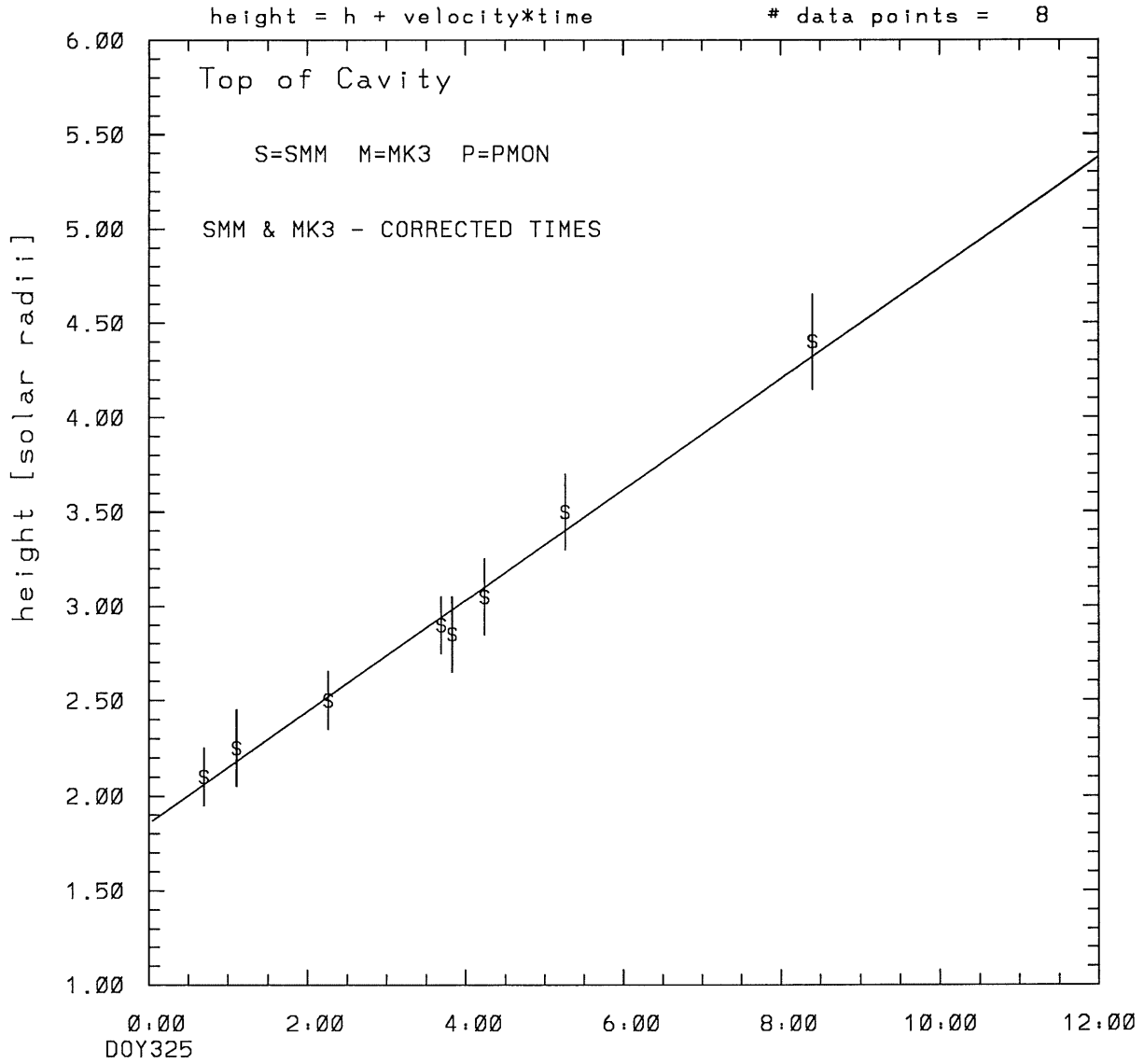
