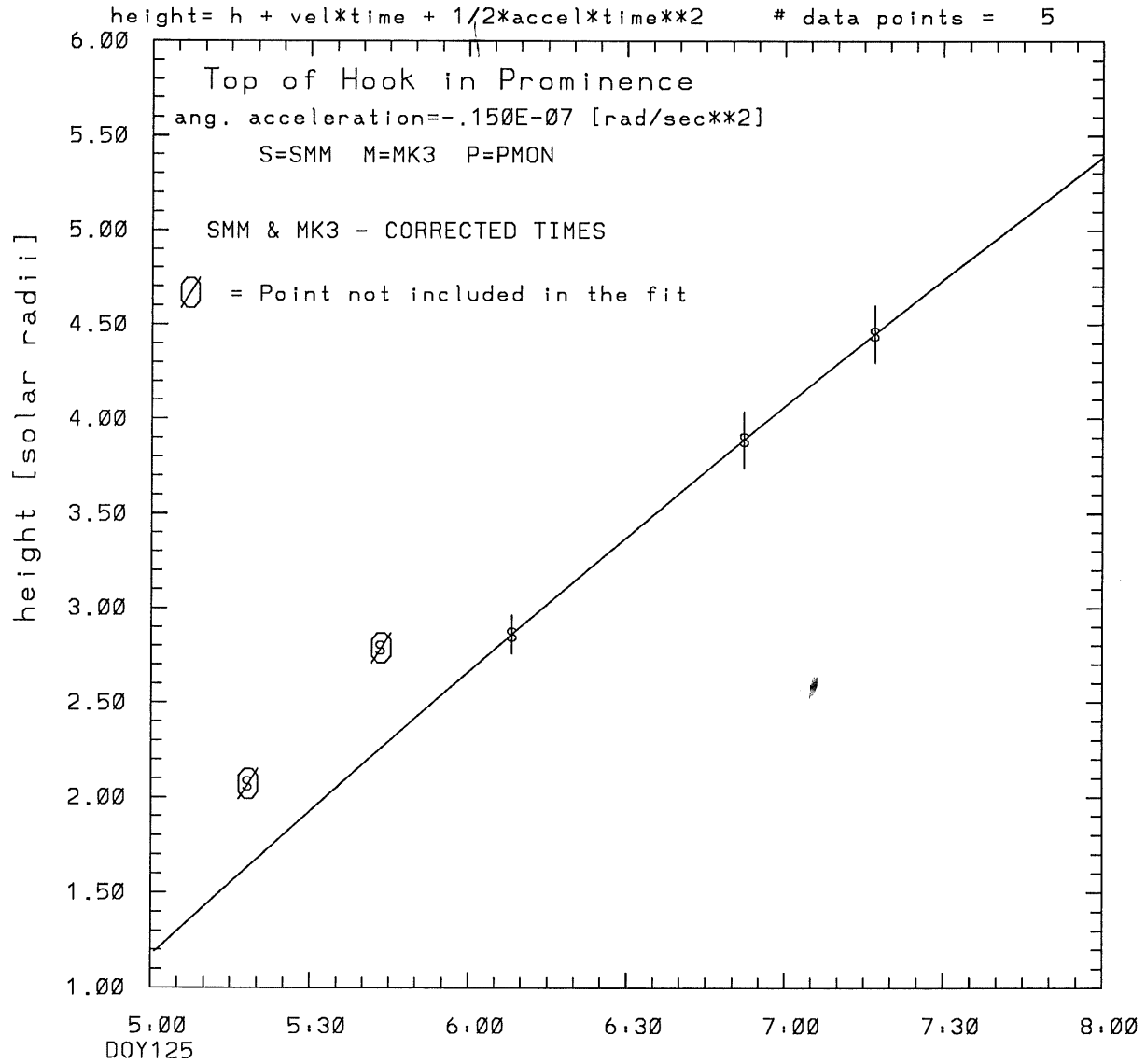
SMM C/P 1988 DOY125 238 +/- 9 degrees

angle = initial angle + angular velocity * time # data points = 5



angular velocity = $0.422E-04 \pm 0.965E-05$ [rad/sec]

