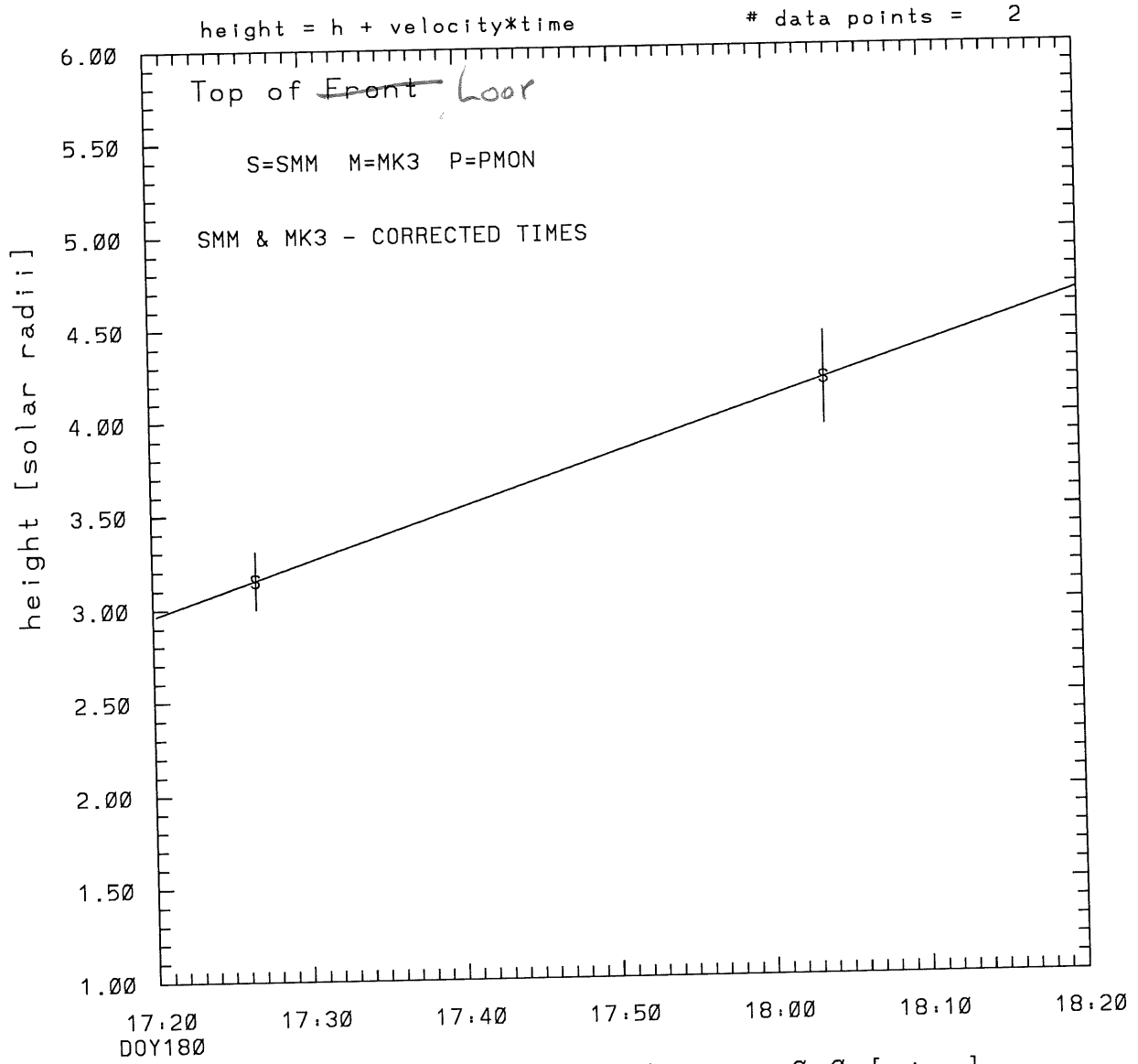


SMM C/P 1985 DOY180 107 +/- 0 degrees



tstart=DOY180 16:11 +/- 0.0 [min.]
radial velocity= 329. +/- 0. [km/sec]

