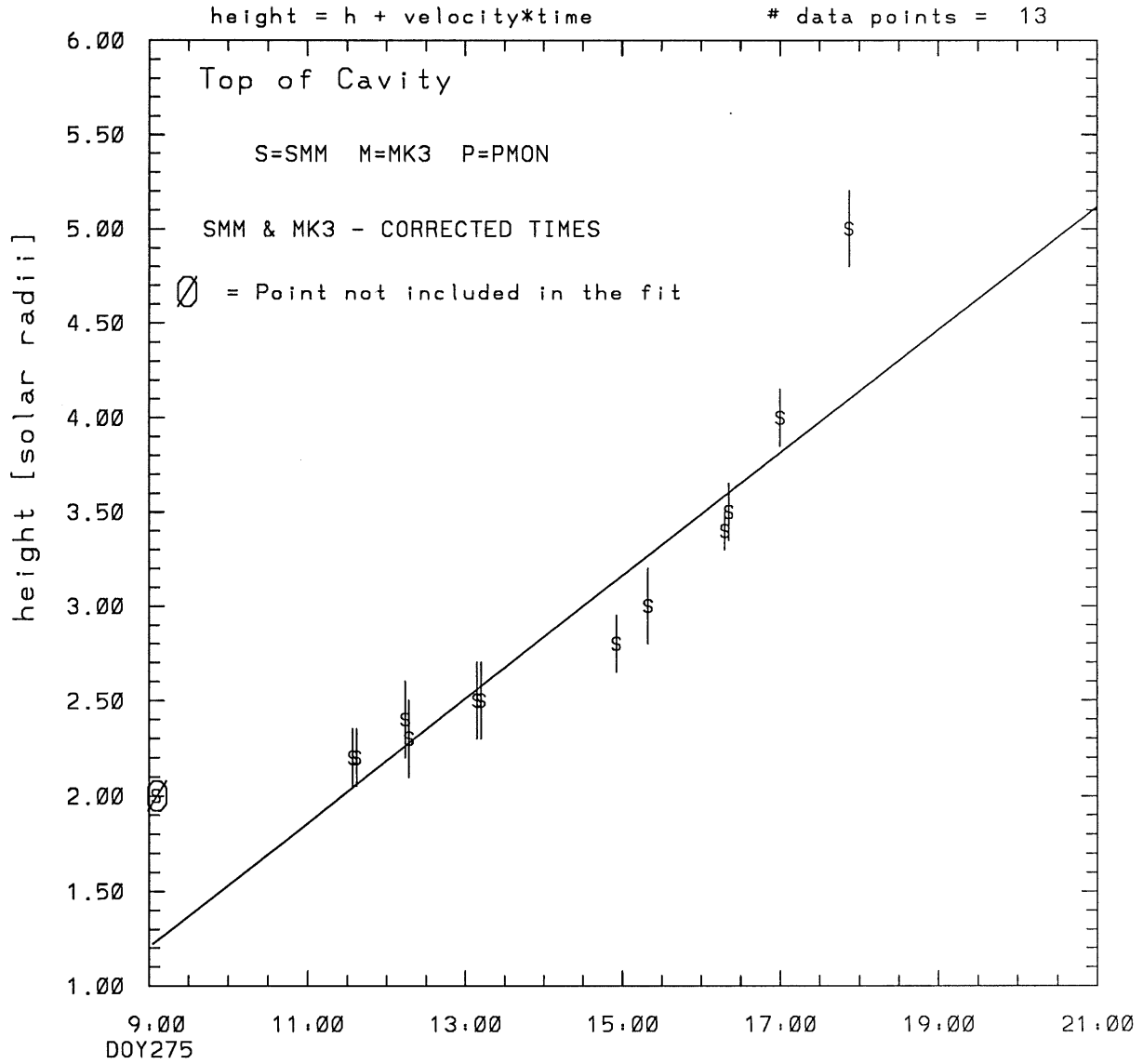
