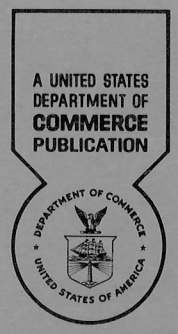

WEATHER BUREAU
Office of Systems Development
Techniques Development Laboratory
Silver Spring, Md.

October 1969

Computer Forecasts of Maximum and Minimum Surface Temperatures

William H. Klein, Frank Lewis, and George P. Casely

Technical Memorandum WBTM TDL 26

U.S. DEPARTMENT OF COMMERCE / ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

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U. S. DEPARTMENT OF COMMERCE
Environmental Science Services Administration
Weather Bureau

ESSA Technical Memorandum WBTM TDL 26

COMPUTER FORECASTS OF MAXIMUM AND MINIMUM SURFACE TEMPERATURES

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and
George P. Casely

OFFICE OF SYSTEMS DEVELOPMENT
TECHNIQUES DEVELOPMENT LABORATORY

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CONTENTS

COMPUTER FORECASTS OF MAXIMUM AND MINIMUM SURFACE TEMPERATURES

William H. Klein, Frank Lewis, and George P. Casely

ABSTRACT

An automated system for predicting maximum and minimum surface temperatures for 12- to 60-hour projections is described. The system uses multiple regression equations derived for 131 cities in the United States and 12 in southern Canada from 18 years of daily data stratified by 2-month periods. The predictors are selected by screening upper level heights and thicknesses observed at 67 grid points in North America and surface temperatures observed at the network of 143 cities. On the average, about three-fourth of the temperature variance is explained by 4-5 variables, and the standard error of estimate is just over 4°F.

The system has been applied on an iterative basis twice daily at the National Meteorological Center (NMC) in Suitland, Md. since March 1968. Verification statistics are presented for 18 months of operational forecasts made by utilizing the barotropic and Reed numerical models as input to the multiple regression equations. During this period the automated temperature forecasts have been superior to persistence and almost as good as subjective forecasts. Results of a one-month experiment are cited to demonstrate the improvement in temperature forecasting attainable by utilizing the NMC primitive equation model as numerical input to the system. Suggestions are also made for subjective improvements by considering factors neglected in the derivation. To aid the local forecaster, a complete list of equations used in the system is presented in the appendix.

1. INTRODUCTION

In an earlier paper (Klein, Lewis, and Casely, 1967) we described an automated system for making nationwide forecasts of maximum and minimum surface temperature. Although this system was used on an operational basis as guidance at the National Meteorological Center (NMC) in Suitland, Md., from 1965 through 1967, the temperature forecasts were not as good as those produced subjectively by experienced forecasters of NMC.

At the beginning of 1968 we detected several serious errors in the data tapes and computer programs which had been used to derive the equations and make the forecasts. For example, 700- to 1000-thickness has been calculated incorrectly whenever sea level pressure was below 1000 mb, and all grid points at odd latitudes had been misplaced by ten degrees of longitude. It was therefore necessary to re-derive the multiple regression equations used for prediction. At the same time, we added 24 cities to the list of stations, changed somewhat the grid of predictors, added 2 years of recent data to the period of record, and dropped the "inflation" scheme described in our earlier paper (Klein et al., 1967). The modified system went into operation at NMC in March 1968, and the objective temperature forecasts have been competitive with subjective forecasts since that date.

Since September 16, 1968, computer forecasts of maximum and minimum surface temperatures for 24 to 60 hours in advance have been sent over national teletype, Service C, twice-daily at 0342Z and 1755Z. The forecasts are transmitted for 131 cities in the conterminous United States in the order shown in table 1, where the cities have been arranged by Weather Bureau forecast centers from west to east. The teletype code and examples are given

Table 1. Call letters and names of 131 U.S. cities for maximum-minimum temperatures (In order of transmission)

GEG - Spokane, Wash.
PDT - Pendleton, Oreg.
YKM - Yakima, Wash.
PDX - Portland, Oreg.
SEA - Seattle, Wash.
TTI - Tatoosh, Wash.
BNO - Burns, Oreg.
MFR - Medford, Oreg.
SLE - Salem, Oreg.
SAC - Sacramento, Calif.
SFO - San Francisco, Calif.
WMC - Winnemucca, Nev.
RNO - Reno, Nev.
RBL - Red Bluff, Calif.
EKA - Eureka, Calif.
BFL - Bakersfield, Calif.
FAT - Fresno, Calif.
SMX - Santa Maria, Calif.
LAS - Las Vegas, Nev.
SAN - San Diego, Calif.
LAX - Los Angeles, Calif.
GGW - Glasgow, Mont. (also GSG)
BIL - Billings, Mont.
GTF - Great Falls, Mont.
HLN - Helena, Mont.
MSO - Missoula, Mont.
PIH - Pocatello, Idaho
BOI - Boise, Idaho
SLC - Salt Lake City, Utah
MLF - Milford, Utah
ELY - Ely, Nev.
ABQ - Albuquerque, N. Mex.
INW - Winslow, Ariz.
TUS - Tuscon, Ariz.
PHX - Phoenix, Ariz.
YUM - Yuma, Ariz.
CRP - Casper, Wyo.
LND - Lander, Wyo.
DEN - Denver, Colo.
PUB - Pueblo, Colo.
GJT - Grand Junction, Colo.
MAF - Midland, Tex.
ELP - El Paso, Tex.
SAT - San Antonio, Tex.
DRT - Del Rio, Tex.
HOU - Houston, Tex.
CRP - Corpus Christi, Tex.
BRO - Brownsville, Tex.
OKC - Oklahoma City, Okla.
AMA - Amarillo, Tex.
FTW - Ft. Worth, Tex.
DSM - Des Moines, Iowa
OMA - Omaha, Nebr.
LBF - North Platte, Nebr.

MKC - Kansas City, Mo.
TOP - Topeka, Kans.
ICT - Wichita, Kans.
DDC - Dodge City, Kans.
INL - International Falls, Minn.
DLH - Duluth, Minn.
STC - Saint Cloud, Minn.
FAR - Fargo, N. Dak.
BIS - Bismarck, N. Dak.
ISN - Williston, N. Dak.
MSP - Minneapolis, Minn.
HON - Huron, S. Dak.
RAP - Rapid City, S. Dak.
STL - St. Louis, Mo.
CBI - Columbia, Mo.
LOU - Louisville, Ky.
TYS - Knoxville, Tenn.
BNA - Nashville, Tenn.
MEM - Memphis, Tenn.
LIT - Little Rock, Ark.
FSM - Fort Smith, Ark.
JAN - Jackson, Miss.
SHV - Shreveport, La.
TLH - Tallahassee, Fla.
MSY - New Orleans, La.
LCH - Lake Charles, La.
SSM - S. Ste. Marie, Mich.
DET - Detroit, Mich.
FNT - Flint, Mich.
GRR - Grand Rapids, Mich.
MKE - Milwaukee, Wis.
GRB - Green Bay, Wis.
MSN - Madison, Wis.
IND - Indianapolis, Ind.
CHI - Chicago, Ill.
PIA - Peoria, Ill.
MLI - Moline, Ill.
AGS - Augusta, Ga.
AHN - Athens, Ga.

ATL - Atlanta, Ga.
BHM - Birmingham, Ala.
MGM - Montgomery, Ala.
MOB - Mobile, Ala.
SYR - Syracuse, N.Y.
BUF - Buffalo, N.Y.
PIT - Pittsburg, Pa.
CLE - Cleveland, Ohio
CMH - Columbus, Ohio
DAY - Dayton, Ohio
CVG - Cincinnati, Ohio
JAX - Jacksonville, Fla.
ORL - Orlando, Fla.
TPA - Tampa, Fla.
MIA - Miami, Fla.
EYW - Key West, Fla.
CHS - Charleston, S.C.
CLT - Charlotte, N.C.
HAT - Hatteras, N.C.
RDU - Raleigh, N.C.
GSO - Greensboro, N.C.
SBY - Salisbury, Md.
DCA - Washington, D.C.
CRW - Charleston, W. Va.
HTS - Huntington, W. Va.
ORF - Norfolk, Va.
RIC - Richmond, Va.
ROA - Roanoke, Va.
HFD - Hartford, Conn.
ALB - Albany, N.Y.
NYC - New York, N.Y
PHL - Philadelphia, Pa.
IPT - Williamsport, Pa.
CAR - Caribou, Maine
PWM - Portland, Maine
BTV - Burlington, Vt.
ACK - Nantucket, Mass.
BOS - Boston, Mass.

in table 2, while part of an operational message is reproduced in figure 1. The purposes of the present paper are to explain the forecast system currently in use, present verification figures on its accuracy, and suggest ways of improving it. In addition, a complete list of the forecast equations is presented in the Appendix for information and use by local forecasters.

2. METHOD

The forecasts are prepared by a method which makes use of multiple regression equations derived for 131 first-order stations in the conterminous United States and 12 in southern Canada (plotted in fig. 2) from 18 years of daily data (1948-1965) stratified by 2-month periods

(January-February, March-April, etc.) The basic temperature data were obtained from the National Weather Records Center in Asheville, N. C., for the stations listed in table 3. The predictors were selected by the computer by screening (by pairs) the following parameters:

a) 700-mb height and 700- to 1000-mb thickness observed at 67 grid points in North America about 12 hours before the valid time of the prognostic temperature;

Table 2. Format of temperature forecast bulletin

a) If prepared from 1200 GMT data on Sept. 16:

```
FMUS  1  KWBC  161200

MAX-MIN TEMP FCST
HRS 24 36 48 60
STA MN MX MN MX

TUS 75101 78104
 .
 .
 .
```

Stations are identified by standard FAA call letters (Department of Transportation, 1968). Here the surface temperatures forecast for Tucson are: minimum of 75°F on the 17th (24 hours in advance), maximum of 101°F on the 17th (36 hours in advance, minimum of 78°F on the 18th (48 hours in advance), and maximum of 104°F on the 18th (60 hours in advance).

b) If prepared from 0000 GMT data on Jan. 23:

```
FMUS  1  KWBC  230000

MAX-MIN TEMP FCST
HRS 24 36 48 60
STA MX MN MX MN

INL -1-10 15  1
 .
 .
 .
```

Here the forecasts for International Falls are: maximum of -1°F on the 23rd (24-hour projection), minimum of -10°F on the 24th (36-hour projection), maximum of 15°F on the 24th (48-hour projection), and minimum of 1°F on the 25th (60-hour projection).

```
FMUS1 KWBC 280000

        MAX MIN TEMP FCST
HRS 24 36 48 60 HRS 24 36 48 60
STA MX MN MX MN STA MX MN MX MN

GEG 74 50 77 49 PDT 80 55 84 55
YKM 78 46 82 45 PDX 73 55 78 53
SEA 69 55 74 54 TTI 60 53 61 52
BNO 75 44 81 45 MFR 84 52 90 52
SLE 75 52 81 50

SAC 93 60 98 60 SFO 80 53 82 51
WMC 90 43 88 42 RNO 90 43 91 43
RBL 97 64105 65 EKA 65 53 62 52
BFL 91 62 93 64 FAT 96 57100 58
SMX 83 54 83 53

LAS102 71101 71 SAN 81 65 81 65
LAX 81 64 80 64

GGW 83 50 79 47 BIL 79 50 72 49
GTF 78 50 71 50 HLN 80 50 75 46
MSO 73 45 76 44

PIH 84 50 86 48 BOI 83 50 81 50
SLC 86 53 87 51 MLF 87 54 86 51
ELY 84 46 82 43

ABQ 92 61 91 61 INW 91 59 92 59
TUS 98 73 99 73 PHX104 74106 73
YUM109 80111 81

CPR 86 52 82 49 LND 85 48 80 47
DEN 86 56 82 52 PUB 89 59 88 58
GJT 85 60 86 58
```

Figure 1. -- Portion of a sample teletype bulletin giving the computer temperature forecasts prepared from data of September 28, 1968, 0000 GMT.

b) maximum and minimum temperatures observed at the network of 143 stations about 12 or 24 hours before the prognostic valid time; and

c) the day of the year.

Since the screening program used here can accommodate a maximum of 190 independent and 50 dependent variables, the derivations were made separately for four different parts of the continent, as illustrated by figures 3 through 6. Figure 3 shows the grid of points used for the northeast quadrant of the area. The solid black circles locate the predictand cities

Figure 2. -- Names and locations of 143 cities used in the computer temperature forecast system.

Table 3. Identifying information for stations used in derivation of temperature equations

Station Call Letters	Asheville WBAN No.	Lat.	Long.	Identifier
GEG	24157	47°37"	117°31"	
PDT	24155	45 41	118 51	
YKM	24243	46 34	120 32	
PDX	24229	45 36	122 36	
SEA	24233	47 26	122 20	Seattle-Tacoma Airport
TTI	24240	48 23	124 44	
BNO	24134	43 35	119 03	
MFR	24225	42 23	122 52	
SLE	24232	44 55	123 00	
SAC	23232	38 31	121 30	
SFO	23234	37 37	122 23	
WMC	24128	40 54	117 46	
RNO	23185	39 30	119 47	
RBL	24216	40 09	122 15	
EKA	24213	40 48	124 11	
BFL	23155	35 25	119 03	
FAT	93193	36 46	119 43	
SMX	23273	34 54	120 28	
LAS	23169	36 05	115 10	McCarran Field
SAN	23188	32 44	117 10	Lindbergh Field
LAX	23174	33 56	118 23	
GGW	24034	48 11	106 38	
BIL	24033	45 48	108 32	
GTF	24143	47 30	111 21	
HLN	24144	46 36	112 00	
MSO	24153	46 55	114 05	
PIH	24156	42 55	112 32	
BOI	24131	43 34	116 13	
SLC	24127	40 47	111 58	
MLF	23176	38 25	113 01	
ELY	23154	39 17	114 51	
ABQ	23050	35 03	106 37	
INW	23194	35 01	110 44	
TUS	23160	32 07	110 56	
PHX	23183	33 36	112 01	
YUM	23195	32 40	114 36	
CPR	24089	42 55	106 28	
LND	24021	42 48	108 43	
DEN	23062	39 96	104 53	
PUB	93058	38 17	104 31	
GJT	23066	39 06	108 32	
MAF	23023	31 56	102 12	Sloan Field
ELP	23044	31 48	106 24	Municipal Airport
SAT	12921	29 32	98 28	
DRT	22004	29 20	100 53	

Table 3. Continued

Station Call Letters	Asheville WBAN No.	Lat.	Long.	Identifier
HOU	12918	29°39"	95°17"	
CRP	12924	27 46	97 26	
BRO	12919	25 55	97 28	
OKC	13967	35 24	97 36	Will Rogers Field
AMA	23047	35 14	101 42	English Field
FTW	03927	32 50	97 03	Amon Carter
DSM	14933	41 32	93 39	
OMA	14942	41 18	95 54	
LBF	24023	41 08	100 42	
MKC	13988	39 07	94 35	
TOP	13996	39 04	95 37	
ICT	03928	37 39	97 25	
DDC	13985	37 46	99 58	
INL	14918	48 36	93 24	
DLH	14913	46 50	92 11	
STC	14926	45 35	94 11	
FAR	14914	46 54	96 48	
BIS	24011	46 46	100 45	
ISN	94014	48 10	103 38	
MSP	14922	44 53	93 15	
HON	14936	44 23	98 13	
RAP	24090	44 02	103 03	Municipal Airport
STL	13994	38 45	90 23	
CBI	13983	38 58	92 22	
LOU	93821	38 11	85 44	Standiford Field
TYS	13891	35 49	83 59	
BNA	13897	36 07	86 41	Berry Field
MEM	13893	35 03	89 59	
LIT	13963	34 44	92 14	Adams Field
FSM	13964	35 20	94 22	Municipal Airport
JAN	13956	32 20	90 13	Hawkins Field
SHV	13957	32 28	93 49	Municipal Airport
TLH	93805	30 26	84 20	
MSY	12916	29 59	90 15	Moisant Airport
LCH	13941	30 13	93 10	
SSM	14847	46 28	84 22	
DET	14822	42 24	83 00	
FNT	14826	42 58	83 44	
GRR	14830	42 54	85 40	
MKE	14839	42 57	87 54	
GRB	14898	44 29	88 08	Straubel Airport
MSN	14837	43 08	89 20	
IND	93819	39 44	86 16	Weir Cook
CHI	94846	41 59	87 54	O'Hare Airport
PIA	14842	40 40	89 41	
MLI	14923	41 27	90 31	Quad City Airport
AGS	03820	33 22	81 58	Bush Field

Table 3. Continued

Station Call Letters	Asheville WBAN No.	Lat.	Long.	Identifier
AHN	13873	33°57"	83°19"	
ATL	13874	33 39	84 25	
BHM	13876	33°34"	86°45"	
MGM	13895	32 18	86 24	
MOB	13894	30 41	88 14	
SYR	14771	43 04	76 16	
BUF	14733	42 56	78 43	
PIT	94823	40 30	80 13	Greater Pittsburgh
CLE	14820	41 24	81 51	Hopkins Airport
CMH	14821	40 00	82 53	
DAY	93815	39 54	84 12	
CVG	93814	39 04	80 40	Greater Cincinnati Airport
JAX	13889	30 25	81 39	
ORL	12841	28 33	81 20	
TPA	12842	27 58	82 32	
MIA	12839	25 49	80 17	
EYW	12836	24 35	81 42	
CHS	13880	32 54	80 02	
CLT	13881	35 14	80 56	
HAT	13745	35 15	75 40	
RDU	13722	35 52	78 47	
GSO	13723	36 05	79 57	
SBY	93720	38 20	75 30	
DCA	13743	38 51	77 02	
CRW	13866	38 22	81 36	
HTS	93818	38 25	82 30	
ORF	13737	36 53	76 12	
RIC	13740	37 30	77 20	
ROA	13741	37 19	79 58	
HFD	14740	41 56	72 41	Windsor Locks, Bradley Field
ALB	14735	42 45	73 48	
NYC	14732	40 46	73 52	La Guardia Field
PHL	13739	39 53	75 14	
IPT	14778	41 14	76 55	FAA
CAR	14607	46 53	67 58	
PWM	14764	43 39	70 19	
BTV	14742	44 28	73 09	
ACK	14756	41 15	70 04	
BOS	14739	42 22	71 02	

Table 3. Continued

Station Call Letters	Asheville WBAN No.	Lat.	Long.	Identifier
Canadian Stations				
YB	04705	46°22"	79°25"	North Bay Airport
QB	04708	46 48	71 23	Quebec (Ancienne Lorette)
WG	14996	49 54	97 14	Winnipeg Int'l. Airport
LH	15802	52 14	87 53	Lansdowne House, Ont.
VR	24287	49 11	123 10	Vancouver Int'l. Airport
QD	25004	53 58	101 06	The Pas
QR	25005	50 26	104 40	Regina
PA	25013	53 13	105 41	Prince Albert
YC	25110	51 06	114 01	Calgary
EG	25111	53 34	113 31	Edmonton Int'l. Airport
XS	25206	53 50	122 48	Prince George
QT	94804	48 22	89 19	Fort William (Lakehead)

for which equations were derived, the plus signs locate cities whose maximum and minimum temperatures were used as predictors, and the squares delineate the diamond grid of points where both 700-mb height and 700- to 1000-mb thickness were used as predictors. Figure 4 is similar but for the southeast quadrant of the area.

Figures 5 and 6 represent the northwest and southwest quadrants, respectively. Here an attempt was made to compensate for the absence of surface temperatures in the Pacific by use of additional heights and thicknesses, extending from latitude 25° to 70° N. and from longitude 75° to 150°W.

3. EQUATIONS

The derivation scheme is presented below. First, linear multiple regression equations were derived by the method of least squares as follows:

$$T_x^0 = a + \Sigma b_i Z7_i^{12} + \Sigma c_i H7_i^{12} + \Sigma d_i T_n^0 + \Sigma e_i T_x^{-1} + fD \qquad (1)$$

$$T_n^0 = g + \Sigma h_i Z7_i^{00} + \Sigma j_i H7_i^{00} + \Sigma k_i T_n^{-1} + \Sigma l_i T_x^{-1} + mD \qquad (2)$$

The first equation gives the maximum temperature today (T_x^0) as the sum of a constant (a) plus certain observed 700-mb heights at 1200 GMT ($Z7_i^{12}$), 700- to 1000-mb thicknesses at the same time ($H7_i^{12}$), minimum temperatures today (T_n^0), maximum temperatures yesterday (T_x^{-1}), and the day of the year (D), where each predictor is multiplied by its appropriate regression coefficient. Similarly, today's minimum temperature (T_n^0) is given as a linear combination of selected 700-mb heights ($Z7_i^{00}$) and thicknesses ($H7_i^{00}$) at 0000 GMT,

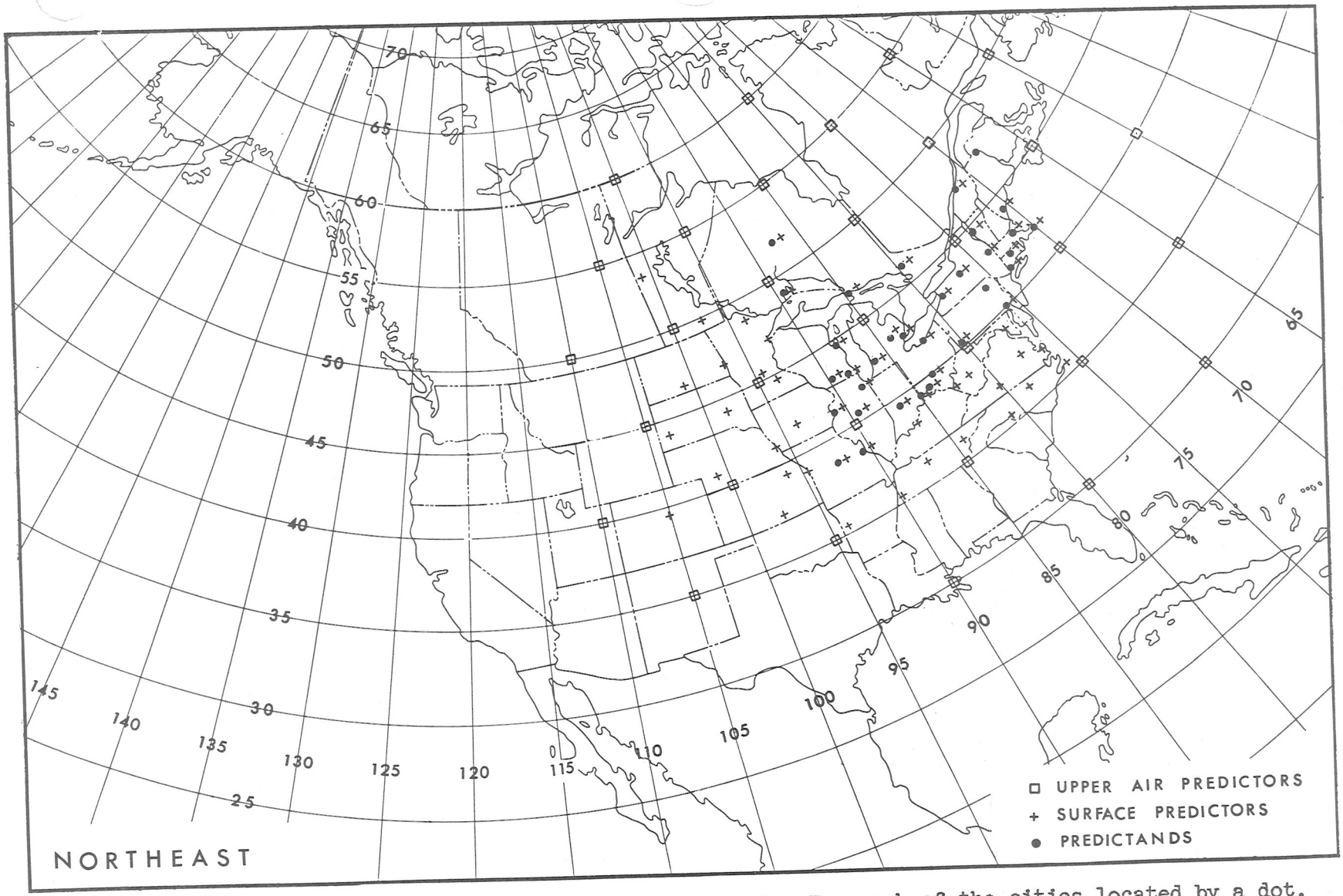

Figure 3. -- Grid of points used for the northeast quadrant. For each of the cities located by a dot, equations were derived from surface temperatures at each of the crosses and from heights and thicknesses at each of the squares.

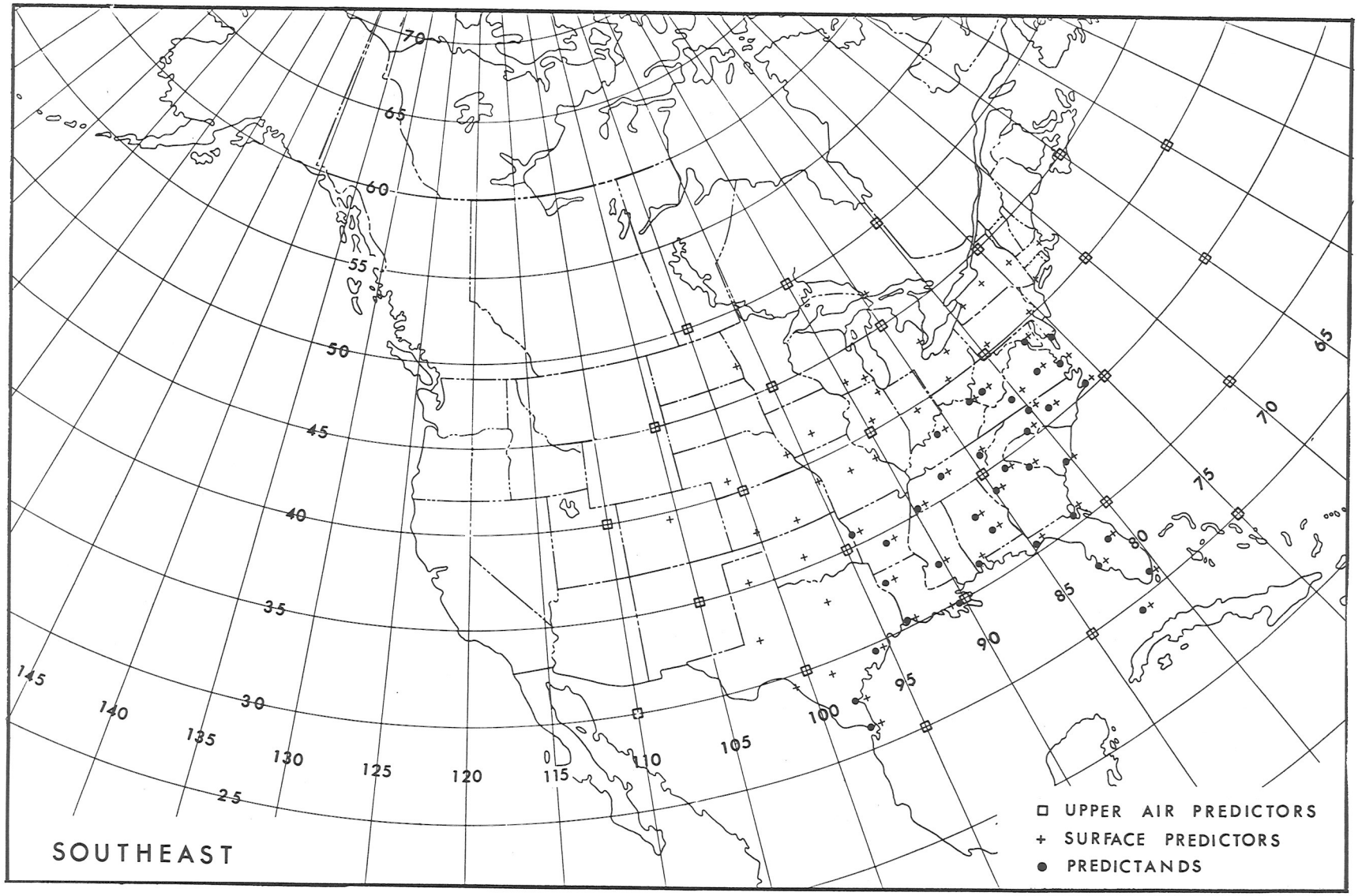

Figure 4. -- Grid of points used for the southeast quadrant. For each of the cities located by a dot, equations were derived from surface temperatures at each of the crosses and from heights and thicknesses at each of the squares.

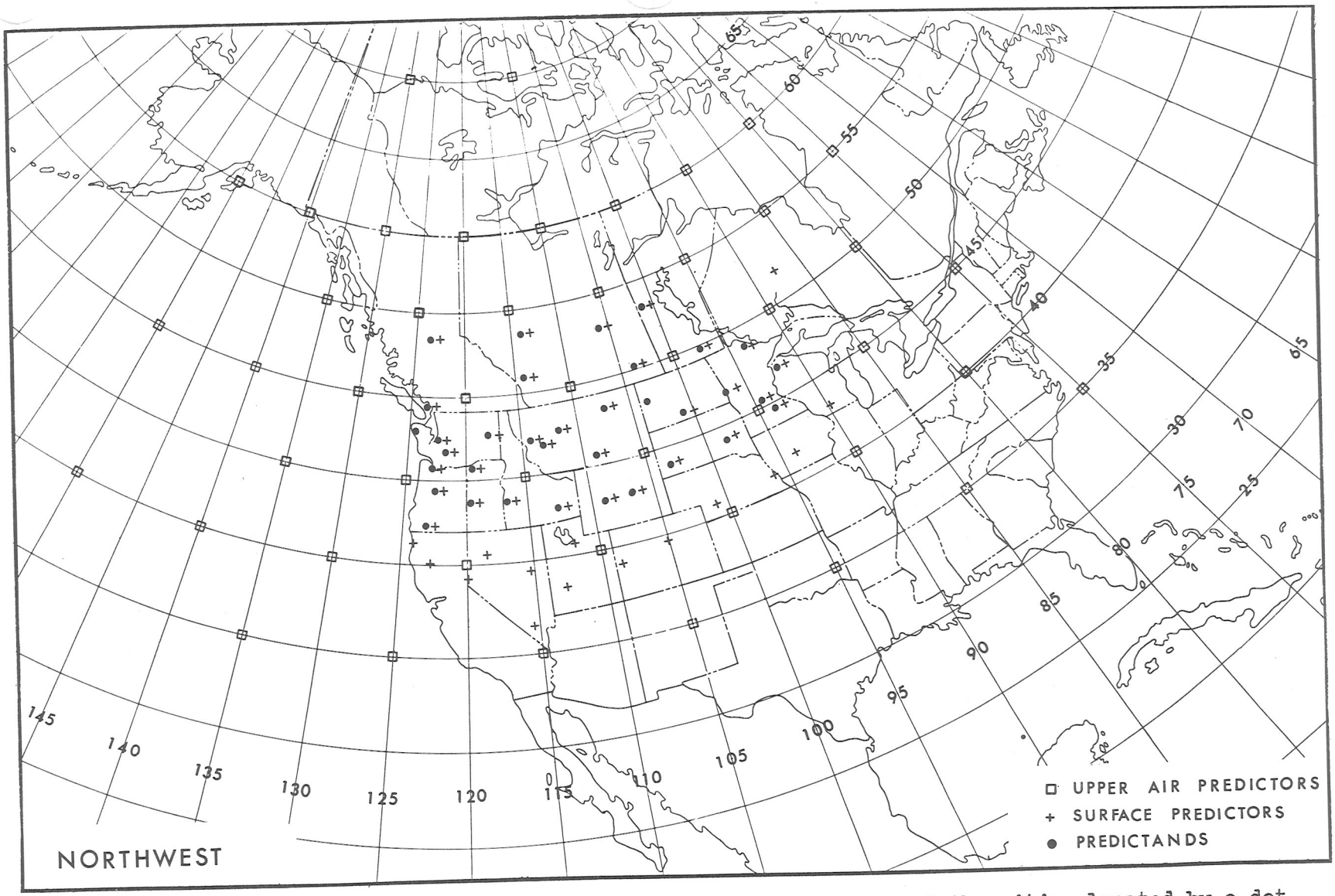

Figure 5. -- Grid of points used for the northwest quadrant. For each of the cities located by a dot, equations were derived from surface temperatures at each of the crosses and from heights and thicknesses at each of the squares.

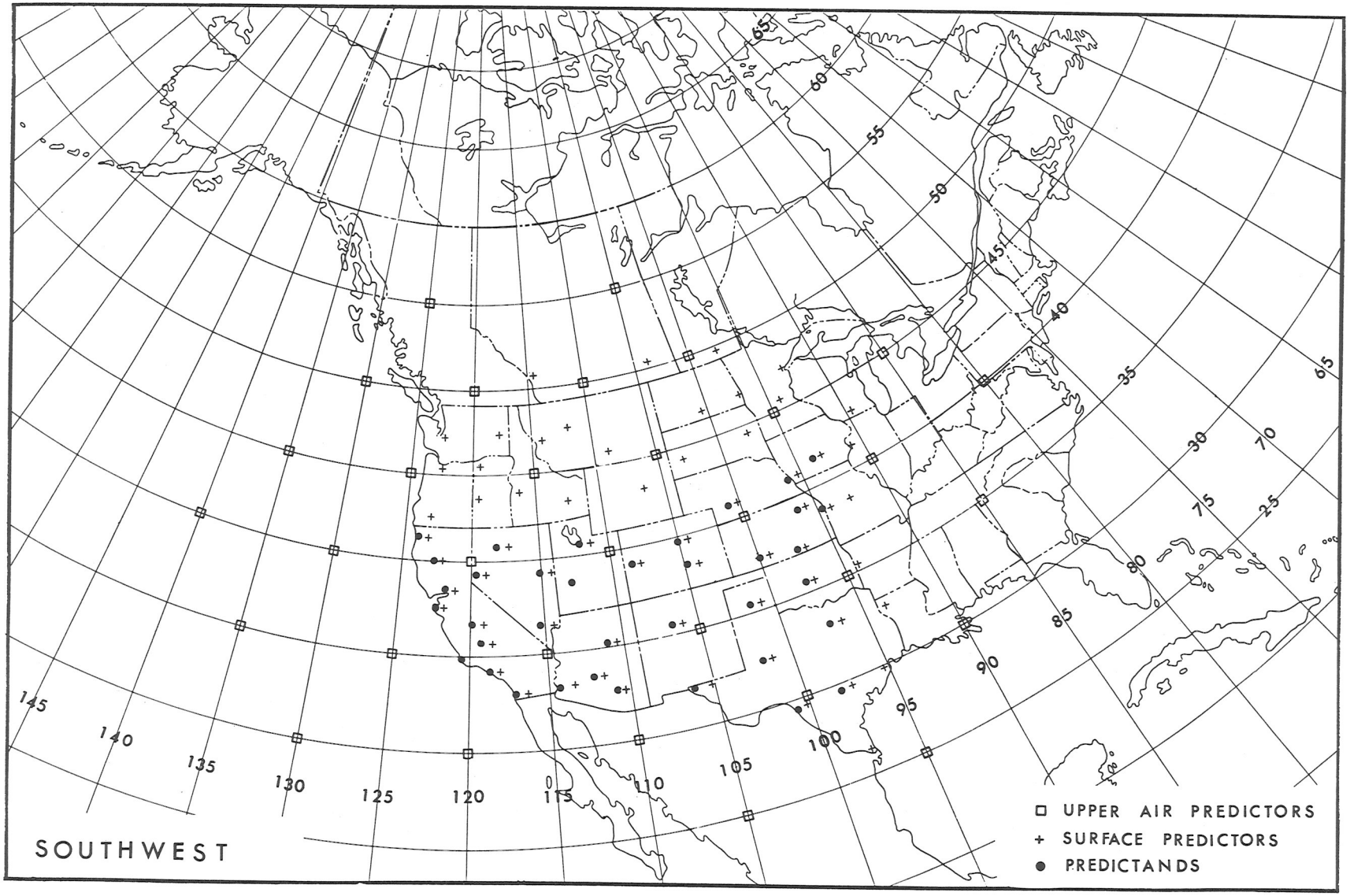

Figure 6. -- Grid of points used for the southwest quadrant. For each of the cities located by a dot, equations were derived from surface temperatures at each of the crosses and from heights and thicknesses at each of the squares.

minimum (T_n^{-1}) and maximum (T_x^{-1}) temperatures observed yesterday, and the date (D).

Because of operational considerations, a second set of multiple regression equations was derived for two new variables, called U and V, consisting of those 700-mb heights and 700- to 1000-mb thicknesses which had been selected in the first regression. These new variables were screened as functions of concurrent 500-mb heights and 500- to 1000-mb thicknesses from 5 years of data which were available for the period 1955-1960. The resulting equations may be written:

$$U = \Sigma b_i Z7_i^{12} + \Sigma c_i H7_i^{12} = n + \Sigma o_i Z5_i^{12} + \Sigma p_i H5_i^{12} \qquad (3)$$

$$V = \Sigma h_i Z7_i^{00} + \Sigma j_i H7_i^{00} = q + \Sigma r_i Z5_i^{00} + \Sigma s_i H5_i^{00} \qquad (4)$$

where ($Z5_i^{12}$) is the 500-mb height at selected grid points at 1200 GMT, ($H5_i^{12}$) is the 500- to 1000-mb thickness at the same time, and ($Z5_i^{00}$) and ($H5_i^{00}$) are selected 500-mb heights and thicknesses at 0000 GMT.

The third and final set of equations was obtained by substituting the new values of U and V given by equations (3) and (4) into equations (1) and (2). This set of equations is the one actually used on an operational basis and is of the type:

$$T_x^0 = a + n + \Sigma o_i Z5_i^{12} + \Sigma p_i H5_i^{12} + \Sigma d_i T_n^0 + \Sigma e_i T_x^{-1} + fD \qquad (5)$$

$$T_n^0 = g + q + \Sigma r_i Z5_i^{00} + \Sigma s_i H5_i^{00} + \Sigma k_i T_n^{-1} + \Sigma l_i T_x^{-1} + mD \qquad (6)$$

A typical equation resulting from the derivation scheme described above is illustrated in figure 7. This figure shows the first set of regression equations for the maximum temperature at Columbus, Ohio, during January and February. The first variable selected is the thickness just east of Columbus at 40° N., 80° W. Taken by itself, this predictor would explain 68 percent of the temperature variance and produce a standard error of estimate of 6.8° F. The second variable selected is the maximum temperature on the previous day at Columbia, Mo., which, taken in conjunction with the thickness selected first, raises the reduction of variance to 76.5 percent and lowers the standard error to 5.8° F. The third variable selected is the minimum temperature on the same day at Dayton, Ohio, and the fourth is the thickness at 40° N., 90° W. The fifth variable is the 700-mb height at 45° N., 95° W. The negative sign before this term indicates that cold weather at Columbus goes with a strong upper level ridge to the northwest, while warm weather is accompanied by southwestly flow aloft. The screening was stopped at this point because no other pair of predictors could increase the variance explained by even 2 percent. This criterion was used as an

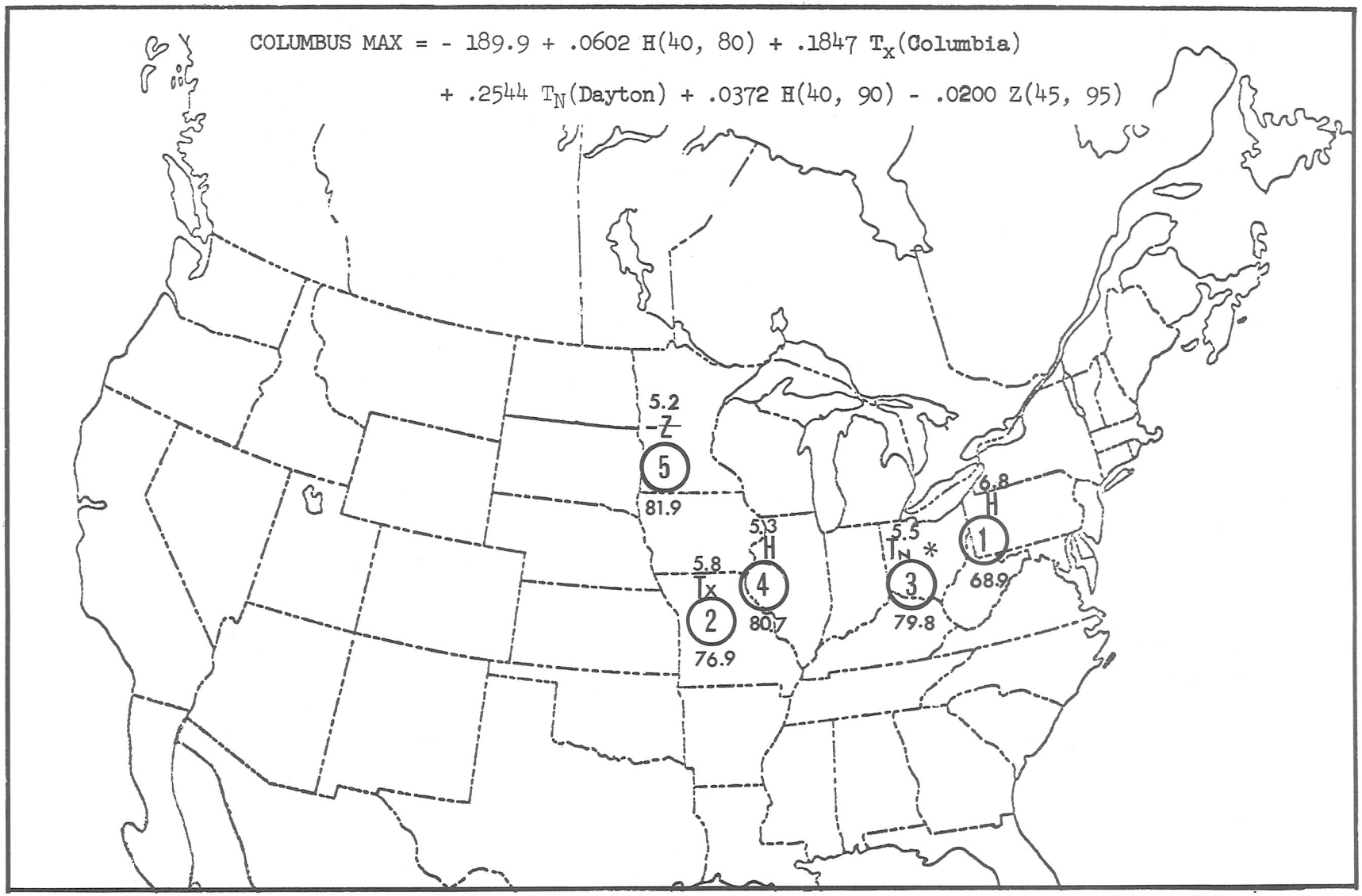

Figure 7. -- Multiple regression equation derived by screening the maximum temperature at Columbus, Ohio (star) during January-February as a function of selected 700-mb heights (Z), 700-1000 mb thicknesses (H), maximum temperatures (T_x), and minimum temperatures (T_n). Units are °F for temperatures and meters for heights and thicknesses.

automatic cutoff point in all screening runs made in this project. The final multiple regression is written at the top of figure 7. It gives a reduction of variance of 81.5 percent and a standard error of estimate of 5.2° F.

Figure 8 illustrates the second set of regression equations for Columbus maximum temperature in January and February. The squares locate the particular 700-mb height and 700- to 1000-mb thicknesses selected in the first screening run and combined as the predictand in this screening. The circles locate the NMC grid points where 500-mb heights and 500- to 1000-mb thicknesses were selected by screening in the order (from 1 to 3) marked inside the circles, with reductions of variance increasing from 85 to 93 percent. As expected, the original 700-mb height with a negative sign is approximated by a nearby 500-mb height with a negative sign, while the original 700- to 1000-mb thicknesses with positive signs are estimated by two nearby 500- to 1000-mb thicknesses with positive signs.

Table 4 summarizes the characteristics of the multiple regression

Table 4. Characteristics of regression equations for predicting maximum and minimum temperatures from 700-mb height, 700- to 1000-mb thickness, and surface temperatures, averaged for 131 cities in the United States

	Jan.-Feb.	Mar.-Apr.	May-June	July-Aug.	Sept.-Oct.	Nov.-Dec.	Mean
a) For Predicting Maximum Temperatures							
Standard deviation (°F)	11.3	12.0	9.2	6.2	10.2	11.5	10.1
Reduction of variance (%)	79.4	80.9	76.1	61.4	81.0	82.5	76.9
Standard error (°F)	5.0	5.1	4.3	3.8	4.3	4.7	4.5
No. of variables	4.3	4.3	4.5	5.3	4.2	4.2	4.5
No. of max. temps.	1.1	1.1	1.0	1.7	1.0	1.1	1.2
No. of min. temps.	0.8	0.6	0.7	1.4	0.6	0.7	0.8
No. of 700-mb heights	1.0	1.2	1.5	1.5	1.1	0.8	1.2
No. of thicknesses	1.4	1.2	1.3	0.7	1.3	1.3	1.2
No. of days of year	0.0	0.2	0.0	0.0	0.2	0.3	0.1
No. of local temps.	0.6	0.4	0.6	0.6	0.5	0.6	0.6
b) For Predicting Minimum Temperatures							
Standard deviation (°F)	11.1	9.9	7.4	5.0	8.9	10.6	8.8
Reduction of variance (%)	74.2	76.9	76.2	61.4	77.5	75.4	73.6
Standard error (°F)	5.6	4.5	3.6	3.0	4.1	5.2	4.3
No. of variables	4.4	4.5	4.3	5.5	4.3	4.4	4.6
No. of max. temps.	0.2	0.6	0.4	0.8	0.3	0.2	0.4
No. of min. temps.	1.5	1.5	1.4	2.2	1.6	1.8	1.7
No. of 700-mb heights	1.3	1.1	1.0	1.5	1.1	1.2	1.2
No. of thicknesses	1.4	1.2	1.2	0.8	0.9	1.1	1.1
No. of days of year	0.0	0.1	0.3	0.2	0.4	0.1	0.2
No. of local temps.	0.7	0.7	0.8	0.9	0.8	0.8	0.8

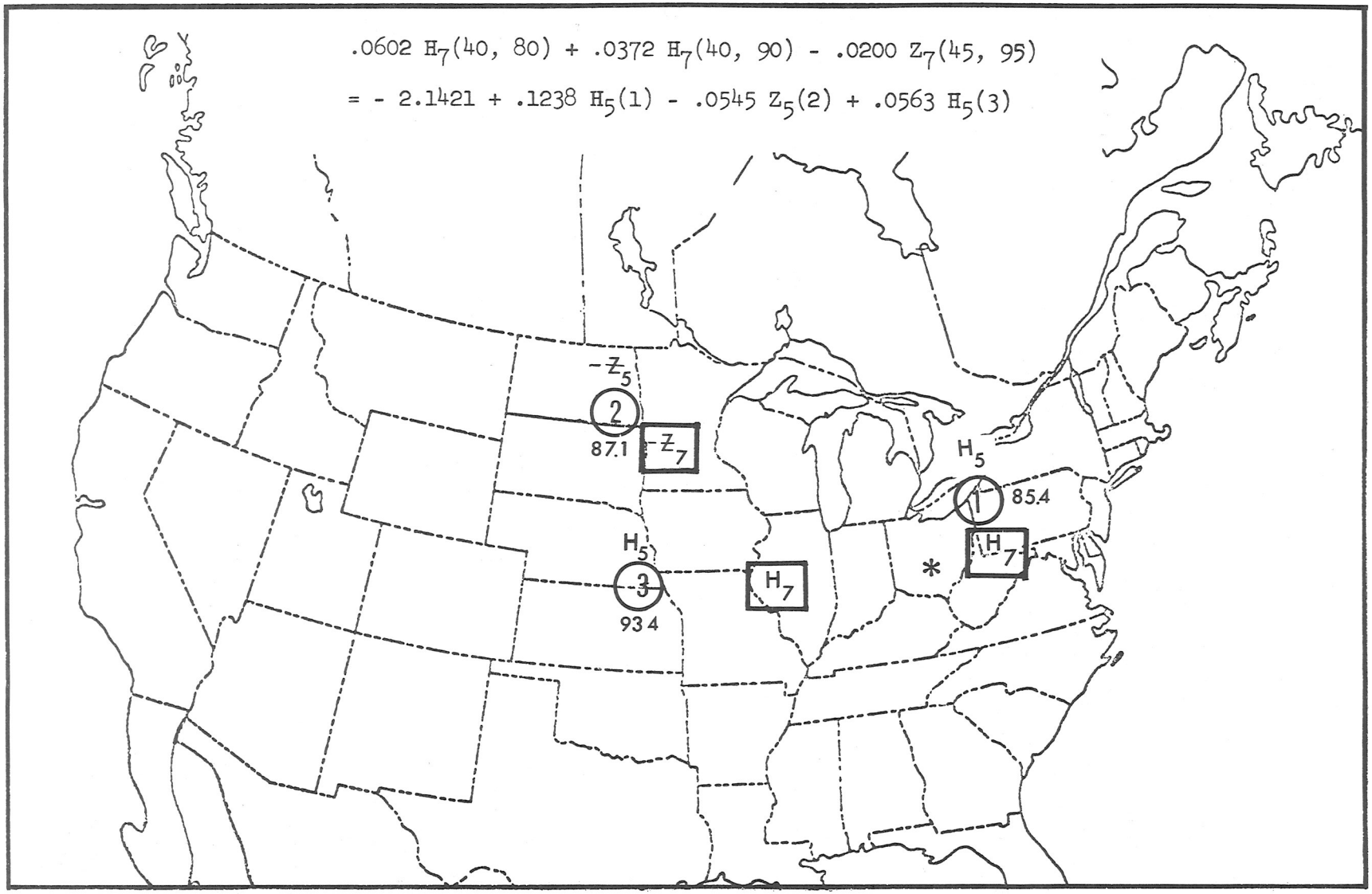

Figure 8. -- Multiple regression equation derived by screening the linear combination of 700-mb heights (Z_7) and 700-1000 mb thicknesses (H_7) used in figure 7 as a function of selected 500-mb heights (Z_5) and 500-1000 mb thicknesses (H_5) (in meters).

equations derived in the first screening for the 131 cities in the United States and all months of the year. The first row gives the standard deviation of temperature and illustrates the well-known fact that temperatures are less variable in summer than in other seasons. This makes it difficult to explain a high percent of summer variability, so that the reduction of variance averages only 61 percent in July-August, compared to about 78 percent in the other months. In nearly all months, both the standard deviation and the reduction of variance are slightly higher for the maximum than for the minimum. The standard error of estimate varies from 3.0° F for the minimum in July-August to 5.6° F for the minimum in January-February. For all months, it averages slightly larger for the maximum (4.5° F) than for the minimum (4.3° F).

The regression equations usually contain four to five variables, made up of at least one maximum temperature, one minimum temperature, one 700-mb height, and one 700- to 1000-mb thickness. Equations which forecast the minimum temperature select more than four times as many minimum (1.7) as maximum (0.4) temperature predictors, but equations for the maximum select only slightly more maximum (1.2) than minimum (0.8) predictors. The day of the year is quite unimportant, being selected only 15 percent of the time on the average. The local temperature, at the reference station itself, is selected about 70 percent of the time, but slightly more often for the minimum than the maximum. The forecaster should consult the list of equations given in the Appendix for specific information on a particular city or month.

Table 5 summarizes the properties of the multiple regression equation derived in the second screening run. For all months except July-August, over 90 percent of the variance of those 700-mb heights and 700- to 1000-mb thicknesses selected in the first regression (table 4) can be explained by a linear combination of concurrent 500-mb heights and 500- to 1000-mb thicknesses. On the average, between four and five variables at 500 mb are selected to specify two to three variables at 700 mb. There is little difference between maximum and minimum temperatures, different months of the year, and different parts of the country with regard to any of these characteristics. This shows what a close relation normally exists between the 700- and 500-mb circulations.

4. OPERATIONAL SYSTEM

Table 6 illustrates the system used in preparing maximum and minimum temperature forecasts on an operational basis. The forecasts are prepared twice a day on the IBM 7094 in Suitland, and the same equations are used in 12-hour steps on an iterative basis. Here we assume that minimum and maximum temperatures occur at their normal times of day; namely, in the early morning and late afternoon. For example, at 1200 GMT, the first forecast made is for the maximum that afternoon, and it is based on heights and thicknesses observed at forecast time, on the minimum temperature reported for the 12 hours ending 1200 GMT, and on the maximum temperature observed on the previous day. The second forecast is for the minimum the following day and is based on 12-hour numerical forecasts of 500-mb height and 500- to 1000-mb thickness, on the same minimum used as input for the 12-hour forecasts, and on the maximum for today generated in the first step. The

Table 5. Characteristics of multiple regression equations for predicting 700-mb height and 700- to 1000-mb thickness from 500-mb height and 500- to 1000-mb thickness, averaged for 131 cities in the United States

	Jan.-Feb.	Mar.-Apr.	May-June	July-Aug.	Sept.-Oct.	Nov.-Dec.	Mean
a) For Predicting Maximum Temperatures							
Reduction of variance (%)	92.9	93.8	92.4	87.2	93.4	93.5	92.2
No. of 700-mb heights	1.0	1.2	1.5	1.5	1.1	0.8	1.2
No. of 700-mb thicknesses	1.4	1.2	1.3	0.7	1.3	1.3	1.2
No. of 700-mb variables	2.4	2.4	2.8	2.2	2.4	2.1	2.4
No. of 500-mb heights	1.7	1.7	1.8	2.7	1.4	1.3	1.8
No. of 500-mb thicknesses	2.5	2.0	2.2	2.2	2.1	2.3	2.2
No. of 500-mb variables	4.2	3.7	4.0	4.9	3.5	3.6	4.0
b) For Predicting Minimum Temperatures							
Reduction of variance (%)	93.7	93.8	92.1	85.5	93.9	93.7	92.1
No. of 700-mb heights	1.3	1.1	1.0	1.5	1.1	1.2	1.2
No. of 700-mb thicknesses	1.4	1.2	1.2	0.8	0.9	1.1	1.1
No. of 700-mb variables	2.7	2.3	2.2	2.3	2.0	2.3	2.3
No. of 500-mb heights	2.0	1.6	1.5	3.0	1.8	1.6	1.9
No. of 500-mb thicknesses	2.4	2.6	2.4	2.4	2.5	2.4	2.5
No. of 500-mb variables	4.4	4.2	3.9	5.4	4.3	4.0	4.4

Table 6. System for preparation of operational maximum and minimum temperature forecasts for 12 to 60 hours in advance

Forecast	Output	Ht. and Thickness Input	Surface Temperature Input
a) From 1200 GMT Data			
12-hr	Max	Observed 1200 GMT today	Min obs today, max obs yesterday
24-hr	Min	12-hr numerical progs	Min obs today, 12-hr prog max
36-hr	Max	24-hr numerical progs	24-hr prog min, 12-hr prog max
48-hr	Min	36-hr numerical progs	24-hr prog min, 36-hr prog max
60-hr	Max	48-hr numerical progs	48-hr prog min, 36-hr prog max
b) From 0000 GMT Data			
12-hr	Min	Observed 0000 GMT today	Max and min observed yesterday
24-hr	Max	12-hr numerical progs	Max obs yesterday, 12-hr prog min
36-hr	Min	24-hr numerical progs	24-hr prog max, 12-hr prog min
48-hr	Max	36-hr numerical progs	24-hr prog max, 36-hr prog min
60-hr	Min	48-hr numerical progs	48-hr prog max, 36-hr prog min

third forecast is for the maximum tomorrow and is based on 24-hour numerical forecasts of height and thickness, on the 24-hour forecast of the minimum temperature made in step 2, and on the 12-hour forecast of the maximum made in step 1. The fourth forecast, for the minimum the day after tomorrow, is based on 36-hour numerical forecasts of upper air input and on the system's 24- and 36-hour surface temperature forecasts. The fifth forecast , for the maximum the day after tomorrow, uses as input 48-hour numerical prognoses and automated 48- and 36-hour temperature forecasts. The system is stopped at this point because of increasing errors and because no thickness forecasts are routinely available beyond 48 hours.

The numerical forecasts used as input to the prediction equations are 500-mb heights obtained from the NMC barotropic-mesh model run from "Radat" data reported about 1 1/2 hours after observation time (Roberts, 1965). The 500- to 1000-mb thickness forecasts are obtained from the Reed 1000-mb numerical model run by NMC at the same time as the barotropic model (Reed, 1963).

Temperature input to the prediction equations consists of observed maximum and minimum temperatures transmitted in the synoptic code at 0000 and 1200 GMT. These teletype reports (Schedule C) are monitored by the NMC automatic data processing system. Unfortunately, on the average, about a dozen reports are reported missing each day. In these cases, the computer uses the objective forecast made 12 hours previously in place of the missing temperature, so that the prediction system is fully automated.

5. VERIFICATION

The relative accuracy of the computer temperature forecasts since the modified system went into operation in March 1968 is shown in table 7, which gives the verification figures for each of six seasons from the spring of 1968 through the summer of 1969. This table is based on twice-daily verifications conducted routinely by the NMC Analysis and Forecast Division (A&FD) for 60 cities covering all parts of the conterminous United States. The figures were obtained by averaging mean absolute errors of forecasts of maximum and minimum temperatures for 24 hours in advance, 36 hours in advance, etc. The mean error of the objective forecasts during the 18-month test period increased from 4.2 degrees for 24-hour projections to 5.6 degrees for 60-hour forecasts (line 1). Although the objectives were considerably better than persistence (Pers), which is verified in line 3, they were not quite as good as the forecasts prepared subjectively a few hours later by the forecasters of the A&FD (line 2), who use the automated temperature forecasts as guidance. The last line (headed A&FD/Obj) gives the ratio of the A&FD error to the objective error and shows that the computer forecasts were 90 percent as good as the manual forecasts for 24-hour projections and 94 percent as good for 60 hours in advance. Overall, the A&FD forecasters improved their objective guidance by about four-tenths of a degree and about 7 percent.

Table 7 shows the expected seasonal variation, with all forecasts exhibiting largest errors in the winter and smallest errors in the summer. It is noteworthy that the ratio of the A&FD error to the objective error was

Table 7. Mean absolute error of maximum and minimum temperature forecasts (°F) during 18 months at 60 cities in the United States

	Spring Mar-May 1968	Summer June-Aug 1968	Fall Sept-Nov 1968	Winter Dec 1968-Feb 1969	Spring Mar-May 1969	Summer June-Aug 1969	Mean
a) 24-Hour Projection							
Obj	4.5	3.3	4.0	5.3	5.0	3.2	4.2
A&FD	4.1	3.0	3.6	4.5	3.8	2.9	3.7
Pers	6.3	4.3	5.6	7.2	5.9	4.0	5.5
A&FD / Obj	0.93	0.90	0.92	0.86	0.90	0.90	0.90
b) 36-Hour Projection							
Obj	5.2	3.8	4.6	6.1	4.9	3.6	4.7
A&FD	4.8	3.6	4.2	5.3	4.6	3.5	4.3
Pers	8.7	5.7	7.5	9.7	8.0	5.3	7.5
A&FD / Obj	0.94	0.95	0.93	0.87	0.94	0.95	0.93
c) 48-Hour Projection							
Obj	5.7	4.2	4.9	6.7	5.4	4.0	5.2
A&FD	5.3	3.9	4.6	5.9	4.9	3.8	4.7
Pers	8.7	5.7	7.5	9.7	8.0	5.3	7.5
A&FD / Obj	0.93	0.93	0.94	0.89	0.92	0.95	0.93
d) 60-Hour Projection							
Obj	6.3	4.4	5.3	7.5	5.9	4.2	5.6
A&FD	6.0	4.3	5.0	6.7	5.5	4.1	5.3
Pers	9.8	6.1	8.3	10.5	8.6	5.9	8.2
A&FD / Obj	0.95	0.95	0.94	0.89	0.93	0.97	0.94

below .90 for all projections in the winter but uniformly .90 or above in the other three seasons. This indicates that the A&FD forecasters improved their objective guidance most during the winter season.

Table 8 presents the results of some computer verifications routinely prepared each month for the five forecast periods from 12 to 60 hours in advance. The verifications are performed separately each month at each city, and table 8 gives the averages for the 18-month period from March 1968 through August 1969, and for the 131 cities in the United States (table 1). The verification is given in terms of three statistics: the root-mean-square error (RMSE) of the forecasts, the simple linear correlation coefficient

Table 8. Verification of computer temperature forecasts for 12 to 60 hours in advance averaged over 131 cities in the United States for the 18 month period March 1968-August 1969

Projection	RMSE (°F)		Correlation (Fcst. vs. obs.)		Change correlation	
	Forecast	Persistence	Forecast	Persistence	Forecast	Persistence
a) Minimum						
12 hr	4.8	7.1	0.74	0.49	0.75	0.00
24 hr	5.2	7.5	0.71	0.45	0.69	0.00
36 hr	5.5	9.2	0.66	0.19	0.50	-0.14
48 hr	6.1	9.5	0.61	0.15	0.43	-0.11
60 hr	6.4	9.9	0.55	0.06	0.35	0.06
b) Maximum						
12 hr	4.9	7.2	0.78	0.55	0.75	0.00
24 hr	5.3	7.3	0.74	0.55	0.70	0.04
36 hr	6.2	9.7	0.66	0.21	0.50	-0.14
48 hr	6.8	9.8	0.60	0.22	0.45	-0.13
60 hr	7.5	10.8	0.51	0.05	0.35	0.07

between forecast and observed temperatures, and the correlation between forecast and observed temperature changes over a 24-hour period. Comparison with persistence of the last daily temperature (considered as a forecast) is included, but the subjective forecasts by A&FD were not available on punched cards for comparative verification.

Table 8 reveals that all three verification statistics show the expected decrease of accuracy with forecast projection. The root-mean-square error of the computer forecasts for 12 to 60 hours in advance varies from 4.8 to 6.4 degrees for the minimum and from 4.9 to 7.5 degrees for the maximum. The correlation between forecast and observed temperatures ranges from 0.74 to 0.55 for minimum and 0.78 to 0.51 for the maximum. The change correlation decreases more rapidly from 0.75 for 12 hours to 0.35 at 60 hours. On an overall basis, the objective forecasts maintain positive skill over persistence in terms of all statistics during all time periods.

6. MODIFICATIONS

Since the computer forecasts are based on correlations between surface temperatures and large-scale upper air conditions, they do not take into account, except indirectly, specific localized conditions which may affect temperature. These factors include surface wind speed and direction, land and sea breezes, clouds and precipitation, low-level air trajectories, sharp frontal zones, sea-surface temperature, snow cover, surface moisture, and urban-suburban differences. When these conditions are important or abnormal, adjustments should be made by individual stations for their particular area

of responsibility, with the aid of later data and local information. Local adjustments should also be made when a station is known to have been moved from the original location for which its equations were derived (see table 3). For example, change of station location from airport to city office may produce a cold bias in the forecasts. In addition, temperatures from other levels should be considered by the forecaster, particularly in the boundary layer and at 850 mb. It seems likely that the 850- to 1000-mb thickness is more closely related to surface temperature than the 700- to 1000-mb thickness used here, except in mountainous terrain where the 700- to 850 or 500- to 700-mb thickness may be best.

A good example of how the objective temperature forecasts can be successfully modified is illustrated in figure 9. This chart was prepared

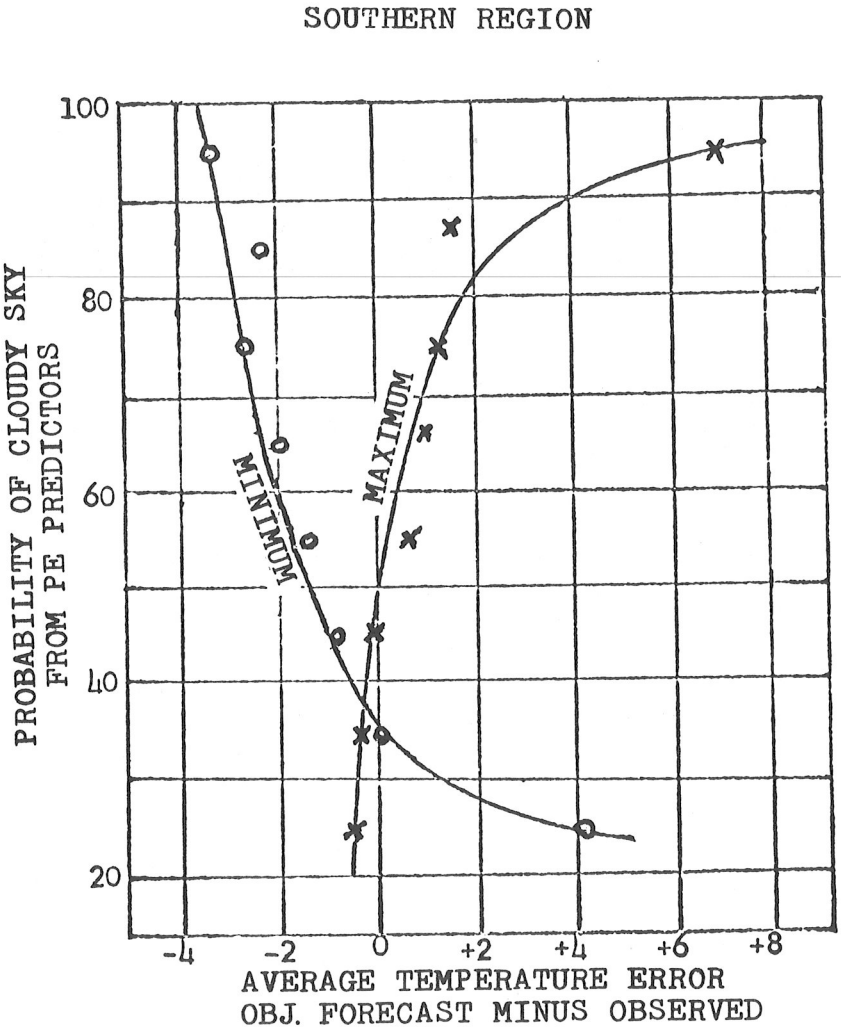

Figure 9. -- Scatter diagram showing average error of objective maximum and minimum temperature forecasts as a function of cloudiness probability.

by the Scientific Services Division of the Weather Bureau's Southern Region from data at 37 stations in the South during the period September 19 through October 19, 1968. It shows the average error in the objective temperature forecast, plotted separately for maximum and minimum, as a function of the probability of cloudy weather determined from numerically forecast mean relative humidity and vertical velocity (Moore and Pruett, 1968). Since cloudiness is one of the most important factors neglected in the original derivation of the automated temperature forecasts, the minimum temperature forecast tends to be too high under clear skies, when radiational cooling is effective, and too low under overcast skies, when long wave radiation is inhibited. Conversely, forecasts of the maximum temperature tend to be too high under cloudy skies, when lack of sunshine holds temperatures down, and too low under clear skies, when solar heating is enhanced.

Another method of modifying the objective temperature forecasts has recently been described by Hughes and Sangster (1969). They studied maximum temperature 24 hours in advance in Nebraska during spring and found that estimates for Grand Island, taken as a linear function of the objective forecasts for Omaha, were too low in cases of prominent warm air advection and too high with cold advection. Errors due to overcast or clear skies were also noted and in the expected direction, but they were smaller in magnitude than errors caused by low level advection or cold frontal passages.

7. USE OF PE INPUT

Some improvement in the objective temperature forecasts is anticipated if the operational system is modified to accept input from the NMC primitive equation (PE) model (Shuman and Hovermale, 1968). This model should give more accurate height and thickness forecasts, particularly at the 700-mb and 1000-mb levels, than are presently obtained from the barotropic and Reed models. This change would allow the temperature forecasts to be based directly on equations (1) and (2), thereby eliminating small errors introduced by interpolation from 500 to 700 mb in equations (3) and (4). Use of the PE model in this way is currently being tested.

A comparative test for the month of January 1969 was recently completed. Temperature forecasts were made each day from 1000- and 700-mb heights observed at 0000 GMT and forecast from the PE model for 12 to 36 hours in advance. The forecasts were verified by computer in terms of the root-mean-square error, the correlation coefficient between forecast and observed temperatures, and the correlation between forecast and observed 24-hour temperature change. Average results for 131 cities in the United States are given in table 9, together with the corresponding verification for the operational forecasts (made from barotropic and Reed models) and for persistence. Although based on only a limited sample, the results are encouraging. They show that use of the PE model was superior to the operational model in terms of all three statistics tested. The superiority of the PE input increased with forecast projection, with the RMSE advantage being less than half a degree at 12 hours but almost 2 degrees at 48 hours.

In view of these promising results, a program is now being written to produce objective temperature forecasts from the PE model on the CDC 6600 on

Table 9. Verification of computer temperature forecasts for 12 to 48 hours in advance averaged over 131 cities in the United States for January 1969 (0000 GMT data)

Projection	RMSE (°F)			Correlation (Fcst. vs. obs.)			Change Correlation		
	PE	Oper.	Pers.	PE	Oper.	Pers.	PE	Oper.	Pers.
a) Minimum									
12 hr	6.6	6.6	9.6	0.82	0.81	0.60	0.78	0.76	0.00
36 hr	7.4	8.0	13.1	0.75	0.72	0.28	0.56	0.54	-0.19
b) Maximum									
24 hr	6.3	7.2	9.6	0.82	0.79	0.59	0.75	0.73	0.13
48 hr	7.9	9.9	12.6	0.73	0.66	0.25	0.58	0.52	-0.08

an operational basis in Suitland. Since the PE model is prepared about three hours later than the barotropic-Reed run, it may well be feasible to use maximum and minimum temperatures reported at 0600 and 1800 GMT, in addition to those reported at 0000 and 1200 GMT, as input into the system. Not only should this produce more accurate values of today's maximum and minimum (particularly in the West where 1200 GMT is only 4 A.M. local time), but it should also alleviate the problem of missing data mentioned in Section 4. Hopefully, this step will result in further improvements in the objective temperature forecasts.

It is expected that a revised operational system, based upon PE model input and six hours later temperature reports, will be implemented by the end of 1969. Meanwhile, forecasters should realize that the current computer temperature forecasts are based on the barotropic "Radat" package and should be modified in cases where prognostic maps of the primitive equation model are inconsistent with the earlier numerical guidance.

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APPENDIX

This appendix presents machine printouts for 131 cities in the United States. It lists all equations derived in the first set of regression (equations (1) and (2)) for maximum and minimum temperature in °F as a function of preceding temperatures, day of year (from 1 to 365), 700-mb height in meters, and 700- to 1000-mb thickness in meters. The cities are given by standard call letters (tables 1 and 3), and the upper air parameters are located at standard grid points in degrees of latitude and longitude. In addition to the multiple regression equation, the printouts include values of the multiple correlation coefficient (R), the standard error of estimate in °F, the reduction of variance (R^2), and the standard deviation of the maximum and minimum temperature (°F). For detailed presentation of an individual equation, see figure 7.

The equations are presented separately for maximum and minimum, six sets of bi-monthly periods (January - February, March-April, etc.), and four quadrants of the country (Northwest, Southwest, Southeast, and Northeast). The names of the cities in each quadrant and their order of presentation are listed below:

Northwest

INL - International Falls, Minn.
DLH - Duluth, Minn.
STC - Saint Cloud, Minn.
FAR - Fargo, N. Dak.
BIS - Bismarck, N. Dak.
ISN - Williston, N. Dak.
GGW - Glasgow, Mont.
BIL - Billings, Mont.
GTF - Great Falls, Mont.
HLN - Helena, Mont.
MSO - Missoula, Mont.
GEG - Spokane, Wash.
PDT - Pendleton, Oreg.
YKM - Yakima, Wash.
PDX - Portland, Oreg.
SEA - Seattle, Wash.
TTI - Tatoosh, Wash.
MSP - Minneapolis, Minn.
HON - Huron, S. Dak.
RAP - Rapid City, S. Dak.
CPR - Casper, Wyo.
LND - Lander, Wyo.
PIH - Pocatello, Idaho
BOI - Boise, Idaho
BNO - Burns, Oreg.
MFR - Medford, Oreg.
SLE - Salem, Oreg.

Southwest

DSM - Des Moines, Iowa
OMA - Omaha, Nebr.
LBF - North Platte, Nebr.
DEN - Denver, Colo.
SLC - Salt Lake City, Utah
WMC - Winnemucca, Nev.
RNO - Reno, Nev.
RBL - Red Bluff, Calif.
EKA - Eureka, Calif.
MKC - Kansas City, Mo.
TOP - Topeka, Kans.
ICT - Wichita, Kans.
DDC - Dodge City, Kans.
PUB - Pueblo, Colo.
GJT - Grand Junction, Colo.
MLF - Milford, Utah
ELY - Ely, Nev.
SAC - Sacramento, Calif.
SFO - San Francisco, Calif.
OKC - Oklahoma City, Okla.
AMA - Amarillo, Tex.
ABQ - Albuquerque, N. Mex.
INW - Winslow, Ariz.
LAS - Las Vegas, Nev.

Southwest - continued

BFL - Bakersfield, Calif.
FAT - Fresno, Calif.
SMX - Santa Maria, Calif.
FTW - Fort Worth, Tex.
MAF - Midland, Tex.
ELP - El Paso, Tex.
PHX - Phoenix, Ariz.
PHX - Phoenix, Ariz.
YUM - Yuma, Ariz.
SAN - San Diego, Calif.
LAX - Los Angeles, Calif.
SAT - San Antonio, Tex.
DRT - Del Rio, Tex.

Southeast

SBY - Salisbury, Md
DCA - Washington, D.C.
CRW - Charleston, W. Va.
HTS - Huntington, W. Va.
LOU - Louisville, Ky.
ORF - Norfolk, Va.
RIC - Richmond, Va.
ROA - Roanoke, Va.
HAT - Hatteras, N.C.
RDU - Raleigh, N.C.
GSO - Greensboro, N.C.
TYS - Knoxville, Tenn.
BNA - Nashville, Tenn.
MEM - Memphis, Tenn.
LIT - Little Rock, Ark.
FSM - Fort Smith, Ark.
CHS - Charleston, S.C.
CLT - Charlotte, N.C.
AGS - Augusta, Ga.
AHN - Athens, Ga.
ATL - Atlanta, Ga.
BHM - Birmingham, Ala.
JAN - Jackson, Miss.
SHV - Shreveport, La.
JAX - Jacksonville, F
TLH - Tallahassee, Fl
MGM - Montgomery, Ala.
MOB - Mobile, Ala.
MSY - New Orleans, La.
LCH - Lake Charles, La.
HOU - Houston, Tex.
CRP - Corpus Christi, Tex.
BRO - Brownsville, Tex.
ORL - Orlando, Fla.
TPA - Tampa, Fla.
MIA - Miami, Fla.
EYW - Key West, Fla.

