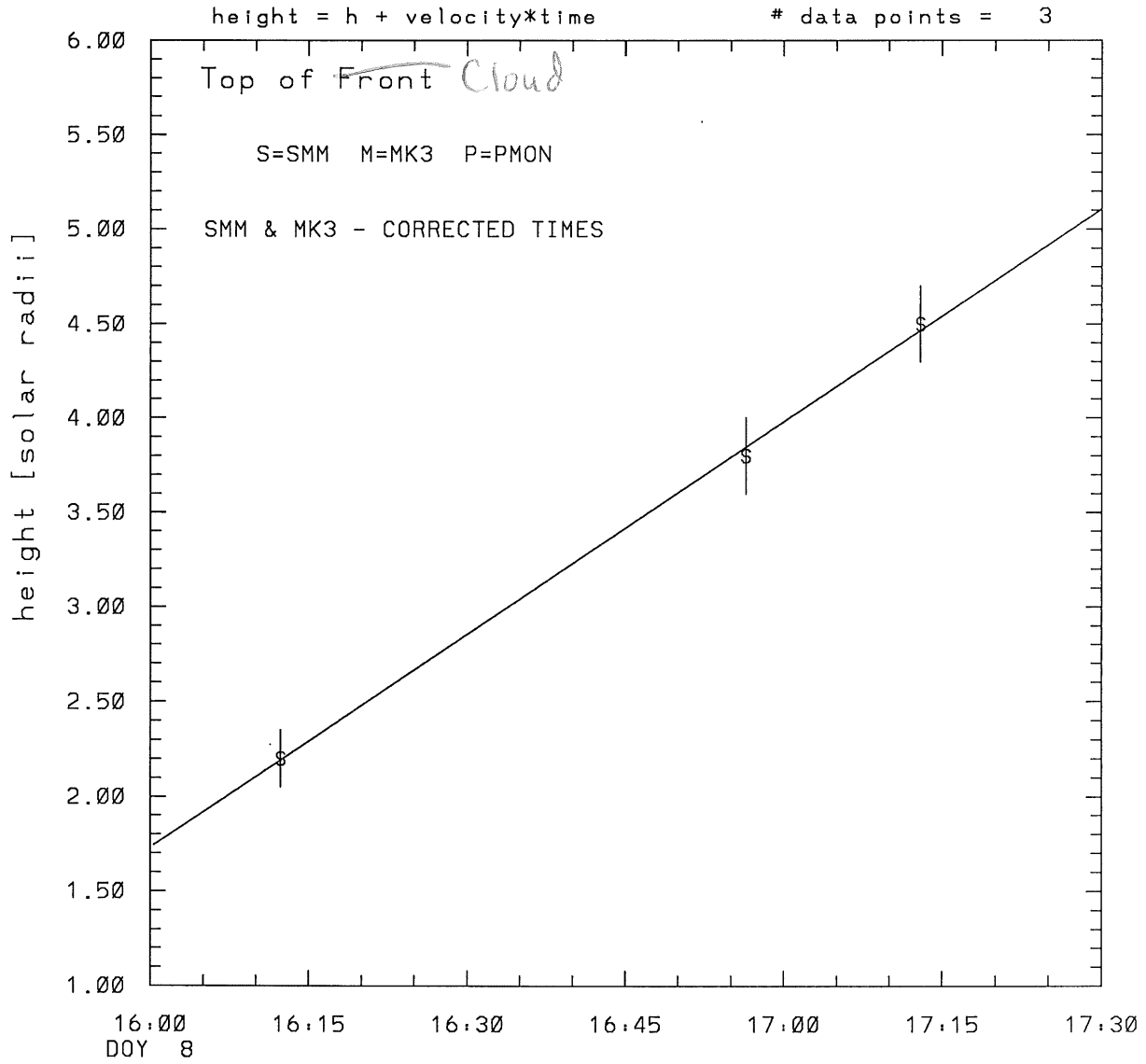
