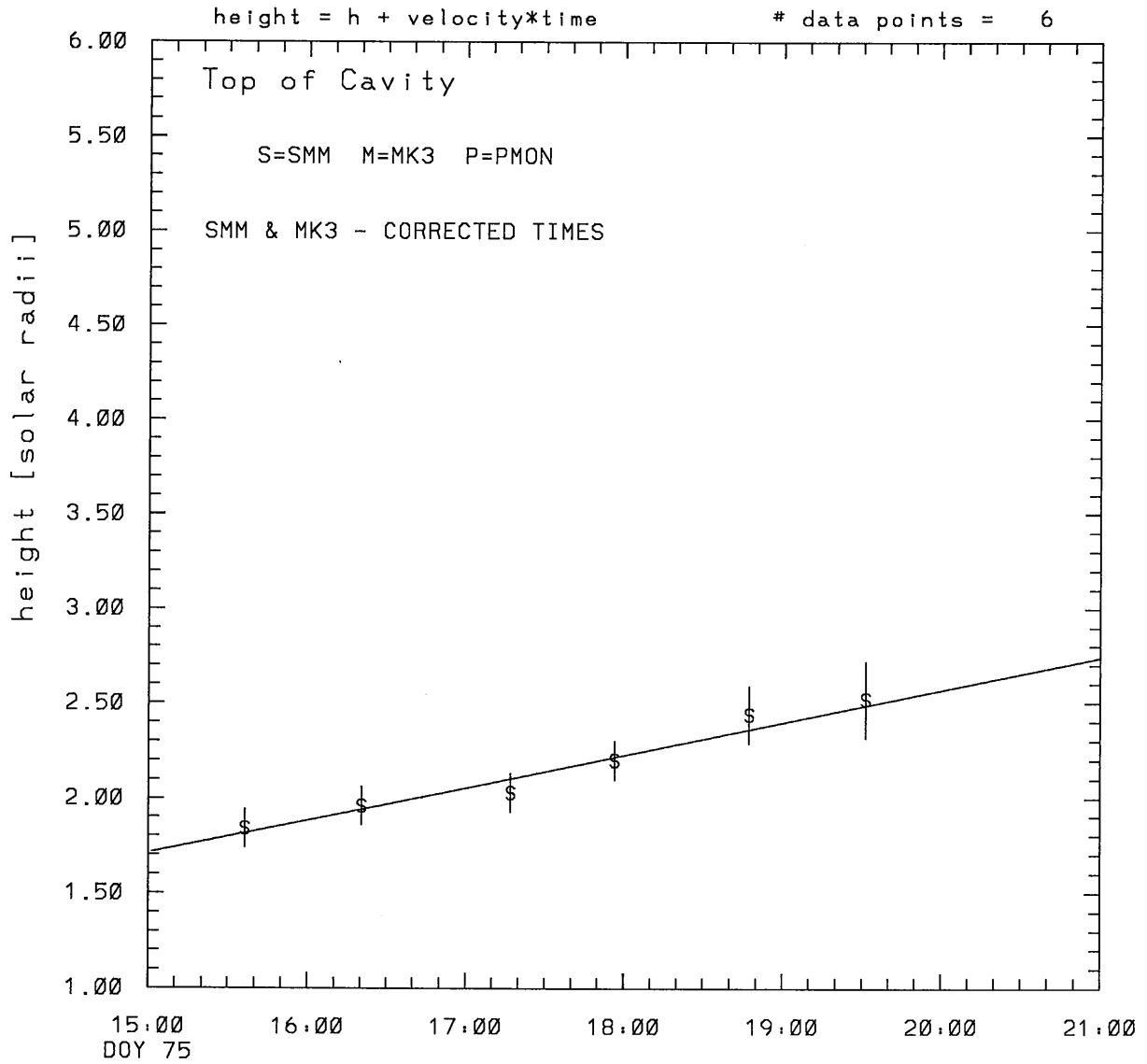
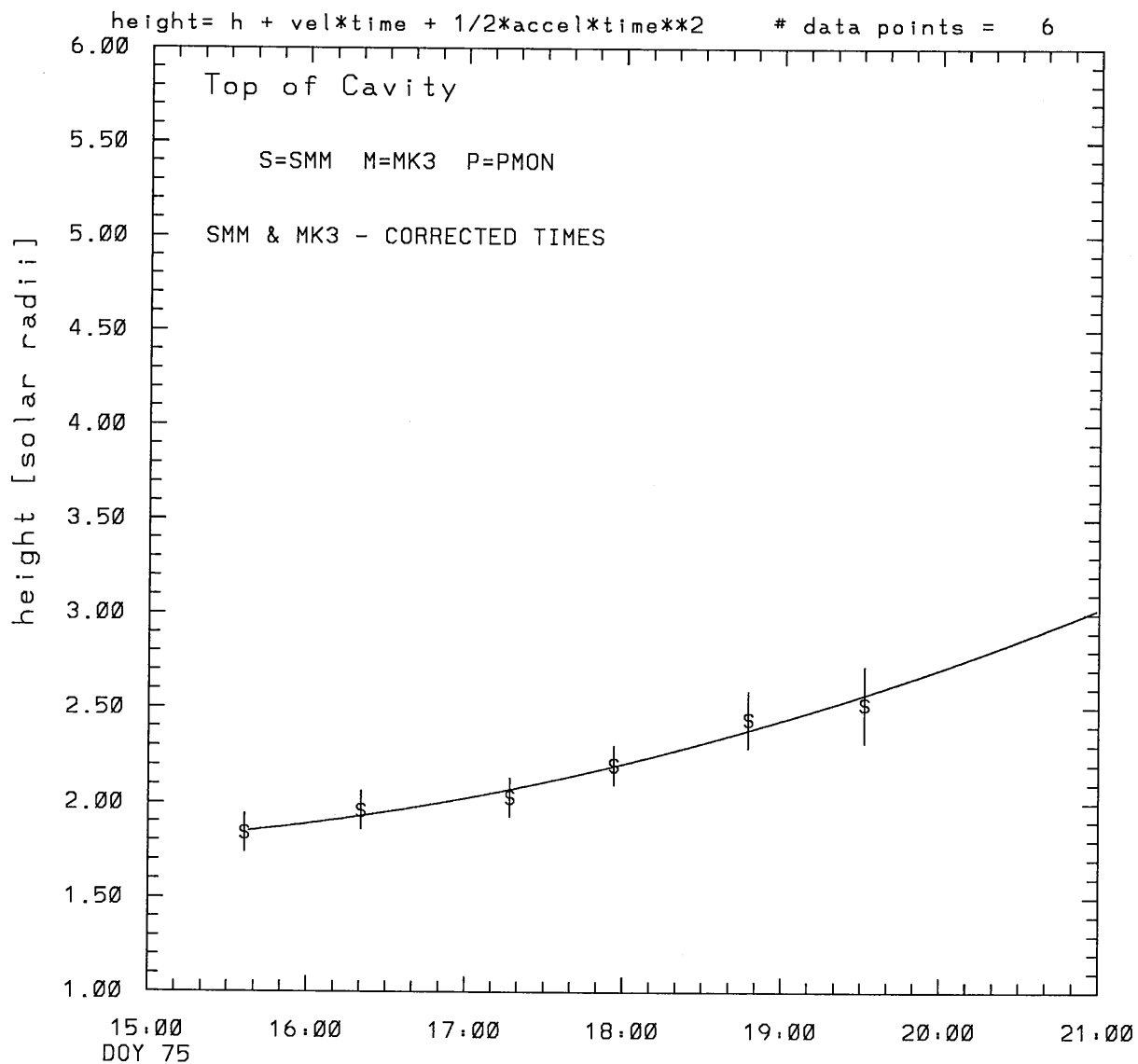


