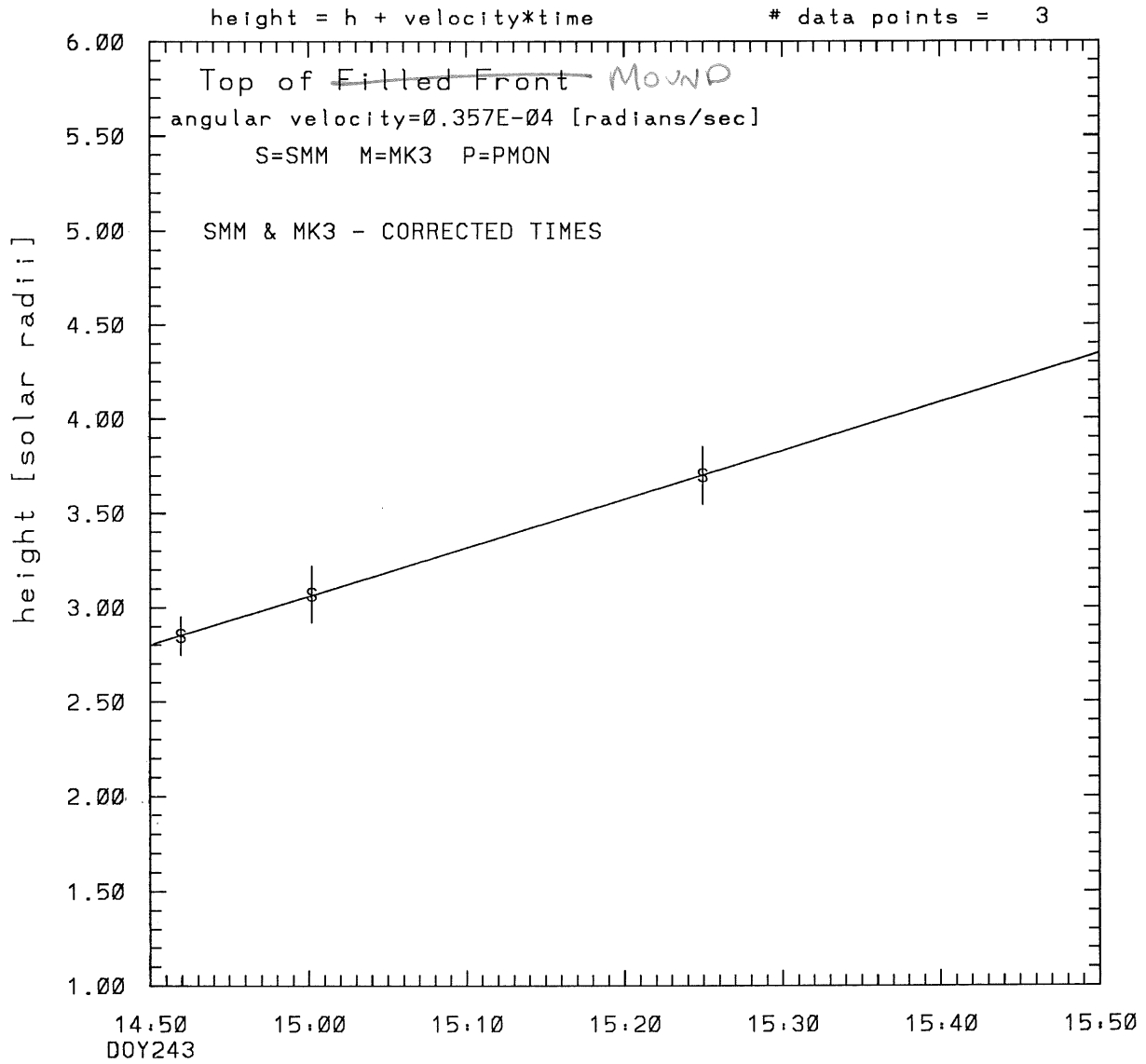


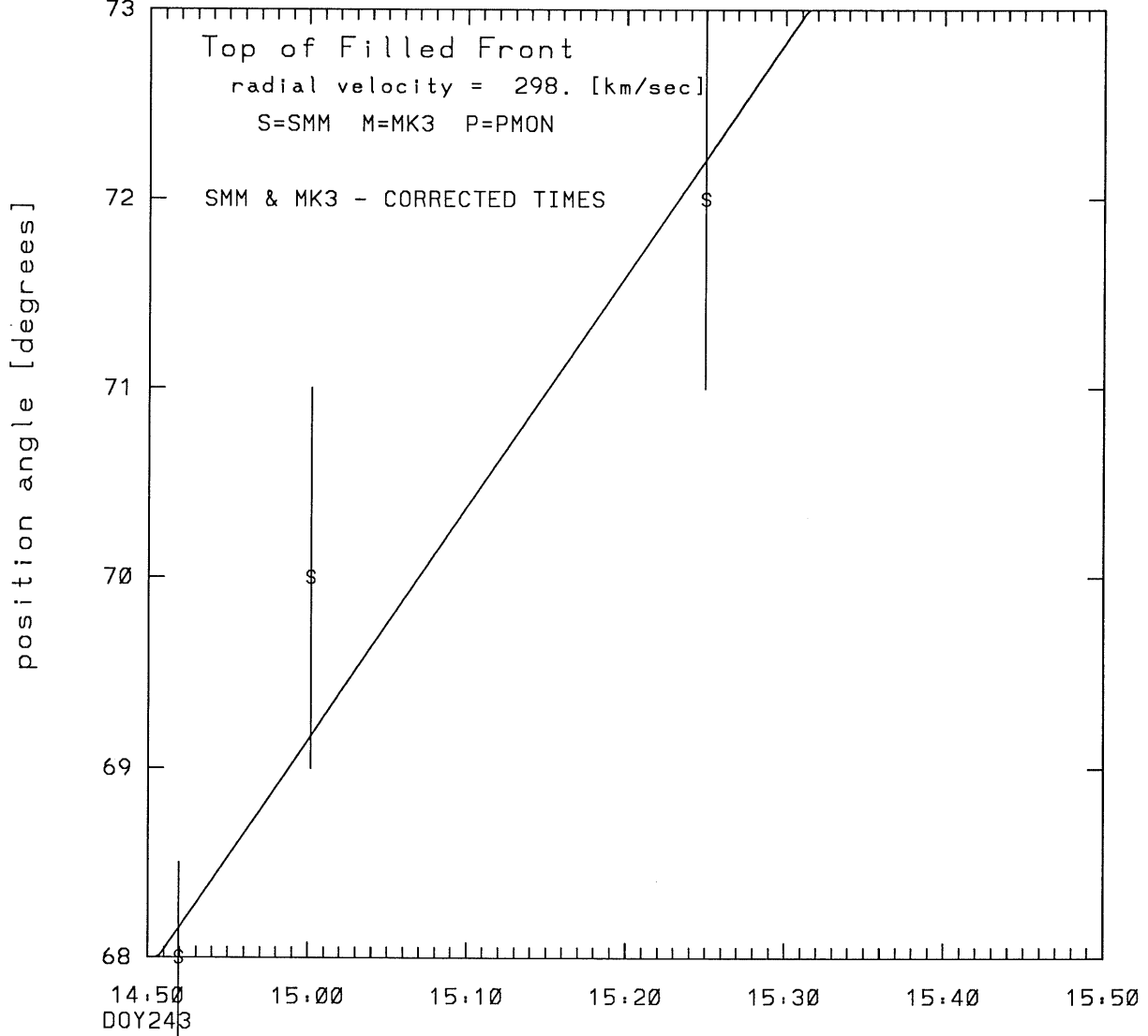
SMM C/P 1988 DOY243 70 +/- 2 degrees



tstart=DOY243 13:40 +/- 0.2 [min.]  
radial velocity= 298. +/- 2. [km/sec]