Northeast

CAR - Caribou, Maine
SSM - S. Ste. Marie, Mich.
PWM - Portland, Maine
BTV - Burlington, Vt.
SYR - Syracuse, N.Y.
BUF - Buffalo, N.Y.
DET - Detroit, Mich.
FNT - Flint, Mich.
GRR - Grand Rapids, Mich.
MKE - Milwaukee, Wis.
GRB - Green Bay, Wis.
MSN - Madison, Wis.
ACK - Nantucket, Mass.
BOS - Boston, Mass.
HFD - Hartford, Conn.
ALB - Albany, N.Y.
NYC - New York, N.Y.
PHL - Philadelphia, Pa.
IPT - Williamsport, Pa.
PIT - Pittsburgh, Pa.
CLE - Cleveland, Ohio
CMH - Columbus, Ohio
DAY - Dayton, Ohio
CVG - Cincinnati, Ohio
IND - Indianapolis, Ind.
CHI - Chicago, Ill.
PIA - Peoria, Ill.
MLI - Moline, Ill.
STL - St. Louis, Mo.
CBI - Columbia, Mo.

Northwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MAX R= .91565 STANDARD ERROR = 5.45217 REDUCTION OF VARIANCE = .83841 STD. DEV. OF PND. 13.56339
INL MAX = -247.6797 + .0480 X 50/100 THK + .2761 X DLH MIN + .0492 X 50/090 THK + .1707 X QD MAX +

DLH MAX R= .91705 STANDARD ERROR = 4.84861 REDUCTION OF VARIANCE = .84099 STD. DEV. OF PND. 12.15906
DLH MAX = -216.9701 + .2330 X DLH MIN + .0398 X 50/090 THK + .0458 X 45/095 THK + .1829 X INL MAX +

STC MAX R= .90971 STANDARD ERROR = 5.22627 REDUCTION OF VARIANCE = .82757 STD. DEV. OF PND. 12.58587
STC MAX = -200.8929 + .0800 X 45/095 THK + .2892 X STC MIN + .1755 X PA MAX +

FAR MAX R= .92173 STANDARD ERROR = 5.46181 REDUCTION OF VARIANCE = .84959 STD. DEV. OF PND. 14.08308
FAR MAX = -110.7773 + .4311 X FAR MIN + .0725 X 50/100 THK + .1661 X QR MAX + -.0245 X 50/100 HGT +

BIS MAX R= .92500 STANDARD ERROR = 5.88909 REDUCTION OF VARIANCE = .85562 STD. DEV. OF PND. 15.49882
BIS MAX = -192.9848 + .0708 X 50/100 THK + .3082 X BIS MIN + -.0325 X 55/095 HGT + .0397 X 50/110 THK +
.1986 X QR MAX +

ISN MAX R= .92696 STANDARD ERROR = 5.98796 REDUCTION OF VARIANCE = .85925 STD. DEV. OF PND. 15.96071
ISN MAX = -291.0339 + .0798 X 50/110 THK + .3258 X GSG MIN + .0610 X 50/100 THK + -.0265 X 55/105 HGT +

GSG MAX R= .92381 STANDARD ERROR = 6.35793 REDUCTION OF VARIANCE = .85343 STD. DEV. OF PND. 16.60685
GSG MAX = -213.8516 + .1085 X 50/110 THK + .3438 X GSG MIN + -.0242 X 55/105 HGT + .1787 X GSG MAX +

BIL MAX R= .92226 STANDARD ERROR = 6.29009 REDUCTION OF VARIANCE = .85056 STD. DEV. OF PND. 16.27153
BIL MAX = -368.1741 + .4203 X BIL MIN + .0844 X 45/105 THK + .0571 X 50/120 THK +

GTF MAX R= .90642 STANDARD ERROR = 7.40556 REDUCTION OF VARIANCE = .82159 STD. DEV. OF PND. 17.53261
GTF MAX = -313.9843 + .4364 X GTF MIN + .0676 X 50/110 THK + .0550 X 50/120 THK +

HLN MAX R= .91216 STANDARD ERROR = 6.62324 REDUCTION OF VARIANCE = .83203 STD. DEV. OF PND. 16.16056
HLN MAX = -144.0498 + .6538 X HLN MIN + .0598 X 45/105 THK +

MSO MAX R= .92075 STANDARD ERROR = 4.60182 REDUCTION OF VARIANCE = .84777 STD. DEV. OF PND. 11.79469
MSO MAX = -77.2960 + .5026 X MSO MIN + .0336 X 45/105 THK + .2270 X MSO MAX +

GEG MAX R= .92183 STANDARD ERROR = 3.96191 REDUCTION OF VARIANCE = .84978 STD. DEV. OF PND. 10.22205
GEG MAX = 10.4709 + .4902 X GEG MIN + .3858 X GEG MAX +

PDT MAX R= .90953 STANDARD ERROR = 5.32649 REDUCTION OF VARIANCE = .82724 STD. DEV. OF PND. 12.81496
PDT MAX = 55.7218 + .5269 X PDT MIN + .2855 X PDT MAX + -.0172 X 60/120 HGT + .2659 X VR MIN +

YKM MAX R= .89272 STANDARD ERROR = 5.04492 REDUCTION OF VARIANCE = .79695 STD. DEV. OF PND. 11.19569
YKM MAX = -26.9027 + .3102 X PDT MIN + .4225 X YKM MAX + .0123 X 45/135 HGT + .2318 X GEG MIN +

PDX MAX R= .88941 STANDARD ERROR = 3.66396 REDUCTION OF VARIANCE = .79105 STD. DEV. OF PND. 8.01548
PDX MAX = -73.7038 + .3057 X PDT MIN + .3703 X PDX MAX + .0331 X 45/125 THK +

SEA MAX R= .87954 STANDARD ERROR = 3.47125 REDUCTION OF VARIANCE = .77359 STD. DEV. OF PND. 7.29518
SEA MAX = -75.7508 + .3736 X SEA MIN + .4108 X SEA MAX + .0314 X 45/125 THK +

TTI MAX R= .88663 STANDARD ERROR = 2.38576 REDUCTION OF VARIANCE = .78612 STD. DEV. OF PND. 5.15869
TTI MAX = -82.3669 + .0206 X 50/120 THK + .2541 X SEA MIN + .1797 X VR MAX + .0191 X 50/130 THK +

MSP MAX R= .90876 STANDARD ERROR = 5.24305 REDUCTION OF VARIANCE = .82585 STD. DEV. OF PND. 12.56395
MSP MAX = -208.7235 + .0832 X 45/095 THK + .3307 X MSP MIN + .1163 X PA MAX +

HON MAX R= .90364 STANDARD ERROR = 6.17959 REDUCTION OF VARIANCE = .81657 STD. DEV. OF PND. 14.42846

HON MAX = -155.6093 + .4010 X HON MIN + .0574 X 50/100 THK + -.0311 X 55/095 HGT + .0376 X 45/105 THK + .1631 X HON MAX +

RAP MAX R= .90765 STANDARD ERROR = 7.00944 REDUCTION OF VARIANCE = .82383 STD. DEV. OF PND. 16.70000

RAP MAX = -467.7841 + .1528 X 45/105 THK + .0620 X 50/110 THK + -.0347 X 55/105 HGT +

CPR MAX R= .91298 STANDARD ERROR = 5.33428 REDUCTION OF VARIANCE = .83354 STD. DEV. OF PND. 13.07442

CPR MAX = -240.0242 + .3312 X CPR MIN + .0613 X 45/115 THK + .3016 X DEN MIN + .0299 X 35/105 HGT +

LND MAX R= .91858 STANDARD ERROR = 5.50786 REDUCTION OF VARIANCE = .84379 STD. DEV. OF PND. 13.93546

LND MAX = -153.5396 + .6850 X LND MIN + .0513 X 40/110 HGT + -.0410 X 50/110 HGT + .0512 X 45/115 THK +

PIH MAX R= .92153 STANDARD ERROR = 4.22381 REDUCTION OF VARIANCE = .84921 STD. DEV. OF PND. 10.87730

PIH MAX = -234.1549 + .2983 X PIH MIN + .0460 X 45/115 THK + .2540 X PIH MAX + .0433 X 40/120 THK +

BOI MAX R= .90701 STANDARD ERROR = 4.45174 REDUCTION OF VARIANCE = .82266 STD. DEV. OF PND. 10.57134

BOI MAX = 12.4957 + .3368 X BOI MIN + .3773 X BOI MAX + .2381 X BNO MIN +

BNO MAX R= .87894 STANDARD ERROR = 4.50855 REDUCTION OF VARIANCE = .77253 STD. DEV. OF PND. 9.45315

BNO MAX = -128.5350 + .3987 X BNO MIN + .2680 X BNO MAX + .0152 X 45/125 HGT + .0368 X 45/115 THK +

MFR MAX R= .76844 STANDARD ERROR = 5.25582 REDUCTION OF VARIANCE = .59051 STD. DEV. OF PND. 8.21327

MFR MAX = -93.4175 + .5401 X MFR MAX + .0366 X 45/125 THK + .2727 X EKA MIN +

SLE MAX R= .85859 STANDARD ERROR = 3.85676 REDUCTION OF VARIANCE = .73718 STD. DEV. OF PND. 7.52302

SLE MAX = -72.9456 + .4041 X SLE MAX + .1946 X SLE MIN + .0320 X 45/125 THK + .1339 X PDT MIN +

Northwest Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MIN R= .87949 STANDARD ERROR = 7.62250 REDUCTION OF VARIANCE = .77350 STD. DEV. OF PND. 16.01650

INL MIN = -268.5781 + .2973 X WG MAX + .0899 X 50/100 THK + .0684 X 50/090 HGT + -.0625 X 50/100 HGT + .1675 X INL MIN +

DLH MIN R= .87786 STANDARD ERROR = 6.84927 REDUCTION OF VARIANCE = .77064 STD. DEV. OF PND. 14.30166

DLH MIN = -219.2392 + .0349 X 45/095 THK + .2043 X WG MAX + .0379 X 50/090 HGT + .2565 X FAR MIN + -.0323 X 50/110 HGT + .0397 50/100 THK +

STC MIN R= .86065 STANDARD ERROR = 7.24605 REDUCTION OF VARIANCE = .74071 STD. DEV. OF PND. 14.23018

STC MIN = -218.7373 + .4648 X FAR MIN + .0809 X 50/100 THK + .0328 X 40/090 HGT + -.0330 X 45/105 HGT +

FAR MIN R= .86435 STANDARD ERROR = 7.34590 REDUCTION OF VARIANCE = .74710 STD. DEV. OF PND. 14.60717

FAR MIN = -280.8690 + .1029 X 50/100 THK + .5261 X FAR MIN + -.2043 X DLH MIN +

BIS MIN R= .85286 STANDARD ERROR = 7.93136 REDUCTION OF VARIANCE = .72738 STD. DEV. OF PND. 15.19026

BIS MIN = -152.7398 + .3887 X BIS MIN + .0536 X 50/110 THK + .2790 X QR MAX +

ISN MIN R= .87279 STANDARD ERROR = 7.69307 REDUCTION OF VARIANCE = .76176 STD. DEV. OF PND. 15.76116

ISN MIN = -293.2722 + .1051 X 50/110 THK + .2606 X QR MAX + .1665 X BIS MIN +

GSG MIN R= .87857 STANDARD ERROR = 7.62486 REDUCTION OF VARIANCE = .77189 STD. DEV. OF PND. 15.96464

GSG MIN = -287.2987 + .1039 X 50/110 THK + .4224 X GSG MIN +

BIL MIN R= .88635 STANDARD ERROR = 7.40856 REDUCTION OF VARIANCE = .78561 STD. DEV. OF PND. 16.00052

BIL MIN = -359.5249 + .1109 X 50/110 THK + .2005 X HLN MIN + -.0289 X 60/130 HGT + .0515 X 45/125 THK +

GTF MIN R= .88904 STANDARD ERROR = 8.21443 REDUCTION OF VARIANCE = .79039 STD. DEV. OF PND. 17.94190

GTF MIN = -404.2129 + .0991 X 50/110 THK + -.0424 X 60/140 HGT + .0447 X 45/115 HGT + .0470 X 55/125 THK +

HLN MIN R= .87119 STANDARD ERROR = 8.46765 REDUCTION OF VARIANCE = .75898 STD. DEV. OF PND. 17.24715

HLN MIN = -197.9861 + .5175 X HLN MIN + .0643 X 50/120 THK + -.0420 X 60/130 HGT + .0501 X 45/125 THK +

MSO MIN R= .86421 STANDARD ERROR = 6.87976 REDUCTION OF VARIANCE = .74687 STD. DEV. OF PND. 13.67409

MSO MIN = -154.3579 + .5738 X MSO MIN + .0612 X 50/120 THK + -.0691 X 50/120 HGT + .0643 X 45/115 HGT +

GEG MIN R= .89922 STANDARD ERROR = 5.33686 REDUCTION OF VARIANCE = .80859 STD. DEV. OF PND. 12.19848

GEG MIN = -87.9429 + .6805 X GEG MIN + .0565 X 45/125 THK + -.0232 X 55/135 HGT +

PDT MIN R= .90082 STANDARD ERROR = 5.21183 REDUCTION OF VARIANCE = .81147 STD. DEV. OF PND. 12.00327

PDT MIN = -80.2073 + .4704 X PDT MIN + -.0185 X 55/135 HGT + .0480 X 45/125 THK + .2633 X PDT MAX +

YKM MIN R= .87942 STANDARD ERROR = 5.52400 REDUCTION OF VARIANCE = .77339 STD. DEV. OF PND. 11.60413

YKM MIN = -126.0381 + .4772 X YKM MIN + .0456 X 45/125 THK + .3126 X GEG MIN +

PDX MIN R= .83987 STANDARD ERROR = 4.33794 REDUCTION OF VARIANCE = .70539 STD. DEV. OF PND. 7.99204

PDX MIN = -38.1735 + .6597 X PDX MIN + -.0139 X 55/135 HGT + .0314 X 45/125 THK +

SEA MIN R= .86230 STANDARD ERROR = 3.85751 REDUCTION OF VARIANCE = .74356 STD. DEV. OF PND. 7.61755

SEA MIN = -65.0032 + .6117 X SEA MIN + .0406 X 45/125 THK + -.0132 X 55/135 HGT +

TTI MIN R= .86275 STANDARD ERROR = 2.62355 REDUCTION OF VARIANCE = .74434 STD. DEV. OF PND. 5.18874

TTI MIN = -86.2371 + .3055 X SEA MIN + .0312 X 50/130 THK + .0151 X 55/125 THK + -.0055 X 50/150 HGT +

MSP MIN R= .87312 STANDARD ERROR = 6.69341 REDUCTION OF VARIANCE = .76234 STD. DEV. OF PND. 13.72991

MSP MIN = -240.1727 + .0559 X 45/095 THK + .3880 X RAP MIN + .0467 X 50/110 THK + -.0342 X 45/115 HGT +
.0225 X 45/085 HGT +

HON MIN R= .85209 STANDARD ERROR = 7.60747 REDUCTION OF VARIANCE = .72606 STD. DEV. OF PND. 14.53488

HON MIN = -278.1057 + .4430 X HON MIN + .0506 X 50/100 THK + .0505 X 45/105 THK +

RAP MIN R= .89342 STANDARD ERROR = 6.09602 REDUCTION OF VARIANCE = .79821 STD. DEV. OF PND. 13.57043

RAP MIN = -353.7613 + .0664 X 45/105 THK + .0633 X 50/110 THK + .2445 X RAP MIN +

CPR MIN R= .85444 STANDARD ERROR = 7.35462 REDUCTION OF VARIANCE = .73007 STD. DEV. OF PND. 14.15574

CPR MIN = -191.7175 + .0263 X 45/105 THK + .0685 X 40/110 HGT + -.0374 X 60/130 HGT + -.0285 X 40/130 HGT +
.0407 X 50/120 THK + .2255 X CPR MIN +

LND MIN R= .88068 STANDARD ERROR = 6.21796 REDUCTION OF VARIANCE = .77560 STD. DEV. OF PND. 13.12597

LND MIN = -183.4395 + .5230 X LND MAX + .0776 X 45/115 THK + -.0152 X 50/130 HGT +

PIH MIN R= .85350 STANDARD ERROR = 7.23526 REDUCTION OF VARIANCE = .72846 STD. DEV. OF PND. 13.88483

PIH MIN = -3.0249 + .4453 X PIH MIN + .3857 X BNO MIN + -.0319 X 55/125 HGT + .0322 X 40/110 HGT +

BOI MIN R= .88757 STANDARD ERROR = 5.07881 REDUCTION OF VARIANCE = .78779 STD. DEV. OF PND. 11.02491

BOI MIN = -84.2438 + .6718 X BOI MIN + .0382 X 45/125 THK + -.0276 X 50/130 HGT + .0209 X 40/120 HGT +

BNO MIN R= .82795 STANDARD ERROR = 6.35372 REDUCTION OF VARIANCE = .68550 STD. DEV. OF PND. 11.32973

BNO MIN = -175.9673 + .5527 X BNO MIN + .0545 X 45/125 THK + -.0496 X 45/125 HGT + .0580 X 40/120 HGT +

MFR MIN R= .82720 STANDARD ERROR = 4.27555 REDUCTION OF VARIANCE = .68425 STD. DEV. OF PND. 7.60891

MFR MIN = -43.6470 + .5874 X MFR MIN + -.0212 X 50/130 HGT + .0253 X 45/125 THK + .0151 X 40/120 HGT +

SLE MIN R= .82650 STANDARD ERROR = 4.78095 REDUCTION OF VARIANCE = .67322 STD. DEV. OF PND. 8.36352

SLE MIN = -26.5542 + .6036 X SLE MIN + -.0180 X 55/135 HGT + .0320 X 45/125 THK +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MAX R= .90103 STANDARD ERROR = 5.69821 REDUCTION OF VARIANCE = .81186 STD. DEV. OF PND. 13.13712

DSM MAX = -137.7053 + .0904 X 45/095 THK + .2841 X OMA MAX + .3122 X DSM MIN + -.0343 X 50/100 HGT + .0366 X 35/095 HGT + -.0373 X 35/095 THK +

OMA MAX R= .87869 STANDARD ERROR = 6.35299 REDUCTION OF VARIANCE = .77210 STD. DEV. OF PND. 13.30780

OMA MAX = -120.6674 + .3978 X OMA MIN + .1135 X 40/100 THK + -.0617 X 35/105 THK + .1696 X OMA MAX +

LBF MAX R= .89453 STANDARD ERROR = 6.79060 REDUCTION OF VARIANCE = .80019 STD. DEV. OF PND. 15.19143

LBF MAX = -354.2235 + .1381 X 45/105 THK + .2940 X LBF MAX + -.0392 X 50/100 HGT + .0344 X 35/105 HGT +

DEN MAX R= .91467 STANDARD ERROR = 5.87888 REDUCTION OF VARIANCE = .83662 STD. DEV. OF PND. 14.54448

DEN MAX = -375.4397 + .4099 X DEN MIN + .0663 X 35/105 HGT + .0730 X 45/105 THK + -.0477 X 50/110 HGT + .0497 X 40/120 THK +

SLC MAX R= .91615 STANDARD ERROR = 4.26658 REDUCTION OF VARIANCE = .83933 STD. DEV. OF PND. 10.64427

SLC MAX = -114.3027 + .1956 X SLC MIN + .3478 X SLC MAX + .0606 X 40/120 THK + -.0135 X 40/130 HGT + .1586 X PIH MIN +

WMC MAX R= .88863 STANDARD ERROR = 4.82513 REDUCTION OF VARIANCE = .78966 STD. DEV. OF PND. 10.52085

WMC MAX = -258.8222 + .0988 X 40/120 THK + .3125 X WMC MAX + .2411 X BNO MIN +

RNO MAX R= .87440 STANDARD ERROR = 5.10496 REDUCTION OF VARIANCE = .76457 STD. DEV. OF PND. 10.52103

RNO MAX = -212.1527 + .0561 X 40/120 THK + .4107 X RNO MAX + .2255 X BNO MIN + .0244 X 40/120 HGT +

RBL MAX R= .81291 STANDARD ERROR = 4.91048 REDUCTION OF VARIANCE = .66083 STD. DEV. OF PND. 8.43166

RBL MAX = -195.3356 + .3641 X SAC MAX + .0360 X 45/125 HGT + .2012 X LAS MIN + .0229 X 45/115 THK + .0116 X 40/140 HGT + .2897 X SFO MAX +

EKA MAX R= .83877 STANDARD ERROR = 2.96765 REDUCTION OF VARIANCE = .70353 STD. DEV. OF PND. 5.45033

EKA MAX = -35.1899 + .2637 X EKA MIN + .0165 X 45/115 HGT + .2491 X EKA MAX + -.0114 X 40/140 HGT + .0172 X 40/130 THK +

MKC MAX R= .87689 STANDARD ERROR = 6.51434 REDUCTION OF VARIANCE = .76894 STD. DEV. OF PND. 13.55220

MKC MAX = -216.5858 + .3988 X MKC MIN + .0841 X 40/100 THK + .2366 X TOP MAX +

TOP MAX R= .87848 STANDARD ERROR = 6.64938 REDUCTION OF VARIANCE = .77172 STD. DEV. OF PND. 13.91710

TOP MAX = -214.5077 + .1088 X 40/100 THK + .3277 X OMA MIN + .2078 X TOP MAX + -.0230 X 45/095 HGT +

ICT MAX R= .89050 STANDARD ERROR = 6.39967 REDUCTION OF VARIANCE = .79298 STD. DEV. OF PND. 14.06548

ICT MAX = -146.3459 + .1150 X 40/100 THK + .2392 X ICT MAX + -.0303 X 45/095 HGT + .3619 X ICT MIN + .0234 X 35/085 THK +

DDC MAX R= .89968 STANDARD ERROR = 6.65803 REDUCTION OF VARIANCE = .80943 STD. DEV. OF PND. 15.25173

DDC MAX = -369.2351 + .1835 X 40/100 THK + .2627 X DDC MAX + -.0542 X 35/095 THK + .0835 X 35/105 HGT + -.0729 X 40/100 HGT +

PUB MAX R= .89773 STANDARD ERROR = 6.40374 REDUCTION OF VARIANCE = .80592 STD. DEV. OF PND. 14.53593

PUB MAX = -569.7475 + .1264 X 40/100 THK + .1163 X 35/105 HGT + -.0688 X 40/100 HGT + .0651 X 45/115 THK + -.0260 X 50/110 HGT +

GJT MAX R= .90716 STANDARD ERROR = 4.25962 REDUCTION OF VARIANCE = .82294 STD. DEV. OF PND. 10.12292

GJT MAX = -190.4691 + .3822 X GJT MAX + .0538 X 40/110 THK + .3126 X GJT MIN + .0181 X 40/110 HGT +

MLF MAX R= .87534 STANDARD ERROR = 5.86821 REDUCTION OF VARIANCE = .76622 STD. DEV. OF PND. 12.13677

MLF MAX = -194.9808 + .2596 X ELY MIN + .0740 X 40/120 THK + .2720 X SLC MAX + .2367 X ELY MAX +

ELY MAX R= .90161 STANDARD ERROR = 4.78333 REDUCTION OF VARIANCE = .81290 STD. DEV. OF PND. 11.05839

ELY MAX = -358.4527 + .1057 X 40/120 THK + .3752 X ELY MAX + .0516 X 40/110 HGT + -.0267 X 50/110 HGT +

SAC MAX R= .82919 STANDARD ERROR = 3.86177 REDUCTION OF VARIANCE = .68756 STD. DEV. OF PND. 6.90884

SAC MAX = -17.1919 + .4837 X SAC MAX + .1895 X RBL MIN + .2316 X FAT MAX + .0085 X 45/125 HGT +

SFO MAX R= .80349 STANDARD ERROR = 3.16937 REDUCTION OF VARIANCE = .64560 STD. DEV. OF PND. 5.32382

SFO MAX = -28.7169 + .4846 X SFO MAX + .2347 X RBL MIN + .0161 X 40/120 HGT +

OKC MAX R= .88701 STANDARD ERROR = 6.49717 REDUCTION OF VARIANCE = .78678 STD. DEV. OF PND. 14.07054

OKC MAX = -171.7566 + .1116 X 40/100 THK + 2763 X ICT MAX + -.0402 X 45/095 HGT + .3229 X OKC MIN +

AMA MAX R= .89472 STANDARD ERROR = 6.57489 REDUCTION OF VARIANCE = .80053 STD. DEV. OF PND. 14.72130

AMA MAX = -386.2834 + .1443 X 40/100 THK + -.0832 X 40/100 HGT + .1280 X 35/105 HGT + .2118 X AMA MAX +
-.0424 X 45/105 HGT +

ABQ MAX R= .88983 STANDARD ERROR = 4.58362 REDUCTION OF VARIANCE = .79179 STD. DEV. OF PND. 10.04519

ABQ MAX = -384.0049 + .0763 X 35/105 THK + .0668 X 35/115 THK + .3313 X ABQ MAX +

INW MAX R= .87540 STANDARD ERROR = 5.27058 REDUCTION OF VARIANCE = .76632 STD. DEV. OF PND. 10.90310

INW MAX = -173.1810 + .4436 X INW MAX + .0911 X 35/115 THK + -.0228 X 45/115 HGT + .1769 X SLC MIN +

LAS MAX R= .89675 STANDARD ERROR = 3.89153 REDUCTION OF VARIANCE = .80416 STD. DEV. OF PND. 8.79372

LAS MAX = -274.2795 + .4465 X LAS MAX + .0515 X 40/120 THK + .0544 X 35/115 THK +

BFL MAX R= .84758 STANDARD ERROR = 4.21089 REDUCTION OF VARIANCE = .71839 STD. DEV. OF PND. 7.93510

BFL MAX = -144.9868 + .4056 X FAT MAX + .0389 X 40/120 THK + .4149 X SAC MAX + .0222 X 40/130 HGT +
-.1593 X ELY MAX + .0414 X 35/125 THK +

FAT MAX R= .84009 STANDARD ERROR = 4.10723 REDUCTION OF VARIANCE = .70576 STD. DEV. OF PND. 7.57176

FAT MAX = -93.8678 + .4471 X FAT MAX + .4030 X SAC MAX + .0507 X 40/120 THK + -.1592 X ELY MAX +
-.0117 X 35/135 HGT +

SMX MAX R= .85042 STANDARD ERROR = 3.82142 REDUCTION OF VARIANCE = .72322 STD. DEV. OF PND. 7.26368

SMX MAX = -180.5505 + .0443 X 40/120 HGT + .3076 X SAN MAX + .1896 X YUM MIN + .0275 X 35/125 THK +

FTW MAX R= .88764 STANDARD ERROR = 6.33467 REDUCTION OF VARIANCE = .78790 STD. DEV. OF PND. 13.75495

FTW MAX = -97.1412 + .1515 X AMA MAX + .3001 X FTW MIN + .0344 X 40/100 THK + -.0430 X 40/090 HGT +
.1058 X 35/095 THK + -.0505 X 30/090 THK + .1589 X FTW MAX +

MAF MAX R= .86772 STANDARD ERROR = 6.51904 REDUCTION OF VARIANCE = .75293 STD. DEV. OF PND. 13.11521

MAF MAX = -446.9395 + .0891 X 35/105 THK + -.0693 X 40/100 HGT + .0825 X 40/100 THK + .2326 X MAF MAX +
.0660 X 25/105 HGT +

ELP MAX R= .89194 STANDARD ERROR = 4.45744 REDUCTION OF VARIANCE = .79556 STD. DEV. OF PND. 9.85840

ELP MAX = -285.7832 + .0808 X 35/105 THK + .3055 X YUM MAX + .2374 X ELP MAX + .0595 X 30/110 HGT +
-.0362 X 40/110 HGT +

TUS MAX R= .91395 STANDARD ERROR = 3.71684 REDUCTION OF VARIANCE = .83530 STD. DEV. OF PND. 9.15855

TUS MAX = -363.6323 + .0790 X 35/115 THK + .3415 X TUS MAX + .0571 X 30/110 HGT +

PHX MAX R= .90132 STANDARD ERROR = 3.55494 REDUCTION OF VARIANCE = .81238 STD. DEV. OF PND. 8.20716

PHX MAX = -212.6063 + .5070 X PHX MAX + .0292 X 35/115 HGT + .0534 X 35/115 THK +

YUM MAX R= .91473 STANDARD ERROR = 3.33771 REDUCTION OF VARIANCE = .83672 STD. DEV. OF PND. 8.26014

YUM MAX = -252.2664 + .0712 X 35/115 THK + .4046 X YUM MAX + .0263 X 30/120 HGT + .1180 X MFR MAX +

SAN MAX R= .83751 STANDARD ERROR = 3.47442 REDUCTION OF VARIANCE = .70142 STD. DEV. OF PND. 6.35844

SAN MAX = -83.2290 + .4346 X SAN MAX + .0370 X 40/120 HGT + .1692 X YUM MIN +

LAX MAX R= .81407 STANDARD ERROR = 4.26698 REDUCTION OF VARIANCE = .66271 STD. DEV. OF PND. 7.34715

LAX MAX = -98.0491 + .4194 X LAX MAX + .0417 X 40/120 HGT + .1936 X YUM MIN +

SAT MAX R= .87807 STANDARD ERROR = 5.56874 REDUCTION OF VARIANCE = .77100 STD. DEV. OF PND. 11.63701

SAT MAX = -107.0848 + .3071 X MAF MAX + .1047 X 35/095 THK + -.0614 X 35/095 HGT + .0453 X 30/110 HGT +
.2670 X HOU MIN + -.0388 X 30/090 THK +

DRT MAX R= .86674 STANDARD ERROR = 5.69172 REDUCTION OF VARIANCE = .75124 STD. DEV. OF PND. 11.41173

DRT MAX = -198.2569 + .2166 X MAF MAX + .0614 X 35/095 THK + -.0522 X 35/095 HGT + .0753 X 35/105 THK +
.2057 X SAT MAX +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MIN R= .85441 STANDARD ERROR = 6.85247 REDUCTION OF VARIANCE = .73001 STD. DEV. OF PND. 13.18788

DSM MIN = -216.3370 + .1227 X 45/095 THK + .4106 X DSM MIN + -.0418 X 45/085 THK +

OMA MIN R= .85150 STANDARD ERROR = 6.61958 REDUCTION OF VARIANCE = .72506 STD. DEV. OF PND. 12.62435

OMA MIN = -238.9696 + .3062 X OMA MIN + .0429 X 50/100 THK + .0450 X 40/100 THK + .1623 X HON MAX +

LBF MIN R= .85252 STANDARD ERROR = 5.92918 REDUCTION OF VARIANCE = .72678 STD. DEV. OF PND. 11.34337

LBF MIN = -221.7262 + .0811 X 45/105 THK + .4233 X LBF MIN +

DEN MIN R= .88873 STANDARD ERROR = 5.50457 REDUCTION OF VARIANCE = .78983 STD. DEV. OF PND. 12.00718

DEN MIN = -209.2674 + .0690 X 45/105 THK + .3952 X DEN MIN + .0790 X 40/110 HGT + -.0504 X 45/105 HGT + -.0215 X 45/125 HGT +

SLC MIN R= .86911 STANDARD ERROR = 5.69473 REDUCTION OF VARIANCE = .75535 STD. DEV. OF PND. 11.51342

SLC MIN = -129.1719 + .5557 X SLC MIN + .0329 X 40/120 THK + -.0497 X 45/115 HGT + .0624 X 40/110 HGT + .1738 X BNO MIN +

WMC MIN R= .83626 STANDARD ERROR = 7.03849 REDUCTION OF VARIANCE = .69933 STD. DEV. OF PND. 12.83614

WMC MIN = -135.8872 + .5760 X WMC MIN + .0688 X 40/120 HGT + -.0686 X 45/125 HGT + .0487 X 45/125 THK +

RNO MIN R= .82430 STANDARD ERROR = 6.10960 REDUCTION OF VARIANCE = .67947 STD. DEV. OF PND. 10.79149

RNO MIN = -113.0109 + .5773 X RNO MIN + .0571 X 40/120 HGT + -.0555 X 45/125 HGT + .0398 X 45/125 THK +

RBL MIN R= 80487 STANDARD ERROR = 4.04079 REDUCTION OF VARIANCE = .64781 STD. DEV. OF PND. 6.80893

RBL MIN = 2.2671 + .5278 X RBL MIN + .3825 X EKA MIN +

EKA MIN R= .81872 STANDARD ERROR = 3.45538 REDUCTION OF VARIANCE = .67030 STD. DEV. OF PND. 6.01775

EKA MIN = -50.0970 + .4386 X EKA MIN + .0308 X 40/130 THK + -.0185 X 45/135 HGT + .0129 X 40/120 HGT +

MKC MIN R= .86063 STANDARD ERROR = 5.75327 REDUCTION OF VARIANCE = .74069 STD. DEV. OF PND. 11.29799

MKC MIN = -220.8979 + .0474 X 40/100 THK + .3144 X OMA MIN + .0442 X 50/100 THK + -.0295 X 50/110 HGT + .0236 X 40/090 HGT +

TOP MIN R= .86212 STANDARD ERROR = 5.62635 REDUCTION OF VARIANCE = .74325 STD. DEV. OF PND. 11.10385

TOP MIN = -111.2485 + .0468 X 40/100 THK + .3828 X TOP MIN + .0296 X 50/100 THK + -.0440 X 45/105 HGT + .0436 X 40/090 HGT + .1997 X RAP MIN + -.0326 X 40/090 THK +

ICT MIN R= .84655 STANDARD ERROR = 5.55319 REDUCTION OF VARIANCE = .71665 STD. DEV. OF PND. 10.43233

ICT MIN = -195.4582 + .0642 X 40/100 THK + .3587 X ICT MIN + .0335 X 50/110 THK + -.0224 X 50/110 HGT +

DDC MIN R= .87527 STANDARD ERROR = 5.13882 REDUCTION OF VARIANCE = .76610 STD. DEV. OF PND. 10.62555

DDC MIN = -145.0133 + .0598 X 45/105 THK + .3468 X DDC MIN + -.0600 X 45/105 HGT + .0553 X 40/100 HGT + .1446 X BIL MIN +

PUB MIN R= .85160 STANDARD ERROR = 6.23616 REDUCTION OF VARIANCE = .72522 STD. DEV. OF PND. 11.89661

PUB MIN = 49.7341 + .2512 X DEN MAX + .3166 X PUB MIN + .2826 X CPR MIN + -.0184 X 50/110 HGT +

GJT MIN R= .87322 STANDARD ERROR = 4.96346 REDUCTION OF VARIANCE = .76252 STD. DEV. OF PND. 10.18510

GJT MIN = -1.9042 + .4717 X GJT MIN + .1900 X ELY MIN + .2594 X GJT MAX +

MLF MIN R= .83004 STANDARD ERROR = 7.32938 REDUCTION OF VARIANCE = .68896 STD. DEV. OF PND. 13.14203

MLF MIN = -44.7192 + .4808 X ELY MIN + .3182 X BOI MIN + -.0590 X 40/120 HGT + .0739 X 35/115 HGT +

ELY MIN R= .84347 STANDARD ERROR = 7.11450 REDUCTION OF VARIANCE = .71144 STD. DEV. OF PND. 13.24419

ELY MIN = -173.6415 + .4535 X ELY MIN + .0531 X 35/115 HGT + -.0372 X 45/125 HGT + .0417 X 45/125 THK + .2326 X ELY MAX +

SAC MIN R= .85380 STANDARD ERROR = 3.60217 REDUCTION OF VARIANCE = .72898 STD. DEV. OF PND. 6.91927

SAC MIN = 12.1157 + .4960 X SAC MIN + .2838 X EKA MIN + -.0219 X 40/130 HGT + .0205 X 40/120 HGT +

SFO MIN R= .83376 STANDARD ERROR = 3.25557 REDUCTION OF VARIANCE = .69515 STD. DEV. OF PND. 5.89639

SFO MIN = -10.5149 + .3231 X SFO MIN + .2749 X EKA MIN + -.0201 X 40/130 HGT + .0285 X 40/130 THK + .1126 X FAT MAX +

OKC MIN R= .85387 STANDARD ERROR = 5.39288 REDUCTION OF VARIANCE = .72910 STD. DEV. OF PND. 10.36138

OKC MIN = -85.9416 + .0562 X 40/100 THK + .3543 X ICT MIN + -.0185 X 40/120 HGT + .1655 X CPR MIN +

AMA MIN R= .85749 STANDARD ERROR = 5.27822 REDUCTION OF VARIANCE = .73529 STD. DEV. OF PND. 10.25902

AMA MIN = -55.0836 + .0703 X 40/100 THK + .3168 X AMA MIN + .1684 X CPR MIN + -.0230 X 35/125 HGT + -.0213 X 40/090 THK +

ABQ MIN R= .84150 STANDARD ERROR = 4.57944 REDUCTION OF VARIANCE = .70812 STD. DEV. OF PND. 8.47634

ABQ MIN = -164.5256 + .0609 X 35/105 THK + .4214 X ABQ MIN + .1193 X ELY MIN +

INW MIN R= .85411 STANDARD ERROR = 4.88001 REDUCTION OF VARIANCE = .72950 STD. DEV. OF PND. 9.38298

INW MIN = -80.2892 + .4739 X INW MIN + .0405 X 35/115 THK + -.0370 X 40/120 HGT + .0255 X 35/105 HGT + .1682 X INW MAX +

LAS MIN R= .84759 STANDARD ERROR = 3.97914 REDUCTION OF VARIANCE = .71840 STD. DEV. OF PND. 7.49851

LAS MIN = -57.2450 + .2667 X FAT MIN + .0337 X 40/110 THK + .2531 X LAS MIN + .2318 X YUM MAX + -.0132 X 35/125 HGT +

BFL MIN R= .86226 STANDARD ERROR = 3.51167 REDUCTION OF VARIANCE = .74348 STD. DEV. OF PND. 6.93358

BFL MIN = 48.3058 + .3897 X FAT MIN + .2404 X BFL MAX + -.0151 X 35/135 HGT + .2252 X SAC MIN +

FAT MIN R= .86847 STANDARD ERROR = 3.51067 REDUCTION OF VARIANCE = .75424 STD. DEV. OF PND. 7.08165

FAT MIN = -56.1377 + .3777 X FAT MIN + .0245 X 40/120 THK + -.0180 X 40/130 HGT + .2532 X SAC MIN + .0175 X 35/115 HGT +

SMX MIN R= .79118 STANDARD ERROR = 4.09778 REDUCTION OF VARIANCE = .62596 STD. DEV. OF PND. 6.70025

SMX MIN = -65.8484 + .2803 X SFO MIN + .0255 X 35/115 THK + -.0191 X 35/135 HGT + .2488 X FAT MIN + .0234 X 35/125 THK +

FTW MIN R= .85040 STANDARD ERROR = 5.77333 REDUCTION OF VARIANCE = .72318 STD. DEV. OF PND. 10.97299

FTW MIN = -129.3605 + .0506 X 40/100 THK + .2254 X FTW MIN + -.0357 X 40/110 HGT + .0369 X 30/090 HGT + .1867 X CPR MIN + .1975 X ICT MIN +

MAF MIN R= .85102 STANDARD ERROR = 5.03394 REDUCTION OF VARIANCE = .72423 STD. DEV. OF PND. 9.58601

MAF MIN = -125.5767 + .0723 X 40/100 THK + .3050 X MAF MIN + -.0221 X 40/120 HGT + .1593 X ELP MAX +

ELP MIN R= .82841 STANDARD ERROR = 5.10144 REDUCTION OF VARIANCE = .68627 STD. DEV. OF PND. 9.10779

ELP MIN = -136.8637 + .0738 X 35/105 THK + .2565 X ELP MIN + -.0224 X 45/115 HGT + .3238 X PHX MIN +

TUS MIN R= .87330 STANDARD ERROR = 3.54829 REDUCTION OF VARIANCE = .76265 STD. DEV. OF PND. 7.28330

TUS MIN = -146.5674 + .4101 X TUS MIN + .0587 X 35/115 THK + -.0322 X 35/125 HGT + .0316 X 35/105 HGT +

PHX MIN R= .85294 STANDARD ERROR = 3.65821 REDUCTION OF VARIANCE = .72751 STD. DEV. OF PND. 7.00802

PHX MIN = -80.4998 + .3810 X PHX MIN + .0389 X 35/115 THK + -.0298 X 35/125 HGT + .0252 X 35/105 HGT + .1810 X LAS MIN +

YUM MIN R= .84651 STANDARD ERROR = 3.42503 REDUCTION OF VARIANCE = .71659 STD. DEV. OF PND. 6.43360

YUM MIN = -47.9978 + .2729 X YUM MAX + .2515 X YUM MIN + .1593 X FAT MIN + .0175 X 35/105 HGT + .1054 X INW MIN +

SAN MIN R= .83313 STANDARD ERROR = 2.71066 REDUCTION OF VARIANCE = .69411 STD. DEV. OF PND. 4.90105

SAN MIN = -65.1585 + .4411 X SAN MIN + .0316 X 35/115 THK + -.0222 X 35/125 HGT + .1186 X EKA MIN + .0215 X 35/125 THK +

LAX MIN R= .81527 STANDARD ERROR = 3.01257 REDUCTION OF VARIANCE = .66466 STD. DEV. OF PND. 5.20230

LAX MIN = -74.9480 + .4988 X LAX MIN + .0314 X 35/115 THK + .1512 X EKA MIN +

SAT MIN R= .86751 STANDARD ERROR = 5.47962 REDUCTION OF VARIANCE = .75257 STD. DEV. OF PND. 11.01606

SAT MIN = -71.3001 + .0182 X 35/095 THK + .4113 X SAT MIN + .2860 X AMA MIN + -.0350 X 40/110 HGT + .0340 X 30/090 HGT + .0338 X 40/100 THK + -.0209 X 40/080 THK +

DRT MIN R= .86585 STANDARD ERROR = 4.93364 REDUCTION OF VARIANCE = .74969 STD. DEV. OF PND. 9.86113

DRT MIN = -107.4488 + .4946 X DRT MIN + .0533 X 30/100 THK + .0441 X 40/100 THK + -.0300 X 35/115 HGT + -.0222 X 40/080 THK +

Southeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MAX R= .90048 STANDARD ERROR = 4.90180 REDUCTION OF VARIANCE = .81087 STD. DEV. OF PND. 11.27136

SBY MAX = -91.8623 + .0458 X 40/080 THK + .1721 X CRW MAX + -.0265 X 45/085 HGT + .3085 X NYC MIN + .0203 X 35/075 HGT + .1986 X IND MAX +

DCA MAX R= .88039 STANDARD ERROR = 5.29975 REDUCTION OF VARIANCE = .77510 STD. DEV. OF PND. 11.17521

DCA MAX = -38.4307 + .4297 X NYC MIN + .2161 X STL MAX + .1825 X CRW MAX + -.0182 X 50/080 HGT + .0375 X 40/080 THK +

CRW MAX R= .91719 STANDARD ERROR = 5.39703 REDUCTION OF VARIANCE = .84125 STD. DEV. OF PND. 13.54537

CRW MAX = -285.1598 + .0631 X 40/080 THK + .1207 X CBI MAX + .0311 X 35/075 HGT + .0472 X 40/090 THK + -.0309 X 45/095 HGT + .2343 X LOU MAX +

HTS MAX R= .90095 STANDARD ERROR = 5.65348 REDUCTION OF VARIANCE = .81170 STD. DEV. OF PND. 13.02852

HTS MAX = -282.0788 + .0547 X 40/080 THK + .2999 X STL MAX + .0562 X 40/090 THK + .0267 X 35/075 HGT + -.0266 X 45/095 HGT +

LOU MAX R= .90758 STANDARD ERROR = 5.39017 REDUCTION OF VARIANCE = .82371 STD. DEV. OF PND. 12.83759

LOU MAX = -278.1887 + .1148 X 40/090 THK + .3001 X STL MAX + -.0597 X 40/090 HGT + .0541 X 35/085 HGT +

ORF MAX R= .89605 STANDARD ERROR = 5.36725 REDUCTION OF VARIANCE = .80290 STD. DEV. OF PND. 12.08955

ORF MAX = -176.4933 + .3511 X RIC MIN + .0799 X 40/080 THK + -.0030 X 45/085 HGT + .2837 X LOU MAX + .0643 X 35/075 HGT + -.0668 X 40/080 HGT + -.1908 X MGM MIN +

RIC MAX R= .87754 STANDARD ERROR = 5.64506 REDUCTION OF VARIANCE = .77007 STD. DEV. OF PND. 11.77256

RIC MAX = -146.3572 + .3185 X LOU MAX + .0658 X 40/080 THK + -.0363 X 45/075 HGT + .3871 X NYC MIN + .0289 X 30/080 HGT +

ROA MAX R= .86572 STANDARD ERROR = 5.75063 REDUCTION OF VARIANCE = .74948 STD. DEV. OF PND. 11.48921

ROA MAX = -201.2944 + .0737 X 40/080 THK + .2899 X LOU MAX + -.0373 X 45/075 HGT + .0422 X 35/085 HGT + .2528 X NYC MIN +

HAT MAX R= .88052 STANDARD ERROR = 4.57786 REDUCTION OF VARIANCE = .77531 STD. DEV. OF PND. 9.65766

HAT MAX = -67.0330 + .0610 X 35/075 THK + .2130 X BNA MAX + .0266 X 35/065 HGT + -.0227 X 40/090 HGT + .2157 X RIC MIN + -.0297 X 35/065 THK +

RDU MAX R= .88067 STANDARD ERROR = 5.51117 REDUCTION OF VARIANCE = .77559 STD. DEV. OF PND. 11.63378

RDU MAX = -191.6780 + .3786 X ROA MIN + .3490 X BNA MAX + .0728 X 40/080 THK + -.0288 X 45/075 HGT + .0327 X 30/080 HGT + -.1989 X MGM MIN +

GSO MAX R= .87229 STANDARD ERROR = 5.50288 REDUCTION OF VARIANCE = .76088 STD. DEV. OF PND. 11.25340

GSO MAX = -141.6053 + .4309 X ROA MIN + .1006 X STL MAX + .2674 X BNA MAX + .0330 X 35/085 HGT + -.0289 X 45/075 HGT + .0540 X 40/080 THK + -.1810 X MGM MIN +

TYS MAX R= .88242 STANDARD ERROR = 5.52344 REDUCTION OF VARIANCE = .77866 STD. DEV. OF PND. 11.74031

TYS MAX = -274.1003 + .1052 X 35/085 THK + .2196 X FSM MAX + .2076 X TYS MAX +

BNA MAX R= .90150 STANDARD ERROR = 5.52900 REDUCTION OF VARIANCE = .81271 STD. DEV. OF PND. 12.77587

BNA MAX = -271.1139 + .1072 X 40/090 THK + .3395 X FSM MAX + .0678 X 35/085 HGT + -.0690 X 40/090 HGT +

MEM MAX R= .89710 STANDARD ERROR = 5.63889 REDUCTION OF VARIANCE = .80480 STD. DEV. OF PND. 12.76291

MEM MAX = -290.4112 + .0704 X 40/090 THK + .3329 X FSM MAX + .0603 X 35/095 THK + -.0516 X 40/090 HGT + .0349 X 35/085 HGT +

LIT MAX R= .88126 STANDARD ERROR = 6.02558 REDUCTION OF VARIANCE = .77661 STD. DEV. OF PND. 12.74882

LIT MAX = -236.9198 + .0775 X 35/095 THK + .3272 X OKC MAX + .0591 X 40/090 THK + -.0391 X 40/090 HGT +

FSM MAX R= .87942 STANDARD ERROR = 6.11312 REDUCTION OF VARIANCE = .77338 STD. DEV. OF PND. 12.84157

FSM MAX = -271.6586 + .0746 X 35/095 THK + .3451 X OKC MAX + .0605 X 40/100 THK + -.0276 X 45/095 HGT +

CHS MAX R= .88676 STANDARD ERROR = 4.90597 REDUCTION OF VARIANCE = .78635 STD. DEV. OF PND. 10.61388

CHS MAX = -149.7143 + .2524 X RDU MIN + .2676 X JAN MAX + .0713 X 35/085 THK + -.0407 X 40/080 HGT + .0337 X 35/075 HGT +

CLT MAX R= .85486 STANDARD ERROR = 5.61129 REDUCTION OF VARIANCE = .73078 STD. DEV. OF PND. 10.81461

CLT MAX = -101.2141 + .4483 X ROA MIN + .1622 X STL MAX + .1770 X JAN MAX + -.2192 X MGM MIN + .0433 X 35/085 THK + .1648 X CLT MAX +

AGS MAX R= .86066 STANDARD ERROR = 5.56973 REDUCTION OF VARIANCE = .74074 STD. DEV. OF PND. 10.93871

AGS MAX = -165.1392 + .0672 X 35/085 THK + .2340 X LIT MAX + .2166 X AGS MAX + .2095 X DCA MIN +

AHN MAX R= .85845 STANDARD ERROR = 5.27335 REDUCTION OF VARIANCE = .73693 STD. DEV. OF PND. 10.28132

AHN MAX = -132.1268 + .3636 X ATL MAX + .0576 X 35/085 THK + .1552 X LIT MAX + -.2194 X TPA MIN + .2111 X ROA MIN +

ATL MAX R= .87138 STANDARD ERROR = 5.33890 REDUCTION OF VARIANCE = .75931 STD. DEV. OF PND. 10.88228

ATL MAX = -208.5693 + .0847 X 35/085 THK + .2605 X LIT MAX + .5029 X ATL MIN + -.3201 X MGM MIN +

BHM MAX R= .88486 STANDARD ERROR = 5.34233 REDUCTION OF VARIANCE = .78298 STD. DEV. OF PND. 11.46781

BHM MAX = -353.3475 + .0962 X 35/085 THK + .2354 X SHV MAX + .0413 X 35/095 THK +

JAN MAX R= .89484 STANDARD ERROR = 5.60377 REDUCTION OF VARIANCE = .80074 STD. DEV. OF PND. 12.55370

JAN MAX = -272.2580 + .1122 X 35/095 THK + .1536 X MOB MIN + .2917 X SHV MAX + -.0659 X 35/095 HGT + .0595 X 30/090 HGT +

SHV MAX R= .89059 STANDARD ERROR = 5.69633 REDUCTION OF VARIANCE = .79316 STD. DEV. OF PND. 12.52498

SHV MAX = -264.7985 + .1376 X 35/095 THK + .3260 X FTW MAX + -.0309 X 40/090 HGT +

JAX MAX R= .89901 STANDARD ERROR = 4.37772 REDUCTION OF VARIANCE = .80822 STD. DEV. OF PND. 9.99649

JAX MAX = -167.5820 + .0767 X 35/085 THK + .2696 X MSY MAX + .2138 X JAX MIN + -.0402 X 40/080 HGT + .0348 X 35/075 HGT +

TLH MAX R= .88986 STANDARD ERROR = 4.34679 REDUCTION OF VARIANCE = .79186 STD. DEV. OF PND. 9.52768

TLH MAX = -272.2361 + .0566 X 35/085 THK + .2795 X MOB MAX + .0535 X 30/090 THK +

MGM MAX R= .88778 STANDARD ERROR = 5.23264 REDUCTION OF VARIANCE = .78815 STD. DEV. OF PND. 11.36865

MGM MAX = -314.8964 + .0883 X 35/085 THK + .2841 X JAN MAX + .0361 X 35/095 THK +

MOB MAX R= .88956 STANDARD ERROR = 4.69095 REDUCTION OF VARIANCE = .79131 STD. DEV. OF PND. 10.26865

MOB MAX = -182.9050 + .1000 X 30/090 THK + .2494 X JAN MAX + -.0650 X 25/085 THK + .0458 X 35/085 THK +

MSY MAX R= .89559 STANDARD ERROR = 4.80483 REDUCTION OF VARIANCE = .80209 STD. DEV. OF PND. 10.80046

MSY MAX = -84.4087 + .2967 X MOB MIN + .1447 X MAF MAX + .1037 X 30/090 THK + -.0625 X 25/085 THK + .1585 X LCH MAX +

LCH MAX R= .87812 STANDARD ERROR = 5.23392 REDUCTION OF VARIANCE = .77109 STD. DEV. OF PND. 10.93941

LCH MAX = -164.9597 + .4079 X LCH MIN + .0672 X 30/100 THK + .2122 X FTW MAX +

HOU MAX R= .90062 STANDARD ERROR = 4.94459 REDUCTION OF VARIANCE = .81111 STD. DEV. OF PND. 11.37707

HOU MAX = -238.9553 + .0645 X 30/100 THK + .2319 X FTW MAX + .1856 X LCH MIN + .0565 X 35/095 THK + -.0240 X 40/090 HGT +

CRP MAX R= .88182 STANDARD ERROR = 5.23344 REDUCTION OF VARIANCE = .77761 STD. DEV. OF PND. 11.09763

CRP MAX = -158.1005 + .1331 X 30/100 THK + .2212 X FTW MAX + -.0702 X 30/100 HGT + .0463 X 30/110 HGT + .2409 X BRO MIN + -.0119 X 25/095 THK +

BRO MAX R= .87185 STANDARD ERROR = 4.82866 REDUCTION OF VARIANCE = .76012 STD. DEV. OF PND. 9.85903

BRO MAX = -163.2237 + .1079 X 30/100 THK + .2475 X ORT MAX + -.0677 X 30/100 HGT + .1791 X BRO MIN + .0333 X 35/105 HGT +

ORL MAX R= .89432 STANDARD ERROR = 3.90068 REDUCTION OF VARIANCE = .79981 STD. DEV. OF PND. 8.71812

ORL MAX = -176.6996 + .2936 X ORL MIN + .0434 X 30/090 THK + .0219 X 30/080 THK + .1701 X MSY MAX + .0455 X 30/080 HGT + -.0355 X 30/090 HGT +

TPA MAX R= .90174 STANDARD ERROR = 3.44721 REDUCTION OF VARIANCE = .81314 STD. DEV. OF PND. 7.97455

TPA MAX = -176.5051 + .0428 X 30/090 THK + .4471 X EYW MIN + .0274 X 35/075 HGT + .1533 X MOB MAX +

MIA MAX R= .87033 STANDARD ERROR = 2.93475 REDUCTION OF VARIANCE = .75747 STD. DEV. OF PND. 5.95918

MIA MAX = -187.5336 + .0515 X 30/080 THK + .3995 X EYW MIN + -.0134 X 40/080 THK + .0414 X 25/085 THK +

EYW MAX R= .87747 STANDARD ERROR = 2.84471 REDUCTION OF VARIANCE = .76995 STD. DEV. OF PND. 5.93095

EYW MAX = -141.2960 + .5989 X EYW MIN + .0595 X 25/085 THK +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MIN R= .82946 STANDARD ERROR = 5.66017 REDUCTION OF VARIANCE = .68800 STD. DEV. OF PND. 10.13337

SBY MIN = -180.9765 + .0716 X 40/080 THK + .2970 X CMH MIN + .2122 X ORF MAX + -.1932 X GSO MAX +

DCA MIN R= .86968 STANDARD ERROR = 4.27396 REDUCTION OF VARIANCE = .75634 STD. DEV. OF PND. 8.65844

DCA MIN = -109.4560 + .1813 X CMH MIN + .0449 X 40/080 THK + .1894 X PHL MIN + .1428 X STL MIN +

CRW MIN R= .86495 STANDARD ERROR = 6.02338 REDUCTION OF VARIANCE = .74814 STD. DEV. OF PND. 12.00220

CRW MIN = -227.6033 + .0263 X 40/080 THK + .2669 X STL MIN + .0237 X 40/070 HGT + .2388 X LOU MIN + .0346 X 40/090 THK +

HTS MIN R= .85012 STANDARD ERROR = 5.99402 REDUCTION OF VARIANCE = .72271 STD. DEV. OF PND. 11.38275

HTS MIN = -196.7780 + .2858 X STL MIN + .2707 X HTS MIN + .0502 X 40/090 THK + .0230 X 40/070 HGT +

LOU MIN R= .87450 STANDARD ERROR = 5.71805 REDUCTION OF VARIANCE = .76474 STD. DEV. OF PND. 11.78900

LOU MIN = -205.8244 + .3608 X STL MIN + .0537 X 40/090 THK + .0230 X 40/080 HGT + .1711 X LOU MIN +

ORF MIN R= .87578 STANDARD ERROR = 4.19544 REDUCTION OF VARIANCE = .76699 STD. DEV. OF PND. 8.69135

ORF MIN = -109.4834 + .0433 X 40/080 THK + .2757 X LOU MIN + .0166 X 35/065 HGT + .1501 X ORF MIN + -.0141 X 40/100 HGT +

RIC MIN R= .85664 STANDARD ERROR = 5.14052 REDUCTION OF VARIANCE = .73384 STD. DEV. OF PND. 9.96405

RIC MIN = -209.4912 + .0609 X 40/080 THK + .3455 X LOU MIN + .0189 X 35/065 HGT +

ROA MIN R= .85712 STANDARD ERROR = 4.96434 REDUCTION OF VARIANCE = .73465 STD. DEV. OF PND. 9.63718

ROA MIN = -123.9988 + .4016 X LOU MIN + .0620 X 40/080 THK + -.0116 X 50/080 HGT +

HAT MIN R= .85563 STANDARD ERROR = 4.58112 REDUCTION OF VARIANCE = .73211 STD. DEV. OF PND. 8.85100

HAT MIN = -162.7412 + .0445 X 40/080 THK + .2224 X HAT MIN + .2076 X BNA MIN + .0204 X 35/065 HGT +

RDU MIN R= .83350 STANDARD ERROR = 6.04798 REDUCTION OF VARIANCE = .69471 STD. DEV. OF PND. 10.94605

RDU MIN = -166.0752 + .0649 X 40/080 THK + .2532 X BHM MIN + .1996 X LOU MIN +

GSO MIN R= .87427 STANDARD ERROR = 4.83951 REDUCTION OF VARIANCE = .76434 STD. DEV. OF PND. 9.96915

GSO MIN = -190.2713 + .0385 X 40/080 THK + .2306 X BHM MIN + .1686 X LOU MIN + .0341 X 35/085 THK +

TYS MIN R= .88336 STANDARD ERROR = 5.23787 REDUCTION OF VARIANCE = .78032 STD. DEV. OF PND. 11.17539

TYS MIN = -178.9736 + .4087 X BHM MIN + .2563 X STL MIN + .0288 X 35/075 HGT + .0353 X 35/095 THK +

BNA MIN R= .86805 STANDARD ERROR = 6.14337 REDUCTION OF VARIANCE = .75352 STD. DEV. OF PND. 12.37408

BNA MIN = -271.7147 + .0598 X 40/090 THK + .2899 X MEM MIN + .0379 X 30/080 HGT + .2703 X CBI MIN +

MEM MIN R= .87879 STANDARD ERROR = 5.45868 REDUCTION OF VARIANCE = .77226 STD. DEV. OF PND. 11.43858

MEM MIN = -197.6830 + .0349 X 35/095 THK + .2464 X CBI MIN + -.0354 X 40/110 HGT + .0311 X 30/080 HGT + .0446 X 40/100 THK + .2397 X MEM MIN +

LIT MIN R= .87145 STANDARD ERROR = 5.25713 REDUCTION OF VARIANCE = .75942 STD. DEV. OF PND. 10.71809

LIT MIN = -142.7279 + .0188 X 35/095 THK + .3193 X OKC MIN + .2531 X LIT MIN + -.0295 X 40/110 HGT + .0397 X 40/100 THK + .0266 X 35/085 HGT +

FSM MIN R= .85234 STANDARD ERROR = 5.23487 REDUCTION OF VARIANCE = .72648 STD. DEV. OF PND. 10.00946

FSM MIN = -137.5667 + .0182 X 35/095 THK + .3245 X OKC MIN + .0270 X 40/090 HGT + -.0316 X 40/110 HGT + .0406 X 40/100 THK + .1580 X DRT MIN +

CHS MIN R= .87210 STANDARD ERROR = 4.94421 REDUCTION OF VARIANCE = .76056 STD. DEV. OF PND. 10.10410

CHS MIN = -142.7182 + .3834 X MGM MIN + .0689 X 35/085 THK + .0207 X 35/065 HGT + -.0247 X 35/095 HGT +

CLT MIN R= .87217 STANDARD ERROR = 4.84243 REDUCTION OF VARIANCE = .76069 STD. DEV. OF PND. 9.89873

CLT MIN = -191.2327 + .0731 X 35/085 THK + .2848 X BHM MIN + .1418 X CLE MIN +

AGS MIN R= .85454 STANDARD ERROR = 5.40774 REDUCTION OF VARIANCE = .73024 STD. DEV. OF PND. 10.41182

AGS MIN = -231.2647 + .4047 X BHM MIN + .0588 X 35/085 THK + .0267 X 30/070 HGT +

AHN MIN R= .88842 STANDARD ERROR = 4.69871 REDUCTION OF VARIANCE = .78928 STD. DEV. OF PND. 10.23600

AHN MIN = -195.9854 + .4194 X BHM MIN + .0749 X 35/085 THK +

ATL MIN R= .88460 STANDARD ERROR = 4.81202 REDUCTION OF VARIANCE = .78252 STD. DEV. OF PND. 10.31851

ATL MIN = -243.8557 + .0659 X 35/085 THK + .2957 X BHM MIN + .1081 X STL MIN + .0264 X 35/095 THK +

BHM MIN R= .87756 STANDARD ERROR = 5.73093 REDUCTION OF VARIANCE = .77011 STD. DEV. OF PND. 11.95261

BHM MIN = -199.1203 + .1681 X MEM MIN + .0377 X 35/075 HGT + .0786 X 35/095 THK + -.0395 X 35/105 HGT +
.2326 X BHM MIN +

JAN MIN R= .87969 STANDARD ERROR = 5.60667 REDUCTION OF VARIANCE = .77385 STD. DEV. OF PND. 11.78983

JAN MIN = -279.3521 + .0837 X 35/095 THK + .0445 X 30/080 HGT + .4076 X FSM MIN + -.0248 X 40/110 HGT +

SHV MIN R= .88552 STANDARD ERROR = 5.09569 REDUCTION OF VARIANCE = .78415 STD. DEV. OF PND. 10.96806

SHV MIN = -199.1638 + .0497 X 35/095 THK + .2611 X OKC MIN + .0233 X 35/085 HGT + -.0286 X 40/110 HGT +
.0334 X 40/100 THK + .1911 X SAT MIN +

JAX MIN R= .88920 STANDARD ERROR = 4.66403 REDUCTION OF VARIANCE = .79067 STD. DEV. OF PND. 10.19413

JAX MIN = -112.6247 + .2521 X MOB MIN + .0319 X 35/075 HGT + -.0363 X 30/100 HGT + .2522 X JAX MIN +
.0514 X 30/090 THK +

TLH MIN R= .89159 STANDARD ERROR = 4.91605 REDUCTION OF VARIANCE = .79493 STD. DEV. OF PND. 10.85581

TLH MIN = -161.3090 + .0653 X 30/090 THK + .3245 X TLH MIN + .0303 X 35/075 HGT + -.0337 X 30/100 HGT +
.2230 X LCH MIN +

MGM MIN R= .89103 STANDARD ERROR = 5.10462 REDUCTION OF VARIANCE = .79393 STD. DEV. OF PND. 11.24495

MGM MIN = -134.6113 + .0120 X 35/085 THK + .1791 X JAN MIN + -.0321 X 35/105 HGT + .0278 X 35/075 HGT +
.0456 X 35/095 THK + .3250 X MOB MIN +

MOB MIN R= .89912 STANDARD ERROR = 5.03340 REDUCTION OF VARIANCE = .80842 STD. DEV. OF PND. 11.49968

MOB MIN = -200.5235 + .0018 X 35/085 THK + .2508 X LCH MIN + .0693 X 35/095 THK + -.0378 X 35/105 HGT +
.0424 X 30/080 HGT + .2363 X MOB MIN +

MSY MIN R= .88645 STANDARD ERROR = 5.01215 REDUCTION OF VARIANCE = .78580 STD. DEV. OF PND. 10.82969

MSY MIN = -217.2698 + .2341 X MSY MIN + .0670 X 35/095 THK + .0392 X 30/080 HGT + -.0240 X 35/105 HGT +
.2379 X LCH MIN +

LCH MIN R= .87605 STANDARD ERROR = 5.12032 REDUCTION OF VARIANCE = .76746 STD. DEV. OF PND. 10.61804

LCH MIN = -187.9690 + .0603 X 35/095 THK + .2961 X HOU MIN + .0341 X 30/080 HGT + -.0218 X 40/110 HGT +
.2138 X AMA MIN +

HOU MIN R= .87772 STANDARD ERROR = 5.13304 REDUCTION OF VARIANCE = .77040 STD. DEV. OF PND. 10.71246

HOU MIN = -140.7709 + .0260 X 35/095 THK + .3099 X CRP MIN + -.0356 X 40/110 HGT + .2720 X AMA MIN +
.0376 X 30/090 HGT + .0282 X 40/100 THK +

CRP MIN R= .87152 STANDARD ERROR = 5.34187 REDUCTION OF VARIANCE = .75954 STD. DEV. OF PND. 10.89363

CRP MIN = -97.4313 + .0213 X 35/095 THK + .3945 X CRP MIN + .0308 X 40/100 THK + -.0448 X 40/110 HGT +
.0521 X 25/095 HGT + .2871 X AMA MIN + -.0202 X 40/080 THK +

BRO MIN R= .86500 STANDARD ERROR = 5.21102 REDUCTION OF VARIANCE = .74823 STD. DEV. OF PND. 10.38532

BRO MIN = -117.8920 + .0629 X 30/100 THK + .3178 X CRP MIN + .0208 X 40/100 THK + -.0370 X 40/110 HGT +
.0365 X 30/090 HGT + -.0333 X 35/085 THK + .1832 X OKC MIN +

ORL MIN R= .89197 STANDARD ERROR = 3.90949 REDUCTION OF VARIANCE = .79561 STD. DEV. OF PND. 8.64752

ORL MIN = -78.7736 + .1612 X TLH MIN + .0428 X 35/075 HGT + .0175 X 25/095 THK + -.0480 X 25/095 HGT +
.3084 X ORL MIN + -.0159 X 40/070 THK +

TPA MIN R= .88635 STANDARD ERROR = 4.06848 REDUCTION OF VARIANCE = .78561 STD. DEV. OF PND. 8.78676

TPA MIN = -78.4116 + .2304 X TLH MIN + .0317 X 35/075 HGT + .0155 X 25/095 THK + -.0480 X 25/095 HGT +
.3022 X TPA MAX +

MIA MIN R= .87382 STANDARD ERROR = 4.08669 REDUCTION OF VARIANCE = .76356 STD. DEV. OF PND. 8.40450

MIA MIN = -53.5521 + .0465 X 35/075 HGT + .4518 X MIA MIN + .0160 X 25/095 THK + -.0508 X 25/095 HGT +
-.0189 X 40/070 THK +

EYW MIN R= .89267 STANDARD ERROR = 2.60942 REDUCTION OF VARIANCE = .79686 STD. DEV. OF PND. 5.78961

EYW MIN = -44.9779 + .5580 X EYW MIN + .0201 X 35/075 HGT + .0123 X 25/095 THK + -.0263 X 25/095 HGT +
-.0093 X 45/065 THK +

Northeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MAX R= .89691 STANDARD ERROR = 4.86882 REDUCTION OF VARIANCE = .80445 STD. DEV. OF PND. 11.01020

CAR MAX = -199.4747 + .0495 X 45/065 THK + .1809 X YB MAX + .0476 X 50/070 THK + .2106 X QB MAX + -.0215 X 50/070 HGT + .0172 X 40/060 HGT + -.0336 X 40/060 THK +

SSM MAX R= .89640 STANDARD ERROR = 4.29885 REDUCTION OF VARIANCE = .80354 STD. DEV. OF PND. 9.69871

SSM MAX = -149.6936 + .0620 X 45/085 THK + .2763 X SSM MIN + .1438 X LH MAX +

PWM MAX R= .86863 STANDARD ERROR = 4.67036 REDUCTION OF VARIANCE = .75452 STD. DEV. OF PND. 9.42635

PWM MAX = -2.0475 + .3802 X BOS MIN + .0498 X 45/065 THK + .2196 X YB MAX + -.0111 X 55/075 HGT + -.0293 X 35/065 THK +

BTV MAX R= .90472 STANDARD ERROR = 4.75371 REDUCTION OF VARIANCE = .81853 STD. DEV. OF PND. 11.15905

BTV MAX = -83.6327 + .3410 X YB MAX + .0581 X 45/075 THK + -.0204 X 55/085 HGT + .2040 X BTV MIN +

SYR MAX R= .89890 STANDARD ERROR = 4.88625 REDUCTION OF VARIANCE = .80801 STD. DEV. OF PND. 11.15167

SYR MAX = -140.3161 + .0612 X 45/075 THK + -.0233 X 55/085 HGT + .2729 X BUF MIN + .2783 X GRR MAX + .0187 X 40/070 HGT +

BUF MAX R= .91554 STANDARD ERROR = 4.47912 REDUCTION OF VARIANCE = .83821 STD. DEV. OF PND. 11.13558

BUF MAX = -261.9076 + -.0100 X 40/080 THK + .0544 X 45/075 THK + -.0086 X 50/090 HGT + .0630 X 45/085 THK + .2316 X IND MAX + .0527 X 40/080 HGT + -.0486 X 45/085 HGT +

DET MAX R= .91508 STANDARD ERROR = 4.13064 REDUCTION OF VARIANCE = .83737 STD. DEV. OF PND. 10.24262

DET MAX = -170.0578 + .0737 X 45/085 THK + .2155 X BTA MAX + -.0381 X 45/085 HGT + .0332 X 40/080 HGT + .2309 X DET MIN +

ENT MAX R= .90630 STANDARD ERROR = 4.24921 REDUCTION OF VARIANCE = .82137 STD. DEV. OF PND. 10.05394

ENT MAX = -140.9227 + .0763 X 45/085 THK + .2077 X MLI MAX + -.0175 X 50/090 HGT + .2460 X DET MIN +

GRR MAX R= .90408 STANDARD ERROR = 4.00776 REDUCTION OF VARIANCE = .81735 STD. DEV. OF PND. 9.37770

GRR MAX = -152.7502 + .0603 X 45/085 THK + .1615 X DSM MAX + .2623 X DET MIN + .0280 X 40/090 HGT + -.0258 X 45/095 HGT +

MKE MAX R= .90392 STANDARD ERROR = 4.63435 REDUCTION OF VARIANCE = .81707 STD. DEV. OF PND. 10.83555

MKE MAX = -199.6029 + .0512 X 40/090 THK + .2439 X MKE MIN + .2095 X MSN MAX + .0274 X 45/095 THK +

GRB MAX R= .91075 STANDARD ERROR = 4.3661 REDUCTION OF VARIANCE = .82947 STD. DEV. OF PND. 10.57417

GRB MAX = -199.9952 + .0536 X 45/085 THK + .2045 X MSN MIN + .1826 X STC MAX + .0262 X 45/095 THK +

MSN MAX R= .89820 STANDARD ERROR = 4.92832 REDUCTION OF VARIANCE = .80675 STD. DEV. OF PND. 11.21101

MSN MAX = -208.2834 + .0359 X 45/085 THK + .0471 X 45/095 THK + .1907 X DSM MAX + .2169 X MSN MIN +

ACK MAX R= .86950 STANDARD ERROR = 3.62779 REDUCTION OF VARIANCE = .75603 STD. DEV. OF PND. 7.34467

ACK MAX = -110.8749 + .0387 X 40/070 THK + .2521 X BOS MIN + .1358 X BUF MAX + .0100 X 40/060 HGT +

BOS MAX R= .87820 STANDARD ERROR = 4.60739 REDUCTION OF VARIANCE = .77124 STD. DEV. OF PND. 9.63307

BOS MAX = -104.4645 + .3308 X BOS MIN + .2004 X BUF MAX + .0508 X 45/075 THK + -.0322 X 45/075 HGT + .0274 X 40/070 HGT +

HFD MAX R= .87870 STANDARD ERROR = 4.63863 REDUCTION OF VARIANCE = .77212 STD. DEV. OF PND. 9.71699

HFD MAX = -42.0247 + .3355 X BOS MIN + .1348 X IND MAX + .1352 X YB MAX + -.0119 X 55/075 HGT + .0330 X 45/075 THK + .1342 X HFD MAX +

ALB MAX R= .90155 STANDARD ERROR = 4.35906 REDUCTION OF VARIANCE = .81280 STD. DEV. OF PND. 10.07479

ALB MAX = -74.0491 + .3335 X NYC MIN + .1914 X YB MAX + .0495 X 45/075 THK + -.0170 X 50/080 HGT + .1487 X SYR MAX +

NYC MAX R= .88314 STANDARD ERROR = 4.48233 REDUCTION OF VARIANCE = .77993 STD. DEV. OF PND. 9.55488

NYC MAX = -95.1579 + .4515 X NYC MIN + .2153 X IND MAX + .0162 X 35/065 HGT + .0381 X 45/075 THK + -.0140 X 50/070 HGT +

PHL MAX R= .87394 STANDARD ERROR = 4.99026 REDUCTION OF VARIANCE = .76377 STD. DEV. OF PND. 10.26738

PHL MAX = -31.5964 + .6171 X NYC MIN + .3061 X IND MAX + .0145 X 35/075 HGT +

IPT MAX R= .86919 STANDARD ERROR = 4.46377 REDUCTION OF VARIANCE = .75548 STD. DEV. OF PND. 9.02710

IPT MAX = -45.5073 + .4805 X NYC MIN + .2359 X IND MAX + .0218 X 45/075 THK +

PIT MAX R= .89667 STANDARD ERROR = 5.50326 REDUCTION OF VARIANCE = .80401 STD. DEV. OF PND. 12.43105

PIT MAX = -320.6652 + .1241 X 40/080 THK + .2313 X CBI MAX +

CLE MAX R= .92114 STANDARD ERROR = 4.62589 REDUCTION OF VARIANCE = .84850 STD. DEV. OF PND. 11.88460

CLE MAX = -221.3851 + .0126 X 40/080 THK + .0742 X 45/085 THK + .2338 X IND MAX + -.0464 X 45/085 HGT + .0465 X 40/080 HGT + .2110 X DAY MIN +

CMH MAX R= .90500 STANDARD ERROR = 5.17662 REDUCTION OF VARIANCE = .81902 STD. DEV. OF PND. 12.16842

CMH MAX = -189.9317 + .0602 X 40/080 THK + .1847 X CRI MAX + .2544 X DAY MIN + .0372 X 40/090 THK + -.0200 X 45/095 HGT +

DAY MAX R= .90680 STANDARD ERROR = 5.10154 REDUCTION OF VARIANCE = .82229 STD. DEV. OF PND. 12.10153

DAY MAX = -190.0085 + .0420 X 40/080 THK + .0577 X 40/090 THK + .1983 X CHI MAX + -.0226 X 45/095 HGT + .2293 X DAY MIN +

