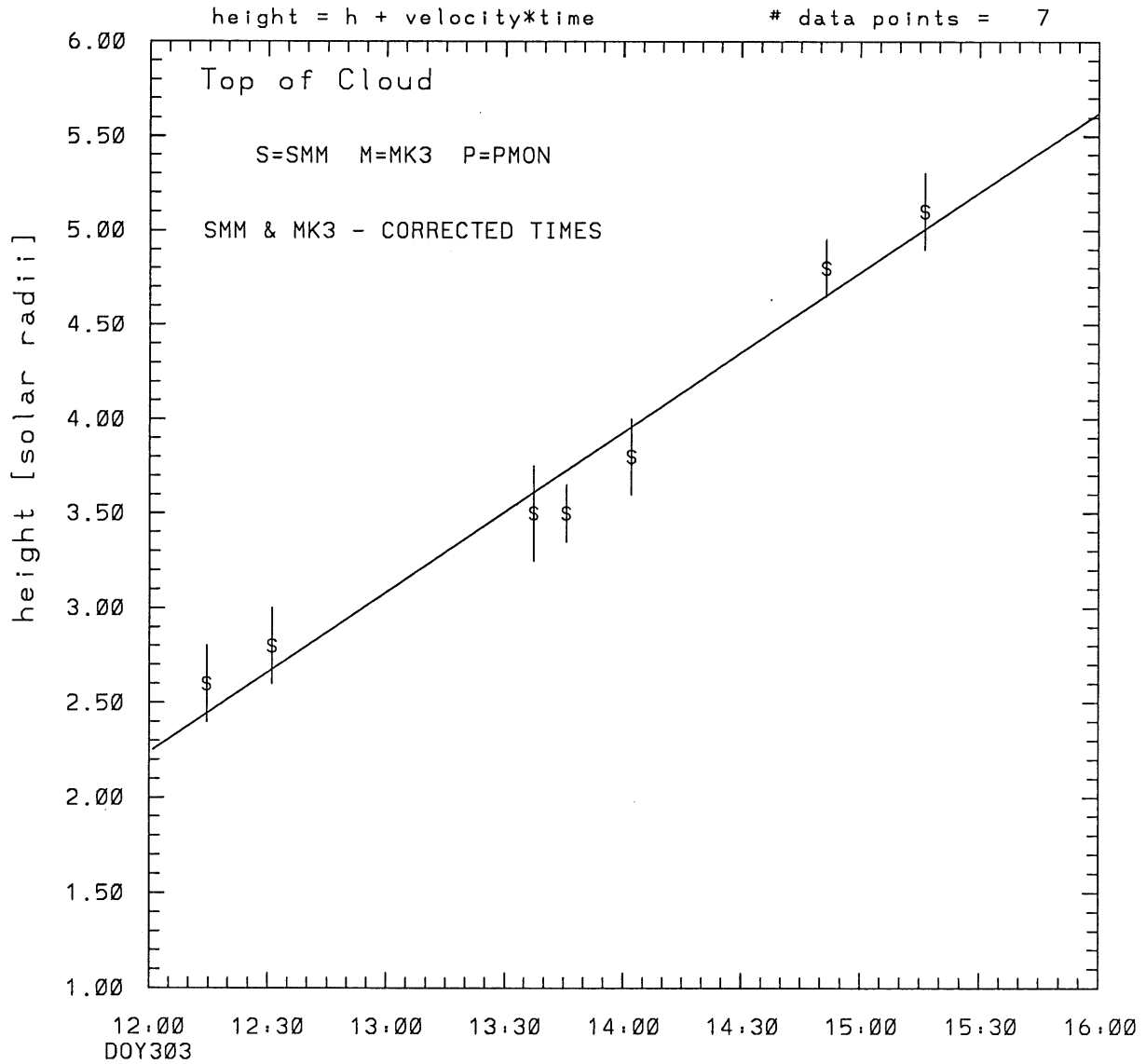
