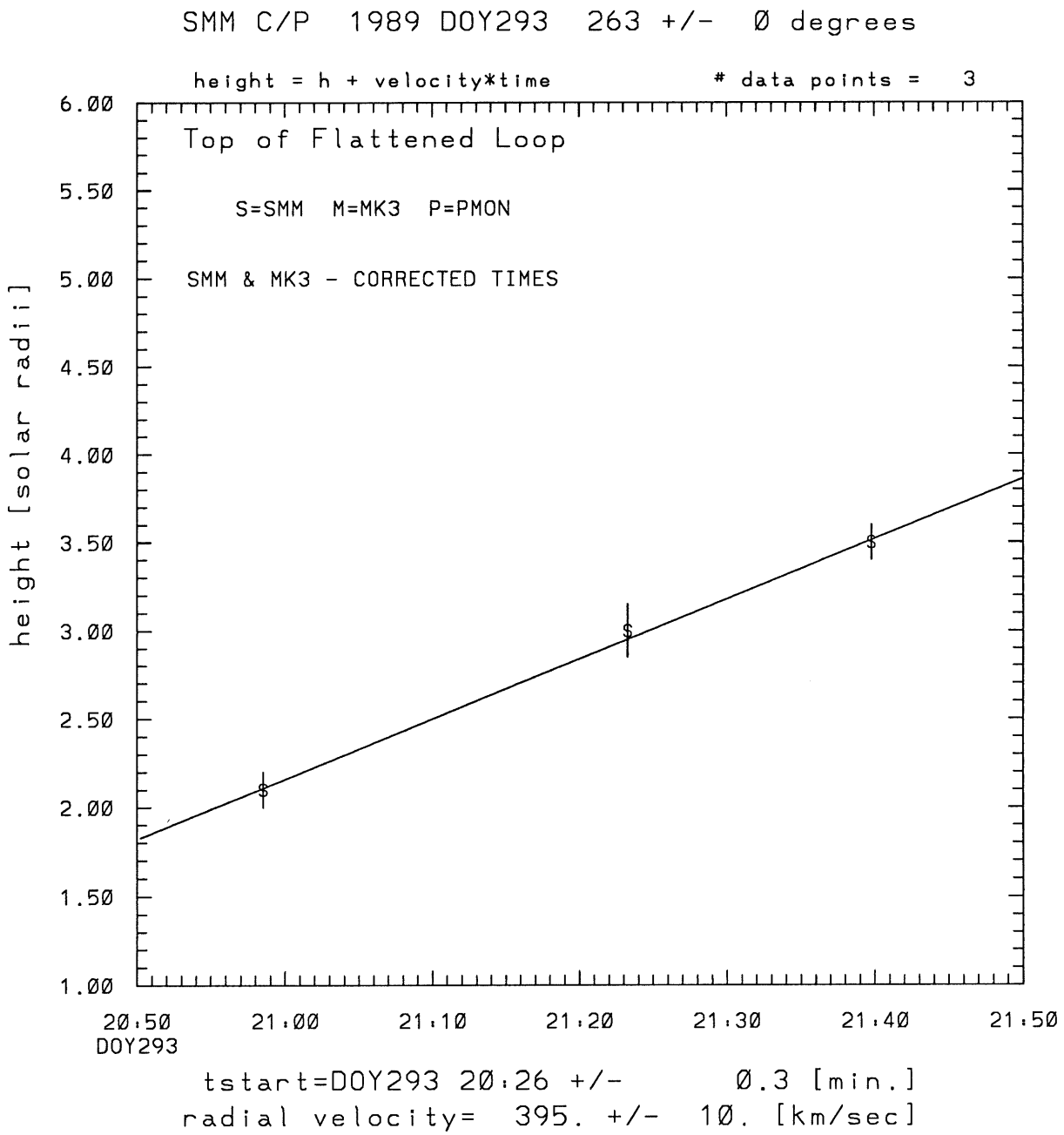
