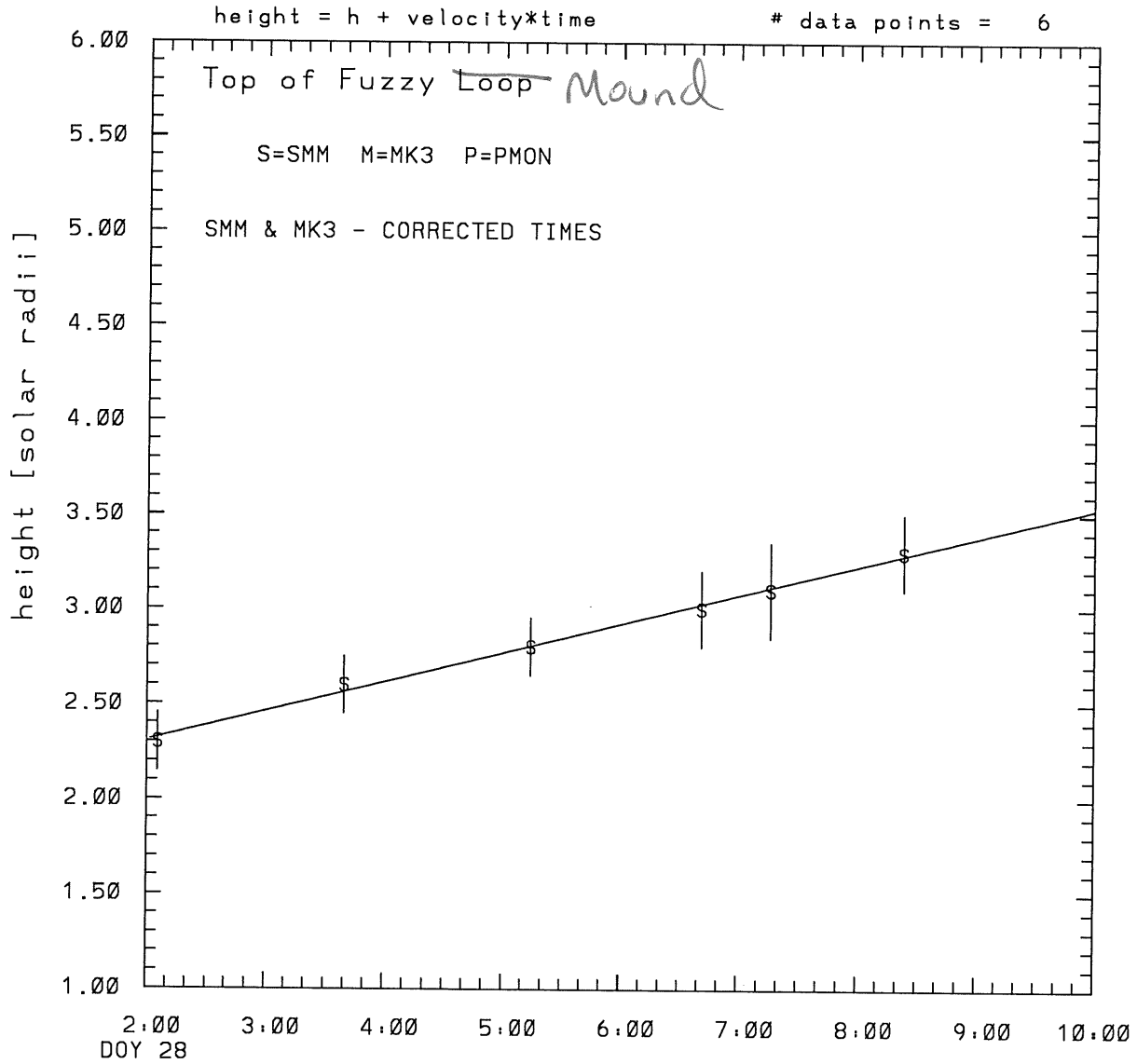
