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# NOAA Technical Memorandum NWS FCST-17

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service



## National Weather Service May 1970—April 1971 Public Forecast Verification Summary

ROBERT G. DEROUIN AND GERALDINE F. COBB

Office of  
Meteorological  
Operations  
  
Weather Analysis  
and Prediction  
Division

SILVER SPRING, MD.

March 1972



## MEMORANDA

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- WBTM FCST 8 Recent Trends in the Accuracy and Quality of Weather Bureau Forecasting Service. Charles F. Roberts and John M. Porter, November 1967. (PB-176 953)
- WBTM FCST 9 Report on the Forecast Performance of Selected Weather Bureau Offices for 1966-1967. C. F. Roberts, J. M. Porter, and G. F. Cobb, December 1967. (PB-177 043)
- WBTM FCST 10 Size of Tornado Warning Area When Issued on Basis of Radar Hook Echo. Alexander Sadowski, May 1969. (PB-184 613)

(Continued on inside back cover)

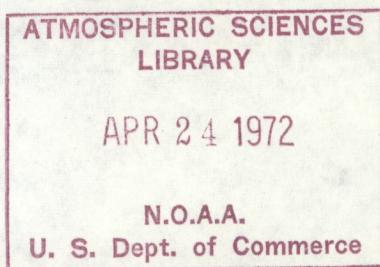
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" VERIFICATION SUMMARY

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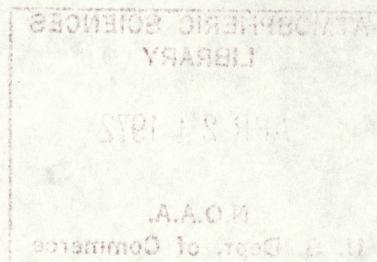
Office of Meteorological Operations  
Weather Analysis and Prediction Division

SILVER SPRING, MD.  
March 1972

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.5 Forecast verification  
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NATIONAL WEATHER SERVICE MAY 1970-APRIL 1971 PUBLIC  
FORECAST VERIFICATION SUMMARY

Robert G. Derouin and Geraldine F. Cobb

ABSTRACT

Performance scores for May 1970-April 1971 of guidance from the National Meteorological Center (NMC), State forecasts (FPs) from the Weather Service Forecast Offices (WSFOs), and local forecasts from the Weather Service Offices (WSOs) are summarized. The small improvement by succeeding echelons is evident again, and most showed better scores than previous years. NMC had the best resolution for the second and third period precipitation forecasts. All echelons had a small bias of underforecasting temperatures for all periods. It is likely the improvement resulted, in part, from a change in the precipitation criteria in the primitive equation (PE) model, and from the new NMC objective temperature forecasts. Scores for individual stations and FP/NMC areas are provided so that local comparisons can be made in relation to the national level of like scores.

1. INTRODUCTION

A number of changes were made in the annual summary for this year. Philadelphia and Indianapolis became WSFOs while the number of WSOs in the local program decreased nationally. Summer and winter were changed from April-September and October-March to May-October and November-April, respectively, to coincide more closely with the convective and non-convective seasons. To help overcome the dry bias of the PE model, precipitation was allowed to occur at a relative humidity of 90% rather than 100%. This change was made in September 1970 (Technical Procedures Bulletin No. 55, 1970). Finally, NMC temperature guidance was provided entirely by computer forecasts beginning in April 1970 (Klein et al. 1969 and 1971). The rest of the verification program remained the same as two forecasts per day (based on the 0600Z and 1800Z surface maps) for three 12-hour periods (from 1200Z and 0000Z) were verified. These forecasts were stratified according to forecast period, WSFO area, and National Weather Service region. Complete information on the verification program is contained in the 1966 annual summary (Roberts et al. 1967).

2. ANALYSIS OF THE VERIFICATION DATA

The data for 1970-71 were analyzed to try and answer questions such as these:

- a. How did scores of individual WSOs (those in the FP and/or local programs) and WSFO/NMC areas (representing 3 to 5

stations averaged together) compare with the overall or national level of like scores?

