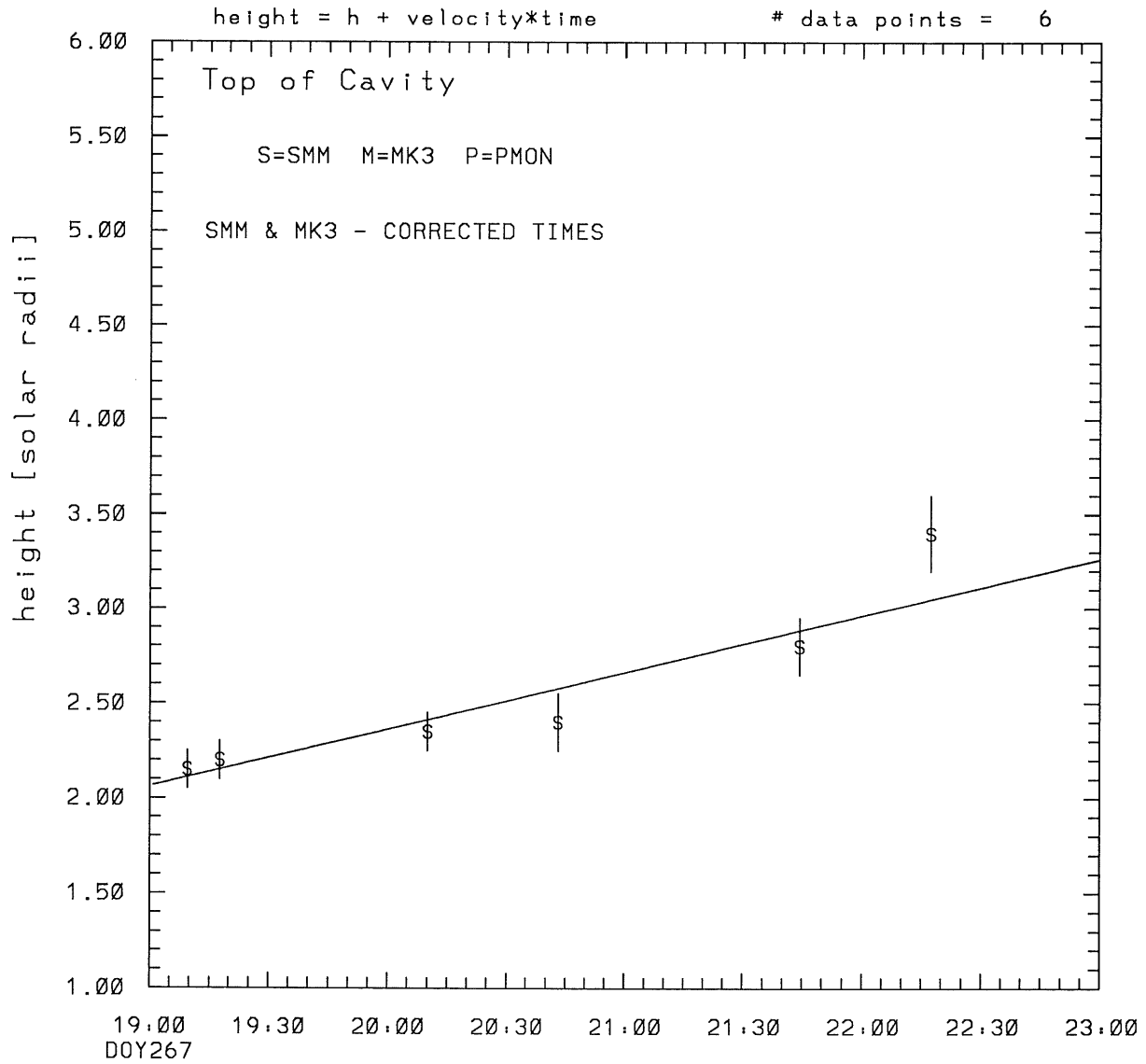
