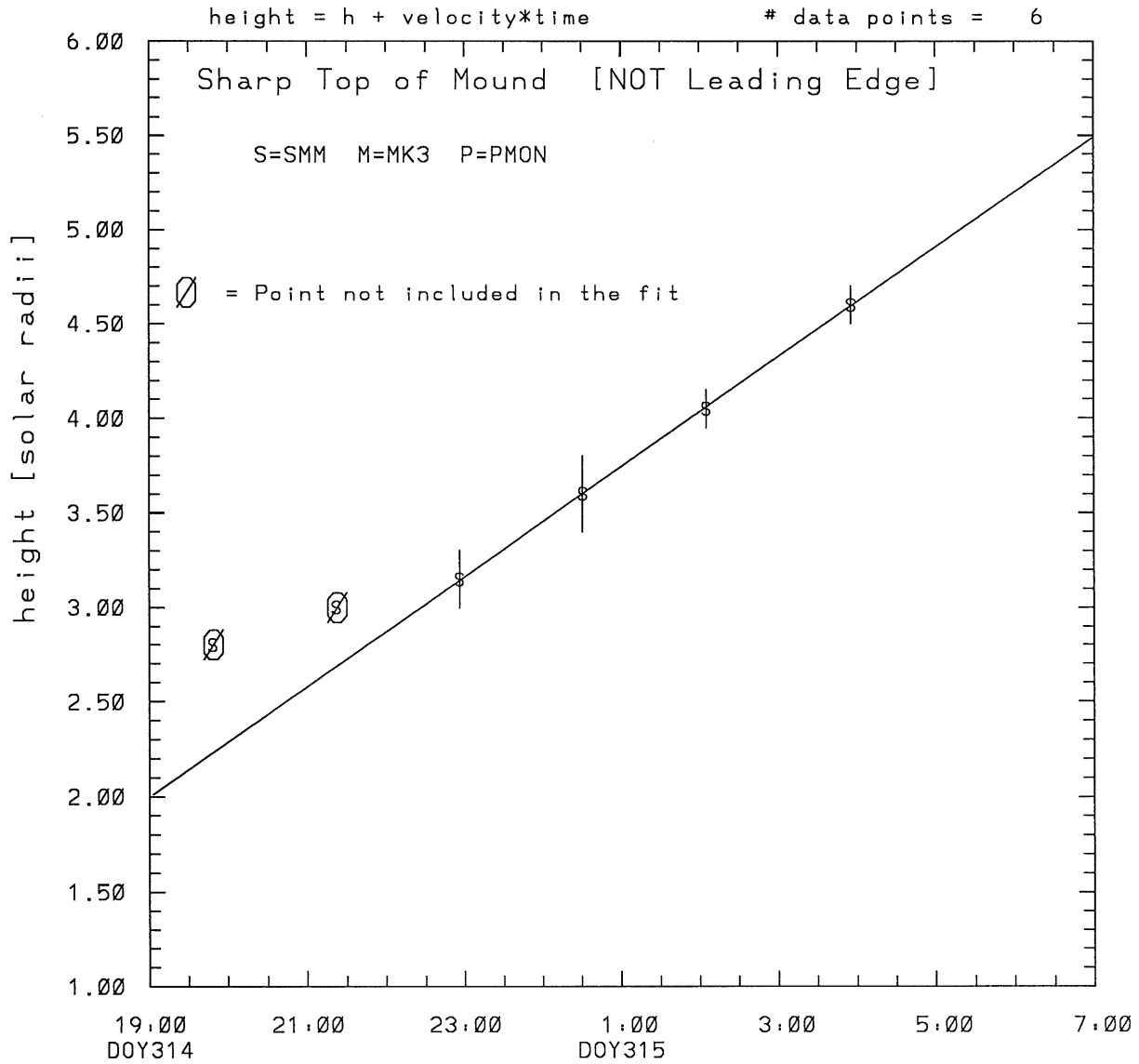
