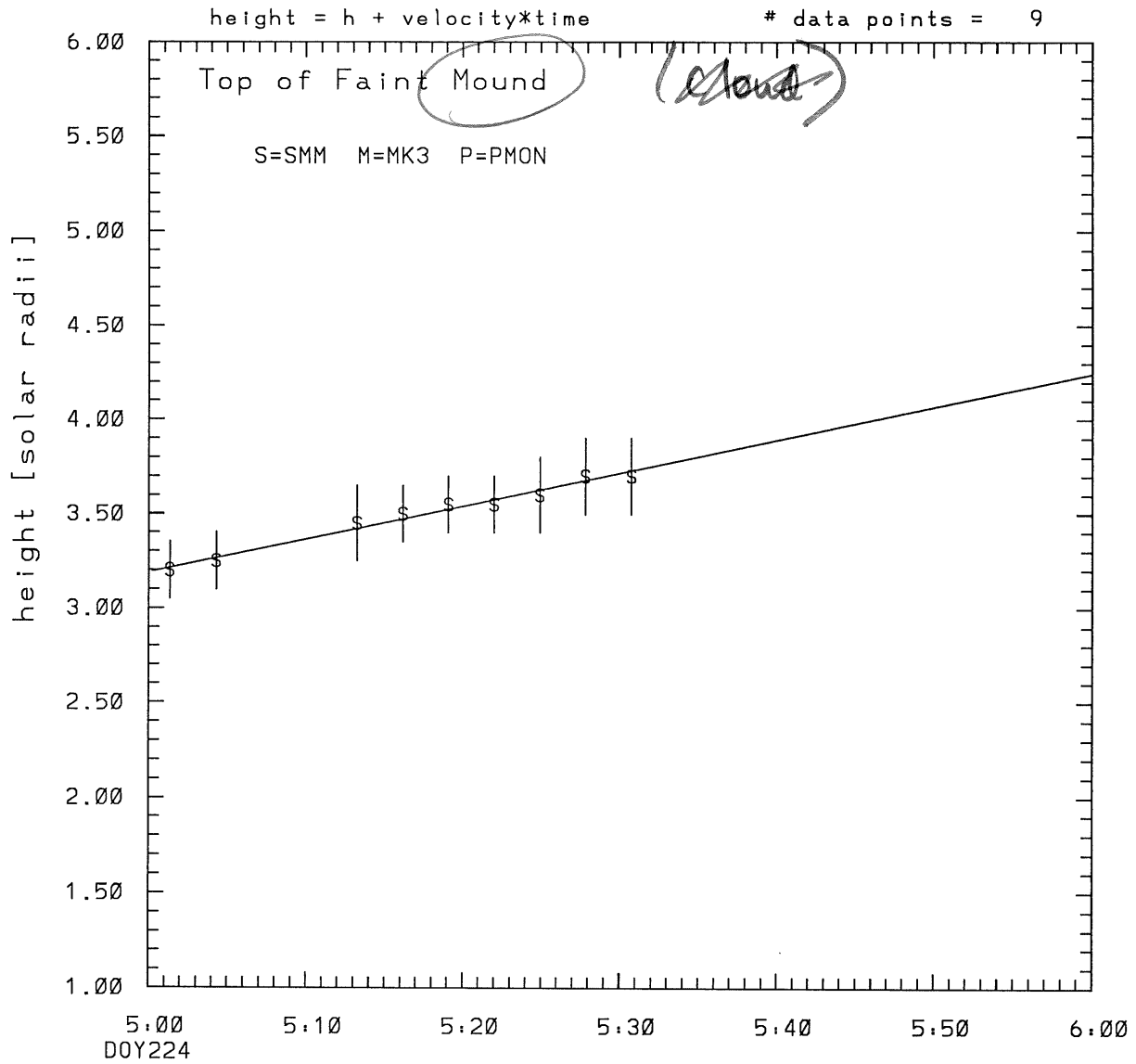
