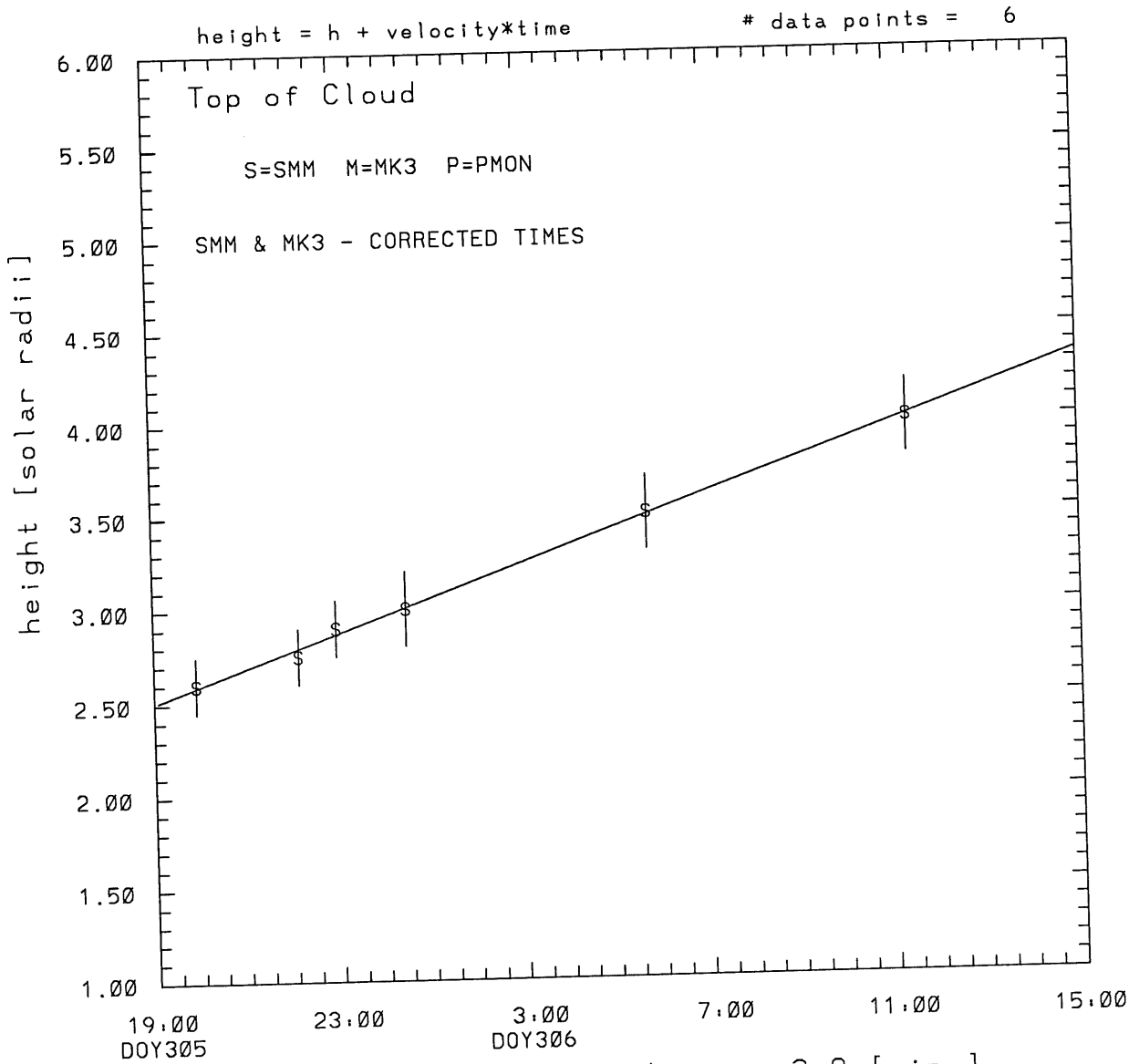
