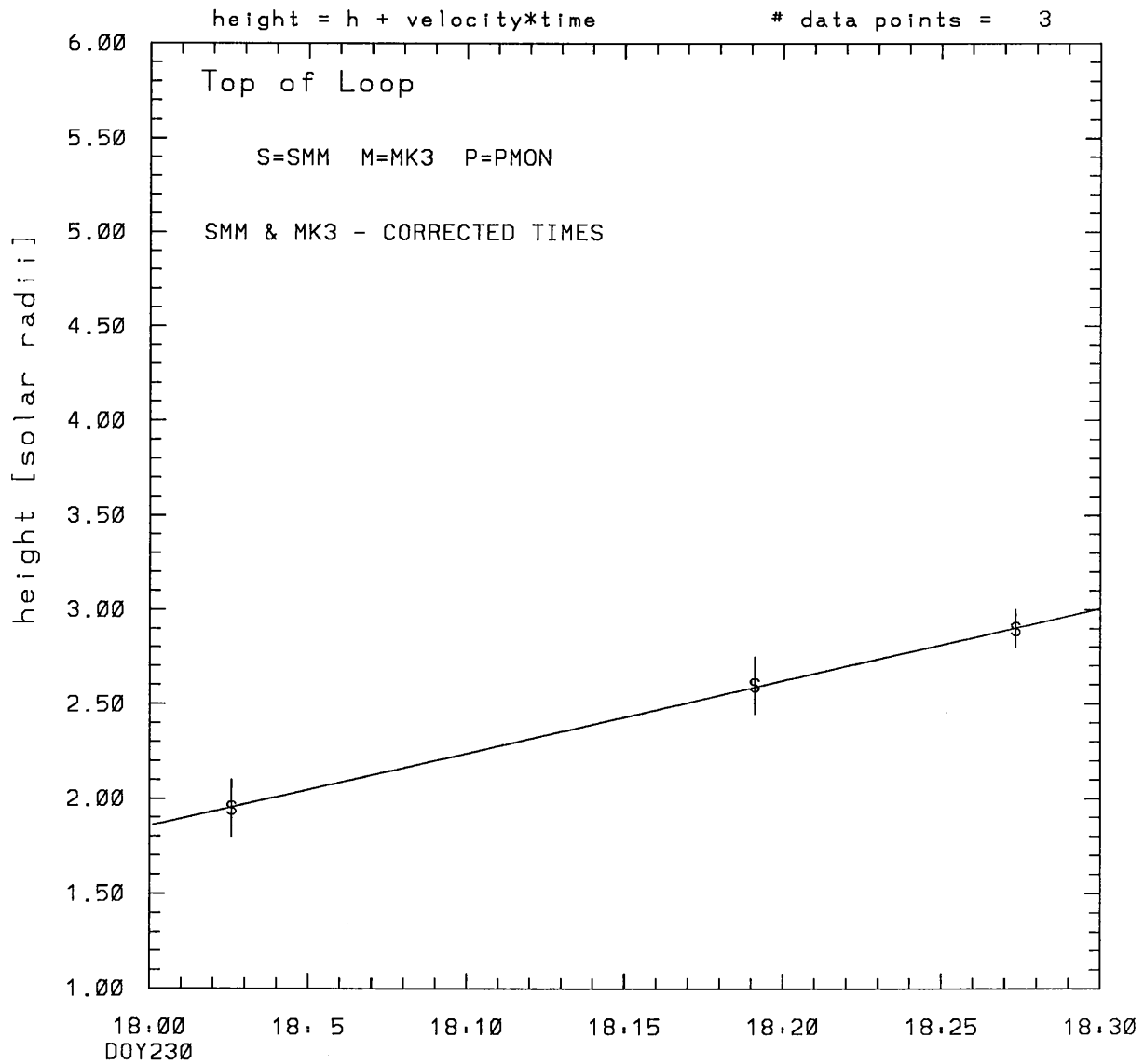
