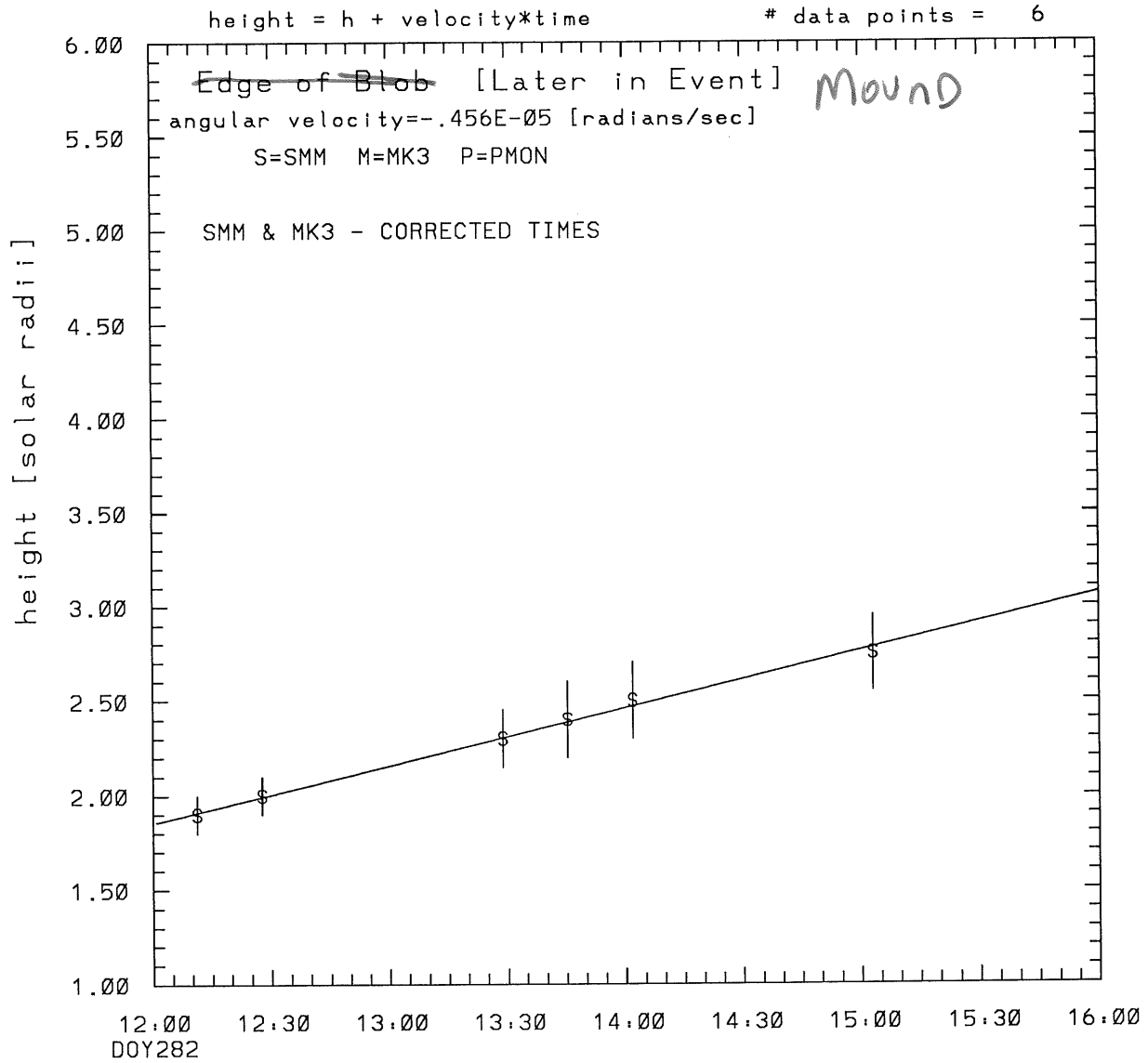