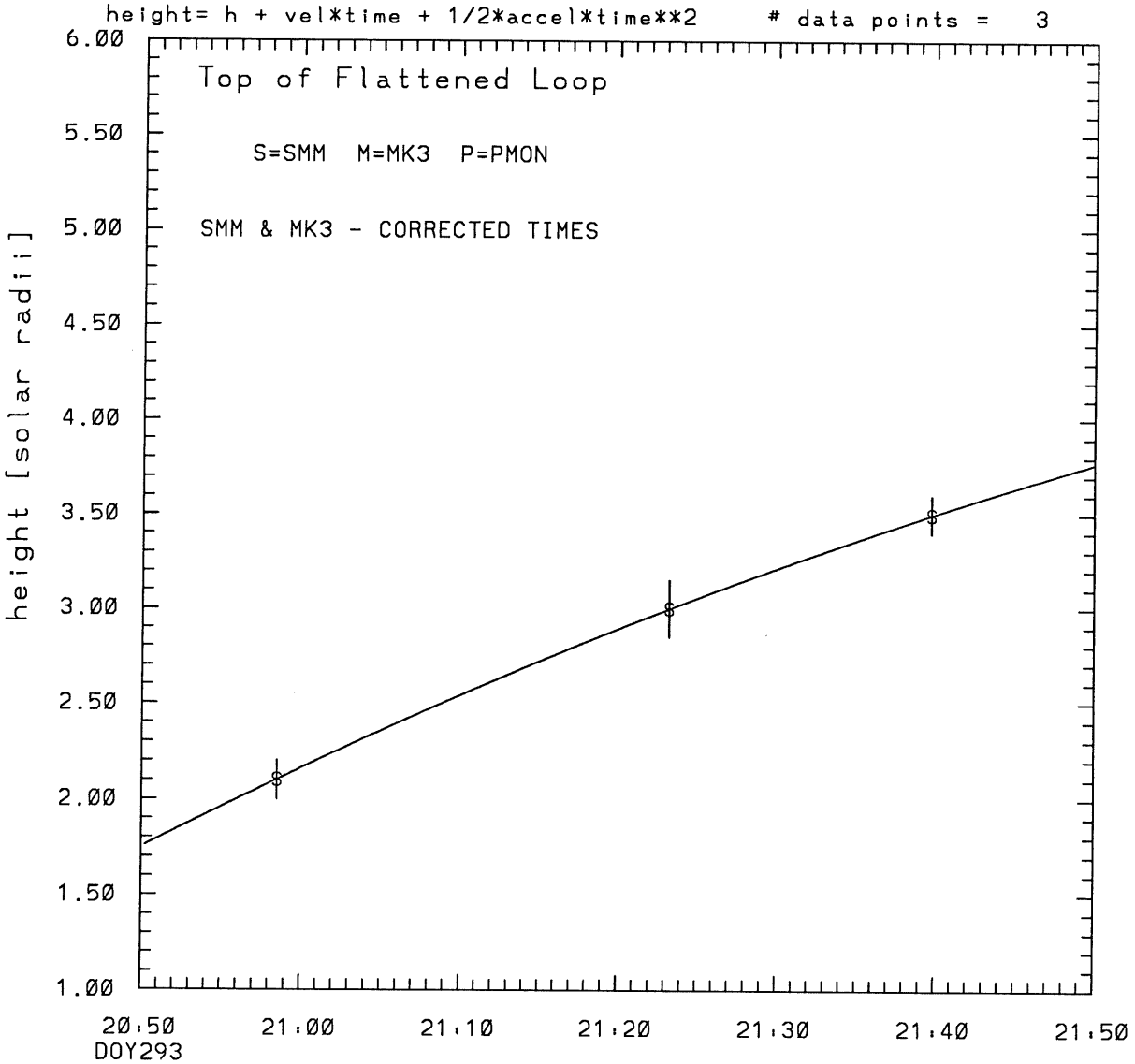
