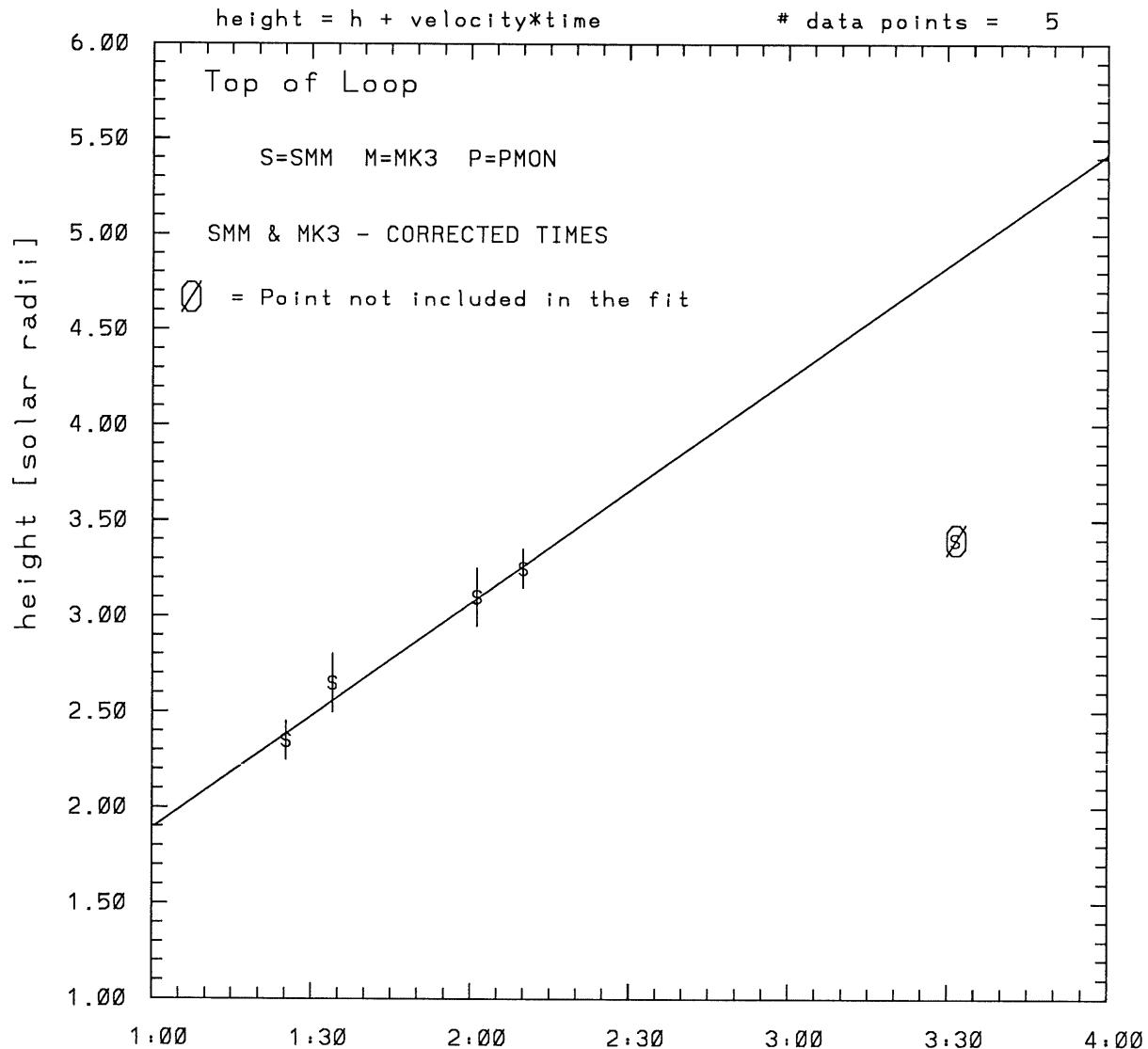