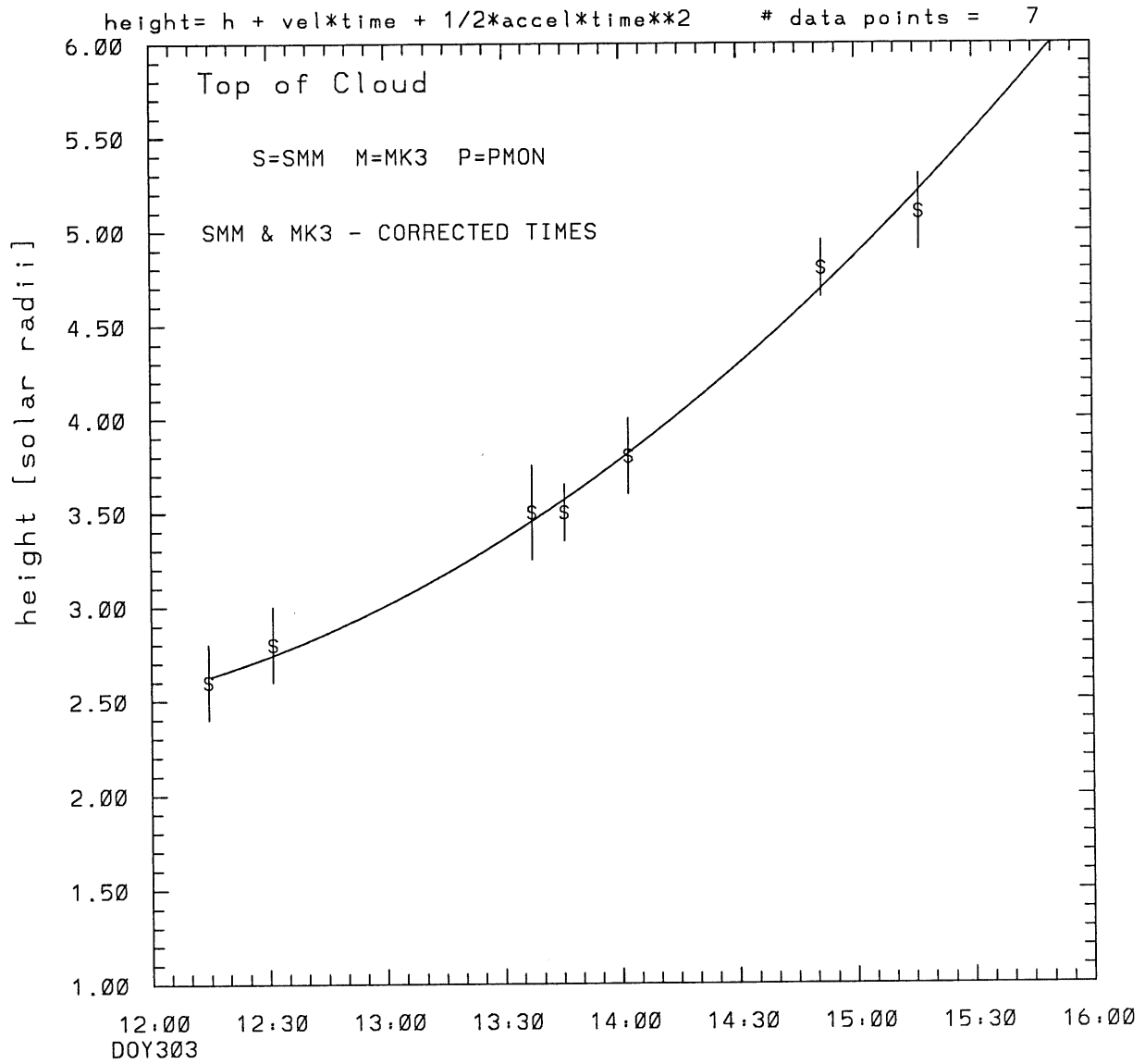


