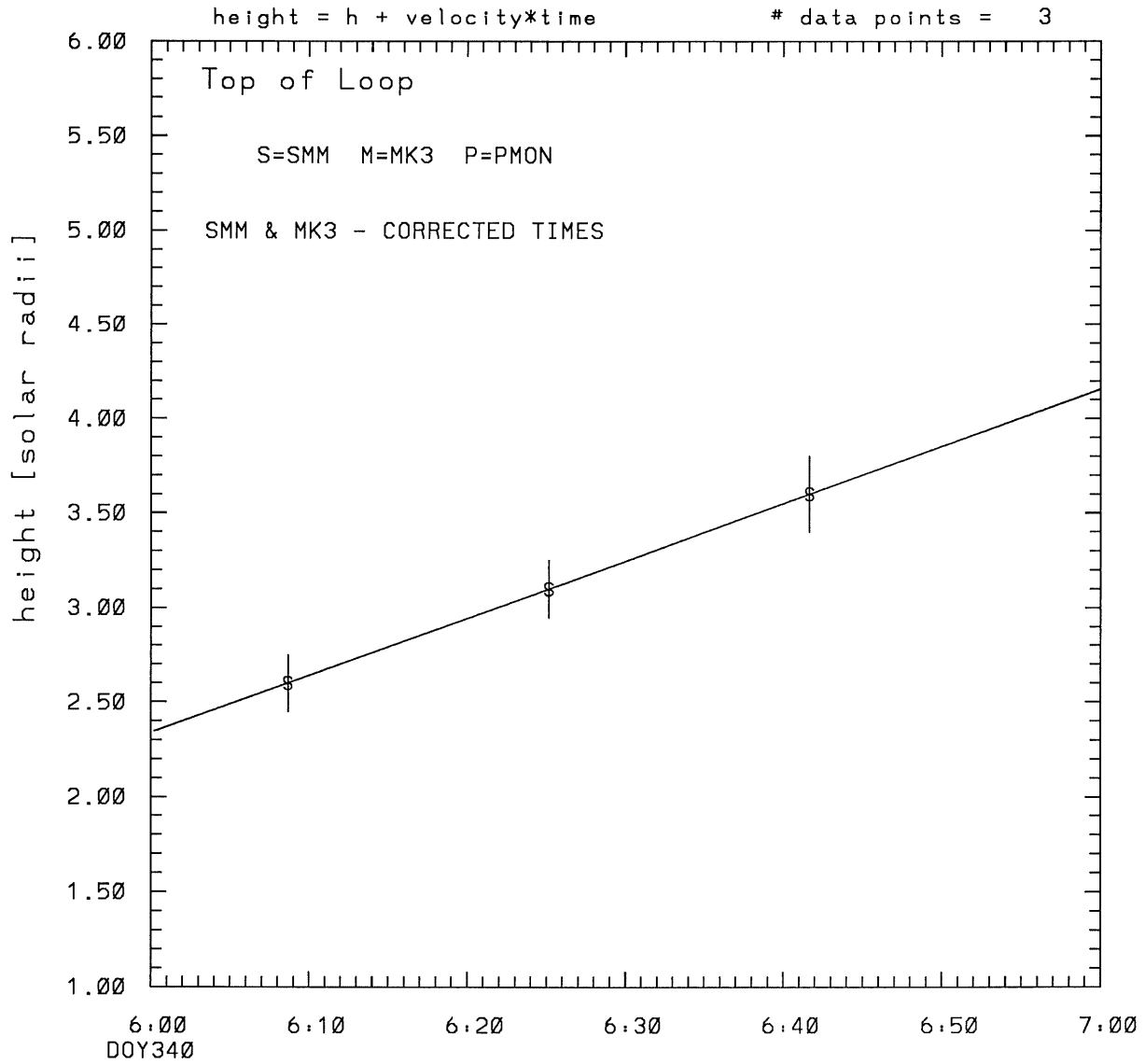
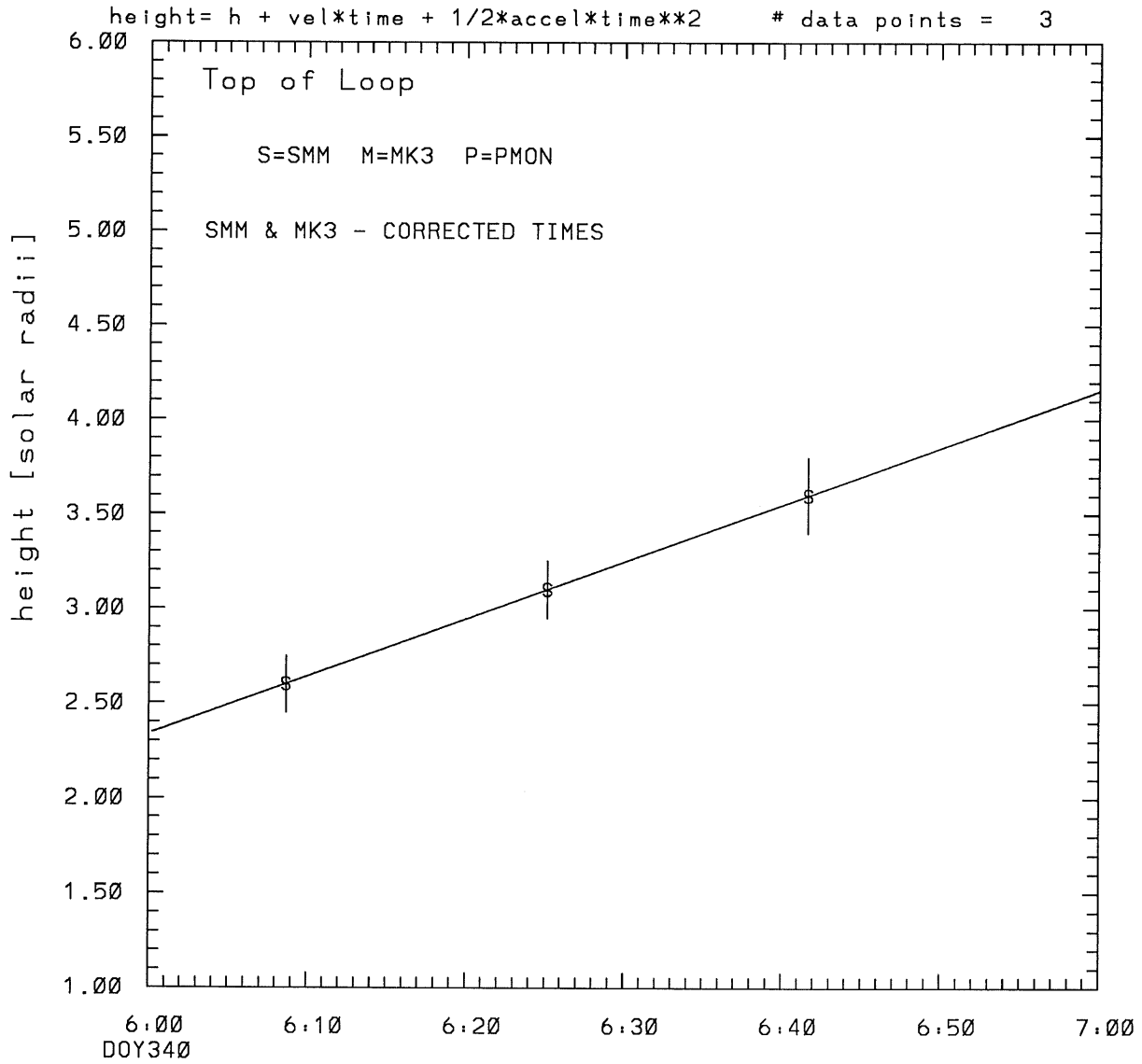