SMM C/P 1980 DOY 75 116 +/- 0 degrees



tstart=DOY 75 10:52 +/- 6.4 [min.]  
radial velocity= 33. +/- 3. [km/sec]

SMM C/P 1980 DOY 75 116 +/- 0 degrees



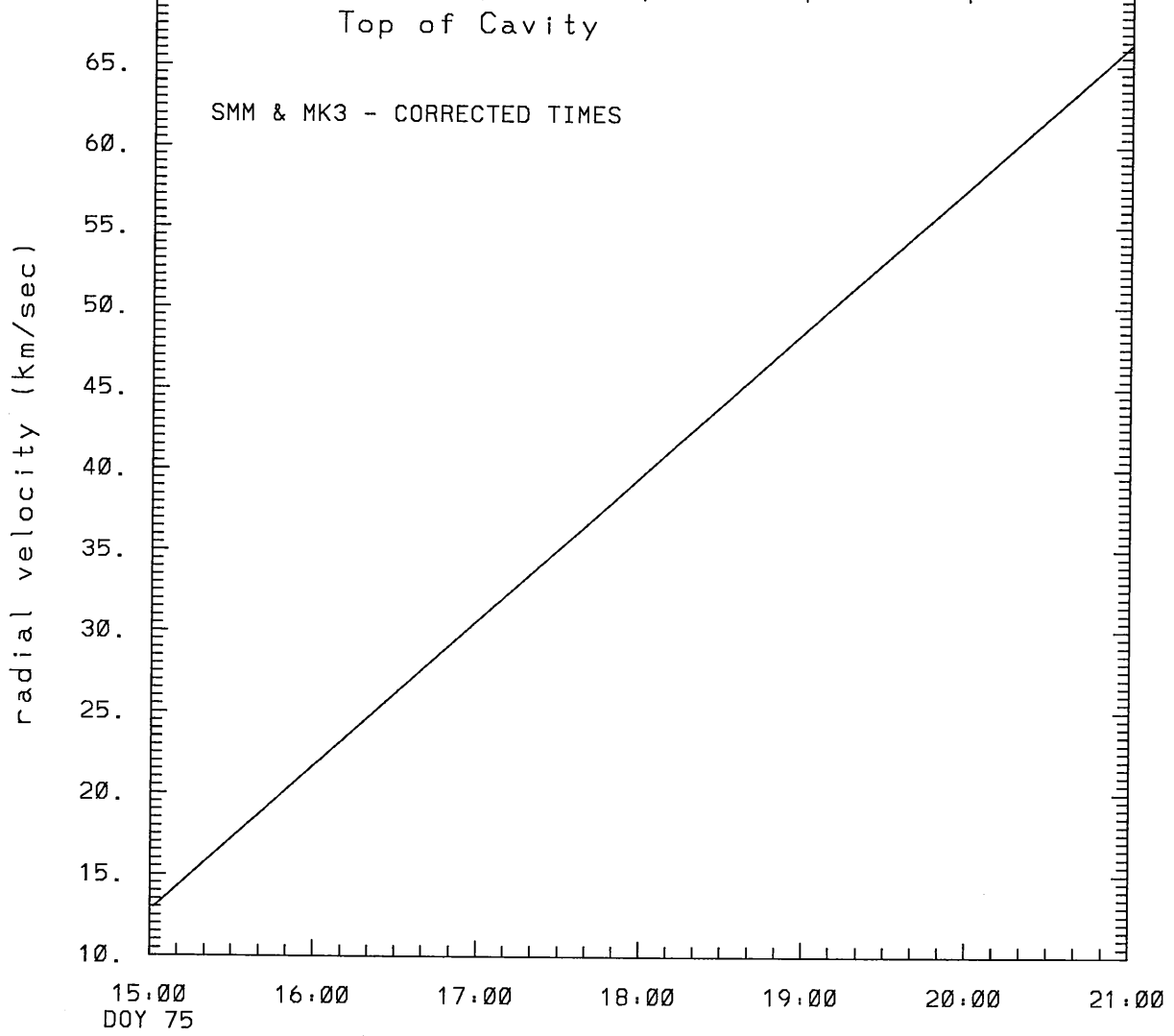
tstart=DOY 75 13.35 from derivative=0

Event begins at 1.75 Solar Radii

radial acceleration =  $0.0025 \pm 0.0013$  [km/sec\*\*2]

SMM C/P 1980 DOY 75 116 +/- 0 degrees

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



tstart=DOY 75 13:35 from derivative=0  
Event begins at 1.75 Solar Radii  
radial acceleration=0.248E-02 km/sec\*\*2

\*\*\*\*\*  
This is a 1 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	doy	time	radii	radius	error in	angle	error in	angle	datatype
1980	75	15:36:27	1.84	+/- 0.10	116.0	+/- 0.5	SMM		
1980	75	16:20:28	1.96	+/- 0.10	116.0	+/- 0.5	SMM		
1980	75	17:16:59	2.03	+/- 0.10	116.0	+/- 0.5	SMM		
1980	75	17:56:28	2.20	+/- 0.10	116.0	+/- 0.5	SMM		
1980	75	18:47:28	2.44	+/- 0.15	116.0	+/- 0.5	SMM		
1980	75	19:31:28	2.52	+/- 0.20	116.0	+/- 0.5	SMM		

\*\*\*\*\*  
Structure being measured:  
Top of Cavity  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.248E+03 +/- 0.639E+01$  [minutes]  
In more convenient units:  
Event began at DOY 75 10:52 +/- 0.639E+01 [minutes]

