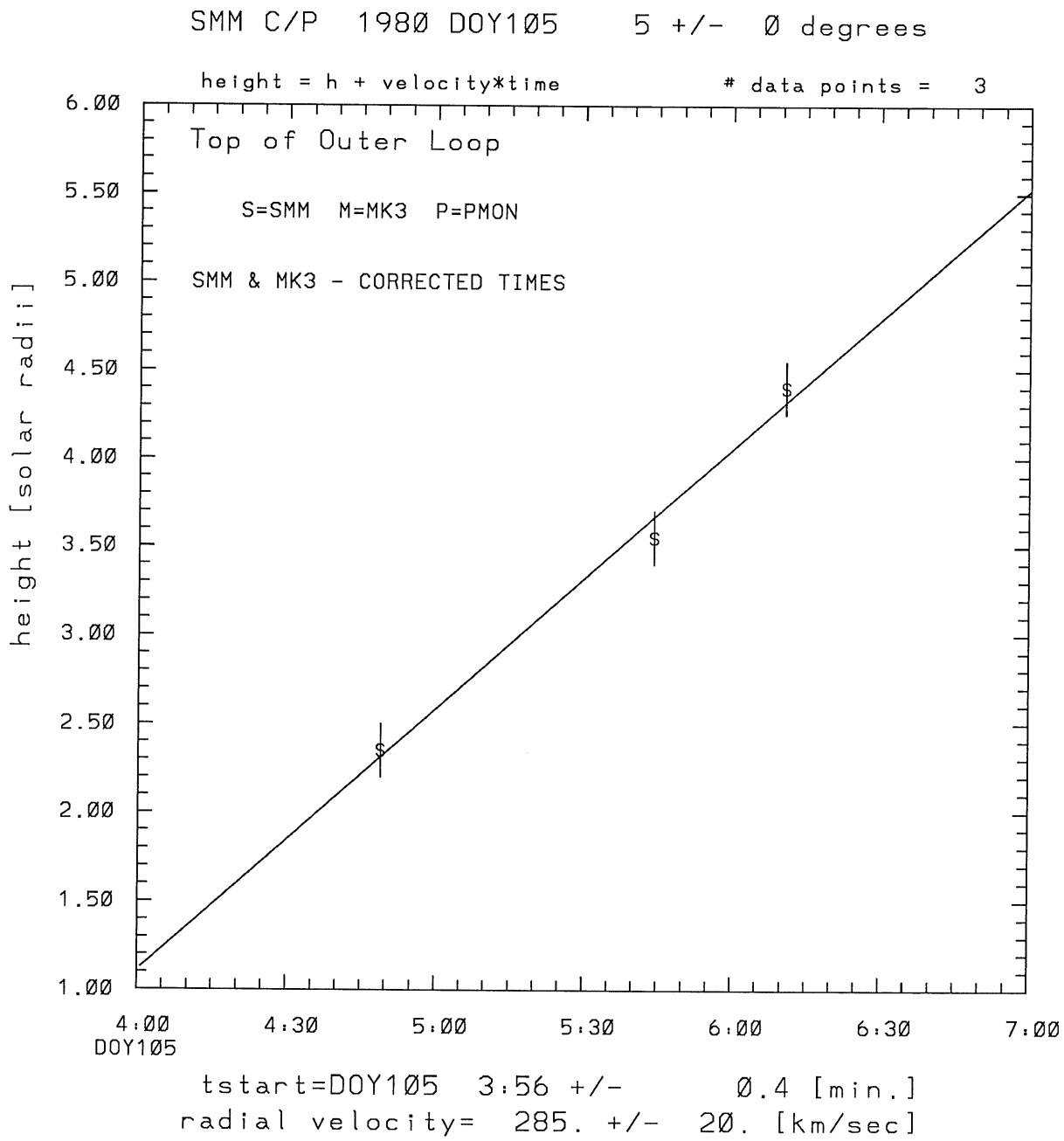
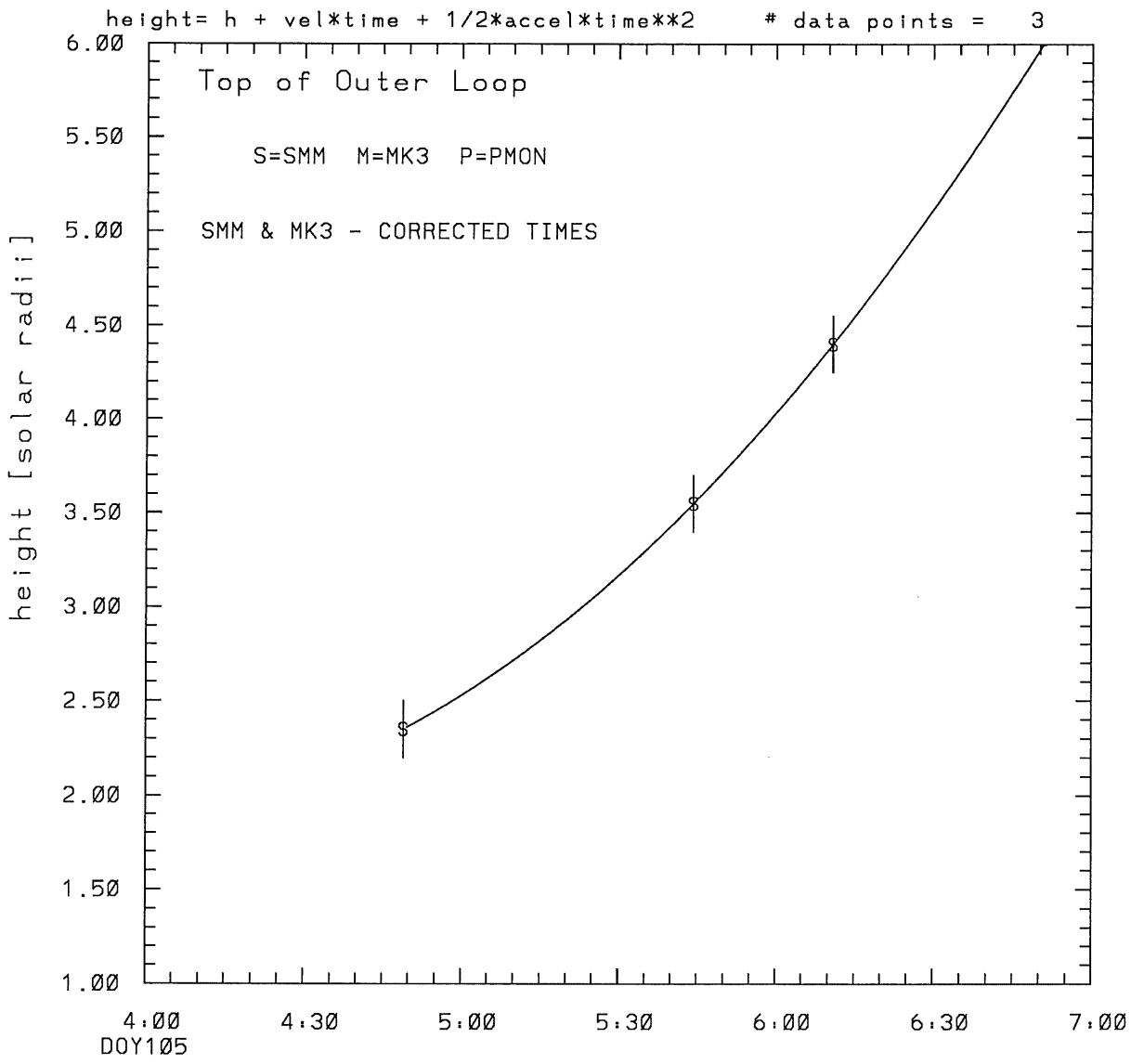

SMM C/P 1980 DOY105 5 +/- 0 degrees
height = h + velocity*time
# data points = 3
Top of Outer Loop
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
4:00
DOY105
4:30
5:00
5:30
6:00
6:30
7:00
tstart=DOY105 3:56 +/- 0.4 [min.]
radial velocity= 285. +/- 20. [km/sec]

