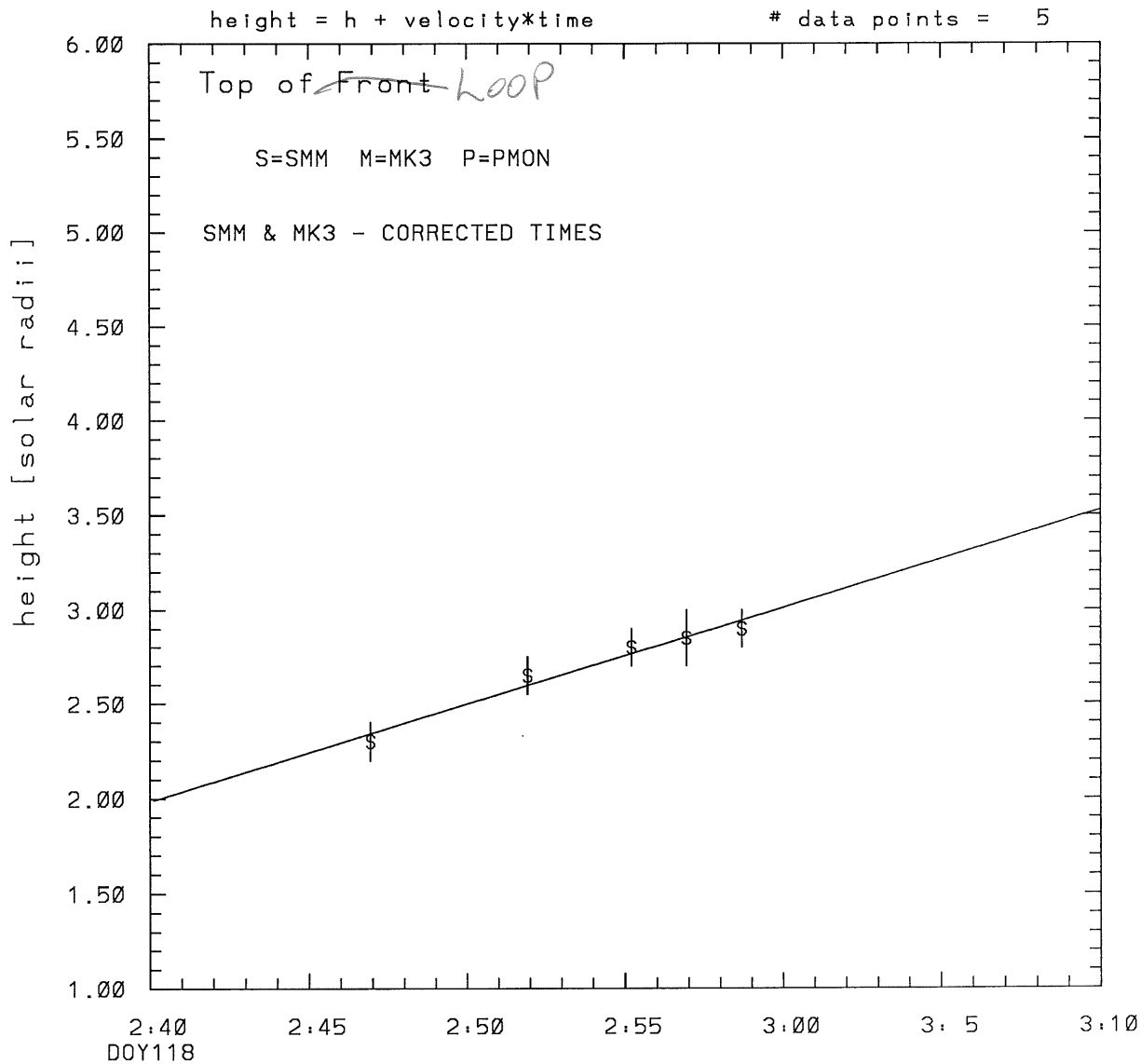


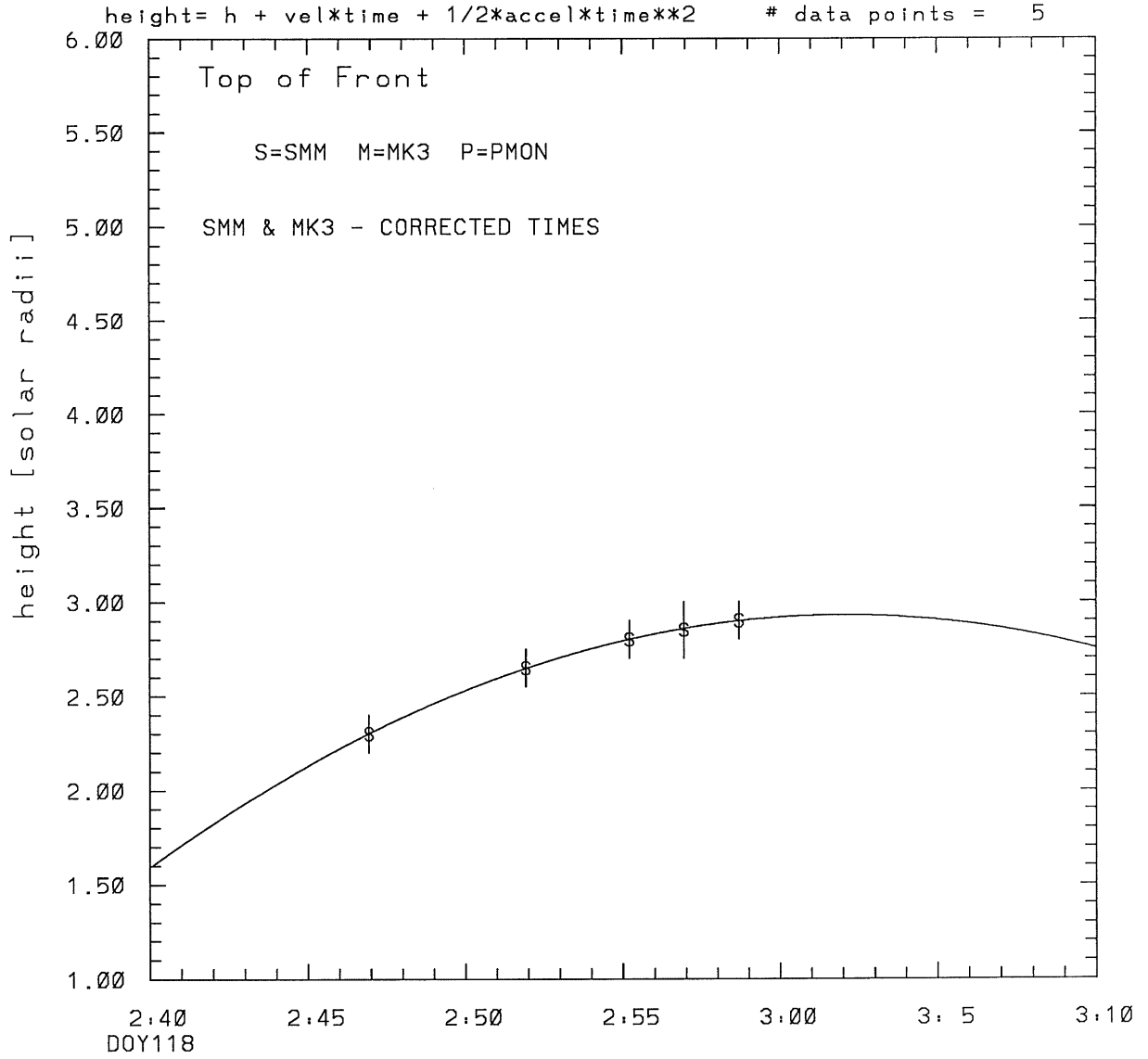


SMM C/P 1980 DOY118 95 +/- 0 degrees



tstart=DOY118 2.21 +/- 0.9 [min.]
radial velocity= 596. +/- 56. [km/sec]