Origin defined at DOY 75 15: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 33. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.171E+01 +/- 0.421E-01$  [solar radii]  
 $c(2) = 0.286E-02 +/- 0.290E-03$  [radii/min]  
 $c(2) = 0.332E+02 +/- 0.336E+01$  [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  $c(1) = 0.51708E-01$  [radii] see Bevington pg. 114

error in  $c(2) = 0.29596E-03$  [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) = 116. +/- 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 15:36 = 0.000E+00 km/sec  
The TOTAL velocity at 15:36 = 33. km/sec

The TANGENTIAL velocity at 16:20 = 0.000E+00 km/sec  
The TOTAL velocity at 16:20 = 33. km/sec

The TANGENTIAL velocity at 17:16 = 0.000E+00 km/sec  
The TOTAL velocity at 17:16 = 33. km/sec

The TANGENTIAL velocity at 17:56 = 0.000E+00 km/sec  
The TOTAL velocity at 17:56 = 33. km/sec

The TANGENTIAL velocity at 18:47 = 0.000E+00 km/sec  
The TOTAL velocity at 18:47 = 33. km/sec

The TANGENTIAL velocity at 19:31 = 0.000E+00 km/sec  
The TOTAL velocity at 19:31 = 33. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.27  
Standard Deviation in start time measurement = 0.808E+02  
Error in time = 0.40945E+02 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.243E-02  
Reduced Chi Squared = 0.138E-01  
Chi Squared = 0.553E-01  
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.984E+00  
The probability that no LINEAR correlation exists between the variables = 0.4043E-03  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	75	15:36:27	1.84	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	16:20:28	1.96	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	17:16:59	2.03	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	17:56:28	2.20	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	18:47:28	2.44	+/- 0.15	116.0	+/- 0.5	SMM
1980	75	19:31:28	2.52	+/- 0.20	116.0	+/- 0.5	SMM

\*\*\*\*\*

Structure being measured:

Top of Cavity

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

tstart=DOY 75 13:35 from derivative = 0

Event begins at 1.75 Solar Radii

Origin defined at DOY 75 15: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.248E-02 +/- 0.126E-02 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.180E+01 +/- 0.566E-01 [solar radii]

c(2) = 0.110E-02 +/- 0.927E-03 [radii/min]

c(2) = 0.128E+02 +/- 0.107E+02 [km/sec]

c(3) = 0.641E-05 +/- 0.327E-05 [radii/min\*\*2]

c(3) = 0.248E-02 +/- 0.126E-02 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.82654E-01 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.10803E-01 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.12490E-02 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.26957E-03 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.39687E-05 [radii/min\*\*] Bevington pg 154 (8-30)

Exact error in c(3) = 0.12005E-05 [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) = 116. +/- 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 15:36 = 0.000E+00 km/sec  
The TOTAL velocity at 15:36 = 18. km/sec

The TANGENTIAL velocity at 16:20 = 0.000E+00 km/sec  
The TOTAL velocity at 16:20 = 25. km/sec

The TANGENTIAL velocity at 17:16 = 0.000E+00 km/sec  
The TOTAL velocity at 17:16 = 33. km/sec

The TANGENTIAL velocity at 17:56 = 0.000E+00 km/sec  
The TOTAL velocity at 17:56 = 39. km/sec

The TANGENTIAL velocity at 18:47 = 0.000E+00 km/sec  
The TOTAL velocity at 18:47 = 47. km/sec

The TANGENTIAL velocity at 19:31 = 0.000E+00 km/sec  
The TOTAL velocity at 19:31 = 53. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.27

Standard Deviation in start time measurement = 0.808E+02

Value of reduced Chi Squared returned from nllst2 = 0.155E-02

Reduced Chi Squared = 0.132E-01

Chi Squared = 0.396E-01

The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

(Using equation of motion:  $r = a + bt + at^2$ )

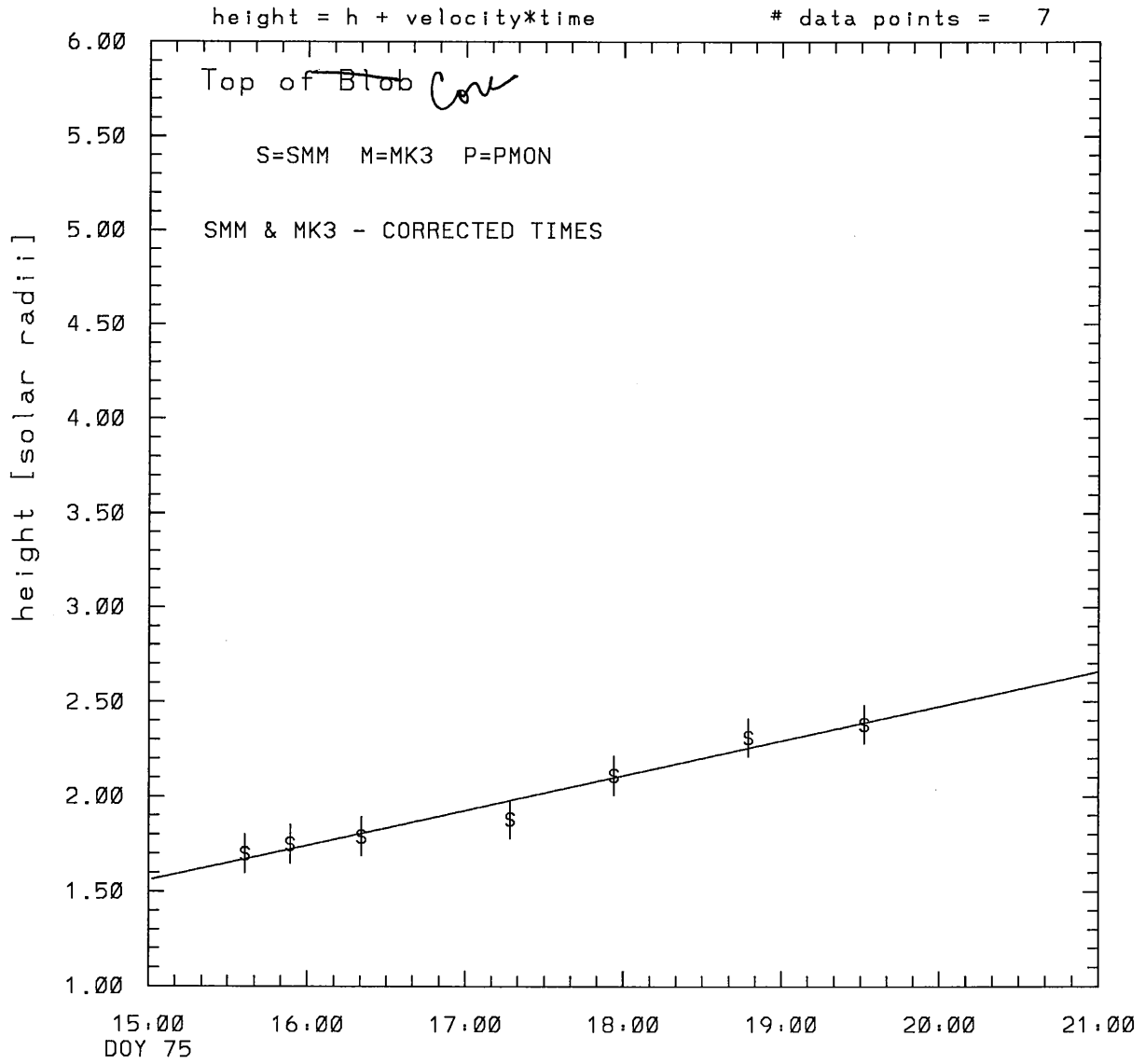
The correlation between the data and the term linear in time = 0.9020E+00

