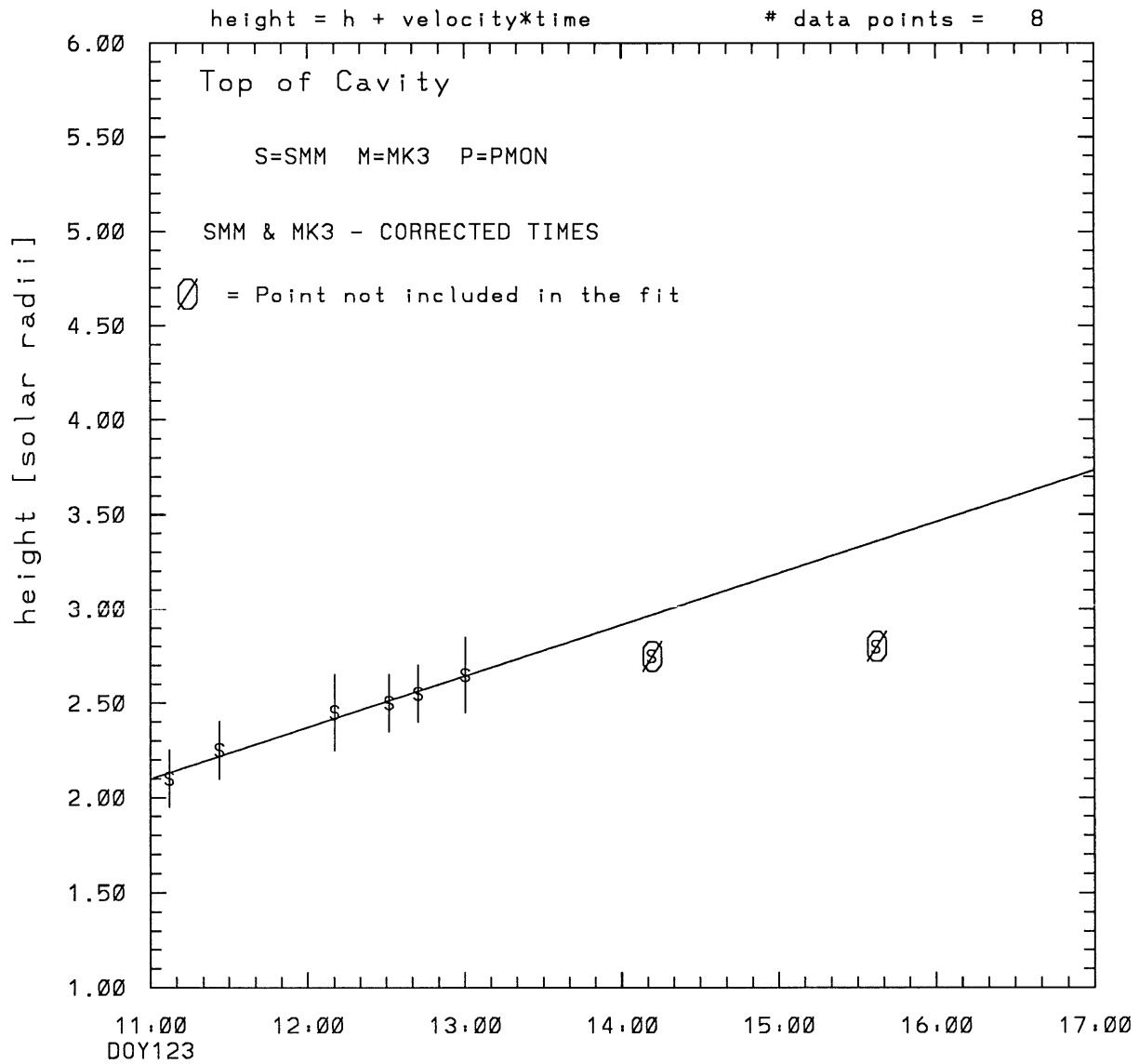
