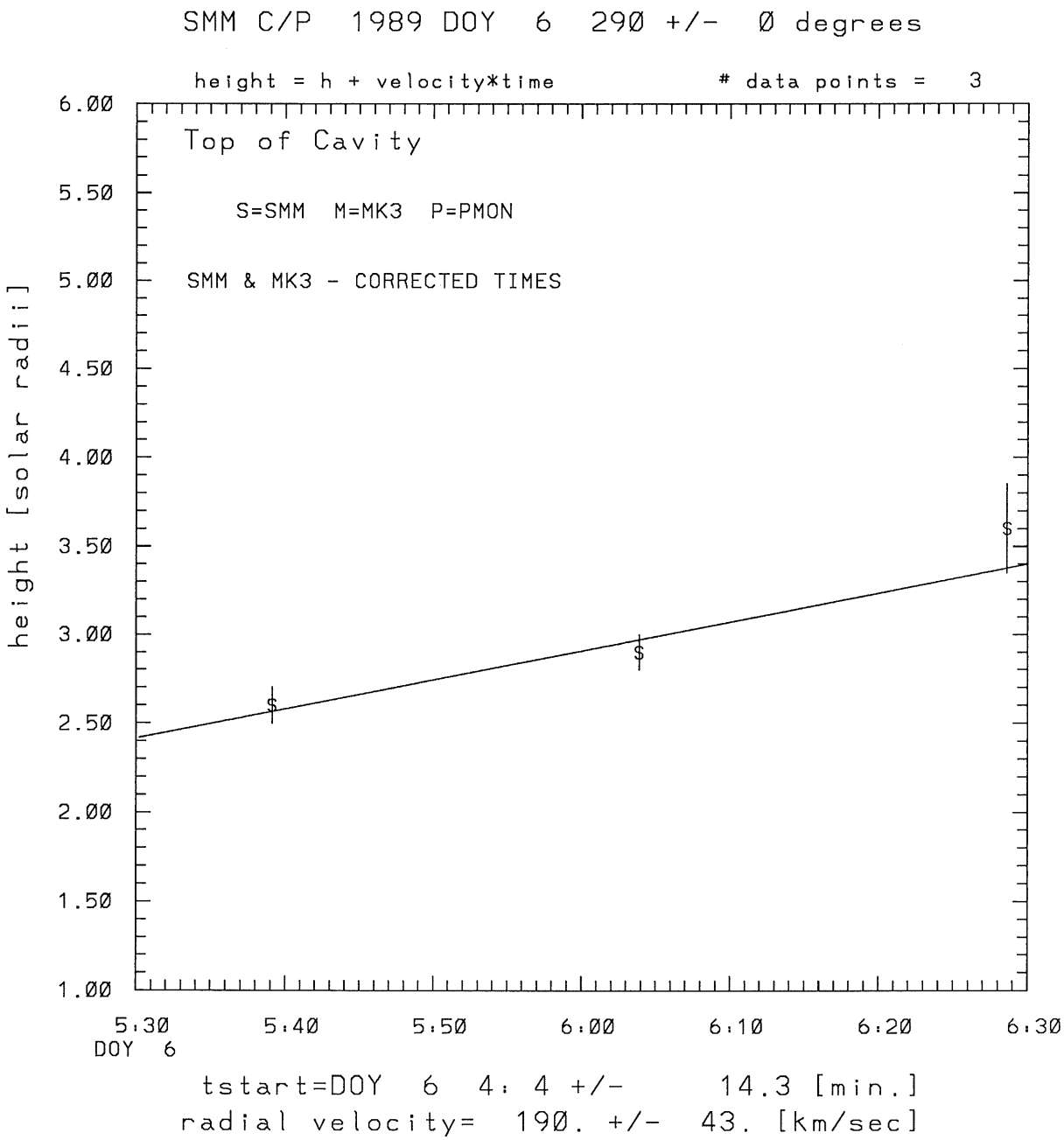