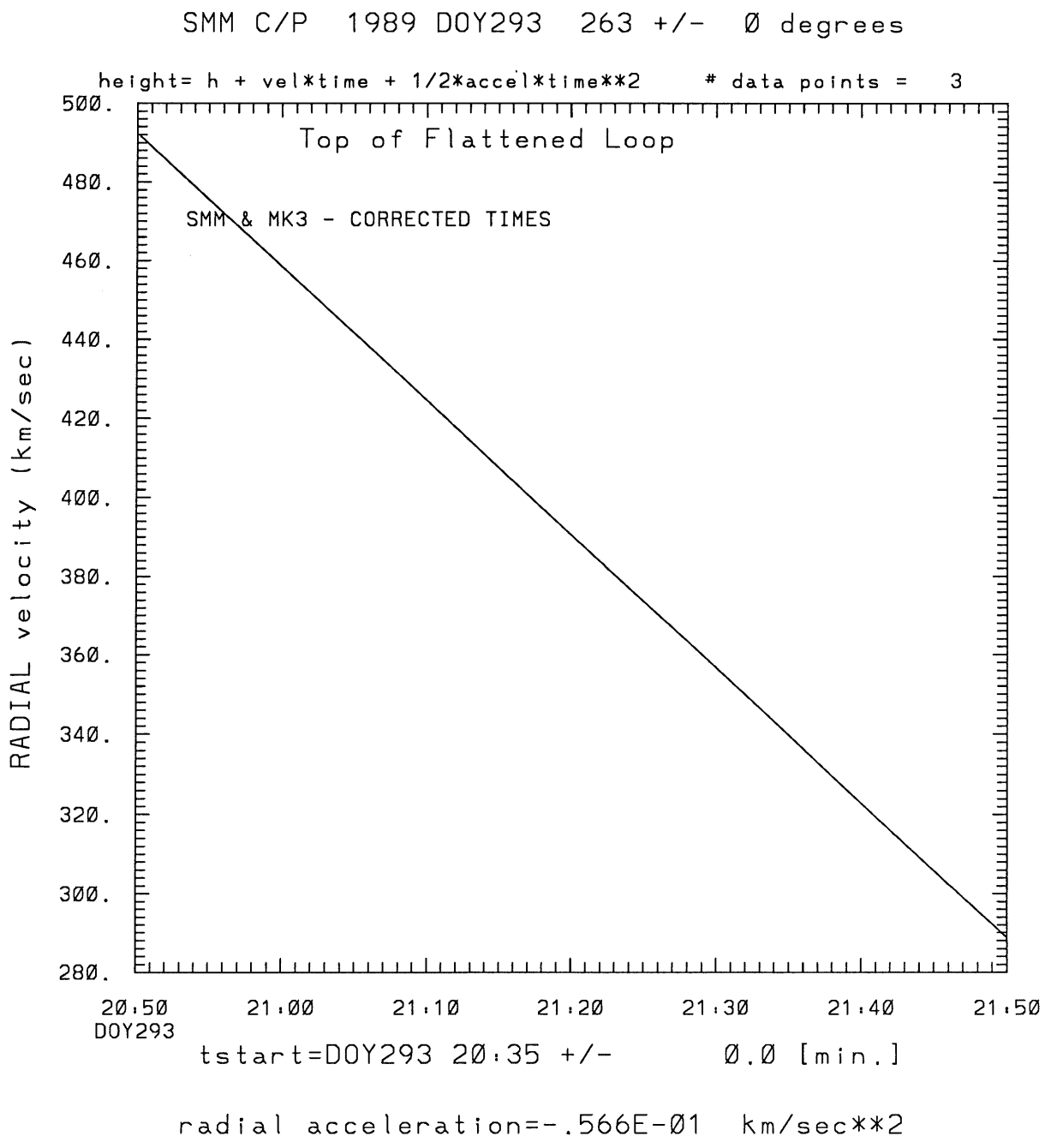