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1985	180	17:26:39	3.15	+/- 0.15	107.0	+/- 1.0	SMM
1985	180	18: 3:39	4.20	+/- 0.25	107.0	+/- 1.0	SMM

Structure being measured:
Top of Front *Loop*

OUTPUT:

START TIME:

Event began at $t = 0 + -0.691E+02 +/- 0.000E+00$ [minutes]
In more convenient units:
Event began at DOY 180 16:11 +/- 0.000E+00 [minutes]

Origin defined at DOY180 17:20

RADIAL INFORMATION:

RADIAL VELOCITY = 329. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.296E+01 +/- 0.677E-06 [solar radii]
c(2) = 0.284E-01 +/- 0.292E-07 [radii/min]
c(2) = 0.329E+03 +/- 0.339E-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) = 107. +/- 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 17:26 = 0.000E+00 km/sec

The TOTAL velocity at 17:26 = 329. km/sec

The TANGENTIAL velocity at 18: 3 = 0.000E+00 km/sec

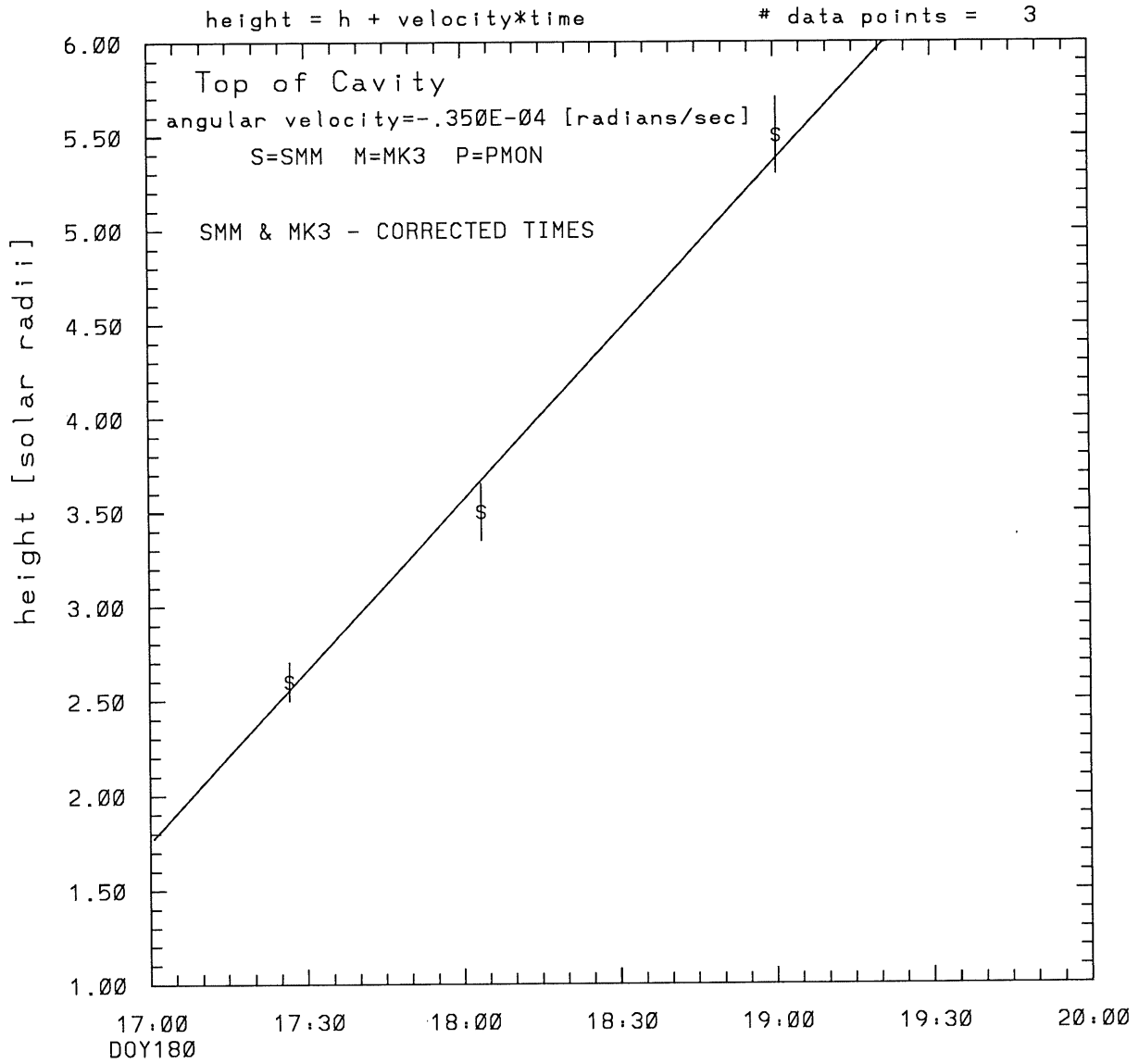
The TOTAL velocity at 18: 3 = 329. km/sec

