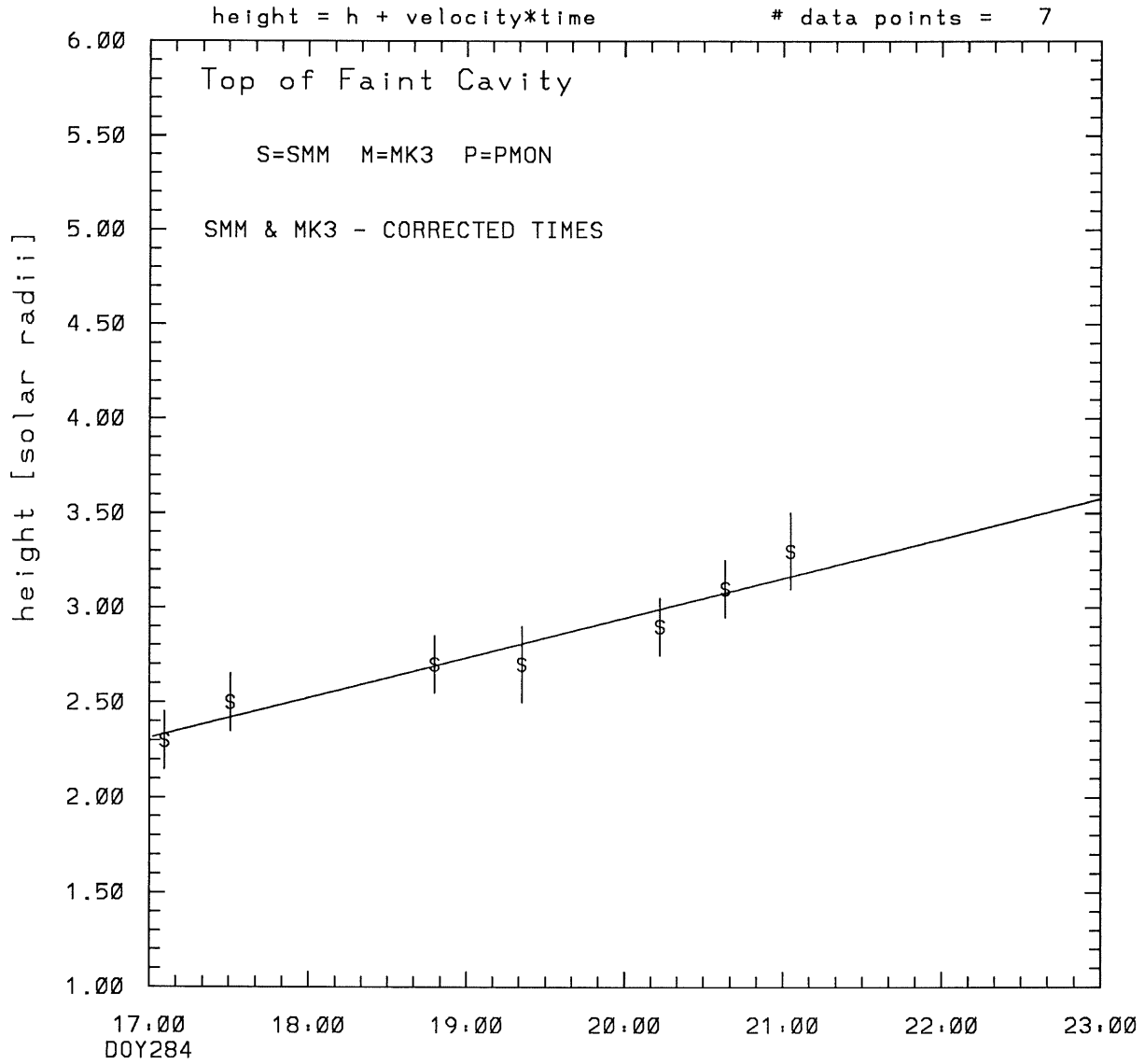
