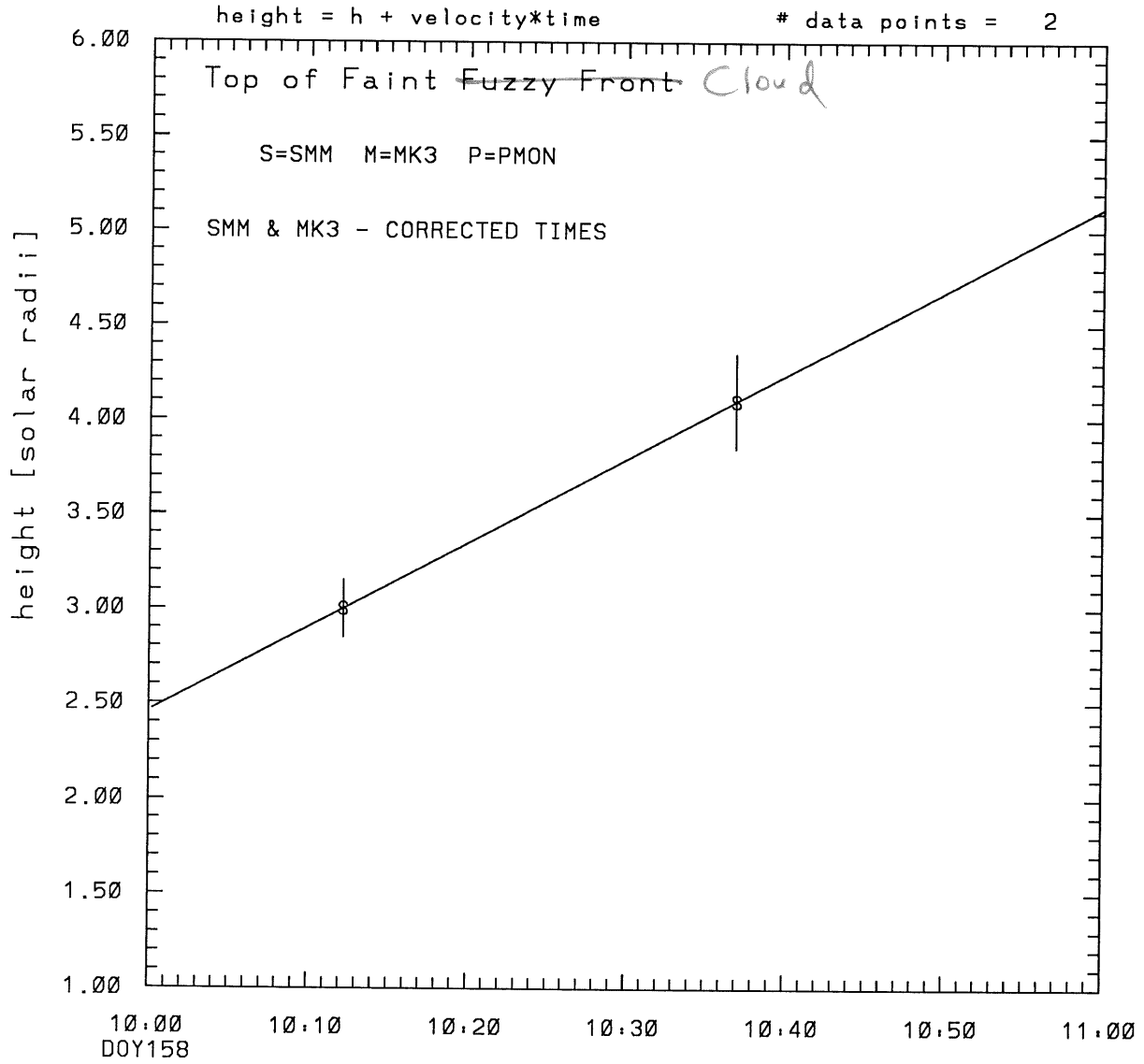


SMM C/P 1988 DOY158 260 +/- 0 degrees



tstart=DOY158 9:29 +/- 0.0 [min.]  
radial velocity= 515. +/- 0. [km/sec]