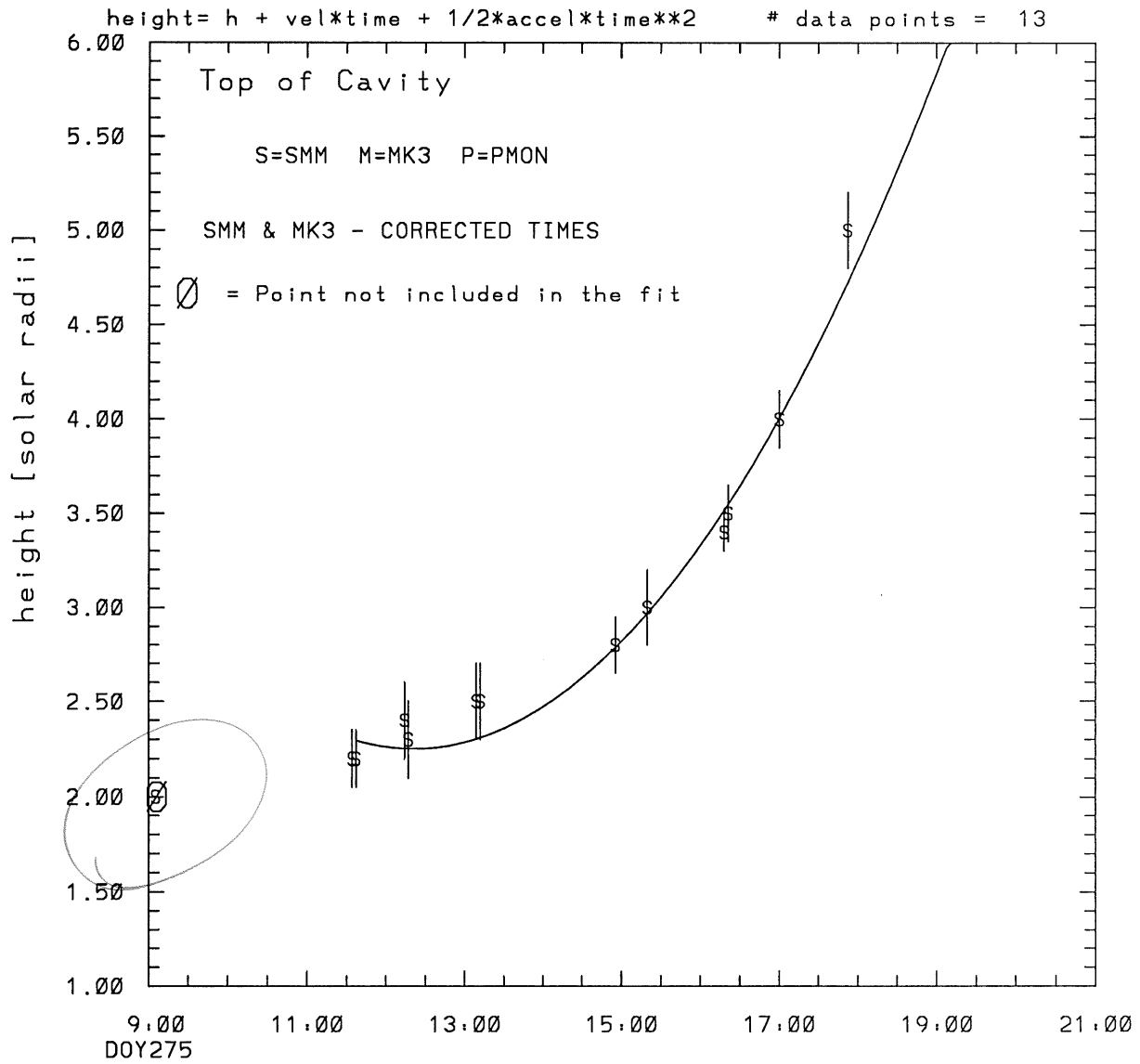


