

Appendix V

Reduced Data for Pennsylvania Test Plot

ORIGINAL PAGE IS
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PENNSYLVANIA STATE COLD WEATHER DATA

MAY 7-8, 1980

TIME	SOIL	10CM SOIL	50CM SOIL	1.5M AIR	3.0M AIR	9.0M AIR	DEW POINT	WIND SPEED
18.0	53.4	54.7	49.8	53.4	53.8	54.0	27.0	2.8
19.0	52.5	54.5	49.8	53.1	53.1	53.2	27.0	4.2
20.0	48.9	54.1	50.0	50.7	50.7	51.4	27.0	2.3
21.0	47.8	53.6	50.0	48.7	48.7	49.6	27.0	.3
22.0	44.2	53.1	49.8	46.6	46.0	47.8	27.0	.6
23.0	39.4	52.7	50.0	43.7	44.1	46.8	27.0	.2
0.0	37.6	52.0	50.0	40.8	40.1	43.5	27.0	.2
1.0	35.8	51.3	49.6	39.4	38.8	43.5	27.0	.2
2.0	34.7	50.7	49.8	34.0	34.2	37.8	27.0	.1
3.0	34.0	50.2	49.8	33.3	34.0	36.9	27.0	.1
4.0	33.4	49.6	49.8	31.5	32.0	34.5	26.0	.1
5.0	32.0	48.9	49.6	30.4	29.7	32.9	26.0	.1
6.0	31.6	48.6	49.8	27.7	31.1	33.3	26.0	.1
7.0	34.2	47.7	49.6	32.0	38.3	34.7	26.0	.1

PENNSYLVANIA STATE COLD WEATHER DATA

MAY 8-9, 1980

TIME	SOIL	10CM SOIL	50CM SOIL	1.5M AIR	3.0M AIR	9.0M AIR	DEW POINT	WIND SPEED
18.0	52.0	53.4	48.4	48.0	49.6	47.8	33.0	4.9
19.0	49.1	52.5	48.6	45.3	45.7	45.7	33.0	.8
20.0	44.8	52.2	48.7	44.1	44.1	45.0	33.0	1.1
21.0	41.0	51.8	48.9	41.9	40.8	43.2	33.0	.4
22.0	37.4	51.3	48.9	37.4	38.7	40.8	33.0	.1
23.0	36.3	50.4	48.9	38.8	38.3	39.9	33.0	.1
0.0	35.1	49.5	48.6	37.4	36.9	38.5	31.0	.2
1.0	34.0	49.3	48.7	35.4	36.0	38.1	29.0	.2
2.0	33.1	48.4	48.7	34.7	35.2	37.6	28.0	.4
3.0	32.4	48.0	48.6	32.2	33.4	36.3	27.0	.2
4.0	30.4	46.8	47.8	31.5	30.9	33.4	26.0	.1
5.0	34.9	46.4	48.0	32.5	32.7	34.7	30.0	.1
6.0	32.0	45.9	47.8	32.2	31.3	33.8	30.0	.1
7.0	39.0	46.0	48.6	34.5	35.6	36.3	30.0	.1

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PENNSYLVANIA STATE COLD WEATHER DATA

MAY 9-10, 1980

TIME	SOIL	10CM SOIL	50CM SOIL	1.5M AIR	3.0M AIR	9.0M AIR	DEW POINT	WIND SPEED
18.0	60.4	52.3	47.8	53.6	56.3	53.4	30.0	2.5
19.0	50.2	52.2	47.8	52.0	56.3	53.4	30.0	2.9
20.0	42.8	51.6	47.8	46.4	46.8	49.3	30.0	.9
21.0	37.9	51.1	47.8	37.2	43.7	47.8	30.0	.3
22.0	35.8	50.5	48.0	39.6	40.5	47.1	30.0	.2
23.0	35.1	49.8	48.2	38.7	38.8	43.9	30.0	.2
0.0	33.8	49.3	48.2	33.6	36.7	40.3	30.0	.1
1.0	33.6	48.4	47.8	33.6	33.8	39.9	30.0	.1
2.0	32.5	47.8	47.8	34.5	33.1	37.4	30.0	.1
3.0	32.0	47.5	47.8	31.8	31.3	34.5	28.0	.1
4.0	31.6	46.8	48.0	32.5	31.6	34.0	27.0	.1
5.0	30.9	46.4	48.0	32.0	31.5	33.8	27.0	.1
6.0	30.9	45.7	47.8	32.0	31.8	34.5	27.0	.1
7.0	33.3	44.6	46.9	31.1	35.1	34.0	27.0	.1

