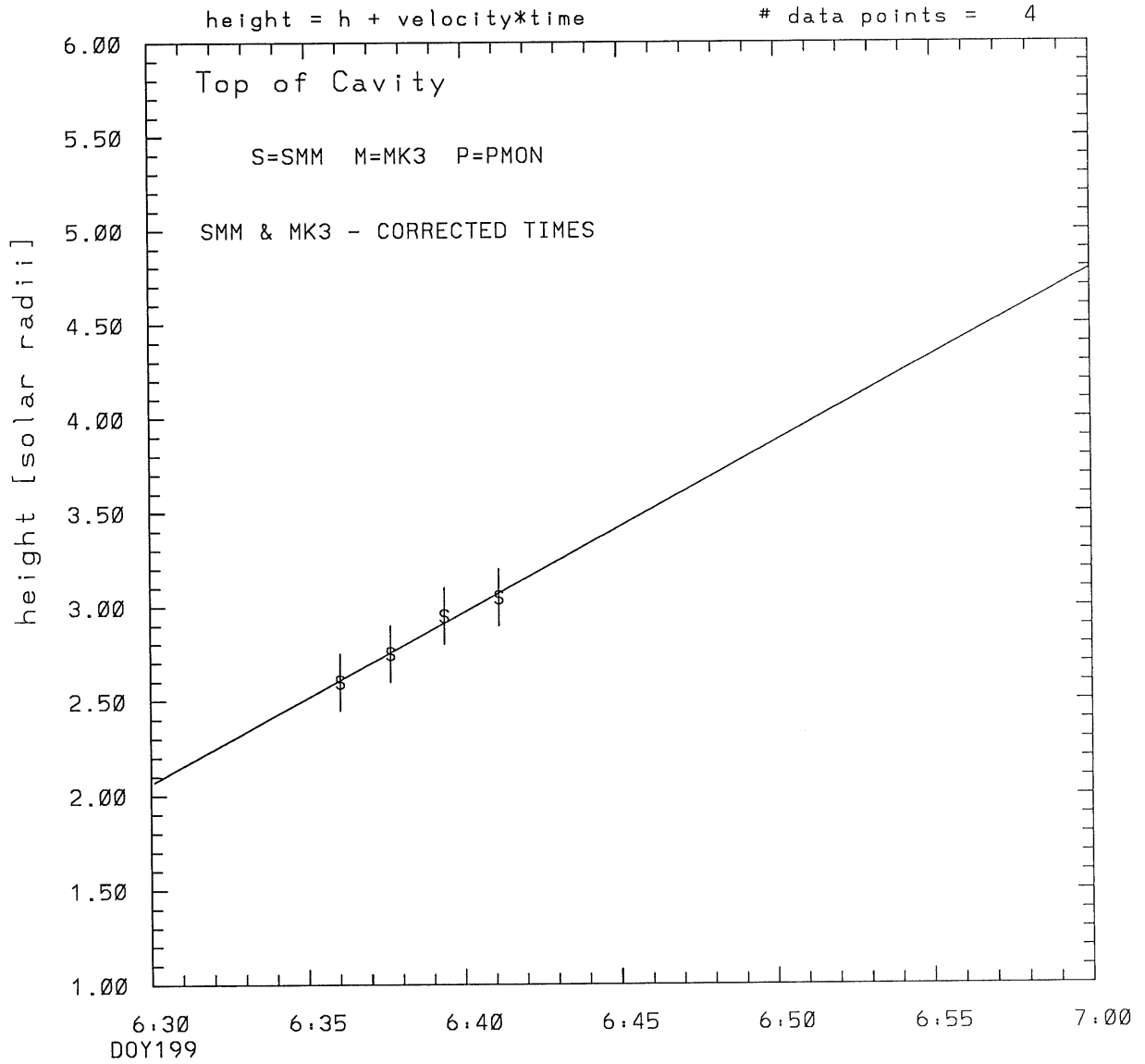