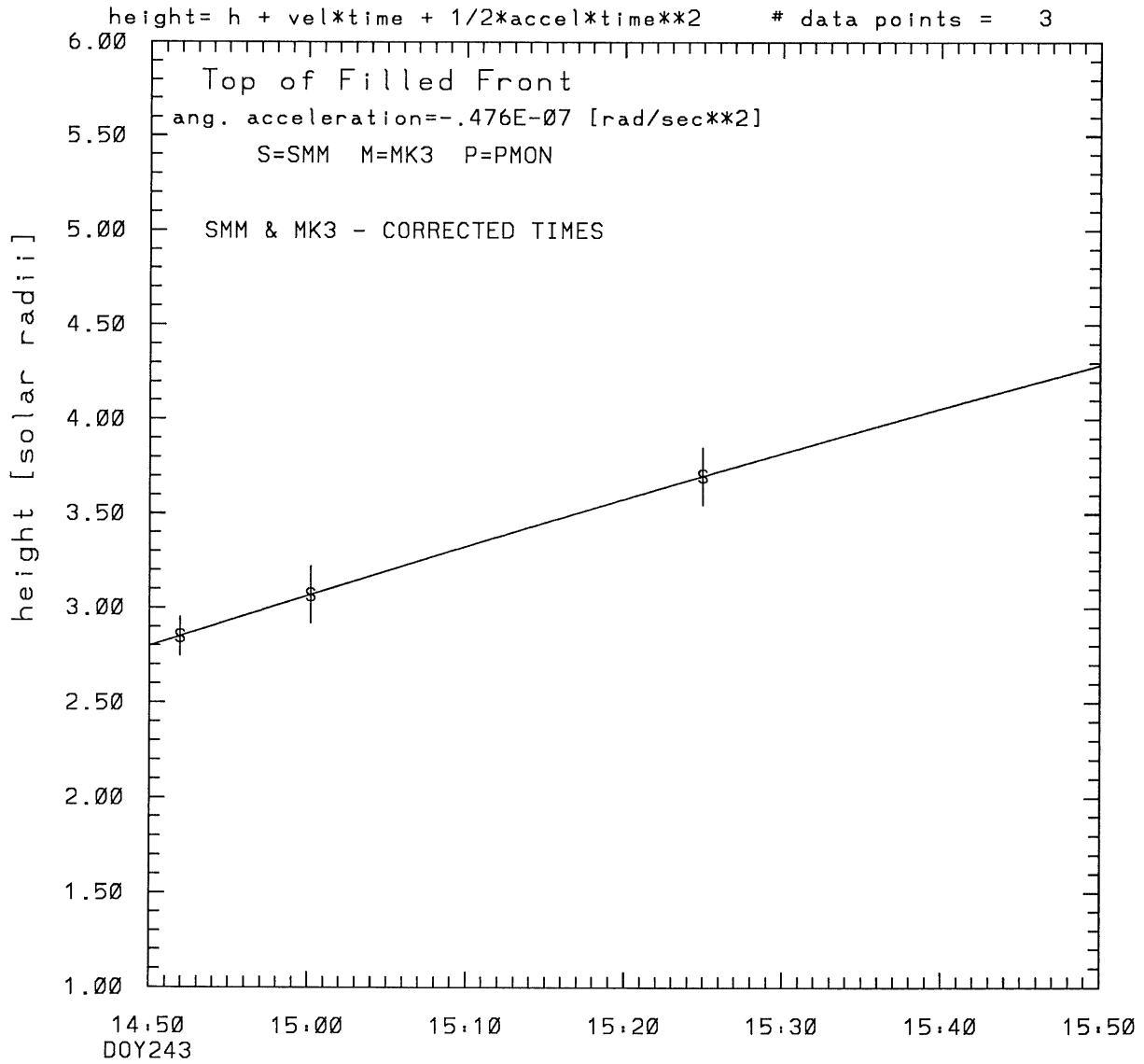
SMM C/P 1988 DOY243 70 +/- 2 degrees

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



angular velocity =  $0.357E-04 \pm 0.636E-05$  [rad/sec]