SMM C/P 1987 DOY340 115 +/- 0 degrees



tstart=DOY340 5:16 +/- 0.0 [min.]
radial velocity= 351. +/- 0. [km/sec]

SMM C/P 1987 DOY340 115 +/- 0 degrees

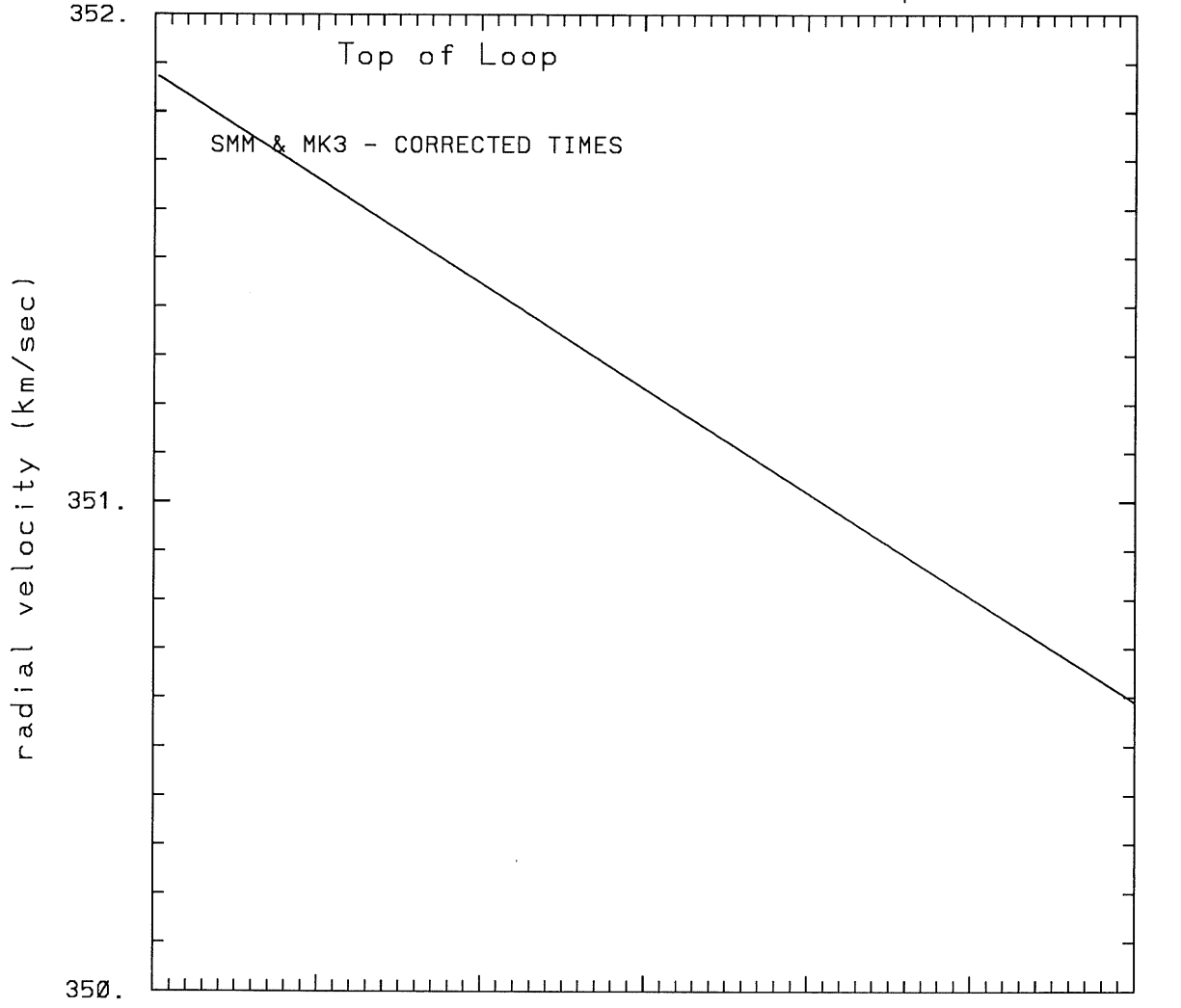


tstart=DOY340 5:16 +/- 0.0 [min.]