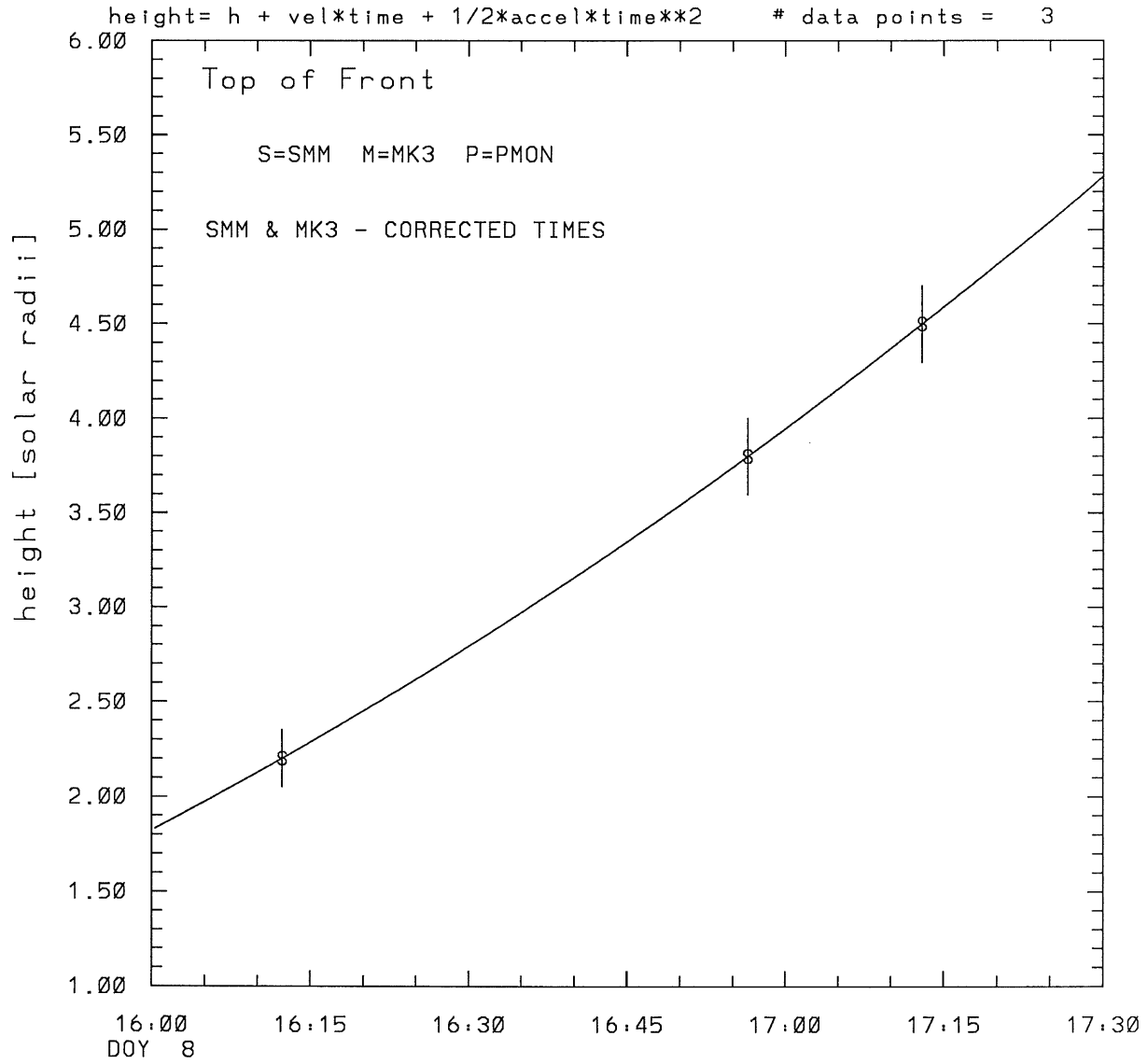


