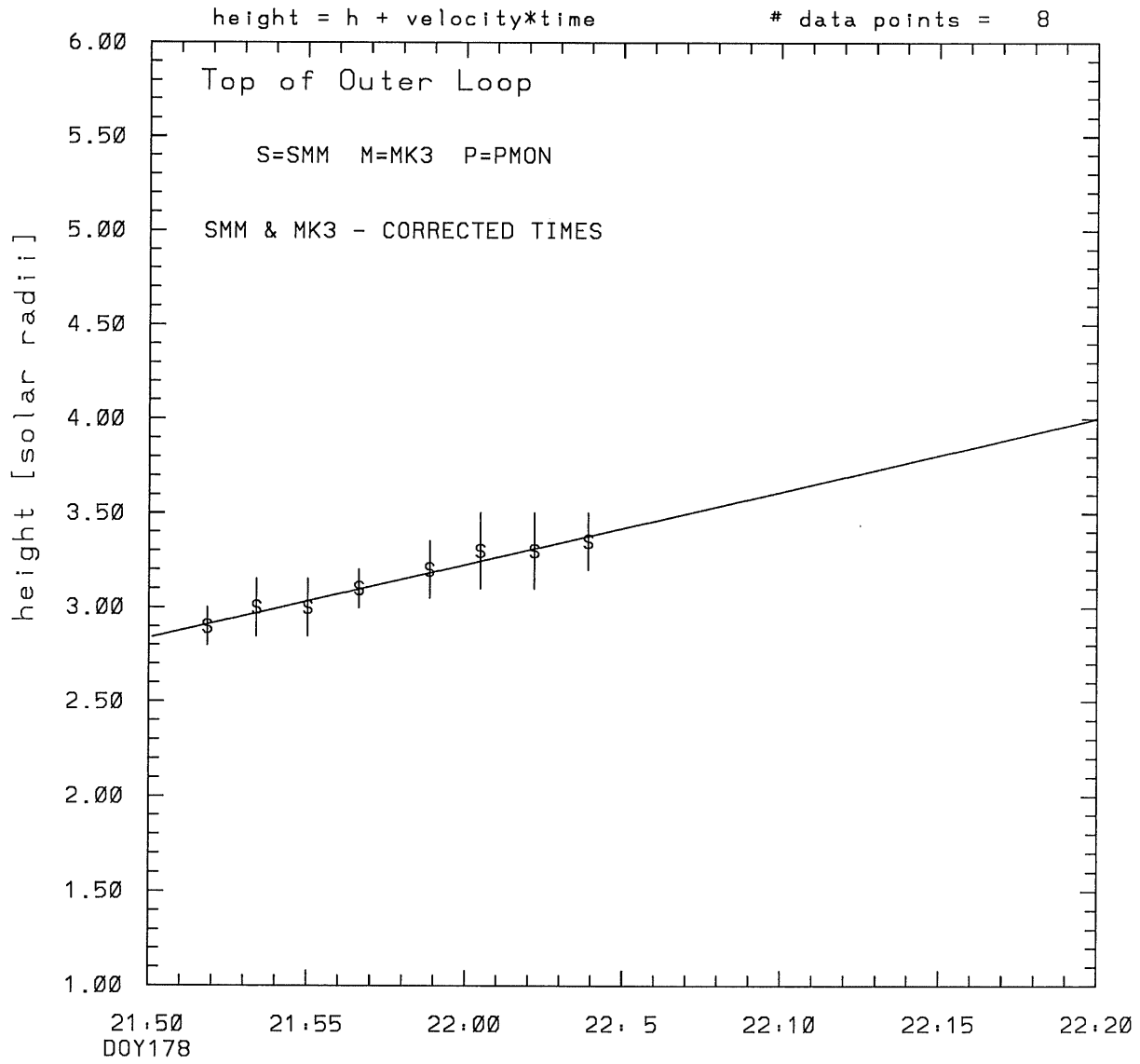
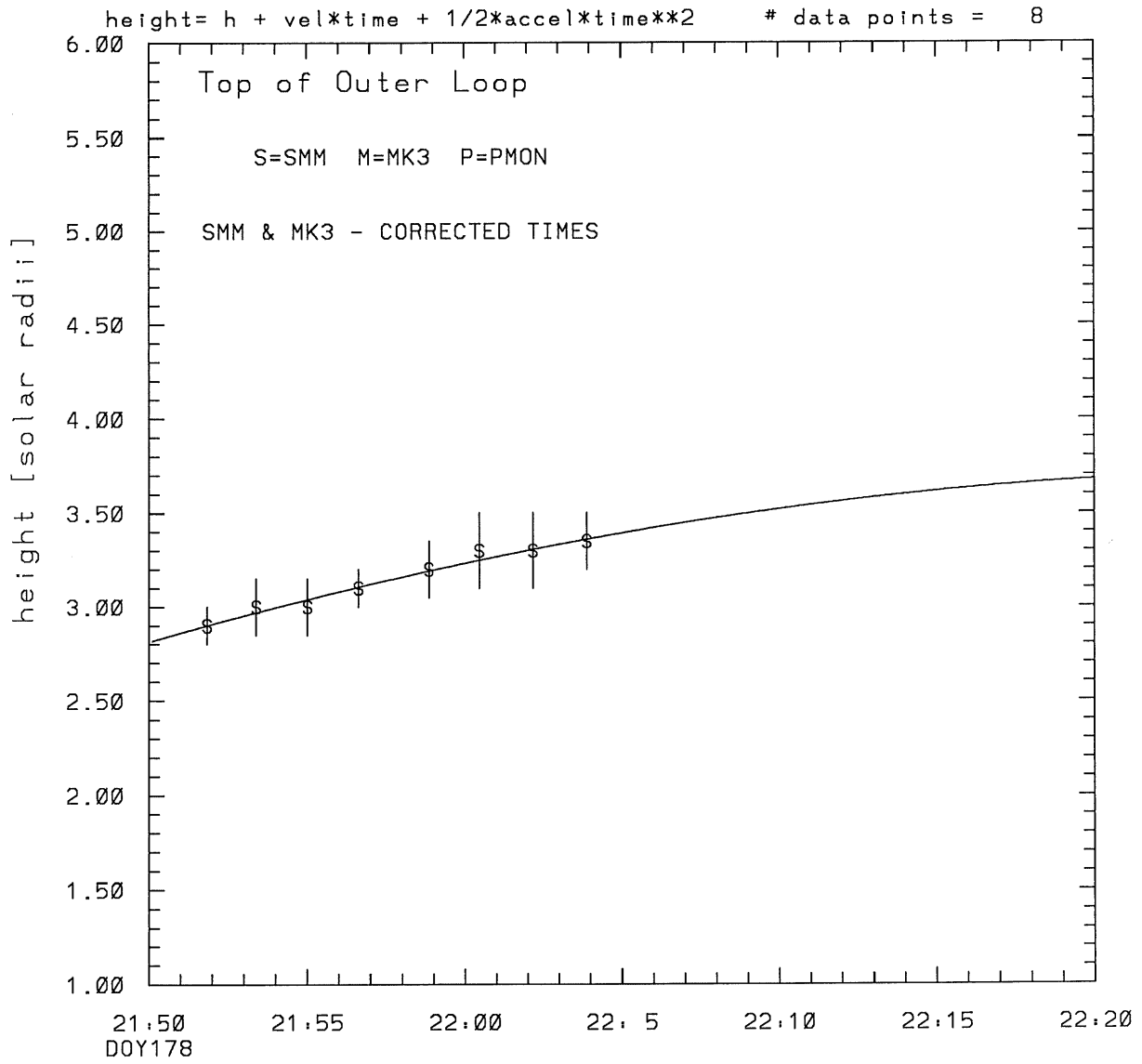


SMM C/P 1980 DOY178 220 +/- 0 degrees



tstart=DOY178 21.3 +/- 0.7 [min.]  
radial velocity= 449. +/- 26. [km/sec]