SMM C/P 1984 DOY275 125 +/- 0 degrees



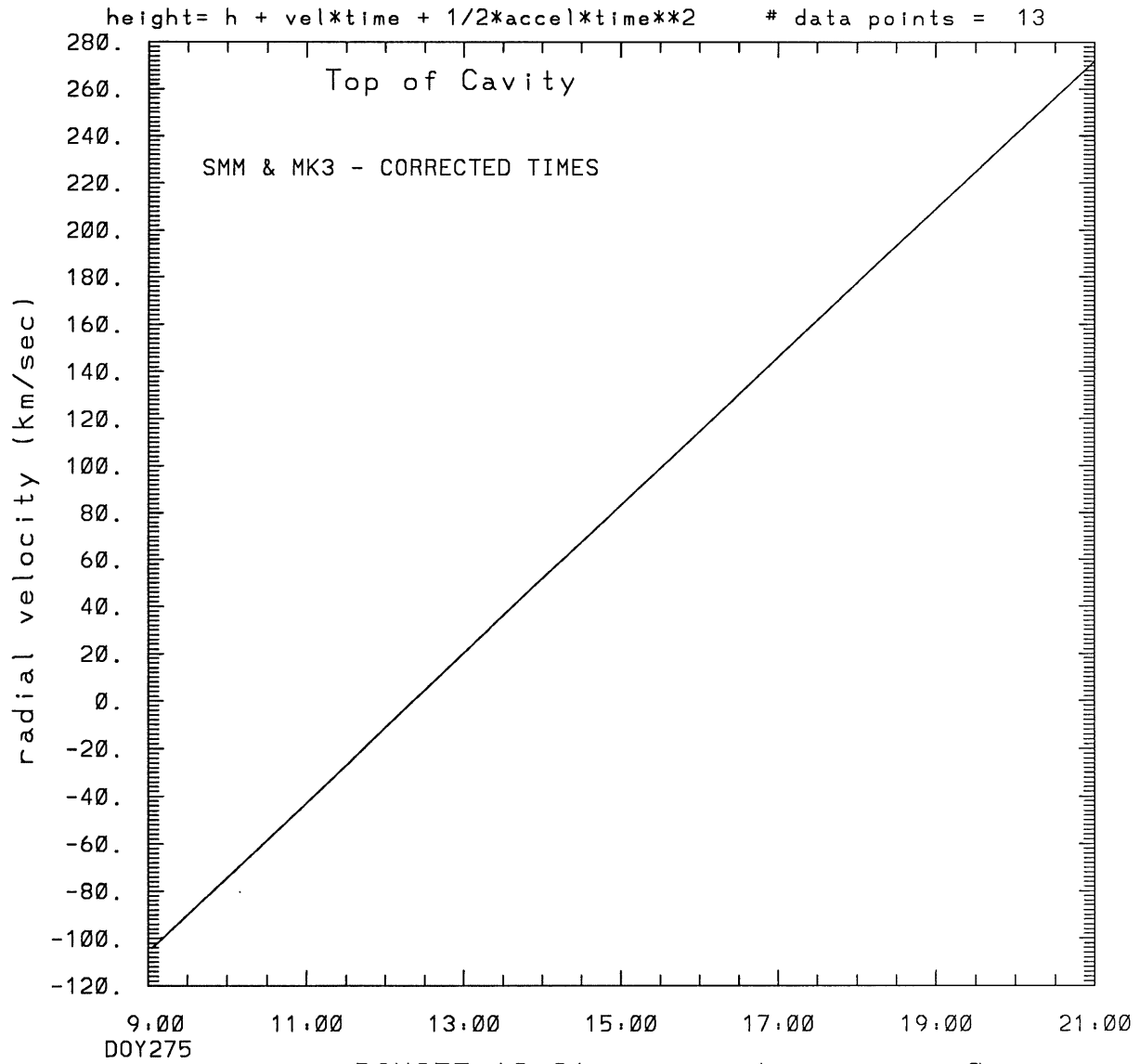
tstart=DOY275 8.24 +/- 0.9 [min.]
radial velocity= 63. +/- 7. [km/sec]

SMM C/P 1984 DOY275 125 +/- 0 degrees



tstart=DOY275 12:21 from derivative=0
Event begins at 2.25 Solar Radii
radial acceleration = 0.0087 ± 0.0013 [km/sec**2]