The correlation between the data and the time\*\*2 term = 0.8453E+00

The correlation between the data and the complete equation of motion = 0.9810E+00

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

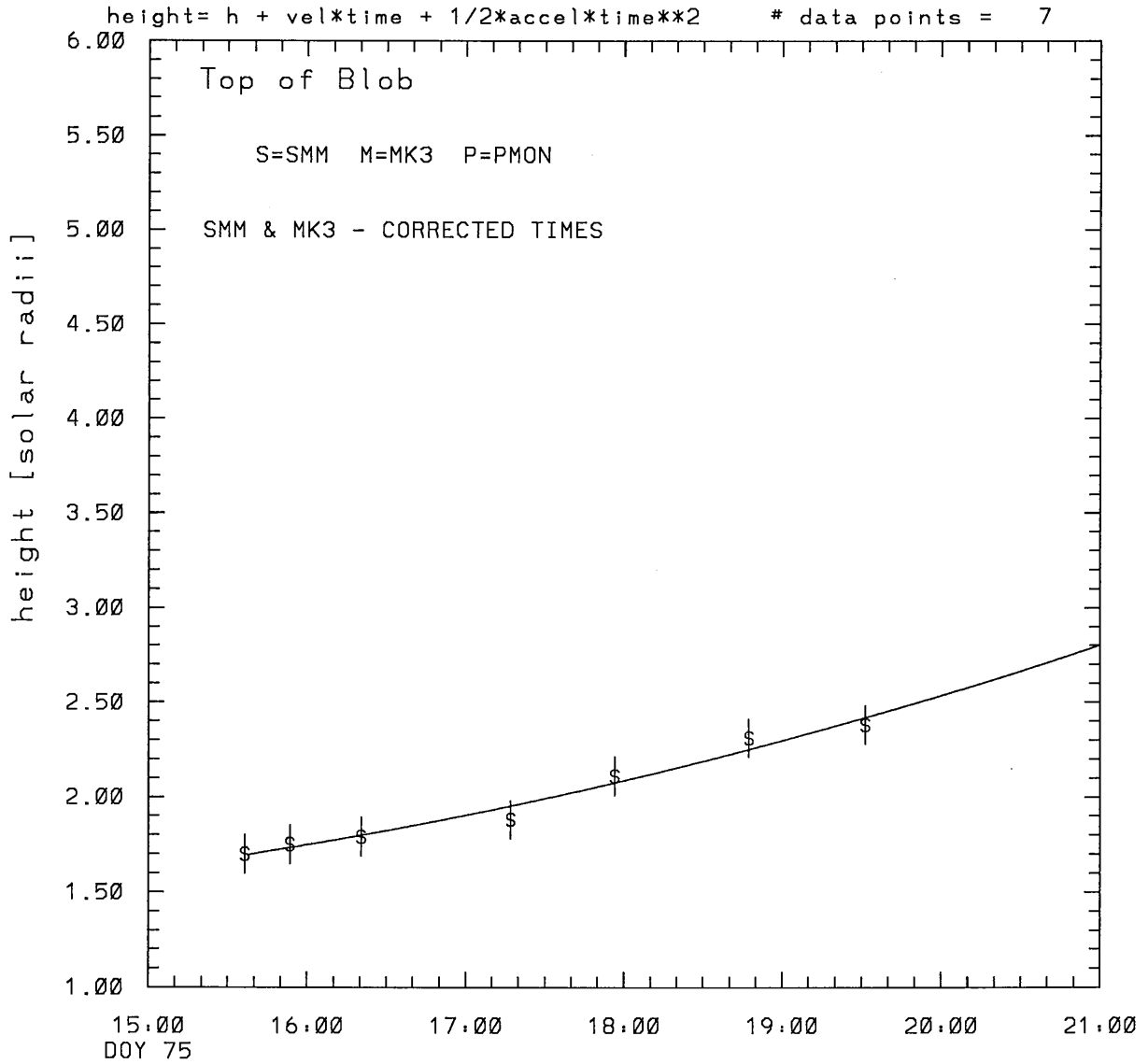
SMM C/P 1980 DOY 75 116 +/- 0 degrees



tstart=DOY 75 11:57 +/- 2.1 [min.]  
radial velocity= 35. +/- 3. [km/sec]

