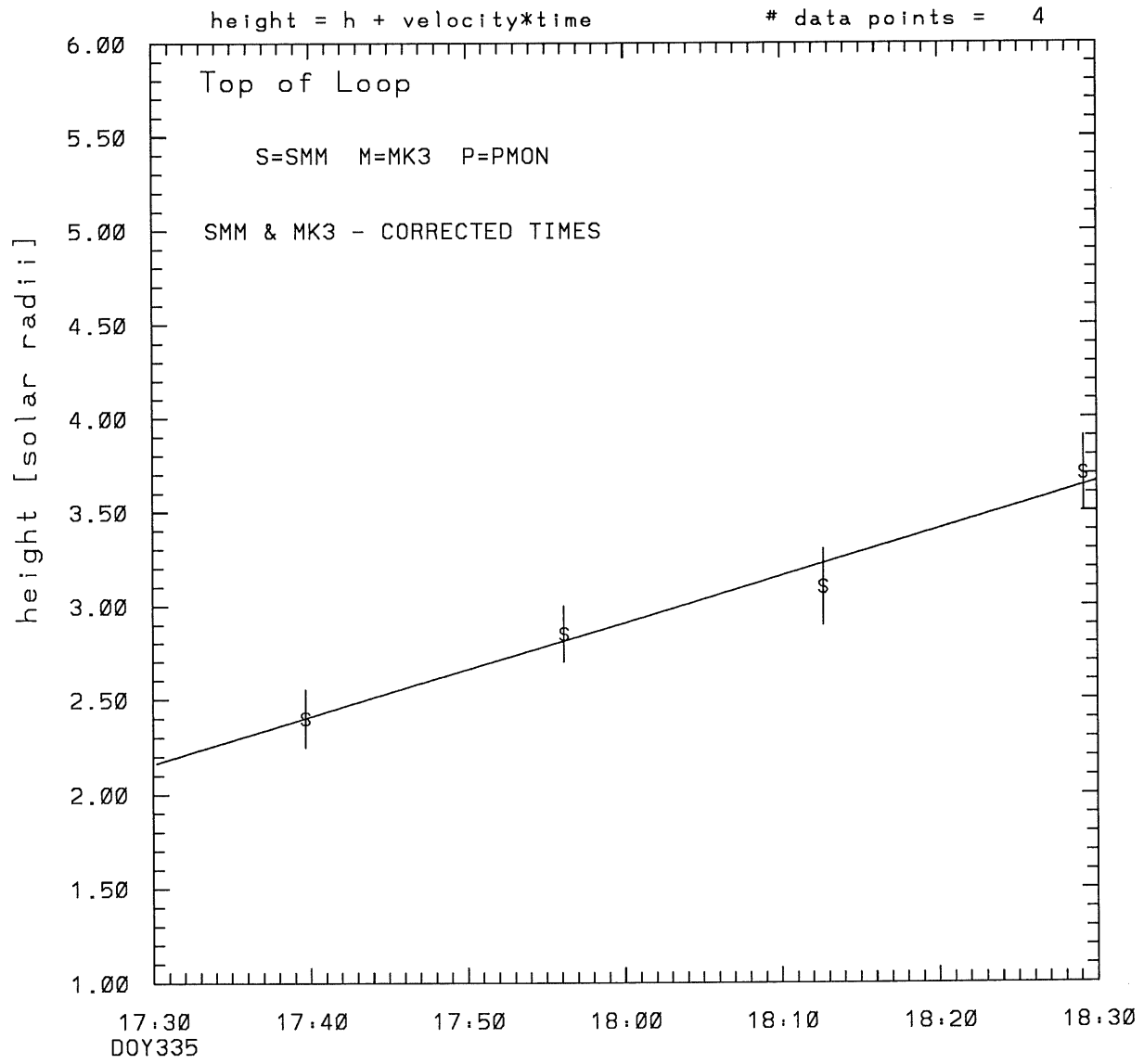
