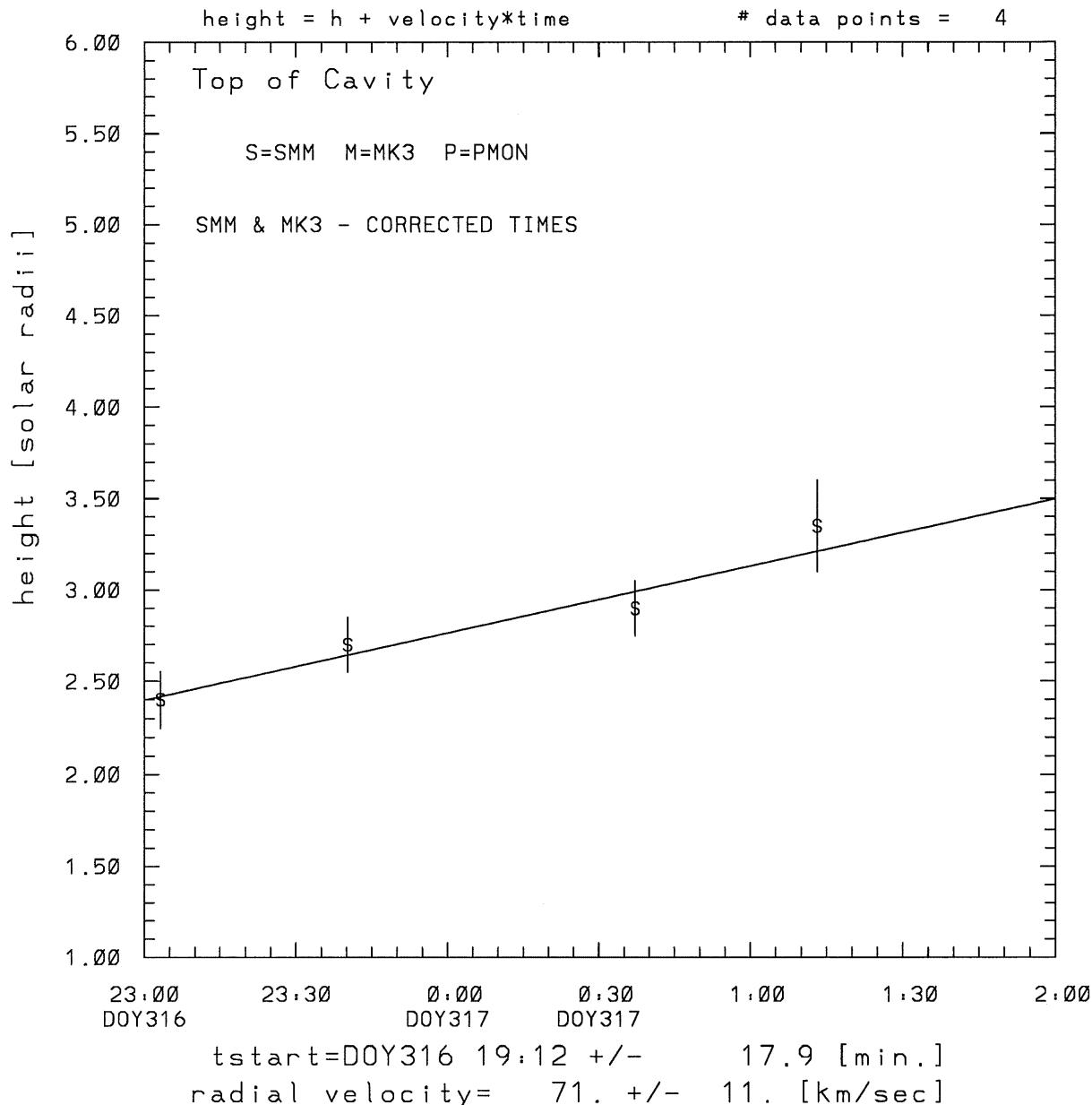