SMM C/P 1988 DOY125 238 +/- 9 degrees



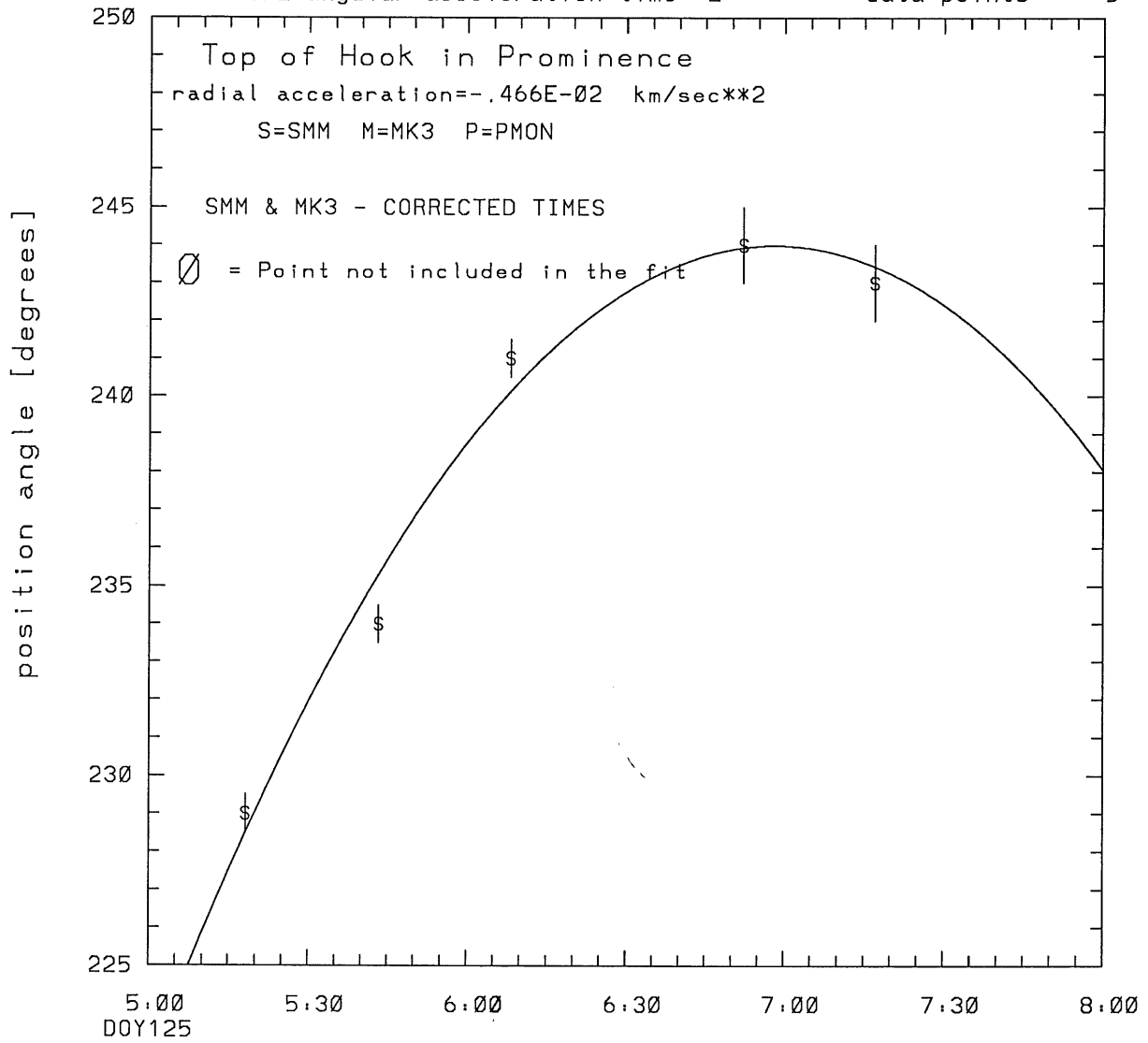
tstart=DOY125 4.55 +/- 0.N [min.]

radial acceleration = $-0.0047 +/- 0.0000$ [km/sec**2]