SMM C/P 1988 DOY243 70 +/- 2 degrees

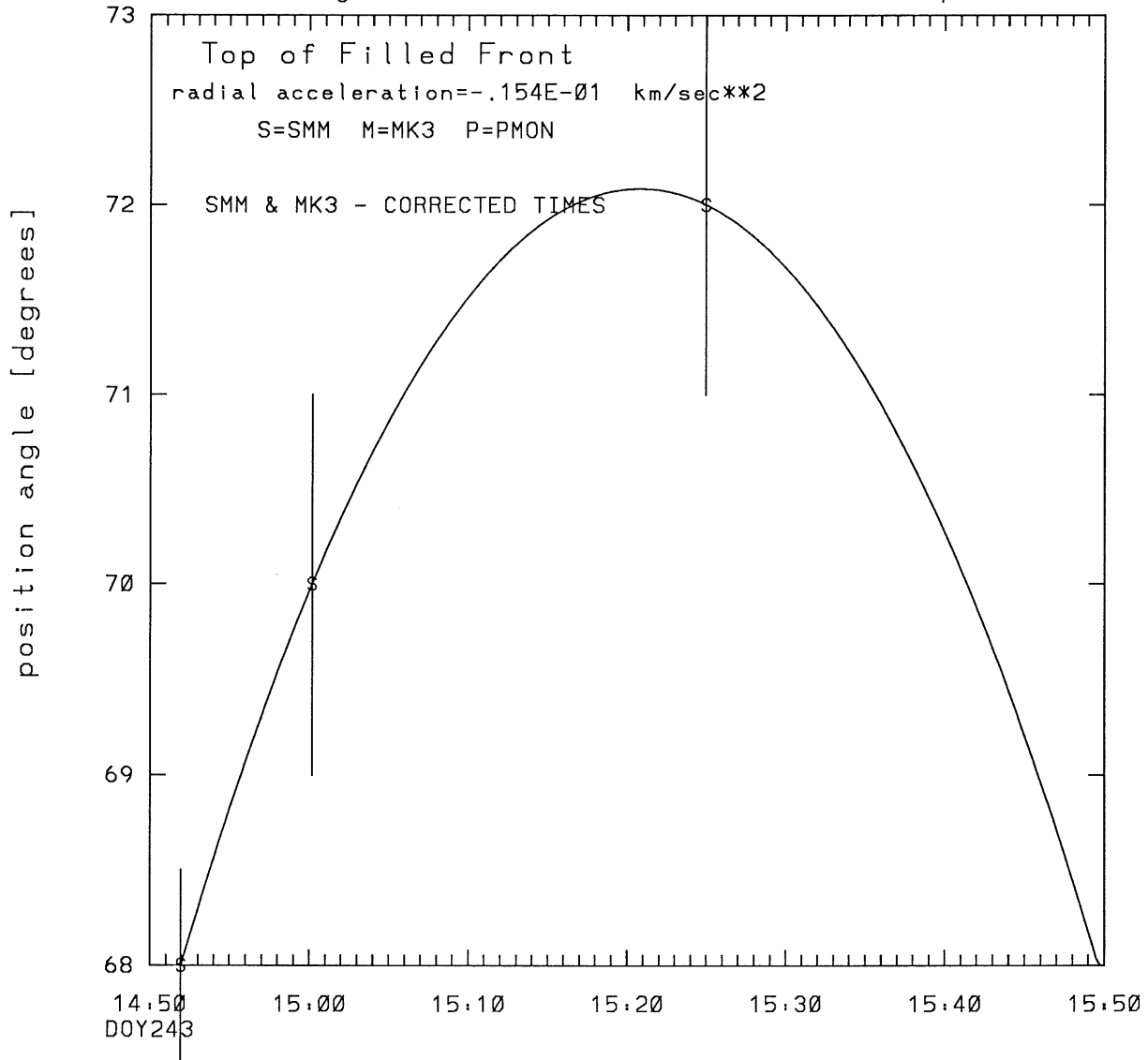


tstart=DOY243 13:51 +/- 0.0 [min.]

radial acceleration =  $-0.0154 +/- 0.0001$  [km/sec\*\*2]