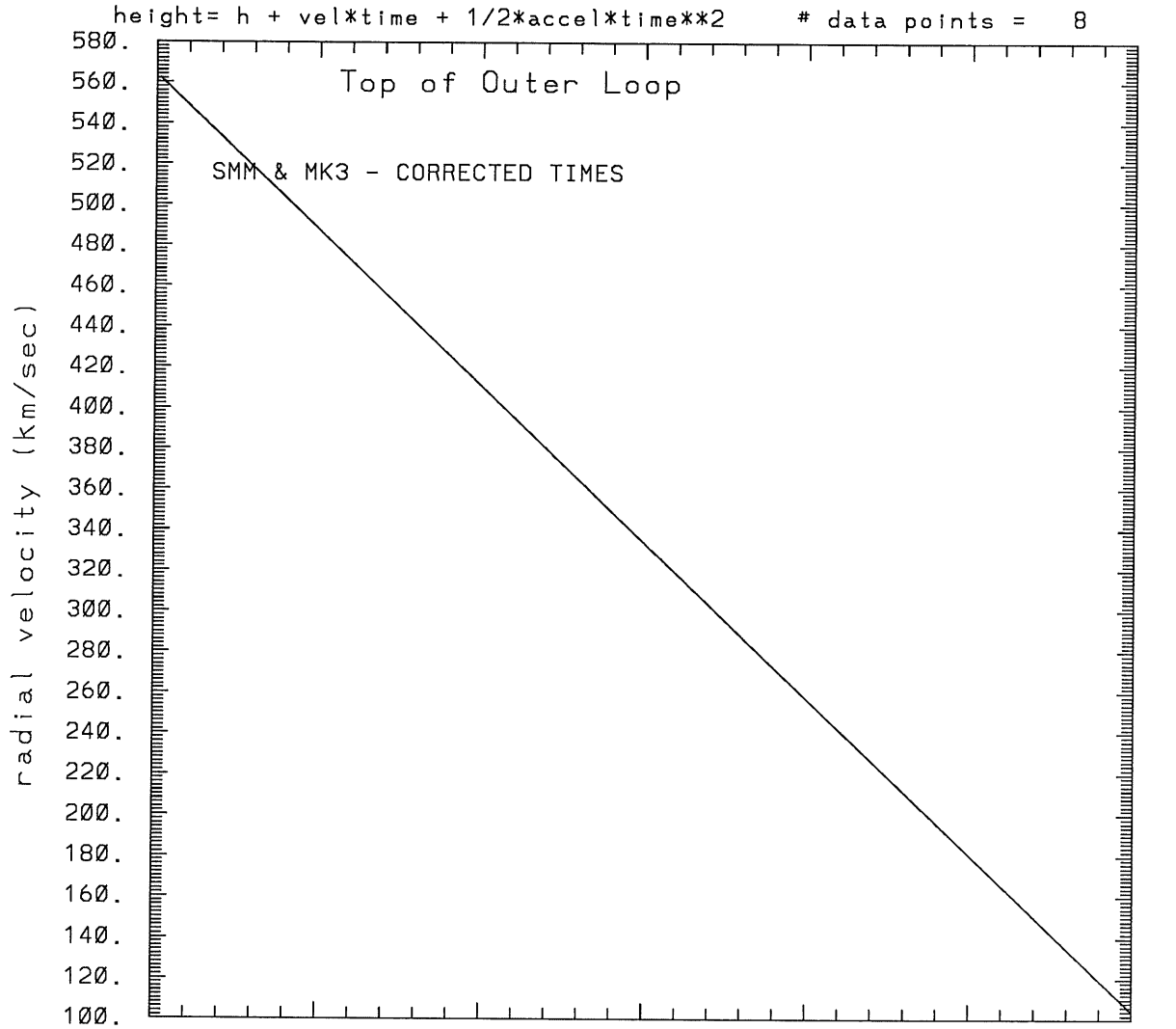
SMM C/P 1980 DOY178 220 +/- 0 degrees



tstart=DOY178 21:23 +/- 3.4 [min.]

radial acceleration =  $-0.2555 +/- 0.2259$  [km/sec\*\*2]

SMM C/P 1980 DOY178 220 +/- 0 degrees



21:50  
DOY178

tstart=DOY178 21:23 +/- 3.4 [min.]

radial acceleration=-.256E+00 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	radius	error in	angle	error in	angle	datatype
1980	178	21:51:51	2.90	+/- 0.10	220.0	+/- 0.5			SMM
1980	178	21:53:24	3.00	+/- 0.15	220.0	+/- 1.0			SMM
1980	178	21:55: 1	3.00	+/- 0.15	220.0	+/- 1.0			SMM
1980	178	21:56:38	3.10	+/- 0.10	220.0	+/- 1.0			SMM
1980	178	21:58:52	3.20	+/- 0.15	220.0	+/- 1.0			SMM
1980	178	22: 0:28	3.30	+/- 0.20	220.0	+/- 1.0			SMM
1980	178	22: 2:11	3.30	+/- 0.20	220.0	+/- 1.0			SMM
1980	178	22: 3:54	3.35	+/- 0.15	220.0	+/- 1.0			SMM

\*\*\*\*\*

Structure being measured:

Top of Outer Loop

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.475E+02 +/- 0.651E+00$  [minutes]

In more convenient units:

Event began at DOY 178 21: 3 +/- 0.651E+00 [minutes]

Origin defined at DOY178 21:50

RADIAL INFORMATION:

RADIAL VELOCITY = 449. +/- 26. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.284E+01 +/- 0.170E-01$  [solar radii]  
 $c(2) = 0.387E-01 +/- 0.223E-02$  [radii/min]  
 $c(2) = 0.449E+03 +/- 0.258E+02$  [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  $c(1) = 0.25208E-01$  [radii] see Bevington pg. 114

error in  $c(2) = 0.28774E-02$  [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) = 220. +/- 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 21:51 = 0.000E+00 km/sec

The TOTAL velocity at 21:51 = 449. km/sec

The TANGENTIAL velocity at 21:53 = 0.000E+00 km/sec

The TOTAL velocity at 21:53 = 449. km/sec

The TANGENTIAL velocity at 21:55 = 0.000E+00 km/sec

The TOTAL velocity at 21:55 = 449. km/sec

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

The TOTAL velocity at 21:56 = 449. km/sec

The TANGENTIAL velocity at 21:58 = 0.000E+00 km/sec

The TOTAL velocity at 21:58 = 449. km/sec

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

The TOTAL velocity at 22: 0 = 449. km/sec

The TANGENTIAL velocity at 22: 2 = 0.000E+00 km/sec

The TOTAL velocity at 22: 2 = 449. km/sec

The TANGENTIAL velocity at 22: 3 = 0.000E+00 km/sec

The TOTAL velocity at 22: 3 = 449. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.17

Standard Deviation in start time measurement = 0.401E+01

Error in time = 0.20633E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.608E-03

Reduced Chi Squared = 0.537E-02

Chi Squared = 0.322E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient =  $0.984E+00$

The probability that no LINEAR correlation exists between the variables =  $0.1019E-04$

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

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

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

year	doy	time	radii	radius	error in	angle	error in	angle	datatype
1980	178	21:51:51	2.90	+/- 0.10	220.0	+/- 0.5			SMM
1980	178	21:53:24	3.00	+/- 0.15	220.0	+/- 1.0			SMM
1980	178	21:55: 1	3.00	+/- 0.15	220.0	+/- 1.0			SMM
1980	178	21:56:38	3.10	+/- 0.10	220.0	+/- 1.0			SMM
1980	178	21:58:52	3.20	+/- 0.15	220.0	+/- 1.0			SMM
1980	178	22: 0:28	3.30	+/- 0.20	220.0	+/- 1.0			SMM
1980	178	22: 2:11	3.30	+/- 0.20	220.0	+/- 1.0			SMM
1980	178	22: 3:54	3.35	+/- 0.15	220.0	+/- 1.0			SMM

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

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

START TIME:

Event began at  $t = 0 + -0.272E+02 +/- 0.342E+01$  [minutes]  
In more convenient units:  
Event began at DOY 178 21:23 +/- 0.342E+01 [minutes]

Origin defined at DOY178 21:50

RADIAL INFORMATION:

RADIAL ACCELERATION =  $-0.256E+00 +/- 0.226E+00$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) =  $0.281E+01 +/- 0.286E-01$  [solar radii]  
c(2) =  $0.486E-01 +/- 0.901E-02$  [radii/min]  
c(2) =  $0.564E+03 +/- 0.105E+03$  [km/sec]  
c(3) =  $-0.661E-03 +/- 0.584E-03$  [radii/min\*\*2]  
c(3) =  $-0.256E+00 +/- 0.226E+00$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) =  $0.46840E-01$  [radii] Bevington pg 154 (8-30)  
Exact error in c(1) =  $0.17675E-02$  [radii] Bevington pg 154 (8-28)  
Approximate error in c(2) =  $0.13888E-01$  [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.11036E-02 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.86492E-03 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.81790E-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) = 220. +/- 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 21:51 = 0.000E+00 km/sec  
The TOTAL velocity at 21:51 = 536. km/sec

The TANGENTIAL velocity at 21:53 = 0.000E+00 km/sec  
The TOTAL velocity at 21:53 = 512. km/sec

The TANGENTIAL velocity at 21:55 = 0.000E+00 km/sec  
The TOTAL velocity at 21:55 = 487. km/sec

The TANGENTIAL velocity at 21:56 = 0.000E+00 km/sec  
The TOTAL velocity at 21:56 = 462. km/sec

The TANGENTIAL velocity at 21:58 = 0.000E+00 km/sec  
The TOTAL velocity at 21:58 = 428. km/sec

The TANGENTIAL velocity at 22: 0 = 0.000E+00 km/sec  
The TOTAL velocity at 22: 0 = 404. km/sec

The TANGENTIAL velocity at 22: 2 = 0.000E+00 km/sec  
The TOTAL velocity at 22: 2 = 377. km/sec

The TANGENTIAL velocity at 22: 3 = 0.000E+00 km/sec  
The TOTAL velocity at 22: 3 = 351. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.17  
Standard Deviation in start time measurement = 0.401E+01  
Value of reduced Chi Squared returned from nllst2 = 0.585E-03  
Reduced Chi Squared = 0.478E-02



Chi Squared = 0.239E-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 = 0.1015E+01

The correlation between the data and the time\*\*2 term = 0.9322E+00

The correlation between the data and the complete equation of motion = 0.9767E+00

