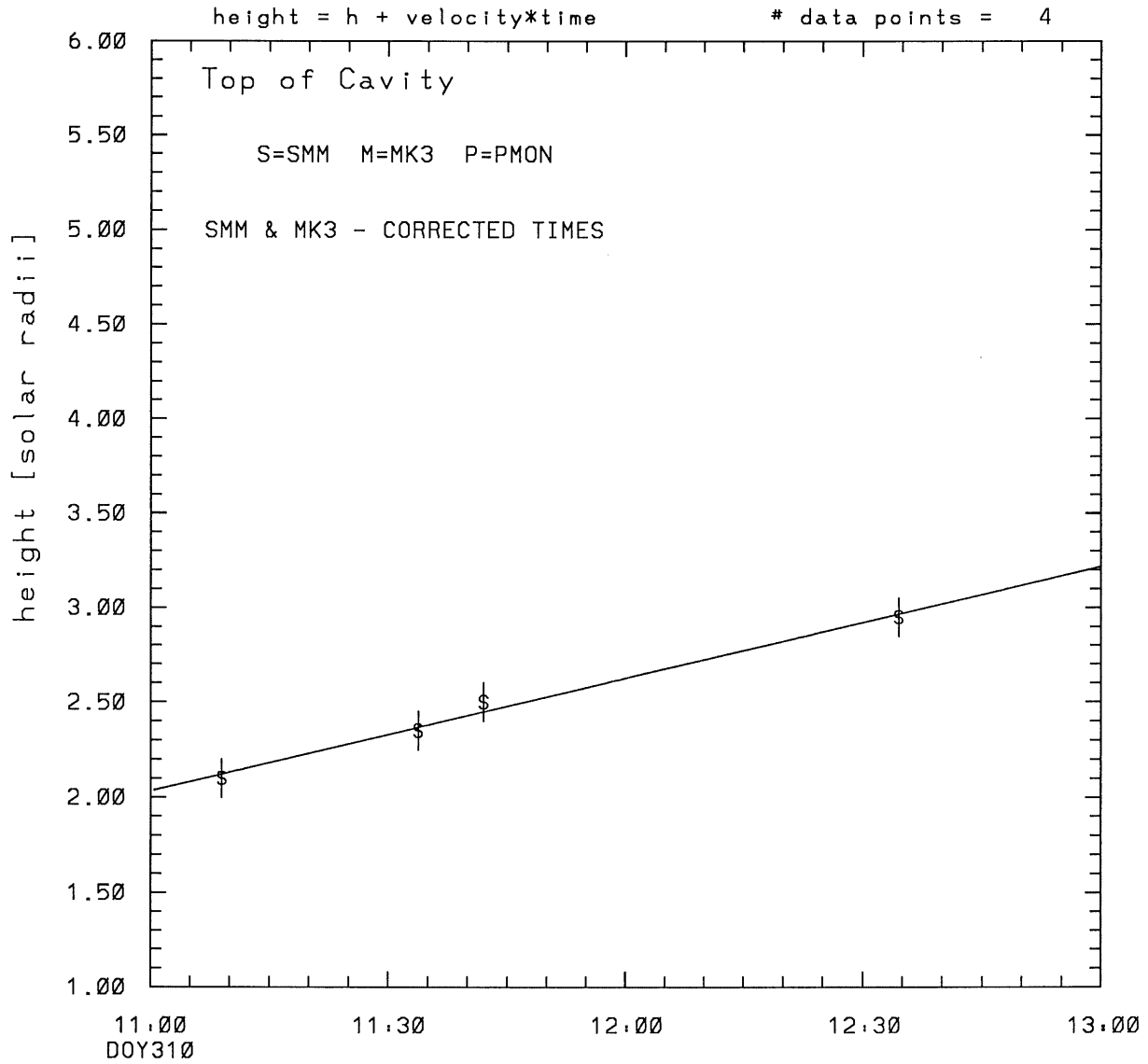
