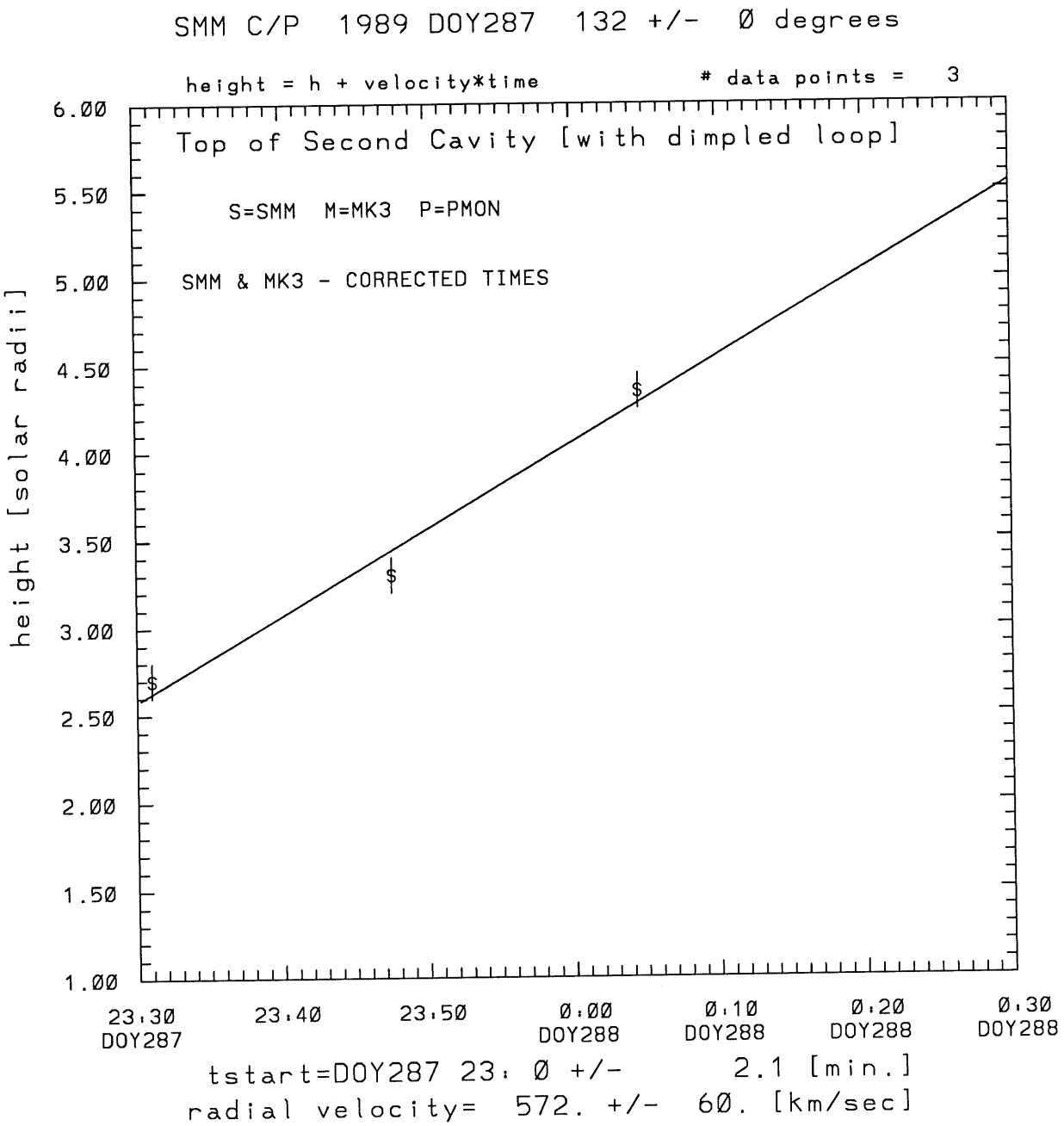