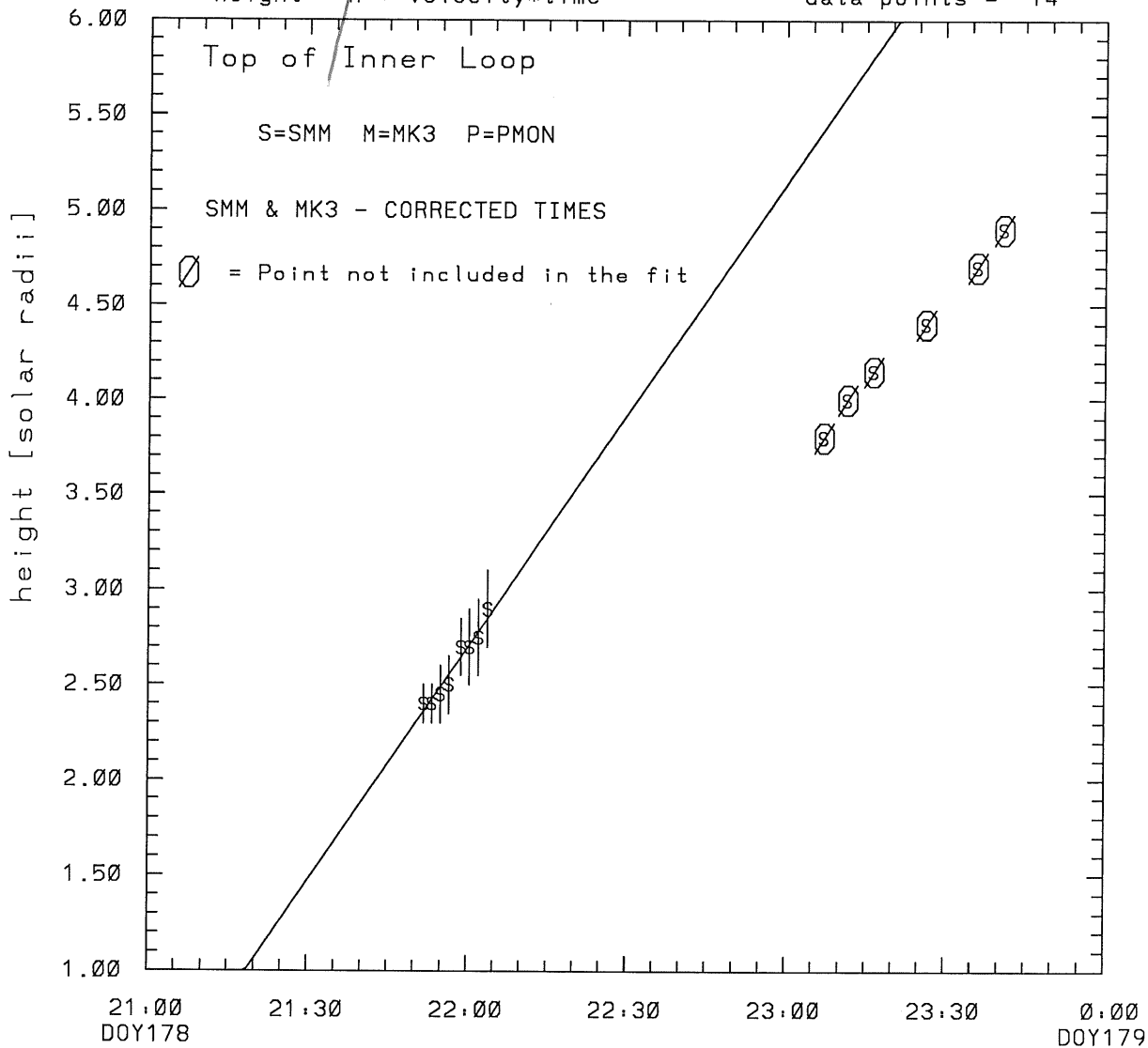
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

First

SMM C/P 1980 DOY178 220 +/- 0 degrees

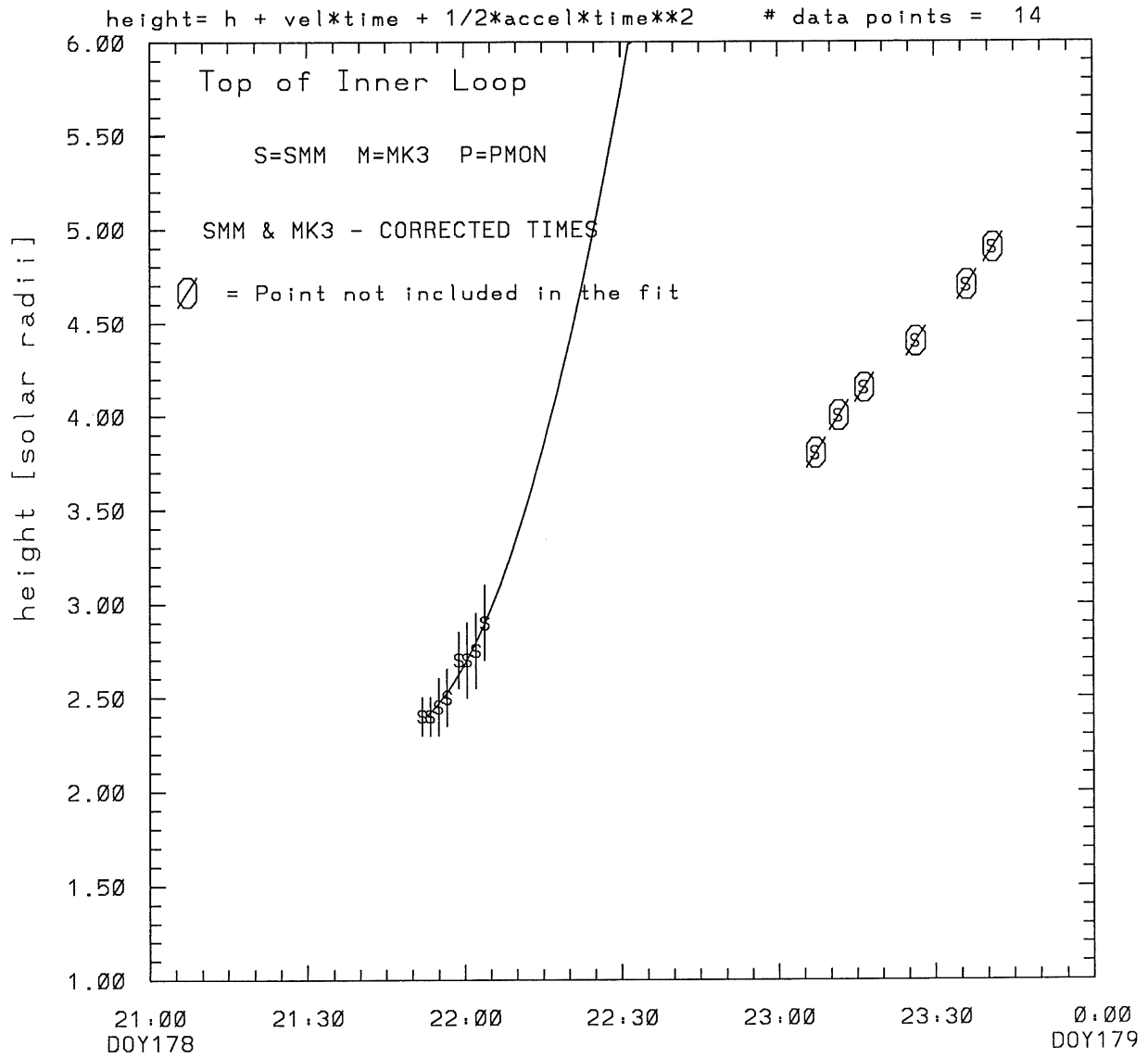
height = h + velocity\*time

# data points = 14



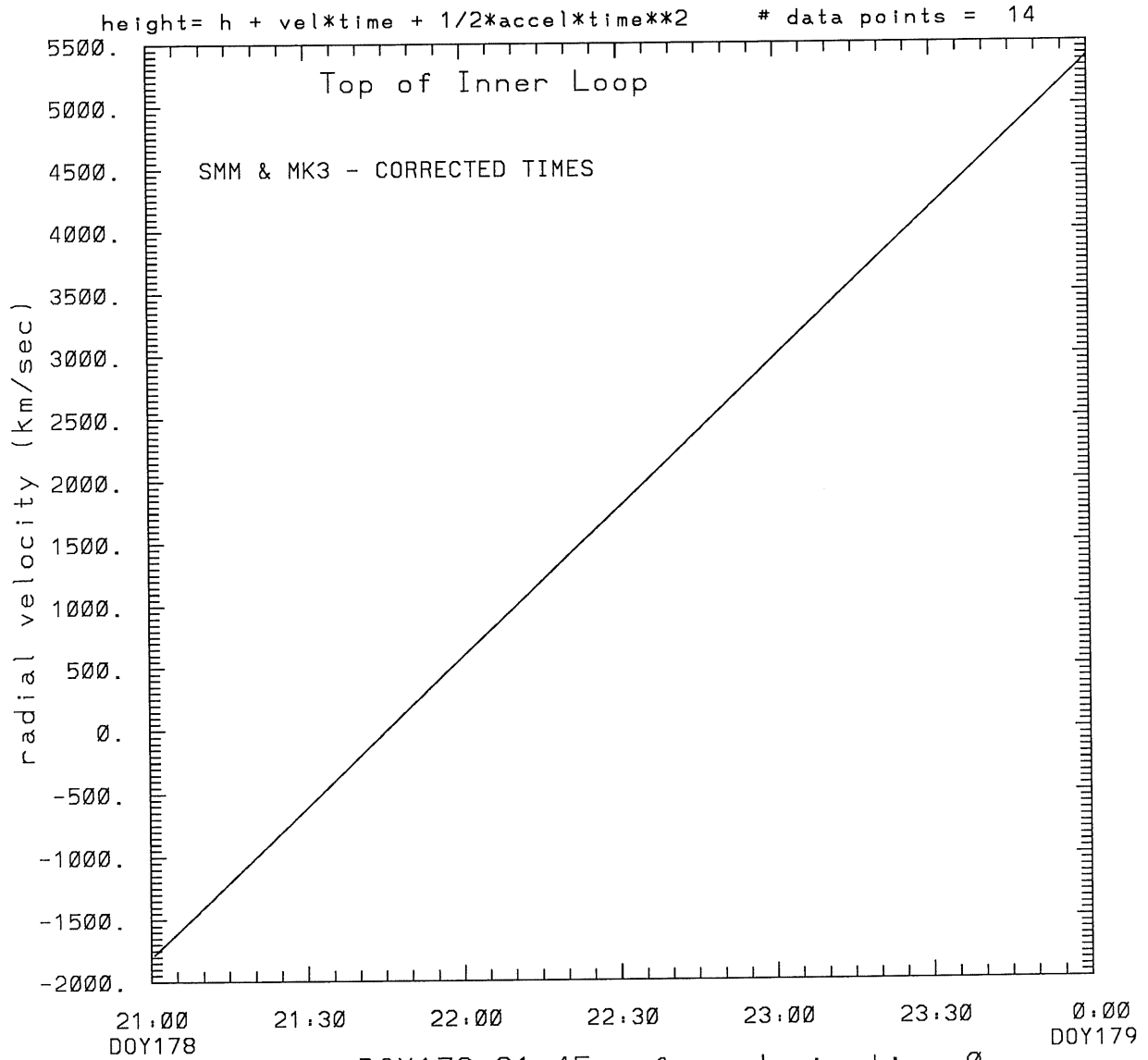
tstart=DOY178 21:18 +/- 3.3 [min.]  
radial velocity= 473. +/- 34. [km/sec]