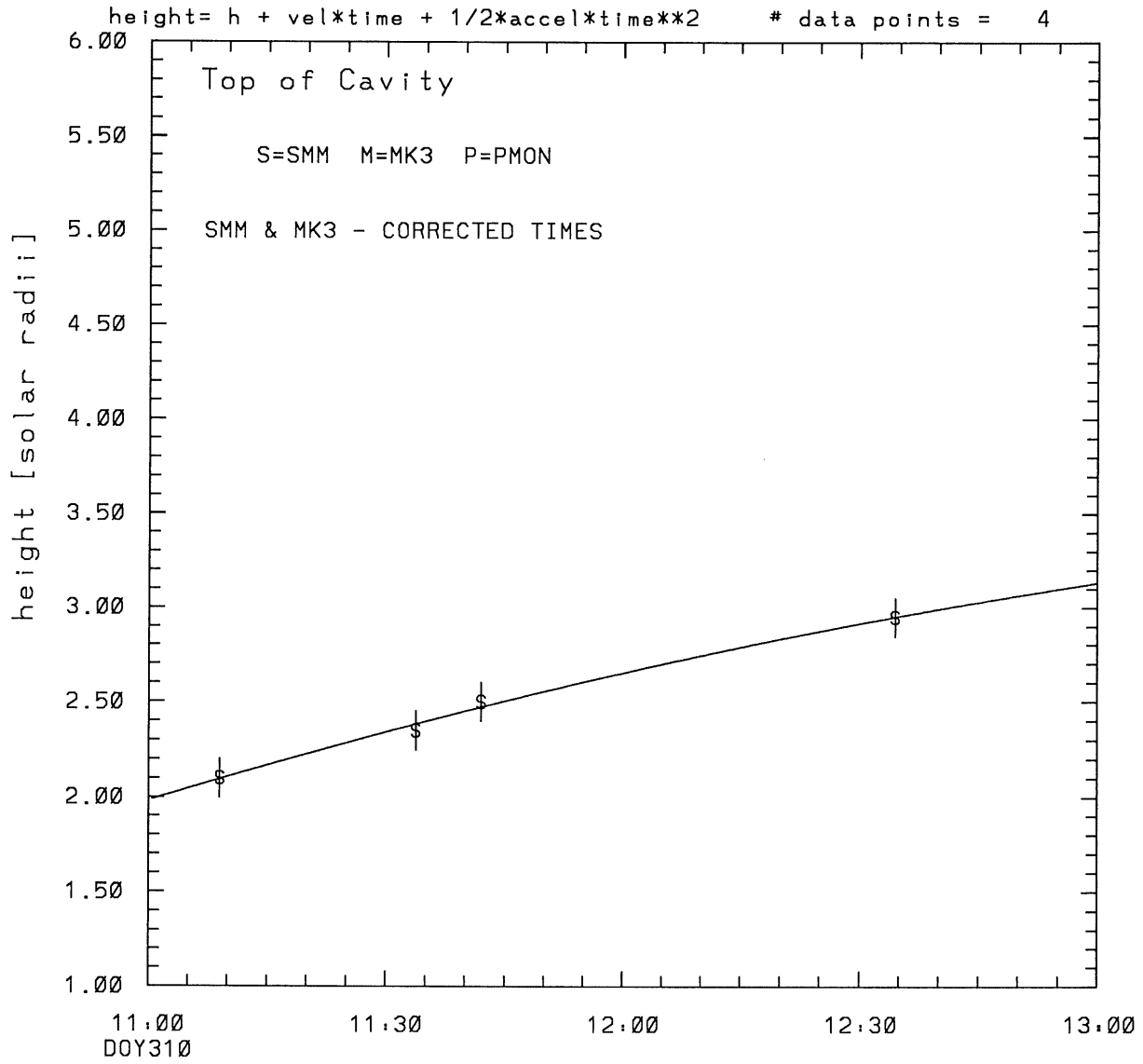


