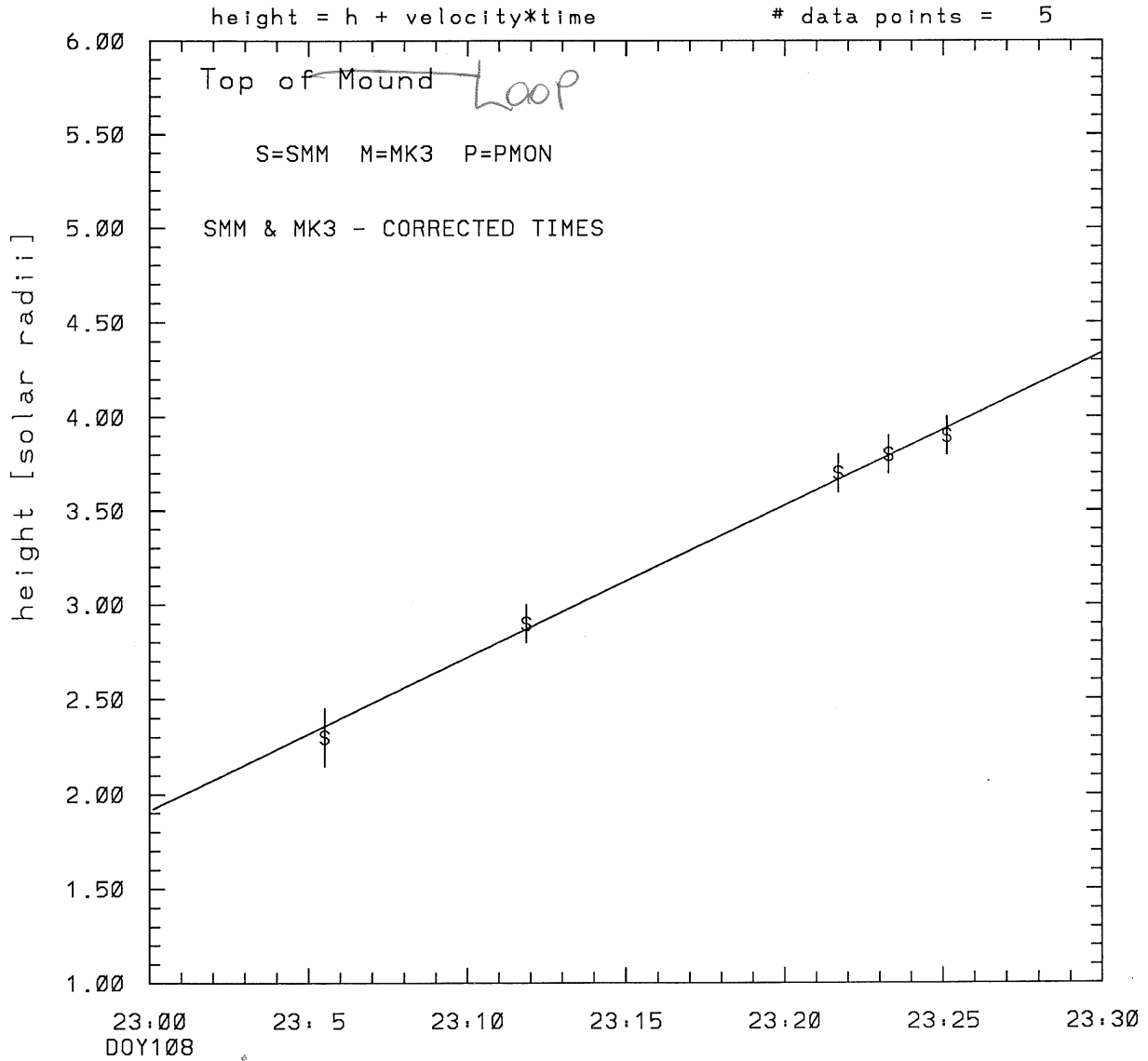
