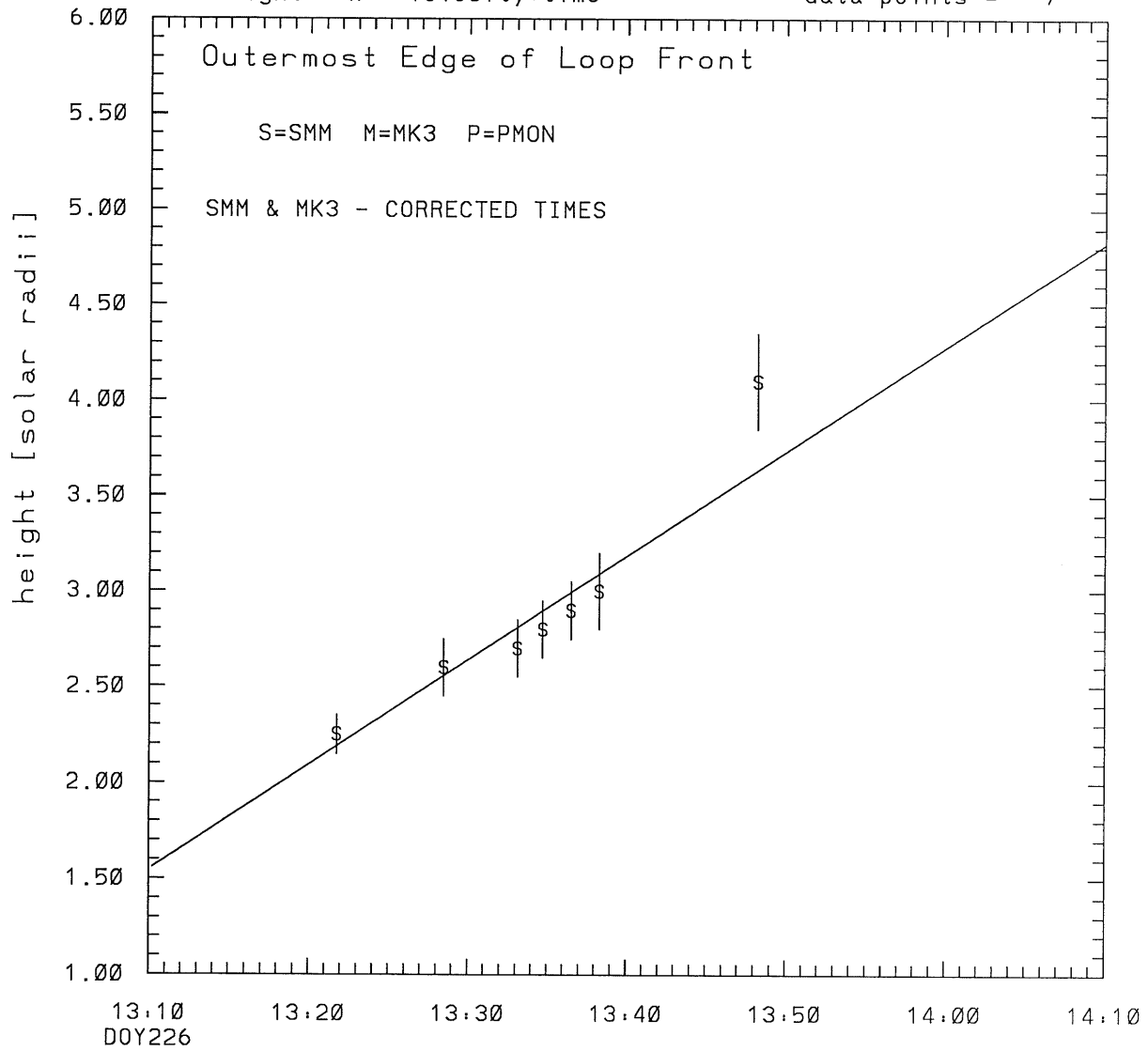


SMM C/P 1980 DOY226 100 +/- 0 degrees

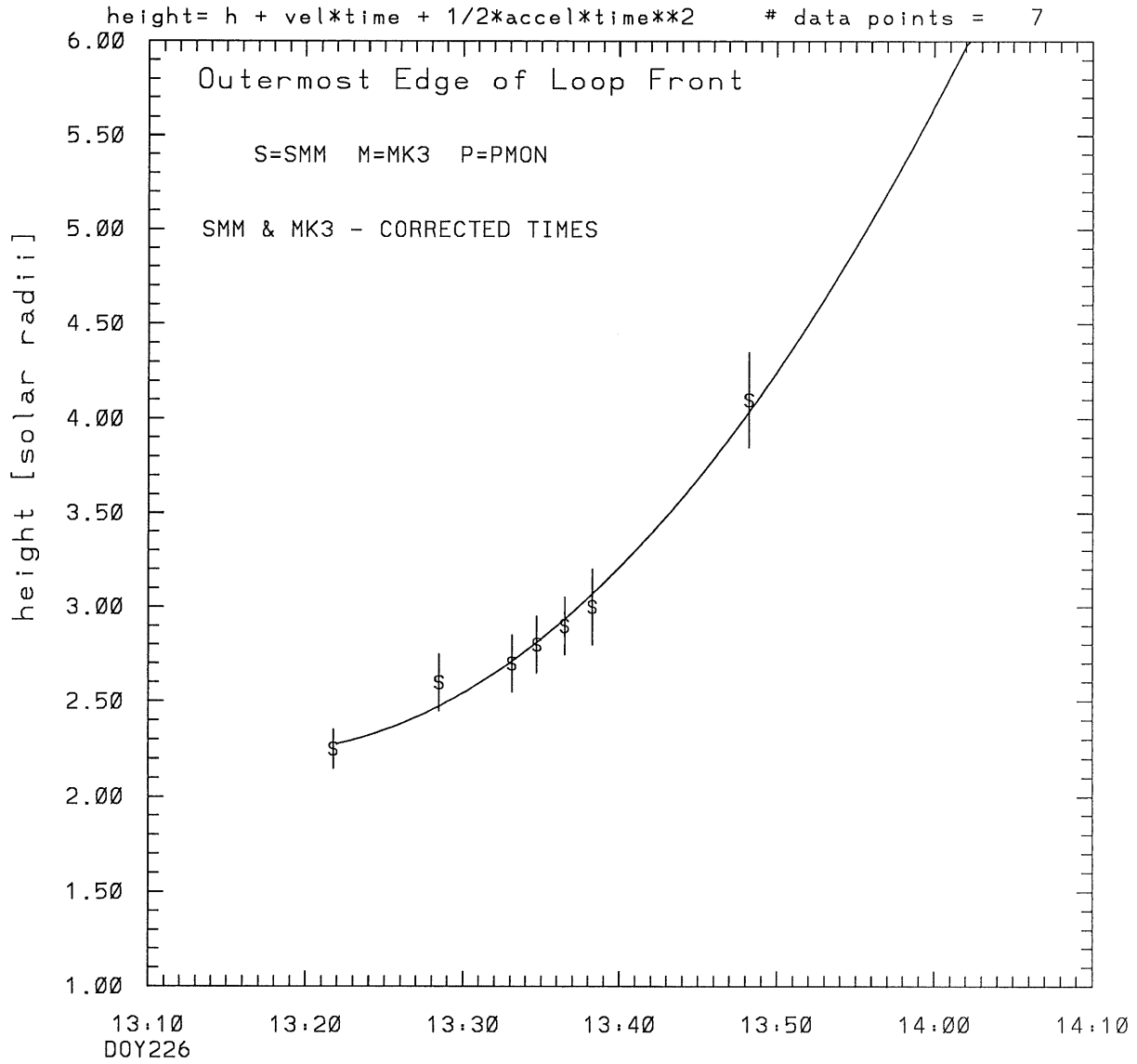
height = h + velocity*time

data points = 7



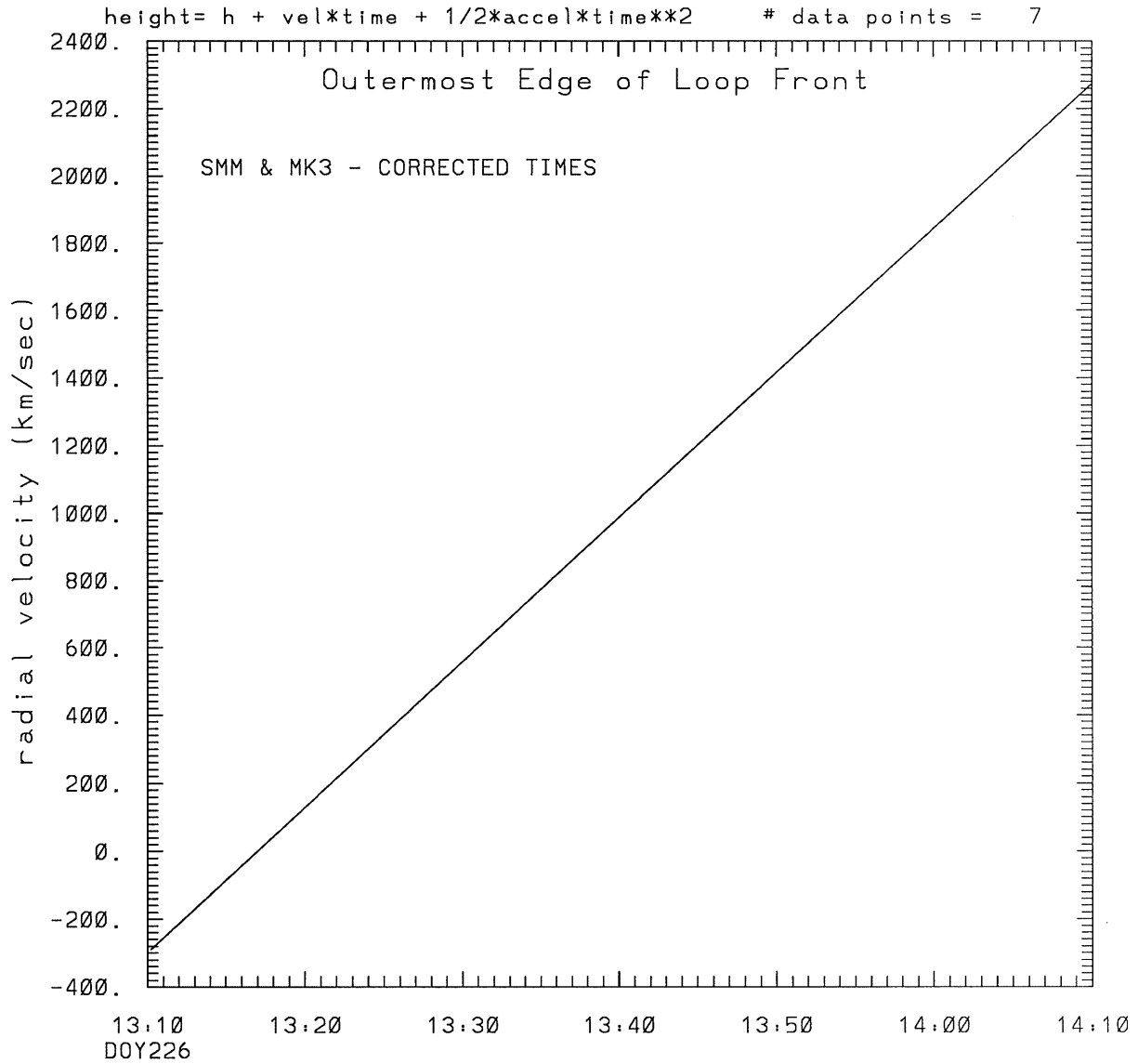
tstart=DOY226 13: 0 +/- 0.5 [min.]
radial velocity= 634. +/- 85. [km/sec]

SMM C/P 1980 DOY226 100 +/- 0 degrees



tstart=DOY226 13:16 from derivative=0
Event begins at 2.23 Solar Radii
radial acceleration = 0.7147 ± 0.1514 [km/sec**2]

SMM C/P 1980 DOY226 100 +/- 0 degrees



tstart=DOY226 13:16 from derivative=0
Event begins at 2.23 Solar Radii
radial acceleration=0.715E+00 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1980	226	13:21:45	2.25	+/- 0.10	100.0	+/- 0.5	SMM
1980	226	13:28:28	2.60	+/- 0.15	100.0	+/- 0.5	SMM
1980	226	13:33: 7	2.70	+/- 0.15	100.0	+/- 0.5	SMM
1980	226	13:34:44	2.80	+/- 0.15	100.0	+/- 0.5	SMM
1980	226	13:36:30	2.90	+/- 0.15	100.0	+/- 0.5	SMM
1980	226	13:38:17	3.00	+/- 0.20	100.0	+/- 1.0	SMM
1980	226	13:48:14	4.10	+/- 0.25	100.0	+/- 1.0	SMM

Structure being measured:

Outermost Edge of Loop Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.100E+02 +/- 0.528E+00$ [minutes]

In more convenient units:

Event began at DOY 226 13:00 +/- 0.528E+00 [minutes]