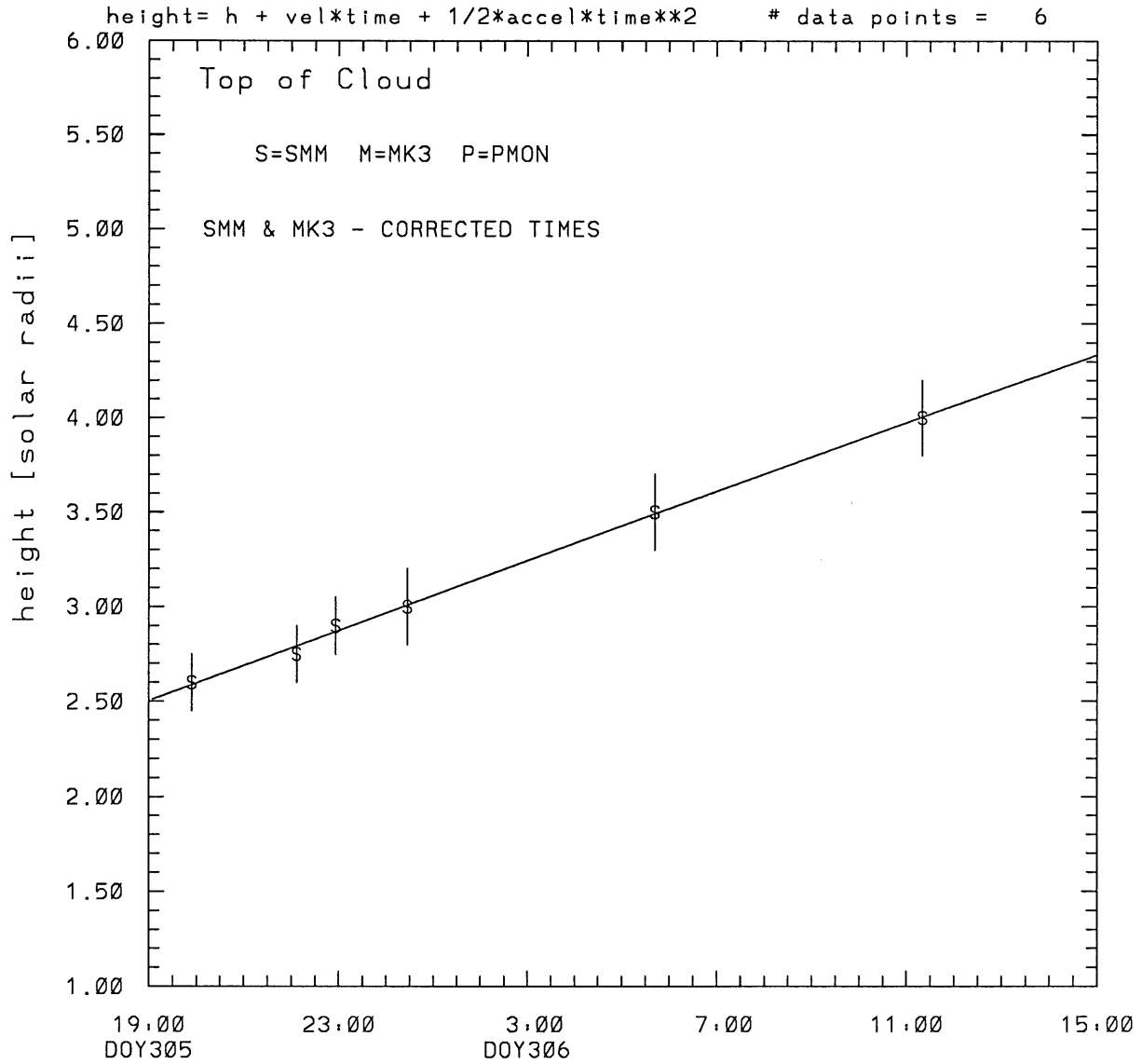