SMM C/P 1989 DOY293 263 +/- Ø degrees
height = h + velocity*time
# data points = 3
Top of Flattened Loop
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.ØØ
5.5Ø
5.ØØ
4.5Ø
4.ØØ
3.5Ø
3.ØØ
2.5Ø
2.ØØ
1.5Ø
1.ØØ
20:5Ø
DOY293
21:ØØ
21:1Ø
21:2Ø
21:3Ø
21:4Ø
21:5Ø
tstart=DOY293 2Ø:26 +/- Ø.3 [min.]
radial velocity= 395. +/- 1Ø. [km/sec]

SMM C/P 1989 DOY293 263 +/- Ø degrees

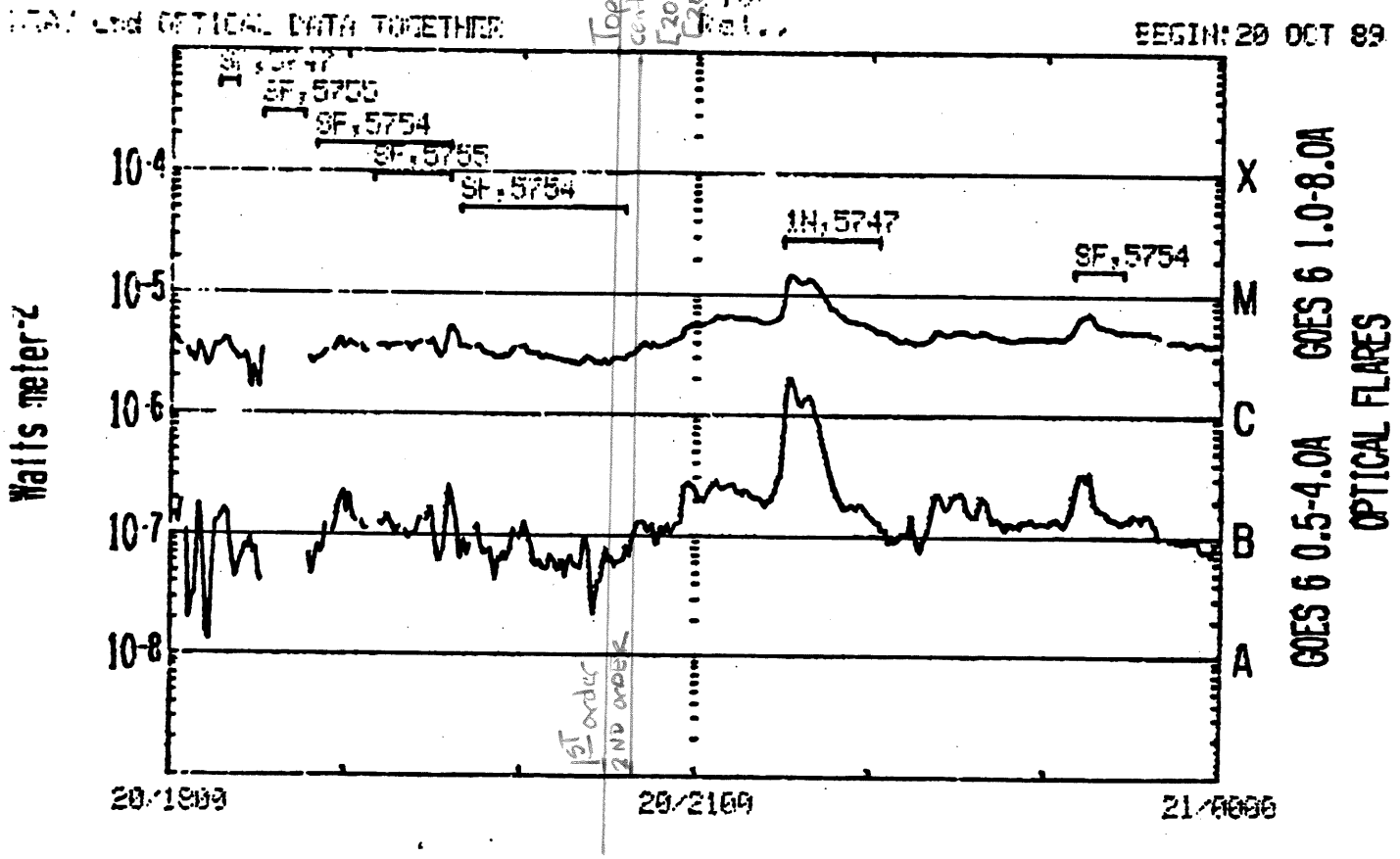


tstart=DOY293 20:35 +/- Ø.Ø [min.]

