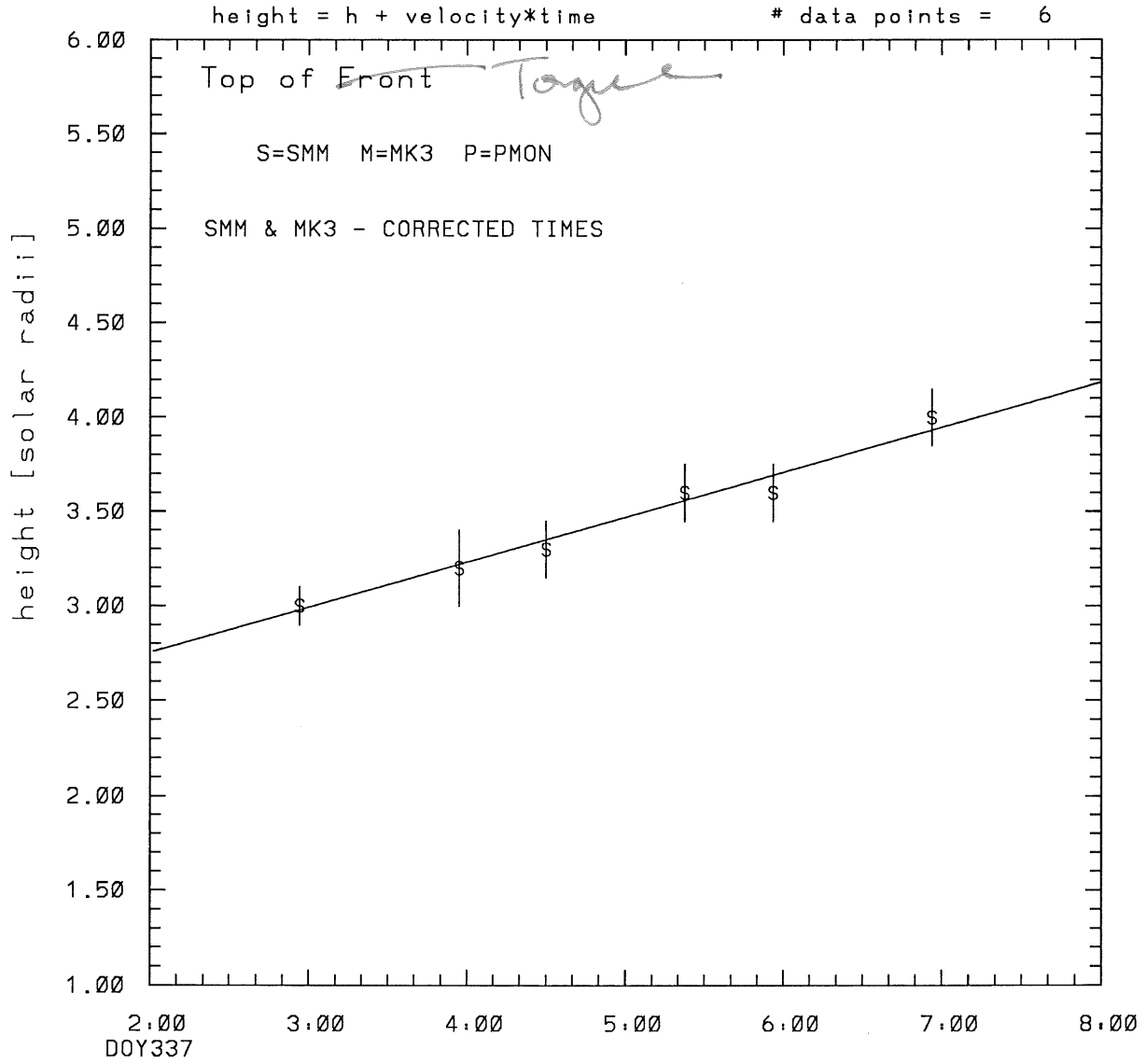