SMM C/P 1989 DOY305 285 +/- 0 degrees



tstart=DOY305 2:37 +/- 3.8 [min.]
radial velocity= 18. +/- 0. [km/sec]

SMM C/P 1989 DOY305 285 +/- 0 degrees

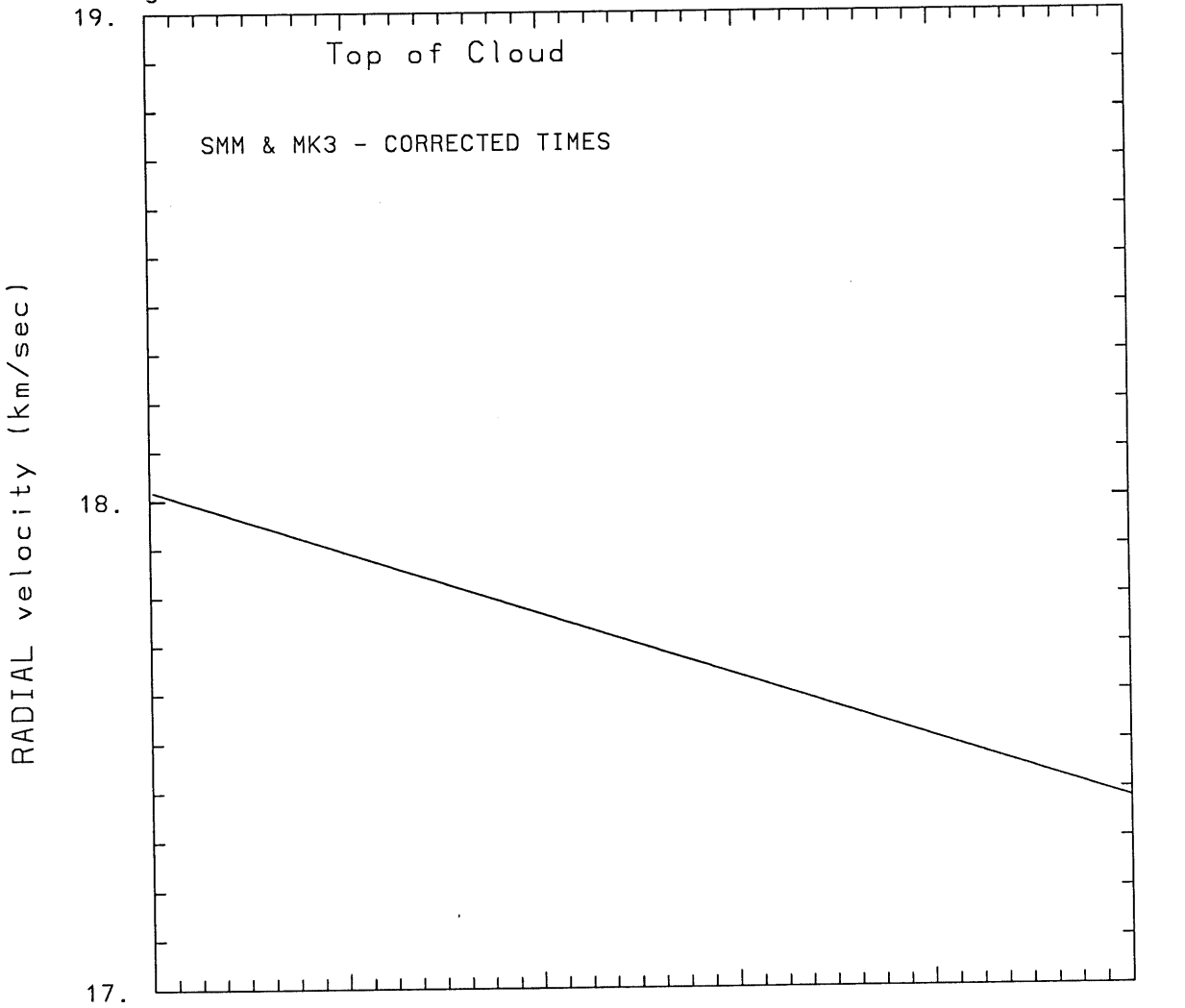


tstart=DOY305 3: 6 +/- 1176.8 [min.]

radial acceleration = 0.0000 +/- 0.0001 [km/sec**2]