CVG MAX R= .90066 STANDARD ERROR = 5.45830 REDUCTION OF VARIANCE = .81118 STD. DEV. OF PND. 12.56126

CVG MAX = -277.9797 + .0839 X 40/090 THK + .0491 X 40/080 THK + .2586 X STL MAX + -.0225 X 45/095 HGT +

IND MAX R= .90989 STANDARD ERROR = 5.15727 REDUCTION OF VARIANCE = .82790 STD. DEV. OF PND. 12.43168

IND MAX = -188.2921 + .0962 X 40/090 THK + .2572 X DAY MIN + .1994 X CBI MAX + -.0199 X 45/095 HGT +

CHI MAX R= .89730 STANDARD ERROR = 4.94472 REDUCTION OF VARIANCE = .80515 STD. DEV. OF PND. 11.20190

CHI MAX = -224.7994 + .0573 X 40/090 THK + .1858 X MSN MAX + .2190 X PIA MIN + .0314 X 45/085 THK +

PIA MAX R= .88813 STANDARD ERROR = 5.57326 REDUCTION OF VARIANCE = .78877 STD. DEV. OF PND. 12.12652

PIA MAX = -221.2513 + .0863 X 40/090 THK + .2586 X MKC MIN + .2137 X DSM MAX +

MLI MAX R= .90586 STANDARD ERROR = 5.13126 REDUCTION OF VARIANCE = .82059 STD. DEV. OF PND. 12.11439

MLI MAX = -183.3988 + .0067 X 40/090 THK + .0783 X 45/095 THK + .2712 X DSM MAX + -.0569 X 45/095 HGT + .0454 X 40/090 HGT + .1967 X CHI MIN +

STL MAX R= .90902 STANDARD ERROR = 5.59019 REDUCTION OF VARIANCE = .82631 STD. DEV. OF PND. 13.41336

STL MAX = -135.4599 + .0875 X 40/090 THK + .2867 X MKC MAX + .0311 X 40/100 THK + -.0401 X 45/095 HGT + .2918 X STL MIN + -.0529 X 35/085 THK + .0306 X 35/085 HGT +

CRI MAX R= .89560 STANDARD ERROR = 6.09819 REDUCTION OF VARIANCE = .80211 STD. DEV. OF PND. 13.70839

CRI MAX = -151.7356 + .2802 X MKC MIN + .0849 X 40/090 THK + .0448 X 40/100 THK + .2574 X MKC MAX + -.0253 X 50/100 HGT + -.0410 X 35/085 THK +

Northeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MIN R= .82150 STANDARD ERROR = 7.74330 REDUCTION OF VARIANCE = .67487 STD. DEV. OF PND. 13.57991

CAR MIN = -314.3120 + .0837 X 50/070 THK + .2334 X BTV MIN + .0448 X 45/085 THK + -.0265 X 40/080 HGT + .0161 X 50/060 HGT +

SSM MIN R= .84502 STANDARD ERROR = 6.56281 REDUCTION OF VARIANCE = .71405 STD. DEV. OF PND. 12.27288

SSM MIN = -179.6228 + .0997 X 50/090 THK + .4612 X SSM MIN + -.0391 X 50/090 HGT + .0413 X 45/075 HGT + -.0339 X 45/075 THK +

PWM MIN R= .82902 STANDARD ERROR = 7.04186 REDUCTION OF VARIANCE = .68728 STD. DEV. OF PND. 12.59245

PWM MIN = -199.1652 + .0717 X 45/075 THK + .2760 X PWM MIN + .2079 X SSM MIN + .0229 X 45/065 HGT + -.0186 X 40/080 HGT +

BTV MIN R= .83210 STANDARD ERROR = 7.77012 REDUCTION OF VARIANCE = .69239 STD. DEV. OF PND. 14.00960

BTV MIN = -129.7180 + .0404 X 45/075 THK + .2575 X SSM MIN + .3539 X BTV MIN + -.0333 X 50/090 HGT + .0495 X 50/080 THK + .0283 X 45/065 HGT + -.0347 X 45/065 THK +

SYR MIN R= .82744 STANDARD ERROR = 6.69769 REDUCTION OF VARIANCE = .68466 STD. DEV. OF PND. 11.92719

SYR MIN = -187.8238 + .0103 X 45/075 THK + .2546 X SSM MIN + -.0292 X 50/090 HGT + .0480 X 45/085 THK + .2406 X SYR MIN + .0218 X 40/070 HGT + .0214 X 55/075 THK +

BUF MIN R= .85781 STANDARD ERROR = 5.43569 REDUCTION OF VARIANCE = .73584 STD. DEV. OF PND. 10.57591

BUF MIN = -184.5735 + .0749 X 45/085 THK + .2153 X SSM MIN + .0164 X 40/070 HGT + -.0190 X 45/095 HGT + .1618 X BUF MIN +

DET MIN R= .85907 STANDARD ERROR = 5.03969 REDUCTION OF VARIANCE = .73801 STD. DEV. OF PND. 9.84602

DET MIN = -190.2535 + .0749 X 45/085 THK + .2026 X PIA MIN + .1308 X SSM MIN +

FNT MIN R= .85207 STANDARD ERROR = 6.02678 REDUCTION OF VARIANCE = .72602 STD. DEV. OF PND. 11.51389

FNT MIN = -222.3348 + .0440 X 45/085 THK + .3014 X FNT MIN + .1113 X MKC MIN + .0279 X 40/080 HGT + -.0327 X 45/095 HGT + .0442 X 45/095 THK +

GRR MIN R= .83429 STANDARD ERROR = 5.91230 REDUCTION OF VARIANCE = .69604 STD. DEV. OF PND. 10.72382

GRR MIN = -218.1475 + .0313 X 45/085 THK + .3394 X GRR MIN + .0602 X 45/095 THK + -.0319 X 45/095 HGT + .0235 X 40/080 HGT +

MKE MIN R= .87092 STANDARD ERROR = 6.22923 REDUCTION OF VARIANCE = .75850 STD. DEV. OF PND. 12.67577

MKE MIN = -239.4283 + .0846 X 45/095 THK + .3531 X MLI MIN + .0300 X 45/085 HGT + -.0242 X 45/105 HGT +

GRB MIN R= .85918 STANDARD ERROR = 6.77559 REDUCTION OF VARIANCE = .73818 STD. DEV. OF PND. 13.24184

GRB MIN = -235.0228 + .0815 X 45/095 THK + .2404 X GRB MIN + .0455 X 45/085 HGT + -.0398 X 45/095 HGT + .1862 X STC MIN +

MSN MIN R= .87040 STANDARD ERROR = 6.68074 REDUCTION OF VARIANCE = .75760 STD. DEV. OF PND. 13.56930

MSN MIN = -223.8965 + .1244 X 45/095 THK + .4092 X MSN MIN + .0568 X 45/085 HGT + -.0554 X 45/095 HGT + -.0424 X 45/085 THK +

ACK MIN R= .80816 STANDARD ERROR = 4.73940 REDUCTION OF VARIANCE = .65312 STD. DEV. OF PND. 8.04696

ACK MIN = -170.2959 + .0513 X 45/075 THK + .0170 X 40/060 HGT + .2552 X DET MIN +

BOS MIN R= .87071 STANDARD ERROR = 4.79443 REDUCTION OF VARIANCE = .75813 STD. DEV. OF PND. 9.74868

BOS MIN = -160.6873 + .0397 X 45/075 THK + .1990 X SSM MIN + .2446 X BOS MIN + .0161 X 40/070 HGT + -.0167 X 50/090 HGT + .0251 X 50/080 THK +

HFD MIN R= .83528 STANDARD ERROR = 6.23334 REDUCTION OF VARIANCE = .69770 STD. DEV. OF PND. 11.33710

HFD MIN = -109.6741 + .0582 X 45/075 THK + .3966 X HFD MIN + .2029 X SSM MIN + .0177 X 40/060 HGT + -.0324 X 40/060 THK +

ALB MIN R= .81589 STANDARD ERROR = 7.47874 REDUCTION OF VARIANCE = .66567 STD. DEV. OF PND. 12.93426

ALB MIN = -198.4986 + .0582 X 45/075 THK + .2666 X ALB MIN + .3261 X SSM MIN + .0160 X 40/070 HGT +

NYC MIN R= .87505 STANDARD ERROR = 4.23787 REDUCTION OF VARIANCE = .76571 STD. DEV. OF PND. 8.75523

NYC MIN = -114.5161 + .0127 X 40/080 THK + .2088 X SSM MIN + .3002 X NYC MIN + -.0157 X 50/090 HGT + .0357 X 45/085 THK + .0145 X 40/070 HGT +

PHL MIN R= .86746 STANDARD ERROR = 4.53762 REDUCTION OF VARIANCE = .75249 STD. DEV. OF PND. 9.12070

PHL MIN = -179.1776 + .1686 X CMH MIN + .0432 X 45/075 THK + .2970 X PHL MIN + .1934 X STL MIN + .0245 X 30/070 HGT + -.1275 X ROA MAX +

IPT MIN R= .82641 STANDARD ERROR = 6.09763 REDUCTION OF VARIANCE = .68295 STD. DEV. OF PND. 10.82929

IPT MIN = -133.5549 + .3809 X IND MIN + .0510 X 45/075 THK + .2221 X PHL MIN +

PIT MIN R= .88454 STANDARD ERROR = 5.47070 REDUCTION OF VARIANCE = .78241 STD. DEV. OF PND. 11.72790

PIT MIN = -273.0374 + .0328 X 40/080 THK + .3581 X STL MIN + .0437 X 45/085 THK + .2378 X PIT MIN + .0256 X 35/075 HGT + -.1798 X TYS MAX +

CLE MIN R= .86956 STANDARD ERROR = 5.58678 REDUCTION OF VARIANCE = .75613 STD. DEV. OF PND. 11.31309

CLE MIN = -136.4123 + .0723 X 45/085 THK + .2993 X STL MIN + .1994 X CLE MIN + -.0181 X 50/110 HGT +

CMH MIN R= .86726 STANDARD ERROR = 5.91480 REDUCTION OF VARIANCE = .75214 STD. DEV. OF PND. 11.88053

CMH MIN = -191.6136 + .4250 X IND MIN + .0728 X 40/090 THK + .0349 X 40/080 HGT + -.0349 X 40/090 HGT +

DAY MIN R= .86831 STANDARD ERROR = 5.87414 REDUCTION OF VARIANCE = .75396 STD. DEV. OF PND. 11.84230

DAY MIN = -245.2869 + .0919 X 40/090 THK + .3906 X IND MIN +

CVG MIN R= .88781 STANDARD ERROR = 5.64745 REDUCTION OF VARIANCE = .78820 STD. DEV. OF PND. 12.27125

CVG MIN = -267.4970 + .0698 X 40/090 THK + .3176 X IND MIN + .0274 X 35/075 HGT + .2033 X MKC MIN +

IND MIN R= .89341 STANDARD ERROR = 5.39954 REDUCTION OF VARIANCE = .79818 STD. DEV. OF PND. 12.01904

IND MIN = -187.3498 + .0200 X 40/090 THK + .3266 X IND MIN + .0455 X 45/095 THK + .0303 X 40/080 HGT + -.0252 X 45/105 HGT + .2018 X MKC MIN +

CHI MIN R= .87716 STANDARD ERROR = 6.21671 REDUCTION OF VARIANCE = .76941 STD. DEV. OF PND. 12.94609

CHI MIN = -223.8578 + .0859 X 45/095 THK + .3951 X CHI MIN + .0286 X 45/085 HGT + -.0292 X 45/105 HGT +

PIA MIN R= .87587 STANDARD ERROR = 5.99336 REDUCTION OF VARIANCE = .76714 STD. DEV. OF PND. 12.42007

PIA MIN = -222.8994 + .0847 X 45/095 THK + .4008 X PIA MIN + -.0314 X 45/105 HGT + .0311 X 40/090 HGT +

MLI MIN R= .86692 STANDARD ERROR = 6.61315 REDUCTION OF VARIANCE = .75154 STD. DEV. OF PND. 13.26735

MLI MIN = -219.0869 + .0797 X 45/095 THK + .2861 X MLI MIN + -.0293 X 45/105 HGT + .0314 X 40/090 HGT + .1964 X OMA MIN +

STL MIN R= .87719 STANDARD ERROR = 5.57533 REDUCTION OF VARIANCE = .76946 STD. DEV. OF PND. 11.61172

STL MIN = -156.6610 + .0349 X 45/095 THK + .3313 X STL MIN + .0429 X 40/090 HGT + -.0476 X 45/105 HGT + .1891 X OMA MIN + .0310 X 45/105 THK +

CBI MIN R= .87340 STANDARD ERROR = 5.76771 REDUCTION OF VARIANCE = .76282 STD. DEV. OF PND. 11.84311

CBI MIN = -218.8826 + .0406 X 45/095 THK + .4145 X MKC MIN + .0015 X 50/110 HGT + .0444 X 40/090 HGT + .0459 X 45/105 THK + -.0495 X 45/105 HGT +

Northwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MAX R= .93574 STANDARD ERROR = 5.29617 REDUCTION OF VARIANCE = .87562 STD. DEV. OF PND. 15.01685

INL MAX = -289.0549 + .0804 X 50/100 THK + .4150 X WG MAX + .0302 X 45/095 HGT +

DLH MAX R= .92356 STANDARD ERROR = 5.28756 REDUCTION OF VARIANCE = .85296 STD. DEV. OF PND. 13.78916

DLH MAX = -272.0085 + .2482 X FAR MAX + .0824 X 50/090 THK + .0653 X 45/095 HGT + -.0430 X 50/090 HGT + .1545 X PA MAX +

STC MAX R= .93201 STANDARD ERROR = 5.53818 REDUCTION OF VARIANCE = .86863 STD. DEV. OF PND. 15.28012

STC MAX = -281.9054 + .2870 X FAR MAX + .0774 X 45/095 THK + .2168 X QR MAX + .0289 X 40/100 HGT +

FAR MAX R= .93685 STANDARD ERROR = 5.83438 REDUCTION OF VARIANCE = .87769 STD. DEV. OF PND. 16.68287

FAR MAX = -207.8362 + .0656 X 50/100 THK + .3292 X FAR MAX + .2715 X QR MAX + .0400 X 45/095 HGT + -.0256 X 55/105 HGT +

BIS MAX R= .92403 STANDARD ERROR = 6.64463 REDUCTION OF VARIANCE = .85383 STD. DEV. OF PND. 17.37953

BIS MAX = -390.2125 + .3505 X QR MAX + .1119 X 45/105 THK + .3087 X BIS MAX + -.2576 X CPR MAX + .0338 X 40/100 HGT +

ISN MAX R= .93642 STANDARD ERROR = 6.04169 REDUCTION OF VARIANCE = .87687 STD. DEV. OF PND. 17.21803

ISN MAX = -312.2584 + .1102 X 50/110 THK + .3328 X GGW MAX + .2073 X DAY OF YR + -.0591 X 55/105 HGT + .0623 X 50/100 HGT +

GGW MAX R= .94055 STANDARD ERROR = 5.87134 REDUCTION OF VARIANCE = .88464 STD. DEV. OF PND. 17.28678

GGW MAX = -313.4725 + .0912 X 50/110 THK + .4461 X GGW MIN + .0574 X 45/105 HGT + -.0338 X 60/110 HGT + .1877 X DAY OF YR +

BIL MAX R= .93545 STANDARD ERROR = 5.47572 REDUCTION OF VARIANCE = .87507 STD. DEV. OF PND. 15.49212

BIL MAX = -291.9082 + .0728 X 50/110 THK + .2258 X HLN MAX + .0814 X 45/105 HGT + -.0433 X 55/115 HGT + .3427 X BIL MIN +

GTF MAX R= .92882 STANDARD ERROR = 5.87857 REDUCTION OF VARIANCE = .86270 STD. DEV. OF PND. 15.86481

GTF MAX = -458.6245 + .4167 X GTF MIN + .0853 X 45/115 HGT + .0709 X 50/110 THK + -.0515 X 50/120 HGT + .0676 X 50/120 THK +

HLN MAX R= .92190 STANDARD ERROR = 5.56633 REDUCTION OF VARIANCE = .84989 STD. DEV. OF PND. 14.36713

HLN MAX = -312.0202 + .3354 X GTF MIN + .0367 X 45/105 HGT + .0715 X 50/120 THK + -.0302 X 55/125 HGT + .2558 X HLN MAX + .0384 X 45/115 HGT +

MSO MAX R= .90489 STANDARD ERROR = 5.08795 REDUCTION OF VARIANCE = .81883 STD. DEV. OF PND. 11.95361

MSO MAX = -266.4716 + .3512 X GEG MAX + .0489 X 45/105 HGT + .1757 X GTF MIN + .0492 X 50/120 THK + .0973 X DAY OF YR +

GEG MAX R= .91726 STANDARD ERROR = 4.05318 REDUCTION OF VARIANCE = .84136 STD. DEV. OF PND. 10.17622

GEG MAX = -270.0148 + .0689 X 50/120 THK + .2544 X YKM MAX + .0302 X 50/110 HGT + .0970 X DAY OF YR + .2306 X SLE MAX +

PDT MAX R= .90101 STANDARD ERROR = 4.07535 REDUCTION OF VARIANCE = .81182 STD. DEV. OF PND. 9.39455

PDT MAX = -204.7697 + .1738 X GEG MAX + .0538 X 45/125 THK + .4244 X PDT MIN + .0436 X 45/115 HGT + .0864 X DAY OF YR + -.0177 X 35/125 HGT +

YKM MAX R= .88581 STANDARD ERROR = 4.38965 REDUCTION OF VARIANCE = .78467 STD. DEV. OF PND. 9.45967

YKM MAX = -85.0644 + .2880 X YKM MAX + .0335 X 50/120 HGT + .4507 X GEG MIN + .2365 X PDX MAX +

PDX MAX R= .85998 STANDARD ERROR = 4.11472 REDUCTION OF VARIANCE = .73957 STD. DEV. OF PND. 8.06300

PDX MAX = -167.3642 + .2750 X PDX MAX + .0361 X 50/120 HGT + .0518 X 45/125 THK + .0868 X DAY OF YR + -.0174 X 35/135 HGT +

SEA MAX R= .84953 STANDARD ERROR = 3.76150 REDUCTION OF VARIANCE = .72170 STD. DEV. OF PND. 7.13022

SEA MAX = -147.4651 + .2311 X SEA MAX + .0007 X 55/115 HGT + .0466 X 45/125 THK + .0908 X DAY OF YR + -.0226 X 40/130 HGT + .0387 X 50/120 HGT +

TTI MAX R= .79324 STANDARD ERROR = 2.57630 REDUCTION OF VARIANCE = .62922 STD. DEV. OF PND. 4.23098

TTI MAX = -92.4328 + .0085 X 50/120 THK + .0226 X 55/125 HGT + .1729 X SEA MIN + -.0128 X 40/130 HGT + .0537 X FAR MIN + .0131 X 50/130 THK + .0154 X 45/125 THK +

MSP MAX R= .93160 STANDARD ERROR = 5.71548 REDUCTION OF VARIANCE = .86788 STD. DEV. OF PND. 15.72411

MSP MAX = -240.0782 + .0932 X 45/095 THK + .3479 X STC MAX + .1975 X QR MAX +

HON MAX R= .91101 STANDARD ERROR = 7.16177 REDUCTION OF VARIANCE = .82994 STD. DEV. OF PND. 17.36698

HON MAX = -273.7135 + .3770 X HON MAX + .1034 X 45/105 THK + .2271 X QR MAX +

RAP MAX R= .92763 STANDARD ERROR = 6.10283 REDUCTION OF VARIANCE = .86049 STD. DEV. OF PND. 16.33924

RAP MAX = -451.8235 + .0948 X 45/105 THK + .0597 X 35/105 HGT + .2630 X GGW MAX + -.0354 X 55/115 HGT + .0492 X 50/110 THK +

CPR MAX R= .91382 STANDARD ERROR = 5.88809 REDUCTION OF VARIANCE = .83507 STD. DEV. OF PND. 14.49864

CPR MAX = -569.7671 + .0840 X 45/105 THK + .0646 X 35/105 HGT + .0600 X 45/115 THK + .3036 X LND MIN +

LND MAX R= .92955 STANDARD ERROR = 4.85645 REDUCTION OF VARIANCE = .86407 STD. DEV. OF PND. 13.17212

LND MAX = -279.4146 + .4429 X LND MIN + .1102 X 40/110 HGT + -.0686 X 45/115 HGT + .0627 X 45/115 THK + .1917 X HLN MAX +

PIH MAX R= .92689 STANDARD ERROR = 4.36086 REDUCTION OF VARIANCE = .85912 STD. DEV. OF PND. 11.61827

PIH MAX = -394.7587 + .0958 X 45/115 THK + .0476 X 40/110 HGT + .1375 X DAY OF YR + .2701 X BNO MAX +

BOI MAX R= .92476 STANDARD ERROR = 3.97046 REDUCTION OF VARIANCE = .85519 STD. DEV. OF PND. 10.43360

BOI MAX = -245.1214 + .0545 X 45/115 THK + .0577 X 45/115 HGT + .0959 X DAY OF YR + .2147 X MFR MAX + .3130 X BOI MIN + -.0197 X 35/125 HGT +

BNO MAX R= .91417 STANDARD ERROR = 4.25702 REDUCTION OF VARIANCE = .83571 STD. DEV. OF PND. 10.50262

BNO MAX = -317.0311 + .3469 X BNO MAX + .0522 X 45/115 HGT + .0643 X 45/125 THK + .1211 X DAY OF YR +

MFR MAX R= .89629 STANDARD ERROR = 4.48862 REDUCTION OF VARIANCE = .80334 STD. DEV. OF PND. 10.12179

MFR MAX = -209.3974 + .3106 X MFR MAX + .0095 X 50/120 HGT + .0502 X 45/125 THK + .0957 X DAY OF YR + .0502 X 45/125 HGT + -.0256 X 35/135 HGT +

SLE MAX R= .86342 STANDARD ERROR = 4.06758 REDUCTION OF VARIANCE = .74549 STD. DEV. OF PND. 8.06272

SLE MAX = -180.4396 + .2599 X SLE MAX + .0384 X 50/120 HGT + .0515 X 45/125 THK + .0848 X DAY OF YR + -.0148 X 35/135 HGT +

Northwest Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MIN R= .90514 STANDARD ERROR = 6.68440 REDUCTION OF VARIANCE = .81928 STD. DEV. OF PND. 15.72394

INL MIN = -110.3377 + .2869 X WG MAX + .3894 X INL MIN + .0240 X 55/085 HGT + .0456 X 50/100 THK + -.0289 X 50/110 HGT +

DLH MIN R= .90844 STANDARD ERROR = 5.61117 REDUCTION OF VARIANCE = .82527 STD. DEV. OF PND. 13.42370

DLH MIN = -209.0679 + .1969 X WG MAX + .2918 X INL MIN + .0463 X 50/090 THK + .0305 X 40/100 THK +

STC MIN R= .90575 STANDARD ERROR = 5.79676 REDUCTION OF VARIANCE = .82037 STD. DEV. OF PND. 13.67734

STC MIN = -252.5957 + .3019 X HON MIN + .0502 X 50/090 THK + .0430 X 45/105 THK + .2253 X STC MIN +

FAR MIN R= .91763 STANDARD ERROR = 5.85784 REDUCTION OF VARIANCE = .84205 STD. DEV. OF PND. 14.73927

FAR MIN = -177.6827 + .4146 X FAR MIN + .0666 X 45/105 THK + .0285 X 50/090 HGT + .2205 X PA MAX + -.0302 X 45/105 HGT +

BIS MIN R= .91365 STANDARD ERROR = 5.91078 REDUCTION OF VARIANCE = .83475 STD. DEV. OF PND. 14.54036

BIS MIN = -285.7024 + .4939 X BIS MIN + .0676 X 45/105 THK + .0374 X 55/105 THK +

ISN MIN R= .92303 STANDARD ERROR = 5.72421 REDUCTION OF VARIANCE = .85199 STD. DEV. OF PND. 14.87867

ISN MIN = -225.1394 + .3754 X GGW MIN + .0367 X 55/115 THK + .0449 X 45/105 THK + .2121 X QR MAX +

GGW MIN R= .92230 STANDARD ERROR = 5.70935 REDUCTION OF VARIANCE = .85063 STD. DEV. OF PND. 14.77248

GGW MIN = -92.4340 + .3374 X GGW MAX + .4297 X GGW MIN + .0322 X 55/115 THK +

BIL MIN R= .90733 STANDARD ERROR = 5.01926 REDUCTION OF VARIANCE = .82325 STD. DEV. OF PND. 11.93862

BIL MIN = -5.1487 + .3567 X GTF MIN + .3052 X BIL MAX + .2040 X XS MAX +

GTF MIN R= .91537 STANDARD ERROR = 5.40211 REDUCTION OF VARIANCE = .83791 STD. DEV. OF PND. 13.41774

GTF MIN = -153.6502 + .2043 X GTF MAX + .1894 X EG MAX + -.0233 X 55/135 HGT + .0505 X 55/125 THK + .0272 X 40/110 HGT + .2379 X GTF MIN +

HLN MIN R= .86986 STANDARD ERROR = 5.85310 REDUCTION OF VARIANCE = .75666 STD. DEV. OF PND. 11.86524

HLN MIN = -52.4356 + .2982 X GTF MAX + .3901 X HLN MIN + .0410 X 60/130 THK + -.0210 X 60/130 HGT +

MSO MIN R= .83044 STANDARD ERROR = 4.84689 REDUCTION OF VARIANCE = .68963 STD. DEV. OF PND. 8.70010

MSO MIN = -3.6644 + .3605 X MSO MIN + .2076 X MSO MAX + .1401 X XS MIN + .2114 X SLE MIN +

GEG MIN R= .86137 STANDARD ERROR = 3.55110 REDUCTION OF VARIANCE = .74196 STD. DEV. OF PND. 6.99072

GEG MIN = -30.5883 + .1952 X GEG MAX + .3343 X GEG MIN + .0259 X 45/125 THK + -.0125 X 45/135 HGT + .1247 X XS MAX +

PDT MIN R= .83096 STANDARD ERROR = 3.55481 REDUCTION OF VARIANCE = .69050 STD. DEV. OF PND. 6.38981

PDT MIN = -128.2013 + .2080 X PDT MAX + .1970 X SLE MIN + .0302 X 45/125 THK + .0305 X 50/120 THK + -.0108 X 50/130 HGT + .0529 X DAY OF YR +

YKM MIN R= .76083 STANDARD ERROR = 4.50640 REDUCTION OF VARIANCE = .57886 STD. DEV. OF PND. 6.94414

YKM MIN = -38.7888 + .2618 X GEG MAX + .1998 X SLE MIN + .0266 X 45/125 THK + -.0108 X 45/135 HGT + .1994 X YKM MIN +

PDX MIN R= .71846 STANDARD ERROR = 3.84611 REDUCTION OF VARIANCE = .51618 STD. DEV. OF PND. 5.52944

PDX MIN = -76.9725 + .3193 X SLE MIN + .0876 X PDX MAX + -.0187 X 50/130 HGT + .0312 X 50/130 THK + .0615 X DAY OF YR + .0213 X 45/125 THK +

SEA MIN R= .77760 STANDARD ERROR = 3.16528 REDUCTION OF VARIANCE = .60466 STD. DEV. OF PND. 5.03417

SEA MIN = -93.2179 + .4311 X SEA MIN + .0325 X 45/125 THK + .0167 X 50/130 THK + -.0095 X 45/135 HGT +

TTI MIN R= .80591 STANDARD ERROR = 2.20185 REDUCTION OF VARIANCE = .64949 STD. DEV. OF PND. 3.71908

TTI MIN = -116.9149 + .0135 X 55/125 THK + .0197 X 45/125 THK + .1499 X SEA MIN + .0092 X 55/115 HGT + .0089 X 60/150 THK + .1081 X VR MAX +

MSP MIN R= .91398 STANDARD ERROR = 5.37393 REDUCTION OF VARIANCE = .83536 STD. DEV. OF PND. 13.24424

MSP MIN = -153.1580 + .2485 X HON MIN + .1729 X WG MAX + .2749 X MSP MIN + .0233 X 45/085 HGT + .0322 X 45/105 THK +

HON MIN R= .90454 STANDARD ERROR = 5.78482 REDUCTION OF VARIANCE = .81820 STD. DEV. OF PND. 13.56719

HON MIN = -201.4029 + .3915 X HON MIN + .0787 X 45/105 THK + .0207 X 40/090 HGT + .1680 X PA MAX + -.0259 X 45/105 HGT +

RAP MIN R= .92891 STANDARD ERROR = 4.44437 REDUCTION OF VARIANCE = .86287 STD. DEV. OF PND. 12.00176

RAP MIN = -244.4333 + .1385 X GGW MAX + .2755 X RAP MIN + .0646 X 45/105 THK + .0253 X 50/110 THK +

CPR MIN R= .89497 STANDARD ERROR = 5.04131 REDUCTION OF VARIANCE = .80097 STD. DEV. OF PND. 11.30026

CPR MIN = -333.4803 + .0246 X 45/105 THK + .0358 X 45/115 THK + .3094 X CPR MIN + .0630 X 40/110 HGT + -.0476 X 45/115 HGT + .0453 X 50/110 THK +

LND MIN R= .90285 STANDARD ERROR = 4.66997 REDUCTION OF VARIANCE = .81513 STD. DEV. OF PND. 10.86130

LND MIN = -80.1626 + .1889 X CPR MAX + .2437 X HLN MAX + .3364 X LND MIN + .0246 X 35/105 HGT +

PIH MIN R= .80579 STANDARD ERROR = 4.99337 REDUCTION OF VARIANCE = .64930 STD. DEV. OF PND. 8.43197

PIH MIN = -7.2378 + .3183 X PIH MAX + .3337 X SLE MIN + .2665 X PIH MIN +

BOI MIN R= .83517 STANDARD ERROR = 4.05393 REDUCTION OF VARIANCE = .69750 STD. DEV. OF PND. 7.37079

BOI MIN = -11.6895 + .2408 X BNO MAX + -.0236 X 45/135 HGT + .2288 X PDT MIN + .0308 X 45/125 THK + .1878 X BOI MIN +

BNO MIN R= .81229 STANDARD ERROR = 4.15438 REDUCTION OF VARIANCE = .65982 STD. DEV. OF PND. 7.12279

BNO MIN = -93.4532 + .1722 X BNO MAX + .2288 X SLE MIN + -.0154 X 40/130 HGT + .0361 X 45/125 THK + .1864 X BNO MIN + .0125 X 45/115 HGT + .0526 X DAY OF YR +

MFR MIN R= .74033 STANDARD ERROR = 3.97828 REDUCTION OF VARIANCE = .54809 STD. DEV. OF PND. 5.91791

MFR MIN = -25.5889 + .3634 X MFR MIN + .0302 X 45/125 THK + -.0154 X 45/135 HGT + .1443 X BNO MAX +

SLE MIN R= .70228 STANDARD ERROR = 4.12934 REDUCTION OF VARIANCE = .49320 STD. DEV. OF PND. 5.80047

SLE MIN = -130.0650 + .4398 X SLE MIN + .0479 X 45/125 THK + -.0190 X 45/135 HGT + .0079 X 35/075 HGT + .0157 X 40/150 THK +

Southwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MAX R= .91413 STANDARD ERROR = 6.52651 REDUCTION OF VARIANCE = .83563 STD. DEV. OF PND. 16.09781

DSM MAX = -424.0796 + .1188 X 45/095 THK + .3404 X OMA MAX + .0397 X 35/095 HGT +

OMA MAX R= .91259 STANDARD ERROR = 6.63318 REDUCTION OF VARIANCE = .83282 STD. DEV. OF PND. 16.22311

OMA MAX = -318.7277 + .0702 X 40/100 THK + .2340 X HON MAX + .0509 X 45/105 THK + .3468 X MKC MIN +

LBF MAX R= .91092 STANDARD ERROR = 6.70879 REDUCTION OF VARIANCE = .82977 STD. DEV. OF PND. 16.26010

LBF MAX = -470.0556 + .1463 X 45/105 THK + .3167 X LBF MAX + .0633 X 35/105 HGT + -.0361 X 50/100 HGT +

DEN MAX R= .92224 STANDARD ERROR = 5.66152 REDUCTION OF VARIANCE = .85052 STD. DEV. OF PND. 14.64341

DEN MAX = -450.4260 + .4145 X DEN MIN + .1394 X 35/105 HGT + .0994 X 45/105 THK + -.0732 X 45/105 HGT +

SLC MAX R= .93262 STANDARD ERROR = 4.26201 REDUCTION OF VARIANCE = .86979 STD. DEV. OF PND. 11.81097

SLC MAX = -220.4821 + .3886 X WMC MAX + .3307 X SLC MIN + .0568 X 40/110 HGT + -.0203 X 45/125 HGT +
.0459 X 45/115 THK +

WMC MAX R= .92264 STANDARD ERROR = 4.37296 REDUCTION OF VARIANCE = .85127 STD. DEV. OF PND. 11.33912

WMC MAX = -424.0600 + .0945 X 40/120 THK + .0600 X 40/110 HGT + .1191 X DAY OF YR + .2239 X MFR MAX +

RNO MAX R= .91241 STANDARD ERROR = 4.37941 REDUCTION OF VARIANCE = .83249 STD. DEV. OF PND. 10.70036

RNO MAX = -371.4040 + .0653 X 40/120 HGT + .0722 X 40/120 THK + .0983 X DAY OF YR + .2292 X RNO MAX +

RBL MAX R= .89708 STANDARD ERROR = 4.62753 REDUCTION OF VARIANCE = .80476 STD. DEV. OF PND. 10.47273

RBL MAX = -195.3534 + .3593 X SAC MAX + .0440 X 45/125 HGT + .4363 X BFL MIN + .0282 X 40/130 HGT +

EKA MAX R= .71805 STANDARD ERROR = 2.85690 REDUCTION OF VARIANCE = .51560 STD. DEV. OF PND. 4.10479

EKA MAX = -44.6430 + .2832 X EKA MAX + .0223 X 40/130 THK + -.0128 X 40/140 HGT + .0190 X 45/115 HGT +
-.0905 X MFR MAX + .1646 X EKA MIN +

MKC MAX R= .90811 STANDARD ERROR = 6.40638 REDUCTION OF VARIANCE = .82466 STD. DEV. OF PND. 15.29950

MKC MAX = -286.1021 + .1102 X 40/100 THK + .2259 X TOP MAX + .3360 X MKC MIN +

TOP MAX R= .90590 STANDARD ERROR = 6.54667 REDUCTION OF VARIANCE = .82065 STD. DEV. OF PND. 15.45872

TOP MAX = -337.8433 + .1299 X 40/100 THK + .2820 X MKC MIN + .1808 X TOP MAX +

ICT MAX R= .89465 STANDARD ERROR = 6.63263 REDUCTION OF VARIANCE = .80041 STD. DEV. OF PND. 14.84610

ICT MAX = -354.7641 + .1378 X 40/100 THK + .2919 X DDC MAX +

DDC MAX R= .90436 STANDARD ERROR = 6.70726 REDUCTION OF VARIANCE = .81786 STD. DEV. OF PND. 15.71623

DDC MAX = -587.9052 + .1837 X 40/100 THK + .1076 X 35/105 HGT + -.0725 X 45/105 HGT + .1918 X DAY OF YR +
-.3703 X ABQ MIN +

PUB MAX R= .91060 STANDARD ERROR = 6.07721 REDUCTION OF VARIANCE = .82919 STD. DEV. OF PND. 14.70459

PUB MAX = -441.2413 + .0591 X 40/100 THK + .1270 X 35/105 HGT + -.0764 X 45/105 HGT + .0561 X 45/105 THK +
.3617 X DEN MIN +

GJT MAX R= .92937 STANDARD ERROR = 4.30495 REDUCTION OF VARIANCE = .86373 STD. DEV. OF PND. 11.66206

GJT MAX = -560.7922 + .1490 X 40/110 THK + .0568 X 35/105 HGT + .1157 X DAY OF YR +

MLF MAX R= .91929 STANDARD ERROR = 4.84452 REDUCTION OF VARIANCE = .84509 STD. DEV. OF PND. 12.30854

MLF MAX = -380.7049 + .0735 X 40/110 THK + .0453 X 35/115 HGT + .3476 X RNO MAX + -.0249 X 45/125 HGT +
.1047 X DAY OF YR + .0430 X 40/110 HGT +

ELY MAX R= .93364 STANDARD ERROR = 4.22783 REDUCTION OF VARIANCE = .87168 STD. DEV. OF PND. 11.80232

ELY MAX = -409.6383 + .1001 X 40/120 THK + .2805 X ELY MAX + .0646 X 40/110 HGT + .0972 X DAY OF YR +
-.0164 X 45/125 HGT +

SAC MAX R= .90161 STANDARD ERROR = 3.82448 REDUCTION OF VARIANCE = .81291 STD. DEV. OF PND. 8.84185

SAC MAX = -236.3336 + .3512 X SAC MAX + .0364 X 45/125 HGT + .0558 X 35/125 THK + .0975 X DAY OF YR +

SFO MAX R= .80381 STANDARD ERROR = 3.81223 REDUCTION OF VARIANCE = .64611 STD. DEV. OF PND. 6.40833

SFO MAX = -148.8202 + .4138 X SFO MAX + .0295 X 45/125 HGT + .0331 X 35/125 THK + -.1484 X MFR MAX + .2076 X SAC MIN +

OKC MAX R= .87864 STANDARD ERROR = 6.62774 REDUCTION OF VARIANCE = .77200 STD. DEV. OF PND. 13.88028

OKC MAX = -180.2140 + .1073 X 40/100 THK + .2639 X AMA MAX + -.0315 X 45/095 HGT + .2649 X OKC MIN +

AMA MAX R= .88007 STANDARD ERROR = 6.74543 REDUCTION OF VARIANCE = .77453 STD. DEV. OF PND. 14.20581

AMA MAX = -391.1946 + .1293 X 40/100 THK + .1001 X 35/105 HGT + -.0784 X 45/105 HGT + .1816 X AMA MAX +

ABQ MAX R= .90606 STANDARD ERROR = 4.57204 REDUCTION OF VARIANCE = .82094 STD. DEV. OF PND. 10.80458

ABQ MAX = -492.3338 + .0712 X 30/110 THK + .0761 X 35/105 THK + .1522 X DAY OF YR + .0676 X 35/105 HGT + -.0341 X 45/105 HGT +

INW MAX R= .91186 STANDARD ERROR = 4.40747 REDUCTION OF VARIANCE = .83149 STD. DEV. OF PND. 10.73695

INW MAX = -471.3109 + .1043 X 35/115 THK + .3563 X GJT MIN + .0702 X 30/110 HGT +

LAS MAX R= .92937 STANDARD ERROR = 3.86976 REDUCTION OF VARIANCE = .86373 STD. DEV. OF PND. 10.48296

LAS MAX = -310.6550 + .1020 X 35/115 THK + .2523 X RNO MAX + .1193 X DAY OF YR + .0430 X 40/120 HGT + -.0246 X 45/125 HGT +

BFL MAX R= .91430 STANDARD ERROR = 3.78432 REDUCTION OF VARIANCE = .83595 STD. DEV. OF PND. 9.34328

BFL MAX = -213.0831 + .5267 X SAC MAX + .0295 X 40/110 HGT + .0768 X 35/125 THK + -.0207 X 35/135 HGT +

FAT MAX R= .91714 STANDARD ERROR = 3.78858 REDUCTION OF VARIANCE = .84114 STD. DEV. OF PND. 9.50547

FAT MAX = -154.1952 + .1322 X FAT MAX + .0584 X 40/120 HGT + .3437 X BFL MIN + .3105 X SAC MAX +

SMX MAX R= .78564 STANDARD ERROR = 4.41922 REDUCTION OF VARIANCE = .61723 STD. DEV. OF PND. 7.14291

SMX MAX = -215.9750 + .0801 X 40/120 HGT + .3082 X SAN MAX + -.1868 X MFR MAX + .0545 X 30/120 THK + -.0430 X 30/120 HGT +

FTW MAX R= .86638 STANDARD ERROR = 5.87749 REDUCTION OF VARIANCE = .75061 STD. DEV. OF PND. 11.76945

FTW MAX = -223.5227 + .0863 X 35/095 THK + .0727 X PUB MAX + -.0361 X 40/090 HGT + .0456 X 40/100 THK + .2165 X AMA MAX +

MAF MAX R= .86756 STANDARD ERROR = 6.07685 REDUCTION OF VARIANCE = .75265 STD. DEV. OF PND. 12.21871

MAF MAX = -285.1943 + .1496 X 35/105 THK + .1694 X AMA MAX + -.0338 X 45/105 HGT + .1571 X CBI MIN +

ELP MAX R= .89051 STANDARD ERROR = 4.40849 REDUCTION OF VARIANCE = .79302 STD. DEV. OF PND. 9.68998

ELP MAX = -500.0891 + .0873 X 35/105 THK + .1030 X 30/110 THK + .0742 X DAY OF YR +

TUS MAX R= .93455 STANDARD ERROR = 3.48874 REDUCTION OF VARIANCE = .87339 STD. DEV. OF PND. 9.80457

TUS MAX = -287.2749 + .4629 X YUM MAX + .1024 X 30/110 HGT + .1003 X DAY OF YR +

PHX MAX R= .93743 STANDARD ERROR = 3.38360 REDUCTION OF VARIANCE = .87878 STD. DEV. OF PND. 9.71830

PHX MAX = -315.3863 + .4004 X PHX MAX + .0630 X 35/115 HGT + .0545 X 30/110 THK + .0736 X DAY OF YR +

YUM MAX R= .93797 STANDARD ERROR = 3.25501 REDUCTION OF VARIANCE = .87979 STD. DEV. OF PND. 9.38833

YUM MAX = -284.8749 + .3277 X YUM MAX + .0600 X 35/115 HGT + .0512 X 35/115 THK + .0707 X DAY OF YR +

SAN MAX R= .79464 STANDARD ERROR = 3.28044 REDUCTION OF VARIANCE = .63145 STD. DEV. OF PND. 5.40363

SAN MAX = -79.6788 + .5092 X SAN MAX + .0371 X 40/120 HGT + -.1096 X WMC MAX + .1538 X SEA MIN +

LAX MAX R= .80519 STANDARD ERROR = 3.52198 REDUCTION OF VARIANCE = .64833 STD. DEV. OF PND. 5.93910

LAX MAX = -98.9399 + .5223 X LAX MAX + .0417 X 40/120 HGT + -.1907 X RNO MAX + .2927 X LAX MIN +

SAT MAX R= .86018 STANDARD ERROR = 4.95833 REDUCTION OF VARIANCE = .73991 STD. DEV. OF PND. 9.72244

SAT MAX = -242.1751 + .0541 X 30/100 THK + .0785 X FTW MAX + -.0456 X 35/095 HGT + .0472 X 35/095 THK + .0466 X 35/105 THK + .1924 X SAT MAX +

DRT MAX R= .87742 STANDARD ERROR = 5.02440 REDUCTION OF VARIANCE = .76987 STD. DEV. OF PND. 10.47369

DRT MAX = -318.9389 + .0994 X 30/100 THK + .2736 X DRT MAX + -.0390 X 35/095 HGT + .0696 X 35/105 THK + -.2131 X ELP MAX + .1344 X AMA MAX +

Southwest Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MIN R= .90673 STANDARD ERROR = 5.28483 REDUCTION OF VARIANCE = .82216 STD. DEV. OF PND. 12.53193

DSM MIN = -122.1128 + .4381 X OMA MIN + .2388 X FAR MAX + .0446 X 40/100 THK +

OMA MIN R= .90365 STANDARD ERROR = 5.24908 REDUCTION OF VARIANCE = .81658 STD. DEV. OF PND. 12.25631

OMA MIN = -112.5701 + .3314 X DDC MIN + .3236 X FAR MAX + .0417 X 40/100 THK +

LBF MIN R= .88996 STANDARD ERROR = 5.30168 REDUCTION OF VARIANCE = .79204 STD. DEV. OF PND. 11.62573

LBF MIN = -108.2839 + .2100 X RAP MIN + .4549 X LBF MIN + .0394 X 45/105 THK +

DEN MIN R= .89780 STANDARD ERROR = 4.62512 REDUCTION OF VARIANCE = .80604 STD. DEV. OF PND. 10.50183

DEN MIN = -298.0845 + .1282 X DEN MAX + .0571 X 45/105 THK + .0272 X 45/115 THK + .2466 X DEN MIN +
.0230 X 35/105 HGT +

SLC MIN R= .84914 STANDARD ERROR = 4.49048 REDUCTION OF VARIANCE = .72103 STD. DEV. OF PND. 8.50190

SLC MIN = -59.7395 + .2544 X PIH MAX + .2818 X BOI MIN + .2474 X SLC MIN + .0203 X 35/105 HGT +

WMC MIN R= .75881 STANDARD ERROR = 5.52957 REDUCTION OF VARIANCE = .57579 STD. DEV. OF PND. 8.48985

WMC MIN = .4730 + .3206 X WMC MIN + .1310 X BNO MAX + -.0374 X 45/125 HGT + .0390 X 40/110 HGT +
.2571 X MFR MIN + .0985 X DAY OF YR + -.0358 X 40/110 THK + .0318 X 45/125 THK +

RNO MIN R= .74231 STANDARD ERROR = 4.85935 REDUCTION OF VARIANCE = .55102 STD. DEV. OF PND. 7.25209

RNO MIN = 5.7486 + .1059 X WMC MAX + .2794 X RNO MIN + -.0361 X 45/125 HGT + .0364 X 45/125 THK +
.2666 X RNO MAX + -.1329 X INW MAX + .0589 X DAY OF YR +

RBL MIN R= .80539 STANDARD ERROR = 3.56342 REDUCTION OF VARIANCE = .64865 STD. DEV. OF PND. 6.01172

RBL MIN = -51.9294 + .3233 X RBL MIN + .1842 X RBL MAX + .2527 X MFR MIN + .0210 X 40/130 THK +

EKA MIN R= .75471 STANDARD ERROR = 2.78322 REDUCTION OF VARIANCE = .56959 STD. DEV. OF PND. 4.24236

EKA MIN = -92.9145 + .3098 X EKA MIN + .0161 X 45/125 THK + .0115 X 45/115 THK + -.0072 X 40/140 HGT +
.0200 X 40/130 THK + .1589 X EKA MAX +

MKC MIN R= .91803 STANDARD ERROR = 4.78558 REDUCTION OF VARIANCE = .84278 STD. DEV. OF PND. 12.06943

MKC MIN = -289.8230 + .1258 X HON MAX + .0522 X 40/100 THK + .2184 X OMA MIN + .0331 X 45/095 THK +
.0230 X 35/085 HGT +

TOP MIN R= .90042 STANDARD ERROR = 5.24162 REDUCTION OF VARIANCE = .81075 STD. DEV. OF PND. 12.04886

TOP MIN = -330.1039 + .2947 X OMA MIN + .0600 X 40/100 THK + .0371 X 45/095 THK + .0253 X 35/085 HGT +

ICT MIN R= .91974 STANDARD ERROR = 4.70884 REDUCTION OF VARIANCE = .84591 STD. DEV. OF PND. 11.99586

ICT MIN = -179.2837 + .3400 X DDC MIN + .0705 X 40/100 THK + .0174 X 40/090 HGT + .1216 X QRI MAX +
-.0180 X 40/120 HGT +

DDC MIN R= .90887 STANDARD ERROR = 4.85903 REDUCTION OF VARIANCE = .82604 STD. DEV. OF PND. 11.65010

DDC MIN = -341.5649 + .0925 X 40/100 THK + .0351 X 50/110 THK + .2387 X DDC MIN +

PUB MIN R= .88416 STANDARD ERROR = 5.04984 REDUCTION OF VARIANCE = .78174 STD. DEV. OF PND. 10.80911

PUB MIN = -6.2165 + .2135 X DEN MAX + .2551 X PUB MIN + .2858 X CPR MIN + .1086 X DAY OF YR +

GJT MIN R= .87755 STANDARD ERROR = 4.17345 REDUCTION OF VARIANCE = .77009 STD. DEV. OF PND. 8.70388

GJT MIN = -1.4798 + .3284 X SLC MAX + .3713 X GJT MIN + .1884 X WMC MIN +

MLF MIN R= .81869 STANDARD ERROR = 5.02458 REDUCTION OF VARIANCE = .67025 STD. DEV. OF PND. 8.75004

MLF MIN = 1.4726 + .1051 X SLC MAX + .2441 X WMC MIN + .0992 X DAY OF YR + -.2228 X RBL MAX +
.2788 X WMC MAX + .1743 X ELY MIN +

ELY MIN R= .81284 STANDARD ERROR = 5.38038 REDUCTION OF VARIANCE = .66070 STD. DEV. OF PND. 9.23683

ELY MIN = -4.9389 + .4480 X WMC MAX + .3160 X ELY MIN + -.1560 X RBL MAX + .2000 X BNO MIN +

SAC MIN R= .78675 STANDARD ERROR = 3.23533 REDUCTION OF VARIANCE = .61898 STD. DEV. OF PND. 5.24135

SAC MIN = .5261 + .2856 X SAC MIN + .1879 X SFO MAX + .2936 X EKA MIN + .1085 X RNO MAX +

SFO MIN R= .72052 STANDARD ERROR = 2.84827 REDUCTION OF VARIANCE = .51915 STD. DEV. OF PND. 4.10749

SFO MIN = -2.3158 + .2756 X SFO MIN + .0652 X BNO MAX + .1996 X EKA MIN + .1327 X SFO MAX + -.0125 X 40/130 HGT + .0187 X 40/130 THK +

OKC MIN R= .91818 STANDARD ERROR = 4.59979 REDUCTION OF VARIANCE = .84306 STD. DEV. OF PND. 11.61098

OKC MIN = -272.6111 + .0742 X 40/100 THK + .3757 X OKC MIN + .0210 X 50/110 THK + -.0269 X 45/105 HGT + .0345 X 35/095 HGT +

AMA MIN R= .89720 STANDARD ERROR = 4.50707 REDUCTION OF VARIANCE = .80497 STD. DEV. OF PND. 10.20980

AMA MIN = -262.5693 + .0732 X 40/100 THK + .0246 X 50/110 THK + .1636 X ABQ MAX + .1853 X AMA MIN +

ABQ MIN R= .86827 STANDARD ERROR = 4.27309 REDUCTION OF VARIANCE = .75389 STD. DEV. OF PND. 8.61336

ABQ MIN = -89.6453 + .2806 X INW MAX + .2903 X ABQ MIN + .2417 X SLC MIN + .0289 X 30/100 HGT +

INW MIN R= .85784 STANDARD ERROR = 4.29567 REDUCTION OF VARIANCE = .73589 STD. DEV. OF PND. 8.35872

INW MIN = -28.0279 + .2581 X ELY MAX + .3204 X INW MIN + .1718 X WMC MIN + -.0269 X 40/120 HGT + .0387 X 35/115 THK +

LAS MIN R= .87070 STANDARD ERROR = 4.12106 REDUCTION OF VARIANCE = .75812 STD. DEV. OF PND. 8.37942

LAS MIN = -3.3634 + .4098 X LAS MAX + .1847 X WMC MIN + .1750 X LAS MIN + .0694 X DAY OF YR +

BFL MIN R= .88959 STANDARD ERROR = 2.84945 REDUCTION OF VARIANCE = .79137 STD. DEV. OF PND. 6.23837

BFL MIN = -3.6691 + .1364 X RNO MAX + .3616 X BFL MIN + .1729 X SFO MAX + .2087 X EKA MIN + .1003 X MFR MAX +

FAT MIN R= .86239 STANDARD ERROR = 3.28260 REDUCTION OF VARIANCE = .74371 STD. DEV. OF PND. 6.48412

FAT MIN = -12.3217 + .5424 X FAT MIN + .1317 X RNO MAX + .0322 X 40/130 THK + -.0174 X 40/130 HGT + .0801 X DAY OF YR + -.0262 X 40/110 THK + .0184 X 40/110 HGT +

SMX MIN R= .71331 STANDARD ERROR = 3.63478 REDUCTION OF VARIANCE = .50882 STD. DEV. OF PND. 5.18628

SMX MIN = 36.6077 + .1963 X SAC MIN + .1388 X RNO MAX + .1509 X FAT MIN + -.0082 X 35/135 HGT + .1806 X EKA MIN +

FTW MIN R= .90864 STANDARD ERROR = 4.60595 REDUCTION OF VARIANCE = .82563 STD. DEV. OF PND. 11.03020

FTW MIN = -179.2850 + .0262 X 35/095 THK + .0387 X 40/100 THK + .2782 X OKC MIN + -.0312 X 35/115 HGT + .0377 X 30/090 HGT + .2142 X DEN MIN +

MAF MIN R= .88976 STANDARD ERROR = 4.59288 REDUCTION OF VARIANCE = .79167 STD. DEV. OF PND. 10.06247

MAF MIN = -191.0975 + .3544 X AMA MIN + .0742 X 35/105 THK + -.0312 X 30/120 HGT + .0341 X 40/100 THK +

ELP MIN R= .85675 STANDARD ERROR = 4.60263 REDUCTION OF VARIANCE = .73402 STD. DEV. OF PND. 8.92450

ELP MIN = -96.6637 + .0551 X 35/105 THK + .2009 X TUS MIN + .2178 X ELP MIN + .2668 X INW MAX + -.0190 X 40/110 HGT +

TUS MIN R= .88746 STANDARD ERROR = 3.46083 REDUCTION OF VARIANCE = .78758 STD. DEV. OF PND. 7.50896

TUS MIN = -127.0972 + .2353 X TUS MAX + .2798 X TUS MIN + .0571 X 35/115 THK + -.0200 X 35/125 HGT + .0121 X 45/115 THK +

PHX MIN R= .87852 STANDARD ERROR = 3.38526 REDUCTION OF VARIANCE = .77179 STD. DEV. OF PND. 7.08645

PHX MIN = -32.0128 + .3442 X PHX MIN + .1821 X INW MAX + .2151 X BFL MIN + .0371 X 35/115 THK +

YUM MIN R= .89581 STANDARD ERROR = 2.95049 REDUCTION OF VARIANCE = .80247 STD. DEV. OF PND. 6.63861

YUM MIN = -1.8649 + .3413 X YUM MAX + .3248 X YUM MIN + .2088 X RBL MIN +

SAN MIN R= .83264 STANDARD ERROR = 2.23911 REDUCTION OF VARIANCE = .69329 STD. DEV. OF PND. 4.04308

SAN MIN = -33.5545 + .2892 X SAN MIN + .0180 X 35/115 THK + .1574 X RBL MIN + .2013 X LAX MIN +

LAX MIN R= .83450 STANDARD ERROR = 2.39740 REDUCTION OF VARIANCE = .69639 STD. DEV. OF PND. 4.35094

LAX MIN = 5.2021 + .3200 X LAX MIN + .1284 X FAT MAX + .1963 X FAT MIN + .1328 X LAX MAX + .0751 X INW MIN +

SAT MIN R= .87781 STANDARD ERROR = 4.99859 REDUCTION OF VARIANCE = .77055 STD. DEV. OF PND. 10.43527

SAT MIN = -168.2018 + .0062 X 35/095 THK + .2660 X SAT MIN + .2949 X AMA MIN + .0436 X 35/095 HGT + -.0282 X 40/110 HGT + .0436 X 30/100 THK +

DRT MIN R= .88727 STANDARD ERROR = 4.33438 REDUCTION OF VARIANCE = .78725 STD. DEV. OF PND. 9.39704

DRT MIN = -259.5818 + .0640 X 30/100 THK + .0305 X 40/100 THK + .2877 X DRT MIN + .0305 X 35/095 HGT + -.0249 X 35/115 HGT +

Southeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MAX R= .88849 STANDARD ERROR = 5.69106 REDUCTION OF VARIANCE = .78941 STD. DEV. OF PND. 12.40137

SBY MAX = -115.0025 + .2718 X CLE MAX + .0755 X 40/080 THK + -.0243 X 50/080 HGT + .3903 X NYC MIN +

DCA MAX R= .88948 STANDARD ERROR = 5.94908 REDUCTION OF VARIANCE = .79118 STD. DEV. OF PND. 13.01864

DCA MAX = -2.3249 + .3369 X IND MAX + .4002 X NYC MIN + -.0318 X 50/080 HGT + .0371 X 40/080 HGT + .4924 X DCA MIN + -.2398 X CHS MIN +

CRW MAX R= .91647 STANDARD ERROR = 5.68976 REDUCTION OF VARIANCE = .83991 STD. DEV. OF PND. 14.22039

CRW MAX = -402.3601 + .1109 X 40/080 THK + .0427 X 35/085 HGT + .2530 X CBI MAX +

HTS MAX R= .91174 STANDARD ERROR = 5.76035 REDUCTION OF VARIANCE = .83127 STD. DEV. OF PND. 14.02342

HTS MAX = -388.4823 + .1014 X 40/080 THK + .2816 X MKC MAX + .0469 X 35/085 HGT +

LOU MAX R= .91828 STANDARD ERROR = 5.47557 REDUCTION OF VARIANCE = .84324 STD. DEV. OF PND. 13.82946

LOU MAX = -307.9953 + .0929 X 40/090 THK + .3337 X CBI MAX + .0272 X 35/085 HGT +

ORF MAX R= .90035 STANDARD ERROR = 5.51244 REDUCTION OF VARIANCE = .81064 STD. DEV. OF PND. 12.66768

ORF MAX = -154.0536 + .5401 X ORF MIN + .0787 X 40/080 THK + -.0663 X 45/075 HGT + .0617 X 35/075 HGT + .0410 X 45/075 THK + -.0482 X 30/080 THK +

RIC MAX R= .89259 STANDARD ERROR = 5.92022 REDUCTION OF VARIANCE = .79672 STD. DEV. OF PND. 13.13083

RIC MAX = -240.9043 + .5774 X DCA MIN + .2752 X IND MAX + .0564 X 30/080 HGT + -.2950 X TLH MIN + .0676 X 40/080 THK + -.0299 X 45/075 HGT +

ROA MAX R= .89414 STANDARD ERROR = 5.90733 REDUCTION OF VARIANCE = .79949 STD. DEV. OF PND. 13.19226

ROA MAX = -296.6961 + .3851 X DCA MIN + .0659 X 35/085 HGT + .0810 X 40/080 THK + -.0322 X 45/075 HGT + .2423 X LOU MAX + -.2302 X TLH MIN +

HAT MAX R= .88654 STANDARD ERROR = 4.22087 REDUCTION OF VARIANCE = .78595 STD. DEV. OF PND. 9.12307

HAT MAX = -161.3159 + .0459 X 35/075 THK + .2722 X DCA MIN + .1982 X BNA MAX + .0217 X 35/065 HGT +

RDU MAX R= .89688 STANDARD ERROR = 5.40640 REDUCTION OF VARIANCE = .80439 STD. DEV. OF PND. 12.22406

RDU MAX = -249.8500 + .2342 X BNA MAX + .3674 X DCA MIN + .0889 X 35/085 HGT + -.0715 X 40/080 HGT + .0794 X 40/080 THK +

GSO MAX R= .89506 STANDARD ERROR = 5.43180 REDUCTION OF VARIANCE = .80113 STD. DEV. OF PND. 12.18033

GSO MAX = -203.8067 + .2266 X MEM MAX + .4394 X DCA MIN + .0535 X 35/085 HGT + -.0387 X 45/075 HGT + .0643 X 40/080 THK +

TYS MAX R= .91136 STANDARD ERROR = 4.88119 REDUCTION OF VARIANCE = .83058 STD. DEV. OF PND. 11.85879

TYS MAX = -341.6765 + .0659 X 35/085 THK + .0417 X 40/090 THK + .2700 X BNA MAX + .0249 X 35/085 HGT +

BNA MAX R= .90721 STANDARD ERROR = 5.27555 REDUCTION OF VARIANCE = .82303 STD. DEV. OF PND. 12.54071

BNA MAX = -288.6441 + .0971 X 40/090 THK + .3004 X FSM MAX + .0518 X 35/085 HGT + -.0348 X 40/090 HGT +

MEM MAX R= .90658 STANDARD ERROR = 5.08091 REDUCTION OF VARIANCE = .82188 STD. DEV. OF PND. 12.03901

MEM MAX = -305.7107 + .0676 X 35/095 THK + .2754 X FSM MAX + .0541 X 40/090 THK +

LIT MAX R= .87784 STANDARD ERROR = 5.82271 REDUCTION OF VARIANCE = .77060 STD. DEV. OF PND. 12.15705

LIT MAX = -225.7975 + .0925 X 35/095 THK + .2787 X ICT MAX + .1611 X PIT MIN +

FSM MAX R= .88138 STANDARD ERROR = 6.13298 REDUCTION OF VARIANCE = .77684 STD. DEV. OF PND. 12.98252

FSM MAX = -325.0642 + .0804 X 35/095 THK + .2546 X DDC MAX + .0489 X 40/100 THK +

CHS MAX R= .87800 STANDARD ERROR = 4.62235 REDUCTION OF VARIANCE = .77089 STD. DEV. OF PND. 9.65699

CHS MAX = -226.4050 + .0528 X 35/075 THK + .1903 X LIT MAX + .2027 X AGS MAX + .0400 X 35/085 THK +

CLT MAX R= .88668 STANDARD ERROR = 5.29599 REDUCTION OF VARIANCE = .78621 STD. DEV. OF PND. 11.45390

CLT MAX = -197.9375 + .2784 X BNA MAX + .3669 X DCA MIN + .0988 X 35/085 HGT + -.0735 X 40/080 HGT + .0522 X 40/080 THK +

AGS MAX R= .87702 STANDARD ERROR = 5.09565 REDUCTION OF VARIANCE = .76916 STD. DEV. OF PND. 10.60575

AGS MAX = -159.3927 + .0673 X 35/085 THK + .2419 X LIT MAX + .2392 X AGS MAX + -.4013 X MGM MIN + .4477 X ATL MIN +

AHN MAX R= .87245 STANDARD ERROR = 5.18928 REDUCTION OF VARIANCE = .76118 STD. DEV. OF PND. 10.61861

AHN MAX = -134.9195 + .3393 X ATL MAX + .2269 X LIT MAX + .0577 X 35/085 THK + -.4725 X MGM MIN + .4445 X ATL MIN +

ATL MAX R= .88805 STANDARD ERROR = 5.02197 REDUCTION OF VARIANCE = .78863 STD. DEV. OF PND. 10.92315

ATL MAX = -286.5270 + .0751 X 35/085 THK + .1729 X FSM MAX + .5910 X ATL MIN + -.4864 X MGM MIN + .0367 X 30/090 HGT + .1480 X ALB MIN +

BHM MAX R= .88380 STANDARD ERROR = 5.01126 REDUCTION OF VARIANCE = .78110 STD. DEV. OF PND. 10.71081

BHM MAX = -321.8873 + .0705 X 35/085 THK + .0584 X 35/095 THK + .2138 X LIT MAX +

JAN MAX R= .89521 STANDARD ERROR = 4.77326 REDUCTION OF VARIANCE = .80141 STD. DEV. OF PND. 10.71102

JAN MAX = -317.7006 + .0909 X 35/095 THK + .2543 X SHV MAX + .0358 X 35/085 THK +

SHV MAX R= .87339 STANDARD ERROR = 5.18924 REDUCTION OF VARIANCE = .76281 STD. DEV. OF PND. 10.65504

SHV MAX = -253.4862 + .1040 X 35/095 THK + .2830 X FTW MAX +

JAX MAX R= .86913 STANDARD ERROR = 4.30915 REDUCTION OF VARIANCE = .75538 STD. DEV. OF PND. 8.71261

JAX MAX = -171.5522 + .0696 X 35/085 THK + .2481 X CHS MIN + .2332 X MSY MAX + -.0243 X 40/080 HGT + .0285 X 30/080 HGT +

TLH MAX R= .87001 STANDARD ERROR = 4.10388 REDUCTION OF VARIANCE = .75692 STD. DEV. OF PND. 8.32380

TLH MAX = -211.5561 + .0630 X 35/085 THK + .2511 X MOB MAX + .1879 X HOU MAX + .0226 X 30/090 HGT +

MGM MAX R= .88487 STANDARD ERROR = 4.65756 REDUCTION OF VARIANCE = .78299 STD. DEV. OF PND. 9.99815

MGM MAX = -285.5057 + .0787 X 35/085 THK + .2538 X SHV MAX + .0374 X 35/095 THK +

MOB MAX R= .87551 STANDARD ERROR = 3.96444 REDUCTION OF VARIANCE = .76652 STD. DEV. OF PND. 8.20462

MOB MAX = -168.0586 + .0417 X 35/085 THK + .3159 X HOU MAX + .0285 X 35/105 THK + .2275 X MOB MIN +

MSY MAX R= .89425 STANDARD ERROR = 3.68419 REDUCTION OF VARIANCE = .79969 STD. DEV. OF PND. 8.23170

MSY MAX = -203.6001 + .2550 X MOB MIN + .0476 X 30/100 THK + .2194 X HOU MAX + .0358 X 30/090 THK +

LCH MAX R= .86889 STANDARD ERROR = 4.11112 REDUCTION OF VARIANCE = .75497 STD. DEV. OF PND. 8.30521

LCH MAX = -156.3478 + .0669 X 30/100 THK + .2481 X SHV MAX + .2289 X MSY MIN +

HOU MAX R= .87197 STANDARD ERROR = 4.13206 REDUCTION OF VARIANCE = .76033 STD. DEV. OF PND. 8.44032

HOU MAX = -86.5781 + .0650 X 30/100 THK + .1654 X SAT MAX + .3200 X LCH MIN + -.0223 X 35/085 HGT + .0904 X DDC MAX +

CRP MAX R= .86119 STANDARD ERROR = 4.16480 REDUCTION OF VARIANCE = .74165 STD. DEV. OF PND. 8.19389

CRP MAX = -148.1462 + .0938 X 30/100 THK + -.0499 X 35/095 HGT + .2644 X LCH MIN + .1390 X LBF MIN + .0256 X 30/110 HGT +

BRO MAX R= .87226 STANDARD ERROR = 3.71690 REDUCTION OF VARIANCE = .76084 STD. DEV. OF PND. 7.60045

BRO MAX = -125.7614 + .0879 X 30/100 THK + .2361 X CRP MAX + -.0607 X 30/100 HGT + .0331 X 30/110 HGT + .1831 X BRO MIN +

ORL MAX R= .87104 STANDARD ERROR = 3.63114 REDUCTION OF VARIANCE = .75872 STD. DEV. OF PND. 7.39229

ORL MAX = -265.7889 + .0518 X 30/080 THK + .0554 X 30/090 THK + .1751 X MSY MAX + .1689 X ORL MAX +

TPA MAX R= .88225 STANDARD ERROR = 3.18678 REDUCTION OF VARIANCE = .77836 STD. DEV. OF PND. 6.76907

TPA MAX = -169.4541 + .0518 X 30/090 THK + .2622 X TPA MAX + .0200 X 35/075 HGT + .1599 X MOB MAX +

MIA MAX R= .83932 STANDARD ERROR = 2.49134 REDUCTION OF VARIANCE = .70445 STD. DEV. OF PND. 4.58270

MIA MAX = -197.6597 + .0551 X 30/080 THK + .3978 X EYW MIN + -.0259 X 30/080 HGT + .0184 X 30/100 HGT + .0377 X 25/085 THK + -.0550 X BNA MIN +

EYW MAX R= .87383 STANDARD ERROR = 2.17893 REDUCTION OF VARIANCE = .76359 STD. DEV. OF PND. 4.48133

EYW MAX = -128.4524 + .3438 X EYW MIN + .0331 X 25/085 THK + .0240 X 30/080 THK + .1738 X EYW MAX +

Southeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MIN R= .87946 STANDARD ERROR = 4.75568 REDUCTION OF VARIANCE = .77346 STD. DEV. OF PND. 9.99163

SBY MIN = -167.8884 + .3340 X CMH MIN + .0495 X 45/075 THK + .1414 X ORF MAX + .0154 X 35/065 HGT +

DCA MIN R= .90735 STANDARD ERROR = 3.93520 REDUCTION OF VARIANCE = .82329 STD. DEV. OF PND. 9.36135

DCA MIN = -107.8811 + .3067 X IND MIN + .2140 X DCA MAX + .0446 X 45/075 THK +

CRW MIN R= .88395 STANDARD ERROR = 5.33064 REDUCTION OF VARIANCE = .78137 STD. DEV. OF PND. 11.40049

CRW MIN = -94.8630 + .5392 X STL MIN + .0427 X 40/080 THK + -.0236 X 45/095 HGT + .0203 X 45/075 HGT +

HTS MIN R= .88452 STANDARD ERROR = 5.07295 REDUCTION OF VARIANCE = .78237 STD. DEV. OF PND. 10.87427

HTS MIN = -26.1813 + .4044 X CBI MIN + .3297 X LOU MIN + .0384 X 40/080 HGT + -.0262 X 40/090 HGT +

LOU MIN R= .89669 STANDARD ERROR = 4.99438 REDUCTION OF VARIANCE = .80406 STD. DEV. OF PND. 11.28285

LOU MIN = -36.3212 + .6792 X CBI MIN + .0345 X 40/080 HGT + -.0177 X 50/100 HGT +

ORF MIN R= .89762 STANDARD ERROR = 4.06461 REDUCTION OF VARIANCE = .80573 STD. DEV. OF PND. 9.22173

ORF MIN = -140.8028 + .3314 X CMH MIN + .0384 X 40/080 THK + .0180 X 35/065 HGT + .1248 X ORF MAX +

RIC MIN R= .90528 STANDARD ERROR = 4.41240 REDUCTION OF VARIANCE = .81953 STD. DEV. OF PND. 10.38666

RIC MIN = -171.8898 + .3192 X LOU MIN + .0423 X 40/080 THK + .0233 X 35/065 HGT + .2215 X BUF MIN +

ROA MIN R= .90237 STANDARD ERROR = 4.36373 REDUCTION OF VARIANCE = .81427 STD. DEV. OF PND. 10.12555

ROA MIN = -137.8559 + .3640 X IND MIN + .1761 X RIC MAX + .0285 X 40/080 THK + .0246 X 35/085 THK +

HAT MIN R= .87192 STANDARD ERROR = 4.54813 REDUCTION OF VARIANCE = .76024 STD. DEV. OF PND. 9.28841

HAT MIN = -164.0097 + .2158 X LOU MIN + .0262 X 35/065 HGT + .0390 X 40/080 THK + .2397 X HAT MIN +

RDU MIN R= .90895 STANDARD ERROR = 4.48080 REDUCTION OF VARIANCE = .82619 STD. DEV. OF PND. 10.74768

RDU MIN = -286.1580 + .3803 X LOU MIN + .0358 X 35/085 THK + .0413 X 40/080 THK + .0285 X 30/070 HGT +

GSO MIN R= .90551 STANDARD ERROR = 4.50094 REDUCTION OF VARIANCE = .81995 STD. DEV. OF PND. 10.60736

GSO MIN = -151.6931 + .3186 X MEM MIN + .2929 X PIT MIN + .0381 X 35/085 THK + .0187 X 40/070 HGT +

TYS MIN R= .89621 STANDARD ERROR = 4.68670 REDUCTION OF VARIANCE = .80320 STD. DEV. OF PND. 10.56461

TYS MIN = -176.8608 + .2870 X STL MIN + .0492 X 35/085 THK + .0174 X 35/075 HGT + .2437 X MEM MIN +

BNA MIN R= .90364 STANDARD ERROR = 4.87792 REDUCTION OF VARIANCE = .81657 STD. DEV. OF PND. 11.38944

BNA MIN = -225.1388 + .3663 X CBI MIN + .1276 X 35/085 THK + .0308 X 40/080 HGT + .0558 X 35/095 THK +
-.0272 X 35/095 HGT +

MEM MIN R= .91264 STANDARD ERROR = 4.50878 REDUCTION OF VARIANCE = .83290 STD. DEV. OF PND. 11.02997

MEM MIN = -248.5736 + .3843 X ICT MIN + .0535 X 35/095 THK + .0390 X 30/080 HGT + -.0203 X 40/110 HGT +
.0220 X 45/085 THK +

LIT MIN R= .90810 STANDARD ERROR = 4.38790 REDUCTION OF VARIANCE = .82464 STD. DEV. OF PND. 10.47827

LIT MIN = -205.7107 + .4222 X OKC MIN + .0600 X 35/095 THK + .0207 X 45/085 THK +

FSM MIN R= .90582 STANDARD ERROR = 4.57838 REDUCTION OF VARIANCE = .82052 STD. DEV. OF PND. 10.80689

FSM MIN = -121.3905 + .3808 X DDC MIN + .0505 X 35/095 THK + .1936 X FSM MIN + -.0157 X 40/110 HGT +
.0141 X 40/090 HGT +

CHS MIN R= .89989 STANDARD ERROR = 4.24779 REDUCTION OF VARIANCE = .80980 STD. DEV. OF PND. 9.74004

CHS MIN = -168.5953 + .3064 X BHM MIN + .0715 X 35/085 THK + .0243 X 35/075 HGT + -.0292 X 35/085 HGT +
.1665 X CHS MIN +

CLT MIN R= .90492 STANDARD ERROR = 4.45737 REDUCTION OF VARIANCE = .81888 STD. DEV. OF PND. 10.47369

CLT MIN = -180.2739 + .3612 X BNA MIN + .0482 X 35/085 THK + .0184 X 35/075 HGT + .1720 X GSO MAX +

AGS MIN R= .89245 STANDARD ERROR = 4.46469 REDUCTION OF VARIANCE = .79647 STD. DEV. OF PND. 9.89646

AGS MIN = -148.1185 + .2436 X BHM MIN + .0381 X 35/085 THK + .0180 X 35/075 HGT + .1831 X AGS MIN + .1827 X LIT MIN +

AHN MIN R= .90025 STANDARD ERROR = 4.41968 REDUCTION OF VARIANCE = .81046 STD. DEV. OF PND. 10.15169

AHN MIN = -223.6809 + .3801 X BHM MIN + .0554 X 35/085 THK + .0308 X 40/080 THK +

ATL MIN R= .90585 STANDARD ERROR = 4.19650 REDUCTION OF VARIANCE = .82056 STD. DEV. OF PND. 9.90663

ATL MIN = -229.4792 + .0620 X 35/085 THK + .0262 X 40/090 THK + .1918 X ATL MIN + .2171 X LIT MIN +

BHM MIN R= .88350 STANDARD ERROR = 5.14442 REDUCTION OF VARIANCE = .78057 STD. DEV. OF PND. 10.98222

BHM MIN = -129.7535 + .4371 X FSM MIN + .0577 X 35/085 THK + -.0282 X 40/110 HGT + .0243 X 40/080 HGT +

JAN MIN R= .89911 STANDARD ERROR = 4.67894 REDUCTION OF VARIANCE = .80841 STD. DEV. OF PND. 10.68951

JAN MIN = -87.3867 + .0400 X 35/095 THK + .2572 X JAN MIN + .3185 X FTW MIN + -.0292 X 40/110 HGT + .0256 X 35/085 HGT +

SHV MIN R= .90827 STANDARD ERROR = 4.30686 REDUCTION OF VARIANCE = .82496 STD. DEV. OF PND. 10.29421

SHV MIN = -181.6552 + .0607 X 35/095 THK + .4007 X OKC MIN + -.0236 X 40/110 HGT + .0348 X 30/090 HGT +

JAX MIN R= .89664 STANDARD ERROR = 4.08406 REDUCTION OF VARIANCE = .80397 STD. DEV. OF PND. 9.22418

JAX MIN = -33.2168 + .3913 X MOB MIN + .0361 X 35/085 THK + .0246 X 35/075 HGT + -.0394 X 25/095 HGT + .1702 X JAX MIN +

TLH MIN R= .88770 STANDARD ERROR = 4.38872 REDUCTION OF VARIANCE = .78801 STD. DEV. OF PND. 9.53186

TLH MIN = -113.8908 + .2893 X MOB MIN + .0262 X 40/080 HGT + .0689 X 30/090 THK + -.0459 X 25/095 HGT + .2125 X TLH MIN +