SMM C/P 1980 DOY178 220 +/- 0 degrees



tstart=DOY178 21.45 from derivative=0  
Event begins at 2.31 Solar Radii  
radial acceleration =  $0.6652 \pm 0.2907$  [km/sec\*\*2]

SMM C/P 1980 DOY178 220 +/- 0 degrees



tstart=DOY178 21:45 from derivative=0  
Event begins at 2.31 Solar Radii  
radial acceleration=0.665E+00 km/sec\*\*2

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

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

year	day	time	radii	radius	error in	angle	error in	datatype
1980	178	21:51:51	2.40	+/- 0.10	220.0	+/- 0.5	SMM	
1980	178	21:53:24	2.40	+/- 0.10	220.0	+/- 0.5	SMM	
1980	178	21:55: 1	2.45	+/- 0.15	220.0	+/- 0.5	SMM	
1980	178	21:56:38	2.50	+/- 0.15	220.0	+/- 0.5	SMM	
1980	178	21:58:52	2.70	+/- 0.15	220.0	+/- 0.5	SMM	
1980	178	22: 0:28	2.70	+/- 0.20	220.0	+/- 0.5	SMM	
1980	178	22: 2:11	2.75	+/- 0.20	220.0	+/- 0.5	SMM	
1980	178	22: 3:54	2.90	+/- 0.20	220.0	+/- 0.5	SMM	
1980	178	23: 7: 4	3.80	-----	220.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:11:28	4.00	-----	220.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:16:23	4.15	-----	220.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:26:15	4.40	-----	220.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:35:56	4.70	-----	220.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:40:51	4.90	-----	220.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	

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

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

START TIME:

Event began at  $t = 0 + 0.185E+02 \pm 0.329E+01$  [minutes]  
In more convenient units:  
Event began at DOY 178 21:18  $\pm 0.329E+01$  [minutes]

Origin defined at DOY178 21: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 473.  $\pm$  34. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.246E+00 \pm 0.162E+00$  [solar radii]  
 $c(2) = 0.408E-01 \pm 0.289E-02$  [radii/min]  
 $c(2) = 0.473E+03 \pm 0.336E+02$  [km/sec]  
 $c(3) = 0.000E+00 \pm 0.000E+00$  [radii/min\*\*2]  
 $c(3) = 0.000E+00 \pm 0.000E+00$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.79917E+00 [radii] see Bevington pg. 114

error in c(2)= 0.77091E-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) = 220. +/- 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 21:51 = 0.000E+00 km/sec

The TOTAL velocity at 21:51 = 473. km/sec

The TANGENTIAL velocity at 21:53 = 0.000E+00 km/sec

The TOTAL velocity at 21:53 = 473. km/sec

The TANGENTIAL velocity at 21:55 = 0.000E+00 km/sec

The TOTAL velocity at 21:55 = 473. km/sec

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

The TOTAL velocity at 21:56 = 473. km/sec

The TANGENTIAL velocity at 21:58 = 0.000E+00 km/sec

The TOTAL velocity at 21:58 = 473. km/sec

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

The TOTAL velocity at 22: 0 = 473. km/sec

The TANGENTIAL velocity at 22: 2 = 0.000E+00 km/sec

The TOTAL velocity at 22: 2 = 473. km/sec

The TANGENTIAL velocity at 22: 3 = 0.000E+00 km/sec

The TOTAL velocity at 22: 3 = 473. km/sec

The TANGENTIAL velocity at 23: 7 = 0.000E+00 km/sec

The TOTAL velocity at 23: 7 = 473. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec

The TOTAL velocity at 23:11 = 473. km/sec

The TANGENTIAL velocity at 23:16 = 0.000E+00 km/sec

The TOTAL velocity at 23:16 = 473. km/sec

The TANGENTIAL velocity at 23:26 = 0.000E+00 km/sec

The TOTAL velocity at 23:26 = 473. km/sec

The TANGENTIAL velocity at 23:35 = 0.000E+00 km/sec  
The TOTAL velocity at 23:35 = 473. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec  
The TOTAL velocity at 23:40 = 473. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.93  
Standard Deviation in start time measurement = 0.430E+02  
Error in time = 0.10551E+03 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.167E-02  
Reduced Chi Squared = 0.181E+02  
Chi Squared = 0.217E+03  
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.992E+00  
The probability that no LINEAR correlation exists between the variables = -0.9441E-07  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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

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

year	doy	time	radii	radius	error in angle	error in angle	datatype
1980	178	21:51:51	2.40 +/- 0.10	220.0 +/- 0.5	SMM		
1980	178	21:53:24	2.40 +/- 0.10	220.0 +/- 0.5	SMM		
1980	178	21:55: 1	2.45 +/- 0.15	220.0 +/- 0.5	SMM		
1980	178	21:56:38	2.50 +/- 0.15	220.0 +/- 0.5	SMM		
1980	178	21:58:52	2.70 +/- 0.15	220.0 +/- 0.5	SMM		
1980	178	22: 0:28	2.70 +/- 0.20	220.0 +/- 0.5	SMM		
1980	178	22: 2:11	2.75 +/- 0.20	220.0 +/- 0.5	SMM		
1980	178	22: 3:54	2.90 +/- 0.20	220.0 +/- 0.5	SMM		
1980	178	23: 7: 4	3.80 -----	220.00 +/- ----	SMM	THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:11:28	4.00 -----	220.00 +/- ----	SMM	THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:16:23	4.15 -----	220.00 +/- ----	SMM	THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:26:15	4.40 -----	220.00 +/- ----	SMM	THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:35:56	4.70 -----	220.00 +/- ----	SMM	THIS POINT WASN'T USED IN THE FIT.	
1980	178	23:40:51	4.90 -----	220.00 +/- ----	SMM	THIS POINT WASN'T USED IN THE FIT.	

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

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

START TIME:  
  
tstart=DOY178 21:45 from derivative = 0  
Event begins at 2.31 Solar Radii  
Origin defined at DOY178 21: 0

RADIAL INFORMATION:  
  
RADIAL ACCELERATION = 0.665E+00 +/- 0.291E+00 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.585E+01 +/- 0.245E+01 [solar radii]
- c(2) = -0.156E+00 +/- 0.861E-01 [radii/min]
- c(2) = -0.181E+04 +/- 0.998E+03 [km/sec]
- c(3) = 0.172E-02 +/- 0.752E-03 [radii/min\*\*2]
- c(3) = 0.665E+00 +/- 0.291E+00 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:



Approximate error in c(1) = 0.35425E+02 [radii] Bevington pg 154 (8-30)  
Exact error in c(1) = 0.40265E+00 [radii] Bevington pg 154 (8-28)  
Approximate error in c(2) = 0.83086E+00 [radii/min] Bevington pg 154 (8-30)  
Exact error in c(2) = 0.13108E-01 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.40380E-02 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.10654E-03 [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) = 220. +/- 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 21:51 = 0.000E+00 km/sec  
The TOTAL velocity at 21:51 = 259. km/sec

The TANGENTIAL velocity at 21:53 = 0.000E+00 km/sec  
The TOTAL velocity at 21:53 = 321. km/sec

The TANGENTIAL velocity at 21:55 = 0.000E+00 km/sec  
The TOTAL velocity at 21:55 = 386. km/sec

The TANGENTIAL velocity at 21:56 = 0.000E+00 km/sec  
The TOTAL velocity at 21:56 = 450. km/sec

The TANGENTIAL velocity at 21:58 = 0.000E+00 km/sec  
The TOTAL velocity at 21:58 = 539. km/sec

The TANGENTIAL velocity at 22: 0 = 0.000E+00 km/sec  
The TOTAL velocity at 22: 0 = 603. km/sec

The TANGENTIAL velocity at 22: 2 = 0.000E+00 km/sec  
The TOTAL velocity at 22: 2 = 672. km/sec

The TANGENTIAL velocity at 22: 3 = 0.000E+00 km/sec  
The TOTAL velocity at 22: 3 = 740. km/sec

The TANGENTIAL velocity at 23: 7 = 0.000E+00 km/sec  
The TOTAL velocity at 23: 7 = 3261. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec  
The TOTAL velocity at 23:11 = 3437. km/sec

The TANGENTIAL velocity at 23:16 = 0.000E+00 km/sec  
The TOTAL velocity at 23:16 = 3633. km/sec

The TANGENTIAL velocity at 23:26 = 0.000E+00 km/sec  
The TOTAL velocity at 23:26 = 4027. km/sec

The TANGENTIAL velocity at 23:35 = 0.000E+00 km/sec  
The TOTAL velocity at 23:35 = 4414. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec  
The TOTAL velocity at 23:40 = 4610. km/sec