SMM C/P 1989 DOY303 240 +/- 0 degrees



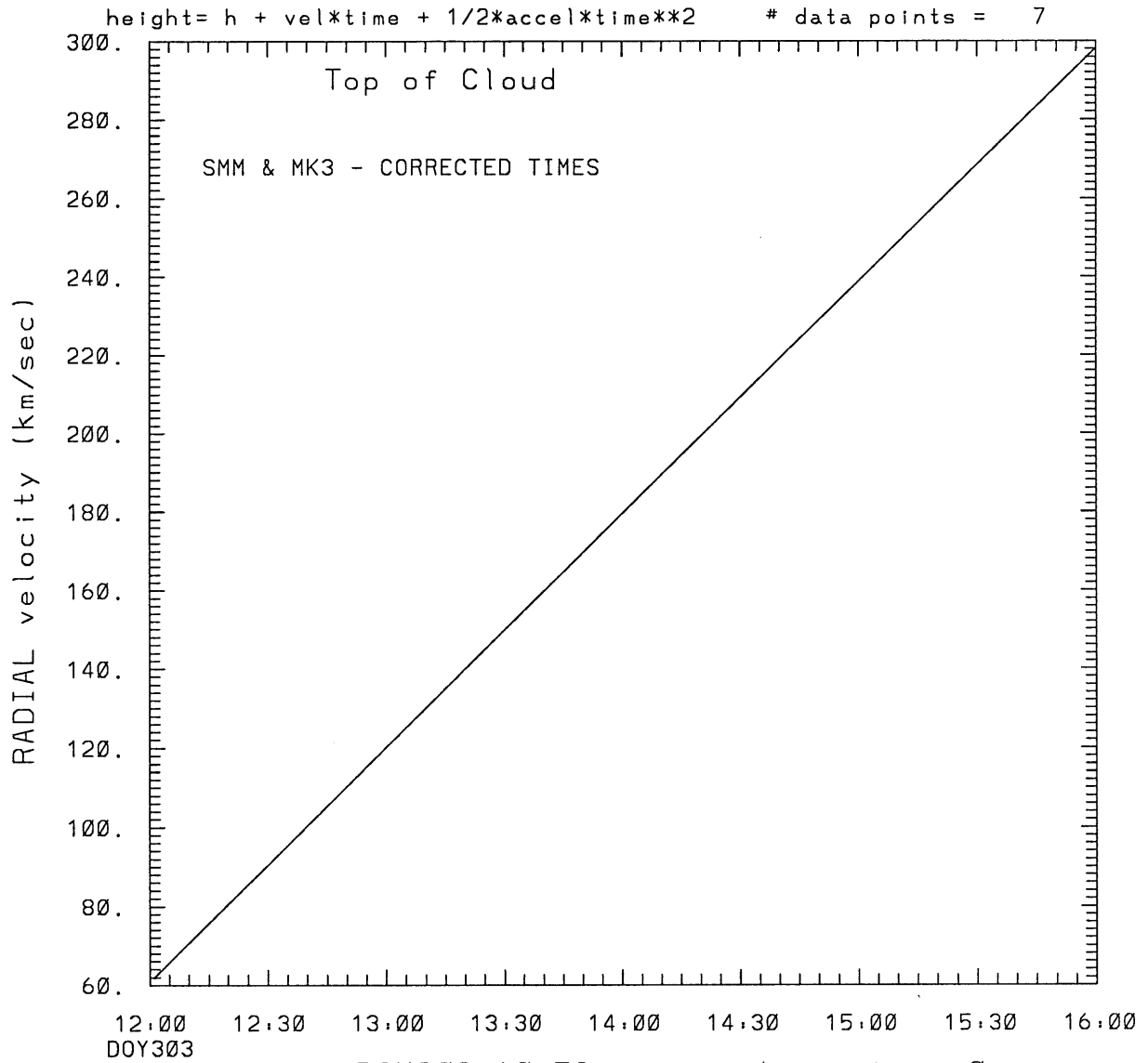
tstart=DOY303 10:34 +/- 2.7 [min.]
radial velocity= 164. +/- 13. [km/sec]

SMM C/P 1989 DOY303 240 +/- 0 degrees



tstart=DOY303 10:59 from derivative=0
Event begins at 2.38 Solar Radii
radial acceleration = 0.0165 +/- 0.0039 [km/sec**2]