MGM MIN R= .88713 STANDARD ERROR = 4.56568 REDUCTION OF VARIANCE = .78699 STD. DEV. OF PND. 9.89257

MGM MIN = -127.4025 + .4202 X JAN MIN + .0453 X 35/085 THK + .0203 X 40/090 HGT + -.0459 X 30/100 HGT + .0348 X 30/100 THK +

MOB MIN R= .89636 STANDARD ERROR = 4.34636 REDUCTION OF VARIANCE = .80347 STD. DEV. OF PND. 9.80410

MOB MIN = -45.6532 + .4135 X MOB MIN + .0331 X 35/095 THK + -.0328 X 35/105 HGT + .2304 X FTW MIN + .0223 X 35/085 HGT +

MSY MIN R= .86598 STANDARD ERROR = 4.67100 REDUCTION OF VARIANCE = .74993 STD. DEV. OF PND. 9.34067

MSY MIN = -112.2615 + .4000 X MSY MIN + .0381 X 35/095 THK + -.0266 X 35/105 HGT + .2258 X FTW MIN + .0331 X 25/085 HGT +

LCH MIN R= .88422 STANDARD ERROR = 4.44093 REDUCTION OF VARIANCE = .78184 STD. DEV. OF PND. 9.50798

LCH MIN = -68.4801 + .0532 X 35/095 THK + .3663 X HOU MIN + -.0200 X 40/110 HGT + .1764 X OKC MIN +

HOU MIN R= .89139 STANDARD ERROR = 4.37852 REDUCTION OF VARIANCE = .79458 STD. DEV. OF PND. 9.66070

HOU MIN = -127.8553 + .0367 X 35/095 THK + .3254 X HOU MIN + .2760 X AMA MIN + -.0213 X 40/110 HGT + .0361 X 30/090 HGT +

CRP MIN R= .87937 STANDARD ERROR = 4.44610 REDUCTION OF VARIANCE = .77329 STD. DEV. OF PND. 9.33777

CRP MIN = -196.9547 + -.0095 X 35/095 THK + .2960 X CRP MIN + .0463 X 35/105 THK + -.0492 X 30/110 HGT + .0466 X 30/090 HGT + .1761 X DEN MIN + .0436 X 30/100 THK +

BRO MIN R= .87569 STANDARD ERROR = 4.07504 REDUCTION OF VARIANCE = .76683 STD. DEV. OF PND. 8.43910

BRO MIN = -136.1618 + .0522 X 30/100 THK + .4280 X BRO MIN + .0505 X 35/105 THK + -.0463 X 30/110 HGT + .0404 X 30/090 HGT + -.0394 X 30/090 THK +

ORL MIN R= .88983 STANDARD ERROR = 3.39964 REDUCTION OF VARIANCE = .79180 STD. DEV. OF PND. 7.45065

ORL MIN = -95.8688 + .4475 X ORL MIN + .0725 X 30/090 THK + .0203 X 35/075 HGT + -.0479 X 25/095 HGT +

TPA MIN R= .87698 STANDARD ERROR = 3.52237 REDUCTION OF VARIANCE = .76909 STD. DEV. OF PND. 7.33018

TPA MIN = -36.9096 + .3364 X TPA MIN + .0568 X 30/090 THK + .0197 X 35/075 HGT + -.0538 X 25/095 HGT + .2009 X TPA MAX +

MIA MIN R= .88658 STANDARD ERROR = 3.28736 REDUCTION OF VARIANCE = .78603 STD. DEV. OF PND. 7.10677

MIA MIN = -28.8883 + .4772 X MIA MIN + .0305 X 30/080 HGT + -.0637 X 25/095 HGT + .0463 X 25/095 THK + .0279 X 35/075 HGT + -.0197 X 35/075 THK +

EYW MIN R= .86257 STANDARD ERROR = 2.46617 REDUCTION OF VARIANCE = .74403 STD. DEV. OF PND. 4.87448

EYW MIN = -62.9953 + .5486 X EYW MIN + .0072 X 30/090 THK + .0230 X 30/080 HGT + -.0282 X 25/095 HGT + .0299 X 25/095 THK +

Northeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MAX R= .87733 STANDARD ERROR = 5.25745 REDUCTION OF VARIANCE = .76970 STD. DEV. OF PND. 10.95552

CAR MAX = -166.0693 + .3358 X QB MAX + .0666 X 50/070 THK + .2096 X SSM MAX +

SSM MAX R= .90424 STANDARD ERROR = 5.22193 REDUCTION OF VARIANCE = .81765 STD. DEV. OF PND. 12.22867

SSM MAX = -220.6321 + .4351 X QT MAX + .0482 X 45/085 THK + .0387 X 50/090 THK +

PWM MAX R= .87831 STANDARD ERROR = 4.91613 REDUCTION OF VARIANCE = .77142 STD. DEV. OF PND. 10.28273

PWM MAX = -102.8013 + .6157 X BOS MIN + .0056 X 40/080 HGT + .0584 X 50/070 THK + -.0633 X 50/070 HGT + .0594 X 45/075 HGT + -.0164 X 35/065 HGT + .0855 X DAY OF YR +

BTV MAX R= .90809 STANDARD ERROR = 5.40461 REDUCTION OF VARIANCE = .82462 STD. DEV. OF PND. 12.90542

BTV MAX = -229.5034 + .0886 X 45/075 THK + .2983 X YB MAX + .1591 X DAY OF YR +

SYR MAX R= .91751 STANDARD ERROR = 5.54058 REDUCTION OF VARIANCE = .84183 STD. DEV. OF PND. 13.93131

SYR MAX = -300.4301 + .0840 X 45/075 THK + .4115 X GRB MAX + .0318 X 40/070 HGT +

BUF MAX R= .92551 STANDARD ERROR = 5.22706 REDUCTION OF VARIANCE = .85657 STD. DEV. OF PND. 13.80177

BUF MAX = -258.3870 + .0863 X 45/085 THK + .3752 X GRR MAX + .0535 X 45/075 HGT + -.0381 X 45/085 HGT +

DET MAX R= .92011 STANDARD ERROR = 5.46052 REDUCTION OF VARIANCE = .84661 STD. DEV. OF PND. 13.94214

DET MAX = -184.3288 + .0735 X 45/085 THK + .2996 X MLI MAX + .3722 X DET MIN +

FNT MAX R= .92751 STANDARD ERROR = 5.28005 REDUCTION OF VARIANCE = .86027 STD. DEV. OF PND. 14.12521

FNT MAX = -253.4857 + .0997 X 45/085 THK + .2628 X GRB MAX + .1933 X DSM MAX +

GRR MAX R= .92574 STANDARD ERROR = 5.26801 REDUCTION OF VARIANCE = .85699 STD. DEV. OF PND. 13.93021

GRR MAX = -229.9684 + .0915 X 45/085 THK + .2739 X MSP MAX + .1737 X OMA MAX +

MKE MAX R= .91439 STANDARD ERROR = 5.51017 REDUCTION OF VARIANCE = .83610 STD. DEV. OF PND. 13.61058

MKE MAX = -155.4775 + .0840 X 45/085 THK + .2189 X HON MAX + .0427 X 40/090 HGT + -.0305 X 50/090 HGT + .3748 X MKE MIN + -.0325 X 35/085 THK +

GRB MAX R= .90733 STANDARD ERROR = 5.81761 REDUCTION OF VARIANCE = .82325 STD. DEV. OF PND. 13.83757

GRB MAX = -140.3311 + .3730 X GRB MAX + .0564 X 50/090 THK + .2602 X HON MAX +

MSN MAX R= .91373 STANDARD ERROR = 5.96184 REDUCTION OF VARIANCE = .83491 STD. DEV. OF PND. 14.67305

MSN MAX = -203.0745 + .0797 X 45/095 THK + .3621 X GRB MAX + .2165 X HON MAX +

ACK MAX R= .86399 STANDARD ERROR = 3.59038 REDUCTION OF VARIANCE = .74647 STD. DEV. OF PND. 7.13066

ACK MAX = 17.4466 + .3622 X NYC MIN + .2578 X BOS MIN + .1186 X BOS MAX +

BOS MAX R= .86287 STANDARD ERROR = 5.68035 REDUCTION OF VARIANCE = .74455 STD. DEV. OF PND. 11.23880

BOS MAX = -110.4455 + .6696 X BOS MIN + .0397 X 40/080 HGT + -.0417 X 50/070 HGT + .0446 X 45/075 THK + .0427 X 45/065 THK + -.0367 X 35/065 THK +

HFD MAX R= .87917 STANDARD ERROR = 5.89934 REDUCTION OF VARIANCE = .77294 STD. DEV. OF PND. 12.38028

HFD MAX = -159.3268 + .6684 X NYC MIN + .2235 X GRB MAX + .0292 X 40/080 HGT + .0312 X 45/065 THK +

ALB MAX R= .90704 STANDARD ERROR = 5.55562 REDUCTION OF VARIANCE = .82273 STD. DEV. OF PND. 13.19512

ALB MAX = -202.0484 + .5229 X NYC MIN + .2619 X GRB MAX + .0564 X 45/075 THK + .0203 X 40/080 HGT +

NYC MAX R= .90048 STANDARD ERROR = 4.90579 REDUCTION OF VARIANCE = .81086 STD. DEV. OF PND. 11.28036

NYC MAX = -131.2625 + .7071 X NYC MIN + .1931 X DET MAX + .0328 X 40/080 HGT + -.0285 X 50/070 HGT + .0495 X 45/075 THK + -.1844 X CRW MIN +

PHL MAX R= .89737 STANDARD ERROR = 5.55062 REDUCTION OF VARIANCE = .80527 STD. DEV. OF PND. 12.57832

PHL MAX = -141.9619 + .5089 X NYC MIN + .2548 X DET MAX + .0331 X 40/080 HGT + -.0335 X 50/070 HGT + .0581 X 45/075 THK +

IPT MAX R= .90505 STANDARD ERROR = 5.56348 REDUCTION OF VARIANCE = .81912 STD. DEV. OF PND. 13.08122

IPT MAX = -211.4940 + .3151 X CHI MAX + .5599 X NYC MIN + .0410 X 40/080 HGT + .0640 X 45/075 THK + -.0236 X 50/070 HGT + -.2064 X CRW MIN +

PIT MAX R= .92980 STANDARD ERROR = 5.25056 REDUCTION OF VARIANCE = .86453 STD. DEV. OF PND. 14.26555

PIT MAX = -340.1538 + .0522 X 40/080 THK + .2825 X PIA MAX + .0574 X 40/080 HGT + .0581 X 45/085 THK +

CLE MAX R= .93418 STANDARD ERROR = 5.18273 REDUCTION OF VARIANCE = .87270 STD. DEV. OF PND. 14.52575

CLE MAX = -329.7455 + .1079 X 45/085 THK + .3047 X PIA MAX + .0666 X 40/080 HGT + -.0469 X 45/085 HGT +

CMH MAX R= .91952 STANDARD ERROR = 5.51035 REDUCTION OF VARIANCE = .84552 STD. DEV. OF PND. 14.01991

CMH MAX = -289.2635 + .0581 X 40/090 THK + .0548 X 40/080 THK + .2044 X CBI MAX + .2965 X DET MIN +

DAY MAX R= .92623 STANDARD ERROR = 5.25414 REDUCTION OF VARIANCE = .85790 STD. DEV. OF PND. 13.93808

DAY MAX = -223.7885 + .0581 X 40/090 THK + .3993 X DET MIN + .2532 X CBI MAX + .0282 X 40/080 HGT +

CVG MAX R= .91633 STANDARD ERROR = 5.54950 REDUCTION OF VARIANCE = .83966 STD. DEV. OF PND. 13.85904

CVG MAX = -347.8937 + .0863 X 40/090 THK + .0499 X 40/080 THK + .2574 X CBI MAX +

IND MAX R= .92647 STANDARD ERROR = 5.32925 REDUCTION OF VARIANCE = .85835 STD. DEV. OF PND. 14.15966

IND MAX = -265.6208 + .1037 X 40/090 THK + .2484 X CBI MAX + .2735 X DET MIN +

CHI MAX R= .90640 STANDARD ERROR = 6.03928 REDUCTION OF VARIANCE = .82156 STD. DEV. OF PND. 14.29671

CHI MAX = -314.2785 + .0751 X 45/085 THK + .3097 X OMA MAX + .0482 X 45/095 THK +

PIA MAX R= .91843 STANDARD ERROR = 5.83534 REDUCTION OF VARIANCE = .84352 STD. DEV. OF PND. 14.75131

PIA MAX = -307.9858 + .0617 X 40/090 THK + .3530 X OMA MAX + .0584 X 45/095 THK +

MLI MAX R= .91956 STANDARD ERROR = 5.95224 REDUCTION OF VARIANCE = .84558 STD. DEV. OF PND. 15.14728

MLI MAX = -235.7503 + .0922 X 45/095 THK + .3699 X OMA MAX + .2382 X DET MIN +

STL MAX R= .91371 STANDARD ERROR = 6.10905 REDUCTION OF VARIANCE = .83487 STD. DEV. OF PND. 15.03358

STL MAX = -356.3544 + .0889 X 40/090 THK + .3364 X TOP MAX + .0489 X 40/100 THK +

CBI MAX R= .90863 STANDARD ERROR = 6.40923 REDUCTION OF VARIANCE = .82560 STD. DEV. OF PND. 15.34731

CBI MAX = -405.9489 + .0646 X 40/090 THK + .0906 X 40/100 THK + .2928 X TOP MAX +

Northeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MIN R= .87337 STANDARD ERROR = 5.77679 REDUCTION OF VARIANCE = .76277 STD. DEV. OF PND. 11.86042

CAR MIN = -285.2616 + .0830 X 50/070 THK + .2405 X QB MIN + .0213 X 50/060 THK + .1356 X DAY OF YR +

SSM MIN R= .90292 STANDARD ERROR = 5.10330 REDUCTION OF VARIANCE = .81527 STD. DEV. OF PND. 11.87365

SSM MIN = -135.3835 + .3332 X DLH MIN + .0525 X 50/080 THK + .2621 X SSM MIN +

PWM MIN R= .85280 STANDARD ERROR = 5.14771 REDUCTION OF VARIANCE = .72727 STD. DEV. OF PND. 9.85699

PWM MIN = -168.5796 + .0371 X 45/075 THK + .2587 X PWM MIN + .1987 X YB MIN + .0285 X 45/065 THK +

BTV MIN R= .86999 STANDARD ERROR = 5.69482 REDUCTION OF VARIANCE = .75688 STD. DEV. OF PND. 11.54975

BTV MIN = -138.3100 + .0532 X 45/075 THK + .2841 X BTV MIN + .3375 X SSM MIN +

SYR MIN R= .88396 STANDARD ERROR = 5.02330 REDUCTION OF VARIANCE = .78139 STD. DEV. OF PND. 10.74372

SYR MIN = -155.3159 + .0610 X 45/075 THK + .3412 X SSM MIN + .1408 X MKE MAX +

BUF MIN R= .90110 STANDARD ERROR = 4.43420 REDUCTION OF VARIANCE = .81198 STD. DEV. OF PND. 10.22624

BUF MIN = -96.1314 + .2704 X MSN MIN + .0607 X 45/085 THK + .2143 X BTV MAX + -.0207 X 45/095 HGT +

DET MIN R= .91210 STANDARD ERROR = 4.15521 REDUCTION OF VARIANCE = .83193 STD. DEV. OF PND. 10.13566
DET MIN = -83.7887 + .0587 X 45/085 THK + .3035 X MSN MIN + -.0220 X 50/100 HGT + .1939 X QT MAX +

FNT MIN R= .89379 STANDARD ERROR = 4.97048 REDUCTION OF VARIANCE = .79886 STD. DEV. OF PND. 11.08286
FNT MIN = -99.0319 + .2826 X MSN MIN + .0627 X 45/085 THK + -.0210 X 50/100 HGT + .2072 X MSP MIN +

GRR MIN R= .89191 STANDARD ERROR = 4.90869 REDUCTION OF VARIANCE = .79550 STD. DEV. OF PND. 10.85483
GRR MIN = -100.7243 + .0627 X 45/085 THK + .2710 X STC MIN + -.0197 X 50/110 HGT + .2038 X GRR MIN +

MKE MIN R= .89156 STANDARD ERROR = 4.60038 REDUCTION OF VARIANCE = .79488 STD. DEV. OF PND. 10.15767
MKE MIN = -158.6901 + .2709 X DSM MIN + .1494 X INL MAX + .0420 X 45/085 THK + .0194 X 40/100 THK +

GRB MIN R= .91065 STANDARD ERROR = 4.90346 REDUCTION OF VARIANCE = .82928 STD. DEV. OF PND. 11.86754
GRB MIN = -92.5316 + .2158 X FAR MIN + .4216 X GRB MIN + .0407 X 50/090 THK + -.0256 X 50/100 HGT +
.0220 X 45/085 HGT +

MSN MIN R= .90767 STANDARD ERROR = 5.00272 REDUCTION OF VARIANCE = .82386 STD. DEV. OF PND. 11.92015
MSN MIN = -231.6631 + .1411 X DSM MIN + .0479 X 50/090 THK + .0351 X 40/100 THK + .3041 X MSN MIN +
.0318 X 45/085 HGT + -.0272 X 45/095 HGT +

ACK MIN R= .85198 STANDARD ERROR = 3.48078 REDUCTION OF VARIANCE = .72588 STD. DEV. OF PND. 6.64818
ACK MIN = -116.5613 + .0374 X 45/075 THK + .2962 X ACK MIN + .0108 X 35/065 HGT + .1133 X SSM MIN +

BOS MIN R= .89512 STANDARD ERROR = 3.73304 REDUCTION OF VARIANCE = .80125 STD. DEV. OF PND. 8.37344
BOS MIN = -116.9260 + .0489 X 45/075 THK + .3284 X BOS MIN + .1457 X YB MIN +

HFD MIN R= .87319 STANDARD ERROR = 4.56587 REDUCTION OF VARIANCE = .76247 STD. DEV. OF PND. 9.36835
HFD MIN = -100.9481 + .0413 X 45/075 THK + .2660 X HFD MIN + .1509 X YB MIN + .1549 X DAY MIN +

ALB MIN R= .87425 STANDARD ERROR = 5.25261 REDUCTION OF VARIANCE = .76431 STD. DEV. OF PND. 10.81949
ALB MIN = -118.0965 + .3619 X BUF MIN + .0469 X 45/075 THK + .2558 X SSM MIN +

NYC MIN R= .89687 STANDARD ERROR = 3.75393 REDUCTION OF VARIANCE = .80438 STD. DEV. OF PND. 8.48743
NYC MIN = -122.2439 + .0495 X 45/075 THK + .3606 X NYC MIN + .0746 X STL MAX + .0939 X QT MAX +

PHL MIN R= .90169 STANDARD ERROR = 3.92259 REDUCTION OF VARIANCE = .81304 STD. DEV. OF PND. 9.07194
PHL MIN = -96.7177 + .2006 X PIT MIN + .0410 X 45/075 THK + .1639 X STL MIN + .1850 X SYR MIN +

IPT MIN R= .89427 STANDARD ERROR = 4.45532 REDUCTION OF VARIANCE = .79972 STD. DEV. OF PND. 9.95545
IPT MIN = -136.8475 + .4011 X DAY MIN + .0525 X 45/075 THK + .0912 X DAY OF YR +

PIT MIN R= .90104 STANDARD ERROR = 4.91045 REDUCTION OF VARIANCE = .81188 STD. DEV. OF PND. 11.32153
PIT MIN = -186.9877 + .4464 X PIA MIN + .0676 X 45/085 THK + .0233 X 35/065 HGT + -.0187 X 45/095 HGT +
CLE MIN R= .89587 STANDARD ERROR = 4.79815 REDUCTION OF VARIANCE = .80258 STD. DEV. OF PND. 10.79883
CLE MIN = -67.5631 + .3669 X PIA MIN + .0541 X 45/085 THK + -.0236 X 50/100 HGT + .1712 X MSP MIN +

CMH MIN R= .90079 STANDARD ERROR = 4.78143 REDUCTION OF VARIANCE = .81143 STD. DEV. OF PND. 11.01075
CMH MIN = -91.2637 + .5372 X PIA MIN + .0367 X 45/085 THK + -.0272 X 45/095 HGT + .0285 X 40/080 HGT +

DAY MIN R= .91435 STANDARD ERROR = 4.59586 REDUCTION OF VARIANCE = .83603 STD. DEV. OF PND. 11.34965
DAY MIN = -194.6756 + .4171 X CBI MIN + .0692 X 45/085 THK + .0236 X 35/085 HGT + -.0184 X 50/100 HGT +

CVG MIN R= .90832 STANDARD ERROR = 4.79690 REDUCTION OF VARIANCE = .82505 STD. DEV. OF PND. 11.46848
CVG MIN = -112.4713 + .4963 X CBI MIN + .0430 X 45/085 THK + -.0240 X 50/110 HGT + .0272 X 40/080 HGT +

IND MIN R= .90278 STANDARD ERROR = 4.91149 REDUCTION OF VARIANCE = .81502 STD. DEV. OF PND. 11.41947

IND MIN = -214.2884 + .4768 X CBI MIN + .0509 X 45/085 THK + .0289 X 35/085 HGT +

CHI MIN R= .91308 STANDARD ERROR = 4.40619 REDUCTION OF VARIANCE = .83371 STD. DEV. OF PND. 10.80520

CHI MIN = -154.3780 + .1962 X OMA MIN + .0020 X 45/085 THK + .0233 X 40/100 THK + .0397 X 45/085 HGT + -.0410 X 45/095 HGT + .2818 X CHI MIN + .0364 X 45/095 THK +

PIA MIN R= .92258 STANDARD ERROR = 4.48567 REDUCTION OF VARIANCE = .85115 STD. DEV. OF PND. 11.62673

PIA MIN = -231.4317 + .2648 X MKC MIN + .0417 X 45/085 THK + .0417 X 40/100 THK + .0266 X 35/085 HGT + .1389 X WG MAX + -.0230 X 40/100 HGT +

MLI MIN R= .90641 STANDARD ERROR = 5.10560 REDUCTION OF VARIANCE = .82158 STD. DEV. OF PND. 12.08723

MLI MIN = -256.8883 + .4016 X DSM MIN + .0453 X 40/100 THK + .0456 X 50/090 THK + .0285 X 35/085 HGT + -.0226 X 40/100 HGT +

STL MIN R= .91702 STANDARD ERROR = 4.67859 REDUCTION OF VARIANCE = .84093 STD. DEV. OF PND. 11.73049

STL MIN = -196.2376 + .1734 X OMA MAX + .3504 X CBI MIN + .0282 X 40/080 HGT + .0443 X 40/100 THK +

CBI MIN R= .91663 STANDARD ERROR = 4.81650 REDUCTION OF VARIANCE = .84021 STD. DEV. OF PND. 12.04909

CBI MIN = -316.1147 + .3630 X OMA MIN + .0443 X 40/100 THK + .0371 X 45/095 THK + .0354 X 35/085 HGT +

Northwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MAX R= .87121 STANDARD ERROR = 5.39334 REDUCTION OF VARIANCE = .75901 STD. DEV. OF PND. 10.98653

INL MAX = -339.5520 + .0728 X 50/100 THK + .0407 X 50/090 THK + .2052 X WG MAX + .0433 X 45/095 HGT + -.0230 X 55/105 HGT +

DLH MAX R= .86200 STANDARD ERROR = 5.67827 REDUCTION OF VARIANCE = .74305 STD. DEV. OF PND. 11.20192

DLH MAX = -294.4033 + .3900 X DLH MIN + .0325 X 50/100 THK + -.0226 X 55/095 HGT + .0781 X 45/095 HGT + .1726 X WG MAX + -.2729 X DSM MIN + .0742 X 50/090 THK + -.0446 X 50/090 HGT +

STC MAX R= .86840 STANDARD ERROR = 5.21024 REDUCTION OF VARIANCE = .75413 STD. DEV. OF PND. 10.50757

STC MAX = -264.6633 + .1119 X 45/095 THK + .0623 X 50/100 THK + .2232 X STC MAX + -.0459 X 40/090 THK + -.0184 X 55/095 HGT +

FAR MAX R= .86015 STANDARD ERROR = 5.62176 REDUCTION OF VARIANCE = .73986 STD. DEV. OF PND. 11.02222

FAR MAX = -340.3658 + .1270 X 50/100 THK + .2209 X FAR MAX + -.0276 X 55/095 HGT + .0351 X 45/095 HGT +

BIS MAX R= .87697 STANDARD ERROR = 5.52131 REDUCTION OF VARIANCE = .76907 STD. DEV. OF PND. 11.48954

BIS MAX = -459.6042 + .0489 X 45/105 THK + .0656 X 50/100 THK + .0377 X 45/105 HGT + -.0331 X 55/105 HGT + .0571 X 50/110 THK + .1635 X BIS MAX +

ISN MAX R= .88268 STANDARD ERROR = 5.37556 REDUCTION OF VARIANCE = .77912 STD. DEV. OF PND. 11.43786

ISN MAX = -407.9251 + .1286 X 50/110 THK + .1056 X 45/105 HGT + -.0791 X 50/110 HGT + .2678 X QR MAX +

GGW MAX R= .88421 STANDARD ERROR = 5.27767 REDUCTION OF VARIANCE = .78183 STD. DEV. OF PND. 11.29902

GGW MAX = -515.9272 + .1627 X 50/110 THK + .0791 X 45/105 HGT + -.0433 X 55/115 HGT +

BIL MAX R= .90041 STANDARD ERROR = 5.09995 REDUCTION OF VARIANCE = .81073 STD. DEV. OF PND. 11.72263

BIL MAX = -481.5474 + .0981 X 50/110 THK + .0810 X 40/110 HGT + -.0486 X 50/120 HGT + .2107 X HLN MAX + .0499 X 45/115 THK +

GTF MAX R= .89095 STANDARD ERROR = 5.15558 REDUCTION OF VARIANCE = .79380 STD. DEV. OF PND. 11.35347

GTF MAX = -377.9453 + .1043 X 50/110 THK + .1112 X 45/115 HGT + -.0341 X 55/125 HGT + .2848 X PDT MAX + -.0387 X 45/125 HGT +

HLN MAX R= .89091 STANDARD ERROR = 5.05208 REDUCTION OF VARIANCE = .79373 STD. DEV. OF PND. 11.12375

HLN MAX = -560.7299 + .1007 X 45/115 THK + .0801 X 45/115 HGT + .0656 X 50/110 THK + -.0351 X 55/125 HGT +

MSO MAX R= .90390 STANDARD ERROR = 4.70591 REDUCTION OF VARIANCE = .81704 STD. DEV. OF PND. 11.00177

MSO MAX = -378.7108 + .0728 X 45/115 THK + .1204 X 45/115 HGT + .3034 X PDT MAX + -.0515 X 40/120 HGT +

GEG MAX R= .89849 STANDARD ERROR = 4.52772 REDUCTION OF VARIANCE = .80729 STD. DEV. OF PND. 10.31405

GEG MAX = -330.9076 + .0922 X 45/125 THK + .3104 X GEG MAX + .0919 X 45/115 HGT + -.0554 X 40/120 HGT +

PDT MAX R= .90415 STANDARD ERROR = 4.38335 REDUCTION OF VARIANCE = .81748 STD. DEV. OF PND. 10.26004

PDT MAX = -382.3942 + .1014 X 45/125 THK + .2717 X PDT MAX + .0459 X 45/115 HGT +

YKM MAX R= .90105 STANDARD ERROR = 4.18829 REDUCTION OF VARIANCE = .81189 STD. DEV. OF PND. 9.65668

YKM MAX = -322.4221 + .0820 X 45/125 THK + .3273 X YKM MAX + .0443 X 50/120 HGT +

PDX MAX R= .85297 STANDARD ERROR = 4.61178 REDUCTION OF VARIANCE = .72756 STD. DEV. OF PND. 8.83561

PDX MAX = -428.7013 + .1221 X 45/125 THK + .0499 X 50/120 HGT + -.2014 X YKM MIN +

SEA MAX R= .85722 STANDARD ERROR = 4.26299 REDUCTION OF VARIANCE = .73482 STD. DEV. OF PND. 8.27833

SEA MAX = -254.1148 + .0814 X 45/125 THK + .0535 X 50/120 HGT + .2097 X SEA MAX + .2418 X YKM MIN + -.0299 X 35/125 HGT + .0722 X DAY OF YR +

TTI MAX R= .72707 STANDARD ERROR = 2.76810 REDUCTION OF VARIANCE = .52863 STD. DEV. OF PND. 4.03183

TTI MAX = -81.9842 + .0292 X 55/125 HGT + .2110 X EKA MAX + .2743 X SEA MIN + -.1715 X YKM MIN + .0276 X 40/130 THK + -.0161 X 40/130 HGT + .0609 X WMC MIN +

MSP MAX R= .86599 STANDARD ERROR = 5.35367 REDUCTION OF VARIANCE = .74993 STD. DEV. OF PND. 10.70585

MSP MAX = -265.4928 + .1585 X 45/095 THK + .2504 X STC MAX + -.0492 X 40/090 THK +

HON MAX R= .87868 STANDARD ERROR = 5.30586 REDUCTION OF VARIANCE = .77208 STD. DEV. OF PND. 11.11376

HON MAX = -371.9347 + .0866 X 45/105 THK + .2762 X HON MAX + .0620 X 50/100 THK + -.0423 X 50/100 HGT + .0377 X 40/100 HGT +

RAP MAX R= .88437 STANDARD ERROR = 5.63719 REDUCTION OF VARIANCE = .78210 STD. DEV. OF PND. 12.07638

RAP MAX = -552.1105 + .1260 X 45/105 THK + .0466 X 40/110 HGT + -.0738 X 50/110 HGT + .0627 X 50/110 THK + .0476 X 40/100 HGT +

CPR MAX R= .90516 STANDARD ERROR = 5.10030 REDUCTION OF VARIANCE = .81931 STD. DEV. OF PND. 11.99858

CPR MAX = -484.9520 + .0955 X 45/105 THK + .1555 X 40/110 HGT + -.1273 X 45/115 HGT + .0574 X 45/115 THK + .2374 X GJT MIN +

LND MAX R= .90419 STANDARD ERROR = 4.94647 REDUCTION OF VARIANCE = .81756 STD. DEV. OF PND. 11.58060

LND MAX = -266.8569 + .0453 X 45/105 THK + .1109 X 40/110 HGT + -.0558 X 50/120 HGT + .1738 X LND MAX + .3864 X LND MIN +

PIH MAX R= .91571 STANDARD ERROR = 4.54041 REDUCTION OF VARIANCE = .83852 STD. DEV. OF PND. 11.29880

PIH MAX = -545.9860 + .0935 X 45/115 THK + .0824 X 40/110 HGT + .0696 X 40/120 THK + -.0384 X 35/125 HGT +

BOI MAX R= .91068 STANDARD ERROR = 4.62734 REDUCTION OF VARIANCE = .82933 STD. DEV. OF PND. 11.20091

BOI MAX = -517.2746 + .0820 X 45/115 HGT + .0656 X 45/115 THK + .0912 X 40/120 THK + -.0404 X 35/125 HGT +

BNO MAX R= .91689 STANDARD ERROR = 4.35451 REDUCTION OF VARIANCE = .84069 STD. DEV. OF PND. 10.90983

BNO MAX = -456.5951 + .1925 X MFR MAX + .0568 X 45/115 HGT + .0686 X 40/120 THK + .0459 X 45/125 THK +

MFR MAX R= .90607 STANDARD ERROR = 4.77494 REDUCTION OF VARIANCE = .82096 STD. DEV. OF PND. 11.28489

MFR MAX = -330.6142 + .0935 X 45/125 HGT + .3228 X MFR MAX + .0686 X 40/130 THK + -.0335 X 35/135 HGT +

SLE MAX R= .86013 STANDARD ERROR = 4.76113 REDUCTION OF VARIANCE = .73983 STD. DEV. OF PND. 9.33431

SLE MAX = -471.2372 + .1194 X 45/125 THK + .0397 X 45/115 HGT + .0262 X 50/130 HGT + -.1768 X YKM MIN +

Northwest Min

May-June

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MIN R= .87653 STANDARD ERROR = 4.45898 REDUCTION OF VARIANCE = .76831 STD. DEV. OF PND. 9.26354

INL MIN = -227.5344 + .0367 X 50/090 THK + .2144 X INL MIN + .0561 X 50/100 THK + -.0279 X 45/105 HGT + .0919 X DAY OF YR + .0200 X 45/085 HGT +

DLH MIN R= .86939 STANDARD ERROR = 4.14071 REDUCTION OF VARIANCE = .75584 STD. DEV. OF PND. 8.37985

DLH MIN = -146.2353 + .0577 X 50/090 THK + .2434 X LH MIN + .1776 X DLH MAX +

STC MIN R= .87725 STANDARD ERROR = 4.36393 REDUCTION OF VARIANCE = .76957 STD. DEV. OF PND. 9.09096

STC MIN = -338.6674 + .0696 X 45/095 THK + .0404 X 50/090 THK + .2079 X BIS MIN + .0171 X 40/080 HGT +

FAR MIN R= .88538 STANDARD ERROR = 4.42572 REDUCTION OF VARIANCE = .78390 STD. DEV. OF PND. 9.52048

FAR MIN = -207.1431 + .0810 X 50/100 THK + .2221 X FAR MIN + -.0499 X 45/105 HGT + .0466 X 45/095 HGT + .1130 X DAY OF YR +

BIS MIN R= .86172 STANDARD ERROR = 4.38859 REDUCTION OF VARIANCE = .74256 STD. DEV. OF PND. 8.64936

BIS MIN = -371.0595 + .0551 X 50/100 THK + .0276 X 40/100 THK + .2898 X GGW MIN + .0308 X 40/150 THK + .0226 X 45/095 HGT +

ISN MIN R= .86128 STANDARD ERROR = 4.27745 REDUCTION OF VARIANCE = .74180 STD. DEV. OF PND. 8.41791

ISN MIN = -171.7930 + .0469 X 50/100 THK + .2162 X GGW MAX + .0751 X DAY OF YR + .0151 X 55/095 HGT + .2107 X GTF MIN +

GGW MIN R= .87527 STANDARD ERROR = 3.78122 REDUCTION OF VARIANCE = .76609 STD. DEV. OF PND. 7.81827

GGW MIN = -212.1531 + .0745 X 50/110 THK + .2719 X GGW MIN + .0920 X DAY OF YR + .0207 X 50/100 HGT + -.0161 X 50/120 HGT +

BIL MIN R= .88781 STANDARD ERROR = 3.39731 REDUCTION OF VARIANCE = .78821 STD. DEV. OF PND. 7.38221

BIL MIN = -189.4417 + .2354 X BIL MIN + .0410 X 50/110 THK + .0289 X 45/115 THK + .0634 X DAY OF YR + .1275 X BIL MAX +

GTF MIN R= .86904 STANDARD ERROR = 3.62888 REDUCTION OF VARIANCE = .75523 STD. DEV. OF PND. 7.33483

GTF MIN = -238.1434 + .3975 X GTF MIN + .0328 X 45/115 THK + .0446 X 55/115 THK + .0285 X 45/115 HGT + -.0164 X 55/125 HGT +

HLN MIN R= .83092 STANDARD ERROR = 3.95506 REDUCTION OF VARIANCE = .69043 STD. DEV. OF PND. 7.10846

HLN MIN = -103.7770 + .1203 X GTF MIN + .3050 X GEG MIN + .0397 X 50/110 THK + .2513 X HLN MIN +

MSO MIN R= .80404 STANDARD ERROR = 4.07365 REDUCTION OF VARIANCE = .64648 STD. DEV. OF PND. 6.85137

MSO MIN = -.2930 + .3186 X GEG MIN + .2572 X MSO MIN + .1180 X MSO MAX + .1933 X SLE MIN +

GEG MIN R= .88449 STANDARD ERROR = 3.27788 REDUCTION OF VARIANCE = .78232 STD. DEV. OF PND. 7.02566

GEG MIN = -103.7857 + .3210 X GEG MIN + .0390 X 45/125 THK + .1570 X XS MAX + .1596 X GEG MAX +

PDT MIN R= .88321 STANDARD ERROR = 3.09906 REDUCTION OF VARIANCE = .78007 STD. DEV. OF PND. 6.60822

PDT MIN = -166.0376 + .0361 X 45/125 THK + .1994 X YKM MAX + .2126 X SLE MIN + .0495 X DAY OF YR +
.0266 X 50/120 THK +

YKM MIN R= .78631 STANDARD ERROR = 4.77725 REDUCTION OF VARIANCE = .61828 STD. DEV. OF PND. 7.73227

YKM MIN = -4.4010 + .3369 X YKM MAX + .2062 X XS MAX + .2465 X YKM MIN +

PDX MIN R= .80328 STANDARD ERROR = 3.21060 REDUCTION OF VARIANCE = .64526 STD. DEV. OF PND. 5.39055

PDX MIN = -146.2474 + .4320 X PDX MIN + .0341 X 45/125 THK + .0256 X 55/125 THK +

SEA MIN R= .86878 STANDARD ERROR = 2.47079 REDUCTION OF VARIANCE = .75478 STD. DEV. OF PND. 4.98946

SEA MIN = -110.2418 + .4073 X SEA MIN + .0262 X 45/125 THK + .0272 X 50/130 THK + .0496 X DAY OF YR +
-.0079 X 45/135 HGT +

TTI MIN R= .79941 STANDARD ERROR = 1.79882 REDUCTION OF VARIANCE = .63906 STD. DEV. OF PND. 2.99412

TTI MIN = -70.7024 + .1387 X SEA MIN + .0112 X 50/130 THK + .1978 X EKA MAX + .0138 X 60/130 THK +
.0505 X BIS MIN + .0085 X 50/120 HGT +

MSP MIN R= .88737 STANDARD ERROR = 4.12909 REDUCTION OF VARIANCE = .78742 STD. DEV. OF PND. 8.95556

MSP MIN = -285.9021 + .0866 X 45/095 THK + .1912 X MSP MIN + .0717 X DAY OF YR + .0197 X 45/085 HGT +

HON MIN R= .89987 STANDARD ERROR = 4.14448 REDUCTION OF VARIANCE = .80977 STD. DEV. OF PND. 9.50230

HON MIN = -245.1328 + .0177 X 45/095 THK + .0240 X 50/100 THK + .1116 X DAY OF YR + -.0072 X 45/115 HGT +
.0528 X 45/105 THK + .0518 X 45/095 HGT + -.0482 X 45/105 HGT + .1964 X HON MIN +

RAP MIN R= .90116 STANDARD ERROR = 3.45540 REDUCTION OF VARIANCE = .81210 STD. DEV. OF PND. 7.97133

RAP MIN = -249.3742 + .0705 X 45/105 THK + .2734 X RAP MIN + .0713 X DAY OF YR + .0207 X 45/095 HGT +

CPR MIN R= .88097 STANDARD ERROR = 3.49211 REDUCTION OF VARIANCE = .77611 STD. DEV. OF PND. 7.38027

CPR MIN = -6.2601 + .2860 X CPR MIN + .1844 X HLN MAX + .1938 X CPR MAX + .0754 X DAY OF YR +

LND MIN R= .89192 STANDARD ERROR = 3.39252 REDUCTION OF VARIANCE = .79552 STD. DEV. OF PND. 7.50232

LND MIN = -91.6778 + .2128 X LND MAX + .0331 X 45/115 THK + .2749 X LND MIN + .1390 X HLN MAX +

PIH MIN R= .83977 STANDARD ERROR = 3.90951 REDUCTION OF VARIANCE = .70521 STD. DEV. OF PND. 7.20052

PIH MIN = -99.4694 + .0384 X 45/115 THK + .2117 X PIH MIN + .1997 X BNO MIN + .1663 X PIH MAX +

BOI MIN R= .89733 STANDARD ERROR = 3.43266 REDUCTION OF VARIANCE = .80520 STD. DEV. OF PND. 7.77748

BOI MIN = -157.3478 + .2818 X BNO MAX + .2731 X BOI MIN + .0587 X 45/125 THK + -.0532 X 45/125 HGT +
.0532 X 45/115 HGT + .0818 X DAY OF YR + -.1672 X WMC MAX +

BNO MIN R= .84359 STANDARD ERROR = 4.06353 REDUCTION OF VARIANCE = .71164 STD. DEV. OF PND. 7.56722

BNO MIN = -119.6946 + .2034 X BNO MIN + .0430 X 45/125 THK + .2265 X BNO MAX + .2323 X PDX MIN +

MFR MIN R= .82998 STANDARD ERROR = 3.44177 REDUCTION OF VARIANCE = .68887 STD. DEV. OF PND. 6.17039

MFR MIN = -143.8569 + .3495 X MFR MIN + .0617 X 45/125 THK + .0549 X DAY OF YR + -.0279 X 45/125 HGT +
.0230 X 45/115 HGT +

SLE MIN R= .76386 STANDARD ERROR = 3.67534 REDUCTION OF VARIANCE = .58348 STD. DEV. OF PND. 5.69480

SLE MIN = -88.2597 + .4166 X SLE MIN + .0318 X 50/130 THK + .2643 X EKA MAX + .1039 X PDX MAX +

Southwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MAX R= .85833 STANDARD ERROR = 5.01188 REDUCTION OF VARIANCE = .73673 STD. DEV. OF PND. 9.76796

DSM MAX = -309.5147 + .0824 X 45/095 THK + .2487 X OMA MAX + .0413 X 40/100 THK +

OMA MAX R= .85321 STANDARD ERROR = 5.18053 REDUCTION OF VARIANCE = .72797 STD. DEV. OF PND. 9.93265

OMA MAX = -354.3227 + .0787 X 40/100 THK + .0620 X 45/095 THK + .1760 X OMA MAX +

LBF MAX R= .88281 STANDARD ERROR = 5.31155 REDUCTION OF VARIANCE = .77936 STD. DEV. OF PND. 11.30775

LBF MAX = -391.0870 + .0646 X 40/100 THK + .0948 X 45/105 THK + -.0420 X 50/100 HGT + .0630 X 35/105 HGT +
-.0302 X 45/125 THK + .2039 X HON MIN +

DEN MAX R= .89775 STANDARD ERROR = 5.04191 REDUCTION OF VARIANCE = .80595 STD. DEV. OF PND. 11.44560

DEN MAX = -456.0367 + .0512 X 40/110 THK + .0925 X 45/105 THK + -.0801 X 45/105 HGT + .1345 X 35/105 HGT +
.1821 X DEN MAX + -.0279 X 50/120 HGT +

SLC MAX R= .91489 STANDARD ERROR = 4.61700 REDUCTION OF VARIANCE = .83703 STD. DEV. OF PND. 11.43685

SLC MAX = -356.2212 + .3942 X ELY MAX + .0791 X 45/115 THK + .0984 X 40/110 HGT + -.0430 X 40/120 HGT +

WMC MAX R= .93210 STANDARD ERROR = 4.31145 REDUCTION OF VARIANCE = .86880 STD. DEV. OF PND. 11.90312

WMC MAX = -421.6998 + .1027 X 40/120 THK + .0935 X 45/115 HGT + .2703 X WMC MAX + -.0377 X 50/110 HGT +

RNO MAX R= .93395 STANDARD ERROR = 3.99670 REDUCTION OF VARIANCE = .87227 STD. DEV. OF PND. 11.18289

RNO MAX = -198.0626 + .1266 X 40/120 HGT + .4407 X RNO MAX + -.0525 X 30/120 HGT + .0888 X DAY OF YR +

RBL MAX R= .92212 STANDARD ERROR = 4.36476 REDUCTION OF VARIANCE = .85031 STD. DEV. OF PND. 11.28138

RBL MAX = -390.8735 + .3424 X SAC MAX + .1381 X 40/120 HGT + .0430 X 40/130 HGT + -.1020 X 35/115 HGT +
.0676 X 35/115 THK +

EKA MAX R= .72848 STANDARD ERROR = 2.43914 REDUCTION OF VARIANCE = .53069 STD. DEV. OF PND. 3.56047

EKA MAX = -94.1274 + .3387 X EKA MAX + .0351 X 40/130 THK + -.0013 X 40/140 HGT + .2327 X SFO MIN +
-.0999 X MFR MAX + .0200 X 45/115 HGT + -.0236 X 40/130 HGT + .0135 X 30/130 HGT +

MKC MAX R= .87389 STANDARD ERROR = 4.59135 REDUCTION OF VARIANCE = .76369 STD. DEV. OF PND. 9.44491

MKC MAX = -194.8851 + .3784 X MKC MIN + .0791 X 40/100 THK + .1887 X MKC MAX +

TOP MAX R= .87828 STANDARD ERROR = 4.52347 REDUCTION OF VARIANCE = .77138 STD. DEV. OF PND. 9.46044

TOP MAX = -236.6967 + .0951 X 40/100 THK + .3000 X MKC MIN + .1703 X TOP MAX +

ICT MAX R= .87856 STANDARD ERROR = 4.86268 REDUCTION OF VARIANCE = .77186 STD. DEV. OF PND. 10.18071

ICT MAX = -235.4824 + .0932 X 40/100 THK + .2259 X ICT MAX + .3178 X ICT MIN +

DDC MAX R= .88098 STANDARD ERROR = 5.30280 REDUCTION OF VARIANCE = .77612 STD. DEV. OF PND. 11.20733

DDC MAX = -417.2715 + .1394 X 40/100 THK + -.0600 X 45/105 HGT + .0801 X 35/105 HGT + .1791 X DDC MAX +

PUB MAX R= .88978 STANDARD ERROR = 5.13321 REDUCTION OF VARIANCE = .79170 STD. DEV. OF PND. 11.24725

PUB MAX = -459.4796 + .0764 X 40/100 THK + .1240 X 35/105 HGT + -.1014 X 45/105 HGT + .0728 X 45/105 THK +
.2205 X INW MAX +

GJT MAX R= .90838 STANDARD ERROR = 4.30077 REDUCTION OF VARIANCE = .82516 STD. DEV. OF PND. 10.28539

GJT MAX = -386.5378 + .0932 X 40/110 THK + .4224 X INW MAX + .0486 X 35/105 HGT +

MLF MAX R= .93172 STANDARD ERROR = 4.00902 REDUCTION OF VARIANCE = .86811 STD. DEV. OF PND. 11.03894

MLF MAX = -264.7572 + .3474 X ELY MAX + .0797 X 40/110 HGT + .0963 X DAY OF YR + -.0292 X 45/125 HGT +
.0486 X 35/115 THK +

ELY MAX R= .92518 STANDARD ERROR = 4.36607 REDUCTION OF VARIANCE = .85596 STD. DEV. OF PND. 11.50420

ELY MAX = -364.7817 + .3920 X ELY MAX + .0774 X 35/115 HGT + .0830 X 40/120 THK + -.0259 X 45/125 HGT +

SAC MAX R= .87660 STANDARD ERROR = 4.72587 REDUCTION OF VARIANCE = .76844 STD. DEV. OF PND. 9.82079

SAC MAX = -273.4065 + .4250 X SAC MAX + .0581 X 35/125 HGT + .0712 X 45/125 HGT + -.0256 X 50/130 HGT +

SFO MAX R= .76675 STANDARD ERROR = 4.59232 REDUCTION OF VARIANCE = .58791 STD. DEV. OF PND. 7.15380

SFO MAX = -112.3932 + .8505 X SAC MIN + -.1177 X BNO MAX + .0495 X 40/120 HGT + -.2534 X MFR MIN + .1968 X SFO MAX + -.1247 X RBL MAX +

OKC MAX R= .85543 STANDARD ERROR = 4.48605 REDUCTION OF VARIANCE = .73177 STD. DEV. OF PND. 8.66179

OKC MAX = -131.6285 + .3238 X OKC MAX + .0551 X 40/100 THK + .3589 X OKC MIN +

AMA MAX R= .86331 STANDARD ERROR = 5.25904 REDUCTION OF VARIANCE = .74531 STD. DEV. OF PND. 10.42070

AMA MAX = -325.8243 + .0742 X 40/100 THK + .0495 X 35/105 THK + -.0738 X 45/105 HGT + .2811 X AMA MAX + .0764 X 35/105 HGT +

ABQ MAX R= .89242 STANDARD ERROR = 3.85989 REDUCTION OF VARIANCE = .79641 STD. DEV. OF PND. 8.55451

ABQ MAX = -343.2653 + .3758 X INW MAX + .0902 X 35/105 THK + .0390 X 30/110 HGT +

INW MAX R= .90483 STANDARD ERROR = 4.00014 REDUCTION OF VARIANCE = .81872 STD. DEV. OF PND. 9.39507

INW MAX = -170.3949 + .6747 X INW MAX + .0640 X 35/115 HGT +

LAS MAX R= .94274 STANDARD ERROR = 3.39144 REDUCTION OF VARIANCE = .88875 STD. DEV. OF PND. 10.16810

LAS MAX = -157.6155 + .5033 X LAS MAX + .1181 X 35/115 HGT + .0945 X DAY OF YR + -.0564 X 30/110 HGT +

BFL MAX R= .94150 STANDARD ERROR = 3.30666 REDUCTION OF VARIANCE = .88641 STD. DEV. OF PND. 9.81131

BFL MAX = -173.1197 + .4705 X BFL MIN + .0666 X 40/120 HGT + .3214 X SAC MAX +

FAT MAX R= .92617 STANDARD ERROR = 3.74653 REDUCTION OF VARIANCE = .85779 STD. DEV. OF PND. 9.93478

FAT MAX = -199.7993 + .3341 X SAC MAX + .0764 X 40/120 HGT + .3734 X BFL MIN +

SMX MAX R= .71585 STANDARD ERROR = 3.86369 REDUCTION OF VARIANCE = .51244 STD. DEV. OF PND. 5.53334

SMX MAX = -141.5035 + .0689 X 40/120 HGT + .1252 X LAX MAX + -.1199 X RNO MAX + .0873 X 30/120 THK + .3075 X SAC MIN + -.2470 X BFL MIN + .1899 X EKA MAX + -.0735 X 30/120 HGT + -.0433 X 40/120 THK + .0262 X 35/115 HGT +

FTW MAX R= .85841 STANDARD ERROR = 4.09267 REDUCTION OF VARIANCE = .73686 STD. DEV. OF PND. 7.97842

FTW MAX = -149.0584 + .2056 X FTW MAX + .0597 X 35/105 THK + .3224 X FTW MIN + .1878 X OKC MAX +

MAF MAX R= .85357 STANDARD ERROR = 4.28846 REDUCTION OF VARIANCE = .72857 STD. DEV. OF PND. 8.23143

MAF MAX = -183.4502 + .0971 X 35/105 THK + .2493 X MAF MAX + -.0338 X 45/105 HGT + .3134 X MAF MIN + -.0512 X 35/095 HGT + .0633 X 30/100 HGT +

ELP MAX R= .88962 STANDARD ERROR = 3.32641 REDUCTION OF VARIANCE = .79143 STD. DEV. OF PND. 7.28364

ELP MAX = -301.6974 + .3598 X ELP MAX + .0581 X 30/110 THK + .0600 X 35/105 THK +

TUS MAX R= .92396 STANDARD ERROR = 3.01980 REDUCTION OF VARIANCE = .85369 STD. DEV. OF PND. 7.89491

TUS MAX = -312.4362 + .3887 X TUS MAX + .0427 X 35/115 HGT + .0774 X 30/110 THK +

PHX MAX R= .93625 STANDARD ERROR = 3.03036 REDUCTION OF VARIANCE = .87656 STD. DEV. OF PND. 8.62526

PHX MAX = -185.1623 + .6177 X PHX MAX + .0715 X 35/115 HGT +

YUM MAX R= .94878 STANDARD ERROR = 2.73778 REDUCTION OF VARIANCE = .90018 STD. DEV. OF PND. 8.66551

YUM MAX = -312.1774 + .0709 X 35/115 HGT + .3989 X YUM MAX + .0505 X 30/120 THK +

SAN MAX R= .77162 STANDARD ERROR = 2.71940 REDUCTION OF VARIANCE = .59539 STD. DEV. OF PND. 4.27518

SAN MAX = -18.1989 + .4003 X SAN MAX + .0453 X 35/115 HGT + -.0322 X 35/115 THK + .2481 X LAX MAX +

LAX MAX R= .81911 STANDARD ERROR = 2.74899 REDUCTION OF VARIANCE = .67094 STD. DEV. OF PND. 4.79218

LAX MAX = -21.1041 + .4000 X LAX MAX + .0328 X 40/120 HGT + -.0253 X 40/120 THK + .4275 X LAX MIN + .3208 X SAN MAX + -.1060 X BFL MAX +

SAT MAX R= .81930 STANDARD ERROR = 3.47884 REDUCTION OF VARIANCE = .67126 STD. DEV. OF PND. 6.06747

SAT MAX = -157.6580 + .4254 X SAT MAX + .0656 X 30/100 THK + .1142 X PUB MAX +

DRT MAX R= .81956 STANDARD ERROR = 3.70297 REDUCTION OF VARIANCE = .67168 STD. DEV. OF PND. 6.46250

DRT MAX = -197.2139 + .4532 X DRT MAX + .0538 X 35/105 THK + .0538 X 30/100 THK + -.0256 X 35/095 HGT +

Southwest Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MIN R= .89422 STANDARD ERROR = 3.82715 REDUCTION OF VARIANCE = .79964 STD. DEV. OF PND. 8.54999

DSM MIN = -260.2270 + .0686 X 45/095 THK + .3466 X DSM MIN + .0308 X 40/100 THK +

OMA MIN R= .89446 STANDARD ERROR = 3.82637 REDUCTION OF VARIANCE = .80006 STD. DEV. OF PND. 8.55724

OMA MIN = -336.7492 + .0525 X 45/095 THK + .0482 X 40/100 THK + .2001 X OMA MIN + .0262 X 40/090 HGT +

LBF MIN R= .88108 STANDARD ERROR = 4.19804 REDUCTION OF VARIANCE = .77630 STD. DEV. OF PND. 8.87593

LBF MIN = -313.3719 + .0614 X 40/100 THK + .0335 X 45/095 HGT + .0499 X 45/105 THK + .1320 X DAY OF YR + -.0295 X 35/115 HGT +

DEN MIN R= .87635 STANDARD ERROR = 3.61442 REDUCTION OF VARIANCE = .76799 STD. DEV. OF PND. 7.50392

DEN MIN = -253.8493 + .3800 X DEN MIN + .0522 X 40/110 THK + .0423 X 45/105 THK +

SLC MIN R= .86506 STANDARD ERROR = 4.01164 REDUCTION OF VARIANCE = .74833 STD. DEV. OF PND. 7.99660

SLC MIN = 68.2630 + .2985 X PIH MAX + .2602 X SLC MIN + .1812 X BNO MAX + -.0249 X 45/125 HGT + .0636 X DAY OF YR +

WMC MIN R= .78825 STANDARD ERROR = 5.19881 REDUCTION OF VARIANCE = .62134 STD. DEV. OF PND. 8.44852

WMC MIN = -4.3711 + .3268 X BNO MAX + .3767 X WMC MIN + .1682 X MSO MIN +

RNO MIN R= .79625 STANDARD ERROR = 4.00550 REDUCTION OF VARIANCE = .63402 STD. DEV. OF PND. 6.62108

RNO MIN = 9.0545 + .0305 X 40/120 THK + .2575 X RNO MIN + .2674 X SEA MIN + -.0312 X 30/120 HGT + .1923 X RNO MAX +

RBL MIN R= .91037 STANDARD ERROR = 3.12117 REDUCTION OF VARIANCE = .82877 STD. DEV. OF PND. 7.54259

RBL MIN = -105.7715 + .3066 X RBL MIN + .2884 X SAC MAX + .0384 X 40/130 THK + .0615 X DAY OF YR +

EKA MIN R= .79541 STANDARD ERROR = 1.96099 REDUCTION OF VARIANCE = .63267 STD. DEV. OF PND. 3.23555

EKA MIN = -26.1283 + .3383 X EKA MIN + .0138 X 45/125 THK + .2124 X EKA MAX + .1271 X SEA MIN +

MKC MIN R= .90597 STANDARD ERROR = 3.56900 REDUCTION OF VARIANCE = .82077 STD. DEV. OF PND. 8.43036

MKC MIN = -228.1356 + .0509 X 40/100 THK + .3887 X MKC MIN + .0374 X 40/090 HGT + -.0279 X 45/105 HGT + .0272 X 45/105 THK +

TOP MIN R= .89104 STANDARD ERROR = 3.95787 REDUCTION OF VARIANCE = .79395 STD. DEV. OF PND. 8.71913

TOP MIN = -202.9923 + .0722 X 40/100 THK + .3267 X TOP MIN + .0404 X 40/090 HGT + -.0358 X 40/110 HGT + .1965 X FAT MIN +

ICT MIN R= .89817 STANDARD ERROR = 3.66159 REDUCTION OF VARIANCE = .80671 STD. DEV. OF PND. 8.32856

ICT MIN = -191.6360 + .0679 X 40/100 THK + .3159 X ICT MIN + -.0305 X 40/110 HGT + .0354 X 35/095 HGT + .0760 X DAY OF YR +

DDC MIN R= .90384 STANDARD ERROR = 3.53965 REDUCTION OF VARIANCE = .81693 STD. DEV. OF PND. 8.27288

DDC MIN = -335.3469 + .0761 X 40/100 THK + .1051 X DAY OF YR + .0443 X 35/095 HGT + -.0240 X 45/115 HGT + .0272 X 45/105 THK +

PUB MIN R= .86213 STANDARD ERROR = 3.77879 REDUCTION OF VARIANCE = .74326 STD. DEV. OF PND. 7.45778

PUB MIN = -112.1442 + .2776 X PUB MIN + .1987 X GJT MAX + .0407 X 40/100 THK + .0691 X DAY OF YR +

GJT MIN R= .89360 STANDARD ERROR = 3.49833 REDUCTION OF VARIANCE = .79853 STD. DEV. OF PND. 7.79383

GJT MIN = .4539 + .4065 X GJT MAX + .1739 X SLC MAX + .1759 X ELY MIN +

MLF MIN R= .82469 STANDARD ERROR = 4.36835 REDUCTION OF VARIANCE = .68012 STD. DEV. OF PND. 7.72365

MLF MIN = 46.4102 + .3036 X LAS MAX + .2446 X ELY MIN + .1867 X PIH MIN + .2264 X RBL MIN + -.0200 X 40/120 HGT +

ELY MIN R= .82317 STANDARD ERROR = 4.26846 REDUCTION OF VARIANCE = .67760 STD. DEV. OF PND. 7.51753

ELY MIN = 61.4513 + .2630 X WMC MAX + .3409 X ELY MIN + -.0226 X 40/130 HGT + .2273 X RBL MIN +

SAC MIN R= .86808 STANDARD ERROR = 2.72370 REDUCTION OF VARIANCE = .75356 STD. DEV. OF PND. 5.48665

SAC MIN = -70.2288 + .2675 X SAC MIN + .1262 X SAC MAX + .0253 X 40/130 THK + .1714 X SFO MAX + .2519 X EKA MIN +

SFO MIN R= .77721 STANDARD ERROR = 2.18887 REDUCTION OF VARIANCE = .60406 STD. DEV. OF PND. 3.47859

SFO MIN = -36.6950 + .5023 X SFO MIN + .0171 X 45/125 THK + .2000 X EKA MAX +

OKC MIN R= .88194 STANDARD ERROR = 3.47690 REDUCTION OF VARIANCE = .77783 STD. DEV. OF PND. 7.37643

OKC MIN = -263.8355 + .3383 X OKC MIN + .0535 X 40/100 THK + .0476 X 35/095 THK +

AMA MIN R= .87498 STANDARD ERROR = 3.74339 REDUCTION OF VARIANCE = .76559 STD. DEV. OF PND. 7.73167

AMA MIN = -153.7744 + .0571 X 40/100 THK + .2741 X ABQ MAX + .2762 X AMA MIN +

ABQ MIN R= .88488 STANDARD ERROR = 3.65445 REDUCTION OF VARIANCE = .78301 STD. DEV. OF PND. 7.84513

ABQ MIN = -7.7801 + .3018 X INW MAX + .3454 X ABQ MIN + .2203 X ABQ MAX +

INW MIN R= .88758 STANDARD ERROR = 3.63267 REDUCTION OF VARIANCE = .78780 STD. DEV. OF PND. 7.88594

INW MIN = -11.6806 + .3402 X LAS MAX + .3049 X INW MIN + .2269 X YUM MIN +

LAS MIN R= .91037 STANDARD ERROR = 3.48453 REDUCTION OF VARIANCE = .82877 STD. DEV. OF PND. 8.42080

LAS MIN = -7.0384 + .4503 X LAS MAX + .2528 X BFL MIN + .2146 X LAS MIN +

BFL MIN R= .93844 STANDARD ERROR = 2.42674 REDUCTION OF VARIANCE = .88067 STD. DEV. OF PND. 7.02494

BFL MIN = -1.3969 + .3201 X SAC MAX + .4512 X FAT MIN + .1211 X MFR MAX +

FAT MIN R= .91671 STANDARD ERROR = 2.47397 REDUCTION OF VARIANCE = .84035 STD. DEV. OF PND. 6.19180

FAT MIN = -60.2410 + .2307 X SAC MAX + .3327 X FAT MIN + .0243 X 40/130 THK + .1057 X BNO MAX +

SMX MIN R= .73629 STANDARD ERROR = 3.02930 REDUCTION OF VARIANCE = .54212 STD. DEV. OF PND. 4.47680

SMX MIN = 59.7093 + .2963 X FAT MIN + .1370 X MFR MAX + .2264 X EKA MIN + -.0157 X 30/120 HGT +

FTW MIN R= .88264 STANDARD ERROR = 3.21013 REDUCTION OF VARIANCE = .77906 STD. DEV. OF PND. 6.82937

FTW MIN = -230.6180 + .3943 X FTW MIN + .0318 X 40/100 THK + .0581 X 35/095 THK +

MAF MIN R= .87694 STANDARD ERROR = 3.35972 REDUCTION OF VARIANCE = .76902 STD. DEV. OF PND. 6.99067

MAF MIN = -148.6483 + .0581 X 35/105 THK + .2107 X MAF MIN + -.0381 X 35/115 HGT + .1033 X DAY OF YR + .1515 X MAF MAX + .0351 X 30/100 HGT +

ELP MIN R= .87338 STANDARD ERROR = 3.56757 REDUCTION OF VARIANCE = .76280 STD. DEV. OF PND. 7.32514

ELP MIN = 66.8356 + .3436 X ELP MAX + .2057 X ABQ MIN + .2855 X TUS MAX + -.0276 X 40/110 HGT + .0846 X DAY OF YR +

TUS MIN R= .91882 STANDARD ERROR = 3.23332 REDUCTION OF VARIANCE = .84423 STD. DEV. OF PND. 8.19224

TUS MIN = -17.7558 + .4242 X TUS MIN + .3272 X YUM MAX + .2294 X TUS MAX +

PHX MIN R= .91738 STANDARD ERROR = 3.15639 REDUCTION OF VARIANCE = .84158 STD. DEV. OF PND. 7.93018

PHX MIN = -177.5795 + .5437 X PHX MIN + .0679 X 35/115 THK +

YUM MIN R= .91494 STANDARD ERROR = 3.00898 REDUCTION OF VARIANCE = .83712 STD. DEV. OF PND. 7.45554

YUM MIN = -236.5645 + .4179 X YUM MIN + .0502 X 35/115 THK + .0410 X 30/120 THK +

SAN MIN R= .85494 STANDARD ERROR = 1.50362 REDUCTION OF VARIANCE = .73093 STD. DEV. OF PND. 2.89872

SAN MIN = 11.5538 + .4055 X SAN MIN + .0680 X BFL MAX + .0939 X LAX MAX + .1875 X LAX MIN +

LAX MIN R= .86422 STANDARD ERROR = 1.77460 REDUCTION OF VARIANCE = .74688 STD. DEV. OF PND. 3.52724

LAX MIN = 7.3115 + .5600 X LAX MIN + .0818 X RBL MAX + .1548 X LAX MAX +

SAT MIN R= .84685 STANDARD ERROR = 3.10681 REDUCTION OF VARIANCE = .71715 STD. DEV. OF PND. 5.84166

SAT MIN = -139.2361 + .4418 X SAT MIN + .0453 X 30/100 THK + .1831 X PUB MIN + -.0171 X 45/105 HGT + .0259 X 30/090 HGT +

DRT MIN R= .83730 STANDARD ERROR = 2.96096 REDUCTION OF VARIANCE = .70107 STD. DEV. OF PND. 5.41566

DRT MIN = -136.6623 + .3633 X DRT MIN + .0440 X 30/100 THK + .0295 X 35/105 THK + -.0171 X 35/115 HGT + .0597 X DAY OF YR +

Southeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MAX R= .84706 STANDARD ERROR = 4.91681 REDUCTION OF VARIANCE = .71752 STD. DEV. OF PND. 9.25101

SBY MAX = -158.2953 + .3577 X NYC MIN + .0892 X 40/080 THK + -.0210 X 50/080 HGT + .4902 X DCA MIN + -.2917 X CRW MIN +

DCA MAX R= .87593 STANDARD ERROR = 4.41857 REDUCTION OF VARIANCE = .76724 STD. DEV. OF PND. 9.15867

DCA MAX = -99.3944 + .0863 X 40/080 THK + .3626 X NYC MIN + -.0262 X 50/080 HGT + .0449 X 35/085 HGT + -.0614 X 35/085 THK + .2182 X LOU MAX + -.2761 X CRW MIN + .3553 X DCA MIN +

CRW MAX R= .87674 STANDARD ERROR = 4.27198 REDUCTION OF VARIANCE = .76867 STD. DEV. OF PND. 8.88211

CRW MAX = -193.5637 + .0492 X 40/080 THK + .0584 X 40/080 HGT + .3287 X STL MAX + -.0266 X 45/095 HGT +

HTS MAX R= .87428 STANDARD ERROR = 4.23801 REDUCTION OF VARIANCE = .76437 STD. DEV. OF PND. 8.73068

HTS MAX = -228.3814 + .0666 X 40/080 HGT + .2953 X STL MAX + .0673 X 40/090 THK + -.0394 X 40/090 HGT +

LOU MAX R= .87321 STANDARD ERROR = 4.37658 REDUCTION OF VARIANCE = .76250 STD. DEV. OF PND. 8.98063

LOU MAX = -294.6637 + .1188 X 40/090 THK + .2593 X LOU MAX +

ORF MAX R= .87433 STANDARD ERROR = 4.41314 REDUCTION OF VARIANCE = .76445 STD. DEV. OF PND. 9.09302

ORF MAX = -218.9498 + .5577 X DCA MIN + -.0650 X 45/075 HGT + .0637 X 40/080 THK + .0554 X 35/075 HGT + .0384 X 45/075 THK + -.1914 X AGS MIN +

RIC MAX R= .85702 STANDARD ERROR = 4.60937 REDUCTION OF VARIANCE = .73449 STD. DEV. OF PND. 8.94540

RIC MAX = -238.5892 + .5941 X DCA MIN + .0915 X 40/080 THK + -.0397 X 45/075 HGT + .0476 X 35/085 HGT + -.2661 X AGS MIN +

ROA MAX R= .86190 STANDARD ERROR = 4.62126 REDUCTION OF VARIANCE = .74286 STD. DEV. OF PND. 9.11336

ROA MAX = -253.1330 + .0696 X 40/080 THK + .2343 X ROA MAX + .0627 X 35/085 HGT + -.0322 X 45/075 HGT + .1230 X CHI MAX + -.2353 X AGS MIN + .2403 X DCA MIN +

HAT MAX R= .85070 STANDARD ERROR = 3.24429 REDUCTION OF VARIANCE = .72369 STD. DEV. OF PND. 6.17192

HAT MAX = 26.6955 + .3145 X DCA MIN + .2976 X HAT MIN + .1558 X ORF MAX +

RDU MAX R= .86366 STANDARD ERROR = 4.00710 REDUCTION OF VARIANCE = .74590 STD. DEV. OF PND. 7.94932

RDU MAX = -195.9858 + .0774 X 40/080 THK + .2293 X RDU MAX + .0407 X 35/085 HGT + -.0367 X 45/075 HGT + .2270 X DCA MIN +

GSO MAX R= .85973 STANDARD ERROR = 4.08897 REDUCTION OF VARIANCE = .73913 STD. DEV. OF PND. 8.00580

GSO MAX = -286.3961 + .0988 X 40/080 THK + .2829 X ROA MAX + .0942 X 35/085 HGT + -.0787 X 40/080 HGT +

TYS MAX R= .88167 STANDARD ERROR = 3.60757 REDUCTION OF VARIANCE = .77734 STD. DEV. OF PND. 7.64529

TYS MAX = -116.1642 + .2830 X TYS MAX + .0390 X 40/090 THK + .0430 X 35/085 HGT + .2374 X MEM MAX + -.0305 X 30/100 HGT +

BNA MAX R= .87699 STANDARD ERROR = 3.87024 REDUCTION OF VARIANCE = .76911 STD. DEV. OF PND. 8.05439

BNA MAX = -260.7966 + .0702 X 40/090 THK + .3480 X MEM MAX + .0335 X 35/085 HGT +

MEM MAX R= .87671 STANDARD ERROR = 3.66747 REDUCTION OF VARIANCE = .76861 STD. DEV. OF PND. 7.62426

MEM MAX = -252.5845 + .0469 X 40/090 THK + .3661 X MEM MAX + .0551 X 35/095 THK +

LIT MAX R= .87057 STANDARD ERROR = 3.77246 REDUCTION OF VARIANCE = .75790 STD. DEV. OF PND. 7.66696

LIT MAX = -115.5946 + .1594 X FSM MAX + .2632 X CBI MIN + .0499 X 35/095 THK + .2470 X LIT MAX +

FSM MAX R= .86436 STANDARD ERROR = 4.03310 REDUCTION OF VARIANCE = .74711 STD. DEV. OF PND. 8.01998

FSM MAX = -278.8630 + .3548 X FSM MAX + .0476 X 40/100 THK + .0633 X 35/095 THK +

CHS MAX R= .83969 STANDARD ERROR = 3.34520 REDUCTION OF VARIANCE = .70508 STD. DEV. OF PND. 6.15989

CHS MAX = -142.3424 + .3207 X CHS MAX + .0312 X 35/085 THK + .1431 X RIC MAX + -.0591 X 40/080 HGT + .0427 X 40/080 THK + .0482 X 35/085 HGT +

CLT MAX R= .85943 STANDARD ERROR = 3.97725 REDUCTION OF VARIANCE = .73861 STD. DEV. OF PND. 7.77929

CLT MAX = -145.8738 + -.0167 X 35/085 THK + .2774 X CLT MAX + .1586 X DCA MIN + .1878 X LOU MAX + -.0761 X 40/080 HGT + .0945 X 35/085 HGT + .0581 X 40/080 THK +

AGS MAX R= .86088 STANDARD ERROR = 3.55700 REDUCTION OF VARIANCE = .74111 STD. DEV. OF PND. 6.99076

AGS MAX = -104.4101 + .0692 X 35/085 THK + .3220 X AGS MAX + -.0177 X 45/075 HGT + .1903 X DCA MIN + -.2544 X TPA MIN + .1823 X BNA MAX +

AHN MAX R= .86413 STANDARD ERROR = 3.30720 REDUCTION OF VARIANCE = .74673 STD. DEV. OF PND. 6.57155

AHN MAX = -99.9534 + .0650 X 35/085 THK + .3491 X AHN MAX + -.2701 X TPA MIN + .1827 X BNA MAX + -.0151 X 45/075 HGT + .1341 X DCA MIN +

ATL MAX R= .86362 STANDARD ERROR = 3.61136 REDUCTION OF VARIANCE = .74585 STD. DEV. OF PND. 7.16348

ATL MAX = -201.7144 + .0850 X 35/085 THK + .4116 X ATL MAX + -.2502 X JAX MIN + .5219 X ATL MIN + -.3330 X AHN MIN +

BHM MAX R= .86078 STANDARD ERROR = 3.49025 REDUCTION OF VARIANCE = .74095 STD. DEV. OF PND. 6.85746

BHM MAX = -243.7107 + .4558 X BHM MAX + .0591 X 35/095 THK + .0436 X 35/085 THK + -.2102 X CRP MAX +

JAN MAX R= .86787 STANDARD ERROR = 3.37002 REDUCTION OF VARIANCE = .75319 STD. DEV. OF PND. 6.78345

JAN MAX = -180.9503 + .5125 X JAN MAX + .0742 X 35/095 THK +

SHV MAX R= .85052 STANDARD ERROR = 3.41331 REDUCTION OF VARIANCE = .72339 STD. DEV. OF PND. 6.48992

SHV MAX = -220.4726 + .0919 X 35/095 THK + .3398 X SHV MAX +

JAX MAX R= .81786 STANDARD ERROR = 3.18098 REDUCTION OF VARIANCE = .66890 STD. DEV. OF PND. 5.52814

JAX MAX = -115.4150 + .2778 X JAX MAX + .0512 X 35/085 THK + -.0269 X 40/080 HGT + .0269 X 30/080 HGT + .1170 X RDU MAX + .1681 X TLH MAX +

TLH MAX R= .80477 STANDARD ERROR = 3.14379 REDUCTION OF VARIANCE = .64765 STD. DEV. OF PND. 5.29621

TLH MAX = -136.9015 + .4912 X TLH MAX + .0482 X 35/085 THK + .0308 X 30/090 HGT + -.0194 X 35/075 HGT +

MGM MAX R= .84900 STANDARD ERROR = 3.35624 REDUCTION OF VARIANCE = .72080 STD. DEV. OF PND. 6.35173

MGM MAX = -196.6910 + .4606 X MGM MAX + .0367 X 35/095 THK + .0443 X 35/085 THK +

MOB MAX R= .85126 STANDARD ERROR = 2.85221 REDUCTION OF VARIANCE = .72465 STD. DEV. OF PND. 5.43549

MOB MAX = -70.3447 + .4708 X MOB MAX + .0243 X 35/095 THK + .0486 X 30/090 HGT + -.0387 X 30/080 HGT + .1948 X ATL MIN +

MSY MAX R= .83455 STANDARD ERROR = 2.61395 REDUCTION OF VARIANCE = .69647 STD. DEV. OF PND. 4.74457

MSY MAX = -165.4843 + .2876 X MSY MAX + .0331 X 35/095 THK + .0371 X 30/090 THK + .1662 X MOB MAX +

LCH MAX R= .81876 STANDARD ERROR = 2.79406 REDUCTION OF VARIANCE = .67036 STD. DEV. OF PND. 4.86650

LCH MAX = -107.8254 + .4944 X LCH MAX + .0502 X 35/095 THK +

HOU MAX R= .81849 STANDARD ERROR = 2.85318 REDUCTION OF VARIANCE = .66992 STD. DEV. OF PND. 4.96617

HOU MAX = -131.7647 + .4066 X HOU MAX + .0463 X 30/100 THK + .1218 X FTW MAX + .0108 X 45/105 THK +

CRP MAX R= .83953 STANDARD ERROR = 2.28426 REDUCTION OF VARIANCE = .70480 STD. DEV. OF PND. 4.20427

CRP MAX = -91.7313 + .4405 X CRP MAX + .0436 X 30/100 THK + .0523 X DAY OF YR +

BRO MAX R= .78451 STANDARD ERROR = 2.30594 REDUCTION OF VARIANCE = .61545 STD. DEV. OF PND. 3.71855

BRO MAX = -65.6711 + .4618 X BRO MAX + .0335 X 30/100 THK + .1483 X BRO MIN +

ORL MAX R= .79082 STANDARD ERROR = 2.60905 REDUCTION OF VARIANCE = .62539 STD. DEV. OF PND. 4.26279

ORL MAX = -42.2916 + .3177 X ORL MAX + .1693 X CHS MIN + .2104 X TLH MAX + .0335 X 25/085 HGT + -.0102 X 40/080 HGT +

TPA MAX R= .76665 STANDARD ERROR = 2.31276 REDUCTION OF VARIANCE = .58775 STD. DEV. OF PND. 3.60207

TPA MAX = -20.4465 + .4094 X TPA MAX + .1611 X TLH MAX + .0144 X 35/085 HGT + .1669 X EYW MIN +

MIA MAX R= .80468 STANDARD ERROR = 1.85057 REDUCTION OF VARIANCE = .64750 STD. DEV. OF PND. 3.11693

MIA MAX = -103.6519 + .4592 X MIA MAX + .0466 X 30/080 THK + -.0374 X 30/080 HGT + .0367 X 25/085 HGT + .1541 X EYW MIN +