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!

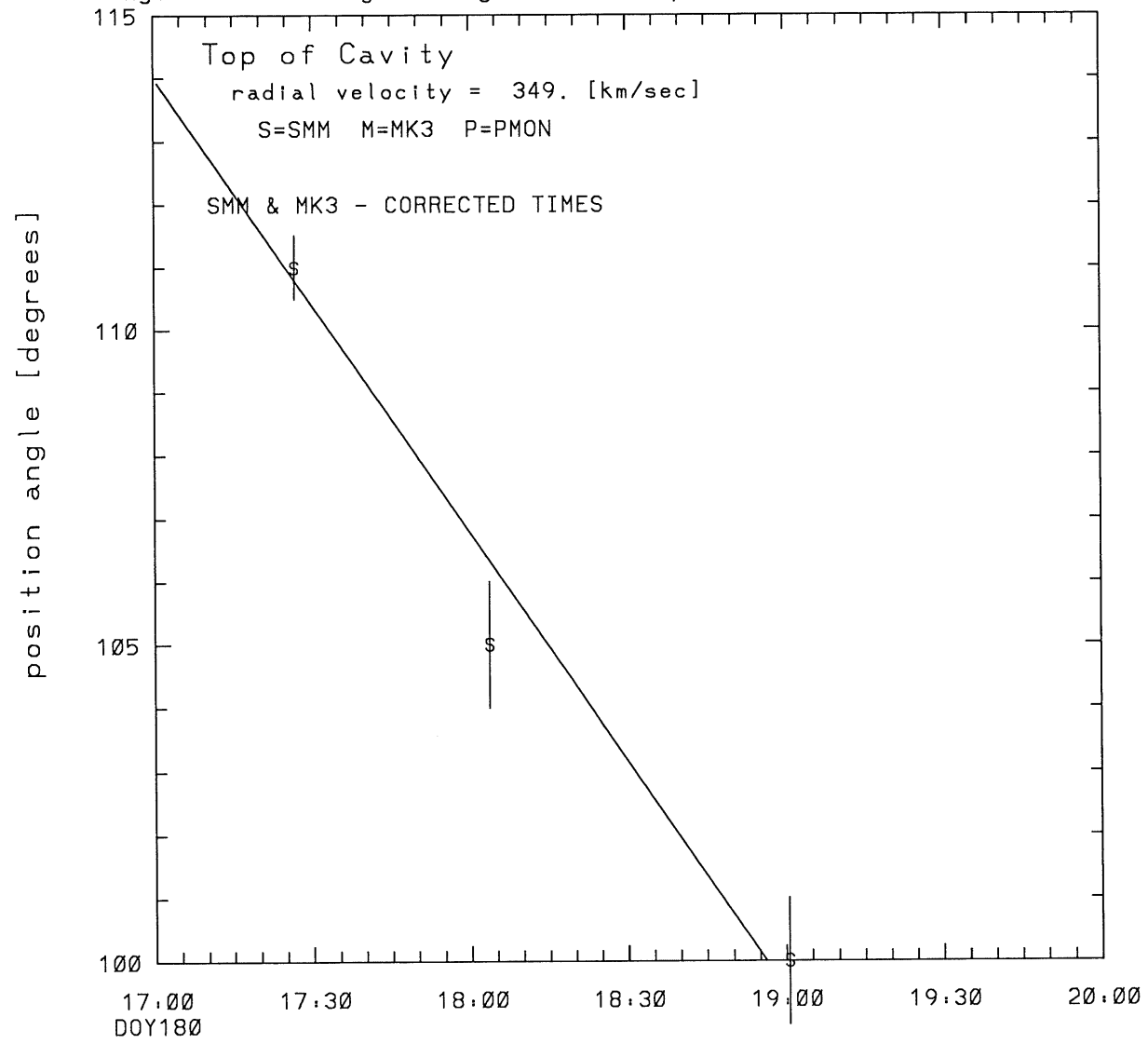
SMM C/P 1985 DOY180 105 +/- 6 degrees



tstart=DOY180 16:35 +/- 1.5 [min.]