SMM C/P 1988 DOY243 70 +/- 2 degrees

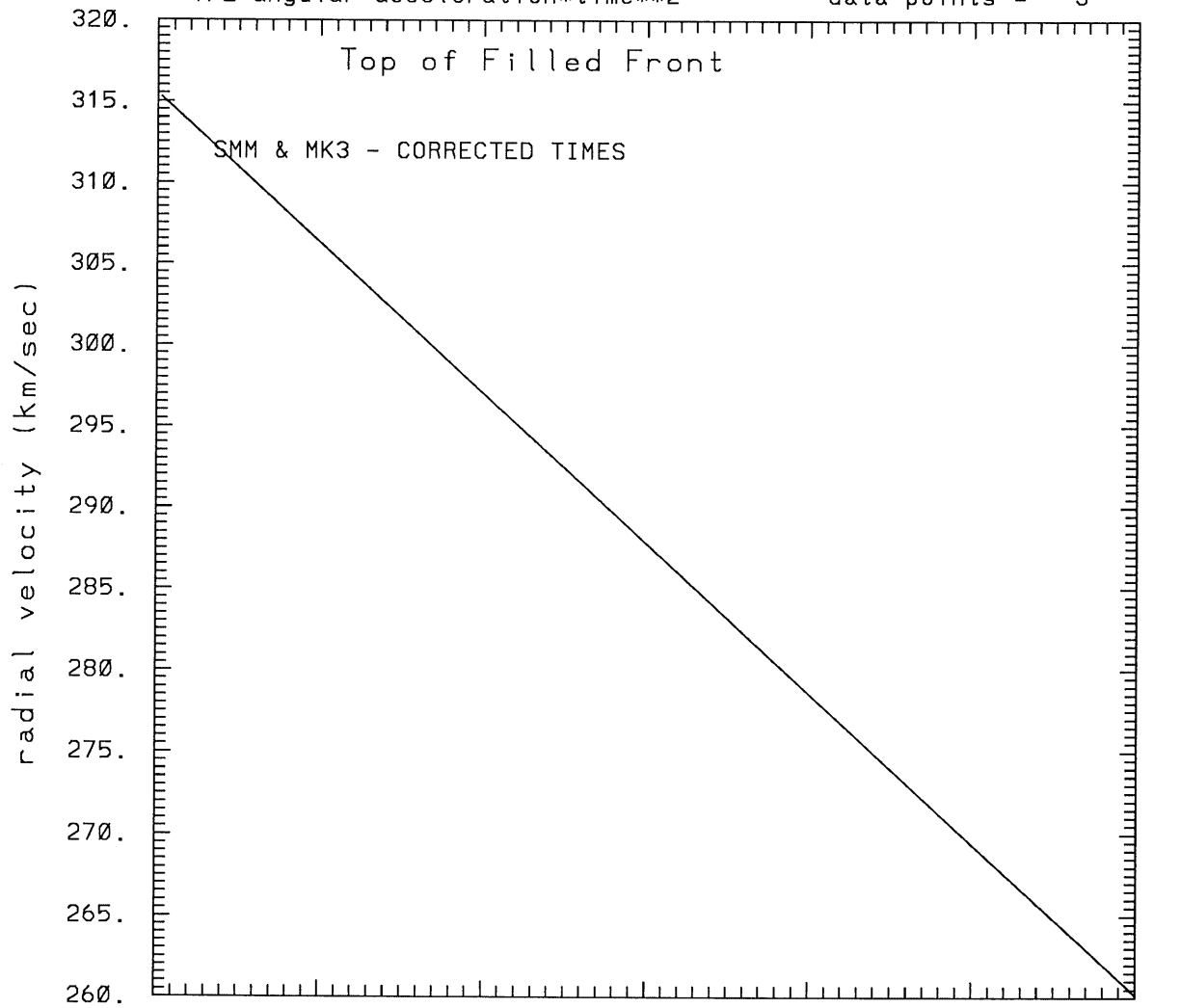
angle = initial angle + angular velocity\*time  
+ 1/2 angular acceleration\*time\*\*2 # data points = 3



angular acceleration =  $-.476E-07$  +/-  $0.562E-12$  [rad/sec\*\*2]

