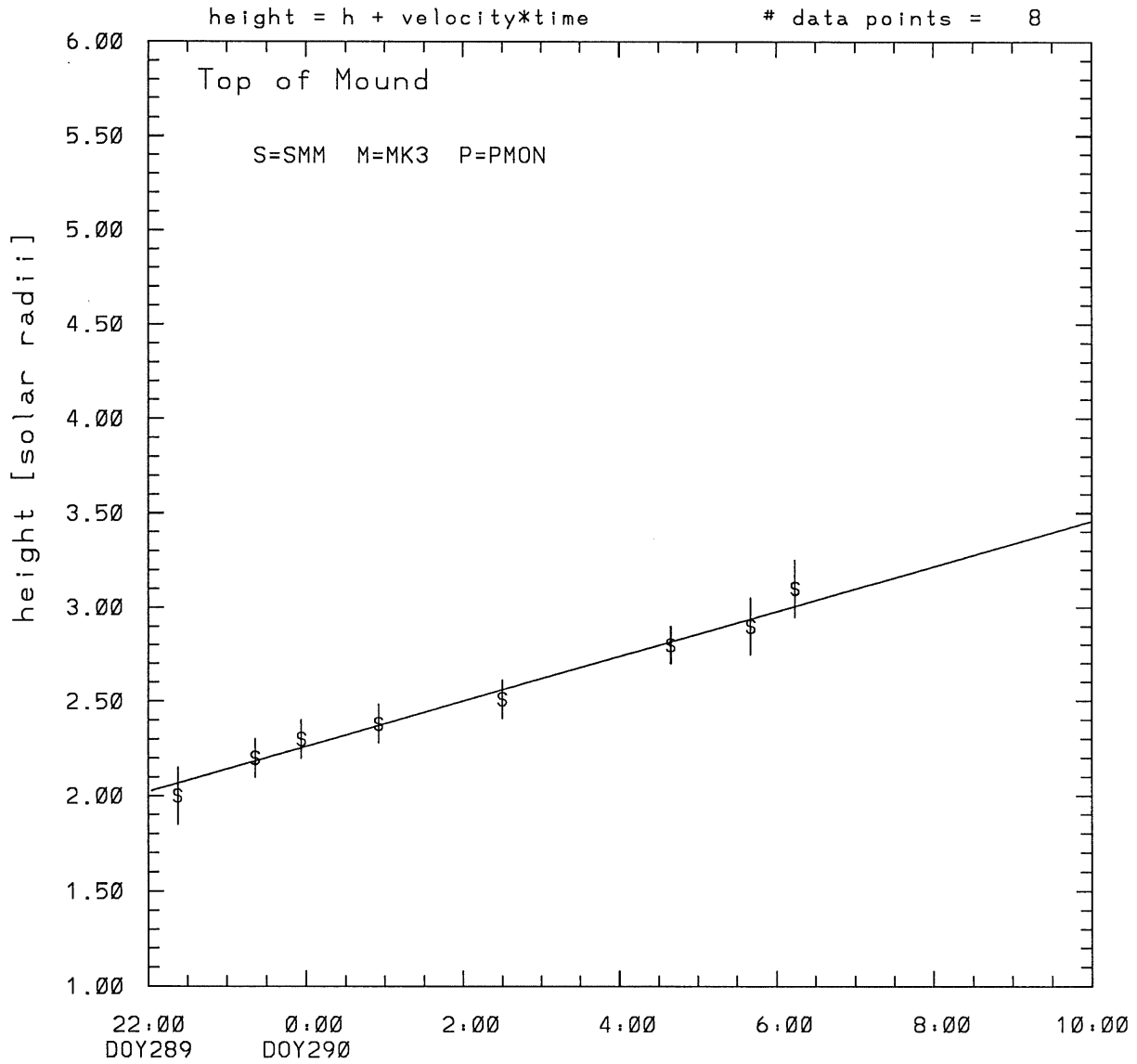