- b. How did the performance of newly established WSFOs compare with older WSFOs?
- c. What is the national level (Alaska not included) of skill in present-day precipitation and temperature forecasts?
- d. What skill is contributed to the public forecast by each of the forecast echelons?

Stations in each WSFO/NMC area are shown in figure 1, while the measures and statistics of forecast errors are shown in table 1. All scores are summarized in the appendix. In using the scores it should be kept in mind that NMC temperature guidance was for the calendar day minimum and maximum and not, as is the case for precipitation guidance, for standard 12-hour periods. In most of the regions in the conterminous United States, the observed minimum (maximum) temperatures occur (or very nearly occur) in the 0000Z-1200Z (1200Z-0000Z) periods. An exception is the Western Region where many minimum temperatures occur after 1200Z. Thus, the verification of NMC temperatures in this region may show a larger bias than would normally be expected.

### 3. SCORES WITHIN ECHELONS

Last year's annual report (Derouin et al. 1971) showed detailed plottings of precipitation frequencies versus Brier Scores, and mean absolute temperature errors versus mean 24-hour temperature variabilities for the previous two summer and winter seasons. Quadratic curves given by  $B=A PF(1-PF)$ , and regression lines by  $\hat{TE}=A_0+A_1 TV$  were fit to the precipitation and temperature samples, respectively. By using these plottings and performance data from the appendix, NMC and individual stations could check their skill on a national level. Values above (below) the curves and/or regression lines indicated less (more) than average skill.

This year's report contains similar performance scores. Although plottings are not provided, they can be constructed easily by using the necessary data on pages 16 through 77. Stations are urged to conduct onstation studies using these data and also the data from the last year's report. Such studies, besides showing the relative ranking of the station, could lead to forecast improvement if a bias is found and efforts are made to eliminate it.