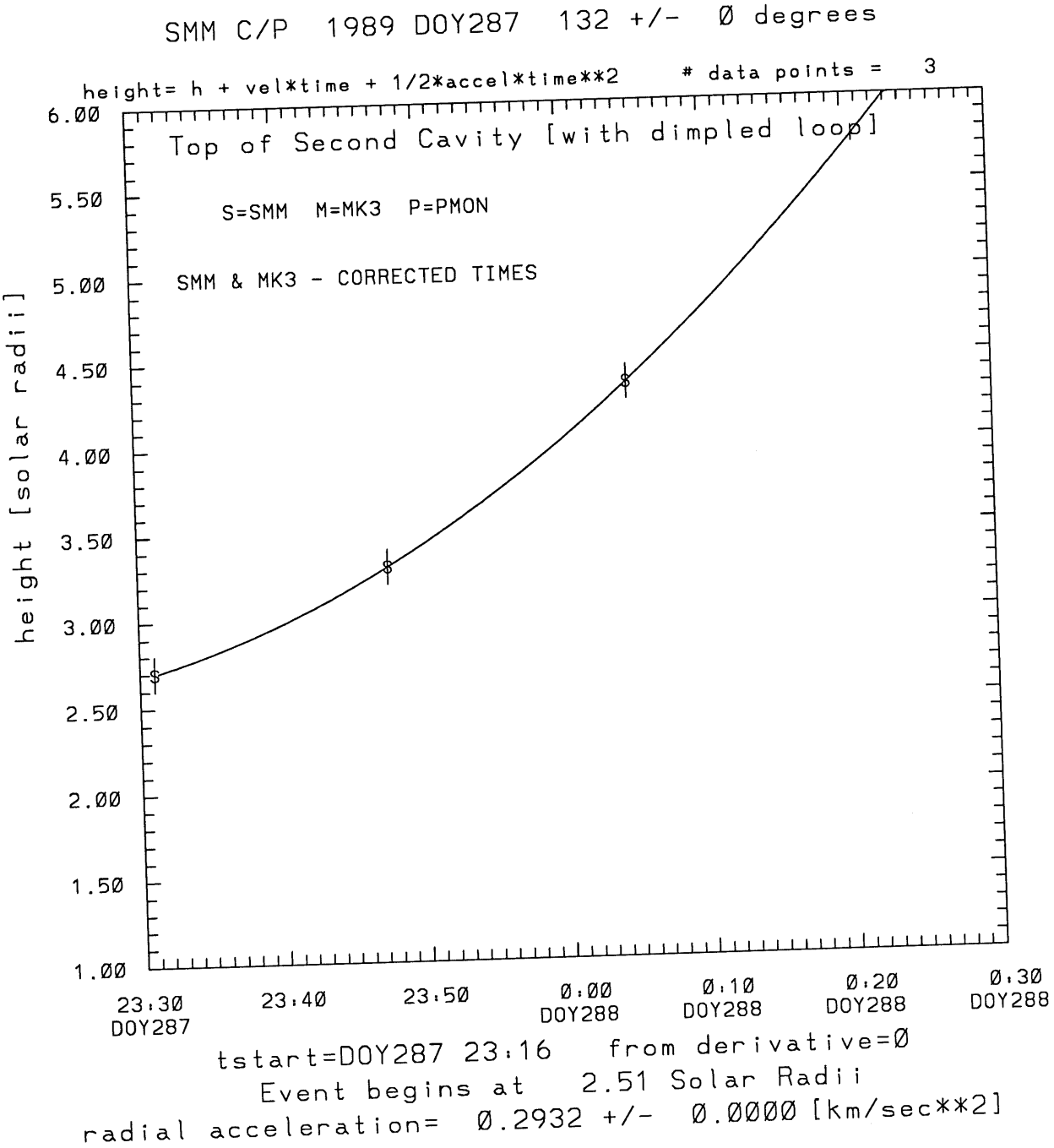