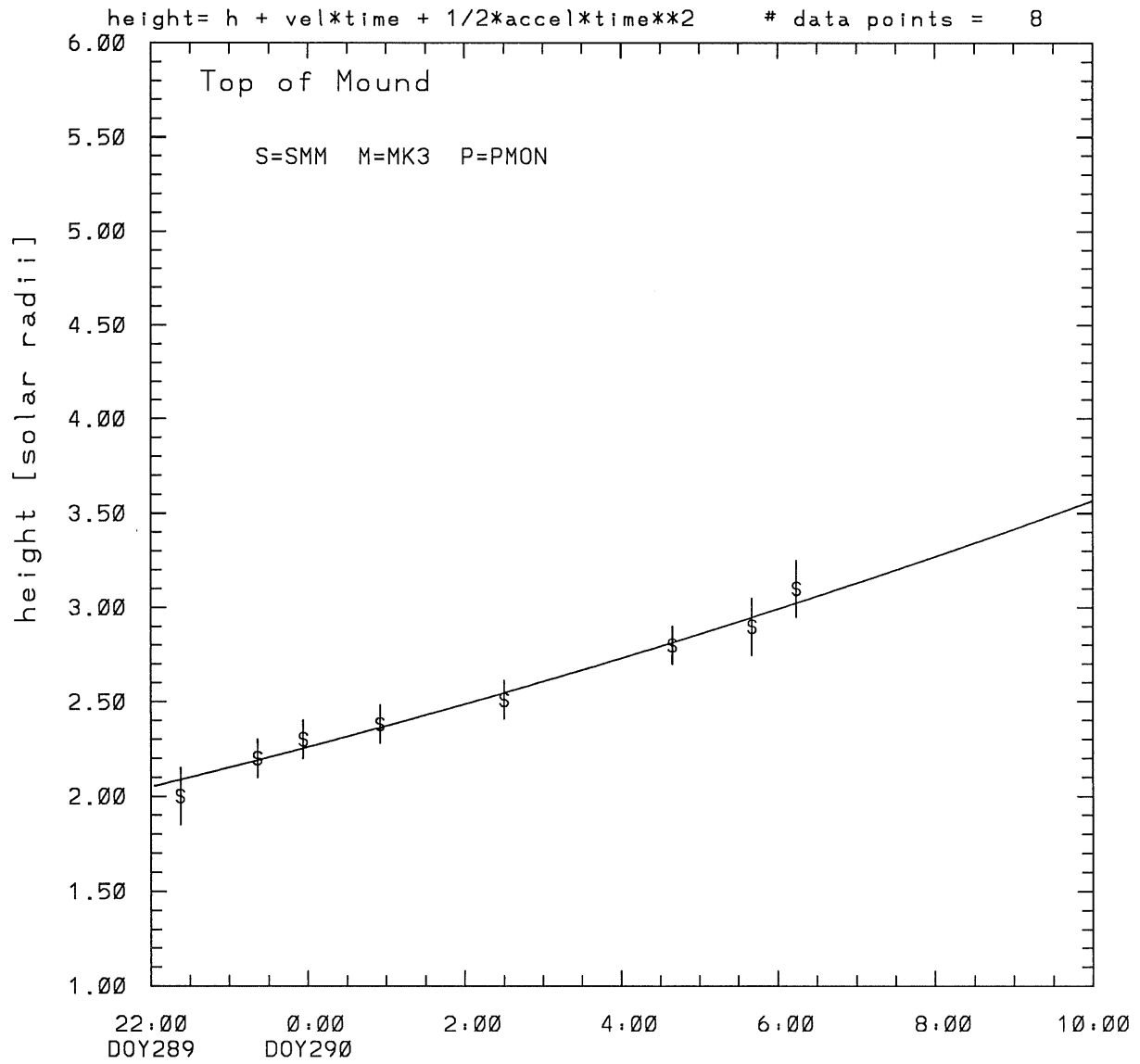