SMM C/P 1988 DOY310 120 +/- 0 degrees



tstart=DOY310 9:17 +/- 2.2 [min.]  
radial velocity= 115. +/- 7. [km/sec]

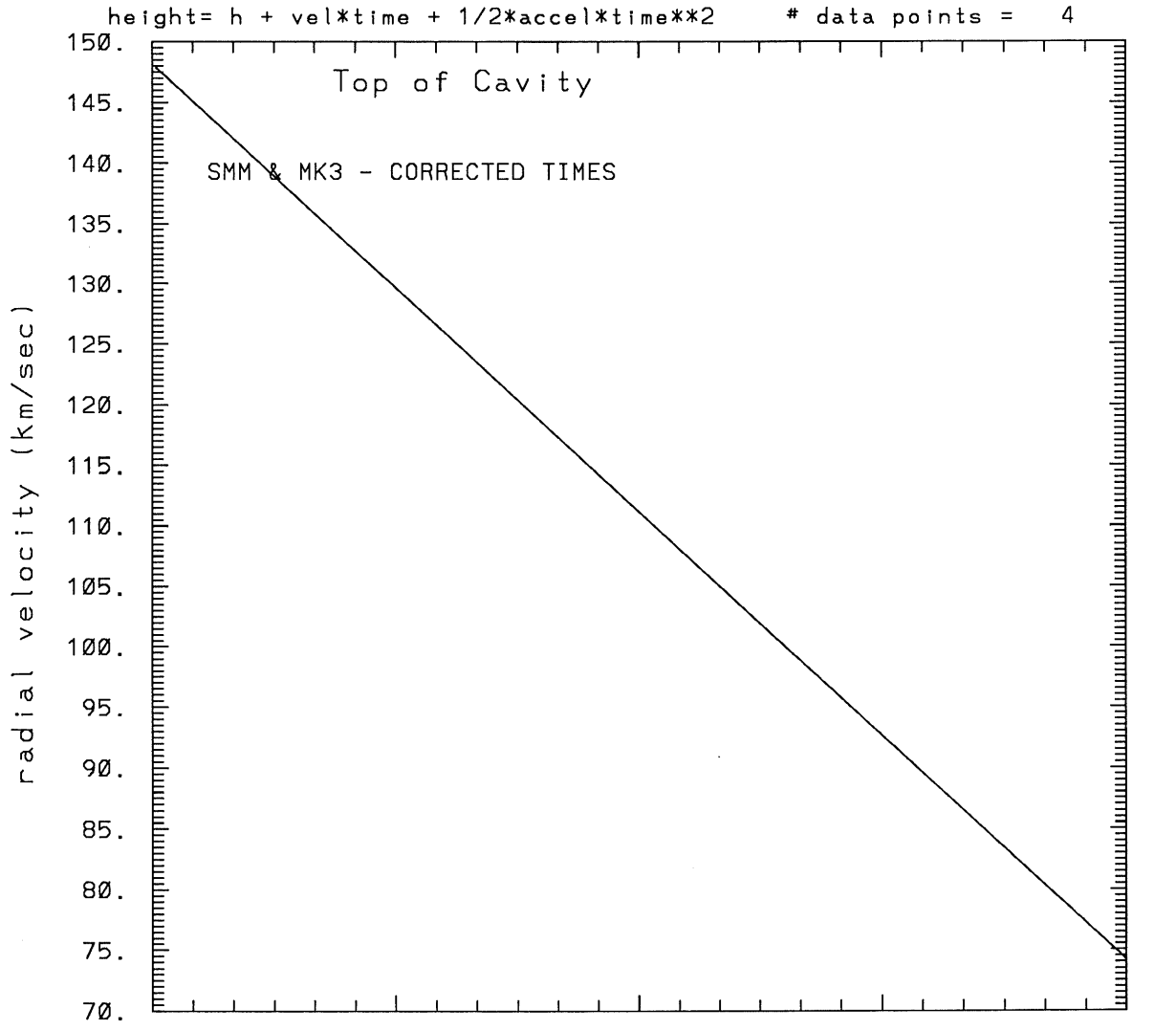
SMM C/P 1988 DOY310 120 +/- 0 degrees



tstart=DOY310 9.53 +/- 34.5 [min.]

radial acceleration =  $-0.0103 \pm 0.0075$  [km/sec\*\*2]

SMM C/P 1988 D0Y310 120 +/- 0 degrees



11:00  
DOY310

11:30

12:00

12:30

13:00

tstart=DOY310 9.53 +/- 34.5 [min.]

radial acceleration =  $-.103E-01$  km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	day	time	error in radii	error in radius	error in angle	error in angle	datatype
1988	310	11: 8:59	2.10 +/- 0.10		120.0 +/- 0.5		SMM
1988	310	11:33:47	2.35 +/- 0.10		120.0 +/- 0.5		SMM
1988	310	11:42: 2	2.50 +/- 0.10		120.0 +/- 0.5		SMM
1988	310	12:34:31	2.95 +/- 0.10		120.0 +/- 0.5		SMM

\*\*\*\*\*

Structure being measured:

Top of Cavity

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.105E+03 +/- 0.218E+01$  [minutes]

