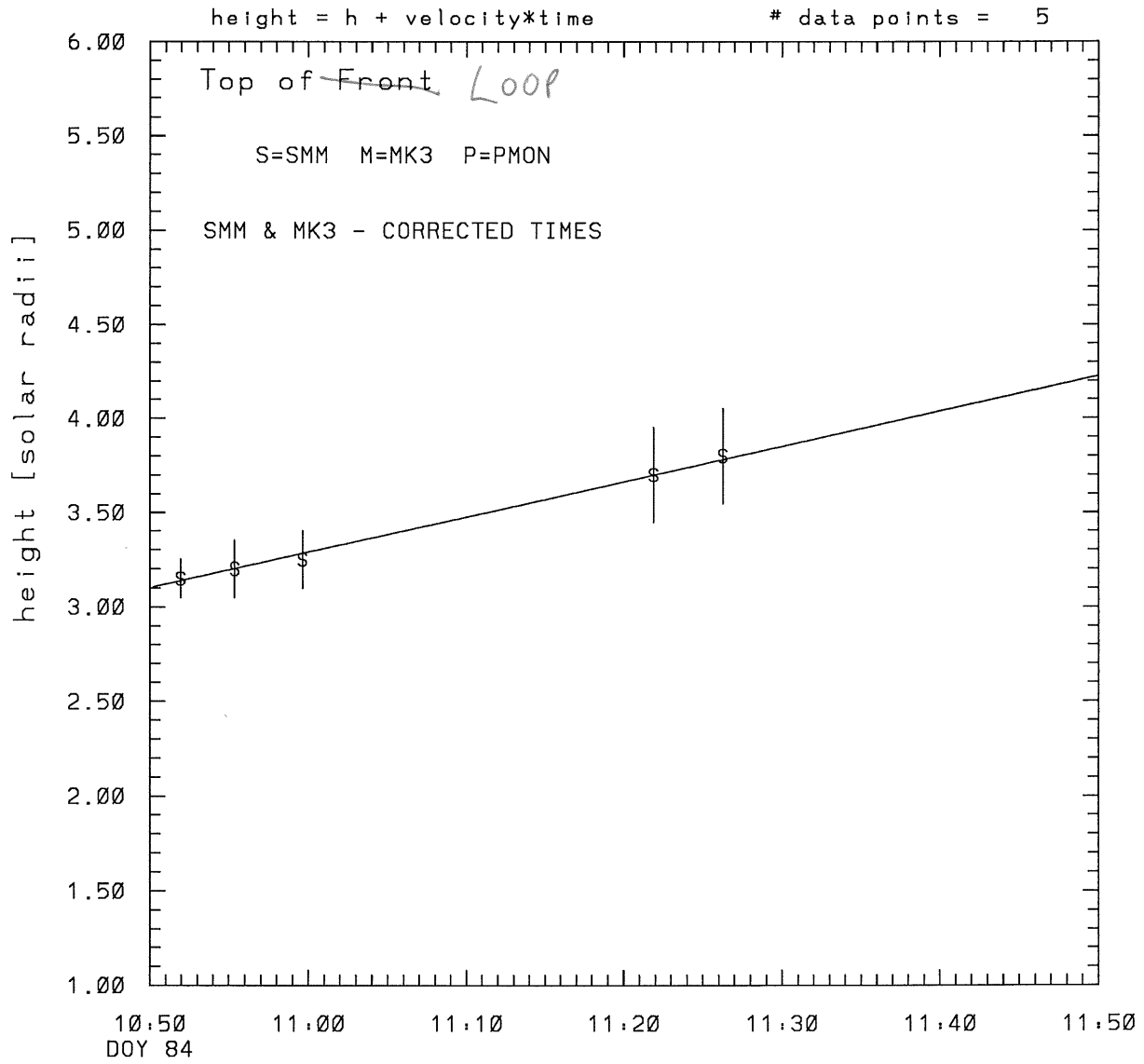