PENNSYLVANIA STATE COLD WEATHER DATA

MAY 15-16, 1980

TIME	SOIL	10CM SOIL	50CM SOIL	1.5M AIR	3.0M AIR	9.0M AIR	DEW POINT	WIND SPEED
18.0	59.4	57.7	50.0	56.7	61.5	56.7	35.0	1.4
19.0	56.7	57.0	50.0	55.9	60.8	56.1	35.0	.4
20.0	51.8	56.7	50.4	51.4	51.4	53.6	35.0	.1
21.0	46.8	55.9	50.4	43.0	45.0	50.5	35.0	.1
22.0	44.6	55.0	50.4	43.0	45.0	50.5	35.0	.1
23.0	43.2	54.1	50.4	36.9	40.6	43.5	35.0	.1
0.0	42.0	53.2	50.4	35.6	38.1	41.5	35.0	.1
1.0	40.6	52.5	50.4	34.5	37.6	40.5	35.0	.1
2.0	40.6	52.0	50.5	38.1	37.4	41.2	34.0	.1
3.0	39.7	51.8	51.1	34.7	34.5	36.9	32.0	.1
4.0	39.2	51.1	51.1	33.6	34.7	37.2	32.0	.1
5.0	38.3	50.5	51.1	32.0	34.9	37.0	31.0	.1
6.0	37.8	49.8	51.1	33.3	32.7	35.4	31.0	.1
7.0	40.6	49.3	50.9	35.6	44.6	36.3	31.0	.1

Appendix VI

P-Model Analysis Results

Table 6.1 P-Model Error Analysis (Total)

Table 6.2 P-Model Analysis by Night

Table 6.3 P-Model Analysis by Prediction Period

Table 6.4 P-Model Error Analysis

Figure 6.1 P-Model Predictions (Without Error Analysis)

Figure 6.2 P-Model Predictions (With Error Analysis)

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Table 6.1 P-Model Error Analysis (Total)

P-MODEL ERROR ANALYSIS

PENNSYLVANIA STATE COLD WEATHER DATA

ALL NIGHTS - MAY 7-8, 8-9, 9-10, 15-16, 1980

POPULATION = 264
MEAN ERROR = .588
STND. DEV. = 4.117

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Table 6.2 P-Model Analysis by Night

P-MODEL ANALYSIS BY NIGHT

ERROR ANALYSIS OF MAY 7-8, 1980

POPULATION = 66
MEAN ERROR = 3.333
STND. DEV. = 4.417

ERROR ANALYSIS OF MAY 8-9, 1980

POPULATION = 66
MEAN ERROR = -.712
STND. DEV. = 2.826

ERROR ANALYSIS OF MAY 9-10, 1980

POPULATION = 66
MEAN ERROR = -.288
STND. DEV. = 3.519

ERROR ANALYSIS OF MAY 15-16, 1980

POPULATION = 66
MEAN ERROR = .018
STND. DEV. = 4.270

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Table 6.3 P-Model Analysis by Prediction Periods

P-MODEL ERROR ANALYSIS BY PREDICTION PERIODS

ERROR ANALYSIS OF 1-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 44
MEAN ERROR = -.300
STND. DEV. = 2.749

ERROR ANALYSIS OF 2-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 40
MEAN ERROR = -.250
STND. DEV. = 2.921

ERROR ANALYSIS OF 3-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 36
MEAN ERROR = -.020
STND. DEV. = 3.474

ERROR ANALYSIS OF 4-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 32
MEAN ERROR = .368
STND. DEV. = 3.950

ERROR ANALYSIS OF 5-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 28
MEAN ERROR = .682
STND. DEV. = 4.248

ERROR ANALYSIS OF 6-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 24
MEAN ERROR = .824
STND. DEV. = 4.449

ERROR ANALYSIS OF 7-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 20
MEAN ERROR = 1.447
STND. DEV. = 5.099

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Table 6.3 (Continued)

ERROR ANALYSIS OF 8-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 16
MEAN ERROR = 1.977
STND. DEV. = 5.495

ERROR ANALYSIS OF 9-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 12
MEAN ERROR = 2.179
STND. DEV. = 6.262

ERROR ANALYSIS OF 10-HOUR PREDICTIONS (FOUR NIGHTS)

POPULATION = 8
MEAN ERROR = 3.123
STND. DEV. = 6.170

Table 6.4 P-Model Error Analysis

PMODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE	**	**	**											
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	49.4	48.2	47.2	46.2	45.3	44.4	43.5	42.8	42.0	41.3	40.7
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	.7	1.7	3.5	5.4	5.9	10.5	10.4	11.4	11.7	13.7	8.7
MEAN OF ERRORS	= 7.609													
STD. DEV. OF ERRORS	= 4.380													

PMODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE	**	**	**											
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	42.5	41.2	40.0	38.9	37.9	37.0	36.2	35.4	34.7	34.0	33.4
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	.6	3.8	1.2	1.6	2.6	2.4	4.1	4.0	2.2	1.9	-1.1
MEAN OF ERRORS	= 2.126													
STD. DEV. OF ERRORS	= 1.555													

PMODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE	**	**	**											
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	44.4	42.9	41.7	40.7	39.8	39.1	38.3	37.7	37.1	36.5	35.9
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	7.2	3.4	3.1	7.2	6.3	4.6	6.6	5.2	5.1	4.6	4.9
MEAN OF ERRORS	= 5.302													
STD. DEV. OF ERRORS	= 1.389													

PMODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE	**	**	**											
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	49.5	47.9	46.5	45.3	44.2	43.2	42.4	41.6	40.9	40.3	39.7
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	6.5	5.0	9.7	9.7	9.8	5.2	7.8	8.1	9.0	7.1	4.2
MEAN OF ERRORS	= 7.457													
STD. DEV. OF ERRORS	= 2.036													

PHODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE		**	**	**										
PRED	\$\$\$	\$\$\$	\$\$\$	\$\$\$	47.0	45.7	44.5	43.4	42.5	41.7	40.9	40.2	39.6	39.1
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$	\$\$\$	\$\$\$	\$\$\$	.5	2.8	3.7	4.1	8.6	8.5	9.5	9.9	12.0	7.1

MEAN OF ERRORS = 6.603
STD. DEV. OF ERRORS = 3.788

PHODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE		**	**	**										
PRED	\$\$\$	\$\$\$	\$\$\$	\$\$\$	40.3	38.9	37.7	36.6	35.6	34.6	33.7	32.9	32.1	31.4
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$	\$\$\$	\$\$\$	\$\$\$	2.9	.2	.4	1.3	1.0	2.5	2.4	.4	.0	-3.0

MEAN OF ERRORS = .809
STD. DEV. OF ERRORS = 1.702

PHODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE		**	**	**										
PRED	\$\$\$	\$\$\$	\$\$\$	\$\$\$	34.9	33.5	32.4	31.6	30.9	30.3	29.5	29.4	29.0	28.7
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$	\$\$\$	\$\$\$	\$\$\$	-4.6	-5.1	-1.1	-2.0	-3.6	-1.4	-2.6	-2.5	-2.9	-2.3

MEAN OF ERRORS = -2.810
STD. DEV. OF ERRORS = 1.278

PHODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE		**	**	**										
PRED	\$\$\$	\$\$\$	\$\$\$	\$\$\$	40.2	38.2	36.7	35.5	34.6	33.8	33.1	32.5	32.0	31.5
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$	\$\$\$	\$\$\$	\$\$\$	-2.8	1.4	1.2	1.1	-3.5	-.9	-.5	.5	-1.2	-4.0

MEAN OF ERRORS = -.864
STD. DEV. OF ERRORS = 2.000

PRODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE			**	**	**									
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	44.7	43.2	41.8	40.6	39.4	38.4	37.4	36.6	35.7
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	1.0	2.4	2.5	6.7	6.2	7.0	7.1	9.0	3.8

MEAN OF ERRORS = 5.086
STD. DEV. OF ERRORS = 2.703

PRODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE			**	**	**									
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	35.1	33.3	31.8	30.6	29.5	28.5	27.9	27.7	27.6
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-3.7	-4.0	-3.5	-4.0	-2.6	-2.9	-4.6	-4.4	-6.9

MEAN OF ERRORS = -4.066
STD. DEV. OF ERRORS = 1.234

PRODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE			**	**	**									
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	37.1	35.2	33.6	32.2	31.0	30.0	29.1	28.3	27.5
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-1.5	1.7	.1	-2.2	-.7	-2.5	-2.8	-3.7	-3.5

MEAN OF ERRORS = -1.684
STD. DEV. OF ERRORS = 1.752

PRODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE			**	**	**									
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	40.5	38.7	37.3	36.1	35.1	34.2	33.5	32.8	32.2
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	3.7	3.2	2.8	-2.0	.5	.7	1.6	-.4	-3.3

MEAN OF ERRORS = .754
STD. DEV. OF ERRORS = 2.364

PHODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE				**	**	**								
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	41.5	39.7	38.2	36.8	35.5	34.3	33.3	32.3
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	.7	.4	4.3	3.6	4.1	4.0	5.7	-.4

MEAN OF ERRORS = 2.897
STD. DEV. OF ERRORS = 2.070

PHODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE				**	**	**								
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	37.2	36.1	35.0	33.9	33.0	32.1	31.3	30.5
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-.1	.7	.3	1.8	1.6	-.4	-.8	-3.9

MEAN OF ERRORS = -.093
STD. DEV. OF ERRORS = 1.804

PHODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE				**	**	**								
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	37.8	37.2	36.7	36.2	35.7	35.2	34.8	34.3
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	4.2	3.7	2.3	4.5	3.2	3.3	2.8	3.3

MEAN OF ERRORS = 3.416
STD. DEV. OF ERRORS = .713

PHODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE				**	**	**								
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	34.7	33.2	32.0	31.1	30.6	30.2	30.0	29.8
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-.8	-1.2	-6.1	-3.5	-2.9	-1.7	-3.2	-5.7

MEAN OF ERRORS = -3.140
STD. DEV. OF ERRORS = 1.954

ORIGINAL PAGE IS
OF POOR QUALITY

PRODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE					**	**	**							
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	38.4	36.6	35.1	33.7	32.5	31.4	30.4
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-0.9	2.7	1.9	2.3	2.2	3.8	-1.5
MEAN OF ERRORS	= 1.505													
STD. DEV. OF ERRORS	= 1.951													

PRODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE					**	**	**							
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	36.4	35.8	35.3	34.7	34.1	33.6	33.1
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	1.1	1.2	3.2	3.3	1.7	1.5	-1.4
MEAN OF ERRORS	= 1.509													
STD. DEV. OF ERRORS	= 1.553													

PRODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE					**	**	**							
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	31.6	30.2	29.1	28.1	27.2	26.4	25.8
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-2.0	-4.2	-2.7	-4.4	-4.7	-5.5	-5.2
MEAN OF ERRORS	= -4.111													
STD. DEV. OF ERRORS	= 1.314													

PRODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE					**	**	**							
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	33.3	31.7	30.7	30.0	29.6	29.4	29.2
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-1.1	-6.3	-4.0	-3.5	-2.3	-3.8	-6.3
MEAN OF ERRORS	= -3.901													
STD. DEV. OF ERRORS	= 1.918													

PRODL ERROR ANALYSIS FOR MAY 7-8, 1980

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HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE						**	**	**						
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	37.3	35.8	34.5	33.3	32.2	31.2
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	3.4	2.6	3.1	3.0	4.6	-0.7

MEAN OF ERRORS = 2.664
STD. DEV. OF ERRORS = 1.791

PRODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE						**	**	**						
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	33.7	32.5	31.5	30.5	29.6	28.8
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-0.9	.4	.1	-2.0	-2.5	-5.6

MEAN OF ERRORS = -1.753
STD. DEV. OF ERRORS = 2.199

PRODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE						**	**	**						
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	33.3	32.7	32.2	31.8	31.5	31.3
OLS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-4.7	-2.0	-1.4	-0.1	-1.7	-4.3

MEAN OF ERRORS = -2.353
STD. DEV. OF ERRORS = 1.789

PHODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE							**	**	**					
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	31.6	30.1	28.8	27.7	26.8
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-1.6	-1.3	-1.5	.1	-5.2

MEAN OF ERRORS = -1.895
STD. DEV. OF ERRORS = 1.951

PHODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE							**	**	**					
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	33.1	32.1	31.2	30.3	29.6
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	1.0	.7	-1.3	-1.8	-4.9

MEAN OF ERRORS = -1.228
STD. DEV. OF ERRORS = 2.381

PHODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE							**	**	**					
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	33.5	33.0	32.5	32.0	31.5
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	1.8	.5	.5	.0	.4

MEAN OF ERRORS = .655
STD. DEV. OF ERRORS = .653

PHODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE							**	**	**					
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	37.1	36.6	36.1	35.6	35.3
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	32.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	2.5	3.0	4.2	2.4	-.3

MEAN OF ERRORS = 2.372
STD. DEV. OF ERRORS = 1.632

PHODL ERROR ANALYSIS FOR MAY 7-8, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE								**	**	**				
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	31.0	29.6	28.5	27.5
OBS	53.3	53.0	50.6	48.7	46.5	43.6	40.7	39.3	33.9	33.2	31.4	30.3	27.6	31.9
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-.3	-.7	.8	-4.5

MEAN OF ERRORS = -1.161

STD. DEV. OF ERRORS = 2.304

PHODL ERROR ANALYSIS FOR MAY 8-9, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE								**	**	**				
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	30.5	29.4	28.5	27.7
OBS	47.9	45.2	44.0	41.8	37.3	38.8	37.3	35.3	34.6	32.1	31.4	32.5	32.1	34.4
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-.9	-3.0	-3.6	-6.8

MEAN OF ERRORS = -3.580

STD. DEV. OF ERRORS = 2.430

PHODL ERROR ANALYSIS FOR MAY 9-10, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE								**	**	**				
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	30.6	29.9	29.2	28.6
OBS	53.5	51.9	46.3	37.1	39.5	38.6	33.5	33.5	34.4	31.7	32.5	31.9	31.9	31.0
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	-1.9	-2.1	-2.7	-2.4

MEAN OF ERRORS = -2.265

STD. DEV. OF ERRORS = .361

PHODL ERROR ANALYSIS FOR MAY 15-16, 1980

HOUR	1800	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
BASE								**	**	**				
PRED	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	33.7	33.1	32.6	32.2
OBS	56.6	55.9	51.4	42.9	42.9	36.8	35.5	34.4	38.0	34.6	33.5	31.9	33.2	35.5
ERR	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	.1	1.2	-.6	-3.4

MEAN OF ERRORS = -.655

STD. DEV. OF ERRORS = 1.951

Figure 6.1.1

P-MODEL PREDICTIONS
MAY 7-8, 1980
PENNSYLVANIA

Without Error Correction

TEMPERATURE (DEG. F)

