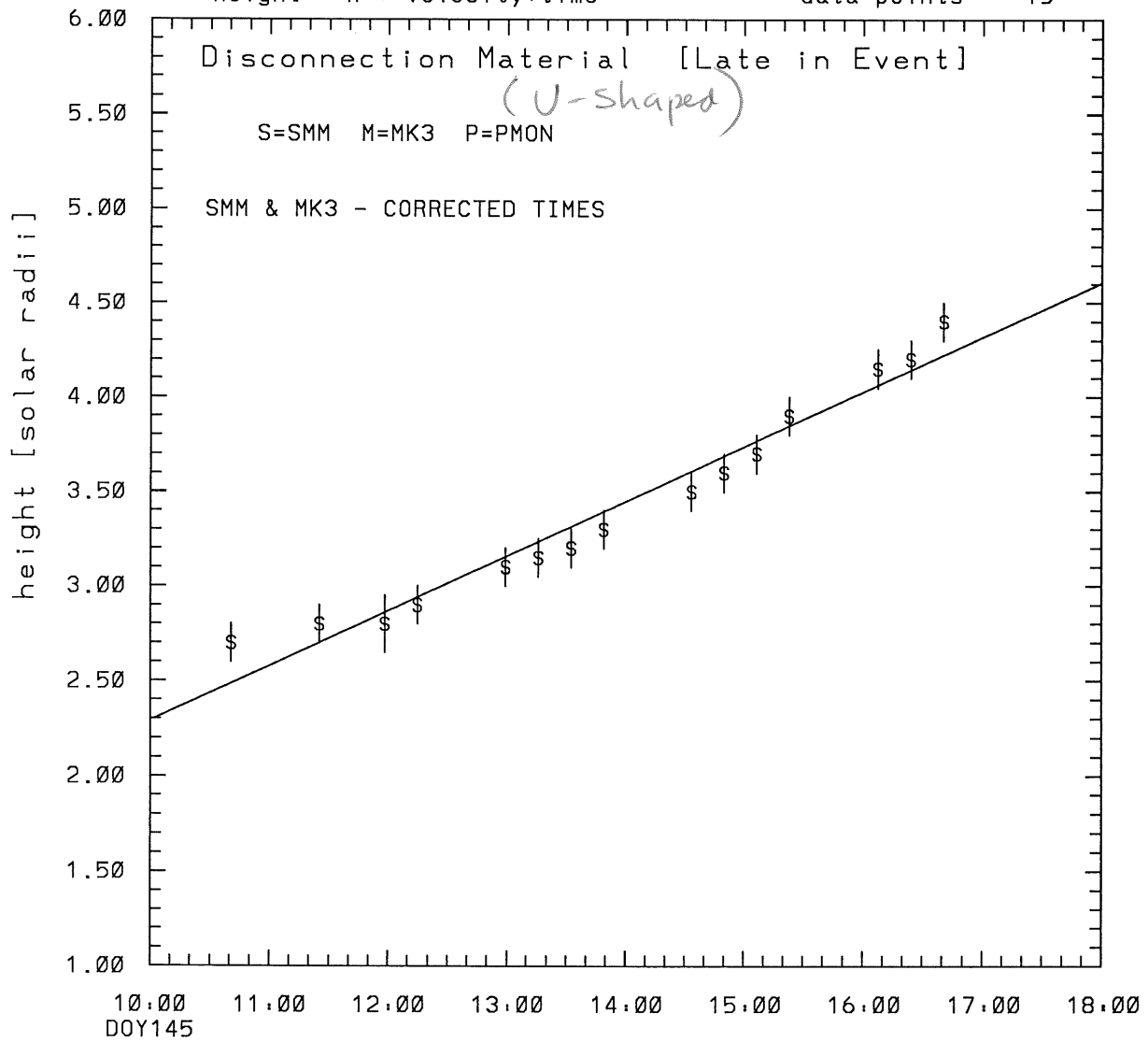


SMM C/P 1988 DOY145 80 +/- 0 degrees

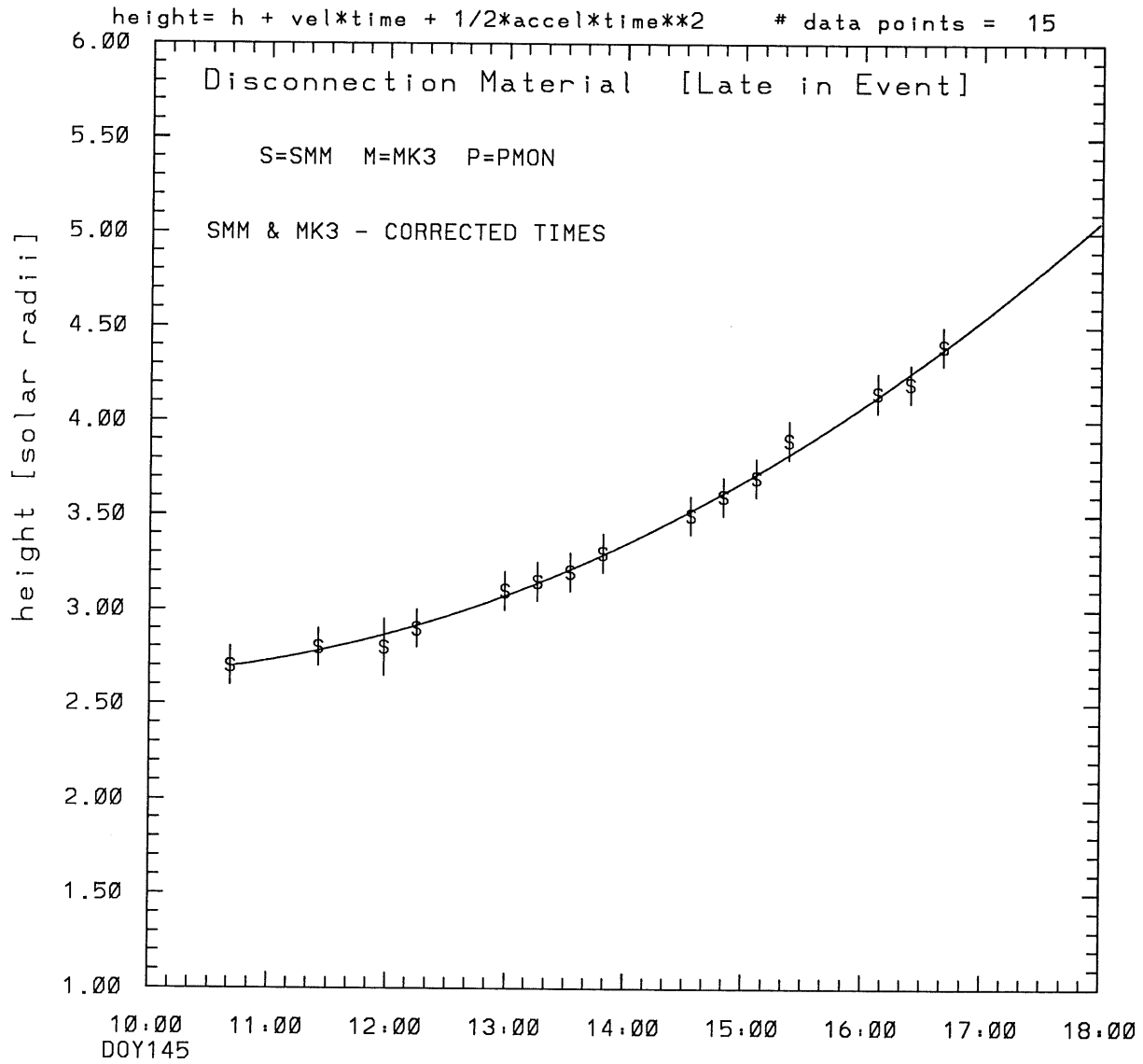
height = h + velocity*time

data points = 15



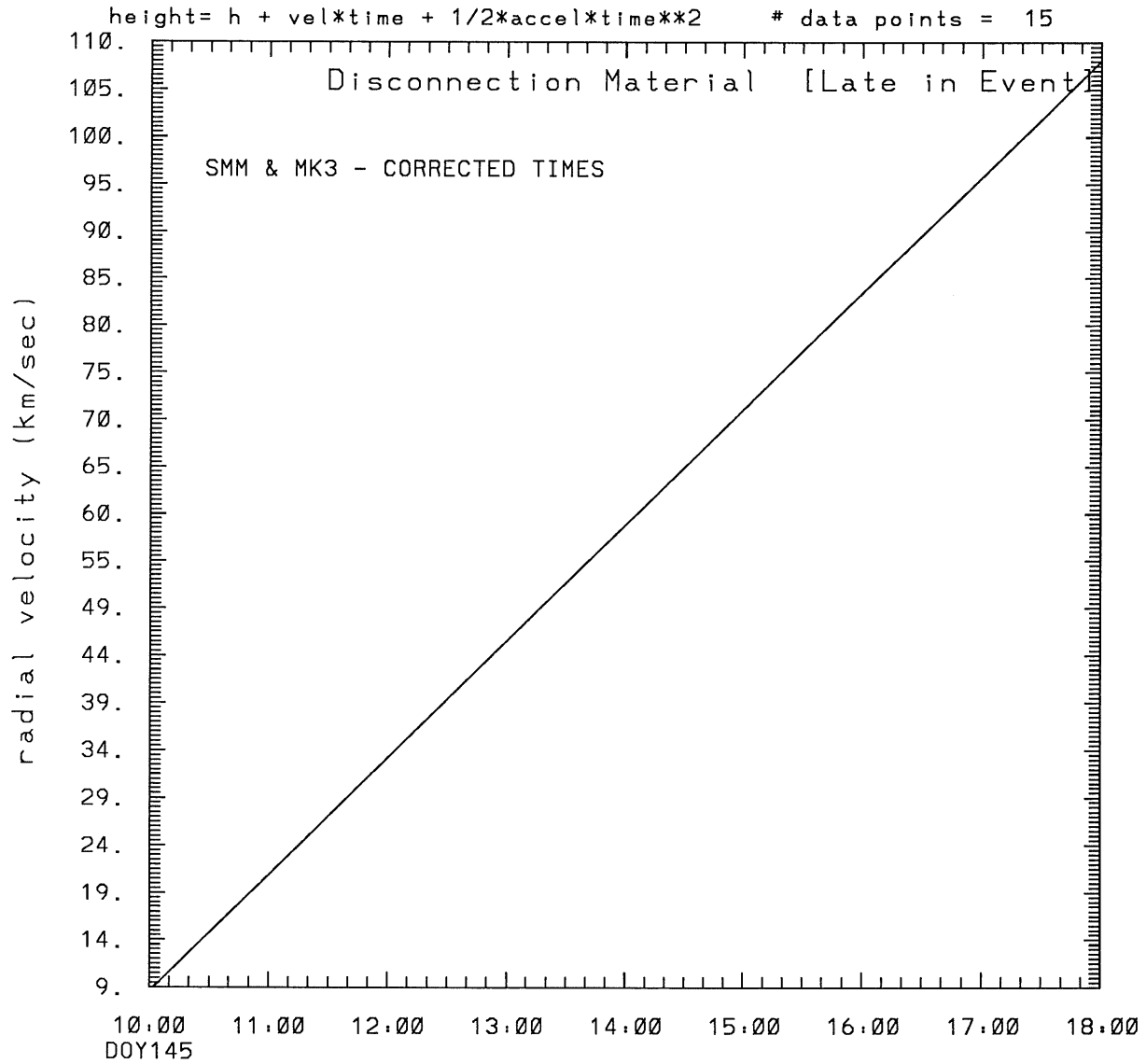
tstart=DOY145 5:33 +/- 3.2 [min.]
radial velocity= 56. +/- 3. [km/sec]

SMM C/P 1988 DOY145 80 +/- 0 degrees



tstart=DOY145 9:18 from derivative=0
Event begins at 2.64 Solar Radii
radial acceleration = 0.0034 +/- 0.0003 [km/sec**2]

SMM C/P 1988 DOY145 80 +/- 0 degrees



DOY145
tstart=DOY145 9:18 from derivative=0
Event begins at 2.64 Solar Radii
radial acceleration=0.345E-02 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1988	145	10:40:46	2.70	+/- 0.10	80.0	+/- 0.5	SMM
1988	145	11:25:19	2.80	+/- 0.10	80.0	+/- 0.5	SMM
1988	145	11:58:21	2.80	+/- 0.15	80.0	+/- 0.5	SMM
1988	145	12:14:50	2.90	+/- 0.10	80.0	+/- 0.5	SMM
1988	145	12:59:24	3.10	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	13:15:54	3.15	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	13:32:25	3.20	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	13:48:54	3.30	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	14:33:28	3.50	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	14:49:58	3.60	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	15: 6:30	3.70	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	15:22:59	3.90	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	16: 7:32	4.15	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	16:24: 3	4.20	+/- 0.10	80.0	+/- 1.0	SMM
1988	145	16:40:34	4.40	+/- 0.10	80.0	+/- 1.0	SMM