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

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	doy	time	radii	error in radius	error in angle	datatype
1988	158	10:12:12	3.00	+/- 0.15	260.0 +/- 1.0	SMM
1988	158	10:36:58	4.10	+/- 0.25	260.0 +/- 1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of ~~Faint Fuzzy Front~~ *Cloud*  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.328E+02 +/- 0.000E+00$  [minutes]  
In more convenient units:  
Event began at DOY 158 9:29 +/- 0.000E+00 [minutes]

Origin defined at DOY158 10: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 515. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.246E+01 +/- 0.142E-05 [solar radii]  
c(2) = 0.444E-01 +/- 0.655E-07 [radii/min]  
c(2) = 0.515E+03 +/- 0.759E-03 [km/sec]  
c(3) = 0.000E+00 +/- 0.000E+00 [radii/min\*\*2]  
c(3) = 0.000E+00 +/- 0.000E+00 [km/sec\*\*2]

ANGULAR INFORMATION:

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

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 260. +/- 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 10:12 = 0. km/sec

The TOTAL velocity at 10:12 = 515. km/sec

The TANGENTIAL velocity at 10:36 = 0. km/sec

The TOTAL velocity at 10:36 = 515. km/sec

\*\*\*\*\*

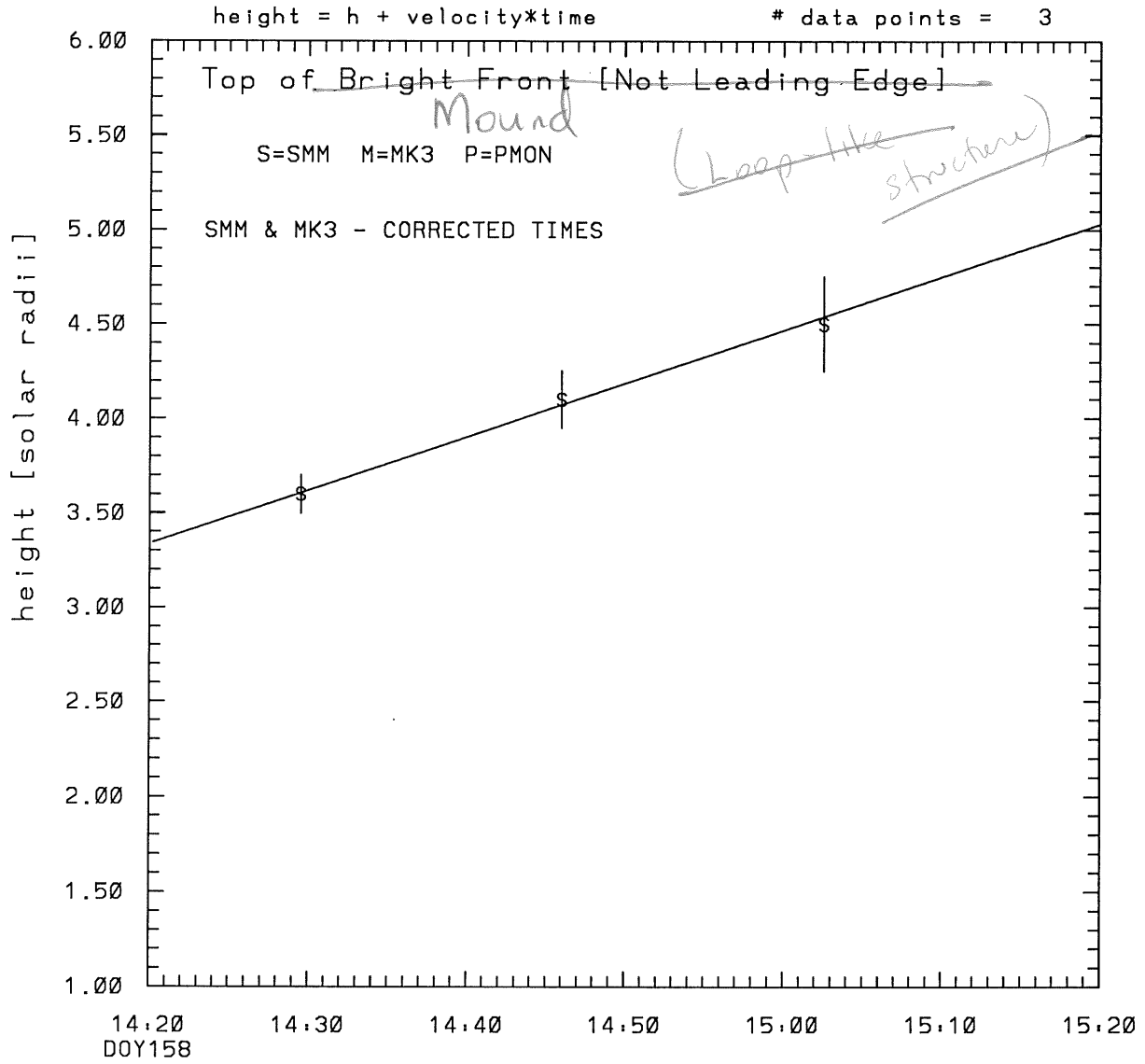
The following info is for estimating goodness of the fit