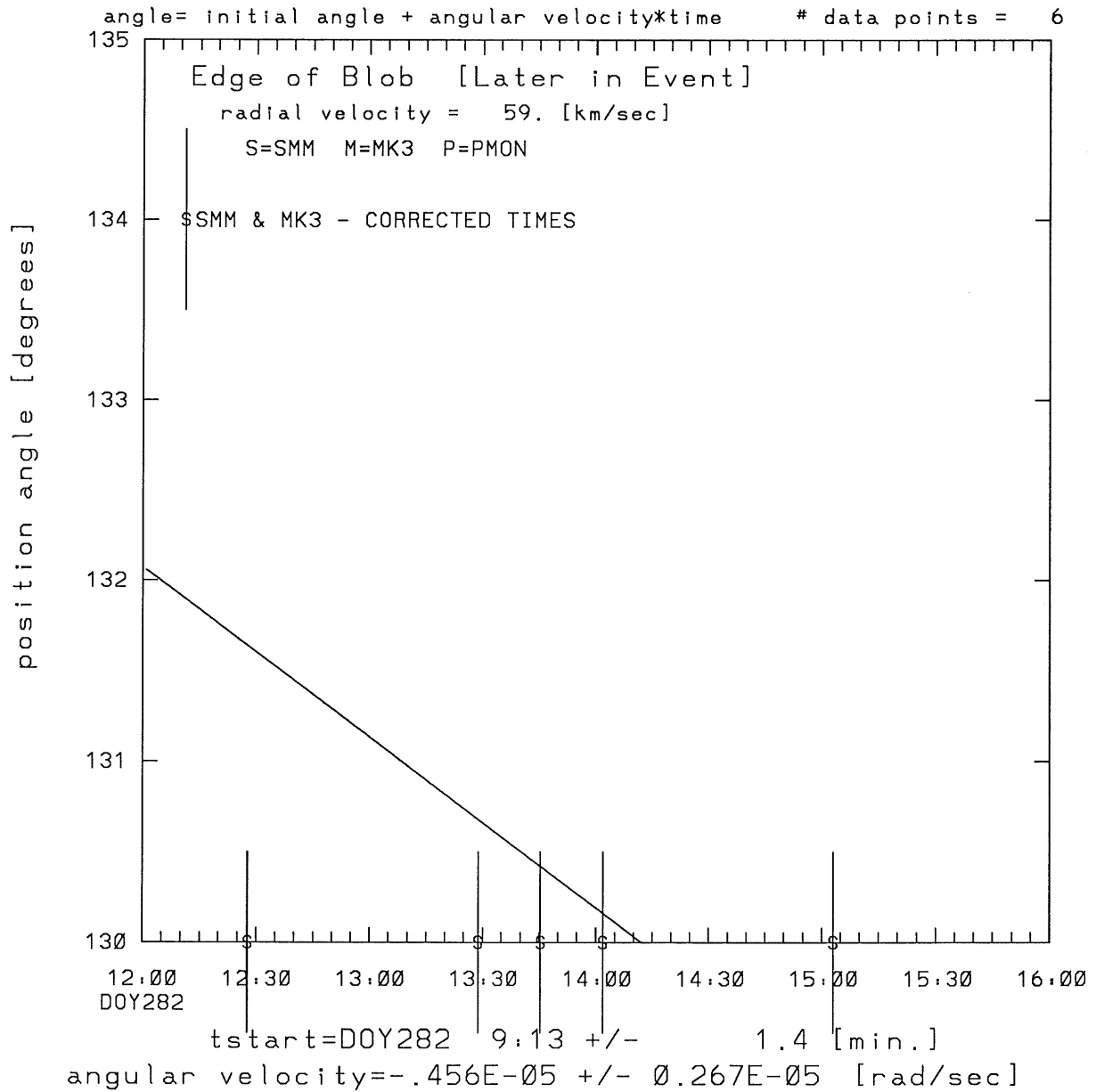