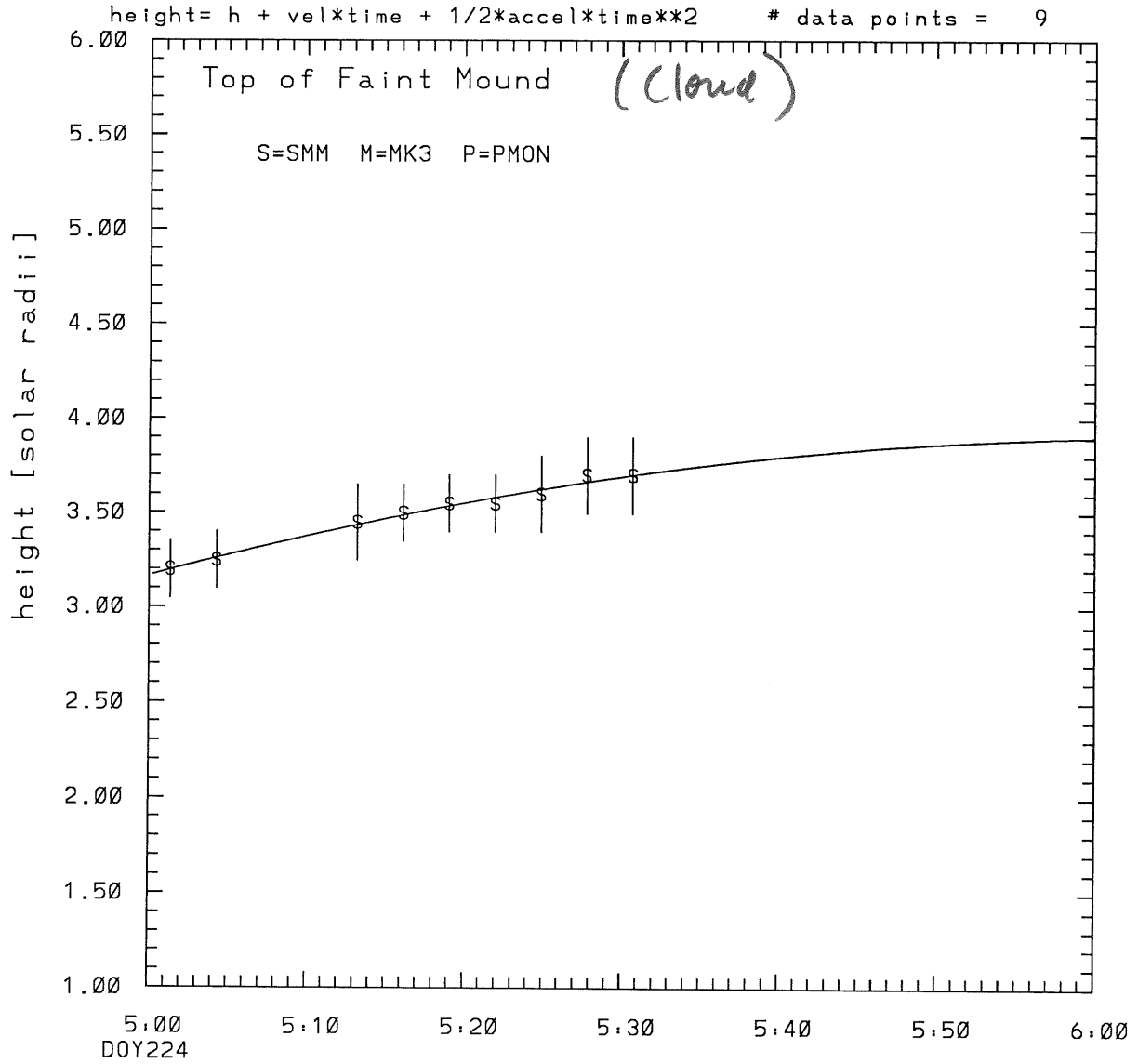