SMM C/P 1988 DOY125 238 +/- 9 degrees

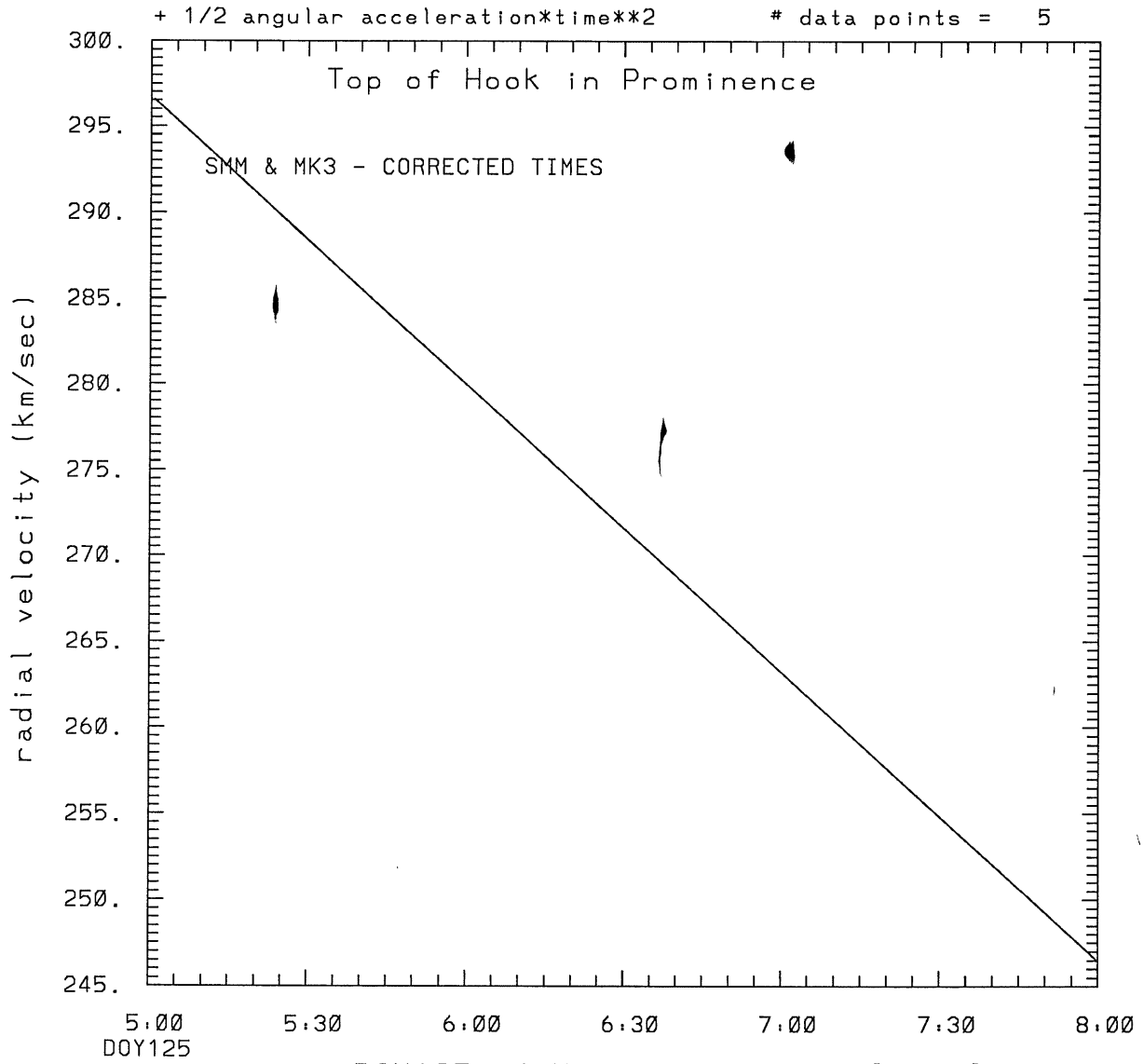
angle = initial angle + angular velocity*time
+ 1/2 angular acceleration*time**2

data points = 5



angular acceleration = $-.150E-07$ +/- $0.366E-08$ [rad/sec**2]