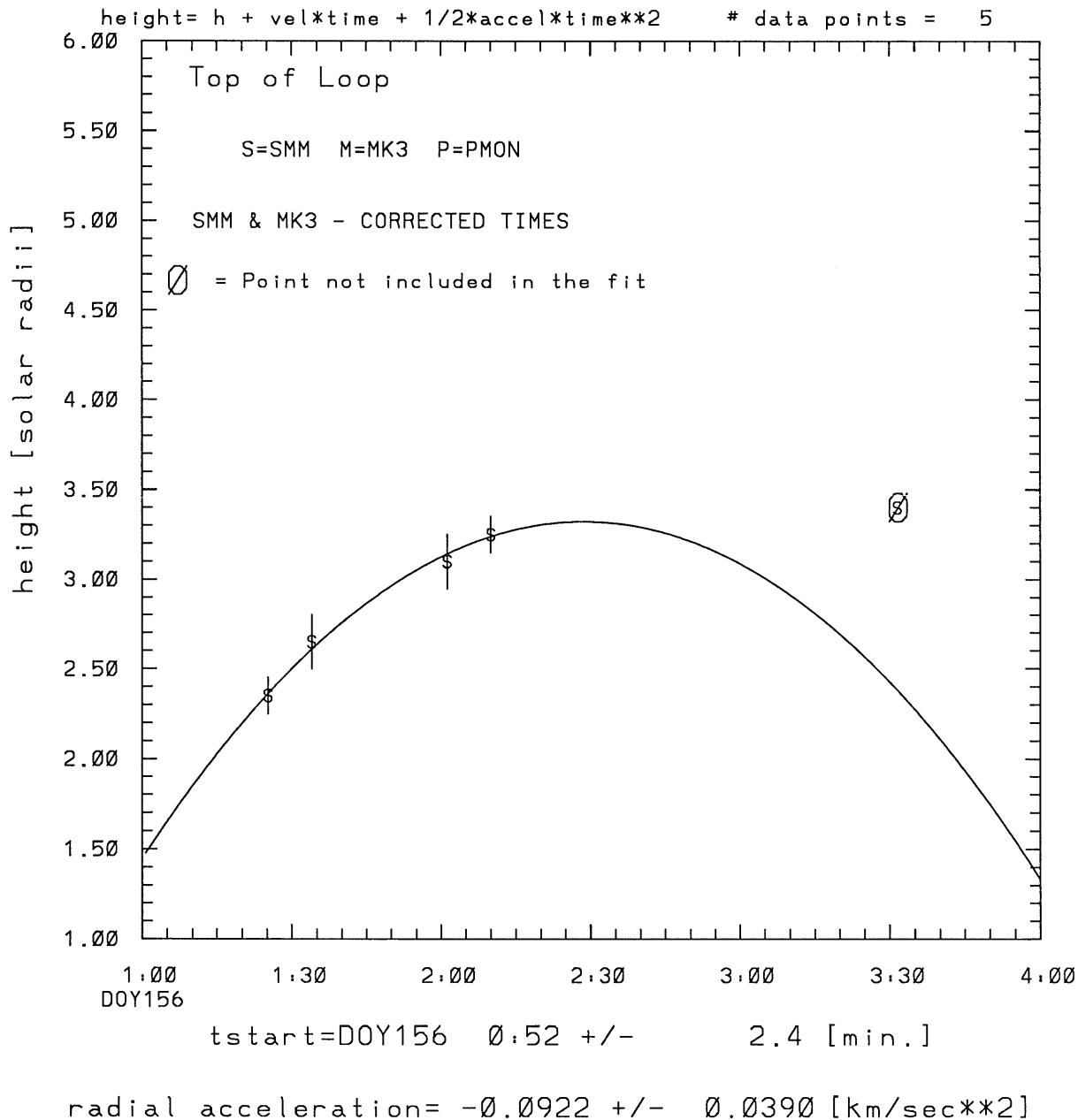