SMM C/P 1984 DOY275 125 +/- 0 degrees



tstart=DOY275 12:21 from derivative=0
Event begins at 2.25 Solar Radii
radial acceleration=0.874E-02 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	radius	angle	error in angle	datatype
1984	275	9: 5:15	2.00	-----	125.00 +/-	-----	SMM THIS POINT WASN'T USEI
1984	275	11:34:15	2.20 +/-	0.15	125.0 +/-	0.5	SMM
1984	275	11:37: 9	2.20 +/-	0.15	125.0 +/-	0.5	SMM
1984	275	12:14:16	2.40 +/-	0.20	125.0 +/-	0.5	SMM
1984	275	12:17:10	2.30 +/-	0.20	125.0 +/-	0.5	SMM
1984	275	13: 9:15	2.50 +/-	0.20	125.0 +/-	0.5	SMM
1984	275	13:12: 9	2.50 +/-	0.20	125.0 +/-	0.5	SMM
1984	275	14:55:34	2.80 +/-	0.15	125.0 +/-	0.5	SMM
1984	275	15:19:48	3.00 +/-	0.20	125.0 +/-	1.0	SMM
1984	275	16:18:15	3.40 +/-	0.10	125.0 +/-	1.0	SMM
1984	275	16:21: 8	3.50 +/-	0.15	125.0 +/-	1.0	SMM
1984	275	17: 0:10	4.00 +/-	0.15	125.0 +/-	1.0	SMM
1984	275	17:52:15	5.00 +/-	0.20	125.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

Event began at t = 0 + -0.379E+02 +/- 0.933E+00 [minutes]
In more convenient units:
Event began at DOY 275 8:24 +/- 0.933E+00 [minutes]

Origin defined at DOY275 9: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 63. +/- 7. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.121E+01 +/- 0.223E+00 [solar radii]
c(2) = 0.543E-02 +/- 0.618E-03 [radii/min]
c(2) = 0.630E+02 +/- 0.717E+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)= 0.24446E+00 [radii] see Bevington pg. 114
error in c(2)= 0.73914E-03 [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) = 125. +/- 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 9: 5 = 0.000E+00 km/sec
The TOTAL velocity at 9: 5 = 63. km/sec

The TANGENTIAL velocity at 11:34 = 0.000E+00 km/sec
The TOTAL velocity at 11:34 = 63. km/sec

The TANGENTIAL velocity at 11:37 = 0.000E+00 km/sec
The TOTAL velocity at 11:37 = 63. km/sec

The TANGENTIAL velocity at 12:14 = 0.000E+00 km/sec
The TOTAL velocity at 12:14 = 63. km/sec

The TANGENTIAL velocity at 12:17 = 0.000E+00 km/sec
The TOTAL velocity at 12:17 = 63. km/sec

The TANGENTIAL velocity at 13: 9 = 0.000E+00 km/sec
The TOTAL velocity at 13: 9 = 63. km/sec

The TANGENTIAL velocity at 13:12 = 0.000E+00 km/sec
The TOTAL velocity at 13:12 = 63. km/sec

The TANGENTIAL velocity at 14:55 = 0.000E+00 km/sec
The TOTAL velocity at 14:55 = 63. km/sec

The TANGENTIAL velocity at 15:19 = 0.000E+00 km/sec
The TOTAL velocity at 15:19 = 63. km/sec

The TANGENTIAL velocity at 16:18 = 0.000E+00 km/sec
The TOTAL velocity at 16:18 = 63. km/sec

The TANGENTIAL velocity at 16:21 = 0.000E+00 km/sec
The TOTAL velocity at 16:21 = 63. km/sec

The TANGENTIAL velocity at 17: 0 = 0.000E+00 km/sec
The TOTAL velocity at 17: 0 = 63. km/sec