SMM C/P 1988 DOY125 238 +/- 9 degrees



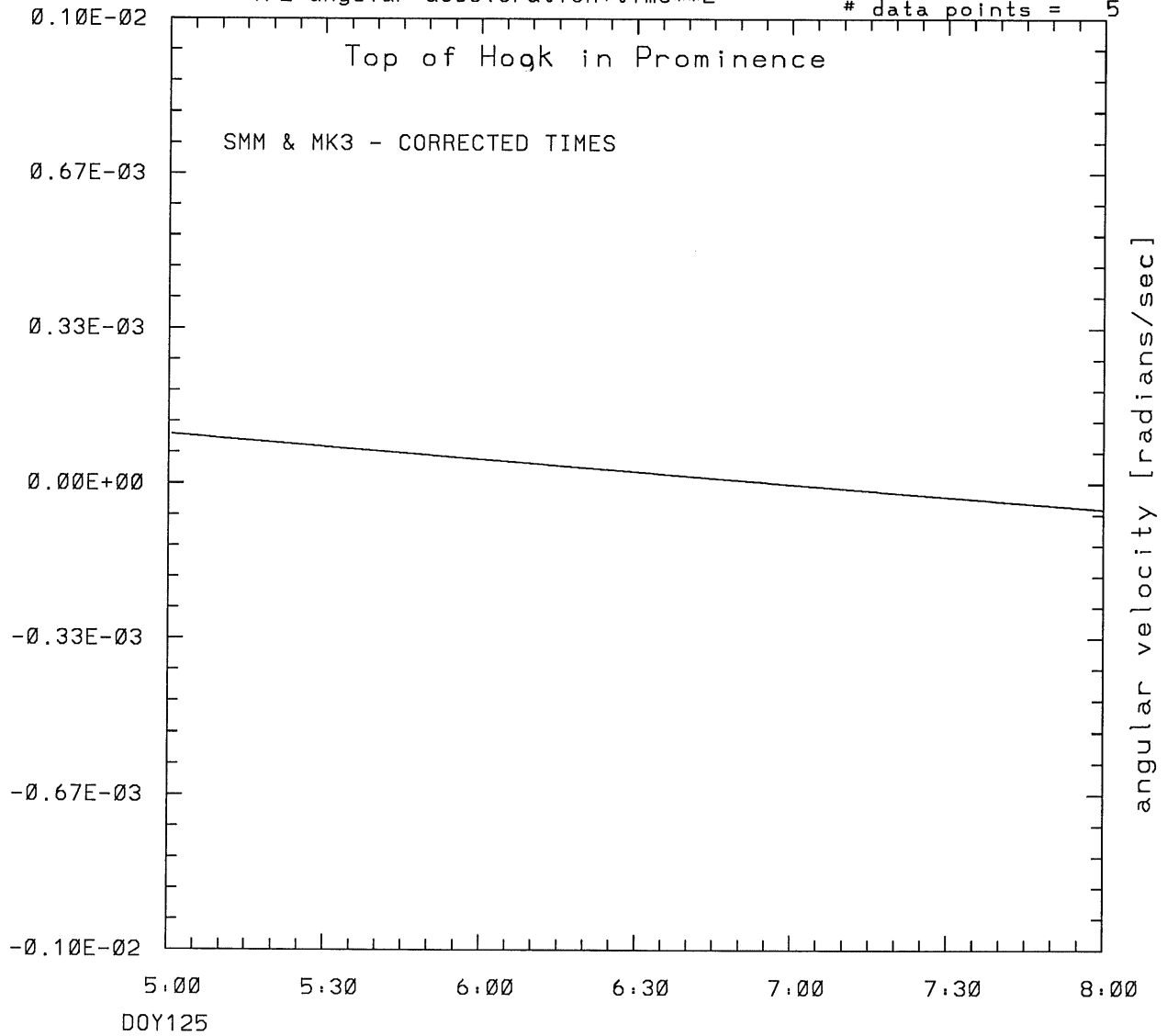
tstart=DOY125 4.55 +/- 0.N [min.]

radial acceleration=-.466E-02 km/sec**2

SMM C/P 1988 DOY125 238 +/- 9 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 = $-0.150E-07 \pm 0.366E-08$ [rad/sec**2]