radial acceleration = -0.0004 ± 0.0000 [km/sec**2]

SMM C/P 1987 DOY340 115 +/- 0 degrees

height= h + vel*time + 1/2*accel*time**2 # data points = 3



DOY340

tstart=DOY340 5:16 +/- 0.0 [min.]

radial acceleration=-.358E-03 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1987	340	6: 8:39	2.60	+/- 0.15	115.0	+/- 0.5	SMM
1987	340	6:25: 9	3.10	+/- 0.15	115.0	+/- 1.0	SMM
1987	340	6:41:40	3.60	+/- 0.20	115.0	+/- 1.0	SMM

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.442E+02 +/- 0.678E-02$ [minutes]
In more convenient units:
Event began at DOY 340 5:16 +/- 0.678E-02 [minutes]

Origin defined at DOY340 6: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 351. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.234E+01 +/- 0.175E-03$ [solar radii]
 $c(2) = 0.303E-01 +/- 0.682E-05$ [radii/min]
 $c(2) = 0.351E+03 +/- 0.791E-01$ [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 $c(1) = 0.26055E-03$ [radii] see Bevington pg. 114
error in $c(2) = 0.91297E-05$ [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) = 115. +/- 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 6: 8 = 0.000E+00 km/sec

The TOTAL velocity at 6: 8 = 351. km/sec

The TANGENTIAL velocity at 6:25 = 0.000E+00 km/sec

The TOTAL velocity at 6:25 = 351. km/sec

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

The TOTAL velocity at 6:41 = 351. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.50

Standard Deviation in start time measurement = 0.135E+02

Error in time = 0.70381E-02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.221E-07

Reduced Chi Squared = 0.103E-06

Chi Squared = 0.103E-06

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.100E+01

The probability that no LINEAR correlation exists between the variables = 0.1282E-02

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
1987	340	6: 8:39	2.60	+/- 0.15	115.0	+/- 0.5	SMM
1987	340	6:25: 9	3.10	+/- 0.15	115.0	+/- 1.0	SMM
1987	340	6:41:40	3.60	+/- 0.20	115.0	+/- 1.0	SMM

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.440E+02 +/- 0.000E+00$ [minutes]

In more convenient units:

Event began at DOY 340 5:16 +/- 0.000E+00 [minutes]

Origin defined at DOY340 6: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.358E-03 +/- 0.910E-06$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.234E+01 +/- 0.118E-05$ [solar radii]
c(2) = $0.303E-01 +/- 0.117E-06$ [radii/min]
c(2) = $0.352E+03 +/- 0.135E-02$ [km/sec]
c(3) = $-0.926E-06 +/- 0.235E-08$ [radii/min**2]
c(3) = $-0.358E-03 +/- 0.910E-06$ [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) = $115. +/- 0.$ [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]