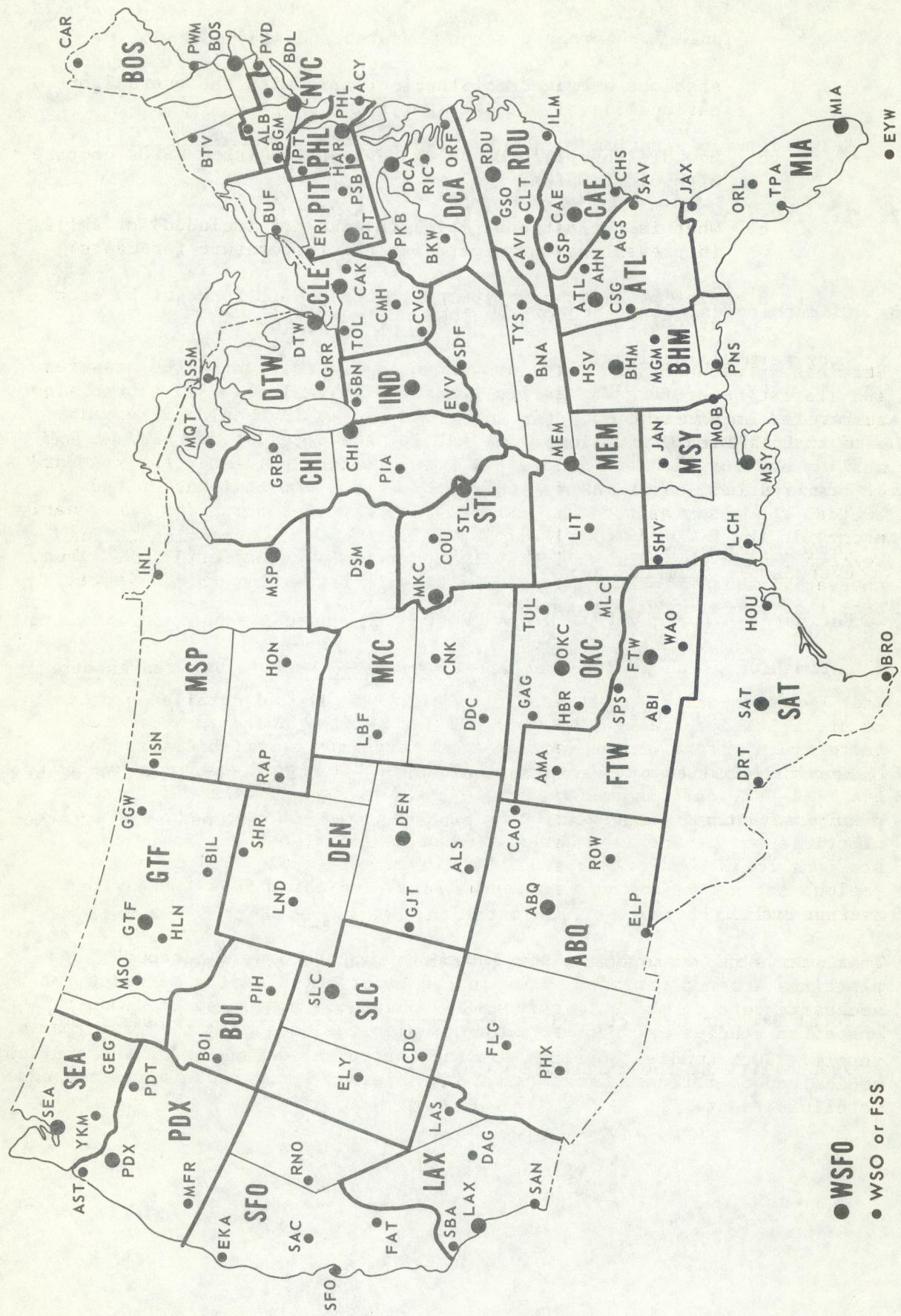


Figure 1.--Stations involved in forecast verification.

Table 1.--Forecast error measures and statistics

Precipitation

1. Relative Precipitation Frequency:  $PF = \frac{\text{Total Precipitation Cases}}{\text{Total Forecasts}}$
2. Brier Score:  $B = \frac{1}{F} \sum_{i=1}^F (F_i - O_i)^2$ ,  $O_i = 0$  or  $1$  and  $F =$  total forecasts.
3. Climatological Brier Score:  $BC = \frac{1}{F} \sum_{i=1}^F (C_L - O_i)^2$  where  $C_L$  is long term climatology.
4. Percent Improvement of Brier Score over Long Term Climatology:  $S = \frac{BC - B}{BC} \times 100$
5. Sample Brier Score:  $BS = PF(1 - PF)$
6. Percent Improvement of Brier Score over Sample Climatology:  $SS = \frac{BS - B}{BS} \times 100$
7. Estimated B for any PF:  $\hat{B} = A PF(1 - PF)$  where  $A$  = quadratic constant estimation given by least square estimate  $\frac{\overline{BS B}}{(BS)^2}$  (a bar represents an average over the sample).
8. Mean Probability of Precipitation:  $MP = \frac{1}{P} \sum_{i=1}^P F_i^P$  where  $P$  = the number of precipitation cases and  $F_i^P$  = probability forecast when precipitation was observed.
9. Mean Probability of No Precipitation:  $MN = \frac{1}{F-P} \sum_{i=1}^{F-P} F_i^N$  where  $F_i^N$  = the probability forecast when precipitation was not observed.
10. Total Percent Correct:  $PC = \frac{\text{Number of Correct Forecasts}}{\text{Total Number of Forecasts}}$  using .50 probability as the threshold value.