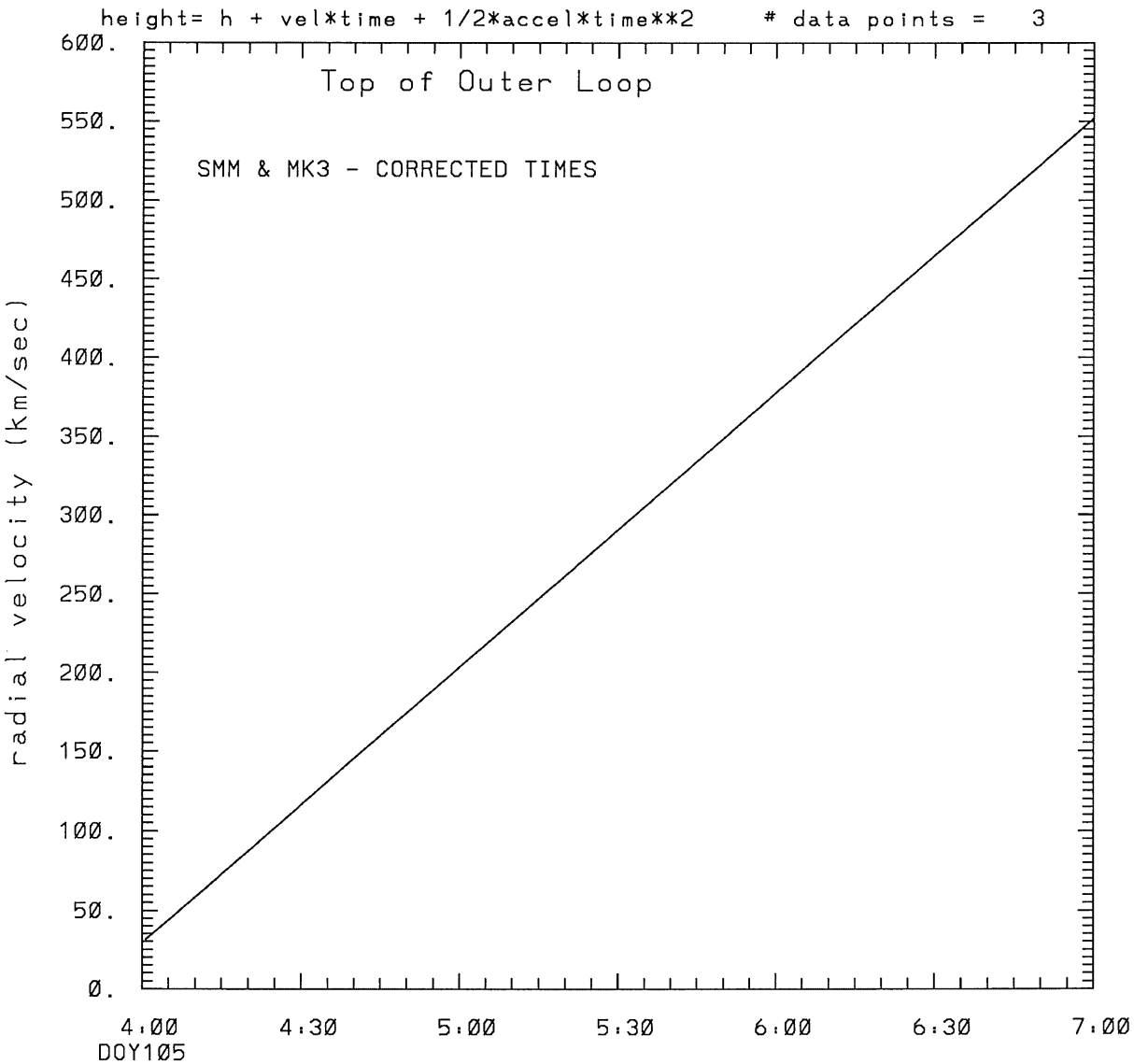


tstart=DOY105 3:50 from derivative=0

Event begins at 1.91 Solar Radii

radial acceleration= 0.0484 +/- 0.0000 [km/sec**2]

SMM C/P 1980 DOY105 5 +/- 0 degrees



tstart=DOY105 3:50 from derivative=0

Event begins at 1.91 Solar Radii

radial acceleration=0.484E-01 km/sec**2

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

****
INPUT:
****

year doy	time	radii	error in radius	angle	error in angle	datatype
1980 105	4:49: 1	2.35	+/- 0.15	5.0	+/- 1.0	SMM
1980 105	5:44:18	3.55	+/- 0.15	5.0	+/- 1.0	SMM
1980 105	6:10:54	4.40	+/- 0.15	5.0	+/- 1.0	SMM

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

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.445E+01 +/- 0.358E+00 [minutes]
In more convenient units:
Event began at DOY 105 3:56 +/- 0.358E+00 [minutes]

Origin defined at DOY105 4: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 285. +/- 20. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.111E+01 +/- 0.178E+00 [solar radii]
c(2) = 0.245E-01 +/- 0.176E-02 [radii/min]
c(2) = 0.285E+03 +/- 0.205E+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)= 0.25107E+00 [radii] see Bevington pg. 114
error in c(2)= 0.24935E-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) = 5. +/- 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 4:49 = 0.000E+00 km/sec
The TOTAL velocity at 4:49 = 285. km/sec

The TANGENTIAL velocity at 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 285. km/sec

The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 285. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 1.03
Standard Deviation in start time measurement = 0.341E+02
Error in time = 0.60044E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.108E-01
Reduced Chi Squared = 0.483E-01
Chi Squared = 0.483E-01
The probability for exceeding chi square = 0.917E+00

The correlation coefficient = 0.995E+00
The probability that no LINEAR correlation exists between the variables = 0.6450E-01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1980	105	4:49: 1	2.35	+/- 0.15	5.0	+/- 1.0	SMM
1980	105	5:44:18	3.55	+/- 0.15	5.0	+/- 1.0	SMM
1980	105	6:10:54	4.40	+/- 0.15	5.0	+/- 1.0	SMM

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

****
OUTPUT:
****

START TIME:

tstart=DOY105 3:50 from derivative = 0
Event begins at 1.91 Solar Radii
Origin defined at DOY105 4: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.484E-01 +/- 0.157E-06 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.193E+01 +/- 0.277E-05 [solar radii]
c(2) = 0.252E-02 +/- 0.717E-07 [radii/min]
c(2) = 0.292E+02 +/- 0.832E-03 [km/sec]
c(3) = 0.125E-03 +/- 0.405E-09 [radii/min**2]
c(3) = 0.484E-01 +/- 0.157E-06 [km/sec**2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 5. +/- 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 4:49 = 0.000E+00 km/sec
The TOTAL velocity at 4:49 = 172. km/sec