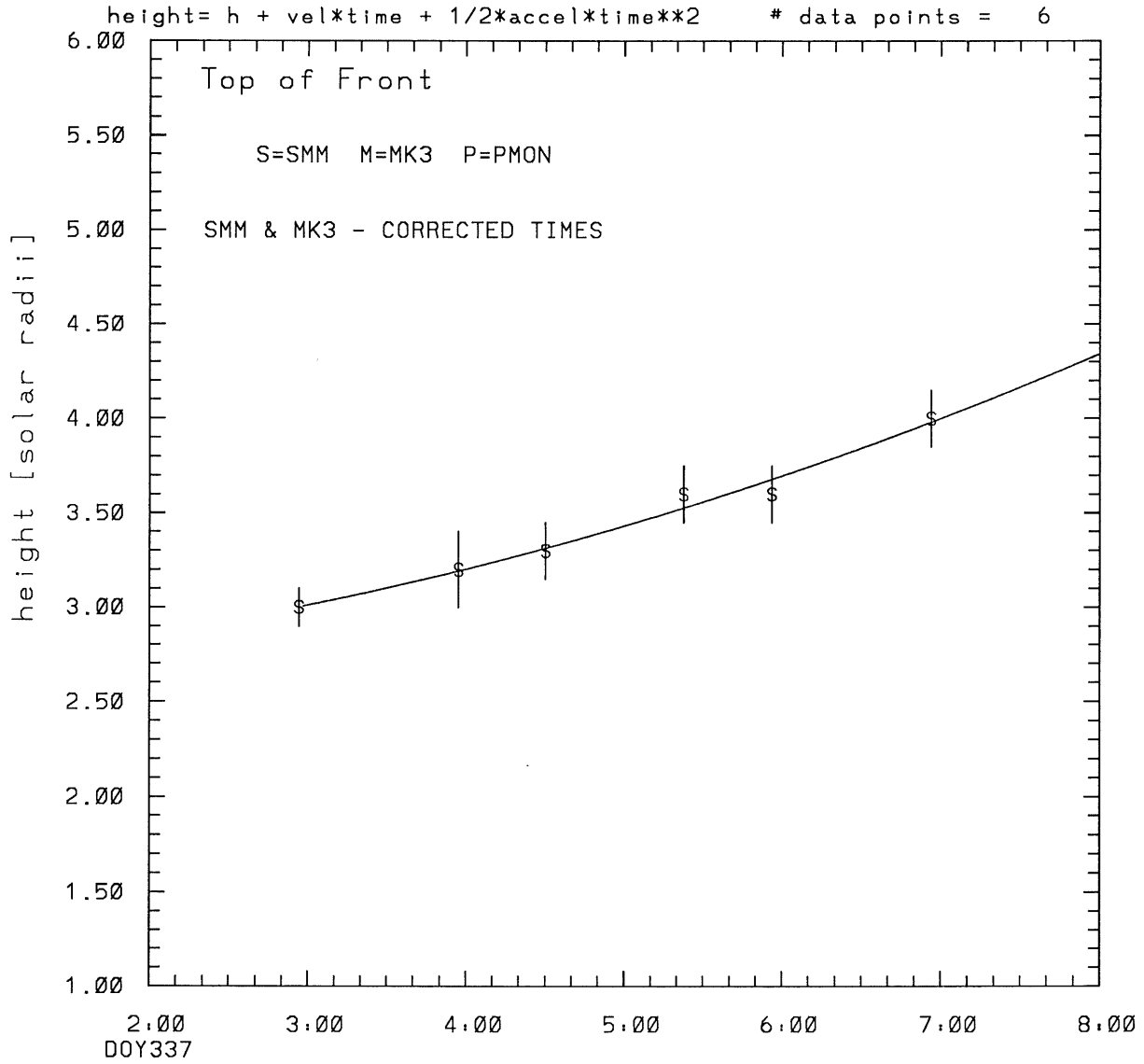


