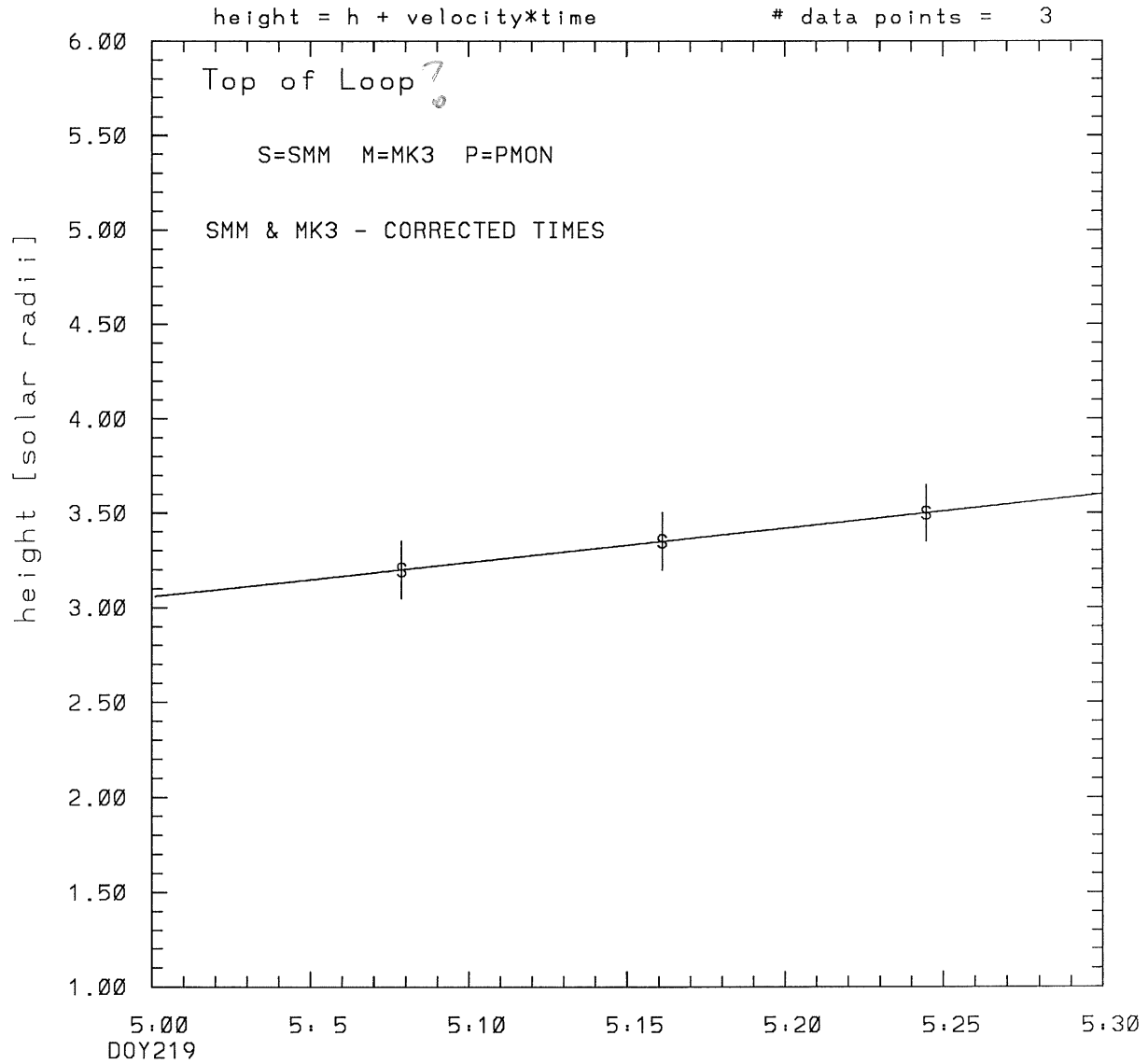