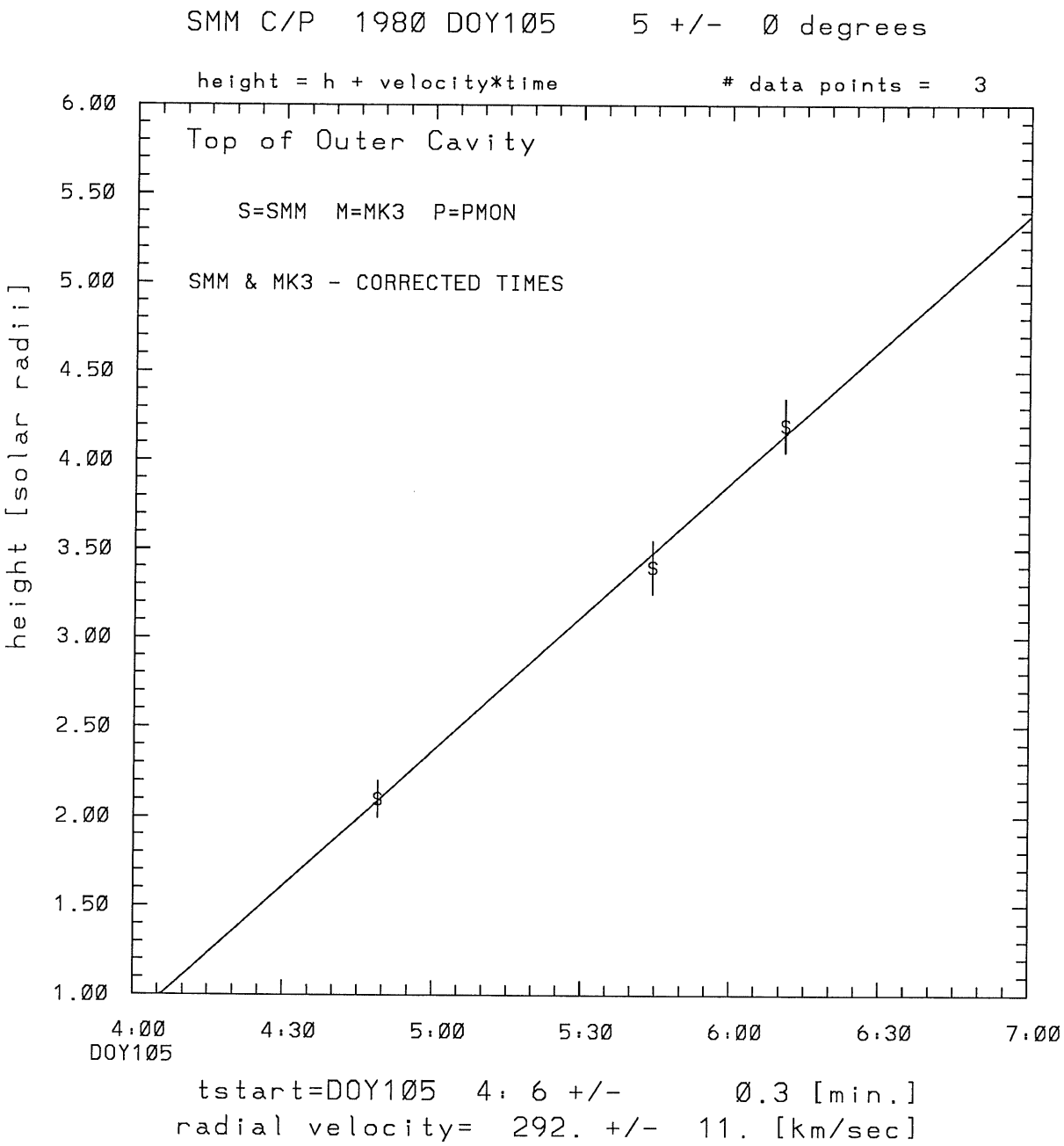
The TANGENTIAL velocity at 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 332. km/sec

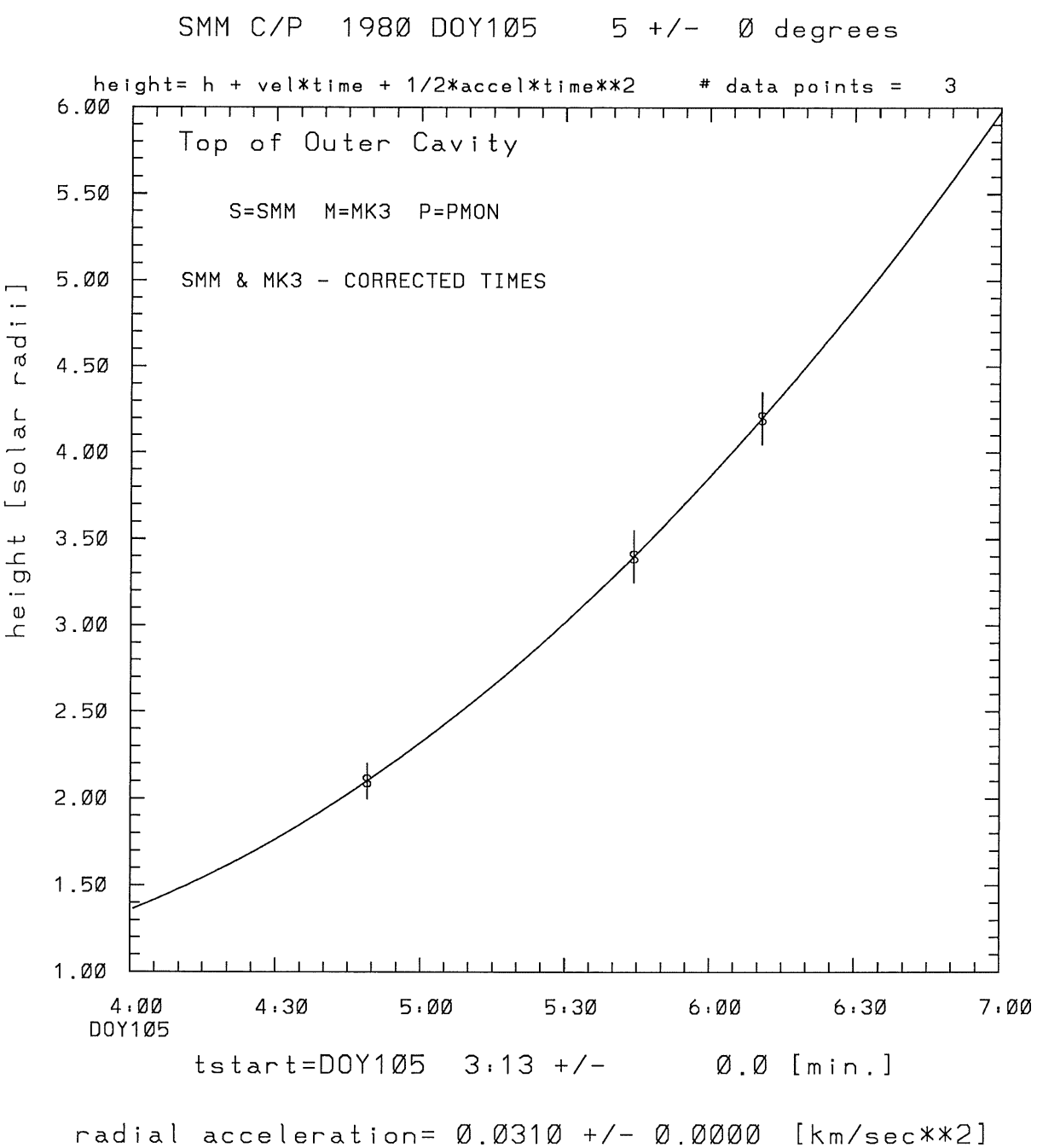
The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 409. km/sec

