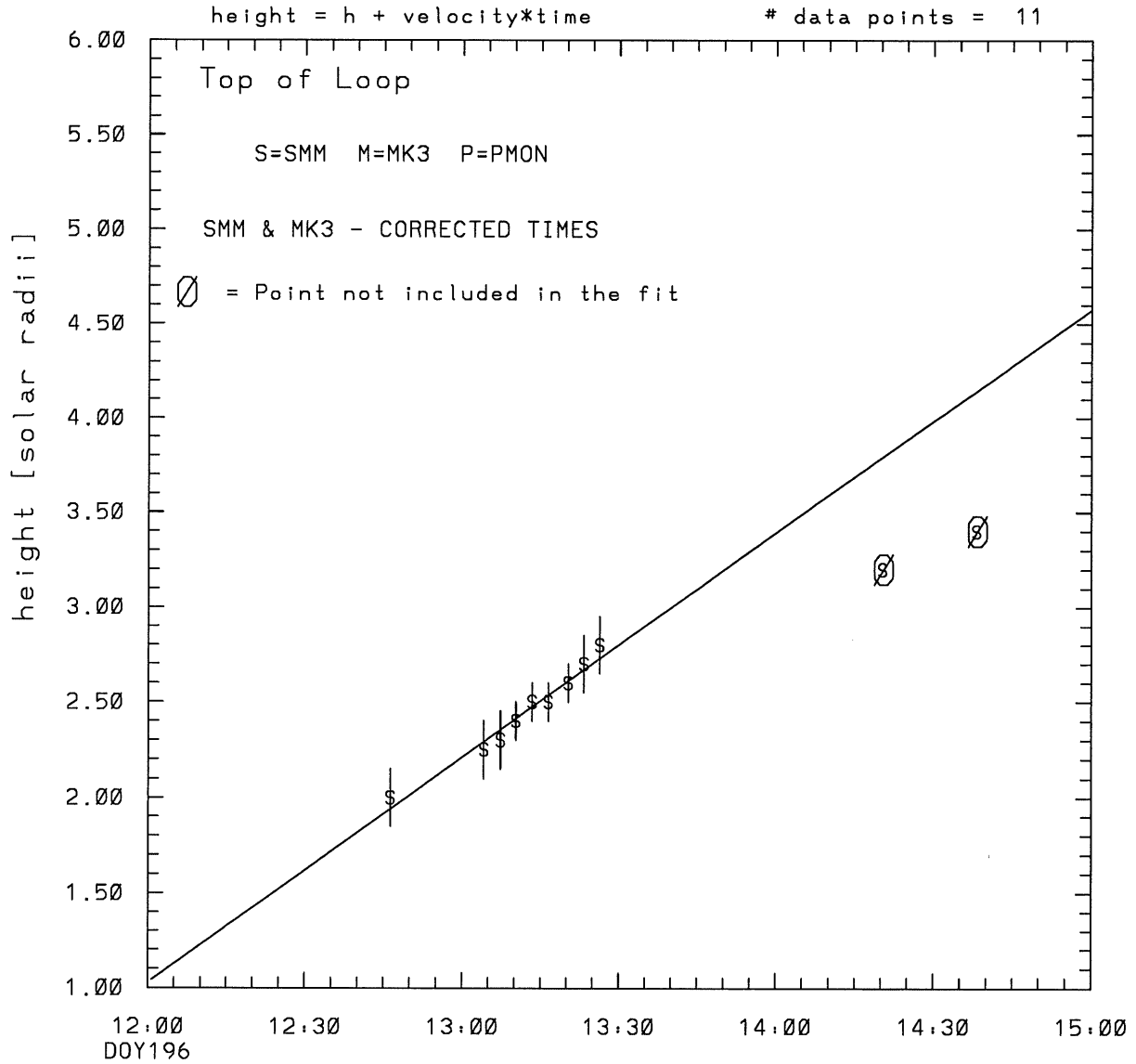
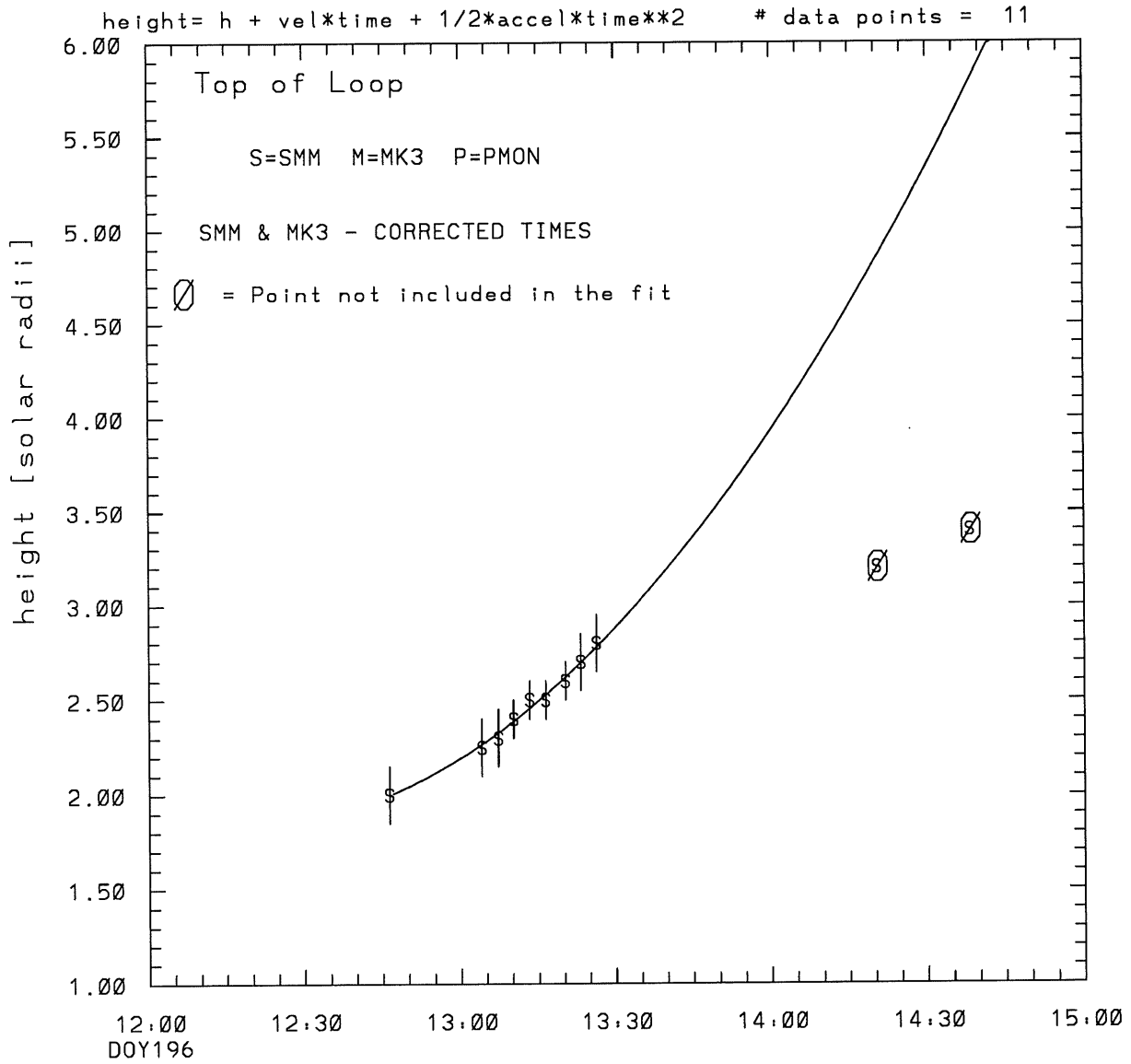