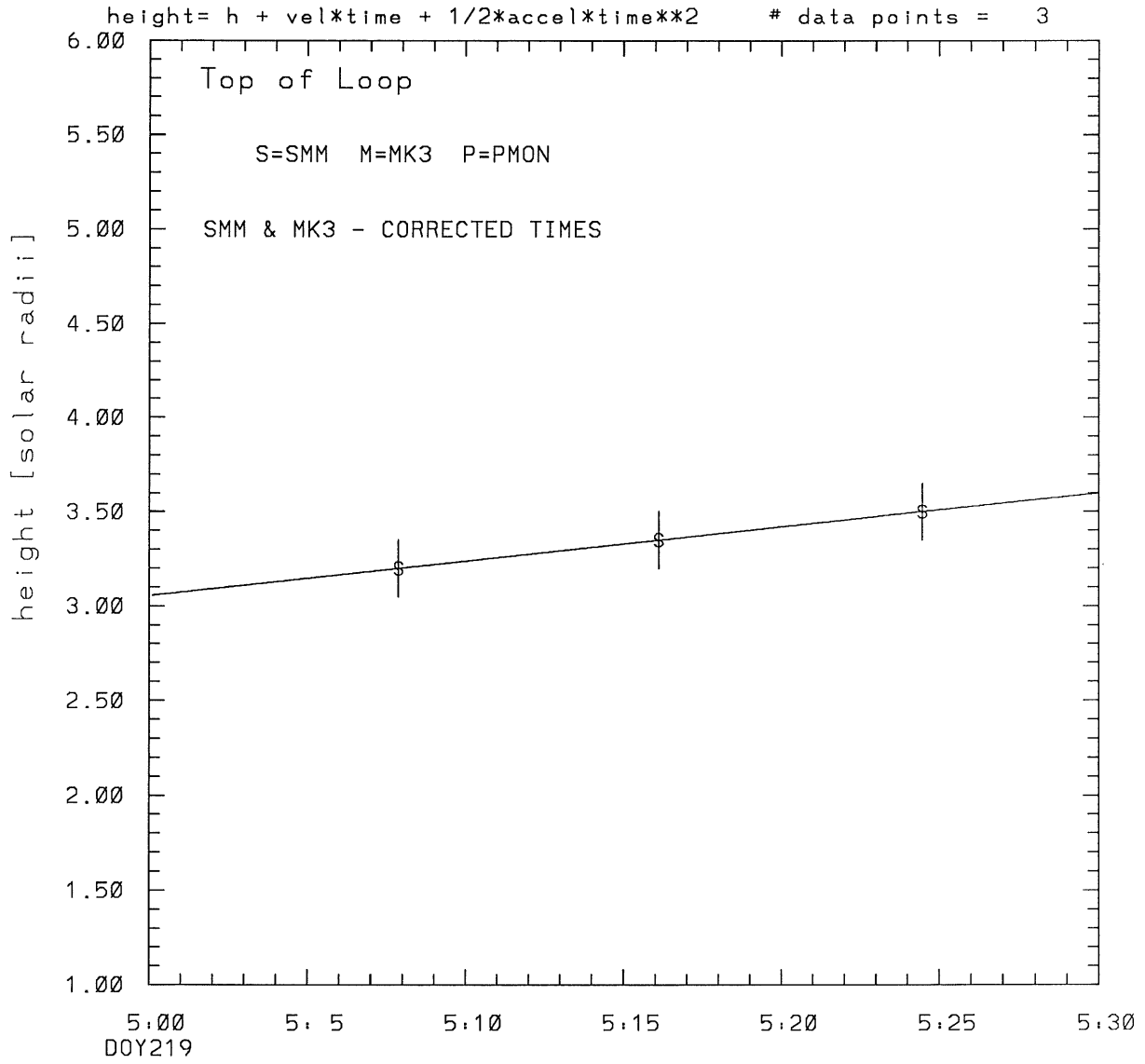