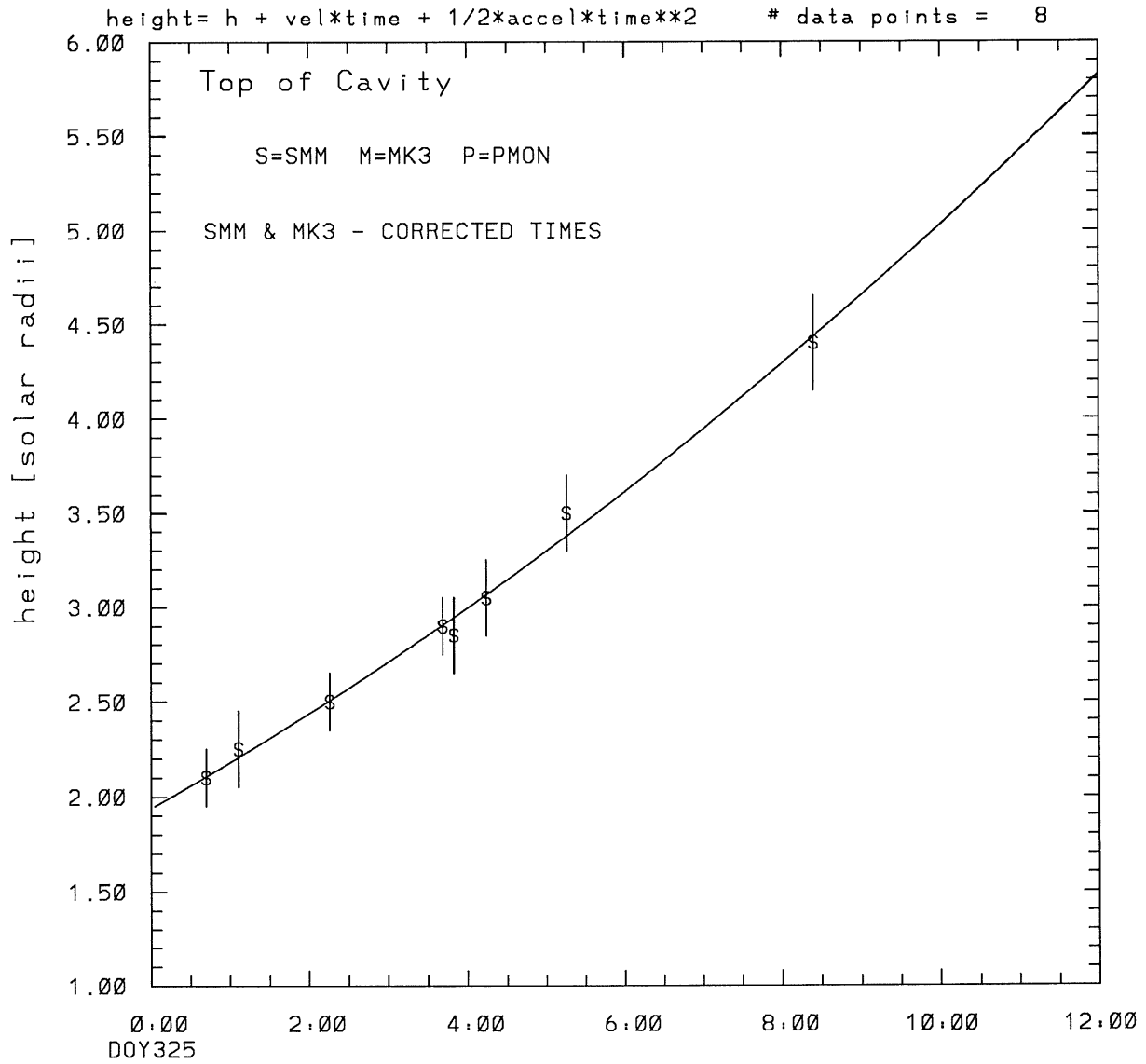