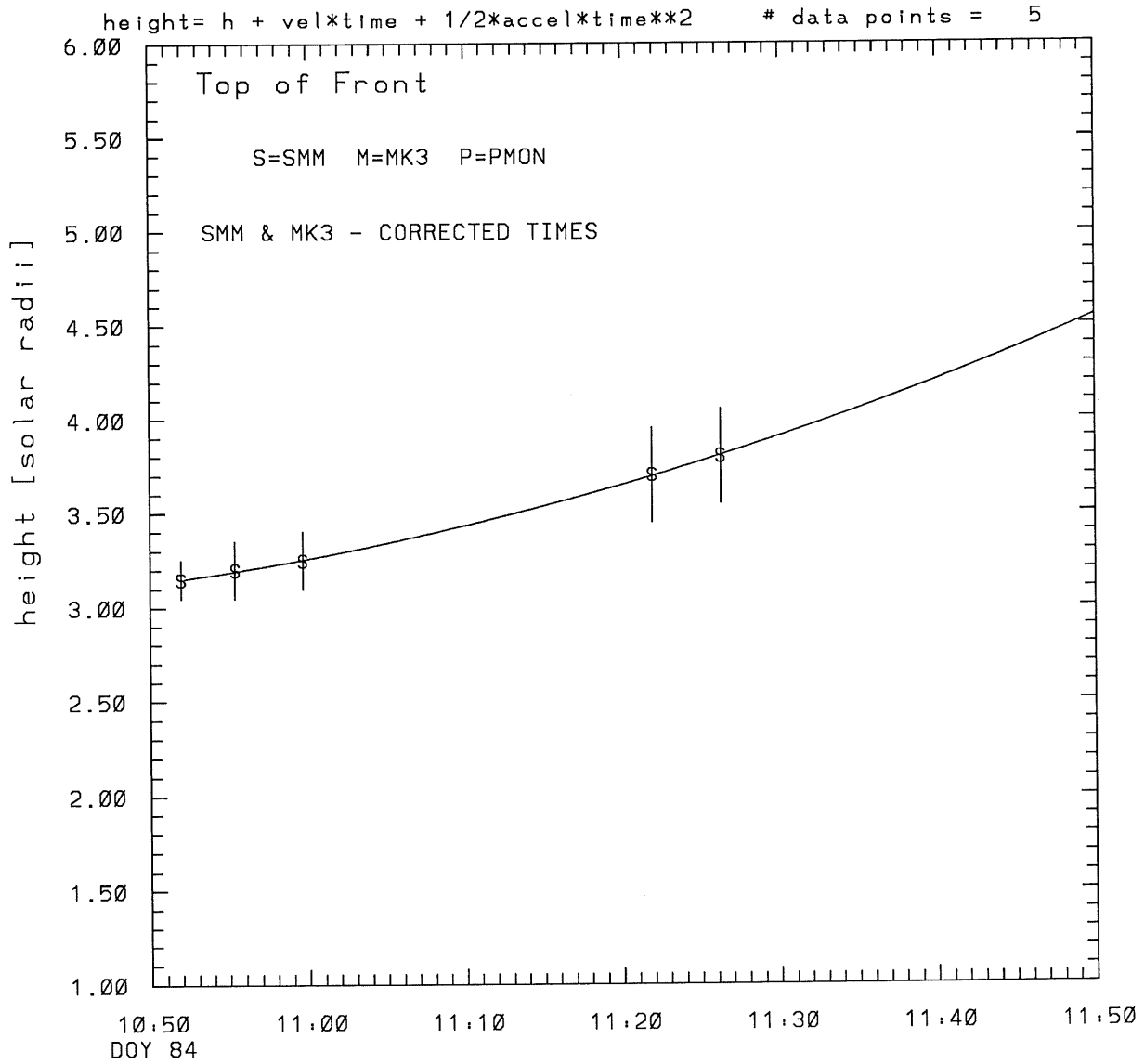