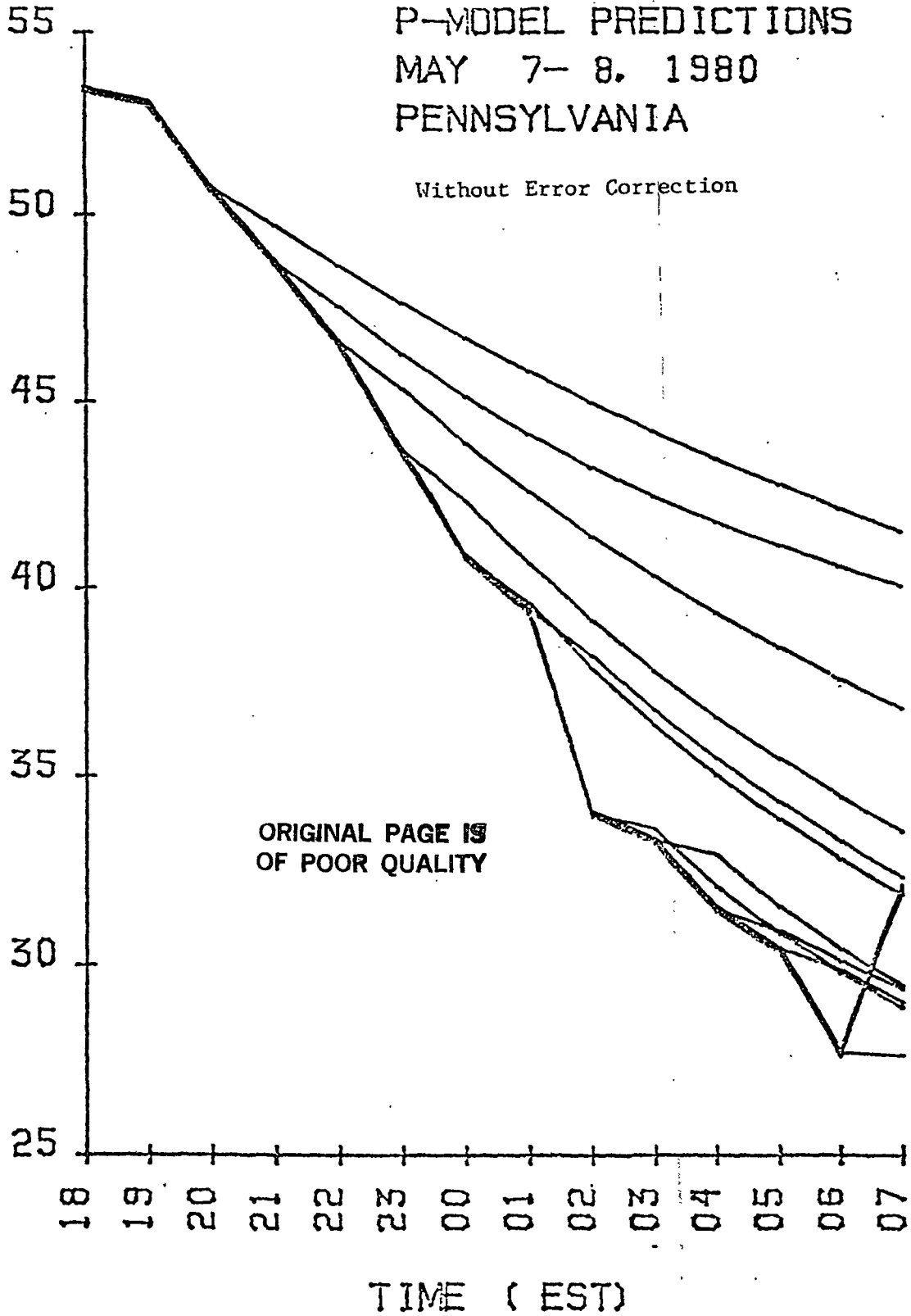


Figure 6.1.2

P-MODEL PREDICTIONS
MAY 8-9, 1980
PENNSYLVANIA

Without Error Correction

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