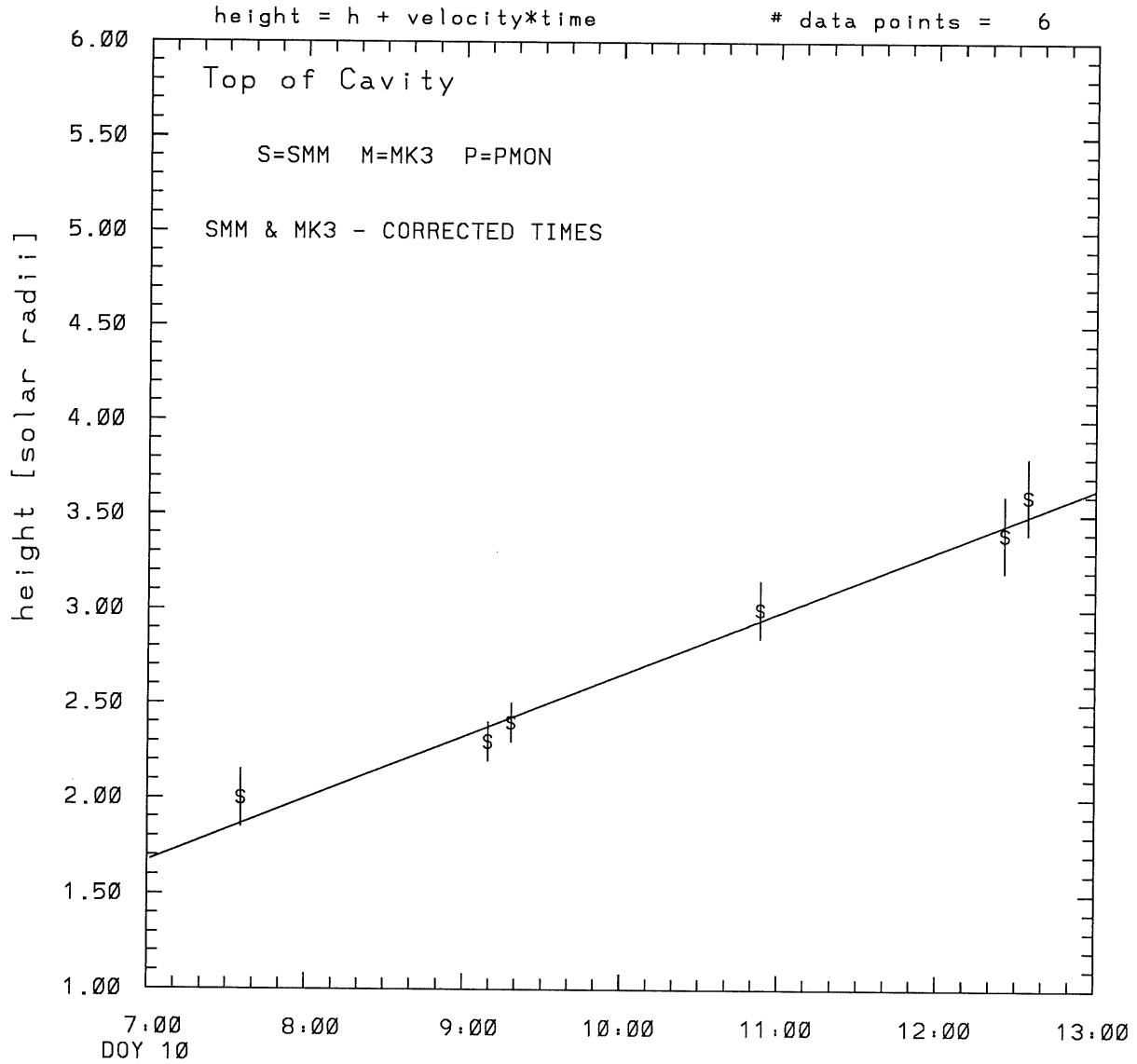