SMM C/P 1989 DOY219 135 +/- 0 degrees



tstart=DOY219 3.8 +/- 0.2 [min.]
radial velocity= 210. +/- 1. [km/sec]

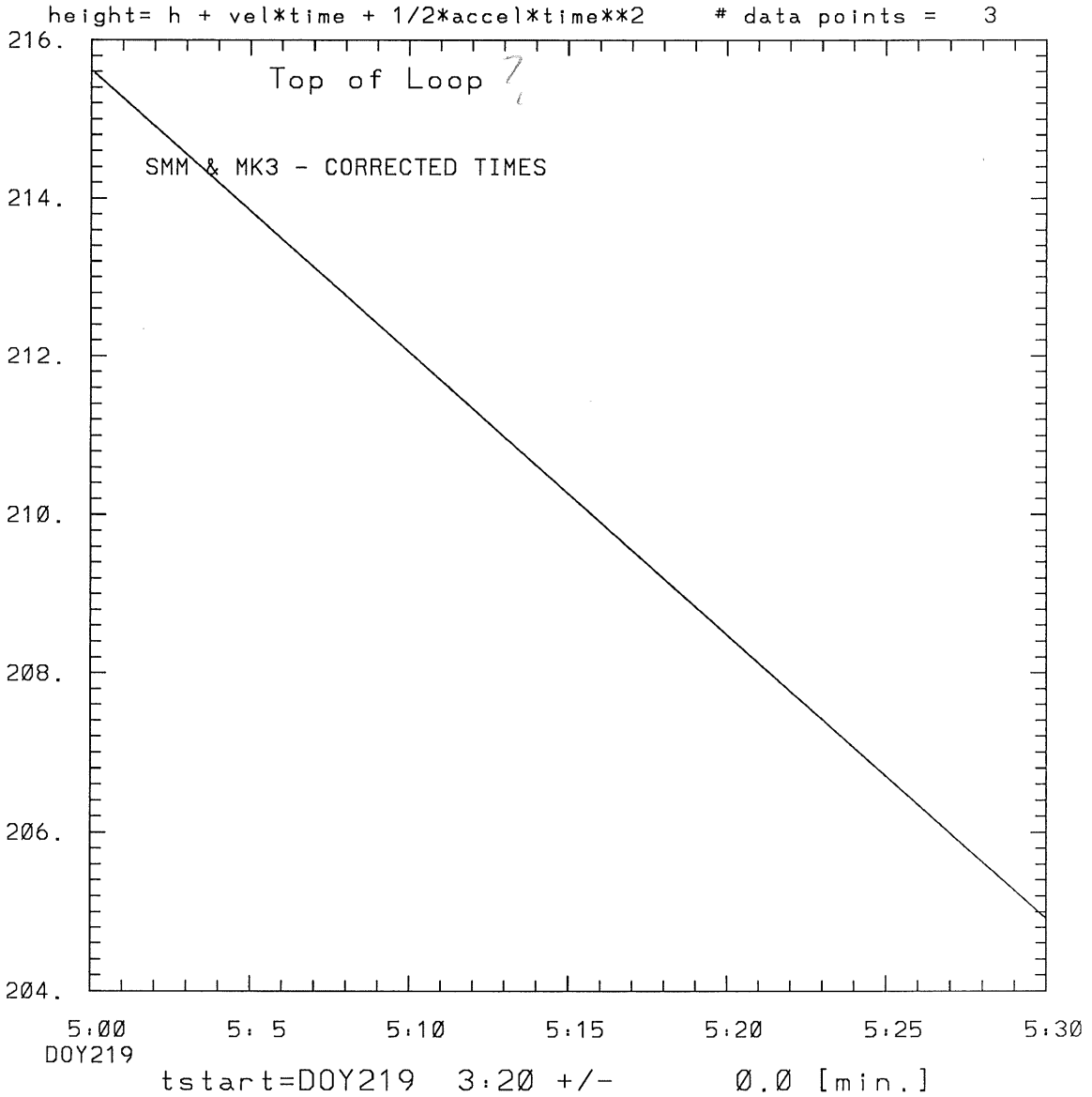
SMM C/P 1989 DOY219 135 +/- 0 degrees



tstart=DOY219 3:20 +/- 0.0 [min.]