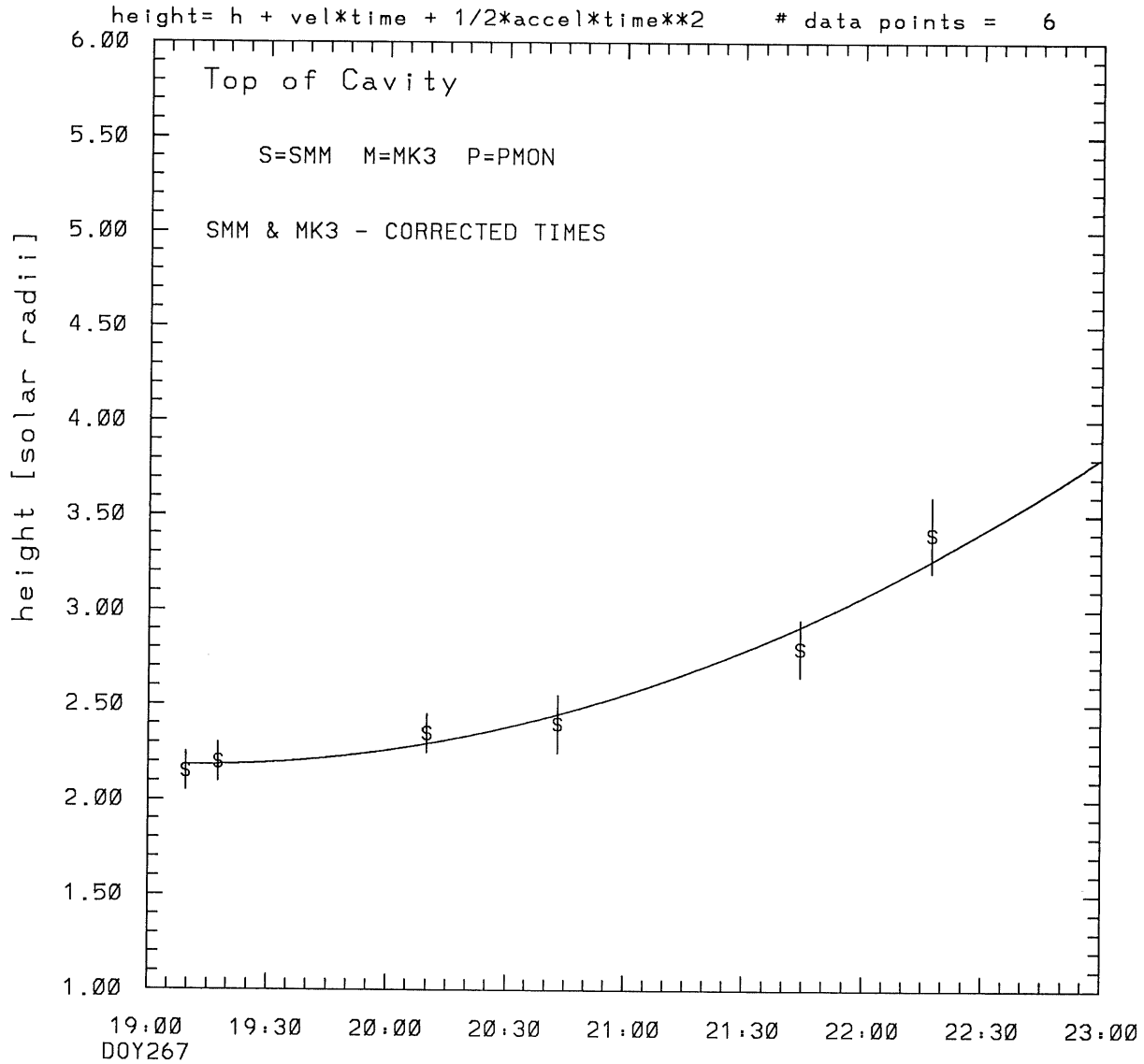