Table 1. Forecast error measures and statistics--continued

Temperature

1. Mean Absolute Forecast Error:  $TE = \frac{1}{N} \sum_{i=1}^N |T_F - T_0|$  where N = number of forecasts.

2. Mean Algebraic Forecast Error:  $TG = \frac{1}{N} \sum_{i=1}^N (T_F - T_0)$

3. Mean Absolute 24-Hour Temperature Variability:  $TV = \frac{1}{M} \sum_{i=1}^M |T_0 - T_{0+1}|$

4. Percent Improvement of Mean Absolute Forecast Error over Mean 24-Hour Temperature Variability:  $TC = \frac{TV - TE}{TV} \times 100$

5. Estimated TE for any TV:  $\hat{TE} = A_0 + A_1 TV$  where  $A_0$  and  $A_1$  = regression constants.

6. Mean Absolute Forecast Error When TV Exceeds 10 Degrees:  $TM = \text{sum of mean absolute temperature errors when 24-hour observed temperature changes exceed 10 degrees, divided by the number of such errors.}$

7. Percent Temperature Errors in Classes:

$T_1 = \text{Less than 6 degrees} = (\text{number of 0- to 5-degree temperature errors}) / (\text{total number of temperature forecasts})$

$T_2 = \text{6-10 degrees} = (\text{number of 6- to 10-degree temperature errors}) / (\text{total number of temperature forecasts})$

$T_3 = \text{11-15 degrees} = (\text{number of 11- to 15-degree temperature errors}) / (\text{total number of temperature forecasts})$

$T_4 = \text{Greater than 15 degrees} = (\text{number of greater-than-15-degree temperature errors}) / (\text{total number of temperature forecasts})$

## 4. NATIONAL SCORES BY ECHELONS

## 4.1 For 1970-71

The 1970-71 scores on a national level (pages 78 through 89 of the appendix) indicate that each succeeding echelon improved slightly over its guidance. An exception was the set of third period forecasts for summer. The results for this year differ little from previous years as the largest improvements occurred in the first period, during winter. Figures 2 and 3 show the echelon performance (using NMC as base) for precipitation and temperature forecasts, respectively. Each echelon made about the same number of forecasts except that NMC made 5% fewer for temperatures. This imbalance occurred because our summary included all FP stations even though a few of them did not receive NMC temperature guidance.

Tables 2 and 3 show that probability forecasts had the poorest resolution during the summer and temperature forecasts the largest bias during the winter. It is interesting to note that 1) succeeding echelon improvement in resolution was evident beyond the first period for dry days only, and 2) that all echelons had a small bias of underforecasting temperatures all periods.

## 4.2 From 1966 to 1971

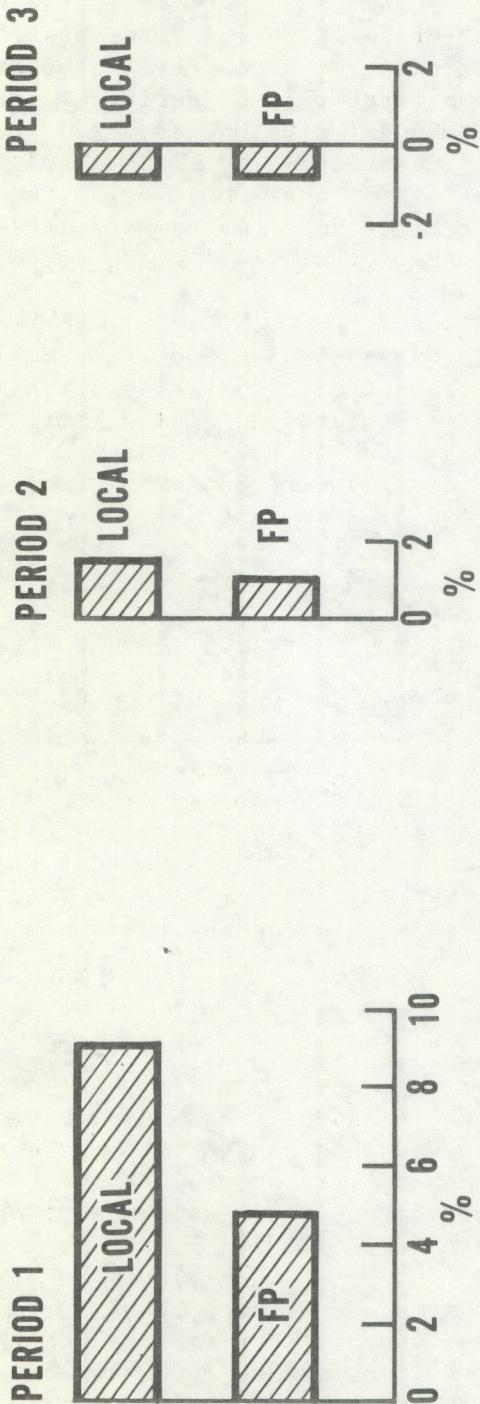
The national comparisons of the echelons since 1966 are shown in figures 4 and 5 for the total correct (precipitation and no precipitation) forecasts, and mean absolute temperature errors. Most of the echelons had better scores in 1970-71 than in previous years. (The data for the latter year were for May-April while those for previous years were for April-March. It is felt, however, that this slight discrepancy is not significant when comparing performances on a national level over the five years). It is likely that the improvement for the total correct forecasts was due in part to the change in the precipitation criteria in the PE model. Since temperature forecasts were not affected by this change, the small improvement shown by NMC was probably the result of the new objective temperature scheme.