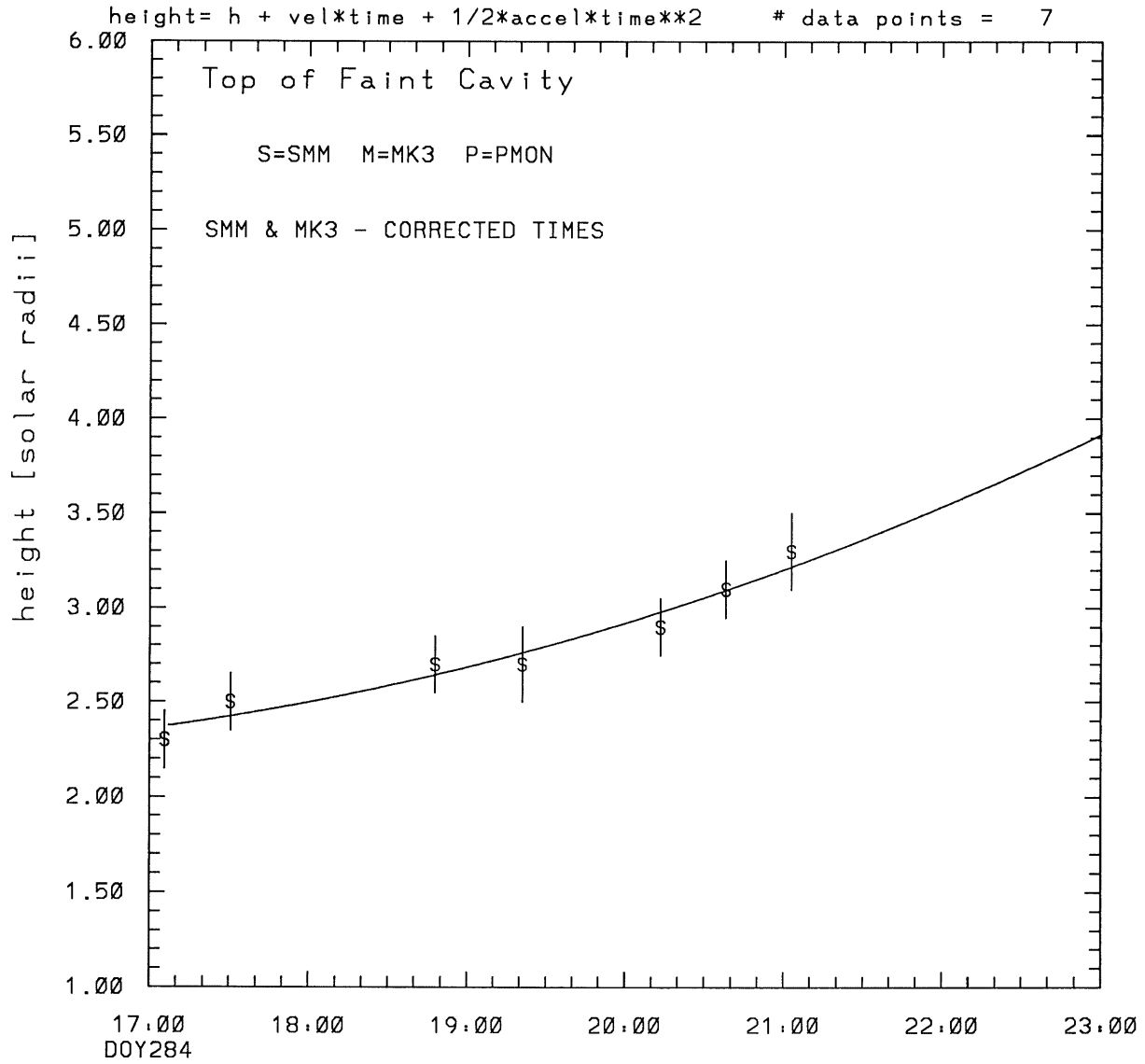