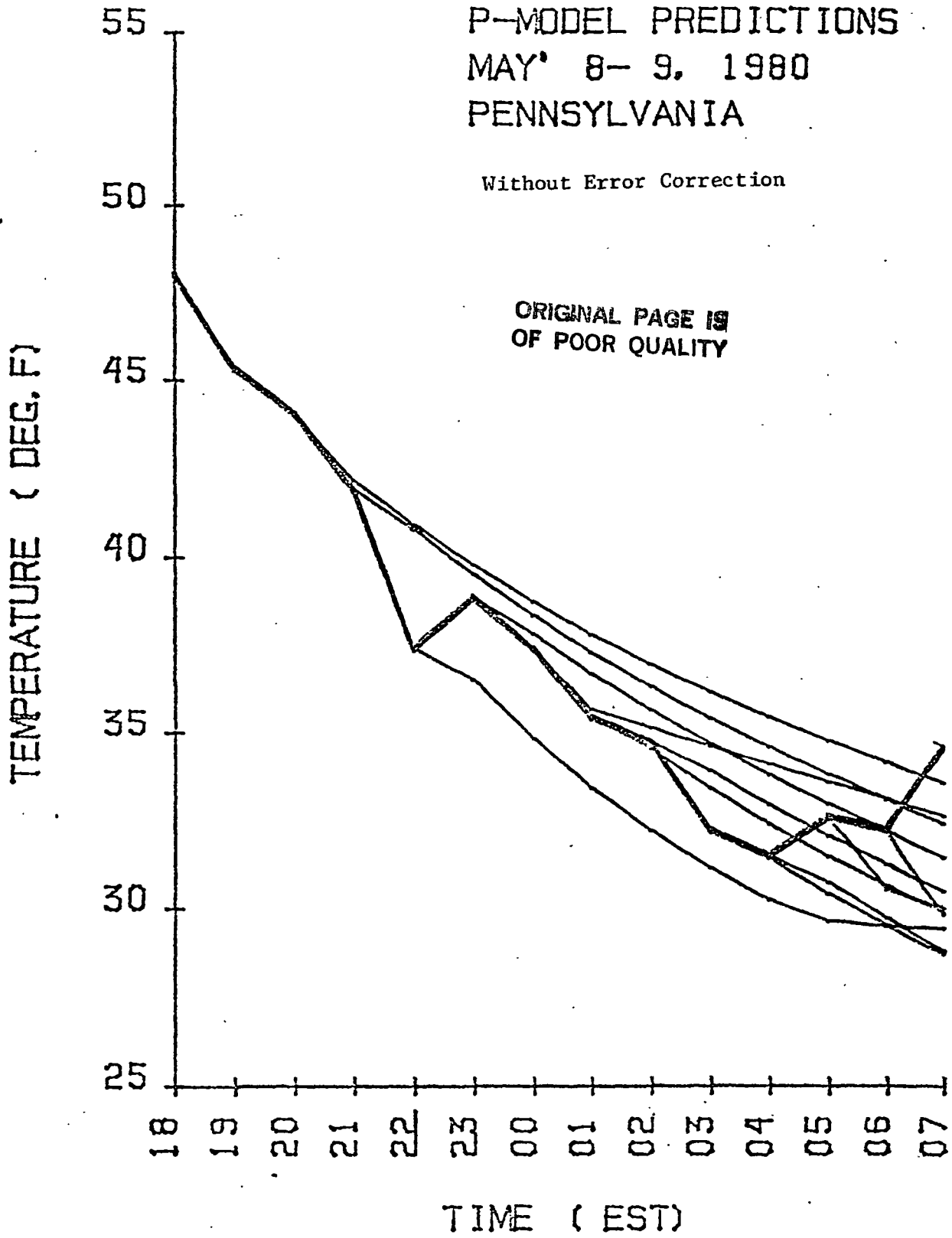


Figure 6.1.4

P-MODEL PREDICTIONS
MAY 15-16, 1980
PENNSYLVANIA

Without Error Correction

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TEMPERATURE (DEG. F)