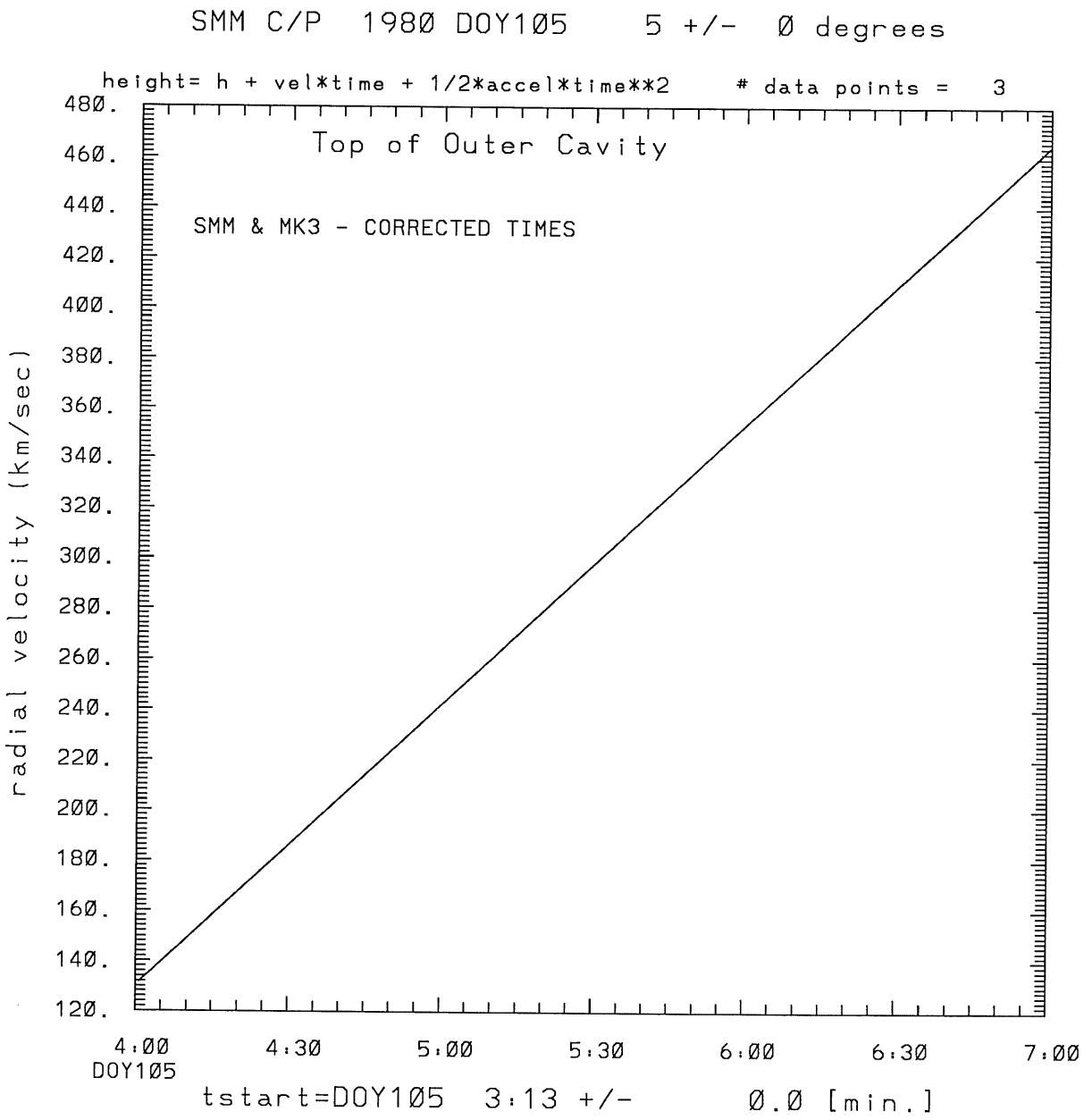
****
The following info is for estimating goodness of the fit
****

Number data points = number of coefficients. No error analysis is possible.

Correlation coefficient is not computable!


SMM C/P 1980 DOY105 5 +/- 0 degrees
height = h + velocity*time
# data points = 3
Top of Outer Cavity
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
4:00
DOY105
4:30
5:00
5:30
6:00
6:30
7:00
tstart=DOY105 4: 6 +/- 0.3 [min.]
radial velocity= 292. +/- 11. [km/sec]


SMM C/P 1980 DOY105 5 +/- 0 degrees
height= h + vel*time + 1/2*accel*time**2 # data points = 3
Top of Outer Cavity
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
4:00
DOY105
4:30
5:00
5:30
6:00
6:30
7:00
tstart=DOY105 3:13 +/- 0.0 [min.]
radial acceleration= 0.0310 +/- 0.0000 [km/sec**2]


SMM C/P 1980 DOY105 5 +/- 0 degrees
height= h + vel*time + 1/2*accel*time**2 # data points = 3
Top of Outer Cavity
SMM & MK3 - CORRECTED TIMES
radial velocity (km/sec)
480.
460.
440.
420.
400.
380.
360.
340.
320.
300.
280.
260.
240.
220.
200.
180.
160.
140.
120.
4:00
DOY105
4:30
5:00
5:30
6:00
6:30
7:00
tstart=DOY105 3:13 +/- 0.0 [min.]
radial acceleration=0.310E-01 km/sec**2

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

****
INPUT:
****

year doy	time	radii	error in radius	angle	error in angle	datatype
1980 105	4:49: 1	2.10	+/- 0.10	5.0	+/- 0.5	SMM
1980 105	5:44:18	3.40	+/- 0.15	5.0	+/- 1.0	SMM
1980 105	6:10:54	4.20	+/- 0.15	5.0	+/- 1.0	SMM

****
Structure being measured:
Top of Outer Cavity
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + 0.571E+01 +/- 0.267E+00 [minutes]
In more convenient units:
Event began at DOY 105 4: 6 +/- 0.267E+00 [minutes]

Origin defined at DOY105 4: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 292. +/- 11. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.856E+00 +/- 0.825E-01 [solar radii]
c(2) = 0.251E-01 +/- 0.930E-03 [radii/min]
c(2) = 0.292E+03 +/- 0.108E+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)= 0.16239E+00 [radii] see Bevington pg. 114
error in c(2)= 0.16127E-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) = 5. +/- 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 4:49 = 0.000E+00 km/sec
The TOTAL velocity at 4:49 = 292. km/sec

The TANGENTIAL velocity at 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 292. km/sec

The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 292. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 1.06
Standard Deviation in start time measurement = 0.341E+02
Error in time = 0.37898E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.326E-02
Reduced Chi Squared = 0.208E-01
Chi Squared = 0.208E-01
The probability for exceeding chi square = 0.954E+00

The correlation coefficient = 0.998E+00
The probability that no LINEAR correlation exists between the variables = 0.4006E-01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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

****
INPUT:
****

year doy	time	radii	error in radius	angle	error in angle	datatype
1980 105	4:49: 1	2.10	+/- 0.10	5.0	+/- 0.5	SMM
1980 105	5:44:18	3.40	+/- 0.15	5.0	+/- 1.0	SMM
1980 105	6:10:54	4.20	+/- 0.15	5.0	+/- 1.0	SMM

****
Structure being measured:
Top of Outer Cavity
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.487E+02 +/- 0.000E+00 [minutes]
In more convenient units:
Event began at DOY 105 3:13 +/- 0.000E+00 [minutes]

Origin defined at DOY105 4: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.310E-01 +/- 0.158E-06 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.136E+01 +/- 0.263E-05 [solar radii]
c(2) = 0.112E-01 +/- 0.714E-07 [radii/min]
c(2) = 0.130E+03 +/- 0.829E-03 [km/sec]
c(3) = 0.801E-04 +/- 0.410E-09 [radii/min**2]
c(3) = 0.310E-01 +/- 0.158E-06 [km/sec**2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 5. +/- 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 4:49 = 0.000E+00 km/sec
The TOTAL velocity at 4:49 = 221. km/sec