Event began at DOY 226 13: 0 +/- 0.528E+00 [minutes]

Origin defined at DOY226 13:10

RADIAL INFORMATION:

RADIAL VELOCITY = 634. +/- 85. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.155E+01 +/- 0.161E+00$ [solar radii]

$c(2) = 0.546E-01 +/- 0.732E-02$ [radii/min]

$c(2) = 0.634E+03 +/- 0.849E+02$ [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 $c(1) = 0.28955E+00$ [radii] see Bevington pg. 114

error in $c(2) = 0.11308E-01$ [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) = 100. +/- 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 13:21 = 0.000E+00 km/sec

The TOTAL velocity at 13:21 = 634. km/sec

The TANGENTIAL velocity at 13:28 = 0.000E+00 km/sec

The TOTAL velocity at 13:28 = 634. km/sec

The TANGENTIAL velocity at 13:33 = 0.000E+00 km/sec

The TOTAL velocity at 13:33 = 634. km/sec

The TANGENTIAL velocity at 13:34 = 0.000E+00 km/sec

The TOTAL velocity at 13:34 = 634. km/sec

The TANGENTIAL velocity at 13:36 = 0.000E+00 km/sec

The TOTAL velocity at 13:36 = 634. km/sec

The TANGENTIAL velocity at 13:38 = 0.000E+00 km/sec

The TOTAL velocity at 13:38 = 634. km/sec

The TANGENTIAL velocity at 13:48 = 0.000E+00 km/sec

The TOTAL velocity at 13:48 = 634. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.58

Standard Deviation in start time measurement = 0.763E+01

Error in time = 0.93481E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.201E-01

Reduced Chi Squared = 0.338E+00

Chi Squared = 0.169E+01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.950E+00

The probability that no LINEAR correlation exists between the variables = $0.1048E-02$
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	datatype
1980	226	13:21:45	2.25	+/- 0.10	100.0	+/- 0.5	SMM	
1980	226	13:28:28	2.60	+/- 0.15	100.0	+/- 0.5	SMM	
1980	226	13:33: 7	2.70	+/- 0.15	100.0	+/- 0.5	SMM	
1980	226	13:34:44	2.80	+/- 0.15	100.0	+/- 0.5	SMM	
1980	226	13:36:30	2.90	+/- 0.15	100.0	+/- 0.5	SMM	
1980	226	13:38:17	3.00	+/- 0.20	100.0	+/- 1.0	SMM	
1980	226	13:48:14	4.10	+/- 0.25	100.0	+/- 1.0	SMM	

Structure being measured:
Outermost Edge of Loop Front

OUTPUT:

START TIME:

tstart=DOY226 13:16 from derivative = 0
Event begins at 2.23 Solar Radii
Origin defined at DOY226 13:10

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.715E+00 +/- 0.151E+00 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.232E+01 +/- 0.181E+00 [solar radii]
c(2) = -0.258E-01 +/- 0.174E-01 [radii/min]
c(2) = -0.299E+03 +/- 0.202E+03 [km/sec]
c(3) = 0.185E-02 +/- 0.392E-03 [radii/min**2]
c(3) = 0.715E+00 +/- 0.151E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.25462E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.41379E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.20955E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.39005E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.41173E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.93408E-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) = 100. +/- 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 13:21 = 0.000E+00 km/sec

The TOTAL velocity at 13:21 = 205. km/sec

The TANGENTIAL velocity at 13:28 = 0.000E+00 km/sec

The TOTAL velocity at 13:28 = 493. km/sec

The TANGENTIAL velocity at 13:33 = 0.000E+00 km/sec

The TOTAL velocity at 13:33 = 692. km/sec

The TANGENTIAL velocity at 13:34 = 0.000E+00 km/sec

The TOTAL velocity at 13:34 = 761. km/sec

The TANGENTIAL velocity at 13:36 = 0.000E+00 km/sec

The TOTAL velocity at 13:36 = 837. km/sec

The TANGENTIAL velocity at 13:38 = 0.000E+00 km/sec

The TOTAL velocity at 13:38 = 913. km/sec

The TANGENTIAL velocity at 13:48 = 0.000E+00 km/sec

The TOTAL velocity at 13:48 = 1340. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

- Standard Deviation in the height = 0.58
- Standard Deviation in start time measurement = 0.763E+01
- Value of reduced Chi Squared returned from nllst2 = 0.442E-02
- Reduced Chi Squared = 0.242E-01
- Chi Squared = 0.968E-01
- The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

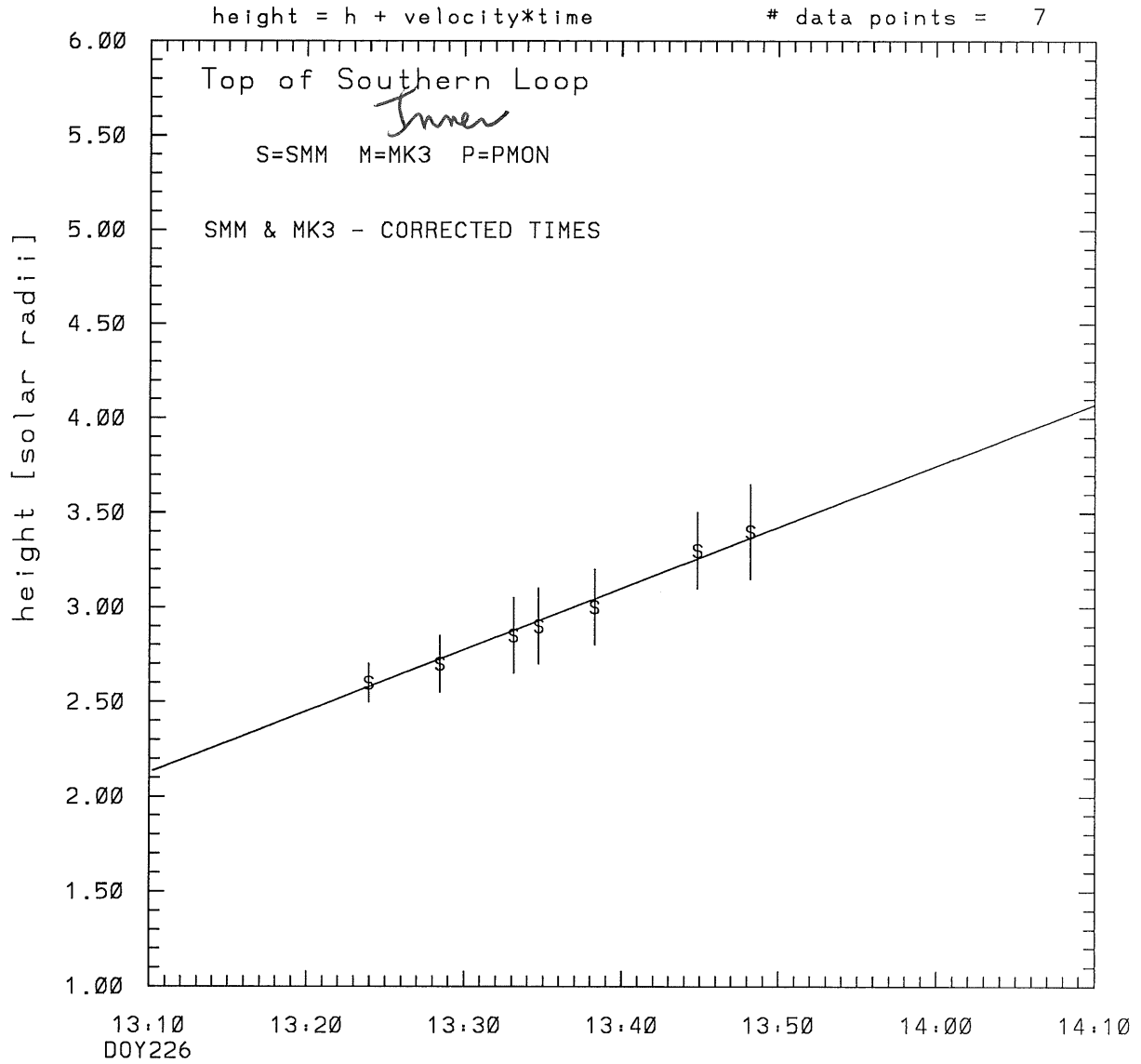
(Using equation of motion: $r = a + bt + at^{**2}$)