Structure being measured:
Disconnection Material [Late in Event]

OUTPUT:

START TIME:

Event began at $t = 0 + -0.267E+03 +/- 0.323E+01$ [minutes]
In more convenient units:
Event began at DOY 145 5:33 +/- 0.323E+01 [minutes]

Origin defined at DOY145 10: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 56. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.229E+01 +/- 0.693E-01$ [solar radii]
 $c(2) = 0.483E-02 +/- 0.263E-03$ [radii/min]
 $c(2) = 0.560E+02 +/- 0.305E+01$ [km/sec]
 $c(3) = 0.000E+00 +/- 0.000E+00$ [radii/min**2]

$$c(3) = 0.000E+00 \pm 0.000E+00 \text{ [km/sec**2]}$$

The computed ERRORS in coefficients [BEVINGTON] are:

$$\text{error in } c(1) = 0.69631E-01 \text{ [radii] see Bevington pg. 114}$$

$$\text{error in } c(2) = 0.26843E-03 \text{ [radii/min] see Bevington pg. 114}$$

ANGULAR INFORMATION:

$$\text{ANGULAR VELOCITY} = 0.0000E+00 \pm 0.0000E+00 \text{ [radians/sec]}$$

The computed ANGULAR coefficients and errors FROM NLLST2 are:

$$a(1) = 80. \pm 0. \text{ [degrees]}$$

$$a(2) = 0.000E+00 \pm 0.000E+00 \text{ [degrees/min]}$$

$$a(2) = 0.000E+00 \pm 0.000E+00 \text{ [rad/sec]}$$

$$a(3) = 0.000E+00 \pm 0.000E+00 \text{ [degrees/min**2]}$$

$$a(3) = 0.000E+00 \pm 0.000E+00 \text{ [rad/sec**2]}$$

THE TANGENTIAL AND TOTAL VELOCITIES AT EACH DATA POINT ARE:

The TANGENTIAL velocity at 10:40 = 0. km/sec

The TOTAL velocity at 10:40 = 56. km/sec

The TANGENTIAL velocity at 11:25 = 0. km/sec

The TOTAL velocity at 11:25 = 56. km/sec

The TANGENTIAL velocity at 11:58 = 0. km/sec

The TOTAL velocity at 11:58 = 56. km/sec

The TANGENTIAL velocity at 12:14 = 0. km/sec

The TOTAL velocity at 12:14 = 56. km/sec

The TANGENTIAL velocity at 12:59 = 0. km/sec

The TOTAL velocity at 12:59 = 56. km/sec

The TANGENTIAL velocity at 13:15 = 0. km/sec

The TOTAL velocity at 13:15 = 56. km/sec

The TANGENTIAL velocity at 13:32 = 0. km/sec

The TOTAL velocity at 13:32 = 56. km/sec

The TANGENTIAL velocity at 13:48 = 0. km/sec

The TOTAL velocity at 13:48 = 56. km/sec

The TANGENTIAL velocity at 14:33 = 0. km/sec

The TOTAL velocity at 14:33 = 56. km/sec

The TANGENTIAL velocity at 14:49 = 0. km/sec

The TOTAL velocity at 14:49 = 56. km/sec

The TANGENTIAL velocity at 15: 6 = 0. km/sec

The TOTAL velocity at 15: 6 = 56. km/sec

The TANGENTIAL velocity at 15:22 = 0. km/sec
The TOTAL velocity at 15:22 = 56. km/sec

The TANGENTIAL velocity at 16: 7 = 0. km/sec
The TOTAL velocity at 16: 7 = 56. km/sec

The TANGENTIAL velocity at 16:24 = 0. km/sec
The TOTAL velocity at 16:24 = 56. km/sec

