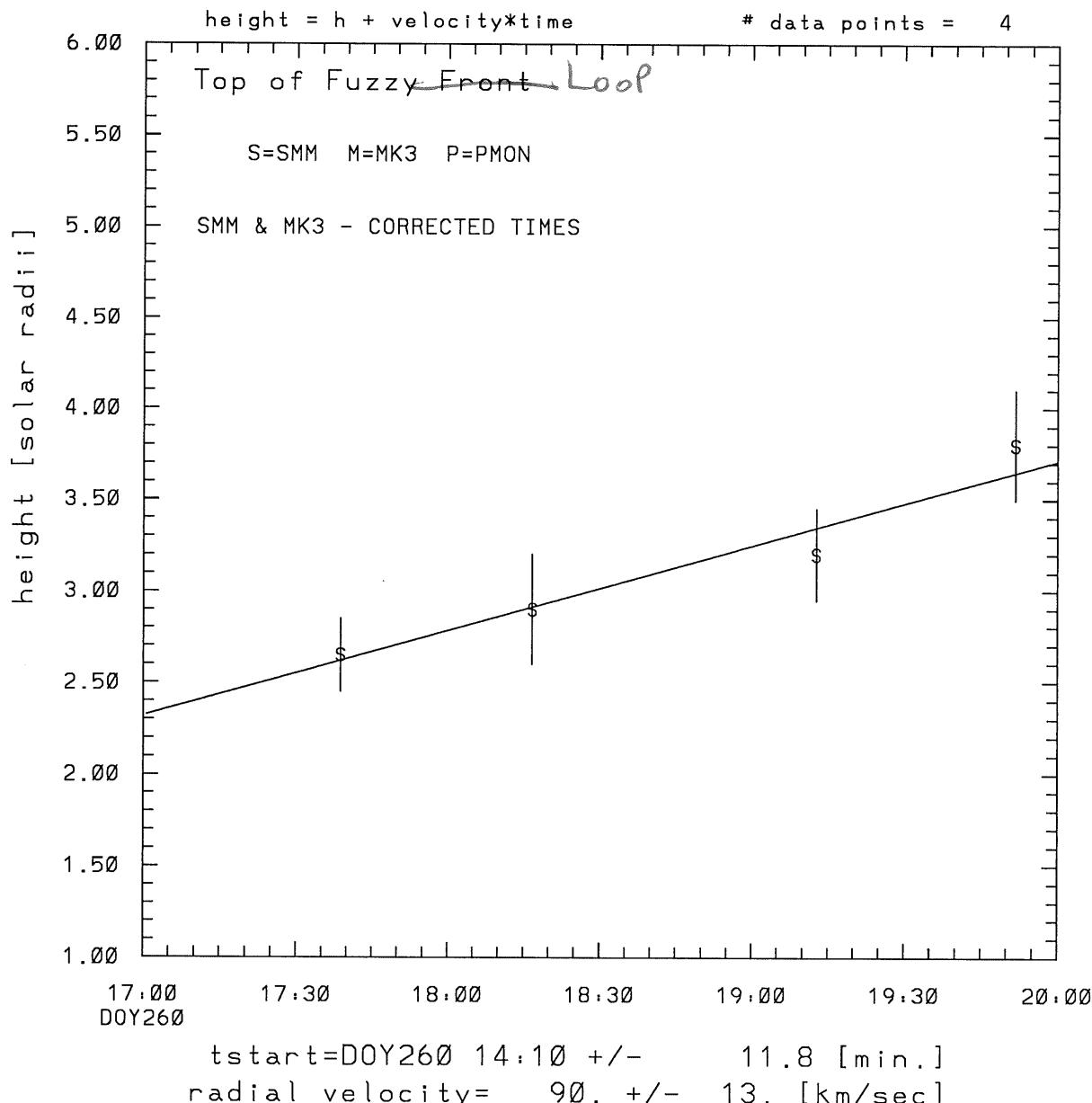