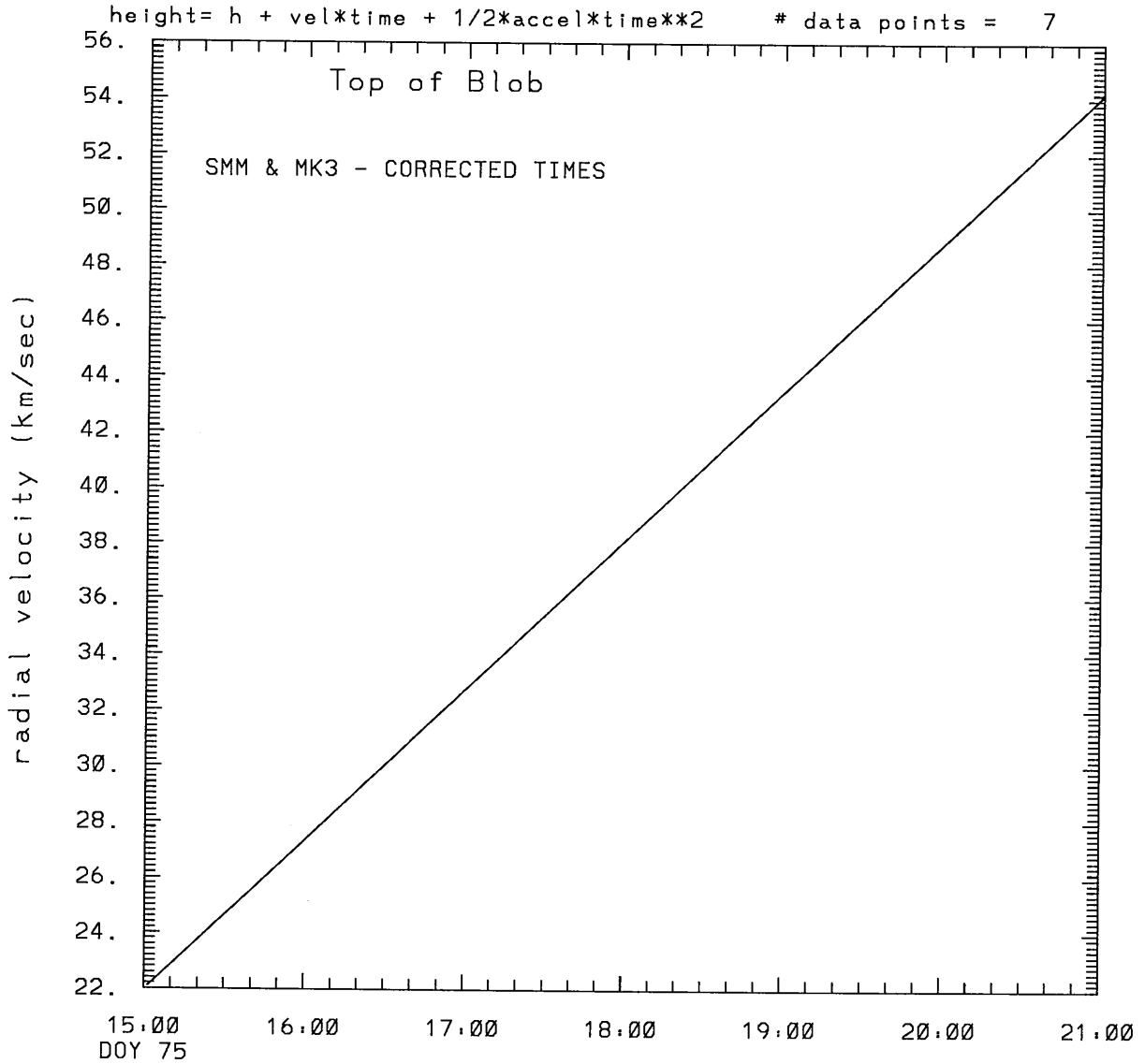


SMM C/P 1980 DOY 75 116 +/- 0 degrees



tstart=DOY 75 10:55 from derivative=0  
Event begins at 1.39 Solar Radii  
radial acceleration = 0.0015 +/- 0.0014 [km/sec\*\*2]

SMM C/P 1980 DOY 75 116 +/- 0 degrees



tstart=DOY 75 10:55 from derivative=0  
Event begins at 1.39 Solar Radii  
radial acceleration=0.149E-02 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	day	time	radii	error in radius	angle	error in angle	datatype
1980	75	15:36:27	1.70	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	15:53:28	1.75	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	16:20:28	1.79	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	17:16:59	1.88	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	17:56:28	2.11	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	18:47:28	2.31	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	19:31:28	2.38	+/- 0.10	116.0	+/- 0.5	SMM

\*\*\*\*\*

Structure being measured:

Top of ~~Blob~~ *core*

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.183E+03 +/- 0.211E+01 [minutes]

In more convenient units:

Event began at DOY 75 11:57 +/- 0.211E+01 [minutes]

Origin defined at DOY 75 15: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 35. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

- c(1) = 0.156E+01 +/- 0.368E-01 [solar radii]
- c(2) = 0.305E-02 +/- 0.226E-03 [radii/min]
- c(2) = 0.354E+02 +/- 0.262E+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)= 0.40360E-01 [radii] see Bevington pg. 114

error in c(2)= 0.24759E-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) = 116. +/- 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 15:36 = 0.000E+00 km/sec

The TOTAL velocity at 15:36 = 35. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec

The TOTAL velocity at 15:53 = 35. km/sec

The TANGENTIAL velocity at 16:20 = 0.000E+00 km/sec

The TOTAL velocity at 16:20 = 35. km/sec

The TANGENTIAL velocity at 17:16 = 0.000E+00 km/sec

The TOTAL velocity at 17:16 = 35. km/sec

The TANGENTIAL velocity at 17:56 = 0.000E+00 km/sec

The TOTAL velocity at 17:56 = 35. km/sec

The TANGENTIAL velocity at 18:47 = 0.000E+00 km/sec

The TOTAL velocity at 18:47 = 35. km/sec

The TANGENTIAL velocity at 19:31 = 0.000E+00 km/sec

The TOTAL velocity at 19:31 = 35. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.28

Standard Deviation in start time measurement = 0.828E+02

Error in time = 0.39727E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.245E-02

Reduced Chi Squared = 0.122E-01

Chi Squared = 0.612E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.984E+00

The probability that no LINEAR correlation exists between the variables = 0.6202E-04

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

\*\*\*\*\*

This is a 2 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

year	doy	time	radii	error in radius	angle	error in angle	datatype
1980	75	15:36:27	1.70	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	15:53:28	1.75	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	16:20:28	1.79	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	17:16:59	1.88	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	17:56:28	2.11	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	18:47:28	2.31	+/- 0.10	116.0	+/- 0.5	SMM
1980	75	19:31:28	2.38	+/- 0.10	116.0	+/- 0.5	SMM

\*\*\*\*\*

Structure being measured:

Top of Blob

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

tstart=DOY 75 10:55 from derivative = 0

Event begins at 1.39 Solar Radii

Origin defined at DOY 75 15: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.149E-02 +/- 0.136E-02 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.162E+01 +/- 0.659E-01 [solar radii]

c(2) = 0.189E-02 +/- 0.108E-02 [radii/min]

c(2) = 0.220E+02 +/- 0.125E+02 [km/sec]

c(3) = 0.386E-05 +/- 0.351E-05 [radii/min\*\*2]

c(3) = 0.149E-02 +/- 0.136E-02 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.73665E-01 [radii] Bevington pg 154 (8-30)

Exact error in c(1) = 0.72756E-02 [radii] Bevington pg 154 (8-28)

Approximate error in c(2) = 0.12075E-02 [radii/min] Bevington pg 154 (8-30)

Exact error in c(2) = 0.16963E-03 [radii/min] Bevington pg 154 (8-28)

Approximate error in c(3) = 0.39275E-05 [radii/min\*\*] Bevington pg 154 (8-30)