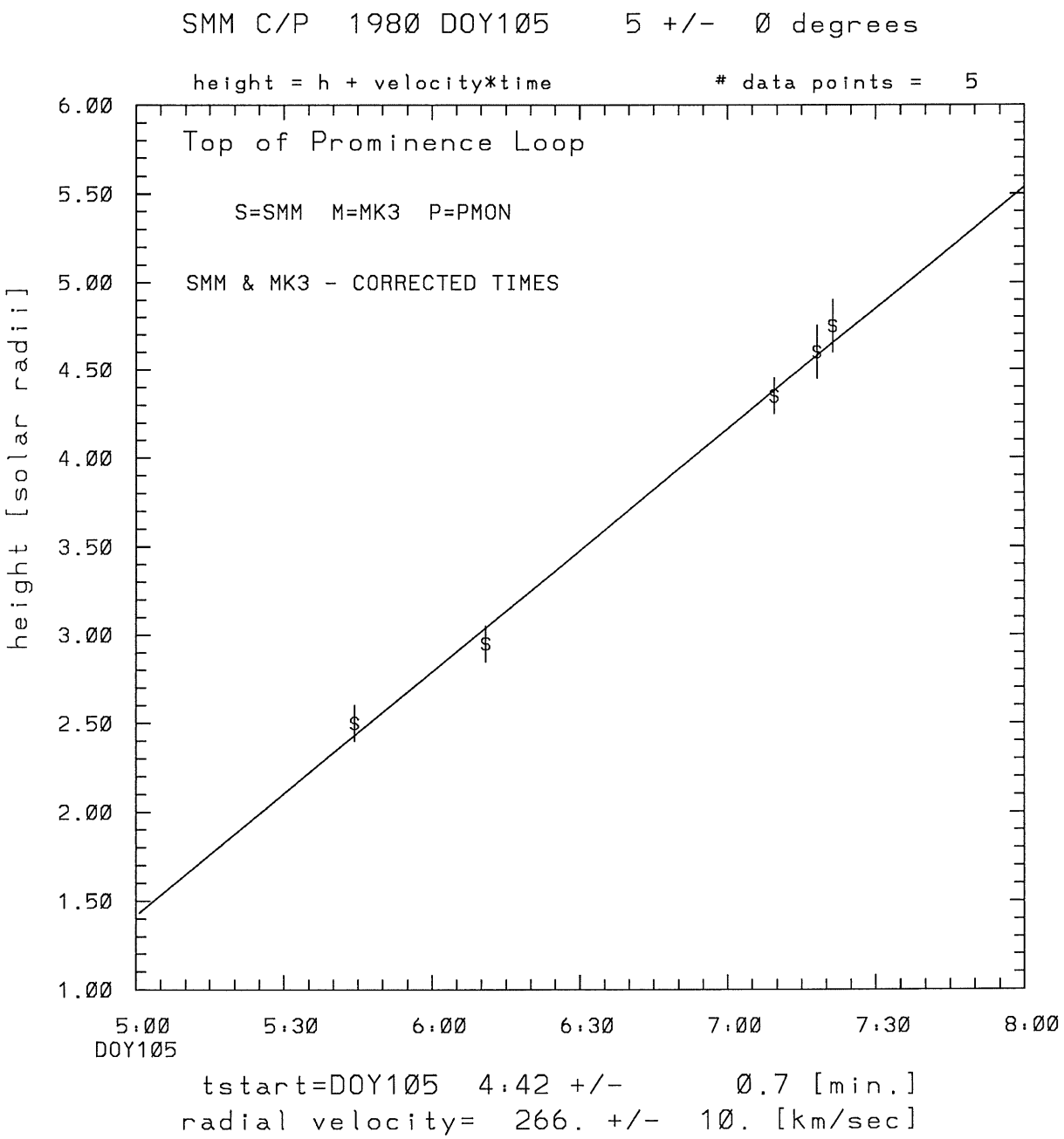
The TANGENTIAL velocity at 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 324. km/sec

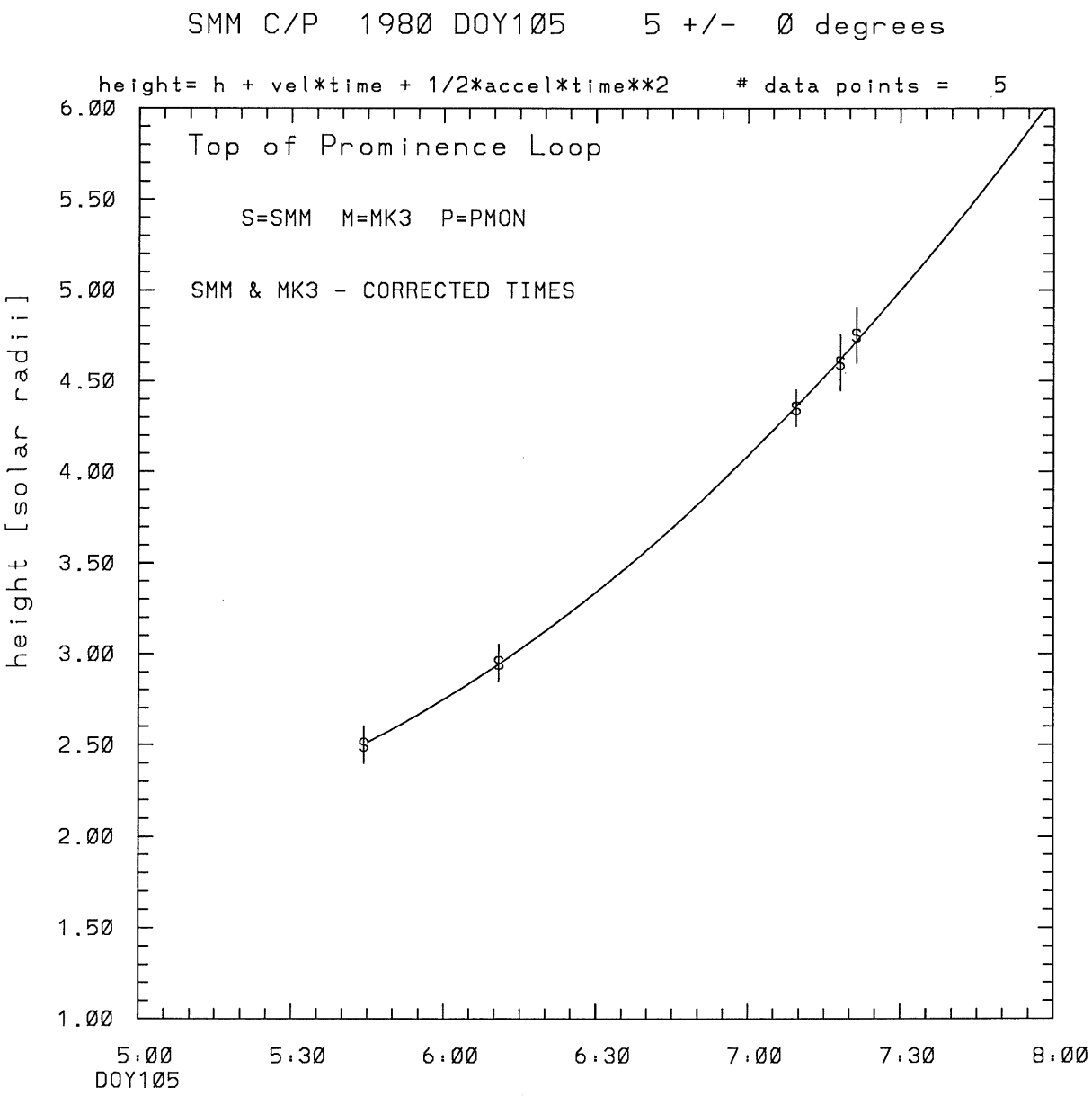
The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 374. km/sec

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

Number data points = number of coefficients. No error analysis is possible.

Correlation coefficient is not computable!

