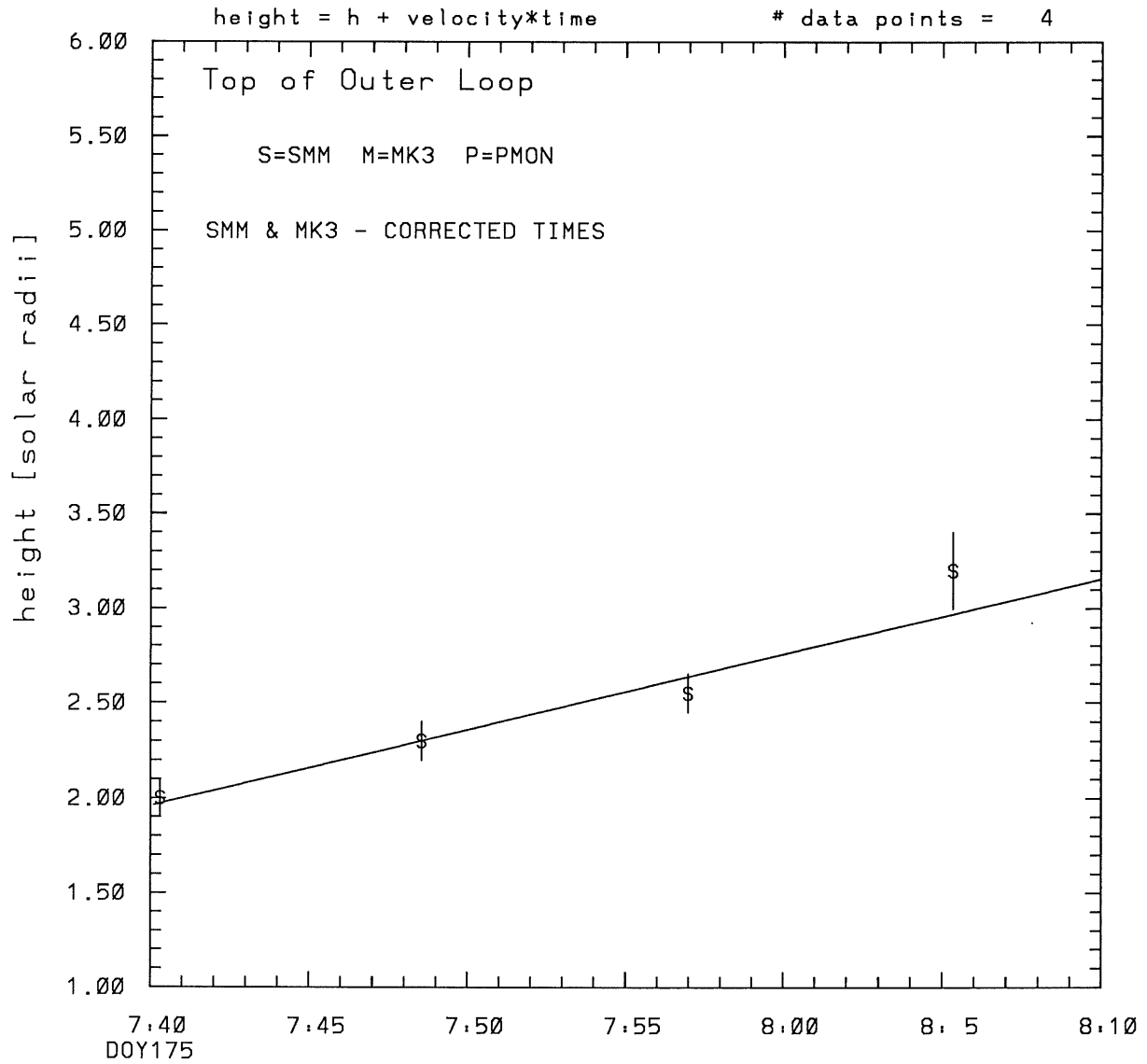