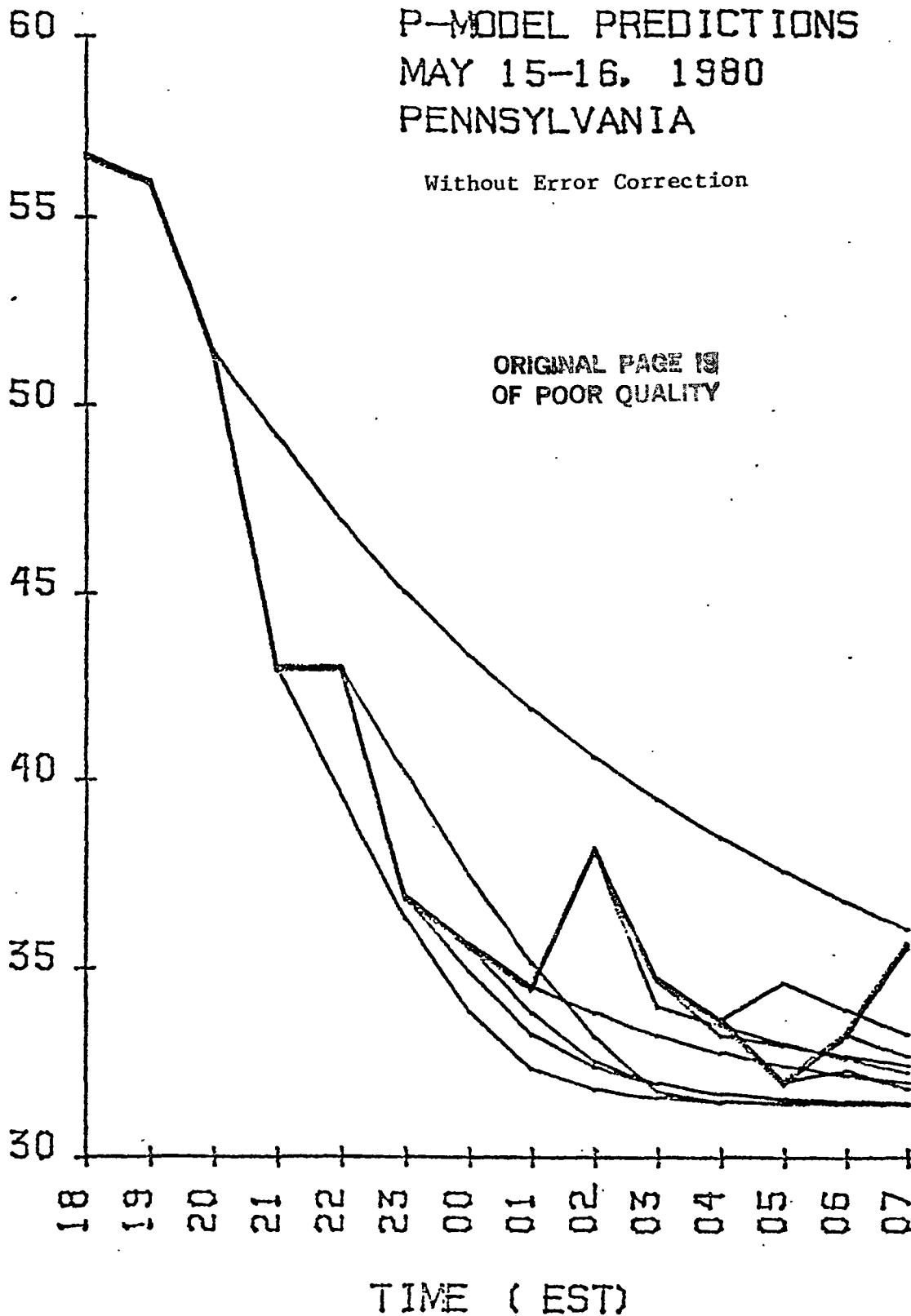


Figure 6.2.1

P-MODEL PREDICTIONS
MAY 7-8, 1980
PENNSYLVANIA

With Error Correction

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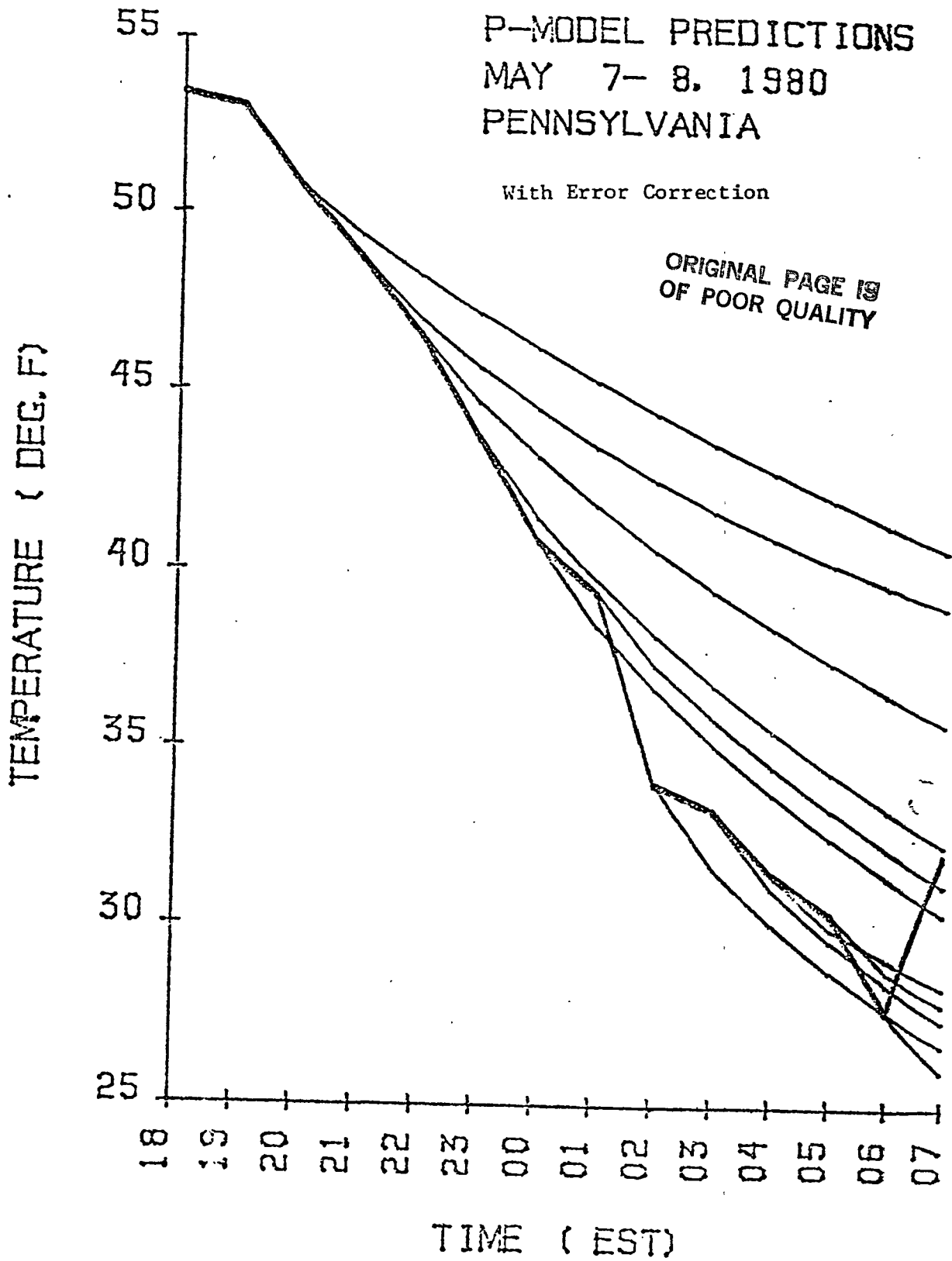