$$a(3) = 0.000E+00 \text{ +/- } 0.000E+00 \text{ [rad/sec**2]}$$

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 6: 8 = 0.000E+00 km/sec

The TOTAL velocity at 6: 8 = 352. km/sec

The TANGENTIAL velocity at 6:25 = 0.000E+00 km/sec

The TOTAL velocity at 6:25 = 351. km/sec

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

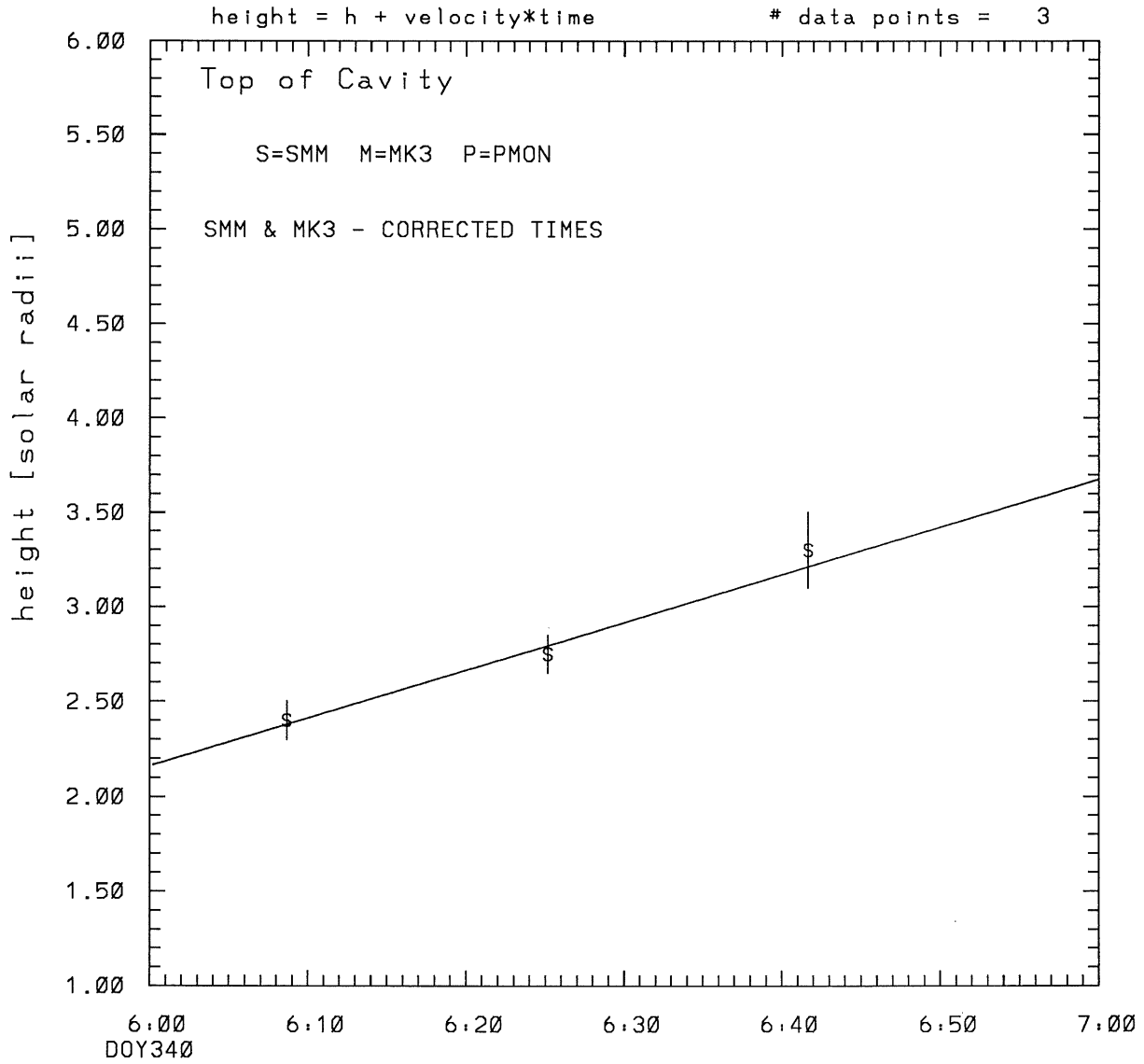
The TOTAL velocity at 6:41 = 351. km/sec

The following info is for estimating goodness of the fit

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

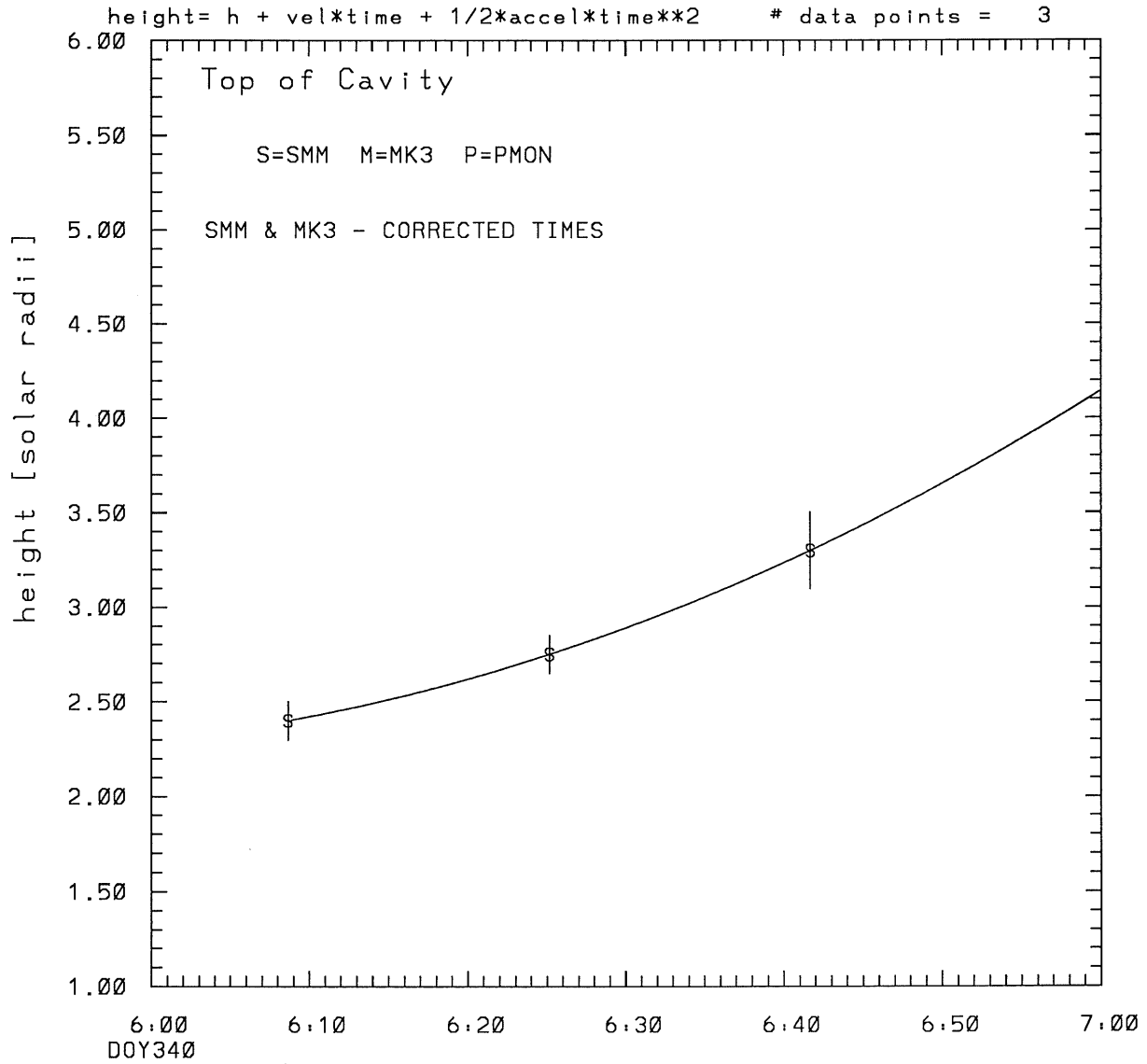
Correlation coefficient is not computable!