radial acceleration= -Ø.Ø566 +/- Ø.ØØØØ [km/sec**2]


SMM C/P 1989 DOY293 263 +/- Ø degrees
height= h + vel*time + 1/2*accel*time**2 # data points = 3
Top of Flattened Loop
SMM & MK3 - CORRECTED TIMES
RADIAL velocity (km/sec)
500.
480.
460.
440.
420.
400.
380.
360.
340.
320.
300.
280.
20:50
DOY293
21:00
21:10
21:20
21:30
21:40
21:50
tstart=DOY293 20:35 +/- Ø.Ø [min.]
radial acceleration=-.566E-Ø1 km/sec**2

1989 DOY 293



GOES-6 1 MIN DATA: OPTICAL FLARE DUR. IMP. REGION

RUN: 1811UT
25 OCT 89

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

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

                                   error in          error in
year doy    time      radii   radius      angle    angle    datatype
1989 293  20:58:31   2.10 +/- 0.10     263.0 +/-  0.5        SMM
1989 293  21:23:17   3.00 +/- 0.15     263.0 +/-  1.0        SMM
1989 293  21:39:47   3.50 +/- 0.10     263.0 +/-  1.0        SMM

****************************************
 Structure being measured:
Top of Flattened Loop
****************************************

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

START TIME:

 Event began at t = 0 + -0.241E+02 +/-  0.301E+00 [minutes]
 In more convenient units:
 Event began at DOY 293 20:26 +/-  0.301E+00 [minutes]

 Origin defined at DOY293 20:50

RADIAL INFORMATION:

RADIAL VELOCITY =   395. +/-    10. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

 c(1) =    0.182E+01 +/-    0.306E-01 [solar radii]
 c(2) =    0.340E-01 +/-    0.867E-03 [radii/min]
 c(2) =    0.395E+03 +/-    0.101E+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)=  0.60614E-01 [radii] see Bevington pg. 114
                    error in c(2)=  0.17357E-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) = 263. +/-   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 RADIAL velocity at 20:58 =  395. km/sec

The RADIAL velocity at 21:23 =  395. km/sec

The RADIAL velocity at 21:39 =  395. km/sec
```

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

 Fit is ok [ier=1]

 Standard Deviation in the height =  0.71
 Standard Deviation in start time measurement =    0.170E+02
 Error in time =        0.14982E+01 using best fit method
 See Taylor Error Analysis [Univ of Colorado] pg.78

 Value of reduced Chi Squared returned from nllst2 = 0.791E-03
 Reduced Chi Squared = 0.529E-02
 Chi Squared = 0.529E-02
 The probability for exceeding chi square = 0.978E+00

 The correlation coefficient =    0.999E+00
 The probability that no LINEAR correlation exists between the variables =   0.3074
 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
1989 293   20:58:31   2.10 +/- 0.10     263.0 +/-  0.5        SMM
1989 293   21:23:17   3.00 +/- 0.15     263.0 +/-  1.0        SMM
1989 293   21:39:47   3.50 +/- 0.10     263.0 +/-  1.0        SMM

****************************************
 Structure being measured:
Top of Flattened Loop
****************************************

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

START TIME:

 Event began at t = 0 + -0.167E+02 +/-  0.000E+00 [minutes]
 In more convenient units:
 Event began at DOY 293 20:35 +/-  0.000E+00 [minutes]

 Origin defined at DOY293 20:50

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.566E-01 +/-  0.349E-05 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

 c(1) =    0.175E+01 +/-    0.506E-05 [solar radii]
 c(2) =    0.425E-01 +/-    0.525E-06 [radii/min]
 c(2) =    0.492E+03 +/-    0.609E-02 [km/sec]
 c(3) =   -0.146E-03 +/-    0.902E-08 [radii/min**2]
 c(3) =   -0.566E-01 +/-    0.349E-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) = 263. +/-   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 RADIAL velocity at 20:58 =  464. km/sec

The RADIAL velocity at 21:23 =  380. km/sec

The RADIAL velocity at 21:39 =  324. 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!