radial velocity= 349. +/- 25. [km/sec]

SMM C/P 1985 DOY180 105 +/- 6 degrees

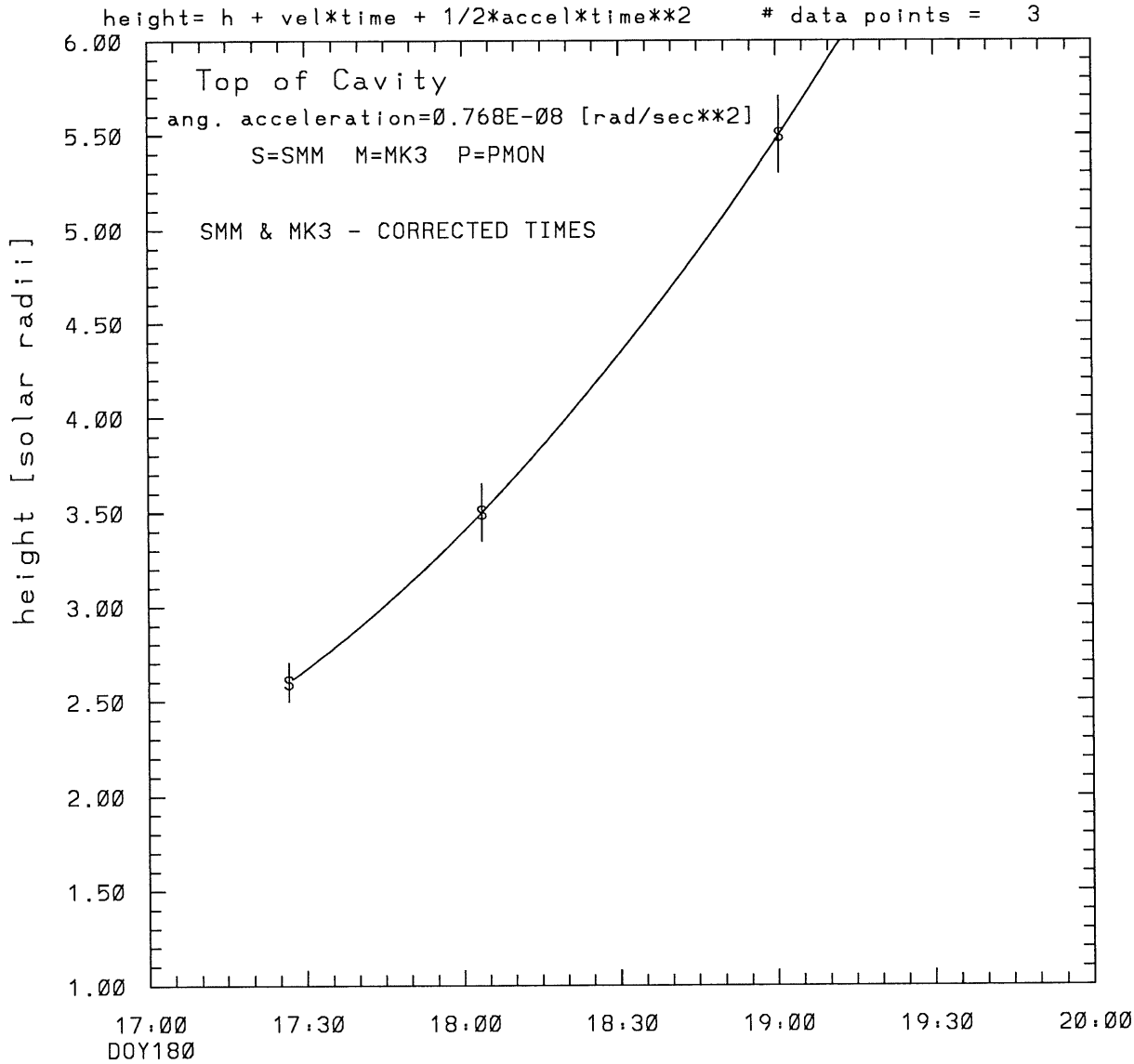
angle= initial angle + angular velocity*time # data points = 3