SMM C/P 1980 DOY 84 230 +/- 0 degrees



tstart=DOY 84 8.58 +/- 0.3 [min.]
radial velocity= 217. +/- 9. [km/sec]

SMM C/P 1980 DOY 84 230 +/- 0 degrees

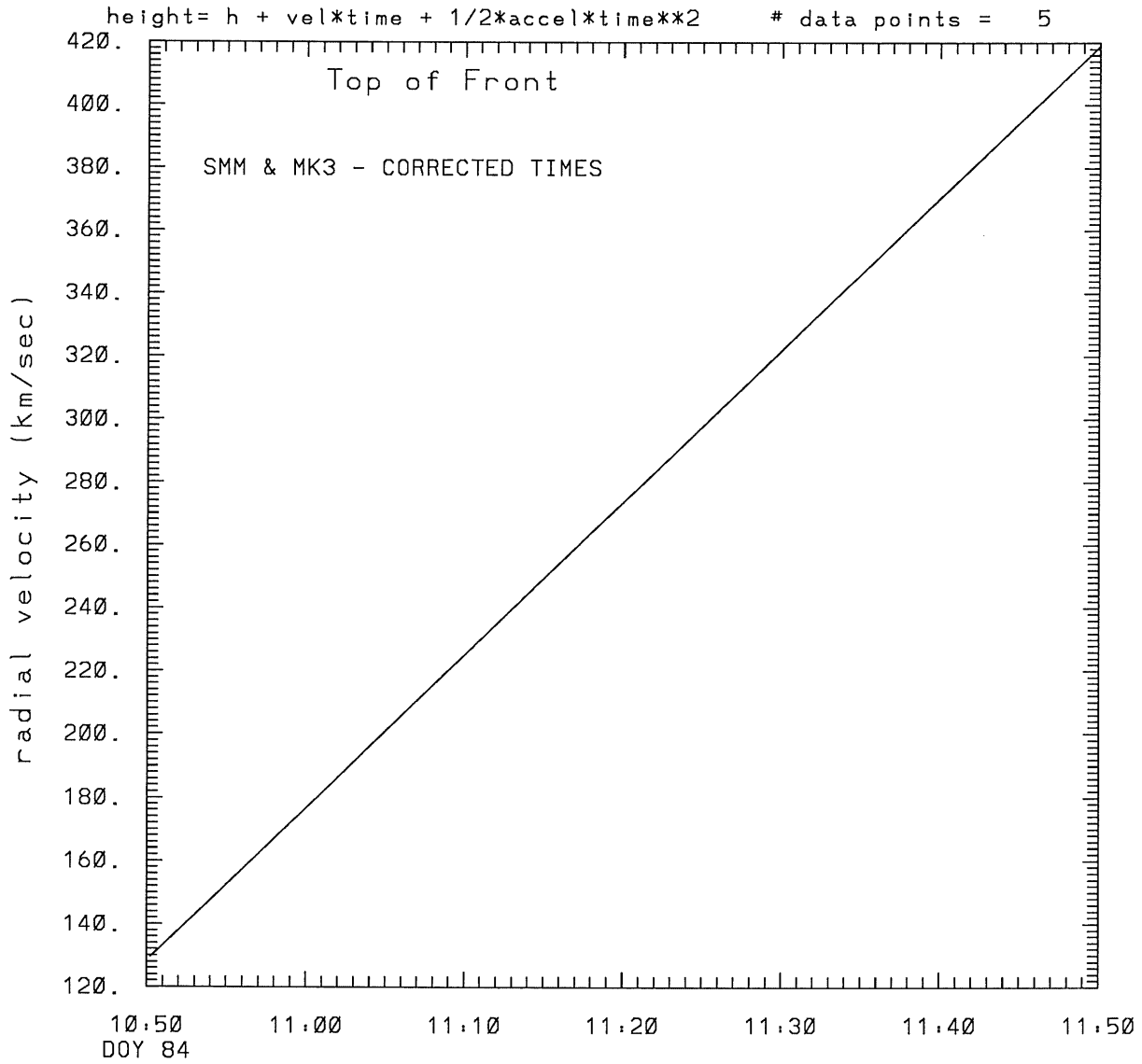


tstart=DOY 84 10:24 from derivative=0

Event begins at 2.98 Solar Radii

radial acceleration = 0.0807 ± 0.0111 [km/sec**2]

SMM C/P 1980 DOY 84 230 +/- 0 degrees



tstart=DOY 84 10:24 from derivative=0
Event begins at 2.98 Solar Radii
radial acceleration= $0.807E-01$ km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in angle	error in angle	datatype
1980	84	10:51:57	3.15 +/-	0.10	230.0 +/-	1.0	SMM
1980	84	10:55:22	3.20 +/-	0.15	230.0 +/-	1.0	SMM
1980	84	10:59:38	3.25 +/-	0.15	230.0 +/-	1.0	SMM
1980	84	11:21:54	3.70 +/-	0.25	230.0 +/-	1.0	SMM
1980	84	11:26:16	3.80 +/-	0.25	230.0 +/-	1.0	SMM