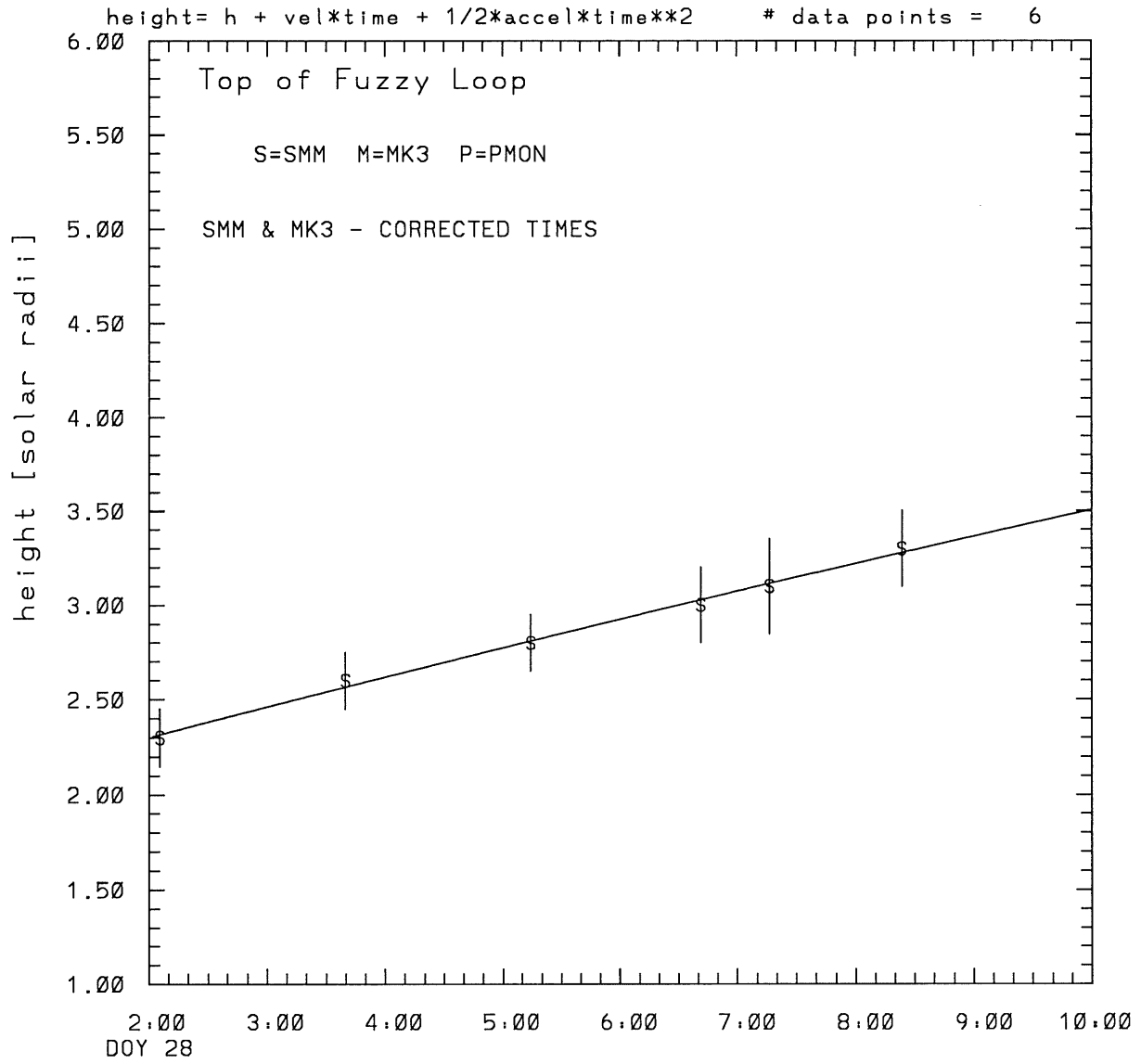