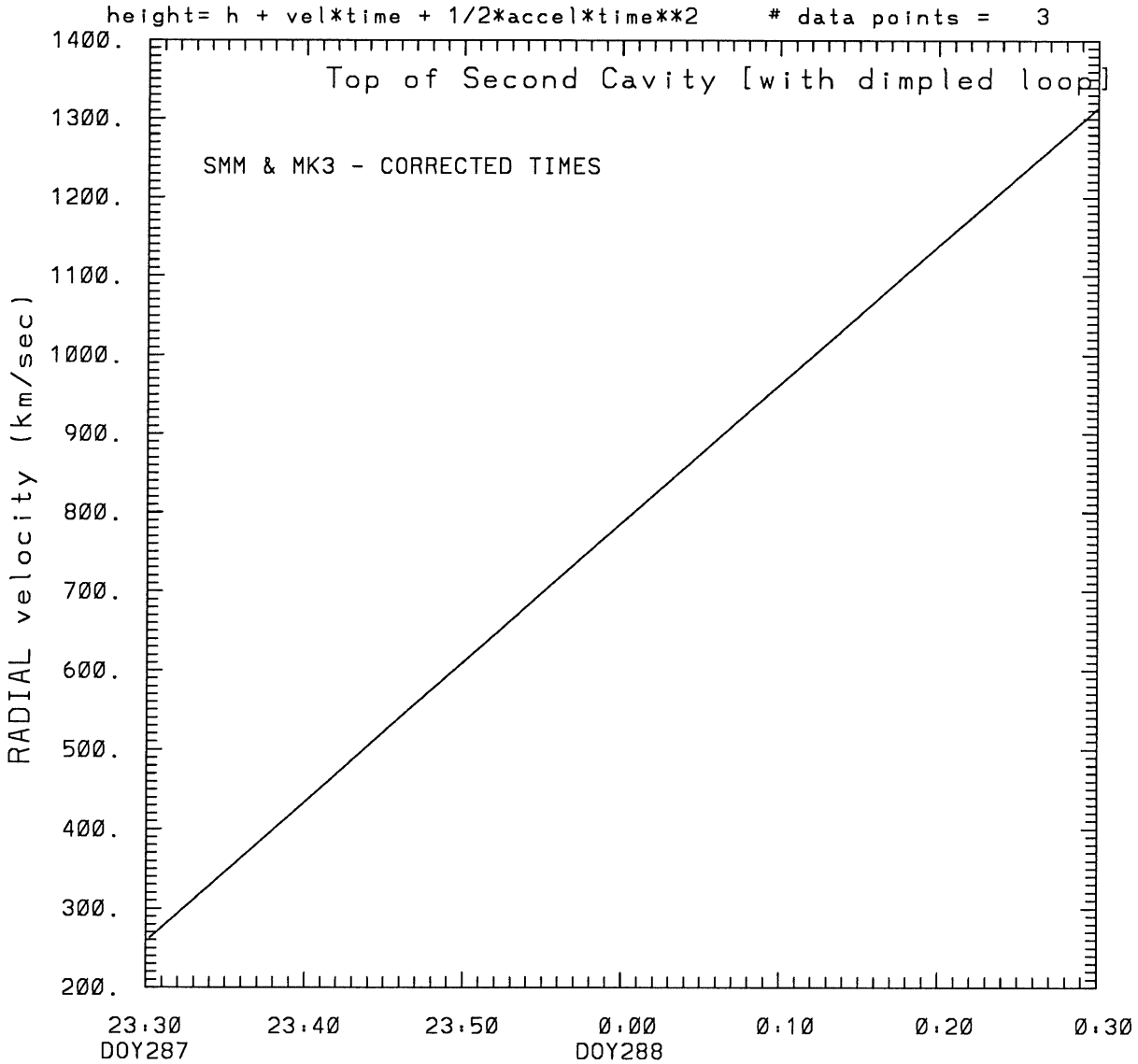