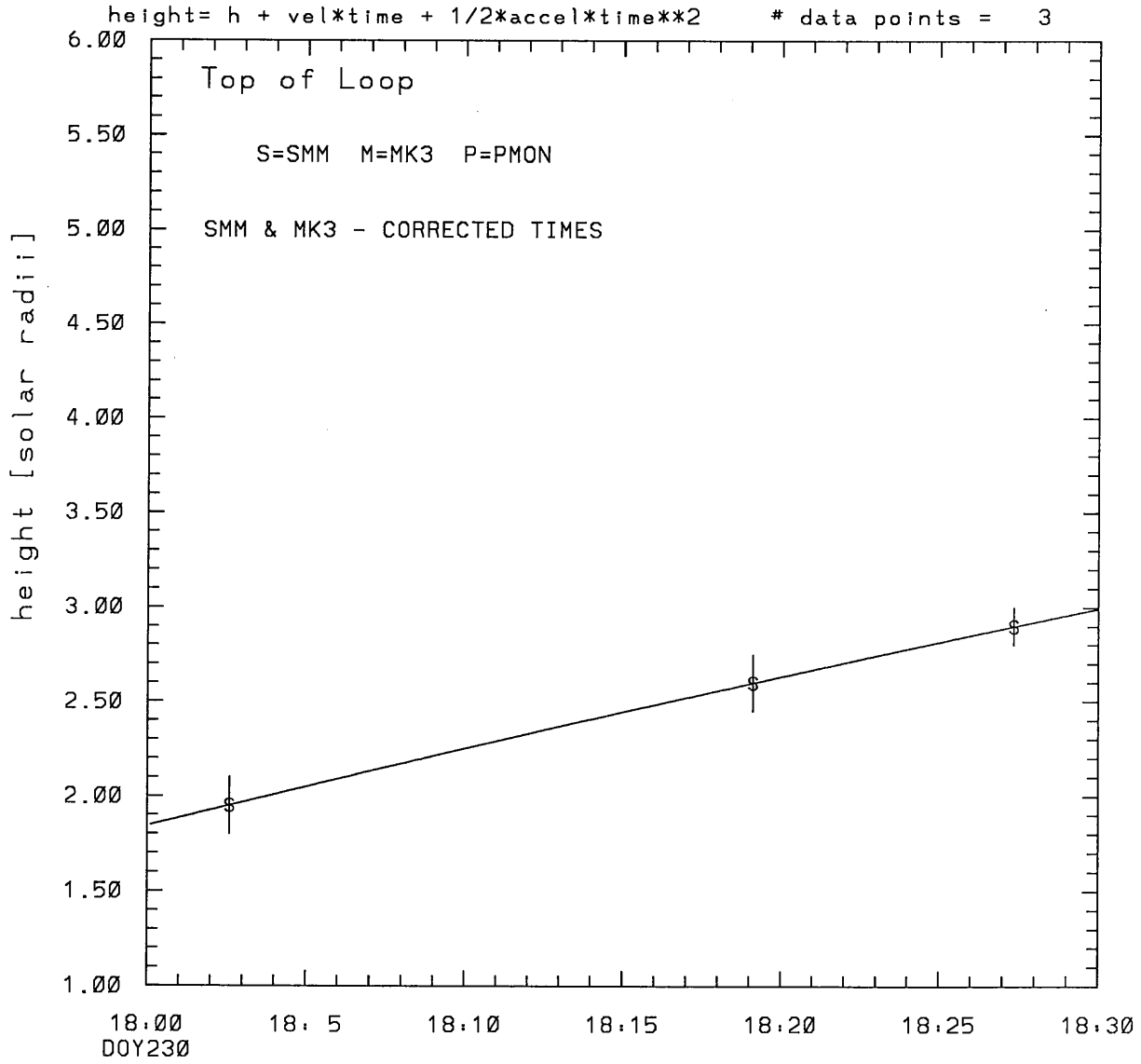