SMM C/P 1984 DOY224 62 +/- 0 degrees



tstart=DOY224 2:56 +/- 1.7 [min.]
radial velocity= 204. +/- 10. [km/sec]

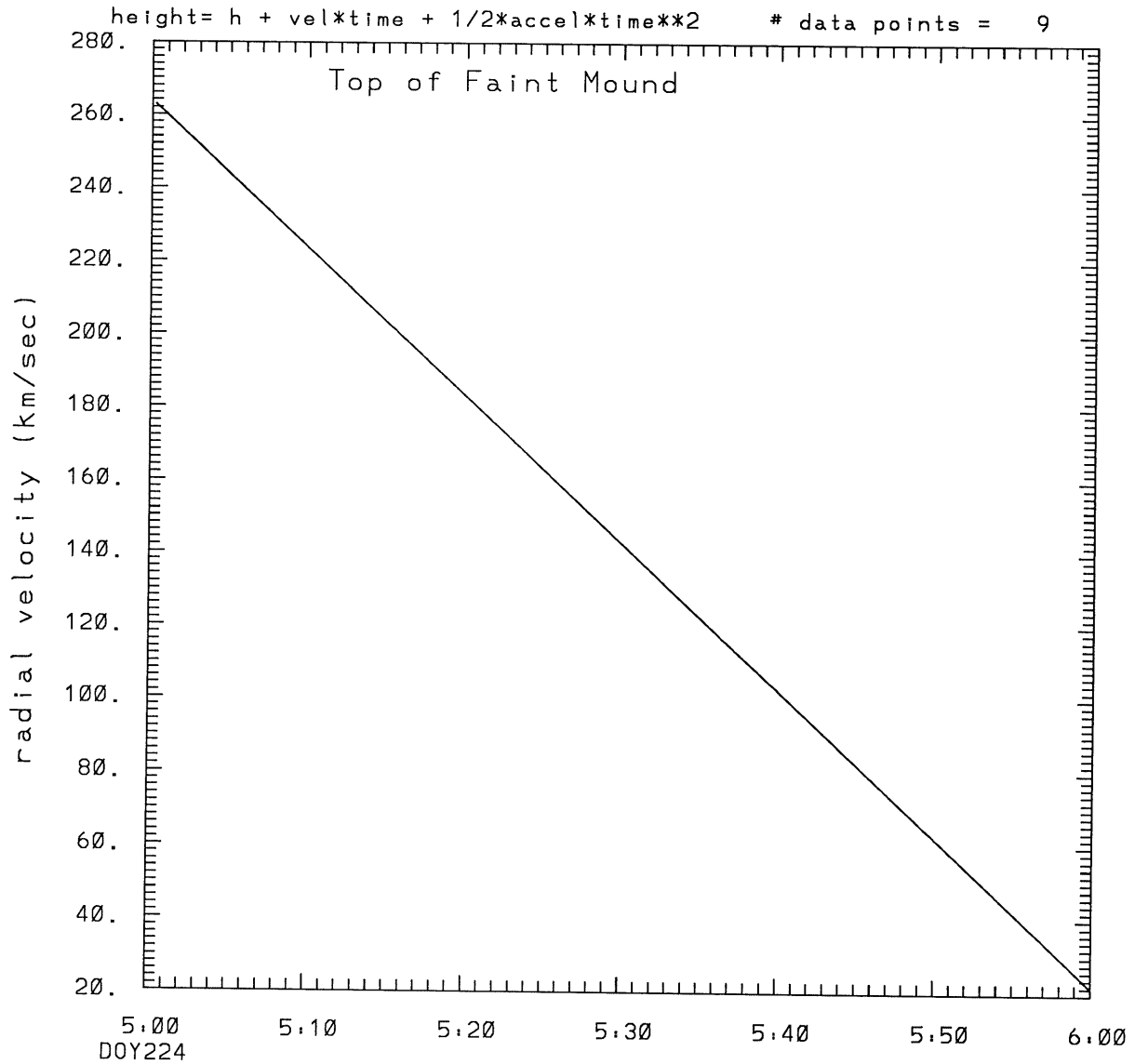
SMM C/P 1984 DOY224 62 +/- 0 degrees



tstart=DOY224 3:58 +/- 5.4 [min.]

radial acceleration = -0.0671 ± 0.0349 [km/sec**2]

SMM C/P 1984 DOY224 62 +/- 0 degrees



5.00
DOY224

tstart=DOY224 3:58 +/- 5.4 [min.]

radial acceleration = $-.671E-01$ km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	error in	angle	datatype
1984	224	5: 1:21	3.20	+/- 0.15	62.0	+/- 1.0	SMM		
1984	224	5: 4:17	3.25	+/- 0.15	62.0	+/- 1.0	SMM		
1984	224	5:13:14	3.45	+/- 0.20	62.0	+/- 1.0	SMM		
1984	224	5:16: 9	3.50	+/- 0.15	62.0	+/- 1.0	SMM		
1984	224	5:19: 5	3.55	+/- 0.15	62.0	+/- 1.0	SMM		
1984	224	5:22: 0	3.55	+/- 0.15	62.0	+/- 1.0	SMM		
1984	224	5:24:55	3.60	+/- 0.20	62.0	+/- 1.0	SMM		
1984	224	5:27:50	3.70	+/- 0.20	62.0	+/- 1.0	SMM		
1984	224	5:30:45	3.70	+/- 0.20	62.0	+/- 1.0	SMM		

Structure being measured:
Top of Faint Mound (cloud)

OUTPUT:

START TIME:

Event began at $t = 0 + -0.124E+03 +/- 0.170E+01$ [minutes]
In more convenient units:
Event began at DOY 224 2:56 +/- 0.170E+01 [minutes]

Origin defined at DOY224 5: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 204. +/- 10. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.319E+01 +/- 0.165E-01$ [solar radii]
 $c(2) = 0.176E-01 +/- 0.882E-03$ [radii/min]
 $c(2) = 0.204E+03 +/- 0.102E+02$ [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 $c(1) = 0.19382E-01$ [radii] see Bevington pg. 114
error in $c(2) = 0.96306E-03$ [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) = 62. +/- 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 5: 1 = 0.000E+00 km/sec

