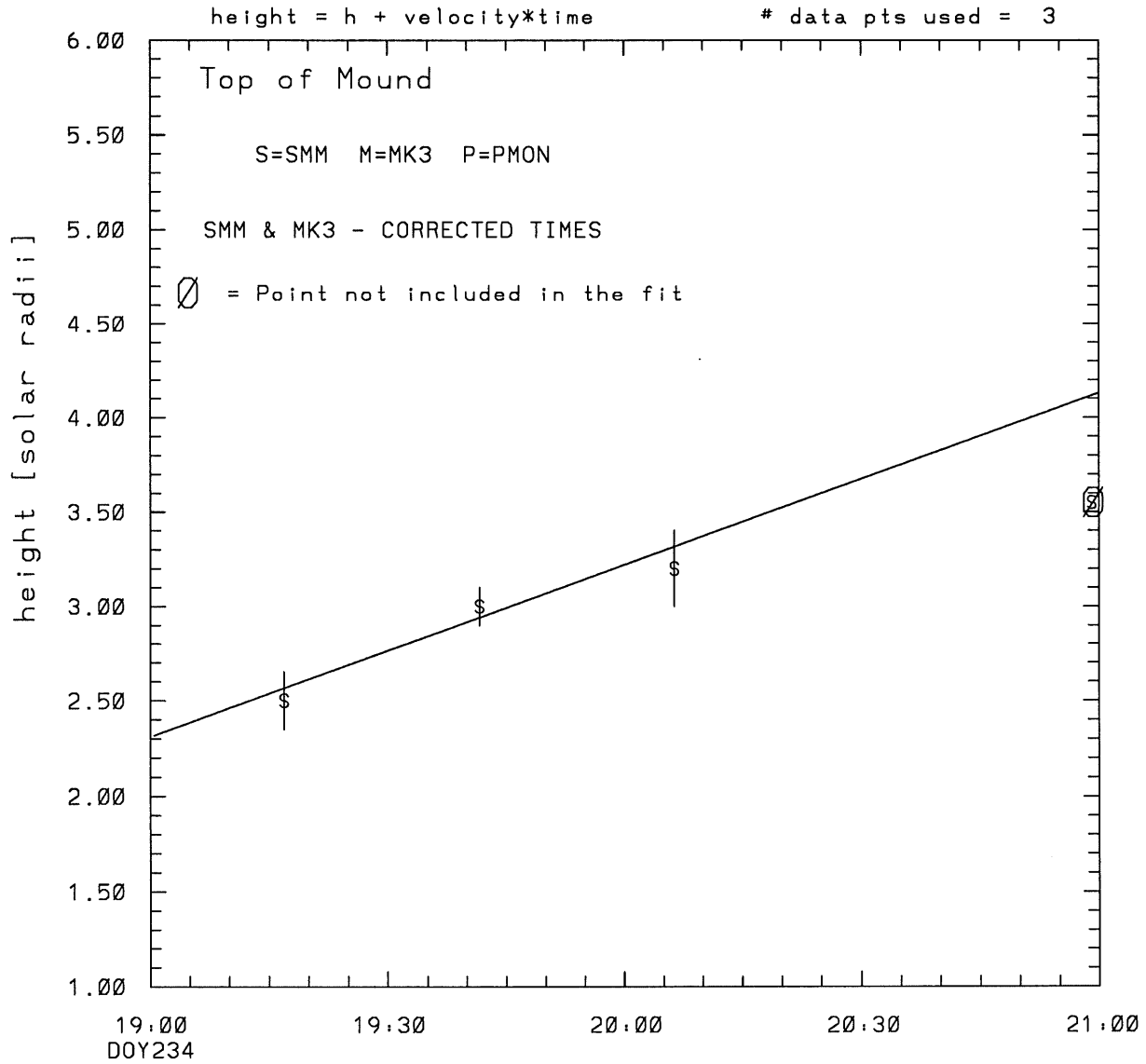