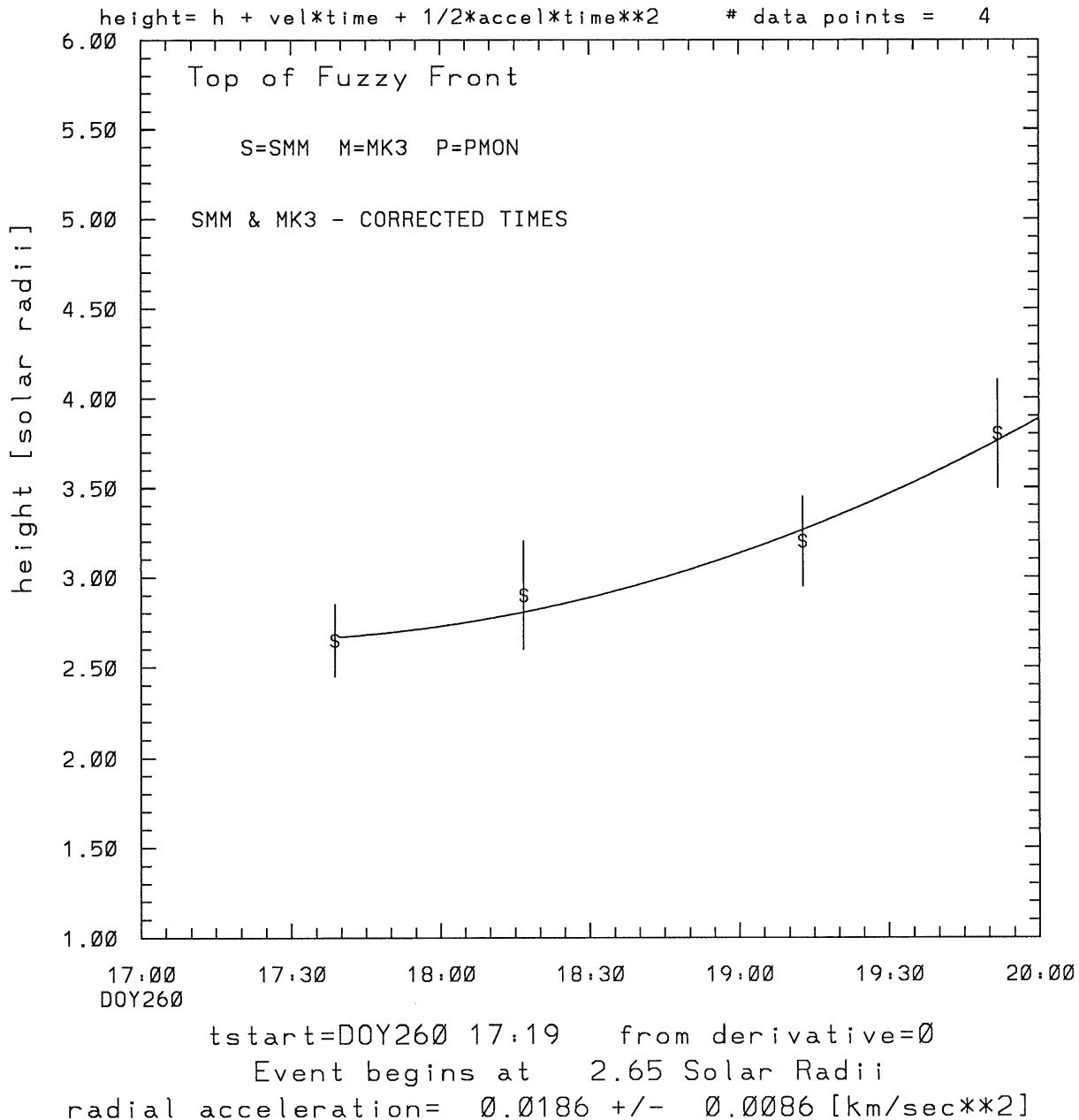