Exact error in c(3) = 0.66573E-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) = 116. +/- 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 15:36 = 0.000E+00 km/sec  
The TOTAL velocity at 15:36 = 25. km/sec

The TANGENTIAL velocity at 15:53 = 0.000E+00 km/sec  
The TOTAL velocity at 15:53 = 27. km/sec

The TANGENTIAL velocity at 16:20 = 0.000E+00 km/sec  
The TOTAL velocity at 16:20 = 29. km/sec

The TANGENTIAL velocity at 17:16 = 0.000E+00 km/sec  
The TOTAL velocity at 17:16 = 34. km/sec

The TANGENTIAL velocity at 17:56 = 0.000E+00 km/sec  
The TOTAL velocity at 17:56 = 38. km/sec

The TANGENTIAL velocity at 18:47 = 0.000E+00 km/sec  
The TOTAL velocity at 18:47 = 42. km/sec

The TANGENTIAL velocity at 19:31 = 0.000E+00 km/sec  
The TOTAL velocity at 19:31 = 46. km/sec

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

Fit is ok [ier=1]

Standard Deviation in the height = 0.28  
Standard Deviation in start time measurement = 0.828E+02  
Value of reduced Chi Squared returned from nllst2 = 0.237E-02  
Reduced Chi Squared = 0.149E-01  
Chi Squared = 0.595E-01  
The probability for exceeding chi square = 0.100E+01

For a second order fit 3 correlation coefficients are given:

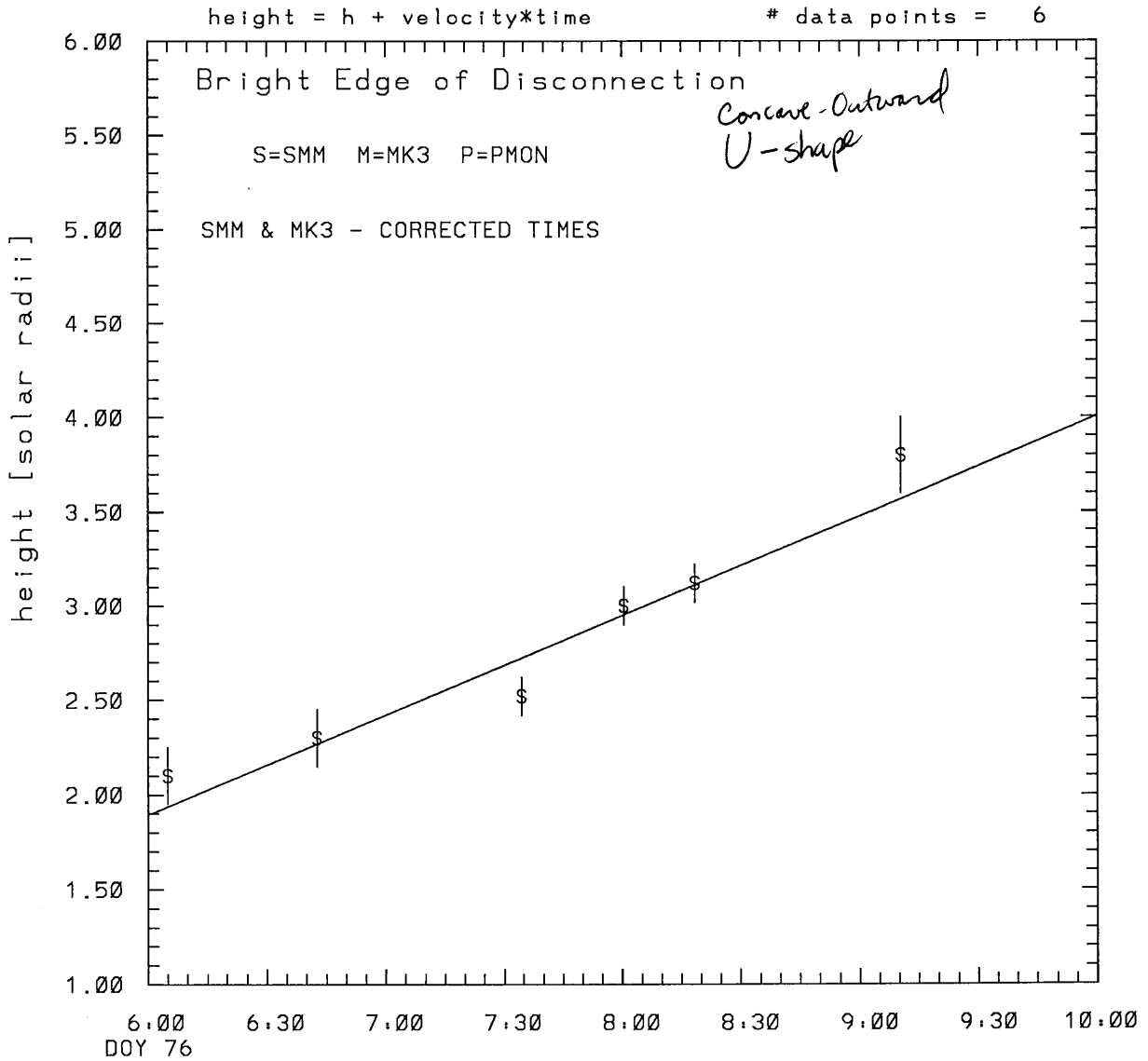
(Using equation of motion:  $r = a + bt + at^{**2}$ )

The correlation between the data and the term linear in time = 0.9840E+00

The correlation between the data and the time\*\*2 term = 0.9791E+00

The correlation between the data and the complete equation of motion = 0.9744E+00  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