SMM C/P 1986 DOY156 297 +/- 0 degrees

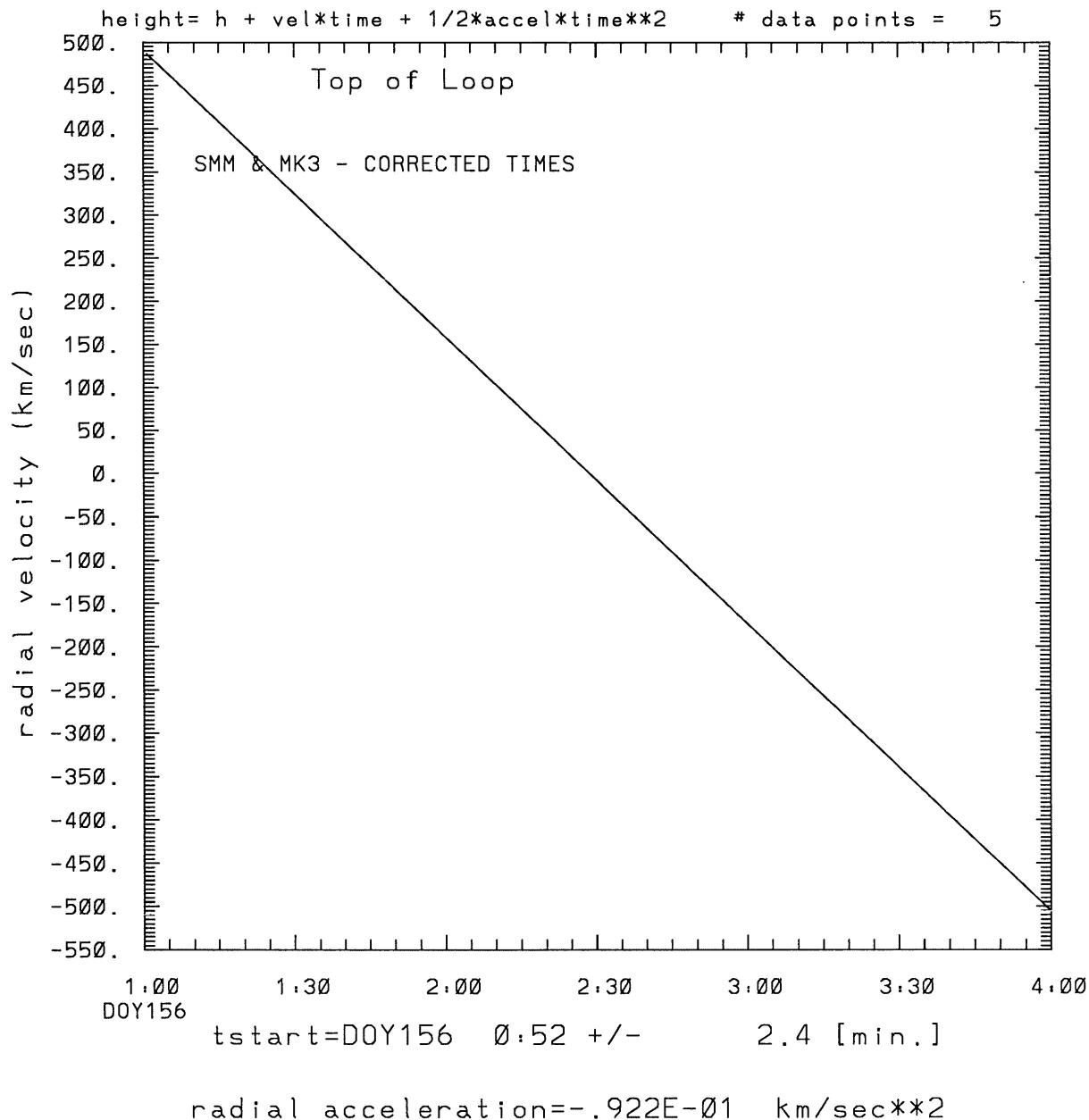


tstart=DOY156 0:15 +/- 1.2 [min.]
radial velocity= 227. +/- 12. [km/sec]

SMM C/P 1986 DOY156 297 +/- 0 degrees



SMM C/P 1986 DOY156 297 +/- 0 degrees



This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in radii	angle	error in angle	datatype
1986	156	1:25:14	2.35	+/- 0.10	297.0	+/- 0.5	SMM	
1986	156	1:33:58	2.65	+/- 0.15	297.0	+/- 0.5	SMM	
1986	156	2: 1:14	3.10	+/- 0.15	297.0	+/- 1.0	SMM	
1986	156	2: 9:58	3.25	+/- 0.10	297.0	+/- 1.0	SMM	
1986	156	3:31:30	3.40	-----	297.00	+/- -----	SMM THIS POINT WASN'T USED IN THE FIT.	