tstart=DOY180 16:35 +/- 1.5 [min.]
angular velocity=-.350E-04 +/- 0.359E-05 [rad/sec]



SMM C/P 1985 DOY180 105 +/- 6 degrees

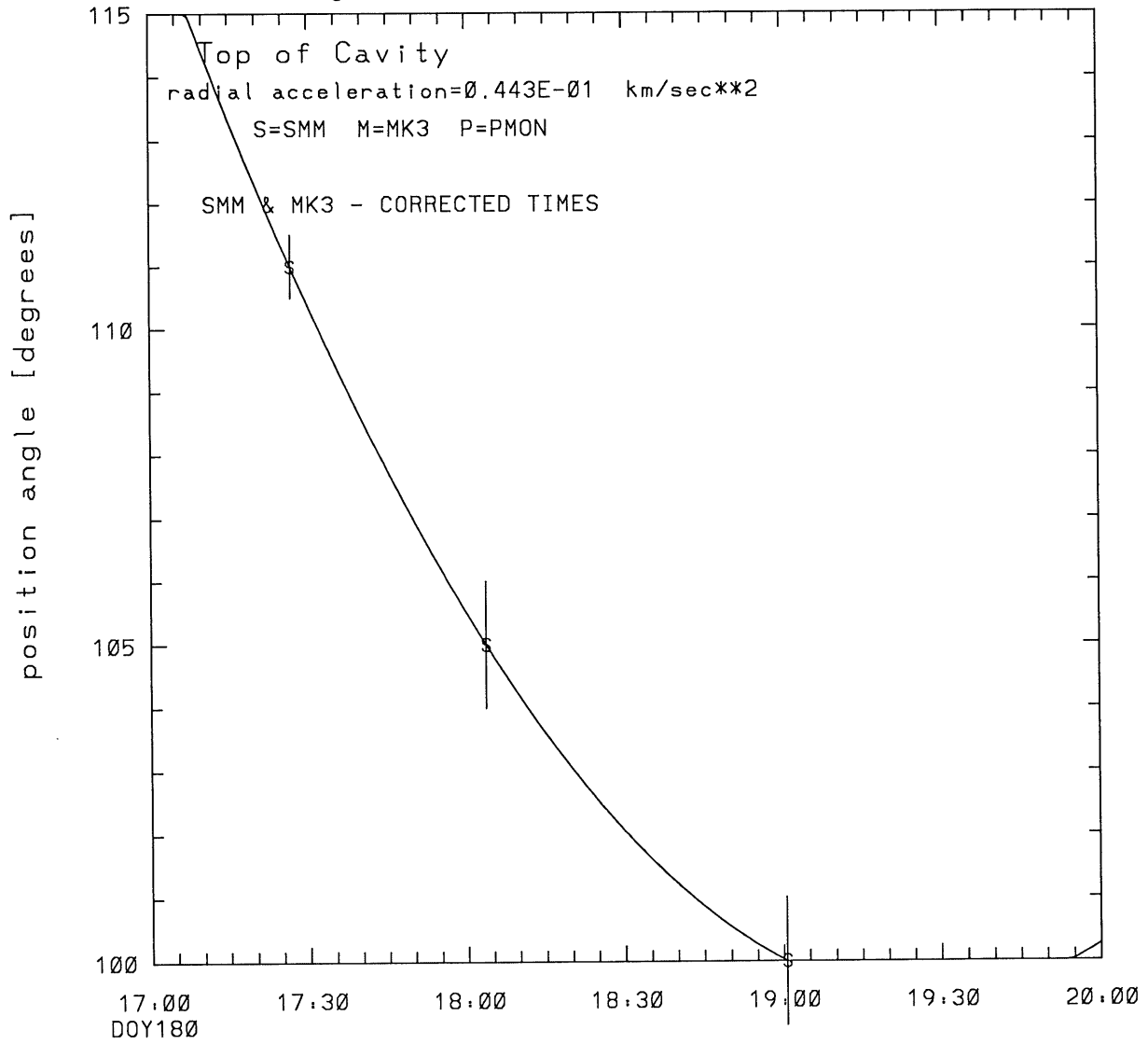


tstart=DOY180 16: 0 from derivative=0
Event begins at 1.72 Solar Radii