SMM C/P 1989 DOY 8 68 +/- 0 degrees



tstart=DOY 8 15:41 +/- 0.3 [min.]
radial velocity= 435. +/- 9. [km/sec]

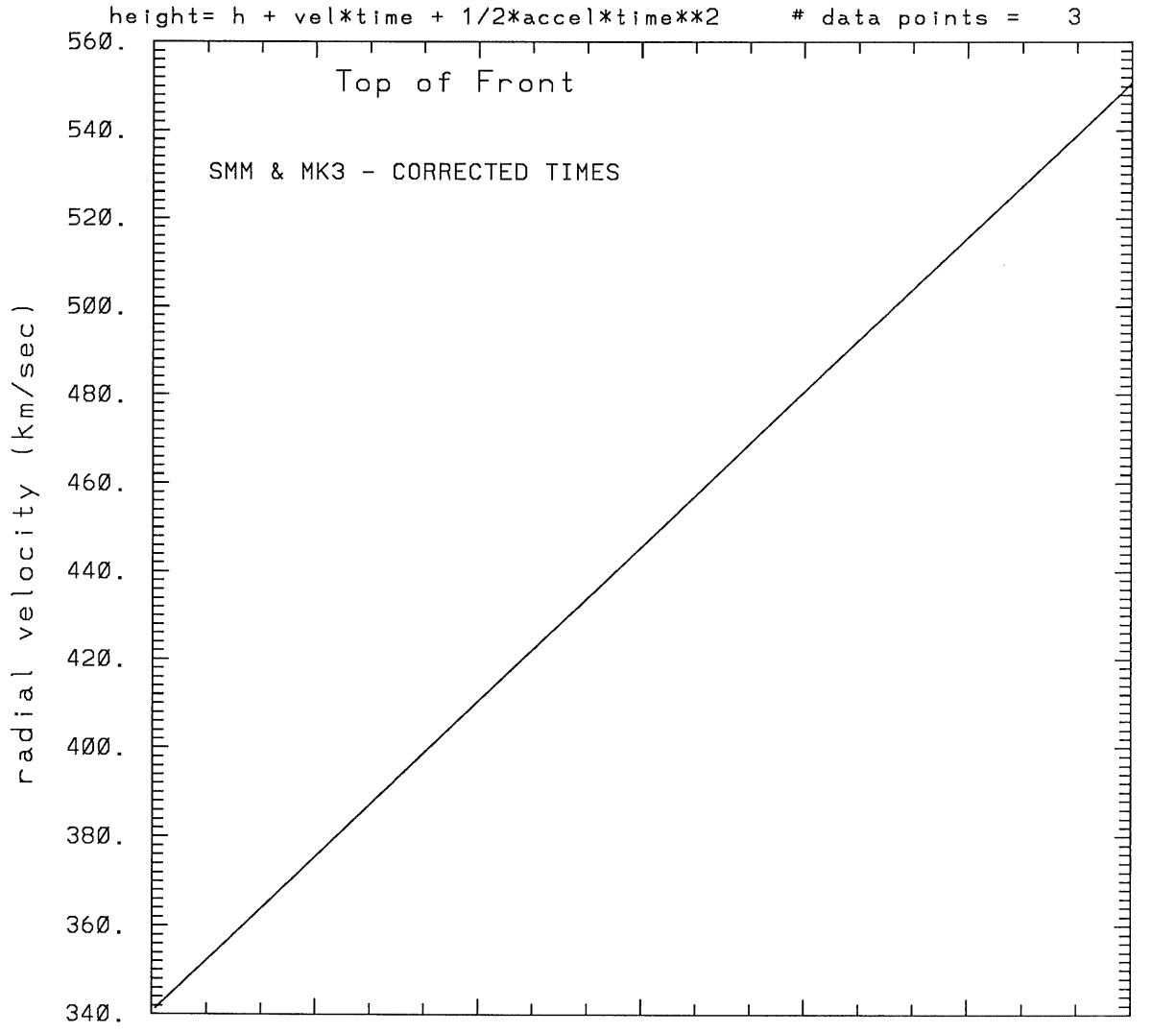
SMM C/P 1989 DOY 8 68 +/- 0 degrees



tstart=DOY 8 15:29 +/- 0.0 [min.]