SMM C/P 1985 DOY 28 108 +/- 0 degrees



tstart=DOY 27 17:28 +/- 5.6 [min.]  
radial velocity= 30. +/- 1. [km/sec]

SMM C/P 1985 DOY 28 108 +/- 0 degrees

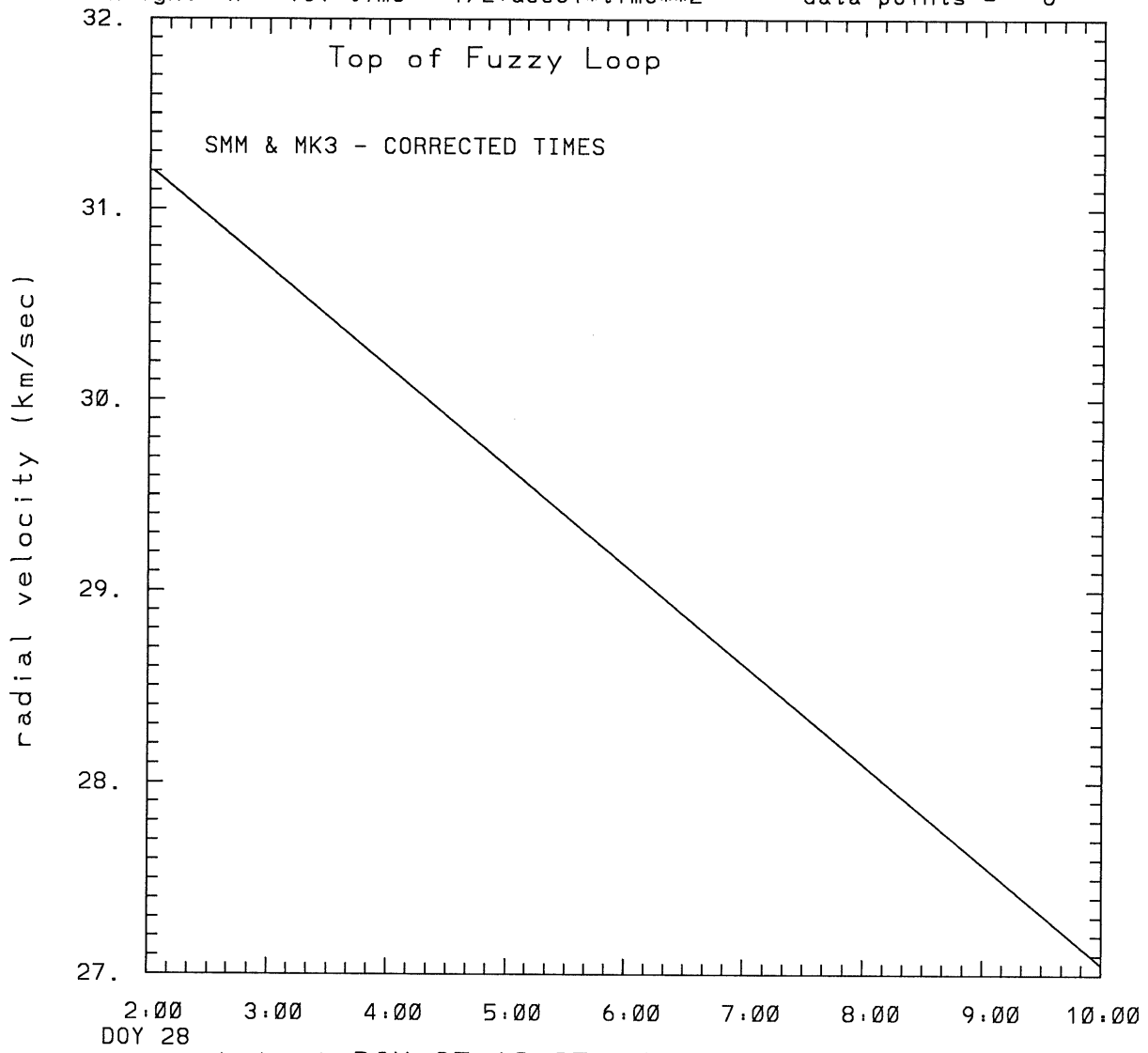


tstart=DOY 27 18:27 +/- 324.5 [min.]

radial acceleration =  $-0.0001 \pm 0.0003$  [km/sec\*\*2]

SMM C/P 1985 DOY 28 108 +/- 0 degrees

height= h + vel\*time + 1/2\*accel\*time\*\*2 # data points = 6



2:00  
DOY 28

tstart=DOY 27 18:27 +/- 324.5 [min.]

radial acceleration=-.144E-03 km/sec\*\*2

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

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

year	day	time	error in radii	error in radius	error in angle	error in angle	datatype
1985	28	2: 5:33	2.30 +/- 0.15		108.0 +/- 0.5		SMM
1985	28	3:39:51	2.60 +/- 0.15		108.0 +/- 0.5		SMM
1985	28	5:14:33	2.80 +/- 0.15		108.0 +/- 0.5		SMM
1985	28	6:41:29	3.00 +/- 0.20		108.0 +/- 1.0		SMM
1985	28	7:16:26	3.10 +/- 0.25		108.0 +/- 1.0		SMM
1985	28	8:23:33	3.30 +/- 0.20		108.0 +/- 1.0		SMM

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

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

START TIME:

Event began at  $t = 0 + -0.512E+03 +/- 0.564E+01$  [minutes]  
In more convenient units:  
Event began at DOY 27 17:28 +/- 0.564E+01 [minutes]

Origin defined at DOY 28 2: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 30. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.231E+01 +/- 0.179E-01 [solar radii]  
c(2) = 0.255E-02 +/- 0.823E-04 [radii/min]  
c(2) = 0.296E+02 +/- 0.955E+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)= 0.21514E-01 [radii] see Bevington pg. 114  
error in c(2)= 0.86132E-04 [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) = 108. +/- 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 2: 5 = 0.000E+00 km/sec

