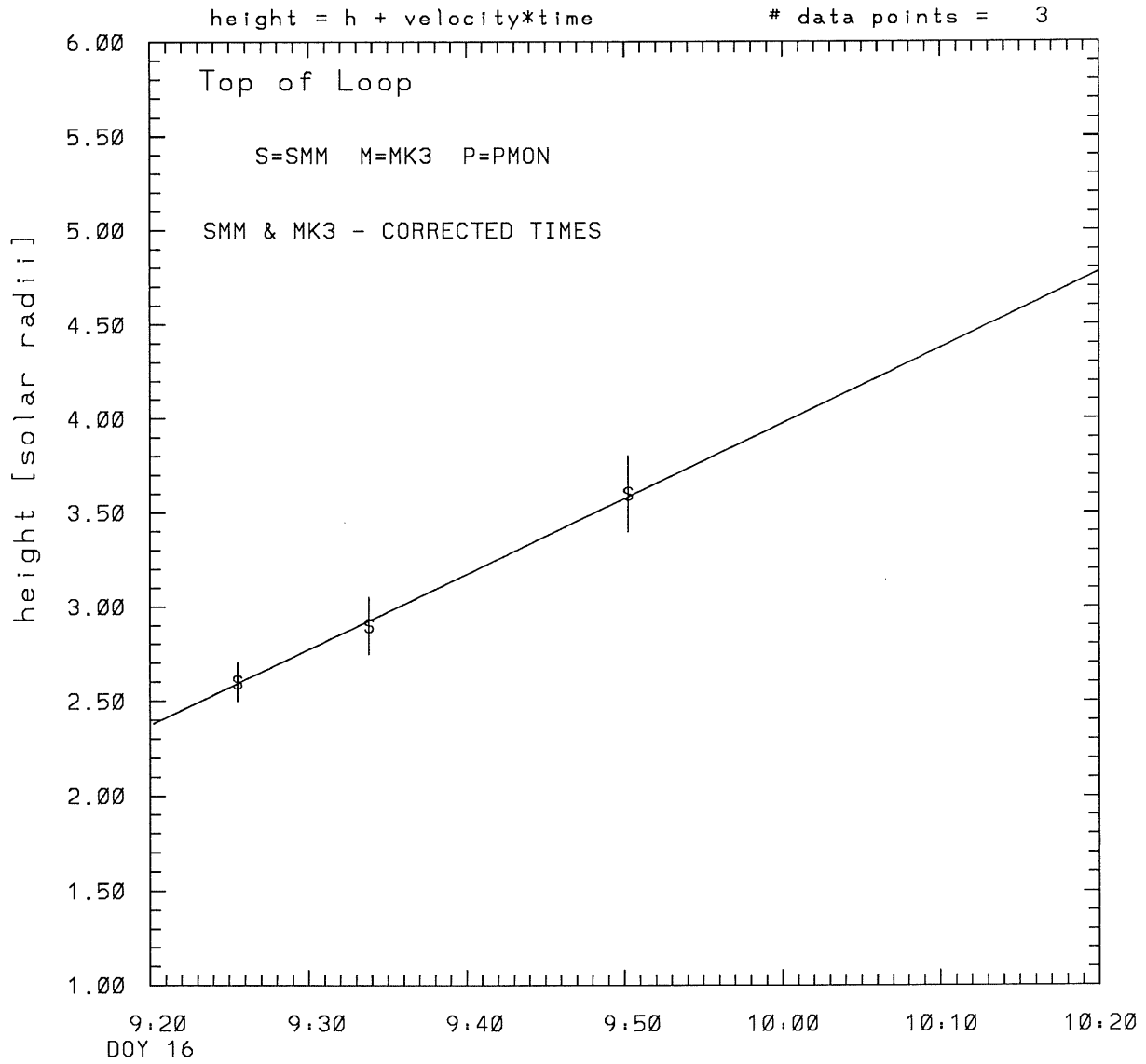