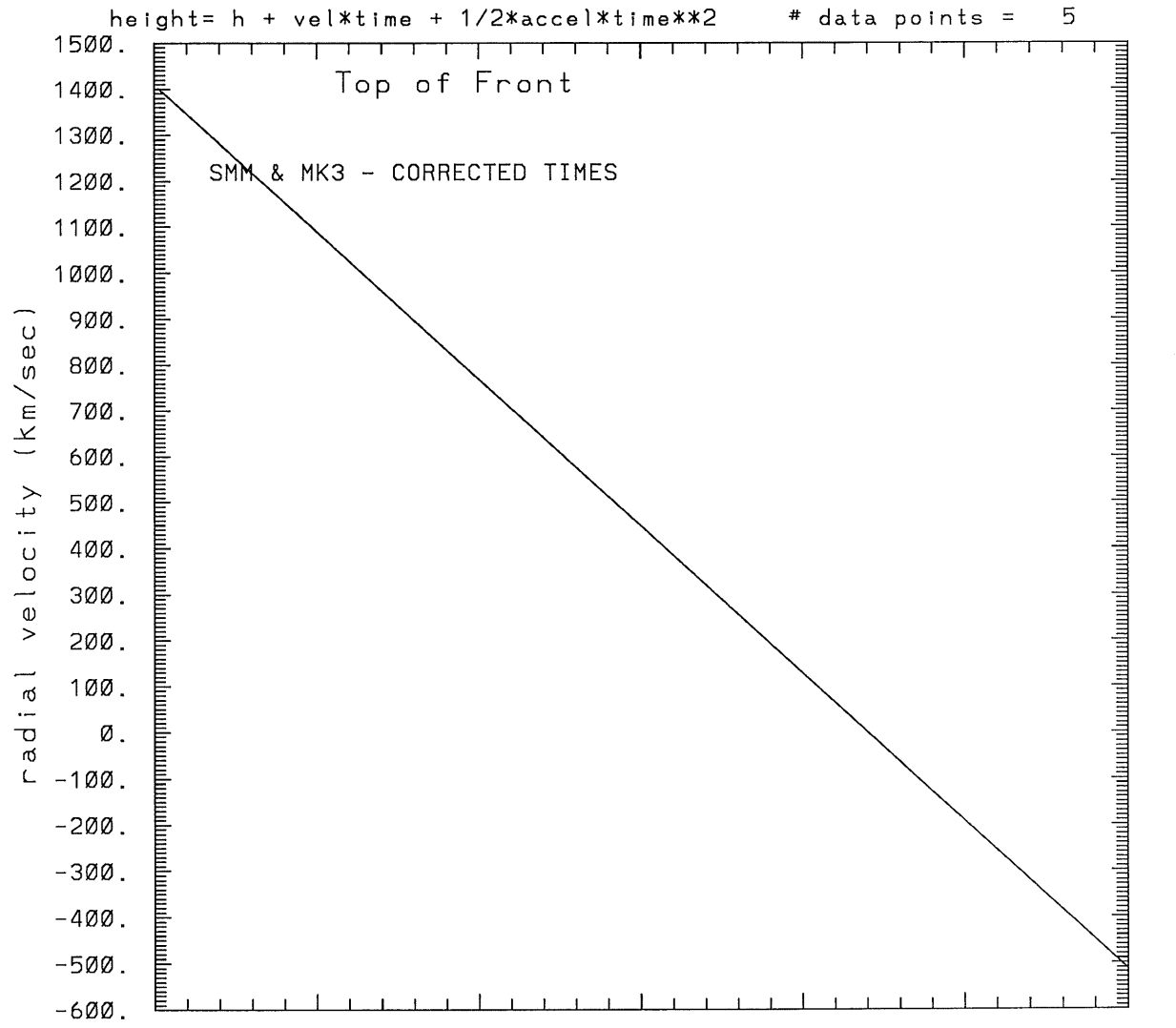
SMM C/P 1980 DOY118 95 +/- 0 degrees



tstart=DOY118 2:36 +/- 0.1 [min.]

radial acceleration = -1.0677 ± 0.0418 [km/sec**2]

SMM C/P 1980 DOY118 95 +/- 0 degrees



DOY118

tstart=DOY118 2:36 +/- 0.1 [min.]

radial acceleration=-.107E+01 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1980	118	2:46:56	2.30	+/- 0.10	95.0	+/- 0.5	SMM
1980	118	2:51:56	2.65	+/- 0.10	95.0	+/- 0.5	SMM
1980	118	2:55:13	2.80	+/- 0.10	95.0	+/- 0.5	SMM
1980	118	2:56:57	2.85	+/- 0.15	95.0	+/- 0.5	SMM
1980	118	2:58:42	2.90	+/- 0.10	95.0	+/- 0.5	SMM