SMM C/P 1989 DOY287 132 +/- Ø degrees
height = h + velocity*time
# data points = 3
Top of Second Cavity [with dimpled loop]
S=SMM M=MK3 P=PMON
SMM & MK3 - CORRECTED TIMES
height [solar radii]
6.ØØ
5.5Ø
5.ØØ
4.5Ø
4.ØØ
3.5Ø
3.ØØ
2.5Ø
2.ØØ
1.5Ø
1.ØØ
23:3Ø DOY287
23:4Ø
23:5Ø
Ø:ØØ DOY288
Ø:1Ø DOY288
Ø:2Ø DOY288
Ø:3Ø DOY288
tstart=DOY287 23: Ø +/- 2.1 [min.]
radial velocity= 572. +/- 6Ø. [km/sec]


SMM C/P 1989 DOY287 132 +/- Ø degrees
height= h + vel*time + 1/2*accel*time**2
# data points = 3
Top of Second Cavity [with dimpled 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
23:3Ø DOY287
23:4Ø
23:5Ø
Ø:ØØ DOY288
Ø:1Ø DOY288
Ø:2Ø DOY288
Ø:3Ø DOY288
tstart=DOY287 23:16 from derivative=Ø
Event begins at 2.51 Solar Radii
radial acceleration= Ø.2932 +/- Ø.ØØØØ [km/sec**2]