The correlation between the data and the term linear in time = 0.1030E+01

The correlation between the data and the time**2 term = 0.9352E+00

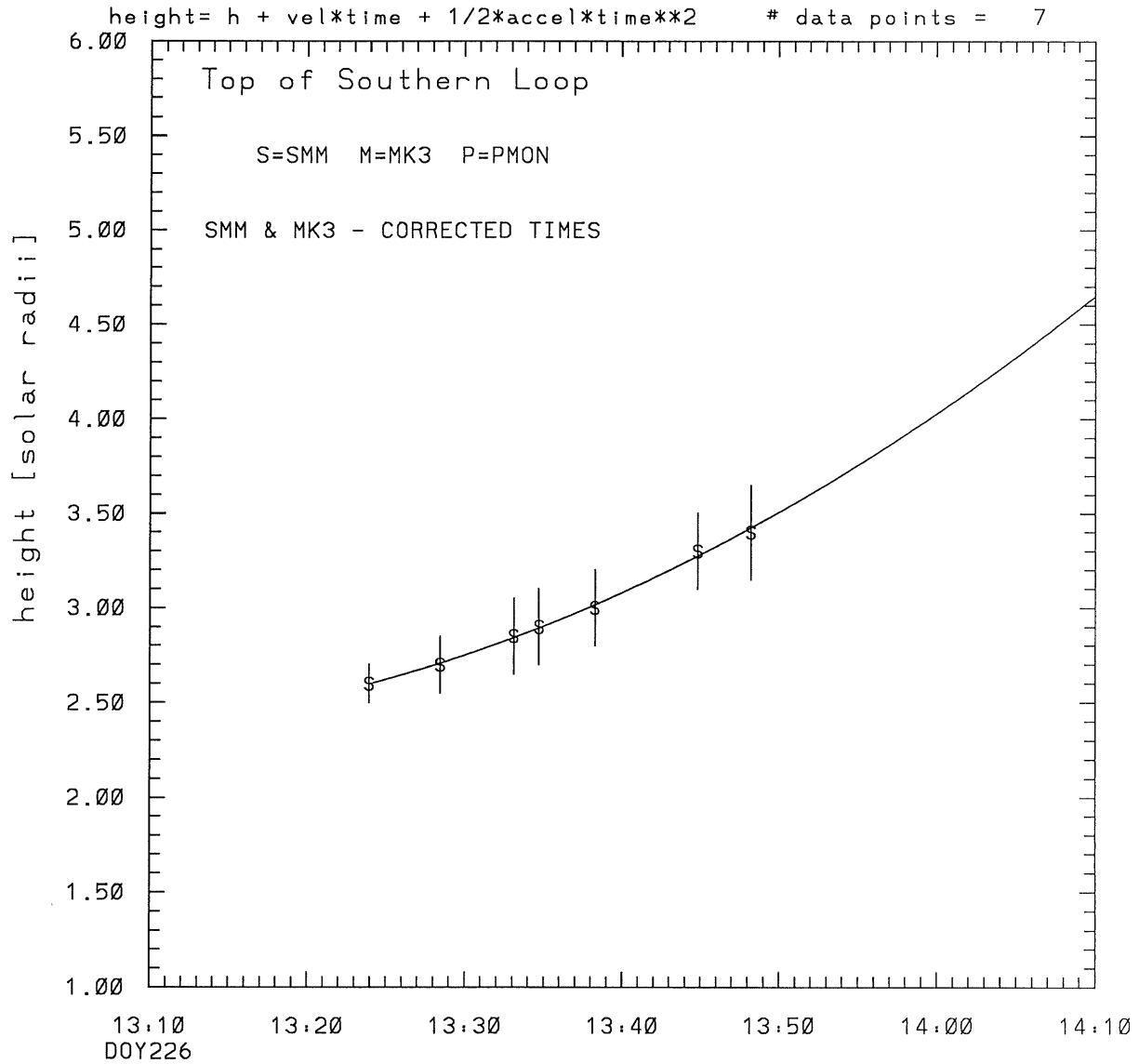
The correlation between the data and the complete equation of motion = $0.9807E+00$
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1980 DOY226 165 +/- 0 degrees