SMM C/P 1986 DOY196 285 +/- 0 degrees



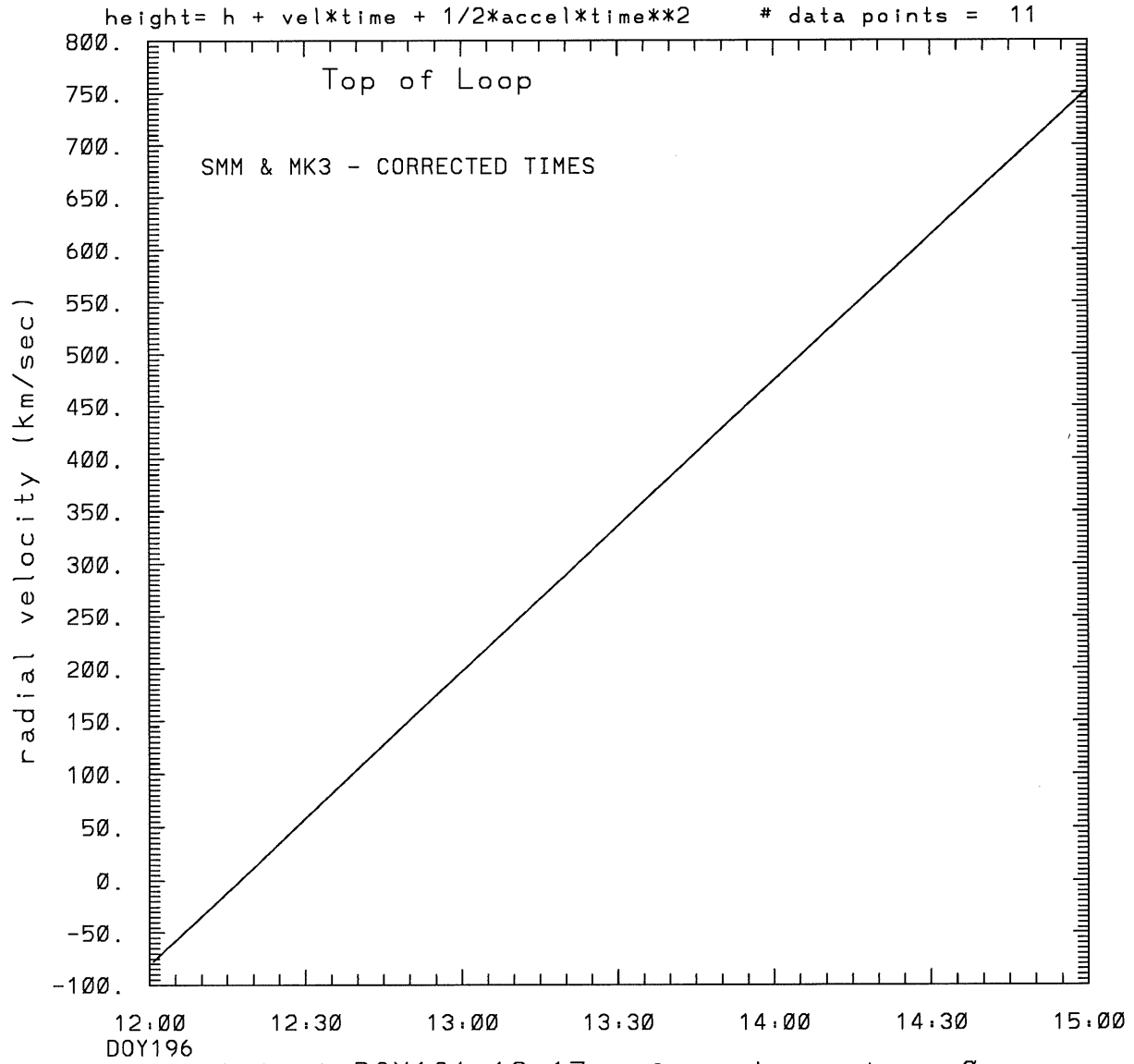
tstart=DOY196 11.59 +/- 0.0 [min.]
radial velocity= 229. +/- 14. [km/sec]

SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 12:17 from derivative=0
Event begins at 1.83 Solar Radii
radial acceleration = 0.0772 ± 0.0238 [km/sec**2]

SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 12:17 from derivative=0
Event begins at 1.83 Solar Radii
radial acceleration=0.772E-01 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in angle	angle	error in angle	datatype
1986	196	12:46:17	2.00	+/- 0.15	285.0	+/- 0.5	SMM	
1986	196	13: 4: 8	2.25	+/- 0.15	285.0	+/- 0.5	SMM	
1986	196	13: 7:18	2.30	+/- 0.15	285.0	+/- 0.5	SMM	
1986	196	13:10:14	2.40	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:13:21	2.50	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:16:27	2.50	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:20:17	2.60	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:23:18	2.70	+/- 0.15	285.0	+/- 0.5	SMM	
1986	196	13:26:20	2.80	+/- 0.15	285.0	+/- 0.5	SMM	
1986	196	14:20:18	3.20	-----	285.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	
1986	196	14:38: 8	3.40	-----	285.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.	