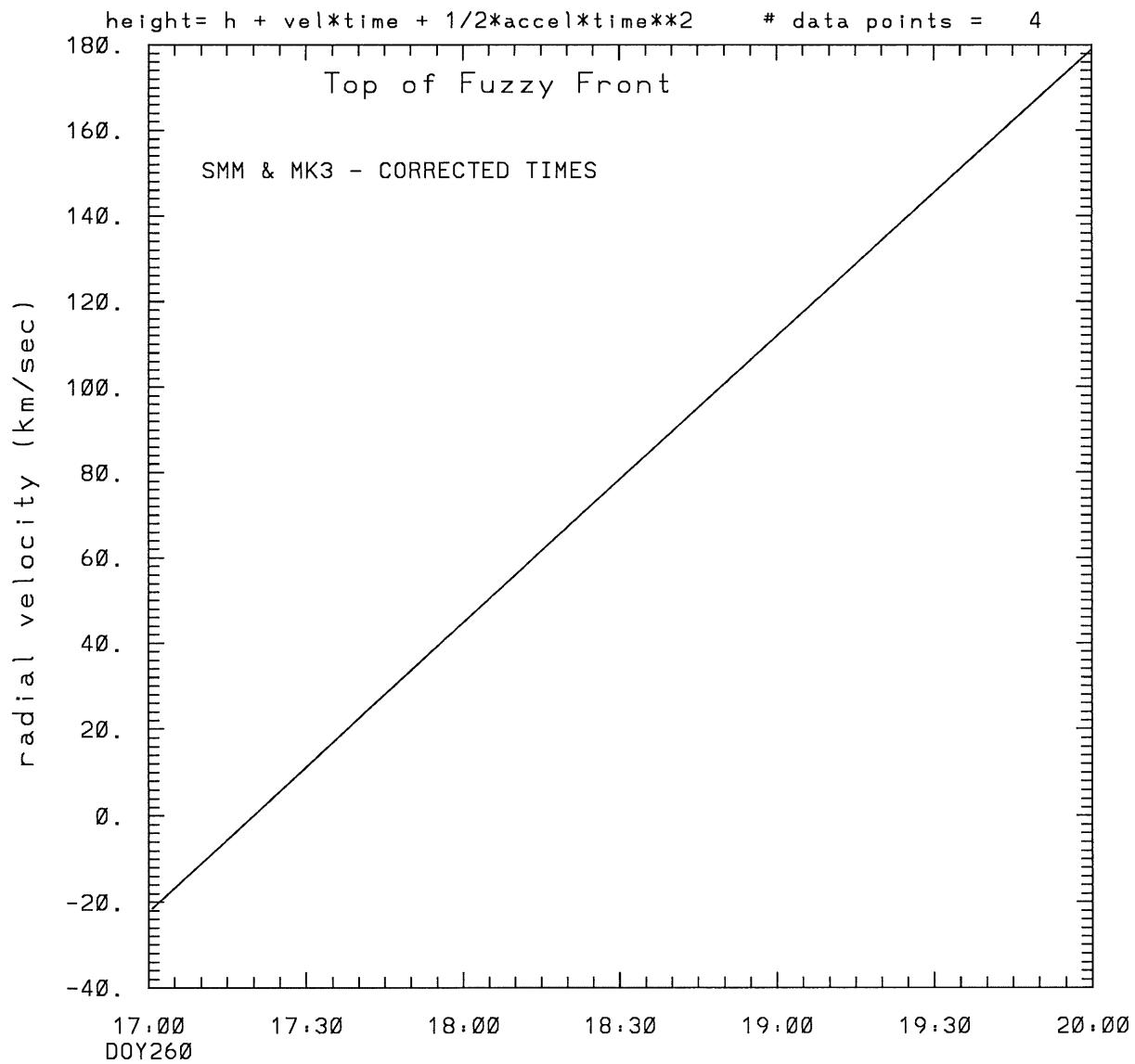
SMM C/P 1985 DOY260 85 +/- 0 degrees



SMM C/P 1985 DOY260 85 +/- 0 degrees



SMM C/P 1985 DOY260 85 +/- 0 degrees



tstart=DOY260 17:19 from derivative=0  
Event begins at 2.65 Solar Radii  
radial acceleration=0.186E-01 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	radius	error in angle	error in angle	datatype
1985	260	17:38:46	2.65	+/- 0.20	85.0	+/- 0.5	SMM
1985	260	18:16:46	2.90	+/- 0.30	85.0	+/- 1.0	SMM
1985	260	19:12:46	3.20	+/- 0.25	85.0	+/- 1.0	SMM
1985	260	19:51:46	3.80	+/- 0.30	85.0	+/- 1.0	SMM