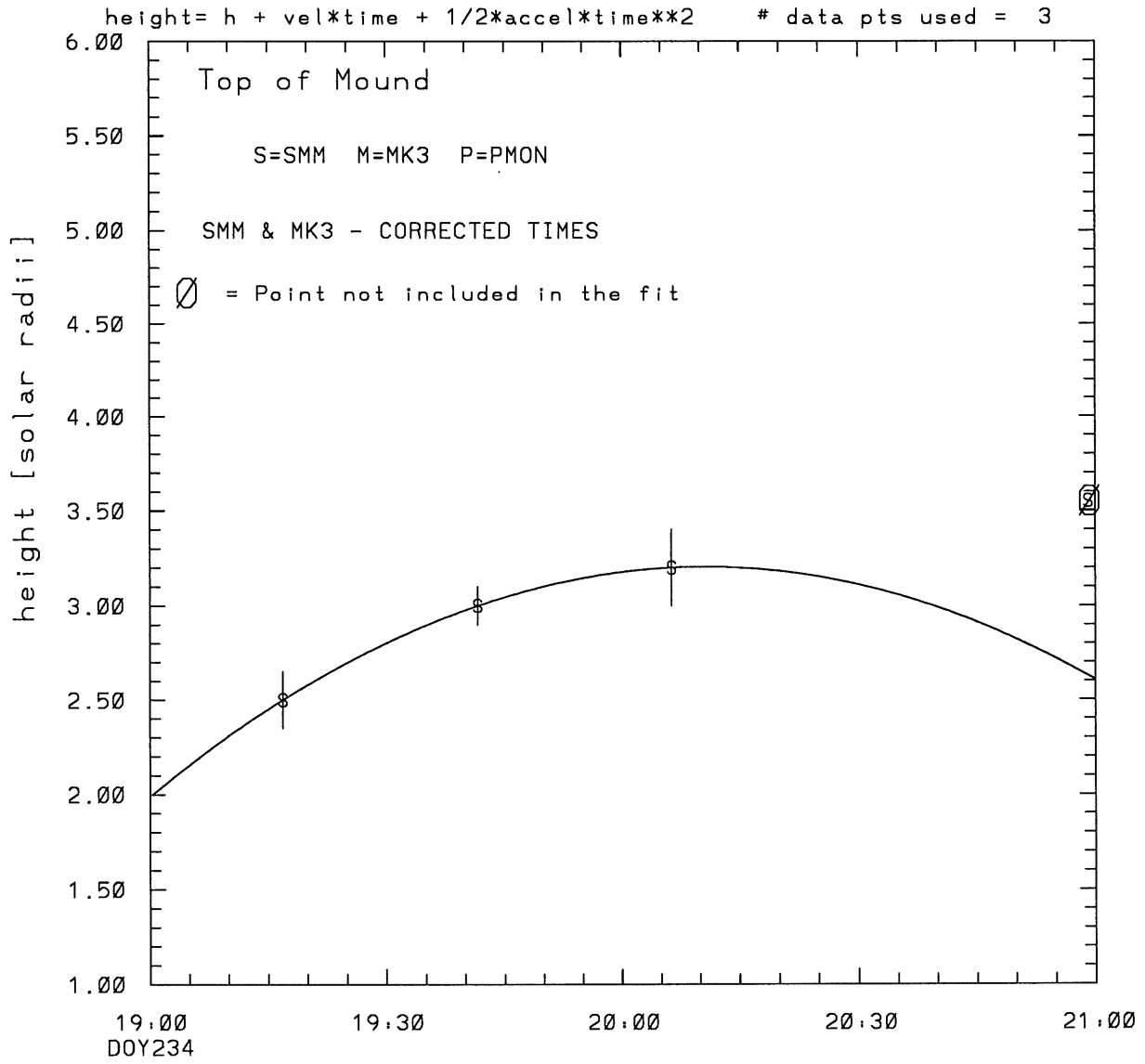