Figure 6.2.2

P-MODEL PREDICTIONS
MAY 8-9, 1980
PENNSYLVANIA

With Error Correction

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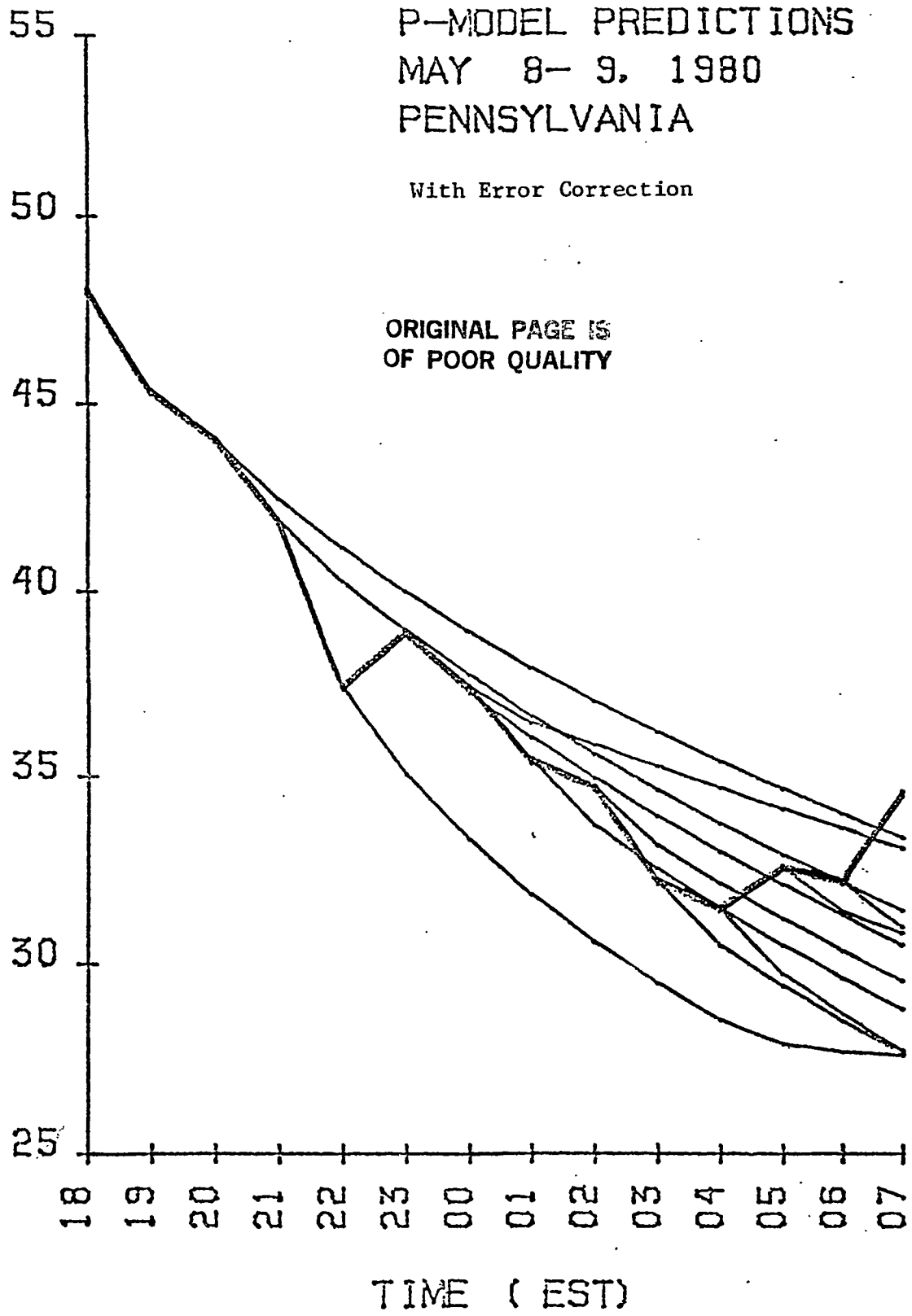


Figure 6.2.4

P-MODEL PREDICTIONS
MAY 15-16, 1980
PENNSYLVANIA

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