SMM C/P 1987 DOY267 100 +/- 0 degrees



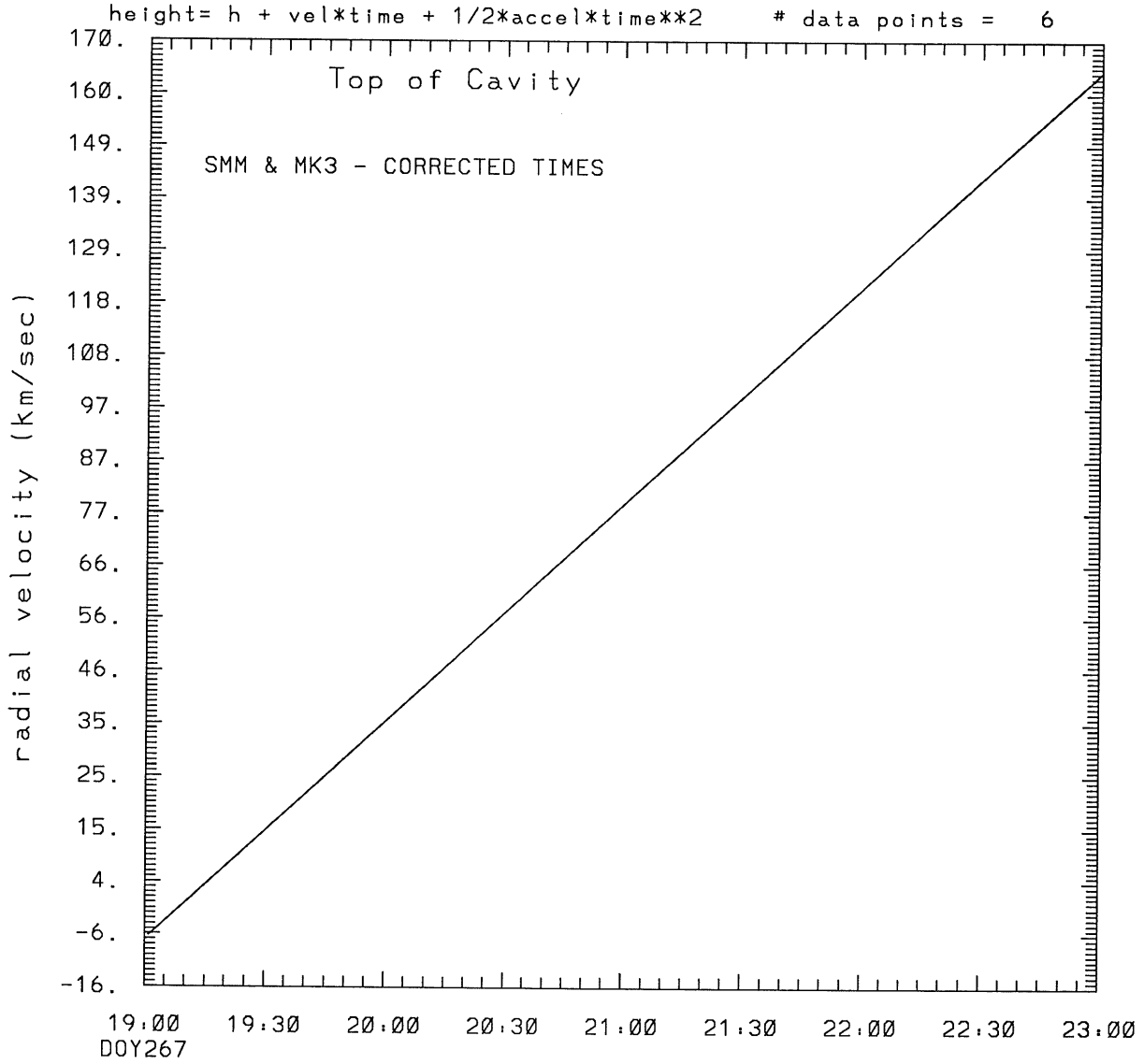
tstart=DOY267 15:28 +/- 11.4 [min.]  
radial velocity= 58. +/- 10. [km/sec]

SMM C/P 1987 DOY267 100 +/- 0 degrees



tstart=DOY267 19:10 from derivative=0  
Event begins at 2.18 Solar Radii  
radial acceleration = 0.0119 +/- 0.0038 [km/sec\*\*2]

SMM C/P 1987 DOY267 100 +/- 0 degrees



tstart=DOY267 19:10 from derivative=0

Event begins at 2.18 Solar Radii

radial acceleration=0.119E-01 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	day	time	radii	radius	error in	angle	angle	datatype
1987	267	19: 9:29	2.15	+/- 0.10	100.0	+/- 0.5	SMM	
1987	267	19:17:42	2.20	+/- 0.10	100.0	+/- 0.5	SMM	
1987	267	20:10: 8	2.35	+/- 0.10	100.0	+/- 0.5	SMM	
1987	267	20:43: 9	2.40	+/- 0.15	100.0	+/- 0.5	SMM	
1987	267	21:44:22	2.80	+/- 0.15	100.0	+/- 0.5	SMM	
1987	267	22:17:22	3.40	+/- 0.20	100.0	+/- 1.0	SMM	

\*\*\*\*\*

Structure being measured:

Top of Cavity

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.212E+03 \pm 0.114E+02$  [minutes]

In more convenient units:

Event began at DOY 267 15:28  $\pm 0.114E+02$  [minutes]