radial acceleration = $0.0443 +/- 0.0000$ [km/sec**2]

SMM C/P 1985 DOY180 105 +/- 6 degrees

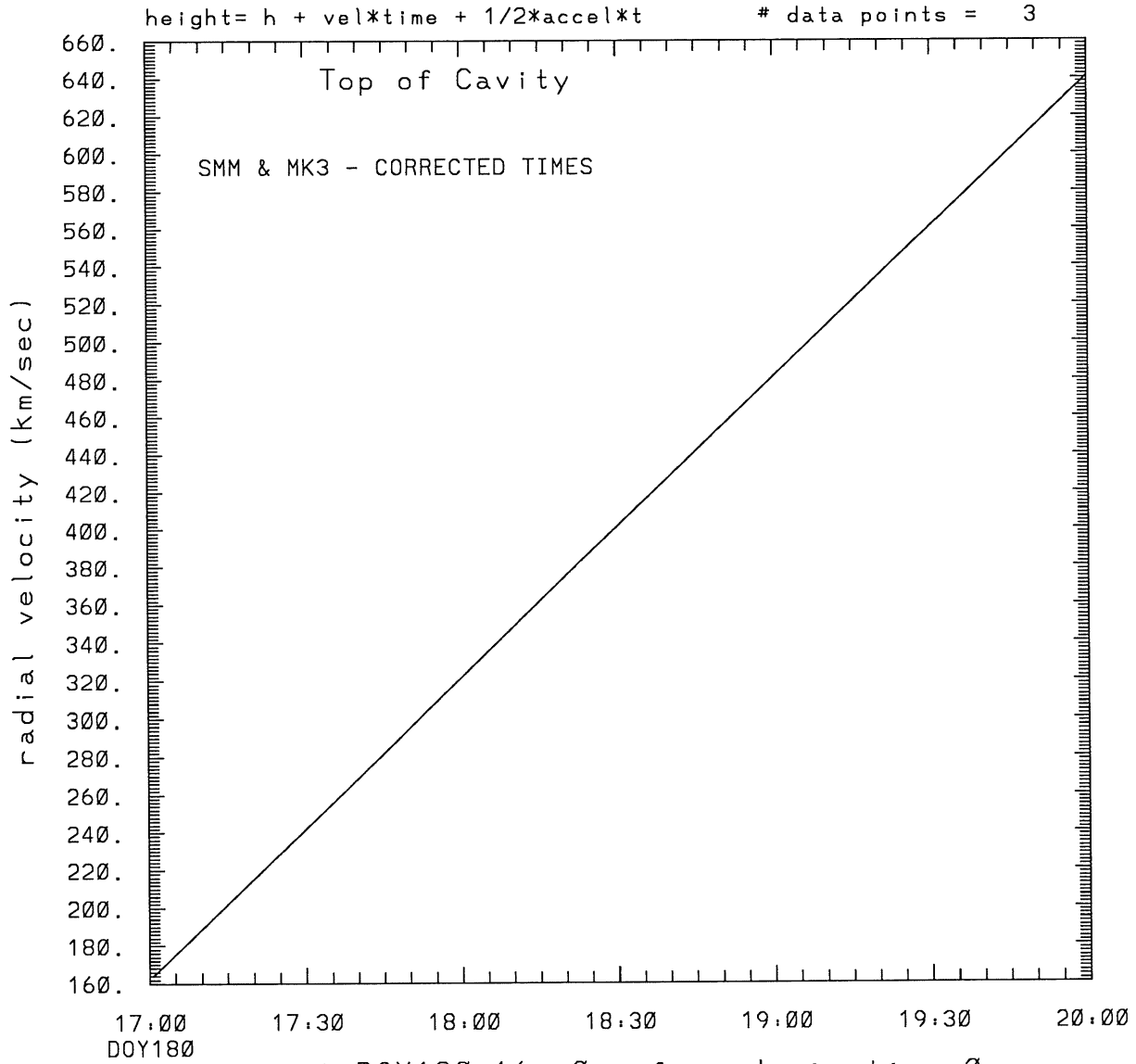
angle = initial angle + angular velocity*time
+ 1/2 angular acceleration*time**2