This is a 1 order run

INPUT:

year	day	time	radii	radius	angle	error in angle	datatype
1988	125	5:18:10	2.07	-----	229.00 +/-	----	SMM THIS POINT WASN'T USE
1988	125	5:43:18	2.79	-----	234.00 +/-	----	SMM THIS POINT WASN'T USE
1988	125	6: 8:14	2.86 +/-	0.10	241.0 +/-	0.5	SMM
1988	125	6:52:14	3.89 +/-	0.15	244.0 +/-	1.0	SMM
1988	125	7:17: 2	4.45 +/-	0.15	243.0 +/-	1.0	SMM

Structure being measured:
Top of Hook in Prominence

OUTPUT:

START TIME:

Event began at t = 0 + -0.121E+02 +/- 0.409E-01 [minutes]
In more convenient units:
Event began at DOY 125 4:48 +/- 0.409E-01 [minutes]

Origin defined at DOY125 5: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 269. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.128E+01 +/- 0.888E-02 [solar radii]
c(2) = 0.232E-01 +/- 0.895E-04 [radii/min]
c(2) = 0.269E+03 +/- 0.104E+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)= 0.32431E+00 [radii] see Bevington pg. 114
error in c(2)= 0.37086E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.4223E-04 +/- 0.9646E-05 [radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 228. +/- 2. [degrees]
a(2) = 0.145E+00 +/- 0.332E-01 [degrees/min]
a(2) = 0.422E-04 +/- 0.965E-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 5:18 = 269. km/sec

The RADIAL velocity at 5:43 = 269. km/sec

The RADIAL velocity at 6: 8 = 269. km/sec

The RADIAL velocity at 6:52 = 269. km/sec

The RADIAL velocity at 7:17 = 269. 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 = 0.436E+02
Error in time = 0.27035E+02 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.346E-04
Reduced Chi Squared = 0.216E+00
Chi Squared = 0.649E+00
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.988E+00
The probability that no LINEAR correlation exists between the variables = 0.16671
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1988	125	5:18:10	2.07	-----	229.00 +/-	----	SMM THIS POINT WASN'T USE
1988	125	5:43:18	2.79	-----	234.00 +/-	----	SMM THIS POINT WASN'T USE
1988	125	6: 8:14	2.86	+/- 0.10	241.0 +/-	0.5	SMM
1988	125	6:52:14	3.89	+/- 0.15	244.0 +/-	1.0	SMM
1988	125	7:17: 2	4.45	+/- 0.15	243.0 +/-	1.0	SMM

Structure being measured:
Top of Hook in Prominence

OUTPUT:

START TIME:

Event began at t = 0 + -0.664E+01 +/- NaN [minutes]
In more convenient units:
Event began at DOY 125 4:55 +/- NaN [minutes]

Origin defined at DOY125 5: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.466E-02 +/- 0.109E-06 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.117E+01 +/- 0.260E-05 [solar radii]
c(2) = 0.256E-01 +/- 0.565E-07 [radii/min]
c(2) = 0.297E+03 +/- 0.656E-03 [km/sec]
c(3) = -0.120E-04 +/- 0.282E-09 [radii/min**2]
c(3) = -0.466E-02 +/- 0.109E-06 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.80212E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.00000E+00 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.25289E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = -NaN [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.15783E-03 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) = -NaN [radii/min**2] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= -0.1503E-07 +/- 0.3661E-08[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 222. +/- 2. [degrees]
a(2) = 0.366E+00 +/- 0.559E-01 [degrees/min]
a(2) = 0.107E-03 +/- 0.163E-04 [rad/sec]
a(3) = -0.155E-02 +/- 0.378E-03 [degrees/min**2]
a(3) = -0.150E-07 +/- 0.366E-08 [rad/sec**2]

The RADIAL velocity at 5:18 = 292. km/sec
The RADIAL velocity at 5:43 = 285. km/sec
The RADIAL velocity at 6: 8 = 278. km/sec
The RADIAL velocity at 6:52 = 265. km/sec
The RADIAL velocity at 7:17 = 258. 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 = 0.436E+02
Value of reduced Chi Squared returned from nllst2 = 0.758E-13
Reduced Chi Squared = 0.382E+00
Chi Squared = 0.764E+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 = 0.7860E+00
The correlation between the data and the time**2 term = 0.8983E+00
The correlation between the data and the complete equation of motion=0.1096E+01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]