SMM C/P 1988 DOY234 125 +/- 0 degrees



tstart=DOY234 17:34 +/- 9.7 [min.]  
radial velocity= 176. +/- 31. [km/sec]

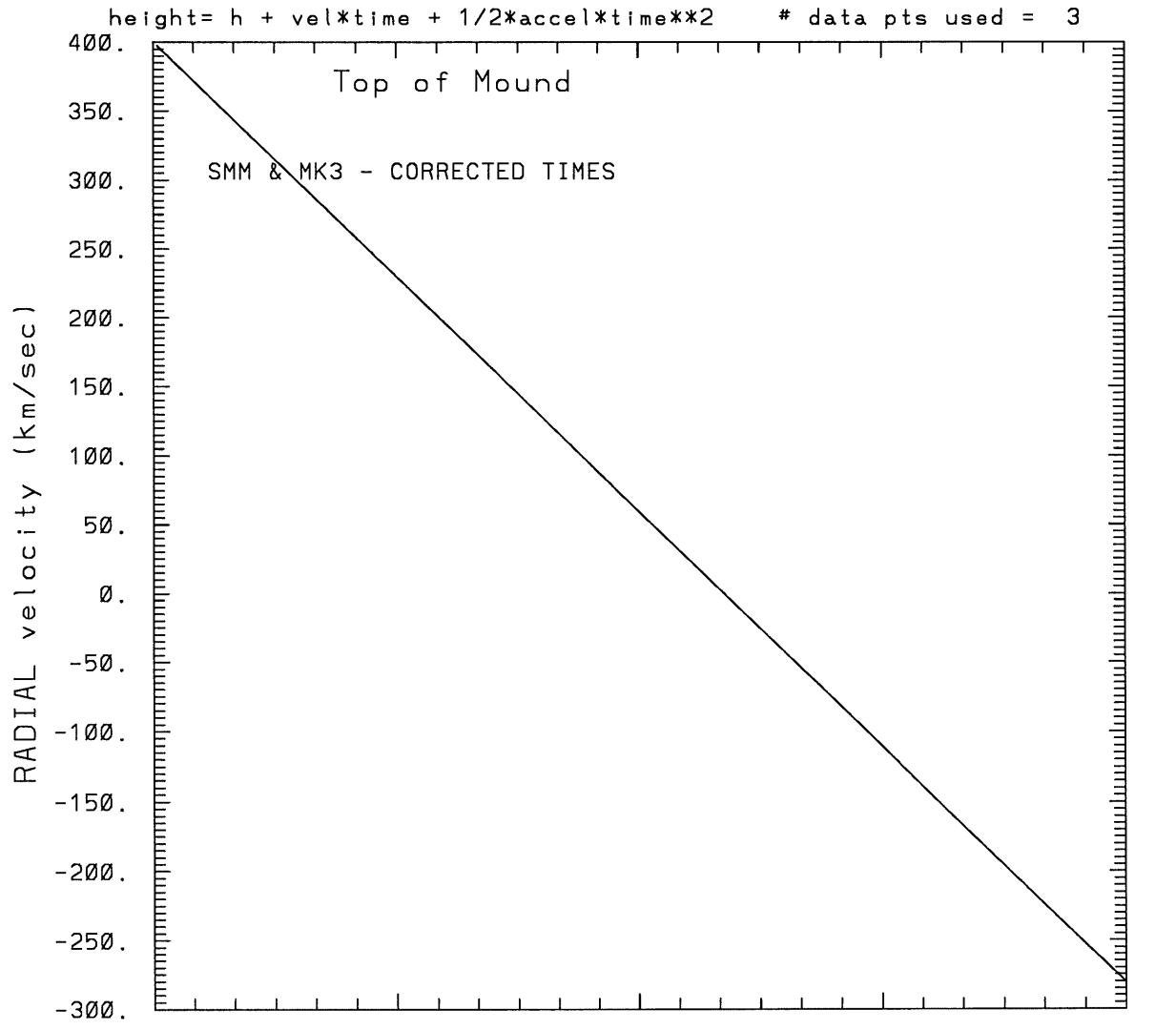
SMM C/P 1988 DOY234 125 +/- 0 degrees



tstart=DOY234 18:36 +/- 0.0 [min.]

radial acceleration = -0.0945 +/- 0.0000 [km/sec\*\*2]

SMM C/P 1988 D0Y234 125 +/- 0 degrees



19:00  
DOY234

19:30

20:00

20:30

21:00

tstart=D0Y234 18:36 +/- 0.0 [min.]