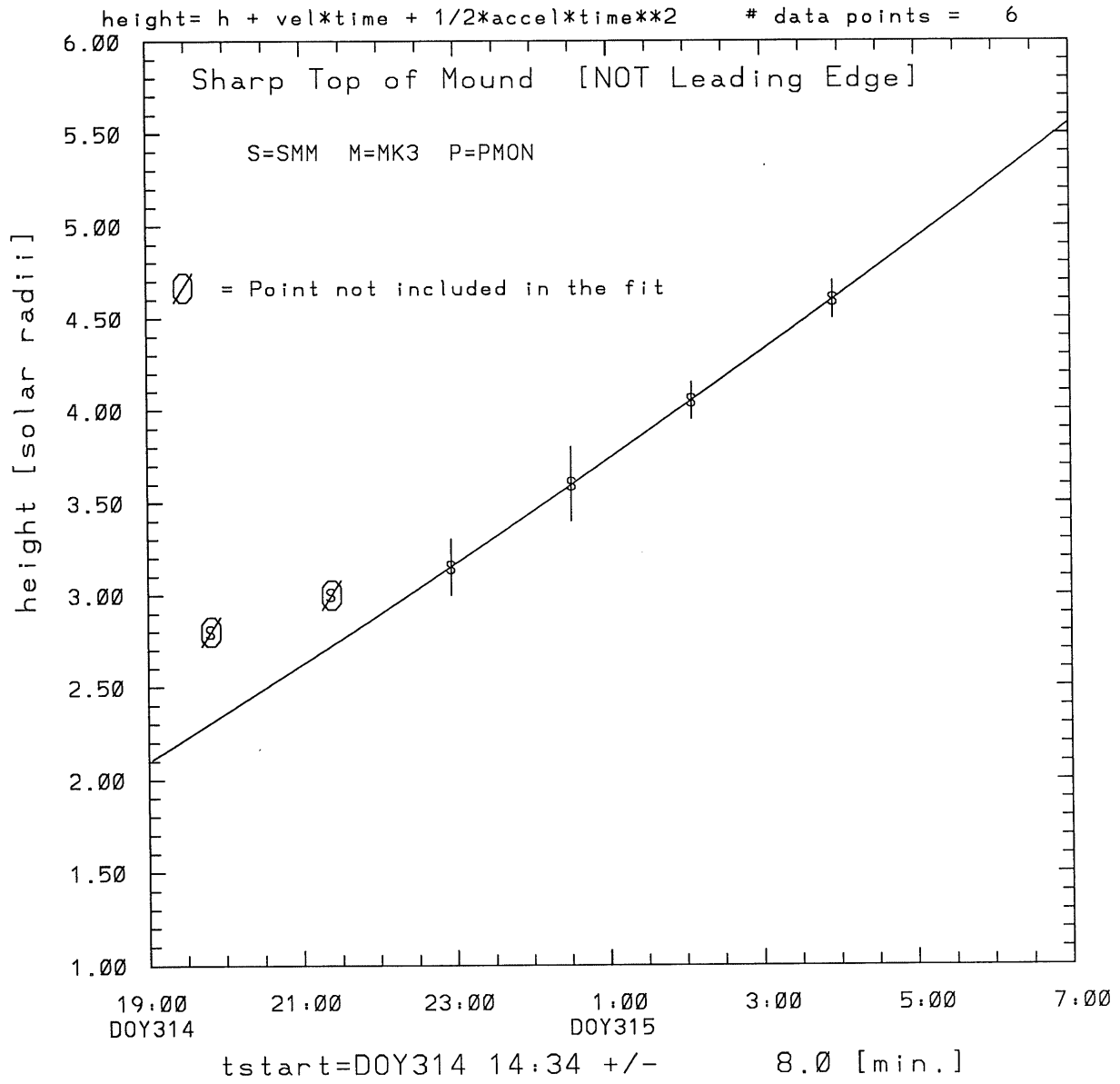