\*\*\*\*\*

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.93  
Standard Deviation in start time measurement = 0.430E+02  
Value of reduced Chi Squared returned from nllst2 = 0.127E-02  
Reduced Chi Squared = 0.154E+04  
Chi Squared = 0.170E+05  
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 = 0.8953E+00  
The correlation between the data and the time\*\*2 term = 0.8540E+00  
The correlation between the data and the complete equation of motion = 0.8381E+01  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

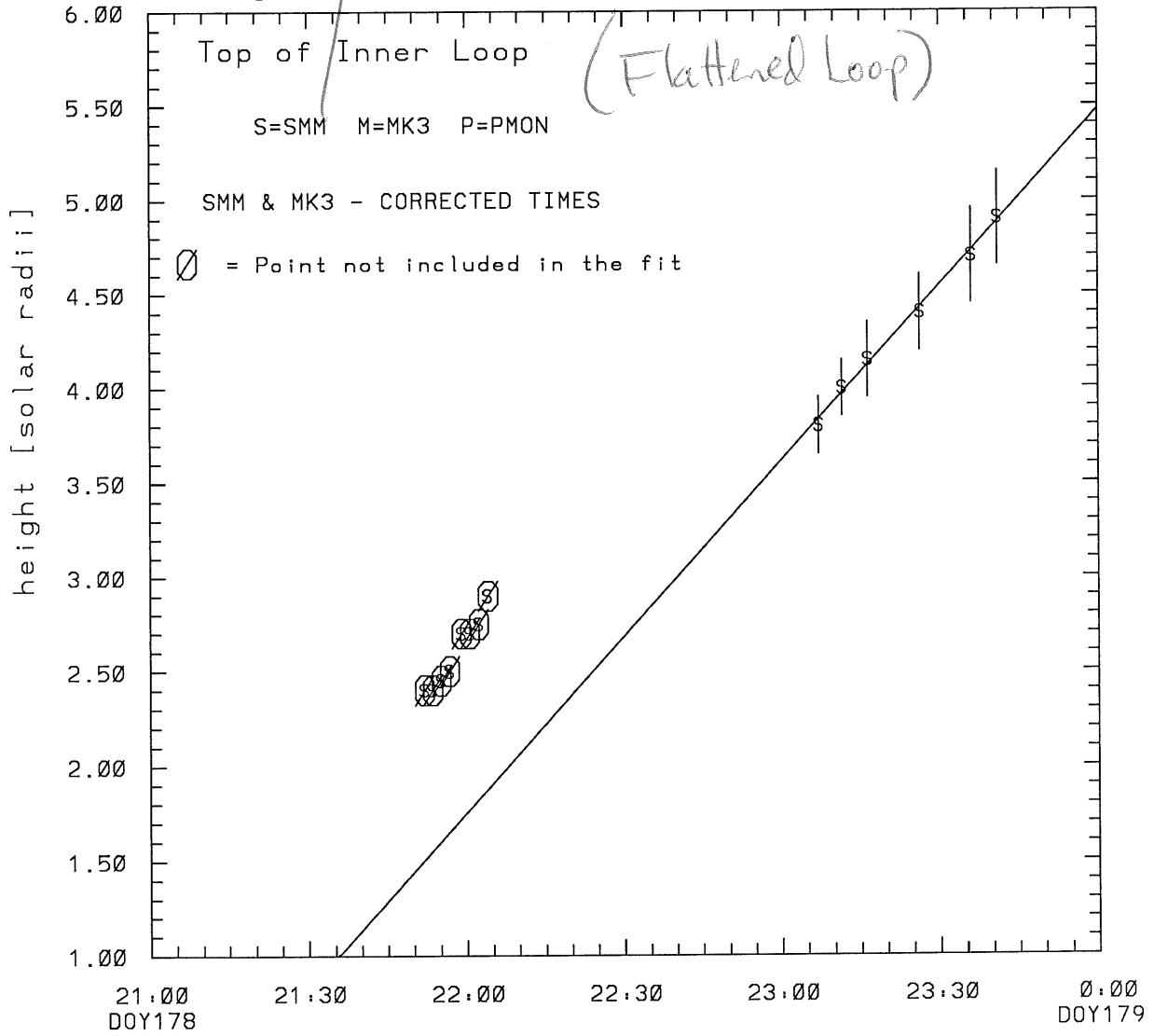


2<sup>nd</sup>

SMM C/P 1980 DOY178 220 +/- 0 degrees

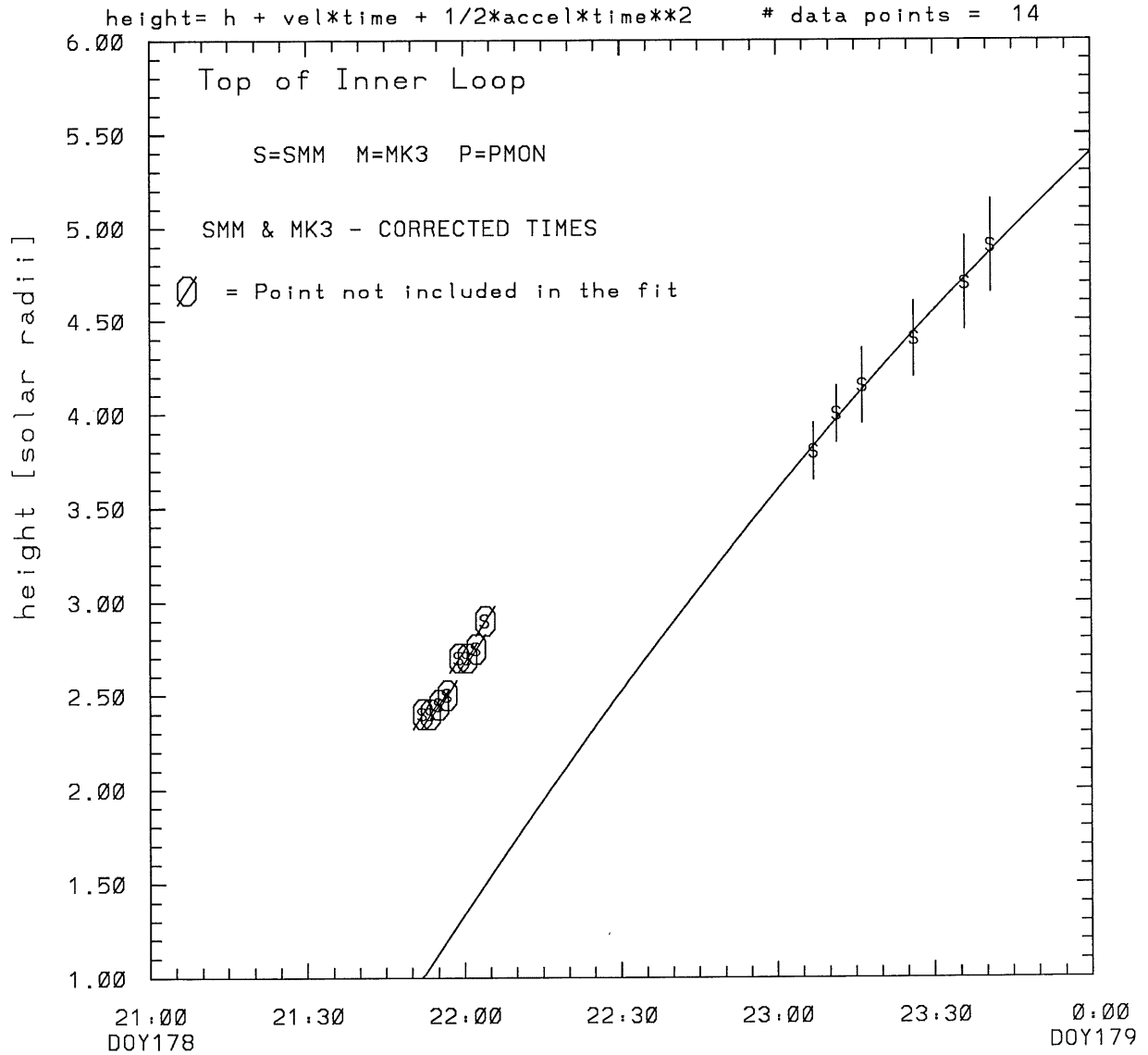
height = h + velocity\*time

# data points = 14



tstart=DOY178 21:36 +/- 12.4 [min.]  
 radial velocity= 359. +/- 8. [km/sec]