SMM C/P 1988 DOY337 45 +/- 0 degrees



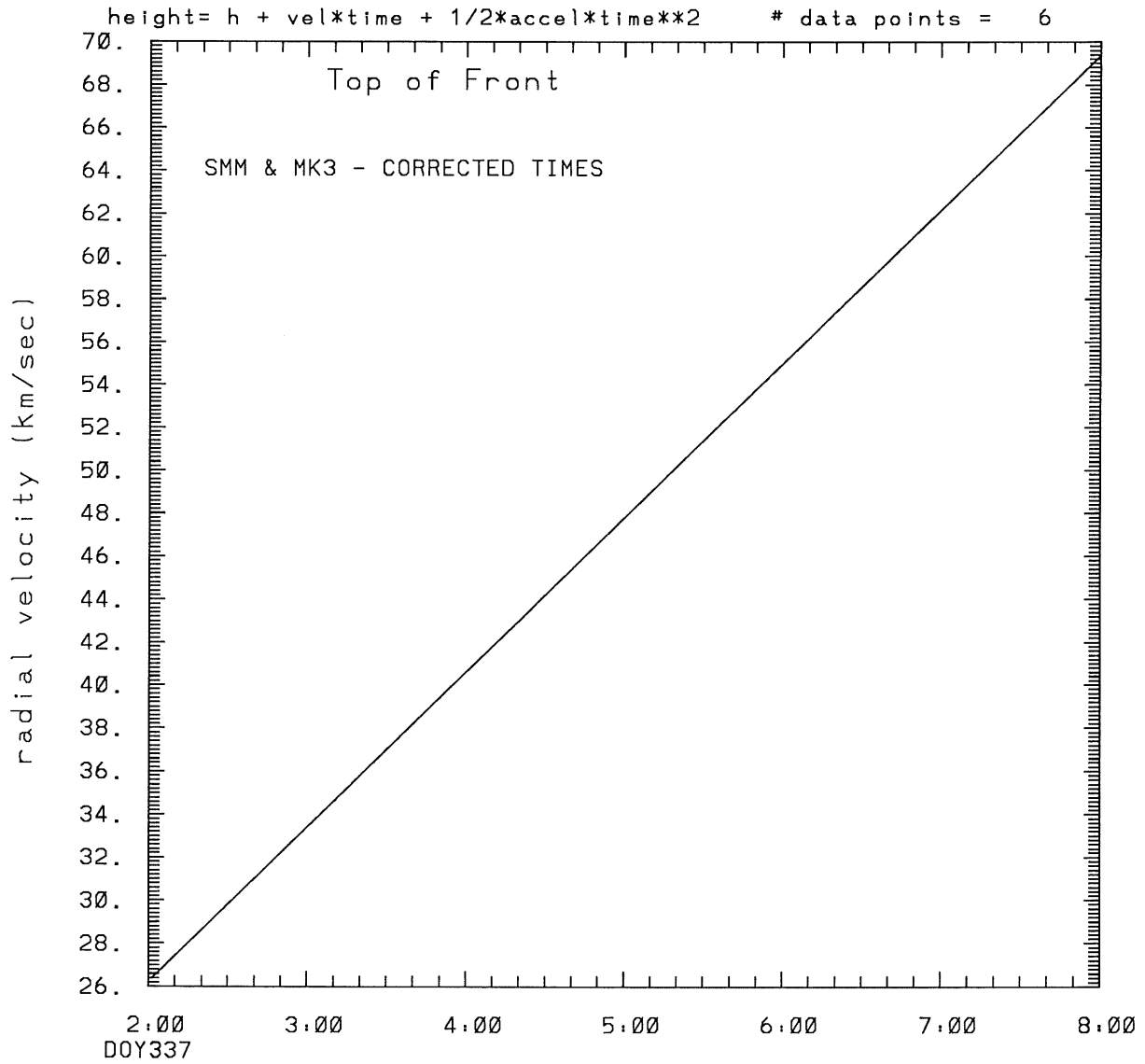
tstart=DOY336 18:39 +/- 12.1 [min.]
radial velocity= 46. +/- 3. [km/sec]

SMM C/P 1988 DOY337 45 +/- 0 degrees



tstart=DOY336 22:22 from derivative=0
Event begins at 2.61 Solar Radii
radial acceleration = 0.0020 ± 0.0014 [km/sec**2]

SMM C/P 1988 DOY337 45 +/- 0 degrees



tstart=DOY336 22:22 from derivative=0
Event begins at 2.61 Solar Radii
radial acceleration=0.200E-02 km/sec**2

This is a 1 order run

INPUT:

year	doy	time	radii	error in radius	error in angle	angle	datatype
1988	337	2:56:31	3.00	+/- 0.10	45.0	+/- 1.0	SMM
1988	337	3:57:10	3.20	+/- 0.20	45.0	+/- 1.0	SMM
1988	337	4:30:10	3.30	+/- 0.15	45.0	+/- 1.0	SMM
1988	337	5:22:37	3.60	+/- 0.15	45.0	+/- 1.0	SMM
1988	337	5:56:12	3.60	+/- 0.15	45.0	+/- 1.0	SMM
1988	337	6:56:20	4.00	+/- 0.15	45.0	+/- 1.0	SMM

Structure being measured:
Top of Front

OUTPUT:

START TIME:

Event began at $t = 0 + -0.441E+03 +/- 0.121E+02$ [minutes]
In more convenient units:
Event began at DOY 336 18:39 +/- 0.121E+02 [minutes]

Origin defined at DOY337 2: 0

RADIAL INFORMATION:

RADIAL VELOCITY = 46. +/- 3. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

