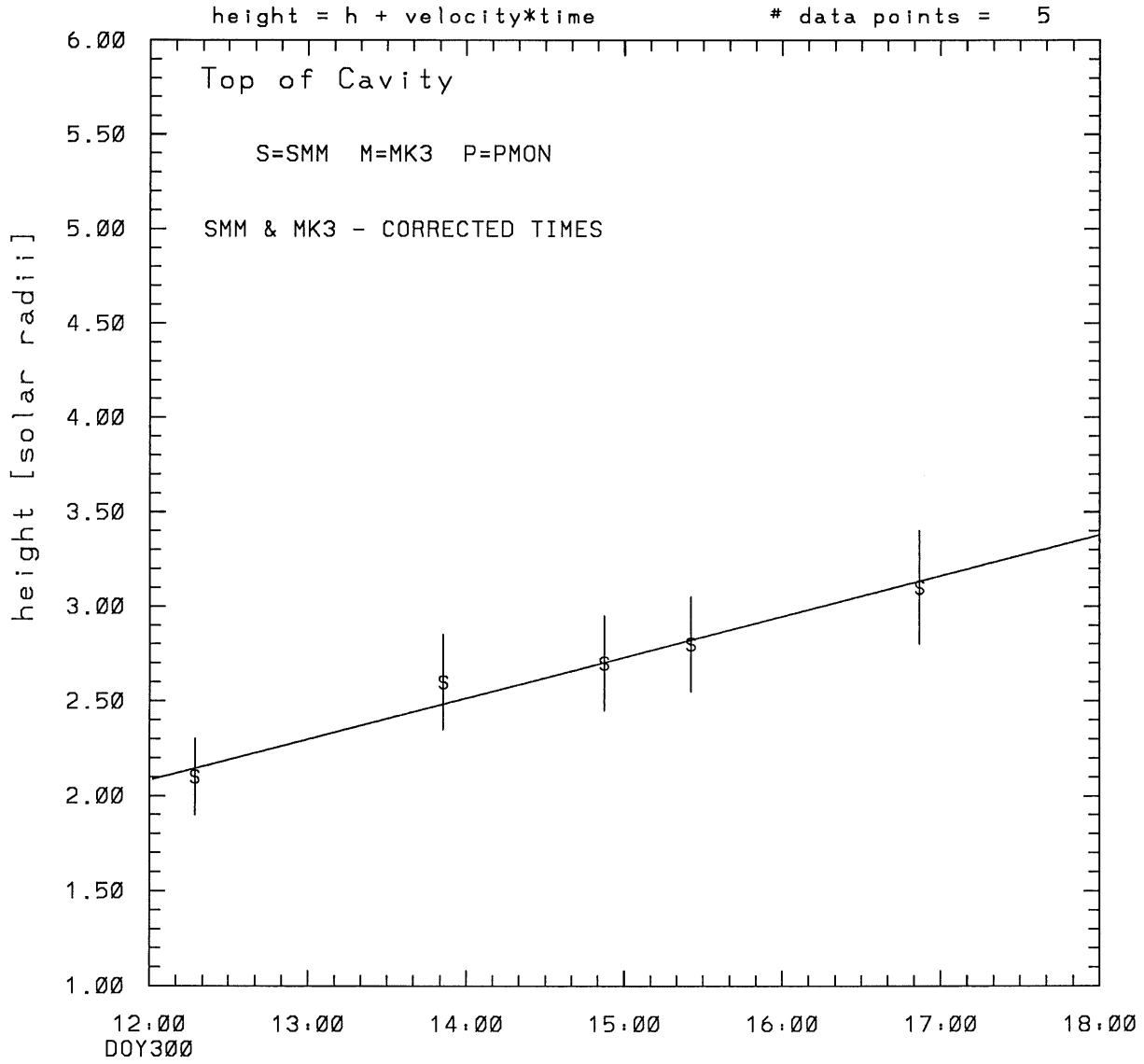