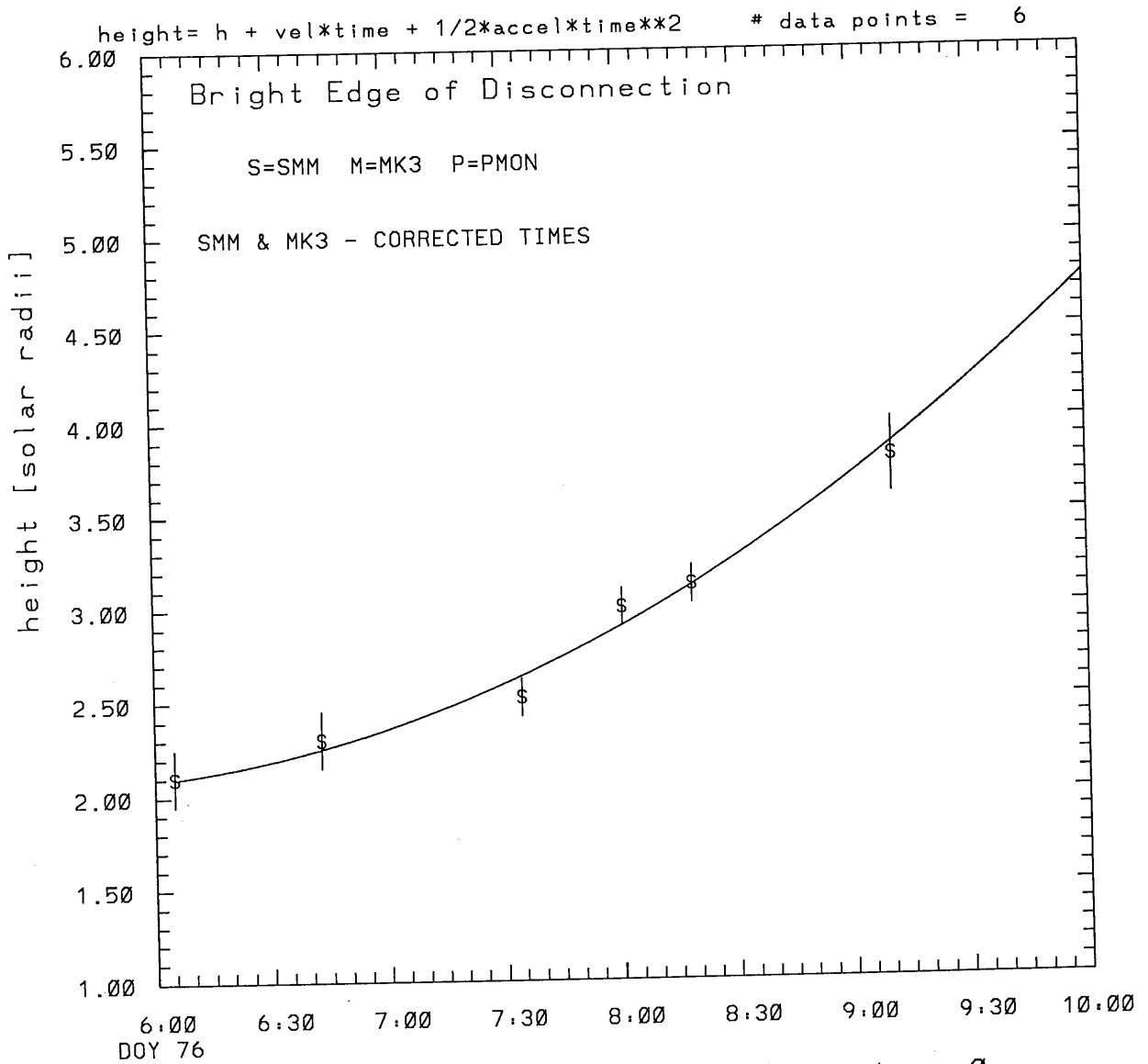
SMM C/P 1980 DOY 76 122 +/- 0 degrees



tstart=DOY 76 4:19 +/- 2.3 [min.]  
radial velocity= 102. +/- 14. [km/sec]

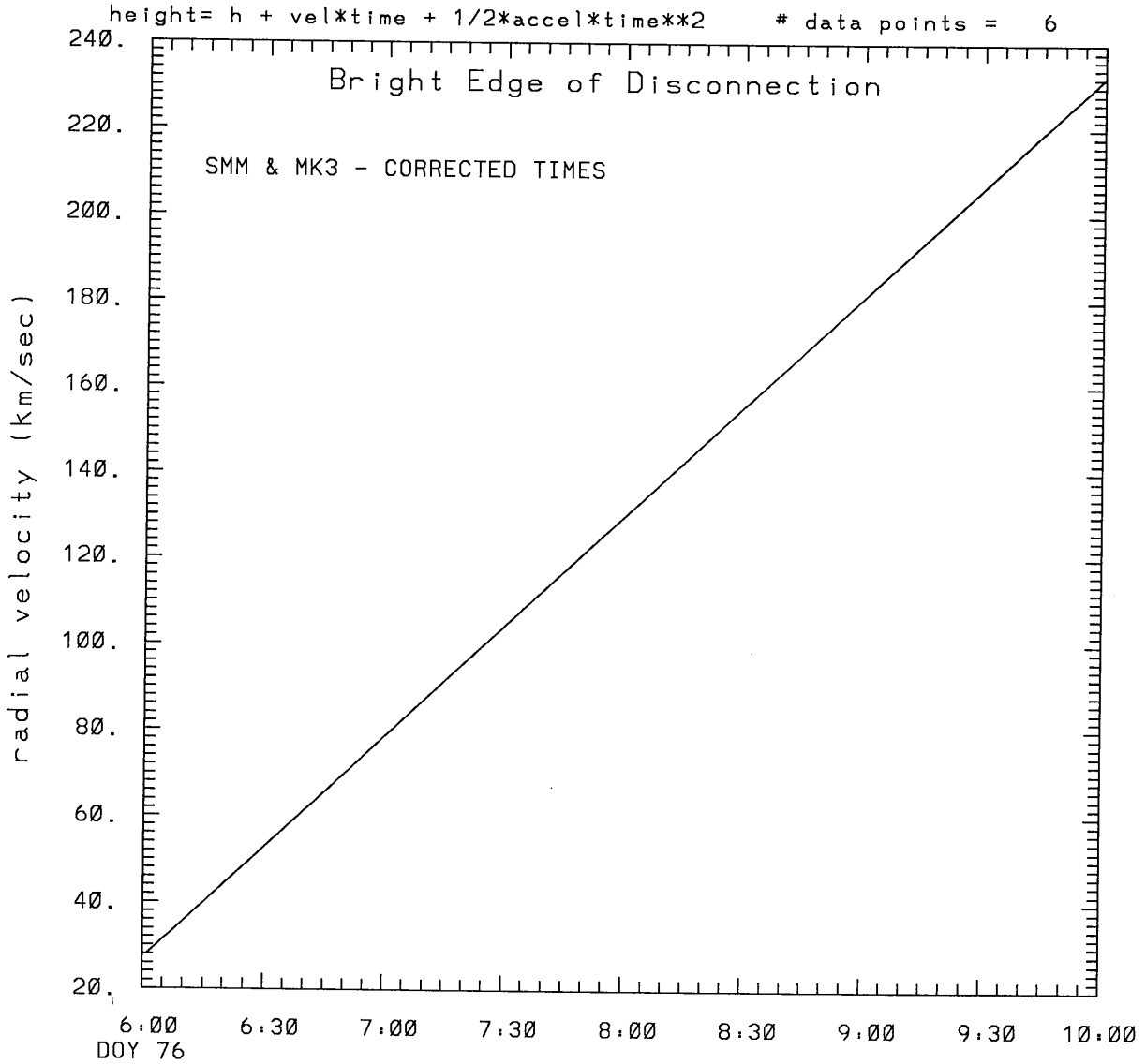


SMM C/P 1980 DOY 76 122 +/- 0 degrees



~~tstart=DOY 76 5.29 from derivative=0~~  
Event begins at 2.05 Solar Radii  
radial acceleration =  $0.0143 \pm 0.0053$  [km/sec\*\*2]