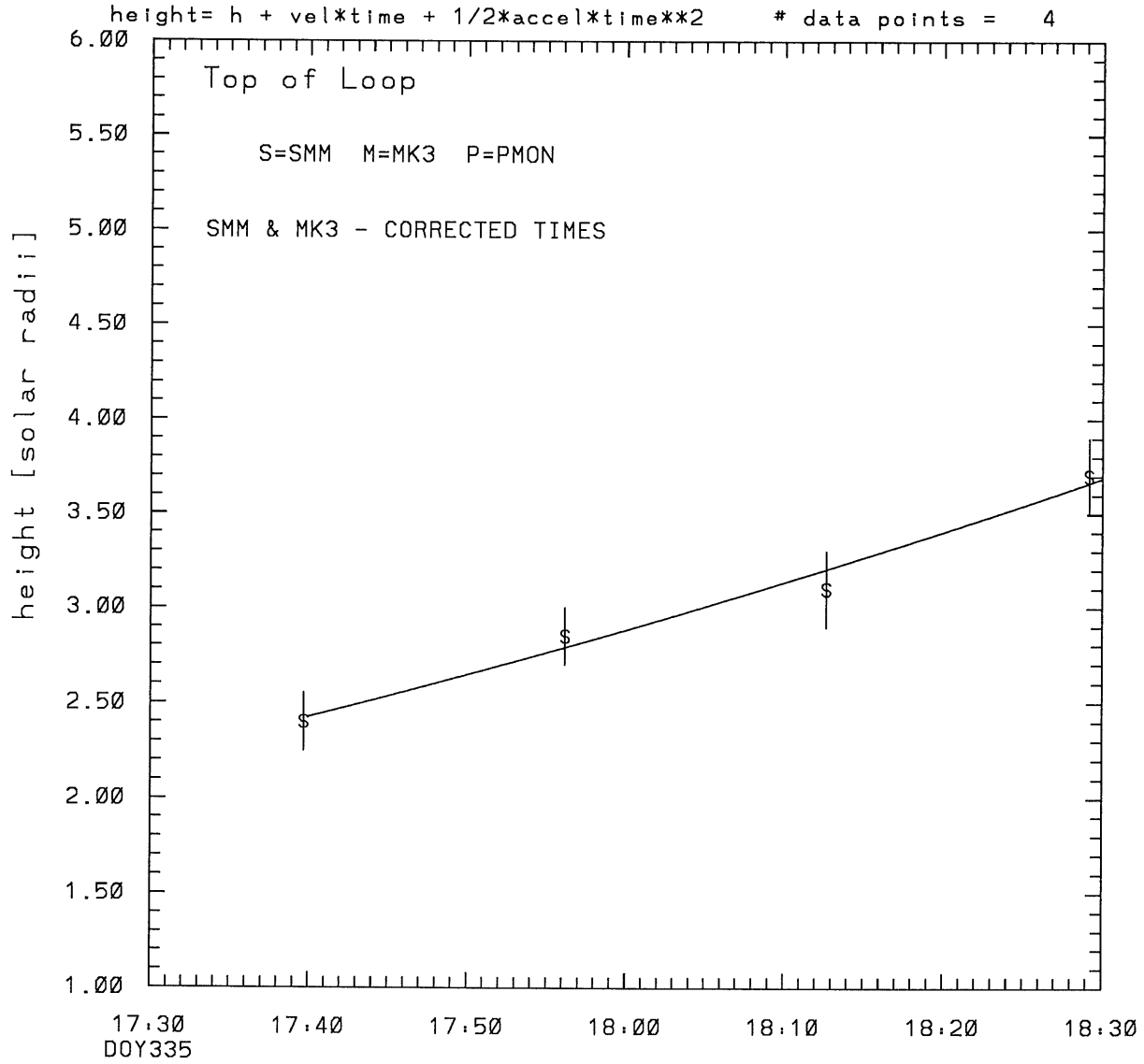