The TANGENTIAL velocity at 17:52 = 0.000E+00 km/sec
The TOTAL velocity at 17:52 = 63. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.86
Standard Deviation in start time measurement = 0.149E+03
Error in time = 0.24299E+03 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.812E-01
Reduced Chi Squared = 0.126E+01
Chi Squared = 0.139E+02
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.908E+00
The probability that no LINEAR correlation exists between the variables = 0.17671
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
1984	275	9: 5:15	2.00	-----	125.00 +/-	----	SMM THIS POINT WASN'T USE
1984	275	11:34:15	2.20	+/- 0.15	125.0 +/-	0.5	SMM
1984	275	11:37: 9	2.20	+/- 0.15	125.0 +/-	0.5	SMM
1984	275	12:14:16	2.40	+/- 0.20	125.0 +/-	0.5	SMM
1984	275	12:17:10	2.30	+/- 0.20	125.0 +/-	0.5	SMM
1984	275	13: 9:15	2.50	+/- 0.20	125.0 +/-	0.5	SMM
1984	275	13:12: 9	2.50	+/- 0.20	125.0 +/-	0.5	SMM
1984	275	14:55:34	2.80	+/- 0.15	125.0 +/-	0.5	SMM
1984	275	15:19:48	3.00	+/- 0.20	125.0 +/-	1.0	SMM
1984	275	16:18:15	3.40	+/- 0.10	125.0 +/-	1.0	SMM
1984	275	16:21: 8	3.50	+/- 0.15	125.0 +/-	1.0	SMM
1984	275	17: 0:10	4.00	+/- 0.15	125.0 +/-	1.0	SMM
1984	275	17:52:15	5.00	+/- 0.20	125.0 +/-	1.0	SMM

Structure being measured:
Top of Cavity

OUTPUT:

START TIME:

tstart=DOY275 12:21 from derivative = 0
Event begins at 2.25 Solar Radii
Origin defined at DOY275 9: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.874E-02 +/- 0.128E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.317E+01 +/- 0.306E+00 [solar radii]
c(2) = -0.911E-02 +/- 0.216E-02 [radii/min]
c(2) = -0.106E+03 +/- 0.250E+02 [km/sec]
c(3) = 0.226E-04 +/- 0.332E-05 [radii/min**2]
c(3) = 0.874E-02 +/- 0.128E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.36414E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.41861E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.27668E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.22287E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.46764E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.28860E-06 [radii/min**] 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) = 125. +/- 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 9: 5 = 0.000E+00 km/sec
The TOTAL velocity at 9: 5 = -103. km/sec

The TANGENTIAL velocity at 11:34 = 0.000E+00 km/sec
The TOTAL velocity at 11:34 = -25. km/sec

The TANGENTIAL velocity at 11:37 = 0.000E+00 km/sec
The TOTAL velocity at 11:37 = -23. km/sec

The TANGENTIAL velocity at 12:14 = 0.000E+00 km/sec
The TOTAL velocity at 12:14 = -4. km/sec

The TANGENTIAL velocity at 12:17 = 0.000E+00 km/sec
The TOTAL velocity at 12:17 = -2. km/sec

The TANGENTIAL velocity at 13: 9 = 0.000E+00 km/sec
The TOTAL velocity at 13: 9 = 25. km/sec

The TANGENTIAL velocity at 13:12 = 0.000E+00 km/sec
The TOTAL velocity at 13:12 = 27. km/sec

The TANGENTIAL velocity at 14:55 = 0.000E+00 km/sec
The TOTAL velocity at 14:55 = 81. km/sec

The TANGENTIAL velocity at 15:19 = 0.000E+00 km/sec
The TOTAL velocity at 15:19 = 93. km/sec

The TANGENTIAL velocity at 16:18 = 0.000E+00 km/sec
The TOTAL velocity at 16:18 = 124. km/sec

The TANGENTIAL velocity at 16:21 = 0.000E+00 km/sec
The TOTAL velocity at 16:21 = 126. km/sec

The TANGENTIAL velocity at 17: 0 = 0.000E+00 km/sec
The TOTAL velocity at 17: 0 = 146. km/sec

The TANGENTIAL velocity at 17:52 = 0.000E+00 km/sec
The TOTAL velocity at 17:52 = 173. km/sec

```

*****
The following info is for estimating goodness of the fit
*****

```

Fit is ok [ier=1]

Standard Deviation in the height = 0.86
Standard Deviation in start time measurement = 0.149E+03
Value of reduced Chi Squared returned from nllst2 = 0.170E-01
Reduced Chi Squared = 0.307E+00
Chi Squared = 0.307E+01
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 = 0.8348E+00

The correlation between the data and the time**2 term = 0.9351E+00

The correlation between the data and the complete equation of motion = 0.9646E+00