SMM C/P 1984 DOY314 247 +/- 0 degrees



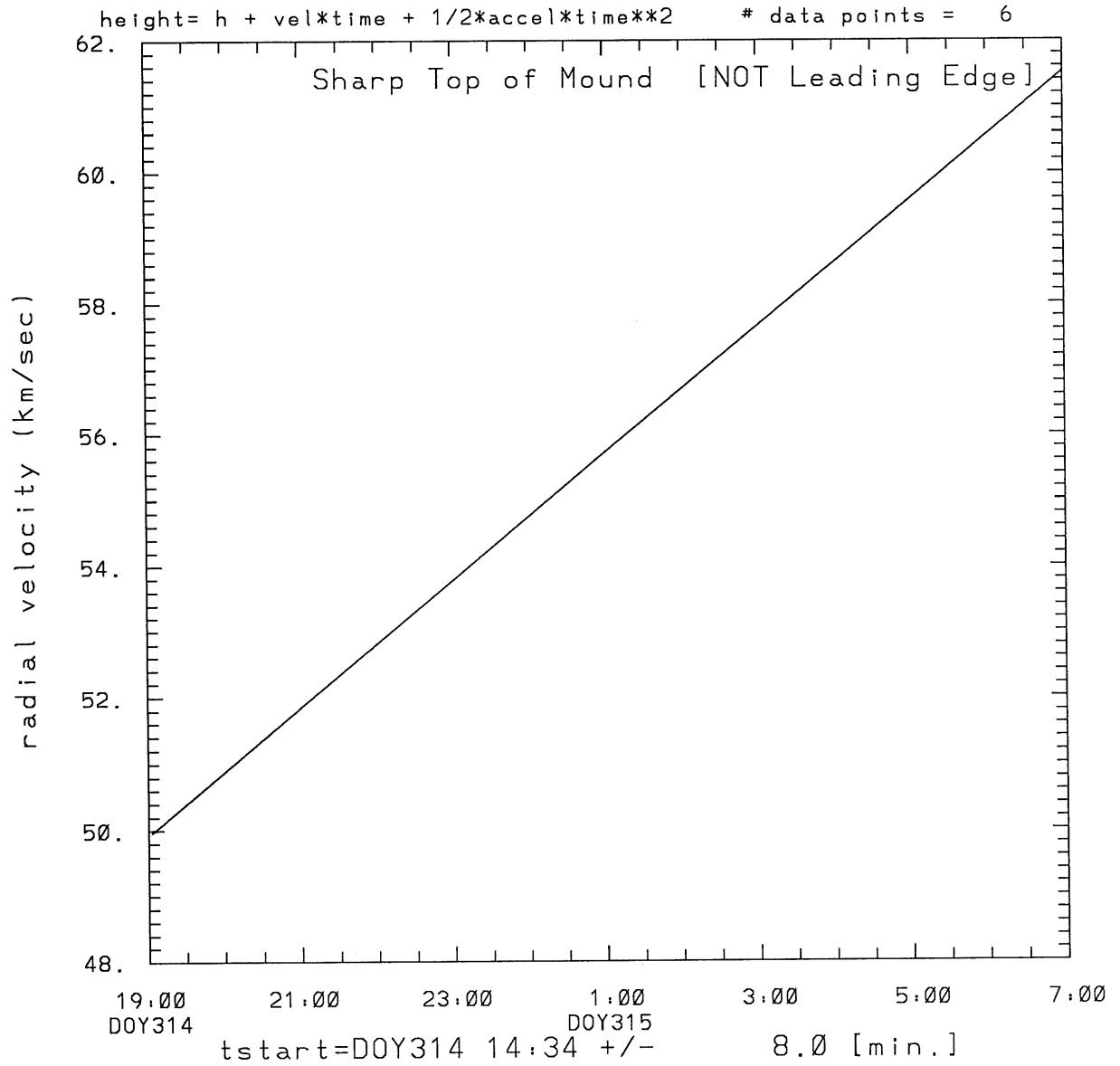
tstart=DOY314 15:35 +/- 0.8 [min.]  
radial velocity= 56. +/- 0. [km/sec]

SMM C/P 1984 DOY314 247 +/- 0 degrees



radial acceleration =  $0.0003 \pm 0.0000$  [km/sec\*\*2]

SMM C/P 1984 DOY314 247 +/- 0 degrees



radial acceleration=0.268E-03 km/sec\*\*2

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

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

year	day	time	radii	error in radius	error in angle	angle	datatype
1984	314	19:48: 8	2.80	----	247.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1984	314	21:22: 8	3.00	----	247.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1984	314	22:56: 8	3.15 +/-	0.15	247.0 +/-	1.0	SMM
1984	315	0:31: 9	3.60 +/-	0.20	247.0 +/-	1.0	SMM
1984	315	2: 5: 8	4.05 +/-	0.10	247.0 +/-	1.0	SMM
1984	315	3:55:36	4.60 +/-	0.10	247.0 +/-	1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Sharp Top of Mound [NOT Leading Edge]  
\*\*\*\*\*

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

START TIME:

Event began at  $t = 0 + -0.205E+03 +/- 0.771E+00$  [minutes]  
In more convenient units:  
Event began at DOY 314 15:35 +/- 0.771E+00 [minutes]