SMM C/P 1989 DOY305 285 +/- 0 degrees

height = $h + vel*time + 1/2*accel*time**2$ # data points = 6



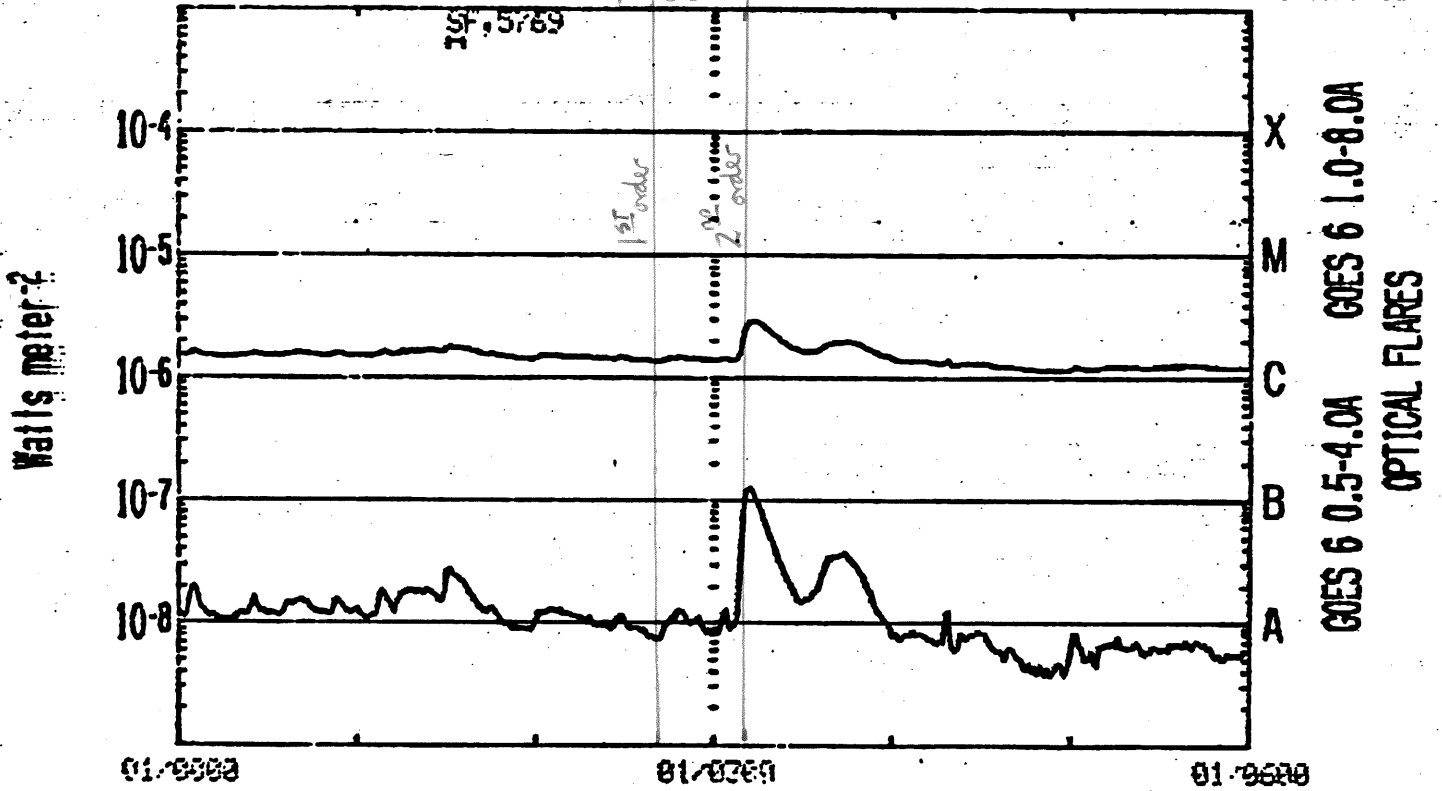
19.00 23.00 3.00 7.00 11.00 15.00
DOY305 DOY306
tstart=DOY305 3: 6 +/- 1176.8 [min.]