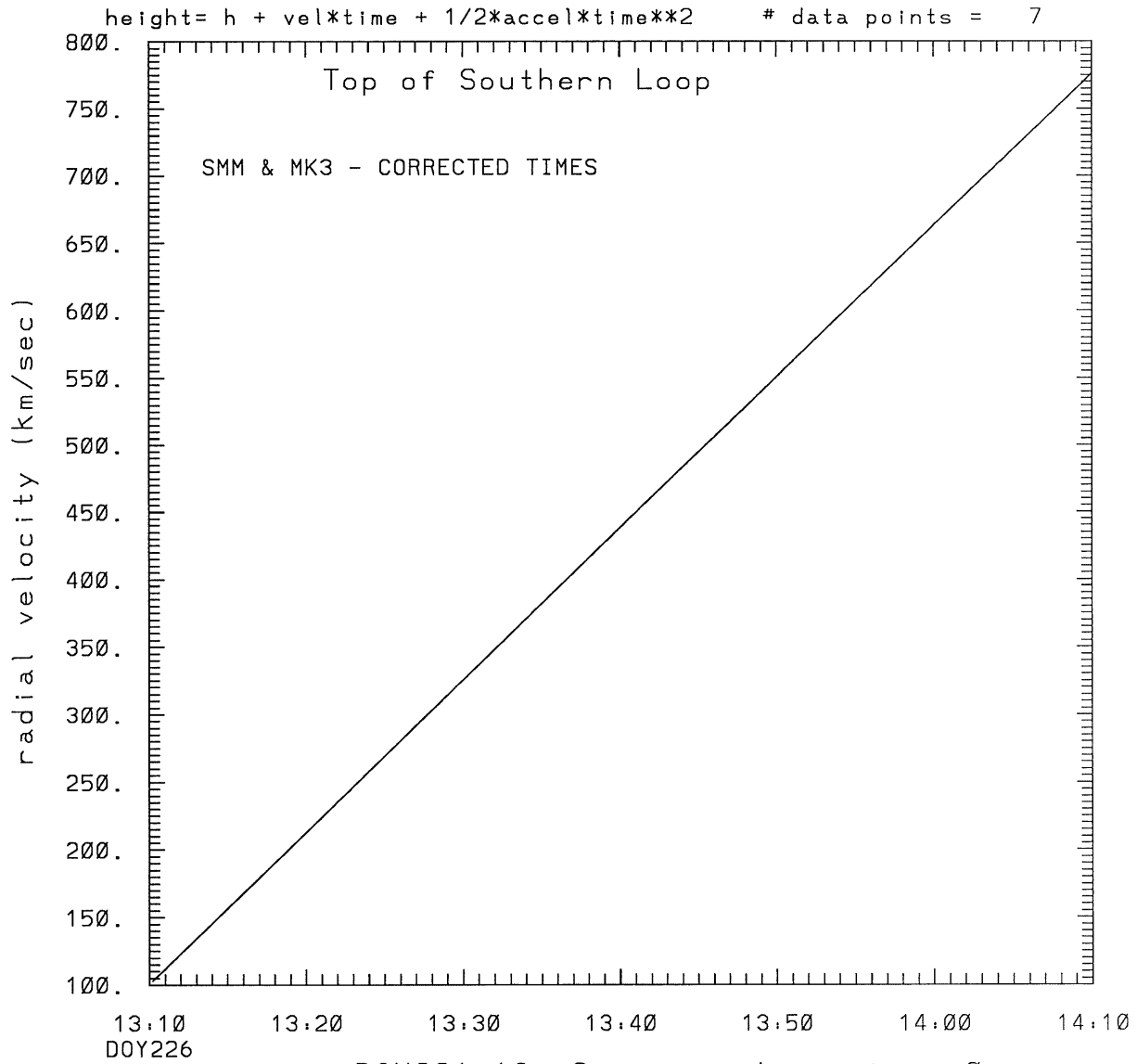
tstart=DOY226 12:37 +/- 0.7 [min.]
radial velocity= 376. +/- 17. [km/sec]

SMM C/P 1980 DOY226 165 +/- 0 degrees



tstart=DOY226 13: 2 from derivative=0
Event begins at 2.34 Solar Radii
radial acceleration = 0.1877 ± 0.0377 [km/sec**2]

SMM C/P 1980 DOY226 165 +/- 0 degrees



13:10
DOY226

tstart=DOY226 13: 2 from derivative=0
Event begins at 2.34 Solar Radii
radial acceleration=0.188E+00 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	angle	error in	datatype
1980	226	13:23:56	2.60	+/- 0.10	165.0	+/- 0.5			SMM
1980	226	13:28:28	2.70	+/- 0.15	165.0	+/- 0.5			SMM
1980	226	13:33: 7	2.85	+/- 0.20	165.0	+/- 0.5			SMM
1980	226	13:34:44	2.90	+/- 0.20	165.0	+/- 0.5			SMM
1980	226	13:38:17	3.00	+/- 0.20	165.0	+/- 1.0			SMM
1980	226	13:44:51	3.30	+/- 0.20	165.0	+/- 1.0			SMM
1980	226	13:48:14	3.40	+/- 0.25	165.0	+/- 1.0			SMM

Structure being measured:

Top of Southern Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.348E+02 +/- 0.705E+00$ [minutes]

In more convenient units:

Event began at DOY 226 12:37 +/- 0.705E+00 [minutes]

Origin defined at DOY226 13:10

RADIAL INFORMATION:

RADIAL VELOCITY = 376. +/- 17. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.213E+01 +/- 0.346E-01$ [solar radii]
 $c(2) = 0.324E-01 +/- 0.151E-02$ [radii/min]
 $c(2) = 0.376E+03 +/- 0.175E+02$ [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 $c(1) = 0.50125E-01$ [radii] see Bevington pg. 114

error in $c(2) = 0.18467E-02$ [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) = 165. +/- 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 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 376. km/sec

The TANGENTIAL velocity at 13:28 = 0.000E+00 km/sec

The TOTAL velocity at 13:28 = 376. km/sec

The TANGENTIAL velocity at 13:33 = 0.000E+00 km/sec

The TOTAL velocity at 13:33 = 376. km/sec

The TANGENTIAL velocity at 13:34 = 0.000E+00 km/sec

The TOTAL velocity at 13:34 = 376. km/sec

The TANGENTIAL velocity at 13:38 = 0.000E+00 km/sec

The TOTAL velocity at 13:38 = 376. km/sec

The TANGENTIAL velocity at 13:44 = 0.000E+00 km/sec

The TOTAL velocity at 13:44 = 376. km/sec

The TANGENTIAL velocity at 13:48 = 0.000E+00 km/sec

The TOTAL velocity at 13:48 = 376. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.30

Standard Deviation in start time measurement = 0.798E+01

Error in time = 0.26888E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.101E-02

Reduced Chi Squared = 0.718E-02

Chi Squared = 0.359E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.994E+00

The probability that no LINEAR correlation exists between the variables = 0.5282E-05