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at t = 0 + -0.454E+02 +/- 0.123E+01 [minutes]

In more convenient units:

Event began at DOY 156 0:15 +/- 0.123E+01 [minutes]

Origin defined at DOY156 1: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 227. +/- 12. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.189E+01 +/- 0.552E-01 [solar radii]

c(2) = 0.196E-01 +/- 0.107E-02 [radii/min]

c(2) = 0.227E+03 +/- 0.124E+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)= 0.69029E+00 [radii] see Bevington pg. 114

error in c(2)= 0.84474E-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) = 297. +/- 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 1:25 = 0.000E+00 km/sec

The TOTAL velocity at 1:25 = 227. km/sec

The TANGENTIAL velocity at 1:33 = 0.000E+00 km/sec

The TOTAL velocity at 1:33 = 227. km/sec

The TANGENTIAL velocity at 2: 1 = 0.000E+00 km/sec

The TOTAL velocity at 2: 1 = 227. km/sec

The TANGENTIAL velocity at 2: 9 = 0.000E+00 km/sec

The TOTAL velocity at 2: 9 = 227. km/sec

The TANGENTIAL velocity at 3:31 = 0.000E+00 km/sec

The TOTAL velocity at 3:31 = 227. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.44

Standard Deviation in start time measurement = 0.447E+02

Error in time = 0.74655E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.230E-02

Reduced Chi Squared = 0.356E+01

Chi Squared = 0.107E+02

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.835E+00

The probability that no LINEAR correlation exists between the variables = 0.7878E-01

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

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in radii	angle	error in angle	datatype
1986	156	1:25:14	2.35	+/- 0.10	297.0	+/- 0.5	SMM	
1986	156	1:33:58	2.65	+/- 0.15	297.0	+/- 0.5	SMM	
1986	156	2: 1:14	3.10	+/- 0.15	297.0	+/- 1.0	SMM	
1986	156	2: 9:58	3.25	+/- 0.10	297.0	+/- 1.0	SMM	
1986	156	3:31:30	3.40	-----	297.00	+/- -----	SMM	THIS POINT WASN'T USED IN THE FIT.

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at t = 0 + -0.997E+01 +/- 0.242E+01 [minutes]

In more convenient units:

Event began at DOY 156 0:52 +/- 0.242E+01 [minutes]

Origin defined at DOY156 1: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.922E-01 +/- 0.390E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.145E+01 +/- 0.191E+00 [solar radii]
c(2) = 0.423E-01 +/- 0.962E-02 [radii/min]
c(2) = 0.491E+03 +/- 0.112E+03 [km/sec]
c(3) = -0.239E-03 +/- 0.101E-03 [radii/min**2]
c(3) = -0.922E-01 +/- 0.390E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.13348E+01 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.89448E-01 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.38470E-01 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.47112E-02 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.20762E-03 [radii/min**2] Bevington pg 154 (8-30)

Exact error in c(3) = 0.49348E-04 [radii/min**2] 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) = 297. +/- 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 1:25 = 0.000E+00 km/sec

The TOTAL velocity at 1:25 = 351. km/sec

The TANGENTIAL velocity at 1:33 = 0.000E+00 km/sec

The TOTAL velocity at 1:33 = 303. km/sec

The TANGENTIAL velocity at 2: 1 = 0.000E+00 km/sec

The TOTAL velocity at 2: 1 = 152. km/sec

The TANGENTIAL velocity at 2: 9 = 0.000E+00 km/sec

The TOTAL velocity at 2: 9 = 104. km/sec

The TANGENTIAL velocity at 3:31 = 0.000E+00 km/sec

The TOTAL velocity at 3:31 = -348. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.44

Standard Deviation in start time measurement = 0.447E+02

Value of reduced Chi Squared returned from nllst2 = 0.107E-02

Reduced Chi Squared = 0.260E+01

Chi Squared = 0.520E+01

The probability for exceeding chi square = 0.999E+00

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 = 0.5668E+00

The correlation between the data and the time **2 term = 0.3644E+00

The correlation between the data and the complete equation of motion = 0.8469E+00

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