EYW MAX R= .78508 STANDARD ERROR = 1.78836 REDUCTION OF VARIANCE = .61635 STD. DEV. OF PND. 2.88727

EYW MAX = 17.2717 + .4154 X EYW MAX + .2324 X EYW MIN + .0261 X DAY OF YR + .1388 X MIA MAX +

Southeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MIN R= .86614 STANDARD ERROR = 4.35432 REDUCTION OF VARIANCE = .75020 STD. DEV. OF PND. 8.71216

SBY MIN = -277.1599 + .1917 X CMH MIN + .2375 X ORF MAX + .0371 X 45/075 THK + .0440 X 35/065 HGT + -.0367 X 40/080 HGT + .0574 X 40/080 THK +

DCA MIN R= .90330 STANDARD ERROR = 3.27680 REDUCTION OF VARIANCE = .81596 STD. DEV. OF PND. 7.63822

DCA MIN = -207.9558 + .0607 X 40/080 THK + .3347 X DCA MIN + .1736 X DET MIN + .0184 X 35/065 HGT +

CRW MIN R= .87234 STANDARD ERROR = 4.10678 REDUCTION OF VARIANCE = .76098 STD. DEV. OF PND. 8.40001

CRW MIN = -148.2936 + .2817 X IND MIN + .0538 X 40/080 THK + -.0312 X 40/090 HGT + .0351 X 35/075 HGT + .2519 X STL MIN +

HTS MIN R= .89079 STANDARD ERROR = 3.78005 REDUCTION OF VARIANCE = .79350 STD. DEV. OF PND. 8.31835

HTS MIN = -54.2886 + .1302 X IND MIN + .0492 X 40/080 THK + .3072 X HTS MIN + .0400 X 35/075 HGT + .2888 X CBI MIN + -.0266 X 40/090 HGT + -.0404 X 35/075 THK +

LOU MIN R= .90313 STANDARD ERROR = 3.58712 REDUCTION OF VARIANCE = .81564 STD. DEV. OF PND. 8.35442

LOU MIN = -274.1842 + .4370 X STL MIN + .0151 X 40/080 THK + .0371 X 25/075 HGT + .0535 X 40/090 THK + -.0404 X 40/090 HGT + .0354 X 40/080 HGT +

ORF MIN R= .89312 STANDARD ERROR = 3.41840 REDUCTION OF VARIANCE = .79767 STD. DEV. OF PND. 7.59963

ORF MIN = -142.5986 + .1717 X CMH MIN + .3112 X ORF MIN + .0568 X 40/080 THK + .1809 X BOS MIN + -.0404 X 40/080 HGT + .0387 X 35/075 HGT +

RIC MIN R= .89627 STANDARD ERROR = 3.56402 REDUCTION OF VARIANCE = .80331 STD. DEV. OF PND. 8.03613

RIC MIN = -228.2407 + .0771 X 40/080 THK + .2854 X RIC MIN + .0479 X 35/075 HGT + -.0387 X 40/080 HGT + .1918 X CMH MIN +

ROA MIN R= .87104 STANDARD ERROR = 3.66551 REDUCTION OF VARIANCE = .75871 STD. DEV. OF PND. 7.46212

ROA MIN = -162.4032 + .0643 X 40/080 THK + .2834 X ROA MIN + .2165 X CMH MIN +

HAT MIN R= .84071 STANDARD ERROR = 3.72948 REDUCTION OF VARIANCE = .70680 STD. DEV. OF PND. 6.88757

HAT MIN = -109.1827 + .6384 X HAT MIN + .0446 X 40/080 THK +

RDU MIN R= .89068 STANDARD ERROR = 3.45138 REDUCTION OF VARIANCE = .79330 STD. DEV. OF PND. 7.59145

RDU MIN = -266.8671 + .3706 X RDU MIN + .0892 X 40/080 THK + .0581 X 35/075 HGT + -.0463 X 40/080 HGT +

GSO MIN R= .88530 STANDARD ERROR = 3.48332 REDUCTION OF VARIANCE = .78376 STD. DEV. OF PND. 7.49078

GSO MIN = -168.2695 + .3129 X GSO MIN + .0400 X 40/080 THK + .2681 X BNA MIN + .0233 X 35/075 HGT +

TYS MIN R= .89436 STANDARD ERROR = 3.24535 REDUCTION OF VARIANCE = .79988 STD. DEV. OF PND. 7.25457

TYS MIN = -239.7068 + .3599 X BNA MIN + .0597 X 35/085 THK + .0285 X 35/075 HGT + .0556 X DAY OF YR +

BNA MIN R= .90869 STANDARD ERROR = 3.35219 REDUCTION OF VARIANCE = .82572 STD. DEV. OF PND. 8.02990

BNA MIN = -160.0756 + .3621 X BNA MIN + .2627 X CBI MIN + .0184 X 35/075 HGT + .0522 X 35/095 THK + -.0446 X 35/095 HGT + .0341 X 35/085 HGT +

MEM MIN R= .88780 STANDARD ERROR = 3.36496 REDUCTION OF VARIANCE = .78820 STD. DEV. OF PND. 7.31164

MEM MIN = -129.9830 + .3779 X MEM MIN + .0509 X 40/090 THK + .2654 X FTW MIN +

LIT MIN R= .88900 STANDARD ERROR = 3.22409 REDUCTION OF VARIANCE = .79032 STD. DEV. OF PND. 7.04092

LIT MIN = -140.6156 + .5041 X LIT MIN + .0535 X 35/095 THK + .1322 X STL MAX +

FSM MIN R= .88822 STANDARD ERROR = 3.31753 REDUCTION OF VARIANCE = .78894 STD. DEV. OF PND. 7.22125

FSM MIN = -157.1171 + .4494 X FSM MIN + .0600 X 35/095 THK + .1596 X DDC MIN +

CHS MIN R= .86884 STANDARD ERROR = 3.20868 REDUCTION OF VARIANCE = .75488 STD. DEV. OF PND. 6.48093

CHS MIN = -128.4540 + .4468 X CHS MIN + .2373 X MEM MIN + .0495 X 35/075 THK +

CLT MIN R= .89826 STANDARD ERROR = 2.98442 REDUCTION OF VARIANCE = .80687 STD. DEV. OF PND. 6.79100

GLT MIN = -286.5401 + .3707 X CLT MIN + .0951 X 35/085 THK + .0463 X 35/075 HGT + -.0341 X 35/085 HGT +

AGS MIN R= .89642 STANDARD ERROR = 3.14775 REDUCTION OF VARIANCE = .80357 STD. DEV. OF PND. 7.10232

AGS MIN = -258.6829 + .4483 X AGS MIN + .0968 X 35/085 THK + .0420 X 35/075 HGT + -.0427 X 35/085 HGT +

AHN MIN R= .91010 STANDARD ERROR = 2.78891 REDUCTION OF VARIANCE = .82829 STD. DEV. OF PND. 6.73024

AHN MIN = -156.4080 + .2036 X ATL MIN + .0591 X 35/085 THK + .2296 X BHM MIN + .2085 X CLT MIN +

ATL MIN R= .90340 STANDARD ERROR = 2.76399 REDUCTION OF VARIANCE = .81612 STD. DEV. OF PND. 6.44575

ATL MIN = -173.3418 + .0666 X 35/085 THK + .3696 X ATL MIN + .1906 X FSM MIN +

BHM MIN R= .89491 STANDARD ERROR = 3.29373 REDUCTION OF VARIANCE = .80087 STD. DEV. OF PND. 7.38103

BHM MIN = -76.7866 + .4082 X BHM MIN + .0397 X 35/085 THK + .3161 X FTW MIN + .0259 X 35/075 HGT +
-.0345 X 30/100 HGT +

JAN MIN R= .89070 STANDARD ERROR = 2.97628 REDUCTION OF VARIANCE = .79334 STD. DEV. OF PND. 6.54702

JAN MIN = -123.0687 + .3908 X JAN MIN + .2888 X FTW MIN + .0476 X 35/085 THK +

SHV MIN R= .87438 STANDARD ERROR = 2.95268 REDUCTION OF VARIANCE = .76455 STD. DEV. OF PND. 6.08503

SHV MIN = -166.0901 + .5058 X SHV MIN + .0656 X 35/095 THK +

JAX MIN R= .85678 STANDARD ERROR = 2.79269 REDUCTION OF VARIANCE = .73407 STD. DEV. OF PND. 5.41553

JAX MIN = -113.3604 + .3399 X JAX MIN + .3143 X MGM MIN + .0456 X 30/080 THK +

TLH MIN R= .87871 STANDARD ERROR = 2.79821 REDUCTION OF VARIANCE = .77213 STD. DEV. OF PND. 5.86182

TLH MIN = -77.2500 + .4486 X TLH MIN + .0318 X 35/085 THK + .2749 X MGM MIN +

MGM MIN R= .90351 STANDARD ERROR = 2.80843 REDUCTION OF VARIANCE = .81632 STD. DEV. OF PND. 6.55291

MGM MIN = -131.2260 + .4195 X MGM MIN + .0492 X 35/085 THK + .0492 X DAY OF YR + .1963 X SHV MIN +

MOB MIN R= .87267 STANDARD ERROR = 2.72927 REDUCTION OF VARIANCE = .76155 STD. DEV. OF PND. 5.58914

MOB MIN = -155.9896 + .5494 X MOB MIN + .0354 X 35/085 THK + .0259 X 35/095 THK +

MSY MIN R= .86062 STANDARD ERROR = 2.89787 REDUCTION OF VARIANCE = .74067 STD. DEV. OF PND. 5.69058

MSY MIN = -108.3874 + .5997 X MSY MIN + .1386 X FTW MIN + .0417 X 30/090 THK +

LCH MIN R= .86985 STANDARD ERROR = 2.54128 REDUCTION OF VARIANCE = .75665 STD. DEV. OF PND. 5.15151

LCH MIN = -95.1251 + .6465 X LCH MIN + .0394 X 35/095 THK +

HOU MIN R= .85488 STANDARD ERROR = 2.64906 REDUCTION OF VARIANCE = .73081 STD. DEV. OF PND. 5.10581

HOU MIN = -9.0791 + .5514 X HOU MIN + .0308 X 35/095 THK + .0661 X DAY OF YR + -.0203 X 35/105 HGT +

CRP MIN R= .84295 STANDARD ERROR = 2.62357 REDUCTION OF VARIANCE = .71057 STD. DEV. OF PND. 4.87661

CRP MIN = -89.0503 + .3954 X CRP MIN + .0456 X 35/105 THK + -.0417 X 35/105 HGT + .2425 X HOU MIN +
.0335 X 25/095 HGT +

BRO MIN R= .84232 STANDARD ERROR = 2.37412 REDUCTION OF VARIANCE = .70950 STD. DEV. OF PND. 4.40481

BRO MIN = -151.4595 + .5132 X BRO MIN + .0463 X 30/100 THK + -.0272 X 35/105 HGT + .0138 X 45/105 THK +
.0279 X 25/085 HGT +

ORL MIN R= .86622 STANDARD ERROR = 2.03318 REDUCTION OF VARIANCE = .75034 STD. DEV. OF PND. 4.06916

ORL MIN = 6.5776 + .4468 X ORL MIN + .1764 X MOB MIN + .1568 X ORL MAX + .0361 X DAY OF YR +

TPA MIN R= .84761 STANDARD ERROR = 2.34362 REDUCTION OF VARIANCE = .71845 STD. DEV. OF PND. 4.41682

TPA MIN = -66.7704 + .4769 X TPA MIN + .2439 X MGM MIN + .0289 X 25/075 THK +

MIA MIN R= .80682 STANDARD ERROR = 2.34006 REDUCTION OF VARIANCE = .65096 STD. DEV. OF PND. 3.96086

MIA MIN = -17.7733 + .4158 X MIA MIN + .0272 X 25/075 HGT + .2130 X ORL MIN + -.0328 X 25/095 HGT +
.0197 X 30/080 HGT +

EYW MIN R= .68624 STANDARD ERROR = 2.23451 REDUCTION OF VARIANCE = .47093 STD. DEV. OF PND. 3.07203

EYW MIN = -18.9774 + .4764 X EYW MIN + .0967 X CHS MIN + .0167 X 25/075 HGT +

Northeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MAX R= .85447 STANDARD ERROR = 5.71394 REDUCTION OF VARIANCE = .73011 STD. DEV. OF PND. 10.99880

CAR MAX = -237.1157 + .0961 X 50/070 THK + .2820 X QB MAX + .0702 X 45/075 HGT + -.0305 X 55/065 HGT + -.0381 X 40/080 HGT +

SSM MAX R= .87632 STANDARD ERROR = 5.16031 REDUCTION OF VARIANCE = .76794 STD. DEV. OF PND. 10.71215

SSM MAX = -184.1424 + .0804 X 50/090 THK + -.0092 X 45/085 THK + .1924 X DLH MAX + .0948 X 45/085 HGT + -.0489 X 40/090 HGT + -.0387 X 50/090 HGT + .2320 X YB MIN +

PWM MAX R= .87691 STANDARD ERROR = 5.00337 REDUCTION OF VARIANCE = .76897 STD. DEV. OF PND. 10.40955

PWM MAX = -180.8682 + .8980 X BOS MIN + .0807 X 45/075 HGT + -.0407 X 50/070 HGT + -.1924 X RIC MIN + .0774 X 45/065 THK + -.0440 X 45/065 HGT + -.2838 X HFD MIN + .1444 X QB MAX +

BTV MAX R= .89247 STANDARD ERROR = 4.77764 REDUCTION OF VARIANCE = .79651 STD. DEV. OF PND. 10.59115

BTV MAX = -223.8056 + .0600 X 45/075 THK + .0541 X 45/075 HGT + .3036 X BOS MIN + .2172 X YB MAX + -.0253 X 50/080 HGT +

SYR MAX R= .89761 STANDARD ERROR = 4.68780 REDUCTION OF VARIANCE = .80570 STD. DEV. OF PND. 10.63476

SYR MAX = -311.3631 + .0712 X 45/075 THK + .2072 X GRR MAX + .0456 X 45/075 HGT + -.0308 X 50/080 HGT + .0387 X 45/085 THK +

BUF MAX R= .89907 STANDARD ERROR = 4.56219 REDUCTION OF VARIANCE = .80833 STD. DEV. OF PND. 10.42073

BUF MAX = -173.3739 + .0506 X DET MIN + .0499 X 45/075 HGT + .0518 X 45/085 THK + .2589 X GRR MAX + -.0315 X 45/095 HGT + .0968 X DAY OF YR +

DET MAX R= .90781 STANDARD ERROR = 4.44621 REDUCTION OF VARIANCE = .82413 STD. DEV. OF PND. 10.60206

DET MAX = -204.4809 + .0991 X 45/085 THK + .2416 X MLI MAX + .2450 X MKE MIN + -.0148 X 55/085 HGT +

FNT MAX R= .89886 STANDARD ERROR = 4.62929 REDUCTION OF VARIANCE = .80794 STD. DEV. OF PND. 10.56331

FNT MAX = -305.5024 + .1224 X 45/085 THK + .2540 X MSN MAX +

GRR MAX R= .89978 STANDARD ERROR = 4.52618 REDUCTION OF VARIANCE = .80960 STD. DEV. OF PND. 10.37293

GRR MAX = -221.6631 + .0751 X 45/085 THK + .2737 X DSM MAX + .0443 X 45/085 HGT + -.0299 X 50/090 HGT + .1745 X FAR MIN +

MKE MAX R= .89109 STANDARD ERROR = 5.57072 REDUCTION OF VARIANCE = .79404 STD. DEV. OF PND. 12.27502

MKE MAX = -273.5447 + .1050 X 45/085 THK + .0801 X 45/095 THK + -.0574 X 50/090 HGT + .0696 X 40/090 HGT + -.0879 X 40/090 THK + .3842 X MKE MIN +

GRB MAX R= .84389 STANDARD ERROR = 5.65403 REDUCTION OF VARIANCE = .71216 STD. DEV. OF PND. 10.53856

GRB MAX = -134.0541 + .0568 X 45/085 THK + .2953 X STC MAX + .3997 X DLH MIN +

MSN MAX R= .85647 STANDARD ERROR = 5.46323 REDUCTION OF VARIANCE = .73354 STD. DEV. OF PND. 10.58365

MSN MAX = -203.3974 + .0833 X 45/095 THK + .3830 X MKE MIN + .3509 X MSN MAX + -.1849 X DET MAX +

ACK MAX R= .85182 STANDARD ERROR = 3.92562 REDUCTION OF VARIANCE = .72560 STD. DEV. OF PND. 7.49406

ACK MAX = -27.0851 + .2626 X BOS MIN + .1626 X ACK MAX + .3892 X ACK MIN + .4108 X NYC MIN + -.3059 X HFD MIN + .0125 X 45/085 HGT +

BOS MAX R= .86500 STANDARD ERROR = 5.59060 REDUCTION OF VARIANCE = .74823 STD. DEV. OF PND. 11.14190

BOS MAX = -199.6881 + .9894 X BOS MIN + -.0554 X 50/070 HGT + .0243 X 45/075 HGT + .0643 X 45/075 THK + -.4109 X RIC MIN + .0463 X 35/075 HGT +

HFD MAX R= .85544 STANDARD ERROR = 5.25951 REDUCTION OF VARIANCE = .73177 STD. DEV. OF PND. 10.15531

HFD MAX = -148.6968 + .8698 X NYC MIN + .0509 X 45/075 HGT + -.0469 X 50/070 HGT + .0607 X 45/075 THK + -.3338 X RIC MIN +

ALB MAX R= .86524 STANDARD ERROR = 5.20976 REDUCTION OF VARIANCE = .74864 STD. DEV. OF PND. 10.39138

ALB MAX = -319.8892 + .0929 X 45/075 THK + .0345 X 40/080 HGT + .5414 X NYC MIN + -.2691 X ORF MIN +

NYC MAX R= .87560 STANDARD ERROR = 4.76790 REDUCTION OF VARIANCE = .76667 STD. DEV. OF PND. 9.87059

NYC MAX = -125.7437 + .8834 X NYC MIN + .0410 X 40/080 HGT + -.0341 X 50/070 HGT + .0472 X 45/075 THK + -.2560 X RDU MIN +

PHL MAX R= .87156 STANDARD ERROR = 4.68033 REDUCTION OF VARIANCE = .75961 STD. DEV. OF PND. 9.54598

PHL MAX = -180.5335 + .4771 X NYC MIN + .1363 X DET MAX + .0696 X 40/080 HGT + -.0558 X 45/075 HGT + .0597 X 45/075 THK +

IPT MAX R= .86989 STANDARD ERROR = 4.92662 REDUCTION OF VARIANCE = .75671 STD. DEV. OF PND. 9.98825

IPT MAX = -218.3017 + .2347 X FNT MAX + .3745 X NYC MIN + .0541 X 40/080 HGT + -.0295 X 50/070 HGT + .0633 X 45/075 THK + -.1833 X CRW MIN +

PIT MAX R= .89819 STANDARD ERROR = 4.11375 REDUCTION OF VARIANCE = .80674 STD. DEV. OF PND. 9.35774

PIT MAX = -331.5828 + .0495 X 40/080 THK + .0614 X 40/080 HGT + .1486 X CHI MAX + .0495 X 45/085 THK + -.0285 X 45/085 HGT +

CLE MAX R= .91427 STANDARD ERROR = 4.30776 REDUCTION OF VARIANCE = .83589 STD. DEV. OF PND. 10.63370

CLE MAX = -356.2057 + .1181 X 45/085 THK + .0669 X 40/080 HGT + -.0449 X 45/085 HGT + .1834 X PIA MAX +

CMH MAX R= .90484 STANDARD ERROR = 4.08288 REDUCTION OF VARIANCE = .81874 STD. DEV. OF PND. 9.58985

CMH MAX = -201.6491 + .2050 X DAY MIN + .2827 X PIA MAX + .0561 X 45/085 THK + .0522 X 40/080 HGT + -.0262 X 45/085 HGT +

DAY MAX R= .89489 STANDARD ERROR = 4.25573 REDUCTION OF VARIANCE = .80083 STD. DEV. OF PND. 9.53587

DAY MAX = -305.8164 + .0518 X 40/090 THK + .2847 X PIA MAX + .0390 X 45/085 THK + .0292 X 40/080 HGT +

CVG MAX R= .87739 STANDARD ERROR = 4.43386 REDUCTION OF VARIANCE = .76982 STD. DEV. OF PND. 9.24161

CVG MAX = -292.1082 + .0820 X 40/090 THK + .2749 X PIA MAX + .0335 X 40/080 HGT +

IND MAX R= .89180 STANDARD ERROR = 4.30310 REDUCTION OF VARIANCE = .79531 STD. DEV. OF PND. 9.51110

IND MAX = -229.8890 + .0938 X 40/090 THK + .2184 X PIA MAX + .4157 X DAY MIN + -.2222 X HTS MIN +

CHI MAX R= .87627 STANDARD ERROR = 5.54499 REDUCTION OF VARIANCE = .76784 STD. DEV. OF PND. 11.50822

CHI MAX = -143.5073 + .0535 X 45/085 THK + .1964 X OMA MAX + .0499 X 45/095 THK + -.0581 X 45/095 HGT + .0755 X 40/090 HGT + -.0574 X 35/085 THK + .2834 X MSN MIN +

PIA MAX R= .89498 STANDARD ERROR = 4.36332 REDUCTION OF VARIANCE = .80098 STD. DEV. OF PND. 9.78075

PIA MAX = -134.7729 + .3516 X PIA MIN + .0505 X 45/095 THK + .2124 X DSM MAX + .0932 X 40/090 HGT + -.0433 X 45/095 HGT + -.0410 X 35/085 HGT +

MLI MAX R= .87496 STANDARD ERROR = 4.89722 REDUCTION OF VARIANCE = .76555 STD. DEV. OF PND. 10.11403

MLI MAX = -284.9444 + .1050 X 45/095 THK + .2877 X MLI MAX + -.0417 X 45/095 HGT + .0505 X 40/090 HGT +

STL MAX R= .88130 STANDARD ERROR = 4.40749 REDUCTION OF VARIANCE = .77669 STD. DEV. OF PND. 9.32687

STL MAX = -310.6830 + .0833 X 40/090 THK + .0413 X 40/100 THK + .3052 X STL MIN +

CBI MAX R= .87274 STANDARD ERROR = 4.39440 REDUCTION OF VARIANCE = .76167 STD. DEV. OF PND. 9.00146

CBI MAX = -286.4635 + .0663 X 40/090 THK + .0495 X 40/100 THK + .6524 X MKC MIN + -.3444 X TOP MIN +

Northeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MIN R= .87219 STANDARD ERROR = 4.08313 REDUCTION OF VARIANCE = .76072 STD. DEV. OF PND. 8.34719

CAR MIN = -307.5199 + .0696 X 50/070 THK + .0469 X 45/065 THK + .0881 X DAY OF YR +

SSM MIN R= .88700 STANDARD ERROR = 3.70694 REDUCTION OF VARIANCE = .78677 STD. DEV. OF PND. 8.02771

SSM MIN = -89.5000 + .2544 X INL MIN + .0348 X 45/085 THK + .0112 X 55/085 THK + -.0262 X 40/100 HGT + .0774 X DAY OF YR + .0167 X 50/080 HGT + .1671 X SSM MIN +

PWM MIN R= .85832 STANDARD ERROR = 4.08002 REDUCTION OF VARIANCE = .73671 STD. DEV. OF PND. 7.95137

PWM MIN = -211.9477 + .0400 X 45/065 THK + .0610 X 45/075 THK + .2283 X PWM MIN + .0733 X DAY OF YR + -.0194 X 45/075 HGT +

BTV MIN R= .88488 STANDARD ERROR = 4.55752 REDUCTION OF VARIANCE = .78301 STD. DEV. OF PND. 9.78386

BTV MIN = -202.2948 + .0387 X 45/075 THK + .2593 X BTV MIN + .2036 X MKE MIN + .0315 X 45/065 HGT + -.0410 X 45/085 HGT + .0492 X 45/095 THK +

SYR MIN R= .89192 STANDARD ERROR = 4.18713 REDUCTION OF VARIANCE = .79551 STD. DEV. OF PND. 9.25942

SYR MIN = -312.8998 + .0577 X 45/075 THK + .3272 X SSM MIN + .0325 X 35/065 HGT + .0561 X 45/085 THK + -.0282 X 45/085 HGT +

BUF MIN R= .90899 STANDARD ERROR = 3.79242 REDUCTION OF VARIANCE = .82626 STD. DEV. OF PND. 9.09834

BUF MIN = -225.3073 + .0302 X 45/075 THK + .0620 X 45/085 THK + .1117 X DAY OF YR + .2156 X CHI MIN + -.0308 X 40/090 HGT + .0233 X 40/070 HGT +

DET MIN R= .89856 STANDARD ERROR = 4.12924 REDUCTION OF VARIANCE = .80740 STD. DEV. OF PND. 9.40900

DET MIN = -142.0411 + .0768 X 45/085 THK + .3006 X GRB MIN + .1274 X DAY OF YR + -.0210 X 50/100 HGT +

FNT MIN R= .89914 STANDARD ERROR = 4.28082 REDUCTION OF VARIANCE = .80845 STD. DEV. OF PND. 9.78097

FNT MIN = -207.2872 + .0472 X 45/085 THK + .2757 X CHI MIN + .0893 X DAY OF YR + -.0436 X 45/095 HGT + .0285 X 45/075 HGT + .0463 X 45/095 THK +

GRR MIN R= .89926 STANDARD ERROR = 4.18414 REDUCTION OF VARIANCE = .80866 STD. DEV. OF PND. 9.56551

GRR MIN = -98.4350 + .0463 X 45/085 THK + .3064 X STC MIN + .1955 X CHI MIN + -.0338 X 40/100 HGT + .0897 X DAY OF YR + .0256 X 40/080 HGT +

MKE MIN R= .86506 STANDARD ERROR = 4.43021 REDUCTION OF VARIANCE = .74833 STD. DEV. OF PND. 8.83098

MKE MIN = -79.5540 + .0541 X 45/085 THK + .3659 X MSP MIN + .1309 X DAY OF YR + -.0226 X 50/100 HGT +

GRB MIN R= .86884 STANDARD ERROR = 4.67670 REDUCTION OF VARIANCE = .75488 STD. DEV. OF PND. 9.44596

GRB MIN = -147.8866 + .0387 X 45/085 THK + .2428 X FAR MIN + .2731 X GRB MIN + .0381 X 50/090 THK + -.0177 X 50/100 HGT +

MSN MIN R= .88062 STANDARD ERROR = 4.53170 REDUCTION OF VARIANCE = .77548 STD. DEV. OF PND. 9.56394

MSN MIN = -164.4609 + .0377 X 45/085 THK + .0676 X 45/095 THK + .2886 X MSP MIN + -.0492 X 45/095 HGT + .0459 X 40/080 HGT + .0932 X DAY OF YR + -.0400 X 40/080 THK +

ACK MIN R= .90751 STANDARD ERROR = 2.79969 REDUCTION OF VARIANCE = .82357 STD. DEV. OF PND. 6.66529

ACK MIN = -94.2783 + .4133 X ACK MIN + .0430 X 45/075 THK + .1083 X DAY OF YR + -.0285 X 45/075 HGT + .0220 X 40/070 HGT +

BOS MIN R= .87988 STANDARD ERROR = 3.56820 REDUCTION OF VARIANCE = .77419 STD. DEV. OF PND. 7.50894

BOS MIN = -113.1998 + .2544 X BOS MIN + .0433 X 45/075 THK + .1096 X DAY OF YR + .1379 X BOS MAX +

HFD MIN R= .88276 STANDARD ERROR = 4.00685 REDUCTION OF VARIANCE = .77927 STD. DEV. OF PND. 8.52843

HFD MIN = -209.7310 + .0840 X 45/075 THK + .2940 X HFD MIN + -.0404 X 45/075 HGT + .0354 X 40/070 HGT + .0829 X DAY OF YR +

ALB MIN R= .87234 STANDARD ERROR = 4.46059 REDUCTION OF VARIANCE = .76097 STD. DEV. OF PND. 9.12358

ALB MIN = -222.1968 + .0892 X 45/075 THK + .2574 X BUF MIN + .0777 X DAY OF YR + -.0282 X 45/075 HGT + .0236 X 45/065 HGT +

NYC MIN R= .89261 STANDARD ERROR = 3.42854 REDUCTION OF VARIANCE = .79675 STD. DEV. OF PND. 7.60493

NYC MIN = -128.9037 + .4405 X NYC MIN + .0505 X 45/075 THK + .0865 X DAY OF YR +

PHL MIN R= .87956 STANDARD ERROR = 3.76450 REDUCTION OF VARIANCE = .77362 STD. DEV. OF PND. 7.91204

PHL MIN = -152.6630 + .4213 X PHL MIN + .0374 X 45/075 THK + .1783 X FNT MIN + .0213 X 35/075 HGT +

IPT MIN R= .86639 STANDARD ERROR = 4.28670 REDUCTION OF VARIANCE = .75063 STD. DEV. OF PND. 8.58427

IPT MIN = -177.5683 + .0486 X 45/075 THK + .2410 X RIC MIN + .2987 X GRR MIN + .0187 X 40/070 HGT +

PIT MIN R= .86255 STANDARD ERROR = 4.39409 REDUCTION OF VARIANCE = .74399 STD. DEV. OF PND. 8.68446

PIT MIN = -271.2846 + .0810 X 40/080 THK + .2920 X CHI MIN + .0223 X 45/075 HGT +

CLE MIN R= .89399 STANDARD ERROR = 4.14048 REDUCTION OF VARIANCE = .79921 STD. DEV. OF PND. 9.24025

CLE MIN = -150.8517 + .2947 X CHI MIN + .0463 X 45/085 THK + .0410 X 35/075 HGT + -.0295 X 45/095 HGT + .2769 X MSP MIN +

CMH MIN R= .90140 STANDARD ERROR = 3.81657 REDUCTION OF VARIANCE = .81252 STD. DEV. OF PND. 8.81439

CMH MIN = -247.9919 + .3716 X PIA MIN + .0207 X 40/080 THK + .0269 X 45/075 HGT + -.0518 X 40/090 HGT + .0627 X 40/090 THK + .0354 X 35/075 HGT +

DAY MIN R= .89812 STANDARD ERROR = 3.81762 REDUCTION OF VARIANCE = .80662 STD. DEV. OF PND. 8.68125

DAY MIN = -255.2241 + .4058 X PIA MIN + .0581 X 45/085 THK + .0374 X 35/075 HGT +

CVG MIN R= .89337 STANDARD ERROR = 3.80635 REDUCTION OF VARIANCE = .79812 STD. DEV. OF PND. 8.47150

CVG MIN = -209.6838 + .3790 X PIA MIN + .0207 X 35/075 HGT + .0725 X 40/090 THK + -.0495 X 40/090 HGT + .0377 X 40/080 HGT +

IND MIN R= .90715 STANDARD ERROR = 3.64267 REDUCTION OF VARIANCE = .82291 STD. DEV. OF PND. 8.65623

IND MIN = -147.6004 + .3533 X PIA MIN + .0518 X 40/090 THK + .0328 X 40/080 HGT + -.0282 X 40/100 HGT + .0887 X DAY OF YR +

CHI MIN R= .86672 STANDARD ERROR = 4.77084 REDUCTION OF VARIANCE = .75120 STD. DEV. OF PND. 9.56469

CHI MIN = -105.0052 + .0367 X 45/085 THK + .2103 X HON MIN + .3571 X CHI MIN + -.0285 X 45/105 HGT + .0364 X 45/095 THK +

PIA MIN R= .90415 STANDARD ERROR = 3.86438 REDUCTION OF VARIANCE = .81748 STD. DEV. OF PND. 9.04538

PIA MIN = -203.0977 + .0292 X 40/090 THK + .0518 X 45/095 THK + .2793 X PIA MIN + -.0292 X 45/105 HGT + .0901 X DAY OF YR + .0253 X 40/080 HGT +

MLI MIN R= .88982 STANDARD ERROR = 4.20165 REDUCTION OF VARIANCE = .79178 STD. DEV. OF PND. 9.20788

MLI MIN = -283.6845 + .0436 X 40/090 THK + .2872 X MSP MIN + .0637 X 45/095 THK + -.0292 X 45/095 HGT + .0302 X 40/080 HGT +

STL MIN R= .90055 STANDARD ERROR = 3.75017 REDUCTION OF VARIANCE = .81100 STD. DEV. OF PND. 8.62614

STL MIN = -253.0221 + .0466 X 40/090 THK + .3383 X STL MIN + .0541 X 40/100 THK + -.0259 X 40/100 HGT + .0230 X 40/080 HGT +

CBI MIN R= .90515 STANDARD ERROR = 3.50956 REDUCTION OF VARIANCE = .81930 STD. DEV. OF PND. 8.25617

CBI MIN = -229.8598 + .0315 X 40/090 THK + .0584 X 40/100 THK + .3430 X CBI MIN + -.0338 X 40/100 HGT + .0328 X 40/090 HGT +

HGT: (700MB HFIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MAX R= .78758 STANDARD ERROR = 4.65508 REDUCTION OF VARIANCE = .62028 STD. DEV. OF PND. 7.55430

INL MAX = -176.8173 + .0594 X 50/100 THK + .1555 X INL MAX + .2407 X LH MIN + -.0141 X 60/100 HGT + .0267 X 45/095 HGT + .1330 X QR MAX +

DLH MAX R= .76929 STANDARD ERROR = 5.14843 REDUCTION OF VARIANCE = .59180 STD. DEV. OF PND. 8.05821

DLH MAX = -132.9401 + .2223 X WG MAX + .3488 X DLH MIN + .0459 X 50/100 THK + -.0254 X 60/090 HGT + .0321 X 45/105 HGT + .1890 X LH MIN +

STC MAX R= .78719 STANDARD ERROR = 4.49335 REDUCTION OF VARIANCE = .61966 STD. DEV. OF PND. 7.28595

STC MAX = -168.2055 + .2142 X BIS MAX + .2428 X DLH MIN + .0521 X 50/100 THK + .0314 X 45/095 THK + -.0108 X 60/090 HGT +

FAR MAX R= .80007 STANDARD ERROR = 4.70792 REDUCTION OF VARIANCE = .64011 STD. DEV. OF PND. 7.84769

FAR MAX = -186.0735 + .0694 X 50/100 THK + .2121 X FAR MAX + .1210 X GTF MAX + -.0289 X 55/105 HGT + .0354 X 45/095 HGT + .1505 X YC MAX +

BIS MAX R= .79842 STANDARD ERROR = 5.30193 REDUCTION OF VARIANCE = .63748 STD. DEV. OF PND. 8.80575

BIS MAX = -101.9916 + .0486 X 50/100 THK + .1688 X GTF MAX + -.0286 X 60/110 HGT + .0599 X 45/105 HGT + -.0340 X 50/120 HGT + .2053 X BIS MAX + .1828 X YC MAX +

ISN MAX R= .79260 STANDARD ERROR = 5.67240 REDUCTION OF VARIANCE = .62822 STD. DEV. OF PND. 9.30302

ISN MAX = -228.7692 + .0973 X 50/110 THK + -.0305 X 60/120 HGT + .0724 X 45/105 HGT + .2359 X QR MAX + -.0274 X 45/125 HGT + -.0157 X 60/100 HGT +

GSG MAX R= .83105 STANDARD ERROR = 5.07722 REDUCTION OF VARIANCE = .69064 STD. DEV. OF PND. 9.12838

GSG MAX = -197.3655 + .0637 X 50/110 THK + .0978 X 45/105 HGT + -.0275 X 55/125 HGT + .2822 X EG MAX + .2025 X BNO MAX + -.0237 X 60/110 HGT + -.0310 X 45/125 HGT +

BIL MAX R= .85387 STANDARD ERROR = 4.46295 REDUCTION OF VARIANCE = .72910 STD. DEV. OF PND. 8.57464

BIL MAX = -138.1376 + .2482 X HLN MAX + .0530 X 45/105 HGT + -.0359 X 55/125 HGT + .0411 X 50/110 THK + .2622 X EG MIN + .0722 X 45/115 HGT + -.0497 X 45/125 HGT + -.0201 X 60/110 HGT +

GTF MAX R= .85795 STANDARD ERROR = 4.65251 REDUCTION OF VARIANCE = .73607 STD. DEV. OF PND. 9.05615

GTF MAX = -247.4178 + .4515 X GTF MIN + .0985 X 45/115 HGT + -.0391 X 50/130 HGT + .0159 X 50/110 THK + -.3661 X MSO MIN + .2468 X MSO MAX + .0420 X 55/115 THK + -.0192 X 60/120 HGT +

HLN MAX R= .85087 STANDARD ERROR = 4.46678 REDUCTION OF VARIANCE = .72399 STD. DEV. OF PND. 8.50215

HLN MAX = -43.8668 + .1083 X 45/115 HGT + .1886 X HLN MAX + -.0334 X 50/130 HGT + 3548 X GTF MIN + -.3816 X MSO MIN + .2607 X BNO MAX + -.0507 X 35/125 HGT + .2172 X EG MIN +

MSO MAX R= .85045 STANDARD ERROR = 4.84133 REDUCTION OF VARIANCE = .72327 STD. DEV. OF PND. 9.20320

MSO MAX = -142.8979 + .1278 X 45/115 HGT + .4861 X BNO MAX + -.0710 X 35/125 HGT + .3561 X GTF MIN + -.2427 X MSO MIN +

GEG MAX R= .88768 STANDARD ERROR = 4.05316 REDUCTION OF VARIANCE = .78797 STD. DEV. OF PND. 8.80234

GEG MAX = -215.0576 + .0790 X 50/120 HGT + .2895 X GEG MIN + .2622 X MFR MAX + .2336 X BOI MIN +

PDT MAX R= .88911 STANDARD ERROR = 3.88003 REDUCTION OF VARIANCE = .79051 STD. DEV. OF PND. 8.47729

PDT MAX = -286.1426 + .0522 X 45/125 THK + .0579 X 50/120 HGT + .2720 X MFR MAX + .2515 X GEG MIN +

YKM MAX R= .88272 STANDARD ERROR = 3.76459 REDUCTION OF VARIANCE = .77920 STD. DEV. OF PND. 8.01149

YKM MAX = -310.8733 + .0624 X 50/120 HGT + .2875 X YKM MAX + .0603 X 45/125 THK +

PDX MAX R= .79670 STANDARD ERROR = 4.71188 REDUCTION OF VARIANCE = .63473 STD. DEV. OF PND. 7.79630

PDX MAX = -321.4397 + .0697 X 45/125 THK + .0628 X 50/120 HGT + -.2422 X YKM MIN + .3556 X PDX MAX + -.2017 X PDT MAX +

SEA MAX R= .77893 STANDARD ERROR = 4.52834 REDUCTION OF VARIANCE = .60673 STD. DEV. OF PND. 7.22091

SEA MAX = -269.5508 + .0564 X 50/120 HGT + .3320 X SLE MAX + .0523 X 50/130 THK + - 2302 X YKM MIN +

TTI MAX R= .49311 STANDARD ERROR = 3.04642 REDUCTION OF VARIANCE = .24316 STD. DEV. OF PND. 3.50176

TTI MAX = 37.3123 + .3221 X SEA MIN + -.1232 X YKM MIN + .2601 X EKA MAX + 0213 X 55/125 HGT + -.0059 X 50/150 HGT + -.0174 X 55/125 THK +

MSP MAX R= .78857 STANDARD ERROR = 4.55406 REDUCTION OF VARIANCE = .62184 STD. DEV. OF PND. 7.40562

MSP MAX = -173.9021 + .0719 X 45/095 THK + .1480 X GSG MAX + .2323 X DLH MIN + .1724 X BIS MAX +

HON MAX R= .78636 STANDARD ERROR = 4.94319 REDUCTION OF VARIANCE = .61837 STD. DEV. OF PND. 8.00177

HON MAX = -58.9188 + .0525 X 45/105 THK + .2653 X HON MAX + .3744 X RAP MIN + -.0235 X 55/105 HGT + .1669 X QR MAX +

RAP MAX R= .77831 STANDARD ERROR = 5.54949 REDUCTION OF VARIANCE = .60577 STD. DEV. OF PND. 8.83853

RAP MAX = -103.6472 + .0517 X 45/105 THK + .3098 X HLN MAX + -.0443 X 55/125 HGT + .3316 X RAP MIN + .0393 X 40/100 HGT +

CPR MAX R= .78950 STANDARD ERROR = 4.35872 REDUCTION OF VARIANCE = .62332 STD. DEV. OF PND. 7.10185

CPR MAX = -241.7572 + .2428 X BIL MAX + .1166 X 40/110 HGT + -.0591 X 50/120 HGT + .0526 X 40/110 THK + -.0438 X 40/120 HGT + .0321 X 45/115 THK +

LND MAX R= .75787 STANDARD ERROR = 4.40032 REDUCTION OF VARIANCE = .57437 STD. DEV. OF PND. 6.74480

LND MAX = -187.0230 + .1706 X BIL MAX + .0876 X 40/110 HGT + -.0519 X 50/120 HGT + .0367 X 40/110 THK + .1956 X ELY MAX + .2069 X LND MIN +

PIH MAX R= .82749 STANDARD ERROR = 3.84903 REDUCTION OF VARIANCE = .68473 STD. DEV. OF PND. 6.85507

PIH MAX = -100.8476 + .3063 X WMC MAX + .0952 X 45/115 HGT + -.0547 X 45/125 HGT + .3195 X ELY MAX + .2279 X BNO MIN + -.1275 X WMC MIN +

BOI MAX R= .87410 STANDARD ERROR = 3.70616 REDUCTION OF VARIANCE = .76405 STD. DEV. OF PND. 7.62988

BOI MAX = -111.0022 + .0648 X 45/115 HGT + .3393 X BOI MIN + .2430 X RNO MAX + -.0201 X 45/135 HGT + .2007 X MFR MAX +

BNO MAX R= .85224 STANDARD ERROR = 4.01253 REDUCTION OF VARIANCE = .72631 STD. DEV. OF PND. 7.66982

BNO MAX = -221.9420 + .0816 X 45/115 HGT + .3426 X MFR MAX + .2195 X RNO MAX +

MFR MAX R= .85464 STANDARD ERROR = 4.20288 REDUCTION OF VARIANCE = .73041 STD. DEV. OF PND. 8.09452

MFR MAX = -244.5083 + .0968 X 45/125 HGT + .3493 X MFR MAX +

SLE MAX R= .81020 STANDARD ERROR = 4.71155 REDUCTION OF VARIANCE = .65642 STD. DEV. OF PND. 8.03804

SLE MAX = -250.7811 + .0731 X 45/125 HGT + .3590 X SLE MAX + .0461 X 50/130 THK + -.2479 X YKM MIN + -.0150 X 40/150 HGT +

Northwest Min

July-August

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MIN R= .80959 STANDARD ERROR = 3.88850 REDUCTION OF VARIANCE = .65544 STD. DEV. OF PND. 6.62443

INL MIN = -205.1121 + .0203 X 50/090 THK + .2366 X FAR MIN + -.0503 X DAY OF YR + .0139 X 50/080 HGT + .0461 X 50/100 THK + -.0345 X 50/100 HGT + .1522 X INL MAX + .0131 X 60/090 HGT + .0221 X 40/080 HGT +

DLH MIN R= .80884 STANDARD ERROR = 3.57743 REDUCTION OF VARIANCE = .65423 STD. DEV. OF PND. 6.08382

DLH MIN = -204.2899 + .0429 X 50/090 THK + .2447 X DLH MIN + .0309 X 40/080 HGT + .1547 X INL MAX + .1534 X QD MIN +

STC MIN R= .82892 STANDARD ERROR = 3.62002 REDUCTION OF VARIANCE = .68710 STD. DEV. OF PND. 6.47156

STC MIN = -189.5055 + .2575 X FAR MIN + .0541 X 45/095 THK + .0333 X 45/085 HGT + -.0669 X DAY OF YR + -.0316 X 40/100 HGT + .0267 X 50/100 THK +

FAR MIN R= .81174 STANDARD ERROR = 3.84155 REDUCTION OF VARIANCE = .65892 STD. DEV. OF PND. 6.57775

FAR MIN = -163.8379 + .0597 X 50/100 THK + .2297 X FAR MIN + .0442 X 50/090 HGT + -.0344 X 50/100 HGT + .1340 X RAP MAX + -.0504 X DAY OF YR +

BIS MIN R= .80224 STANDARD ERROR = 3.90848 REDUCTION OF VARIANCE = .64359 STD. DEV. OF PND. 6.54687

BIS MIN = -71.4439 + .0327 X 50/100 THK + .2233 X GSG MIN + -.0595 X DAY OF YR + .0357 X 45/095 HGT + -.0327 X 45/115 HGT + .1765 X BIS MIN + .1297 X GSG MAX +

ISN MIN R= .73763 STANDARD ERROR = 4.41122 REDUCTION OF VARIANCE = .54409 STD. DEV. OF PND. 6.53314

ISN MIN = -5.2193 + .2546 X GSG MAX + .0222 X 50/090 HGT + .2622 X EG MIN + .2178 X GSG MIN + -.0174 X 50/120 HGT +

GSG MIN R= .80907 STANDARD ERROR = 3.51302 REDUCTION OF VARIANCE = .65460 STD. DEV. OF PND. 5.97751

GSG MIN = -109.5612 + .1466 X GTF MAX + .2705 X GSG MIN + .0275 X 50/100 HGT + -.0196 X 50/120 HGT + .0420 X 50/110 THK + -.0526 X DAY OF YR +

BIL MIN R= .80426 STANDARD ERROR = 3.18456 REDUCTION OF VARIANCE = .64683 STD. DEV. OF PND. 5.35866

BIL MIN = -35.3964 + .3144 X GTF MAX + .2827 X BIL MIN + .0164 X 50/100 HGT +

GTF MIN R= .81117 STANDARD ERROR = 3.32182 REDUCTION OF VARIANCE = .65800 STD. DEV. OF PND. 5.68020

GTF MIN = 15.8429 + .2070 X YC MAX + .2710 X GTF MIN + .1849 X GEG MAX + -.0193 X 50/130 HGT + .0172 X 50/100 HGT +

HLN MIN R= .73441 STANDARD ERROR = 3.60839 REDUCTION OF VARIANCE = .53936 STD. DEV. OF PND. 5.31659

HLN MIN = 78.2692 + .3206 X HLN MAX + .2554 X HLN MIN + .2068 X PDT MIN + -.0258 X 40/120 THK +

MSO MIN R= .72459 STANDARD ERROR = 3.72179 REDUCTION OF VARIANCE = .52504 STD. DEV. OF PND. 5.40035

MSO MIN = 58.8859 + .1871 X GEG MIN + .1678 X MSO MAX + -.0349 X 40/120 HGT + .1563 X MSO MIN + .0181 X 50/110 HGT + .2048 X PDT MIN +

GEG MIN R= .84491 STANDARD ERROR = 3.06986 REDUCTION OF VARIANCE = .71387 STD. DEV. OF PND. 5.73899

GEG MIN = -107.5167 + .3486 X YKM MAX + .0382 X 50/120 THK + .2146 X GEG MIN + .1094 X OMA MIN +

PDT MIN R= .86464 STANDARD ERROR = 2.78936 REDUCTION OF VARIANCE = .74760 STD. DEV. OF PND. 5.55214

PDT MIN = -2.4611 + .3090 X PDT MAX + .2227 X PDX MAX + .1939 X SLE MIN + .0910 X XS MAX +

YKM MIN R= .73166 STANDARD ERROR = 4.37421 REDUCTION OF VARIANCE = .53533 STD. DEV. OF PND. 6.41692

YKM MIN = 93.3922 + .4887 X YKM MAX + .1421 X XS MAX + -.0341 X 40/120 HGT + .2427 X PDX MIN +

PDX MIN R= .66519 STANDARD ERROR = 2.85759 REDUCTION OF VARIANCE = .44248 STD. DEV. OF PND. 3.82711

PDX MIN = -49.2045 + .3413 X PDX MIN + .0153 X 50/120 THK + .1096 X PDX MAX + -.0164 X 50/130 HGT + .0268 X 50/130 THK + .0820 X XS MIN +

SEA MIN R= .69678 STANDARD ERROR = 2.53075 REDUCTION OF VARIANCE = .48551 STD. DEV. OF PND. 3.52825

SEA MIN = -30.9113 + .3914 X SEA MIN + .1285 X PDX MAX + .0135 X 55/125 THK + .1637 X 'A MAX + .0823 X XS MIN +

TTI MIN R= .56542 STANDARD ERROR = 1.70772 REDUCTION OF VARIANCE = .31970 STD. DEV. OF PND. 2.07045

TTI MIN = -16.8746 + .2095 X EKA MIN + .0063 X 50/120 THK + .1363 X EKA MAX + .0907 X SEA MIN + -.0075 X 55/135 HGT + .0100 X 60/140 THK + .0063 X 45/125 HGT +

MSP MIN R= .85267 STANDARD ERROR = 3.27204 REDUCTION OF VARIANCE = .72705 STD. DEV. OF PND. 6.26290

MSP MIN = -181.6778 + .1506 X MSP MAX + .0458 X 45/095 THK + .0262 X 45/085 HGT + .1758 X FAR MIN + -.0439 X DAY OF YR + .1667 X MSP MIN +

HON MIN R= .79109 STANDARD ERROR = 4.23994 REDUCTION OF VARIANCE = .62582 STD. DEV. OF PND. 6.92136

HON MIN = -67.7507 + .0361 X 50/100 THK + .2719 X HON MIN + -.0409 X 45/115 HGT + -.0405 X 45/095 HGT + .1866 X RAP MAX + -.0519 X DAY OF YR +

RAP MIN R= .80912 STANDARD ERROR = 3.27072 REDUCTION OF VARIANCE = .65467 STD. DEV. OF PND. 5.56577

RAP MIN = -1.1752 + .2264 X BIL MAX + .3022 X RAP MIN + .0276 X 45/095 HGT + .1521 X CPR MAX + -.0242 X 35/115 HGT +

CPR MIN R= .79879 STANDARD ERROR = 3.53439 REDUCTION OF VARIANCE = .63806 STD. DEV. OF PND. 5.87483

CPR MIN = -9.5723 + .1093 X BIL MAX + .2857 X CPR MIN + .0402 X 40/100 HGT + -.0378 X 40/120 HGT + .1428 X BNO MIN + .1458 X CPR MAX + .1372 X HLN MAX +

LND MIN R= .83302 STANDARD ERROR = 3.02282 REDUCTION OF VARIANCE = .69392 STD. DEV. OF PND. 5.46378

LND MIN = -23.6445 + .3377 X LND MAX + .2239 X HLN MAX + .1082 X ELY MIN + .0318 X 40/100 HGT + -.0256 X 40/120 HGT + .1144 X BNO MIN +

PIH MIN R= .77773 STANDARD ERROR = 4.00817 REDUCTION OF VARIANCE = .60486 STD. DEV. OF PND. 6.37633

PIH MIN = 44.0115 + .4656 X PIH MAX + .1632 X ELY MIN + .1674 X PIH MIN + .1611 X MSO MAX + -.0148 X 50/120 HGT + -.1776 X ELY MAX +

BOI MIN R= .85889 STANDARD ERROR = 3.33866 REDUCTION OF VARIANCE = .73770 STD. DEV. OF PND. 6.51883

BOI MIN = -2.1558 + .4885 X PDI MAX + -.0481 X 45/125 HGT + .0502 X 45/115 HGT + .1947 X BNO MIN +

BNO MIN R= .80561 STANDARD ERROR = 3.84888 REDUCTION OF VARIANCE = .64901 STD. DEV. OF PND. 6.49660

BNO MIN = 10.7240 + .3333 X BNO MAX + .2630 X BNO MIN + .1207 X SLE MAX + .0454 X 45/115 HGT + -.0486 X 35/115 HGT +

MFR MIN R= .78758 STANDARD ERROR = 3.06901 REDUCTION OF VARIANCE = .62028 STD. DEV. OF PND. 4.98041

MFR MIN = -57.5075 + .2206 X SLE MAX + .3584 X MFR MIN + .0395 X 45/125 THK + -.0356 X 45/125 HGT + .0215 X 45/115 HGT +

SLE MIN R= .65275 STANDARD ERROR = 3.44044 REDUCTION OF VARIANCE = .42609 STD. DEV. OF PND. 4.54141

SLE MIN = -81.9920 + .3064 X SLE MIN + .0455 X 45/125 THK + -.0350 X 45/125 HGT + .0249 X 50/120 THK + .2179 X EKA MAX + .0925 X XS MIN +

Southwest Max

July-August

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MAX R= .78789 STANDARD ERROR = 4.43994 REDUCTION OF VARIANCE = .62077 STD. DEV. OF PND. 7.20982

DSM MAX = -121.3252 + .0531 X 45/095 THK + .4947 X DSM MIN + .1738 X RAP MAX + -.4735 X TOP MIN + .5238 X MKC MIN +

OMA MAX R= .81397 STANDARD ERROR = 4.14503 REDUCTION OF VARIANCE = .66255 STD. DEV. OF PND. 7.13549

OMA MAX = -147.5518 + .4436 X OMA MIN + .1685 X LBF MAX + .0551 X 45/105 THK + -.0349 X 50/100 HGT + .4742 X MKC MIN + -.3556 X TOP MIN + .0385 X 40/100 HGT +

LBF MAX R= .76227 STANDARD ERROR = 4.97909 REDUCTION OF VARIANCE = .58106 STD. DEV. OF PND. 7.69258

LBF MAX = -61.1622 + .0575 X 45/105 THK + .2862 X LBF MAX + -.0238 X 55/105 HGT + .3020 X RAP MIN + .3796 X DEN MIN + -.3038 X PUB MIN +

DEN MAX R= .74142 STANDARD ERROR = 4.49229 REDUCTION OF VARIANCE = .54971 STD. DEV. OF PND. 6.69441

DEN MAX = -105.7302 + .0416 X 45/105 THK + .1794 X GJT MAX + -.0530 X 50/120 HGT + .0553 X 35/105 HGT + .2276 X INW MAX + .1973 X CPR MAX +

SLC MAX R= .79803 STANDARD ERROR = 3.68827 REDUCTION OF VARIANCE = .63685 STD. DEV. OF PND. 6.12036

SLC MAX = -116.0196 + .5730 X ELY MAX + .0666 X 45/115 HGT + -.0519 X 45/125 HGT + .1718 X BNO MIN + .0334 X 40/110 THK +

WMC MAX R= .84908 STANDARD ERROR = 3.42287 REDUCTION OF VARIANCE = .72094 STD. DEV. OF PND. 6.47945

WMC MAX = -230.4711 + .5009 X RNO MAX + .0544 X 45/115 HGT + .0483 X 40/120 THK + -.1323 X WMC MIN + -.0113 X 45/135 HGT +

RNO MAX R= .85009 STANDARD ERROR = 3.10142 REDUCTION OF VARIANCE = .72265 STD. DEV. OF PND. 5.88911

RNO MAX = -42.0966 + .4570 X RNO MAX + .0781 X 40/120 HGT + -.0450 X 25/105 HGT + -.2418 X SFO MIN +

RBL MAX R= .87781 STANDARD ERROR = 3.53309 REDUCTION OF VARIANCE = .77055 STD. DEV. OF PND. 7.37580

RBL MAX = -201.2771 + .3127 X SAC MAX + .0780 X 40/130 HGT + .0718 X 40/120 HGT + -.0795 X 30/110 HGT + -.0232 X 40/140 HGT + .0400 X 30/110 THK +

EKA MAX R= .67974 STANDARD ERROR = 2.26471 REDUCTION OF VARIANCE = .46205 STD. DEV. OF PND. 3.08775

EKA MAX = 53.6962 + .3876 X EKA MAX + -.0123 X 50/130 HGT + .2505 X EKA MIN + .1561 X SFO MIN +

MKC MAX R= .81023 STANDARD ERROR = 4.26427 REDUCTION OF VARIANCE = .65647 STD. DEV. OF PND. 7.27544

MKC MAX = 5.9844 + .5655 X MKC MIN + .2009 X LBF MAX + .1401 X RAP MAX + .1526 X MKC MAX +

TOP MAX R= .78738 STANDARD ERROR = 4.50322 REDUCTION OF VARIANCE = .61997 STD. DEV. OF PND. 7.30486

TOP MAX = 2.9831 + .4868 X MKC MIN + .1978 X LBF MAX + .2070 X CPR MAX + .1901 X TOP MAX +

ICT MAX R= .79369 STANDARD ERROR = 4.77189 REDUCTION OF VARIANCE = .62995 STD. DEV. OF PND. 7.84438

ICT MAX = -6.6072 + .6090 X DDC MIN + .4222 X ICT MAX + .2182 X CPR MAX +

DDC MAX R= .78131 STANDARD ERROR = 4.75378 REDUCTION OF VARIANCE = .61044 STD. DEV. OF PND. 7.61649

DDC MAX = -26.8056 + .5249 X DDC MIN + .3042 X CPR MAX + .1948 X DDC MAX + -.0247 X 50/100 HGT + .0376 X 40/100 THK +

PUB MAX R= .76559 STANDARD ERROR = 4.19283 REDUCTION OF VARIANCE = .58613 STD. DEV. OF PND. 6.51740

PUB MAX = -94.9935 + .2252 X CPR MAX + .2281 X DEN MAX + -.0224 X 50/120 HGT + .1795 X INW MAX + .0487 X 45/105 THK + .0667 X 35/105 HGT + -.0514 X 45/105 HGT +

GJT MAX R= .76446 STANDARD ERROR = 3.91677 REDUCTION OF VARIANCE = .58439 STD. DEV. OF PND. 6.07556

GJT MAX = -241.4574 + .3908 X INW MAX + .0431 X 40/110 THK + .2309 X GJT MAX + .0426 X 35/115 HGT + .1193 X MLI MIN +

MLF MAX R= .77090 STANDARD ERROR = 3.35494 REDUCTION OF VARIANCE = .59429 STD. DEV. OF PND. 5.26715

MLF MAX = -117.2878 + .3234 X ELY MAX + .0546 X 35/115 HGT + .1970 X INW MAX + .1879 X LAS MAX + -.0096 X 45/135 HGT +

ELY MAX R= .79265 STANDARD ERROR = 3.02079 REDUCTION OF VARIANCE = .62830 STD. DEV. OF PND. 4.95477

ELY MAX = -182.3216 + .3221 X ELY MAX + .0396 X 35/115 HGT + .2739 X LAS MAX + .0298 X 40/120 THK + -.0958 X WMC MIN +

SAC MAX R= .82200 STANDARD ERROR = 4.05056 REDUCTION OF VARIANCE = .67569 STD. DEV. OF PND. 7.11265

SAC MAX = -109.2459 + .2340 X SAC MAX + .0522 X 35/125 HGT + .6534 X SAC MIN + -.4526 X SFO MIN + -.2050 X RNO MIN + .0641 X 40/120 HGT + -.0548 X 25/105 HGT + -.1812 X BFL MAX +

SFO MAX R= .63712 STANDARD ERROR = 4.52901 REDUCTION OF VARIANCE = .40593 STD. DEV. OF PND. 5.87602

SFO MAX = -72.8093 + .2780 X SFO MAX + .5309 X SAC MIN + -.1938 X MFR MIN + .2919 X EKA MAX + .0313 X 40/130 HGT + -.1268 X RBL MAX +

OKC MAX R= .77839 STANDARD ERROR = 4.15197 REDUCTION OF VARIANCE = .60590 STD. DEV. OF PND. 6.61376

OKC MAX = -1.6273 + .3350 X OKC MAX + .3781 X ICT MIN + .1890 X DDC MAX + .2139 X HOU MAX +

AMA MAX R= .79647 STANDARD ERROR = 3.84072 REDUCTION OF VARIANCE = .63436 STD. DEV. OF PND. 6.35168

AMA MAX = -138.8207 + .2860 X AMA MAX + .0646 X DEN MAX + .4190 X AMA MIN + -.0310 X 45/105 HGT + .1043 X 35/105 HGT + -.1917 X CPR MAX + .0389 X 40/100 THK + -.0629 X 40/100 HGT +

ABQ MAX R= .78199 STANDARD ERROR = 2.96494 REDUCTION OF VARIANCE = .61152 STD. DEV. OF PND. 4.75695

ABQ MAX = -61.5006 + .3897 X ABQ MAX + .1423 X DEN MAX + .3519 X ABQ MIN + .0262 X 30/110 THK + -.1707 X INW MIN + .1223 X INW MAX +

INW MAX R= .76718 STANDARD ERROR = 3.52394 REDUCTION OF VARIANCE = .58856 STD. DEV. OF PND. 5.49385

INW MAX = -187.9587 + .5532 X INW MAX + .0494 X 30/110 THK + .0575 X 35/115 HGT + -.0298 X 40/100 HGT + -.1274 X BFL MAX +

LAS MAX R= .77420 STANDARD ERROR = 3.32644 REDUCTION OF VARIANCE = .59938 STD. DEV. OF PND. 5.25549

LAS MAX = -98.2539 + .4202 X LAS MAX + .2911 X YUM MAX + .0640 X 35/115 HGT + -.0241 X 40/100 HGT +

BFL MAX R= .89983 STANDARD ERROR = 2.46319 REDUCTION OF VARIANCE = .80969 STD. DEV. OF PND. 5.64635

BFL MAX = -53.8446 + .2432 X SAC MAX + .3258 X BFL MAX + .0320 X 40/120 THK + -.2688 X SFO MIN + .2107 X RBL MIN +

FAT MAX R= .87293 STANDARD ERROR = 2.81882 REDUCTION OF VARIANCE = .76200 STD. DEV. OF PND. 5.77807

FAT MAX = -82.6192 + .3462 X FAT MAX + .0421 X 40/120 HGT + .1723 X SAC MAX + -.2888 X SFO MIN + .1897 X RBL MIN +

SMX MAX R= .62970 STANDARD ERROR = 3.59458 REDUCTION OF VARIANCE = .39653 STD. DEV. OF PND. 4.62721

SMX MAX = -11.3644 + .3846 X SAC MIN + -.0214 X 40/140 HGT + .3501 X LAX MIN + .1400 X SFO MAX + .0340 X 35/105 HGT + -.1069 X BNO MIN + -.0644 X ICT MAX +

FTW MAX R= .79390 STANDARD ERROR = 3.29408 REDUCTION OF VARIANCE = .63028 STD. DEV. OF PND. 5.41748

FTW MAX = -33.9890 + .2949 X FTW MAX + .3584 X FTW MIN + .1638 X OKC MAX + .0418 X 35/095 THK + -.0225 X 40/080 THK +

MAF MAX R= .78800 STANDARD ERROR = 3.09382 REDUCTION OF VARIANCE = .62094 STD. DEV. OF PND. 5.02505

MAF MAX = 38.1072 + .3840 X MAF MAX + .2885 X MAF MIN + .1297 X PUB MAX + -.0268 X 45/105 HGT + .0461 X 30/100 HGT + -.0272 X 35/085 HGT + .1893 X AMA MIN +

ELP MAX R= .79693 STANDARD ERROR = 3.04520 REDUCTION OF VARIANCE = .63510 STD. DEV. OF PND. 5.04113

ELP MAX = -53.1335 + .4051 X ELP MAX + .4262 X ELP MIN + .1815 X PUB MAX + -.0333 X 40/100 HGT + .0530 X 30/110 HGT +

TUS MAX R= .79961 STANDARD ERROR = 3.28771 REDUCTION OF VARIANCE = .63938 STD. DEV. OF PND. 5.47491

TUS MAX = -200.9804 + .4935 X TUS MAX + .0491 X 30/110 THK + -.2359 X INW MIN + .2973 X TUS MIN + .0320 X 35/115 HGT + -.1367 X YUM MIN +

PHX MAX R= .78406 STANDARD ERROR = 3.48169 REDUCTION OF VARIANCE = .61475 STD. DEV. OF PND. 5.60943

PHX MAX = -216.8436 + .5267 X PHX MAX + .0511 X 30/110 THK + .0338 X 35/115 HGT + -.2470 X INW MIN + .2038 X TUS MIN +

YUM MAX R= .73416 STANDARD ERROR = 3.13553 REDUCTION OF VARIANCE = .53900 STD. DEV. OF PND. 4.61806

YUM MAX = -81.3412 .4306 X YUM MAX + .0426 X 35/115 HGT + -.2234 X INW MIN + .2449 X TUS MIN + .0238 X 30/110 THK + -.0267 X 25/095 HGT +

SAN MAX R= .75097 STANDARD ERROR = 2.43328 REDUCTION OF VARIANCE = .56395 STD. DEV. OF PND. 3.68490

SAN MAX = -5.8708 + .4930 X SAN MAX + .3388 X SAN MIN + .0247 X 40/110 HGT + -.0175 X 30/130 HGT +

LAX MAX R= .81057 STANDARD ERROR = 2.51663 REDUCTION OF VARIANCE = .65702 STD. DEV. OF PND. 4.29719

LAX MAX = -69.7701 + .3728 X LAX MAX + .5528 X LAX MIN + .0247 X 35/115 HGT + -.1438 X BFL MIN + .1829 X SAN MAX +

SAT MAX R= .78223 STANDARD ERROR = 2.47555 REDUCTION OF VARIANCE = .61188 STD. DEV. OF PND. 3.97365

SAT MAX = 3.4183 + .4330 X SAT MAX + .2821 X HOU MAX + .2276 X DRT MIN + .0853 X AMA MAX +

DRT MAX R= .80963 STANDARD ERROR = 2.60480 REDUCTION OF VARIANCE = .65549 STD. DEV. OF PND. 4.43788

DRT MAX = -3.6254 + .5523 X DRT MAX + .3091 X DRT MIN + .1692 X HOU MAX + .0897 X AMA MAX +

HGT: (700MB HEIGHT) IN METERS. THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX: MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MIN R= .85451 STANDARD ERROR = 3.01849 REDUCTION OF VARIANCE = .73019 STD DEV. OF PND. 5.81112

DSM MIN = -135.1599 + .1286 X OMA MIN + .0256 X 45/095 THK + .0215 X 45/085 HGT + .1358 X DSM MAX + -.0604 X DAY OF YR + .0421 X 40/100 THK + -.0301 X 40/100 HGT + .2250 X DSM MIN +

OMA MIN R= .84616 STANDARD ERROR = 3.13620 REDUCTION OF VARIANCE = .71600 STD. DEV. OF PND. 5.88492

OMA MIN = -126.5491 + .3018 X OMA MIN + .0296 X 45/095 THK + -.0259 X 45/115 HGT + .1928 X RAP MIN + -.0579 X DAY OF YR + .0251 X 40/090 HGT + .0280 X 40/100 THK +

~~LBF~~ MIN R= .77859 ~~STANDARD~~ ERROR = ~~3.64204~~ REDUCTION OF VARIANCE = .60620 STD. DEV. OF PND. ~~5.80371~~

LBF MIN = -13.2076 + .1470 X RAP MAX + .2687 X LBF MIN + .0490 X 45/095 HGT + -.0420 X 45/115 HGT + .1685 X ~~PUB~~ MAX + ~~.1493~~ X BNO MIN +

DEN MIN R= .72849 STANDARD ERROR = 2.87854 REDUCTION OF VARIANCE = .53069 STD. DEV. OF PND. 4.20188

DEN MIN = -33.4492 + .3311 X DEN MIN + .0812 X BIL MAX + .1531 X DEN MAX + .0320 X 40/100 HGT + -.0175 X 50/120 HGT + .0926 X BNO MIN +

SLC MIN R= .80041 STANDARD ERROR = 3.73710 REDUCTION OF VARIANCE = .64065 STD. DEV. OF PND. 6.23416

~~SLC MIN = 12.7918 + .2681 X PIH MAX + .3226 X SLC MIN + .2782 X BOI MAX + -.0395 X 40/120 HGT + .0330 X 40/100 HGT +~~

WMC MIN R= .72136 STANDARD ERROR = 5.03840 REDUCTION OF VARIANCE = .52036 STD. DEV. OF PND. 7.27500

WMC MIN = 55.4438 + .2552 X WMC MIN + .3422 X WMC MAX + .3911 X FAT MIN + -.0520 X DAY OF YR + .0199 X 50/120 HGT + -.0410 X 30/120 THK +

RNO MIN R= .76102 STANDARD ERROR = 3.87859 REDUCTION OF VARIANCE = .57916 STD. DEV. OF PND. 5.97879

RNO MIN = 28.9107 + .5438 X RNO MIN + .2125 X RBL MAX + .0310 X 45/115 HGT + -.0397 X 30/120 HGT +

~~RBL MIN R= .82668 STANDARD ERROR = 2.92766 REDUCTION OF VARIANCE = .68339 STD. DEV. OF PND. 5.20309~~

~~RBL MIN = -72.2730 + .2999 X SAC MAX + .3362 X RBL MIN + .0254 X 40/130 HGT + .1487 X MFR MIN +~~

EKA MIN R= .70642 STANDARD ERROR = 1.64860 REDUCTION OF VARIANCE = .49904 STD. DEV. OF PND. 2.32922

EKA MIN = 14.4172 + .4536 X EKA MIN + .2406 X EKA MAX + .0122 X 45/125 THK + -.0128 X 45/125 HGT + .0370 X POT MAX +

MKC MIN R= .85002 STANDARD ERROR = 3.05237 REDUCTION OF VARIANCE = .72253 STD. DEV. OF PND. 5.79472

MKC MIN = -108.2881 + .2133 X OMA MIN + .0544 X 40/100 THK + .1461 X MKC MAX + -.0412 X 40/100 HGT + .0348 X 40/090 HGT + -.0437 X DAY OF YR + .2095 X MKC MIN +

~~TOP MIN R= .84174 STANDARD ERROR = 3.22836 REDUCTION OF VARIANCE = .70853 STD. DEV. OF PND. 5.97971~~

~~TOP MIN = -126.0799 + .3615 X TOP MIN + .0683 X 40/100 THK + -.0500 X 40/100 HGT + .0367 X 40/090 HGT + -.0490 X DAY OF YR + -.1868 X OMA MIN +~~

ICT MIN R= .81898 STANDARD ERROR = 3.09607 REDUCTION OF VARIANCE = .67073 STD. DEV. OF PND. 5.39552

ICT MIN = -151.2355 + .4386 X ICT MIN + .0669 X 40/100 THK + -.0496 X DAY OF YR + -.0470 X 35/105 HGT + .0456 X 35/095 HGT +

DDC MIN R= .80629 STANDARD ERROR = 2.81097 REDUCTION OF VARIANCE = .65011 STD. DEV. OF PND. 4.75214

DDC MIN = -149.9115 + .0583 X 40/100 THK + .3021 X DDC MIN + -.0404 X DAY OF YR + -.0188 X 45/115 HGT + .0247 X 35/095 HGT + .1180 X CPR MIN +

~~PUB MIN R= .68199 STANDARD ERROR = 3.02727 REDUCTION OF VARIANCE = .46511 STD. DEV. OF PND. 4.13922~~

PUB MIN = 26.7448 .3012 X PUB MIN + .1783 X PUB MAX + .1320 X CPR MIN + .1757 X ABQ MIN + ~~-.1374 X INW MAX + -.0324 X DAY OF YR +~~

GJT MIN R= .77075 STANDARD ERROR = 2.81302 REDUCTION OF VARIANCE = .59406 STD. DEV. OF PND. 4.41513

GJT MIN = -56.2292 + .2688 X GJT MAX + .2613 X GJT MIN + .1028 X ELY MIN + .0172 X 40/100 HGT + .1199 X SLC MAX + .1273 X PUB MIN +

~~MLF MIN R= .71485 STANDARD ERROR = 4.31321 REDUCTION OF VARIANCE = .51101 STD. DEV. OF PND. 6.16810~~

~~MLF MIN = 5.3482 + .2582 X ELY MIN + .2352 X PIH MAX + .2527 X LAS MIN + -.2614 X PHX MAX + .2911 X ELY MAX +~~

ELY MIN R= .74116 STANDARD ERROR = 4.11773 REDUCTION OF VARIANCE = .54932 STD. DEV. OF PND. 6.13372

ELY MIN = 1.3715 + .3477 X WMC MAX + .3450 X ELY MIN + -.0297 X 45/125 HGT + .0242 X 45/105 HGT + .2335 X FAT MIN +

SAC MIN R= .80042 STANDARD ERROR = 2.39262 REDUCTION OF VARIANCE = .64067 STD. DEV. OF PND. 3.99140

SAC MIN = -41.7718 + .2406 X SAC MIN + .1727 X SED MAX + .2106 X SAC MAX + -.1946 X FAT MAX + .1809 X FAT MIN + .0164 X 40/120 HGT + .1527 X EKA MAX +

SFO MIN R= .72315 STANDARD ERROR = 1.94639 REDUCTION OF VARIANCE = .52295 STD. DEV. OF PND. 2.81804

SFO MIN = 9.0881 + .4750 X SFO MIN + .0704 X PDX MAX + .1029 X SFO MAX + -.1081 X SAC MAX +
.1699 X EKA MAX + .0857 X BFL MIN +

OKC MIN R= .78788 STANDARD ERROR = 2.69764 REDUCTION OF VARIANCE = .62076 STD. DEV. OF PND. 4.38054

OKC MIN = 2.9325 + .3120 X OKC MIN + .2067 X ICT MIN + .1600 X AMA MAX + .0428 X 35/095 HGT +
-.0377 X 35/105 HGT +

AMA MIN R= .74611 STANDARD ERROR = 2.62224 REDUCTION OF VARIANCE = .55668 STD. DEV. OF PND. 3.93835

AMA MIN = -24.1128 + .3814 X AMA MIN + .1550 X PUB MAX + -.0259 X 40/110 HGT + .0372 X 30/100 HGT +
.1560 X DDC MIN + .0718 X ELY MIN +