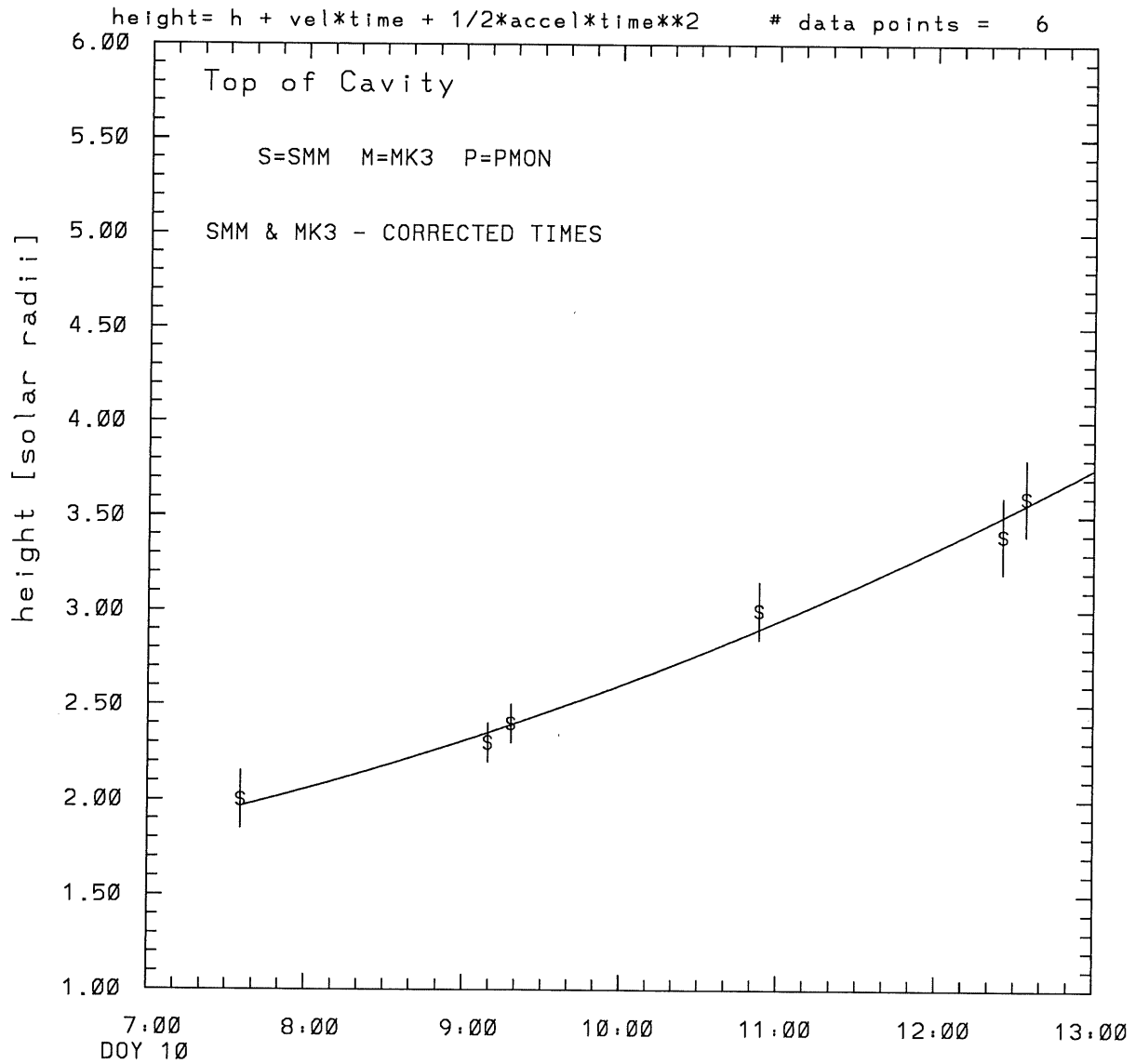


