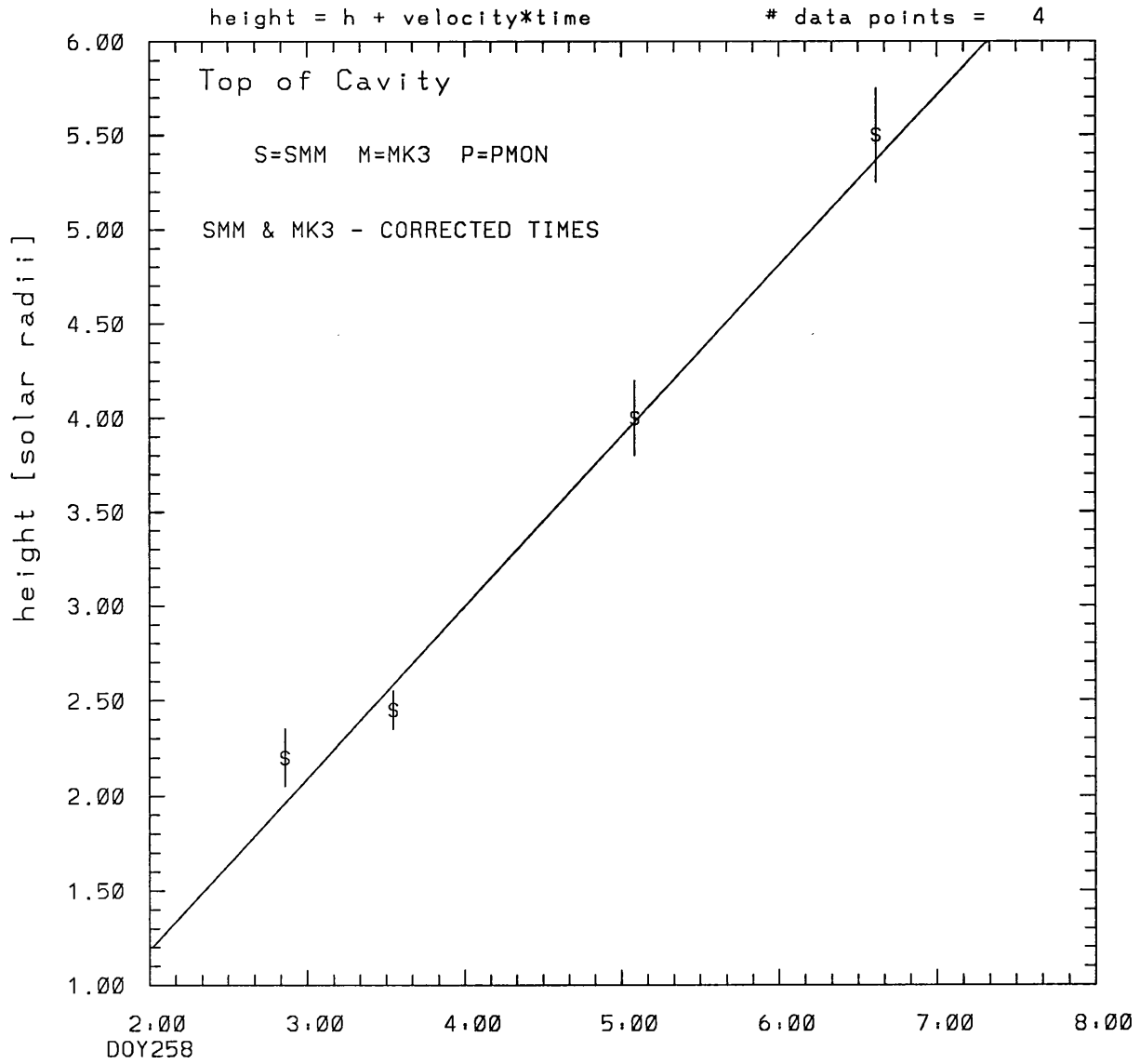