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	226	13:23:56	2.60	+/- 0.10	165.0	+/- 0.5	SMM	
1980	226	13:28:28	2.70	+/- 0.15	165.0	+/- 0.5	SMM	
1980	226	13:33: 7	2.85	+/- 0.20	165.0	+/- 0.5	SMM	
1980	226	13:34:44	2.90	+/- 0.20	165.0	+/- 0.5	SMM	
1980	226	13:38:17	3.00	+/- 0.20	165.0	+/- 1.0	SMM	
1980	226	13:44:51	3.30	+/- 0.20	165.0	+/- 1.0	SMM	
1980	226	13:48:14	3.40	+/- 0.25	165.0	+/- 1.0	SMM	

Structure being measured:
Top of Southern Loop

OUTPUT:

START TIME:

tstart=DOY226 13: 2 from derivative = 0
Event begins at 2.34 Solar Radii
Origin defined at DOY226 13:10

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.188E+00 +/- 0.377E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.238E+01 +/- 0.536E-01 [solar radii]
c(2) = 0.865E-02 +/- 0.482E-02 [radii/min]
c(2) = 0.100E+03 +/- 0.559E+02 [km/sec]
c(3) = 0.485E-03 +/- 0.975E-04 [radii/min**2]
c(3) = 0.188E+00 +/- 0.377E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.86150E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.13197E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.69167E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.13788E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.12976E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.32830E-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) = 165. +/- 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 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 257. km/sec

The TANGENTIAL velocity at 13:28 = 0.000E+00 km/sec

The TOTAL velocity at 13:28 = 308. km/sec

The TANGENTIAL velocity at 13:33 = 0.000E+00 km/sec

The TOTAL velocity at 13:33 = 361. km/sec

The TANGENTIAL velocity at 13:34 = 0.000E+00 km/sec

The TOTAL velocity at 13:34 = 379. km/sec

The TANGENTIAL velocity at 13:38 = 0.000E+00 km/sec

The TOTAL velocity at 13:38 = 419. km/sec

The TANGENTIAL velocity at 13:44 = 0.000E+00 km/sec

The TOTAL velocity at 13:44 = 493. km/sec

The TANGENTIAL velocity at 13:48 = 0.000E+00 km/sec

The TOTAL velocity at 13:48 = 531. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.30

Standard Deviation in start time measurement = 0.798E+01

Value of reduced Chi Squared returned from nllst2 = 0.204E-03

Reduced Chi Squared = 0.241E-02

Chi Squared = 0.962E-02

The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

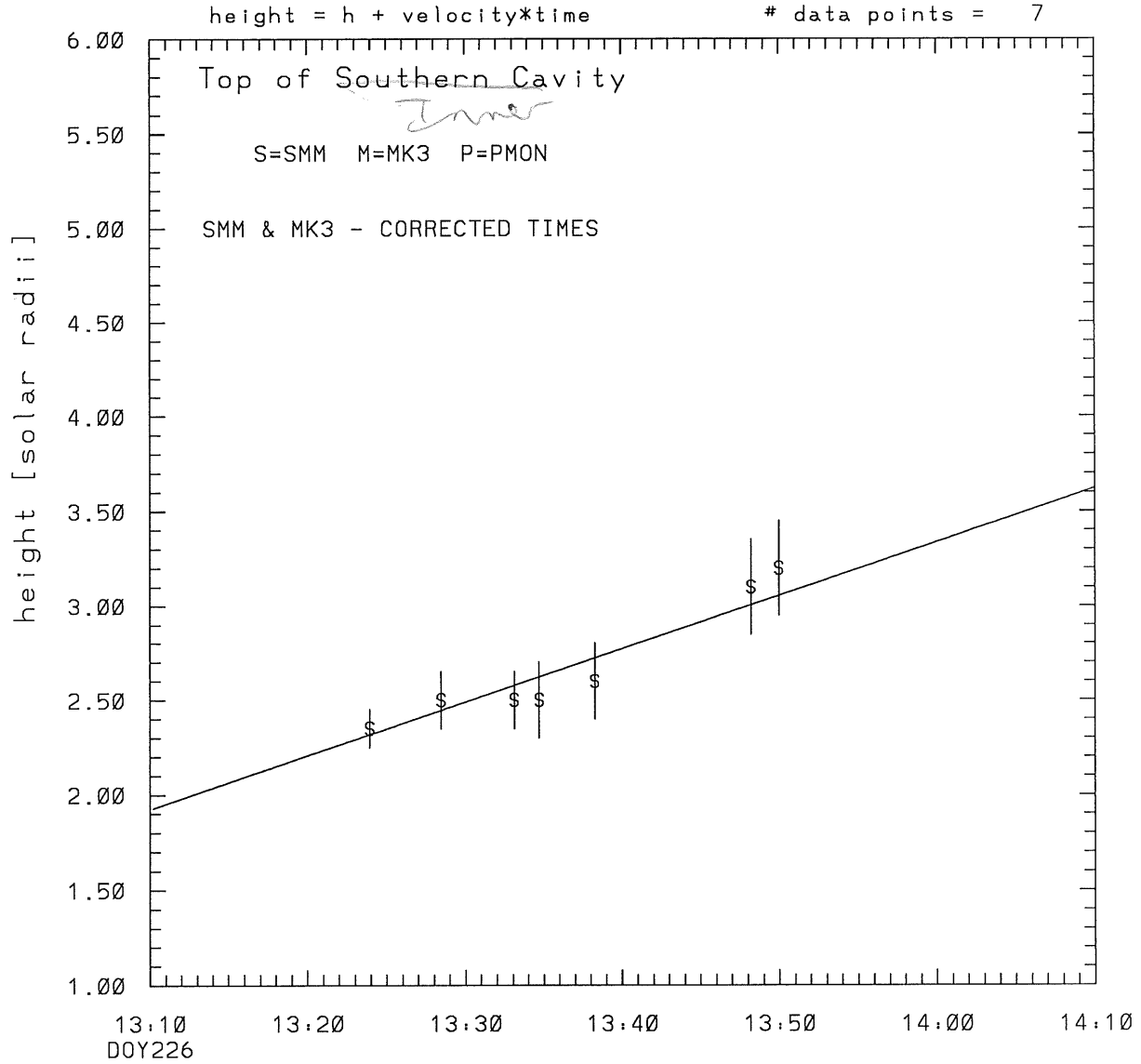
(Using equation of motion: $r = a + bt + at^{**2}$)