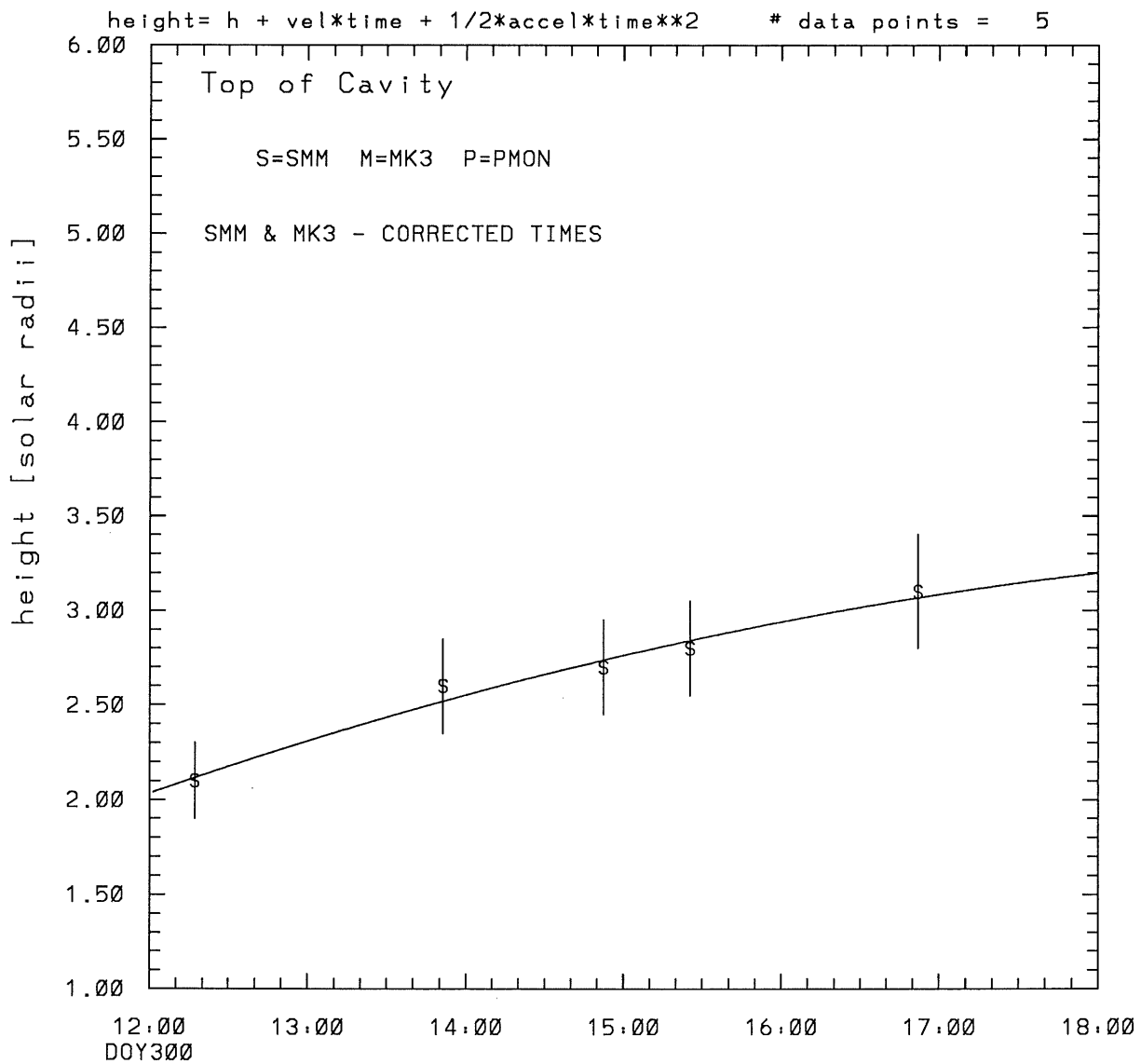