SMM C/P 1989 DOY303 240 +/- 0 degrees

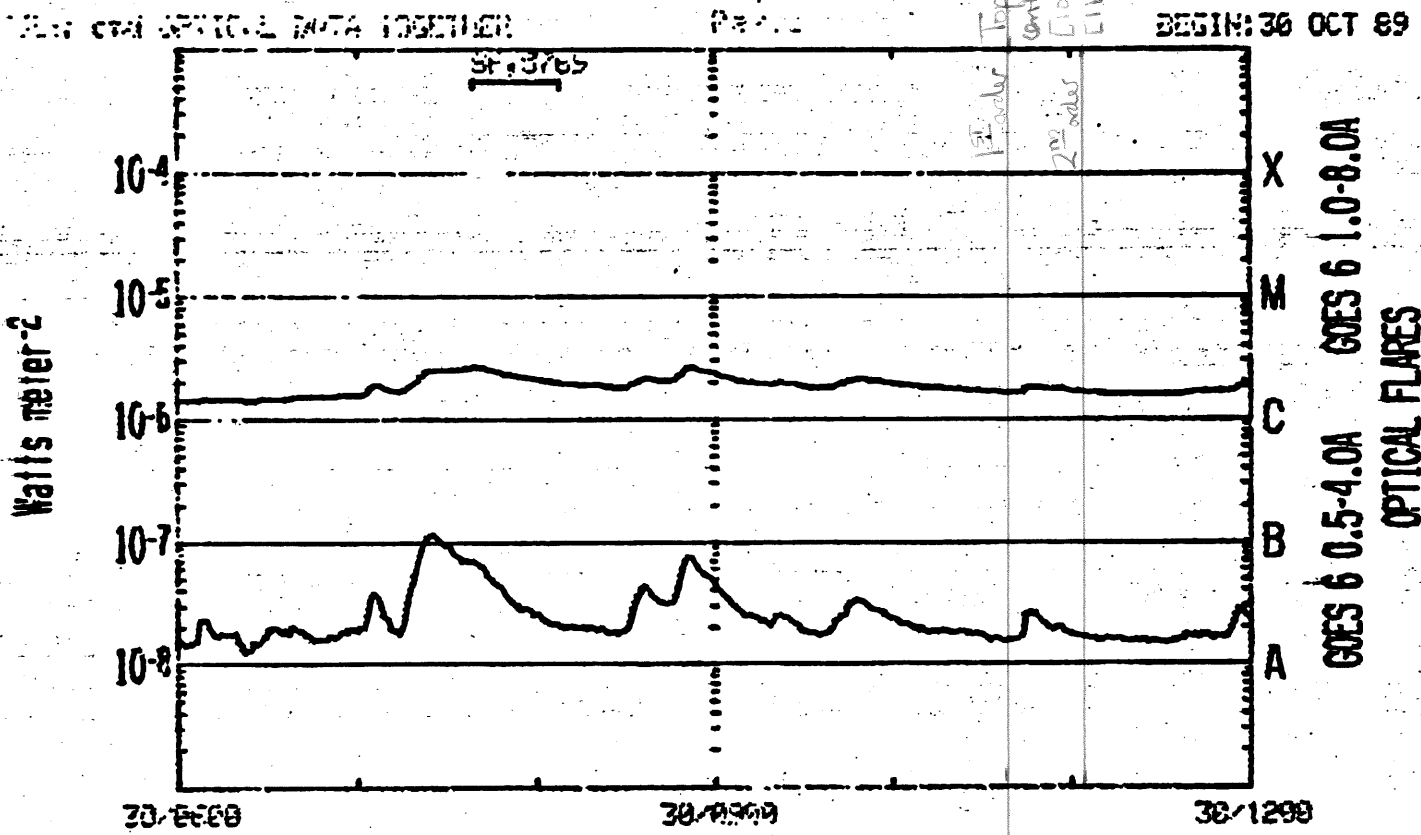


DOY303

tstart=DOY303 10:59 from derivative=0
Event begins at 2.38 Solar Radii
radial acceleration=0.165E-01 km/sec**2

1989 Nov 30

Top of Front
Center = 230°
[10:37] 1st order
[11:02] 2nd order



GOES 6 0.5-4.0A OPTICAL FLARES
GOES 6 1.0-8.0A

GOES-6 1 MIN DATA; OPTICAL FLARE DUR, IMP, REGION

SAA's NIGHT

RUN: 1857UT
4 NOV 89

This is a 1 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1989	303	12:14:33	2.60 +/-	0.20	240.0 +/-	0.5	SMM
1989	303	12:31: 2	2.80 +/-	0.20	240.0 +/-	0.5	SMM
1989	303	13:37:18	3.50 +/-	0.25	240.0 +/-	1.0	SMM
1989	303	13:45:32	3.50 +/-	0.15	240.0 +/-	1.0	SMM
1989	303	14: 2: 2	3.80 +/-	0.20	240.0 +/-	1.0	SMM
1989	303	14:51:31	4.80 +/-	0.15	240.0 +/-	1.0	SMM
1989	303	15:16:16	5.10 +/-	0.20	240.0 +/-	1.0	SMM