Origin defined at DOY314 19: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 56. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.200E+01 +/- 0.132E-01$  [solar radii]  
 $c(2) = 0.485E-02 +/- 0.300E-04$  [radii/min]  
 $c(2) = 0.563E+02 +/- 0.348E+00$  [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  $c(1) = 0.26610E+00$  [radii] see Bevington pg. 114  
error in  $c(2) = 0.80505E-03$  [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) = 247. +/- 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 19:48 = 0.000E+00 km/sec

The TOTAL velocity at 19:48 = 56. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec

The TOTAL velocity at 21:22 = 56. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec

The TOTAL velocity at 22:56 = 56. km/sec

The TANGENTIAL velocity at 0:31 = 0.000E+00 km/sec

The TOTAL velocity at 0:31 = 56. km/sec

The TANGENTIAL velocity at 2: 5 = 0.000E+00 km/sec

The TOTAL velocity at 2: 5 = 56. km/sec

The TANGENTIAL velocity at 3:55 = 0.000E+00 km/sec

The TOTAL velocity at 3:55 = 56. 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 = 0.165E+03

Error in time = 0.13421E+03 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.608E-04

Reduced Chi Squared = 0.131E+00

Chi Squared = 0.523E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.981E+00

The probability that no LINEAR correlation exists between the variables = 0.5606E-03

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

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	error in radius	error in angle	datatype
1984	314	19:48: 8	2.80	-----	247.00 +/- ----	SMM THIS POINT WASN'T USED IN THE FIT.
1984	314	21:22: 8	3.00	-----	247.00 +/- ----	SMM THIS POINT WASN'T USED IN THE FIT.
1984	314	22:56: 8	3.15 +/- 0.15		247.0 +/- 1.0	SMM
1984	315	0:31: 9	3.60 +/- 0.20		247.0 +/- 1.0	SMM
1984	315	2: 5: 8	4.05 +/- 0.10		247.0 +/- 1.0	SMM
1984	315	3:55:36	4.60 +/- 0.10		247.0 +/- 1.0	SMM

\*\*\*\*\*

Structure being measured:

Sharp Top of Mound [NOT Leading Edge]

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.266E+03 +/- 0.800E+01$  [minutes]

In more convenient units:

Event began at DOY 314 14:34 +/- 0.800E+01 [minutes]

Origin defined at DOY314 19: 0

RADIAL INFORMATION:

RADIAL ACCELERATION =  $0.268E-03 +/- 0.204E-04$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.210E+01 +/- 0.787E-02$  [solar radii]  
 $c(2) = 0.430E-02 +/- 0.420E-04$  [radii/min]  
 $c(2) = 0.499E+02 +/- 0.487E+00$  [km/sec]  
 $c(3) = 0.694E-06 +/- 0.529E-07$  [radii/min\*\*2]  
 $c(3) = 0.268E-03 +/- 0.204E-04$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in  $c(1) = 0.41979E+00$  [radii] Bevington pg 154 (8-30)

Exact error in  $c(1) = 0.28466E-02$  [radii] Bevington pg 154 (8-28)

Approximate error in  $c(2) = 0.33664E-02$  [radii/min] Bevington pg 154 (8-30)

Exact error in  $c(2) = 0.16285E-04$  [radii/min] Bevington pg 154 (8-28)

Approximate error in  $c(3) = 0.56088E-05$  [radii/min\*\*] Bevington pg 154 (8-30)

Exact error in c(3) = 0.20692E-07 [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) = 247. +/- 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 19:48 = 0.000E+00 km/sec

The TOTAL velocity at 19:48 = 51. km/sec

The TANGENTIAL velocity at 21:22 = 0.000E+00 km/sec

The TOTAL velocity at 21:22 = 52. km/sec

The TANGENTIAL velocity at 22:56 = 0.000E+00 km/sec

The TOTAL velocity at 22:56 = 54. km/sec

The TANGENTIAL velocity at 0:31 = 0.000E+00 km/sec

The TOTAL velocity at 0:31 = 55. km/sec

The TANGENTIAL velocity at 2: 5 = 0.000E+00 km/sec

The TOTAL velocity at 2: 5 = 57. km/sec

The TANGENTIAL velocity at 3:55 = 0.000E+00 km/sec

The TOTAL velocity at 3:55 = 59. 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 = 0.165E+03

Value of reduced Chi Squared returned from nllst2 = 0.172E-05

Reduced Chi Squared = 0.134E+00

Chi Squared = 0.401E+00

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 = 0.1055E+01

The correlation between the data and the time\*\*2 term = 0.1194E+01

The correlation between the data and the complete equation of motion = 0.1126E+01

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