SMM C/P 1987 DOY282 130 +/- 4 degrees

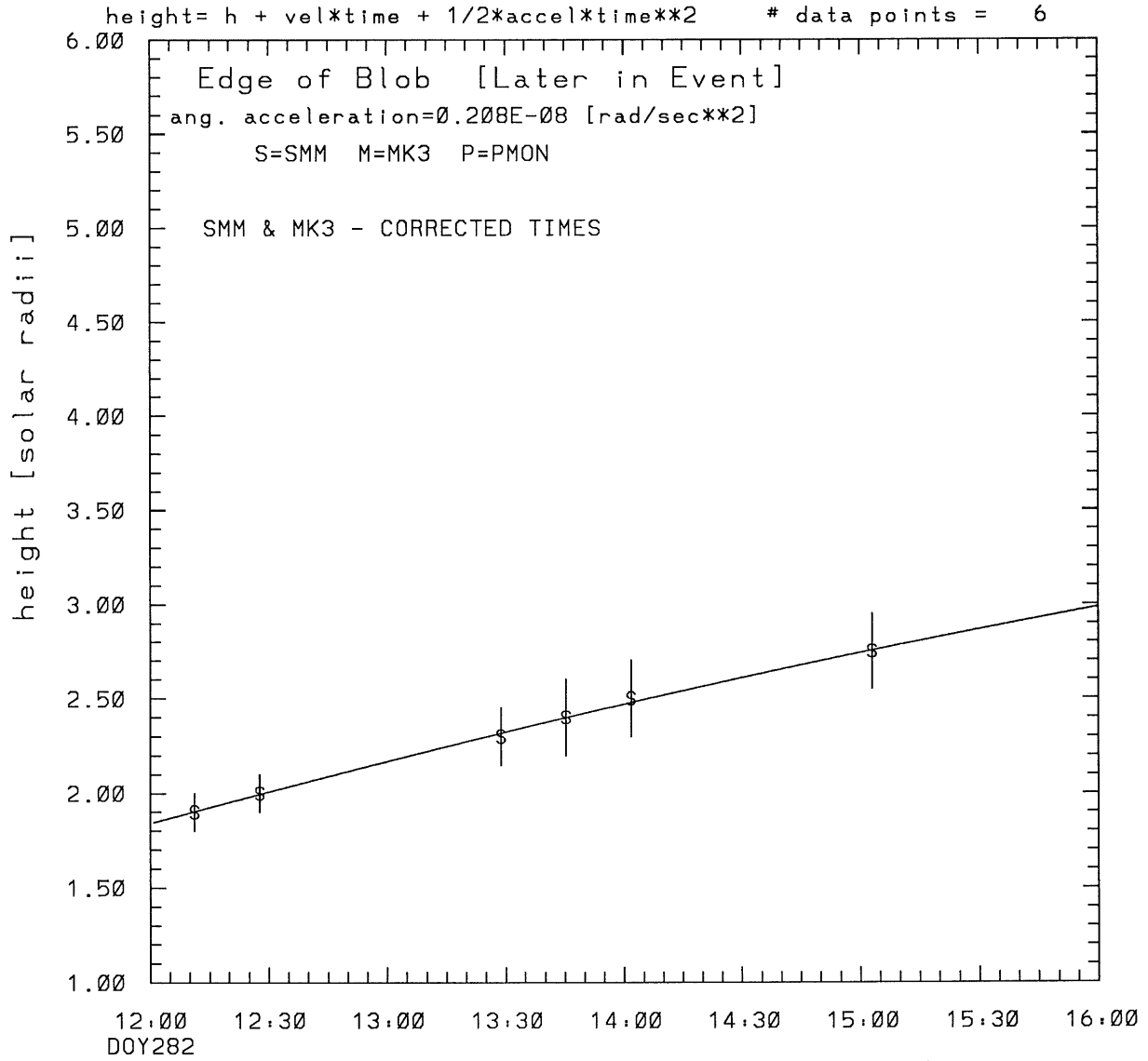


tstart=DOY282 9:13 +/- 1.4 [min.]
radial velocity= 59. +/- 1. [km/sec]