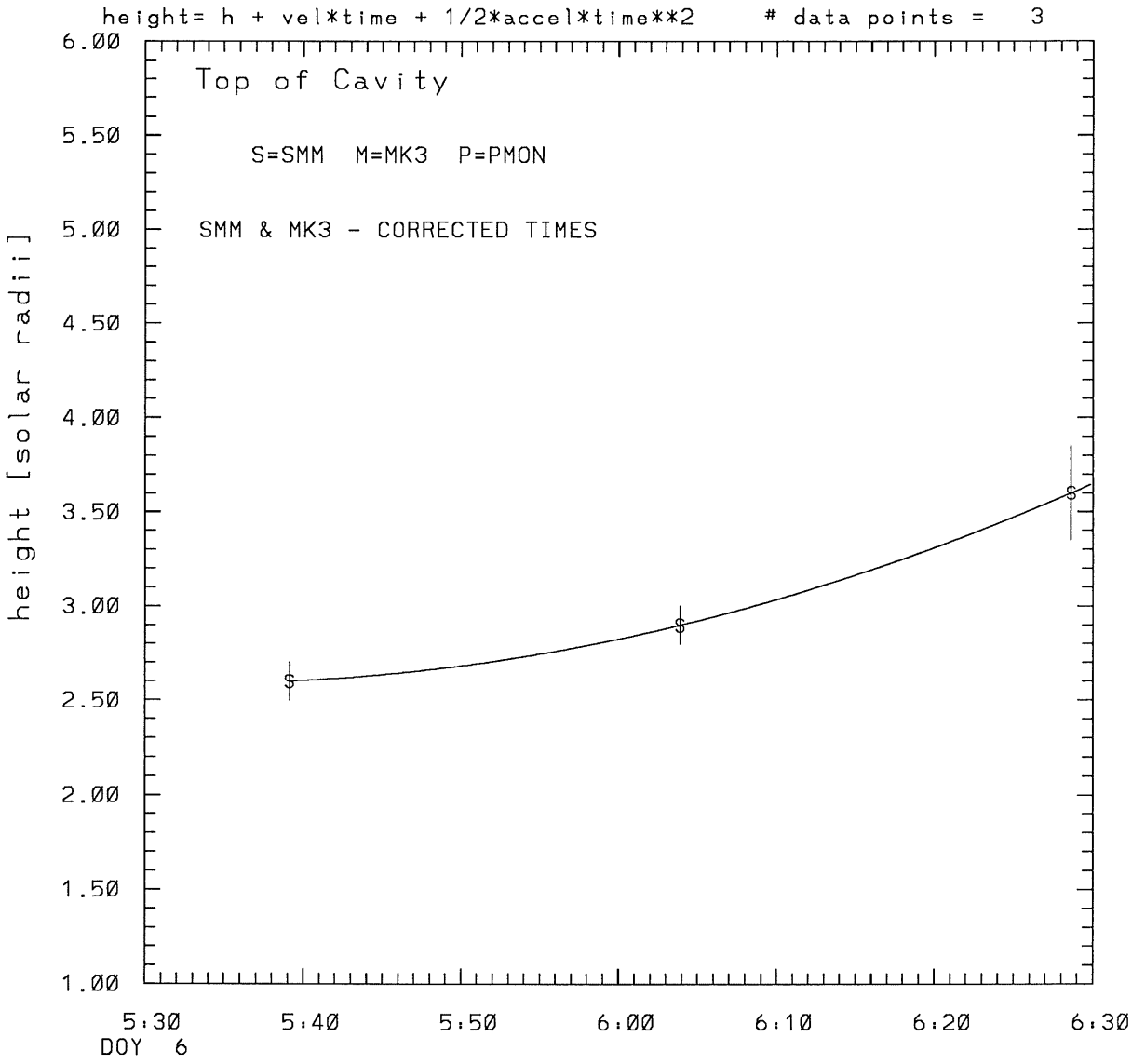