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at t = 0 + -0.142E+01 +/- 0.450E-01 [minutes]

In more convenient units:

Event began at DOY 196 11:59 +/- 0.450E-01 [minutes]

Origin defined at DOY196 12: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 229. +/- 14. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.103E+01 +/- 0.901E-01 [solar radii]
- c(2) = 0.197E-01 +/- 0.122E-02 [radii/min]
- c(2) = 0.229E+03 +/- 0.142E+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)= 0.27839E+00 [radii] see Bevington pg. 114
error in c(2)= 0.30364E-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) = 285. +/- 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 12:46 = 0.000E+00 km/sec

The TOTAL velocity at 12:46 = 229. km/sec

The TANGENTIAL velocity at 13: 4 = 0.000E+00 km/sec

The TOTAL velocity at 13: 4 = 229. km/sec

The TANGENTIAL velocity at 13: 7 = 0.000E+00 km/sec

The TOTAL velocity at 13: 7 = 229. km/sec

The TANGENTIAL velocity at 13:10 = 0.000E+00 km/sec

The TOTAL velocity at 13:10 = 229. km/sec

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

The TOTAL velocity at 13:13 = 229. km/sec

The TANGENTIAL velocity at 13:16 = 0.000E+00 km/sec

The TOTAL velocity at 13:16 = 229. km/sec

The TANGENTIAL velocity at 13:20 = 0.000E+00 km/sec

The TOTAL velocity at 13:20 = 229. km/sec

The TANGENTIAL velocity at 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 229. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec

The TOTAL velocity at 13:26 = 229. km/sec

The TANGENTIAL velocity at 14:20 = 0.000E+00 km/sec

The TOTAL velocity at 14:20 = 229. km/sec

The TANGENTIAL velocity at 14:38 = 0.000E+00 km/sec

The TOTAL velocity at 14:38 = 229. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.41

Standard Deviation in start time measurement = 0.318E+02

Error in time = 0.48697E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.150E-02

Reduced Chi Squared = 0.108E+01

Chi Squared = 0.968E+01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.970E+00

The probability that no LINEAR correlation exists between the variables = 0.7712E-06

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
1986	196	12:46:17	2.00	+/- 0.15	285.0	+/- 0.5	SMM
1986	196	13: 4: 8	2.25	+/- 0.15	285.0	+/- 0.5	SMM
1986	196	13: 7:18	2.30	+/- 0.15	285.0	+/- 0.5	SMM
1986	196	13:10:14	2.40	+/- 0.10	285.0	+/- 0.5	SMM
1986	196	13:13:21	2.50	+/- 0.10	285.0	+/- 0.5	SMM
1986	196	13:16:27	2.50	+/- 0.10	285.0	+/- 0.5	SMM
1986	196	13:20:17	2.60	+/- 0.10	285.0	+/- 0.5	SMM
1986	196	13:23:18	2.70	+/- 0.15	285.0	+/- 0.5	SMM
1986	196	13:26:20	2.80	+/- 0.15	285.0	+/- 0.5	SMM
1986	196	14:20:18	3.20	-----	285.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.
1986	196	14:38: 8	3.40	-----	285.00	+/- ----	SMM THIS POINT WASN'T USED IN THE FIT.

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

tstart=DOY196 12:17 from derivative = 0
Event begins at 1.83 Solar Radii
Origin defined at DOY196 12: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.772E-01 +/- 0.238E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.189E+01 +/- 0.274E+00 [solar radii]
c(2) = -0.697E-02 +/- 0.826E-02 [radii/min]
c(2) = -0.809E+02 +/- 0.959E+02 [km/sec]
c(3) = 0.200E-03 +/- 0.615E-04 [radii/min**2]
c(3) = 0.772E-01 +/- 0.238E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.34157E+01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.36656E-01 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.71673E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.12311E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.33428E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.95187E-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) = 285. +/- 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 12:46 = 0.000E+00 km/sec
The TOTAL velocity at 12:46 = 133. km/sec

The TANGENTIAL velocity at 13: 4 = 0.000E+00 km/sec
The TOTAL velocity at 13: 4 = 216. km/sec

The TANGENTIAL velocity at 13: 7 = 0.000E+00 km/sec
The TOTAL velocity at 13: 7 = 231. km/sec

The TANGENTIAL velocity at 13:10 = 0.000E+00 km/sec
The TOTAL velocity at 13:10 = 244. km/sec

The TANGENTIAL velocity at 13:13 = 0.000E+00 km/sec
The TOTAL velocity at 13:13 = 259. km/sec

The TANGENTIAL velocity at 13:16 = 0.000E+00 km/sec
The TOTAL velocity at 13:16 = 273. km/sec

The TANGENTIAL velocity at 13:20 = 0.000E+00 km/sec
The TOTAL velocity at 13:20 = 291. km/sec

The TANGENTIAL velocity at 13:23 = 0.000E+00 km/sec
The TOTAL velocity at 13:23 = 305. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec
The TOTAL velocity at 13:26 = 319. km/sec

The TANGENTIAL velocity at 14:20 = 0.000E+00 km/sec
The TOTAL velocity at 14:20 = 569. km/sec

The TANGENTIAL velocity at 14:38 = 0.000E+00 km/sec
The TOTAL velocity at 14:38 = 651. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