SMM C/P 1987 DOY282 130 +/- 4 degrees



SMM C/P 1987 DOY282 130 +/- 4 degrees

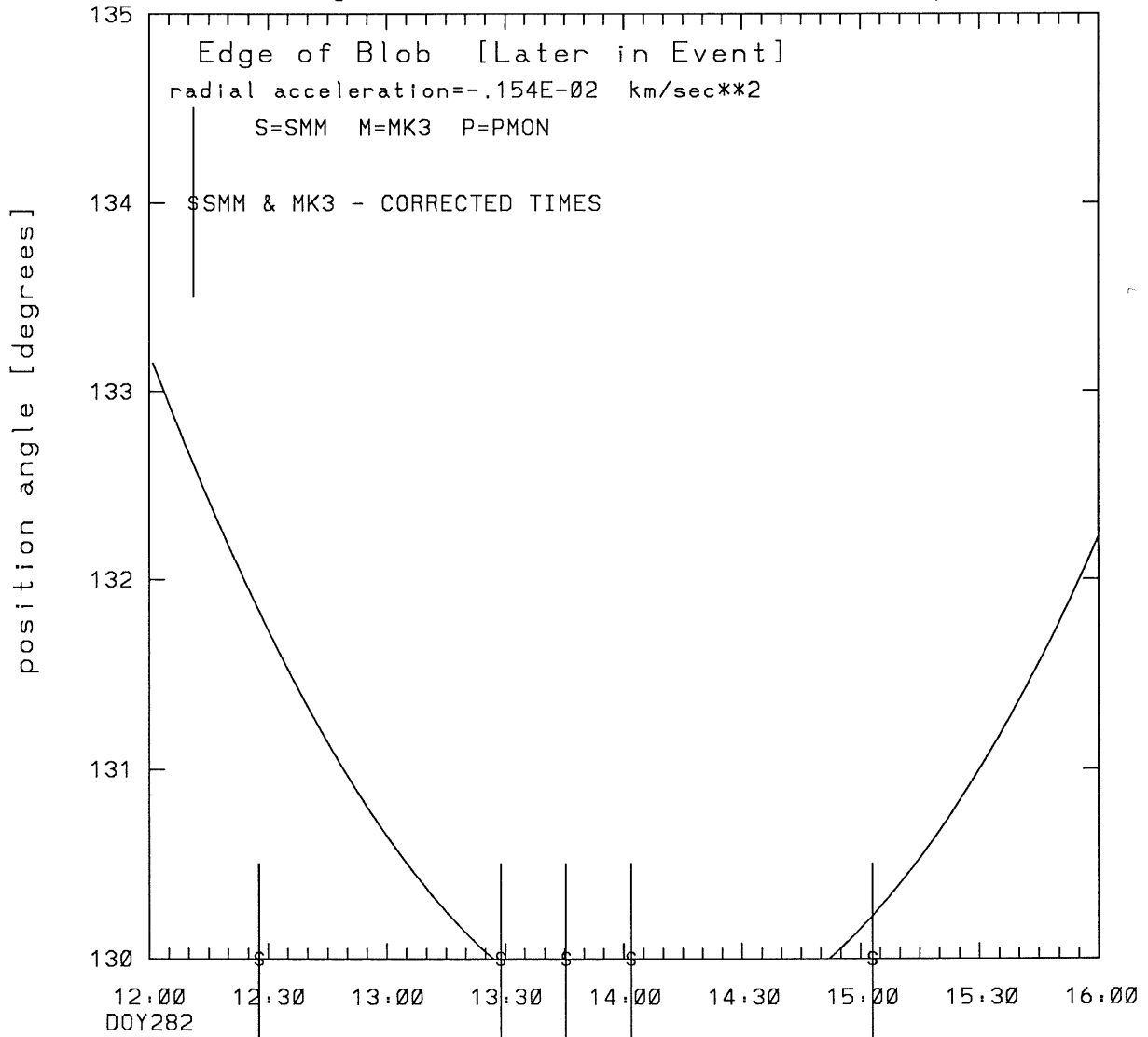


tstart = DOY282 9:46 +/- 8.1 [min.]

radial acceleration = $-0.0015 +/- 0.0007$ [km/sec**2]