ABQ MIN R= .67850 STANDARD ERROR = 2.60891 REDUCTION OF VARIANCE = .46036 STD. DEV. OF PND. 3.55145

ABQ MIN = 5.0025 + .2643 X ABQ MAX + .2547 X ABQ MIN + .0726 X PUB MAX + .0880 X WMC MAX +
.0739 X LBF MIN +

INW MIN R= .71222 STANDARD ERROR = 3.04884 REDUCTION OF VARIANCE = .50726 STD. DEV. OF PND. 4.34335

INW MIN = -8.8171 + .3866 X INW MIN + .1838 X INW MAX + .1109 X PIH MAX + .1313 X YUM MIN +
.1527 X ABQ MIN +

LAS MIN R= .77632 STANDARD ERROR = 3.34513 REDUCTION OF VARIANCE = .60267 STD. DEV. OF PND. 5.30685

LAS MIN = -59.3138 + .4273 X LAS MIN + .2836 X LAS MAX + .2334 X BFL MIN + .0359 X 35/115 HGT +
-.0184 X 45/125 HGT +

BFL MIN R= .91287 STANDARD ERROR = 2.11437 REDUCTION OF VARIANCE = .83333 STD. DEV. OF PND. 5.17909

BFL MIN = -68.4123 + .5304 X BFL MIN + .2756 X SAC MAX + .0237 X 40/120 HGT +

FAT MIN R= .87660 STANDARD ERROR = 2.35258 REDUCTION OF VARIANCE = .76844 STD. DEV. OF PND. 4.88886

FAT MIN = -64.1481 + .5412 X FAT MIN + .2287 X SAC MAX + .0227 X 40/120 HGT +

SMX MIN R= .65248 STANDARD ERROR = 2.34361 REDUCTION OF VARIANCE = .42573 STD. DEV. OF PND. 3.09263

SMX MIN = 25.4849 + .3099 X LAX MIN + .0687 X MFR MAX + .1377 X FAT MIN + .1662 X SFO MIN +
-.0204 X 30/120 THK + .0152 X 40/120 THK +

FTW MIN R= .80802 STANDARD ERROR = 2.28058 REDUCTION OF VARIANCE = .65289 STD. DEV. OF PND. 3.87090

FTW MIN = -34.5458 + .3984 X FTW MIN + .1312 X TCT MIN + .1456 X FTW MAX + .0286 X 30/090 HGT +
.0870 X AMA MAX + -.0138 X 40/100 HGT +

MAF MIN R= .75534 STANDARD ERROR = 2.28288 REDUCTION OF VARIANCE = .57054 STD. DEV. OF PND. 3.48356

MAF MIN = 1.0272 + .3489 X MAF MIN + .1805 X MAF MAX + .0702 X PUB MAX + .1749 X DRT MIN +
.1192 X AMA MIN +

ELP MIN R= .67166 STANDARD ERROR = 2.61523 REDUCTION OF VARIANCE = .45112 STD. DEV. OF PND. 3.52997

ELP MIN = 11.3973 + .2349 X ELP MAX + .2625 X ELP MIN + .1502 X AMA MIN + .1131 X TUS MIN +

TUS MIN R= .65941 STANDARD ERROR = 2.70024 REDUCTION OF VARIANCE = .43483 STD. DEV. OF PND. 3.59180

TUS MIN = -87.5864 + .3655 X TUS MIN + .1266 X YUM MAX + -.0485 X DAY OF YR + .0226 X 30/110 THK +
.0198 X 30/120 THK +

PHX MIN R= .73565 STANDARD ERROR = 3.07009 REDUCTION OF VARIANCE = .54118 STD. DEV. OF PND. 4.53240

PHX MIN = -67.2760 + .5745 X PHX MIN + .0263 X 35/115 HGT + .2225 X TUS MIN +

YUM MIN R= .69507 STANDARD ERROR = 3.74725 REDUCTION OF VARIANCE = .48312 STD. DEV. OF PND. 5.21218

YUM MIN = -132.8161 + .2720 X YUM MIN + .0420 X 30/120 THK + .2592 X YUM MAX + .2817 X SAN MIN +
.0770 X GTF MAX + .1433 X LAS MIN +

SAN MIN R= .86708 STANDARD ERROR = 1.35095 REDUCTION OF VARIANCE = .75183 STD. DEV. OF PND. 2.71183

SAN MIN = 6.8120 + .5148 X SAN MIN + .2297 X LAX MIN + .1314 X SAN MAX +

LAX MIN R= .87639 STANDARD ERROR = 1.54907 REDUCTION OF VARIANCE = .76807 STD. DEV. OF PND. 3.21654

LAX MIN = 2.9093 .6829 X LAX MIN + .1519 X LAX MAX + .0591 X SAC MAX +

SAT MIN R= .64952 STANDARD ERROR = 2.02670 REDUCTION OF VARIANCE = .42188 STD. DEV. OF PND. 2.66289

SAT MIN = -5.3449 + .3201 X SAT MIN + .1387 X MAF MIN + .2298 X HOU MIN + -.0127 X 40/110 HGT +
.0177 X 30/090 HGT + .1359 X BRO MAX +

DRT MIN R= .7[illegible]43 STANDARD ERROR = 1.91830 REDUCTION OF VARIANCE = .51041 STD. DEV. OF PND. 2.74157

DRT MIN = -4.2316 + .4376 X DRT MIN + .1542 X DRT MAX + .1840 X HOU MIN + .0142 X 30/090 HGT +
-.0088 X 40/110 HGT +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX: MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MAX R= .75102 STANDARD ERROR = 3.96381 REDUCTION OF VARIANCE = .56404 STD. DEV. OF PND. 6.00328

SBY MAX = -31.6724 + .5119 X NYC MIN + .2535 X RIC MAX + .2358 X DET MIN + .0313 X 35/085 HGT + -.0175 X 45/085 HGT +

DCA MAX R= .75645 STANDARD ERROR = 3.76668 REDUCTION OF VARIANCE = .57221 STD. DEV. OF PND. 5.75898

DCA MAX = -108.7912 + .4304 X NYC MIN + .2580 X DCA MAX + .1463 X CHI MAX + .0473 X 40/080 THK + -.1743 X ROA MIN +

CRW MAX R= .77112 STANDARD ERROR = 3.65617 REDUCTION OF VARIANCE = .59463 STD. DEV. OF PND. 5.74248

CRW MAX = -124.0297 + .0478 X 40/080 HGT + .2038 X PIA MAX + .2552 X CRW MAX + .1299 X CHI MIN + .1192 X MAP MAX +

HTS MAX R= .74584 STANDARD ERROR = 3.87631 REDUCTION OF VARIANCE = .55627 STD. DEV. OF PND. 5.81916

HTS MAX = -76.9423 + .2322 X PIA MAX + .0360 X 40/080 HGT + .2350 X HTS MAX + .1790 X MSN MIN +

LOU MAX R= .78139 STANDARD ERROR = 3.47334 REDUCTION OF VARIANCE = .61057 STD. DEV. OF PND. 5.56586

LOU MAX = -200.2630 + .0506 X 40/090 THK + .2843 X LOU MAX + .0324 X 40/080 HGT + .1897 X PIA MAX + -.1065 X ALB MAX +

ORF MAX R= .80264 STANDARD ERROR = 3.53431 REDUCTION OF VARIANCE = .64423 STD. DEV. OF PND. 5.92545

ORF MAX = -62.3703 + .2904 X PHL MIN + .2267 X RIC MAX + .2390 X CLE MIN + -.0353 X 45/075 HGT + .0405 X 35/075 HGT + .0254 X 45/075 THK +

RIC MAX R= .77094 STANDARD ERROR = 3.89585 REDUCTION OF VARIANCE = .59435 STD. DEV. OF PND. 6.11682

RIC MAX = -41.1805 + .3291 X RIC MAX + .1928 X DET MIN + .3558 X PHL MIN + .0450 X 35/085 HGT + -.0246 X 45/085 HGT + -.1998 X GSO MIN + .1303 X CHI MAX +

ROA MAX R= .74241 STANDARD ERROR = 4.19893 REDUCTION OF VARIANCE = .55118 STD. DEV. OF PND. 6.26758

ROA MAX = -84.7101 + .3078 X ROA MAX + .2006 X SYR MIN + .0553 X 35/085 HGT + .1744 X CBI MAX + -.0195 X 45/075 HGT + .2691 X DCA MIN + -.2409 X AGS MIN +

HAT MAX R= .75267 STANDARD ERROR = 2.04712 REDUCTION OF VARIANCE = .56651 STD. DEV. OF PND. 3.10922

HAT MAX = 15.4739 + .3362 X HAT MAX + .1606 X DCA MIN + .1481 X ORF MIN + .0754 X CBI MIN + -.0088 X 45/085 HGT + .0130 X 30/080 HGT +

RDU MAX R= .76322 STANDARD ERROR = 3.61647 REDUCTION OF VARIANCE = .58251 STD. DEV. OF PND. 5.59706

RDU MAX = -65.5078 + .2690 X RDU MAX + .3070 X DCA MIN + .0548 X 35/085 HGT + -.0260 X 45/075 HGT + .2360 X PIT MIN +

GSO MAX R= .77208 STANDARD ERROR = 3.49332 REDUCTION OF VARIANCE = .59611 STD. DEV. OF PND. 5.49675

GSO MAX = -91.8234 + .2483 X GSO MAX + .3169 X DCA MIN + .0586 X 35/085 HGT + -.0237 X 45/075 HGT + .1655 X PIT MAX + .0959 X DSM MAX +

TYS MAX R= .76579 STANDARD ERROR = 3.30409 REDUCTION OF VARIANCE = .58643 STD. DEV. OF PND. 5.13780

TYS MAX = -46.9207 + .4044 X TYS MAX + .0538 X 35/085 HGT + .1094 X CBI MAX + -.0285 X 30/080 HGT + .1375 X STL MIN +

BNA MAX R= .78123 STANDARD ERROR = 3.31414 REDUCTION OF VARIANCE = .61031 STD. DEV. OF PND. 5.30900

BNA MAX = -181.5466 + .0393 X 40/090 THK + .2993 X BNA MAX + .0344 X 35/085 HGT + .1789 X CBI MAX +

MEM MAX R= .78796 STANDARD ERROR = 3.03098 REDUCTION OF VARIANCE = .62089 STD. DEV. OF PND. 4.92265

MEM MAX = -70.4866 + .4556 X MEM MAX + .1231 X DDC MAX + .1969 X STL MIN + .0300 X 35/095 HGT +

LIT MAX R= .78062 STANDARD ERROR = 3.58935 REDUCTION OF VARIANCE = .60937 STD. DEV. OF PND. 5.74294

LIT MAX = -64.0054 + .3895 X LIT MAX + .1986 X DDC MAX + .2088 X CBI MIN + .0462 X 35/095 HGT + -.0189 X 45/095 HGT +

FSM MAX R= .78449 STANDARD ERROR = 3.97431 REDUCTION OF VARIANCE = .61542 STD. DEV. OF PND. 6.40866

FSM MAX = -93.1074 + .3592 X FSM MAX + .2054 X DDC MAX + .2131 X ICT MIN + .0391 X 35/095 THK +

CHS MAX R= .74456 STANDARD ERROR = 2.77433 REDUCTION OF VARIANCE = .55438 STD. DEV. OF PND. 4.15598

CHS MAX = 5.7425 + .3616 X CHS MAX + .1212 X CRW MIN + -.0421 X 40/080 HGT + .0496 X 35/085 HGT + .0948 X RIC MAX + .1437 X RDU MIN +

CLT MAX R= .76985 STANDARD ERROR = 3.53650 REDUCTION OF VARIANCE = .59267 STD. DEV. OF PND. 5.54115

CLT MAX = -79.9101 + .3224 X CLT MAX + .3128 X DCA MIN + .0801 X 35/085 HGT + -.0500 X 40/080 HGT + .1071 X MKC MAX + .1352 X HTS MAX +

AGS MAX R= .76161 STANDARD ERROR = 3.00764 REDUCTION OF VARIANCE = .58006 STD. DEV. OF PND. 4.64120

AGS MAX = -49.0242 + .3682 X AGS MAX + .0047 X 35/085 THK + .2178 X RIC MIN + .0618 X 35/085 HGT + -.0417 X 40/080 HGT + .1399 X TYS MAX +

AHN MAX R= .81204 STANDARD ERROR = 2.75618 REDUCTION OF VARIANCE = .65941 STD. DEV. OF PND. 4.72271

AHN MAX = -43.4603 + .4234 X AHN MAX + .1819 X BNA MAX + .0510 X 35/085 HGT + -.0310 X 40/080 HGT + .1624 X RIC MIN + -.3655 X AHN MIN + .3932 X ATL MIN +

ATL MAX R= .78046 STANDARD ERROR = 3.02655 REDUCTION OF VARIANCE = .60911 STD. DEV. OF PND. 4.84085

ATL MAX = -54.1324 + .3430 X ATL MAX + .1677 X BNA MAX + .5189 X ATL MIN + .0534 X 35/085 HGT + -.0293 X 40/080 HGT + -.3892 X AHN MIN + .1484 X RIC MIN +

BHM MAX R= .76481 STANDARD ERROR = 2.99440 REDUCTION OF VARIANCE = .58493 STD. DEV. OF PND. 4.64781

BHM MAX = -90.0221 + .5169 X BHM MAX + .1181 X CBI MAX + .0341 X 30/090 HGT + .2082 X ATL MIN +

JAN MAX R= .75555 STANDARD ERROR = 2.90392 REDUCTION OF VARIANCE = .57086 STD. DEV. OF PND. 4.43284

JAN MAX = -134.3550 + .4607 X JAN MAX + .0327 X 35/095 THK + .2090 X MOB MAX + .0204 X 35/085 HGT +

SHV MAX R= .76580 STANDARD ERROR = 3.16606 REDUCTION OF VARIANCE = .58645 STD. DEV. OF PND. 4.92327

SHV MAX = -86.4506 + .3624 X SHV MAX + .0335 X 35/095 THK + .1804 X MOB MAX + .1239 X OKC MAX + .2146 X SHV MIN +

JAX MAX R= .71494 STANDARD ERROR = 2.74211 REDUCTION OF VARIANCE = .51115 STD. DEV. OF PND. 3.92190

JAX MAX = -91.6736 + .2532 X JAX MAX + .1783 X RDU MIN + .1258 X AGS MAX + .0486 X 30/080 HGT + -.0411 X 35/075 HGT + .0335 X 35/075 THK + .1117 X JAN MAX +

TLH MAX R= .65890 STANDARD ERROR = 2.90745 REDUCTION OF VARIANCE = .43415 STD. DEV. OF PND. 3.86510

TLH MAX = -12.7947 + .4207 X TLH MAX + .0352 X 30/090 HGT + .1466 X AGS MAX + -.0189 X 30/070 HGT +

MGM MAX R= .74691 STANDARD ERROR = 2.88872 REDUCTION OF VARIANCE = .55788 STD. DEV. OF PND. 4.34443

MGM MAX = -143.3045 + .4967 X MGM MAX + .0281 X 35/085 THK + .0305 X 30/090 HGT + .3733 X ATL MIN + -.2792 X AHN MIN +

MOB MAX R= .72309 STANDARD ERROR = 2.73489 REDUCTION OF VARIANCE = .52286 STD. DEV. OF PND. 3.95929

MOB MAX = -111.1057 + .4149 X MOB MAX + .0624 X 30/090 HGT + -.0451 X 30/080 HGT + .1418 X TLH MAX + .0315 X 30/080 THK +

MSY MAX R= .71040 STANDARD ERROR = 2.42044 REDUCTION OF VARIANCE = .50467 STD. DEV. OF PND. 3.43914

MSY MAX = -117.5636 + .4006 X MSY MAX + -.0100 X 30/090 THK + .1790 X MSY MIN + .0477 X 30/090 HGT + -.0358 X 30/080 HGT + .0333 X 30/080 THK + .0162 X 35/095 THK +

LCH MAX R= .70285 STANDARD ERROR = 2.92521 REDUCTION OF VARIANCE = .49399 STD. DEV. OF PND. 4.11225

LCH MAX = 8.8086 + .4615 X LCH MAX + .2946 X MSY MAX + .1907 X SHV MIN +

HOU MAX R= .74290 STANDARD ERROR = 2.68218 REDUCTION OF VARIANCE = .55190 STD. DEV. OF PND. 4.00685

HOU MAX = -1.7525 + .4608 X HOU MAX + .1841 X MSY MAX + .2300 X FTW MIN + -.0230 X 35/085 HGT + .0287 X 25/095 HGT +

CRP MAX R= .72174 STANDARD ERROR = 2.15262 REDUCTION OF VARIANCE = .52091 STD. DEV. OF PND. 3.10997

CRP MAX = 16.8477 + .5350 X CRP MAX + .1734 X HOU MAX + .1448 X SAT MIN +

BRO MAX R= .64415 STANDARD ERROR = 1.95009 REDUCTION OF VARIANCE = .41493 STD. DEV. OF PND. 2.54947

BRO MAX = 31.5976 + .4791 X BRO MAX + .1783 X CRP MAX +

ORL MAX R= .61102 STANDARD ERROR = 2.46844 REDUCTION OF VARIANCE = .37334 STD. DEV. OF PND. 3.11823

ORL MAX = -50.4233 + .4123 X ORL MAX + .2016 X MIA MIN + .1254 X MGM MIN + .0210 X 25/085 HGT + .1757 X TPA MIN +

TPA MAX R= .63302 STANDARD ERROR = 2.46003 REDUCTION OF VARIANCE = .40072 STD. DEV. OF PND. 3.17779

TPA MAX = -1.3820 + .4841 X TPA MAX + .0322 X 30/080 HGT + .2043 X MIA MIN + -.0220 X 25/075 HGT +

MIA MAX R= .68724 STANDARD ERROR = 1.73891 REDUCTION OF VARIANCE = .47230 STD. DEV. OF PND. 2.39378

MIA MAX = -81.3869 + .4388 X MIA MAX + .1403 X EYW MIN + .0335 X 25/075 THK + .1580 X MIA MIN + -.0167 X 30/070 HGT + .0188 X 25/085 HGT +

EYW MAX R= .65274 STANDARD ERROR = 1.60080 REDUCTION OF VARIANCE = .42607 STD. DEV. OF PND. 2.11304

EYW MAX = -37.5595 + .5263 X EYW MAX + .1922 X EYW MIN + .0213 X 25/075 THK +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MIN R= .81507 STANDARD ERROR = 3.56327 REDUCTION OF VARIANCE = .66434 STD. DEV. OF PND. 6.15038

SBY MIN = -64.5474 + .0308 X 40/070 THK + .3295 X DET MIN + .3171 X RIC MIN + -.0358 X 40/090 HGT + .0291 X 40/070 HGT + .1987 X ORF MAX +

DCA MIN R= .80923 STANDARD ERROR = 2.55326 REDUCTION OF VARIANCE = .70430 STD. DEV. OF PND. 4.69539

DCA MIN = -109.8123 + .3907 X DCA MIN + .0402 X 40/080 THK + .2181 X DET MIN + .0213 X 40/070 HGT + -.0159 X 40/090 HGT +

CRW MIN R= .85076 STANDARD ERROR = 2.97654 REDUCTION OF VARIANCE = .72380 STD. DEV. OF PND. 5.66369

CRW MIN = -83.5425 + .0960 X CMH MIN + .0423 X 40/080 THK + .2858 X IND MIN + .2442 X CRW MIN + -.0324 X 40/090 HGT + .0232 X 40/070 HGT + .1484 X DSM MIN +

HTS MIN R= .84938 STANDARD ERROR = 2.95713 REDUCTION OF VARIANCE = .72144 STD. DEV. OF PND. 5.60287

HTS MIN = -30.4275 + .4573 X HTS MIN + .0500 X 40/080 THK + .1898 X PIA MIN + -.0377 X 40/090 HGT + .0346 X 35/075 HGT + -.0326 X 35/075 THK + .1615 X DSM MIN +

LOU MIN R= .83896 STANDARD ERROR = 2.97494 REDUCTION OF VARIANCE = .70385 STD. DEV. OF PND. 5.46671

LOU MIN = 15.0756 + .2640 X PIA MIN + .3358 X LOU MIN + .0489 X 35/085 HGT + -.0500 X 35/095 HGT + .2358 X CBI MIN +

ORF MIN R= .81812 STANDARD ERROR = 2.42325 REDUCTION OF VARIANCE = .66932 STD. DEV. OF PND. 4.21402

ORF MIN = -68.3158 + .3535 X ORF MIN + .1374 X CMH MIN + .0099 X 40/070 THK + .0235 X 40/080 THK + .1369 X ORF MAX + .0141 X 40/070 HGT + -.0164 X 40/090 HGT +

RIC MIN R= .84407 STANDARD ERROR = 2.75262 REDUCTION OF VARIANCE = .71245 STD. DEV. OF PND. 5.13320

RIC MIN = -71.1534 + .3524 X RIC MIN + .0321 X 40/080 THK + .1268 X CMH MIN + .0240 X 40/070 HGT + -.0272 X 40/090 HGT + .1310 X ORF MAX + .1425 X PIA MIN +

ROA MIN R= .79600 STANDARD ERROR = 2.91703 REDUCTION OF VARIANCE = .63362 STD. DEV. OF PND. 4.81922

ROA MIN = -160.7358 + .2734 X IND MIN + .3545 X ROA MIN + .0441 X 40/080 THK + .0217 X 40/070 HGT + -.0286 X 40/080 HGT + .0233 X 30/080 HGT +

HAT MIN R= .69913 STANDARD ERROR = 2.94903 REDUCTION OF VARIANCE = .48878 STD. DEV. OF PND. 4.12452

HAT MIN = -109.5603 + .3537 X HAT MIN + .2240 X PIT MIN + .0256 X 35/075 HGT + -.0112 X 45/085 HGT + .0315 X 25/085 THK +

RDU MIN R= .80427 STANDARD ERROR = 2.64440 REDUCTION OF VARIANCE = .64685 STD. DEV. OF PND. 4.44989

RDU MIN = -109.1785 + .4205 X RDU MIN + .1921 X CMH MIN + .0359 X 40/080 THK + .0275 X 30/080 HGT + -.0190 X 40/090 HGT +

GSO MIN R= .79331 STANDARD ERROR = 2.58162 REDUCTION OF VARIANCE = .62933 STD. DEV. OF PND. 4.24033

GSO MIN = -98.7934 + .3767 X GSO MIN + .0228 X 40/080 THK + .1996 X LOU MIN + .2273 X HAT MAX + .0124 X 40/070 HGT +

TYS MIN R= .80493 STANDARD ERROR = 2.40504 REDUCTION OF VARIANCE = .64791 STD. DEV. OF PND. 4.05318

TYS MIN = -116.0386 + .4866 X TYS MIN + .2003 X CBI MIN + .0217 X 35/075 HGT + .0364 X 35/085 THK + -.0135 X 40/090 HGT +

BNA MIN R= .82898 STANDARD ERROR = 2.60777 REDUCTION OF VARIANCE = .68721 STD. DEV. OF PND. 4.66278

BNA MIN = -111.9817 + .4050 X BNA MIN + .3044 X CBI MIN + .0226 X 35/075 HGT + .0364 X 35/085 THK + -.0159 X 40/100 HGT +

MEM MIN R= .81209 STANDARD ERROR = 2.47971 REDUCTION OF VARIANCE = .65949 STD. DEV. OF PND. 4.24950

MEM MIN = 8.2155 + .4718 X MEM MIN + .2709 X CBI MIN + .0234 X 35/085 HGT + -.0199 X 35/105 HGT +

LIT MIN R= .79692 STANDARD ERROR = 2.43849 REDUCTION OF VARIANCE = .63507 STD. DEV. OF PND. 4.03663

LIT MIN = -51.8741 + .4030 X LIT MIN + .1773 X ICT MIN + .1749 X STL MIN + .0220 X 30/090 HGT +

FSM MIN R= .80689 STANDARD ERROR = 2.53038 REDUCTION OF VARIANCE = .65168 STD. DEV. OF PND. 4.28373

FSM MIN = -95.7864 + .4527 X FSM MIN + .1726 X ICT MIN + .0460 X 35/095 THK + .0147 X 35/075 HGT + -.0387 X DAY OF YR + -.0180 X 35/105 HGT +

CHS MIN R= .75238 STANDARD ERROR = 2.15168 REDUCTION OF VARIANCE = .56607 STD. DEV. OF PND. 3.26640

CHS MIN = -51.5369 + .4492 X CHS MIN + .1780 X RDU MIN + .0917 X LOU MIN + .0238 X 30/080 THK +

CLT MIN R= .78148 STANDARD ERROR = 2.20865 REDUCTION OF VARIANCE = .61071 STD. DEV. OF PND. 3.53988

CLT MIN = -101.0062 + .3447 X CLT MIN + .1492 X LOU MIN + .0274 X 35/085 THK + .0142 X 35/075 HGT + .1088 X RIC MIN +

AGS MIN R= .76392 STANDARD ERROR = 2.32175 REDUCTION OF VARIANCE = .58358 STD. DEV. OF PND. 3.59789

AGS MIN = 16.0300 + .4168 X AGS MIN + .2152 X RDU MIN + .1538 X LOU MIN +

AHN MIN R= .77939 STANDARD ERROR = 2.03543 REDUCTION OF VARIANCE = .60744 STD. DEV. OF PND. 3.24866

AHN MIN = -67.1701 + .3176 X AHN MIN + .1786 X BNA MIN + .1533 X GSO MIN + .0213 X 35/085 THK + .0084 X 35/075 HGT +

ATL MIN R= .78427 STANDARD ERROR = 1.93045 REDUCTION OF VARIANCE = .61508 STD. DEV. OF PND. 3.11153

ATL MIN = 15.7498 + .3878 X ATL MIN + .1220 X STL MIN + .1115 X ATL MAX + .1250 X BNA MIN +

BHM MIN R= .73673 STANDARD ERROR = 2.44162 REDUCTION OF VARIANCE = .54277 STD. DEV. OF PND. 3.61085

BHM MIN = -59.0019 + .4964 X BHM MIN + .1477 X CBI MIN + .0171 X 35/075 HGT + .0248 X 35/085 THK + -.0152 X 40/070 THK +

JAN MIN R= .75321 STANDARD ERROR = 2.13230 REDUCTION OF VARIANCE = .56732 STD. DEV. OF PND. 3.24165

JAN MIN = -125.3270 + .5205 X JAN MIN + .1388 X CBI MIN + .0333 X 30/090 THK + .0151 X 30/080 HGT +

SHV MIN R= .77497 STANDARD ERROR = 1.92424 REDUCTION OF VARIANCE = .60058 STD. DEV. OF PND. 3.04471

SHV MIN = -45.5828 + .3903 X SHV MIN + .0588 X ICT MIN + .1924 X JAN MIN + .0689 X MAF MAX + .0204 X 30/090 HGT + -.0156 X 35/105 HGT + .0164 X 35/095 THK +

JAX MIN R= .57609 STANDARD ERROR = 1.78569 REDUCTION OF VARIANCE = .33188 STD. DEV. OF PND. 2.18464

JAX MIN = -26.0043 + .3708 X JAX MIN + .0780 X RDU MIN + .0202 X 30/080 THK + .0780 X BHM MIN +

TLH MIN R= .63502 STANDARD ERROR = 1.57808 REDUCTION OF VARIANCE = .40326 STD. DEV. OF PND. 2.04284

TLH MIN = 23.0877 + .4139 X TLH MIN + .1167 X BHM MIN + .0806 X CHS MIN + .0576 X TLH MAX +

MGM MIN R= .75976 STANDARD ERROR = 1.86457 REDUCTION OF VARIANCE = .57723 STD. DEV. OF PND. 2.86766

MGM MIN = 11.1503 + .3137 X MGM MIN + .1006 X CBI MIN + .2065 X BHM MIN + .0906 X MGM MAX + .1195 X CHS MIN +

MOB MIN R= .63272 STANDARD ERROR = 1.76072 REDUCTION OF VARIANCE = .40033 STD. DEV. OF PND. 2.27370

MOB MIN = -24.6918 + .4442 X MOB MIN + .1052 X MEM MIN + .0188 X 30/090 THK +

MSY MIN R= .70499 STANDARD ERROR = 2.01427 REDUCTION OF VARIANCE = .49702 STD. DEV. OF PND. 2.84014

MSY MIN = -52.1033 + .6353 X MSY MIN + .0259 X 30/090 THK +

LCH MIN R= .72278 STANDARD ERROR = 1.69454 REDUCTION OF VARIANCE = .52242 STD. DEV. OF PND. 2.45204

LCH MIN = -34.6055 + .5334 X LCH MIN + .1060 X JAN MIN + .0372 X FAR MIN + .0200 X 30/090 HGT + .0149 X 35/095 THK + -.0157 X 35/095 HGT +

HOU MIN R= .66078 STANDARD ERROR = 1.51469 REDUCTION OF VARIANCE = .43663 STD. DEV. OF PND. 2.01803

HOU MIN = 14.7130 + .4974 X HOU MIN + .1029 X LCH MIN + .0101 X 30/090 HGT + -.0069 X 40/110 HGT +

CRP MIN R= .68909 STANDARD ERROR = 1.75408 REDUCTION OF VARIANCE = .47485 STD. DEV. OF PND. 2.42051

CRP MIN = -16.1922 + .3924 X CRP MIN + .2342 X HOU MIN + -.0243 X 35/105 HGT + .0234 X 25/085 HGT + .0900 X CRP MAX + .0126 X 30/100 THK +

BRO MIN R= .72173 STANDARD ERROR = 1.48798 REDUCTION OF VARIANCE = .52090 STD. DEV. OF PND. 2.14973

BRO MIN = -4.3273 + .4070 X BRO MIN + .1043 X LCH MIN + -.0121 X 35/095 HGT + .0225 X 25/085 HGT + .0103 X 30/100 THK + -.0128 X 35/105 HGT + .1045 X BRO MAX + .1057 X SAT MIN +

ORL MIN R= .30442 STANDARD ERROR = 2.69313 REDUCTION OF VARIANCE = .09267 STD. DEV. OF PND. 2.82732

ORL MIN = 33.4115 .2472 X TPA MIN + .0926 X CHS MAX + .1701 X MIA MIN +

TPA MIN R= .61543 STANDARD ERROR = 1.61767 REDUCTION OF VARIANCE = .37875 STD. DEV. OF PND. 2.05238

TPA MIN = 48.4035 + .4671 X TPA MIN + .0913 X CLT MIN + .1002 X ORL MAX + -.0077 X 35/085 HGT +

MIA MIN R= .57765 STANDARD ERROR = 1.86452 REDUCTION OF VARIANCE = .33367 STD. DEV. OF PND. 2.28414

MIA MIN = 31.7741 + .5797 X MIA MIN +

EYW MIN R= .52024 STANDARD ERROR = 2.52769 REDUCTION OF VARIANCE = .27065 STD. DEV. OF PND. 2.95976

EYW MIN = 80.2126 + .4530 X EYW MIN + -.0118 X 40/080 HGT +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MAX R= .73619 STANDARD ERROR = 5.04044 REDUCTION OF VARIANCE = .54198 STD. DEV. OF PND. 7.44777

CAR MAX = -226.6914 + .0696 X 50/070 THK + .0458 X 45/075 HGT + -.0203 X 55/075 HGT + .1966 X QB MAX +

SSM MAX R= .80554 STANDARD ERROR = 4.45192 REDUCTION OF VARIANCE = .64890 STD. DEV. OF PND. 7.51328

SSM MAX = -62.5136 + .0361 X 50/090 THK + .0539 X 45/085 HGT + .2429 X SSM MIN + .2169 X QT MAX + -.0188 X 55/105 HGT + .1989 X FAR MIN + -.0384 X 40/090 HGT +

PWM MAX R= .78448 STANDARD ERROR = 4.50276 REDUCTION OF VARIANCE = .61541 STD. DEV. OF PND. 7.26070

PWM MAX = -168.3172 + .8330 X BOS MIN + .0622 X 40/080 HGT + -.3753 X ALB MIN + -.0361 X 50/070 HGT + .0393 X 50/070 THK + .2439 X QB MIN +

BTV MAX R= .82129 STANDARD ERROR = 4.18049 REDUCTION OF VARIANCE = .67451 STD. DEV. OF PND. 7.32757

BTV MAX = -141.8630 + .0090 X 45/075 THK + .2250 X YB MIN + .0528 X 45/075 HGT + .4233 X BOS MIN + -.1752 X ALB MIN + -.0363 X 50/080 HGT + .1853 X YB MAX + .0335 X 50/080 THK +

SYR MAX R= .83119 STANDARD ERROR = 3.77793 REDUCTION OF VARIANCE = .69088 STD. DEV. OF PND. 6.79496

SYR MAX = -97.3764 + .3020 X YB MIN + .2659 X FNT MAX + .0276 X 45/075 HGT + -.0186 X 50/090 HGT + .0376 X 45/085 THK +

BUF MAX R= .80234 STANDARD ERROR = 3.77029 REDUCTION OF VARIANCE = .64375 STD. DEV. OF PND. 6.31677

BUF MAX = -155.4531 + .0575 X 45/085 THK + .0312 X 45/075 HGT + .1637 X SSM MAX + -.0178 X 45/095 HGT + .1334 X BUF MAX +

DET MAX R= .81255 STANDARD ERROR = 3.80571 REDUCTION OF VARIANCE = .66024 STD. DEV. OF PND. 6.52906

DET MAX = -175.0297 + .0768 X 45/085 THK + .2146 X GRR MAX + .1981 X YB MIN +

FNT MAX R= .81527 STANDARD ERROR = 3.96394 REDUCTION OF VARIANCE = .66467 STD. DEV. OF PND. 6.84528

FNT MAX = -128.6827 + .0481 X 45/085 THK + .2121 X GRR MAX + .1637 X STC MIN + -.0149 X 55/095 HGT + .0245 X 45/085 HGT + .1577 X YB MIN +

GRR MAX R= .80934 STANDARD ERROR = 3.87266 REDUCTION OF VARIANCE = .65503 STD. DEV. OF PND. 6.59356

GRR MAX = -73.9115 + .0338 X 45/085 THK + .1796 X STC MIN + .2422 X GRR MAX + .0231 X 45/085 HGT + .1731 X STC MAX + -.0193 X 45/105 HGT +

MKE MAX R= .79838 STANDARD ERROR = 4.45205 REDUCTION OF VARIANCE = .63742 STD. DEV. OF PND. 7.39362

MKE MAX = -16.8210 + .3244 X GRR MIN + .2643 X MSP MAX + .2474 X DLH MIN + -.0193 X 55/095 HGT + -.2014 X CVG MIN + .0383 X 45/085 THK +

GRR MAX R= .77709 STANDARD ERROR = 4.34496 REDUCTION OF VARIANCE = .60386 STD. DEV. OF PND. 6.90341

GRR MAX = -70.2066 + .2568 X DLH MIN + .2006 X EAR MAX + .0180 X 45/085 THK + .0352 X 50/090 THK + -.0168 X 55/095 HGT + .1593 X GRR MAX +

MSN MAX R= .76574 STANDARD ERROR = 4.37216 REDUCTION OF VARIANCE = .58636 STD. DEV. OF PND. 6.79804

MSN MAX = -75.9005 + .0351 X 45/095 THK + .1796 X MSN MAX + .2211 X DLH MIN + .1918 X STC MAX + .1780 X MKE MIN +

ACK MAX R= .71930 STANDARD ERROR = 3.07054 REDUCTION OF VARIANCE = .51740 STD. DEV. OF PND. 4.41998

ACK MAX = -27.5477 + .3175 X BOS MIN + .2264 X ACK MAX + -.3156 X HFD MIN + .3131 X ACK MIN + .2872 X NYC MIN + .0142 X 40/090 HGT +

BOS MAX R= .82771 STANDARD ERROR = 4.29984 REDUCTION OF VARIANCE = .68511 STD. DEV. OF PND. 7.66253

BOS MAX = -69.8039 + .8496 X BOS MIN + .0552 X 40/080 HGT + -.0314 X 50/070 HGT + .3432 X QB MIN + -.3184 X PHL MIN + .5265 X NYC MIN + -.2691 X HFD MIN +

HFD MAX R= .79513 STANDARD ERROR = 4.06673 REDUCTION OF VARIANCE = .63224 STD. DEV. OF PND. 6.70594

HFD MAX = -119.0551 + .7983 X NYC MIN + .1743 X FNT MAX + -.4572 X PHL MIN + .2917 X BOS MIN + .0333 X 40/080 HGT + -.0176 X 50/070 HGT + .0312 X 45/075 THK +

ALB MAX R= .80356 STANDARD ERROR = 4.05349 REDUCTION OF VARIANCE = .64571 STD. DEV. OF PND. 6.81007

ALB MAX = -244.3136 + .0273 X 45/085 THK + .6451 X NYC MIN + .1787 X YB MAX + .0284 X 40/080 HGT + -.2834 X PHL MIN + .0392 X 45/075 THK +

NYC MAX R= .81643 STANDARD ERROR = 3.67084 REDUCTION OF VARIANCE = .66655 STD. DEV. OF PND. 6.35701

NYC MAX = -120.4964 + .7842 X NYC MIN + .0576 X 40/080 HGT + -.0172 X 45/065 HGT + .0408 X 45/075 THK + -.2313 X CRW MIN + -.0309 X 45/075 HGT + .1394 X FNT MAX +

PHL MAX R= .77497 STANDARD ERROR = 3.80942 REDUCTION OF VARIANCE = .60057 STD. DEV. OF PND. 6.02756

PHL MAX = -111.2797 + .5867 X NYC MIN + .1765 X FNT MAX + .0472 X 40/080 THK + -.2509 X CRW MIN + .1811 X PHL MAX +

IPT MAX R= .78484 STANDARD ERROR = 4.02501 REDUCTION OF VARIANCE = .61598 STD. DEV. OF PND. 6.49517

IPT MAX = -144.2088 + .5611 X NYC MIN + .1816 X GRB MAX + .0555 X 40/080 HGT + -.0333 X 40/070 HGT + .0351 X 45/075 THK +

PIT MAX R= .78524 STANDARD ERROR = 3.68277 REDUCTION OF VARIANCE = .61661 STD. DEV. OF PND. 5.94775

PIT MAX = -176.5191 + .0459 X 45/085 THK + .2172 X PIT MAX + .0295 X 40/080 HGT + .1829 X FNT MIN +

CLE MAX R= .81029 STANDARD ERROR = 4.05650 REDUCTION OF VARIANCE = .65657 STD. DEV. OF PND. 6.92202

CLE MAX = -280.4662 + .0740 X 45/085 THK + .0394 X 40/080 HGT + .2845 X MKE MIN +

CMH MAX R= .80167 STANDARD ERROR = 3.59182 REDUCTION OF VARIANCE = .64267 STD. DEV. OF PND. 6.00867

CMH MAX = -170.5149 + .0441 X 45/085 THK + .2658 X PIA MAX + .0279 X 40/080 HGT + .2107 X DAY MIN +

DAY MAX R= .79816 STANDARD ERROR = 3.44081 REDUCTION OF VARIANCE = .63706 STD. DEV. OF PND. 5.71141

DAY MAX = -125.8358 + .0310 X 45/085 THK + .4419 X DAY MAX + .1798 X MLI MIN + .1597 X DSM MAX + .0242 X 40/080 HGT + -.2464 X CMH MAX +

CVG MAX R= .75970 STANDARD ERROR = 3.77495 REDUCTION OF VARIANCE = .57714 STD. DEV. OF PND. 5.80511

CVG MAX = -70.4047 + .2509 X PIA MAX + .0314 X 40/080 HGT + .2417 X DSM MIN + .2387 X CVG MAX +

IND MAX R= .69988 STANDARD ERROR = 4.42665 REDUCTION OF VARIANCE = .48983 STD. DEV. OF PND. 6.19753

IND MAX = -174.5840 + .0463 X 40/090 THK + .0274 X 40/080 HGT + .2271 X PIA MAX + .2048 X MKE MIN +

CHI MAX R= .78829 STANDARD ERROR = 4.11633 REDUCTION OF VARIANCE = .62140 STD. DEV. OF PND. 6.68992

CHI MAX = 100.2146 + .2861 X GRB MIN + .1974 X MSP MAX + -.0291 X 50/100 HGT + .0304 X 40/090 HGT + .1790 X STC MIN + .1765 X MSN MAX + -.0266 X 35/095 THK +

PIA MAX R= .78839 STANDARD ERROR = 3.71544 REDUCTION OF VARIANCE = .62157 STD. DEV. OF PND. 6.03970

PIA MAX = -62.0181 + .2331 X DSM MIN + .2246 X DSM MAX + .2191 X MKE MIN + .0329 X 45/095 THK +

MLI MAX R= .79596 STANDARD ERROR = 3.88715 REDUCTION OF VARIANCE = .63356 STD. DEV. OF PND. 6.42140

MLI MAX = 21.3159 + .0613 X 45/095 THK + .1794 X GRB MIN + .1712 X DSM MAX + -.0381 X 35/095 THK + .2710 X DSM MIN + -.0153 X 50/090 HGT +

STC MAX R= .79166 STANDARD ERROR = 4.01196 REDUCTION OF VARIANCE = .62672 STD. DEV. OF PND. 6.56658

STC MAX = -59.8546 + .2658 X STC MIN + .1817 X LBF MAX + .0447 X 40/090 HGT + -.0187 X 50/090 HGT + .2443 X MKC MIN + .1522 X PIA MAX +

CBI MAX R= .79755 STANDARD ERROR = 4.11373 REDUCTION OF VARIANCE = .63609 STD. DEV. OF PND. 6.81926

CBI MAX = 12.0387 + .7072 X MKC MIN + .2474 X LBF MAX + .2487 X CBI MAX + -.2557 X TOP MIN +

Northeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX: MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MIN R= .78356 STANDARD ERROR = 3.89575 REDUCTION OF VARIANCE = .61396 STD. DEV. OF PND. 6.27013

CAR MIN = -220.2235 + .2593 X YB MIN + .0370 X 50/060 THK + .0513 X 50/070 THK + .1459 X BTV MIN + -.0430 X DAY OF YR +

SSM MIN R= .80392 STANDARD ERROR = 3.54278 REDUCTION OF VARIANCE = .64628 STD. DEV. OF PND. 5.95685

SSM MIN = -101.0606 + .2209 X DLH MIN + .0217 X 50/080 THK + .2594 X SSM MIN + .1221 X FAR MIN + .0187 X 50/070 HGT + -.0278 X 45/095 HGT + .0291 X 45/095 THK +

PWM MIN R= .81647 STANDARD ERROR = 3.71714 REDUCTION OF VARIANCE = .66663 STD. DEV. OF PND. 6.43790

PWM MIN = -139.4286 + .2084 X BTV MIN + .0597 X 45/075 THK + .0305 X 45/065 HGT + -.0357 X 45/075 HGT + .2030 X PWM MIN + .1886 X YB MIN +

BTV MIN R= .81487 STANDARD ERROR = 3.96867 REDUCTION OF VARIANCE = .66402 STD. DEV. OF PND. 6.84679

BTV MIN = -172.9935 + .2700 X YB MIN + -.0104 X 45/065 THK + .0774 X 45/075 THK + .0454 X 45/065 HGT + -.0434 X 45/075 HGT + .3610 X BTV MIN + -.1800 X ALB MIN +

SYR MIN R= .84928 STANDARD ERROR = 3.62559 REDUCTION OF VARIANCE = .67465 STD. DEV. OF PND. 6.35630

SYR MIN = -85.2197 + .2728 X YB MIN + .2551 X FNT MIN + .0352 X 45/075 THK + -.0270 X 45/085 HGT + .0269 X 40/070 HGT + .1385 X QT MAX +

BUF MIN R= .84928 STANDARD ERROR = 3.23912 REDUCTION OF VARIANCE = .72128 STD. DEV. OF PND. 6.13534

BUF MIN = -101.8262 + .1923 X BUF MAX + .2256 X GRB MIN + .0343 X 40/070 HGT + -.0354 X 45/085 HGT + .0390 X 45/085 THK + .2109 X BUF MIN + .1319 X LH MIN +

DET MIN R= .85299 STANDARD ERROR = 3.04555 REDUCTION OF VARIANCE = .72759 STD. DEV. OF PND. 5.83523

DET MIN = -177.6221 + .2558 X GRB MIN + .0466 X 40/080 HGT + .0601 X 45/085 THK + -.0563 X 45/085 HGT + .0195 X 50/080 HGT + .1794 X DET MAX +

FNT MIN R= .84875 STANDARD ERROR = 3.62874 REDUCTION OF VARIANCE = .72038 STD. DEV. OF PND. 6.86235

FNT MIN = -225.6813 + .3233 X GRB MIN + .0675 X 40/080 HGT + .0480 X 45/085 THK + -.0727 X 45/085 HGT + .0215 X 50/080 HGT + .1642 X MSP MIN +

GRR MIN R= .83518 STANDARD ERROR = 3.58922 REDUCTION OF VARIANCE = .69753 STD. DEV. OF PND. 6.52616

GRR MIN = -149.5206 + .3485 X GRB MIN + .0563 X 40/080 HGT + .2568 X STC MIN + -.0512 X 40/090 HGT + .0523 X 40/090 THK +

MKE MIN R= .83276 STANDARD ERROR = 3.22947 REDUCTION OF VARIANCE = .69349 STD. DEV. OF PND. 5.83326

MKE MIN = -143.5823 + .1734 X DLH MIN + .0183 X 40/090 THK + .3203 X MKE MIN + .0320 X 40/080 HGT + .0320 X 45/095 THK + -.0270 X 45/095 HGT + .1275 X FAR MIN +

GRB MIN R= .82028 STANDARD ERROR = 3.85446 REDUCTION OF VARIANCE = .67287 STD. DEV. OF PND. 6.73910

GRB MIN = -137.2085 + .3489 X GRB MIN + .2874 X FAR MIN + .0423 X 40/080 HGT + .0521 X 45/095 THK + -.0424 X 45/095 HGT +

MSN MIN R= .84068 STANDARD ERROR = 3.71555 REDUCTION OF VARIANCE = .70674 STD. DEV. OF PND. 6.86110

MSN MIN = -184.3593 + .1354 X STC MIN + .0143 X 45/085 THK + .0536 X 45/095 THK + .2685 X MSN MIN + .0396 X 40/080 HGT + -.0383 X 45/095 HGT + .1731 X FAR MIN +

ACK MIN R= .78346 STANDARD ERROR = 2.70079 REDUCTION OF VARIANCE = .61380 STD. DEV. OF PND. 4.34596

ACK MIN = -76.3119 + .4280 X ACK MIN + .0403 X 45/075 THK + -.0336 X 45/075 HGT + .0280 X 40/070 HGT + .1344 X YB MIN +

BOS MIN R= .83162 STANDARD ERROR = 2.74768 REDUCTION OF VARIANCE = .69159 STD. DEV. OF PND. 4.94771

BOS MIN = -121.0576 + .1772 X YB MIN + .1712 X BOS MAX + .0262 X 45/065 THK + .0240 X 45/075 THK + .1888 X BOS MIN +

HFD MIN R= .85030 STANDARD ERROR = 3.39628 REDUCTION OF VARIANCE = .72300 STD. DEV. OF PND. 6.45306

HFD MIN = -178.6354 + .1186 X BUF MIN + .0229 X 40/070 THK + .1156 X SYR MAX + .0265 X 45/065 HGT + .2643 X HFD MIN + .0400 X 45/075 THK + -.0236 X 45/075 HGT + .1641 X FNT MIN +

ALB MIN R= .83920 STANDARD ERROR = 3.67029 REDUCTION OF VARIANCE = .70426 STD. DEV. OF PND. 6.74915

ALB MIN = -144.5204 + .0906 X BUF MIN + .2029 X YB MIN + .0334 X 45/065 HGT + .0520 X 45/075 THK + -.0301 X 45/075 HGT + .1831 X ALB MIN + .1959 X FNT MIN +

NYC MIN R= .82809 STANDARD ERROR = 2.54945 REDUCTION OF VARIANCE = .68573 STD. DEV. OF PND. 4.54770

NYC MIN = -78.7361 + .2389 X YB MIN + .2461 X NYC MIN + .0255 X 40/080 THK + .0187 X 40/070 HGT + -.0093 X 50/080 HGT + .1215 X NYC MAX +

PHL MIN R= .85402 STANDARD ERROR = 2.96989 REDUCTION OF VARIANCE = .72936 STD. DEV. OF PND. 5.70874

PHL MIN = -171.4884 + .2248 X FNT MIN + .2825 X PHL MIN + .0400 X 40/070 HGT + .0542 X 40/080 THK + -.0286 X 40/080 HGT + .1160 X BTV MIN +

IPT MIN R= .84088 STANDARD ERROR = 3.35387 REDUCTION OF VARIANCE = .70708 STD. DEV. OF PND. 6.19681

IPT MIN = -160.9525 + .3085 X DET MIN + .0519 X 40/070 HGT + -.0471 X 40/080 HGT + .0552 X 40/080 THK + .1952 X PIT MIN + .1530 X YB MIN +

PIT MIN R= .84298 STANDARD ERROR = 3.23529 REDUCTION OF VARIANCE = .71062 STD. DEV. OF PND. 6.01416

PIT MIN = -224.1324 + .0514 X 40/080 THK + .3080 X PIT MIN + .2587 X MSN MIN + .0306 X 40/070 HGT +

CLE MIN R= .84791 STANDARD ERROR = 3.42793 REDUCTION OF VARIANCE = .71895 STD. DEV. OF PND. 6.46608

CLE MIN = -156.0633 + .2514 X MSN MIN + .0497 X 40/080 THK + .2697 X CLE MIN + .0368 X 45/075 HGT + -.0285 X 45/085 HGT + .1724 X DSM MIN +

CMH MIN R= .85059 STANDARD ERROR = 3.20192 REDUCTION OF VARIANCE = .72350 STD. DEV. OF PND. 6.08923

CMH MIN = -145.6149 + .0423 X 40/080 THK + .2517 X CMH MIN + .2992 X DSM MIN + -.0553 X 40/090 HGT + .0253 X 45/075 HGT + .0415 X 35/085 HGT + .1576 X CHI MIN +

DAY MIN R= .86343 STANDARD ERROR = 2.91617 REDUCTION OF VARIANCE = .74551 STD. DEV. OF PND. 5.78063

DAY MIN = -130.5800 + -.0040 X 40/080 THK + .0864 X MLI MIN + .0664 X 40/080 HGT + .2777 X DAY MIN + -.0567 X 40/090 HGT + .0444 X 40/090 THK + .1127 X OT MIN + .1951 X DSM MIN +

CVG MIN R= .84619 STANDARD ERROR = 3.06238 REDUCTION OF VARIANCE = .71604 STD. DEV. OF PND. 5.74688

CVG MIN = -88.8729 + .2233 X PIA MIN + .0349 X 40/080 THK + .2661 X CVG MIN + .0468 X 35/085 HGT + -.0462 X 35/095 HGT + .2241 X DSM MIN +

IND MIN R= .86037 STANDARD ERROR = 2.87207 REDUCTION OF VARIANCE = .74024 STD. DEV. OF PND. 5.63522

IND MIN = -126.5774 + .1321 X PIA MIN + .0505 X 40/080 HGT + .2308 X DSM MIN + .2627 X IND MIN +
-.0441 X 40/090 HGT + .0456 X 40/090 THK + -.0385 X DAY OF YR +

CHI MIN R= .83123 STANDARD ERROR = 3.65841 REDUCTION OF VARIANCE = .69094 STD. DEV. OF PND. 6.58064

CHI MIN = -119.2161 + .3247 X CHI MIN + .1274 X STC MIN + .0439 X 40/080 HGT + -.0420 X 45/095 HGT +
.0434 X 45/095 THK + .2413 X DSM MIN +

PIA MIN R= .86315 STANDARD ERROR = 2.91188 REDUCTION OF VARIANCE = .74504 STD. DEV. OF PND. 5.76678

PIA MIN = -107.5527 + .2297 X DSM MIN + .0312 X 40/080 HGT + .0383 X 40/090 THK + .2583 X PIA MIN +
.1479 X HON MIN + -.0263 X 40/100 HGT +

MLI MIN R= .85311 STANDARD ERROR = 3.32572 REDUCTION OF VARIANCE = .71966 STD. DEV. OF PND. 6.28119

MLI MIN = -165.1929 + .0438 X 40/090 THK + .1887 X STC MIN + .3267 X DSM MIN + .0323 X 40/080 HGT +
-.0394 X 40/100 HGT + -.0534 X DAY OF YR + .0320 X 40/100 THK +

STL MIN R= .85311 STANDARD ERROR = 2.92170 REDUCTION OF VARIANCE = .72780 STD. DEV. OF PND. 5.60008

STL MIN = -142.5978 + .0606 X 40/090 THK + .3164 X STL MIN + .2086 X OMA MIN + .0200 X 40/080 HGT +
-.0373 X DAY OF YR + -.0200 X 40/100 HGT +

CBI MIN R= .85697 STANDARD ERROR = 2.84677 REDUCTION OF VARIANCE = .73440 STD. DEV. OF PND. 5.52378

CBI MIN = -127.6484 + .0715 X 40/090 THK + .2538 X OMA MIN + .2252 X CBI MIN + -.0147 X 50/110 HGT +
-.0409 X DAY OF YR +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MAX R= .90765 STANDARD ERROR = 4.97229 REDUCTION OF VARIANCE = .82383 STD. DEV. OF PND. 11.84662

INL MAX = -387.4515 + .0682 X 50/100 THK + .0556 X 50/090 THK + .2376 X WG MAX + .0243 X 45/095 HGT +

DLH MAX R= .89375 STANDARD ERROR = 5.01544 REDUCTION OF VARIANCE = .79878 STD. DEV. OF PND. 11.18086

DLH MAX = -335.8689 + .2766 X WG MAX + .0332 X 45/095 THK + .0775 X 50/090 THK + .0622 X 45/095 HGT + -.0443 X 50/090 HGT +

STC MAX R= .90323 STANDARD ERROR = 5.05850 REDUCTION OF VARIANCE = .81583 STD. DEV. OF PND. 11.78723

STC MAX = -333.5267 + .0848 X 45/095 THK + .2880 X FAR MAX + .0450 X 50/100 THK +

FAR MAX R= .89315 STANDARD ERROR = 5.74624 REDUCTION OF VARIANCE = .79772 STD. DEV. OF PND. 12.77640

FAR MAX = -384.1175 + .1003 X 50/100 THK + .2951 X FAR MAX + .0470 X 45/105 THK +

BIS MAX R= .90895 STANDARD ERROR = 5.69919 REDUCTION OF VARIANCE = .82619 STD. DEV. OF PND. 13.67013

BIS MAX = -510.3322 + .0737 X 45/105 THK + .1055 X 50/100 THK + .0643 X 45/105 HGT + -.0393 X 55/105 HGT + -.1022 X DAY OF YR +

ISN MAX R= .92355 STANDARD ERROR = 5.11148 REDUCTION OF VARIANCE = .85294 STD. DEV. OF PND. 13.32921

ISN MAX = -511.8657 + .1211 X 50/110 THK + .0553 X 50/100 THK + .0959 X 45/105 HGT + -.0668 X 50/110 HGT + -.1051 X DAY OF YR +

GSG MAX R= .92715 STANDARD ERROR = 5.08155 REDUCTION OF VARIANCE = .85960 STD. DEV. OF PND. 13.56158

GSG MAX = -378.1753 + .1291 X 50/110 THK + .2466 X GTF MIN + .0642 X 45/105 HGT + -.1336 X DAY OF YR + -.0344 X 55/115 HGT +

BIL MAX R= .92932 STANDARD ERROR = 5.03524 REDUCTION OF VARIANCE = .86364 STD. DEV. OF PND. 13.63556

BIL MAX = -534.1021 + .1067 X 50/110 THK + .0658 X 45/115 THK + -.0324 X 55/115 HGT + .0578 X 40/110 HGT + .1950 X HLN MAX +

GTF MAX R= .92240 STANDARD ERROR = 5.26091 REDUCTION OF VARIANCE = .85082 STD. DEV. OF PND. 13.62104

GTF MAX = -465.7608 + .1324 X 50/110 THK + .1039 X 45/115 HGT + -.0431 X 55/125 HGT + -.1736 X DAY OF YR +

HLN MAX R= .92962 STANDARD ERROR = 4.77497 REDUCTION OF VARIANCE = .86420 STD. DEV. OF PND. 12.95750

HLN MAX = -405.4540 + .0751 X 45/115 THK + .2116 X GTF MIN + .0721 X 45/115 HGT + -.0345 X 55/125 HGT + -.1552 X DAY OF YR + .0558 X 50/110 THK +

MSO MAX R= .90989 STANDARD ERROR = 5.16417 REDUCTION OF VARIANCE = .82790 STD. DEV. OF PND. 12.44835

MSO MAX = -326.5537 + .0930 X 45/115 THK + .3125 X GEG MAX + .0435 X 45/115 HGT + -.1432 X DAY OF YR +

GEG MAX R= .93207 STANDARD ERROR = 4.33400 REDUCTION OF VARIANCE = .86876 STD. DEV. OF PND. 11.96323

GEG MAX = -225.7384 + .3840 X GEG MAX + .0654 X 50/120 THK + -.1819 X DAY OF YR + .0407 X 45/115 HGT +

PDT MAX R= .92328 STANDARD ERROR = 4.26977 REDUCTION OF VARIANCE = .85245 STD. DEV. OF PND. 11.11579

PDT MAX = -194.0042 + .2368 X PDT MAX + .0592 X 45/125 THK + .3705 X PDT MIN + -.1393 X DAY OF YR + .0304 X 45/115 HGT +

YKM MAX R= .92951 STANDARD ERROR = 3.97412 REDUCTION OF VARIANCE = .86399 STD. DEV. OF PND. 10.77596

YKM MAX = -137.7128 + .3401 X YKM MAX + .0294 X 50/120 HGT + .3330 X PDT MIN + -.1190 X DAY OF YR + .0381 X 45/125 THK +

PDX MAX R= .88551 STANDARD ERROR = 4.44375 REDUCTION OF VARIANCE = .78413 STD. DEV. OF PND. 9.56435

PDX MAX = -182.3934 + .0716 X 45/125 THK + -.1741 X DAY OF YR + .0242 X 50/120 HGT + .2011 X PDX MAX +

SEA MAX R= .86609 STANDARD ERROR = 4.13656 REDUCTION OF VARIANCE = .75012 STD. DEV. OF PND. 8.27506

SEA MAX = -157.8861 + .0573 X 45/125 THK + -.1352 X DAY OF YR + .2596 X SEA MAX + .0255 X 55/125 THK +

TTI MAX R= .75430 STANDARD ERROR = 2.80614 REDUCTION OF VARIANCE = .56896 STD. DEV. OF PND. 4.27417

TTI MAX = -15.3025 + .2058 X SEA MIN + .0093 X 55/115 HGT + .0935 X SLE MAX + .1114 X EKA MAX + -.0691 X 40/140 HGT + .0165 X 50/130 THK + .0464 X LH MAX +

MSP MAX R= .91161 STANDARD ERROR = 4.88443 REDUCTION OF VARIANCE = .83104 STD. DEV. OF PND. 11.88276

MSP MAX = -364.8055 + .1133 X 45/095 THK + .2533 X FAR MAX + .0278 X 45/105 THK +

HON MAX R= .90922 STANDARD ERROR = 5.39415 REDUCTION OF VARIANCE = .82669 STD. DEV. OF PND. 12.95708

HON MAX = -369.4600 + .0834 X 45/105 THK + .1968 X HON MAX + .2740 X FAR MIN + -.0307 X 55/095 HGT + .0518 X 50/100 THK + .0346 X 40/100 HGT +

RAP MAX R= .92653 STANDARD ERROR = 5.30147 REDUCTION OF VARIANCE = .85846 STD. DEV. OF PND. 14.09136

RAP MAX = -638.5864 + .1308 X 45/105 THK + .0540 X 40/110 HGT + -.0644 X 50/110 HGT + .0684 X 50/110 THK + .0482 X 40/100 HGT +

CPR MAX R= .92444 STANDARD ERROR = 5.14242 REDUCTION OF VARIANCE = .85459 STD. DEV. OF PND. 13.48572

CPR MAX = -435.9198 + .1016 X 45/105 THK + .2122 X WMC MAX + .0943 X 40/110 HGT + -.0400 X 50/120 HGT + .3119 X BJT MIN +

LND MAX R= .93641 STANDARD ERROR = 4.61962 REDUCTION OF VARIANCE = .87686 STD. DEV. OF PND. 13.16464

LND MAX = -405.6850 + .0560 X 45/105 THK + .0725 X 45/115 THK + .1942 X LND MAX + .0811 X 40/110 HGT + -.0442 X 50/120 HGT + -.1400 X DAY OF YR +

PIH MAX R= .92787 STANDARD ERROR = 4.60113 REDUCTION OF VARIANCE = .86094 STD. DEV. OF PND. 12.33834

PIH MAX = -489.8216 + .1365 X 45/115 THK + -.1802 X DAY OF YR + .0659 X 40/110 HGT +

BOI MAX R= .93515 STANDARD ERROR = 4.07328 REDUCTION OF VARIANCE = .87451 STD. DEV. OF PND. 11.49868

BOI MAX = -181.3364 + .0404 X 45/115 THK + -.1356 X DAY OF YR + .0773 X 45/115 HGT + -.0323 X 45/125 HGT + .2357 X MFR MAX + .2951 X BOI MIN +

BNO MAX R= .92579 STANDARD ERROR = 4.47499 REDUCTION OF VARIANCE = .85709 STD. DEV. OF PND. 11.83732

BNO MAX = -271.0704 + .3643 X BNO MAX + .0587 X 45/115 HGT + -.1458 X DAY OF YR + .0589 X 45/125 THK +

MFR MAX R= .92184 STANDARD ERROR = 4.77312 REDUCTION OF VARIANCE = .84979 STD. DEV. OF PND. 12.31564

MFR MAX = -114.3577 + .3890 X MFR MAX + .0584 X 45/125 HGT + -.2109 X DAY OF YR + -.0385 X 35/135 HGT + .0536 X 40/130 THK +

SLE MAX R= .88335 STANDARD ERROR = 4.89072 REDUCTION OF VARIANCE = .78031 STD. DEV. OF PND. 10.43436

SLE MAX = -179.0664 + .0806 X 45/125 THK + -.1891 X DAY OF YR + .2386 X SLE MAX + .0155 X 50/130 HGT +

Northwest Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MIN R= .84604 STANDARD ERROR = 4.94174 REDUCTION OF VARIANCE = .71578 STD. DEV. OF PND. 9.26945

INL MIN = -74.6364 + .0310 X 50/090 THK + .2760 X FAR MIN + .0455 X 50/100 THK + -.0302 X 45/105 HGT + -.1017 X DAY OF YR +

DLH MIN R= .86947 STANDARD ERROR = 4.46599 REDUCTION OF VARIANCE = .75599 STD. DEV. OF PND. 9.04087

DLH MIN = -104.2683 + .0423 X 50/090 THK + .2506 X FAR MIN + .0291 X 45/095 THK + -.1114 X DAY OF YR + -.0144 X 55/115 HGT +

STC MIN R= .85819 STANDARD ERROR = 5.15347 REDUCTION OF VARIANCE = .73648 STD. DEV. OF PND. 10.03914

STC MIN = -42.0381 + .0448 X 45/095 THK + .2749 X FAR MIN + -.1456 X DAY OF YR + -.0367 X 40/110 HGT + .0327 X 50/100 THK +

FAR MIN R= .87199 STANDARD ERROR = 5.02053 REDUCTION OF VARIANCE = .76037 STD. DEV. OF PND. 10.25608

FAR MIN = -103.8554 + .0627 X 50/100 THK + -.1814 X DAY OF YR + -.0299 X 50/110 HGT + .0318 X 50/090 HGT + .1864 Y FAR MIN +

BIS MIN R= .85118 STANDARD ERROR = 4.91541 REDUCTION OF VARIANCE = .72451 STD. DEV. OF PND. 9.36503

BIS MIN = -75.6130 + .0443 X 50/100 THK + -.1678 X DAY OF YR + .2924 X BIS MIN + -.0203 X 55/115 HGT + .0262 X 45/095 HGT +

ISN MIN R= .86019 STANDARD ERROR = 4.81017 REDUCTION OF VARIANCE = .73992 STD. DEV. OF PND. 9.43213

ISN MIN = -106.4113 + .2955 X GSG MIN + .0692 X 50/110 THK + -.1385 X DAY OF YR + -.0442 X 50/110 HGT + .0344 X 50/100 HGT +

GSG MIN R= .87649 STANDARD ERROR = 4.47982 REDUCTION OF VARIANCE = .76824 STD. DEV. OF PND. 9.30546

GSG MIN = -118.3649 + .3371 X GSG MIN + .0610 X 50/110 THK + -.1345 X DAY OF YR + -.0178 X 50/120 HGT + .0188 X 50/100 HGT +

BIL MIN R= .87943 STANDARD ERROR = 4.14405 REDUCTION OF VARIANCE = .77340 STD. DEV. OF PND. 8.70550

BIL MIN = -128.3786 + .0484 X 50/110 THK + -.1209 X DAY OF YR + .2403 X GTF MIN + -.0157 X 60/130 HGT + -.0289 X 35/105 HGT + .1810 X YKM MIN +

GTF MIN R= .85847 STANDARD ERROR = 4.73096 REDUCTION OF VARIANCE = .73697 STD. DEV. OF PND. 9.22455

GTF MIN = -129.4523 + .1687 X GTF MAX + .0591 X 55/115 THK + -.1475 X DAY OF YR + -.0372 X 55/125 HGT + .0457 X 45/115 HGT +

HLN MIN R= .82079 STANDARD ERROR = 4.81903 REDUCTION OF VARIANCE = .67369 STD. DEV. OF PND. 8.43618

HLN MIN = 43.6682 + .3044 X HLN MIN + .2359 X GTF MAX + .3139 X YKM MIN + -.1210 X DAY OF YR + -.1833 X YKM MAX +

MSO MIN R= .81749 STANDARD ERROR = 4.45861 REDUCTION OF VARIANCE = .66828 STD. DEV. OF PND. 7.74133

MSO MIN = 93.1989 + .2962 X GEG MIN + .2887 X MSO MIN + -.0218 X 50/120 HGT + -.0797 X DAY OF YR + .1291 X MSO MAX +

GEG MIN R= .88143 STANDARD ERROR = 3.71067 REDUCTION OF VARIANCE = .77691 STD. DEV. OF PND. 7.85624

GEG MIN = -19.7497 + .4214 X GEG MIN + .1202 X PDT MAX + .0403 X 45/125 THK + -.0179 X 45/135 HGT + -.1043 X DAY OF YR +

PDT MIN R= .87758 STANDARD ERROR = 3.67931 REDUCTION OF VARIANCE = .77014 STD. DEV. OF PND. 7.67426

PDT MIN = -9.6195 + .2915 X PDT MAX + .2972 X SLE MIN + -.0984 X DAY OF YR + .0281 X 50/120 THK + -.0109 X 50/130 HGT +

YKM MIN R= .83121 STANDARD ERROR = 4.10830 REDUCTION OF VARIANCE = .69091 STD. DEV. OF PND. 7.38958

YKM MIN = -5.5911 + .2794 X PDT MAX + .3200 X YKM MIN + -.0136 X 45/135 HGT + -.1182 X DAY OF YR + .0331 X 40/130 THK + -.1363 X BBL MAX +

PDX MIN R= .76740 STANDARD ERROR = 4.05309 REDUCTION OF VARIANCE = .58891 STD. DEV. OF PND. 6.32147

PDX MIN = 9.5464 + .3279 X SLE MIN + .1550 X PDT MAX + -.0214 X 50/130 HGT + .0333 X 50/130 THK + -.0723 X DAY OF YR +

SEA MIN R= .82275 STANDARD ERROR = 3.23518 REDUCTION OF VARIANCE = .67692 STD. DEV. OF PND. 5.69173

SEA MIN = -58.1596 + .4719 X SEA MIN + .0355 X 50/130 THK + -.0188 X 50/130 HGT + -.0750 X DAY OF YR + .0184 X 45/115 HGT +

TTI MIN R= .75657 STANDARD ERROR = 2.14269 REDUCTION OF VARIANCE = .57239 STD. DEV. OF PND. 3.27669

TTI MIN = -23.3661 + .1731 X SEA MIN + .0202 X 50/130 THK + -.0145 X 50/130 HGT + .0298 X 50/120 HGT + -.0557 X DAY OF YR + -.0582 X MFR MAX + .1304 X EKA MIN + -.0095 X 55/125 HGT +

MSP MIN R= .87404 STANDARD ERROR = 4.86489 REDUCTION OF VARIANCE = .76394 STD. DEV. OF PND. 10.01304

MSP MIN = -191.7060 + .0642 X 45/095 THK + .2722 X HON MIN + -.0940 X DAY OF YR + .0204 X 45/085 HGT +

HON MIN R= .88675 STANDARD ERROR = 4.93633 REDUCTION OF VARIANCE = .78633 STD. DEV. OF PND. 10.67893

HON MIN = -66.7257 + .2833 X HON MIN + .0445 X 45/105 THK + .0666 X 45/095 HGT + -.0693 X 45/105 HGT + -.1279 X DAY OF YR + .2117 X GTF MIN +

RAP MIN R= .90053 STANDARD ERROR = 4.07241 REDUCTION OF VARIANCE = .81096 STD. DEV. OF PND. 9.36643

RAP MIN = -239.5220 + .0627 X 45/105 THK + .2040 X LBF MIN + .2956 X GTF MIN + .0244 X 45/095 HGT +

CPR MIN R= .86588 STANDARD ERROR = 4.59180 REDUCTION OF VARIANCE = .74974 STD. DEV. OF PND. 9.17889

CPR MIN = -79.2408 + .0361 X 45/105 THK + .2412 X GEG MIN + -.1315 X DAY OF YR + -.0267 X 55/125 HGT + .0351 X 45/105 HGT + .2174 X CPR MIN +

LND MIN R= .89474 STANDARD ERROR = 4.09580 REDUCTION OF VARIANCE = .80056 STD. DEV. OF PND. 9.17142

LND MIN = -113.6387 + .2984 X PIH MAX + .3296 X LND MIN + .0399 X 45/105 THK +

PIH MIN R= .84774 STANDARD ERROR = 4.68794 REDUCTION OF VARIANCE = .71866 STD. DEV. OF PND. 8.83826

PIH MIN = 124.3208 + .4065 X BOI MIN + -.1586 X DAY OF YR + -.0223 X 55/125 HGT + .2095 X SLC MIN + .2053 X PIH MAX + -.1900 X LAS MAX +

BOI MIN R= .87724 STANDARD ERROR = 4.11977 REDUCTION OF VARIANCE = .76956 STD. DEV. OF PND. 8.58207

BOI MIN = -87.3269 + .3638 X BOI MIN + .0365 X 45/115 THK + .0374 X 45/125 THK + -.0216 X 45/135 HGT + -.1353 X DAY OF YR +

BNO MIN R= .81228 STANDARD ERROR = 4.65657 REDUCTION OF VARIANCE = .65979 STD. DEV. OF PND. 7.98349

BNO MIN = -130.1706 + .2654 X BNO MIN + .0371 X 45/115 THK + -.0916 X DAY OF YR + .2135 X SLE MIN + .0211 X 45/125 THK +

MFR MIN R= .85094 STANDARD ERROR = 3.82675 REDUCTION OF VARIANCE = .72410 STD. DEV. OF PND. 7.28540

MFR MIN = -68.9951 + .5105 X MFR MIN + .0484 X 45/125 THK + -.0426 X 45/125 HGT + .0325 X 40/120 HGT + -.0834 X DAY OF YR +

SLE MIN R= .76451 STANDARD ERROR = 4.23338 REDUCTION OF VARIANCE = .58447 STD. DEV. OF PND. 6.56732

SLE MIN = -18.9700 + .4711 X SLE MIN + .0465 X 45/125 THK + -.0240 X 50/130 HGT + -.0797 X DAY OF YR +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MAX R= .90213 STANDARD ERROR = 4.90496 REDUCTION OF VARIANCE = .81383 STD. DEV. OF PND. 11.36791

DSM MAX = -387.0722 + .0889 X 45/095 THK + .0610 X 40/100 THK + .2161 X DSM MAX +

OMA MAX R= .88994 STANDARD ERROR = 5.10097 REDUCTION OF VARIANCE = .79200 STD. DEV. OF PND. 11.18466

OMA MAX = -514.7153 + .0863 X 40/100 THK + .0819 X 45/095 THK + .0305 X 45/115 THK +

LBF MAX R= .90537 STANDARD ERROR = 5.35907 REDUCTION OF VARIANCE = .81970 STD. DEV. OF PND. 12.62108

LBF MAX = -508.5022 + .1311 X 45/105 THK + .1635 X LBF MAX + -.0342 X 50/100 HGT + .0438 X 35/105 HGT + .0496 X 40/100 THK +

DEN MAX R= .90694 STANDARD ERROR = 5.14398 REDUCTION OF VARIANCE = .82254 STD. DEV. OF PND. 12.21107

DEN MAX = -652.4325 + .1217 X 45/105 THK + .1170 X 35/105 HGT + -.0814 X 45/105 HGT + .0831 X 40/110 THK +

SLC MAX R= .92442 STANDARD ERROR = 4.56077 REDUCTION OF VARIANCE = .85455 STD. DEV. OF PND. 11.95882

SLC MAX = -296.6904 + .0712 X 45/115 THK + .3696 X ELY MAX + .3490 X SLC MIN + .0378 X 40/110 HGT +

WMC MAX R= .92835 STANDARD ERROR = 4.41200 REDUCTION OF VARIANCE = .86184 STD. DEV. OF PND. 11.86984

WMC MAX = -525.5360 + .1482 X 40/120 THK + .0631 X 40/110 HGT + -.1450 X DAY OF YR +

RNO MAX R= .92511 STANDARD ERROR = 4.08344 REDUCTION OF VARIANCE = .85583 STD. DEV. OF PND. 10.75449

RNO MAX = -303.9496 + .0720 X 40/120 THK + .3116 X RNO MAX + .0564 X 40/120 HGT + -.1276 X DAY OF YR +

RBL MAX R= .91439 STANDARD ERROR = 4.42544 REDUCTION OF VARIANCE = .83611 STD. DEV. OF PND. 10.93157

RBL MAX = -259.4231 + .4473 X SAC MAX + .0454 X 40/130 HGT + .0675 X 40/120 HGT + -.1656 X DAY OF YR +

EKA MAX R= .61802 STANDARD ERROR = 3.84694 REDUCTION OF VARIANCE = .38195 STD. DEV. OF PND. 4.89333

EKA MAX = -2.0854 + .3137 X EKA MAX + .3571 X EKA MIN + -.0107 X 45/135 HGT + .1406 X BRO MIN + .0181 X 45/115 HGT + -.0912 X RNO MAX +