radial acceleration=-0.0059 +/- 0.0000 [km/sec**2]

SMM C/P 1989 DOY219 135 +/- 0 degrees



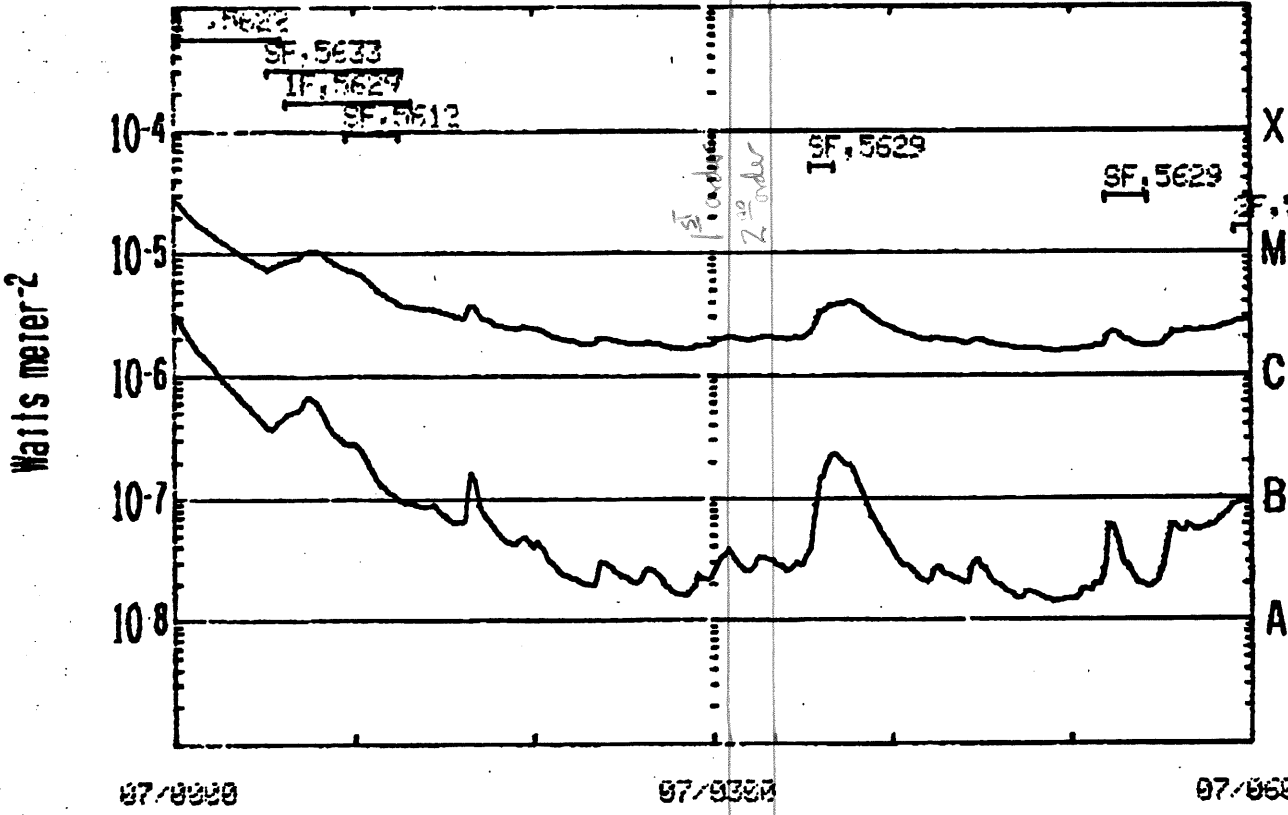
radial acceleration=-.595E-02 km/sec**2

1989 Day 219

RAY and OPTICAL DATA TOGETHER

STOP Ret. .
Top of Loop center = 1463
[3:08] 1st order
[3:20] 2nd order

BEGIN: 07 AUG 89



GOES 7 0.5-4.0A GOES 7 1.0-8.0A
OPTICAL FLARES

07/0000

07/0300

07/0600

SAA's NIGHT

GOES-7 1 MIN DATA: OPTICAL FLARE DUR, IMP, REGION

RUN: 1842UT
9 AUG 89

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	error in angle	angle	datatype
1989	219	5: 7:53	3.20	+/- 0.15	135.0 +/- 1.0	SMM	
1989	219	5:16: 7	3.35	+/- 0.15	135.0 +/- 1.0	SMM	
1989	219	5:24:28	3.50	+/- 0.15	135.0 +/- 1.0	SMM	

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.114E+03 +/- 0.190E+00$ [minutes]

In more convenient units:

Event began at DOY 219 3: 8 +/- 0.190E+00 [minutes]

Origin defined at DOY219 5: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 210. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.306E+01 +/- 0.910E-03 [solar radii]
c(2) = 0.181E-01 +/- 0.520E-04 [radii/min]
c(2) = 0.210E+03 +/- 0.603E+00 [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)= 0.12871E-02 [radii] see Bevington pg. 114

error in c(2)= 0.73477E-04 [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) = 135. +/- 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 5: 7 = 0. km/sec

The TOTAL velocity at 5: 7 = 210. km/sec

The TANGENTIAL velocity at 5:16 = 0. km/sec

The TOTAL velocity at 5:16 = 210. km/sec

The TANGENTIAL velocity at 5:24 = 0. km/sec

The TOTAL velocity at 5:24 = 210. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.15

Standard Deviation in start time measurement = 0.677E+01