The correlation between the data and the term linear in time = 0.1138E+01

The correlation between the data and the time**2 term = 0.1050E+01

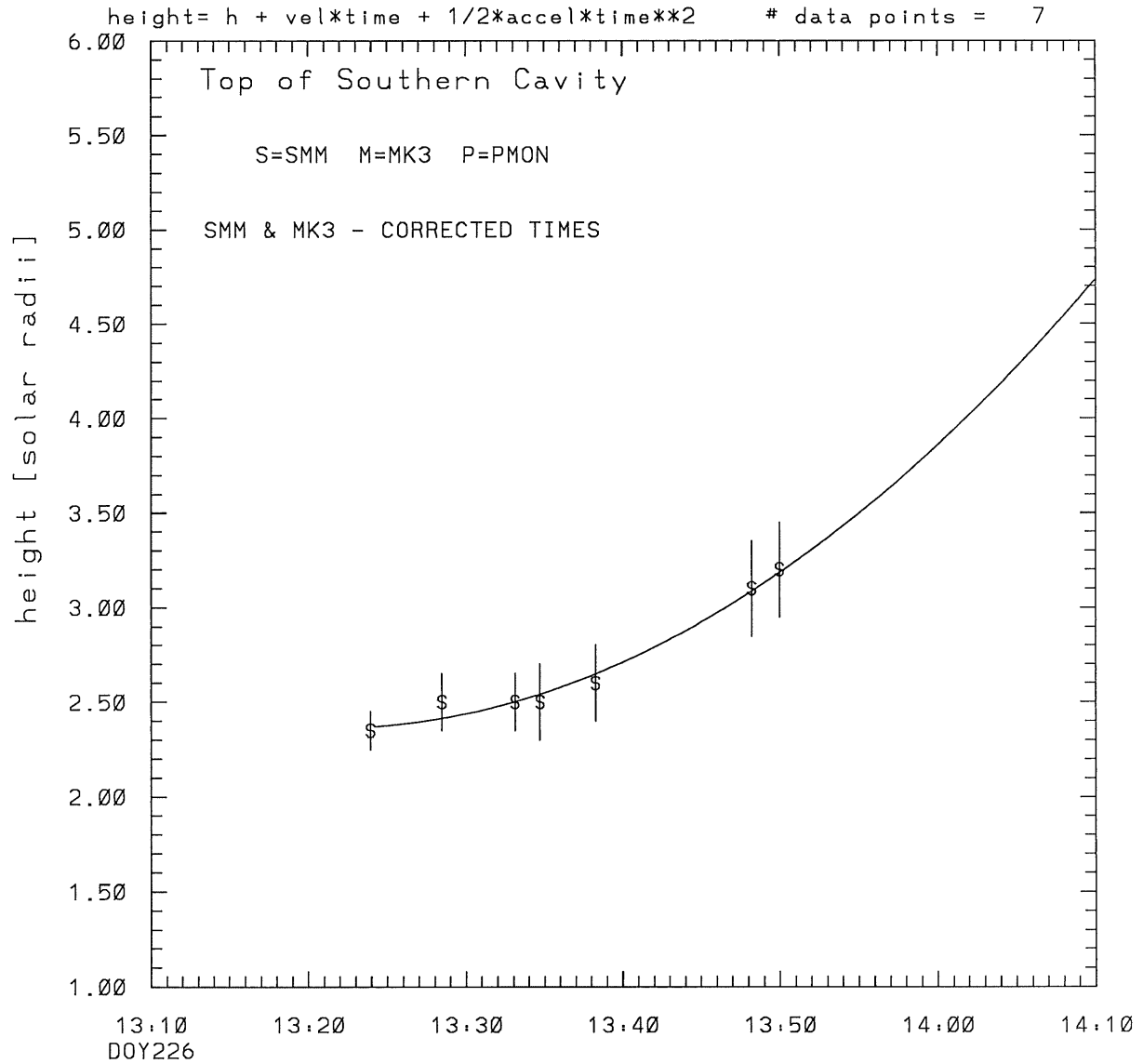
The correlation between the data and the complete equation of motion = 0.1000E+01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1980 DOY226 165 +/- 0 degrees



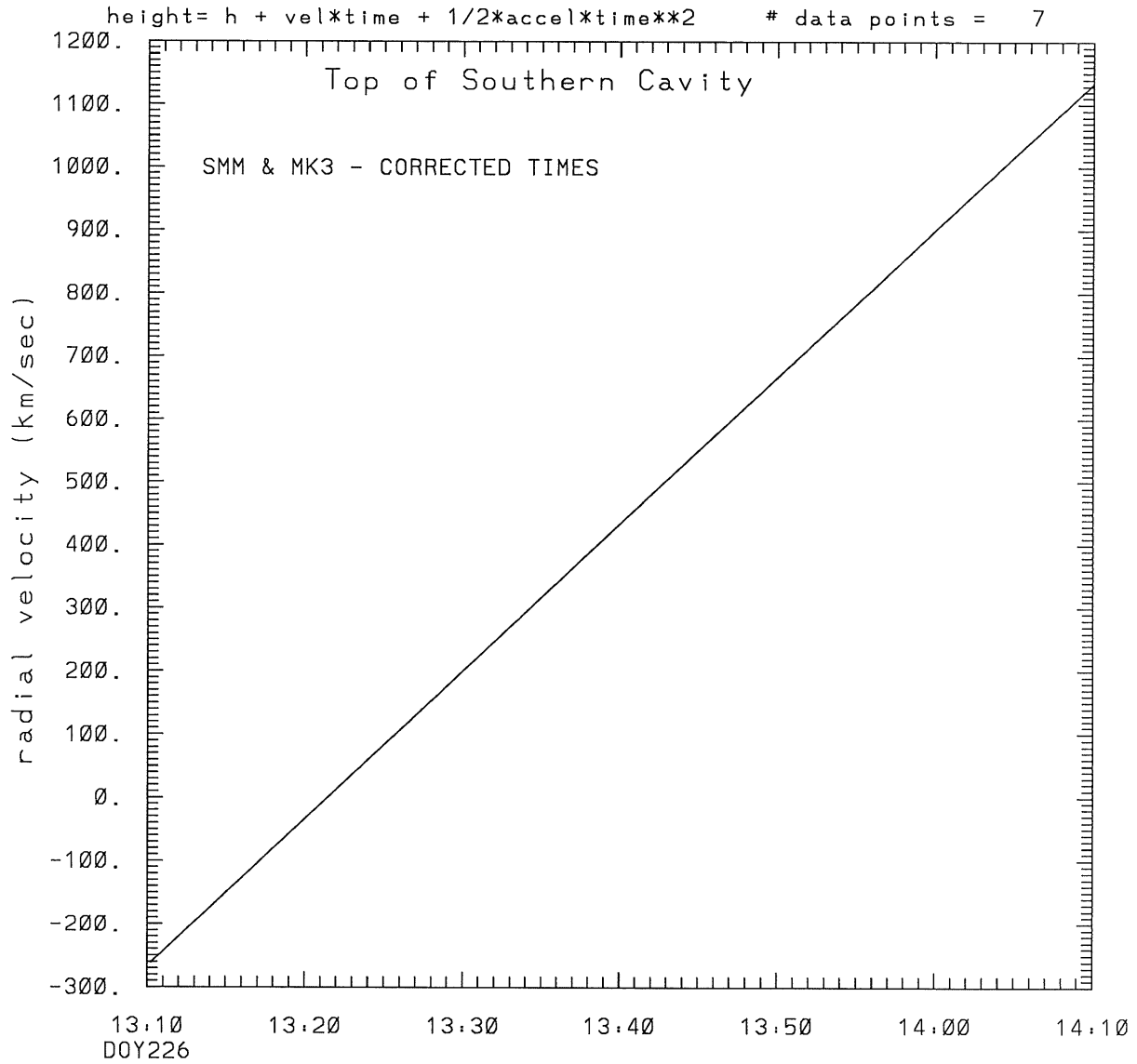
tstart=DOY226 12:39 +/- 1.7 [min.]
radial velocity= 328. +/- 47. [km/sec]