radial acceleration = 0.0389 +/- 0.0000 [km/sec**2]

SMM C/P 1989 DOY 8 68 +/- 0 degrees



16:00
DOY 8

tstart=DOY 8 15:29 +/- 0.0 [min.]

radial acceleration=0.389E-01 km/sec**2

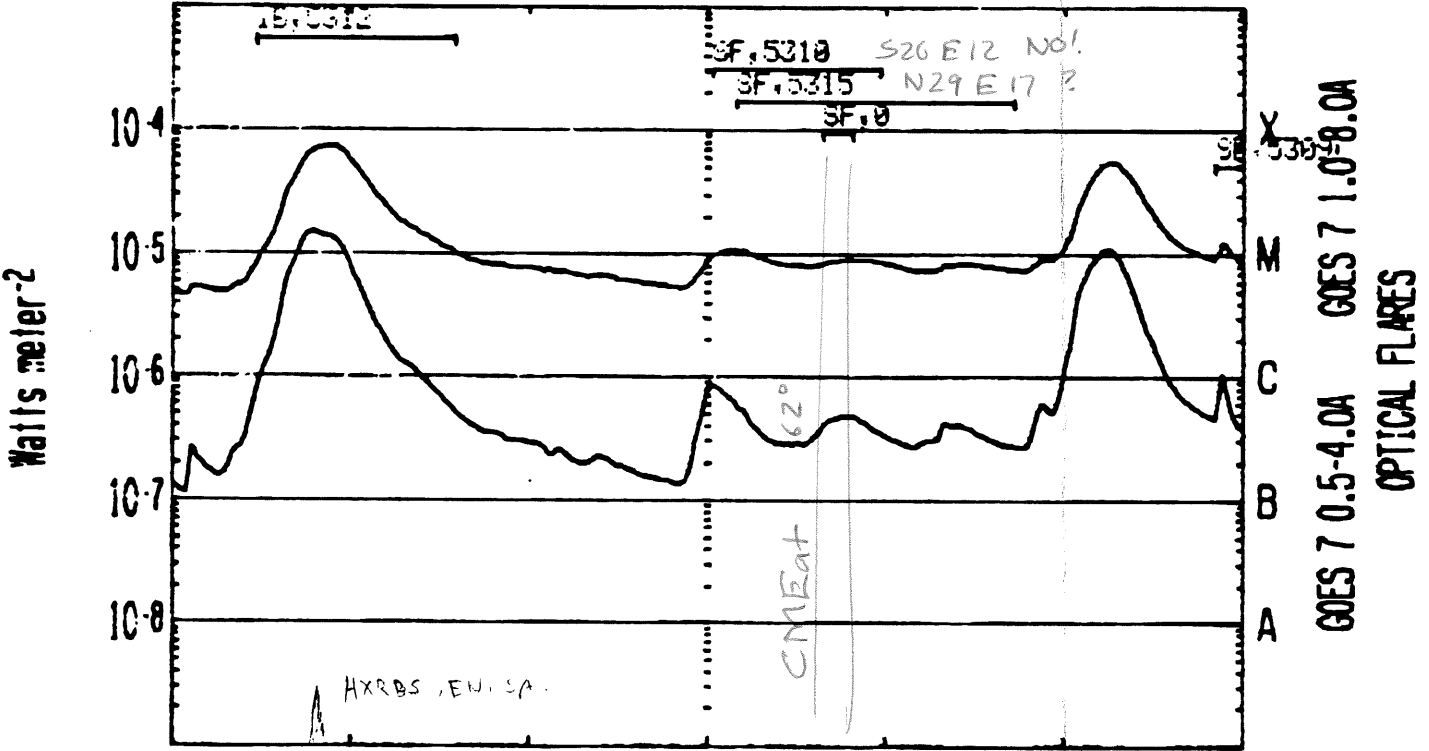
1989 Day 008

HEAVY and OPTICAL DATA TOGETHER

STOP Ret..