Error in time = 0.47630E-01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.371E-06

Reduced Chi Squared = 0.148E-05

Chi Squared = 0.148E-05

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.100E+01

The probability that no LINEAR correlation exists between the variables = 0.4147E-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	angle	datatype
1989	219	5: 7:53	3.20	+/- 0.15	135.0 +/- 1.0	SMM	
1989	219	5:16: 7	3.35	+/- 0.15	135.0 +/- 1.0	SMM	
1989	219	5:24:28	3.50	+/- 0.15	135.0 +/- 1.0	SMM	

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.102E+03 +/- 0.000E+00$ [minutes]

In more convenient units:

Event began at DOY 219 3:20 +/- 0.000E+00 [minutes]

Origin defined at DOY219 5: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.595E-02 +/- 0.141E-04$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.305E+01 +/- 0.847E-05$ [solar radii]
c(2) = $0.186E-01 +/- 0.120E-05$ [radii/min]
c(2) = $0.216E+03 +/- 0.139E-01$ [km/sec]
c(3) = $-0.154E-04 +/- 0.365E-07$ [radii/min**2]
c(3) = $-0.595E-02 +/- 0.141E-04$ [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) = $135. +/- 0.$ [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]

$$a(3) = 0.000E+00 +/- 0.000E+00 [\text{rad/sec}^{**2}]$$

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 5: 7 = 0. km/sec

The TOTAL velocity at 5: 7 = 213. km/sec

The TANGENTIAL velocity at 5:16 = 0. km/sec

The TOTAL velocity at 5:16 = 210. km/sec

The TANGENTIAL velocity at 5:24 = 0. km/sec

The TOTAL velocity at 5:24 = 207. km/sec

The following info is for estimating goodness of the fit

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

Correlation coefficient is not computable!