SMM C/P 1980 DOY111 310 +/- 0 degrees

height = h + velocity*time   # data points =   3

Top of ~~Front~~ Loop

S=SMM   M=MK3   P=PMON

SMM & MK3 - CORRECTED TIMES

height [solar radii]

6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00

15:00   15:30   16:00   16:30   17:00   17:30   18:00
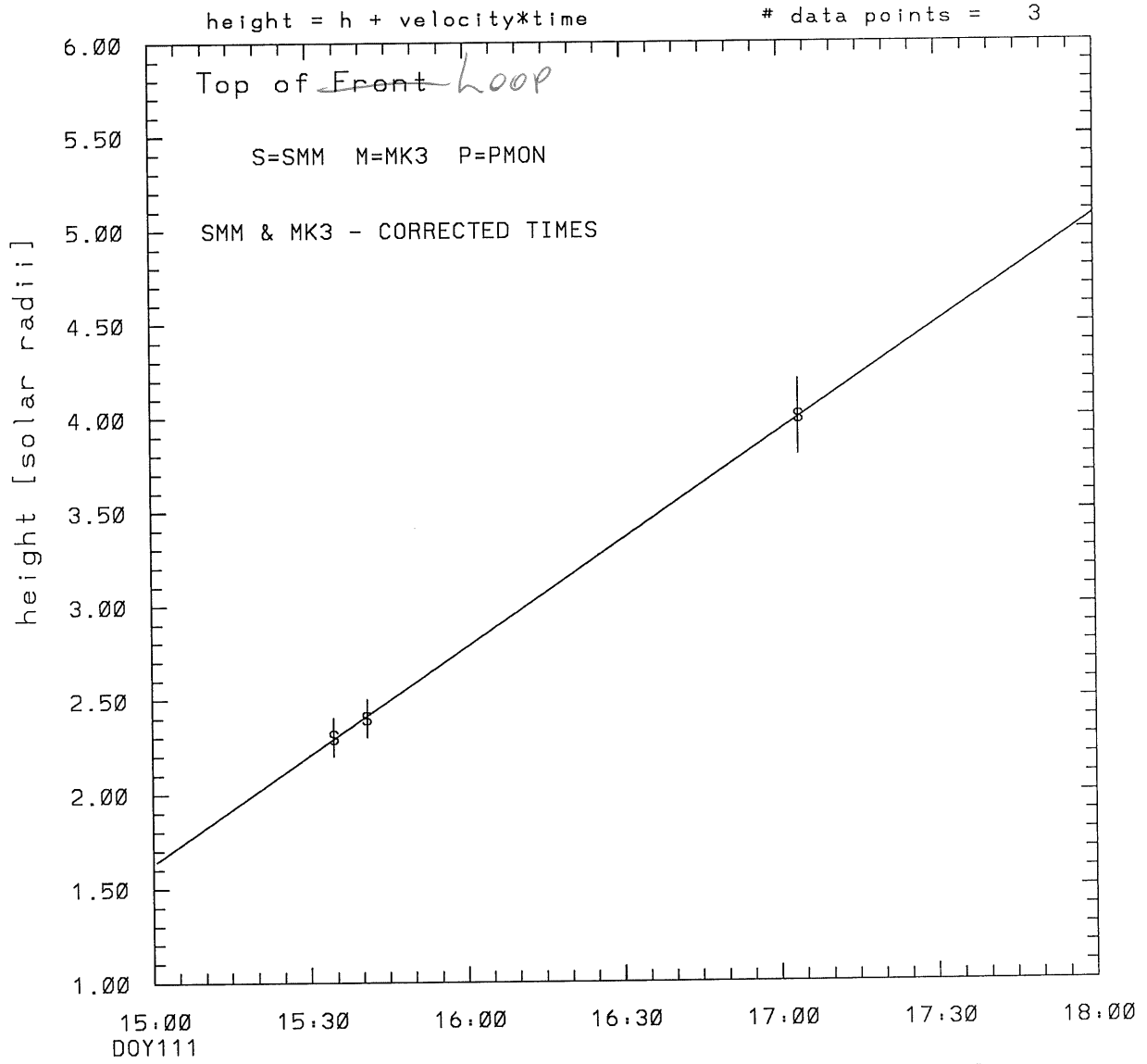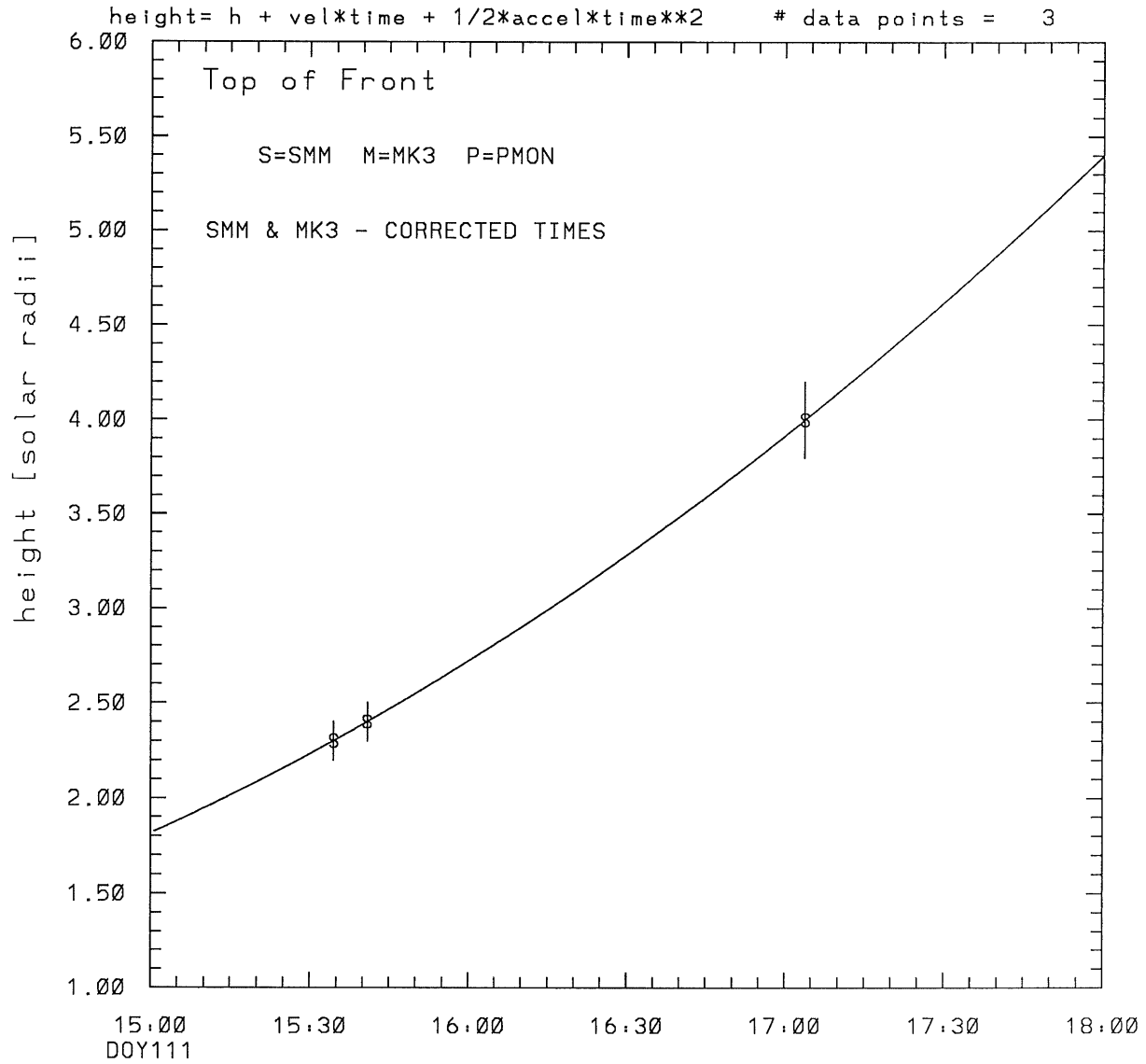DOY111