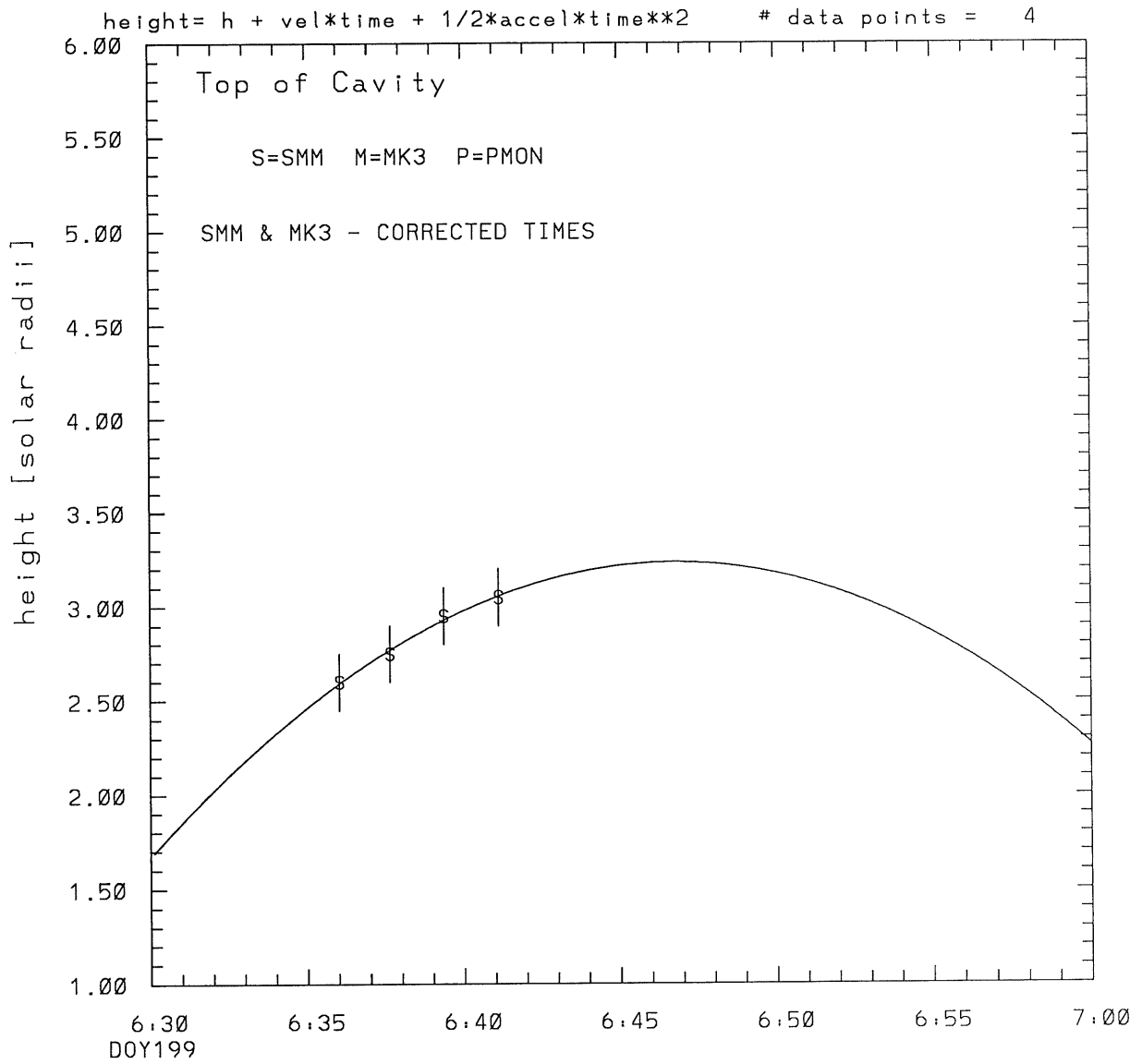