SMM C/P 1980 DOY226 165 +/- 0 degrees



tstart=DOY226 13:21 from derivative=0
Event begins at 2.36 Solar Radii
radial acceleration = 0.3891 ± 0.1079 [km/sec**2]

SMM C/P 1980 DOY226 165 +/- 0 degrees



tstart=DOY226 13:21 from derivative=0
Event begins at 2.36 Solar Radii
radial acceleration=0.389E+00 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in	angle	angle	datatype
1980	226	13:23:56	2.35	+/- 0.10	165.0	+/- 0.5	SMM	
1980	226	13:28:28	2.50	+/- 0.15	165.0	+/- 0.5	SMM	
1980	226	13:33: 7	2.50	+/- 0.15	165.0	+/- 0.5	SMM	
1980	226	13:34:44	2.50	+/- 0.20	165.0	+/- 0.5	SMM	
1980	226	13:38:17	2.60	+/- 0.20	165.0	+/- 0.5	SMM	
1980	226	13:48:14	3.10	+/- 0.25	165.0	+/- 1.0	SMM	
1980	226	13:50: 0	3.20	+/- 0.25	165.0	+/- 1.0	SMM	

Structure being measured:
Top of Southern Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.326E+02 +/- 0.174E+01$ [minutes]
In more convenient units:
Event began at DOY 226 12:39 +/- 0.174E+01 [minutes]

Origin defined at DOY226 13:10

RADIAL INFORMATION:

RADIAL VELOCITY = 328. +/- 47. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.192E+01 +/- 0.932E-01$ [solar radii]
 $c(2) = 0.283E-01 +/- 0.406E-02$ [radii/min]
 $c(2) = 0.328E+03 +/- 0.471E+02$ [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 $c(1) = 0.14114E+00$ [radii] see Bevington pg. 114
error in $c(2) = 0.50156E-02$ [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) = 165. +/- 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 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 328. km/sec

The TANGENTIAL velocity at 13:28 = 0.000E+00 km/sec

The TOTAL velocity at 13:28 = 328. km/sec

The TANGENTIAL velocity at 13:33 = 0.000E+00 km/sec

The TOTAL velocity at 13:33 = 328. km/sec

The TANGENTIAL velocity at 13:34 = 0.000E+00 km/sec

The TOTAL velocity at 13:34 = 328. km/sec

The TANGENTIAL velocity at 13:38 = 0.000E+00 km/sec

The TOTAL velocity at 13:38 = 328. km/sec

The TANGENTIAL velocity at 13:48 = 0.000E+00 km/sec

The TOTAL velocity at 13:48 = 328. km/sec

The TANGENTIAL velocity at 13:50 = 0.000E+00 km/sec

The TOTAL velocity at 13:50 = 328. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.33

Standard Deviation in start time measurement = 0.894E+01

Error in time = 0.93796E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.751E-02

Reduced Chi Squared = 0.727E-01

Chi Squared = 0.363E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.954E+00

The probability that no LINEAR correlation exists between the variables = 0.8546E-03

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
1980	226	13:23:56	2.35	+/- 0.10	165.0	+/- 0.5	SMM
1980	226	13:28:28	2.50	+/- 0.15	165.0	+/- 0.5	SMM
1980	226	13:33: 7	2.50	+/- 0.15	165.0	+/- 0.5	SMM
1980	226	13:34:44	2.50	+/- 0.20	165.0	+/- 0.5	SMM
1980	226	13:38:17	2.60	+/- 0.20	165.0	+/- 0.5	SMM
1980	226	13:48:14	3.10	+/- 0.25	165.0	+/- 1.0	SMM
1980	226	13:50: 0	3.20	+/- 0.25	165.0	+/- 1.0	SMM

Structure being measured:
Top of Southern Cavity

OUTPUT:

START TIME:

tstart=DOY226 13:21 from derivative = 0
Event begins at 2.36 Solar Radii
Origin defined at DOY226 13:10

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.389E+00 +/- 0.108E+00 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.250E+01 +/- 0.168E+00 [solar radii]
c(2) = -0.230E-01 +/- 0.144E-01 [radii/min]
c(2) = -0.267E+03 +/- 0.167E+03 [km/sec]
c(3) = 0.101E-02 +/- 0.279E-03 [radii/min**2]
c(3) = 0.389E+00 +/- 0.108E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.22264E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.38675E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.17260E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.26916E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.30774E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.44497E-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) = 165. +/- 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 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 58. km/sec

The TANGENTIAL velocity at 13:28 = 0.000E+00 km/sec

The TOTAL velocity at 13:28 = 164. km/sec

The TANGENTIAL velocity at 13:33 = 0.000E+00 km/sec

The TOTAL velocity at 13:33 = 273. km/sec

The TANGENTIAL velocity at 13:34 = 0.000E+00 km/sec

The TOTAL velocity at 13:34 = 310. km/sec

The TANGENTIAL velocity at 13:38 = 0.000E+00 km/sec

The TOTAL velocity at 13:38 = 393. km/sec

The TANGENTIAL velocity at 13:48 = 0.000E+00 km/sec

The TOTAL velocity at 13:48 = 625. km/sec

The TANGENTIAL velocity at 13:50 = 0.000E+00 km/sec

The TOTAL velocity at 13:50 = 667. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.33

Standard Deviation in start time measurement = 0.894E+01

Value of reduced Chi Squared returned from nllst2 = 0.250E-02

Reduced Chi Squared = 0.931E-02

Chi Squared = 0.373E-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 = 0.1029E+01

The correlation between the data and the time**2 term = 0.9685E+00

The correlation between the data and the complete equation of motion = $0.9767E+00$
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]