SMM C/P 1987 DOY325 250 +/- 0 degrees



tstart=DOY324 21: 5 +/- 2.6 [min.]
radial velocity= 57. +/- 2. [km/sec]

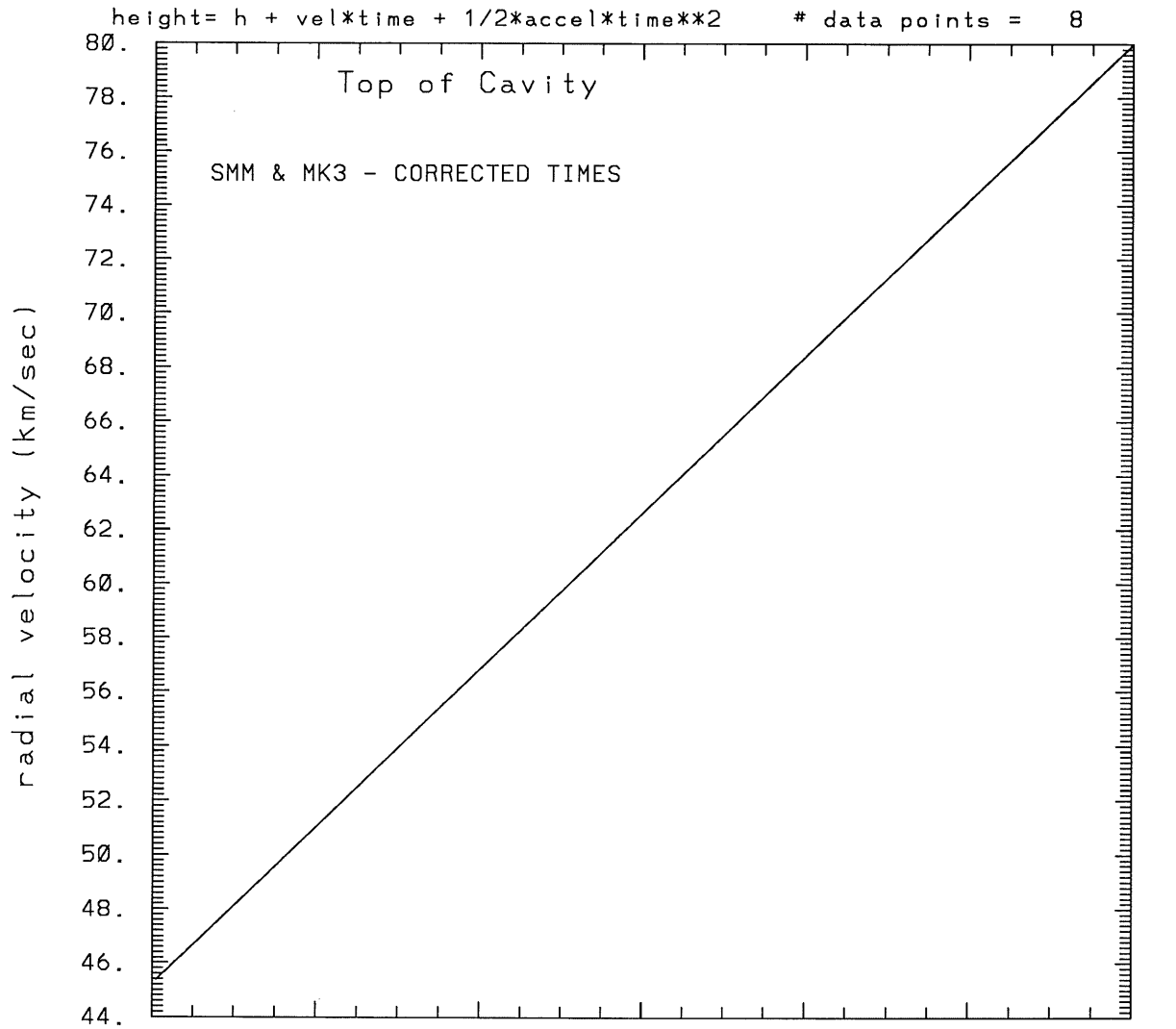
SMM C/P 1987 DOY325 250 +/- 0 degrees



tstart=DOY324 19:18 +/- 16.6 [min.]

radial acceleration = 0.0008 +/- 0.0004 [km/sec**2]

SMM C/P 1987 DOY325 250 +/- 0 degrees



0:00
DOY325

2:00 4:00 6:00 8:00 10:00 12:00
tstart=DOY324 19:18 +/- 16.6 [min.]

radial acceleration=0.804E-03 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in	angle	angle	error in	datatype
1987	325	0:41:35	2.10	+/-	0.15	250.0	+/-	0.5	SMM
1987	325	1: 6:19	2.25	+/-	0.20	250.0	+/-	0.5	SMM
1987	325	2:15:44	2.50	+/-	0.15	250.0	+/-	0.5	SMM
1987	325	3:41:38	2.90	+/-	0.15	250.0	+/-	0.5	SMM
1987	325	3:49:55	2.85	+/-	0.20	250.0	+/-	0.5	SMM
1987	325	4:14:38	3.05	+/-	0.20	250.0	+/-	1.0	SMM
1987	325	5:15:47	3.50	+/-	0.20	250.0	+/-	1.0	SMM
1987	325	8:24: 8	4.40	+/-	0.25	250.0	+/-	1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.175E+03 +/- 0.257E+01 [minutes]

In more convenient units:

Event began at DOY 324 21: 5 +/- 0.257E+01 [minutes]

Origin defined at DOY325 0: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 57. +/- 2. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.186E+01 +/- 0.472E-01 [solar radii]

c(2) = 0.489E-02 +/- 0.209E-03 [radii/min]

c(2) = 0.567E+02 +/- 0.243E+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)= 0.57124E-01 [radii] see Bevington pg. 114

error in c(2)= 0.21881E-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) = 250. +/- 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 0:41 = 0.000E+00 km/sec