SMM C/P 1987 DOY282 130 +/- 4 degrees

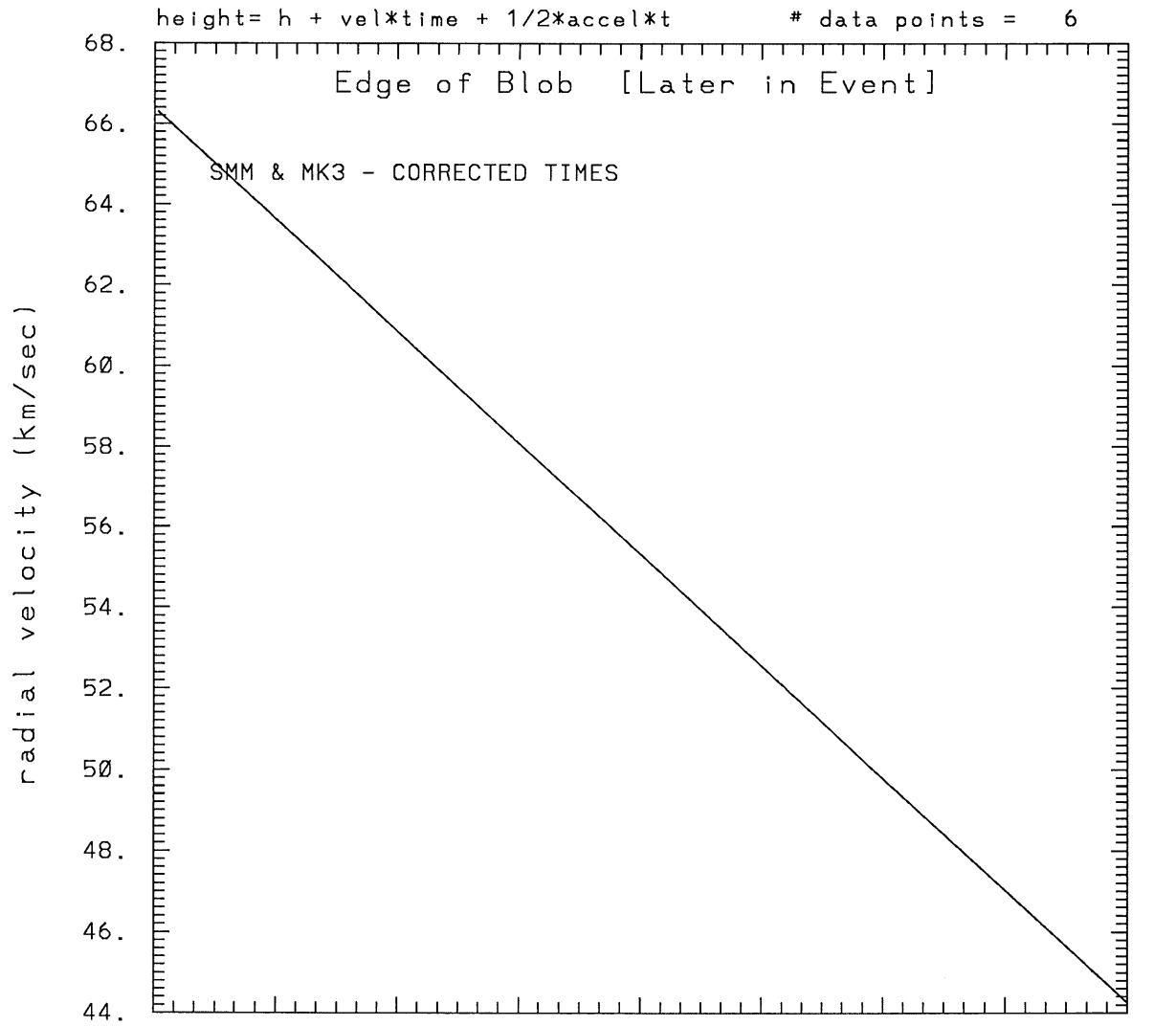
angle = initial angle + angular velocity*time
+ 1/2 angular acceleration*time**2 # data points = 6



tstart=DOY282 9.46 +/- 8.1 [min.]

angular acceleration=0.208E-08 +/- 0.145E-08 [rad/sec**2]