SMM C/P 1989 DOY287 132 +/- Ø degrees

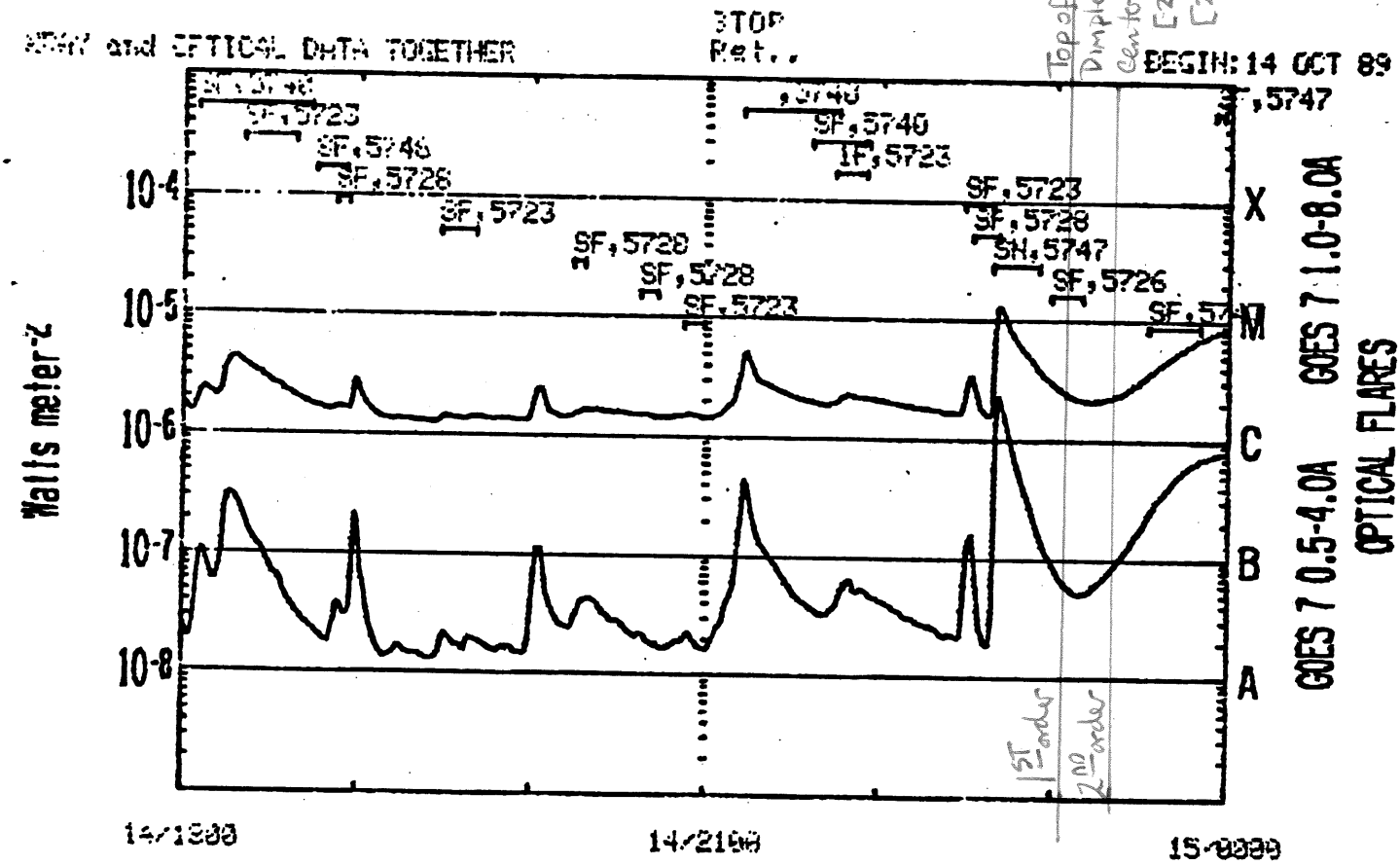


tstart=DOY287 23:16 from derivative=Ø

Event begins at 2.51 Solar Radii

radial acceleration=Ø.293E+ØØ km/sec**2

1989 DOY 287



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

RUN: 1930UT
16 OCT 89

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

****
INPUT:
****

year	doy	time	radii	error in radius	angle	error in angle	datatype
1989	287	23:31: 2	2.70 +/-	0.10	132.0 +/-	0.5	SMM
1989	287	23:47:32	3.30 +/-	0.10	132.0 +/-	1.0	SMM
1989	288	0: 4:32	4.35 +/-	0.10	132.0 +/-	1.0	SMM

****
Structure being measured:
Top of Second Cavity [with dimpled loop]
****

****
OUTPUT:
****

START TIME:

Event began at t = 0 + -0.320E+02 +/- 0.214E+01 [minutes]
In more convenient units:
Event began at DOY 287 23:00 +/- 0.214E+01 [minutes]

Event began at DOY 287 23: 0 +/- 0.214E+01 [minutes]

Origin defined at DOY287 23:30

RADIAL INFORMATION:

RADIAL VELOCITY = 572. +/- 60. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.258E+01 +/- 0.116E+00 [solar radii]
c(2) = 0.493E-01 +/- 0.518E-02 [radii/min]
c(2) = 0.572E+03 +/- 0.601E+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)= 0.16397E+00 [radii] see Bevington pg. 114
error in c(2)= 0.73305E-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) = 132. +/- 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 23:31 = 572. km/sec

The RADIAL velocity at 23:47 = 572. km/sec

The RADIAL velocity at 0: 4 = 572. km/sec

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

 Fit is ok [ier=1]

 Standard Deviation in the height =  0.84
 Standard Deviation in start time measurement =    0.137E+02
 Error in time =        0.35211E+01 using best fit method
 See Taylor Error Analysis [Univ of Colorado] pg.78

 Value of reduced Chi Squared returned from nllst2 = 0.151E-01
 Reduced Chi Squared = 0.600E-01
 Chi Squared = 0.600E-01
 The probability for exceeding chi square = 0.902E+00

 The correlation coefficient =    0.989E+00
 The probability that no LINEAR correlation exists between the variables =   0.9394
 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 287  23:31: 2   2.70 +/- 0.10    132.0 +/-  0.5        SMM
1989 287  23:47:32   3.30 +/- 0.10    132.0 +/-  1.0        SMM
1989 288   0: 4:32   4.35 +/- 0.10    132.0 +/-  1.0        SMM

****************************************
 Structure being measured:
Top of Second Cavity [with dimpled loop]
****************************************

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

START TIME:

 tstart=DOY287 23:16 from derivative = 0
Event begins at   2.51 Solar Radii
 Origin defined at DOY287 23:30

RADIAL INFORMATION:

RADIAL ACCELERATION =  0.293E+00 +/-  0.000E+00 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

 c(1) =    0.268E+01 +/-    0.000E+00 [solar radii]
 c(2) =    0.223E-01 +/-    0.000E+00 [radii/min]
 c(2) =    0.259E+03 +/-    0.000E+00 [km/sec]
 c(3) =    0.758E-03 +/-    0.000E+00 [radii/min**2]
 c(3) =    0.293E+00 +/-    0.000E+00 [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) = 132. +/-   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 23:31 =  277. km/sec

The RADIAL velocity at 23:47 =  567. km/sec

The RADIAL velocity at  0: 4 =  866. 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!