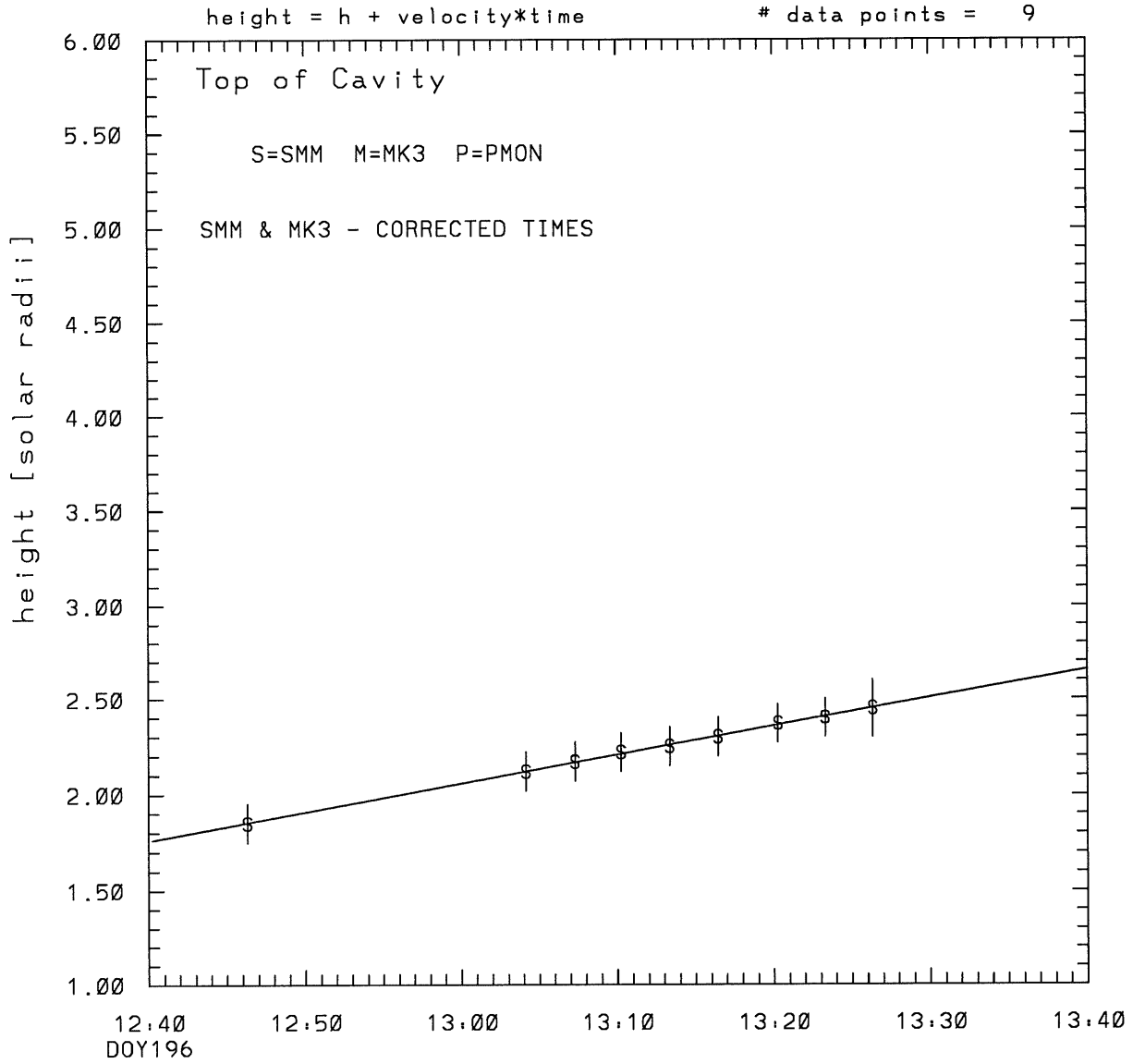
Standard Deviation in the height = 0.41
Standard Deviation in start time measurement = 0.318E+02
Value of reduced Chi Squared returned from nllst2 = 0.766E-03
Reduced Chi Squared = 0.112E+02
Chi Squared = 0.894E+02
The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

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

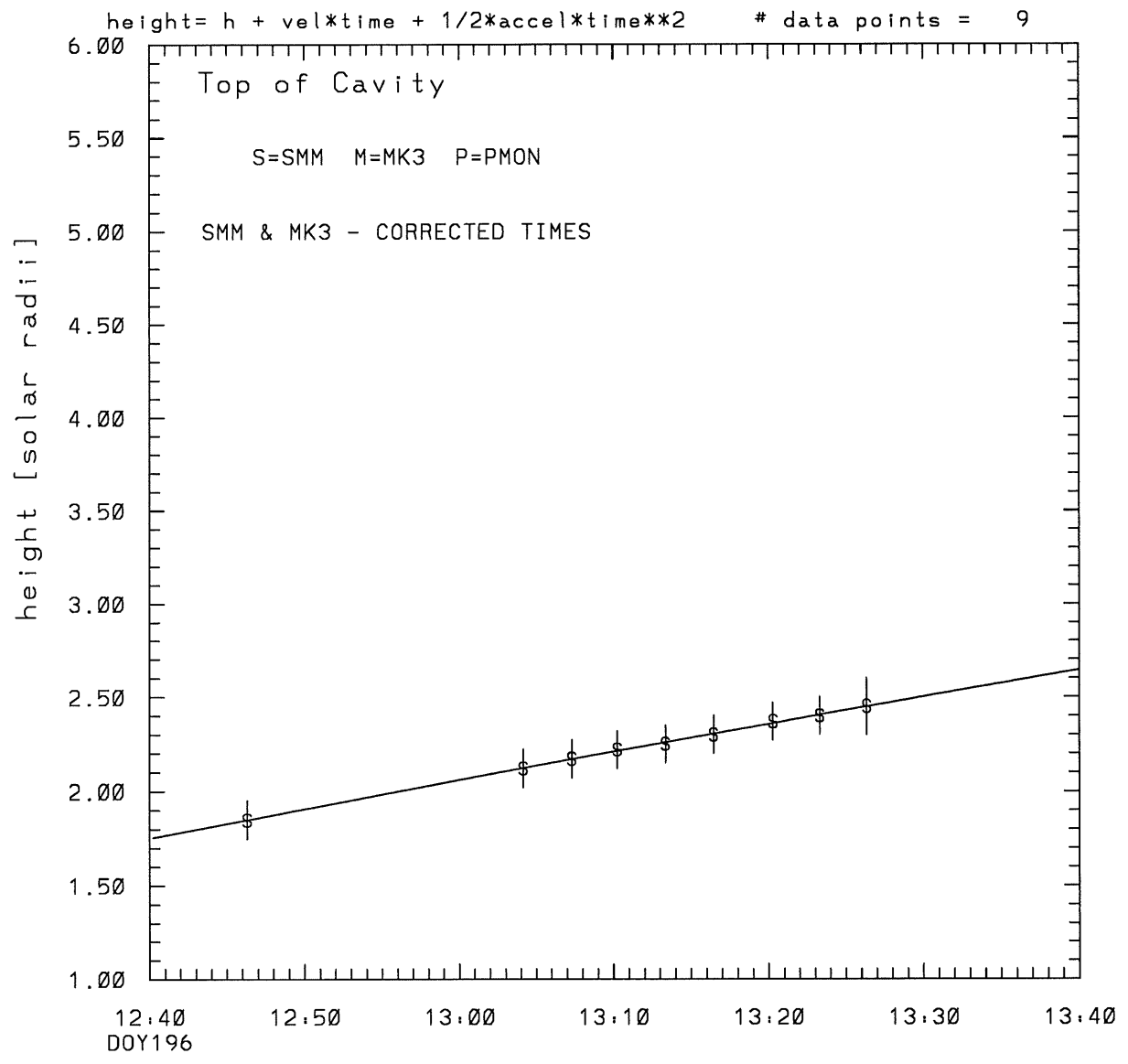
The correlation between the data and the term linear in time = 0.4763E+00
The correlation between the data and the time**2 term = 0.4056E+00
The correlation between the data and the complete equation of motion = 0.1895E+01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 11:51 +/- 0.1 [min.]
radial velocity= 173. +/- 2. [km/sec]