The TOTAL velocity at 0:41 = 57. km/sec

The TANGENTIAL velocity at 1: 6 = 0.000E+00 km/sec

The TOTAL velocity at 1: 6 = 57. km/sec

The TANGENTIAL velocity at 2:15 = 0.000E+00 km/sec

The TOTAL velocity at 2:15 = 57. km/sec

The TANGENTIAL velocity at 3:41 = 0.000E+00 km/sec

The TOTAL velocity at 3:41 = 57. km/sec

The TANGENTIAL velocity at 3:49 = 0.000E+00 km/sec

The TOTAL velocity at 3:49 = 57. km/sec

The TANGENTIAL velocity at 4:14 = 0.000E+00 km/sec

The TOTAL velocity at 4:14 = 57. km/sec

The TANGENTIAL velocity at 5:15 = 0.000E+00 km/sec

The TOTAL velocity at 5:15 = 57. km/sec

The TANGENTIAL velocity at 8:24 = 0.000E+00 km/sec

The TOTAL velocity at 8:24 = 57. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.74

Standard Deviation in start time measurement = 0.139E+03

Error in time = 0.42965E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.514E-02

Reduced Chi Squared = 0.397E-01

Chi Squared = 0.238E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = $0.994E+00$

The probability that no LINEAR correlation exists between the variables = $0.3782E-06$

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

This is a 2 order run

INPUT:

year	day	time	radii	error in radius	error in angle	datatype
1987	325	0:41:35	2.10	+/- 0.15	250.0 +/- 0.5	SMM
1987	325	1: 6:19	2.25	+/- 0.20	250.0 +/- 0.5	SMM
1987	325	2:15:44	2.50	+/- 0.15	250.0 +/- 0.5	SMM
1987	325	3:41:38	2.90	+/- 0.15	250.0 +/- 0.5	SMM
1987	325	3:49:55	2.85	+/- 0.20	250.0 +/- 0.5	SMM
1987	325	4:14:38	3.05	+/- 0.20	250.0 +/- 1.0	SMM
1987	325	5:15:47	3.50	+/- 0.20	250.0 +/- 1.0	SMM
1987	325	8:24: 8	4.40	+/- 0.25	250.0 +/- 1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.284E+03 +/- 0.166E+02$ [minutes]
In more convenient units:
Event began at DOY 324 19:18 +/- 0.166E+02 [minutes]

Origin defined at DOY325 0: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $0.804E-03 +/- 0.406E-03$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.194E+01 +/- 0.577E-01$ [solar radii]
 $c(2) = 0.390E-02 +/- 0.531E-03$ [radii/min]
 $c(2) = 0.452E+02 +/- 0.616E+01$ [km/sec]
 $c(3) = 0.208E-05 +/- 0.105E-05$ [radii/min**2]
 $c(3) = 0.804E-03 +/- 0.406E-03$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.75439E-01$ [radii] Bevington pg 154 (8-30)
Exact error in $c(1) = 0.33095E-02$ [radii] Bevington pg 154 (8-28)
Approximate error in $c(2) = 0.64544E-03$ [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.41870E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.11655E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.11964E-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) = 250. +/- 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 0:41 = 0.000E+00 km/sec
The TOTAL velocity at 0:41 = 47. km/sec

The TANGENTIAL velocity at 1: 6 = 0.000E+00 km/sec
The TOTAL velocity at 1: 6 = 48. km/sec

The TANGENTIAL velocity at 2:15 = 0.000E+00 km/sec
The TOTAL velocity at 2:15 = 52. km/sec

The TANGENTIAL velocity at 3:41 = 0.000E+00 km/sec
The TOTAL velocity at 3:41 = 56. km/sec

The TANGENTIAL velocity at 3:49 = 0.000E+00 km/sec
The TOTAL velocity at 3:49 = 56. km/sec

The TANGENTIAL velocity at 4:14 = 0.000E+00 km/sec
The TOTAL velocity at 4:14 = 58. km/sec

The TANGENTIAL velocity at 5:15 = 0.000E+00 km/sec
The TOTAL velocity at 5:15 = 60. km/sec

The TANGENTIAL velocity at 8:24 = 0.000E+00 km/sec
The TOTAL velocity at 8:24 = 70. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.74

Standard Deviation in start time measurement = 0.139E+03

Value of reduced Chi Squared returned from nllst2 = 0.362E-02

Reduced Chi Squared = 0.330E-01

Chi Squared = 0.165E+00

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 = 0.8959E+00

The correlation between the data and the time**2 term = 0.7981E+00

The correlation between the data and the complete equation of motion = 0.9928E+00

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