\*\*\*\*\*

Structure being measured:

Top of Fuzzy Front

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.170E+03 +/- 0.118E+02 [minutes]

In more convenient units:

Event began at DOY 260 14:10 +/- 0.118E+02 [minutes]

Origin defined at DOY260 17: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 90. +/- 13. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.232E+01 +/- 0.117E+00 [solar radii]

c(2) = 0.774E-02 +/- 0.110E-02 [radii/min]

c(2) = 0.898E+02 +/- 0.128E+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)= 0.17282E+00 [radii] see Bevington pg. 114

error in c(2)= 0.14802E-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) = 85. +/- 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 17:38 = 0.000E+00 km/sec

The TOTAL velocity at 17:38 = 90. km/sec

The TANGENTIAL velocity at 18:16 = 0.000E+00 km/sec

The TOTAL velocity at 18:16 = 90. km/sec

The TANGENTIAL velocity at 19:12 = 0.000E+00 km/sec

The TOTAL velocity at 19:12 = 90. km/sec

The TANGENTIAL velocity at 19:51 = 0.000E+00 km/sec

The TOTAL velocity at 19:51 = 90. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.50

Standard Deviation in start time measurement = 0.510E+02

Error in time = 0.27603E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.132E-01

Reduced Chi Squared = 0.790E-01

Chi Squared = 0.158E+00

The probability for exceeding chi square = 0.987E+00

The correlation coefficient = 0.970E+00

The probability that no LINEAR correlation exists between the variables = 0.3005E-01

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

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	radius	error in angle	error in angle	datatype
1985	260	17:38:46	2.65	+/- 0.20	85.0	+/- 0.5	SMM
1985	260	18:16:46	2.90	+/- 0.30	85.0	+/- 1.0	SMM
1985	260	19:12:46	3.20	+/- 0.25	85.0	+/- 1.0	SMM
1985	260	19:51:46	3.80	+/- 0.30	85.0	+/- 1.0	SMM

\*\*\*\*\*

Structure being measured:

Top of Fuzzy Front

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

tstart=DOY260 17:19 from derivative = 0

Event begins at 2.65 Solar Radii

Origin defined at DOY260 17: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.186E-01 +/- 0.863E-02 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.267E+01 +/- 0.181E+00 [solar radii]  
c(2) = -0.192E-02 +/- 0.454E-02 [radii/min]  
c(2) = -0.223E+02 +/- 0.526E+02 [km/sec]  
c(3) = 0.482E-04 +/- 0.223E-04 [radii/min\*\*2]  
c(3) = 0.186E-01 +/- 0.863E-02 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.31473E+00 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.10732E+00 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.71146E-02 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.32573E-02 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.33315E-04 [radii/min\*\*] Bevington pg 154 (8-30)

Exact error in c(3) = 0.15837E-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) = 85. +/- 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 17:38 = 0.000E+00 km/sec

The TOTAL velocity at 17:38 = 21. km/sec

The TANGENTIAL velocity at 18:16 = 0.000E+00 km/sec

The TOTAL velocity at 18:16 = 64. km/sec

The TANGENTIAL velocity at 19:12 = 0.000E+00 km/sec

The TOTAL velocity at 19:12 = 126. km/sec

The TANGENTIAL velocity at 19:51 = 0.000E+00 km/sec

The TOTAL velocity at 19:51 = 170. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.50