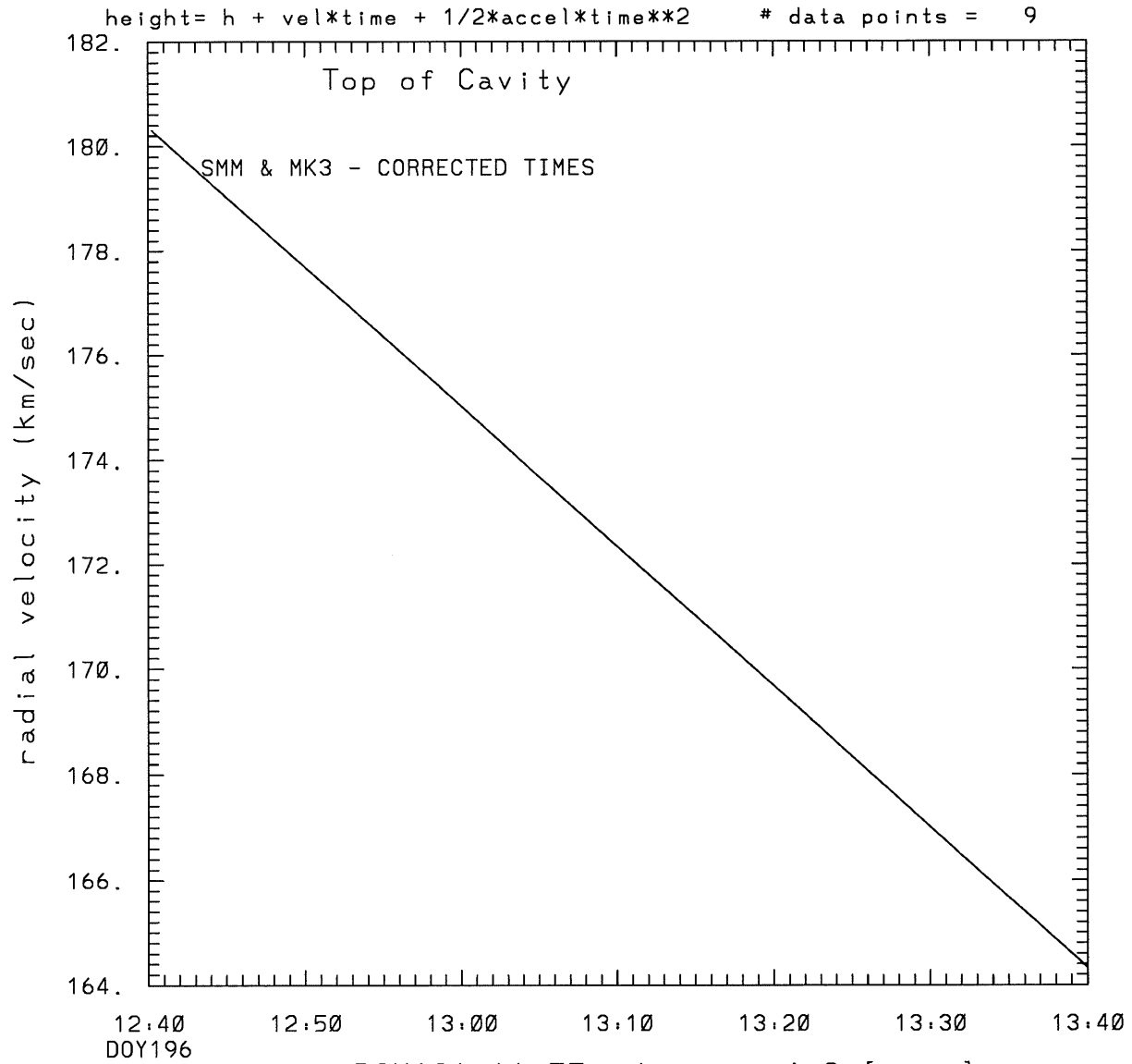
SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 11:55 +/- 4.8 [min.]

radial acceleration = -0.0045 +/- 0.0055 [km/sec**2]

SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 11:55 +/- 4.8 [min.]

radial acceleration = $-.445E-02$ km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	error in	datatype
1986	196	12:46:17	1.85	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13: 4: 8	2.12	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13: 7:18	2.17	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:10:14	2.22	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:13:21	2.25	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:16:27	2.30	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:20:17	2.37	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:23:18	2.40	+/- 0.10	285.0	+/- 0.5	SMM	
1986	196	13:26:20	2.45	+/- 0.15	285.0	+/- 0.5	SMM	

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.507E+02 +/- 0.856E-01$ [minutes]

In more convenient units:

Event began at DOY 196 11:51 +/- 0.856E-01 [minutes]

Origin defined at DOY196 12:40

RADIAL INFORMATION:

RADIAL VELOCITY = 173. +/- 2. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.176E+01 +/- 0.612E-02$ [solar radii]
 $c(2) = 0.150E-01 +/- 0.186E-03$ [radii/min]
 $c(2) = 0.173E+03 +/- 0.215E+01$ [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 $c(1) = 0.63892E-02$ [radii] see Bevington pg. 114
error in $c(2) = 0.18826E-03$ [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) = 285. +/- 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 12:46 = 0.000E+00 km/sec

The TOTAL velocity at 12:46 = 173. km/sec

The TANGENTIAL velocity at 13: 4 = 0.000E+00 km/sec

The TOTAL velocity at 13: 4 = 173. km/sec

The TANGENTIAL velocity at 13: 7 = 0.000E+00 km/sec

The TOTAL velocity at 13: 7 = 173. km/sec

The TANGENTIAL velocity at 13:10 = 0.000E+00 km/sec

The TOTAL velocity at 13:10 = 173. km/sec

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

The TOTAL velocity at 13:13 = 173. km/sec

The TANGENTIAL velocity at 13:16 = 0.000E+00 km/sec

The TOTAL velocity at 13:16 = 173. km/sec

The TANGENTIAL velocity at 13:20 = 0.000E+00 km/sec

The TOTAL velocity at 13:20 = 173. km/sec

The TANGENTIAL velocity at 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 173. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec

The TOTAL velocity at 13:26 = 173. 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 = 0.114E+02

Error in time = 0.11400E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.385E-04

Reduced Chi Squared = 0.232E-03

Chi Squared = 0.162E-02

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 = -0.3886E-10

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
1986	196	12:46:17	1.85	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13: 4: 8	2.12	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13: 7:18	2.17	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:10:14	2.22	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:13:21	2.25	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:16:27	2.30	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:20:17	2.37	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:23:18	2.40	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:26:20	2.45	+/- 0.15	285.0	+/- 0.5			SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.468E+02 +/- 0.480E+01$ [minutes]