tstart=DOY111 14:29 +/-   0.3 [min.]
radial velocity= 222. +/-   3. [km/sec]

SMM C/P 1980 DOY111 310 +/- 0 degrees

height= h + vel*time + 1/2*accel*time**2   # data points =   3

6.00

Top of Front

5.50

    S=SMM   M=MK3   P=PMON

5.00 SMM & MK3 - CORRECTED TIMES

height [solar radii]

4.50

4.00

3.50

3.00

2.50

2.00

1.50

1.00

     15:00   15:30   16:00   16:30   17:00   17:30   18:00
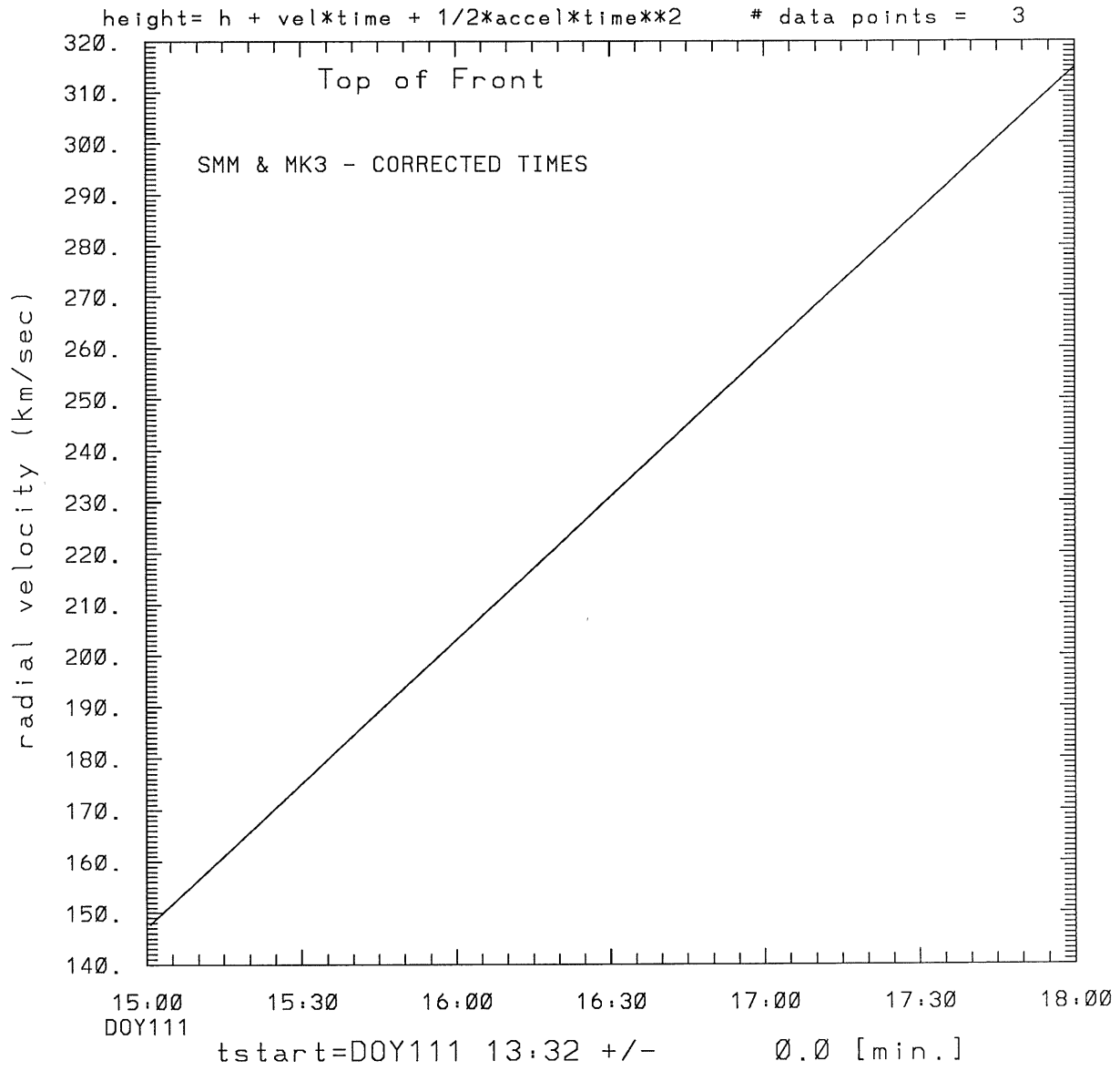   DOY111

     tstart=DOY111 13:32 +/-   0.0 [min.]

   radial acceleration= 0.0155 +/- 0.0000 [km/sec**2]

SMM C/P 1980 DOY111 310 +/- 0 degrees

height= h + vel*time + 1/2*accel*time**2   # data points =   3

Top of Front

SMM & MK3 - CORRECTED TIMES

radial velocity (km/sec)

320.
310.
300.
290.
280.
270.
260.
250.
240.
230.
220.
210.
200.
190.
180.
170.
160.
150.
140.