SMM C/P 1988 DOY243 70 +/- 2 degrees

+ 1/2 angular acceleration\*time\*\*2 # data points = 3



14:50  
DOY243

15:00

15:10

15:20

15:30

15:40

15:50

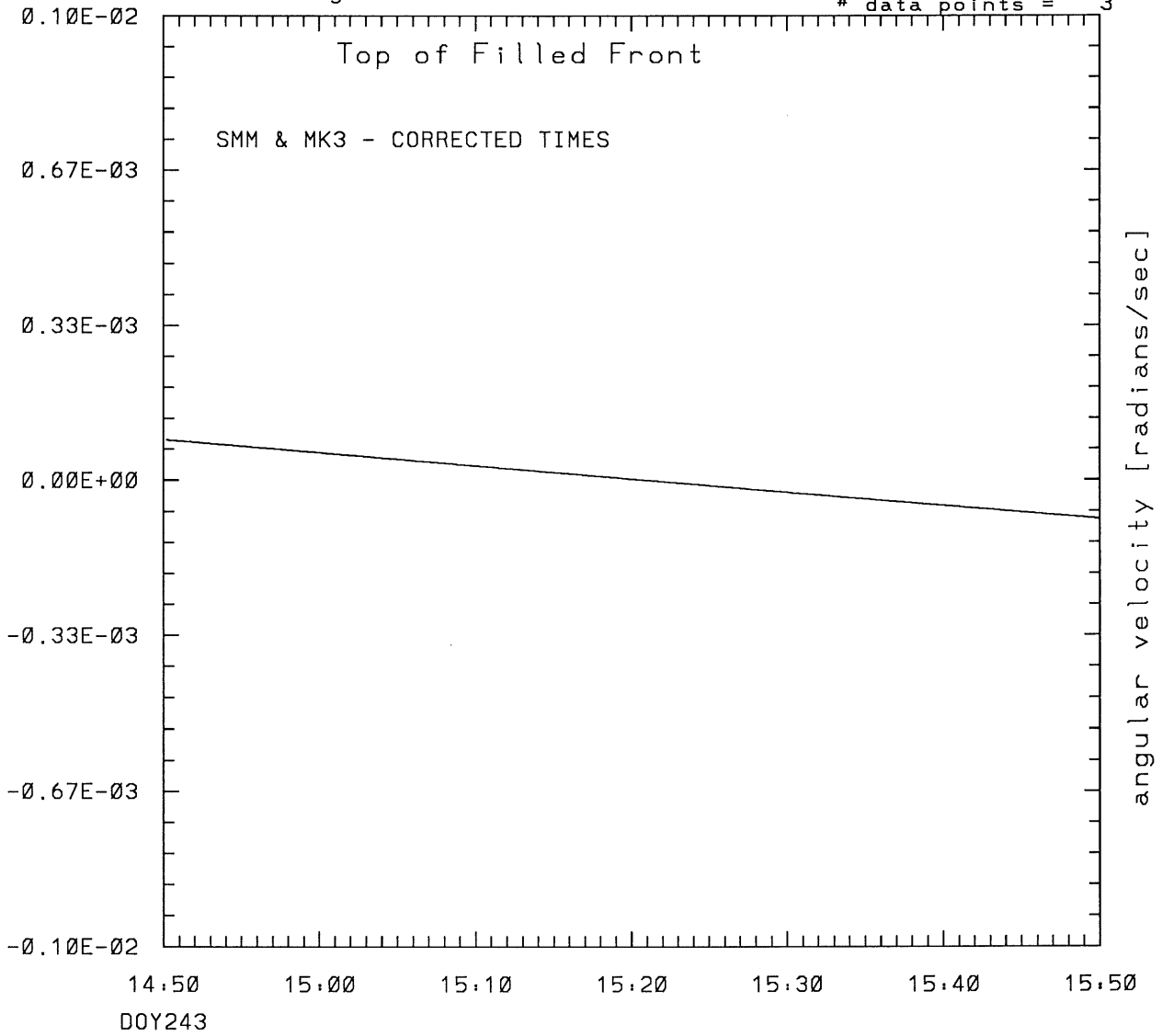
tstart=DOY243 13:51 +/- 0.0 [min.]