SMM C/P 1985 DOY 10 308 +/- 0 degrees



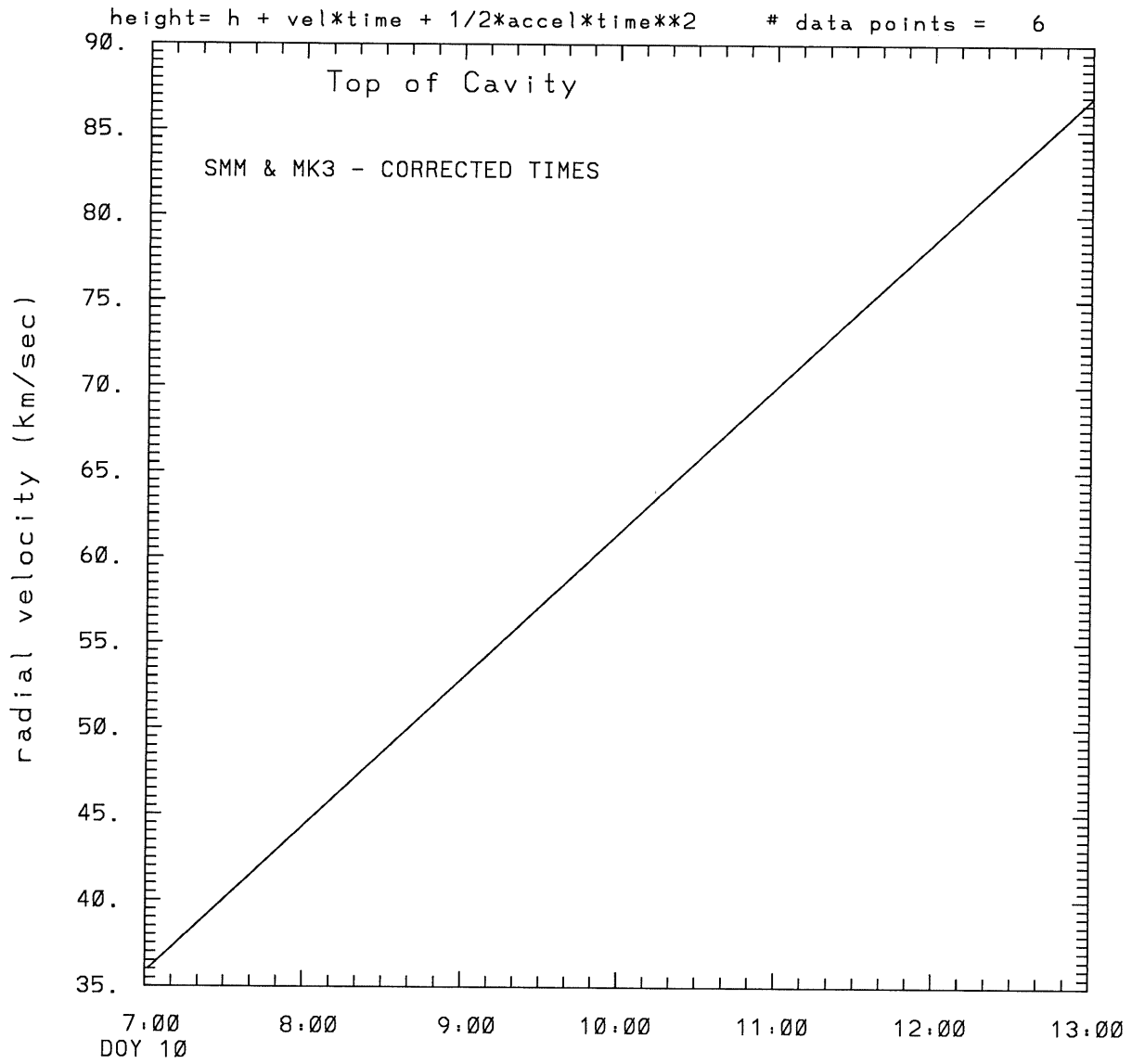
tstart=DOY 10 4:57 +/- 3.2 [min.]
radial velocity= 63. +/- 5. [km/sec]

SMM C/P 1985 DOY 10 308 +/- 0 degrees



tstart=DOY 10 2.48 from derivative=0
Event begins at 1.46 Solar Radii
radial acceleration = 0.0024 ± 0.0013 [km/sec**2]

SMM C/P 1985 DOY 10 308 +/- 0 degrees



tstart=DOY 10 2:48 from derivative=0
Event begins at 1.46 Solar Radii
radial acceleration=0.237E-02 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in	angle	error in	datatype
1985	10	7:35:28	2.00	+/- 0.15	308.0	+/- 0.5	SMM	
1985	10	9: 9:28	2.30	+/- 0.10	308.0	+/- 0.5	SMM	
1985	10	9:18:11	2.40	+/- 0.10	308.0	+/- 0.5	SMM	
1985	10	10:53:10	3.00	+/- 0.15	308.0	+/- 1.0	SMM	
1985	10	12:25:30	3.40	+/- 0.20	308.0	+/- 1.0	SMM	
1985	10	12:34:14	3.60	+/- 0.20	308.0	+/- 1.0	SMM	