SMM C/P 1988 DOY284 105 +/- 0 degrees



tstart=DOY284 10:47 +/- 8.0 [min.]
radial velocity= 41. +/- 4. [km/sec]

SMM C/P 1988 DOY284 105 +/- 0 degrees

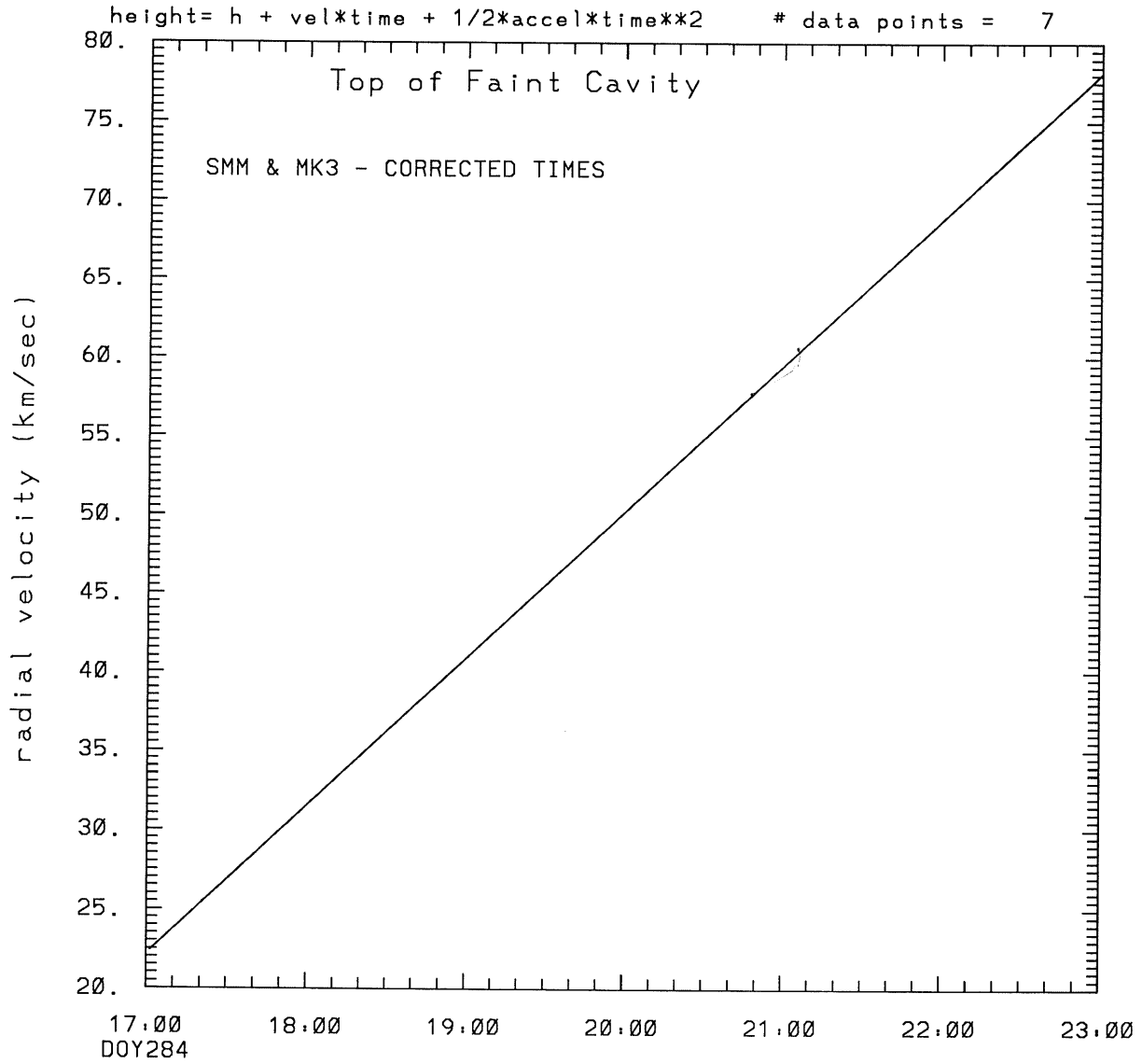


tstart=DOY284 14:38 from derivative=0

Event begins at 2.22 Solar Radii

radial acceleration = 0.0026 +/- 0.0022 [km/sec**2]

SMM C/P 1988 DOY284 105 +/- 0 degrees



tstart=DOY284 14:38 from derivative=0
Event begins at 2.22 Solar Radii
radial acceleration= $0.259E-02$ km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	angle	error in angle	datatype
1988	284	17: 5:42	2.30	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	17:30:28	2.50	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	18:47:51	2.70	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	19:20:54	2.70	+/- 0.20	105.0	+/- 0.5	SMM
1988	284	20:13:26	2.90	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	20:38:12	3.10	+/- 0.15	105.0	+/- 1.0	SMM
1988	284	21: 2:57	3.30	+/- 0.20	105.0	+/- 1.0	SMM