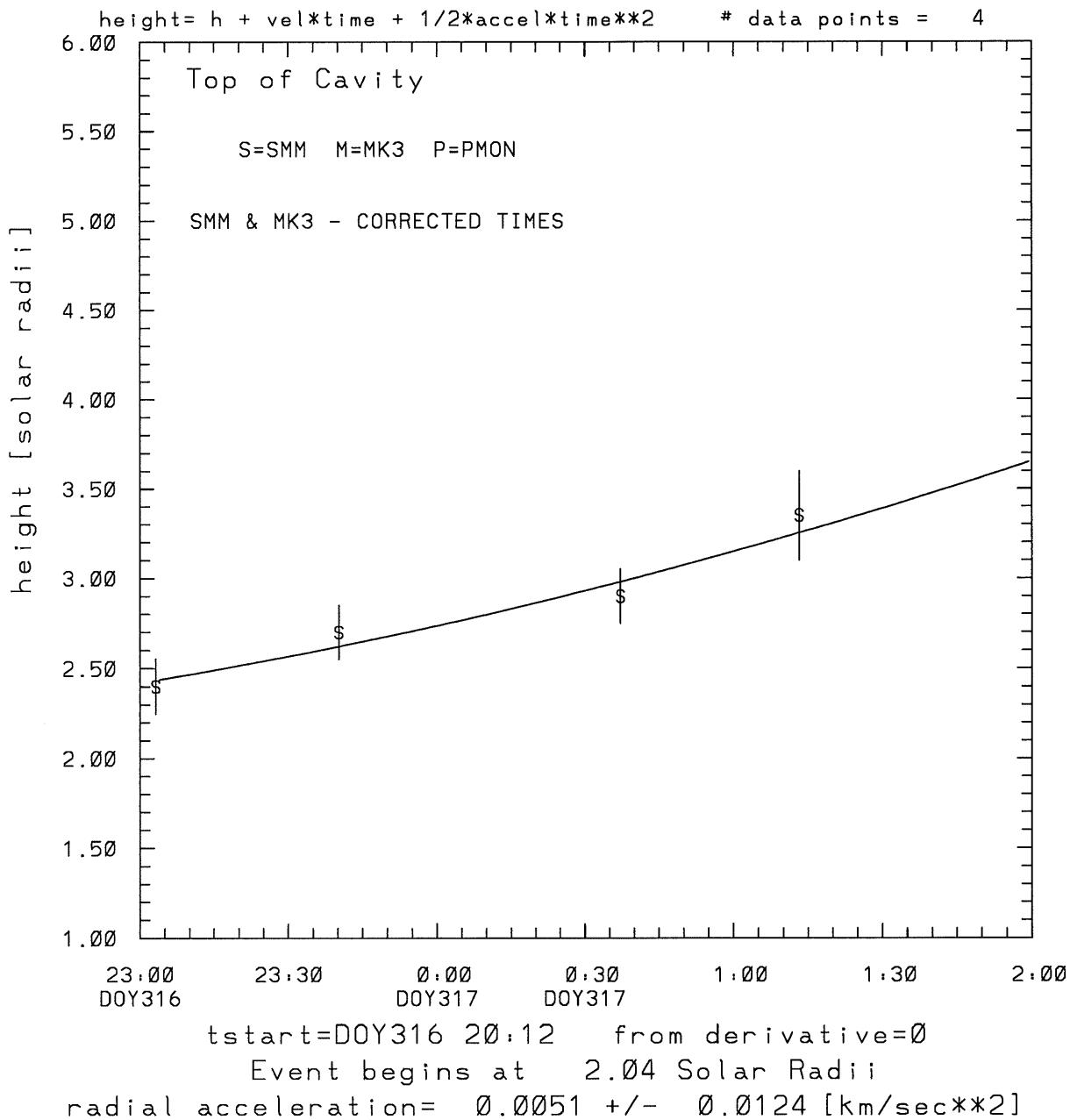