Standard Deviation in start time measurement = 0.510E+02

Value of reduced Chi Squared returned from nllst2 = 0.594E-02

Reduced Chi Squared = 0.361E-01

Chi Squared = 0.361E-01

The probability for exceeding chi square = 0.939E+00

For a second order fit 3 correlation coefficients are given:

(Using equation of motion:  $r = a + bt + at^{**2}$ )

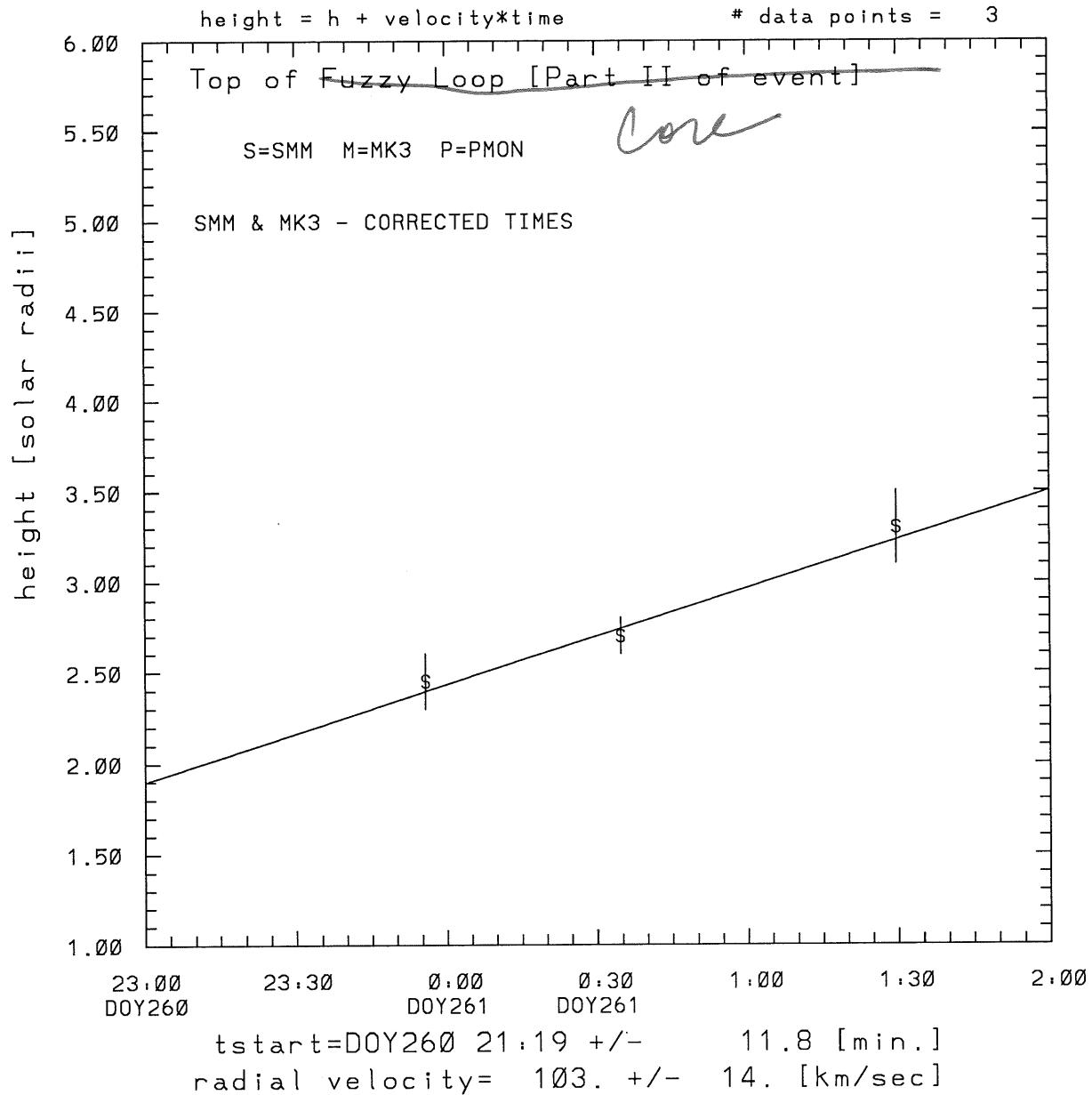
The correlation between the data and the term linear in time = 0.1018E+01