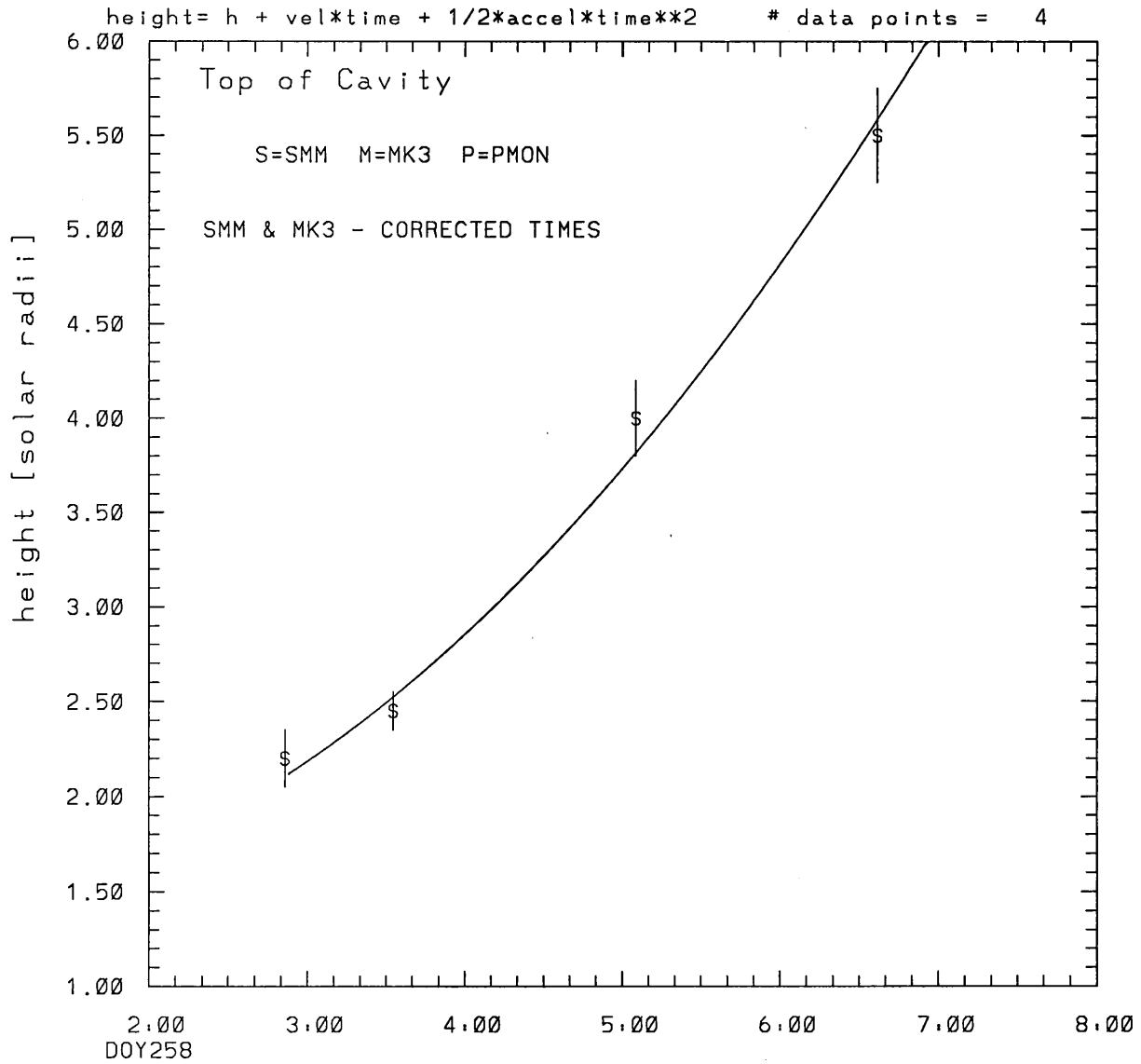