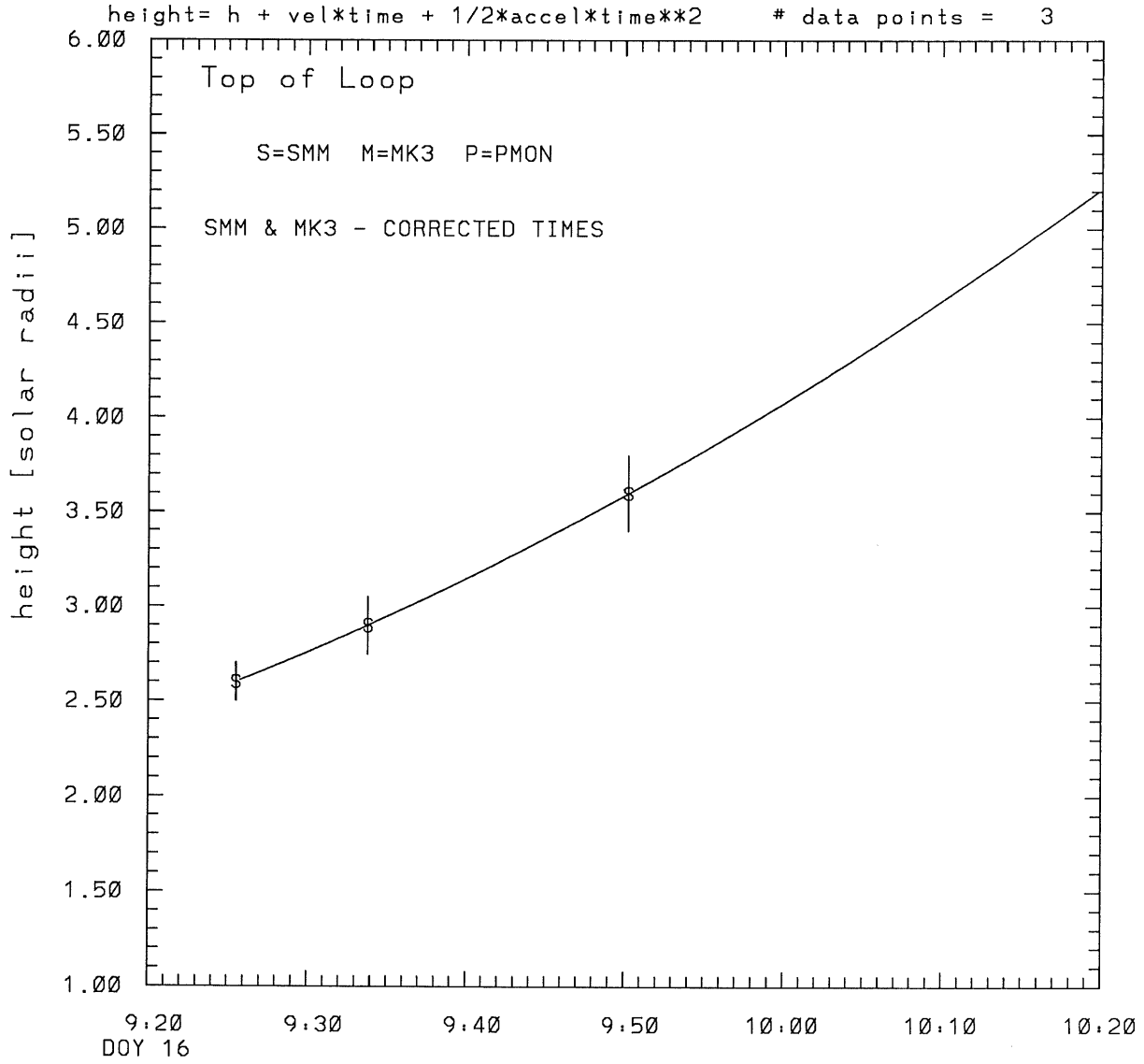