SMM C/P 1989 DOY 6 290 +/- Ø degrees
height = h + velocity*time
# data points = 3
Top of Cavity
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.ØØ
5.5Ø
5.ØØ
4.5Ø
4.ØØ
3.5Ø
3.ØØ
2.5Ø
2.ØØ
1.5Ø
1.ØØ
5:3Ø
DOY 6
5:4Ø
5:5Ø
6:ØØ
6:1Ø
6:2Ø
6:3Ø
tstart=DOY 6 4: 4 +/- 14.3 [min.]
radial velocity= 19Ø. +/- 43. [km/sec]

SMM C/P 1989 DOY 6 290 +/- Ø degrees

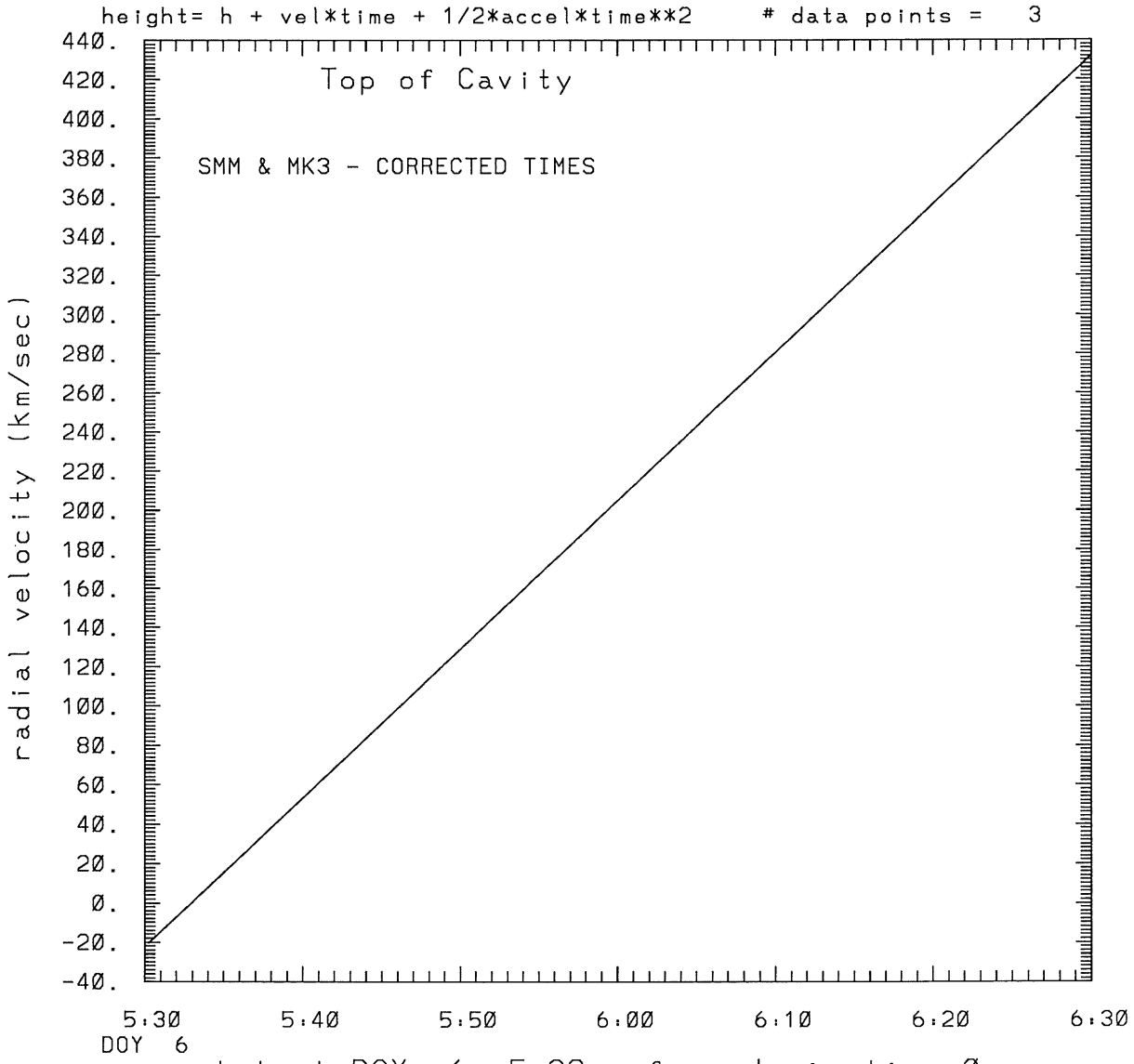


tstart=DOY 6 5:32 from derivative=Ø

Event begins at 2.59 Solar Radii

radial acceleration= Ø.1263 +/- Ø.ØØØØ [km/sec**2]