data points = 3



tstart=DOY180 16: 0 from derivative=0
angular acceleration=0.768E-08 +/- 0.124E-12 [rad/sec**2]

SMM C/P 1985 DOY180 105 +/- 6 degrees

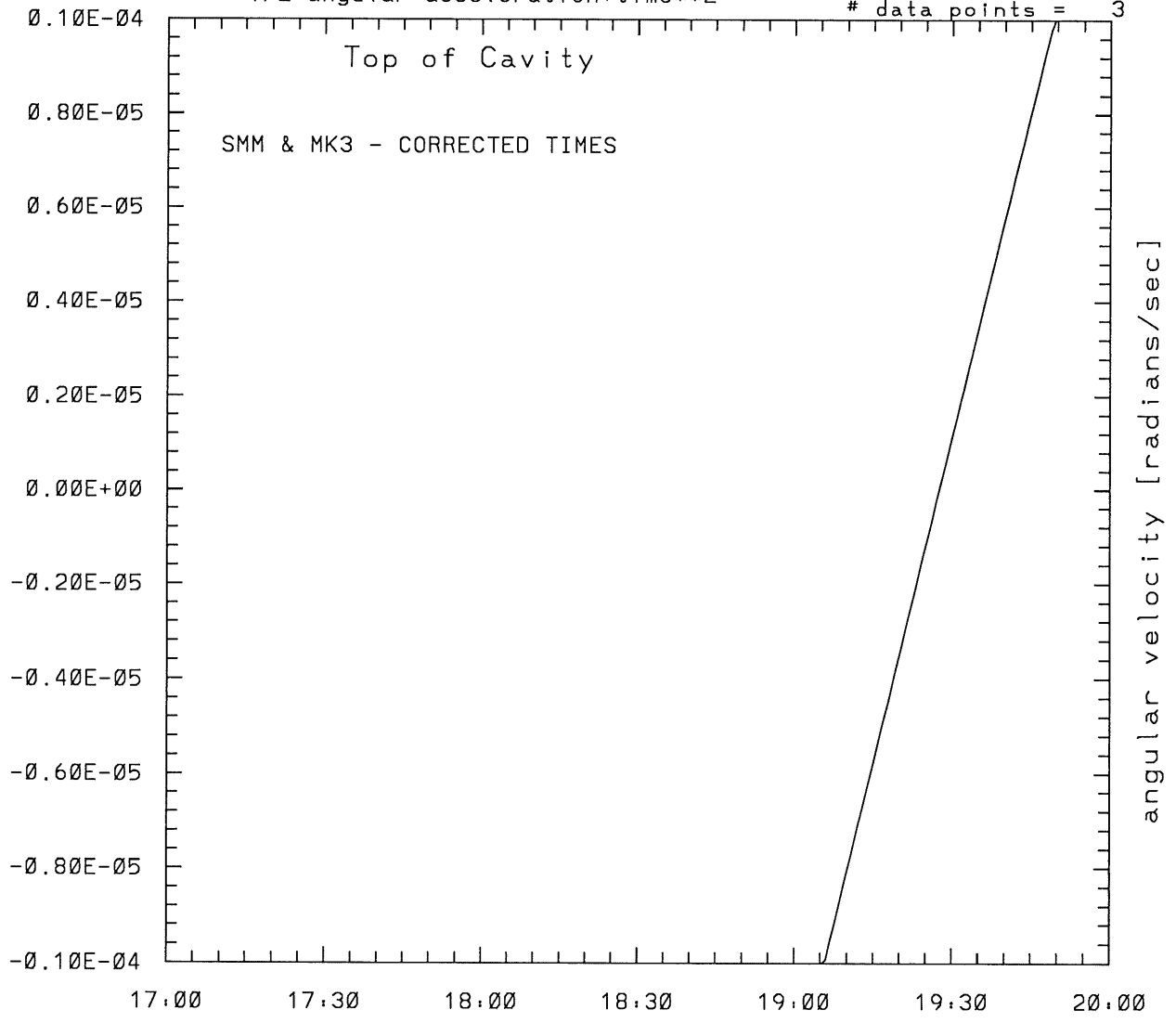


tstart=DOY180 16: 0 from derivative=0
Event begins at 1.72 Solar Radii
radial acceleration=0.443E-01 km/sec**2

SMM C/P 1985 DOY180 105 +/- 6 degrees

angle = initial angle + angular velocity*time +
1/2 angular acceleration*time**2

data points = 3



DOY180

tstart=DOY180 16: 0 from derivative=0

angular acceleration=0.768E-08 +/-

0.124E-12 [rad/sec**2]

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1985	180	17:26:39	2.60 +/-	0.10	111.0 +/-	0.5	SMM
1985	180	18: 3:39	3.50 +/-	0.15	105.0 +/-	1.0	SMM
1985	180	19: 0:38	5.50 +/-	0.20	100.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.250E+02 +/- 0.145E+01 [minutes]
In more convenient units:
Event began at DOY 180 16:35 +/- 0.145E+01 [minutes]

Origin defined at DOY180 17: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 349. +/- 25. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.175E+01 +/- 0.132E+00 [solar radii]
c(2) = 0.301E-01 +/- 0.219E-02 [radii/min]
c(2) = 0.349E+03 +/- 0.254E+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)= 0.25161E+00 [radii] see Bevington pg. 114
error in c(2)= 0.31358E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = -0.3505E-04 +/- 0.3589E-05[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 114. +/- 1. [degrees]
a(2) = -0.120E+00 +/- 0.123E-01 [degrees/min]
a(2) = -0.350E-04 +/- 0.359E-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 17:26 = 349. km/sec

The RADIAL velocity at 18: 3 = 349. km/sec

