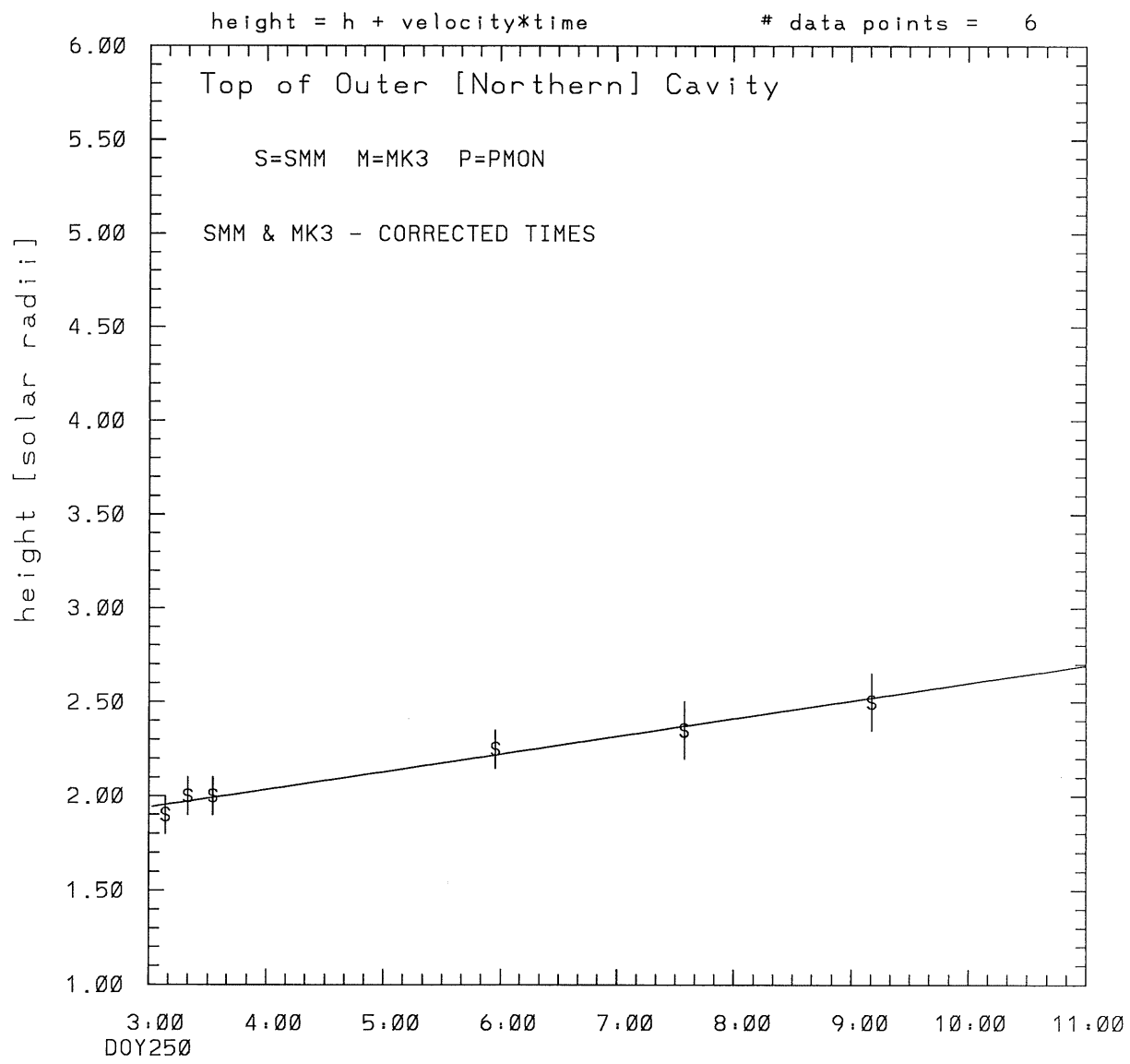