SMM C/P 1989 DOY 6 290 +/- Ø degrees

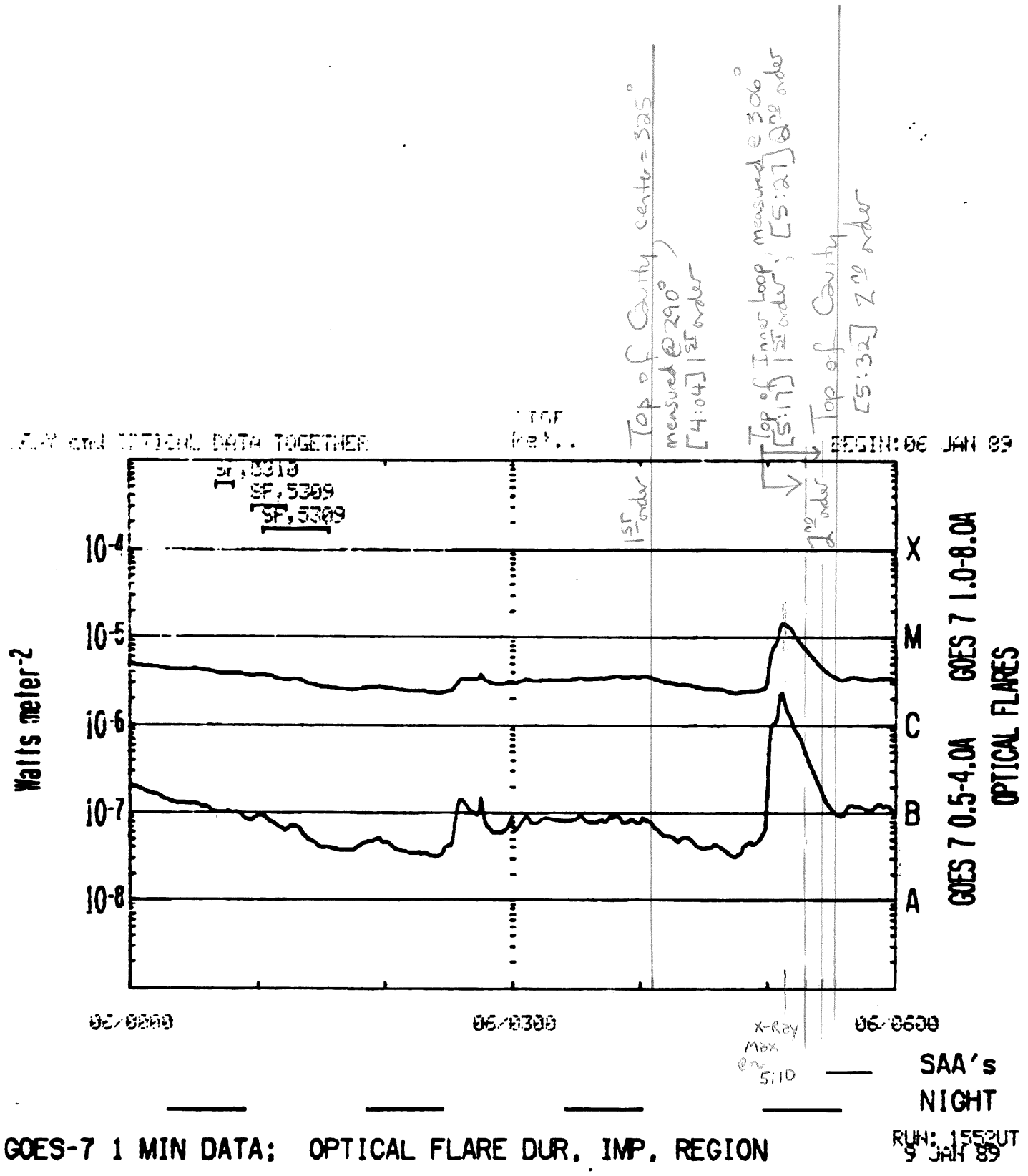


tstart=DOY 6 5:32 from derivative=Ø

Event begins at 2.59 Solar Radii

radial acceleration=Ø.126E+ØØ km/sec**2

1989 Day 006



GOES-7 1 MIN DATA: OPTICAL FLARE DUR. IMP. REGION

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

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1989	6	5:39: 6	2.60	+/- 0.10	290.0	+/- 0.5	SMM
1989	6	6: 3:53	2.90	+/- 0.10	290.0	+/- 0.5	SMM
1989	6	6:28:38	3.60	+/- 0.25	290.0	+/- 0.5	SMM

****
Structure being measured:
Top of Cavity
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.862E+02 +/- 0.143E+02 [minutes]
In more convenient units:
Event began at DOY 6 4: 4 +/- 0.143E+02 [minutes]

Origin defined at DOY 6 5:30

RADIAL INFORMATION:

RADIAL VELOCITY = 190. +/- 43. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.242E+01 +/- 0.107E+00 [solar radii]
c(2) = 0.164E-01 +/- 0.373E-02 [radii/min]
c(2) = 0.190E+03 +/- 0.433E+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)= 0.26626E+00 [radii] see Bevington pg. 114
error in c(2)= 0.67495E-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) = 290. +/- 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 5:39 = 0. km/sec
The TOTAL velocity at 5:39 = 190. km/sec

The TANGENTIAL velocity at 6: 3 = 0. km/sec
The TOTAL velocity at 6: 3 = 190. km/sec