## 5. SUMMARY AND CONCLUSIONS

Scores for individual stations and FP/NMC areas have now been provided for three years. Stations are urged to use this sample to compare their performance in relation to national level of like scores. These comparisons could lead to forecast improvement if a bias is found and onstation attempts are made to eliminate it.

The 1970-71 data show, as in previous years, forecast improvement on a national level by succeeding echelons. Probability forecasts had the poorest resolution during the summer, and temperature forecasts the largest bias during the winter. The echelons showed improvement in resolution beyond the first period for dry days only, and had a small bias of underforecasting temperatures all periods. Most of the echelons

MAY - OCTOBER 1970



NOVEMBER 1970 - APRIL 1971

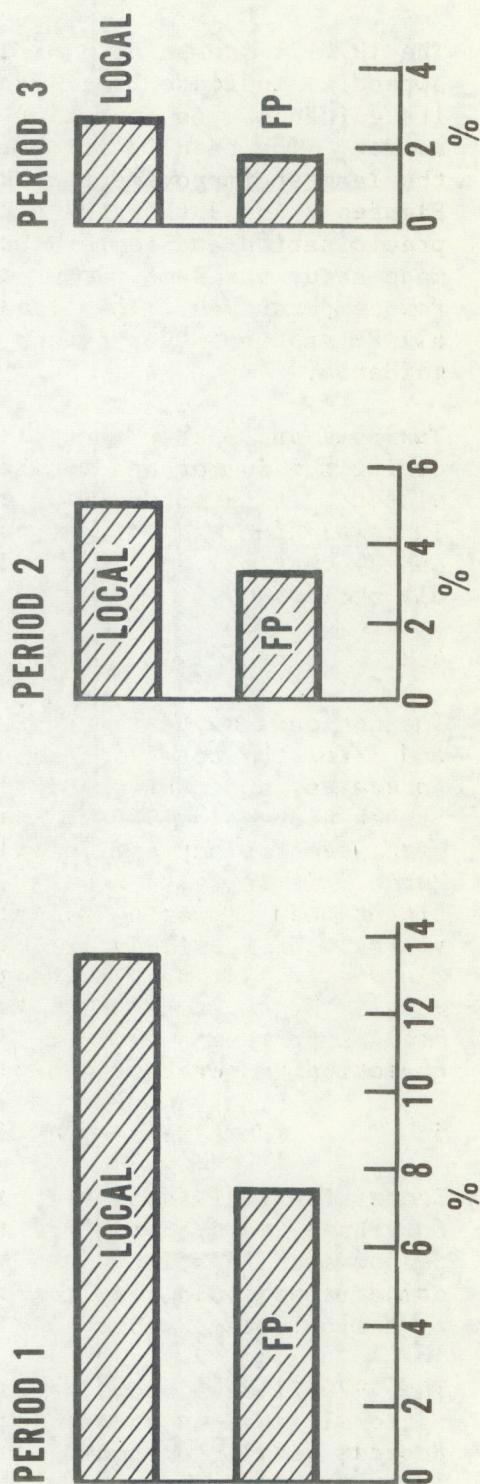
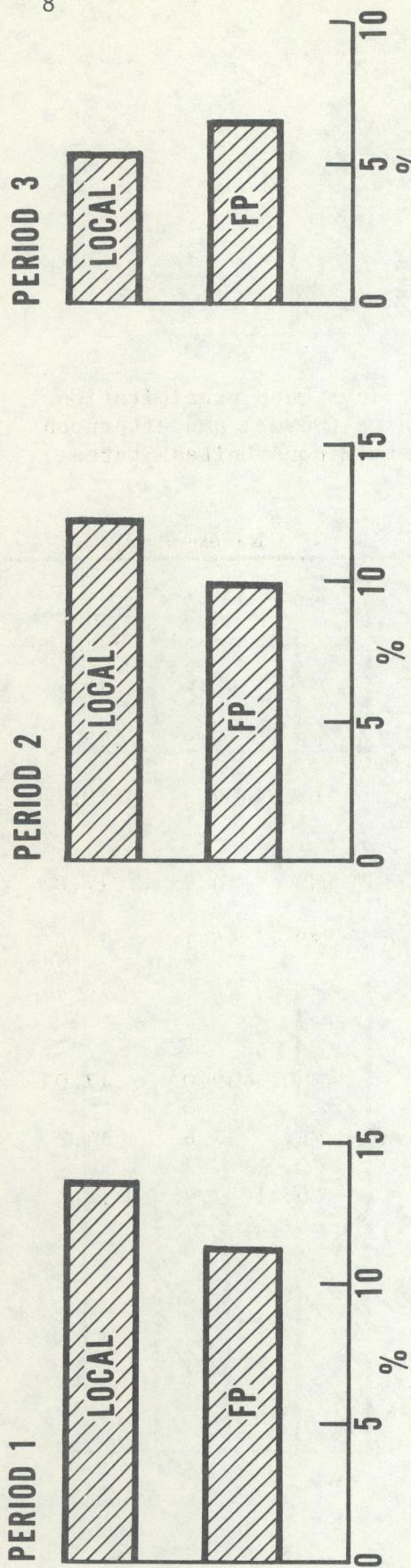


Figure 2.-- Difference between echelon and NMC (echelon minus NMC) in percent improvement of Brier Score over Climatological Brier Score. Morning (0600Z) and afternoon (1800Z) forecasts were averaged over the conterminous United States.

