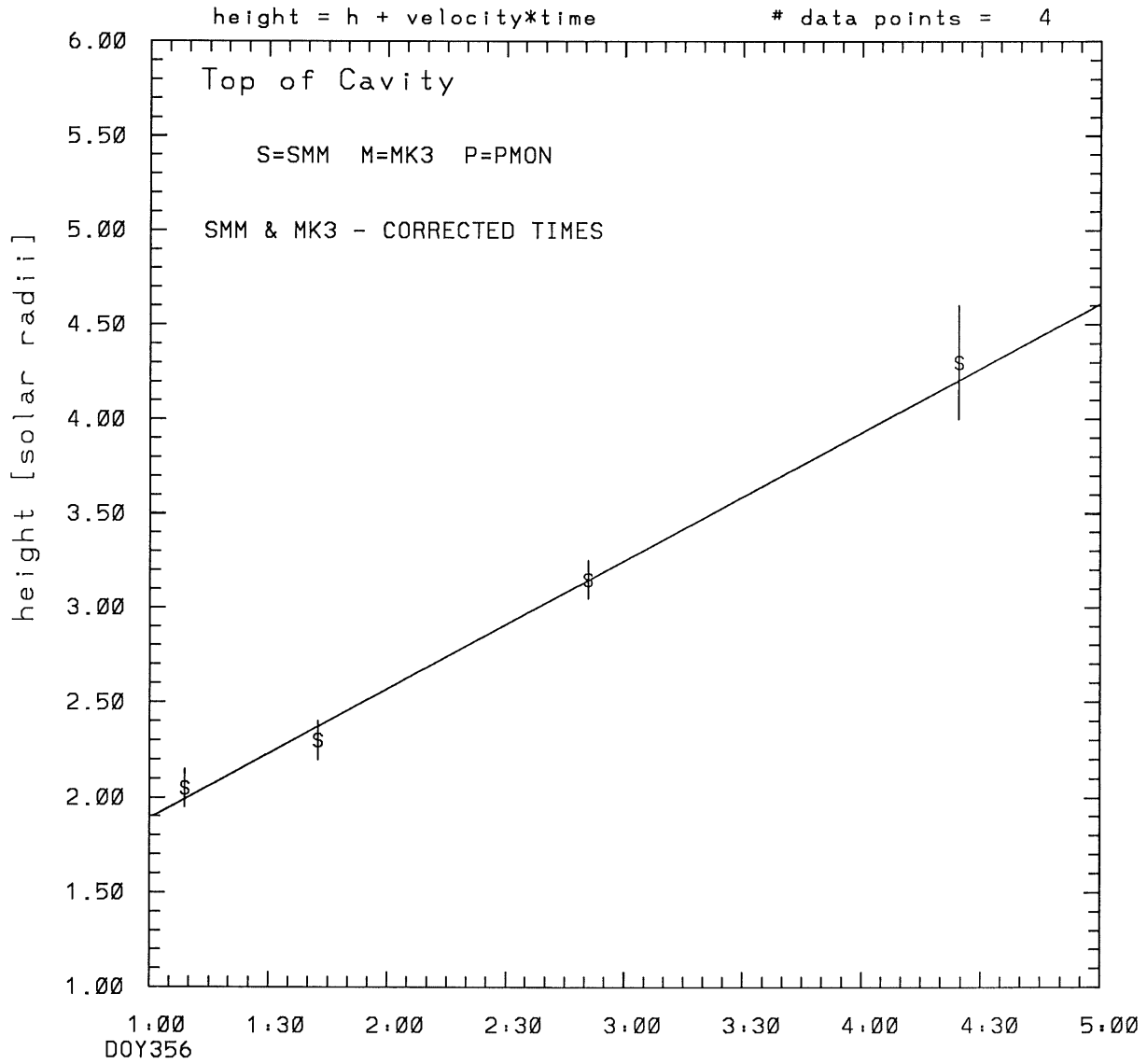