The TANGENTIAL velocity at 6:28 = 0. km/sec
The TOTAL velocity at 6:28 = 190. km/sec

****
The following info is for estimating goodness of the fit
****

Fit is ok [ier=1]

Standard Deviation in the height = 0.51
Standard Deviation in start time measurement = 0.202E+02
Error in time = 0.14404E+02 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.990E-02
Reduced Chi Squared = 0.160E+00
Chi Squared = 0.160E+00
The probability for exceeding chi square = 0.921E+00

The correlation coefficient = 0.974E+00
The probability that no LINEAR correlation exists between the variables = 0.1447E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

****
This is a 2 order run
****

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1989	6	5:39: 6	2.60 +/-	0.10	290.0 +/-	0.5	SMM
1989	6	6: 3:53	2.90 +/-	0.10	290.0 +/-	0.5	SMM
1989	6	6:28:38	3.60 +/-	0.25	290.0 +/-	0.5	SMM

****
Structure being measured:
Top of Cavity
****

****
OUTPUT:
****

START TIME:

tstart=DOY 6 5:32 from derivative = 0
Event begins at 2.59 Solar Radii
Origin defined at DOY 6 5:30

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.126E+00 +/- 0.239E-06 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.259E+01 +/- 0.439E-06 [solar radii]
c(2) = -0.193E-02 +/- 0.362E-07 [radii/min]
c(2) = -0.224E+02 +/- 0.419E-03 [km/sec]
c(3) = 0.327E-03 +/- 0.619E-09 [radii/min**2]
c(3) = 0.126E+00 +/- 0.239E-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) = 290. +/- 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 5:39 = 0. km/sec
The TOTAL velocity at 5:39 = 47. km/sec

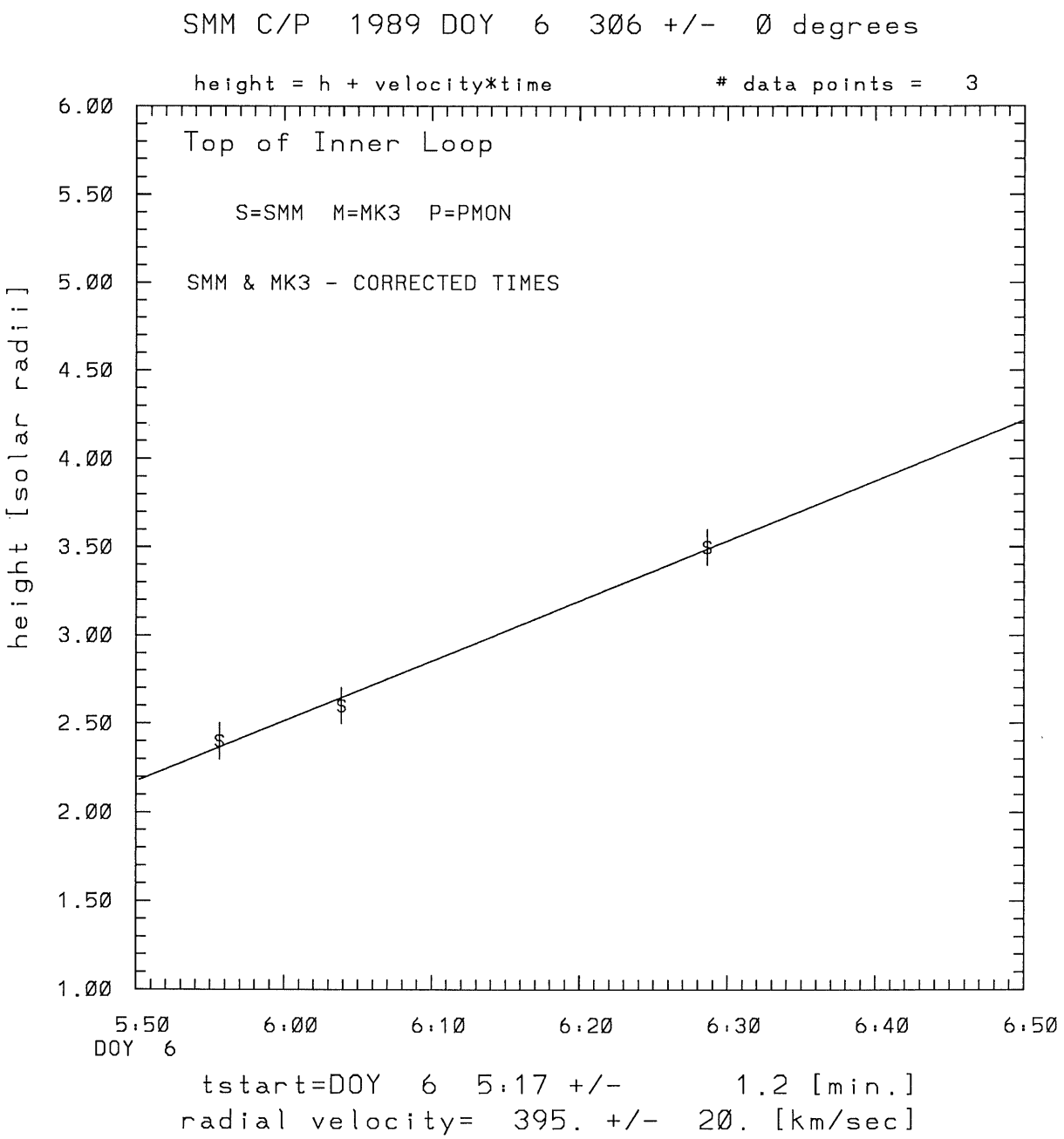
The TANGENTIAL velocity at 6: 3 = 0. km/sec
The TOTAL velocity at 6: 3 = 234. km/sec