SMM C/P 1989 DOY230 270 +/- 0 degrees



tstart=DOY230 17.38 +/- 0.1 [min.]
radial velocity= 445. +/- 6. [km/sec]

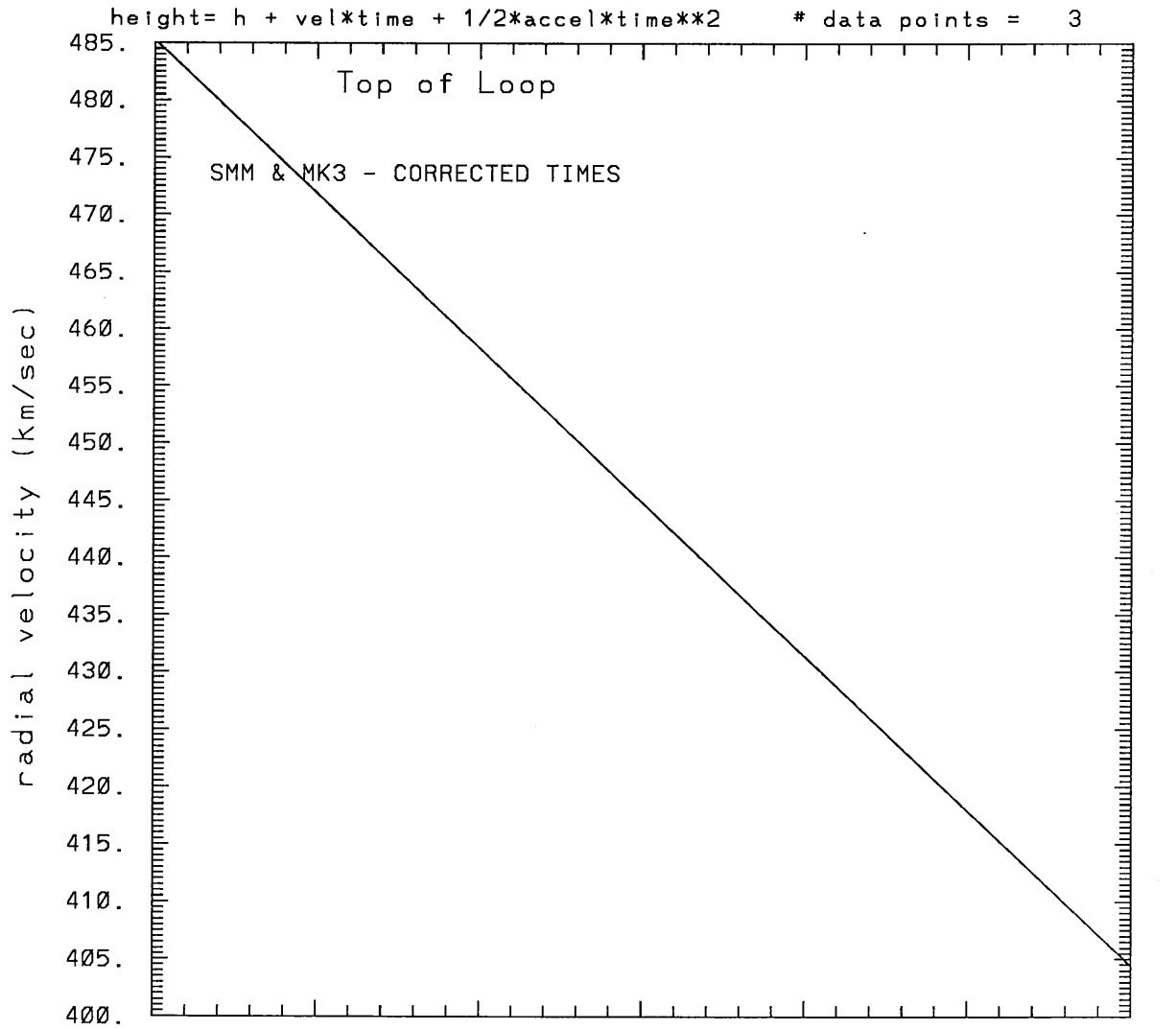
SMM C/P 1989 DOY230 270 +/- 0 degrees



tstart=DOY230 17:41 +/- 0.0 [min.]

radial acceleration=-0.0449 +/- 0.0000 [km/sec**2]

SMM C/P 1989 DOY230 270 +/- 0 degrees



18:00
DOY230

tstart=DOY230 17:41 +/- 0.0 [min.]

