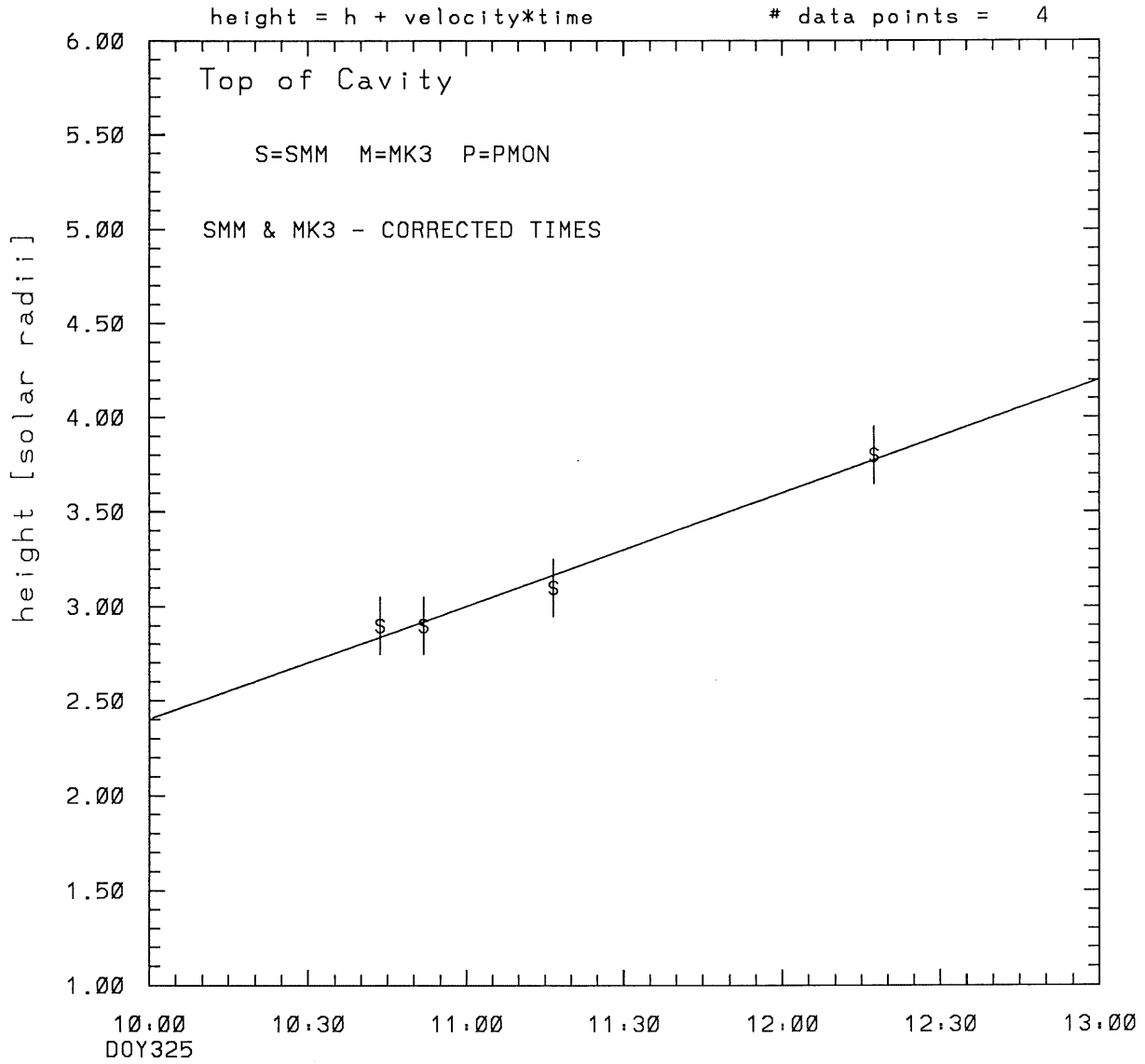