The RADIAL velocity at 19: 0 = 349. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 1.48

Standard Deviation in start time measurement = 0.387E+02

Error in time = 0.69783E+01 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.160E-01

Reduced Chi Squared = 0.999E-01

Chi Squared = 0.999E-01

The probability for exceeding chi square = 0.899E+00

The correlation coefficient = 0.996E+00

The probability that no LINEAR correlation exists between the variables = 0.5948]

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
1985	180	17:26:39	2.60 +/-	0.10	111.0 +/-	0.5	SMM
1985	180	18: 3:39	3.50 +/-	0.15	105.0 +/-	1.0	SMM
1985	180	19: 0:38	5.50 +/-	0.20	100.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

tstart=DOY180 16: 0 from derivative = 0
Event begins at 1.72 Solar Radii
Origin defined at DOY180 17: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.443E-01 +/- 0.591E-07 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.215E+01 +/- 0.581E-06 [solar radii]
c(2) = 0.140E-01 +/- 0.219E-07 [radii/min]
c(2) = 0.162E+03 +/- 0.254E-03 [km/sec]
c(3) = 0.115E-03 +/- 0.153E-09 [radii/min**2]
c(3) = 0.443E-01 +/- 0.591E-07 [km/sec**2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.7678E-08 +/- 0.1239E-12[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 117. +/- 0. [degrees]
a(2) = -0.234E+00 +/- 0.185E-05 [degrees/min]
a(2) = -0.680E-04 +/- 0.538E-09 [rad/sec]
a(3) = 0.792E-03 +/- 0.128E-07 [degrees/min**2]
a(3) = 0.768E-08 +/- 0.124E-12 [rad/sec**2]

The RADIAL velocity at 17:26 = 233. km/sec

The RADIAL velocity at 18: 3 = 331. km/sec

The RADIAL velocity at 19: 0 = 483. 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!