SMM C/P 1989 DOY258 300 +/- 0 degrees



tstart=DOY258 1.48 +/- 1.3 [min.]
radial velocity= 175. +/- 16. [km/sec]

SMM C/P 1989 DOY258 300 +/- 0 degrees

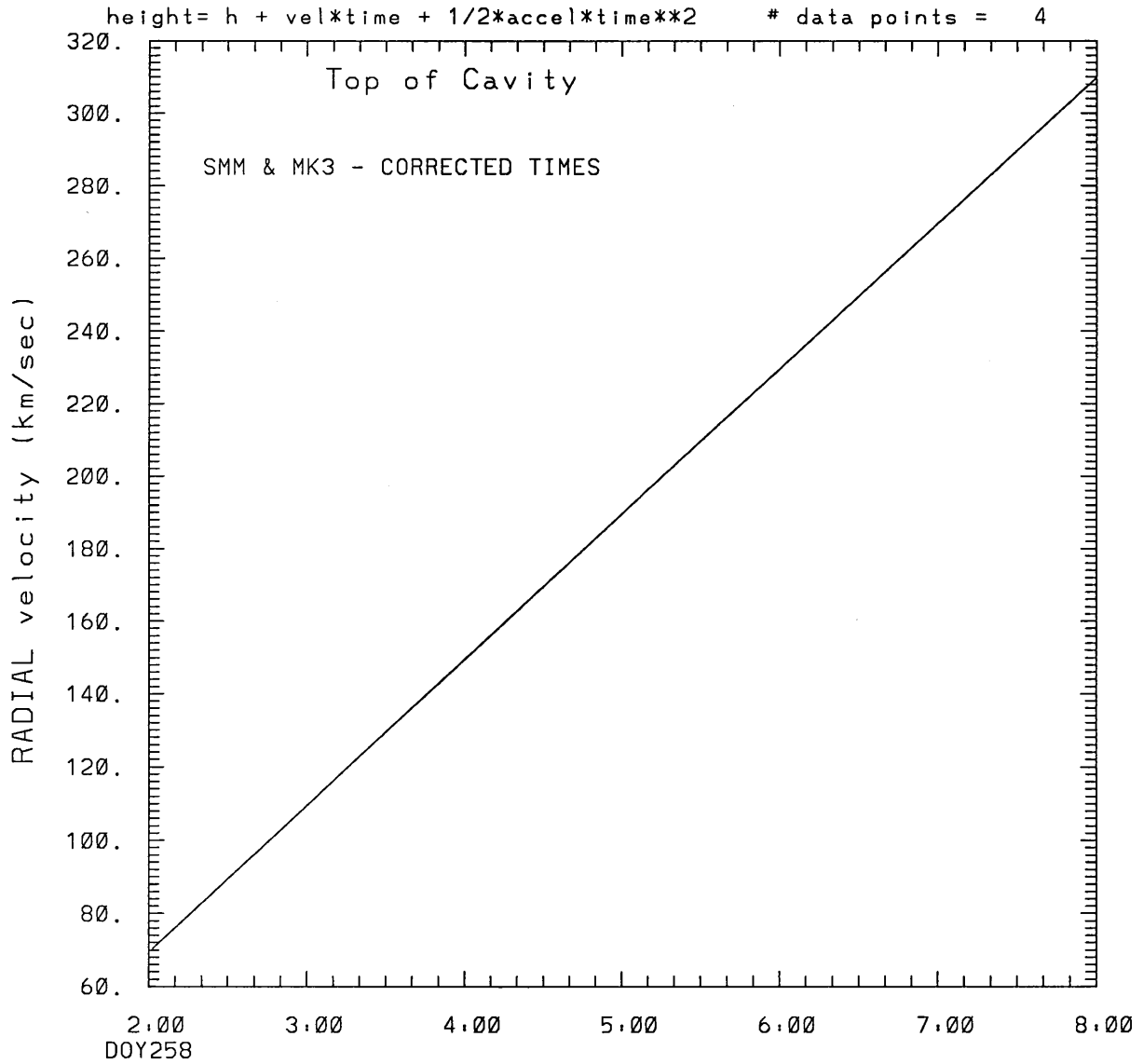


tstart=DOY257 24:17 from derivative=0

Event begins at 1.41 Solar Radii

radial acceleration = 0.0111 +/- 0.0065 [km/sec**2]

SMM C/P 1989 DOY258 300 +/- 0 degrees



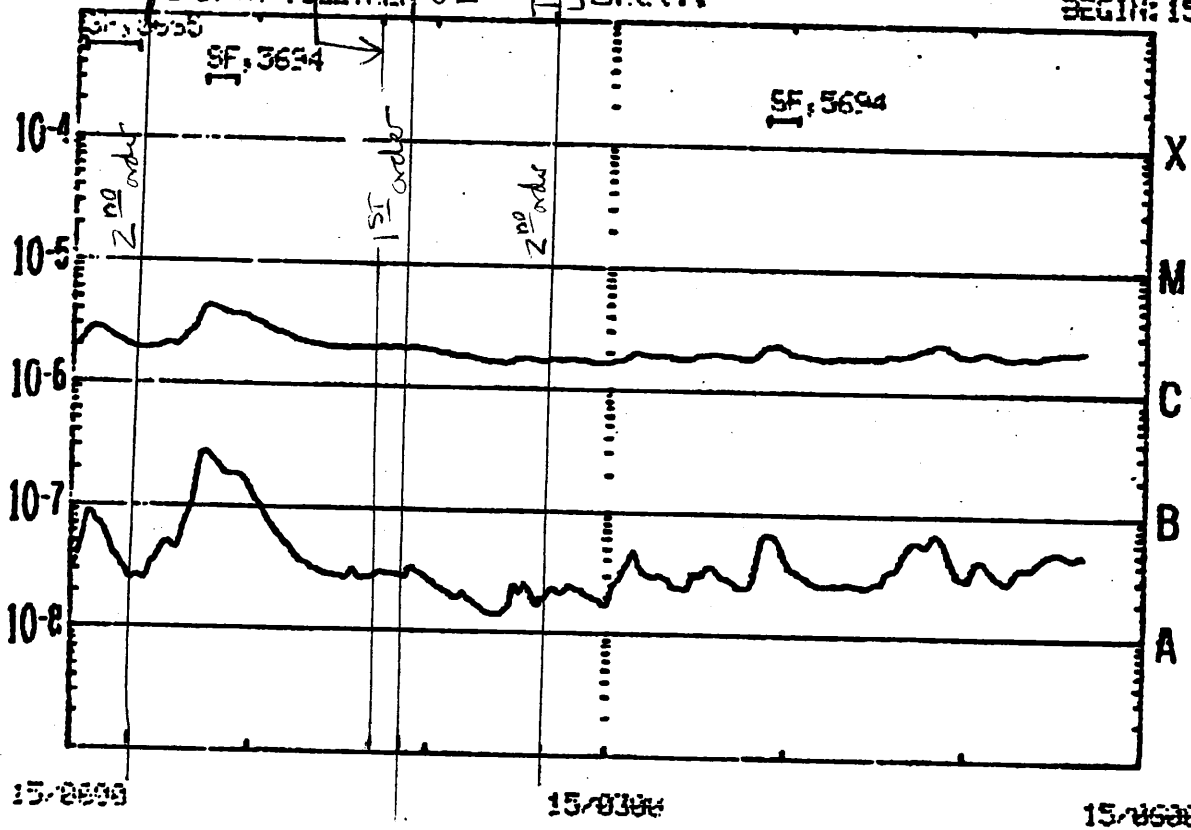
tstart=DOY257 24:17 from derivative=0
Event begins at 1.41 Solar Radii
radial acceleration=0.111E-01 km/sec**2