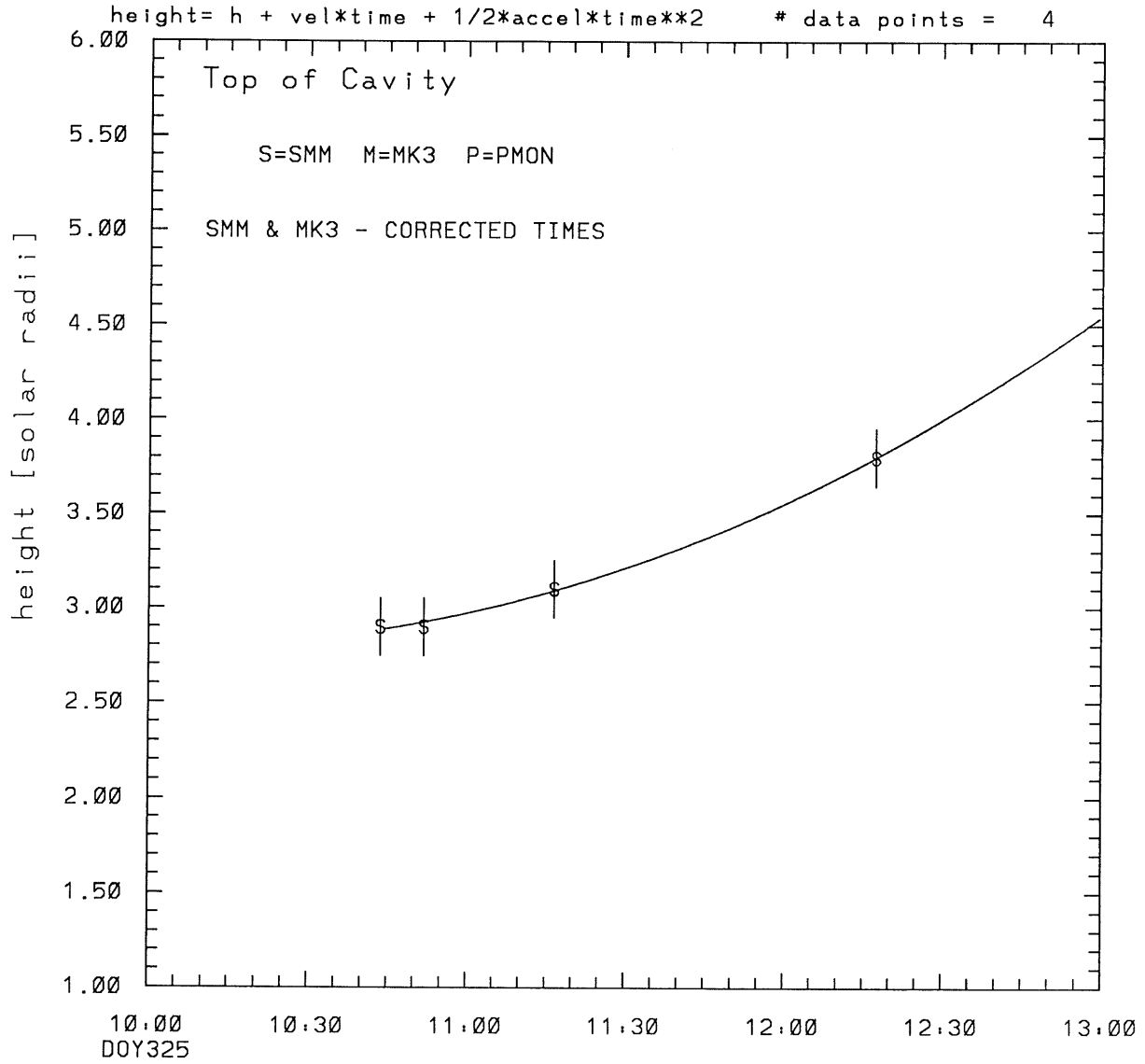