\*\*\*\*\*

Number data points = number of coefficients. No error analysis is possible.

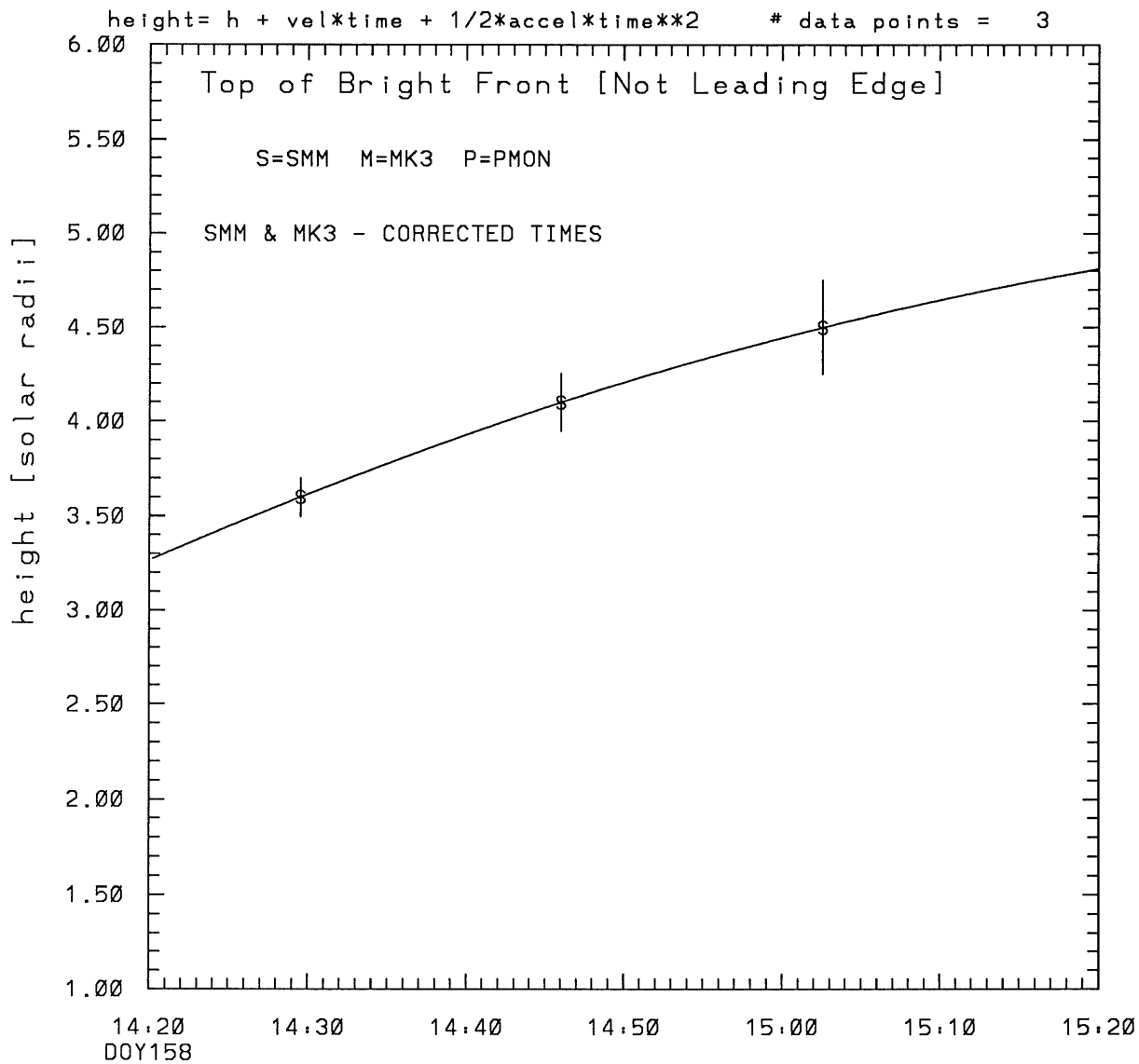
Correlation coefficient is not computable!