SMM C/P 1989 DOY 16 240 +/- 0 degrees



tstart=DOY 16 8:46 +/- 0.6 [min.]
radial velocity= 465. +/- 14. [km/sec]

SMM C/P 1989 DOY 16 240 +/- 0 degrees

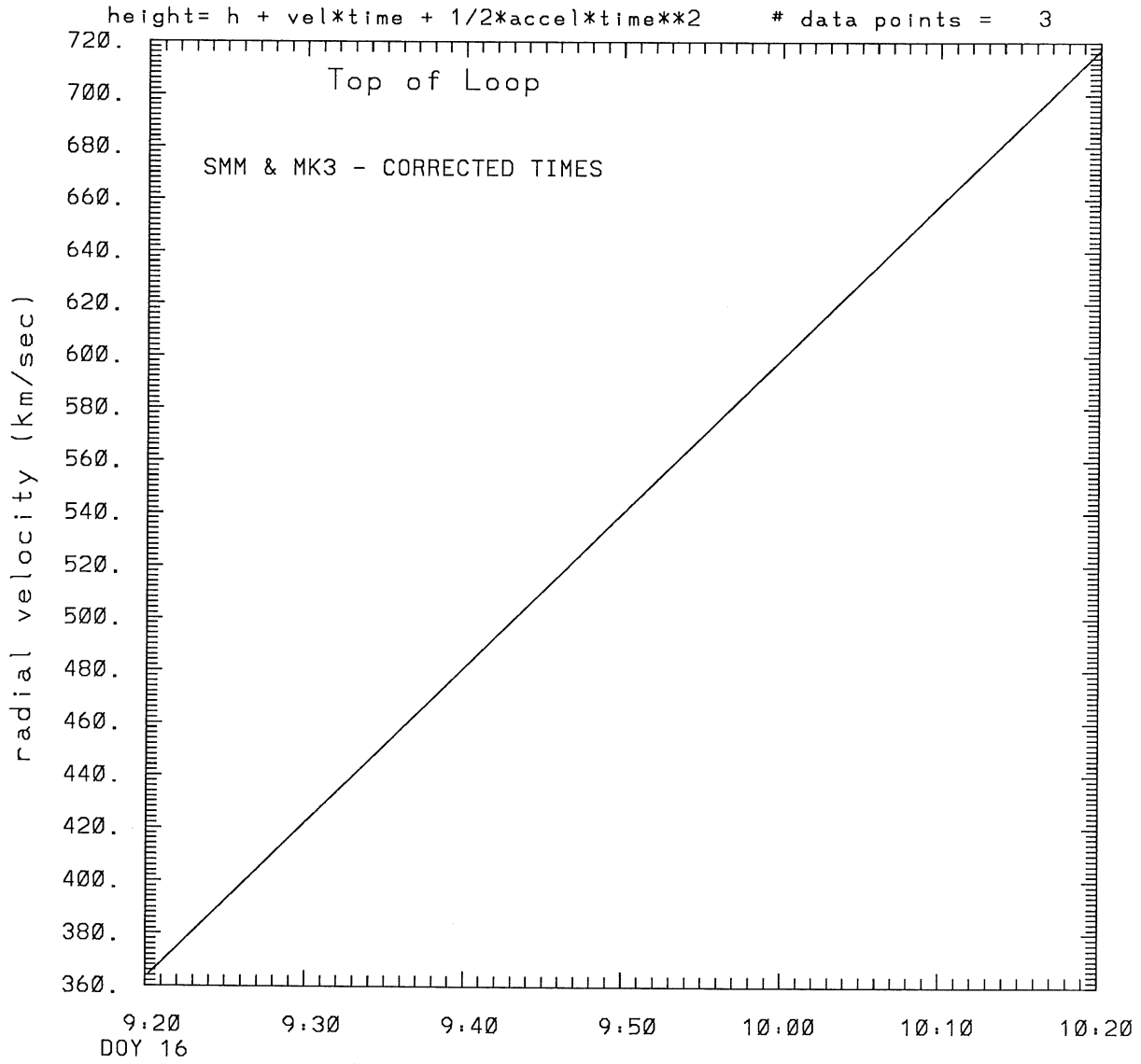


tstart=DOY 16 8:19 from derivative=0

Event begins at 1.46 Solar Radii

radial acceleration = 0.0983 +/- 0.0000 [km/sec**2]

SMM C/P 1989 DOY 16 240 +/- 0 degrees



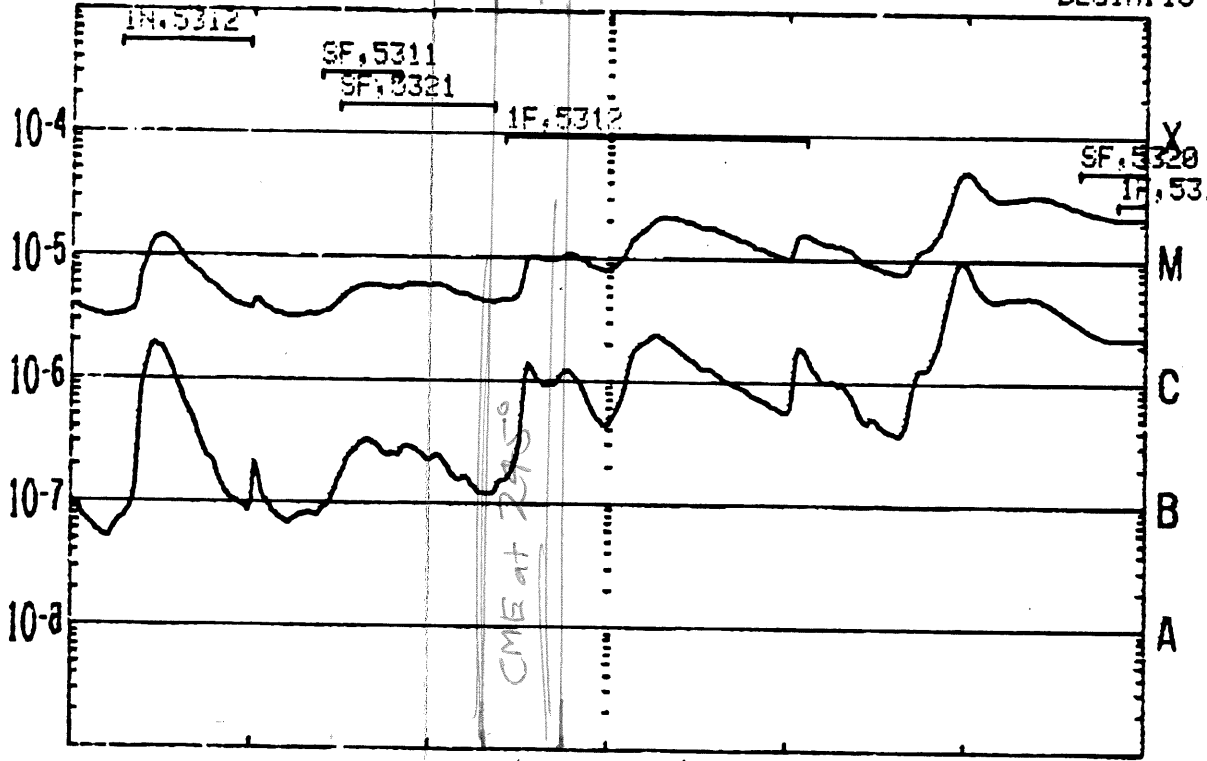
tstart=DOY 16 8:19 from derivative=0
Event begins at 1.46 Solar Radii
radial acceleration=0.983E-01 km/sec**2