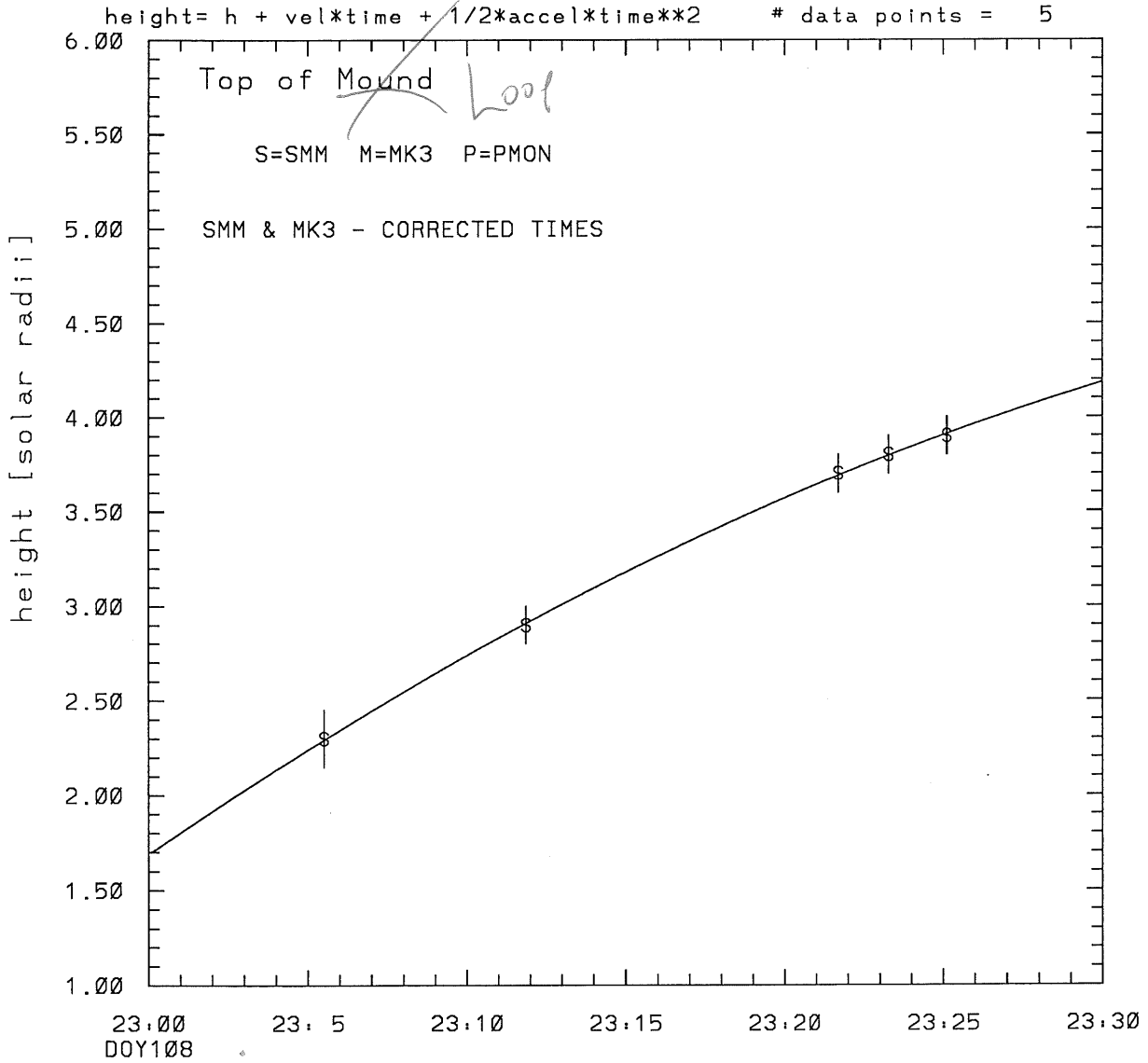