SMM C/P 1987 DOY300 100 +/- 0 degrees



tstart=DOY300 7: 1 +/- 9.6 [min.]
radial velocity= 42. +/- 4. [km/sec]

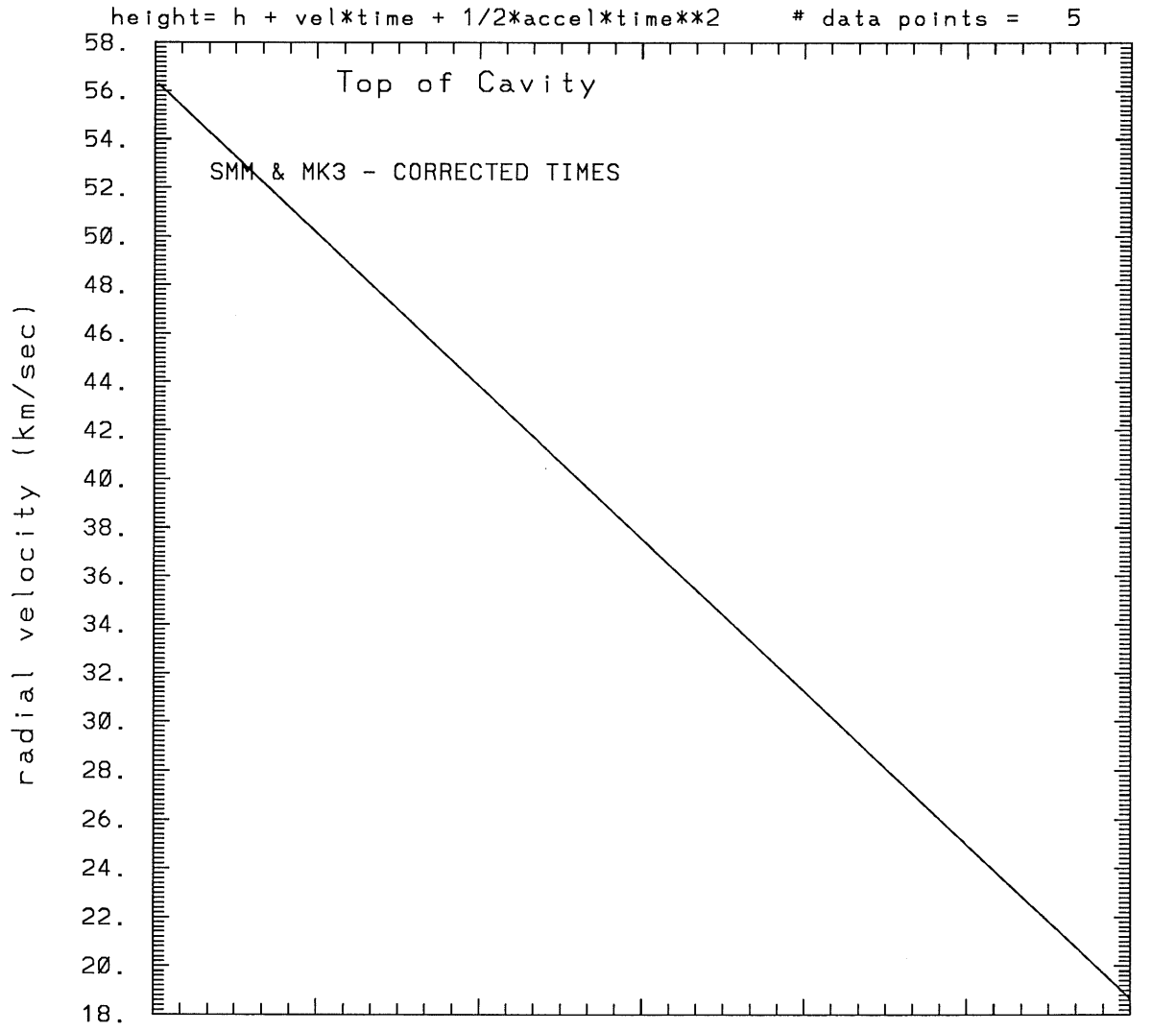
SMM C/P 1987 DOY300 100 +/- 0 degrees



tstart=DOY300 9: 0 +/- 55.4 [min.]

radial acceleration = $-0.0017 +/- 0.0012$ [km/sec**2]

SMM C/P 1987 DOY300 100 +/- 0 degrees



DOY300

tstart=DOY300 9: 0 +/- 55.4 [min.]

radial acceleration=-.175E-02 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	angle	error in	datatype
1987	300	12:17: 6	2.10	+/- 0.20		100.0	+/- 0.5		SMM
1987	300	13:51:19	2.60	+/- 0.25		100.0	+/- 0.5		SMM
1987	300	14:52:29	2.70	+/- 0.25		100.0	+/- 0.5		SMM
1987	300	15:25:29	2.80	+/- 0.25		100.0	+/- 0.5		SMM
1987	300	16:52: 0	3.10	+/- 0.30		100.0	+/- 1.0		SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.301E+03 +/- 0.956E+01$ [minutes]