radial acceleration=-.945E-01 km/sec\*\*2

\*\*\*\*\*  
This is a 1 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	day	time	radii	radius	error in angle	error in angle	datatype
1988	234	19:16:53	2.50 +/- 0.15	125.0 +/- 0.5			SMM
1988	234	19:41:39	3.00 +/- 0.10	125.0 +/- 1.0			SMM
1988	234	20: 6:24	3.20 +/- 0.20	125.0 +/- 1.0			SMM
1988	234	20:59: 9	3.55 -----	125.00 +/- ----			SMM THIS POINT WASN'T USE

\*\*\*\*\*  
Structure being measured:  
Top of Mound  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.863E+02 +/- 0.973E+01 [minutes]  
In more convenient units:  
Event began at DOY 234 17:34 +/- 0.973E+01 [minutes]

Origin defined at DOY234 19: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 176. +/- 31. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.231E+01 +/- 0.111E+00 [solar radii]  
c(2) = 0.152E-01 +/- 0.266E-02 [radii/min]  
c(2) = 0.176E+03 +/- 0.309E+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)= 0.39296E+00 [radii] see Bevington pg. 114  
error in c(2)= 0.54723E-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) = 125. +/- 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 RADIAL velocity at 19:16 = 176. km/sec

The RADIAL velocity at 19:41 = 176. km/sec

The RADIAL velocity at 20: 6 = 176. km/sec

The RADIAL velocity at 20:59 = 176. km/sec

\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.44  
Standard Deviation in start time measurement = 0.379E+02  
Error in time = 0.38618E+02 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.690E-02  
Reduced Chi Squared = 0.670E+00  
Chi Squared = 0.134E+01  
The probability for exceeding chi square = 0.993E+00

The correlation coefficient = 0.959E+00  
The probability that no LINEAR correlation exists between the variables = 0.41471  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

\*\*\*\*\*  
This is a 2 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	day	time	radii	radius	error in angle	error in angle	datatype
1988	234	19:16:53	2.50 +/- 0.15	125.0 +/- 0.5			SMM
1988	234	19:41:39	3.00 +/- 0.10	125.0 +/- 1.0			SMM
1988	234	20: 6:24	3.20 +/- 0.20	125.0 +/- 1.0			SMM
1988	234	20:59: 9	3.55 -----	125.00 +/- ----			SMM THIS POINT WASN'T USE

\*\*\*\*\*  
Structure being measured:  
Top of Mound  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.244E+02 +/- 0.168E-03 [minutes]  
In more convenient units:  
Event began at DOY 234 18:36 +/- 0.168E-03 [minutes]

Origin defined at DOY234 19: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.945E-01 +/- 0.646E-06 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.199E+01 +/- 0.257E-05 [solar radii]  
c(2) = 0.345E-01 +/- 0.136E-06 [radii/min]  
c(2) = 0.400E+03 +/- 0.158E-02 [km/sec]  
c(3) = -0.245E-03 +/- 0.167E-08 [radii/min\*\*2]  
c(3) = -0.945E-01 +/- 0.646E-06 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.16197E+01 [radii] Bevington pg 154 (8-30)  
Exact error in c(1) = 0.17796E-05 [radii] Bevington pg 154 (8-28)  
Approximate error in c(2) = 0.57591E-01 [radii/min] Bevington pg 154 (8-30)  
Exact error in c(2) = 0.11525E-06 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.40183E-03 [radii/min\*\*2] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.14554E-08 [radii/min\*\*2] 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) = 125. +/- 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 RADIAL velocity at 19:16 = 304. km/sec

The RADIAL velocity at 19:41 = 164. km/sec

The RADIAL velocity at 20: 6 = 24. km/sec

The RADIAL velocity at 20:59 = -276. km/sec

\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.44

Standard Deviation in start time measurement = 0.379E+02

Value of reduced Chi Squared returned from nllst2 = 0.966E-12

Reduced Chi Squared = 0.341E+01

Chi Squared = 0.341E+01

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 = 0.6530E+00

The correlation between the data and the time\*\*2 term = 0.5153E+00

The correlation between the data and the complete equation of motion=0.5699E+00

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