SMM C/P 1987 DOY335 300 +/- 0 degrees



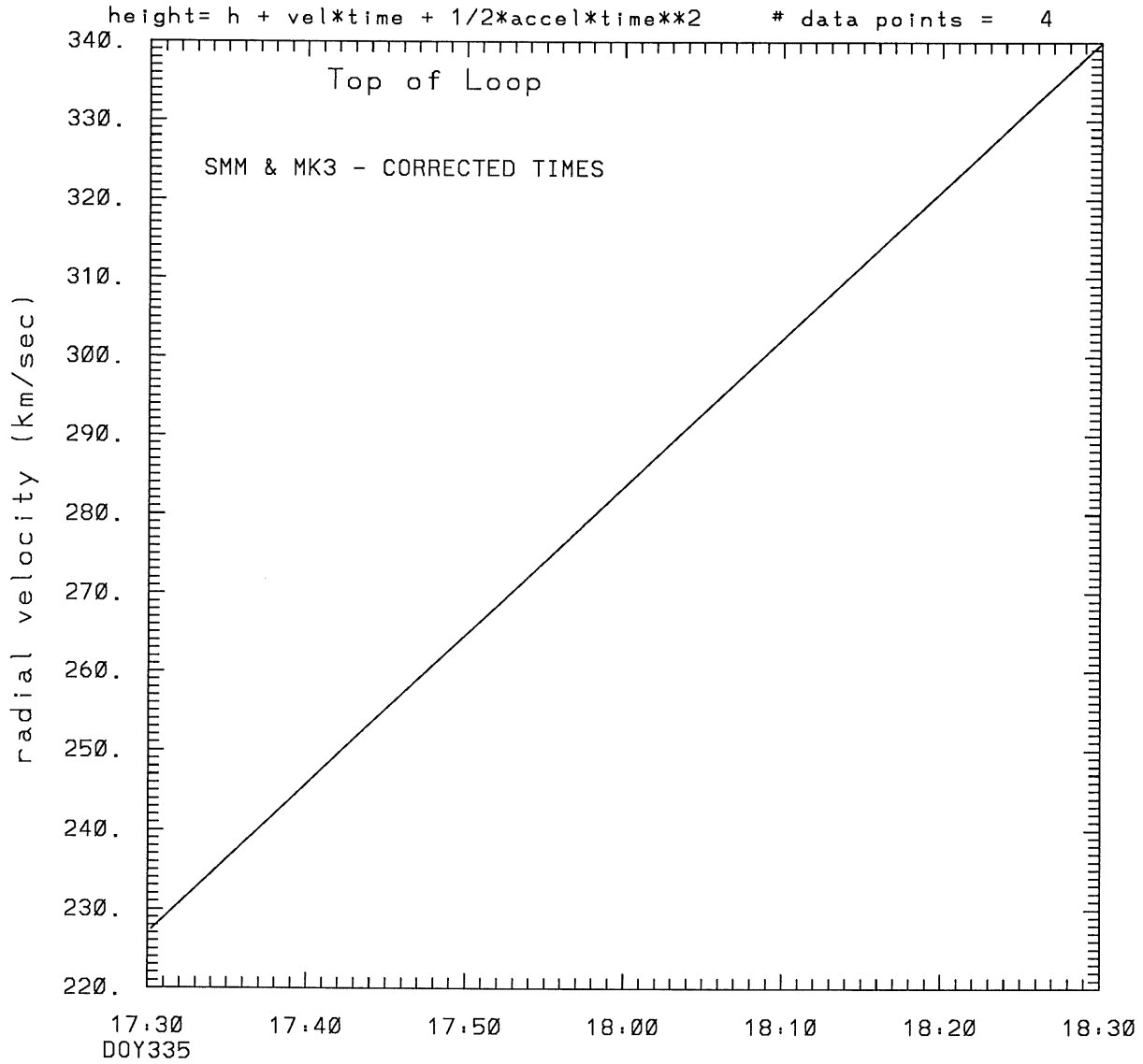
tstart=DOY335 16:44 +/- 1.4 [min.]
radial velocity= 290. +/- 24. [km/sec]

SMM C/P 1987 DOY335 300 +/- 0 degrees



tstart=DOY335 15:30 from derivative=0
Event begins at 1.04 Solar Radii
radial acceleration = 0.0314 +/- 0.0600 [km/sec**2]

SMM C/P 1987 DOY335 300 +/- 0 degrees



tstart=DOY335 15:30 from derivative=0
Event begins at 1.04 Solar Radii
radial acceleration=0.314E-01 km/sec**2