radial acceleration = $-.889E-05$ km/sec**2

1989 Day 305

DATA: OPTICAL DATA TOGETHER

BEGIN: 01 NOV 89



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

SAA's
NIGHT
RUN: 2075UT
6 NOV 89

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1989	305	19:54:18	2.60 +/-	0.15	285.0 +/-	0.5	SMM
1989	305	22: 6:29	2.75 +/-	0.15	285.0 +/-	0.5	SMM
1989	305	22:56: 7	2.90 +/-	0.15	285.0 +/-	0.5	SMM
1989	306	0:27: 2	3.00 +/-	0.20	285.0 +/-	1.0	SMM
1989	306	5:41:35	3.50 +/-	0.20	285.0 +/-	1.0	SMM
1989	306	11:20: 8	4.00 +/-	0.20	285.0 +/-	1.0	SMM

Structure being measured:
Top of Cloud

OUTPUT:

START TIME:

Event began at t = 0 + -0.985E+03 +/- 0.379E+01 [minutes]
In more convenient units:
Event began at DOY 305 2:37 +/- 0.379E+01 [minutes]

Origin defined at DOY305 19: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 18. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.251E+01 +/- 0.173E-01 [solar radii]
c(2) = 0.153E-02 +/- 0.390E-04 [radii/min]
c(2) = 0.177E+02 +/- 0.452E+00 [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)= 0.18590E-01 [radii] see Bevington pg. 114
error in c(2)= 0.36310E-04 [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) = 285. +/- 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 19:54 = 18. km/sec

The RADIAL velocity at 22: 6 = 18. km/sec

The RADIAL velocity at 22:56 = 18. km/sec

The RADIAL velocity at 0:27 = 18. km/sec

The RADIAL velocity at 5:41 = 18. km/sec

The RADIAL velocity at 11:20 = 18. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.53

Standard Deviation in start time measurement = 0.314E+03

Error in time = 0.36524E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.774E-03

Reduced Chi Squared = 0.196E-02

Chi Squared = 0.784E-02

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.999E+00

The probability that no LINEAR correlation exists between the variables = 0.18881

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
1989	305	19:54:18	2.60 +/- 0.15	285.0 +/- 0.5			SMM
1989	305	22: 6:29	2.75 +/- 0.15	285.0 +/- 0.5			SMM
1989	305	22:56: 7	2.90 +/- 0.15	285.0 +/- 0.5			SMM
1989	306	0:27: 2	3.00 +/- 0.20	285.0 +/- 1.0			SMM
1989	306	5:41:35	3.50 +/- 0.20	285.0 +/- 1.0			SMM
1989	306	11:20: 8	4.00 +/- 0.20	285.0 +/- 1.0			SMM

Structure being measured:
Top of Cloud

OUTPUT:

START TIME:

Event began at t = 0 + -0.954E+03 +/- 0.118E+04 [minutes]
In more convenient units:
Event began at DOY 305 3: 6 +/- 0.118E+04 [minutes]

Origin defined at DOY305 19: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.889E-05 +/- 0.661E-04 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.250E+01 +/- 0.316E-01 [solar radii]
c(2) = 0.155E-02 +/- 0.180E-03 [radii/min]
c(2) = 0.180E+02 +/- 0.209E+01 [km/sec]
c(3) = -0.230E-07 +/- 0.171E-06 [radii/min**2]
c(3) = -0.889E-05 +/- 0.661E-04 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.34808E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.80890E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.18127E-03 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.34312E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.16721E-06 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) = 0.28334E-07 [radii/min**2] Bevington pg 154 (8-28)

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec**2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 285. +/- 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 19:54 = 18. km/sec
The RADIAL velocity at 22: 6 = 18. km/sec
The RADIAL velocity at 22:56 = 18. km/sec
The RADIAL velocity at 0:27 = 18. km/sec
The RADIAL velocity at 5:41 = 18. km/sec
The RADIAL velocity at 11:20 = 17. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.53
Standard Deviation in start time measurement = 0.314E+03
Value of reduced Chi Squared returned from nllst2 = 0.963E-03
Reduced Chi Squared = 0.250E-02
Chi Squared = 0.749E-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 = 0.9511E+00
The correlation between the data and the time**2 term = 0.8936E+00
The correlation between the data and the complete equation of motion=0.9970E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]