SMM C/P 1988 DOY325 60 +/- 0 degrees



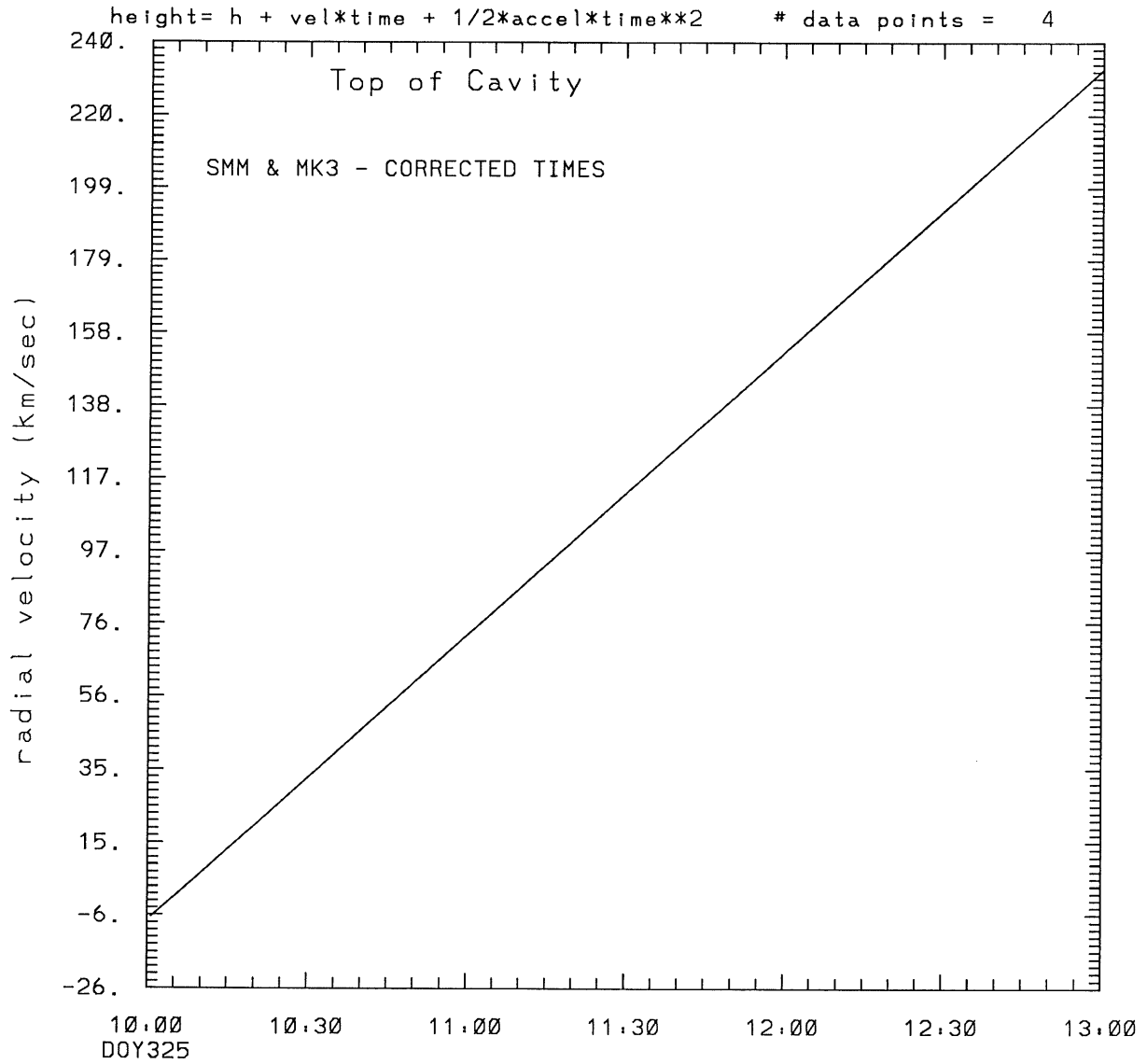
tstart=DOY325 7:40 +/- 3.9 [min.]
radial velocity= 116. +/- 9. [km/sec]