The TANGENTIAL velocity at 6:28 = 0. km/sec
The TOTAL velocity at 6:28 = 422. km/sec

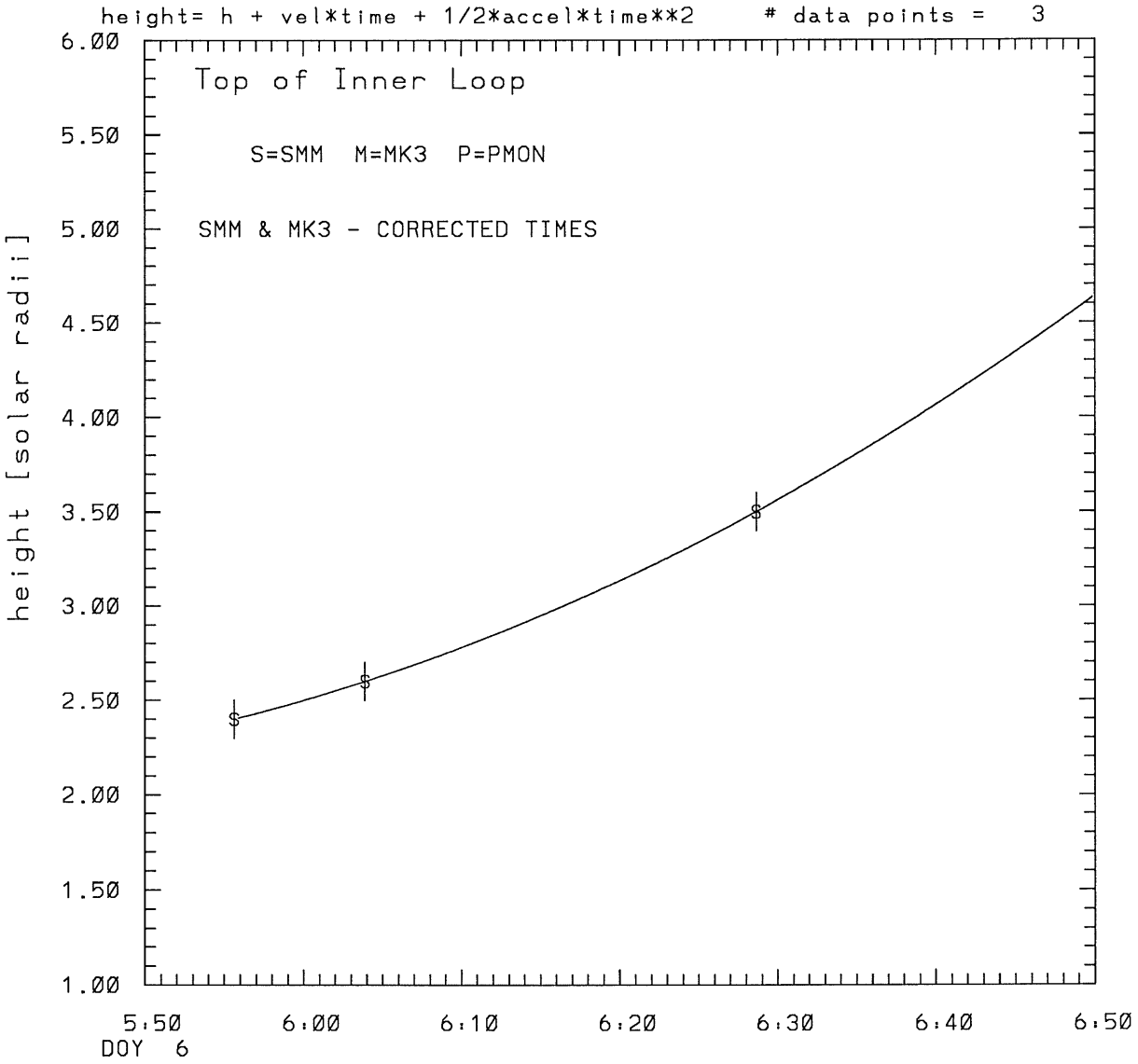
****
The following info is for estimating goodness of the fit
****