radial acceleration=-.449E-01 km/sec**2

1989 Day 230

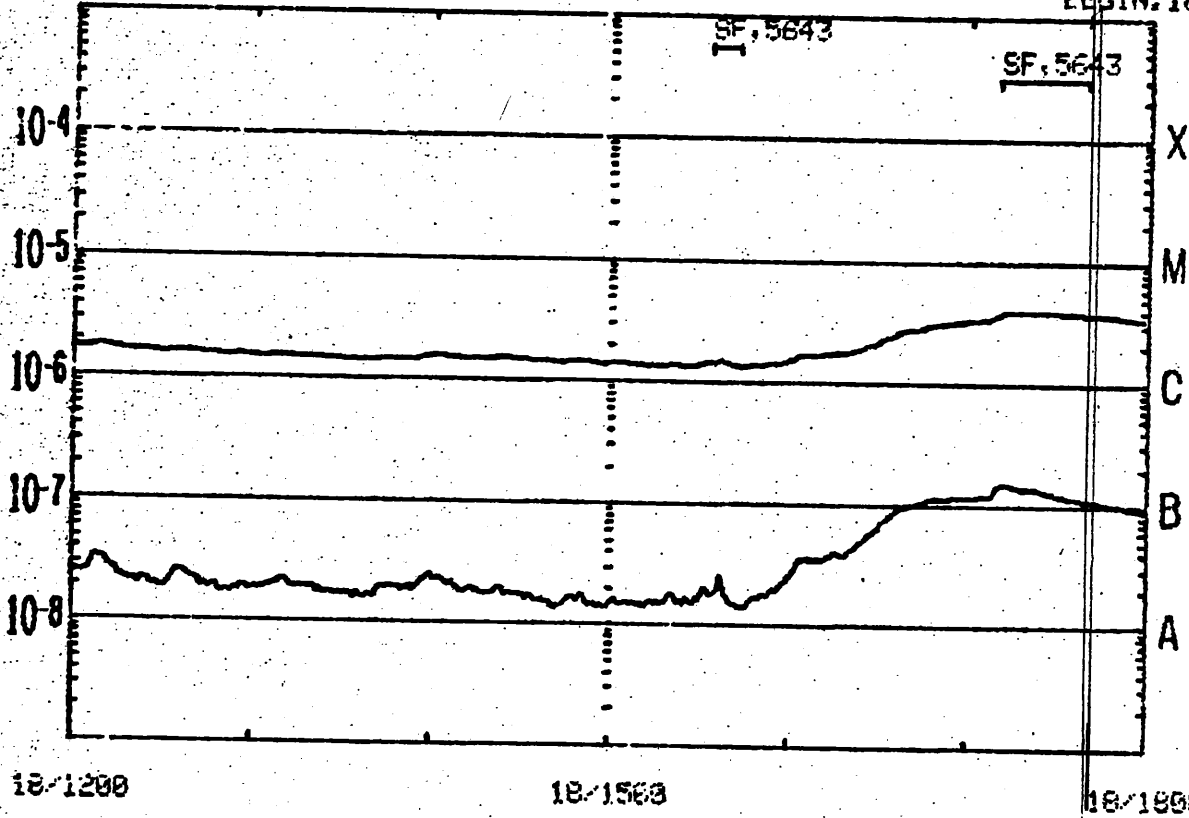
ANY OPTICAL DATA TOGETHER

STOP
Rel..

Top of Loop center = 267°
[17:38] 1st order
[17:41] 2nd order

ESIN: 18 AUG 89

Watts meter-2



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

OPTICAL FLARES

18-1200

18-1500

18-1800

SAA's
NIGHT

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

ESIN: 2024UT
21 AUG 89

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	error in angle	angle	datatype
1989	230	18: 2:35	1.95	+/- 0.15	270.0 +/- 0.5	SMM	
1989	230	18:19: 7	2.60	+/- 0.15	270.0 +/- 0.5	SMM	
1989	230	18:27:21	2.90	+/- 0.10	270.0 +/- 0.5	SMM	

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.223E+02 +/- 0.137E+00$ [minutes]
In more convenient units:
Event began at DOY 230 17:38 +/- 0.137E+00 [minutes]

Origin defined at DOY230 18: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 445. +/- 6. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.185E+01 +/- 0.104E-01 [solar radii]
c(2) = 0.383E-01 +/- 0.474E-03 [radii/min]
c(2) = 0.445E+03 +/- 0.550E+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)= 0.14332E-01 [radii] see Bevington pg. 114
error in c(2)= 0.74171E-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) = 270. +/- 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 18: 2 = 0. km/sec

The TOTAL velocity at 18: 2 = 445. km/sec

The TANGENTIAL velocity at 18:19 = 0. km/sec

The TOTAL velocity at 18:19 = 445. km/sec

The TANGENTIAL velocity at 18:27 = 0. km/sec

The TOTAL velocity at 18:27 = 445. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.49

Standard Deviation in start time measurement = 0.103E+02

Error in time = 0.34507E+00 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.675E-04

Reduced Chi Squared = 0.347E-03

Chi Squared = 0.347E-03

The probability for exceeding chi square = 0.993E+00

The correlation coefficient = 0.100E+01

The probability that no LINEAR correlation exists between the variables = 0.1178E-01

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

This is a 2 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1989	230	18: 2:35	1.95	+/- 0.15	270.0	+/- 0.5	SMM
1989	230	18:19: 7	2.60	+/- 0.15	270.0	+/- 0.5	SMM
1989	230	18:27:21	2.90	+/- 0.10	270.0	+/- 0.5	SMM

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.191E+02 +/- 0.000E+00$ [minutes]

In more convenient units:

Event began at DOY 230 17:41 +/- 0.000E+00 [minutes]

Origin defined at DOY230 18: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $-0.449E-01 +/- 0.405E-05$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.184E+01 +/- 0.173E-05$ [solar radii]
c(2) = $0.418E-01 +/- 0.321E-06$ [radii/min]
c(2) = $0.485E+03 +/- 0.372E-02$ [km/sec]
c(3) = $-0.116E-03 +/- 0.105E-07$ [radii/min**2]
c(3) = $-0.449E-01 +/- 0.405E-05$ [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) = $270. +/- 0.$ [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]

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

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 18: 2 = 0. km/sec

The TOTAL velocity at 18: 2 = 478. km/sec

The TANGENTIAL velocity at 18:19 = 0. km/sec

The TOTAL velocity at 18:19 = 434. km/sec

The TANGENTIAL velocity at 18:27 = 0. km/sec

The TOTAL velocity at 18:27 = 412. 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!