SMM C/P 1988 DOY325 60 +/- 0 degrees



tstart=DOY325 10: 5 from derivative=0
Event begins at 2.80 Solar Radii
radial acceleration = 0.0222 +/- 0.0051 [km/sec**2]

SMM C/P 1988 DOY325 60 +/- 0 degrees



tstart=DOY325 10: 5 from derivative=0
Event begins at 2.80 Solar Radii
radial acceleration=0.222E-01 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1988	325	10:43:38	2.90	+/- 0.15	60.0	+/- 0.5	SMM
1988	325	10:51:52	2.90	+/- 0.15	60.0	+/- 0.5	SMM
1988	325	11:16:40	3.10	+/- 0.15	60.0	+/- 1.0	SMM
1988	325	12:17:25	3.80	+/- 0.15	60.0	+/- 1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.140E+03 +/- 0.393E+01$ [minutes]

In more convenient units:

Event began at DOY 325 7:40 +/- 0.393E+01 [minutes]

Origin defined at DOY325 10: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 116. +/- 9. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.240E+01 +/- 0.657E-01 [solar radii]
c(2) = 0.999E-02 +/- 0.766E-03 [radii/min]
c(2) = 0.116E+03 +/- 0.889E+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)= 0.80421E-01 [radii] see Bevington pg. 114

error in c(2)= 0.93876E-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) = 60. +/- 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 10:43 = 0. km/sec

The TOTAL velocity at 10:43 = 116. km/sec

The TANGENTIAL velocity at 10:51 = 0. km/sec

The TOTAL velocity at 10:51 = 116. km/sec

The TANGENTIAL velocity at 11:16 = 0. km/sec

The TOTAL velocity at 11:16 = 116. km/sec

The TANGENTIAL velocity at 12:17 = 0. km/sec

The TOTAL velocity at 12:17 = 116. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.43

Standard Deviation in start time measurement = 0.367E+02

Error in time = 0.97644E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.317E-02

Reduced Chi Squared = 0.105E-01

Chi Squared = 0.210E-01

The probability for exceeding chi square = 0.997E+00

The correlation coefficient = 0.991E+00

The probability that no LINEAR correlation exists between the variables = 0.8720E-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
1988	325	10:43:38	2.90	+/- 0.15	60.0	+/- 0.5	SMM
1988	325	10:51:52	2.90	+/- 0.15	60.0	+/- 0.5	SMM
1988	325	11:16:40	3.10	+/- 0.15	60.0	+/- 1.0	SMM
1988	325	12:17:25	3.80	+/- 0.15	60.0	+/- 1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

tstart=DOY325 10: 5 from derivative = 0

Event begins at 2.80 Solar Radii

Origin defined at DOY325 10: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.222E-01 +/- 0.508E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.280E+01 +/- 0.947E-01 [solar radii]
c(2) = -0.605E-03 +/- 0.244E-02 [radii/min]
c(2) = -0.702E+01 +/- 0.283E+02 [km/sec]
c(3) = 0.574E-04 +/- 0.131E-04 [radii/min**2]
c(3) = 0.222E-01 +/- 0.508E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.13389E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.57257E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.34562E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.12991E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.18586E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.64840E-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) = 60. +/- 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 10:43 = 0. km/sec

The TOTAL velocity at 10:43 = 51. km/sec

The TANGENTIAL velocity at 10:51 = 0. km/sec

The TOTAL velocity at 10:51 = 62. km/sec

The TANGENTIAL velocity at 11:16 = 0. km/sec

The TOTAL velocity at 11:16 = 95. km/sec

The TANGENTIAL velocity at 12:17 = 0. km/sec

The TOTAL velocity at 12:17 = 176. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.43

Standard Deviation in start time measurement = 0.367E+02

Value of reduced Chi Squared returned from nllst2 = 0.452E-03

Reduced Chi Squared = 0.161E-02

Chi Squared = 0.161E-02

The probability for exceeding chi square = 0.983E+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 = 0.9913E+00

The correlation between the data and the time**2 term = 0.9991E+00

The correlation between the data and the complete equation of motion = 0.9984E+00

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