SMM C/P 1987 DOY282 130 +/- 4 degrees



12:00
DOY282

12:30 13:00 13:30 14:00 14:30 15:00 15:30 16:00

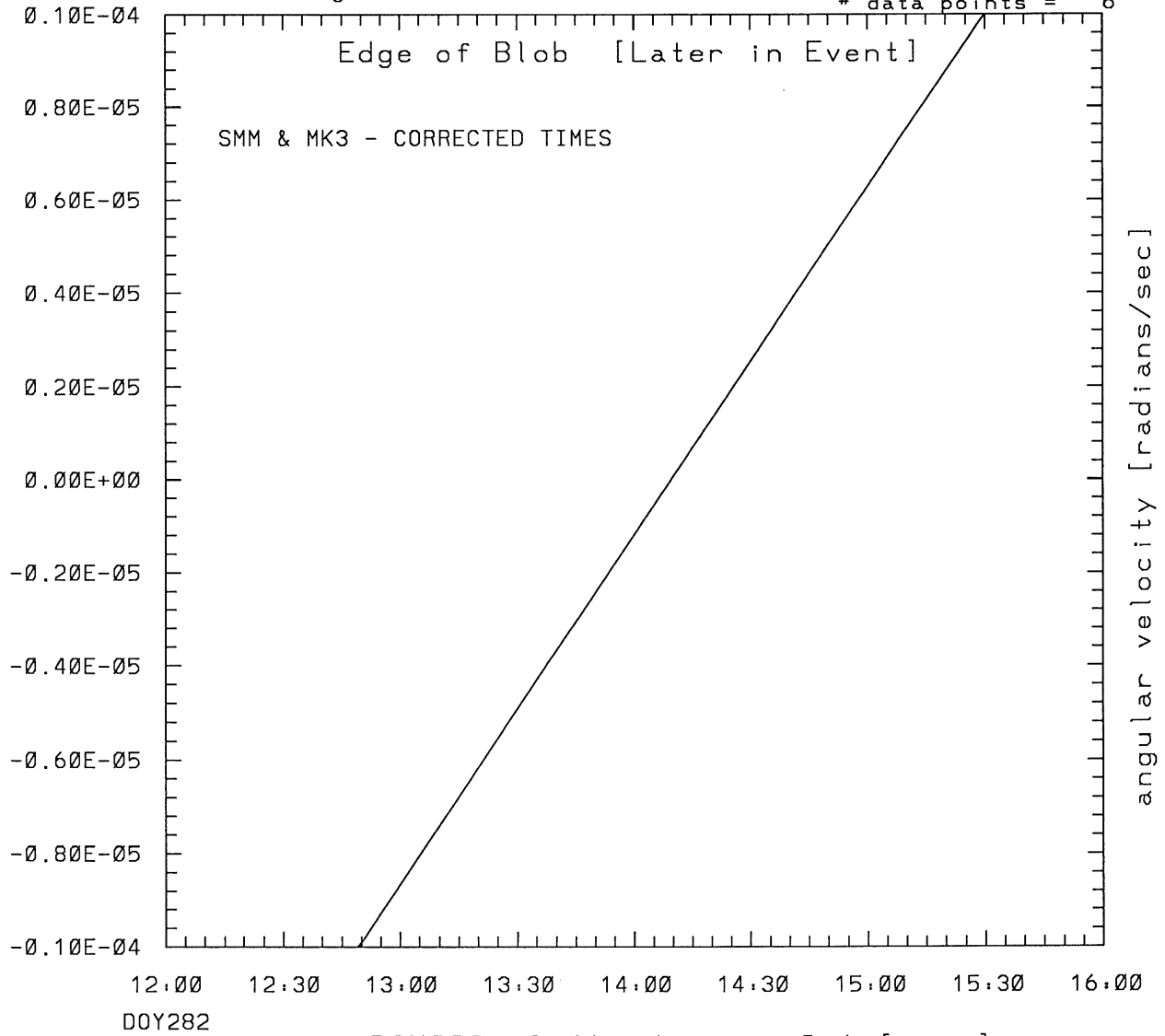
tstart=DOY282 9.46 +/- 8.1 [min.]

radial acceleration=-.154E-02 km/sec**2

SMM C/P 1987 DOY282 130 +/- 4 degrees

$$\text{angle} = \text{initial angle} + \text{angular velocity} * \text{time} + \frac{1}{2} \text{angular acceleration} * \text{time} ** 2$$

data points = 6



tstart=DOY282 9:46 +/- 8.1 [min.]

angular acceleration=0.208E-08 +/-
0.145E-08 [rad/sec**2]

This is a 1 order run

INPUT:

year	doy	time	radii	radius	error in angle	error in angle	datatype
1987	282	12:11:10	1.90 +/- 0.10	134.0 +/- 0.5		SMM	
1987	282	12:27:40	2.00 +/- 0.10	130.0 +/- 0.5		SMM	
1987	282	13:28:51	2.30 +/- 0.15	130.0 +/- 0.5		SMM	
1987	282	13:45:21	2.40 +/- 0.20	130.0 +/- 0.5		SMM	
1987	282	14: 1:52	2.50 +/- 0.20	130.0 +/- 0.5		SMM	
1987	282	15: 3: 2	2.75 +/- 0.20	130.0 +/- 0.5		SMM	