The correlation between the data and the time $^{**2}$  term = 0.9836E+00

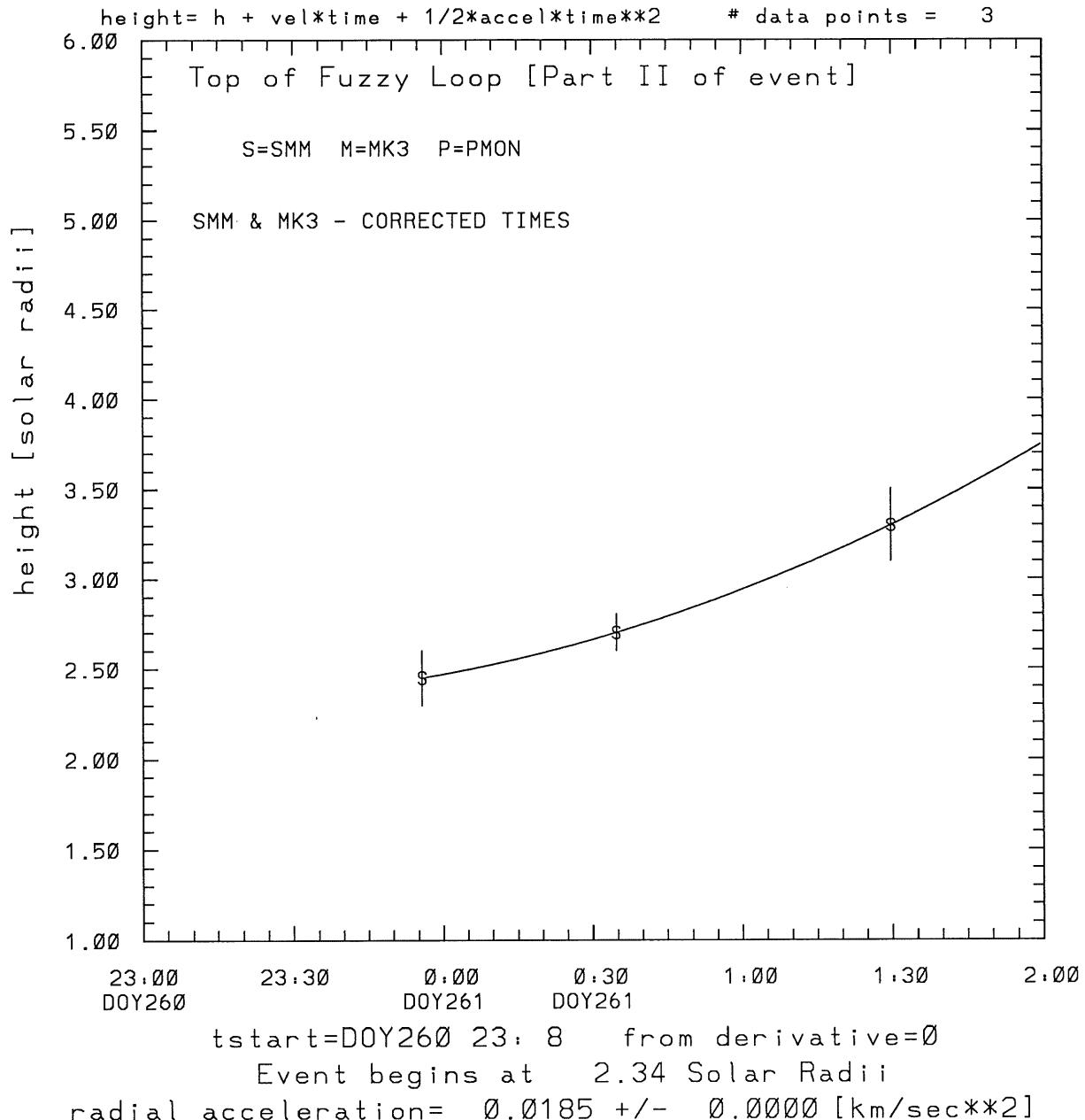
The correlation between the data and the complete equation of motion = 0.9766E+00