In more convenient units:

Event began at DOY 310 9:17 +/- 0.218E+01 [minutes]

Origin defined at DOY310 11: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 115. +/- 7. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.203E+01 +/- 0.308E-01$  [solar radii]  
 $c(2) = 0.988E-02 +/- 0.564E-03$  [radii/min]  
 $c(2) = 0.115E+03 +/- 0.654E+01$  [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  $c(1) = 0.37724E-01$  [radii] see Bevington pg. 114

error in  $c(2) = 0.69098E-03$  [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) = 120. +/- 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 11: 8 = 0. km/sec

The TOTAL velocity at 11: 8 = 115. km/sec

The TANGENTIAL velocity at 11:33 = 0. km/sec

The TOTAL velocity at 11:33 = 115. km/sec

The TANGENTIAL velocity at 11:42 = 0. km/sec

The TOTAL velocity at 11:42 = 115. km/sec

The TANGENTIAL velocity at 12:34 = 0. km/sec

The TOTAL velocity at 12:34 = 115. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.36

Standard Deviation in start time measurement = 0.312E+02

Error in time = 0.61662E+01 using best fit method

See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.124E-02

Reduced Chi Squared = 0.512E-02

Chi Squared = 0.102E-01

The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.995E+00

The probability that no LINEAR correlation exists between the variables = 0.4860E-02

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

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	day	time	error in radii	error in radius	error in angle	error in angle	datatype
1988	310	11: 8:59	2.10 +/- 0.10	2.10 +/- 0.10	120.0 +/- 0.5	120.0 +/- 0.5	SMM
1988	310	11:33:47	2.35 +/- 0.10	2.35 +/- 0.10	120.0 +/- 0.5	120.0 +/- 0.5	SMM
1988	310	11:42: 2	2.50 +/- 0.10	2.50 +/- 0.10	120.0 +/- 0.5	120.0 +/- 0.5	SMM
1988	310	12:34:31	2.95 +/- 0.10	2.95 +/- 0.10	120.0 +/- 0.5	120.0 +/- 0.5	SMM

\*\*\*\*\*

Structure being measured:

Top of Cavity

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.674E+02 +/- 0.345E+02$  [minutes]

In more convenient units:

Event began at DOY 310 9:53 +/- 0.345E+02 [minutes]

Origin defined at DOY310 11: 0

RADIAL INFORMATION:

RADIAL ACCELERATION =  $-0.103E-01 +/- 0.753E-02$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.198E+01 +/- 0.460E-01$  [solar radii]  
 $c(2) = 0.128E-01 +/- 0.218E-02$  [radii/min]  
 $c(2) = 0.148E+03 +/- 0.253E+02$  [km/sec]  
 $c(3) = -0.266E-04 +/- 0.195E-04$  [radii/min\*\*2]  
 $c(3) = -0.103E-01 +/- 0.753E-02$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in  $c(1) = 0.65057E-01$  [radii] Bevington pg 154 (8-30)  
Exact error in  $c(1) = 0.13920E-01$  [radii] Bevington pg 154 (8-28)  
Approximate error in  $c(2) = 0.30837E-02$  [radii/min] Bevington pg 154 (8-30)  
Exact error in  $c(2) = 0.13898E-02$  [radii/min] Bevington pg 154 (8-28)  
Approximate error in  $c(3) = 0.27537E-04$  [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in  $c(3) = 0.13302E-04$  [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) = 120. +/- 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 11: 8 = 0. km/sec

The TOTAL velocity at 11: 8 = 143. km/sec

The TANGENTIAL velocity at 11:33 = 0. km/sec

The TOTAL velocity at 11:33 = 127. km/sec

The TANGENTIAL velocity at 11:42 = 0. km/sec

The TOTAL velocity at 11:42 = 122. km/sec

The TANGENTIAL velocity at 12:34 = 0. km/sec

The TOTAL velocity at 12:34 = 90. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.36

Standard Deviation in start time measurement = 0.312E+02

Value of reduced Chi Squared returned from nllst2 = 0.960E-03

Reduced Chi Squared = 0.462E-02

Chi Squared = 0.462E-02

The probability for exceeding chi square = 0.975E+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 = 0.9951E+00

The correlation between the data and the time\*\*2 term = 0.9533E+00

The correlation between the data and the complete equation of motion = 0.9950E+00

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