Structure being measured:

Top of Faint Cavity

OUTPUT:

START TIME:

Event began at $t = 0 + -0.375E+03 +/- 0.796E+01$ [minutes]

In more convenient units:

Event began at DOY 284 10:47 +/- 0.796E+01 [minutes]

Origin defined at DOY284 17: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 41. +/- 4. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.231E+01 +/- 0.534E-01 [solar radii]
c(2) = 0.351E-02 +/- 0.351E-03 [radii/min]
c(2) = 0.407E+02 +/- 0.407E+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)= 0.67918E-01 [radii] see Bevington pg. 114

error in c(2)= 0.42772E-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) = 105. +/- 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 17: 5 = 0. km/sec

The TOTAL velocity at 17: 5 = 41. km/sec

The TANGENTIAL velocity at 17:30 = 0. km/sec

The TOTAL velocity at 17:30 = 41. km/sec

The TANGENTIAL velocity at 18:47 = 0. km/sec

The TOTAL velocity at 18:47 = 41. km/sec

The TANGENTIAL velocity at 19:20 = 0. km/sec

The TOTAL velocity at 19:20 = 41. km/sec

The TANGENTIAL velocity at 20:13 = 0. km/sec

The TOTAL velocity at 20:13 = 41. km/sec

The TANGENTIAL velocity at 20:38 = 0. km/sec

The TOTAL velocity at 20:38 = 41. km/sec

The TANGENTIAL velocity at 21: 2 = 0. km/sec

The TOTAL velocity at 21: 2 = 41. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.34

Standard Deviation in start time measurement = 0.849E+02

Error in time = 0.61235E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.631E-02

Reduced Chi Squared = 0.464E-01

Chi Squared = 0.232E+00

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.967E+00

The probability that no LINEAR correlation exists between the variables = 0.3603E-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
1988	284	17: 5:42	2.30	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	17:30:28	2.50	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	18:47:51	2.70	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	19:20:54	2.70	+/- 0.20	105.0	+/- 0.5	SMM
1988	284	20:13:26	2.90	+/- 0.15	105.0	+/- 0.5	SMM
1988	284	20:38:12	3.10	+/- 0.15	105.0	+/- 1.0	SMM
1988	284	21: 2:57	3.30	+/- 0.20	105.0	+/- 1.0	SMM

Structure being measured:
Top of Faint Cavity

OUTPUT:

START TIME:

tstart=DOY284 14:38 from derivative = 0
Event begins at 2.22 Solar Radii
Origin defined at DOY284 17: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.259E-02 +/- 0.225E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.236E+01 +/- 0.654E-01 [solar radii]
c(2) = 0.191E-02 +/- 0.143E-02 [radii/min]
c(2) = 0.222E+02 +/- 0.165E+02 [km/sec]
c(3) = 0.670E-05 +/- 0.582E-05 [radii/min**2]
c(3) = 0.259E-02 +/- 0.225E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.78103E-01 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.31972E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.15650E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.59204E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.61815E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.22232E-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) = 105. +/- 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 17: 5 = 0. km/sec

The TOTAL velocity at 17: 5 = 23. km/sec

The TANGENTIAL velocity at 17:30 = 0. km/sec

The TOTAL velocity at 17:30 = 27. km/sec

The TANGENTIAL velocity at 18:47 = 0. km/sec

The TOTAL velocity at 18:47 = 39. km/sec

The TANGENTIAL velocity at 19:20 = 0. km/sec

The TOTAL velocity at 19:20 = 44. km/sec

The TANGENTIAL velocity at 20:13 = 0. km/sec

The TOTAL velocity at 20:13 = 52. km/sec

The TANGENTIAL velocity at 20:38 = 0. km/sec

The TOTAL velocity at 20:38 = 56. km/sec

The TANGENTIAL velocity at 21: 2 = 0. km/sec

The TOTAL velocity at 21: 2 = 60. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.34

Standard Deviation in start time measurement = 0.849E+02

Value of reduced Chi Squared returned from nllst2 = 0.598E-02

Reduced Chi Squared = 0.298E-01

Chi Squared = 0.119E+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 = 0.9836E+00

The correlation between the data and the time**2 term = 0.9505E+00

0The correlation between the data and the complete equation of motion = 0.9552E+00
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]