SMM C/P 1980 DOY199 68 +/- 0 degrees



tstart=DOY199 6:20 +/- 0.4 [min.]
radial velocity= 1054. +/- 78. [km/sec]

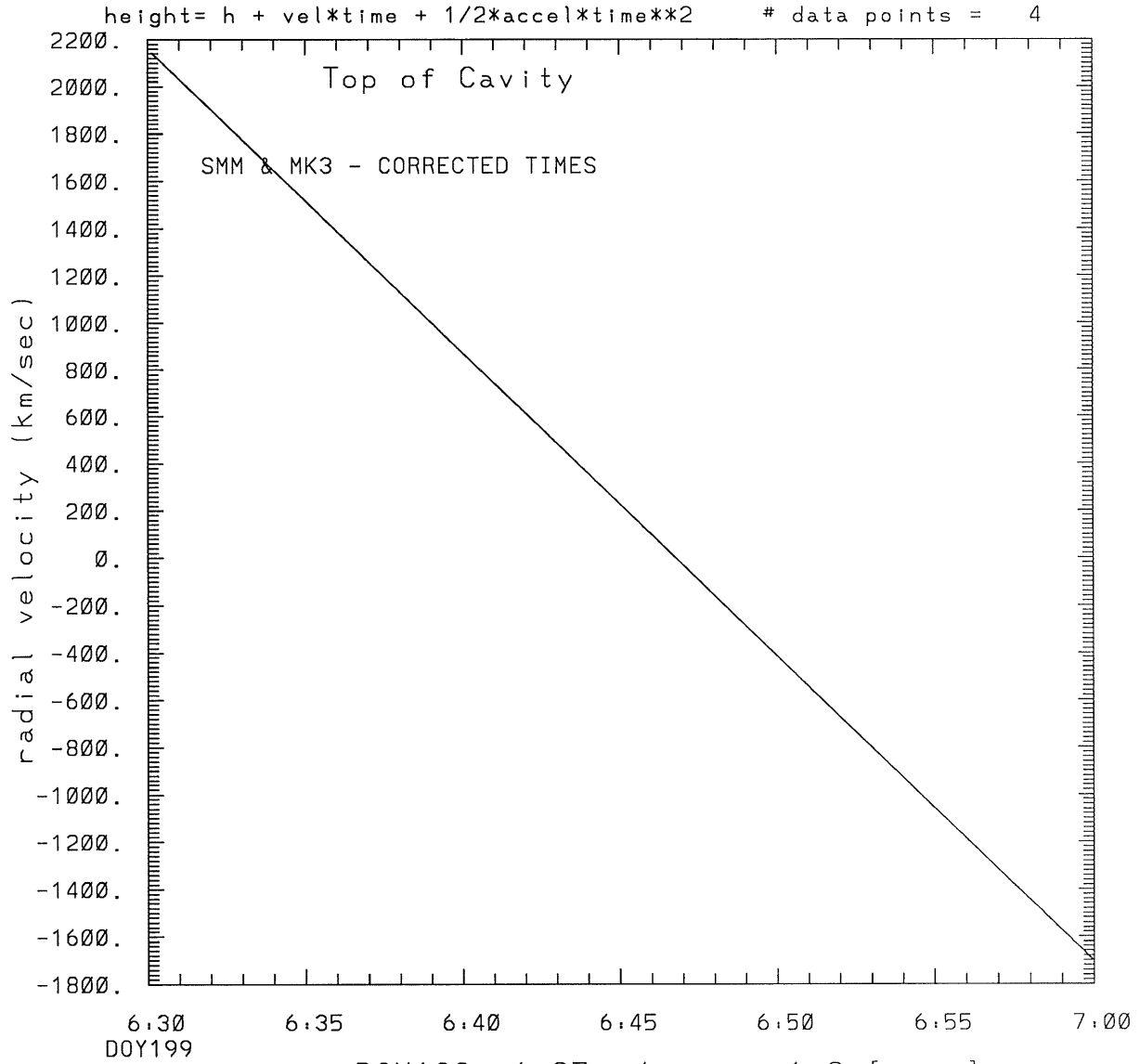
SMM C/P 1980 DOY199 68 +/- 0 degrees



tstart=DOY199 6:27 +/- 1.8 [min.]