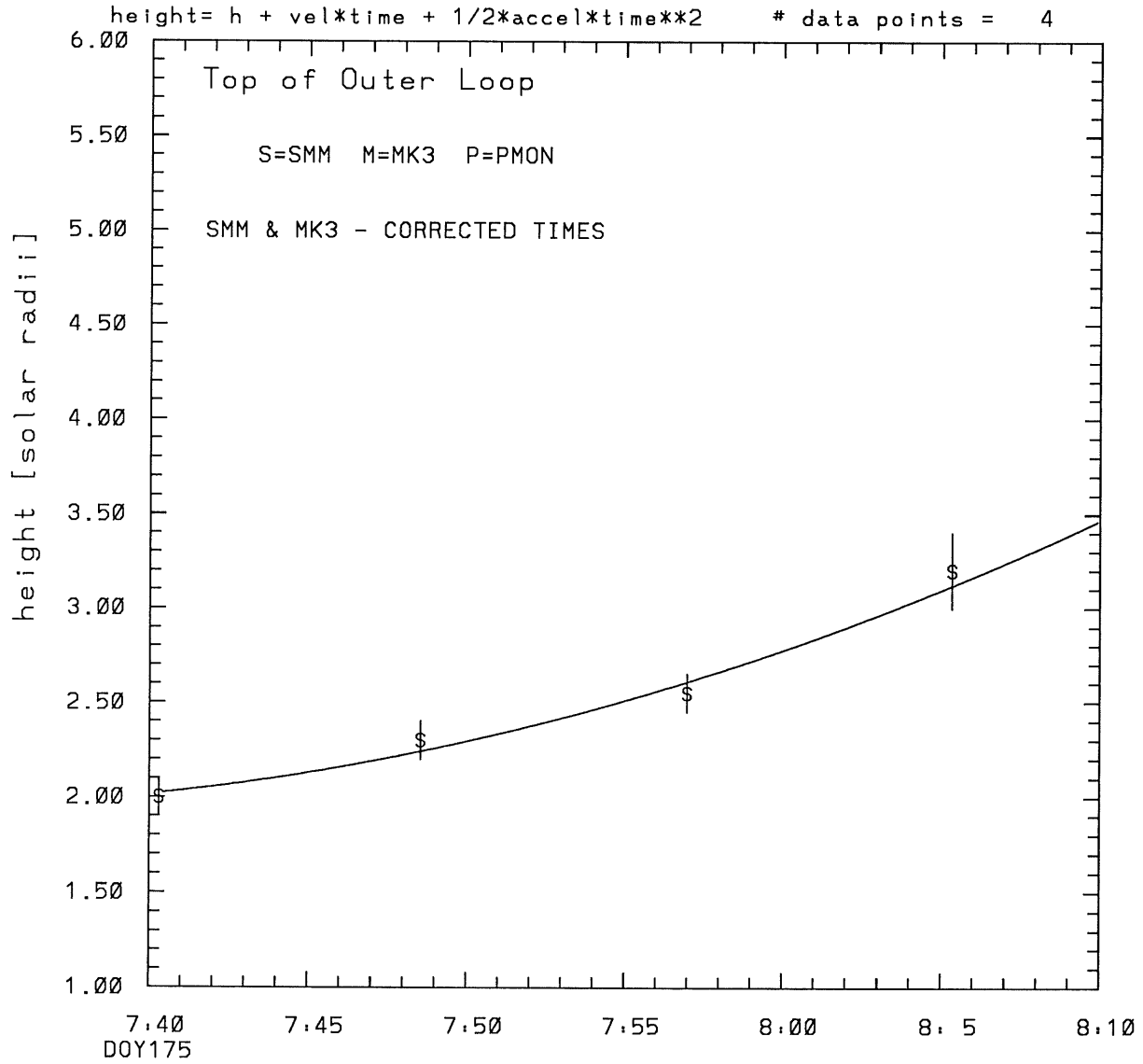