SMM C/P 1980 DOY 76 122 +/- 0 degrees



tstart=DOY 76 5:29 from derivative=0  
Event begins at 2.05 Solar Radii  
radial acceleration=0.143E-01 km/sec\*\*2

\*\*\*\*\*

This is a 1 order run

\*\*\*\*\*

\*\*\*\*\*

INPUT:

\*\*\*\*\*

			error in	error in		
year	day	time	radii	radius	angle	angle
1980	76	6: 4:59	2.10 +/- 0.15	122.0 +/- 0.5		SMM
1980	76	6:42:36	2.30 +/- 0.15	122.0 +/- 0.5		SMM
1980	76	7:34:28	2.52 +/- 0.10	122.0 +/- 0.5		SMM
1980	76	8: 0:28	3.00 +/- 0.10	122.0 +/- 0.5		SMM
1980	76	8:18:27	3.12 +/- 0.10	122.0 +/- 0.5		SMM
1980	76	9:10:28	3.80 +/- 0.20	122.0 +/- 0.5		SMM

\*\*\*\*\*

Structure being measured:

Bright Edge of Disconnection

\*\*\*\*\*

\*\*\*\*\*

OUTPUT:

\*\*\*\*\*

START TIME:

Event began at  $t = 0 + -0.101E+03 +/- 0.232E+01$  [minutes]

In more convenient units:

Event began at DOY 76 4:19 +/- 0.232E+01 [minutes]

Origin defined at DOY 76 6: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 102. +/- 14. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.189E+01 +/- 0.137E+00 [solar radii]  
c(2) = 0.879E-02 +/- 0.121E-02 [radii/min]  
c(2) = 0.102E+03 +/- 0.141E+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)= 0.13727E+00 [radii] see Bevington pg. 114

error in c(2)= 0.11835E-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) = 122. +/- 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 6: 4 = 0.000E+00 km/sec

The TOTAL velocity at 6: 4 = 102. km/sec

The TANGENTIAL velocity at 6:42 = 0.000E+00 km/sec

The TOTAL velocity at 6:42 = 102. km/sec

The TANGENTIAL velocity at 7:34 = 0.000E+00 km/sec

The TOTAL velocity at 7:34 = 102. km/sec

The TANGENTIAL velocity at 8: 0 = 0.000E+00 km/sec

The TOTAL velocity at 8: 0 = 102. km/sec

The TANGENTIAL velocity at 8:18 = 0.000E+00 km/sec

The TOTAL velocity at 8:18 = 102. km/sec

The TANGENTIAL velocity at 9:10 = 0.000E+00 km/sec

The TOTAL velocity at 9:10 = 102. km/sec

\*\*\*\*\*

The following info is for estimating goodness of the fit

\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.63

Standard Deviation in start time measurement = 0.611E+02

Error in time = 0.40303E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.202E-01

Reduced Chi Squared = 0.122E+00

Chi Squared = 0.487E+00

The probability for exceeding chi square = 0.999E+00

The correlation coefficient = 0.971E+00

The probability that no LINEAR correlation exists between the variables = 0.1211E-02

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
1980	76	6: 4:59	2.10	+/- 0.15	122.0	+/- 0.5	SMM	
1980	76	6:42:36	2.30	+/- 0.15	122.0	+/- 0.5	SMM	
1980	76	7:34:28	2.52	+/- 0.10	122.0	+/- 0.5	SMM	
1980	76	8: 0:28	3.00	+/- 0.10	122.0	+/- 0.5	SMM	
1980	76	8:18:27	3.12	+/- 0.10	122.0	+/- 0.5	SMM	
1980	76	9:10:28	3.80	+/- 0.20	122.0	+/- 0.5	SMM	

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Structure being measured:

Bright Edge of Disconnection

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OUTPUT:

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START TIME:

tstart=DOY 76 5:29 from derivative = 0

Event begins at 2.05 Solar Radii

Origin defined at DOY 76 6: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.143E-01 +/- 0.535E-02 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.208E+01 +/- 0.116E+00 [solar radii]  
c(2) = 0.233E-02 +/- 0.256E-02 [radii/min]  
c(2) = 0.271E+02 +/- 0.297E+02 [km/sec]  
c(3) = 0.369E-04 +/- 0.138E-04 [radii/min\*\*2]  
c(3) = 0.143E-01 +/- 0.535E-02 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.98319E-01 [radii] Bevington pg 154 (8-30)  
Exact error in c(1) = 0.32826E-02 [radii] Bevington pg 154 (8-28)  
Approximate error in c(2) = 0.22777E-02 [radii/min] Bevington pg 154 (8-30)  
Exact error in c(2) = 0.49840E-03 [radii/min] Bevington pg 154 (8-28)  
Approximate error in c(3) = 0.11426E-04 [radii/min\*\*] Bevington pg 154 (8-30)  
Exact error in c(3) = 0.34476E-05 [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) = 122. +/- 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 6: 4 = 0.000E+00 km/sec  
The TOTAL velocity at 6: 4 = 31. km/sec

The TANGENTIAL velocity at 6:42 = 0.000E+00 km/sec  
The TOTAL velocity at 6:42 = 64. km/sec

The TANGENTIAL velocity at 7:34 = 0.000E+00 km/sec  
The TOTAL velocity at 7:34 = 108. km/sec

The TANGENTIAL velocity at 8: 0 = 0.000E+00 km/sec  
The TOTAL velocity at 8: 0 = 130. km/sec

The TANGENTIAL velocity at 8:18 = 0.000E+00 km/sec  
The TOTAL velocity at 8:18 = 145. km/sec

The TANGENTIAL velocity at 9:10 = 0.000E+00 km/sec  
The TOTAL velocity at 9:10 = 190. km/sec

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The following info is for estimating goodness of the fit

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Fit is ok [ier=1]

Standard Deviation in the height = 0.63  
Standard Deviation in start time measurement = 0.611E+02  
Value of reduced Chi Squared returned from nllst2 = 0.909E-02  
Reduced Chi Squared = 0.366E-01  
Chi Squared = 0.110E+00  
The probability for exceeding chi square = 0.999E+00

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 = 0.7434E+00

The correlation between the data and the time\*\*2 term = 0.7123E+00

The correlation between the data and the complete equation of motion = 0.9690E+00

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