MKC MAX R= .90784 STANDARD ERROR = 4.68319 REDUCTION OF VARIANCE = .82417 STD. DEV. OF PND. 11.16852

MKC MAX = -272.4109 + .1052 X 40/100 THK + .2066 X MKC MAX + .7714 X MKC MIN + -.4609 X TOP MIN +

TOP MAX R= .90612 STANDARD ERROR = 4.74353 REDUCTION OF VARIANCE = .82105 STD. DEV. OF PND. 11.21325

TOP MAX = -309.7544 + .1195 X 40/100 THK + .1880 X TOP MAX + .6548 X MKC MIN + -.4115 X TOP MIN +

ICT MAX R= .89811 STANDARD ERROR = 4.97532 REDUCTION OF VARIANCE = .80661 STD. DEV. OF PND. 11.31364

ICT MAX = -336.6459 + .1288 X 40/100 THK + .1993 X OKC MAX + .1787 X DDC MAX +

DDC MAX R= .88388 STANDARD ERROR = 5.60035 REDUCTION OF VARIANCE = .78125 STD. DEV. OF PND. 11.97411

DDC MAX = -584.8676 + .1919 X 40/100 THK + .0906 X 35/105 HGT + -.0629 X 40/100 HGT +

PUB MAX R= .90689 STANDARD ERROR = 5.01028 REDUCTION OF VARIANCE = .82245 STD. DEV. OF PND. 11.89061

PUB MAX = -482.1851 + .0824 X 40/100 THK + .2304 X ELY MAX + .0777 X 45/105 THK + -.0727 X 45/105 HGT + .0926 X 35/105 HGT +

GJT MAX R= .92045 STANDARD ERROR = 4.17453 REDUCTION OF VARIANCE = .84724 STD. DEV. OF PND. 10.68060

GJT MAX = -218.3043 + .0831 X 40/110 THK + .3429 X GJT MAX + .2661 X ELY MAX +

MLF MAX R= .92913 STANDARD ERROR = 4.37591 REDUCTION OF VARIANCE = .86328 STD. DEV. OF PND. 11.83440

MLF MAX = -246.2304 + .4290 X RNO MAX + .3164 X BOI MIN + .0663 X 35/115 THK + .0897 X 40/110 HGT + -.0668 X 45/115 HGT +

ELY MAX R= .93442 STANDARD ERROR = 4.05762 REDUCTION OF VARIANCE = .87314 STD. DEV. OF PND. 11.39238

ELY MAX = -342.5765 + .0950 X 40/120 THK + .2879 X ELY MAX + .0650 X 35/115 HGT + -.1223 X DAY OF YR + -.0199 X 45/125 HGT +

SAC MAX R= .89754 STANDARD ERROR = 4.03867 REDUCTION OF VARIANCE = .80558 STD. DEV. OF PND. 9.15935

SAC MAX = -131.4572 + .3809 X SAC MAX + .0443 X 40/120 HGT + -.1443 X DAY OF YR + .0226 X 40/130 HGT + .1822 X SFO MAX +

SFO MAX R= .73175 STANDARD ERROR = 4.99057 REDUCTION OF VARIANCE = .53545 STD. DEV. OF PND. 7.32211

SFO MAX = -69.3196 + .5185 X SFO MAX + .2730 X RBL MIN + -.2032 X BFL MAX + .0444 X 40/120 HGT + -.1536 X BNO MAX + -.0802 X DAY OF YR +

OKC MAX R= .88635 STANDARD ERROR = 4.90197 REDUCTION OF VARIANCE = .78561 STD. DEV. OF PND. 10.58684

OKC MAX = -309.8415 + .0623 X 40/100 THK + .3123 X OKC MAX + .0554 X 35/105 THK + .1968 X OKC MIN +

AMA MAX R= .87397 STANDARD ERROR = 5.31346 REDUCTION OF VARIANCE = .76383 STD. DEV. OF PND. 10.93356

AMA MAX = -579.3912 + .1215 X 40/100 THK + .0897 X 35/105 THK + -.0775 X 40/100 HGT + .0845 X 35/105 HGT +

ABQ MAX R= .92212 STANDARD ERROR = 3.71564 REDUCTION OF VARIANCE = .85030 STD. DEV. OF PND. 9.60344

ABQ MAX = -382.4294 + .1027 X 35/105 THK + .3038 X INW MAX + .0480 X 30/110 HGT + -.0947 X DAY OF YR +

INW MAX R= .91460 STANDARD ERROR = 3.96553 REDUCTION OF VARIANCE = .83649 STD. DEV. OF PND. 9.80677

INW MAX = -125.7049 + .4815 X INW MAX + .2054 X ELY MAX + .0558 X 30/110 HGT + -.0864 X DAY OF YR +

LAS MAX R= .94225 STANDARD ERROR = 3.54466 REDUCTION OF VARIANCE = .88784 STD. DEV. OF PND. 10.58401

LAS MAX = -227.5303 + .1081 X 35/115 THK + .3159 X RNO MAX + -.1316 X DAY OF YR +

BFL MAX R= .91474 STANDARD ERROR = 3.73027 REDUCTION OF VARIANCE = .83675 STD. DEV. OF PND. 9.23233

BFL MAX = -277.7476 + .4948 X SAC MAX + .0647 X 40/120 THK + .0432 X 35/125 THK +

FAT MAX R= .93061 STANDARD ERROR = 3.42650 REDUCTION OF VARIANCE = .86603 STD. DEV. OF PND. 9.36169

FAT MAX = -196.9176 + .4519 X SAC MAX + .0453 X 40/120 HGT + -.1318 X DAY OF YR + .0467 X 35/125 THK +

SMX MAX R= .68483 STANDARD ERROR = 5.42725 REDUCTION OF VARIANCE = .46900 STD. DEV. OF PND. 7.44785

SMX MAX = -206.7747 + .2186 X SFO MAX + .0422 X 40/120 HGT + -.2286 X BFL MAX + .3801 X SAN MAX + -.2040 X BNO MAX + .1671 X PDT MIN + .0398 X 35/125 THK + .1879 X EKA MAX +

FTW MAX R= .89919 STANDARD ERROR = 4.27286 REDUCTION OF VARIANCE = .80854 STD. DEV. OF PND. 9.76517

FTW MAX = -390.7774 + .0769 X 35/095 THK + .3334 X FTW MAX + .0714 X 35/105 THK +

MAF MAX R= .88461 STANDARD ERROR = 4.53011 REDUCTION OF VARIANCE = .78254 STD. DEV. OF PND. 9.71452

MAF MAX = -119.2182 + .1453 X 35/105 THK + .2823 X MAF MAX + -.0318 X 40/100 HGT + .2380 X OKC MIN + -.0574 X 25/095 THK +

ELP MAX R= .89297 STANDARD ERROR = 3.70588 REDUCTION OF VARIANCE = .79739 STD. DEV. OF PND. 8.23308

ELP MAX = -259.4064 + .1004 X 35/105 THK + .4705 X ELP MAX +

TUS MAX R= .92252 STANDARD ERROR = 3.28910 REDUCTION OF VARIANCE = .85104 STD. DEV. OF PND. 8.52212

TUS MAX = -328.8807 + .4967 X TUS MAX + .0869 X 30/110 THK + .0343 X 35/115 HGT +

PHX MAX R= .93636 STANDARD ERROR = 3.11985 REDUCTION OF VARIANCE = .87678 STD. DEV. OF PND. 8.88761

PHX MAX = -260.1397 + .4798 X PHX MAX + .0479 X 35/115 HGT + .0580 X 30/110 THK + -.0708 X DAY OF YR +

YUM MAX R= .93687 STANDARD ERROR = 3.17470 REDUCTION OF VARIANCE = .87773 STD. DEV. OF PND. 9.07920

YUM MAX = -120.4984 + .5456 X YUM MAX + .0629 X 35/115 HGT + -.1183 X DAY OF YR +

SAN MAX R= .77672 STANDARD ERROR = 3.89872 REDUCTION OF VARIANCE = .60329 STD. DEV. OF PND. 6.18990

SAN MAX = -60.8313 + .6568 X SAN MAX + .0278 X 40/120 HGT +

LAX MAX R= .79839 STANDARD ERROR = 4.16673 REDUCTION OF VARIANCE = .63742 STD. DEV. OF PND. 6.91979

LAX MAX = -87.4673 + .3177 X LAX MAX + .0326 X 40/120 HGT + .4182 X SAN MAX + -.1745 X RNO MAX + .3137 X LAX MIN +

SAT MAX R= .88786 STANDARD ERROR = 3.57849 REDUCTION OF VARIANCE = .78829 STD. DEV. OF PND. 7.77728

SAT MAX = -304.4670 + .0760 X 30/100 THK + .4220 X SAT MAX + .0408 X 35/105 THK +

DRT MAX R= .89779 STANDARD ERROR = 3.66478 REDUCTION OF VARIANCE = .80604 STD. DEV. OF PND. 8.32121

DRT MAX = -304.2316 + .4702 X DRT MAX + .0532 X 35/105 THK + .0624 X 30/100 THK +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MIN R= .89310 STANDARD ERROR = 4.66322 REDUCTION OF VARIANCE = .79762 STD. DEV. OF PND. 10.36580

DSM MIN = -67.2258 + .4302 X OMA MIN + .0654 X 45/095 THK + -.1009 X DAY OF YR + -.0227 X 45/115 HGT +

OMA MIN R= .90361 STANDARD ERROR = 4.41478 REDUCTION OF VARIANCE = .81651 STD. DEV. OF PND. 10.30631

OMA MIN = -190.0598 + .0235 X 45/095 THK + .1643 X LBF MIN + .1926 X BKO MIN + .0469 X 45/105 THK + -.0279 X 45/115 HGT + .2752 X OMA MIN + .0268 X 40/090 HGT +

LBF MIN R= .87875 STANDARD ERROR = 5.19035 REDUCTION OF VARIANCE = .77221 STD. DEV. OF PND. 10.87500

LBF MIN = -40.0555 + .3667 X LBF MIN + .0586 X 45/105 THK + -.1689 X DAY OF YR + -.0780 X 40/110 HGT + .0584 X 40/100 HGT +

DEN MIN R= .89791 STANDARD ERROR = 3.73271 REDUCTION OF VARIANCE = .80624 STD. DEV. OF PND. 8.47999

DEN MIN = -127.4673 + .0505 X 45/105 THK + -.1461 X DAY OF YR + .2651 X DEN MIN + .0354 X 40/100 HGT + -.0198 X 45/115 HGT +

SLC MIN R= .88026 STANDARD ERROR = 4.40234 REDUCTION OF VARIANCE = .77487 STD. DEV. OF PND. 9.27819

SLC MIN = -12.0935 + .3729 X SLC MIN + .1773 X BOI MAX + -.0262 X 45/125 HGT + -.1001 X DAY OF YR + .0456 X 45/115 THK +

WMC MIN R= .77438 STANDARD ERROR = 5.81431 REDUCTION OF VARIANCE = .59966 STD. DEV. OF PND. 9.18931

WMC MIN = -15.0103 + .3578 X WMC MIN + .2484 X BOI MAX + .2294 X MFR MIN + .1349 X DRT MIN +

RNO MIN R= .80971 STANDARD ERROR = 4.56297 REDUCTION OF VARIANCE = .65562 STD. DEV. OF PND. 7.77556

RNO MIN = -9.6083 + .4266 X RNO MIN + .1972 X WMC MAX + .1859 X MFR MIN + .1003 X SAT MIN +

RBL MIN R= .84719 STANDARD ERROR = 3.60323 REDUCTION OF VARIANCE = .71773 STD. DEV. OF PND. 6.78200

RBL MIN = -1.2943 + .4110 X RBL MIN + .2298 X SAC MAX + .1956 X MFR MIN + .0976 X DRT MIN +

EKA MIN R= .77092 STANDARD ERROR = 2.47811 REDUCTION OF VARIANCE = .59293 STD. DEV. OF PND. 3.88406

EKA MIN = -40.7441 + .2840 X EKA MIN + .0277 X 45/125 THK + -.0208 X 45/125 HGT + .1423 X EKA MAX + .0145 X 40/120 HGT + .1065 X MFR MIN +

MKC MIN R= .89383 STANDARD ERROR = 4.61706 REDUCTION OF VARIANCE = .79892 STD. DEV. OF PND. 10.29638

MKC MIN = -180.8243 + .3439 X TOP MIN + .0642 X 40/100 THK + .0406 X 40/090 HGT + -.0350 X 40/100 HGT + .2049 X RAP MIN +

TOP MIN R= .88981 STANDARD ERROR = 5.12007 REDUCTION OF VARIANCE = .79176 STD. DEV. OF PND. 11.21995

TOP MIN = -216.3027 + .3858 X TOP MIN + .0710 X 40/100 THK + -.0335 X 40/110 HGT + .0414 X 30/090 HGT + .2021 X LBF MIN +

ICT MIN R= .90711 STANDARD ERROR = 4.27410 REDUCTION OF VARIANCE = .82285 STD. DEV. OF PND. 10.15496

ICT MIN = -149.4612 + .4610 X ICT MIN + .0585 X 40/100 THK + -.0417 X 45/115 HGT + .0384 X 35/095 HGT + .1631 X PDT MAX +

DDC MIN R= .90358 STANDARD ERROR = 4.22351 REDUCTION OF VARIANCE = .81645 STD. DEV. OF PND. 9.85824

DDC MIN = -172.5096 + .0351 X 40/100 THK + .3179 X DDC MIN + .0402 X 45/105 THK + -.1179 X DAY OF YR + -.0290 X 45/115 HGT + .0333 X 35/095 HGT +

PUB MIN R= .88623 STANDARD ERROR = 4.24992 REDUCTION OF VARIANCE = .78540 STD. DEV. OF PND. 9.17412

PUB MIN = 45.4337 + .2272 X DEN MIN + -.1376 X DAY OF YR + .3440 X PUB MIN + .1514 X DEN MAX +

GJT MIN R= .91580 STANDARD ERROR = 3.41588 REDUCTION OF VARIANCE = .83869 STD. DEV. OF PND. 8.50492

GJT MIN = -127.8680 + .3490 X GJT MIN + .0575 X 40/110 THK + .2048 X ELY MIN + -.0770 X DAY OF YR +

MLF MIN R= .86893 STANDARD ERROR = 4.52468 REDUCTION OF VARIANCE = .75503 STD. DEV. OF PND. 9.14188

MLF MIN = 58.4560 + .5362 X ELY MIN + -.1073 X DAY OF YR + .1924 X WMC MAX + -.0384 X 45/115 HGT + .0308 X 40/100 HGT +

ELY MIN R= .85887 STANDARD ERROR = 4.41076 REDUCTION OF VARIANCE = .73765 STD. DEV. OF PND. 8.61144

ELY MIN = 118.5076 + .4669 X ELY MIN + .4299 X WMC MAX + -.0269 X 45/125 HGT + -.1108 X DAY OF YR + -.2232 X LAS MAX +

SAC MIN R= .83721 STANDARD ERROR = 2.98295 REDUCTION OF VARIANCE = .70092 STD. DEV. OF PND. 5.45444

SAC MIN = 2.7912 + .4174 X SAC MIN + .1272 X SAC MAX + .1942 X MFR MIN + .1224 X SFO MAX +

SFO MIN R= .72417 STANDARD ERROR = 2.82336 REDUCTION OF VARIANCE = .52442 STD. DEV. OF PND. 4.09407

SFO MIN = -36.8702 + .3592 X SFO MIN + .0128 X 40/120 THK + -.0148 X 40/130 HGT + .0217 X 40/130 THK + .0513 X SAT MIN +

OKC MIN R= .89463 STANDARD ERROR = 4.21110 REDUCTION OF VARIANCE = .80037 STD. DEV. OF PND. 9.42502

OKC MIN = -165.0703 + .0674 X OKC MIN + .0615 X 40/100 THK + .3193 X ICT MIN + .2563 X FTW MIN +

AMA MIN R= .88116 STANDARD ERROR = 4.22390 REDUCTION OF VARIANCE = .77644 STD. DEV. OF PND. 8.93350

AMA MIN = -121.3459 + .3999 X AMA MIN + .0611 X 40/100 THK + -.1136 X DAY OF YR +

ABQ MIN R= .90221 STANDARD ERROR = 3.54184 REDUCTION OF VARIANCE = .81399 STD. DEV. OF PND. 8.21219

ABQ MIN = -53.1797 + .3601 X ABQ MIN + .1781 X GJT MAX + -.1149 X DAY OF YR + .0341 X 35/105 THK +

INW MIN R= .89464 STANDARD ERROR = 3.90165 REDUCTION OF VARIANCE = .80038 STD. DEV. OF PND. 8.73258

INW MIN = 37.5837 + .5252 X INW MIN + .1916 X SLC MAX + -.1071 X DAY OF YR +

LAS MIN R= .91593 STANDARD ERROR = 3.58050 REDUCTION OF VARIANCE = .83893 STD. DEV. OF PND. 8.92139

LAS MIN = -1.4124 + .3865 X LAS MIN + .2188 X LAS MAX + .2150 X ELY MIN + .1430 X WMC MAX +

BFL MIN R= .93325 STANDARD ERROR = 2.52452 REDUCTION OF VARIANCE = .87096 STD. DEV. OF PND. 7.02769

BFL MIN = -77.0530 + .5110 X FAT MIN + .2893 X SAC MAX + .0278 X 40/120 THK +

FAT MIN R= .90676 STANDARD ERROR = 2.83987 REDUCTION OF VARIANCE = .82221 STD. DEV. OF PND. 6.73515

FAT MIN = -126.9472 + .4143 X FAT MIN + .0467 X 40/120 THK + .3330 X SAC MIN +

SMX MIN R= .71258 STANDARD ERROR = 3.52833 REDUCTION OF VARIANCE = .50778 STD. DEV. OF PND. 5.02907

SMX MIN = -52.0266 + .2586 X SAC MIN + .2633 X LAX MIN + .2512 X EKA MIN + .0198 X 40/120 THK +

FTW MIN R= .91292 STANDARD ERROR = 3.79779 REDUCTION OF VARIANCE = .83342 STD. DEV. OF PND. 9.30519

FTW MIN = -101.3235 + .5431 X FTW MIN + .0349 X 40/100 THK + -.0285 X 40/110 HGT + .2145 X AMA MIN + .0326 X 30/090 HGT +

MAF MIN R= .89015 STANDARD ERROR = 3.77116 REDUCTION OF VARIANCE = .79236 STD. DEV. OF PND. 8.27594

MAF MIN = -64.8095 + .4160 X MAF MIN + .0535 X 35/105 THK + .2800 X AMA MIN + -.0252 X 35/115 HGT +

ELP MIN R= .89607 STANDARD ERROR = 3.69243 REDUCTION OF VARIANCE = .80294 STD. DEV. OF PND. 8.31797

ELP MIN = -4.3265 + .5152 X ELP MIN + .2446 X ELP MAX + .2385 X INW MIN +

TUS MIN R= .91119 STANDARD ERROR = 3.25559 REDUCTION OF VARIANCE = .83027 STD. DEV. OF PND. 7.90221

TUS MIN = -45.5735 + .3798 X TUS MIN + .2883 X PHX MAX + -.0957 X DAY OF YR + .0265 X 35/105 HGT

PHX MIN R= .91049 STANDARD ERROR = 3.58643 REDUCTION OF VARIANCE = .82900 STD. DEV. OF PND. 8.67281

PHX MIN = 2.8148 + .7146 X PHX MIN + .2126 X ELY MAX +

YUM MIN R= .92543 STANDARD ERROR = 3.18955 REDUCTION OF VARIANCE = .85642 STD. DEV. OF PND. 8.41754

YUM MIN = -64.1354 + .6319 X YUM MIN + .0380 X 35/115 HGT + -.1112 X DAY OF YR +

SAN MIN R= .87578 STANDARD ERROR = 2.05123 REDUCTION OF VARIANCE = .76700 STD. DEV. OF PND. 4.24946

SAN MIN = 8.6458 + .5359 X SAN MIN + .1274 X FAT MIN + .1011 X LAX MAX + .0663 X RNO MAX +

LAX MIN R= .84801 STANDARD ERROR = 2.36052 REDUCTION OF VARIANCE = .71911 STD. DEV. OF PND. 4.45391

LAX MIN = 6.8644 + .6234 X LAX MIN + .1180 X LAX MAX + .0862 X RNO MAX +

SAT MIN R= .90563 STANDARD ERROR = 3.72597 REDUCTION OF VARIANCE = .82016 STD. DEV. OF PND. 8.78606

SAT MIN = -81.8502 + .6454 X SAT MIN + .0587 X 35/095 THK + -.0231 X 40/110 HGT +

DRT MIN R= .90481 STANDARD ERROR = 3.51830 REDUCTION OF VARIANCE = .81868 STD. DEV. OF PND. 8.26244

DRT MIN = -53.9630 + .7347 X DRT MIN + .0540 X 35/105 THK + -.0297 X 35/115 HGT +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MAX R= .92085 STANDARD ERROR = 3.64951 REDUCTION OF VARIANCE = .84796 STD. DEV. OF PND. 9.35944

SBY MAX = -161.4120 + .4805 X NYC MIN + .0517 X 40/080 THK + -.0256 X 45/075 HGT + .0383 X 35/075 HGT + .1826 X DET MAX +

DCA MAX R= .91391 STANDARD ERROR = 3.99927 REDUCTION OF VARIANCE = .83523 STD. DEV. OF PND. 9.85225

DCA MAX = -229.7510 + .6089 X NYC MIN + .0785 X 40/080 THK + -.0257 X 45/075 HGT + .0368 X 35/085 HGT +

CRW MAX R= .91496 STANDARD ERROR = 4.40478 REDUCTION OF VARIANCE = .83716 STD. DEV. OF PND. 10.91547

CRW MAX = -210.3005 + .4846 X LOU MAX + .0716 X 40/090 THK + .0547 X 40/080 HGT + -.0433 X 40/090 HGT +

HTS MAX R= .90230 STANDARD ERROR = 4.76115 REDUCTION OF VARIANCE = .81414 STD. DEV. OF PND. 11.04370

HTS MAX = -250.9323 + .0845 X 40/090 THK + .4294 X LOU MAX + .0446 X 40/080 HGT + -.0306 X 40/090 HGT +

LOU MAX R= .91340 STANDARD ERROR = 4.39824 REDUCTION OF VARIANCE = .83431 STD. DEV. OF PND. 10.80500

LOU MAX = -296.7882 + .1160 X 40/090 THK + .3800 X LOU MAX +

ORF MAX R= .91772 STANDARD ERROR = 3.57881 REDUCTION OF VARIANCE = .84221 STD. DEV. OF PND. 9.00947

ORF MAX = -211.8838 + .0778 X 40/080 THK + .2448 X ORF MAX + -.0491 X 40/080 HGT + .0556 X 35/075 HGT + .2901 X NYC MIN +

RIC MAX R= .90780 STANDARD ERROR = 4.14490 REDUCTION OF VARIANCE = .82410 STD. DEV. OF PND. 9.88288

RIC MAX = -291.4750 + .0975 X 40/080 THK + .2292 X RIC MAX + -.0588 X 40/080 HGT + .0726 X 35/085 HGT + .2822 X NYC MIN +

ROA MAX R= .90182 STANDARD ERROR = 4.48350 REDUCTION OF VARIANCE = .81328 STD. DEV. OF PND. 10.37591

ROA MAX = -316.0374 + .0921 X 40/080 THK + .2352 X ROA MAX + .0614 X 35/085 HGT + -.0342 X 45/075 HGT + .3874 X NYC MIN + -.1692 X AGS MIN +

HAT MAX R= .91572 STANDARD ERROR = 2.83507 REDUCTION OF VARIANCE = .83855 STD. DEV. OF PND. 7.05573

HAT MAX = -98.8204 + .1517 X RDU MIN + .2052 X DCA MAX + .0478 X 35/075 THK + .1557 X CRW MIN +

RDU MAX R= .89981 STANDARD ERROR = 4.13273 REDUCTION OF VARIANCE = .80966 STD. DEV. OF PND. 9.47256

RDU MAX = -322.3596 + .1173 X 40/080 THK + .3463 X GSO MAX + -.0725 X 40/080 HGT + .0801 X 35/085 HGT +

GSO MAX R= .90370 STANDARD ERROR = 4.10286 REDUCTION OF VARIANCE = .81667 STD. DEV. OF PND. 9.58226

GSO MAX = -305.2418 + .0956 X 40/080 THK + .2676 X GSO MAX + .0968 X 35/085 HGT + -.0766 X 40/080 HGT + .2064 X NYC MIN +

TYS MAX R= .90547 STANDARD ERROR = 4.09044 REDUCTION OF VARIANCE = .81988 STD. DEV. OF PND. 9.63792

TYS MAX = -324.3548 + .0769 X 35/085 THK + .3532 X TYS MAX + .0488 X 40/090 THK +

BNA MAX R= .90482 STANDARD ERROR = 4.36065 REDUCTION OF VARIANCE = .81869 STD. DEV. OF PND. 10.24109

BNA MAX = -207.9356 + .0928 X 40/090 THK + .4092 X MEM MAX + -.0773 X DAY OF YR +

MEM MAX R= .90758 STANDARD ERROR = 4.00735 REDUCTION OF VARIANCE = .82370 STD. DEV. OF PND. 9.54406

MEM MAX = -327.7860 + .0822 X 35/095 THK + .3131 X MEM MAX + .0458 X 40/090 THK +

LIT MAX R= .89673 STANDARD ERROR = 4.24854 REDUCTION OF VARIANCE = .80412 STD. DEV. OF PND. 9.59946

LIT MAX = -135.5155 + .1031 X 35/095 THK + .3402 X LIT MAX + .2005 X MKC MIN + -.0132 X 25/095 THK +

FSM MAX R= .88995 STANDARD ERROR = 4.51082 REDUCTION OF VARIANCE = .79202 STD. DEV. OF PND. 9.89107

FSM MAX = -338.0378 + .0817 X 35/095 THK + .3522 X FSM MAX + .0488 X 40/100 THK +

CHS MAX R= .89170 STANDARD ERROR = 3.40187 REDUCTION OF VARIANCE = .79514 STD. DEV. OF PND. 7.51597

CHS MAX = -229.9672 + .0499 X 35/085 THK + .2454 X CHS MAX + .0858 X BOS MIN + -.0343 X 40/080 HGT + .0402 X 30/080 HGT + .0362 X 40/080 THK + .1248 X ROA MAX +

CLT MAX R= .89659 STANDARD ERROR = 4.21707 REDUCTION OF VARIANCE = .80388 STD. DEV. OF PND. 9.52249

CLT MAX = -300.1958 + .0509 X 35/085 THK + .2906 X CLT MAX + .2221 X NYC MIN + -.3067 X AGS MIN + -.0242 X 45/075 HGT + .0391 X 30/090 HGT + .0479 X 40/080 THK + .3056 X CLT MIN +

AGS MAX R= .88076 STANDARD ERROR = 4.02449 REDUCTION OF VARIANCE = .77574 STD. DEV. OF PND. 8.49836

AGS MAX = -226.4121 + .0346 X 35/085 THK + .3684 X AGS MAX + .1485 X NYC MIN + -.0609 X 40/080 HGT + .0655 X 35/085 HGT + .0506 X 40/080 THK +

AHN MAX R= .90373 STANDARD ERROR = 3.48517 REDUCTION OF VARIANCE = .81673 STD. DEV. OF PND. 8.14112

AHN MAX = -152.1729 + .4444 X ATL MAX + .0749 X 35/085 THK + .1635 X BOS MIN + -.3301 X AGS MIN + .3043 X CLT MIN + -.0115 X 45/075 HGT +

ATL MAX R= .90255 STANDARD ERROR = 3.74237 REDUCTION OF VARIANCE = .81459 STD. DEV. OF PND. 8.69122

ATL MAX = -254.3182 + .0692 X 35/085 THK + .2811 X ATL MAX + .1531 X LIT MAX + .0394 X 30/090 HGT + .1879 X NYC MIN + -.0146 X 45/075 HGT +

BHM MAX R= .89583 STANDARD ERROR = 4.01630 REDUCTION OF VARIANCE = .80250 STD. DEV. OF PND. 9.03745

BHM MAX = -350.8461 + .3984 X BHM MAX + .0497 X 35/095 THK + .0513 X 35/085 THK + .0305 X 30/090 HGT +

JAN MAX R= .89227 STANDARD ERROR = 3.94234 REDUCTION OF VARIANCE = .79615 STD. DEV. OF PND. 8.73167

JAN MAX = -331.2115 + .0910 X 35/095 THK + .3833 X JAN MAX + .0345 X 30/090 HGT +

SHV MAX R= .89798 STANDARD ERROR = 3.87928 REDUCTION OF VARIANCE = .80636 STD. DEV. OF PND. 8.81564

SHV MAX = -285.9031 + .1132 X 35/095 THK + .3533 X SHV MAX +

JAX MAX R= .89207 STANDARD ERROR = 3.03048 REDUCTION OF VARIANCE = .79579 STD. DEV. OF PND. 6.70619

JAX MAX = -216.0511 + .3069 X JAX MAX + .0793 X 35/085 THK + -.0507 X 35/085 HGT + .0590 X 30/080 HGT + .1288 X ATL MAX +

TLH MAX R= .86881 STANDARD ERROR = 3.41864 REDUCTION OF VARIANCE = .75483 STD. DEV. OF PND. 6.90434

TLH MAX = -266.7345 + .0840 X 35/085 THK + .4015 X TLH MAX + .0502 X 30/090 HGT + -.0295 X 35/085 HGT +

MGM MAX R= .88714 STANDARD ERROR = 3.97692 REDUCTION OF VARIANCE = .78701 STD. DEV. OF PND. 8.61723

MGM MAX = -317.7329 + .4270 X MGM MAX + .0945 X 35/085 THK + .0490 X 30/090 HGT + -.0230 X 35/075 HGT +

MOB MAX R= .87178 STANDARD ERROR = 3.51758 REDUCTION OF VARIANCE = .75999 STD. DEV. OF PND. 7.18011

MOB MAX = -253.8173 + .3468 X MOB MAX + .0656 X 35/085 THK + .0594 X 30/090 HGT + .1286 X FTW MAX + -.0276 X 35/085 HGT +

MSY MAX R= .87830 STANDARD ERROR = 3.24217 REDUCTION OF VARIANCE = .77141 STD. DEV. OF PND. 6.78115

MSY MAX = -197.0274 + .4214 X MSY MAX + .0463 X 30/100 THK + .0768 X 30/090 THK + -.0419 X 25/085 THK +

LCH MAX R= .87257 STANDARD ERROR = 3.42226 REDUCTION OF VARIANCE = .76137 STD. DEV. OF PND. 7.00576

LCH MAX = -223.3721 + .0488 X 35/095 THK + .4269 X LCH MAX + .0412 X 30/100 THK +

HOU MAX R= .87512 STANDARD ERROR = 3.40214 REDUCTION OF VARIANCE = .76584 STD. DEV. OF PND. 7.03061

HOU MAX = -191.8957 + .0773 X 30/100 THK + .3674 X HOU MAX + .1384 X OKC MAX +

CRP MAX R= .84826 STANDARD ERROR = 3.36051 REDUCTION OF VARIANCE = .71955 STD. DEV. OF PND. 6.34569

CRP MAX = -204.5648 + .0834 X 30/100 THK + .4407 X CRP MAX +

BRO MAX R= .85555 STANDARD ERROR = 2.90685 REDUCTION OF VARIANCE = .73197 STD. DEV. OF PND. 5.61477

BRO MAX = -123.4445 + .0778 X 30/100 THK + .4519 X BRO MAX + -.0206 X 30/100 HGT +

ORL MAX R= .83766 STANDARD ERROR = 3.06743 REDUCTION OF VARIANCE = .70167 STD. DEV. OF PND. 5.61601

ORL MAX = -104.6324 + .3660 X ORL MAX + .1508 X MOB MIN + .0439 X 30/080 THK + .2240 X EYW MIN +

TPA MAX R= .84138 STANDARD ERROR = 2.87344 REDUCTION OF VARIANCE = .70792 STD. DEV. OF PND. 5.31678

TPA MAX = -163.1678 + .4371 X TPA MAX + .0393 X 30/090 THK + .0240 X 30/080 HGT + .2219 X EYW MIN +

MIA MAX R= .79981 STANDARD ERROR = 2.12703 REDUCTION OF VARIANCE = .63970 STD. DEV. OF PND. 3.54354

MIA MAX = -81.5595 + .3732 X MIA MAX + .0387 X 30/080 THK + .2458 X EYW MIN +

EYW MAX R= .85899 STANDARD ERROR = 1.87882 REDUCTION OF VARIANCE = .73786 STD. DEV. OF PND. 3.66962

EYW MAX = -73.5971 + .4443 X EYW MAX + .3129 X EYW MIN + .0324 X 30/080 THK +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MIN R= .88408 STANDARD ERROR = 4.90004 REDUCTION OF VARIANCE = .78160 STD. DEV. OF PND. 10.48507

SBY MIN = -100.7836 + .3314 X RIC MIN + .3055 X CMH MIN + .0536 X 40/080 THK + -.0339 X 35/095 HGT + .0219 X 40/060 HGT +

DCA MIN R= .92148 STANDARD ERROR = 3.68196 REDUCTION OF VARIANCE = .84913 STD. DEV. OF PND. 9.47941

DCA MIN = -119.9094 + .4746 X DCA MIN + .0463 X 40/080 THK + .2364 X IND MIN +

CRW MIN R= .90529 STANDARD ERROR = 4.44610 REDUCTION OF VARIANCE = .81955 STD. DEV. OF PND. 10.46635

CRW MIN = -182.0270 + .2188 X LOU MIN + .0701 X 40/080 THK + .3201 X CRW MIN + -.2008 X ROA MAX + .2262 X STL MIN +

HTS MIN R= .90062 STANDARD ERROR = 4.49597 REDUCTION OF VARIANCE = .81111 STD. DEV. OF PND. 10.34471

HTS MIN = -115.1384 + .4484 X HTS MIN + .3003 X PIA MIN + .0433 X 40/080 THK +

LOU MIN R= .90762 STANDARD ERROR = 4.43909 REDUCTION OF VARIANCE = .82378 STD. DEV. OF PND. 10.57232

LOU MIN = -148.7356 + .3344 X PIA MIN + .3343 X LOU MIN + .0587 X 40/090 THK + -.0392 X 35/095 HGT + .0366 X 30/080 HGT +

ORF MIN R= .90982 STANDARD ERROR = 3.67507 REDUCTION OF VARIANCE = .82778 STD. DEV. OF PND. 8.85560

ORF MIN = -72.1161 + .5217 X ORF MIN + .2617 X LOU MIN + .0277 X 40/070 HGT +

RIC MIN R= .91642 STANDARD ERROR = 4.12968 REDUCTION OF VARIANCE = .83983 STD. DEV. OF PND. 10.31858

RIC MIN = -189.9481 + .4706 X RIC MIN + .2435 X IND MIN + .0427 X 40/080 THK + .0252 X 35/065 HGT +

ROA MIN R= .89777 STANDARD ERROR = 4.26647 REDUCTION OF VARIANCE = .80599 STD. DEV. OF PND. 9.68635

ROA MIN = -123.6024 + .2735 X IND MIN + .4295 X ROA MIN + .0470 X 40/080 THK +

HAT MIN R= .86296 STANDARD ERROR = 4.16422 REDUCTION OF VARIANCE = .74469 STD. DEV. OF PND. 8.24142

HAT MIN = -50.5241 + .5675 X HAT MIN + .1897 X LOU MIN + .0219 X 40/070 HGT +

RDU MIN R= .91142 STANDARD ERROR = 4.22875 REDUCTION OF VARIANCE = .83069 STD. DEV. OF PND. 10.27703

RDU MIN = -145.6698 + .4421 X RDU MIN + .0545 X 40/080 THK + .2371 X BNA MIN +

GSO MIN R= .91494 STANDARD ERROR = 4.11273 REDUCTION OF VARIANCE = .83711 STD. DEV. OF PND. 10.19019

GSO MIN = -134.7958 + .4469 X GSO MIN + .0503 X 40/080 THK + .2681 X BNA MIN +

TYS MIN R= .91601 STANDARD ERROR = 3.95113 REDUCTION OF VARIANCE = .83908 STD. DEV. OF PND. 9.84960

TYS MIN = -165.7264 + .3694 X BNA MIN + .0614 X 35/085 THK + .2888 X TYS MIN +

BNA MIN R= .91155 STANDARD ERROR = 4.32842 REDUCTION OF VARIANCE = .83092 STD. DEV. OF PND. 10.52652

BNA MIN = -227.6504 + .3004 X BNA MIN + .0571 X 40/090 THK + .3107 X MEM MIN + .0248 X 35/075 HGT +

MEM MIN R= .91434 STANDARD ERROR = 4.22912 REDUCTION OF VARIANCE = .83602 STD. DEV. OF PND. 10.44378

MEM MIN = -15.4425 + .5353 X MEM MIN + .0623 X 40/090 THK + -.0368 X 35/105 HGT + -.1008 X DAY OF YR +

LIT MIN R= .91922 STANDARD ERROR = 3.84297 REDUCTION OF VARIANCE = .84497 STD. DEV. OF PND. 9.76006

LIT MIN = -104.9773 + .5725 X LIT MIN + .0397 X 40/090 THK + .2046 X ICT MIN +

FSM MIN R= .92018 STANDARD ERROR = 4.04695 REDUCTION OF VARIANCE = .84672 STD. DEV. OF PND. 10.33689

FSM MIN = -31.2352 + .5529 X FSM MIN + .2544 X DDC MIN + -.0286 X 40/110 HGT + .0439 X 35/095 THK +

CHS MIN R= .92315 STANDARD ERROR = 3.55195 REDUCTION OF VARIANCE = .85220 STD. DEV. OF PND. 9.23902

CHS MIN = -243.3081 + .5136 X CHS MIN + .0820 X 35/085 THK + .0562 X 35/075 HGT + -.0477 X 35/085 HGT +

CLT MIN R= .91769 STANDARD ERROR = 3.84715 REDUCTION OF VARIANCE = .84215 STD. DEV. OF PND. 9.68327

CLT MIN = -124.4231 + .4694 X CLT MIN + .0476 X 40/080 THK + .2372 X BNA MIN +

AGS MIN R= .92702 STANDARD ERROR = 3.88258 REDUCTION OF VARIANCE = .85937 STD. DEV. OF PND. 10.35332

AGS MIN = -165.9251 + .6075 X AGS MIN + .0688 X 35/085 THK + .0399 X 35/075 HGT + -.0455 X 30/090 HGT +

AHN MIN R= .92496 STANDARD ERROR = 3.64499 REDUCTION OF VARIANCE = .85554 STD. DEV. OF PND. 9.59026

AHN MIN = -136.4796 + .1916 X ATL MIN + .0508 X 35/085 THK + .3061 X BHM MIN + .2280 X GSO MIN +

ATL MIN R= .92052 STANDARD ERROR = 3.49182 REDUCTION OF VARIANCE = .84737 STD. DEV. OF PND. 8.93770

ATL MIN = -231.1099 + .5179 X ATL MIN + .0863 X 35/085 THK +

BHM MIN R= .91840 STANDARD ERROR = 4.09943 REDUCTION OF VARIANCE = .84347 STD. DEV. OF PND. 10.36146

BHM MIN = -31.9668 + .4415 X BHM MIN + .0559 X 35/085 THK + .0317 X 40/080 HGT + -.0551 X 30/100 HGT +
-.1042 X DAY OF YR +

JAN MIN R= .91687 STANDARD ERROR = 4.11494 REDUCTION OF VARIANCE = .84065 STD. DEV. OF PND. 10.30845

JAN MIN = -154.4432 + .4072 X JAN MIN + .0227 X 35/085 THK + .2090 X FSM MIN + .0447 X 30/080 HGT +
-.0521 X 30/100 HGT + .0441 X 35/095 THK +

SHV MIN R= .92093 STANDARD ERROR = 3.67820 REDUCTION OF VARIANCE = .84811 STD. DEV. OF PND. 9.43777

SHV MIN = -139.4742 + .5492 X SHV MIN + .0718 X 35/095 THK + -.0442 X 30/100 HGT + .0285 X 35/085 HGT +

JAX MIN R= .91337 STANDARD ERROR = 3.21517 REDUCTION OF VARIANCE = .83424 STD. DEV. OF PND. 7.89702

JAX MIN = -100.0573 + .6035 X JAX MIN + .0425 X 35/085 THK + .0414 X 30/080 HGT + -.0418 X 25/095 HGT +

TLH MIN R= .92274 STANDARD ERROR = 3.50412 REDUCTION OF VARIANCE = .85145 STD. DEV. OF PND. 9.09149

TLH MIN = -269.0443 + .5990 X TLH MIN + .0362 X 35/075 HGT + .0596 X 30/090 THK +

MGM MIN R= .92728 STANDARD ERROR = 3.67546 REDUCTION OF VARIANCE = .85985 STD. DEV. OF PND. 9.81769

MGM MIN = -232.7289 + .6068 X MGM MIN + .0595 X 35/085 THK + .0246 X 35/075 HGT +

MOB MIN R= .93109 STANDARD ERROR = 3.20277 REDUCTION OF VARIANCE = .86693 STD. DEV. OF PND. 8.77975

MOB MIN = -177.8312 + .5496 X MOB MIN + .0421 X 30/090 THK + .0388 X 35/085 HGT + -.0504 X 30/100 HGT +
.0379 X 30/100 THK +

MSY MIN R= .91113 STANDARD ERROR = 3.37003 REDUCTION OF VARIANCE = .83016 STD. DEV. OF PND. 8.17741

MSY MIN = -231.8913 + .5881 X MSY MIN + .0669 X 30/090 THK + .0181 X 40/080 HGT +

LCH MIN R= .93075 STANDARD ERROR = 3.17397 REDUCTION OF VARIANCE = .86629 STD. DEV. OF PND. 8.67995

LCH MIN = -85.8182 + .6398 X LCH MIN + .0526 X 35/095 THK + -.0422 X 30/100 HGT + .0265 X 35/085 HGT +

HOU MIN R= .92280 STANDARD ERROR = 3.13813 REDUCTION OF VARIANCE = .85156 STD. DEV. OF PND. 8.14503

HOU MIN = -75.7892 + .6416 X HOU MIN + .0627 X 35/095 THK + -.0285 X 30/110 HGT +

CRP MIN R= .90550 STANDARD ERROR = 3.20813 REDUCTION OF VARIANCE = .81994 STD. DEV. OF PND. 7.56036

CRP MIN = -65.4096 + .6508 X CRP MIN + .0505 X 35/095 THK + -.0202 X 40/110 HGT +

BRO MIN R= .90336 STANDARD ERROR = 2.80912 REDUCTION OF VARIANCE = .81606 STD. DEV. OF PND. 6.54980

BRO MIN = -127.6411 + .5345 X BRO MIN + .0627 X 30/100 THK + -.0502 X 30/100 HGT + .0404 X 30/090 HGT +

ORL MIN R= .90902 STANDARD ERROR = 2.37964 REDUCTION OF VARIANCE = .82632 STD. DEV. OF PND. 5.70999

ORL MIN = -68.5833 + .6112 X ORL MIN + .0251 X 35/075 HGT + .0340 X 30/090 THK + -.0274 X 25/095 HGT +

TPA MIN R= .90780 STANDARD ERROR = 2.60609 REDUCTION OF VARIANCE = .82411 STD. DEV. OF PND. 6.21395

TPA MIN = -141.1429 + .6746 X TPA MIN + .0228 X 35/075 HGT + .0303 X 30/090 THK +

MIA MIN R= .84849 STANDARD ERROR = 2.15607 REDUCTION OF VARIANCE = .71994 STD. DEV. OF PND. 4.07412

MIA MIN = -114.0480 + .5129 X MIA MIN + .0410 X 30/080 HGT + .0499 X 25/085 THK + -.0417 X 25/085 HGT +

EYW MIN R= .71671 STANDARD ERROR = 2.39454 REDUCTION OF VARIANCE = .51367 STD. DEV. OF PND. 3.43367

EYW MIN = -9.4524 + .4465 X EYW MIN + .1595 X ORL MIN + .0134 X 30/090 THK +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MAX R= .89505 STANDARD ERROR = 4.92520 REDUCTION OF VARIANCE = .80112 STD. DEV. OF PND. 11.04411

CAR MAX = -298.3238 + .0860 X 50/070 THK + .3845 X QB MAX + .0281 X 40/070 HGT +

SSM MAX R= .91063 STANDARD ERROR = 4.35676 REDUCTION OF VARIANCE = .82924 STD. DEV. OF PND. 10.54326

SSM MAX = -229.0963 + .0411 X 45/085 THK + .2157 X LH MIN + .2749 X DLH MAX + .0198 X 45/075 HGT + .0291 X 50/090 THK +

PWM MAX R= .89469 STANDARD ERROR = 4.32043 REDUCTION OF VARIANCE = .80048 STD. DEV. OF PND. 9.67230

PWM MAX = -146.4219 + .8540 X BOS MIN + .1862 X YB MAX + -.3733 X HFD MIN + .0523 X 45/065 THK + .0483 X 45/075 HGT + -.0425 X 50/070 HGT +

BTV MAX R= .90976 STANDARD ERROR = 4.59795 REDUCTION OF VARIANCE = .82766 STD. DEV. OF PND. 11.07579

BTV MAX = -247.8346 + .1116 X 45/075 THK + .2254 X BTV MAX + -.1002 X DAY OF YR +

SYR MAX R= .92050 STANDARD ERROR = 4.39464 REDUCTION OF VARIANCE = .84731 STD. DEV. OF PND. 11.24668

SYR MAX = -244.0530 + .0497 X 45/075 THK + .2582 X GRR MAX + .0260 X 40/070 HGT + .2469 X YB MIN +

BUF MAX R= .91793 STANDARD ERROR = 4.36409 REDUCTION OF VARIANCE = .84260 STD. DEV. OF PND. 11.00012

BUF MAX = -327.6719 + .0908 X 45/085 THK + .3204 X BUF MAX + .0346 X 40/070 HGT +

DET MAX R= .92815 STANDARD ERROR = 4.09448 REDUCTION OF VARIANCE = .86146 STD. DEV. OF PND. 11.00037

DET MAX = -289.4585 + .0860 X 45/085 THK + .2260 X CHI MAX + .2176 X NYC MIN + .0255 X 40/080 HGT +

FNT MAX R= .92622 STANDARD ERROR = 4.20503 REDUCTION OF VARIANCE = .85788 STD. DEV. OF PND. 11.15426

FNT MAX = -313.3797 + .0957 X 45/085 THK + .2958 X MSN MAX + .0261 X 40/080 HGT +

GRR MAX R= .91785 STANDARD ERROR = 4.41413 REDUCTION OF VARIANCE = .84244 STD. DEV. OF PND. 11.12052

GRR MAX = -199.3990 + .0806 X 45/085 THK + .3124 X DSM MIN + .2472 X MSN MAX +

MKE MAX R= .92116 STANDARD ERROR = 4.34159 REDUCTION OF VARIANCE = .84854 STD. DEV. OF PND. 11.15574

MKE MAX = -275.4034 + .0529 X 45/085 THK + .0355 X 45/095 THK + .0493 X 40/090 HGT + -.0310 X 50/090 HGT + .2919 X GRB MIN + .1554 X FAR MAX +

GRR MAX R= .91205 STANDARD ERROR = 4.50707 REDUCTION OF VARIANCE = .83184 STD. DEV. OF PND. 10.99078

GRR MAX = -286.6728 + .0393 X 45/085 THK + .2232 X FAR MAX + .0288 X 40/090 HGT + .2764 X SSM MIN + .0412 X 45/095 THK +

MSN MAX R= .91454 STANDARD ERROR = 4.59458 REDUCTION OF VARIANCE = .83638 STD. DEV. OF PND. 11.35855

MSN MAX = -312.3618 + .0909 X 45/095 THK + .2404 X MSN MAX + .2673 X SSM MIN + .0454 X 40/090 HGT + -.0185 X 50/090 HGT +

ACK MAX R= .89800 STANDARD ERROR = 3.10355 REDUCTION OF VARIANCE = .80640 STD. DEV. OF PND. 7.05351

ACK MAX = 13.8136 + .3984 X BOS MIN + .1580 X BTV MAX + -.0675 X DAY OF YR + .0284 X 40/070 HGT + -.0163 X 45/075 HGT +

BOS MAX R= .89926 STANDARD ERROR = 4.40653 REDUCTION OF VARIANCE = .80866 STD. DEV. OF PND. 10.07388

BOS MAX = -125.5688 + .8180 X BOS MIN + .0382 X 40/070 HGT + -.0392 X 50/070 HGT + .0532 X 45/075 THK + -.3434 X HFD MIN + .2440 X QB MIN +

HFD MAX R= .90463 STANDARD ERROR = 4.35267 REDUCTION OF VARIANCE = .81836 STD. DEV. OF PND. 10.21303

HFD MAX = -144.1779 + .4779 X BOS MIN + .1601 X FNT MAX + .0273 X 40/080 HGT + .0490 X 45/075 THK + -.0190 X 50/070 HGT + -.4291 X PHL MIN + .5225 X NYC MIN +

ALB MAX R= .90996 STANDARD ERROR = 4.44589 REDUCTION OF VARIANCE = .82802 STD. DEV. OF PND. 10.72072

ALB MAX = -258.1710 + .0720 X 45/075 THK + .3346 X BOS MIN + .0271 X 40/080 HGT + -.3828 X PHL MIN + .6067 X NYC MIN +

NYC MAX R= .92178 STANDARD ERROR = 3.66601 REDUCTION OF VARIANCE = .84968 STD. DEV. OF PND. 9.45542

NYC MAX = -83.4800 + .6168 X NYC MIN + .1552 X FNT MAX + -.0255 X 50/070 HGT + .0242 X 40/080 HGT + .0377 X 45/075 THK +

PHL MAX R= .91998 STANDARD ERROR = 3.83687 REDUCTION OF VARIANCE = .84636 STD. DEV. OF PND. 9.78883

PHL MAX = -115.6335 + .6995 X NYC MIN + .0621 X 40/080 THK + -.1856 X HOA MIN + .2022 X DET MAX + -.0133 X 50/070 HGT +

IPT MAX R= .90800 STANDARD ERROR = 4.36981 REDUCTION OF VARIANCE = .82446 STD. DEV. OF PND. 10.42984

IPT MAX = -196.3988 + .7371 X NYC MIN + .2264 X MKE MAX + .0530 X 40/080 THK + -.2876 X CRW MIN + .0216 X 40/080 HGT +

PIT MAX R= .91848 STANDARD ERROR = 4.43903 REDUCTION OF VARIANCE = .84361 STD. DEV. OF PND. 11.22494

PIT MAX = -347.8542 + .0756 X 40/080 THK + .0587 X 45/085 THK + .3100 X CVG MAX +

CLE MAX R= .93342 STANDARD ERROR = 4.04360 REDUCTION OF VARIANCE = .87128 STD. DEV. OF PND. 11.27050

CLE MAX = -312.1932 + .0848 X 45/085 THK + .2019 X PIA MAX + .0590 X 40/080 HGT + .2172 X NYC MIN + -.0249 X 45/085 HGT +

CMH MAX R= .92559 STANDARD ERROR = 4.23234 REDUCTION OF VARIANCE = .85672 STD. DEV. OF PND. 11.18114

CMH MAX = -282.0145 + .0781 X 40/090 THK + .3044 X DAY MAX + .2182 X YB MIN + .0297 X 40/080 HGT +

DAY MAX R= .92516 STANDARD ERROR = 4.17608 REDUCTION OF VARIANCE = .85591 STD. DEV. OF PND. 11.00162

DAY MAX = -290.9717 + .0885 X 40/090 THK + .3030 X DAY MAX + .1880 X SSM MIN + .0226 X 40/080 HGT +

CVG MAX R= .91493 STANDARD ERROR = 4.44510 REDUCTION OF VARIANCE = .83709 STD. DEV. OF PND. 11.01307

CVG MAX = -318.7273 + .0979 X 40/090 THK + .3586 X CVG MAX + .0243 X 40/080 HGT +

IND MAX R= .91576 STANDARD ERROR = 4.38184 REDUCTION OF VARIANCE = .83861 STD. DEV. OF PND. 10.90747

IND MAX = -352.2060 + .1125 X 40/090 THK + .2425 X CHI MAX + .0239 X 40/080 HGT +

CHI MAX R= .91647 STANDARD ERROR = 4.58723 REDUCTION OF VARIANCE = .83991 STD. DEV. OF PND. 11.46490

CHI MAX = -266.5552 + .3052 X DSM MIN + .0517 X 45/085 THK + .0361 X 40/090 HGT + -.0280 X 50/090 HGT + .0444 X 45/095 THK + .1701 X MSN MAX +

PIA MAX R= .91048 STANDARD ERROR = 4.64256 REDUCTION OF VARIANCE = .82897 STD. DEV. OF PND. 11.22574

PIA MAX = -379.1208 + .0928 X 40/090 THK + .0543 X 45/095 THK + .2402 X MSN MAX +

MLI MAX R= .90515 STANDARD ERROR = 4.80380 REDUCTION OF VARIANCE = .81929 STD. DEV. OF PND. 11.30039

MLI MAX = -381.6186 + .0635 X 40/090 THK + .0846 X 45/095 THK + .2335 X MLI MAX +

STL MAX R= .90342 STANDARD ERROR = 4.81745 REDUCTION OF VARIANCE = .81617 STD. DEV. OF PND. 11.23591

STL MAX = -407.0997 + .1091 X 40/090 THK + .0478 X 40/100 THK + .2223 X STL MAX +

CBI MAX R= .89458 STANDARD ERROR = 4.98790 REDUCTION OF VARIANCE = .80027 STD. DEV. OF PND. 11.16091

CBI MAX = -380.7541 + .0773 X 40/090 THK + .0692 X 40/100 THK + .2699 X MKC MAX +

Northeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MIN R= .85710 STANDARD ERROR = 4.69214 REDUCTION OF VARIANCE = .73461 STD. DEV. OF PND. 9.10816

CAR MIN = -72.2752 + .0581 X 50/070 THK + .2079 X BTV MIN + .2304 X YB MIN + -.0178 X 45/085 HGT + -.0726 X DAY OF YR +

SSM MIN R= .87503 STANDARD ERROR = 4.15422 REDUCTION OF VARIANCE = .76569 STD. DEV. OF PND. 8.58203

SSM MIN = -73.9687 + .2950 X STC MIN + .2953 X SSM MIN + .0352 X 50/090 THK + -.0176 X 50/100 HGT + .0139 X 45/075 HGT +

PWM MIN R= .85156 STANDARD ERROR = 5.20686 REDUCTION OF VARIANCE = .72515 STD. DEV. OF PND. 9.93178

PWM MIN = -134.8261 + .3189 X BTV MIN + .0523 X 45/075 THK + .0378 X 45/065 HGT + -.0381 X 45/075 HGT + .2247 X DET MIN +

BTV MIN R= .87048 STANDARD ERROR = 5.08650 REDUCTION OF VARIANCE = .75774 STD. DEV. OF PND. 10.33417

BTV MIN = -86.0019 + .2693 X BUF MIN + .0405 X 50/080 THK + -.0321 X 50/080 HGT + .0243 X 45/065 HGT + .3163 X SSM MIN + .2032 X BTV MIN +

SYR MIN R= .88620 STANDARD ERROR = 4.49288 REDUCTION OF VARIANCE = .78536 STD. DEV. OF PND. 9.69764

SYR MIN = -146.5430 + .4291 X BUF MIN + .2892 X SSM MIN + .0516 X 45/085 THK + -.0286 X 45/085 HGT + .0309 X 35/065 HGT +

BUF MIN R= .89514 STANDARD ERROR = 4.20554 REDUCTION OF VARIANCE = .80127 STD. DEV. OF PND. 9.43393

BUF MIN = -164.3898 + .3123 X BUF MIN + .0591 X 45/085 THK + .2388 X GRB MIN + .0252 X 40/070 HGT + -.0211 X 45/085 HGT +

DET MIN R= .88856 STANDARD ERROR = 4.39655 REDUCTION OF VARIANCE = .78954 STD. DEV. OF PND. 9.58355

DET MIN = -134.5120 + .0538 X 45/085 THK + .3871 X GRR MIN + .2104 X STC MIN +

FNT MIN R= .87763 STANDARD ERROR = 4.92070 REDUCTION OF VARIANCE = .77023 STD. DEV. OF PND. 10.26560

FNT MIN = -6.5777 + .4769 X MSN MIN + .0563 X 45/085 THK + -.0353 X 40/100 HGT + -.0875 X DAY OF YR +

GRR MIN R= .88438 STANDARD ERROR = 4.76097 REDUCTION OF VARIANCE = .78213 STD. DEV. OF PND. 10.19999

GRR MIN = -27.8869 + .4395 X MSN MIN + .0555 X 45/085 THK + -.1137 X DAY OF YR + -.0247 X 45/105 HGT +

MKE MIN R= .88489 STANDARD ERROR = 4.49940 REDUCTION OF VARIANCE = .78303 STD. DEV. OF PND. 9.65960

MKE MIN = 9.2362 + .2841 X MSP MIN + .3211 X MKE MIN + .0391 X 45/095 THK + -.0262 X 40/110 HGT +
-.0851 X DAY OF YR +

GRB MIN R= .87776 STANDARD ERROR = 4.75130 REDUCTION OF VARIANCE = .77046 STD. DEV. OF PND. 9.91711

GRB MIN = -124.4775 + .3031 X GRB MIN + .0545 X 45/095 THK + .2472 X STC MIN + -.0390 X 45/095 HGT +
.0339 X 45/085 HGT +

MSN MIN R= .87767 STANDARD ERROR = 5.00661 REDUCTION OF VARIANCE = .77030 STD. DEV. OF PND. 10.44627

MSN MIN = -140.2369 + .3711 X MSN MIN + .0536 X 45/095 THK + .2354 X FAR MIN + -.0329 X 40/100 HGT +
.0327 X 35/085 HGT +

ACK MIN R= .85789 STANDARD ERROR = 4.03538 REDUCTION OF VARIANCE = .73597 STD. DEV. OF PND. 7.85338

ACK MIN = -98.7232 + .4005 X ACK MIN + .0419 X 45/075 THK + -.0160 X 45/085 HGT + .1884 X SSM MIN +
.0155 X 40/060 HGT +

BOS MIN R= .90105 STANDARD ERROR = 3.59755 REDUCTION OF VARIANCE = .81189 STD. DEV. OF PND. 8.29461

BOS MIN = -112.7640 + .0467 X 45/075 THK + .3640 X BOS MIN + .2251 X YB MIN +

HFD MIN R= .87572 STANDARD ERROR = 4.88699 REDUCTION OF VARIANCE = .76689 STD. DEV. OF PND. 10.12184

HFD MIN = -124.1457 + .4402 X BUF MIN + .0471 X 45/075 THK + .2519 X HFD MIN +

ALB MIN R= .87080 STANDARD ERROR = 5.06899 REDUCTION OF VARIANCE = .75830 STD. DEV. OF PND. 10.31059

ALB MIN = -62.3361 + .5080 X BUF MIN + .0437 X 45/075 THK + .2753 X SSM MIN + -.0183 X 45/085 HGT +

NYC MIN R= .91299 STANDARD ERROR = 3.47138 REDUCTION OF VARIANCE = .83354 STD. DEV. OF PND. 8.50846

NYC MIN = -136.4290 + .3558 X NYC MIN + .0549 X 40/080 THK + .2404 X YB MIN +

PHL MIN R= .90034 STANDARD ERROR = 4.28119 REDUCTION OF VARIANCE = .81062 STD. DEV. OF PND. 9.83775

PHL MIN = -134.6825 + .4488 X PHL MIN + .2812 X DET MIN + .0289 X 40/080 THK + .0205 X 40/070 HGT +

IPT MIN R= .88648 STANDARD ERROR = 4.57608 REDUCTION OF VARIANCE = .78585 STD. DEV. OF PND. 9.88855

IPT MIN = 1.3199 + .3553 X CMH MIN + .4135 X BUF MIN + .1865 X GRB MIN +

PIT MIN R= .89797 STANDARD ERROR = 4.28001 REDUCTION OF VARIANCE = .80636 STD. DEV. OF PND. 9.72622

PIT MIN = -185.1516 + .0723 X 40/080 THK + .3913 X PIT MIN + .2710 X MSN MIN + -.1568 X ROA MAX +

CLE MIN R= .88170 STANDARD ERROR = 4.59417 REDUCTION OF VARIANCE = .77739 STD. DEV. OF PND. 9.73725

CLE MIN = -99.3239 + .3392 X MSN MIN + .3724 X CLE MIN + .0394 X 45/085 THK +

CMH MIN R= .90147 STANDARD ERROR = 4.53502 REDUCTION OF VARIANCE = .81266 STD. DEV. OF PND. 10.47754

CMH MIN = -72.4406 + .3128 X PIA MIN + .3530 X CMH MIN + .0493 X 40/090 THK + -.0371 X 35/095 HGT +
.0191 X 45/075 HGT +

DAY MIN R= .91313 STANDARD ERROR = 4.18465 REDUCTION OF VARIANCE = .83381 STD. DEV. OF PND. 10.26496

DAY MIN = -120.6903 + .3783 X DAY MIN + .0594 X 40/090 THK + .0194 X 45/075 HGT + .2248 X DSM MIN +
-.0303 X 35/095 HGT +

CVG MIN R= .90173 STANDARD ERROR = 4.50981 REDUCTION OF VARIANCE = .81312 STD. DEV. OF PND. 10.43222

CVG MIN = -211.9854 + .4512 X IND MIN + .0824 X 40/090 THK + .0422 X 40/080 HGT + -.0438 X 40/090 HGT +

IND MIN R= .90524 STANDARD ERROR = 4.36488 REDUCTION OF VARIANCE = .81945 STD. DEV. OF PND. 10.27251

IND MIN = 14.5481 + .5117 X PIA MIN + .0550 X 40/090 THK + -.0398 X 35/105 HGT + -.1055 X DAY OF YR +

CHI MIN R= .88506 STANDARD ERROR = 4.92570 REDUCTION OF VARIANCE = .78334 STD. DEV. OF PND. 10.58218

CHI MIN = -94.8958 + .4081 X CHI MIN + .0456 X 45/095 THK + .2531 X OMA MIN + -.0287 X 40/100 HGT +
.0211 X 40/080 HGT +

PIA MIN R= .89779 STANDARD ERROR = 4.56847 REDUCTION OF VARIANCE = .80603 STD. DEV. OF PND. 10.37288

PIA MIN = -248.0577 + .4362 X OSM MIN + .0730 X 40/090 THK + .0197 X 50/080 HGT +

MLI MIN R= .88800 STANDARD ERROR = 5.01358 REDUCTION OF VARIANCE = .78855 STD. DEV. OF PND. 10.90287

MLI MIN = -124.1626 + .3316 X MLI MIN + .0511 X 45/095 THK + .2956 X OMA MIN + -.0265 X 40/100 HGT +
.0236 X 40/080 HGT +

STL MIN R= .90240 STANDARD ERROR = 4.43654 REDUCTION OF VARIANCE = .81432 STD. DEV. OF PND. 10.29576

STL MIN = -58.0465 + .4207 X MKC MIN + .0676 X 40/090 THK + -.1106 X DAY OF YR + -.0263 X 40/110 HGT +

CBT MIN R= .89825 STANDARD ERROR = 4.46091 REDUCTION OF VARIANCE = .80686 STD. DEV. OF PND. 10.15040

CBT MIN = -209.8710 + .0619 X 40/090 THK + .3608 X TOP MIN + .0427 X 40/100 THK + -.0218 X 40/110 HGT +

Northwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MAX R= .93548 STANDARD ERROR = 5.04527 REDUCTION OF VARIANCE = .87511 STD. DEV. OF PND. 14.27669

INL MAX = -343.0216 + .0533 X 50/090 THK + .3626 X WG MAX + .0534 X 50/100 THK + .0220 X 40/080 HGT +

DLH MAX R= .93088 STANDARD ERROR = 4.76253 REDUCTION OF VARIANCE = .86653 STD. DEV. OF PND. 13.03617

DLH MAX = -185.3364 + .0723 X 45/095 THK + .2928 X DLH MIN + .2602 X DLH MAX +

STC MAX R= .93253 STANDARD ERROR = 5.00773 REDUCTION OF VARIANCE = .86962 STD. DEV. OF PND. 13.86867

STC MAX = -217.4388 + .1052 X 45/095 THK + .2701 X FAR MAX + -.1595 X DAY OF YR +

FAR MAX R= .94449 STANDARD ERROR = 5.03023 REDUCTION OF VARIANCE = .89207 STD. DEV. OF PND. 15.31122

FAR MAX = -149.2259 + .0783 X 50/100 THK + .2415 X FAR MAX + .2853 X FAR MIN + .0497 X 45/095 HGT + -.0531 X 50/100 HGT + -.1209 X DAY OF YR +

BIS MAX R= .93487 STANDARD ERROR = 5.72482 REDUCTION OF VARIANCE = .87398 STD. DEV. OF PND. 16.12682

BIS MAX = -179.3854 + .0936 X 50/100 THK + .1960 X GSG MAX + -.1404 X DAY OF YR + -.0550 X 55/105 HGT + .0496 X 45/105 HGT + .2391 X BIS MIN +

ISN MAX R= .93393 STANDARD ERROR = 5.69047 REDUCTION OF VARIANCE = .87222 STD. DEV. OF PND. 15.91886

ISN MAX = -297.9968 + .0661 X 50/110 THK + .2230 X QR MAX + .2733 X GSG MIN + .0489 X 50/100 THK +

GSG MAX R= .92582 STANDARD ERROR = 6.32431 REDUCTION OF VARIANCE = .85714 STD. DEV. OF PND. 16.73267

GSG MAX = -262.0926 + .3630 X GSG MIN + .1007 X 50/110 THK + .2525 X GSG MAX +

BIL MAX R= .92156 STANDARD ERROR = 5.48417 REDUCTION OF VARIANCE = .84927 STD. DEV. OF PND. 14.12571

BIL MAX = -305.0377 + .4558 X BIL MIN + .0915 X 45/105 THK + .0554 X 45/115 HGT + -.0318 X 55/115 HGT +

GTF MAX R= .90133 STANDARD ERROR = 6.58947 REDUCTION OF VARIANCE = .81240 STD. DEV. OF PND. 15.21383

GTF MAX = -314.8038 + .3938 X GTF MIN + .0897 X 50/110 THK + .0307 X 40/110 HGT +

HLN MAX R= .90259 STANDARD ERROR = 5.95404 REDUCTION OF VARIANCE = .81467 STD. DEV. OF PND. 13.83049

HLN MAX = -334.5396 + .5247 X HLN MIN + .0524 X 45/115 THK + .0484 X 45/105 THK + .0247 X 40/120 HGT +

MSO MAX R= .89310 STANDARD ERROR = 4.84720 REDUCTION OF VARIANCE = .79763 STD. DEV. OF PND. 10.77488

MSO MAX = -120.7072 + .2972 X MSO MIN + .3129 X MSO MAX + .0479 X 45/115 THK + .1520 X HLN MIN +

GEG MAX R= .91504 STANDARD ERROR = 3.59197 REDUCTION OF VARIANCE = .83730 STD. DEV. OF PND. 8.90506

GEG MAX = 21.9112 + .3853 X GEG MIN + .3888 X GEG MAX + -.0882 X DAY OF YR + .0257 X 45/115 HGT + -.0198 X 55/125 HGT +

PDT MAX R= .87929 STANDARD ERROR = 5.17321 REDUCTION OF VARIANCE = .77315 STD. DEV. OF PND. 10.86149

PDT MAX = 46.3846 + .4100 X PDT MIN + .2992 X PDT MAX + .2501 X VR MIN + -.0274 X 55/125 HGT + .0238 X 40/120 HGT + -.0904 X DAY OF YR +

YKM MAX R= .85916 STANDARD ERROR = 5.17199 REDUCTION OF VARIANCE = .73816 STD. DEV. OF PND. 10.10733

YKM MAX = 39.5020 + .4542 X YKM MAX + .5044 X PDT MIN + -.0946 X DAY OF YR +

PDX MAX R= .84974 STANDARD ERROR = 3.70755 REDUCTION OF VARIANCE = .72206 STD. DEV. OF PND. 7.03247

PDX MAX = -57.7396 + .3028 X PDX MAX + .2108 X PDX MIN + .0343 X 45/125 THK + -.0616 X DAY OF YR + .1903 X PDT MIN +

SEA MAX R= .88013 STANDARD ERROR = 3.16979 REDUCTION OF VARIANCE = .77463 STD. DEV. OF PND. 6.67704

SEA MAX = -62.7350 + .3907 X SEA MIN + .2547 X SEA MAX + .0299 X 45/125 THK + .0143 X 50/110 HGT + -.0095 X 55/135 HGT + -.0510 X DAY OF YR +

TTI MAX R= .86750 STANDARD ERROR = 2.47205 REDUCTION OF VARIANCE = .75255 STD. DEV. OF PND. 4.96949

TTI MAX = -66.1068 + .0285 X 50/120 THK + .3317 X SEA MIN + .0126 X 45/115 HGT + -.0471 X DAY OF YR +

MSP MAX R= .93524 STANDARD ERROR = 4.97911 REDUCTION OF VARIANCE = .87468 STD. DEV. OF PND. 14.06488

MSP MAX = -230.5387 + .1081 X 45/095 THK + .2857 X FAR MAX + -.1403 X DAY OF YR +

HON MAX R= .92235 STANDARD ERROR = 6.02836 REDUCTION OF VARIANCE = .85073 STD. DEV. OF PND. 15.60344

HON MAX = -153.9798 + .0674 X 50/100 THK + .2529 X HON MAX + -.0316 X 55/095 HGT + -.1530 X DAY OF YR + .0463 X 45/105 THK + .2343 X HON MIN +

RAP MAX R= .92193 STANDARD ERROR = 5.89555 REDUCTION OF VARIANCE = .84996 STD. DEV. OF PND. 15.22019

RAP MAX = -326.4936 + .1219 X 45/105 THK + .2302 X GTF MIN + -.0424 X 55/105 HGT + .1588 X INL MIN + .0455 X 40/100 HGT +

CPR MAX R= .92002 STANDARD ERROR = 4.76263 REDUCTION OF VARIANCE = .84644 STD. DEV. OF PND. 12.15388

CPR MAX = -342.1067 + .2127 X CPR MIN + .2528 X WMC MAX + .0476 X 45/105 THK + .0602 X 45/115 THK + .0343 X 35/105 HGT + -.0159 X 50/120 HGT +

LND MAX R= .89994 STANDARD ERROR = 5.63563 REDUCTION OF VARIANCE = .80990 STD. DEV. OF PND. 12.92549

LND MAX = -318.2076 + .6212 X LND MIN + .0716 X 40/120 THK + .0492 X 45/105 THK +

PIH MAX R= .92157 STANDARD ERROR = 4.17822 REDUCTION OF VARIANCE = .84929 STD. DEV. OF PND. 10.76257

PIH MAX = -225.7605 + .3928 X PIH MAX + .0812 X 45/115 THK + -.1214 X DAY OF YR + .0664 X 40/110 HGT + -.0477 X 45/115 HGT +

BOI MAX R= .89703 STANDARD ERROR = 4.30611 REDUCTION OF VARIANCE = .80466 STD. DEV. OF PND. 9.74282

BOI MAX = -28.3925 + .3896 X BOI MIN + .2105 X BNO MAX + -.1034 X DAY OF YR + .0392 X 45/115 THK + .1615 X MFR MAX + -.0110 X 45/135 HGT +

BNO MAX R= .88467 STANDARD ERROR = 4.63787 REDUCTION OF VARIANCE = .78264 STD. DEV. OF PND. 9.94777

BNO MAX = -106.6463 + .3890 X BNO MAX + .0334 X 45/125 THK + .3197 X BNO MIN + -.1056 X DAY OF YR + .0212 X 40/120 HGT +

MFR MAX R= .80334 STANDARD ERROR = 5.28724 REDUCTION OF VARIANCE = .64536 STD. DEV. OF PND. 8.87844

MFR MAX = 33.8066 + .4973 X MFR MAX + .4812 X EKA MIN + -.0911 X DAY OF YR +

SLE MAX R= .82868 STANDARD ERROR = 4.05360 REDUCTION OF VARIANCE = .68671 STD. DEV. OF PND. 7.24210

SLE MAX = -54.5671 + .3325 X SLE MAX + .2082 X PDX MIN + .0324 X 45/125 THK + -.0610 X DAY OF YR + .2046 X SLE MIN +

Northwest Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

INL MIN R= .90359 STANDARD ERROR = 7.33908 REDUCTION OF VARIANCE = .81647 STD. DEV. OF PND. 17.13119

INL MIN = -203.6143 + .3562 X INL MIN + .1015 X 50/100 THK + -.1933 X DAY OF YR + .0220 X 50/080 HGT + -.0239 X 50/110 HGT +

DLH MIN R= .90583 STANDARD ERROR = 6.37023 REDUCTION OF VARIANCE = .82053 STD. DEV. OF PND. 15.03686

DLH MIN = -183.0081 + .3957 X DLH MIN + .0910 X 50/100 THK + -.1357 X DAY OF YR + -.0263 X 45/105 HGT + .0215 X 45/085 HGT +

STC MIN R= .88531 STANDARD ERROR = 6.75772 REDUCTION OF VARIANCE = .78377 STD. DEV. OF PND. 14.53252

STC MIN = -218.1969 + .5582 X STC MIN + .0809 X 50/100 THK +

FAR MIN R= .89415 STANDARD ERROR = 6.79781 REDUCTION OF VARIANCE = .79950 STD. DEV. OF PND. 15.18144

FAR MIN = -213.9838 + .3923 X FAR MIN + .0955 X 50/100 THK + -.1297 X DAY OF YR +

BIS MIN R= .88810 STANDARD ERROR = 6.72856 REDUCTION OF VARIANCE = .78873 STD. DEV. OF PND. 14.63869

BIS MIN = -152.4780 + .4378 X BIS MIN + .0785 X 50/110 THK + .2140 X QD MAX + -.0222 X 50/110 HGT +

ISN MIN R= .89953 STANDARD ERROR = 6.62113 REDUCTION OF VARIANCE = .80915 STD. DEV. OF PND. 15.15604

ISN MIN = -196.4924 + .0637 X 50/110 THK + .2687 X BIS MIN + .3606 X EG MIN + .0280 X 45/095 HGT + -.0207 X 60/120 HGT +

GSG MIN R= .88156 STANDARD ERROR = 7.03859 REDUCTION OF VARIANCE = .77715 STD. DEV. OF PND. 14.91021

GSG MIN = -193.4637 + .4414 X GSG MIN + .0698 X 50/110 THK + .1624 X EG MAX +

BIL MIN R= .87094 STANDARD ERROR = 6.25734 REDUCTION OF VARIANCE = .75854 STD. DEV. OF PND. 12.73406

BIL MIN = -250.3308 + .0910 X 50/110 THK + .3260 X SEA MIN + .2136 X GTF MIN +

GTF MIN R= .88777 STANDARD ERROR = 7.19260 REDUCTION OF VARIANCE = .78814 STD. DEV. OF PND. 15.62635

GTF MIN = -322.4437 + .0694 X 55/115 THK + .3344 X GTF MAX + -.0418 X 55/135 HGT + .0468 X 45/115 HGT + .0415 X 55/135 THK +