radial acceleration=-.154E-01 km/sec\*\*2

SMM C/P 1988 DOY243 70 +/- 2 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 =  $-.476E-07 \pm 0.562E-12$  [rad/sec\*\*2]

\*\*\*\*\*  
This is a 1 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	day	time	radii	radius	angle	error in angle	error in angle	datatype
1988	243	14:51:56	2.85 +/-	0.10	68.0 +/-	0.5		SMM
1988	243	15: 0:10	3.07 +/-	0.15	70.0 +/-	1.0		SMM
1988	243	15:24:58	3.70 +/-	0.15	72.0 +/-	1.0		SMM

\*\*\*\*\*  
Structure being measured:  
Top of ~~Filled Front~~ *MOUND*  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.701E+02 +/- 0.217E+00 [minutes]  
In more convenient units:  
Event began at DOY 243 13:40 +/- 0.217E+00 [minutes]

Origin defined at DOY243 14:50

RADIAL INFORMATION:

RADIAL VELOCITY = 298. +/- 2. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.280E+01 +/- 0.323E-02 [solar radii]  
c(2) = 0.257E-01 +/- 0.183E-03 [radii/min]  
c(2) = 0.298E+03 +/- 0.212E+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)= 0.58185E-02 [radii] see Bevington pg. 114  
error in c(2)= 0.27637E-03 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.3568E-04 +/- 0.6358E-05 [radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 68. +/- 0. [degrees]  
a(2) = 0.123E+00 +/- 0.219E-01 [degrees/min]  
a(2) = 0.357E-04 +/- 0.636E-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 14:51 = 298. km/sec

The RADIAL velocity at 15: 0 = 298. km/sec

The RADIAL velocity at 15:24 = 298. 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 = 0.140E+02  
Error in time = 0.26134E+00 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.178E-04  
Reduced Chi Squared = 0.884E-04  
Chi Squared = 0.884E-04  
The probability for exceeding chi square = 0.997E+00

The correlation coefficient = 0.100E+01  
The probability that no LINEAR correlation exists between the variables = 0.67431  
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	243	14:51:56	2.85 +/-	0.10	68.0 +/-	0.5	SMM
1988	243	15: 0:10	3.07 +/-	0.15	70.0 +/-	1.0	SMM
1988	243	15:24:58	3.70 +/-	0.15	72.0 +/-	1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of Filled Front  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.607E+02 +/- 0.000E+00 [minutes]  
In more convenient units:  
Event began at DOY 243 13:51 +/- 0.000E+00 [minutes]

Origin defined at DOY243 14:50

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.154E-01 +/- 0.528E-04 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.280E+01 +/- 0.227E-04 [solar radii]  
c(2) = 0.272E-01 +/- 0.517E-05 [radii/min]  
c(2) = 0.315E+03 +/- 0.599E-01 [km/sec]  
c(3) = -0.397E-04 +/- 0.136E-06 [radii/min\*\*2]  
c(3) = -0.154E-01 +/- 0.528E-04 [km/sec\*\*2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION = -0.4763E-07 +/- 0.5620E-12 [radians/sec\*\*2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 67. +/- 0. [degrees]  
a(2) = 0.302E+00 +/- 0.215E-05 [degrees/min]  
a(2) = 0.880E-04 +/- 0.626E-09 [rad/sec]  
a(3) = -0.491E-02 +/- 0.580E-07 [degrees/min\*\*2]  
a(3) = -0.476E-07 +/- 0.562E-12 [rad/sec\*\*2]

The RADIAL velocity at 14:51 = 314. km/sec

The RADIAL velocity at 15: 0 = 306. km/sec

The RADIAL velocity at 15:24 = 283. 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!