radial acceleration=-2.1456 +/- 1.4579 [km/sec**2]

SMM C/P 1980 DOY199 68 +/- 0 degrees



tstart=DOY199 6:27 +/- 1.8 [min.]

radial acceleration = $-.215E+01$ km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	199	6:36: 2	2.60	+/- 0.15	68.0	+/- 0.5	SMM
1980	199	6:37:39	2.75	+/- 0.15	68.0	+/- 0.5	SMM
1980	199	6:39:23	2.95	+/- 0.15	68.0	+/- 0.5	SMM
1980	199	6:41: 8	3.05	+/- 0.15	68.0	+/- 1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.117E+02 +/- 0.399E+00$ [minutes]

In more convenient units:

Event began at DOY 199 6:20 +/- 0.399E+00 [minutes]

Origin defined at DOY199 6:30

RADIAL INFORMATION:

RADIAL VELOCITY = 1054. +/- 78. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.206E+01 +/- 0.587E-01 [solar radii]
c(2) = 0.909E-01 +/- 0.671E-02 [radii/min]
c(2) = 0.105E+04 +/- 0.778E+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)= 0.71941E-01 [radii] see Bevington pg. 114

error in c(2)= 0.82128E-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) = 68. +/- 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 6:36 = 0.000E+00 km/sec

The TOTAL velocity at 6:36 = 1054. km/sec

The TANGENTIAL velocity at 6:37 = 0.000E+00 km/sec

The TOTAL velocity at 6:37 = 1054. km/sec

The TANGENTIAL velocity at 6:39 = 0.000E+00 km/sec

The TOTAL velocity at 6:39 = 1054. km/sec

The TANGENTIAL velocity at 6:41 = 0.000E+00 km/sec

The TOTAL velocity at 6:41 = 1054. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.20

Standard Deviation in start time measurement = 0.190E+01

Error in time = 0.48673E+00 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.653E-03

Reduced Chi Squared = 0.309E-02

Chi Squared = 0.619E-02

The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.992E+00

The probability that no LINEAR correlation exists between the variables = 0.8052E-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
1980	199	6:36: 2	2.60	+/- 0.15	68.0	+/- 0.5	SMM
1980	199	6:37:39	2.75	+/- 0.15	68.0	+/- 0.5	SMM
1980	199	6:39:23	2.95	+/- 0.15	68.0	+/- 0.5	SMM
1980	199	6:41: 8	3.05	+/- 0.15	68.0	+/- 1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.328E+01 +/- 0.181E+01 [minutes]

In more convenient units:

Event began at DOY 199 6:27 +/- 0.181E+01 [minutes]

Origin defined at DOY199 6:30

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.215E+01 +/- 0.146E+01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.167E+01 +/- 0.269E+00 [solar radii]
c(2) = 0.186E+00 +/- 0.650E-01 [radii/min]
c(2) = 0.216E+04 +/- 0.754E+03 [km/sec]
c(3) = -0.555E-02 +/- 0.377E-02 [radii/min**2]
c(3) = -0.215E+01 +/- 0.146E+01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.38066E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.18202E+00 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.91958E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.45840E-01 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.53323E-02 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.26635E-02 [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) = 68. +/- 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 6:36 = 0.000E+00 km/sec

The TOTAL velocity at 6:36 = 1384. km/sec

The TANGENTIAL velocity at 6:37 = 0.000E+00 km/sec

The TOTAL velocity at 6:37 = 1175. km/sec

The TANGENTIAL velocity at 6:39 = 0.000E+00 km/sec

The TOTAL velocity at 6:39 = 952. km/sec

The TANGENTIAL velocity at 6:41 = 0.000E+00 km/sec

The TOTAL velocity at 6:41 = 727. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.20

Standard Deviation in start time measurement = 0.190E+01

Value of reduced Chi Squared returned from nllst2 = 0.470E-03

Reduced Chi Squared = 0.232E-02

Chi Squared = 0.232E-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 = 0.9919E+00

The correlation between the data and the time**2 term = 0.9801E+00

The correlation between the data and the complete equation of motion = 0.9923E+00

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