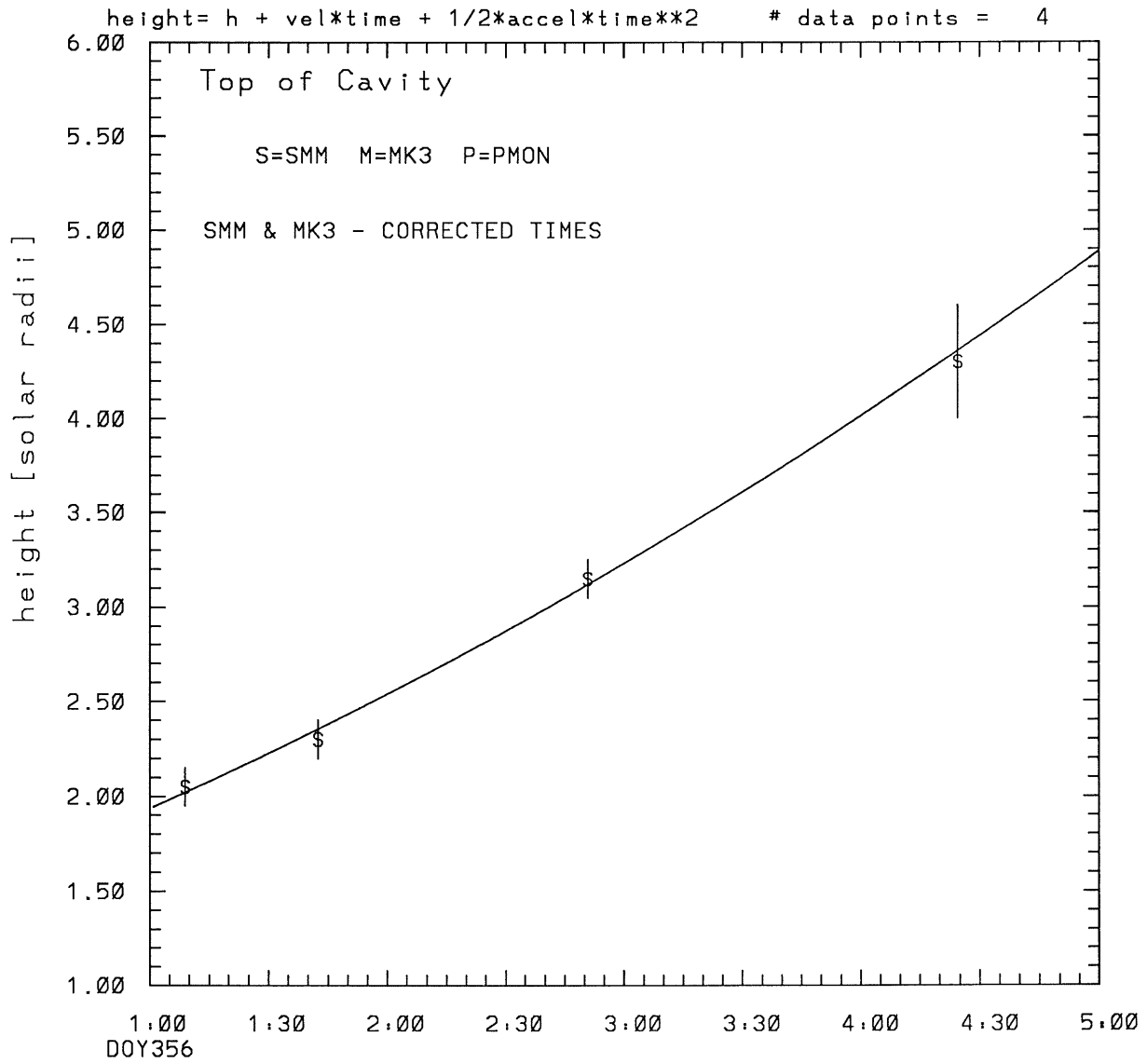