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

Correlation coefficient is not computable!


SMM C/P 1989 DOY 6 306 +/- Ø degrees
height = h + velocity*time
# data points = 3
Top of Inner Loop
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
5:50
6:00
6:10
6:20
6:30
6:40
6:50
DOY 6
tstart=DOY 6 5:17 +/- 1.2 [min.]
radial velocity= 395. +/- 20. [km/sec]

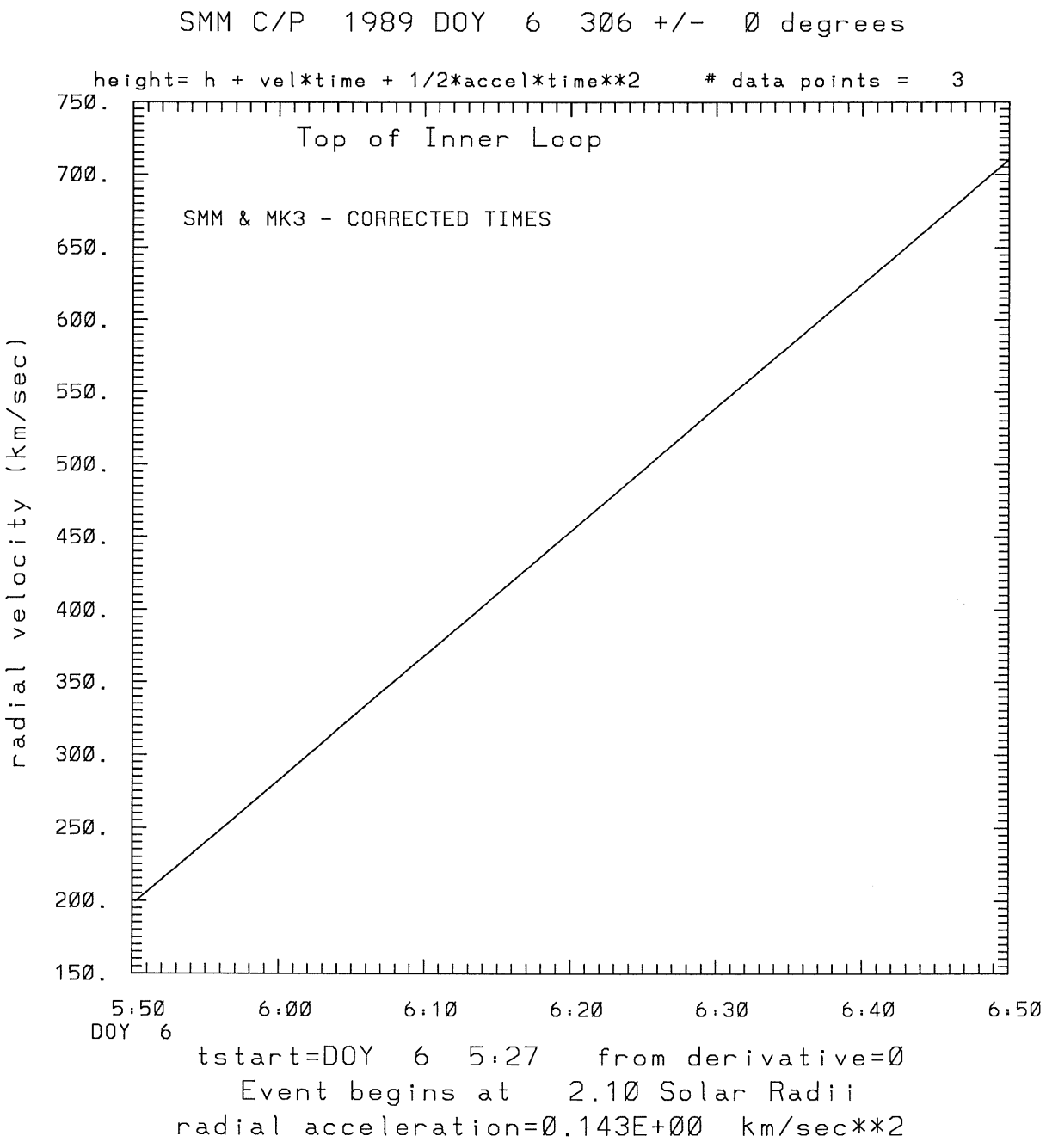
SMM C/P 1989 DOY 6 306 +/- Ø degrees



tstart=DOY 6 5:27 from derivative=Ø

Event begins at 2.1Ø Solar Radii

radial acceleration= Ø.1425 +/- Ø.ØØØØ [km/sec**2]


SMM C/P 1989 DOY 6 306 +/- Ø degrees
height= h + vel*time + 1/2*accel*time**2 # data points = 3
Top of Inner Loop
SMM & MK3 - CORRECTED TIMES
radial velocity (km/sec)
750.
700.
650.
600.
550.
500.
450.
400.
350.
300.
250.
200.
150.
5:50
6:00
6:10
6:20
6:30
6:40
6:50
DOY 6
tstart=DOY 6 5:27 from derivative=Ø
Event begins at 2.1Ø Solar Radii
radial acceleration=Ø.143E+ØØ km/sec**2

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

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1989	6	5:55:37	2.40	+/- 0.10	306.0	+/- 0.5	SMM
1989	6	6: 3:53	2.60	+/- 0.10	306.0	+/- 0.5	SMM
1989	6	6:28:38	3.50	+/- 0.10	306.0	+/- 0.5	SMM

****
Structure being measured:
Top of Inner Loop
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.345E+02 +/- 0.116E+01 [minutes]
In more convenient units:
Event began at DOY 6 5:17 +/- 0.116E+01 [minutes]

Origin defined at DOY 6 5:50

RADIAL INFORMATION:

RADIAL VELOCITY = 395. +/- 20. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.217E+01 +/- 0.412E-01 [solar radii]
c(2) = 0.340E-01 +/- 0.172E-02 [radii/min]
c(2) = 0.395E+03 +/- 0.200E+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)= 0.58257E-01 [radii] see Bevington pg. 114
error in c(2)= 0.24352E-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) = 306. +/- 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 5:55 = 0. km/sec