In more convenient units:

Event began at DOY 300 7: 1 +/- 0.956E+01 [minutes]

Origin defined at DOY300 12: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 42. +/- 4. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.208E+01 +/- 0.519E-01$ [solar radii]
 $c(2) = 0.360E-02 +/- 0.313E-03$ [radii/min]
 $c(2) = 0.418E+02 +/- 0.363E+01$ [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 $c(1) = 0.67796E-01$ [radii] see Bevington pg. 114

error in $c(2) = 0.36776E-03$ [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) = 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 12:17 = 0.000E+00 km/sec

The TOTAL velocity at 12:17 = 42. km/sec

The TANGENTIAL velocity at 13:51 = 0.000E+00 km/sec

The TOTAL velocity at 13:51 = 42. km/sec

The TANGENTIAL velocity at 14:52 = 0.000E+00 km/sec

The TOTAL velocity at 14:52 = 42. km/sec

The TANGENTIAL velocity at 15:25 = 0.000E+00 km/sec

The TOTAL velocity at 15:25 = 42. km/sec

The TANGENTIAL velocity at 16:52 = 0.000E+00 km/sec

The TOTAL velocity at 16:52 = 42. 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 = 0.921E+02

Error in time = 0.36454E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.427E-02

Reduced Chi Squared = 0.123E-01

Chi Squared = 0.368E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.984E+00

The probability that no LINEAR correlation exists between the variables = 0.2366E-02

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

This is a 2 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1987	300	12:17: 6	2.10	+/- 0.20	100.0	+/- 0.5	SMM
1987	300	13:51:19	2.60	+/- 0.25	100.0	+/- 0.5	SMM
1987	300	14:52:29	2.70	+/- 0.25	100.0	+/- 0.5	SMM
1987	300	15:25:29	2.80	+/- 0.25	100.0	+/- 0.5	SMM
1987	300	16:52: 0	3.10	+/- 0.30	100.0	+/- 1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.182E+03 +/- 0.554E+02$ [minutes]

In more convenient units:

Event began at DOY 300 9:00 +/- 0.554E+02 [minutes]

Event began at DOY 300 9: 0 +/- 0.554E+02 [minutes]

Origin defined at DOY300 12: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.175E-02 +/- 0.125E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.203E+01 +/- 0.582E-01$ [solar radii]
 $c(2) = 0.486E-02 +/- 0.944E-03$ [radii/min]
 $c(2) = 0.564E+02 +/- 0.109E+02$ [km/sec]
 $c(3) = -0.452E-05 +/- 0.322E-05$ [radii/min**2]
 $c(3) = -0.175E-02 +/- 0.125E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.88015E-01$ [radii] Bevington pg 154 (8-30)

Exact error in $c(1) = 0.13986E-01$ [radii] Bevington pg 154 (8-28)

Approximate error in $c(2) = 0.12464E-02$ [radii/min] Bevington pg 154 (8-30)

Exact error in $c(2) = 0.38153E-03$ [radii/min] Bevington pg 154 (8-28)

Approximate error in $c(3) = 0.39081E-05$ [radii/min**] Bevington pg 154 (8-30)

Exact error in $c(3) = 0.13292E-05$ [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 12:17 = $0.000E+00$ km/sec

The TOTAL velocity at 12:17 = 55. km/sec

The TANGENTIAL velocity at 13:51 = $0.000E+00$ km/sec

The TOTAL velocity at 13:51 = 45. km/sec

The TANGENTIAL velocity at 14:52 = $0.000E+00$ km/sec

The TOTAL velocity at 14:52 = 38. km/sec

The TANGENTIAL velocity at 15:25 = $0.000E+00$ km/sec

The TOTAL velocity at 15:25 = 35. km/sec

The TANGENTIAL velocity at 16:52 = $0.000E+00$ km/sec

The TOTAL velocity at 16:52 = 26. 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 = $0.921E+02$

Value of reduced Chi Squared returned from nllst2 = $0.344E-02$

Reduced Chi Squared = $0.149E-01$

Chi Squared = $0.298E-01$

The probability for exceeding chi square = $0.997E+00$

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 = $0.1028E+01$

The correlation between the data and the time**2 term = $0.8737E+00$

The correlation between the data and the complete equation of motion = $0.9807E+00$

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