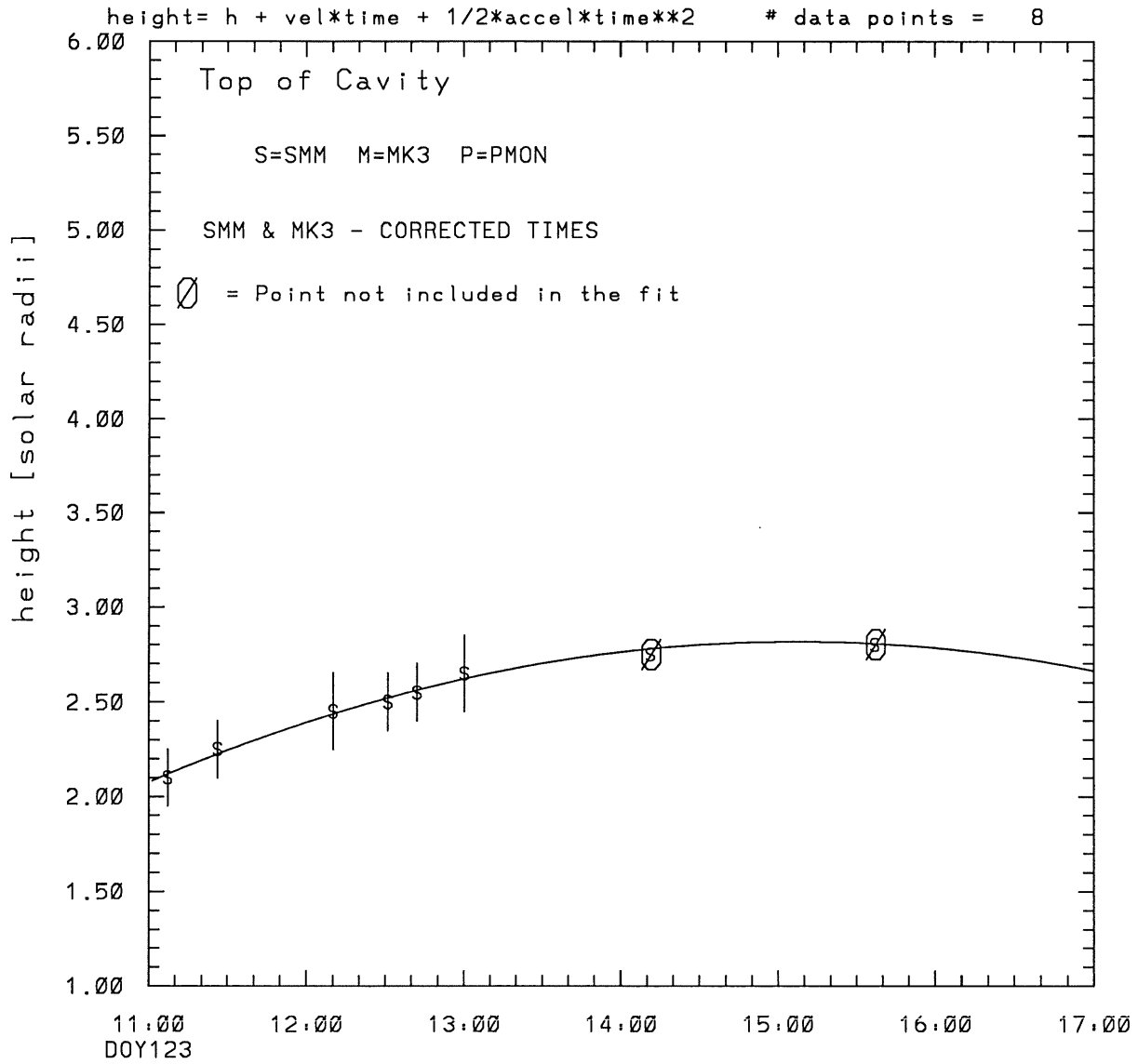