ARRAY and OPTICAL DATA TOGETHER

STOP
Ret..

BEGIN: 16 JAN 89

Watts meter²



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

16/0630

↑
MAY 16/0950 MAX
08:35

16/1200

↑
MAY 16/0950 MAX
09:20

SAA's
NIGHT

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

RUN: 2023UT
21 JAN 89

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1989	16	9:25:31	2.60	+/- 0.10	240.0	+/- 0.5	SMM
1989	16	9:33:48	2.90	+/- 0.15	240.0	+/- 0.5	SMM
1989	16	9:50:16	3.60	+/- 0.20	240.0	+/- 0.5	SMM

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.342E+02 +/- 0.583E+00$ [minutes]

In more convenient units:

Event began at DOY 16 8:46 +/- 0.583E+00 [minutes]

Origin defined at DOY 16 9:20

RADIAL INFORMATION:

RADIAL VELOCITY = 465. +/- 14. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.237E+01 +/- 0.176E-01 [solar radii]
c(2) = 0.401E-01 +/- 0.123E-02 [radii/min]
c(2) = 0.465E+03 +/- 0.143E+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)= 0.32592E-01 [radii] see Bevington pg. 114

error in c(2)= 0.16742E-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) = 240. +/- 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 9:25 = 0. km/sec

The TOTAL velocity at 9:25 = 465. km/sec

The TANGENTIAL velocity at 9:33 = 0. km/sec

The TOTAL velocity at 9:33 = 465. km/sec

The TANGENTIAL velocity at 9:50 = 0. km/sec

The TOTAL velocity at 9:50 = 465. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.51

Standard Deviation in start time measurement = 0.103E+02

Error in time = 0.74378E+00 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.339E-03

Reduced Chi Squared = 0.194E-02

Chi Squared = 0.194E-02

The probability for exceeding chi square = 0.985E+00

The correlation coefficient = 0.999E+00

The probability that no LINEAR correlation exists between the variables = 0.2438E-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	datatype
1989	16	9:25:31	2.60	+/- 0.10	240.0	+/- 0.5	SMM	
1989	16	9:33:48	2.90	+/- 0.15	240.0	+/- 0.5	SMM	
1989	16	9:50:16	3.60	+/- 0.20	240.0	+/- 0.5	SMM	

Structure being measured:
Top of Loop

OUTPUT:

START TIME:

tstart=DOY 16 8:19 from derivative = 0
Event begins at 1.46 Solar Radii
Origin defined at DOY 16 9:20

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.983E-01 +/- 0.127E-05 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.242E+01 +/- 0.701E-06 [solar radii]
c(2) = 0.313E-01 +/- 0.116E-06 [radii/min]
c(2) = 0.363E+03 +/- 0.135E-02 [km/sec]
c(3) = 0.254E-03 +/- 0.329E-08 [radii/min**2]
c(3) = 0.983E-01 +/- 0.127E-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) = 240. +/- 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 9:25 = 0. km/sec

The TOTAL velocity at 9:25 = 396. km/sec

The TANGENTIAL velocity at 9:33 = 0. km/sec

The TOTAL velocity at 9:33 = 445. km/sec

The TANGENTIAL velocity at 9:50 = 0. km/sec

The TOTAL velocity at 9:50 = 542. 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!