Structure being measured:
Top of Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.192E+02 +/- 0.866E+00$ [minutes]
In more convenient units:
Event began at DOY 118 2:21 +/- 0.866E+00 [minutes]

Origin defined at DOY118 2:40

RADIAL INFORMATION:

RADIAL VELOCITY = 596. +/- 56. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.198E+01 +/- 0.690E-01$ [solar radii]
 $c(2) = 0.514E-01 +/- 0.485E-02$ [radii/min]
 $c(2) = 0.596E+03 +/- 0.562E+02$ [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 $c(1) = 0.78838E-01$ [radii] see Bevington pg. 114
error in $c(2) = 0.54171E-02$ [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) = 95. +/- 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 2:46 = 0.000E+00 km/sec

The TOTAL velocity at 2:46 = 596. km/sec

The TANGENTIAL velocity at 2:51 = 0.000E+00 km/sec

The TOTAL velocity at 2:51 = 596. km/sec

The TANGENTIAL velocity at 2:55 = 0.000E+00 km/sec

The TOTAL velocity at 2:55 = 596. km/sec

The TANGENTIAL velocity at 2:56 = 0.000E+00 km/sec

The TOTAL velocity at 2:56 = 596. km/sec

The TANGENTIAL velocity at 2:58 = 0.000E+00 km/sec

The TOTAL velocity at 2:58 = 596. 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 = 0.416E+01

Error in time = 0.16983E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.214E-02

Reduced Chi Squared = 0.694E-02

Chi Squared = 0.208E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.984E+00

The probability that no LINEAR correlation exists between the variables = 0.2498E-02

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

This is a 2 order run

INPUT:

year	doy	time	radii	error in radius	error in angle	datatype
1980	118	2:46:56	2.30	+/- 0.10	95.0 +/- 0.5	SMM
1980	118	2:51:56	2.65	+/- 0.10	95.0 +/- 0.5	SMM
1980	118	2:55:13	2.80	+/- 0.10	95.0 +/- 0.5	SMM
1980	118	2:56:57	2.85	+/- 0.15	95.0 +/- 0.5	SMM
1980	118	2:58:42	2.90	+/- 0.10	95.0 +/- 0.5	SMM

Structure being measured:
Top of Front

OUTPUT:

START TIME:

Event began at t = 0 + -0.442E+01 +/- 0.695E-01 [minutes]
In more convenient units:
Event began at DOY 118 2:36 +/- 0.695E-01 [minutes]

Origin defined at DOY118 2:40

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.107E+01 +/- 0.418E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.159E+01 +/- 0.163E-01 [solar radii]
c(2) = 0.122E+00 +/- 0.277E-02 [radii/min]
c(2) = 0.141E+04 +/- 0.322E+02 [km/sec]
c(3) = -0.276E-02 +/- 0.108E-03 [radii/min**2]
c(3) = -0.107E+01 +/- 0.418E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.27165E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.43102E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.46206E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.86704E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.18040E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.38008E-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) = 95. +/- 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 2:46 = 0.000E+00 km/sec

The TOTAL velocity at 2:46 = 966. km/sec

The TANGENTIAL velocity at 2:51 = 0.000E+00 km/sec

The TOTAL velocity at 2:51 = 645. km/sec

The TANGENTIAL velocity at 2:55 = 0.000E+00 km/sec

The TOTAL velocity at 2:55 = 435. km/sec

The TANGENTIAL velocity at 2:56 = 0.000E+00 km/sec

The TOTAL velocity at 2:56 = 324. km/sec

The TANGENTIAL velocity at 2:58 = 0.000E+00 km/sec

The TOTAL velocity at 2:58 = 212. 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 = 0.416E+01

Value of reduced Chi Squared returned from nllst2 = 0.130E-04

Reduced Chi Squared = 0.126E-03

Chi Squared = 0.252E-03

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 = 0.1012E+01

The correlation between the data and the time**2 term = 0.9776E+00

The correlation between the data and the complete equation of motion = 0.1000E+01

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