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

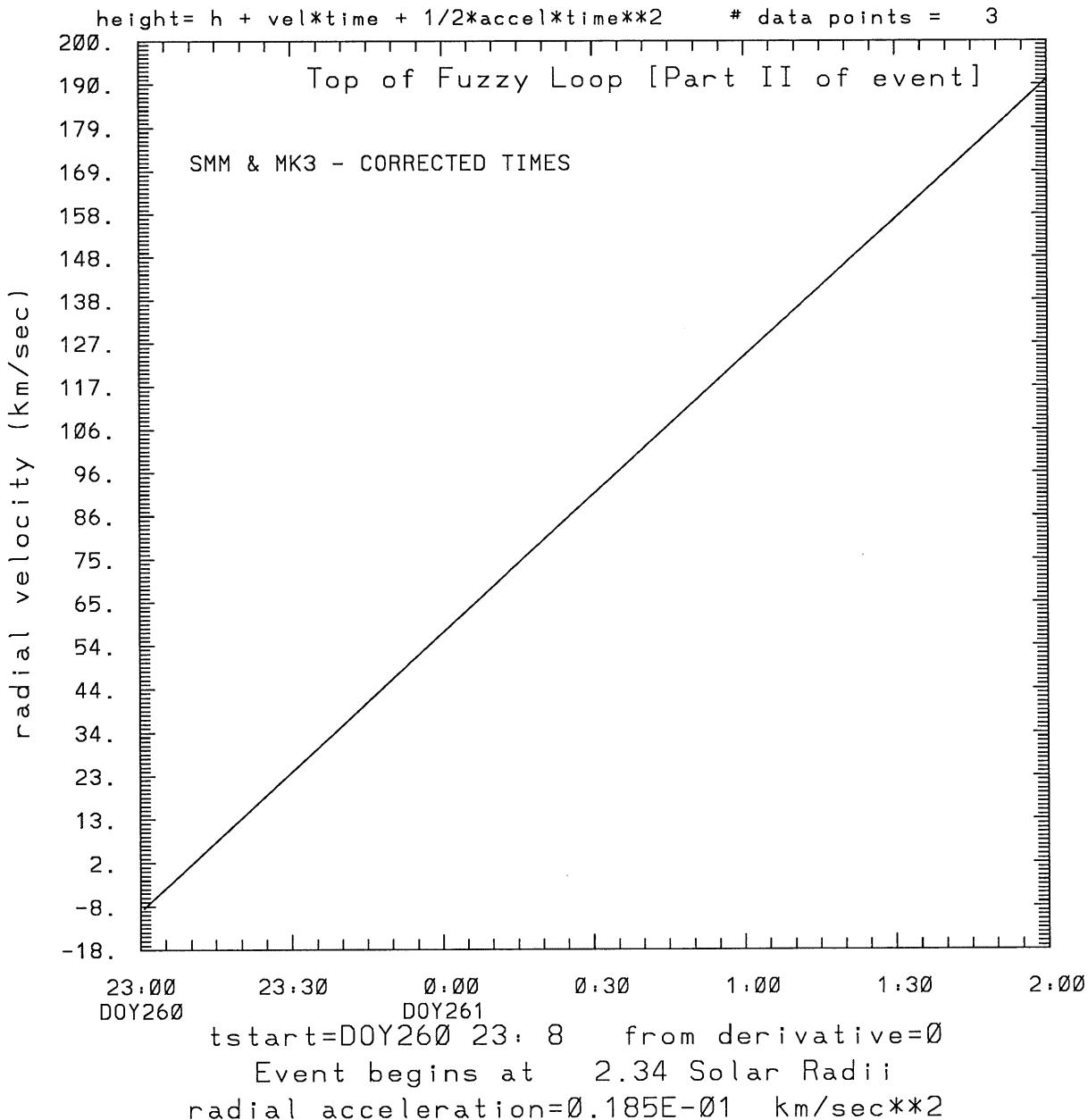
SMM C/P 1985 DOY260 85 +/- 0 degrees



SMM C/P 1985 DOY260 85 +/- 0 degrees



SMM C/P 1985 DOY260 85 +/- 0 degrees



\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	radius	error in radii	angle	angle	error in angle	datatype
1985	260	23:55:46	2.45	+/- 0.15	85.0	+/- 0.5	85.0	+/- 0.5	SMM
1985	261	0:34:46	2.70	+/- 0.10	85.0	+/- 0.5	85.0	+/- 0.5	SMM
1985	261	1:29:46	3.30	+/- 0.20	85.0	+/- 1.0	85.0	+/- 1.0	SMM

\*\*\*\*\*

Structure being measured:

Top of Fuzzy Loop [Part II of event] *Core*  
\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.101E+03 +/- 0.118E+02 [minutes]

In more convenient units:

Event began at DOY 260 21:19 +/- 0.118E+02 [minutes]

Origin defined at DOY260 23: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 103. +/- 14. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.190E+01 +/- 0.119E+00 [solar radii]

c(2) = 0.889E-02 +/- 0.123E-02 [radii/min]

c(2) = 0.103E+03 +/- 0.142E+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)= 0.15708E+00 [radii] see Bevington pg. 114

error in c(2)= 0.14644E-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) = 85. +/- 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 23:55 = 0.000E+00 km/sec  
The TOTAL velocity at 23:55 = 103. km/sec

The TANGENTIAL velocity at 0:34 = 0.000E+00 km/sec  
The TOTAL velocity at 0:34 = 103. km/sec

The TANGENTIAL velocity at 1:29 = 0.000E+00 km/sec  
The TOTAL velocity at 1:29 = 103. 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 = 0.386E+02  
Error in time = 0.11001E+02 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.379E-02  
Reduced Chi Squared = 0.209E-01  
Chi Squared = 0.209E-01  
The probability for exceeding chi square = 0.951E+00

The correlation coefficient = 0.991E+00  