$c(1) = 0.275E+01 +/- 0.488E-01$ [solar radii]
 $c(2) = 0.397E-02 +/- 0.270E-03$ [radii/min]
 $c(2) = 0.461E+02 +/- 0.313E+01$ [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 $c(1) = 0.67902E-01$ [radii] see Bevington pg. 114
error in $c(2) = 0.35132E-03$ [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) = 45. +/- 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 2:56 = 0. km/sec

The TOTAL velocity at 2:56 = 46. km/sec

The TANGENTIAL velocity at 3:57 = 0. km/sec

The TOTAL velocity at 3:57 = 46. km/sec

The TANGENTIAL velocity at 4:30 = 0. km/sec

The TOTAL velocity at 4:30 = 46. km/sec

The TANGENTIAL velocity at 5:22 = 0. km/sec

The TOTAL velocity at 5:22 = 46. km/sec

The TANGENTIAL velocity at 5:56 = 0. km/sec

The TOTAL velocity at 5:56 = 46. km/sec

The TANGENTIAL velocity at 6:56 = 0. km/sec

The TOTAL velocity at 6:56 = 46. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.36

Standard Deviation in start time measurement = 0.788E+02

Error in time = 0.34111E+02 using best fit method

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

Value of reduced Chi Squared returned from nllst2 = 0.330E-02

Reduced Chi Squared = 0.217E-01

Chi Squared = 0.867E-01

The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.986E+00

The probability that no LINEAR correlation exists between the variables = 0.2978E-03

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

This is a 2 order run

INPUT:

year	doy	time	radii	radius	error in	angle	angle	datatype
1988	337	2:56:31	3.00	+/- 0.10	45.0	+/- 1.0	SMM	
1988	337	3:57:10	3.20	+/- 0.20	45.0	+/- 1.0	SMM	
1988	337	4:30:10	3.30	+/- 0.15	45.0	+/- 1.0	SMM	
1988	337	5:22:37	3.60	+/- 0.15	45.0	+/- 1.0	SMM	
1988	337	5:56:12	3.60	+/- 0.15	45.0	+/- 1.0	SMM	
1988	337	6:56:20	4.00	+/- 0.15	45.0	+/- 1.0	SMM	

Structure being measured:
Top of Front

OUTPUT:

START TIME:

tstart=DOY336 22:22 from derivative = 0
Event begins at 2.61 Solar Radii
Origin defined at DOY337 2: 0

RADIAL INFORMATION:

RADIAL ACCELERATION = 0.200E-02 +/- 0.136E-02 km/sec**2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.286E+01 +/- 0.825E-01 [solar radii]
c(2) = 0.226E-02 +/- 0.119E-02 [radii/min]
c(2) = 0.262E+02 +/- 0.138E+02 [km/sec]
c(3) = 0.516E-05 +/- 0.351E-05 [radii/min**2]
c(3) = 0.200E-02 +/- 0.136E-02 [km/sec**2]

The computed ERRORS in coefficients [BEVINGTON] are:

Approximate error in c(1) = 0.12716E+00 [radii] Bevington pg 154 (8-30)
Exact error in c(1) = 0.58732E-02 [radii] Bevington pg 154 (8-28)
Approximate error in c(2) = 0.15912E-02 [radii/min] Bevington pg 154 (8-30)
Exact error in c(2) = 0.12219E-03 [radii/min] Bevington pg 154 (8-28)
Approximate error in c(3) = 0.44106E-05 [radii/min**] Bevington pg 154 (8-30)
Exact error in c(3) = 0.41765E-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) = 45. +/- 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 2:56 = 0. km/sec

The TOTAL velocity at 2:56 = 33. km/sec

The TANGENTIAL velocity at 3:57 = 0. km/sec

The TOTAL velocity at 3:57 = 40. km/sec

The TANGENTIAL velocity at 4:30 = 0. km/sec

The TOTAL velocity at 4:30 = 44. km/sec

The TANGENTIAL velocity at 5:22 = 0. km/sec

The TOTAL velocity at 5:22 = 51. km/sec

The TANGENTIAL velocity at 5:56 = 0. km/sec

The TOTAL velocity at 5:56 = 55. km/sec

The TANGENTIAL velocity at 6:56 = 0. km/sec

The TOTAL velocity at 6:56 = 62. km/sec

The following info is for estimating goodness of the fit

Fit is ok [ier=1]

Standard Deviation in the height = 0.36

Standard Deviation in start time measurement = 0.788E+02

Value of reduced Chi Squared returned from nllst2 = 0.268E-02

Reduced Chi Squared = 0.185E-01

Chi Squared = 0.555E-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 = 0.1115E+01

The correlation between the data and the time**2 term = 0.1035E+01

The correlation between the data and the complete equation of motion = 0.9854E+00

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