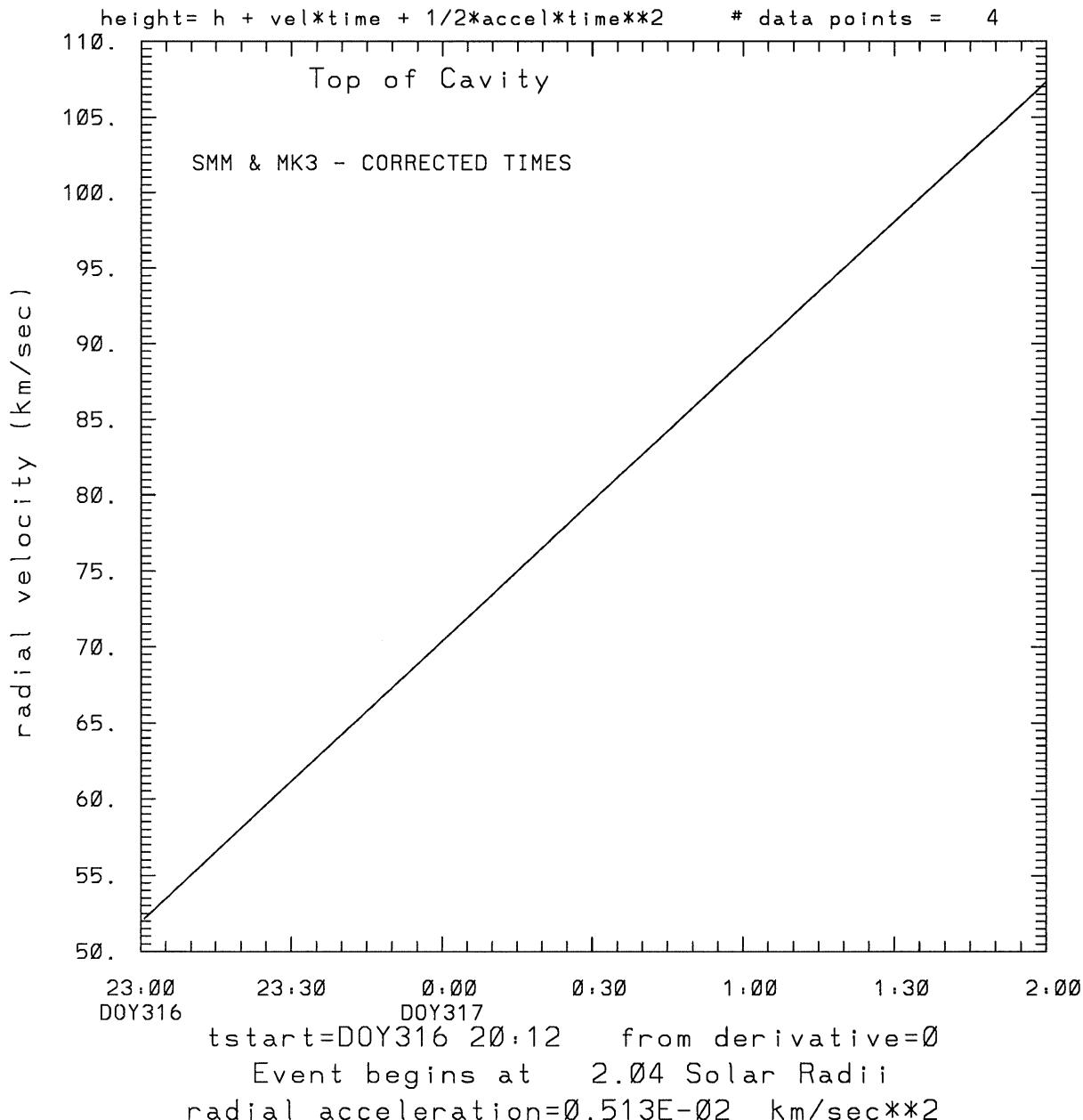
SMM C/P 1986 DOY316 275 +/- 0 degrees



SMM C/P 1986 DOY316 275 +/- 0 degrees



SMM C/P 1986 DOY316 275 +/- 0 degrees



This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in radii	angle	error in angle	datatype
1986	316	23: 3:13	2.40	+/- 0.15	275.0	+/- 0.5	SMM	
1986	316	23:40:13	2.70	+/- 0.15	275.0	+/- 0.5	SMM	
1986	317	0:37:13	2.90	+/- 0.15	275.0	+/- 0.5	SMM	
1986	317	1:13:12	3.35	+/- 0.25	275.0	+/- 1.0	SMM	