The TOTAL velocity at 2: 5 = 30. km/sec

The TANGENTIAL velocity at 3:39 = 0.000E+00 km/sec

The TOTAL velocity at 3:39 = 30. km/sec

The TANGENTIAL velocity at 5:14 = 0.000E+00 km/sec

The TOTAL velocity at 5:14 = 30. km/sec

The TANGENTIAL velocity at 6:41 = 0.000E+00 km/sec

The TOTAL velocity at 6:41 = 30. km/sec

The TANGENTIAL velocity at 7:16 = 0.000E+00 km/sec

The TOTAL velocity at 7:16 = 30. km/sec

The TANGENTIAL velocity at 8:23 = 0.000E+00 km/sec

The TOTAL velocity at 8:23 = 30. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.36

Standard Deviation in start time measurement = 0.130E+03

Error in time = 0.21409E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.660E-03

Reduced Chi Squared = 0.207E-02

Chi Squared = 0.829E-02

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 = 0.7617E-05

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

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

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

year	doy	time	radii	radius	error in	angle	angle	datatype
1985	28	2: 5:33	2.30	+/- 0.15	108.0	+/- 0.5	SMM	
1985	28	3:39:51	2.60	+/- 0.15	108.0	+/- 0.5	SMM	
1985	28	5:14:33	2.80	+/- 0.15	108.0	+/- 0.5	SMM	
1985	28	6:41:29	3.00	+/- 0.20	108.0	+/- 1.0	SMM	
1985	28	7:16:26	3.10	+/- 0.25	108.0	+/- 1.0	SMM	
1985	28	8:23:33	3.30	+/- 0.20	108.0	+/- 1.0	SMM	

\*\*\*\*\*  
Structure being measured:  
Top of Fuzzy Loop  
\*\*\*\*\*

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

START TIME:

Event began at  $t = 0 + -0.455E+03 \pm 0.324E+03$  [minutes]  
In more convenient units:  
Event began at DOY 27 18:27  $\pm 0.324E+03$  [minutes]

Origin defined at DOY 28 2: 0

RADIAL INFORMATION:

RADIAL ACCELERATION =  $-0.144E-03 \pm 0.307E-03$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.230E+01 \pm 0.241E-01$  [solar radii]  
 $c(2) = 0.269E-02 \pm 0.307E-03$  [radii/min]  
 $c(2) = 0.312E+02 \pm 0.357E+01$  [km/sec]  
 $c(3) = -0.374E-06 \pm 0.794E-06$  [radii/min\*\*2]  
 $c(3) = -0.144E-03 \pm 0.307E-03$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in  $c(1) = 0.31367E-01$  [radii] Bevington pg 154 (8-30)  
Exact error in  $c(1) = 0.92209E-02$  [radii] Bevington pg 154 (8-28)  
Approximate error in  $c(2) = 0.37669E-03$  [radii/min] Bevington pg 154 (8-30)  
Exact error in  $c(2) = 0.10183E-03$  [radii/min] Bevington pg 154 (8-28)  
Approximate error in  $c(3) = 0.94115E-06$  [radii/min\*\*] Bevington pg 154 (8-30)

Exact error in  $c(3) = 0.26630E-06$  [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:

$a(1) = 108.$  +/-  $0.$  [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 2: 5 =  $0.000E+00$  km/sec

The TOTAL velocity at 2: 5 = 31. km/sec

The TANGENTIAL velocity at 3:39 =  $0.000E+00$  km/sec

The TOTAL velocity at 3:39 = 30. km/sec

The TANGENTIAL velocity at 5:14 =  $0.000E+00$  km/sec

The TOTAL velocity at 5:14 = 30. km/sec

The TANGENTIAL velocity at 6:41 =  $0.000E+00$  km/sec

The TOTAL velocity at 6:41 = 29. km/sec

The TANGENTIAL velocity at 7:16 =  $0.000E+00$  km/sec

The TOTAL velocity at 7:16 = 28. km/sec

The TANGENTIAL velocity at 8:23 =  $0.000E+00$  km/sec

The TOTAL velocity at 8:23 = 28. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.36

Standard Deviation in start time measurement =  $0.130E+03$

Value of reduced Chi Squared returned from nllst2 =  $0.782E-03$

Reduced Chi Squared =  $0.340E-02$

Chi Squared =  $0.102E-01$

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 =  $0.1024E+01$

The correlation between the data and the time\*\*2 term =  $0.9491E+00$

The correlation between the data and the complete equation of motion =  $0.9971E+00$

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