HLN MIN R= .83933 STANDARD ERROR = 7.49491 REDUCTION OF VARIANCE = .70447 STD. DEV. OF PND. 13.78690

HLN MIN = -92.3015 + .4580 X HLN MIN + .0485 X 50/110 THK + .4667 X SEA MIN + -.0184 X 60/130 HGT +

MSO MIN R= .85021 STANDARD ERROR = 5.80884 REDUCTION OF VARIANCE = .72285 STD. DEV. OF PND. 11.03405

MSO MIN = -59.8109 + .5453 X MSO MIN + .4351 X SEA MIN + .0635 X 45/115 THK + -.0447 X 40/110 THK +

GEG MIN R= .86139 STANDARD ERROR = 4.66050 REDUCTION OF VARIANCE = .74199 STD. DEV. OF PND. 9.17518

GEG MIN = -60.5537 + .5244 X GEG MIN + -.0168 X 50/140 HGT + .0386 X 45/125 THK + .2794 X SEA MIN +

PDT MIN R= .86480 STANDARD ERROR = 4.26548 REDUCTION OF VARIANCE = .74788 STD. DEV. OF PND. 8.49506

PDT MIN = -33.3063 + .5138 X PDT MIN + .3174 X SEA MIN + -.0182 X 55/135 HGT + .0308 X 45/125 THK +

YKM MIN R= .83223 STANDARD ERROR = 4.68406 REDUCTION OF VARIANCE = .69261 STD. DEV. OF PND. 8.44841

YKM MIN = -70.1737 + .5277 X YKM MIN + .0388 X 45/125 THK + -.0119 X 50/140 HGT + .1775 X GEG MIN +

PDX MIN R= .78661 STANDARD ERROR = 4.33552 REDUCTION OF VARIANCE = .61876 STD. DEV. OF PND. 7.02171

PDX MIN = -11.9546 + .6383 X PDX MIN + -.0150 X 50/140 HGT + .0235 X 40/130 THK +

SEA MIN R= .80185 STANDARD ERROR = 3.95001 REDUCTION OF VARIANCE = .64296 STD. DEV. OF PND. 6.61056

SEA MIN = -40.5170 + .5846 X SEA MIN + -.0143 X 50/140 HGT + .0337 X 45/125 THK +

TTI MIN R= .84341 STANDARD ERROR = 2.64858 REDUCTION OF VARIANCE = .71134 STD. DEV. OF PND. 4.92966

TTI MIN = -62.5578 + .1997 X VR MAX + .0245 X 50/130 THK + .1952 X SEA MIN + .0097 X 50/120 HGT +
-.0064 X 50/150 HGT + .1308 X EKA MAX +

MSP MIN R= .89815 STANDARD ERROR = 6.13851 REDUCTION OF VARIANCE = .80667 STD. DEV. OF PND. 13.96086

MSP MIN = -209.6223 + .3456 X MSP MIN + .0541 X 50/100 THK + .0234 X 45/085 HGT + .2400 X FAR MIN +

HON MIN R= .87080 STANDARD ERROR = 6.58097 REDUCTION OF VARIANCE = .75829 STD. DEV. OF PND. 13.38575

HON MIN = -177.3171 + .0663 X 50/100 THK + .3626 X HON MIN + .2080 X GSG MIN +

RAP MIN R= .88479 STANDARD ERROR = 5.64614 REDUCTION OF VARIANCE = .78285 STD. DEV. OF PND. 12.11641

RAP MIN = -322.0563 + .0598 X 50/110 THK + .2836 X RAP MIN + .0590 X 45/105 THK +

CPR MIN R= .85018 STANDARD ERROR = 6.35016 REDUCTION OF VARIANCE = .72281 STD. DEV. OF PND. 12.06129

CPR MIN = -296.5226 + .0560 X 45/115 THK + -.0315 X 50/130 HGT + .0409 X 50/110 THK + .0420 X 40/110 HGT +
.2221 X CPR MIN +

LND MIN R= .88636 STANDARD ERROR = 5.20488 REDUCTION OF VARIANCE = .78563 STD. DEV. OF PND. 11.24151

LND MIN = -251.6756 + .0769 X 45/115 THK + .3765 X LND MIN + -.0186 X 55/125 HGT + .0300 X 35/105 HGT +
.1320 X HLN MIN +

PIH MIN R= .83290 STANDARD ERROR = 5.94884 REDUCTION OF VARIANCE = .69373 STD. DEV. OF PND. 10.74931

PIH MIN = -78.5457 + .4207 X PIH MIN + .3656 X BNO MIN + -.0384 X 50/120 HGT + .0278 X 40/110 HGT +
.0388 X 45/125 THK +

BOI MIN R= .85151 STANDARD ERROR = 4.49751 REDUCTION OF VARIANCE = .72507 STD. DEV. OF PND. 8.57746

BOI MIN = -85.2312 + .5453 X BOI MIN + .0525 X 45/125 THK + -.0206 X 50/130 HGT + .1824 X SLE MIN +

BNO MIN R= .79745 STANDARD ERROR = 5.46102 REDUCTION OF VARIANCE = .63592 STD. DEV. OF PND. 9.05056

BNO MIN = -108.2309 + .4194 X BNO MIN + .0418 X 40/120 HGT + -.0400 X 45/125 HGT + .0437 X 45/125 THK +
.1890 X SLE MIN + -.0603 X DAY OF YR +

MFR MIN R= .82265 STANDARD ERROR = 4.13180 REDUCTION OF VARIANCE = .67675 STD. DEV. OF PND. 7.26727

MFR MIN = -24.0323 + .5638 X MFR MIN + -.0158 X 45/135 HGT + .0272 X 40/130 THK + .1689 X SLE MIN +

SLE MIN R= .78289 STANDARD ERROR = 4.82079 REDUCTION OF VARIANCE = .61291 STD. DEV. OF PND. 7.74839

SLE MIN = -3.0225 + .4739 X SLE MIN + -.0183 X 50/140 HGT + .0231 X 40/130 THK + .2030 X SEA MIN +

Southwest Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MAX R= .92482 STANDARD ERROR = 5.65610 REDUCTION OF VARIANCE = .85529 STD. DEV. OF PND. 14.86847

DSM MAX = -232.4483 + .0900 X 45/095 THK + .3170 X OMA MAX + .3031 X OMA MIN +

OMA MAX R= .91776 STANDARD ERROR = 5.69639 REDUCTION OF VARIANCE = .84229 STD. DEV. OF PND. 14.34393

OMA MAX = -235.4577 + .3022 X OMA MIN + .0900 X 40/100 THK + .2098 X OMA MAX + .1623 X QR MAX +

LBF MAX R= .91120 STANDARD ERROR = 5.87030 REDUCTION OF VARIANCE = .83029 STD. DEV. OF PND. 14.24982

LBF MAX = -385.1815 + .1080 X 45/105 THK + .1626 X LBF MAX + -.0356 X 50/100 HGT + -.1308 X DAY OF YR + .0341 X 40/110 HGT + .0552 X 40/100 THK +

DEN MAX R= .90066 STANDARD ERROR = 5.76473 REDUCTION OF VARIANCE = .81119 STD. DEV. OF PND. 13.26676

DEN MAX = -456.5329 + .0829 X 45/105 THK + .0882 X 35/105 HGT + -.0532 X 50/110 HGT + .2580 X CPR MAX + .0496 X 40/120 THK +

SLC MAX R= .91500 STANDARD ERROR = 4.37326 REDUCTION OF VARIANCE = .83723 STD. DEV. OF PND. 10.83985

SLC MAX = -147.7030 + .4214 X SLC MAX + .0360 X 40/120 THK + .3015 X SLC MIN + .1731 X FAT MAX + .0503 X 40/110 HGT + -.0343 X 45/115 HGT +

WMC MAX R= .91542 STANDARD ERROR = 4.24233 REDUCTION OF VARIANCE = .83799 STD. DEV. OF PND. 10.53977

WMC MAX = -295.7779 + .1037 X 40/120 THK + .3141 X WMC MAX + -.1034 X DAY OF YR + .0304 X 40/110 HGT + -.0105 X 50/130 HGT +

RNO MAX R= .90229 STANDARD ERROR = 4.43254 REDUCTION OF VARIANCE = .81412 STD. DEV. OF PND. 10.28102

RNO MAX = -207.6989 + .0738 X 40/120 THK + .3113 X RNO MAX + -.1175 X DAY OF YR + .0399 X 40/120 HGT + -.0222 X 50/120 HGT + .2434 X EKA MIN +

RBL MAX R= .85484 STANDARD ERROR = 5.02026 REDUCTION OF VARIANCE = .73075 STD. DEV. OF PND. 9.67496

RBL MAX = -85.1024 + .3415 X SAC MAX + .0319 X 45/125 HGT + .2337 X BFL MAX + .2274 X RBL MAX +

EKA MAX R= .78217 STANDARD ERROR = 3.22452 REDUCTION OF VARIANCE = .61179 STD. DEV. OF PND. 5.17525

EKA MAX = 5.8567 + .2468 X EKA MIN + .0100 X 45/115 HGT + -.0527 X DAY OF YR + -.0133 X 40/140 HGT + .2094 X EKA MAX + .0190 X 40/130 THK +

MKC MAX R= .91207 STANDARD ERROR = 5.69980 REDUCTION OF VARIANCE = .83187 STD. DEV. OF PND. 13.90089

MKC MAX = -242.7192 + .3958 X MKC MIN + .0928 X 40/100 THK + .2628 X TOP MAX +

TOP MAX R= .91100 STANDARD ERROR = 5.75512 REDUCTION OF VARIANCE = .82992 STD. DEV. OF PND. 13.95499

TOP MAX = -255.0726 + .1112 X 40/100 THK + .1961 X OMA MAX + .2796 X MKC MIN + -.0980 X DAY OF YR +

ICT MAX R= .90702 STANDARD ERROR = 5.47976 REDUCTION OF VARIANCE = .82269 STD. DEV. OF PND. 13.01343

ICT MAX = -256.8858 + .1381 X 40/100 THK + .3065 X ICT MAX + -.1139 X DAY OF YR + -.0227 X 45/095 HGT +

DDC MAX R= .89214 STANDARD ERROR = 6.14950 REDUCTION OF VARIANCE = .79591 STD. DEV. OF PND. 13.61233

DDC MAX = -455.9772 + .1565 X 40/100 THK + .0966 X 35/105 HGT + -.0715 X 40/100 HGT + -.0975 X DAY OF YR + .1461 X DDC MAX +

PUB MAX R= .89705 STANDARD ERROR = 5.88739 REDUCTION OF VARIANCE = .80470 STD. DEV. OF PND. 13.32218

PUB MAX = -399.2830 + .0508 X 40/100 THK + .1089 X 35/105 HGT + -.0818 X 45/105 HGT + .0714 X 45/105 THK + .2851 X CPR MAX +

GJT MAX R= .93598 STANDARD ERROR = 3.75357 REDUCTION OF VARIANCE = .87606 STD. DEV. OF PND. 10.66210

GJT MAX = -66.3261 + .4112 X GJT MAX + .2245 X WMC MAX + .4022 X GJT MIN + .0233 X 35/105 HGT +

MLF MAX R= .90483 STANDARD ERROR = 5.16029 REDUCTION OF VARIANCE = .81872 STD. DEV. OF PND. 12.11977

MLF MAX = -187.8014 + .1997 X RNO MAX + .1851 X ELY MIN + .0530 X 40/110 THK + .0573 X 35/115 HGT + -.1059 X DAY OF YR + -.0283 X 45/115 HGT + .2753 X ELY MAX +

ELY MAX R= .91582 STANDARD ERROR = 4.63790 REDUCTION OF VARIANCE = .83872 STD. DEV. OF PND. 11.54869

ELY MAX = -371.2896 + .0999 X 40/120 THK + .4062 X ELY MAX + .0569 X 40/110 HGT + -.0225 X 50/120 HGT +

SAC MAX R= .88815 STANDARD ERROR = 4.00249 REDUCTION OF VARIANCE = .78881 STD. DEV. OF PND. 8.70953

SAC MAX = -55.7965 + .5237 X SAC MAX + .1951 X RBL MIN + .2330 X FAT MAX + .0213 X 45/135 THK +

SFO MAX R= .86802 STANDARD ERROR = 3.28856 REDUCTION OF VARIANCE = .75346 STD. DEV. OF PND. 6.62314

SFO MAX = -34.1370 + .4375 X SFO MAX + .2074 X RBL MIN + .0158 X 40/120 HGT + .1836 X SAC MAX +

OKC MAX R= .89543 STANDARD ERROR = 5.63673 REDUCTION OF VARIANCE = .80179 STD. DEV. OF PND. 12.66078

OKC MAX = -276.8243 + .1138 X 40/100 THK + .2573 X ICT MAX + -.0290 X 45/095 HGT + -.0890 X DAY OF YR + .0369 X 35/095 THK +

AMA MAX R= .89244 STANDARD ERROR = 5.76759 REDUCTION OF VARIANCE = .79645 STD. DEV. OF PND. 12.78376

AMA MAX = -449.2154 + .1571 X 40/100 THK + .1478 X 35/105 HGT + -.0971 X 40/100 HGT + .1948 X ABQ MAX + -.0388 X 40/110 HGT +

ABQ MAX R= .91138 STANDARD ERROR = 4.05271 REDUCTION OF VARIANCE = .83061 STD. DEV. OF PND. 9.84703

ABQ MAX = -291.1728 + .0670 X 35/105 THK + .2016 X WMC MAX + .2179 X ABQ MAX + .0379 X 30/110 HGT + .2654 X ABQ MIN +

INW MAX R= .90439 STANDARD ERROR = 5.12755 REDUCTION OF VARIANCE = .81792 STD. DEV. OF PND. 12.01638

INW MAX = -279.3247 + .5494 X INW MAX + .1051 X 35/115 THK + .3386 X INW MIN + -.3130 X YUM MIN +

LAS MAX R= .91112 STANDARD ERROR = 3.62128 REDUCTION OF VARIANCE = .83013 STD. DEV. OF PND. 8.78635

LAS MAX = -165.5985 + .2653 X LAS MAX + .0775 X 35/115 THK + -.0785 X DAY OF YR + .1845 X WMC MAX +

BFL MAX R= .88106 STANDARD ERROR = 4.67510 REDUCTION OF VARIANCE = .77628 STD. DEV. OF PND. 9.88403

BFL MAX = 38.4326 + .5956 X FAT MAX + .4152 X SFO MAX + -.0221 X 40/130 HGT + .0529 X 40/120 THK + -.0426 X 40/110 THK +

FAT MAX R= .89633 STANDARD ERROR = 4.40673 REDUCTION OF VARIANCE = .80341 STD. DEV. OF PND. 9.93886

FAT MAX = -62.3770 + .5344 X FAT MAX + .3798 X SAC MAX + .0410 X 40/130 THK + -.0168 X 40/130 HGT +

SMX MAX R= .85292 STANDARD ERROR = 4.26169 REDUCTION OF VARIANCE = .72748 STD. DEV. OF PND. 8.16359

SMX MAX = -221.0356 + .0429 X 40/120 HGT + .1468 X SFO MAX + .1945 X LAX MAX + .0431 X 35/125 THK + .1555 X YUM MIN +

FTW MAX R= .89045 STANDARD ERROR = 5.32538 REDUCTION OF VARIANCE = .79291 STD. DEV. OF PND. 11.70217

FTW MAX = -434.5944 + .1104 X 35/095 THK + .0618 X 35/105 THK + .2301 X ICT MAX + -.0651 X 35/095 HGT + .0586 X 30/100 HGT +

MAF MAX R= .87829 STANDARD ERROR = 5.56948 REDUCTION OF VARIANCE = .77139 STD. DEV. OF PND. 11.64837

MAF MAX = -439.6308 + .1047 X 35/105 THK + .0746 X 40/100 THK + -.0513 X 40/100 HGT + .2088 X MAF MAX + .0397 X 30/110 HGT +

ELP MAX R= .88717 STANDARD ERROR = 4.23516 REDUCTION OF VARIANCE = .78706 STD. DEV. OF PND. 9.17795

ELP MAX = -354.8239 + .0971 X 35/105 THK + .2750 X ELP MAX + .0455 X 30/110 THK + -.0628 X DAY OF YR +

TUS MAX R= .92442 STANDARD ERROR = 3.40239 REDUCTION OF VARIANCE = .85455 STD. DEV. OF PND. 8.92137

TUS MAX = -416.9870 + .0720 X 35/115 THK + .2649 X TUS MAX + .0287 X 35/105 HGT + .0560 X 30/110 THK +

PHX MAX R= .92638 STANDARD ERROR = 3.19895 REDUCTION OF VARIANCE = .85818 STD. DEV. OF PND. 8.49441

PHX MAX = -240.8805 + .3679 X PHX MAX + .0721 X 35/115 THK + .0315 X 35/105 HGT + -.0714 X DAY OF YR +

YUM MAX R= .93504 STANDARD ERROR = 3.06494 REDUCTION OF VARIANCE = .87429 STD. DEV. OF PND. 8.64453

YUM MAX = -229.2630 + .4386 X YUM MAX + .0702 X 35/115 THK + .0290 X 30/120 HGT + -.0777 X DAY OF YR +

SAN MAX R= .84669 STANDARD ERROR = 3.63563 REDUCTION OF VARIANCE = .71688 STD. DEV. OF PND. 6.83280

SAN MAX = -88.4339 + .4621 X SAN MAX + .0382 X 40/120 HGT + .1672 X YUM MIN +

LAX MAX R= .84523 STANDARD ERROR = 4.29319 REDUCTION OF VARIANCE = .71442 STD. DEV. OF PND. 8.03372

LAX MAX = -113.2716 + .5069 X LAX MAX + .0452 X 40/120 HGT + .2647 X YUM MIN + -.1029 X ELY MAX +

SAT MAX R= .86919 STANDARD ERROR = 5.14947 REDUCTION OF VARIANCE = .75549 STD. DEV. OF PND. 10.41395

SAT MAX = -336.6013 + .0649 X 30/100 THK + .1307 X DDC MAX + .2107 X SAT MAX + -.0211 X 30/090 HGT + .0633 X 35/095 THK + .0568 X 25/105 HGT + -.0343 X 35/095 HGT +

DRT MAX R= .89225 STANDARD ERROR = 4.53522 REDUCTION OF VARIANCE = .79611 STD. DEV. OF PND. 10.04388

DRT MAX = -377.1414 + .0658 X 30/100 THK + .2395 X DRT MAX + .0336 X 35/105 THK + -.0245 X 30/090 HGT + .0654 X 35/095 THK + .0397 X 30/110 HGT + -.0333 X 35/095 HGT +

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

DSM MIN R= .89839 STANDARD ERROR = 5.77809 REDUCTION OF VARIANCE = .80711 STD. DEV. OF PND. 13.15610

DSM MIN = -218.7517 + .0816 X 45/095 THK + .3858 X DSM MIN + .1611 X BIL MIN +

OMA MIN R= .89718 STANDARD ERROR = 5.39720 REDUCTION OF VARIANCE = .80492 STD. DEV. OF PND. 12.21986

OMA MIN = -181.6834 + .4217 X OMA MIN + .0642 X 45/105 THK + .1798 X WG MAX + .0259 X 40/090 HGT + -.0233 X 45/105 HGT +

LBF MIN R= .81807 STANDARD ERROR = 5.76505 REDUCTION OF VARIANCE = .66923 STD. DEV. OF PND. 10.02399

LBF MIN = -194.9415 + .0717 X 45/105 THK + .4660 X LBF MIN +

DEN MIN R= .86554 STANDARD ERROR = 5.05358 REDUCTION OF VARIANCE = .74916 STD. DEV. OF PND. 10.09024

DEN MIN = -316.8629 + .0450 X 45/105 THK + .3186 X DEN MIN + .0448 X 35/105 HGT + -.0251 X 50/110 HGT + .0488 X 45/115 THK +

SLC MIN R= .84069 STANDARD ERROR = 5.10274 REDUCTION OF VARIANCE = .70675 STD. DEV. OF PND. 9.42297

SLC MIN = -80.1883 + .4573 X SLC MIN + .0459 X 45/115 THK + .2459 X BNO MIN + -.0143 X 45/125 HGT +

WMC MIN R= .79516 STANDARD ERROR = 6.63781 REDUCTION OF VARIANCE = .63229 STD. DEV. OF PND. 10.94637

WMC MIN = -59.1969 + .4606 X WMC MIN + .3637 X EKA MIN + -.0546 X 45/125 HGT + .0356 X 40/120 HGT + .0377 X 45/125 THK +

RNO MIN R= .80208 STANDARD ERROR = 5.17908 REDUCTION OF VARIANCE = .64333 STD. DEV. OF PND. 8.67204

RNO MIN = -68.4633 + .4701 X RNO MIN + .2979 X EKA MIN + -.0312 X 45/125 HGT + .0224 X 35/115 HGT + .0317 X 45/125 THK +

RBL MIN R= .80342 STANDARD ERROR = 3.98759 REDUCTION OF VARIANCE = .64549 STD. DEV. OF PND. 6.69723

RBL MIN = -1.1455 + .4329 X RBL MIN + .3964 X EKA MIN + .1067 X FAT MAX +

EKA MIN R= .79982 STANDARD ERROR = 3.47316 REDUCTION OF VARIANCE = .63971 STD. DEV. OF PND. 5.78624

EKA MIN = -53.5244 + .4400 X EKA MIN + .0402 X 40/130 THK + -.0163 X 45/135 HGT + .1717 X EKA MAX +

MKC MIN R= .89065 STANDARD ERROR = 5.45756 REDUCTION OF VARIANCE = .79325 STD. DEV. OF PND. 12.00268

MKC MIN = -266.2918 + .0631 X 45/095 THK + .3705 X MKC MIN + .2204 X CPR MIN + .0334 X 30/090 HGT +

TOP MIN R= .86248 STANDARD ERROR = 5.87948 REDUCTION OF VARIANCE = .74387 STD. DEV. OF PND. 11.61735

TOP MIN = -242.9050 + .0557 X 45/095 THK + .4350 X ICT MIN + .1888 X CPR MIN + .0309 X 30/090 HGT +

ICT MIN R= .89106 STANDARD ERROR = 4.84114 REDUCTION OF VARIANCE = .79399 STD. DEV. OF PND. 10.66605

ICT MIN = -95.3879 + .0282 X 40/100 THK + .3665 X ICT MIN + .2162 X BIL MIN + .0323 X 35/095 HGT + -.0245 X 45/115 HGT + .1254 X WG MAX +

DDC MIN R= .87731 STANDARD ERROR = 4.76637 REDUCTION OF VARIANCE = .76967 STD. DEV. OF PND. 9.93146

DDC MIN = -206.9959 + .0718 X 45/105 THK + .4664 X DDC MIN + -.0428 X 45/105 HGT + .0478 X 40/100 HGT +

PUB MIN R= .82966 STANDARD ERROR = 5.49284 REDUCTION OF VARIANCE = .68833 STD. DEV. OF PND. 9.83893

PUB MIN = -113.2395 + .1823 X CPR MIN + .3393 X PUB MIN + .0415 X 40/100 THK + .1854 X BNO MIN +

GJT MIN R= .89467 STANDARD ERROR = 4.09309 REDUCTION OF VARIANCE = .80043 STD. DEV. OF PND. 9.16235

GJT MIN = -32.1807 + .4829 X GJT MIN + .1413 X ELY MIN + .0308 X 45/115 THK + -.0176 X 40/120 HGT + .1775 X GJT MAX +

MLF MIN R= .79225 STANDARD ERROR = 6.80878 REDUCTION OF VARIANCE = .62765 STD. DEV. OF PND. 11.15821

MLF MIN = -25.7759 + .4279 X ELY MIN + -.0273 X 45/125 HGT + .4635 X SAC MIN + .0361 X 45/115 THK +

ELY MIN R= .84237 STANDARD ERROR = 6.02202 REDUCTION OF VARIANCE = .70959 STD. DEV. OF PND. 11.17470

ELY MIN = -167.1914 + .4171 X ELY MIN + .4569 X EKA MIN + .0471 X 40/110 HGT + -.0246 X 45/125 HGT + .0686 X 35/125 THK + -.0375 X 35/125 HGT +

SAC MIN R= .84305 STANDARD ERROR = 3.52599 REDUCTION OF VARIANCE = .71073 STD. DEV. OF PND. 6.55589

SAC MIN = -12.1066 + .4799 X SAC MIN + .0322 X 35/125 THK + -.0183 X 40/130 HGT + .2320 X EKA MIN + -.0474 X DAY OF YR +

SFO MIN R= .82470 STANDARD ERROR = 3.15331 REDUCTION OF VARIANCE = .68013 STD. DEV. OF PND. 5.57546

SFO MIN = -9.7074 + .4504 X SFO MIN + .2454 X EKA MIN + .0764 X BFL MAX + -.0156 X 40/130 HGT + .0228 X 40/130 THK +

OKC MIN R= .87893 STANDARD ERROR = 4.83911 REDUCTION OF VARIANCE = .77251 STD. DEV. OF PND. 10.14582

OKC MIN = -156.6047 + .0516 X 40/100 THK + .3832 X ICT MIN + -.0228 X 40/120 HGT + .1795 X BIL MIN + .0309 X 30/090 HGT +

AMA MIN R= .85340 STANDARD ERROR = 4.63248 REDUCTION OF VARIANCE = .72829 STD. DEV. OF PND. 8.88719

AMA MIN = -204.1672 + .0353 X 40/100 THK + .2187 X LAS MIN + .2329 X DDC MIN + -.0216 X 40/120 HGT + .0315 X 45/105 THK + .0301 X 30/100 HGT +

ABQ MIN R= .84323 STANDARD ERROR = 4.16843 REDUCTION OF VARIANCE = .71104 STD. DEV. OF PND. 7.75456

ABQ MIN = -95.9193 + .0445 X 35/105 THK + .1674 X INW MIN + .1758 X ELY MIN + -.0556 X DAY OF YR + .1923 X ABQ MIN +

INW MIN R= .85935 STANDARD ERROR = 4.71145 REDUCTION OF VARIANCE = .73847 STD. DEV. OF PND. 9.21291

INW MIN = 93.9126 + .6031 X INW MIN + .2049 X ELY MAX + -.0314 X 35/125 HGT + .1790 X RNO MIN +

LAS MIN R= .86462 STANDARD ERROR = 3.71750 REDUCTION OF VARIANCE = .74757 STD. DEV. OF PND. 7.39913

LAS MIN = -18.0635 + .4544 X LAS MIN + .1586 X PIH MAX + .1252 X ELY MIN + -.0287 X 35/125 HGT +

BFL MIN R= .87165 STANDARD ERROR = 3.32386 REDUCTION OF VARIANCE = .75978 STD. DEV. OF PND. 6.78169

BFL MIN = -22.6068 + .5309 X BFL MIN + .2489 X EKA MIN + .1199 X BFL MAX + -.0260 X 35/125 HGT + .0354 X 35/125 THK +

FAT MIN R= .85258 STANDARD ERROR = 3.51552 REDUCTION OF VARIANCE = .72689 STD. DEV. OF PND. 6.72704

FAT MIN = -35.1104 + .5718 X FAT MIN + .2114 X EKA MIN + -.0141 X 40/130 HGT + .0294 X 40/120 THK +

SMX MIN R= .78530 STANDARD ERROR = 4.00954 REDUCTION OF VARIANCE = .61669 STD. DEV. OF PND. 6.47621

SMX MIN = -30.4529 + .3767 X SFO MIN + .0471 X 35/125 THK + -.0104 X 40/130 HGT + .2046 X BFL MIN + -.0219 X 30/130 HGT + .1755 X EKA MIN +

FTW MIN R= .86966 STANDARD ERROR = 5.18439 REDUCTION OF VARIANCE = .75630 STD. DEV. OF PND. 10.50205

FTW MIN = -113.1365 + .2820 X FTW MIN + .0579 X 40/100 THK + -.0403 X 35/115 HGT + .2843 X DDC MIN + .0298 X 30/090 HGT +

MAF MIN R= .85787 STANDARD ERROR = 4.45108 REDUCTION OF VARIANCE = .73593 STD. DEV. OF PND. 8.66179

MAF MIN = -115.9019 + .3488 X MAF MIN + .0590 X 40/100 THK + -.0558 X 35/115 HGT + .0436 X 30/110 HGT + .1712 X LAS MIN +

ELP MIN R= .82383 STANDARD ERROR = 4.57750 REDUCTION OF VARIANCE = .67869 STD. DEV. OF PND. 8.07545

ELP MIN = -90.1967 + .3218 X ELP MIN + .0478 X 35/105 THK + -.0504 X 35/115 HGT + .2100 X PHX MIN + .0408 X 35/115 THK +

TUS MIN R= .84139 STANDARD ERROR = 4.02041 REDUCTION OF VARIANCE = .70794 STD. DEV. OF PND. 7.43928

TUS MIN = -19.7394 + .1907 X TUS MIN + .3025 X PHX MAX + -.0229 X 35/125 HGT + .0300 X 35/105 HGT + .2564 X PHX MIN +

PHX MIN R= .86286 STANDARD ERROR = 3.67556 REDUCTION OF VARIANCE = .74452 STD. DEV. OF PND. 7.27185

PHX MIN = -68.8115 + .4862 X PHX MIN + .0401 X 35/115 THK + -.0417 X 30/120 HGT + .0289 X 35/105 HGT +

YUM MIN R= .84607 STANDARD ERROR = 3.52675 REDUCTION OF VARIANCE = .71583 STD. DEV. OF PND. 6.61588

YUM MIN = -105.2051 + .4838 X YUM MIN + .0410 X 35/115 THK + .2029 X BFL MIN +

SAN MIN R= .81852 STANDARD ERROR = 2.84678 REDUCTION OF VARIANCE = .66997 STD. DEV. OF PND. 4.95542

SAN MIN = -92.5464 + .5044 X SAN MIN + .0319 X 35/115 THK + -.0254 X 35/125 HGT + .0346 X 35/125 THK +

LAX MIN R= .78663 STANDARD ERROR = 3.25177 REDUCTION OF VARIANCE = .61878 STD. DEV. OF PND. 5.26663

LAX MIN = -78.4023 + .4669 X LAX MIN + .0336 X 35/115 THK + .0876 X BFL MAX +

SAT MIN R= .86050 STANDARD ERROR = 5.38925 REDUCTION OF VARIANCE = .74045 STD. DEV. OF PND. 10.57842

SAT MIN = -60.7823 + .0270 X 35/095 THK + .3141 X SAT MIN + -.0450 X 30/120 HGT + .2996 X AMA MIN + .0429 X 30/090 HGT + .1698 X ELP MAX +

DRT MIN R= .87885 STANDARD ERROR = 4.40599 REDUCTION OF VARIANCE = .77238 STD. DEV. OF PND. 9.23494

DRT MIN = -106.3485 + .5016 X DRT MIN + .0547 X 35/105 THK + -.0487 X 35/115 HGT + .0379 X 35/095 HGT + .1031 X MSO MIN +

Southeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MAX R= .92459 STANDARD ERROR = 4.46598 REDUCTION OF VARIANCE = .85487 STD. DEV. OF PND. 11.72308

SBY MAX = -187.8447 + .3454 X NYC MIN + .2782 X LOU MAX + .0331 X 35/065 HGT + .0610 X 40/080 THK + -.0206 X 40/080 HGT +

DCA MAX R= .91571 STANDARD ERROR = 4.66932 REDUCTION OF VARIANCE = .83852 STD. DEV. OF PND. 11.61966

DCA MAX = -53.7618 + .4948 X NYC MIN + .3041 X IND MAX + .0393 X 40/080 THK + -.0136 X 50/080 HGT +

CRW MAX R= .92435 STANDARD ERROR = 5.16786 REDUCTION OF VARIANCE = .85443 STD. DEV. OF PND. 13.54473

CRW MAX = -388.2297 + .0788 X 40/080 THK + .3213 X MEM MAX + .0329 X 35/075 HGT + .0334 X 40/090 THK +

HTS MAX R= .93360 STANDARD ERROR = 4.78639 REDUCTION OF VARIANCE = .87161 STD. DEV. OF PND. 13.35809

HTS MAX = -387.5583 + .0691 X 40/080 THK + .3183 X MEM MAX + .0500 X 40/090 THK + .0268 X 35/075 HGT +

LOU MAX R= .92948 STANDARD ERROR = 4.81819 REDUCTION OF VARIANCE = .86392 STD. DEV. OF PND. 13.06151

LOU MAX = -370.7491 + .0811 X 40/090 THK + .0616 X 40/080 THK + .2582 X FSM MAX +

ORF MAX R= .92656 STANDARD ERROR = 4.38832 REDUCTION OF VARIANCE = .85851 STD. DEV. OF PND. 11.66652

ORF MAX = -189.3229 + -.0010 X 35/075 THK + .2424 X BNA MAX + .1663 X SYR MIN + .0777 X 40/080 THK + -.0615 X 40/080 HGT + .0601 X 35/075 HGT + .1571 X ORF MAX +

RIC MAX R= .91208 STANDARD ERROR = 4.96428 REDUCTION OF VARIANCE = .83189 STD. DEV. OF PND. 12.10767

RIC MAX = -143.0814 + .4707 X NYC MIN + .2847 X BNA MAX + .0619 X 40/080 THK + -.0300 X 45/075 HGT + .0249 X 35/075 HGT +

ROA MAX R= .91107 STANDARD ERROR = 4.92426 REDUCTION OF VARIANCE = .83004 STD. DEV. OF PND. 11.94454

ROA MAX = -227.3904 + .0745 X 40/080 THK + .0919 X ROA MAX + .0405 X 35/085 HGT + -.0292 X 45/075 HGT + .3358 X NYC MIN + .2018 X BNA MAX +

HAT MAX R= .90118 STANDARD ERROR = 4.17982 REDUCTION OF VARIANCE = .81212 STD. DEV. OF PND. 9.64307

HAT MAX = -167.8870 + .0606 X 35/075 THK + .1879 X NYC MIN + .2781 X BHM MAX + .0338 X 40/070 HGT + -.0249 X 40/080 HGT +

RDU MAX R= .91309 STANDARD ERROR = 4.71155 REDUCTION OF VARIANCE = .83374 STD. DEV. OF PND. 11.55505

RDU MAX = -149.8397 + .0634 X 40/080 THK + .3268 X BNA MAX + .3389 X NYC MIN + -.0314 X 45/075 HGT + .0287 X 35/075 HGT +

GSO MAX R= .90182 STANDARD ERROR = 4.94742 REDUCTION OF VARIANCE = .81329 STD. DEV. OF PND. 11.44962

GSO MAX = -180.8270 + .2737 X BNA MAX + .3593 X NYC MIN + .0712 X 35/085 THK + -.1770 X TLH MIN + .1675 X GSO MAX +

TYS MAX R= .90893 STANDARD ERROR = 4.83610 REDUCTION OF VARIANCE = .82615 STD. DEV. OF PND. 11.59858

TYS MAX = -273.0051 + .1038 X 35/085 THK + .2314 X FSM MAX + .2330 X TYS MAX +

BNA MAX R= .91642 STANDARD ERROR = 4.96548 REDUCTION OF VARIANCE = .83983 STD. DEV. OF PND. 12.40700

BNA MAX = -364.8682 + .0692 X 40/090 THK + .0714 X 35/085 THK + .2679 X FSM MAX +

MEM MAX R= .91191 STANDARD ERROR = 4.98529 REDUCTION OF VARIANCE = .83158 STD. DEV. OF PND. 12.14761

MEM MAX = -338.8424 + .0805 X 35/095 THK + .3399 X MEM MAX + .0499 X 40/090 THK +

LIT MAX R= .89537 STANDARD ERROR = 5.38087 REDUCTION OF VARIANCE = .80168 STD. DEV. OF PND. 12.08282

LIT MAX = -273.0832 + .1052 X 35/095 THK + .2494 X ICT MAX + .2107 X LIT MAX +

FSM MAX R= .90033 STANDARD ERROR = 5.36877 REDUCTION OF VARIANCE = .81059 STD. DEV. OF PND. 12.33604

FSM MAX = -298.4176 + .0950 X 35/095 THK + .2997 X ICT MAX + .0325 X 40/100 THK + -.0863 X DAY OF YR +

CHS MAX R= .89893 STANDARD ERROR = 4.39614 REDUCTION OF VARIANCE = .80807 STD. DEV. OF PND. 10.03454

CHS MAX = -223.3801 + .0427 X 40/080 THK + .3695 X BHM MAX + .0489 X 35/075 HGT + -.0448 X 40/080 HGT + .0442 X 35/085 THK +

CLT MAX R= .89710 STANDARD ERROR = 4.83501 REDUCTION OF VARIANCE = .80478 STD. DEV. OF PND. 10.94303

CLT MAX = -150.5396 + .1605 X CMH MAX + .0612 X 35/085 THK + .1731 X LIT MAX + .2264 X ATL MAX + .2606 X ROA MIN + -.2049 X MGM MIN +

AGS MAX R= .89708 STANDARD ERROR = 4.69196 REDUCTION OF VARIANCE = .80475 STD. DEV. OF PND. 10.61836

AGS MAX = -169.8240 + .0696 X 35/085 THK + .2367 X ATL MAX + .1968 X LIT MAX + .1812 X ROA MIN +

AHN MAX R= .88794 STANDARD ERROR = 4.73682 REDUCTION OF VARIANCE = .78845 STD. DEV. OF PND. 10.29857

AHN MAX = -157.8136 + .3496 X ATL MAX + .0644 X 35/085 THK + .2175 X LIT MAX + -.2066 X MGM MIN + .1968 X ROA MIN +

ATL MAX R= .89709 STANDARD ERROR = 4.64136 REDUCTION OF VARIANCE = .80478 STD. DEV. OF PND. 10.50455

ATL MAX = -218.4584 + .0851 X 35/085 THK + .1770 X LIT MAX + .2373 X ATL MAX + .1065 X DDC MAX +

BHM MAX R= .89730 STANDARD ERROR = 4.72659 REDUCTION OF VARIANCE = .80516 STD. DEV. OF PND. 10.70790

BHM MAX = -333.1059 + .0878 X 35/085 THK + .2541 X LIT MAX + .0425 X 35/095 THK +

JAN MAX R= .89792 STANDARD ERROR = 5.01748 REDUCTION OF VARIANCE = .80626 STD. DEV. OF PND. 11.39927

JAN MAX = -262.8995 + .1102 X 35/095 THK + .3736 X SHV MAX + -.0381 X 35/095 HGT + .0322 X 35/085 HGT +

SHV MAX R= .89191 STANDARD ERROR = 5.15750 REDUCTION OF VARIANCE = .79550 STD. DEV. OF PND. 11.40507

SHV MAX = -301.1378 + .1176 X 35/095 THK + .3540 X FTW MAX +

JAX MAX R= .89994 STANDARD ERROR = 3.91701 REDUCTION OF VARIANCE = .80988 STD. DEV. OF PND. 8.98350

JAX MAX = -285.6296 + .0327 X 30/090 THK + .0091 X 35/075 THK + .2150 X MGM MAX + .0754 X 30/080 HGT + -.0626 X 35/085 HGT + .0671 X 35/085 THK + -.0609 X DAY OF YR +

TLH MAX R= .88914 STANDARD ERROR = 4.06375 REDUCTION OF VARIANCE = .79057 STD. DEV. OF PND. 8.87982

TLH MAX = -212.4510 + .0401 X 35/085 THK + .2315 X JAN MAX + .1659 X JAX MIN + .0479 X 30/090 THK +

MGM MAX R= .89344 STANDARD ERROR = 4.65499 REDUCTION OF VARIANCE = .79824 STD. DEV. OF PND. 10.36329

MGM MAX = -184.6939 + .0864 X 35/085 THK + .2230 X FTW MAX + .1871 X MOB MIN + -.0748 X DAY OF YR +

MOB MAX R= .89931 STANDARD ERROR = 4.08208 REDUCTION OF VARIANCE = .80875 STD. DEV. OF PND. 9.33437

MOB MAX = -266.9868 + .0657 X 35/085 THK + .2455 X HOU MAX + .0402 X 30/100 THK + .1500 X MOB MIN +

MSY MAX R= .89252 STANDARD ERROR = 4.35950 REDUCTION OF VARIANCE = .79660 STD. DEV. OF PND. 9.66624

MSY MAX = -260.2023 + .0622 X 30/090 THK + .2326 X FTW MAX + .2562 X MOB MIN + .0397 X 30/100 THK +

LCH MAX R= .88755 STANDARD ERROR = 4.53470 REDUCTION OF VARIANCE = .78774 STD. DEV. OF PND. 9.84281

LCH MAX = -259.0002 + .0699 X 30/100 THK + .2627 X SHV MAX + .1856 X LCH MIN + .0322 X 35/095 THK +

HOU MAX R= .88782 STANDARD ERROR = 4.67077 REDUCTION OF VARIANCE = .78822 STD. DEV. OF PND. 10.14962

HOU MAX = -318.2437 + .1222 X 30/100 THK + .2455 X HOU MAX + .1541 X DDC MAX +

CRP MAX R= .88698 STANDARD ERROR = 4.72682 REDUCTION OF VARIANCE = .78673 STD. DEV. OF PND. 10.23531

CRP MAX = -175.4802 + .1126 X 30/100 THK + .1926 X CRP MAX + .1372 X DDC MAX + -.0379 X 30/090 HGT + .2012 X BRO MIN +

BRO MAX R= .88561 STANDARD ERROR = 4.23293 REDUCTION OF VARIANCE = .78430 STD. DEV. OF PND. 9.11416

BRO MAX = -202.2320 + .1026 X 30/100 THK + .2731 X SAT MAX + .1784 X BRO MIN + -.0478 X 30/100 HGT + .0300 X 30/110 HGT +

ORL MAX R= .89114 STANDARD ERROR = 3.60639 REDUCTION OF VARIANCE = .79412 STD. DEV. OF PND. 7.94818

ORL MAX = -287.5948 + .2653 X ORL MIN + .0484 X 30/090 THK + .0529 X 30/080 THK + .0156 X 35/075 HGT +

TPA MAX R= .90650 STANDARD ERROR = 3.19957 REDUCTION OF VARIANCE = .82174 STD. DEV. OF PND. 7.57815

TPA MAX = -185.1160 + .1349 X ORL MIN + .0511 X 30/090 THK + .0230 X 35/075 HGT + .3302 X EYW MIN + .1202 X TLH MAX +

MIA MAX R= .88296 STANDARD ERROR = 2.51430 REDUCTION OF VARIANCE = .77962 STD. DEV. OF PND. 5.35589

MIA MAX = -132.0582 + .3912 X EYW MIN + .0603 X 30/080 THK + .1200 X TLH MAX + -.0952 X RDU MIN +

EYW MAX R= .89448 STANDARD ERROR = 2.45692 REDUCTION OF VARIANCE = .80010 STD. DEV. OF PND. 5.49523

EYW MAX = -150.1797 + .5101 X EYW MIN + .0481 X 25/085 THK + .0168 X 35/075 THK +

Southeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

SBY MIN R= .86557 STANDARD ERROR = 5.34350 REDUCTION OF VARIANCE = .74922 STD. DEV. OF PND. 10.67027

SBY MIN = -118.7568 + .1965 X BNA MIN + .0291 X 45/075 THK + .0267 X 35/065 HGT + .2417 X CMH MIN + .0345 X 40/080 THK + -.0317 X 30/090 HGT +

DCA MIN R= .89414 STANDARD ERROR = 4.14694 REDUCTION OF VARIANCE = .79949 STD. DEV. OF PND. 9.26096

DCA MIN = -90.1846 + .1836 X PIT MIN + .0373 X 40/080 THK + .2637 X DCA MIN + .1585 X PIA MIN +

CRW MIN R= .85099 STANDARD ERROR = 5.89291 REDUCTION OF VARIANCE = .72419 STD. DEV. OF PND. 11.22083

CRW MIN = -126.6490 + .3876 X STL MIN + .0516 X 40/080 THK + .2735 X BNA MIN + -.4157 X HTS MAX + .4428 X CRW MAX + -.1906 X AHN MAX +

HTS MIN R= .86037 STANDARD ERROR = 5.50360 REDUCTION OF VARIANCE = .74024 STD. DEV. OF PND. 10.79840

HTS MIN = -173.0796 + .3430 X BNA MIN + .3102 X CBI MIN + .0388 X 40/080 THK + -.2429 X PIA MAX + .0514 X 40/090 THK + -.0210 X 40/090 HGT +

LOU MIN R= .86573 STANDARD ERROR = 5.65278 REDUCTION OF VARIANCE = .74950 STD. DEV. OF PND. 11.29418

LOU MIN = -91.6992 + .3342 X STL MIN + .0615 X 40/090 THK + -.0225 X 40/100 HGT + .1882 X LOU MIN +

ORF MIN R= .89271 STANDARD ERROR = 4.41849 REDUCTION OF VARIANCE = .79693 STD. DEV. OF PND. 9.80513

ORF MIN = -174.7527 + .0419 X 40/080 THK + .2665 X ORF MIN + .2851 X LOU MIN + .0242 X 35/065 HGT +

RIC MIN R= .89595 STANDARD ERROR = 4.59232 REDUCTION OF VARIANCE = .80273 STD. DEV. OF PND. 10.33953

RIC MIN = -139.3706 + .0530 X 40/080 THK + .1999 X RIC MIN + .3028 X LOU MIN + .0212 X 35/065 HGT + -.0196 X 35/095 HGT +

ROA MIN R= .87741 STANDARD ERROR = 4.85802 REDUCTION OF VARIANCE = .76985 STD. DEV. OF PND. 10.12648

ROA MIN = -136.9302 + .3221 X LOU MIN + .0534 X 40/080 THK + .2210 X ROA MIN +

HAT MIN R= .87815 STANDARD ERROR = 4.68631 REDUCTION OF VARIANCE = .77114 STD. DEV. OF PND. 9.79594

HAT MIN = -115.4365 + .0079 X 40/080 THK + .2537 X HAT MIN + .0356 X 35/065 HGT + .1717 X LOU MIN + .0413 X 35/085 THK + -.0271 X 35/095 HGT + -.0751 X DAY OF YR +

RDU MIN R= .90017 STANDARD ERROR = 4.66707 REDUCTION OF VARIANCE = .81031 STD. DEV. OF PND. 10.71567

RDU MIN = -102.3962 + .3606 X BNA MIN + .0517 X 40/080 THK + .1649 X RDU MIN + -.0290 X 30/100 HGT + .0201 X 35/065 HGT +

GSO MIN R= .89336 STANDARD ERROR = 4.73639 REDUCTION OF VARIANCE = .79809 STD. DEV. OF PND. 10.54070

GSO MIN = -47.3521 + .3632 X BNA MIN + .0516 X 40/080 THK + .2160 X GSO MIN + -.0276 X 30/100 HGT +

TYS MIN R= .86415 STANDARD ERROR = 5.08767 REDUCTION OF VARIANCE = .74676 STD. DEV. OF PND. 10.11003

TYS MIN = -128.5363 + .3616 X BNA MIN + .0305 X 40/090 THK + .2388 X BHM MIN + .0177 X 35/075 HGT +

BNA MIN R= .86734 STANDARD ERROR = 6.69141 REDUCTION OF VARIANCE = .75228 STD. DEV. OF PND. 11.43515

BNA MIN = -128.2549 + .3889 X MEM MIN + .0725 X 40/090 THK + -.2177 X DSM MAX + .3284 X MKC MIN + -.0199 X 45/105 HGT +

MEM MIN R= .86424 STANDARD ERROR = 5.67084 REDUCTION OF VARIANCE = .74691 STD. DEV. OF PND. 11.27223

MEM MIN = -84.4320 + .0692 X 40/090 THK + .4574 X FSM MIN + -.0299 X 40/110 HGT +

LIT MIN R= .86653 STANDARD ERROR = 5.32610 REDUCTION OF VARIANCE = .75088 STD. DEV. OF PND. 10.67095

LIT MIN = -96.8700 + .3655 X FSM MIN + .0587 X 35/095 THK + .2176 X MKC MIN + -.0185 X 40/110 HGT +

FSM MIN R= .86845 STANDARD ERROR = 5.19354 REDUCTION OF VARIANCE = .75421 STD. DEV. OF PND. 10.47559

FSM MIN = 23.9309 + .3707 X OKC MIN + .0326 X 40/090 HGT + -.0369 X 40/110 HGT + .2260 X DEN MIN + .2334 X FSM MIN +

CHS MIN R= .88477 STANDARD ERROR = 5.01207 REDUCTION OF VARIANCE = .78282 STD. DEV. OF PND. 10.75482

CHS MIN = -123.0292 + .3354 X BHM MIN + .0560 X 35/085 THK + .0322 X 35/065 HGT + -.0378 X 30/100 HGT + .1787 X CHS MIN +

CLT MIN R= .89469 STANDARD ERROR = 4.65891 REDUCTION OF VARIANCE = .80047 STD. DEV. OF PND. 10.42985

CLT MIN = -197.8417 + .3481 X BHM MIN + .0527 X 35/085 THK + .0204 X 40/070 HGT + .1958 X ROA MIN +

AGS MIN R= .87509 STANDARD ERROR = 5.24877 REDUCTION OF VARIANCE = .76579 STD. DEV. OF PND. 10.84554

AGS MIN = -82.7597 + .4152 X BHM MIN + .0378 X 35/085 THK + .2144 X AGS MIN + -.0262 X 35/095 HGT + .0219 X 35/075 HGT +

AHN MIN R= .89341 STANDARD ERROR = 4.67057 REDUCTION OF VARIANCE = .79818 STD. DEV. OF PND. 10.39662

AHN MIN = -146.3245 + .5877 X BHM MIN + .0557 X 35/085 THK +

ATL MIN R= .89823 STANDARD ERROR = 4.38138 REDUCTION OF VARIANCE = .80682 STD. DEV. OF PND. 9.96839

ATL MIN = -159.9034 + .0237 X 35/085 THK + .2660 X BHM MIN + .1899 X LIT MIN + .0438 X 35/095 THK + .0262 X 35/075 HGT + -.0307 X 30/100 HGT +

BHM MIN R= .86954 STANDARD ERROR = 5.46299 REDUCTION OF VARIANCE = .75610 STD. DEV. OF PND. 11.06183

BHM MIN = -107.3822 + .2718 X JAN MIN + .0128 X 40/090 THK + -.0409 X 35/105 HGT + .0317 X 35/075 HGT + .2174 X FSM MIN + .0407 X 35/095 THK +

JAN MIN R= .86996 STANDARD ERROR = 5.54788 REDUCTION OF VARIANCE = .75683 STD. DEV. OF PND. 11.25047

JAN MIN = -124.0234 + .0568 X 35/095 THK + .3437 X SHV MIN + -.0438 X 35/105 HGT + .0358 X 30/080 HGT + .2248 X OKC MIN +

SHV MIN R= .85685 STANDARD ERROR = 5.53467 REDUCTION OF VARIANCE = .73420 STD. DEV. OF PND. 10.73528

SHV MIN = -139.3063 + .0796 X 35/095 THK + .4358 X FTW MIN + -.0225 X 40/110 HGT +

JAX MIN R= .89085 STANDARD ERROR = 4.72860 REDUCTION OF VARIANCE = .79361 STD. DEV. OF PND. 10.40843

JAX MIN = -167.1559 + .0012 X 35/085 THK + .3488 X TLH MIN + .0443 X 35/075 HGT + .0882 X 30/090 THK + -.0638 X 25/095 HGT +

TLH MIN R= .88523 STANDARD ERROR = 5.08120 REDUCTION OF VARIANCE = .78363 STD. DEV. OF PND. 10.92363

TLH MIN = -169.0530 + .1520 X MOB MIN + .0432 X 35/075 HGT + .0795 X 30/090 THK + .2931 X TLH MIN + -.0553 X 25/095 HGT +

MGM MIN R= .86254 STANDARD ERROR = 5.27436 REDUCTION OF VARIANCE = .74397 STD. DEV. OF PND. 10.42383

MGM MIN = -116.6861 + .4520 X JAN MIN + .0311 X 30/090 THK + .0299 X 35/075 HGT + -.0428 X 30/100 HGT + .0301 X 35/095 THK +

MOB MIN R= .87805 STANDARD ERROR = 5.08183 REDUCTION OF VARIANCE = .77097 STD. DEV. OF PND. 10.61871

MOB MIN = -194.0274 + .0320 X 30/090 THK + .3898 X LCH MIN + .0656 X 35/095 THK + -.0491 X 30/100 HGT + .0285 X 35/075 HGT +

MSY MIN R= .86106 STANDARD ERROR = 5.06485 REDUCTION OF VARIANCE = .74143 STD. DEV. OF PND. 9.96038

MSY MIN = -174.6952 + .2978 X MSY MIN + .0606 X 35/095 THK + .0356 X 30/080 HGT + -.0286 X 35/105 HGT + .1916 X HOU MIN +

LCH MIN R= .85838 STANDARD ERROR = 5.18427 REDUCTION OF VARIANCE = .73681 STD. DEV. OF PND. 10.10548

LCH MIN = -44.9778 + .3919 X HOU MIN + .0531 X 35/095 THK + -.0287 X 40/110 HGT + .1887 X OKC MIN +

HOU MIN R= .86445 STANDARD ERROR = 5.12128 REDUCTION OF VARIANCE = .74727 STD. DEV. OF PND. 10.18709

HOU MIN = -121.1924 + .0432 X 35/095 THK + .3121 X CRP MIN + -.0292 X 40/110 HGT + .3074 X AMA MIN + .0346 X 30/090 HGT +

CRP MIN R= .87286 STANDARD ERROR = 5.01892 REDUCTION OF VARIANCE = .76188 STD. DEV. OF PND. 10.28522

CRP MIN = -180.9942 + -.0034 X 35/095 THK + .3594 X CRP MIN + -.0441 X 40/110 HGT + .0617 X 35/105 THK + .0549 X 30/090 HGT + .2376 X DDC MIN +

BRO MIN R= .87559 STANDARD ERROR = 4.65087 REDUCTION OF VARIANCE = .76667 STD. DEV. OF PND. 9.62820

BRO MIN = -160.9267 + .0241 X 30/100 THK + .3251 X CRP MIN + -.0418 X 40/110 HGT + .1691 X DDC MIN + .0403 X 30/090 HGT + .0427 X 35/105 THK +

ORL MIN R= .90154 STANDARD ERROR = 4.00851 REDUCTION OF VARIANCE = .81277 STD. DEV. OF PND. 9.26392

ORL MIN = -100.4819 + .5210 X ORL MIN + .0714 X 30/090 THK + .0456 X 35/075 HGT + -.0470 X 25/095 HGT + -.0266 X 35/075 THK +

TPA MIN R= .89367 STANDARD ERROR = 4.15777 REDUCTION OF VARIANCE = .79865 STD. DEV. OF PND. 9.26574

TPA MIN = -132.8049 + .4513 X TPA MIN + .0670 X 30/090 THK + .0391 X 35/075 HGT + -.0495 X 25/095 HGT +

MIA MIN R= .88623 STANDARD ERROR = 3.78543 REDUCTION OF VARIANCE = .78540 STD. DEV. OF PND. 8.17150

MIA MIN = -128.5535 + .4987 X MIA MIN + .0693 X 30/080 HGT + -.0557 X 25/095 HGT + .0120 X 25/095 THK +

EYW MIN R= .90670 STANDARD ERROR = 2.43945 REDUCTION OF VARIANCE = .82211 STD. DEV. OF PND. 5.78380

EYW MIN = -60.2502 + .4671 X EYW MIN + .0290 X 30/090 THK + .0279 X 30/080 HGT + -.0294 X 25/095 HGT + .2061 X MIA MAX +

Northeast Max

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MAX R= .91486 STANDARD ERROR = 4.97147 REDUCTION OF VARIANCE = .83697 STD. DEV. OF PND. 12.31260

CAR MAX = -235.0736 + .0930 X 50/070 THK + .4187 X QB MAX + -.0407 X 50/070 HGT + .0389 X 45/065 HGT +

SSM MAX R= .93642 STANDARD ERROR = 3.94680 REDUCTION OF VARIANCE = .87727 STD. DEV. OF PND. 11.26579

SSM MAX = -113.1828 + .0614 X 45/085 THK + -.1043 X DAY OF YR + .2239 X SSM MIN + .1848 X QT MAX +

PWM MAX R= .90385 STANDARD ERROR = 4.73451 REDUCTION OF VARIANCE = .81695 STD. DEV. OF PND. 11.06589

PWM MAX = -73.2705 + .4249 X BOS MIN + .2992 X YR MAX + .0327 X 45/065 THK +

RIC MAX R= .93702 STANDARD ERROR = 4.44184 REDUCTION OF VARIANCE = .87801 STD. DEV. OF PND. 12.71763

RIC MAX = -124.2848 + .3574 X YR MAX + .4006 X BOS MIN + .0496 X 45/075 THK +

SYR MAX R= .94004 STANDARD ERROR = 4.31359 REDUCTION OF VARIANCE = .88367 STD. DEV. OF PND. 12.64711

SYR MAX = -199.2992 + .0558 X 45/075 THK + .2919 X GRR MAX + .2952 X SYR MIN + .0218 X 40/070 HGT +

BUF MAX R= .94627 STANDARD ERROR = 4.00171 REDUCTION OF VARIANCE = .89542 STD. DEV. OF PND. 12.37423

BUF MAX = -254.1271 + .0577 X 45/075 THK + .2029 X IND MAX + .0508 X 45/085 THK + .0393 X 40/080 HGT +
-.0357 X 45/085 HGT + -.0894 X DAY OF YR +

DET MAX R= .94541 STANDARD ERROR = 3.95359 REDUCTION OF VARIANCE = .89380 STD. DEV. OF PND. 12.13167

DET MAX = -232.1276 + .0696 X 45/085 THK + .2324 X PIA MAX + -.1101 X DAY OF YR + .0374 X 40/080 THK +

ENT MAX R= .93984 STANDARD ERROR = 4.25583 REDUCTION OF VARIANCE = .88331 STD. DEV. OF PND. 12.45835

ENT MAX = -212.7527 + .0974 X 45/085 THK + .3038 X CHI MAX + -.0943 X DAY OF YR +

GRR MAX R= .93553 STANDARD ERROR = 4.26121 REDUCTION OF VARIANCE = .87522 STD. DEV. OF PND. 12.06317

GRR MAX = -199.6102 + .0934 X 45/085 THK + .2694 X MLI MAX + -.0964 X DAY OF YR +

MKE MAX R= .93567 STANDARD ERROR = 4.53109 REDUCTION OF VARIANCE = .87548 STD. DEV. OF PND. 12.84067

MKE MAX = -265.9056 + .0737 X 45/085 THK + .2338 X MLI MAX + .0442 X 45/095 THK + -.1044 X DAY OF YR +

GRB MAX R= .94038 STANDARD ERROR = 4.29679 REDUCTION OF VARIANCE = .88431 STD. DEV. OF PND. 12.63263

GRB MAX = -191.1127 + .0639 X 45/085 THK + .1432 X FAR MAX + -.1190 X DAY OF YR + .0285 X 45/095 THK +
.1924 X GRB MIN +

MSN MAX R= .93464 STANDARD ERROR = 4.77394 REDUCTION OF VARIANCE = .87355 STD. DEV. OF PND. 13.42503

MSN MAX = -270.7444 + .2393 X MLI MAX + .0650 X 45/095 THK + .0573 X 45/085 THK + -.1312 X DAY OF YR +

ACK MAX R= .91099 STANDARD ERROR = 3.68388 REDUCTION OF VARIANCE = .82990 STD. DEV. OF PND. 8.93215

ACK MAX = -111.2431 + .3295 X BOS MIN + .0616 X 40/070 THK + -.0863 X DAY OF YR +

BOS MAX R= .91237 STANDARD ERROR = 4.64450 REDUCTION OF VARIANCE = .83242 STD. DEV. OF PND. 11.34575

BOS MAX = -146.4450 + .4808 X BOS MIN + .2454 X DET MAX + .0279 X 35/065 HGT + .0286 X 45/065 THK +

HFD MAX R= .90440 STANDARD ERROR = 5.10080 REDUCTION OF VARIANCE = .81795 STD. DEV. OF PND. 11.95468

HFD MAX = 7.9436 + .6903 X BOS MIN + .3410 X DET MAX +

ALB MAX R= .92982 STANDARD ERROR = 4.40440 REDUCTION OF VARIANCE = .86456 STD. DEV. OF PND. 11.96775

ALB MAX = -89.6175 + .5205 X BOS MIN + .2942 X ENT MAX + .0366 X 45/075 THK +

NYC MAX R= .92181 STANDARD ERROR = 4.26048 REDUCTION OF VARIANCE = .84973 STD. DEV. OF PND. 10.99068

NYC MAX = -77.6324 + .4660 X BOS MIN + .2948 X IND MAX + .0339 X 40/070 THK +

PHL MAX R= .92191 STANDARD ERROR = 4.49917 REDUCTION OF VARIANCE = .84881 STD. DEV. OF PND. 11.57088

PHL MAX = -75.0720 + .5561 X NYC MIN + .2801 X IND MAX + .0317 X 40/070 THK +

IPT MAX R= .92577 STANDARD ERROR = 4.18658 REDUCTION OF VARIANCE = .85742 STD. DEV. OF PND. 11.08728

IPT MAX = 6.4710 + .6965 X MXC MIN + .1860 X MSN MAX + .1797 X CMH MAX +

PIT MAX R= .93956 STANDARD ERROR = 4.58039 REDUCTION OF VARIANCE = .88278 STD. DEV. OF PND. 13.37830

PIT MAX = -313.0205 + .1210 X 40/080 THK + .3112 X PIA MAX +

CLE MAX R= .94380 STANDARD ERROR = 4.36761 REDUCTION OF VARIANCE = .89076 STD. DEV. OF PND. 13.21460

CLE MAX = -323.6507 + .0729 X 40/080 THK + .2973 X PIA MAX + .0527 X 45/085 THK +

CMH MAX R= .93872 STANDARD ERROR = 4.51484 REDUCTION OF VARIANCE = .88120 STD. DEV. OF PND. 13.38924

CMH MAX = -323.6329 + .0818 X 40/080 THK + .3283 X PIA MAX + .0431 X 40/090 THK +

DAY MAX R= .94255 STANDARD ERROR = 4.43220 REDUCTION OF VARIANCE = .88840 STD. DEV. OF PND. 13.26761

DAY MAX = -340.2982 + .0695 X 40/080 THK + .0612 X 40/090 THK + .2978 X PIA MAX +

CVG MAX R= .93917 STANDARD ERROR = 4.55019 REDUCTION OF VARIANCE = .88205 STD. DEV. OF PND. 13.24889

CVG MAX = -355.5721 + .0685 X 40/080 THK + .0685 X 40/090 THK + .2645 X STL MAX +

IND MAX R= .93708 STANDARD ERROR = 4.81383 REDUCTION OF VARIANCE = .87813 STD. DEV. OF PND. 13.78913

IND MAX = -317.8042 + .0909 X 40/090 THK + .3488 X PIA MAX + .0421 X 45/085 THK +

CHT MAX R= .92834 STANDARD ERROR = 4.99756 REDUCTION OF VARIANCE = .86181 STD. DEV. OF PND. 13.44388

CHT MAX = -200.7666 + .0792 X 40/090 THK + .3100 X MLT MAX + .2397 X DLH MIN +

PIA MAX R= .93874 STANDARD ERROR = 4.83551 REDUCTION OF VARIANCE = .88123 STD. DEV. OF PND. 14.03095

PIA MAX = -299.8807 + .0938 X 40/090 THK + .2504 X MLT MAX + .0373 X 45/095 THK + -.1183 X DAY OF YR +

MLT MAX R= .93895 STANDARD ERROR = 4.95301 REDUCTION OF VARIANCE = .88164 STD. DEV. OF PND. 14.39652

MLT MAX = -307.7080 + .0640 X 45/095 THK + .2516 X MLT MAX + .0716 X 40/090 THK + -.1323 X DAY OF YR +

STL MAX R= .92909 STANDARD ERROR = 5.19110 REDUCTION OF VARIANCE = .86320 STD. DEV. OF PND. 14.03517

STL MAX = -303.6829 + .0866 X 40/090 THK + .2222 X TOP MAX + .2642 X STL MIN + .0302 X 40/100 THK +

CBT MAX R= .91597 STANDARD ERROR = 5.79509 REDUCTION OF VARIANCE = .83901 STD. DEV. OF PND. 14.44306

CBT MAX = -420.8142 + .0884 X 40/090 THK + .0709 X 40/100 THK + .2845 X TOP MAX +

Northeast Min

HGT: (700MB HEIGHT) IN METERS THK: (700MB HEIGHT - 1000MB HEIGHT) IN METERS. MAX, MIN: TEMPERATURES IN DEGREES FAHRENHEIT.

CAR MIN R= .88980 STANDARD ERROR = 6.40373 REDUCTION OF VARIANCE = .79174 STD. DEV. OF PND. 14.03227

CAR MIN = -190.5698 + .0718 X 50/070 THK + .3137 X QB MIN + .2578 X YB MIN +

SSM MIN R= .87869 STANDARD ERROR = 6.21114 REDUCTION OF VARIANCE = .77210 STD. DEV. OF PND. 13.01052

SSM MIN = -215.7832 + .4889 X SSM MIN + .0823 X 50/090 THK +

PWM MIN R= .87967 STANDARD ERROR = 5.81225 REDUCTION OF VARIANCE = .77382 STD. DEV. OF PND. 12.22125

PWM MIN = -141.9838 + .0480 X 45/075 THK + .3496 X PWM MIN + .0227 X 40/060 HGT + .2593 X SSM MIN +
-.0175 X 45/085 HGT +

BTV MIN R= .88989 STANDARD ERROR = 6.23702 REDUCTION OF VARIANCE = .79190 STD. DEV. OF PND. 13.67219

BTV MIN = -35.1943 + .1346 X YB MIN + .0175 X 45/075 THK + .2601 X BTV MIN + .3664 X SSM MIN +
-.0245 X 45/095 HGT + .0223 X 45/065 HGT +

SYR MIN R= .88850 STANDARD ERROR = 5.48562 REDUCTION OF VARIANCE = .78943 STD. DEV. OF PND. 11.95448

SYR MIN = -122.3768 + .2937 X SSM MIN + .3234 X SYR MIN + .0541 X 45/085 THK + -.0256 X 45/085 HGT +
.0193 X 40/070 HGT +

BUF MIN R= .89233 STANDARD ERROR = 4.95022 REDUCTION OF VARIANCE = .79626 STD. DEV. OF PND. 10.96692

BUF MIN = -160.1161 + .0631 X 45/085 THK + .2473 X BUF MIN + .2520 X SSM MIN +

DET MIN R= .90150 STANDARD ERROR = 4.64733 REDUCTION OF VARIANCE = .81270 STD. DEV. OF PND. 10.73840

DET MIN = -159.1794 + .0617 X 45/085 THK + .3102 X DET MIN + .2193 X MKC MIN +

FNT MIN R= .87341 STANDARD ERROR = 5.74074 REDUCTION OF VARIANCE = .76284 STD. DEV. OF PND. 11.78828

FNT MIN = -177.2856 + .0689 X 45/085 THK + .3377 X FNT MIN + .1293 X INL MIN +

GRR MIN R= .86511 STANDARD ERROR = 5.51406 REDUCTION OF VARIANCE = .74841 STD. DEV. OF PND. 10.99320

GRR MIN = -151.9114 + .0599 X 45/085 THK + .3149 X GRR MIN + .1739 X FAR MIN +

MKE MIN R= .89922 STANDARD ERROR = 5.49520 REDUCTION OF VARIANCE = .80860 STD. DEV. OF PND. 12.56053

MKE MIN = -104.3091 + .2904 X MKE MIN + .0636 X 45/095 THK + .2757 X MSP MIN + -.0203 X 40/110 HGT +

GRB MIN R= .89515 STANDARD ERROR = 6.04576 REDUCTION OF VARIANCE = .80129 STD. DEV. OF PND. 13.56246

GRB MIN = -33.6200 + .3532 X GRB MIN + .0590 X 45/095 THK + .1923 X FAR MIN + -.0282 X 40/110 HGT +
-.1048 X DAY OF YR +

MSN MIN R= .88663 STANDARD ERROR = 6.20694 REDUCTION OF VARIANCE = .78611 STD. DEV. OF PND. 13.42098

MSN MIN = -102.7625 + .0646 X 45/095 THK + .3522 X MSN MIN + .2348 X FAR MIN + -.0223 X 40/110 HGT +

ACK MIN R= .87203 STANDARD ERROR = 4.68213 REDUCTION OF VARIANCE = .76043 STD. DEV. OF PND. 9.56604

ACK MIN = -112.2892 + .0421 X 45/075 THK + .2373 X ACK MIN + .0199 X 40/060 HGT + .2094 X SSM MIN +
-.0146 X 40/090 HGT +

BOS MIN R= .90781 STANDARD ERROR = 4.42833 REDUCTION OF VARIANCE = .82412 STD. DEV. OF PND. 10.55925

BOS MIN = -159.8653 + .0454 X 45/075 THK + .2571 X BOS MIN + .2620 X SSM MIN + .0171 X 40/060 HGT +

HFD MIN R= .87439 STANDARD ERROR = 5.60416 REDUCTION OF VARIANCE = .76456 STD. DEV. OF PND. 11.54970

HFD MIN = -121.7868 + .0443 X 45/075 THK + .3184 X HFD MIN + .3124 X DET MIN + .0292 X 40/070 HGT +
-.0270 X 40/080 HGT +

ALB MIN R= .86909 STANDARD ERROR = 6.16747 REDUCTION OF VARIANCE = .75532 STD. DEV. OF PND. 12.46833

ALB MIN = -135.8331 + .0520 X 45/075 THK + .3746 X SYR MIN + .2556 X SSM MIN +

NYC MIN R= .91339 STANDARD ERROR = 4.10281 REDUCTION OF VARIANCE = .83428 STD. DEV. OF PND. 10.07855

NYC MIN = -132.1455 + .3094 X DET MIN + .2080 X YR MIN + .0396 X 40/080 THK + .0141 X 40/060 HGT +

PHL MIN R= .88626 STANDARD ERROR = 4.55386 REDUCTION OF VARIANCE = .78546 STD. DEV. OF PND. 9.83155

PHL MIN = -7.7277 + .0837 X PIT MIN + .1559 X SSM MIN + .0225 X 40/070 HGT + .2414 X PHL MIN +
.2504 X DAY MIN + -.0162 X 40/090 HGT +

IPT MIN R= .86775 STANDARD ERROR = 5.34921 REDUCTION OF VARIANCE = .75298 STD. DEV. OF PND. 10.76282

IPT MIN = -88.7129 + .3290 X CMH MIN + .2393 X SSM MIN + .2138 X ALB MIN + .0369 X 40/080 THK +
-.1692 X ROA MAX +

PIT MIN R= .88976 STANDARD ERROR = 5.19134 REDUCTION OF VARIANCE = .79167 STD. DEV. OF PND. 11.37375

PIT MIN = -184.8605 + .4745 X IND MIN + .0543 X 45/085 THK + .0163 X 40/070 HGT +

CLE MIN R= .89866 STANDARD ERROR = 5.00604 REDUCTION OF VARIANCE = .80758 STD. DEV. OF PND. 11.41228

CLE MIN = -143.8864 + .3619 X PIA MIN + .0564 X 45/085 THK + .2025 X CLE MIN +

CMH MIN R= .88409 STANDARD ERROR = 5.60448 REDUCTION OF VARIANCE = .78162 STD. DEV. OF PND. 11.99311

CMH MIN = -39.5389 + .4378 X IND MIN + .0409 X 45/085 THK + .2534 X MKC MIN + -.0220 X 40/100 HGT +

DAY MIN R= .89646 STANDARD ERROR = 5.35637 REDUCTION OF VARIANCE = .80363 STD. DEV. OF PND. 12.08754

DAY MIN = -182.0009 + .2976 X PIA MIN + .0687 X 40/090 THK + .2473 X DAY MIN +

CVG MIN R= .89170 STANDARD ERROR = 5.34878 REDUCTION OF VARIANCE = .79513 STD. DEV. OF PND. 11.81718

CVG MIN = -171.6818 + .4005 X PIA MIN + .0700 X 40/090 THK + .0166 X 40/070 HGT + -.0192 X 40/100 HGT +

IND MIN R= .87847 STANDARD ERROR = 5.03119 REDUCTION OF VARIANCE = .77171 STD. DEV. OF PND. 12.20430

IND MIN = -195.7231 + .4672 X PIA MIN + .0741 X 40/090 THK +

CHI MIN R= .88977 STANDARD ERROR = 5.99828 REDUCTION OF VARIANCE = .79169 STD. DEV. OF PND. 13.14217

CHI MIN = -87.4528 + .4170 X CHI MIN + .0633 X 45/095 THK + -.0258 X 40/110 HGT + .2064 X HON MIN +

PIA MIN R= .90386 STANDARD ERROR = 5.45263 REDUCTION OF VARIANCE = .81697 STD. DEV. OF PND. 12.74514

PIA MIN = -112.9523 + -.1152 X CBI MIN + .0676 X 45/095 THK + -.0223 X 40/110 HGT + .4016 X MKC MIN + .3140 X PIA MIN +

MLI MIN R= .89838 STANDARD ERROR = 5.86810 REDUCTION OF VARIANCE = .80709 STD. DEV. OF PND. 13.36052

MLI MIN = -125.9735 + .0726 X 45/095 THK + .3574 X MLI MIN .2261 X HON MIN + -.0214 X 40/110 HGT +

STL MIN R= .90671 STANDARD ERROR = 4.90961 REDUCTION OF VARIANCE = .82213 STD. DEV. OF PND. 11.64103

STL MIN = -148.8574 + .3319 X CBI MIN + .0542 X 45/095 THK + -.0201 X 40/110 HGT + .0249 X 35/085 HGT + .1773 X HON MIN +

CBI MIN R= .89477 STANDARD ERROR = 5.48651 REDUCTION OF VARIANCE = .80061 STD. DEV. OF PND. 12.28689

CBI MIN = -272.1152 + .0754 X 45/095 THK + .4372 X MKC MIN + .0248 X 35/085 HGT +

(Continued from inside front cover)

WBTM TDL 16 Objective Visibility Forecasting Techniques Based on Surface and Tower Observations. Donald M. Gales, October 1968. (PB-180 479)

WBTM TDL 17 Second Interim Report on Sea and Swell Forecasting. N. A. Pore and Lt. W. S. Richardson, USESSA, January 1969. (PB-182 273)

WBTM TDL 18 Conditional Probabilities of Precipitation Amounts in the Conterminous United States. Donald L. Jorgensen, William H. Klein, and Charles F. Roberts, March 1969. (PB-183 144)

WBTM TDL 19 An Operationally Oriented Small-Scale 500-Millibar Height Analysis. Harry R. Glahn and George W. Hollenbaugh, March 1969.

WBTM TDL 20 A Comparison of Two Methods of Reducing Truncation Error. Robert J. Bermowitz, May 1969. (PB-184 741)

WBTM TDL 21 Automatic Decoding of Hourly Weather Reports. George W. Hollenbaugh, Harry R. Glahn, and Dale A. Lowry, July 1969. (PB-185 806)

WBTM TDL 22 An Operationally Oriented Objective Analysis Program. Harry R. Glahn, George W. Hollenbaugh, and Dale A. Lowry, July 1969.

WBTM TDL 23 An Operational Subsynoptic Advection Model. Harry R. Glahn, Dale A. Lowry, and George W. Hollenbaugh, July 1969.

WBTM TDL 24 A Lake Erie Storm Surge Forecasting Technique. William S. Richardson and N. Arthur Pore, August 1969. (PB -185 778)

WBTM TDL 25 Charts Giving Station Precipitation in the Plateau States From 850- and 500-Millibar Lows During Winter. August F. Korte, Donald L. Jorgensen, and William H. Klein, September 1969.