SMM C/P 1984 DOY289 10 +/- 0 degrees



tstart=DOY289 13:29 +/- 6.7 [min.]
radial velocity= 23. +/- 1. [km/sec]

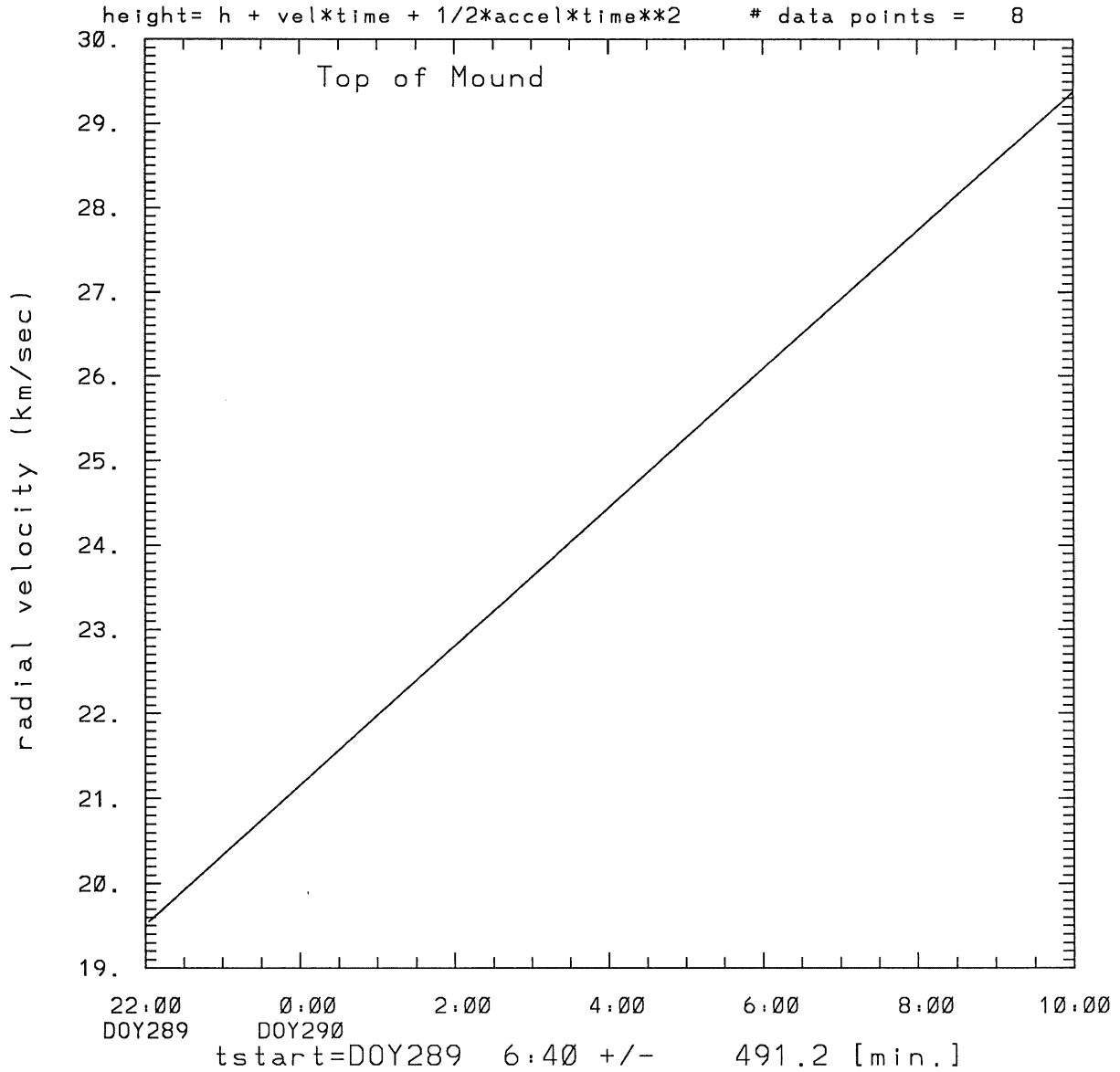
SMM C/P 1984 DOY289 10 +/- 0 degrees



tstart=DOY289 6:40 +/- 491.2 [min.]

radial acceleration = 0.0002 +/- 0.0004 [km/sec**2]

SMM C/P 1984 DOY289 10 +/- 0 degrees



radial acceleration = $0.228E-03$ km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1984	289	22:22:21	2.00	+/- 0.15	10.0	+/- 0.5	SMM
1984	289	23:21:21	2.20	+/- 0.10	10.0	+/- 0.5	SMM
1984	289	23:56:21	2.30	+/- 0.10	10.0	+/- 0.5	SMM
1984	290	0:55:21	2.38	+/- 0.10	10.0	+/- 0.5	SMM
1984	290	2:30:20	2.51	+/- 0.10	10.0	+/- 0.5	SMM
1984	290	4:39:21	2.80	+/- 0.10	10.0	+/- 0.5	SMM
1984	290	5:40:21	2.90	+/- 0.15	10.0	+/- 0.5	SMM
1984	290	6:14:20	3.10	+/- 0.15	10.0	+/- 1.0	SMM

Structure being measured:

Top of Mound

OUTPUT:

START TIME:

Event began at t = 0 + -0.513E+03 +/- 0.665E+01 [minutes]

In more convenient units:

Event began at DOY 289 13:29 +/- 0.665E+01 [minutes]

Origin defined at DOY289 22: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 23. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.202E+01 +/- 0.302E-01 [solar radii]

c(2) = 0.199E-02 +/- 0.109E-03 [radii/min]

c(2) = 0.231E+02 +/- 0.127E+01 [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)= 0.36563E-01 [radii] see Bevington pg. 114

error in c(2)= 0.12020E-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) = 10. +/- 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 22:22 = 0.000E+00 km/sec