SMM C/P 1987 DOY340 115 +/- 0 degrees



tstart=DOY340 5:16 +/- 4.0 [min.]
radial velocity= 293. +/- 33. [km/sec]

SMM C/P 1987 DOY340 115 +/- 0 degrees

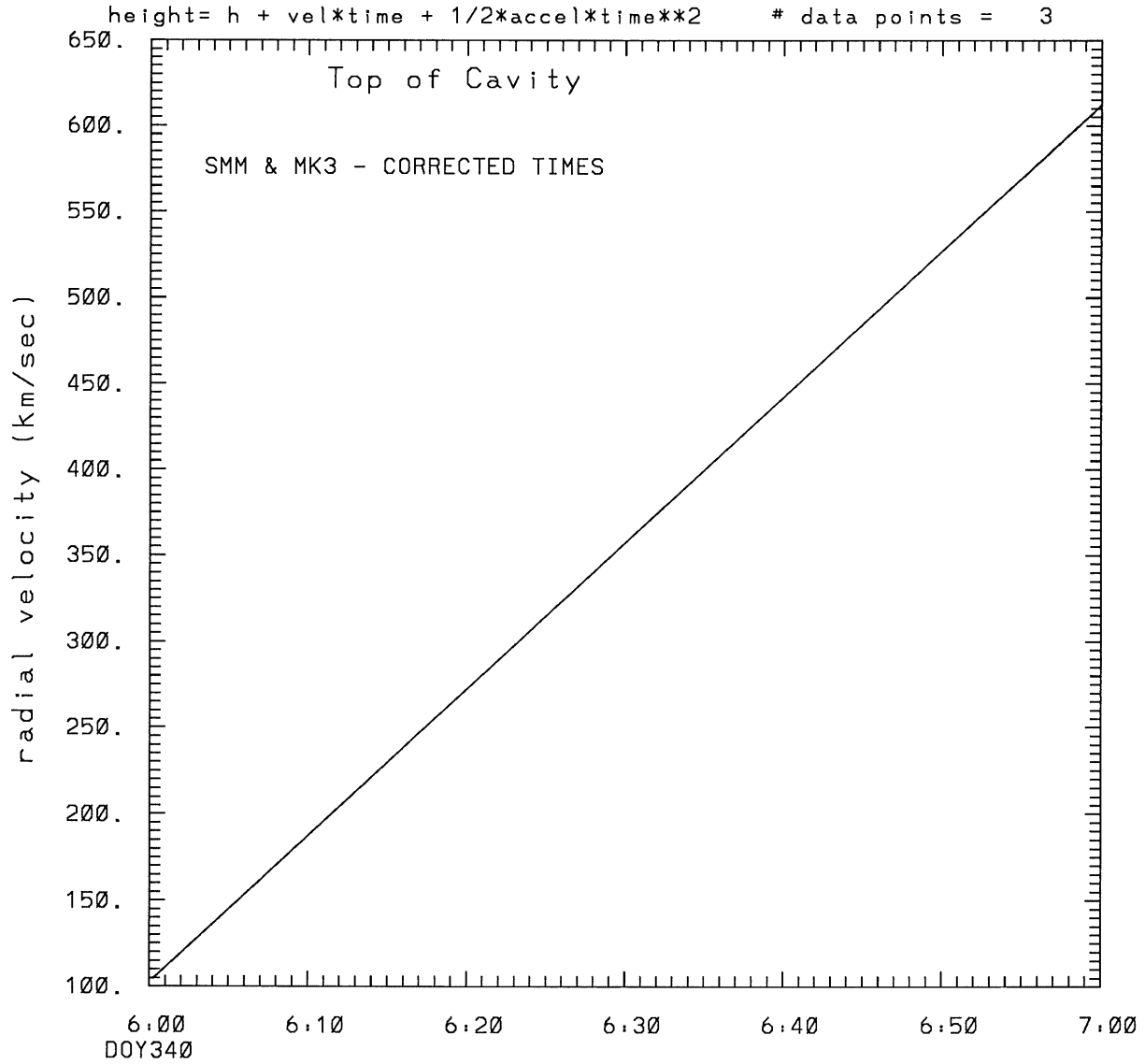


tstart=DOY340 5:48 from derivative=0

Event begins at 2.24 Solar Radii

radial acceleration = 0.1416 +/- 0.0000 [km/sec**2]

SMM C/P 1987 DOY340 115 +/- 0 degrees



tstart=DOY340 5:48 from derivative=0
Event begins at 2.24 Solar Radii
radial acceleration=0.142E+00 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1987	340	6: 8:39	2.40	+/- 0.10	115.0	+/- 0.5	SMM
1987	340	6:25: 9	2.75	+/- 0.10	115.0	+/- 1.0	SMM
1987	340	6:41:40	3.30	+/- 0.20	115.0	+/- 1.0	SMM

Structure being measured:

Top of Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.459E+02 +/- 0.397E+01$ [minutes]

In more convenient units:

Event began at DOY 340 5:16 +/- 0.397E+01 [minutes]

Origin defined at DOY340 6: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 293. +/- 33. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.216E+01 +/- 0.642E-01$ [solar radii]
 $c(2) = 0.252E-01 +/- 0.285E-02$ [radii/min]
 $c(2) = 0.293E+03 +/- 0.331E+02$ [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 $c(1) = 0.12420E+00$ [radii] see Bevington pg. 114

error in $c(2) = 0.43519E-02$ [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) = 115. +/- 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 6: 8 = 0.000E+00 km/sec