SMM C/P 1988 DOY158 250 +/- 0 degrees



tstart=DOY158 12:59 +/- 3.0 [min.]  
radial velocity= 327. +/- 15. [km/sec]

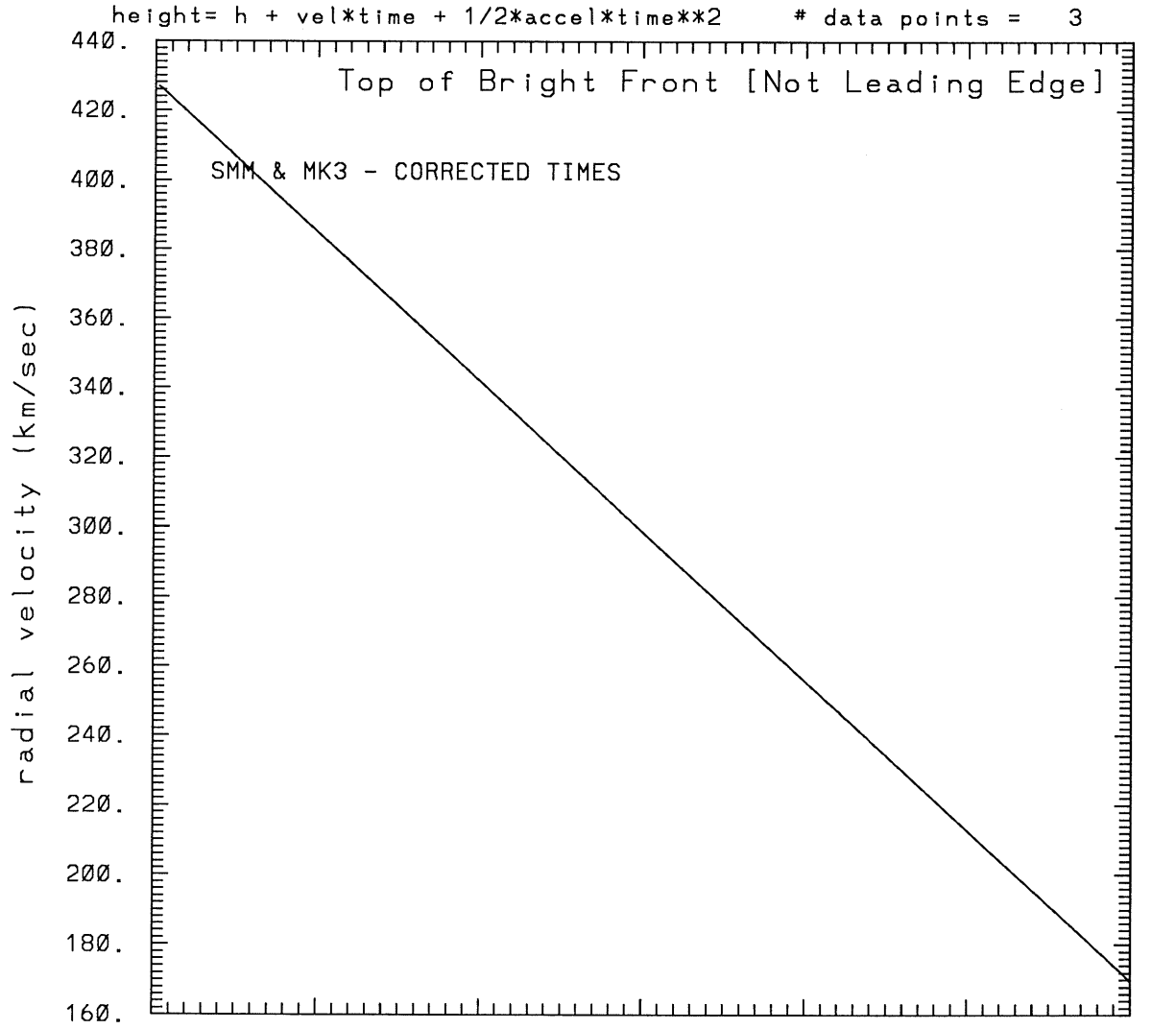
SMM C/P 1988 DOY158 250 +/- 0 degrees



tstart=DOY158 13:31 +/- 0.0 [min.]

radial acceleration=-0.0718 +/- 0.0000 [km/sec\*\*2]

SMM C/P 1988 DOY158 250 +/- 0 degrees



14.20  
DOY158

tstart=DOY158 13:31 +/- 0.0 [min.]

radial acceleration =  $-.718E-01$  km/sec\*\*2

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

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	doy	time	radii	error in radius	error in angle	angle	datatype
1988	158	14:29:31	3.60	+/- 0.10	250.0	+/- 1.0	SMM
1988	158	14:46: 1	4.10	+/- 0.15	250.0	+/- 1.0	SMM
1988	158	15: 2:34	4.50	+/- 0.25	250.0	+/- 1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of ~~Bright Front~~ [Not Leading Edge] *Mauro*  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.828E+02 +/- 0.295E+01$  [minutes]  
In more convenient units:  
Event began at DOY 158 12:59 +/- 0.295E+01 [minutes]

Origin defined at DOY158 14:20

RADIAL INFORMATION:

RADIAL VELOCITY = 327. +/- 15. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.334E+01 +/- 0.262E-01 [solar radii]
- c(2) = 0.282E-01 +/- 0.127E-02 [radii/min]
- c(2) = 0.327E+03 +/- 0.147E+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)= 0.60781E-01 [radii] see Bevington pg. 114
- error in c(2)= 0.20729E-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) = 250. +/- 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 14:29 = 0. km/sec

The TOTAL velocity at 14:29 = 327. km/sec

The TANGENTIAL velocity at 14:46 = 0. km/sec

The TOTAL velocity at 14:46 = 327. km/sec

The TANGENTIAL velocity at 15: 2 = 0. km/sec