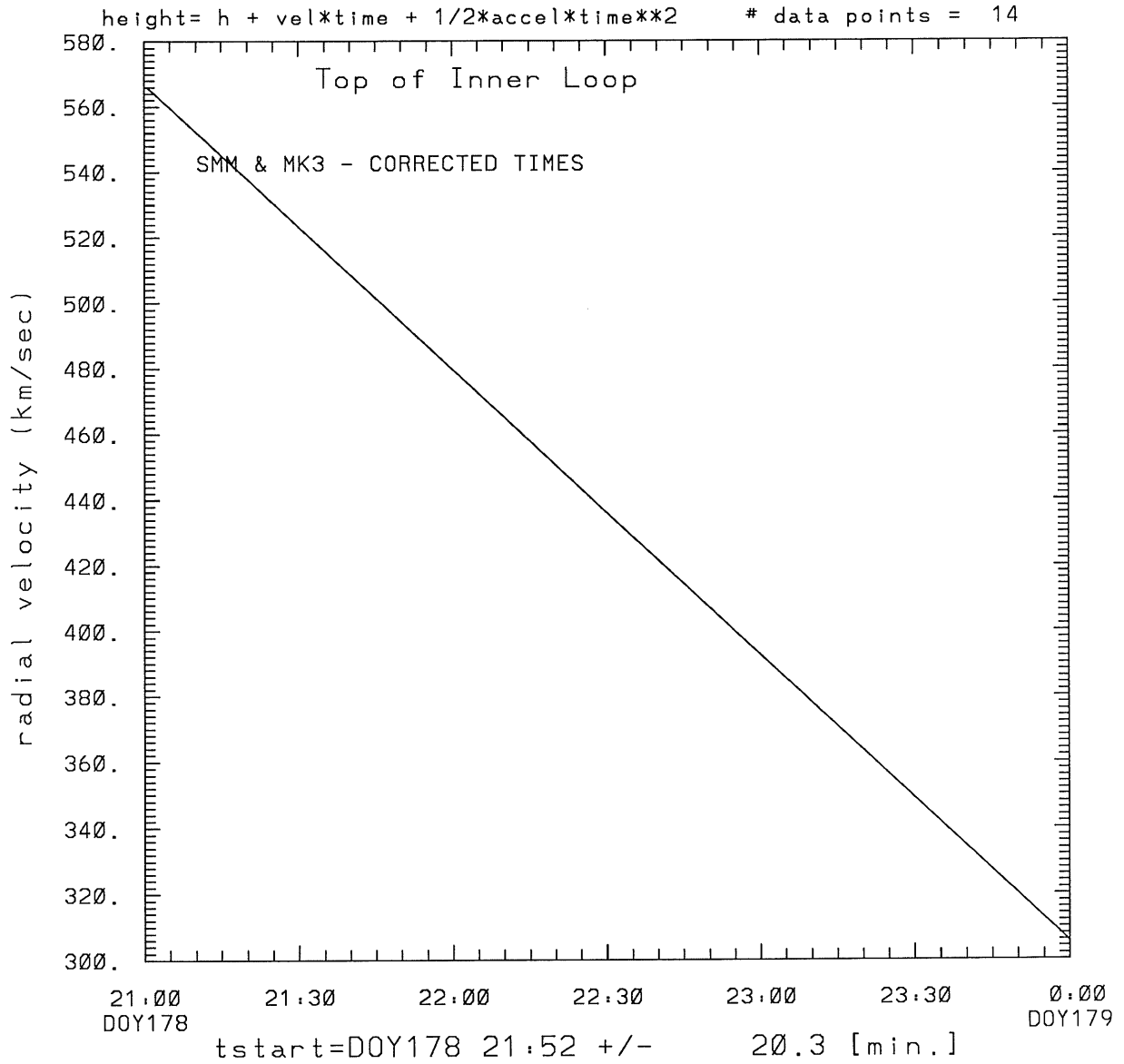
SMM C/P 1980 DOY178 220 +/- 0 degrees



tstart=DOY178 21:52 +/- 20.3 [min.]

radial acceleration =  $-0.0242 \pm 0.0319$  [km/sec\*\*2]

SMM C/P 1980 DOY178 220 +/- 0 degrees



tstart=DOY178 21:52 +/- 20.3 [min.]

radial acceleration=-.242E-01 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	error in radius	error in angle	angle	datatype
1980	178	21:51:51	2.40	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:53:24	2.40	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:55: 1	2.45	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:56:38	2.50	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:58:52	2.70	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	22: 0:28	2.70	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	22: 2:11	2.75	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	22: 3:54	2.90	-----	220.00 +/-	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	23: 7: 4	3.80 +/-	0.15	220.0 +/-	1.0	SMM
1980	178	23:11:28	4.00 +/-	0.15	220.0 +/-	1.0	SMM
1980	178	23:16:23	4.15 +/-	0.20	220.0 +/-	1.0	SMM
1980	178	23:26:15	4.40 +/-	0.20	220.0 +/-	1.0	SMM
1980	178	23:35:56	4.70 +/-	0.25	220.0 +/-	1.0	SMM
1980	178	23:40:51	4.90 +/-	0.25	220.0 +/-	1.0	SMM

\*\*\*\*\*

Structure being measured:

Top of Inner Loop

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + 0.357E+02 \pm 0.124E+02$  [minutes]

In more convenient units:

Event began at DOY 178 21:36  $\pm 0.124E+02$  [minutes]

Origin defined at DOY178 21: 0

RADIAL INFORMATION:

RADIAL VELOCITY =  $359. \pm 8$ . km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = -0.105E+00 \pm 0.985E-01$  [solar radii]

$c(2) = 0.310E-01 \pm 0.710E-03$  [radii/min]

$c(2) = 0.359E+03 \pm 0.824E+01$  [km/sec]

$c(3) = 0.000E+00 \pm 0.000E+00$  [radii/min\*\*2]

$c(3) = 0.000E+00 \pm 0.000E+00$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.48172E+00 [radii] see Bevington pg. 114

error in c(2)= 0.46469E-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) = 220. +/- 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 21:51 = 0.000E+00 km/sec

The TOTAL velocity at 21:51 = 359. km/sec

The TANGENTIAL velocity at 21:53 = 0.000E+00 km/sec

The TOTAL velocity at 21:53 = 359. km/sec

The TANGENTIAL velocity at 21:55 = 0.000E+00 km/sec

The TOTAL velocity at 21:55 = 359. km/sec

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

The TOTAL velocity at 21:56 = 359. km/sec

The TANGENTIAL velocity at 21:58 = 0.000E+00 km/sec

The TOTAL velocity at 21:58 = 359. km/sec

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

The TOTAL velocity at 22: 0 = 359. km/sec

The TANGENTIAL velocity at 22: 2 = 0.000E+00 km/sec

The TOTAL velocity at 22: 2 = 359. km/sec

The TANGENTIAL velocity at 22: 3 = 0.000E+00 km/sec

The TOTAL velocity at 22: 3 = 359. km/sec

The TANGENTIAL velocity at 23: 7 = 0.000E+00 km/sec

The TOTAL velocity at 23: 7 = 359. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec

The TOTAL velocity at 23:11 = 359. km/sec

The TANGENTIAL velocity at 23:16 = 0.000E+00 km/sec

The TOTAL velocity at 23:16 = 359. km/sec

The TANGENTIAL velocity at 23:26 = 0.000E+00 km/sec

The TOTAL velocity at 23:26 = 359. km/sec

The TANGENTIAL velocity at 23:35 = 0.000E+00 km/sec  
The TOTAL velocity at 23:35 = 359. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec  
The TOTAL velocity at 23:40 = 359. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.93  
Standard Deviation in start time measurement = 0.430E+02  
Error in time = 0.83692E+02 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.929E-03  
Reduced Chi Squared = 0.265E+01  
Chi Squared = 0.318E+02  
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.992E+00  
The probability that no LINEAR correlation exists between the variables = -0.9441E-07  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]



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

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

year	doy	time	radii	radius	error in angle	angle	error in angle	datatype
1980	178	21:51:51	2.40	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:53:24	2.40	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:55: 1	2.45	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:56:38	2.50	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	21:58:52	2.70	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	22: 0:28	2.70	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	22: 2:11	2.75	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	22: 3:54	2.90	-----	220.00 +/-	----	----	SMM THIS POINT WASN'T USED IN THE FIT.
1980	178	23: 7: 4	3.80 +/- 0.15		220.0 +/-	1.0		SMM
1980	178	23:11:28	4.00 +/- 0.15		220.0 +/-	1.0		SMM
1980	178	23:16:23	4.15 +/- 0.20		220.0 +/-	1.0		SMM
1980	178	23:26:15	4.40 +/- 0.20		220.0 +/-	1.0		SMM
1980	178	23:35:56	4.70 +/- 0.25		220.0 +/-	1.0		SMM
1980	178	23:40:51	4.90 +/- 0.25		220.0 +/-	1.0		SMM

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

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

START TIME:

Event began at t = 0 + 0.520E+02 +/- 0.203E+02 [minutes]

In more convenient units:

Event began at DOY 178 21:52 +/- 0.203E+02 [minutes]

Origin defined at DOY178 21: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.242E-01 +/- 0.319E-01 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = -0.137E+01 +/- 0.167E+01 [solar radii]  
c(2) = 0.489E-01 +/- 0.236E-01 [radii/min]  
c(2) = 0.567E+03 +/- 0.273E+03 [km/sec]  
c(3) = -0.626E-04 +/- 0.824E-04 [radii/min\*\*2]  
c(3) = -0.242E-01 +/- 0.319E-01 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.36734E+01 [radii] Bevington pg 154 (8-30)  
Exact error in c(1) = 0.35169E+00 [radii] Bevington pg 154 (8-28)  
Approximate error in c(2) = 0.86157E-01 [radii/min] Bevington pg 154 (8-30)  
Exact error in c(2) = 0.49415E-02 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.41872E-03 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.17280E-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) = 220. +/- 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 21:51 = 0.000E+00 km/sec

The TOTAL velocity at 21:51 = 492. km/sec

The TANGENTIAL velocity at 21:53 = 0.000E+00 km/sec

The TOTAL velocity at 21:53 = 489. km/sec

The TANGENTIAL velocity at 21:55 = 0.000E+00 km/sec

The TOTAL velocity at 21:55 = 487. km/sec

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

The TOTAL velocity at 21:56 = 485. km/sec

The TANGENTIAL velocity at 21:58 = 0.000E+00 km/sec

The TOTAL velocity at 21:58 = 481. km/sec

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

The TOTAL velocity at 22: 0 = 479. km/sec

The TANGENTIAL velocity at 22: 2 = 0.000E+00 km/sec

The TOTAL velocity at 22: 2 = 477. km/sec

The TANGENTIAL velocity at 22: 3 = 0.000E+00 km/sec

The TOTAL velocity at 22: 3 = 474. km/sec

The TANGENTIAL velocity at 23: 7 = 0.000E+00 km/sec

The TOTAL velocity at 23: 7 = 382. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec

The TOTAL velocity at 23:11 = 376. km/sec

The TANGENTIAL velocity at 23:16 = 0.000E+00 km/sec  
The TOTAL velocity at 23:16 = 369. km/sec

The TANGENTIAL velocity at 23:26 = 0.000E+00 km/sec  
The TOTAL velocity at 23:26 = 355. km/sec

The TANGENTIAL velocity at 23:35 = 0.000E+00 km/sec  
The TOTAL velocity at 23:35 = 340. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec  
The TOTAL velocity at 23:40 = 333. km/sec

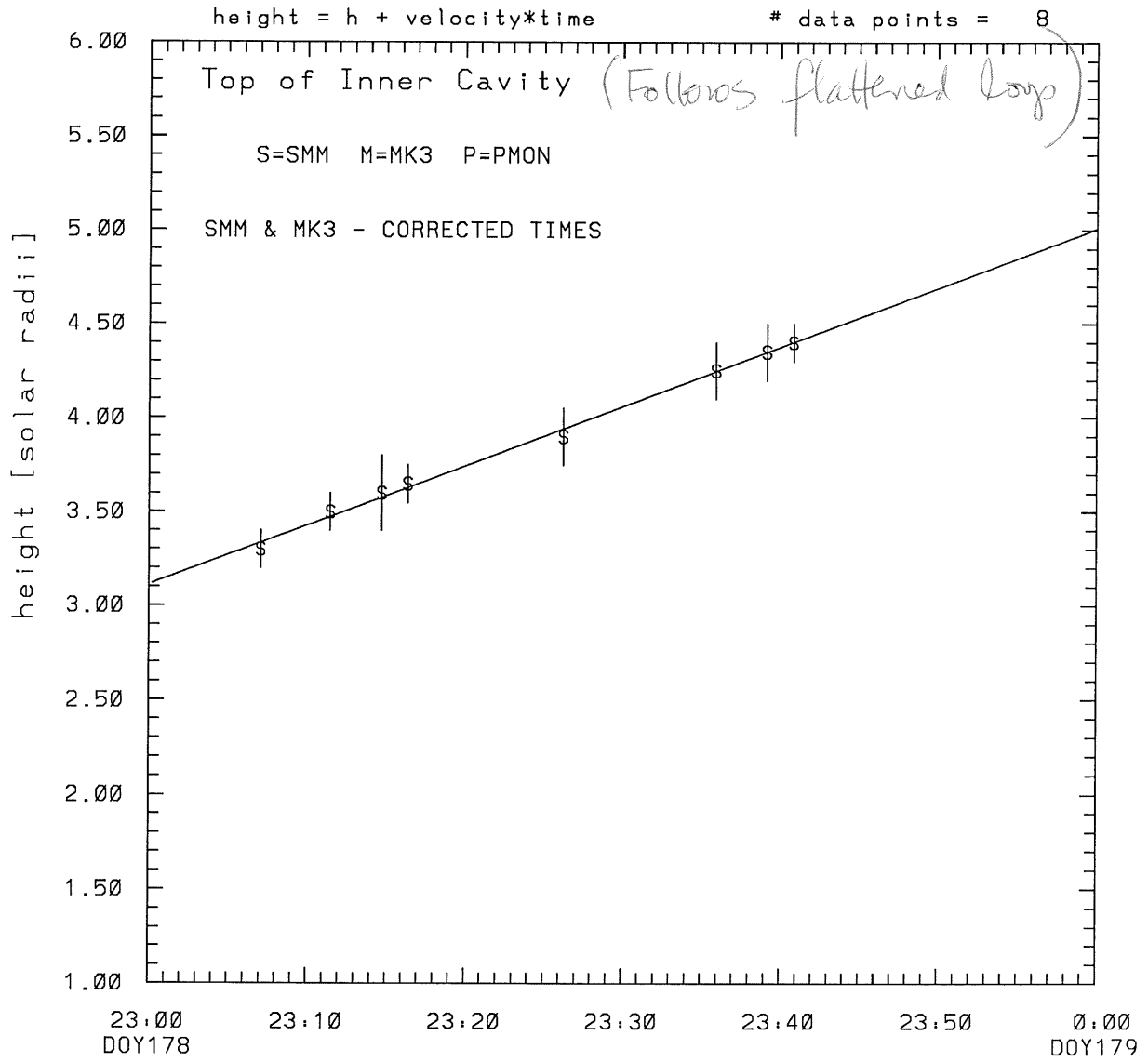
\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.93  
Standard Deviation in start time measurement = 0.430E+02  
Value of reduced Chi Squared returned from nllst2 = 0.960E-03  
Reduced Chi Squared = 0.607E+01  
Chi Squared = 0.668E+02  
The probability for exceeding chi square = 0.100E+01

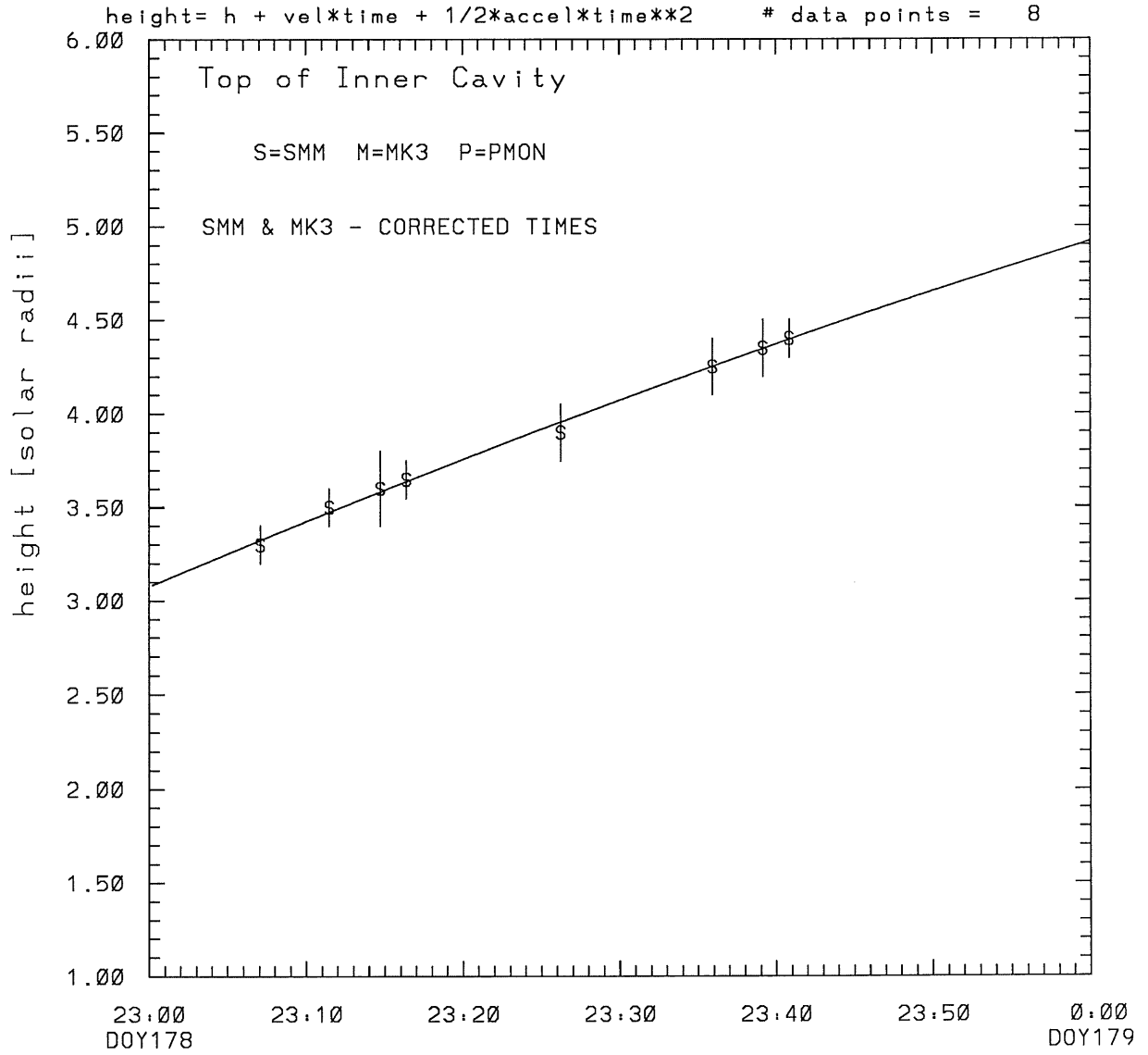
For a second order fit 3 correlation coefficients are given:  
(Using equation of motion:  $r = a + bt + at^2$ )  
The correlation between the data and the term linear in time = 0.1043E+01  
The correlation between the data and the time<sup>2</sup> term = 0.1027E+01  
The correlation between the data and the complete equation of motion = 0.1783E+01  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1980 DOY178 215 +/- 0 degrees



tstart=DOY178 21:55 +/- 0.4 [min.]  
radial velocity= 366. +/- 8. [km/sec]