In more convenient units:

Event began at DOY 196 11:55 +/- 0.480E+01 [minutes]

Origin defined at DOY196 12:40

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.445E-02 +/- 0.553E-02$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.175E+01 +/- 0.961E-02$ [solar radii]
 $c(2) = 0.155E-01 +/- 0.761E-03$ [radii/min]
 $c(2) = 0.180E+03 +/- 0.882E+01$ [km/sec]
 $c(3) = -0.115E-04 +/- 0.143E-04$ [radii/min**2]
 $c(3) = -0.445E-02 +/- 0.553E-02$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in $c(1) = 0.10259E-01$ [radii] Bevington pg 154 (8-30)

Exact error in $c(1) = 0.30373E-03$ [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.78269E-03 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.54650E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.14219E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.11813E-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) = 285. +/- 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 12:46 = 0.000E+00 km/sec
The TOTAL velocity at 12:46 = 179. km/sec

The TANGENTIAL velocity at 13: 4 = 0.000E+00 km/sec
The TOTAL velocity at 13: 4 = 174. km/sec

The TANGENTIAL velocity at 13: 7 = 0.000E+00 km/sec
The TOTAL velocity at 13: 7 = 173. km/sec

The TANGENTIAL velocity at 13:10 = 0.000E+00 km/sec
The TOTAL velocity at 13:10 = 172. km/sec

The TANGENTIAL velocity at 13:13 = 0.000E+00 km/sec
The TOTAL velocity at 13:13 = 171. km/sec

The TANGENTIAL velocity at 13:16 = 0.000E+00 km/sec
The TOTAL velocity at 13:16 = 171. km/sec

The TANGENTIAL velocity at 13:20 = 0.000E+00 km/sec
The TOTAL velocity at 13:20 = 170. km/sec

The TANGENTIAL velocity at 13:23 = 0.000E+00 km/sec
The TOTAL velocity at 13:23 = 169. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec
The TOTAL velocity at 13:26 = 168. 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 = 0.114E+02
Value of reduced Chi Squared returned from nllst2 = 0.403E-04
Reduced Chi Squared = 0.255E-03
Chi Squared = 0.153E-02
The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

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

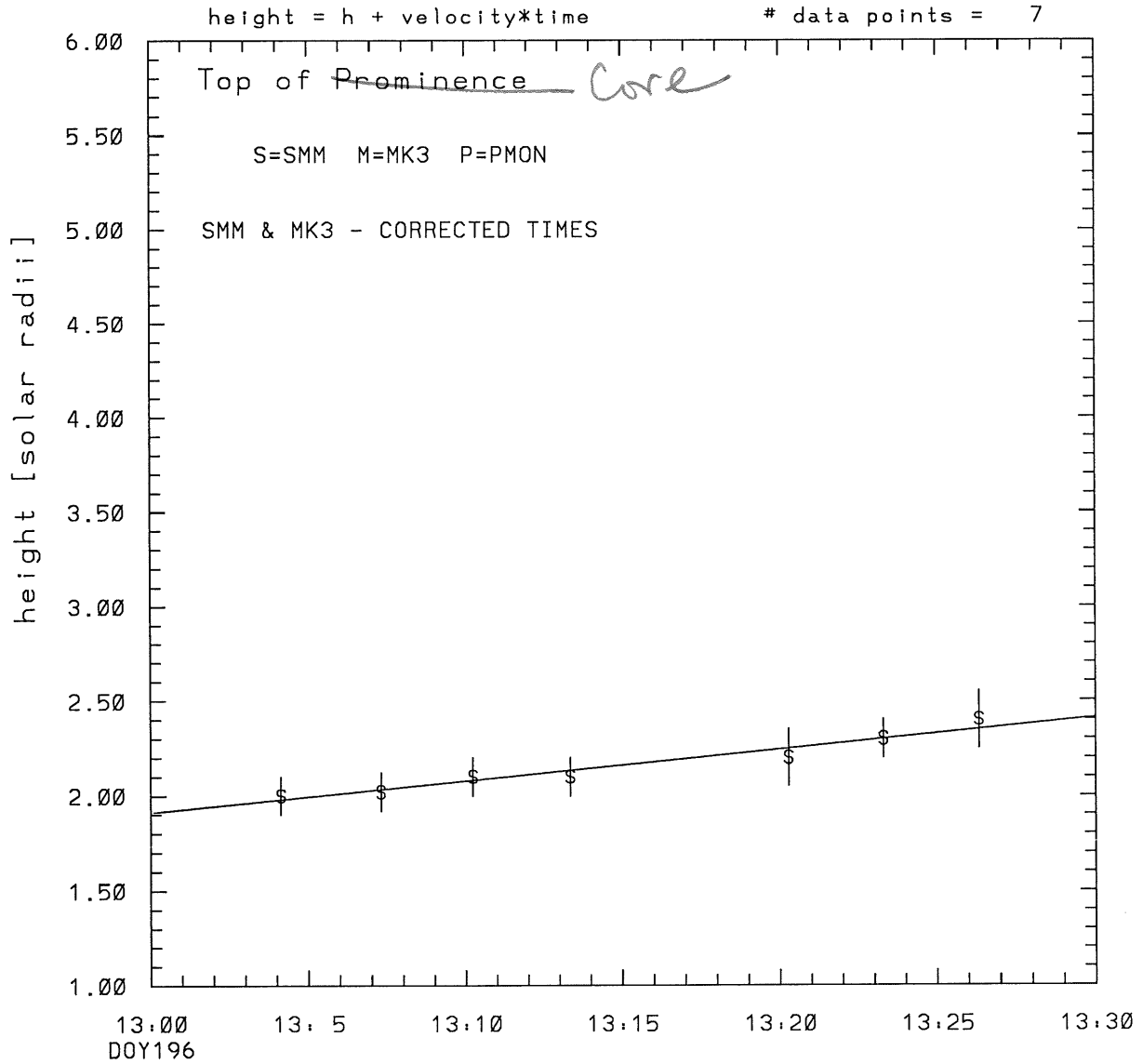
The correlation between the data and the term linear in time = 0.9799E+00

The correlation between the data and the time**2 term = 0.9161E+00

The correlation between the data and the complete equation of motion = 0.9988E+00