SMM C/P 1988 DOY175 295 +/- 0 degrees



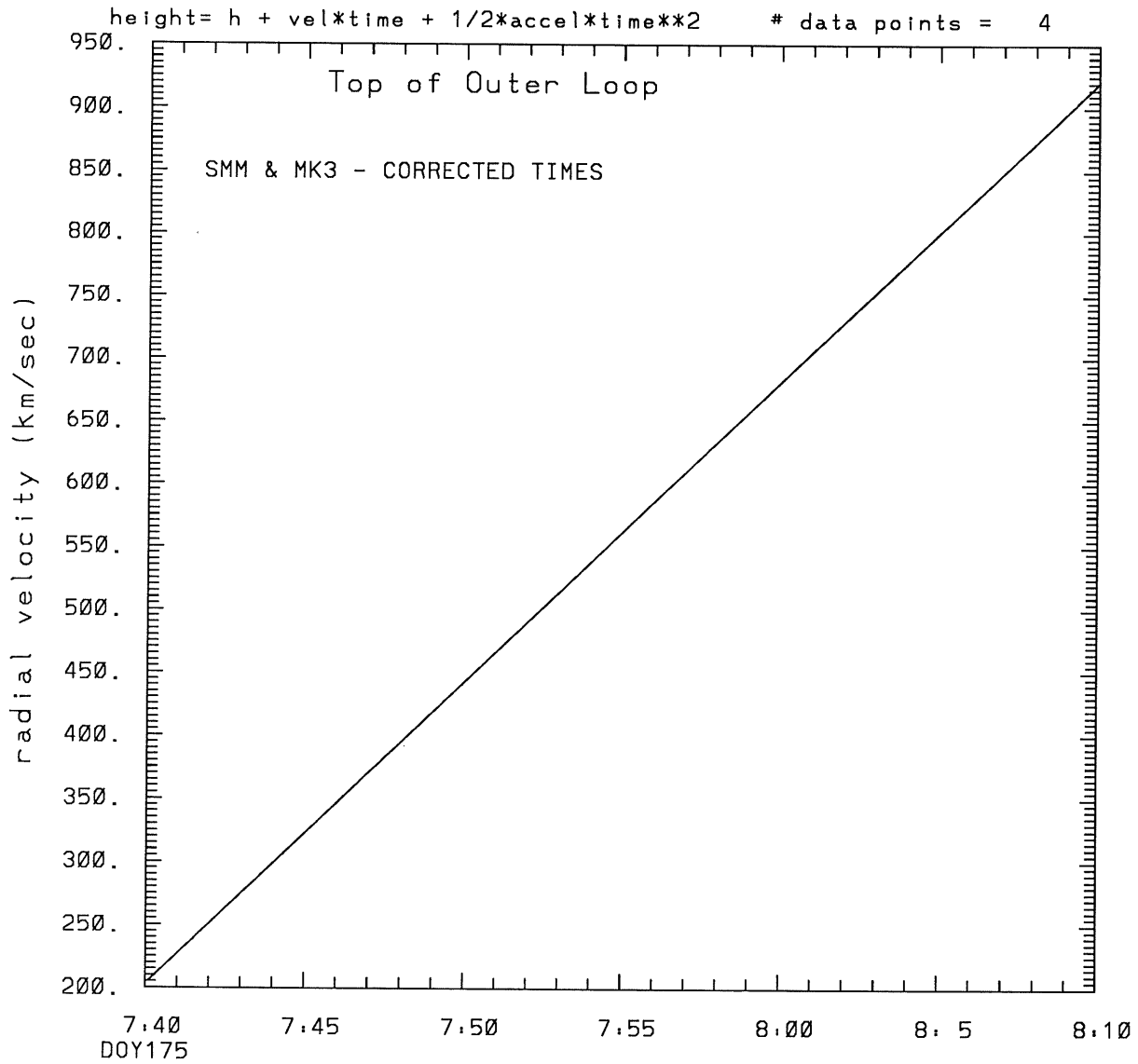
tstart=DOY175 7:16 +/- 1.4 [min.]
radial velocity= 463. +/- 69. [km/sec]

SMM C/P 1988 DOY175 295 +/- 0 degrees



tstart=DOY175 7:32 from derivative=0
Event begins at 1.94 Solar Radii
radial acceleration = 0.3987 +/- 0.2421 [km/sec**2]

SMM C/P 1988 DOY175 295 +/- 0 degrees



tstart=DOY175 7.32 from derivative=0
Event begins at 1.94 Solar Radii
radial acceleration=0.399E+00 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	error in angle	datatype
1988	175	7:40:18	2.00	+/- 0.10	295.0 +/- 0.5	SMM
1988	175	7:48:33	2.30	+/- 0.10	295.0 +/- 0.5	SMM
1988	175	7:56:59	2.55	+/- 0.10	295.0 +/- 0.5	SMM
1988	175	8: 5:20	3.20	+/- 0.20	295.0 +/- 1.0	SMM