The TANGENTIAL velocity at 16:40 = 0. km/sec
The TOTAL velocity at 16:40 = 56. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.55
Standard Deviation in start time measurement = 0.108E+03
Error in time = 0.83491E+02 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.119E-01
Reduced Chi Squared = 0.913E-01
Chi Squared = 0.119E+01
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.981E+00
The probability that no LINEAR correlation exists between the variables = 0.8732E-10
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	datatype
1988	145	10:40:46	2.70	+/- 0.10	80.0	+/- 0.5	SMM	
1988	145	11:25:19	2.80	+/- 0.10	80.0	+/- 0.5	SMM	
1988	145	11:58:21	2.80	+/- 0.15	80.0	+/- 0.5	SMM	
1988	145	12:14:50	2.90	+/- 0.10	80.0	+/- 0.5	SMM	
1988	145	12:59:24	3.10	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	13:15:54	3.15	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	13:32:25	3.20	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	13:48:54	3.30	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	14:33:28	3.50	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	14:49:58	3.60	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	15: 6:30	3.70	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	15:22:59	3.90	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	16: 7:32	4.15	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	16:24: 3	4.20	+/- 0.10	80.0	+/- 1.0	SMM	
1988	145	16:40:34	4.40	+/- 0.10	80.0	+/- 1.0	SMM	

Structure being measured:
Disconnection Material [Late in Event]

(U-shaped)

OUTPUT:

START TIME:

tstart=DOY145 9:18 from derivative = 0
Event begins at 2.64 Solar Radii
Origin defined at DOY145 10: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.345E-02 +/- 0.299E-03 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.265E+01 +/- 0.380E-01 [solar radii]
- c(2) = 0.751E-03 +/- 0.362E-03 [radii/min]
- c(2) = 0.871E+01 +/- 0.420E+01 [km/sec]
- c(3) = 0.892E-05 +/- 0.772E-06 [radii/min**2]
- c(3) = 0.345E-02 +/- 0.299E-03 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.42202E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.14600E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.40689E-03 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.27103E-04 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.86857E-06 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.76243E-07 [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) = 80. +/- 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 10:40 = 0. km/sec
The TOTAL velocity at 10:40 = 17. km/sec

The TANGENTIAL velocity at 11:25 = 0. km/sec
The TOTAL velocity at 11:25 = 26. km/sec

The TANGENTIAL velocity at 11:58 = 0. km/sec
The TOTAL velocity at 11:58 = 33. km/sec

The TANGENTIAL velocity at 12:14 = 0. km/sec
The TOTAL velocity at 12:14 = 37. km/sec

The TANGENTIAL velocity at 12:59 = 0. km/sec
The TOTAL velocity at 12:59 = 46. km/sec

The TANGENTIAL velocity at 13:15 = 0. km/sec
The TOTAL velocity at 13:15 = 49. km/sec

The TANGENTIAL velocity at 13:32 = 0. km/sec
The TOTAL velocity at 13:32 = 53. km/sec

The TANGENTIAL velocity at 13:48 = 0. km/sec
The TOTAL velocity at 13:48 = 56. km/sec

The TANGENTIAL velocity at 14:33 = 0. km/sec
The TOTAL velocity at 14:33 = 65. km/sec

The TANGENTIAL velocity at 14:49 = 0. km/sec
The TOTAL velocity at 14:49 = 69. km/sec

The TANGENTIAL velocity at 15: 6 = 0. km/sec
The TOTAL velocity at 15: 6 = 72. km/sec

The TANGENTIAL velocity at 15:22 = 0. km/sec
The TOTAL velocity at 15:22 = 76. km/sec

The TANGENTIAL velocity at 16: 7 = 0. km/sec
The TOTAL velocity at 16: 7 = 85. km/sec

The TANGENTIAL velocity at 16:24 = 0. km/sec
The TOTAL velocity at 16:24 = 88. km/sec

The TANGENTIAL velocity at 16:40 = 0. km/sec
The TOTAL velocity at 16:40 = 92. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.55
Standard Deviation in start time measurement = 0.108E+03
Value of reduced Chi Squared returned from nllst2 = 0.114E-02
Reduced Chi Squared = 0.128E-01
Chi Squared = 0.153E+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 = 0.9761E+00
The correlation between the data and the time**2 term = 0.9954E+00
The correlation between the data and the complete equation of motion = 0.9962E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]