Structure being measured:
Edge of ~~Blob~~ *Mound*

OUTPUT:

START TIME:

Event began at t = 0 + -0.169E+03 +/- 0.145E+01 [minutes]
In more convenient units:
Event began at DOY 282 9:13 +/- 0.145E+01 [minutes]

Origin defined at DOY282 12: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 59. +/- 1. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.185E+01 +/- 0.920E-02 [solar radii]
c(2) = 0.505E-02 +/- 0.118E-03 [radii/min]
c(2) = 0.586E+02 +/- 0.137E+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)= 0.17271E-01 [radii] see Bevington pg. 114
error in c(2)= 0.16195E-03 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = -0.4565E-05 +/- 0.2667E-05 [radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 132. +/- 1. [degrees]
a(2) = -0.157E-01 +/- 0.917E-02 [degrees/min]
a(2) = -0.456E-05 +/- 0.267E-05 [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 12:11 = 59. km/sec

The RADIAL velocity at 12:27 = 59. km/sec

The RADIAL velocity at 13:28 = 59. km/sec

The RADIAL velocity at 13:45 = 59. km/sec

The RADIAL velocity at 14: 1 = 59. km/sec

The RADIAL velocity at 15: 3 = 59. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.32

Standard Deviation in start time measurement = 0.577E+02

Error in time = 0.90670E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.238E-03

Reduced Chi Squared = 0.264E-02

Chi Squared = 0.106E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.998E+00

The probability that no LINEAR correlation exists between the variables = 0.60671

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

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in angle	error in angle	datatype
1987	282	12:11:10	1.90 +/-	0.10	134.0 +/-	0.5	SMM
1987	282	12:27:40	2.00 +/-	0.10	130.0 +/-	0.5	SMM
1987	282	13:28:51	2.30 +/-	0.15	130.0 +/-	0.5	SMM
1987	282	13:45:21	2.40 +/-	0.20	130.0 +/-	0.5	SMM
1987	282	14: 1:52	2.50 +/-	0.20	130.0 +/-	0.5	SMM
1987	282	15: 3: 2	2.75 +/-	0.20	130.0 +/-	0.5	SMM

Structure being measured:
Edge of Blob

OUTPUT:

START TIME:

Event began at t = 0 + -0.134E+03 +/- 0.805E+01 [minutes]
In more convenient units:
Event began at DOY 282 9:46 +/- 0.805E+01 [minutes]

Origin defined at DOY282 12: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.154E-02 +/- 0.695E-03 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.184E+01 +/- 0.936E-02 [solar radii]
c(2) = 0.572E-02 +/- 0.316E-03 [radii/min]
c(2) = 0.664E+02 +/- 0.366E+01 [km/sec]
c(3) = -0.397E-05 +/- 0.180E-05 [radii/min**2]
c(3) = -0.154E-02 +/- 0.695E-03 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.16639E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.18736E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.40553E-03 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.43284E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.20904E-05 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) = 0.23657E-06 [radii/min**2] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.2075E-08 +/- 0.1447E-08[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 133. +/- 1. [degrees]
a(2) = -0.555E-01 +/- 0.289E-01 [degrees/min]
a(2) = -0.161E-04 +/- 0.842E-05 [rad/sec]
a(3) = 0.214E-03 +/- 0.149E-03 [degrees/min**2]
a(3) = 0.208E-08 +/- 0.145E-08 [rad/sec**2]

The RADIAL velocity at 12:11 = 65. km/sec
The RADIAL velocity at 12:27 = 64. km/sec
The RADIAL velocity at 13:28 = 58. km/sec
The RADIAL velocity at 13:45 = 57. km/sec
The RADIAL velocity at 14: 1 = 55. km/sec
The RADIAL velocity at 15: 3 = 50. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.32
Standard Deviation in start time measurement = 0.577E+02
Value of reduced Chi Squared returned from nllst2 = 0.134E-03
Reduced Chi Squared = 0.114E-02
Chi Squared = 0.343E-02
The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

(Using equation of motion: $r = a + bt + at^2$)

The correlation between the data and the term linear in time = 0.1082E+01
The correlation between the data and the time**2 term = 0.9226E+00
The correlation between the data and the complete equation of motion=0.9975E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]