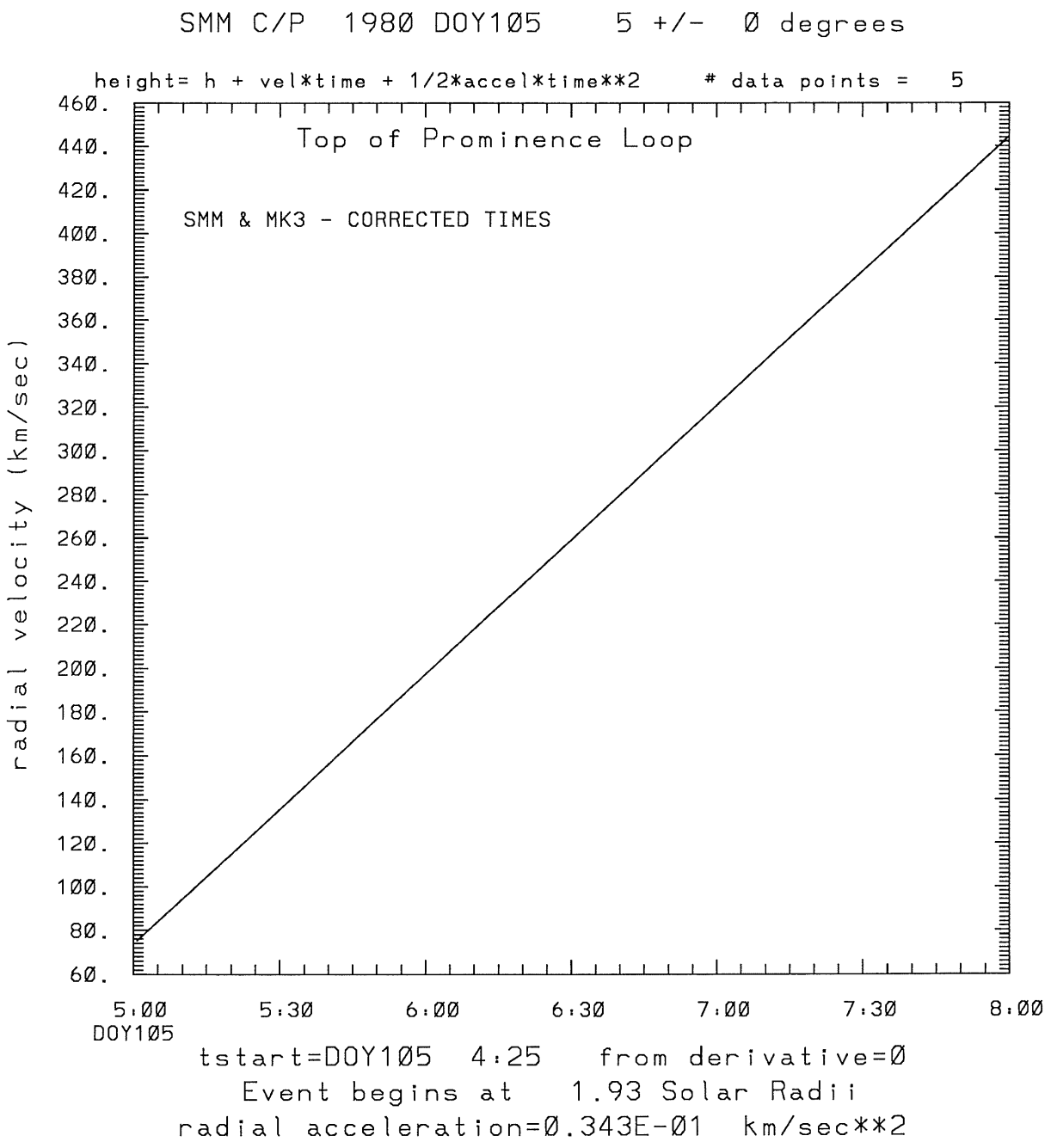

SMM C/P 1980 DOY105 5 +/- 0 degrees
height = h + velocity*time
# data points = 5
Top of Prominence Loop
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
5:00
DOY105
5:30
6:00
6:30
7:00
7:30
8:00
tstart=DOY105 4:42 +/- 0.7 [min.]
radial velocity= 266. +/- 10. [km/sec]



tstart=DOY105 4:25 from derivative=0

Event begins at 1.93 Solar Radii

radial acceleration= 0.0343 +/- 0.0041 [km/sec**2]


SMM C/P 1980 DOY105 5 +/- 0 degrees
height= h + vel*time + 1/2*accel*time**2 # data points = 5
Top of Prominence Loop
SMM & MK3 - CORRECTED TIMES
radial velocity (km/sec)
460.
440.
420.
400.
380.
360.
340.
320.
300.
280.
260.
240.
220.
200.
180.
160.
140.
120.
100.
80.
60.
5:00
DOY105
5:30
6:00
6:30
7:00
7:30
8:00
tstart=DOY105 4:25 from derivative=0
Event begins at 1.93 Solar Radii
radial acceleration=0.343E-01 km/sec**2

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

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1980	105	5:44:18	2.50	+/- 0.10	5.0	+/- 0.5	SMM
1980	105	6:10:54	2.95	+/- 0.10	5.0	+/- 0.5	SMM
1980	105	7: 9:30	4.35	+/- 0.10	5.0	+/- 1.0	SMM
1980	105	7:18:10	4.60	+/- 0.15	5.0	+/- 1.0	SMM
1980	105	7:21:19	4.75	+/- 0.15	5.0	+/- 1.0	SMM

****
Structure being measured:
Top of Prominence Loop
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.182E+02 +/- 0.733E+00 [minutes]
In more convenient units:
Event began at DOY 105 4:42 +/- 0.733E+00 [minutes]

Origin defined at DOY105 5: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 266. +/- 10. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.142E+01 +/- 0.889E-01 [solar radii]
c(2) = 0.229E-01 +/- 0.864E-03 [radii/min]
c(2) = 0.266E+03 +/- 0.100E+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)= 0.11271E+00 [radii] see Bevington pg. 114
error in c(2)= 0.10056E-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) = 5. +/- 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 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 266. km/sec

The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 266. km/sec

The TANGENTIAL velocity at 7: 9 = 0.000E+00 km/sec
The TOTAL velocity at 7: 9 = 266. km/sec

The TANGENTIAL velocity at 7:18 = 0.000E+00 km/sec
The TOTAL velocity at 7:18 = 266. km/sec

The TANGENTIAL velocity at 7:21 = 0.000E+00 km/sec
The TOTAL velocity at 7:21 = 266. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 1.03
Standard Deviation in start time measurement = 0.397E+02
Error in time = 0.67484E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.588E-02
Reduced Chi Squared = 0.245E-01
Chi Squared = 0.736E-01
The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.997E+00
The probability that no LINEAR correlation exists between the variables = 0.1614E-03
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1980	105	5:44:18	2.50	+/- 0.10	5.0	+/- 0.5	SMM
1980	105	6:10:54	2.95	+/- 0.10	5.0	+/- 0.5	SMM
1980	105	7: 9:30	4.35	+/- 0.10	5.0	+/- 1.0	SMM
1980	105	7:18:10	4.60	+/- 0.15	5.0	+/- 1.0	SMM
1980	105	7:21:19	4.75	+/- 0.15	5.0	+/- 1.0	SMM

****
Structure being measured:
Top of Prominence Loop
****

****
OUTPUT:
****

START TIME:

tstart=DOY105 4:25 from derivative = 0
Event begins at 1.93 Solar Radii
Origin defined at DOY105 5: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.343E-01 +/- 0.410E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.205E+01 +/- 0.782E-01 [solar radii]
c(2) = 0.635E-02 +/- 0.199E-02 [radii/min]
c(2) = 0.737E+02 +/- 0.231E+02 [km/sec]
c(3) = 0.888E-04 +/- 0.106E-04 [radii/min**2]
c(3) = 0.343E-01 +/- 0.410E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.13300E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.17538E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.33501E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.50211E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.17621E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.29023E-05 [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) = 5. +/- 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 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 165. km/sec

The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 220. km/sec

The TANGENTIAL velocity at 7: 9 = 0.000E+00 km/sec
The TOTAL velocity at 7: 9 = 340. km/sec

The TANGENTIAL velocity at 7:18 = 0.000E+00 km/sec
The TOTAL velocity at 7:18 = 358. km/sec