Structure being measured:

Top of Front Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.112E+03 +/- 0.314E+00$ [minutes]

In more convenient units:

Event began at DOY 84 8:58 +/- 0.314E+00 [minutes]

Origin defined at DOY 84 10:50

RADIAL INFORMATION:

RADIAL VELOCITY = 217. +/- 9. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.310E+01 +/- 0.111E-01 [solar radii]
c(2) = 0.187E-01 +/- 0.797E-03 [radii/min]
c(2) = 0.217E+03 +/- 0.925E+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)= 0.15849E-01 [radii] see Bevington pg. 114

error in c(2)= 0.71477E-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) = 230. +/- 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 10:51 = 0.000E+00 km/sec

The TOTAL velocity at 10:51 = 217. km/sec

The TANGENTIAL velocity at 10:55 = 0.000E+00 km/sec

The TOTAL velocity at 10:55 = 217. km/sec

The TANGENTIAL velocity at 10:59 = 0.000E+00 km/sec

The TOTAL velocity at 10:59 = 217. km/sec

The TANGENTIAL velocity at 11:21 = 0.000E+00 km/sec

The TOTAL velocity at 11:21 = 217. km/sec

The TANGENTIAL velocity at 11:26 = 0.000E+00 km/sec

The TOTAL velocity at 11:26 = 217. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.31

Standard Deviation in start time measurement = 0.142E+02

Error in time = 0.21010E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.372E-03

Reduced Chi Squared = 0.170E-02

Chi Squared = 0.511E-02

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.998E+00

The probability that no LINEAR correlation exists between the variables = 0.8970E-04

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
1980	84	10:51:57	3.15 +/- 0.10		230.0 +/- 1.0		SMM
1980	84	10:55:22	3.20 +/- 0.15		230.0 +/- 1.0		SMM
1980	84	10:59:38	3.25 +/- 0.15		230.0 +/- 1.0		SMM
1980	84	11:21:54	3.70 +/- 0.25		230.0 +/- 1.0		SMM
1980	84	11:26:16	3.80 +/- 0.25		230.0 +/- 1.0		SMM

Structure being measured:

Top of Front

OUTPUT:

START TIME:

tstart=DOY 84 10:24 from derivative = 0

Event begins at 2.98 Solar Radii

Origin defined at DOY 84 10:50

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.807E-01 +/- 0.111E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.313E+01 +/- 0.475E-02 [solar radii]
c(2) = 0.111E-01 +/- 0.107E-02 [radii/min]
c(2) = 0.128E+03 +/- 0.124E+02 [km/sec]
c(3) = 0.209E-03 +/- 0.286E-04 [radii/min**2]
c(3) = 0.807E-01 +/- 0.111E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.91114E-02 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.13365E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.16993E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.54066E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.43136E-04 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.14674E-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) = 230. +/- 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 10:51 = 0.000E+00 km/sec

The TOTAL velocity at 10:51 = 138. km/sec

The TANGENTIAL velocity at 10:55 = 0.000E+00 km/sec

The TOTAL velocity at 10:55 = 154. km/sec

The TANGENTIAL velocity at 10:59 = 0.000E+00 km/sec

The TOTAL velocity at 10:59 = 175. km/sec

The TANGENTIAL velocity at 11:21 = 0.000E+00 km/sec

The TOTAL velocity at 11:21 = 283. km/sec

The TANGENTIAL velocity at 11:26 = 0.000E+00 km/sec

The TOTAL velocity at 11:26 = 304. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.31

Standard Deviation in start time measurement = 0.142E+02

Value of reduced Chi Squared returned from nllst2 = 0.265E-04

Reduced Chi Squared = 0.189E-03

Chi Squared = 0.378E-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 = 0.9526E+00

The correlation between the data and the time**2 term = 0.8928E+00

The correlation between the data and the complete equation of motion = 0.9986E+00

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