Origin defined at DOY267 19: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 58.  $\pm$  10. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.206E+01  $\pm$  0.764E-01 [solar radii]  
c(2) = 0.500E-02  $\pm$  0.871E-03 [radii/min]  
c(2) = 0.580E+02  $\pm$  0.101E+02 [km/sec]  
c(3) = 0.000E+00  $\pm$  0.000E+00 [radii/min\*\*2]  
c(3) = 0.000E+00  $\pm$  0.000E+00 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.14088E+00 [radii] see Bevington pg. 114

error in c(2)= 0.12056E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00  $\pm$  0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 100. +/- 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 19: 9 = 0.000E+00 km/sec  
The TOTAL velocity at 19: 9 = 58. km/sec

The TANGENTIAL velocity at 19:17 = 0.000E+00 km/sec  
The TOTAL velocity at 19:17 = 58. km/sec

The TANGENTIAL velocity at 20:10 = 0.000E+00 km/sec  
The TOTAL velocity at 20:10 = 58. km/sec

The TANGENTIAL velocity at 20:43 = 0.000E+00 km/sec  
The TOTAL velocity at 20:43 = 58. km/sec

The TANGENTIAL velocity at 21:44 = 0.000E+00 km/sec  
The TOTAL velocity at 21:44 = 58. km/sec

The TANGENTIAL velocity at 22:17 = 0.000E+00 km/sec  
The TOTAL velocity at 22:17 = 58. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.48  
Standard Deviation in start time measurement = 0.698E+02  
Error in time = 0.82493E+02 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.162E-01  
Reduced Chi Squared = 0.230E+00  
Chi Squared = 0.921E+00  
The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.932E+00  
The probability that no LINEAR correlation exists between the variables = 0.6871E-02  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1987	267	19: 9:29	2.15 +/- 0.10		100.0 +/- 0.5		SMM
1987	267	19:17:42	2.20 +/- 0.10		100.0 +/- 0.5		SMM
1987	267	20:10: 8	2.35 +/- 0.10		100.0 +/- 0.5		SMM
1987	267	20:43: 9	2.40 +/- 0.15		100.0 +/- 0.5		SMM
1987	267	21:44:22	2.80 +/- 0.15		100.0 +/- 0.5		SMM
1987	267	22:17:22	3.40 +/- 0.20		100.0 +/- 1.0		SMM

\*\*\*\*\*

Structure being measured:

Top of Cavity

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

tstart=DOY267 19:10 from derivative = 0

Event begins at 2.18 Solar Radii

Origin defined at DOY267 19: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.119E-01 +/- 0.380E-02 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.219E+01 +/- 0.606E-01 [solar radii]  
c(2) = -0.618E-03 +/- 0.187E-02 [radii/min]  
c(2) = -0.716E+01 +/- 0.217E+02 [km/sec]  
c(3) = 0.308E-04 +/- 0.982E-05 [radii/min\*\*2]  
c(3) = 0.119E-01 +/- 0.380E-02 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.10413E+00 [radii] Bevington pg 154 (8-30)  
Exact error in c(1) = 0.14922E-01 [radii] Bevington pg 154 (8-28)  
Approximate error in c(2) = 0.27316E-02 [radii/min] Bevington pg 154 (8-30)  
Exact error in c(2) = 0.73759E-03 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.13131E-04 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.46107E-05 [radii/min\*\*] 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) = 100. +/- 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 19: 9 = 0.000E+00 km/sec

The TOTAL velocity at 19: 9 = 0. km/sec

The TANGENTIAL velocity at 19:17 = 0.000E+00 km/sec

The TOTAL velocity at 19:17 = 5. km/sec

The TANGENTIAL velocity at 20:10 = 0.000E+00 km/sec

The TOTAL velocity at 20:10 = 43. km/sec

The TANGENTIAL velocity at 20:43 = 0.000E+00 km/sec

The TOTAL velocity at 20:43 = 66. km/sec

The TANGENTIAL velocity at 21:44 = 0.000E+00 km/sec

The TOTAL velocity at 21:44 = 110. km/sec

The TANGENTIAL velocity at 22:17 = 0.000E+00 km/sec

The TOTAL velocity at 22:17 = 134. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.48

Standard Deviation in start time measurement = 0.698E+02

Value of reduced Chi Squared returned from nllst2 = 0.588E-02

Reduced Chi Squared = 0.671E-01

Chi Squared = 0.201E+00

The probability for exceeding chi square = 0.999E+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 = 0.9021E+00

The correlation between the data and the time\*\*2 term = 0.8698E+00

The correlation between the data and the complete equation of motion = 0.9675E+00

SEE BEVINGTON "Data Reduction and Error Analysis" [1969]