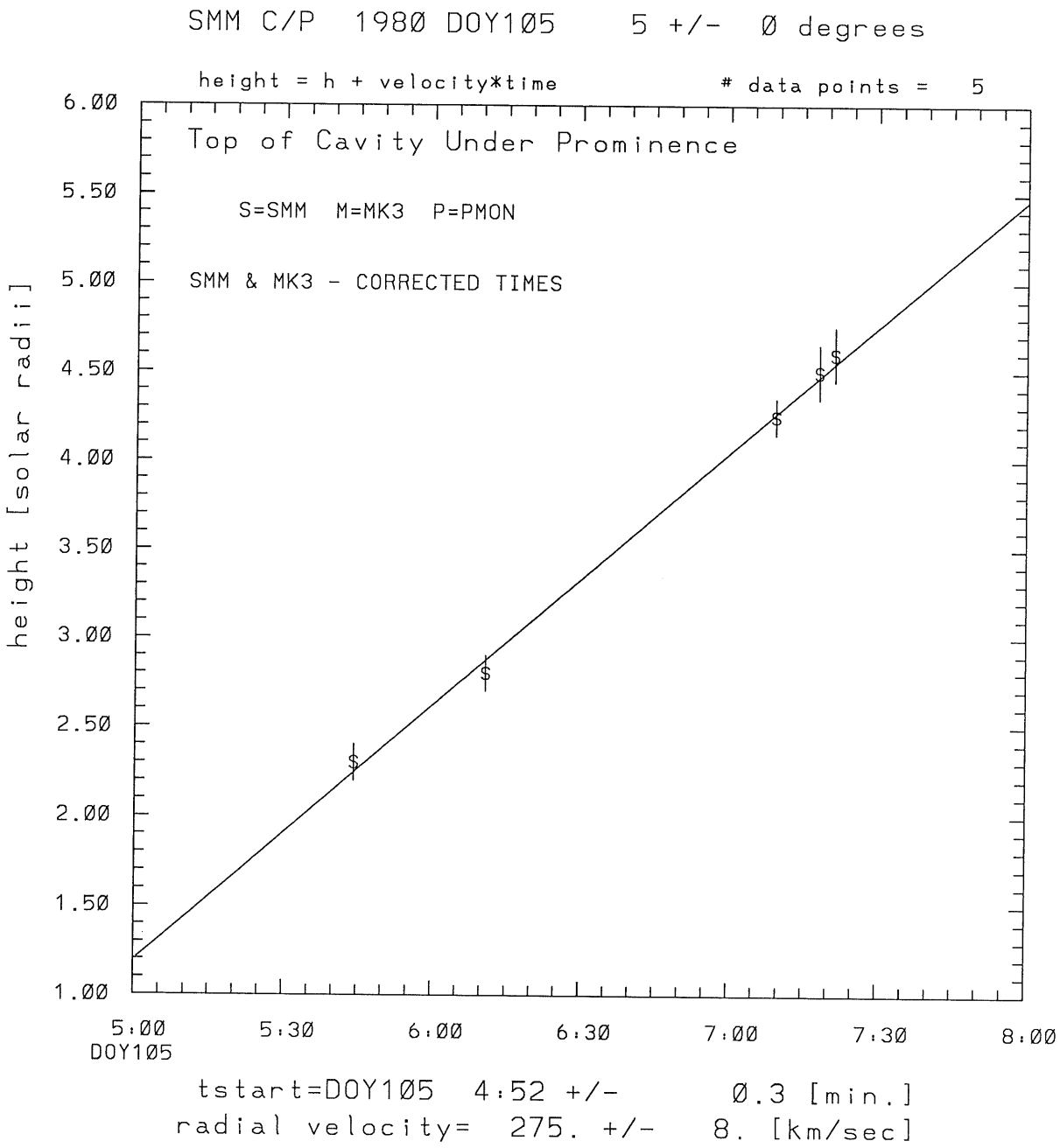
The TANGENTIAL velocity at 7:21 = 0.000E+00 km/sec
The TOTAL velocity at 7:21 = 365. km/sec

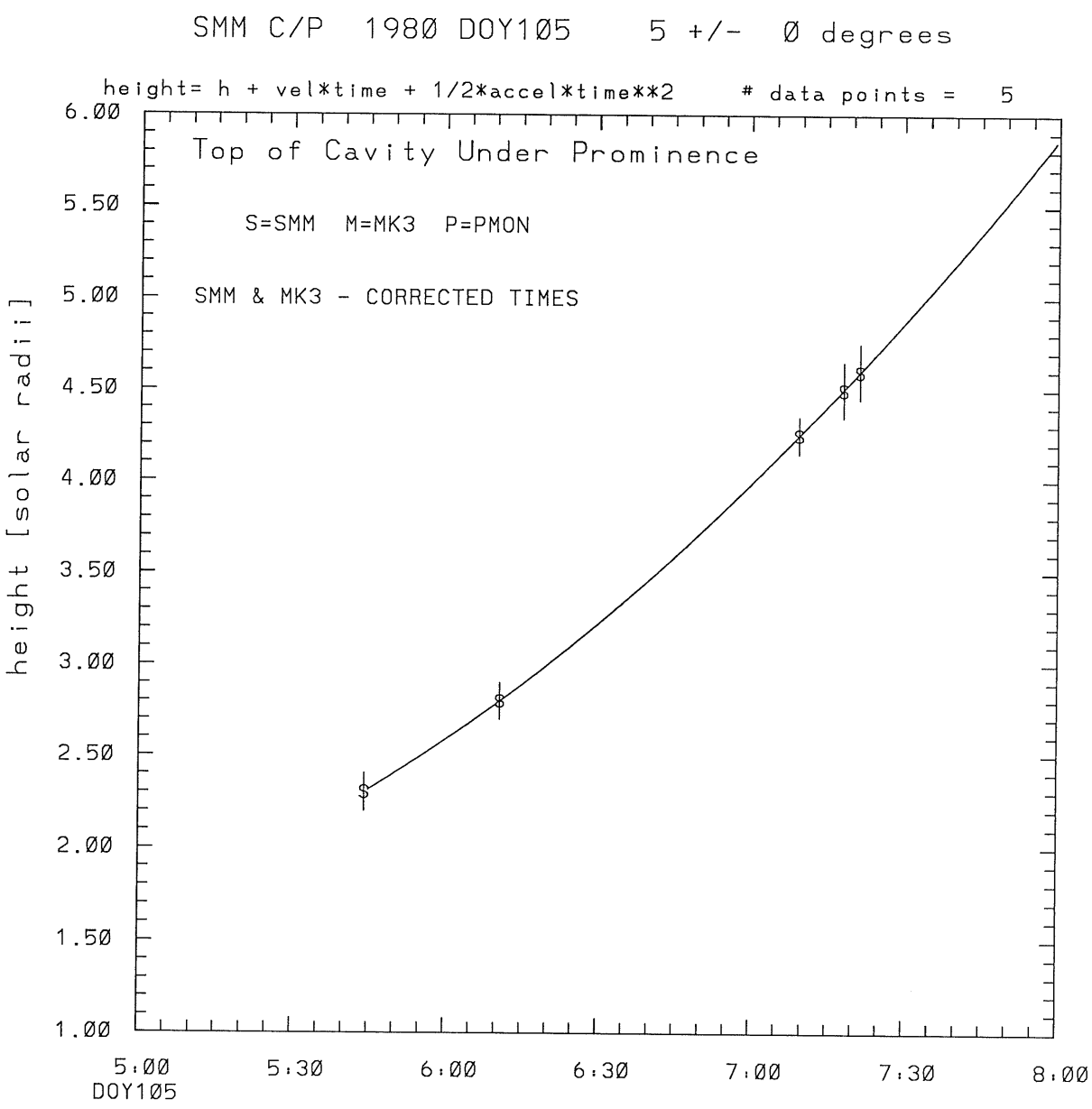
****
The following info is for estimating goodness of the fit
****

Fit is ok [ier=1]

Standard Deviation in the height = 1.03
Standard Deviation in start time measurement = 0.397E+02
Value of reduced Chi Squared returned from nllst2 = 0.323E-03
Reduced Chi Squared = 0.352E-02
Chi Squared = 0.704E-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 = 0.1029E+01
The correlation between the data and the time**2 term = 0.1020E+01
The correlation between the data and the complete equation of motion = 0.9994E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]


SMM C/P 1980 DOY105 5 +/- 0 degrees
height = h + velocity*time
# data points = 5
Top of Cavity Under Prominence
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
5:00
DOY105
5:30
6:00
6:30
7:00
7:30
8:00
tstart=DOY105 4:52 +/- 0.3 [min.]
radial velocity= 275. +/- 8. [km/sec]