SMM C/P 1988 DOY356 235 +/- 0 degrees



tstart=DOY355 23:43 +/- 2.6 [min.]
radial velocity= 131. +/- 7. [km/sec]

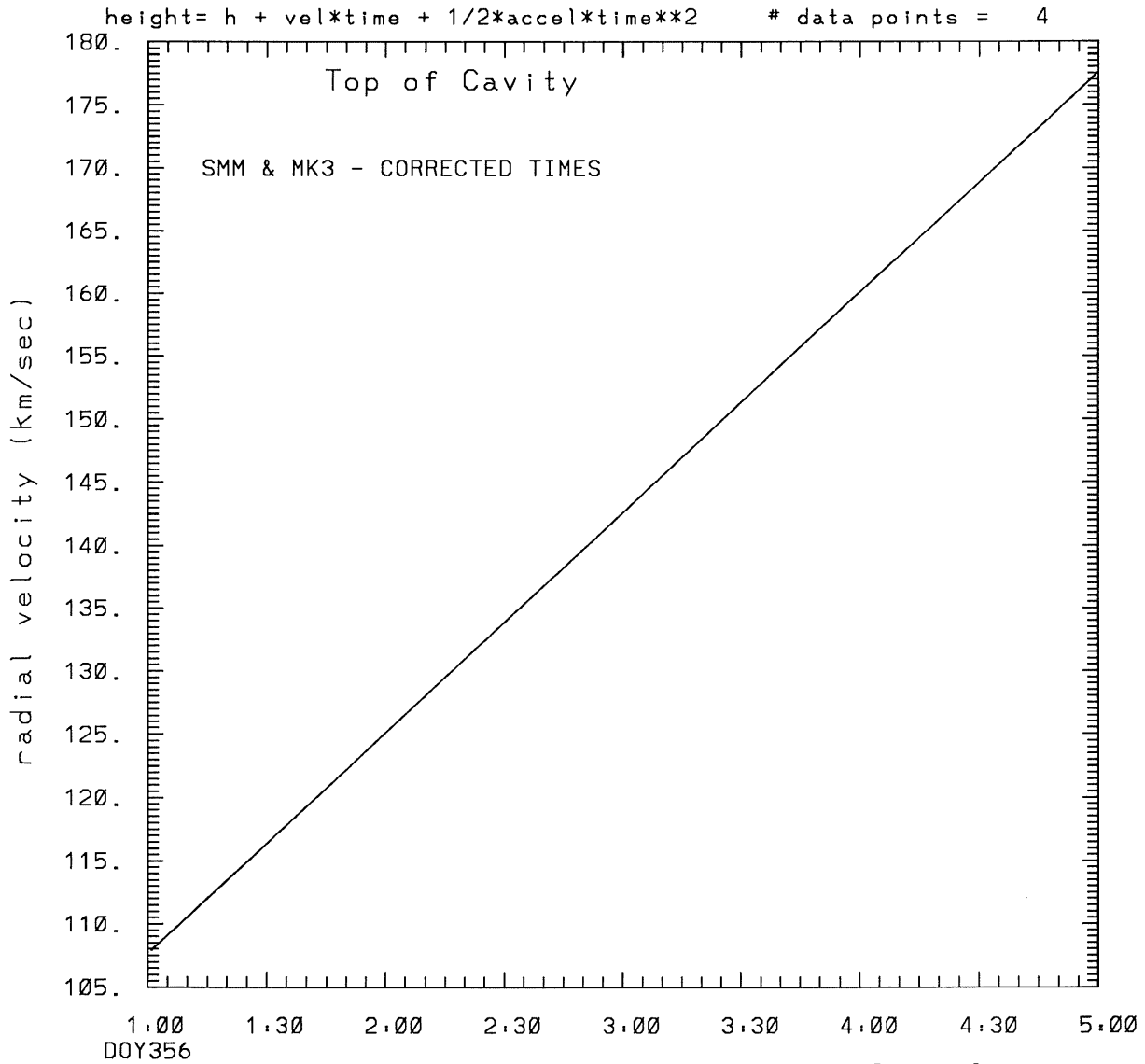
SMM C/P 1988 DOY356 235 +/- 0 degrees



tstart=DOY355 23: 1 +/- 46.8 [min.]

radial acceleration = 0.0049 ± 0.0037 [km/sec**2]

SMM C/P 1988 DOY356 235 +/- 0 degrees



DOY356

tstart=DOY355 23: 1 +/- 46.8 [min.]

radial acceleration= $0.486E-02$ km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1988	356	1: 8:56	2.05	+/- 0.10	235.0	+/- 0.5	SMM
1988	356	1:42:29	2.30	+/- 0.10	235.0	+/- 0.5	SMM
1988	356	2:50:52	3.15	+/- 0.10	235.0	+/- 1.0	SMM
1988	356	4:24:33	4.30	+/- 0.30	235.0	+/- 1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.787E+02 +/- 0.264E+01$ [minutes]
In more convenient units:
Event began at DOY 355 23:43 +/- 0.264E+01 [minutes]