BEGIN: 00 JAN 89

Top of Front
[15:47] 1st order
[15:29] 2nd order



00:1200

X-ray
MAX ~12:55

00:1500 ~15:05

X-ray
MAX
~17:17

00:1800

SAA's
NIGHT

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

RUN: 1944UT
12 JAN 89

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1989	8	16:12:21	2.20	+/- 0.15	68.0	+/- 0.5	SMM
1989	8	16:56:27	3.80	+/- 0.20	68.0	+/- 0.5	SMM
1989	8	17:12:58	4.50	+/- 0.20	68.0	+/- 0.5	SMM

Structure being measured:
Top of Front *Cloud*

OUTPUT:

START TIME:

Event began at $t = 0 + -0.195E+02 \pm 0.291E+00$ [minutes]
In more convenient units:
Event began at DOY 8 15:41 $\pm 0.291E+00$ [minutes]

Origin defined at DOY 8 16: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 435. \pm 9. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.173E+01 \pm 0.383E-01 [solar radii]
- c(2) = 0.375E-01 \pm 0.793E-03 [radii/min]
- c(2) = 0.435E+03 \pm 0.920E+01 [km/sec]
- c(3) = 0.000E+00 \pm 0.000E+00 [radii/min**2]
- c(3) = 0.000E+00 \pm 0.000E+00 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

- error in c(1)= 0.70501E-01 [radii] see Bevington pg. 114
- error in c(2)= 0.13119E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00 \pm 0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 68. +/- 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 16:12 = 0. km/sec

The TOTAL velocity at 16:12 = 435. km/sec

The TANGENTIAL velocity at 16:56 = 0. km/sec

The TOTAL velocity at 16:56 = 435. km/sec

The TANGENTIAL velocity at 17:12 = 0. km/sec

The TOTAL velocity at 17:12 = 435. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.18

Standard Deviation in start time measurement = 0.256E+02

Error in time = 0.15504E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.136E-02

Reduced Chi Squared = 0.786E-02

Chi Squared = 0.786E-02

The probability for exceeding chi square = 0.971E+00

The correlation coefficient = 0.999E+00

The probability that no LINEAR correlation exists between the variables = 0.2209E-01

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

This is a 2 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1989	8	16:12:21	2.20	+/- 0.15	68.0	+/- 0.5	SMM
1989	8	16:56:27	3.80	+/- 0.20	68.0	+/- 0.5	SMM
1989	8	17:12:58	4.50	+/- 0.20	68.0	+/- 0.5	SMM

Structure being measured:

Top of Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.314E+02 +/- 0.000E+00$ [minutes]

In more convenient units:

Event began at DOY 8 15:29 +/- 0.000E+00 [minutes]

Origin defined at DOY 8 16: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = $0.389E-01 +/- 0.114E-05$ km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = $0.182E+01 +/- 0.314E-05$ [solar radii]
c(2) = $0.294E-01 +/- 0.241E-06$ [radii/min]
c(2) = $0.341E+03 +/- 0.279E-02$ [km/sec]
c(3) = $0.101E-03 +/- 0.295E-08$ [radii/min**2]
c(3) = $0.389E-01 +/- 0.114E-05$ [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) = $68. +/- 0.$ [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 16:12 = 0. km/sec

The TOTAL velocity at 16:12 = 369. km/sec

The TANGENTIAL velocity at 16:56 = 0. km/sec

The TOTAL velocity at 16:56 = 472. km/sec

The TANGENTIAL velocity at 17:12 = 0. km/sec

The TOTAL velocity at 17:12 = 511. 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!