1989 Day 258

Watts meter-2

DATA and OPTICAL DATA TOGETHER

BEGIN: 15 SEP 89



GOES 7 0.5-4.0A GOES 7 1.0-8.0A
OPTICAL FLARES

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

SAA's
NIGHT

RUN: 2839UT
19 SEP 89

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1989	258	2:51:27	2.20 +/-	0.15	300.0 +/-	0.5	SMM
1989	258	3:32:41	2.45 +/-	0.10	300.0 +/-	0.5	SMM
1989	258	5: 5:11	4.00 +/-	0.20	300.0 +/-	1.0	SMM
1989	258	6:36:53	5.50 +/-	0.25	300.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.121E+02 +/- 0.130E+01 [minutes]
In more convenient units:
Event began at DOY 258 1:48 +/- 0.130E+01 [minutes]

Origin defined at DOY258 2: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 175. +/- 16. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.118E+01 +/- 0.182E+00 [solar radii]
c(2) = 0.151E-01 +/- 0.142E-02 [radii/min]
c(2) = 0.175E+03 +/- 0.164E+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)= 0.21715E+00 [radii] see Bevington pg. 114
error in c(2)= 0.12424E-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) = 300. +/- 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 RADIAL velocity at 2:51 = 175. km/sec

The RADIAL velocity at 3:32 = 175. km/sec

The RADIAL velocity at 5: 5 = 175. km/sec

The RADIAL velocity at 6:36 = 175. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.53
Standard Deviation in start time measurement = .0.871E+02
Error in time = 0.20251E+02 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.333E-01
Reduced Chi Squared = 0.830E-01
Chi Squared = 0.166E+00
The probability for exceeding chi square = 0.967E+00

The correlation coefficient = 0.995E+00
The probability that no LINEAR correlation exists between the variables = 0.54581
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
1989	258	2:51:27	2.20 +/-	0.15	300.0 +/-	0.5	SMM
1989	258	3:32:41	2.45 +/-	0.10	300.0 +/-	0.5	SMM
1989	258	5: 5:11	4.00 +/-	0.20	300.0 +/-	1.0	SMM
1989	258	6:36:53	5.50 +/-	0.25	300.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

tstart=DOY257 24:17 from derivative = 0
Event begins at 1.41 Solar Radii
Origin defined at DOY258 2: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.111E-01 +/- 0.654E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.172E+01 +/- 0.348E+00 [solar radii]
c(2) = 0.598E-02 +/- 0.548E-02 [radii/min]
c(2) = 0.694E+02 +/- 0.635E+02 [km/sec]
c(3) = 0.288E-04 +/- 0.169E-04 [radii/min**2]
c(3) = 0.111E-01 +/- 0.654E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.49416E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.24475E+00 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.75074E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.39487E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.22416E-04 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) = 0.11441E-04 [radii/min**2] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

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

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 300. +/- 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 RADIAL velocity at 2:51 = 104. km/sec

The RADIAL velocity at 3:32 = 131. km/sec

The RADIAL velocity at 5: 5 = 193. km/sec

The RADIAL velocity at 6:36 = 254. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.53
Standard Deviation in start time measurement = 0.871E+02
Value of reduced Chi Squared returned from nllst2 = 0.204E-01
Reduced Chi Squared = 0.149E+00
Chi Squared = 0.149E+00
The probability for exceeding chi square = 0.886E+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 = 0.8644E+00
The correlation between the data and the time**2 term = 0.8571E+00
The correlation between the data and the complete equation of motion=0.9789E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]