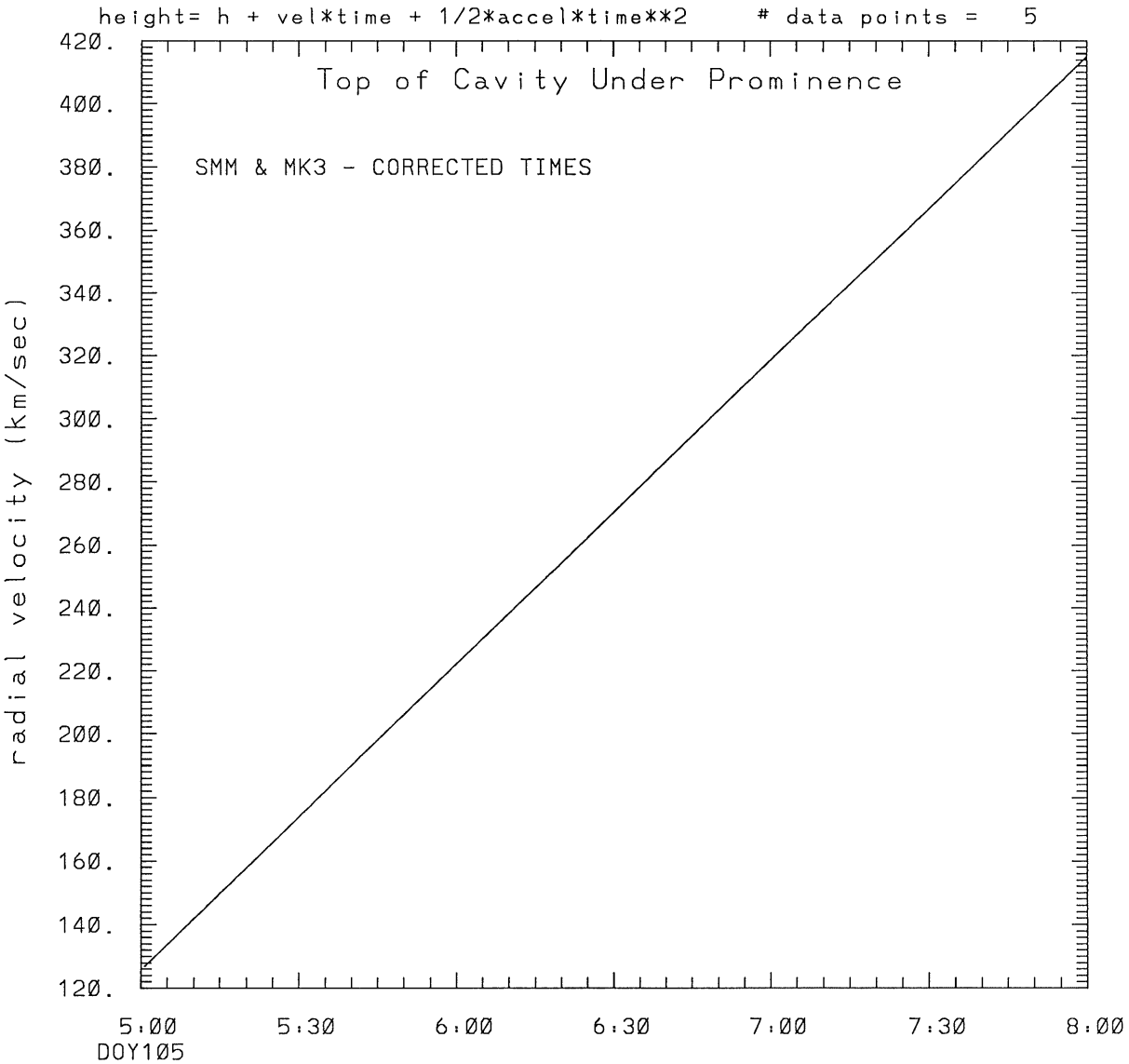


tstart=DOY105 3:42 from derivative=0

Event begins at 1.26 Solar Radii

radial acceleration= 0.0268 +/- 0.0004 [km/sec**2]

SMM C/P 1980 DOY105 5 +/- 0 degrees



tstart=DOY105 3:42 from derivative=0

Event begins at 1.26 Solar Radii

radial acceleration=0.268E-01 km/sec**2

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

****
INPUT:
****

year doy	time	radii	error in radius	angle	error in angle	datatype
1980 105	5:44:18	2.30	+/- 0.10	5.0	+/- 0.5	SMM
1980 105	6:10:54	2.80	+/- 0.10	5.0	+/- 0.5	SMM
1980 105	7: 9:30	4.25	+/- 0.10	5.0	+/- 1.0	SMM
1980 105	7:18:10	4.50	+/- 0.15	5.0	+/- 1.0	SMM
1980 105	7:21:19	4.60	+/- 0.15	5.0	+/- 1.0	SMM

****
Structure being measured:
Top of Cavity Under Prominence
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.808E+01 +/- 0.312E+00 [minutes]
In more convenient units:
Event began at DOY 105 4:52 +/- 0.312E+00 [minutes]

Origin defined at DOY105 5: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 275. +/- 8. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.119E+01 +/- 0.679E-01 [solar radii]
c(2) = 0.237E-01 +/- 0.661E-03 [radii/min]
c(2) = 0.275E+03 +/- 0.766E+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)= 0.82090E-01 [radii] see Bevington pg. 114
error in c(2)= 0.73236E-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) = 5. +/- 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 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 275. km/sec

The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 275. km/sec

The TANGENTIAL velocity at 7: 9 = 0.000E+00 km/sec
The TOTAL velocity at 7: 9 = 275. km/sec

The TANGENTIAL velocity at 7:18 = 0.000E+00 km/sec
The TOTAL velocity at 7:18 = 275. km/sec

The TANGENTIAL velocity at 7:21 = 0.000E+00 km/sec
The TOTAL velocity at 7:21 = 275. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 1.06
Standard Deviation in start time measurement = 0.397E+02
Error in time = 0.47383E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.344E-02
Reduced Chi Squared = 0.108E-01
Chi Squared = 0.323E-01
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.999E+00
The probability that no LINEAR correlation exists between the variables = 0.5754E-04
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

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

****
INPUT:
****

year doy	time	radii	error in radius	angle	error in angle	datatype
1980 105	5:44:18	2.30	+/- 0.10	5.0	+/- 0.5	SMM
1980 105	6:10:54	2.80	+/- 0.10	5.0	+/- 0.5	SMM
1980 105	7: 9:30	4.25	+/- 0.10	5.0	+/- 1.0	SMM
1980 105	7:18:10	4.50	+/- 0.15	5.0	+/- 1.0	SMM
1980 105	7:21:19	4.60	+/- 0.15	5.0	+/- 1.0	SMM

****
Structure being measured:
Top of Cavity Under Prominence
****

****
OUTPUT:
****

START TIME:

tstart=DOY105 3:42 from derivative = 0
Event begins at 1.26 Solar Radii
Origin defined at DOY105 5: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.268E-01 +/- 0.415E-03 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.168E+01 +/- 0.791E-02 [solar radii]
c(2) = 0.108E-01 +/- 0.201E-03 [radii/min]
c(2) = 0.126E+03 +/- 0.233E+01 [km/sec]
c(3) = 0.693E-04 +/- 0.107E-05 [radii/min**2]
c(3) = 0.268E-01 +/- 0.415E-03 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.13342E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.10480E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.33606E-03 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.30506E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.17676E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.18484E-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) = 5. +/- 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 5:44 = 0.000E+00 km/sec
The TOTAL velocity at 5:44 = 197. km/sec

The TANGENTIAL velocity at 6:10 = 0.000E+00 km/sec
The TOTAL velocity at 6:10 = 240. km/sec

The TANGENTIAL velocity at 7: 9 = 0.000E+00 km/sec
The TOTAL velocity at 7: 9 = 334. km/sec

The TANGENTIAL velocity at 7:18 = 0.000E+00 km/sec
The TOTAL velocity at 7:18 = 348. km/sec

The TANGENTIAL velocity at 7:21 = 0.000E+00 km/sec
The TOTAL velocity at 7:21 = 353. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 1.06
Standard Deviation in start time measurement = 0.397E+02
Value of reduced Chi Squared returned from nllst2 = 0.330E-05
Reduced Chi Squared = 0.312E-04
Chi Squared = 0.625E-04
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 = 0.1030E+01
The correlation between the data and the time**2 term = 0.1019E+01
The correlation between the data and the complete equation of motion = 0.1000E+01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]