Structure being measured:
Top of Cloud

OUTPUT:

START TIME:

Event began at t = 0 + -0.879E+02 +/- 0.273E+01 [minutes]

In more convenient units:

Event began at DOY 303 10:34 +/- 0.273E+01 [minutes]

Origin defined at DOY303 12: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 164. +/- 13. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.224E+01 +/- 0.138E+00 [solar radii]
c(2) = 0.141E-01 +/- 0.108E-02 [radii/min]
c(2) = 0.164E+03 +/- 0.126E+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)= 0.13283E+00 [radii] see Bevington pg. 114

error in c(2)= 0.10866E-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) = 240. +/- 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 12:14 = 164. km/sec

The RADIAL velocity at 12:31 = 164. km/sec

The RADIAL velocity at 13:37 = 164. km/sec

The RADIAL velocity at 13:45 = 164. km/sec

The RADIAL velocity at 14: 2 = 164. km/sec

The RADIAL velocity at 14:51 = 164. km/sec

The RADIAL velocity at 15:16 = 164. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.94

Standard Deviation in start time measurement = 0.618E+02

Error in time = 0.28195E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.298E-01

Reduced Chi Squared = 0.122E+00

Chi Squared = 0.609E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.985E+00

The probability that no LINEAR correlation exists between the variables = 0.51631

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

This is a 2 order run

INPUT:

year	day	time	radii	radius	error in angle	error in angle	datatype
1989	303	12:14:33	2.60 +/-	0.20	240.0 +/-	0.5	SMM
1989	303	12:31: 2	2.80 +/-	0.20	240.0 +/-	0.5	SMM
1989	303	13:37:18	3.50 +/-	0.25	240.0 +/-	1.0	SMM
1989	303	13:45:32	3.50 +/-	0.15	240.0 +/-	1.0	SMM
1989	303	14: 2: 2	3.80 +/-	0.20	240.0 +/-	1.0	SMM
1989	303	14:51:31	4.80 +/-	0.15	240.0 +/-	1.0	SMM
1989	303	15:16:16	5.10 +/-	0.20	240.0 +/-	1.0	SMM

Structure being measured:
Top of Cloud

OUTPUT:

START TIME:

tstart=DOY303 10:59 from derivative = 0
Event begins at 2.38 Solar Radii
Origin defined at DOY303 12: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.165E-01 +/- 0.392E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) =	0.254E+01 +/-	0.101E+00 [solar radii]
c(2) =	0.525E-02 +/-	0.218E-02 [radii/min]
c(2) =	0.609E+02 +/-	0.253E+02 [km/sec]
c(3) =	0.426E-04 +/-	0.101E-04 [radii/min**2]
c(3) =	0.165E-01 +/-	0.392E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) =	0.98188E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) =	0.16596E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) =	0.21765E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) =	0.52840E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) =	0.10183E-04 [radii/min**2] Bevington pg 154 (8-30)
Exact error in c(3) =	0.34565E-05 [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) =	240. +/-	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 12:14 = 75. km/sec
The RADIAL velocity at 12:31 = 92. km/sec
The RADIAL velocity at 13:37 = 157. km/sec
The RADIAL velocity at 13:45 = 165. km/sec
The RADIAL velocity at 14: 2 = 182. km/sec
The RADIAL velocity at 14:51 = 230. km/sec
The RADIAL velocity at 15:16 = 255. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.94
Standard Deviation in start time measurement = 0.618E+02
Value of reduced Chi Squared returned from nllst2 = 0.789E-02
Reduced Chi Squared = 0.470E-01
Chi Squared = 0.188E+00
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 = 0.9639E+00

The correlation between the data and the time**2 term = 0.9760E+00

The correlation between the data and the complete equation of motion=0.9923E+00

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