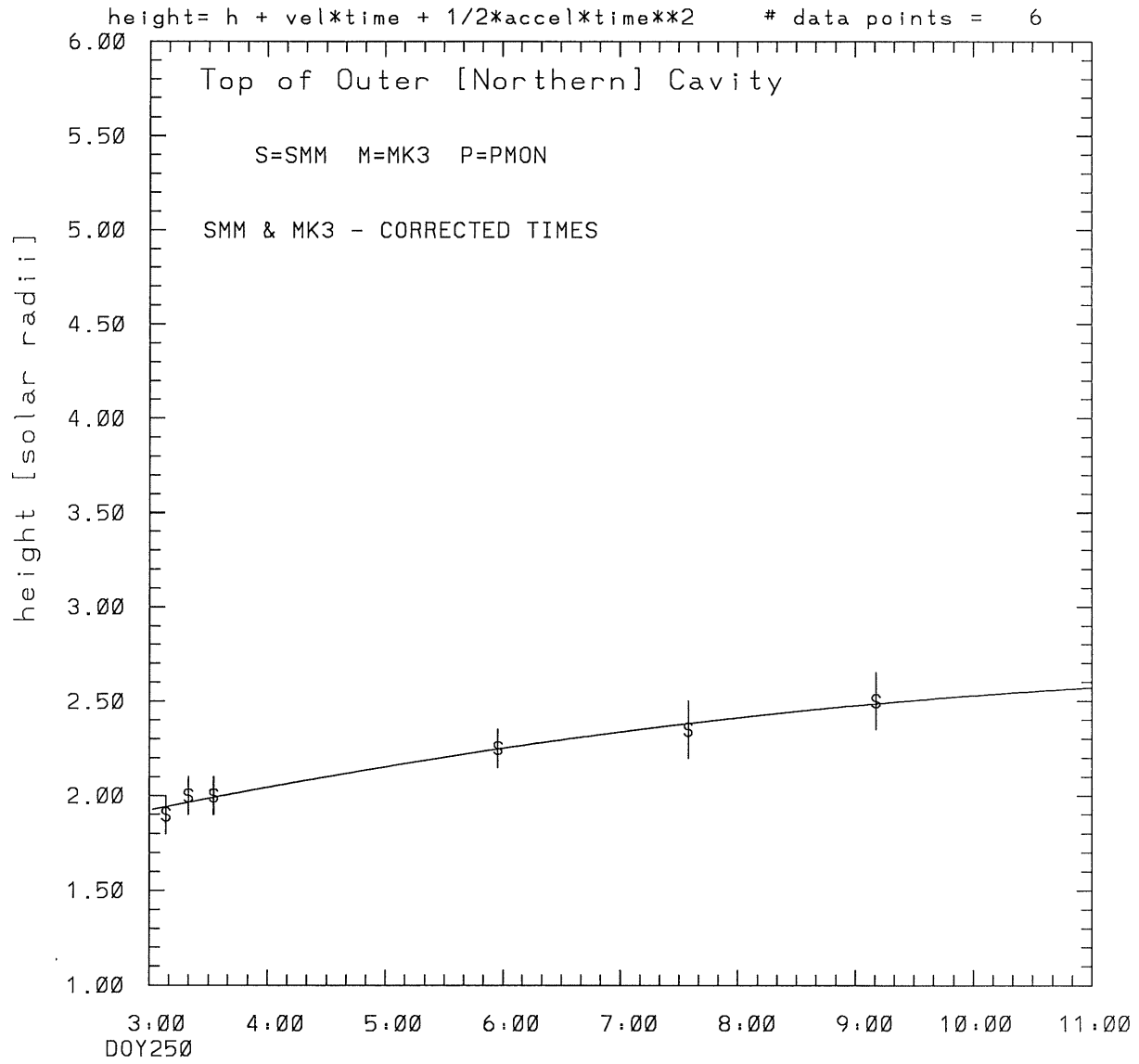