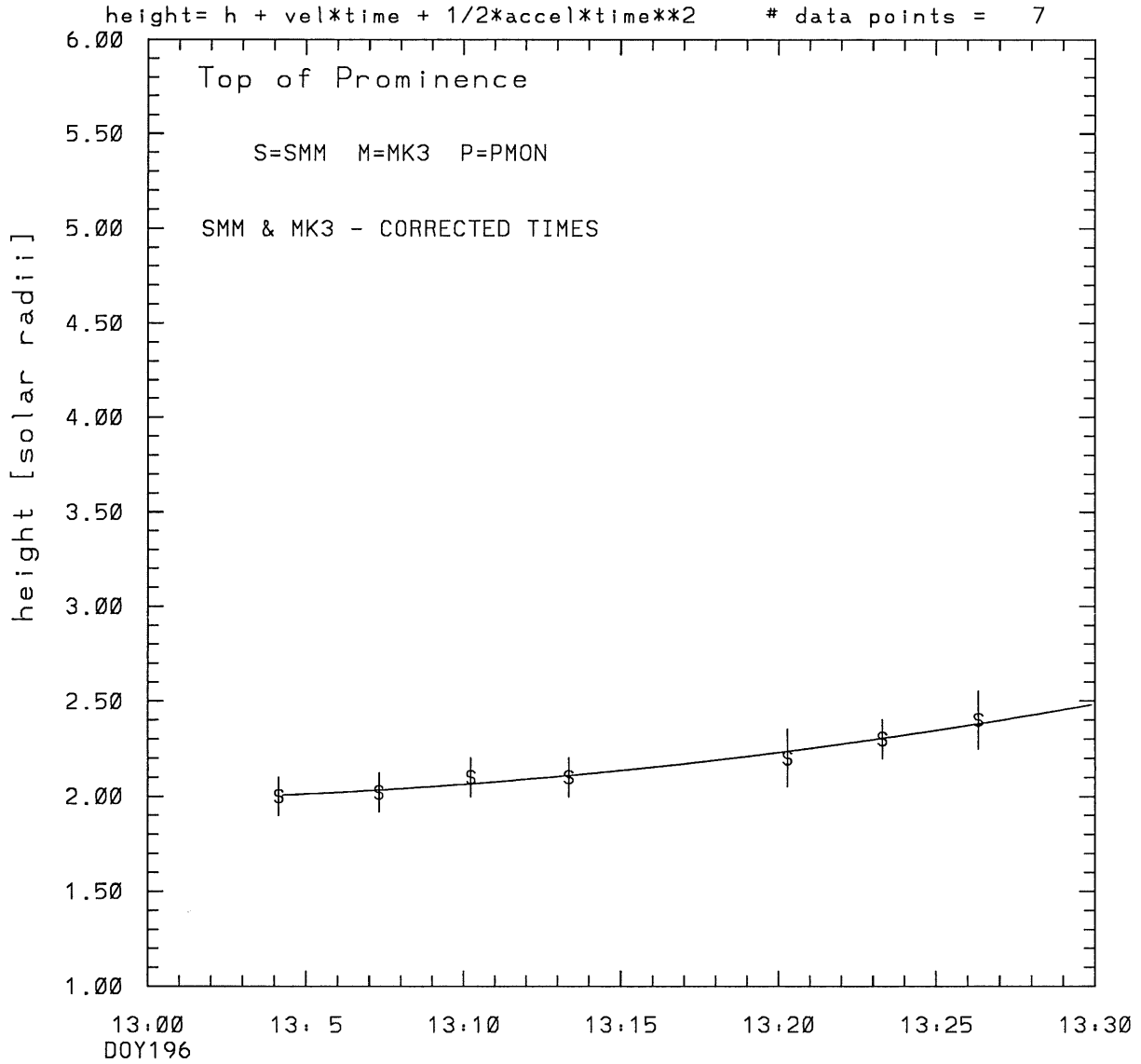
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

SMM C/P 1986 DOY196 285 +/- 0 degrees



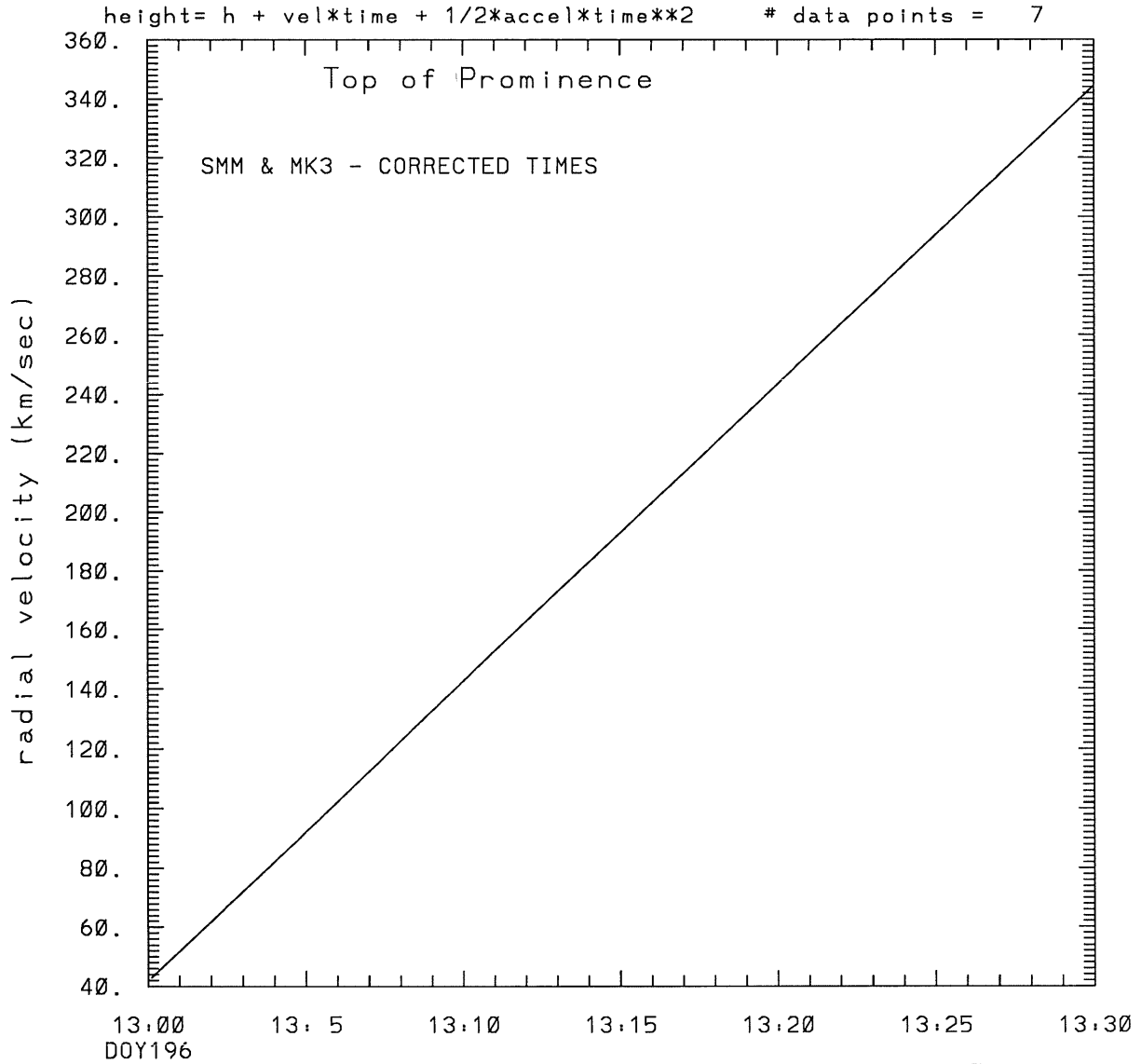
tstart=DOY196 12: 7 +/- 0.9 [min.]
radial velocity= 193. +/- 17. [km/sec]

SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 12.56 from derivative=0
Event begins at 1.98 Solar Radii
radial acceleration = 0.1681 +/- 0.0786 [km/sec**2]

SMM C/P 1986 DOY196 285 +/- 0 degrees



tstart=DOY196 12:56 from derivative=0
Event begins at 1.98 Solar Radii
radial acceleration=0.168E+00 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in	angle	error in	angle	datatype
1986	196	13: 4: 8	2.00	+/- 0.10	285.0	+/- 0.5	SMM		
1986	196	13: 7:18	2.02	+/- 0.10	285.0	+/- 0.5	SMM		
1986	196	13:10:14	2.10	+/- 0.10	285.0	+/- 0.5	SMM		
1986	196	13:13:21	2.10	+/- 0.10	285.0	+/- 0.5	SMM		
1986	196	13:20:17	2.20	+/- 0.15	285.0	+/- 0.5	SMM		
1986	196	13:23:18	2.30	+/- 0.10	285.0	+/- 0.5	SMM		
1986	196	13:26:20	2.40	+/- 0.15	285.0	+/- 0.5	SMM		

Structure being measured:

Top of Prominence

OUTPUT:

START TIME:

Event began at $t = 0 + -0.549E+02 +/- 0.870E+00$ [minutes]

In more convenient units:

Event began at DOY 196 12: 7 +/- 0.870E+00 [minutes]

Origin defined at DOY196 13: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 193. +/- 17. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.191E+01 +/- 0.225E-01 [solar radii]
c(2) = 0.166E-01 +/- 0.147E-02 [radii/min]
c(2) = 0.193E+03 +/- 0.170E+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)= 0.30498E-01 [radii] see Bevington pg. 114

error in c(2)= 0.18038E-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) = 285. +/- 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: 4 = 0.000E+00 km/sec

The TOTAL velocity at 13: 4 = 193. km/sec

The TANGENTIAL velocity at 13: 7 = 0.000E+00 km/sec

The TOTAL velocity at 13: 7 = 193. km/sec

The TANGENTIAL velocity at 13:10 = 0.000E+00 km/sec

The TOTAL velocity at 13:10 = 193. km/sec

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

The TOTAL velocity at 13:13 = 193. km/sec

The TANGENTIAL velocity at 13:20 = 0.000E+00 km/sec

The TOTAL velocity at 13:20 = 193. km/sec

The TANGENTIAL velocity at 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 193. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec

The TOTAL velocity at 13:26 = 193. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.15

Standard Deviation in start time measurement = 0.782E+01

Error in time = 0.50265E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.833E-03

Reduced Chi Squared = 0.726E-02

Chi Squared = 0.363E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.973E+00

The probability that no LINEAR correlation exists between the variables = 0.2181E-03

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	angle	datatype
1986	196	13: 4: 8	2.00	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13: 7:18	2.02	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:10:14	2.10	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:13:21	2.10	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:20:17	2.20	+/- 0.15	285.0	+/- 0.5			SMM
1986	196	13:23:18	2.30	+/- 0.10	285.0	+/- 0.5			SMM
1986	196	13:26:20	2.40	+/- 0.15	285.0	+/- 0.5			SMM

Structure being measured:

Top of Prominence

OUTPUT:

START TIME:

tstart=DOY196 12:56 from derivative = 0

Event begins at 1.98 Solar Radii

Origin defined at DOY196 13: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.168E+00 +/- 0.786E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.198E+01 +/- 0.381E-01 [solar radii]
 c(2) = 0.360E-02 +/- 0.619E-02 [radii/min]
 c(2) = 0.418E+02 +/- 0.718E+02 [km/sec]
 c(3) = 0.435E-03 +/- 0.203E-03 [radii/min**2]
 c(3) = 0.168E+00 +/- 0.786E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.47718E-01 [radii] Bevington pg 154 (8-30)
 Exact error in c(1) = 0.60877E-02 [radii] Bevington pg 154 (8-28)
 Approximate error in c(2) = 0.74811E-02 [radii/min] Bevington pg 154 (8-30)
 Exact error in c(2) = 0.12572E-02 [radii/min] Bevington pg 154 (8-28)
 Approximate error in c(3) = 0.23921E-03 [radii/min**] Bevington pg 154 (8-30)
 Exact error in c(3) = 0.43971E-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) = 285. +/- 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: 4 = 0.000E+00 km/sec

The TOTAL velocity at 13: 4 = 83. km/sec

The TANGENTIAL velocity at 13: 7 = 0.000E+00 km/sec

The TOTAL velocity at 13: 7 = 115. km/sec

The TANGENTIAL velocity at 13:10 = 0.000E+00 km/sec

The TOTAL velocity at 13:10 = 145. km/sec

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

The TOTAL velocity at 13:13 = 176. km/sec

The TANGENTIAL velocity at 13:20 = 0.000E+00 km/sec

The TOTAL velocity at 13:20 = 246. km/sec

The TANGENTIAL velocity at 13:23 = 0.000E+00 km/sec

The TOTAL velocity at 13:23 = 277. km/sec

The TANGENTIAL velocity at 13:26 = 0.000E+00 km/sec

The TOTAL velocity at 13:26 = 307. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.15

Standard Deviation in start time measurement = 0.782E+01

Value of reduced Chi Squared returned from nllst2 = 0.522E-03

Reduced Chi Squared = 0.334E-02

Chi Squared = 0.134E-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 = 0.9521E+00

The correlation between the data and the time**2 term = 0.9382E+00

The correlation between the data and the complete equation of motion = $0.9794E+00$
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]