15:00   15:30   16:00   16:30   17:00   17:30   18:00
DOY111

tstart=DOY111 13:32 +/-   0.0 [min.]

radial acceleration=0.155E-01 km/sec**2

```
********************
 This is a 1 order run
********************


*******
 INPUT:
*******
```

				error in		error in		
year	doy	time	radii	radius		angle	angle	datatype
1980	111	15:34:31	2.30 +/-	0.10		310.0 +/-	0.5	SMM
1980	111	15:40:53	2.40 +/-	0.10		310.0 +/-	0.5	SMM
1980	111	17: 3:49	4.00 +/-	0.20		310.0 +/-	1.0	SMM

```
*******************************************
 Structure being measured:
Top of Front
*******************************************


********
 OUTPUT:
********


START TIME:


Event began at t = 0 + -0.329E+02 +/-  0.278E+00 [minutes]
In more convenient units:
Event began at DOY 111 14:29 +/-  0.278E+00 [minutes]


Origin defined at DOY111 15: 0

RADIAL INFORMATION:

RADIAL VELOCITY =   222. +/-    3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) =    0.163E+01 +/-    0.146E-01 [solar radii]
c(2) =    0.191E-01 +/-    0.267E-03 [radii/min]
c(2) =    0.222E+03 +/-    0.310E+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)= 0.17353E-01 [radii] see Bevington pg. 114
          error in c(2)= 0.22283E-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) = 310. +/-   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 15:34 = 0.000E+00 km/sec
The TOTAL velocity at 15:34 = 222. km/sec

The TANGENTIAL velocity at 15:40 = 0.000E+00 km/sec
The TOTAL velocity at 15:40 = 222. km/sec

The TANGENTIAL velocity at 17: 3 = 0.000E+00 km/sec
The TOTAL velocity at 17: 3 = 222. km/sec

****
The following info is for estimating goodness of the fit
****

Fit is ok [ier=1]

Standard Deviation in the height = 0.95
Standard Deviation in start time measurement =   0.407E+02
Error in time =   0.82121E+00 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.159E-03
Reduced Chi Squared = 0.394E-03
Chi Squared = 0.394E-03
The probability for exceeding chi square = 0.990E+00

The correlation coefficient =   0.100E+01
The probability that no LINEAR correlation exists between the variables =   0.7303E-02
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

```
********************
 This is a 2 order run
********************


*******
 INPUT:
*******


                       error in        error in
year doy    time    radii  radius    angle  angle    datatype
1980 111  15:34:31  2.30 +/- 0.10   310.0 +/-  0.5      SMM
1980 111  15:40:53  2.40 +/- 0.10   310.0 +/-  0.5      SMM
1980 111  17: 3:49  4.00 +/- 0.20   310.0 +/-  1.0      SMM


*****************************************
 Structure being measured:
Top of Front
*****************************************


********
 OUTPUT:
********


START TIME:

 Event began at t = 0 + -0.897E+02 +/-  0.000E+00 [minutes]
 In more convenient units:
 Event began at DOY 111 13:32 +/-  0.000E+00 [minutes]


 Origin defined at DOY111 15: 0

RADIAL INFORMATION:

RADIAL ACCELERATION =  0.155E-01 +/-  0.508E-06 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

 c(1) =   0.181E+01 +/-   0.609E-05 [solar radii]
 c(2) =   0.127E-01 +/-   0.211E-06 [radii/min]
 c(2) =   0.147E+03 +/-   0.245E-02 [km/sec]
 c(3) =   0.402E-04 +/-   0.131E-08 [radii/min**2]
 c(3) =   0.155E-01 +/-   0.508E-06 [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) = 310. +/-   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 15:34 = 0.000E+00 km/sec
The TOTAL velocity at 15:34 = 179. km/sec

The TANGENTIAL velocity at 15:40 = 0.000E+00 km/sec
The TOTAL velocity at 15:40 = 185. km/sec

The TANGENTIAL velocity at 17: 3 = 0.000E+00 km/sec
The TOTAL velocity at 17: 3 = 262. 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!