SMM C/P 1980 DOY250 322 +/- 0 degrees



tstart=DOY249 17: 3 +/- 11.3 [min.]
radial velocity= 18. +/- 1. [km/sec]

SMM C/P 1980 DOY250 322 +/- 0 degrees

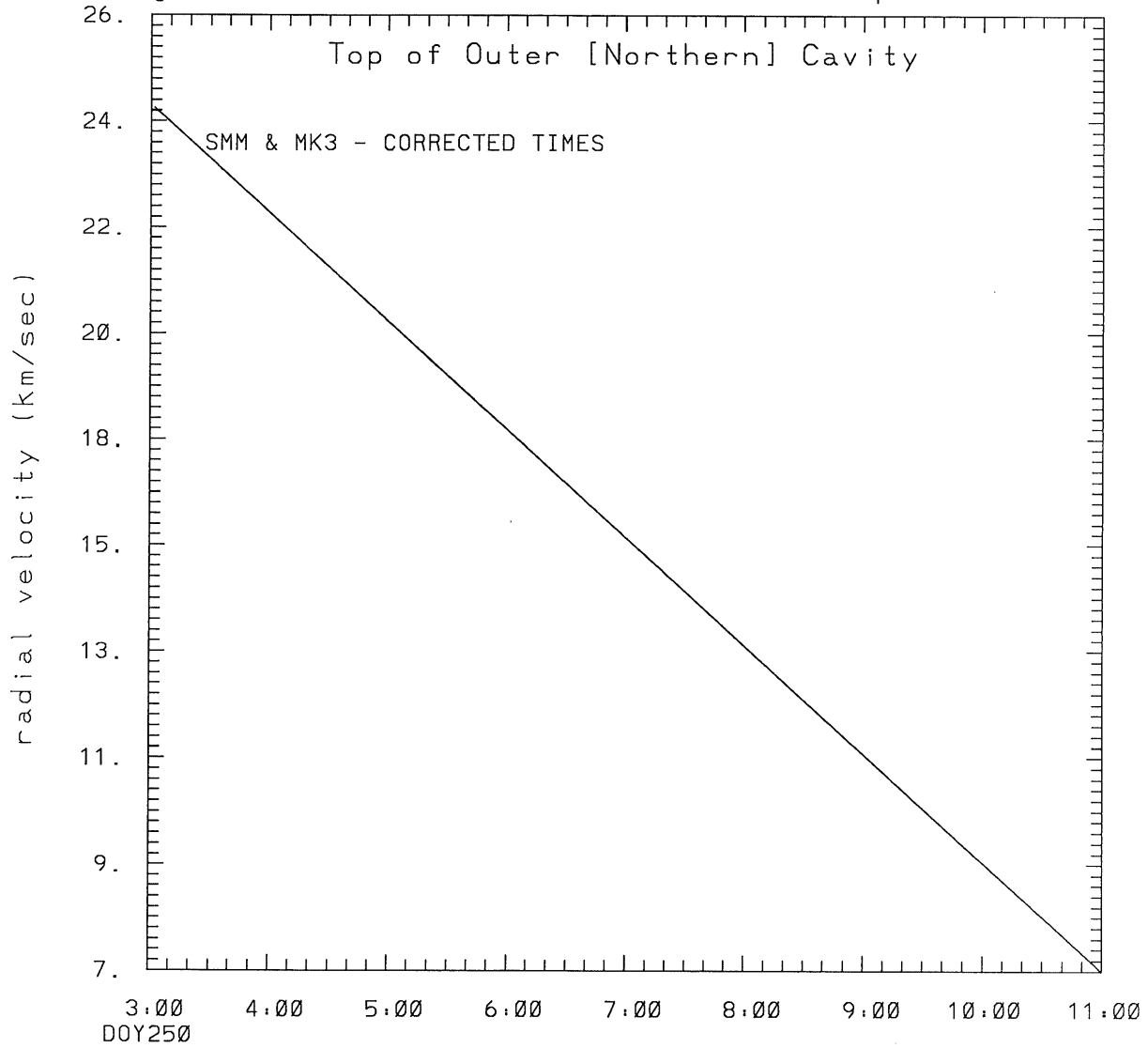


tstart=DOY249 21: 9 +/- 43.3 [min.]

radial acceleration=-0.0006 +/- 0.0005 [km/sec**2]

SMM C/P 1980 DOY250 322 +/- 0 degrees

height = $h + vel*time + 1/2*accel*time**2$ # data points = 6



tstart=DOY249 21: 9 +/- 43.3 [min.]

radial acceleration = $-.597E-03$ km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	250	3: 8:34	1.90	+/- 0.10	322.0	+/- 0.5	SMM
1980	250	3:19:54	2.00	+/- 0.10	322.0	+/- 0.5	SMM
1980	250	3:32:43	2.00	+/- 0.10	322.0	+/- 0.5	SMM
1980	250	5:57:38	2.25	+/- 0.10	322.0	+/- 0.5	SMM
1980	250	7:34:38	2.35	+/- 0.15	322.0	+/- 0.5	SMM
1980	250	9:10:38	2.50	+/- 0.15	322.0	+/- 0.5	SMM

Structure being measured:
Top of Outer [Northern] Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.597E+03 +/- 0.113E+02$ [minutes]
In more convenient units:
Event began at DOY 249 17: 3 +/- 0.113E+02 [minutes]

Origin defined at DOY250 3: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 18. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.194E+01 +/- 0.194E-01$ [solar radii]
 $c(2) = 0.157E-02 +/- 0.120E-03$ [radii/min]
 $c(2) = 0.182E+02 +/- 0.139E+01$ [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 $c(1) = 0.22347E-01$ [radii] see Bevington pg. 114
error in $c(2) = 0.11039E-03$ [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) = 322. +/- 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 3: 8 = 0.000E+00 km/sec