The TOTAL velocity at 5:55 = 395. km/sec

The TANGENTIAL velocity at 6: 3 = 0. km/sec
The TOTAL velocity at 6: 3 = 395. km/sec

The TANGENTIAL velocity at 6:28 = 0. km/sec
The TOTAL velocity at 6:28 = 395. km/sec

****
The following info is for estimating goodness of the fit
****

Fit is ok [ier=1]

Standard Deviation in the height = 0.59
Standard Deviation in start time measurement = 0.140E+02
Error in time = 0.17393E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.175E-02
Reduced Chi Squared = 0.593E-02
Chi Squared = 0.593E-02
The probability for exceeding chi square = 0.967E+00

The correlation coefficient = 0.997E+00
The probability that no LINEAR correlation exists between the variables = 0.4549E-01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

****
This is a 2 order run
****

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1989	6	5:55:37	2.40 +/-	0.10	306.0 +/-	0.5	SMM
1989	6	6: 3:53	2.60 +/-	0.10	306.0 +/-	0.5	SMM
1989	6	6:28:38	3.50 +/-	0.10	306.0 +/-	0.5	SMM

****
Structure being measured:
Top of Inner Loop
****

****
OUTPUT:
****

START TIME:

tstart=DOY 6 5:27 from derivative = 0
Event begins at 2.10 Solar Radii
Origin defined at DOY 6 5:50

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.143E+00 +/- 0.000E+00 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.229E+01 +/- 0.000E+00 [solar radii]
c(2) = 0.170E-01 +/- 0.000E+00 [radii/min]
c(2) = 0.197E+03 +/- 0.000E+00 [km/sec]
c(3) = 0.369E-03 +/- 0.000E+00 [radii/min**2]
c(3) = 0.143E+00 +/- 0.000E+00 [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) = 306. +/- 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 5:55 = 0. km/sec
The TOTAL velocity at 5:55 = 245. km/sec

The TANGENTIAL velocity at 6: 3 = 0. km/sec
The TOTAL velocity at 6: 3 = 316. km/sec

The TANGENTIAL velocity at 6:28 = 0. km/sec
The TOTAL velocity at 6:28 = 528. 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!