The probability that no LINEAR correlation exists between the variables = 0.8623E-01  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

\*\*\*\*\*

This is a 2 order run

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\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	radius	error in angle	error in angle	datatype
1985	260	23:55:46	2.45	+/- 0.15	85.0	+/- 0.5	SMM
1985	261	0:34:46	2.70	+/- 0.10	85.0	+/- 0.5	SMM
1985	261	1:29:46	3.30	+/- 0.20	85.0	+/- 1.0	SMM

\*\*\*\*\*

Structure being measured:

Top of Fuzzy Loop [Part II of event]

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OUTPUT:

\*\*\*\*\*

START TIME:

tstart=DOY260 23: 8 from derivative = 0

Event begins at 2.34 Solar Radii

Origin defined at DOY260 23: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.185E-01 +/- 0.716E-07 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.235E+01 +/- 0.185E-05 [solar radii]  
c(2) = -0.794E-03 +/- 0.381E-07 [radii/min]  
c(2) = -0.921E+01 +/- 0.442E-03 [km/sec]  
c(3) = 0.479E-04 +/- 0.185E-09 [radii/min\*\*2]  
c(3) = 0.185E-01 +/- 0.716E-07 [km/sec\*\*2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec\*\*2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 85. +/- 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 23:55 = 0.000E+00 km/sec

The TOTAL velocity at 23:55 = 53. km/sec

The TANGENTIAL velocity at 0:34 = 0.000E+00 km/sec

The TOTAL velocity at 0:34 = 96. km/sec

The TANGENTIAL velocity at 1:29 = 0.000E+00 km/sec

The TOTAL velocity at 1:29 = 157. km/sec

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The following info is for estimating goodness of the fit

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Number data points = number of coefficients. No error analysis is possible.

Correlation coefficient is not computable!