The TOTAL velocity at 6: 8 = 293. km/sec

The TANGENTIAL velocity at 6:25 = 0.000E+00 km/sec

The TOTAL velocity at 6:25 = 293. km/sec

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

The TOTAL velocity at 6:41 = 293. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.45

Standard Deviation in start time measurement = 0.135E+02

Error in time = 0.40245E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.295E-02

Reduced Chi Squared = 0.280E-01

Chi Squared = 0.280E-01

The probability for exceeding chi square = 0.957E+00

The correlation coefficient = 0.992E+00

The probability that no LINEAR correlation exists between the variables = 0.8104E-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
1987	340	6: 8:39	2.40	+/- 0.10	115.0	+/- 0.5	SMM
1987	340	6:25: 9	2.75	+/- 0.10	115.0	+/- 1.0	SMM
1987	340	6:41:40	3.30	+/- 0.20	115.0	+/- 1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

tstart=DOY340 5:48 from derivative = 0
Event begins at 2.24 Solar Radii
Origin defined at DOY340 6: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.142E+00 +/- 0.491E-06 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.230E+01 +/- 0.569E-06 [solar radii]
- c(2) = 0.884E-02 +/- 0.586E-07 [radii/min]
- c(2) = 0.103E+03 +/- 0.680E-03 [km/sec]
- c(3) = 0.366E-03 +/- 0.127E-08 [radii/min**2]
- c(3) = 0.142E+00 +/- 0.491E-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) = 115. +/- 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 6:8 = 0.000E+00 km/sec

The TOTAL velocity at 6:8 = 176. km/sec

The TANGENTIAL velocity at 6:25 = 0.000E+00 km/sec

The TOTAL velocity at 6:25 = 316. km/sec

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

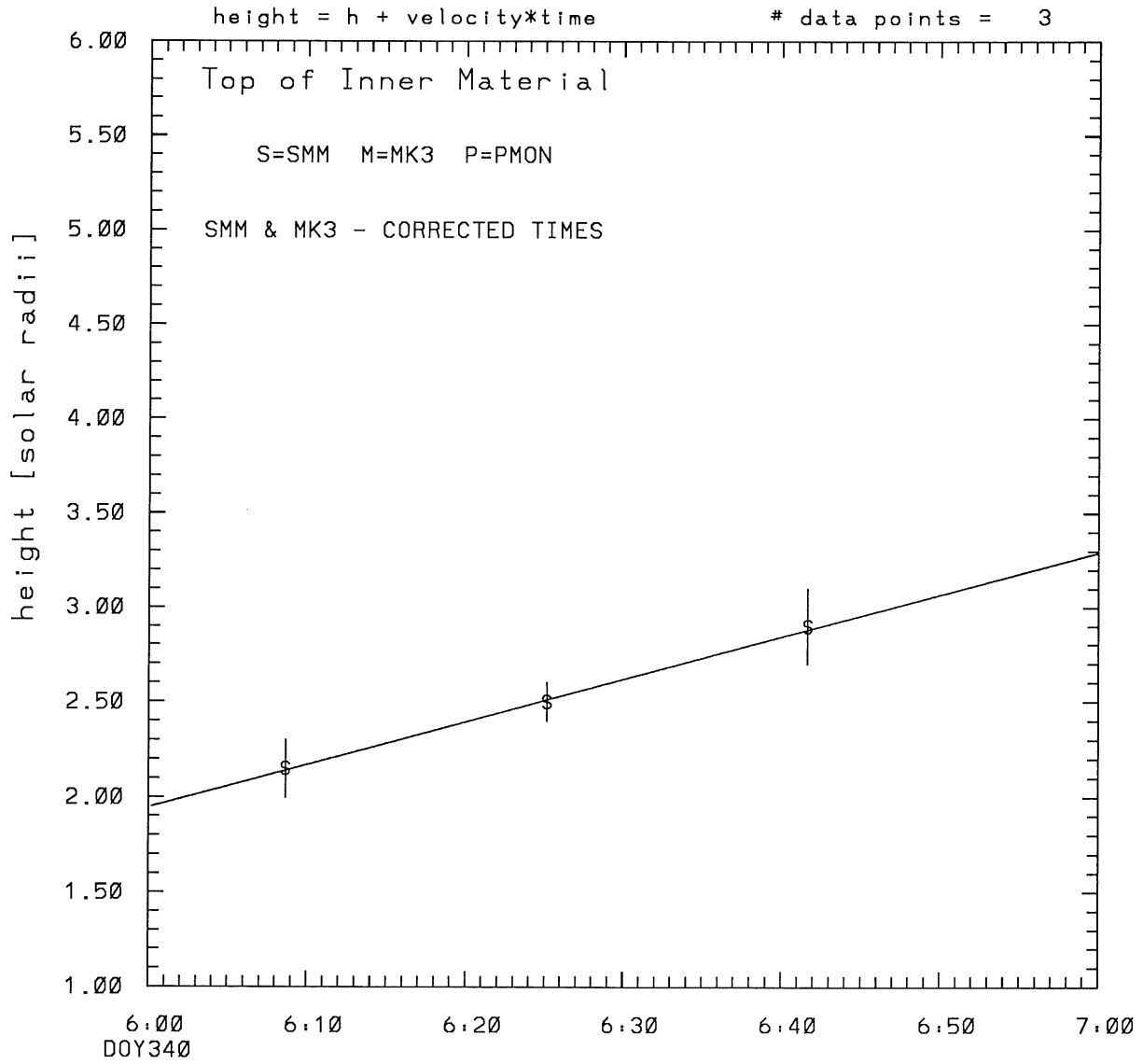
The TOTAL velocity at 6:41 = 456. km/sec