SMM C/P 1980 DOY108 310 +/- 0 degrees



tstart=DOY108 22:49 +/- 0.2 [min.]  
radial velocity= 937. +/- 30. [km/sec]

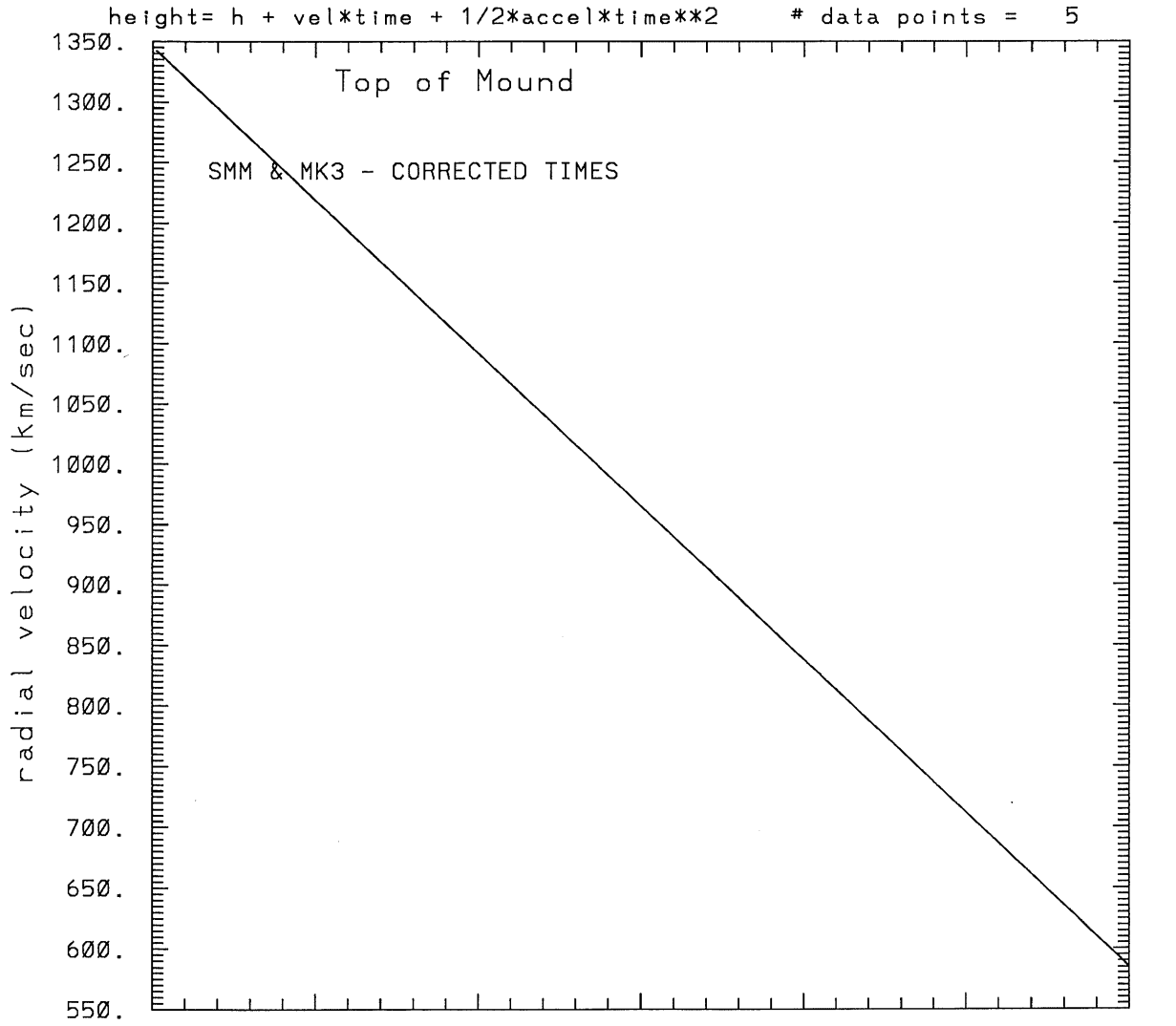
SMM C/P 1980 DOY108 310 +/- 0 degrees



tstart=DOY108 22:56 +/- 0.5 [min.]

radial acceleration=-0.4223 +/- 0.0677 [km/sec\*\*2]

SMM C/P 1980 DOY108 310 +/- 0 degrees



23:00  
DOY108

tstart=DOY108 22:56 +/- 0.5 [min.]

radial acceleration=-.422E+00 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	108	23: 5:30	2.30	+/- 0.15	310.0	+/- 0.5	SMM
1980	108	23:11:52	2.90	+/- 0.10	310.0	+/- 0.5	SMM
1980	108	23:21:42	3.70	+/- 0.10	310.0	+/- 1.0	SMM
1980	108	23:23:17	3.80	+/- 0.10	310.0	+/- 1.0	SMM
1980	108	23:25: 7	3.90	+/- 0.10	310.0	+/- 1.0	SMM