The TOTAL velocity at 15: 2 = 327. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.45

Standard Deviation in start time measurement = 0.135E+02

Error in time = 0.17166E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.592E-03

Reduced Chi Squared = 0.617E-02

Chi Squared = 0.617E-02

The probability for exceeding chi square = 0.981E+00

The correlation coefficient = 0.998E+00

The probability that no LINEAR correlation exists between the variables = 0.4133E-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
1988	158	14:29:31	3.60	+/- 0.10	250.0	+/- 1.0	SMM
1988	158	14:46: 1	4.10	+/- 0.15	250.0	+/- 1.0	SMM
1988	158	15: 2:34	4.50	+/- 0.25	250.0	+/- 1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of Bright Front [Not Leading Edge]  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.492E+02 +/- 0.000E+00$  [minutes]  
In more convenient units:  
Event began at DOY 158 13:31 +/- 0.000E+00 [minutes]

Origin defined at DOY158 14:20

RADIAL INFORMATION:

RADIAL ACCELERATION =  $-0.718E-01 +/- 0.497E-06$  km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) =  $0.327E+01 +/- 0.561E-06$  [solar radii]  
c(2) =  $0.369E-01 +/- 0.614E-07$  [radii/min]  
c(2) =  $0.428E+03 +/- 0.712E-03$  [km/sec]  
c(3) =  $-0.186E-03 +/- 0.129E-08$  [radii/min\*\*2]  
c(3) =  $-0.718E-01 +/- 0.497E-06$  [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) =  $250. +/- 0.$  [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 14:29 = 0. km/sec

The TOTAL velocity at 14:29 = 387. km/sec

The TANGENTIAL velocity at 14:46 = 0. km/sec

The TOTAL velocity at 14:46 = 316. km/sec

The TANGENTIAL velocity at 15: 2 = 0. km/sec

The TOTAL velocity at 15: 2 = 245. 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!