The TOTAL velocity at 22:22 = 23. km/sec

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

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

The TANGENTIAL velocity at 23:56 = 0.000E+00 km/sec

The TOTAL velocity at 23:56 = 23. km/sec

The TANGENTIAL velocity at 0:55 = 0.000E+00 km/sec

The TOTAL velocity at 0:55 = 23. km/sec

The TANGENTIAL velocity at 2:30 = 0.000E+00 km/sec

The TOTAL velocity at 2:30 = 23. km/sec

The TANGENTIAL velocity at 4:39 = 0.000E+00 km/sec

The TOTAL velocity at 4:39 = 23. km/sec

The TANGENTIAL velocity at 5:40 = 0.000E+00 km/sec

The TOTAL velocity at 5:40 = 23. km/sec

The TANGENTIAL velocity at 6:14 = 0.000E+00 km/sec

The TOTAL velocity at 6:14 = 23. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.38

Standard Deviation in start time measurement = 0.170E+03

Error in time = 0.70931E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.214E-02

Reduced Chi Squared = 0.178E-01

Chi Squared = 0.107E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = $0.991E+00$

The probability that no LINEAR correlation exists between the variables = $0.2004E-05$

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

This is a 2 order run

INPUT:

year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1984	289	22:22:21	2.00 +/- 0.15	2.00 +/- 0.15	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	289	23:21:21	2.20 +/- 0.10	2.20 +/- 0.10	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	289	23:56:21	2.30 +/- 0.10	2.30 +/- 0.10	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	290	0:55:21	2.38 +/- 0.10	2.38 +/- 0.10	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	290	2:30:20	2.51 +/- 0.10	2.51 +/- 0.10	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	290	4:39:21	2.80 +/- 0.10	2.80 +/- 0.10	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	290	5:40:21	2.90 +/- 0.15	2.90 +/- 0.15	10.0 +/- 0.5	10.0 +/- 0.5	SMM
1984	290	6:14:20	3.10 +/- 0.15	3.10 +/- 0.15	10.0 +/- 1.0	10.0 +/- 1.0	SMM

Structure being measured:

Top of Mound

OUTPUT:

START TIME:

Event began at $t = 0 + -0.920E+03 +/- 0.491E+03$ [minutes]

In more convenient units:

Event began at DOY 289 6:40 +/- 0.491E+03 [minutes]

Origin defined at DOY289 22: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $0.228E-03 +/- 0.378E-03$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.205E+01 +/- 0.546E-01$ [solar radii]
 $c(2) = 0.168E-02 +/- 0.525E-03$ [radii/min]
 $c(2) = 0.195E+02 +/- 0.609E+01$ [km/sec]
 $c(3) = 0.590E-06 +/- 0.976E-06$ [radii/min**2]
 $c(3) = 0.228E-03 +/- 0.378E-03$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.62246E-01$ [radii] Bevington pg 154 (8-30)

Exact error in $c(1) = 0.13278E-01$ [radii] Bevington pg 154 (8-28)

Approximate error in $c(2) = 0.62389E-03$ [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.15487E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.11476E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.31022E-06 [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) = 10. +/- 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 22:22 = 0.000E+00 km/sec
The TOTAL velocity at 22:22 = 20. km/sec

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

The TANGENTIAL velocity at 23:56 = 0.000E+00 km/sec
The TOTAL velocity at 23:56 = 21. km/sec

The TANGENTIAL velocity at 0:55 = 0.000E+00 km/sec
The TOTAL velocity at 0:55 = 22. km/sec

The TANGENTIAL velocity at 2:30 = 0.000E+00 km/sec
The TOTAL velocity at 2:30 = 23. km/sec

The TANGENTIAL velocity at 4:39 = 0.000E+00 km/sec
The TOTAL velocity at 4:39 = 25. km/sec

The TANGENTIAL velocity at 5:40 = 0.000E+00 km/sec
The TOTAL velocity at 5:40 = 26. km/sec

The TANGENTIAL velocity at 6:14 = 0.000E+00 km/sec
The TOTAL velocity at 6:14 = 26. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.38
Standard Deviation in start time measurement = 0.170E+03
Value of reduced Chi Squared returned from nllst2 = 0.235E-02
Reduced Chi Squared = 0.171E-01

Chi Squared = 0.857E-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 = 0.8808E+00

The correlation between the data and the time**2 term = 0.8644E+00

The correlation between the data and the complete equation of motion = 0.9826E+00

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