The following info is for estimating goodness of the fit

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

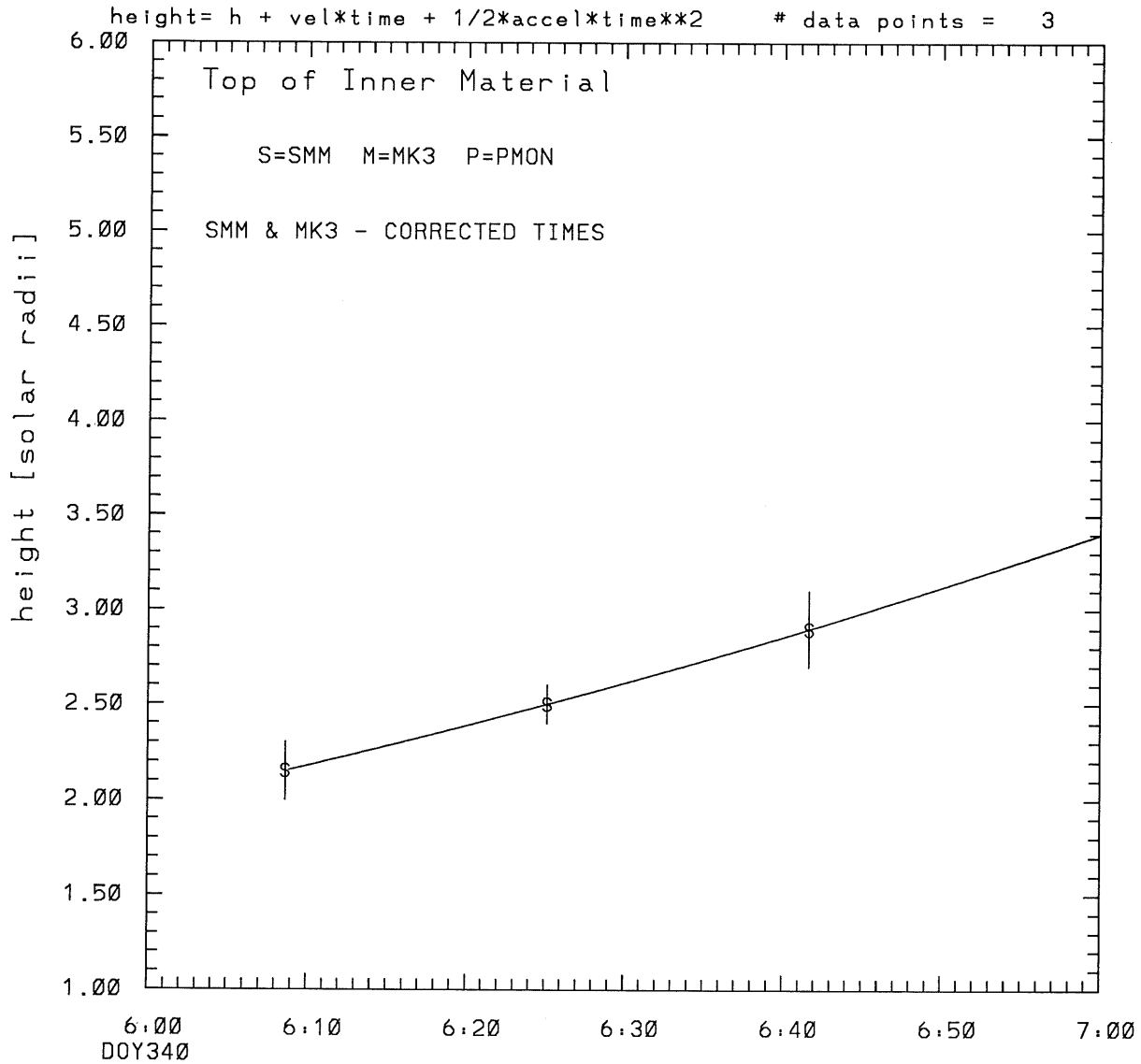
Correlation coefficient is not computable!

SMM C/P 1987 DOY340 115 +/- 0 degrees



tstart=DOY340 5:18 +/- 1.2 [min.]
radial velocity= 261. +/- 9. [km/sec]