The TOTAL velocity at 3: 8 = 18. km/sec

The TANGENTIAL velocity at 3:19 = 0.000E+00 km/sec

The TOTAL velocity at 3:19 = 18. km/sec

The TANGENTIAL velocity at 3:32 = 0.000E+00 km/sec

The TOTAL velocity at 3:32 = 18. km/sec

The TANGENTIAL velocity at 5:57 = 0.000E+00 km/sec

The TOTAL velocity at 5:57 = 18. km/sec

The TANGENTIAL velocity at 7:34 = 0.000E+00 km/sec

The TOTAL velocity at 7:34 = 18. km/sec

The TANGENTIAL velocity at 9:10 = 0.000E+00 km/sec

The TOTAL velocity at 9:10 = 18. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.24

Standard Deviation in start time measurement = 0.139E+03

Error in time = 0.47742E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.126E-02

Reduced Chi Squared = 0.345E-02

Chi Squared = 0.138E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.990E+00

The probability that no LINEAR correlation exists between the variables = 0.1418E-03

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

This is a 2 order run

INPUT:

year	day	time	error in radii	error in radius	error in angle	error in angle	datatype
1980	250	3: 8:34	1.90 +/- 0.10	1.90 +/- 0.10	322.0 +/- 0.5	322.0 +/- 0.5	SMM
1980	250	3:19:54	2.00 +/- 0.10	2.00 +/- 0.10	322.0 +/- 0.5	322.0 +/- 0.5	SMM
1980	250	3:32:43	2.00 +/- 0.10	2.00 +/- 0.10	322.0 +/- 0.5	322.0 +/- 0.5	SMM
1980	250	5:57:38	2.25 +/- 0.10	2.25 +/- 0.10	322.0 +/- 0.5	322.0 +/- 0.5	SMM
1980	250	7:34:38	2.35 +/- 0.15	2.35 +/- 0.15	322.0 +/- 0.5	322.0 +/- 0.5	SMM
1980	250	9:10:38	2.50 +/- 0.15	2.50 +/- 0.15	322.0 +/- 0.5	322.0 +/- 0.5	SMM

Structure being measured:

Top of Outer [Northern] Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.351E+03 +/- 0.433E+02$ [minutes]

In more convenient units:

Event began at DOY 249 21: 9 +/- 0.433E+02 [minutes]

Origin defined at DOY250 3: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.597E-03 +/- 0.456E-03$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.192E+01 +/- 0.215E-01$ [solar radii]
c(2) = $0.209E-02 +/- 0.409E-03$ [radii/min]
c(2) = $0.242E+02 +/- 0.475E+01$ [km/sec]
c(3) = $-0.154E-05 +/- 0.118E-05$ [radii/min**2]
c(3) = $-0.597E-03 +/- 0.456E-03$ [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = $0.26452E-01$ [radii] Bevington pg 154 (8-30)

Exact error in c(1) = $0.69137E-02$ [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = $0.45619E-03$ [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = $0.70693E-04$ [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = $0.12468E-05$ [radii/min**] Bevington pg 154 (8-30)

Exact error in c(3) = 0.18303E-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) = 322. +/- 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 3: 8 = 0.000E+00 km/sec

The TOTAL velocity at 3: 8 = 24. km/sec

The TANGENTIAL velocity at 3:19 = 0.000E+00 km/sec

The TOTAL velocity at 3:19 = 24. km/sec

The TANGENTIAL velocity at 3:32 = 0.000E+00 km/sec

The TOTAL velocity at 3:32 = 23. km/sec

The TANGENTIAL velocity at 5:57 = 0.000E+00 km/sec

The TOTAL velocity at 5:57 = 18. km/sec

The TANGENTIAL velocity at 7:34 = 0.000E+00 km/sec

The TOTAL velocity at 7:34 = 14. km/sec

The TANGENTIAL velocity at 9:10 = 0.000E+00 km/sec

The TOTAL velocity at 9:10 = 11. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.24

Standard Deviation in start time measurement = 0.139E+03

Value of reduced Chi Squared returned from nllst2 = 0.110E-02

Reduced Chi Squared = 0.351E-02

Chi Squared = 0.105E-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 = 0.9032E+00

The correlation between the data and the time**2 term = 0.8131E+00

The correlation between the data and the complete equation of motion = 0.9840E+00

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