This is a 1 order run

INPUT:

year	day	time	radii	error in radius	angle	error in angle	datatype
1987	335	17:39:41	2.40	+/- 0.15	300.0	+/- 0.5	SMM
1987	335	17:56:10	2.85	+/- 0.15	300.0	+/- 0.5	SMM
1987	335	18:12:41	3.10	+/- 0.20	300.0	+/- 1.0	SMM
1987	335	18:29:10	3.70	+/- 0.20	300.0	+/- 1.0	SMM

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

Event began at $t = 0 + -0.464E+02 +/- 0.139E+01$ [minutes]

In more convenient units:

Event began at DOY 335 16:44 +/- 0.139E+01 [minutes]

Origin defined at DOY335 17:30

RADIAL INFORMATION:

RADIAL VELOCITY = 290. +/- 24. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.216E+01 +/- 0.709E-01$ [solar radii]
 $c(2) = 0.250E-01 +/- 0.204E-02$ [radii/min]
 $c(2) = 0.290E+03 +/- 0.237E+02$ [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 $c(1) = 0.10867E+00$ [radii] see Bevington pg. 114

error in $c(2) = 0.27826E-02$ [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) = 300. +/- 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 17:39 = 0.000E+00 km/sec
The TOTAL velocity at 17:39 = 290. km/sec

The TANGENTIAL velocity at 17:56 = 0.000E+00 km/sec
The TOTAL velocity at 17:56 = 290. km/sec

The TANGENTIAL velocity at 18:12 = 0.000E+00 km/sec
The TOTAL velocity at 18:12 = 290. km/sec

The TANGENTIAL velocity at 18:29 = 0.000E+00 km/sec
The TOTAL velocity at 18:29 = 290. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.54
Standard Deviation in start time measurement = 0.184E+02
Error in time = 0.58075E+01 using best fit method
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.531E-02
Reduced Chi Squared = 0.329E-01
Chi Squared = 0.657E-01
The probability for exceeding chi square = 0.995E+00

The correlation coefficient = 0.988E+00
The probability that no LINEAR correlation exists between the variables = 0.1189E-01
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

This is a 2 order run

INPUT:

year	day	time	radii	radius	error in	angle	angle	datatype
1987	335	17:39:41	2.40	+/- 0.15	300.0	+/- 0.5	SMM	
1987	335	17:56:10	2.85	+/- 0.15	300.0	+/- 0.5	SMM	
1987	335	18:12:41	3.10	+/- 0.20	300.0	+/- 1.0	SMM	
1987	335	18:29:10	3.70	+/- 0.20	300.0	+/- 1.0	SMM	

Structure being measured:

Top of Loop

OUTPUT:

START TIME:

tstart=DOY335 15:30 from derivative = 0

Event begins at 1.04 Solar Radii

Origin defined at DOY335 17:30

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.314E-01 +/- 0.600E-01 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.222E+01 +/- 0.147E+00 [solar radii]
c(2) = 0.196E-01 +/- 0.106E-01 [radii/min]
c(2) = 0.227E+03 +/- 0.123E+03 [km/sec]
c(3) = 0.811E-04 +/- 0.155E-03 [radii/min**2]
c(3) = 0.314E-01 +/- 0.600E-01 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.24079E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.66064E-01 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.16581E-01 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.69300E-02 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.23549E-03 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.10146E-03 [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) = 300. +/- 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 17:39 = 0.000E+00 km/sec

The TOTAL velocity at 17:39 = 245. km/sec

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

The TOTAL velocity at 17:56 = 276. km/sec

The TANGENTIAL velocity at 18:12 = 0.000E+00 km/sec

The TOTAL velocity at 18:12 = 307. km/sec

The TANGENTIAL velocity at 18:29 = 0.000E+00 km/sec

The TOTAL velocity at 18:29 = 338. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.54

Standard Deviation in start time measurement = 0.184E+02

Value of reduced Chi Squared returned from nllst2 = 0.701E-02

Reduced Chi Squared = 0.461E-01

Chi Squared = 0.461E-01

The probability for exceeding chi square = 0.933E+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 = 0.9906E+00

The correlation between the data and the time**2 term = 0.9524E+00

The correlation between the data and the complete equation of motion = 0.9876E+00

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