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.228E+03 +/- 0.179E+02 [minutes]

In more convenient units:

Event began at DOY 316 19:12 +/- 0.179E+02 [minutes]

Origin defined at DOY316 23: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 71. +/- 11. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.240E+01 +/- 0.688E-01 [solar radii]

c(2) = 0.612E-02 +/- 0.955E-03 [radii/min]

c(2) = 0.710E+02 +/- 0.111E+02 [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)= 0.10535E+00 [radii] see Bevington pg. 114

error in c(2)= 0.12411E-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) = 275. +/- 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 23: 3 = 0.000E+00 km/sec

The TOTAL velocity at 23: 3 = 71. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec

The TOTAL velocity at 23:40 = 71. km/sec

The TANGENTIAL velocity at 0:37 = 0.000E+00 km/sec

The TOTAL velocity at 0:37 = 71. km/sec

The TANGENTIAL velocity at 1:13 = 0.000E+00 km/sec

The TOTAL velocity at 1:13 = 71. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.40

Standard Deviation in start time measurement = 0.502E+02

Error in time = 0.28768E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.746E-02

Reduced Chi Squared = 0.542E-01

Chi Squared = 0.108E+00

The probability for exceeding chi square = 0.993E+00

The correlation coefficient = 0.973E+00

The probability that no LINEAR correlation exists between the variables = 0.2745E-01

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

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in radii	error in radius	angle	angle	datatype
1986	316	23: 3:13	2.40	+/- 0.15	275.0	+/- 0.5	0.5	0.5	SMM
1986	316	23:40:13	2.70	+/- 0.15	275.0	+/- 0.5	0.5	0.5	SMM
1986	317	0:37:13	2.90	+/- 0.15	275.0	+/- 0.5	0.5	0.5	SMM
1986	317	1:13:12	3.35	+/- 0.25	275.0	+/- 1.0	0.5	0.5	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

tstart=DOY316 20:12 from derivative = 0

Event begins at 2.04 Solar Radii

Origin defined at DOY316 23: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.513E-02 +/- 0.124E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.242E+01 +/- 0.989E-01 [solar radii]

c(2) = 0.448E-02 +/- 0.415E-02 [radii/min]

c(2) = 0.519E+02 +/- 0.481E+02 [km/sec]

c(3) = 0.133E-04 +/- 0.321E-04 [radii/min**2]

c(3) = 0.513E-02 +/- 0.124E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.16150E+00 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.37918E-01 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.63267E-02 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.27034E-02 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.45004E-04 [radii/min**] Bevington pg 154 (8-30)

Exact error in c(3) = 0.21989E-04 [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) = 275. +/- 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 23: 3 = 0.000E+00 km/sec

The TOTAL velocity at 23: 3 = 53. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec

The TOTAL velocity at 23:40 = 64. km/sec

The TANGENTIAL velocity at 0:37 = 0.000E+00 km/sec

The TOTAL velocity at 0:37 = 82. km/sec

The TANGENTIAL velocity at 1:13 = 0.000E+00 km/sec

The TOTAL velocity at 1:13 = 93. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.40

Standard Deviation in start time measurement = 0.502E+02

Value of reduced Chi Squared returned from nllst2 = 0.103E-01

Reduced Chi Squared = 0.719E-01

Chi Squared = 0.719E-01

The probability for exceeding chi square = 0.919E+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 = 0.9033E+00

The correlation between the data and the time **2 term = 0.8351E+00

The correlation between the data and the complete equation of motion = 0.9271E+00

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