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.123E+03 +/- 0.322E+01$ [minutes]

In more convenient units:

Event began at DOY 10 4:57 +/- 0.322E+01 [minutes]

Origin defined at DOY 10 7: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 63. +/- 5. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.167E+01 +/- 0.727E-01 [solar radii]
c(2) = 0.545E-02 +/- 0.395E-03 [radii/min]
c(2) = 0.632E+02 +/- 0.458E+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)= 0.87155E-01 [radii] see Bevington pg. 114

error in c(2)= 0.38396E-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) = 308. +/- 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 7:35 = 0.000E+00 km/sec

The TOTAL velocity at 7:35 = 63. km/sec

The TANGENTIAL velocity at 9: 9 = 0.000E+00 km/sec

The TOTAL velocity at 9: 9 = 63. km/sec

The TANGENTIAL velocity at 9:18 = 0.000E+00 km/sec

The TOTAL velocity at 9:18 = 63. km/sec

The TANGENTIAL velocity at 10:53 = 0.000E+00 km/sec

The TOTAL velocity at 10:53 = 63. km/sec

The TANGENTIAL velocity at 12:25 = 0.000E+00 km/sec

The TOTAL velocity at 12:25 = 63. km/sec

The TANGENTIAL velocity at 12:34 = 0.000E+00 km/sec

The TOTAL velocity at 12:34 = 63. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.65

Standard Deviation in start time measurement = 0.109E+03

Error in time = 0.37457E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.692E-02

Reduced Chi Squared = 0.310E-01

Chi Squared = 0.124E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.991E+00

The probability that no LINEAR correlation exists between the variables = 0.1215E-03

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
1985	10	7:35:28	2.00	+/- 0.15	308.0	+/- 0.5	SMM
1985	10	9: 9:28	2.30	+/- 0.10	308.0	+/- 0.5	SMM
1985	10	9:18:11	2.40	+/- 0.10	308.0	+/- 0.5	SMM
1985	10	10:53:10	3.00	+/- 0.15	308.0	+/- 1.0	SMM
1985	10	12:25:30	3.40	+/- 0.20	308.0	+/- 1.0	SMM
1985	10	12:34:14	3.60	+/- 0.20	308.0	+/- 1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

tstart=DOY 10 2:48 from derivative = 0
Event begins at 1.46 Solar Radii
Origin defined at DOY 10 7: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.237E-02 +/- 0.127E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.185E+01 +/- 0.112E+00 [solar radii]
c(2) = 0.309E-02 +/- 0.131E-02 [radii/min]
c(2) = 0.358E+02 +/- 0.152E+02 [km/sec]
c(3) = 0.612E-05 +/- 0.328E-05 [radii/min**2]
c(3) = 0.237E-02 +/- 0.127E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.13384E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.29952E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.16345E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.32207E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.40750E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.76553E-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) = 308. +/- 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 7:35 = 0.000E+00 km/sec

The TOTAL velocity at 7:35 = 41. km/sec

The TANGENTIAL velocity at 9: 9 = 0.000E+00 km/sec

The TOTAL velocity at 9: 9 = 54. km/sec

The TANGENTIAL velocity at 9:18 = 0.000E+00 km/sec

The TOTAL velocity at 9:18 = 55. km/sec

The TANGENTIAL velocity at 10:53 = 0.000E+00 km/sec

The TOTAL velocity at 10:53 = 69. km/sec

The TANGENTIAL velocity at 12:25 = 0.000E+00 km/sec

The TOTAL velocity at 12:25 = 82. km/sec

The TANGENTIAL velocity at 12:34 = 0.000E+00 km/sec

The TOTAL velocity at 12:34 = 83. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.65

Standard Deviation in start time measurement = 0.109E+03

Value of reduced Chi Squared returned from nllst2 = 0.462E-02

Reduced Chi Squared = 0.351E-01

Chi Squared = 0.105E+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 = 0.8508E+00

The correlation between the data and the time**2 term = 0.8727E+00

The correlation between the data and the complete equation of motion = 0.9856E+00

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