Structure being measured:
Top of Outer Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.241E+02 +/- 0.140E+01$ [minutes]
In more convenient units:
Event began at DOY 175 7:16 +/- 0.140E+01 [minutes]

Origin defined at DOY175 7:40

RADIAL INFORMATION:

RADIAL VELOCITY = 463. +/- 69. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.196E+01 +/- 0.753E-01 [solar radii]
c(2) = 0.399E-01 +/- 0.594E-02 [radii/min]
c(2) = 0.463E+03 +/- 0.690E+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)= 0.14865E+00 [radii] see Bevington pg. 114
error in c(2)= 0.93854E-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) = 295. +/- 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 7:40 = 0. km/sec

The TOTAL velocity at 7:40 = 463. km/sec

The TANGENTIAL velocity at 7:48 = 0. km/sec

The TOTAL velocity at 7:48 = 463. km/sec

The TANGENTIAL velocity at 7:56 = 0. km/sec

The TOTAL velocity at 7:56 = 463. km/sec

The TANGENTIAL velocity at 8: 5 = 0. km/sec

The TOTAL velocity at 8: 5 = 463. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.51

Standard Deviation in start time measurement = 0.934E+01

Error in time = 0.62166E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.886E-02

Reduced Chi Squared = 0.118E+00

Chi Squared = 0.236E+00

The probability for exceeding chi square = 0.991E+00

The correlation coefficient = 0.974E+00

The probability that no LINEAR correlation exists between the variables = 0.2625E-01

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

This is a 2 order run

INPUT:

year	doy	time	error in radii	error in radius	error in angle	error in angle	datatype
1988	175	7:40:18	2.00 +/- 0.10	295.0 +/- 0.5	295.0 +/- 0.5	295.0 +/- 0.5	SMM
1988	175	7:48:33	2.30 +/- 0.10	295.0 +/- 0.5	295.0 +/- 0.5	295.0 +/- 0.5	SMM
1988	175	7:56:59	2.55 +/- 0.10	295.0 +/- 0.5	295.0 +/- 0.5	295.0 +/- 0.5	SMM
1988	175	8: 5:20	3.20 +/- 0.20	295.0 +/- 1.0	295.0 +/- 1.0	295.0 +/- 1.0	SMM

Structure being measured:
Top of Outer Loop

OUTPUT:

START TIME:

tstart=DOY175 7:32 from derivative = 0
Event begins at 1.94 Solar Radii
Origin defined at DOY175 7:40

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.399E+00 +/- 0.242E+00 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.201E+01 +/- 0.690E-01 [solar radii]
c(2) = 0.175E-01 +/- 0.144E-01 [radii/min]
c(2) = 0.203E+03 +/- 0.167E+03 [km/sec]
c(3) = 0.103E-02 +/- 0.626E-03 [radii/min**2]
c(3) = 0.399E+00 +/- 0.242E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.11974E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.21252E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.22706E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.91926E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.85045E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.41736E-03 [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) = 295. +/- 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 7:40 = 0. km/sec

The TOTAL velocity at 7:40 = 210. km/sec

The TANGENTIAL velocity at 7:48 = 0. km/sec

The TOTAL velocity at 7:48 = 408. km/sec

The TANGENTIAL velocity at 7:56 = 0. km/sec

The TOTAL velocity at 7:56 = 609. km/sec

The TANGENTIAL velocity at 8: 5 = 0. km/sec

The TOTAL velocity at 8: 5 = 809. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.51

Standard Deviation in start time measurement = 0.934E+01

Value of reduced Chi Squared returned from nllst2 = 0.564E-02

Reduced Chi Squared = 0.438E-01

Chi Squared = 0.438E-01

The probability for exceeding chi square = 0.940E+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 = 0.8736E+00

The correlation between the data and the time**2 term = 0.7993E+00

The correlation between the data and the complete equation of motion = 0.9605E+00

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