SMM C/P 1986 DOY123 282 +/- 0 degrees



tstart=DOY123 7: 0 +/- 4.4 [min.]
radial velocity= 53. +/- 3. [km/sec]

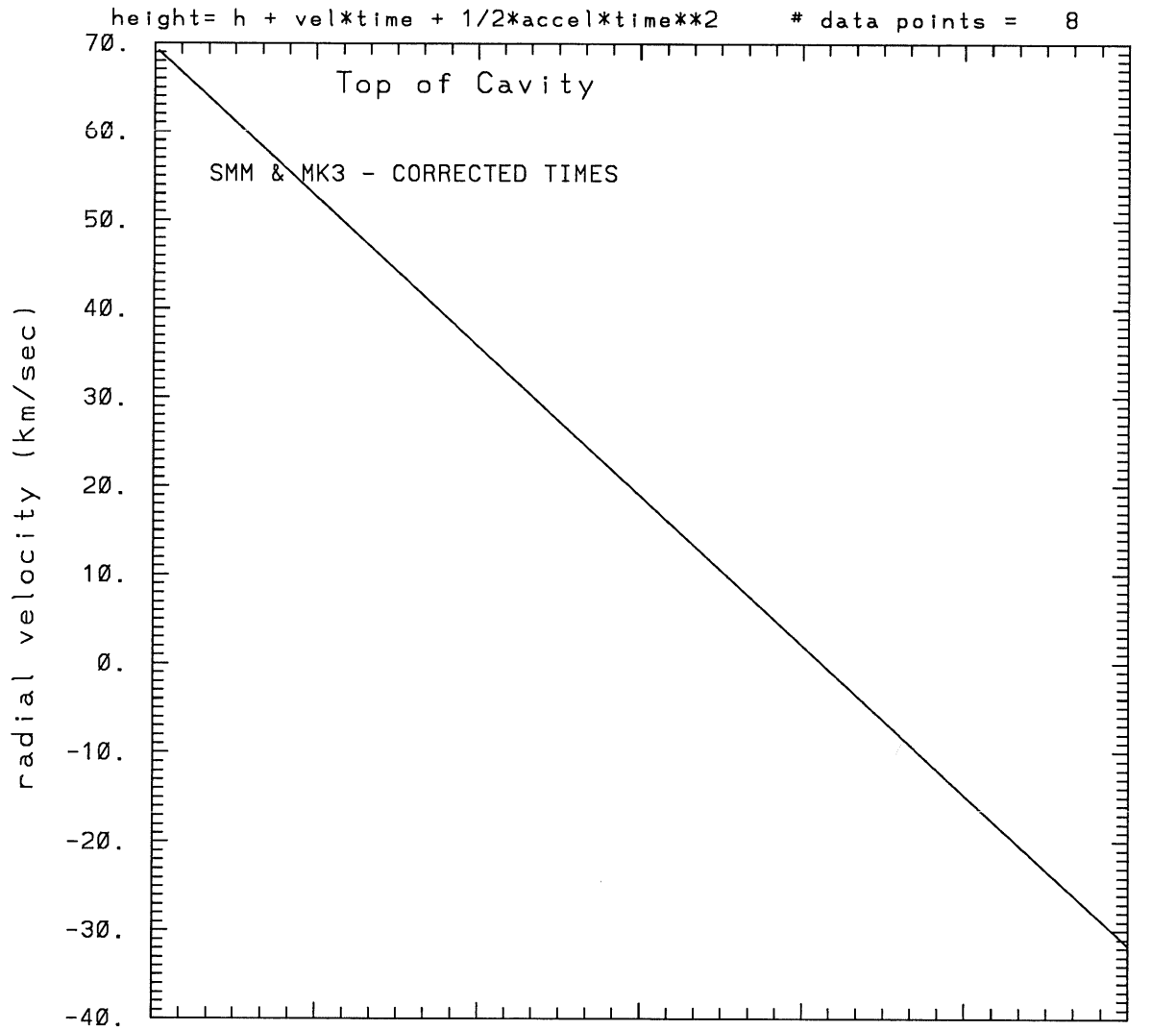
SMM C/P 1986 DOY123 282 +/- 0 degrees



tstart=DOY123 8.42 +/- 5.2 [min.]

radial acceleration = -0.0047 +/- 0.0031 [km/sec**2]

SMM C/P 1986 DOY123 282 +/- 0 degrees



11:00
DOY123

12:00

13:00

14:00

15:00

16:00

17:00

tstart=DOY123 8:42 +/- 5.2 [min.]

radial acceleration = $-.469E-02$ km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1986	123	11: 7:11	2.10	+/- 0.15	282.0	+/- 0.5	SMM
1986	123	11:26:11	2.25	+/- 0.15	282.0	+/- 0.5	SMM
1986	123	12:10:11	2.45	+/- 0.20	282.0	+/- 0.5	SMM
1986	123	12:31: 2	2.50	+/- 0.15	282.0	+/- 0.5	SMM
1986	123	12:42:11	2.55	+/- 0.15	282.0	+/- 0.5	SMM
1986	123	13: 0:11	2.65	+/- 0.20	282.0	+/- 0.5	SMM
1986	123	14:11:24	2.75	-----	282.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.
1986	123	15:37: 1	2.80	-----	282.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.242E+03 +/- 0.444E+01$ [minutes]

In more convenient units:

Event began at DOY 123 7:00 +/- 0.444E+01 [minutes]

Event began at DOY 123 7: 0 +/- 0.444E+01 [minutes]

Origin defined at DOY123 11: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 53. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.210E+01 +/- 0.170E-01$ [solar radii]
 $c(2) = 0.454E-02 +/- 0.221E-03$ [radii/min]
 $c(2) = 0.527E+02 +/- 0.256E+01$ [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 $c(1) = 0.14533E+00$ [radii] see Bevington pg. 114

error in c(2)= 0.10536E-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) = 282. +/- 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: 7 = 0.000E+00 km/sec