SMM C/P 1987 DOY340 115 +/- 0 degrees

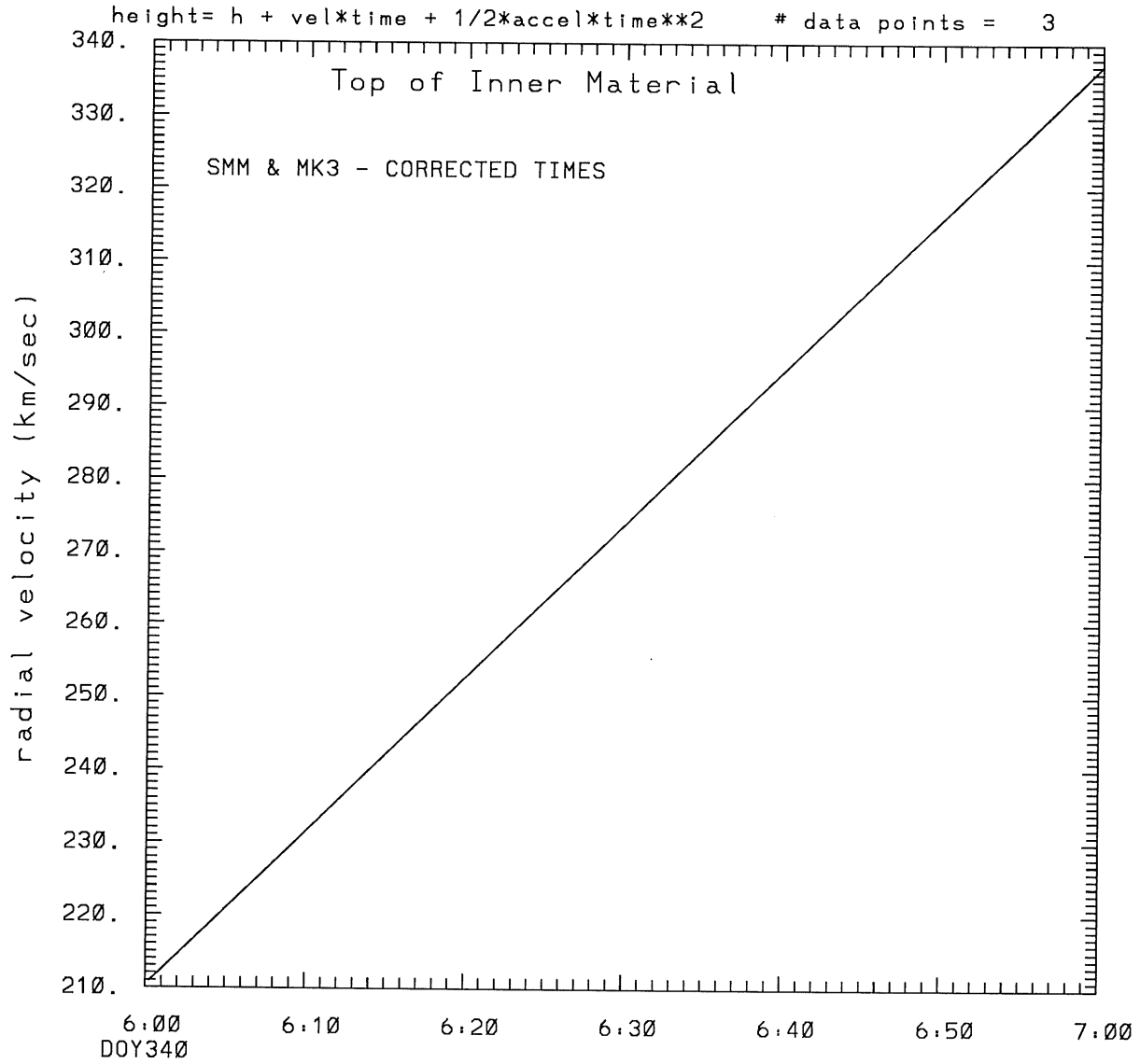


tstart=DOY340 4:21 from derivative=0

Event begins at 1.08 Solar Radii

radial acceleration = 0.0352 +/- 0.0000 [km/sec**2]

SMM C/P 1987 DOY340 115 +/- 0 degrees



tstart=DOY340 4:21 from derivative=0
Event begins at 1.08 Solar Radii
radial acceleration=0.352E-01 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1987	340	6: 8:39	2.15	+/- 0.15	115.0	+/- 0.5	SMM
1987	340	6:25: 9	2.50	+/- 0.10	115.0	+/- 0.5	SMM
1987	340	6:41:40	2.90	+/- 0.20	115.0	+/- 0.5	SMM

Structure being measured:
Top of Inner Material

OUTPUT:

START TIME:

Event began at $t = 0 + -0.421E+02 +/- 0.120E+01$ [minutes]
In more convenient units:
Event began at DOY 340 5:18 +/- 0.120E+01 [minutes]

Origin defined at DOY340 6: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 261. +/- 9. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.194E+01 +/- 0.206E-01 [solar radii]
- c(2) = 0.225E-01 +/- 0.810E-03 [radii/min]
- c(2) = 0.261E+03 +/- 0.939E+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)= 0.29625E-01 [radii] see Bevington pg. 114
- error in c(2)= 0.10380E-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) = 115. +/- 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 6: 8 = 0.000E+00 km/sec

The TOTAL velocity at 6: 8 = 261. km/sec

The TANGENTIAL velocity at 6:25 = 0.000E+00 km/sec

The TOTAL velocity at 6:25 = 261. km/sec

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

The TOTAL velocity at 6:41 = 261. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.38

Standard Deviation in start time measurement = 0.135E+02

Error in time = 0.10790E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.213E-03

Reduced Chi Squared = 0.143E-02

Chi Squared = 0.143E-02

The probability for exceeding chi square = 0.988E+00

The correlation coefficient = 0.999E+00

The probability that no LINEAR correlation exists between the variables = 0.2432E-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
1987	340	6: 8:39	2.15	+/- 0.15	115.0	+/- 0.5	SMM
1987	340	6:25: 9	2.50	+/- 0.10	115.0	+/- 0.5	SMM
1987	340	6:41:40	2.90	+/- 0.20	115.0	+/- 0.5	SMM

Structure being measured:

Top of Inner Material

OUTPUT:

START TIME:

tstart=DOY340 4:21 from derivative = 0

Event begins at 1.08 Solar Radii

Origin defined at DOY340 6: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.352E-01 +/- 0.324E-05 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.199E+01 +/- 0.466E-05 [solar radii]
c(2) = 0.181E-01 +/- 0.411E-06 [radii/min]
c(2) = 0.210E+03 +/- 0.477E-02 [km/sec]
c(3) = 0.910E-04 +/- 0.837E-08 [radii/min**2]
c(3) = 0.352E-01 +/- 0.324E-05 [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) = 115. +/- 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 6: 8 = 0.000E+00 km/sec

The TOTAL velocity at 6: 8 = 229. km/sec

The TANGENTIAL velocity at 6:25 = 0.000E+00 km/sec

The TOTAL velocity at 6:25 = 263. km/sec

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

The TOTAL velocity at 6:41 = 298. 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!