Origin defined at DOY356 1: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 131. +/- 7. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.189E+01 +/- 0.495E-01$ [solar radii]
 $c(2) = 0.113E-01 +/- 0.636E-03$ [radii/min]
 $c(2) = 0.131E+03 +/- 0.738E+01$ [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 $c(1) = 0.73435E-01$ [radii] see Bevington pg. 114
error in $c(2) = 0.62054E-03$ [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) = 235. +/- 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 1: 8 = 0. km/sec

The TOTAL velocity at 1: 8 = 131. km/sec

The TANGENTIAL velocity at 1:42 = 0. km/sec

The TOTAL velocity at 1:42 = 131. km/sec

The TANGENTIAL velocity at 2:50 = 0. km/sec

The TOTAL velocity at 2:50 = 131. km/sec

The TANGENTIAL velocity at 4:24 = 0. km/sec

The TOTAL velocity at 4:24 = 131. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.02

Standard Deviation in start time measurement = 0.748E+02

Error in time = 0.11595E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.407E-02

Reduced Chi Squared = 0.243E-01

Chi Squared = 0.485E-01

The probability for exceeding chi square = 0.996E+00

The correlation coefficient = 0.998E+00

The probability that no LINEAR correlation exists between the variables = 0.1877E-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	356	1: 8:56	2.05 +/- 0.10	2.05 +/- 0.10	235.0 +/- 0.5	235.0 +/- 0.5	SMM
1988	356	1:42:29	2.30 +/- 0.10	2.30 +/- 0.10	235.0 +/- 0.5	235.0 +/- 0.5	SMM
1988	356	2:50:52	3.15 +/- 0.10	3.15 +/- 0.10	235.0 +/- 1.0	235.0 +/- 1.0	SMM
1988	356	4:24:33	4.30 +/- 0.30	4.30 +/- 0.30	235.0 +/- 1.0	235.0 +/- 1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.121E+03 +/- 0.468E+02$ [minutes]

In more convenient units:

Event began at DOY 355 23: 1 +/- 0.468E+02 [minutes]

Origin defined at DOY356 1: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $0.486E-02 +/- 0.365E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.194E+01 +/- 0.559E-01$ [solar radii]
 $c(2) = 0.928E-02 +/- 0.164E-02$ [radii/min]
 $c(2) = 0.108E+03 +/- 0.190E+02$ [km/sec]
 $c(3) = 0.126E-04 +/- 0.945E-05$ [radii/min**2]
 $c(3) = 0.486E-02 +/- 0.365E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.98371E-01$ [radii] Bevington pg 154 (8-30)
Exact error in $c(1) = 0.33582E-01$ [radii] Bevington pg 154 (8-28)
Approximate error in $c(2) = 0.25369E-02$ [radii/min] Bevington pg 154 (8-30)
Exact error in $c(2) = 0.90640E-03$ [radii/min] Bevington pg 154 (8-28)
Approximate error in $c(3) = 0.11337E-04$ [radii/min**] Bevington pg 154 (8-30)
Exact error in $c(3) = 0.47132E-05$ [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) = 235. +/- 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 1: 8 = 0. km/sec

The TOTAL velocity at 1: 8 = 110. km/sec

The TANGENTIAL velocity at 1:42 = 0. km/sec

The TOTAL velocity at 1:42 = 120. km/sec

The TANGENTIAL velocity at 2:50 = 0. km/sec

The TOTAL velocity at 2:50 = 140. km/sec

The TANGENTIAL velocity at 4:24 = 0. km/sec

The TOTAL velocity at 4:24 = 167. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.02
Standard Deviation in start time measurement = 0.748E+02
Value of reduced Chi Squared returned from nllst2 = 0.325E-02
Reduced Chi Squared = 0.238E-01
Chi Squared = 0.238E-01
The probability for exceeding chi square = 0.955E+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 = 0.7943E+00

The correlation between the data and the time**2 term = 0.6776E+00

The correlation between the data and the complete equation of motion = 0.1007E+01

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