The TOTAL velocity at 5: 1 = 204. km/sec

The TANGENTIAL velocity at 5: 4 = 0.000E+00 km/sec

The TOTAL velocity at 5: 4 = 204. km/sec

The TANGENTIAL velocity at 5:13 = 0.000E+00 km/sec

The TOTAL velocity at 5:13 = 204. km/sec

The TANGENTIAL velocity at 5:16 = 0.000E+00 km/sec

The TOTAL velocity at 5:16 = 204. km/sec

The TANGENTIAL velocity at 5:19 = 0.000E+00 km/sec

The TOTAL velocity at 5:19 = 204. km/sec

The TANGENTIAL velocity at 5:22 = 0.000E+00 km/sec

The TOTAL velocity at 5:22 = 204. km/sec

The TANGENTIAL velocity at 5:24 = 0.000E+00 km/sec

The TOTAL velocity at 5:24 = 204. km/sec

The TANGENTIAL velocity at 5:27 = 0.000E+00 km/sec

The TOTAL velocity at 5:27 = 204. km/sec

The TANGENTIAL velocity at 5:30 = 0.000E+00 km/sec

The TOTAL velocity at 5:30 = 204. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.18
Standard Deviation in start time measurement = 0.952E+01
Error in time = 0.41373E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.626E-03

Reduced Chi Squared = 0.425E-02

Chi Squared = 0.298E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.989E+00

The probability that no LINEAR correlation exists between the variables = 0.3921E-06

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
1984	224	5: 1:21	3.20	+/- 0.15	62.0	+/- 1.0	SMM
1984	224	5: 4:17	3.25	+/- 0.15	62.0	+/- 1.0	SMM
1984	224	5:13:14	3.45	+/- 0.20	62.0	+/- 1.0	SMM
1984	224	5:16: 9	3.50	+/- 0.15	62.0	+/- 1.0	SMM
1984	224	5:19: 5	3.55	+/- 0.15	62.0	+/- 1.0	SMM
1984	224	5:22: 0	3.55	+/- 0.15	62.0	+/- 1.0	SMM
1984	224	5:24:55	3.60	+/- 0.20	62.0	+/- 1.0	SMM
1984	224	5:27:50	3.70	+/- 0.20	62.0	+/- 1.0	SMM
1984	224	5:30:45	3.70	+/- 0.20	62.0	+/- 1.0	SMM

Structure being measured:
Top of Faint Mound

OUTPUT:

START TIME:

Event began at $t = 0 + -0.640E+02 +/- 0.537E+01$ [minutes]
In more convenient units:
Event began at DOY 224 3:58 +/- 0.537E+01 [minutes]

Origin defined at DOY224 5: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.671E-01 +/- 0.349E-01$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.317E+01 +/- 0.185E-01$ [solar radii]
 $c(2) = 0.227E-01 +/- 0.279E-02$ [radii/min]
 $c(2) = 0.264E+03 +/- 0.323E+02$ [km/sec]
 $c(3) = -0.174E-03 +/- 0.903E-04$ [radii/min**2]
 $c(3) = -0.671E-01 +/- 0.349E-01$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.22869E-01$ [radii] Bevington pg 154 (8-30)
Exact error in $c(1) = 0.17746E-02$ [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.32237E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.46931E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.98730E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.14119E-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) = 62. +/- 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 5: 1 = 0.000E+00 km/sec

The TOTAL velocity at 5: 1 = 258. km/sec

The TANGENTIAL velocity at 5: 4 = 0.000E+00 km/sec

The TOTAL velocity at 5: 4 = 247. km/sec

The TANGENTIAL velocity at 5:13 = 0.000E+00 km/sec

The TOTAL velocity at 5:13 = 210. km/sec

The TANGENTIAL velocity at 5:16 = 0.000E+00 km/sec

The TOTAL velocity at 5:16 = 199. km/sec

The TANGENTIAL velocity at 5:19 = 0.000E+00 km/sec

The TOTAL velocity at 5:19 = 187. km/sec

The TANGENTIAL velocity at 5:22 = 0.000E+00 km/sec

The TOTAL velocity at 5:22 = 175. km/sec

The TANGENTIAL velocity at 5:24 = 0.000E+00 km/sec

The TOTAL velocity at 5:24 = 163. km/sec

The TANGENTIAL velocity at 5:27 = 0.000E+00 km/sec

The TOTAL velocity at 5:27 = 152. km/sec

The TANGENTIAL velocity at 5:30 = 0.000E+00 km/sec

The TOTAL velocity at 5:30 = 140. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.18
Standard Deviation in start time measurement = 0.952E+01
Value of reduced Chi Squared returned from nllst2 = 0.468E-03
Reduced Chi Squared = 0.382E-02
Chi Squared = 0.229E-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 = 0.9966E+00

The correlation between the data and the time**2 term = 0.8892E+00

The correlation between the data and the complete equation of motion = 0.9863E+00

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