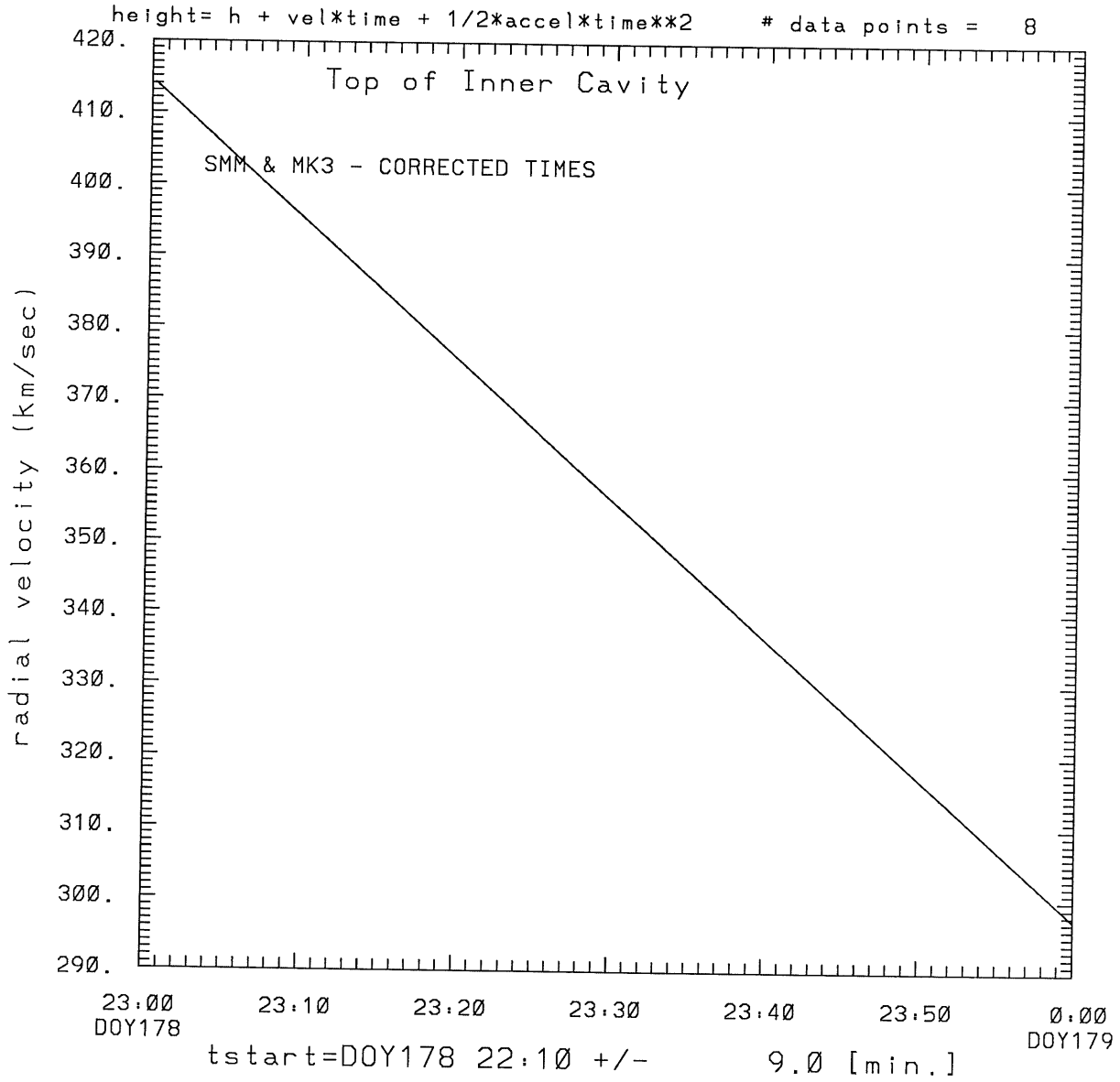
SMM C/P 1980 DOY178 215 +/- 0 degrees



tstart=DOY178 22:10 +/- 9.0 [min.]

radial acceleration =  $-0.0325 +/- 0.0365$  [km/sec\*\*2]

SMM C/P 1980 DOY178 215 +/- 0 degrees



radial acceleration=-.325E-01 km/sec\*\*2

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

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

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	178	23: 7: 4	3.30	+/- 0.10	215.0	+/- 1.0	SMM
1980	178	23:11:28	3.50	+/- 0.10	215.0	+/- 1.0	SMM
1980	178	23:14:43	3.60	+/- 0.20	215.0	+/- 1.0	SMM
1980	178	23:16:23	3.65	+/- 0.10	215.0	+/- 1.0	SMM
1980	178	23:26:15	3.90	+/- 0.15	215.0	+/- 1.0	SMM
1980	178	23:35:56	4.25	+/- 0.15	215.0	+/- 1.0	SMM
1980	178	23:39:10	4.35	+/- 0.15	215.0	+/- 1.0	SMM
1980	178	23:40:51	4.40	+/- 0.10	215.0	+/- 1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of Inner Cavity  
\*\*\*\*\*

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

START TIME:

Event began at  $t = 0 + -0.668E+02 +/- 0.379E+00$  [minutes]  
In more convenient units:  
Event began at DOY 178 21:55 +/- 0.379E+00 [minutes]

Origin defined at DOY178 23: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 366. +/- 8. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.311E+01 +/- 0.179E-01$  [solar radii]  
 $c(2) = 0.316E-01 +/- 0.693E-03$  [radii/min]  
 $c(2) = 0.366E+03 +/- 0.804E+01$  [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  $c(1) = 0.21108E-01$  [radii] see Bevington pg. 114  
error in  $c(2) = 0.78061E-03$  [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) = 215. +/- 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 23: 7 = 0.000E+00 km/sec  
The TOTAL velocity at 23: 7 = 366. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec  
The TOTAL velocity at 23:11 = 366. km/sec

The TANGENTIAL velocity at 23:14 = 0.000E+00 km/sec  
The TOTAL velocity at 23:14 = 366. km/sec

The TANGENTIAL velocity at 23:16 = 0.000E+00 km/sec  
The TOTAL velocity at 23:16 = 366. km/sec

The TANGENTIAL velocity at 23:26 = 0.000E+00 km/sec  
The TOTAL velocity at 23:26 = 366. km/sec

The TANGENTIAL velocity at 23:35 = 0.000E+00 km/sec  
The TOTAL velocity at 23:35 = 366. km/sec

The TANGENTIAL velocity at 23:39 = 0.000E+00 km/sec  
The TOTAL velocity at 23:39 = 366. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec  
The TOTAL velocity at 23:40 = 366. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.42  
Standard Deviation in start time measurement = 0.125E+02  
Error in time = 0.21397E+01 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.659E-03  
Reduced Chi Squared = 0.240E-02  
Chi Squared = 0.144E-01  
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 =  $-0.3968E-07$

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	datatype
1980	178	23: 7: 4	3.30	+/- 0.10	215.0	+/- 1.0	SMM	
1980	178	23:11:28	3.50	+/- 0.10	215.0	+/- 1.0	SMM	
1980	178	23:14:43	3.60	+/- 0.20	215.0	+/- 1.0	SMM	
1980	178	23:16:23	3.65	+/- 0.10	215.0	+/- 1.0	SMM	
1980	178	23:26:15	3.90	+/- 0.15	215.0	+/- 1.0	SMM	
1980	178	23:35:56	4.25	+/- 0.15	215.0	+/- 1.0	SMM	
1980	178	23:39:10	4.35	+/- 0.15	215.0	+/- 1.0	SMM	
1980	178	23:40:51	4.40	+/- 0.10	215.0	+/- 1.0	SMM	

\*\*\*\*\*

Structure being measured:

Top of Inner Cavity

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\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.518E+02 +/- 0.902E+01$  [minutes]

In more convenient units:

Event began at DOY 178 22:10 +/- 0.902E+01 [minutes]

Origin defined at DOY178 23: 0

RADIAL INFORMATION:

RADIAL ACCELERATION =  $-0.325E-01 +/- 0.365E-01$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) =  $0.308E+01 +/- 0.446E-01$  [solar radii]  
c(2) =  $0.357E-01 +/- 0.471E-02$  [radii/min]  
c(2) =  $0.415E+03 +/- 0.546E+02$  [km/sec]  
c(3) =  $-0.841E-04 +/- 0.944E-04$  [radii/min\*\*2]  
c(3) =  $-0.325E-01 +/- 0.365E-01$  [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) =  $0.57300E-01$  [radii] Bevington pg 154 (8-30)

Exact error in c(1) =  $0.11012E-01$  [radii] Bevington pg 154 (8-28)

Approximate error in c(2) =  $0.57249E-02$  [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.80450E-03 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.11417E-03 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.14536E-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) = 215. +/- 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 23: 7 = 0.000E+00 km/sec  
The TOTAL velocity at 23: 7 = 401. km/sec

The TANGENTIAL velocity at 23:11 = 0.000E+00 km/sec  
The TOTAL velocity at 23:11 = 392. km/sec

The TANGENTIAL velocity at 23:14 = 0.000E+00 km/sec  
The TOTAL velocity at 23:14 = 386. km/sec

The TANGENTIAL velocity at 23:16 = 0.000E+00 km/sec  
The TOTAL velocity at 23:16 = 383. km/sec

The TANGENTIAL velocity at 23:26 = 0.000E+00 km/sec  
The TOTAL velocity at 23:26 = 363. km/sec

The TANGENTIAL velocity at 23:35 = 0.000E+00 km/sec  
The TOTAL velocity at 23:35 = 344. km/sec

The TANGENTIAL velocity at 23:39 = 0.000E+00 km/sec  
The TOTAL velocity at 23:39 = 338. km/sec

The TANGENTIAL velocity at 23:40 = 0.000E+00 km/sec  
The TOTAL velocity at 23:40 = 335. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.42  
Standard Deviation in start time measurement = 0.125E+02  
Value of reduced Chi Squared returned from nllst2 = 0.679E-03  
Reduced Chi Squared = 0.381E-02

Chi Squared = 0.190E-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 = 0.1055E+01

The correlation between the data and the time<sup>2</sup> term = 0.1031E+01

The correlation between the data and the complete equation of motion = 0.9977E+00

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