The TOTAL velocity at 11: 7 = 53. km/sec

The TANGENTIAL velocity at 11:26 = 0.000E+00 km/sec

The TOTAL velocity at 11:26 = 53. km/sec

The TANGENTIAL velocity at 12:10 = 0.000E+00 km/sec

The TOTAL velocity at 12:10 = 53. km/sec

The TANGENTIAL velocity at 12:31 = 0.000E+00 km/sec

The TOTAL velocity at 12:31 = 53. km/sec

The TANGENTIAL velocity at 12:42 = 0.000E+00 km/sec

The TOTAL velocity at 12:42 = 53. km/sec

The TANGENTIAL velocity at 13: 0 = 0.000E+00 km/sec

The TOTAL velocity at 13: 0 = 53. km/sec

The TANGENTIAL velocity at 14:11 = 0.000E+00 km/sec

The TOTAL velocity at 14:11 = 53. km/sec

The TANGENTIAL velocity at 15:37 = 0.000E+00 km/sec

The TOTAL velocity at 15:37 = 53. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.24

Standard Deviation in start time measurement = 0.823E+02

Error in time = 0.13223E+03 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.658E-03

Reduced Chi Squared = 0.470E+00

Chi Squared = 0.282E+01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.918E+00

The probability that no LINEAR correlation exists between the variables = 0.1275E-02

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

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in	angle	angle	datatype
1986	123	11: 7:11	2.10	+/- 0.15	282.0	+/- 0.5	SMM	
1986	123	11:26:11	2.25	+/- 0.15	282.0	+/- 0.5	SMM	
1986	123	12:10:11	2.45	+/- 0.20	282.0	+/- 0.5	SMM	
1986	123	12:31: 2	2.50	+/- 0.15	282.0	+/- 0.5	SMM	
1986	123	12:42:11	2.55	+/- 0.15	282.0	+/- 0.5	SMM	
1986	123	13: 0:11	2.65	+/- 0.20	282.0	+/- 0.5	SMM	
1986	123	14:11:24	2.75	----	282.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1986	123	15:37: 1	2.80	----	282.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.140E+03 +/- 0.519E+01$ [minutes]
In more convenient units:
Event began at DOY 123 8:42 +/- 0.519E+01 [minutes]

Origin defined at DOY123 11: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.469E-02 +/- 0.309E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.208E+01 +/- 0.216E-01$ [solar radii]
 $c(2) = 0.600E-02 +/- 0.979E-03$ [radii/min]
 $c(2) = 0.695E+02 +/- 0.114E+02$ [km/sec]
 $c(3) = -0.121E-04 +/- 0.800E-05$ [radii/min**2]
 $c(3) = -0.469E-02 +/- 0.309E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.22418E-01$ [radii] Bevington pg 154 (8-30)
Exact error in $c(1) = 0.75266E-02$ [radii] Bevington pg 154 (8-28)
Approximate error in $c(2) = 0.38776E-03$ [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.12470E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.13107E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.36984E-06 [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) = 282. +/- 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: 7 = 0.000E+00 km/sec

The TOTAL velocity at 11: 7 = 68. km/sec

The TANGENTIAL velocity at 11:26 = 0.000E+00 km/sec

The TOTAL velocity at 11:26 = 62. km/sec

The TANGENTIAL velocity at 12:10 = 0.000E+00 km/sec

The TOTAL velocity at 12:10 = 50. km/sec

The TANGENTIAL velocity at 12:31 = 0.000E+00 km/sec

The TOTAL velocity at 12:31 = 44. km/sec

The TANGENTIAL velocity at 12:42 = 0.000E+00 km/sec

The TOTAL velocity at 12:42 = 41. km/sec

The TANGENTIAL velocity at 13: 0 = 0.000E+00 km/sec

The TOTAL velocity at 13: 0 = 36. km/sec

The TANGENTIAL velocity at 14:11 = 0.000E+00 km/sec

The TOTAL velocity at 14:11 = 16. km/sec

The TANGENTIAL velocity at 15:37 = 0.000E+00 km/sec

The TOTAL velocity at 15:37 = -8. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.24

Standard Deviation in start time measurement = 0.823E+02

Value of reduced Chi Squared returned from nllst2 = 0.555E-03

Reduced Chi Squared = 0.317E-02

Chi Squared = 0.159E-01

The probability for exceeding chi square = 0.100E+01

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 = 0.7084E+00

The correlation between the data and the time**2 term = 0.4451E+00

The correlation between the data and the complete equation of motion = 0.9961E+00

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