\*\*\*\*\*

Structure being measured:

Top of Mound

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.113E+02 +/- 0.224E+00$  [minutes]

In more convenient units:

Event began at DOY 108 22:49 +/- 0.224E+00 [minutes]

Origin defined at DOY108 23: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 937. +/- 30. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.191E+01 +/- 0.521E-01 [solar radii]  
c(2) = 0.808E-01 +/- 0.259E-02 [radii/min]  
c(2) = 0.937E+03 +/- 0.300E+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)= 0.54725E-01 [radii] see Bevington pg. 114

error in c(2)= 0.28724E-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) = 310. +/- 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: 5 = 0.000E+00 km/sec

The TOTAL velocity at 23: 5 = 937. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec

The TOTAL velocity at 23:11 = 937. km/sec

The TANGENTIAL velocity at 23:21 = 0.000E+00 km/sec

The TOTAL velocity at 23:21 = 937. km/sec

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

The TOTAL velocity at 23:23 = 937. km/sec

The TANGENTIAL velocity at 23:25 = 0.000E+00 km/sec

The TOTAL velocity at 23:25 = 937. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.69

Standard Deviation in start time measurement = 0.755E+01

Error in time = 0.10392E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.147E-02

Reduced Chi Squared = 0.580E-02

Chi Squared = 0.174E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.998E+00

The probability that no LINEAR correlation exists between the variables = 0.8017E-04

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

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	radius	error in	angle	error in	datatype
1980	108	23: 5:30	2.30	+/- 0.15	310.0	+/- 0.5	SMM	
1980	108	23:11:52	2.90	+/- 0.10	310.0	+/- 0.5	SMM	
1980	108	23:21:42	3.70	+/- 0.10	310.0	+/- 1.0	SMM	
1980	108	23:23:17	3.80	+/- 0.10	310.0	+/- 1.0	SMM	
1980	108	23:25: 7	3.90	+/- 0.10	310.0	+/- 1.0	SMM	

\*\*\*\*\*

Structure being measured:

Top of Mound

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.562E+01 +/- 0.491E+00$  [minutes]

In more convenient units:

Event began at DOY 108 22:56 +/- 0.491E+00 [minutes]

Origin defined at DOY108 23: 0

RADIAL INFORMATION:

RADIAL ACCELERATION =  $-0.422E+00 +/- 0.677E-01$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) =  $0.169E+01 +/- 0.397E-01$  [solar radii]  
c(2) =  $0.116E+00 +/- 0.570E-02$  [radii/min]  
c(2) =  $0.135E+04 +/- 0.661E+02$  [km/sec]  
c(3) =  $-0.109E-02 +/- 0.175E-03$  [radii/min\*\*2]  
c(3) =  $-0.422E+00 +/- 0.677E-01$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) =  $0.38375E-01$  [radii] Bevington pg 154 (8-30)

Exact error in c(1) =  $0.16909E-01$  [radii] Bevington pg 154 (8-28)

Approximate error in c(2) =  $0.61494E-02$  [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) =  $0.27967E-02$  [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) =  $0.19771E-03$  [radii/min\*\*] Bevington pg 154 (8-30)

Exact error in c(3) =  $0.90940E-04$  [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) = 310. +/- 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: 5 = 0.000E+00 km/sec

The TOTAL velocity at 23: 5 = 1206. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec

The TOTAL velocity at 23:11 = 1045. km/sec

The TANGENTIAL velocity at 23:21 = 0.000E+00 km/sec

The TOTAL velocity at 23:21 = 796. km/sec

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

The TOTAL velocity at 23:23 = 755. km/sec

The TANGENTIAL velocity at 23:25 = 0.000E+00 km/sec

The TOTAL velocity at 23:25 = 709. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.69

Standard Deviation in start time measurement = 0.755E+01

Value of reduced Chi Squared returned from nllst2 = 0.140E-03

Reduced Chi Squared = 0.633E-03

Chi Squared = 0.127E-02

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 = 0.8979E+00

The correlation between the data and the time\*\*2 term = 0.9156E+00

The correlation between the data and the complete equation of motion = 0.1000E+01

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