MAY - OCTOBER 1970



NOVEMBER 1970 - APRIL 1971

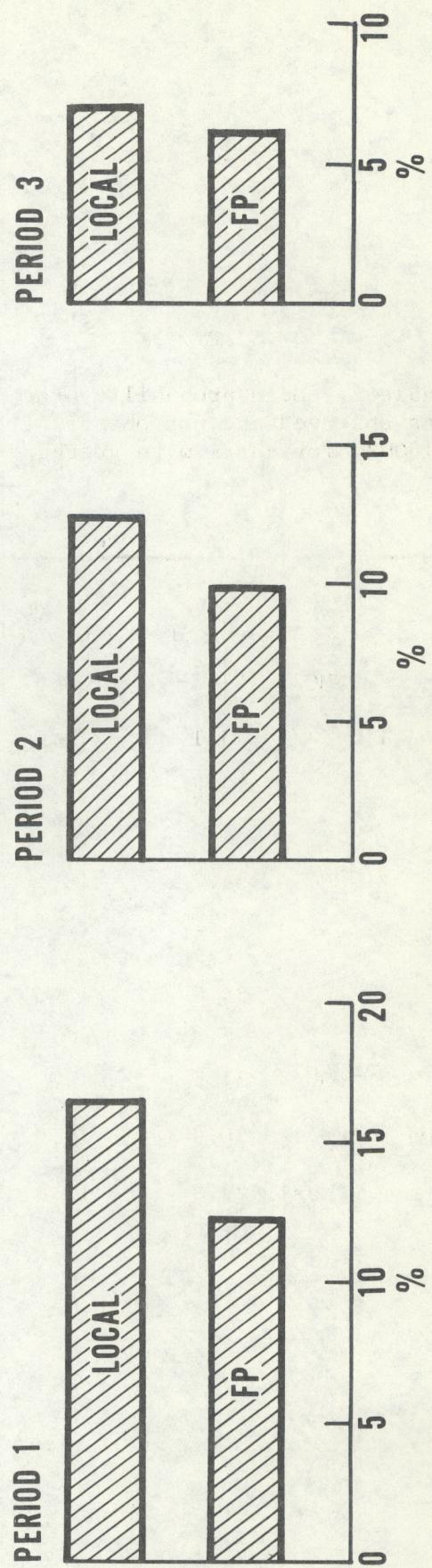


Figure 3.--Difference between echelon and NMC (echelon minus NMC) in percent improvement of mean temperature error over 24-hour temperature variability. Morning (0600Z) and afternoon (1800Z) forecasts were averaged over the conterminous United States.

Table 2.--Mean probability forecasts (%) for days when precipitation was observed and not observed 1970-71. Morning (0600Z) and afternoon (1800Z) forecasts were averaged over the conterminous United States

| May-October |       |          |              | November-April |       |          |              |
|-------------|-------|----------|--------------|----------------|-------|----------|--------------|
|             |       | Observed | Not Observed |                |       | Observed | Not Observed |
| Period 1    | NMC   | 42.1     | 16.3         | Period 1       | NMC   | 49.2     | 15.7         |
|             | FP    | 43.1     | 14.0         |                | FP    | 52.9     | 12.6         |
|             | Local | 45.6     | 12.4         |                | Local | 57.2     | 10.7         |
|             | NMC   | 36.2     | 16.1         | Period 2       | NMC   | 44.3     | 17.0         |
|             | FP    | 35.5     | 14.2         |                | FP    | 44.1     | 14.0         |
|             | Local | 35.8     | 13.0         |                | Local | 44.7     | 12.5         |
| Period 3    | NMC   | 31.5     | 15.5         | Period 3       | NMC   | 39.0     | 17.0         |
|             | FP    | 30.0     | 14.0         |                | FP    | 37.6     | 14.2         |
|             | Local | 29.8     | 12.8         |                | Local | 37.9     | 12.7         |

Table 3.-- Mean algebraic temperature errors ( $^{\circ}$ F) 1970-71. Morning (0600Z) and afternoon (1800Z) forecasts were averaged over the conterminous United States

| May-October |       |      | November-April |       |      |
|-------------|-------|------|----------------|-------|------|
|             | NMC   | -0.3 |                | NMC   | -0.6 |
| Period 1    | FP    | -0.3 | Period 1       | FP    | -0.5 |
|             | Local | -0.2 |                | Local | -0.6 |
|             | NMC   | -0.6 |                | NMC   | -1.0 |
| Period 2    | FP    | -0.4 | Period 2       | FP    | -0.7 |
|             | Local | -0.2 |                | Local | -0.7 |
|             | NMC   | -0.7 |                | NMC   | -0.7 |
| Period 3    | FP    | -0.5 | Period 3       | FP    | -0.8 |
|             | Local | -0.4 |                | Local | -0.7 |

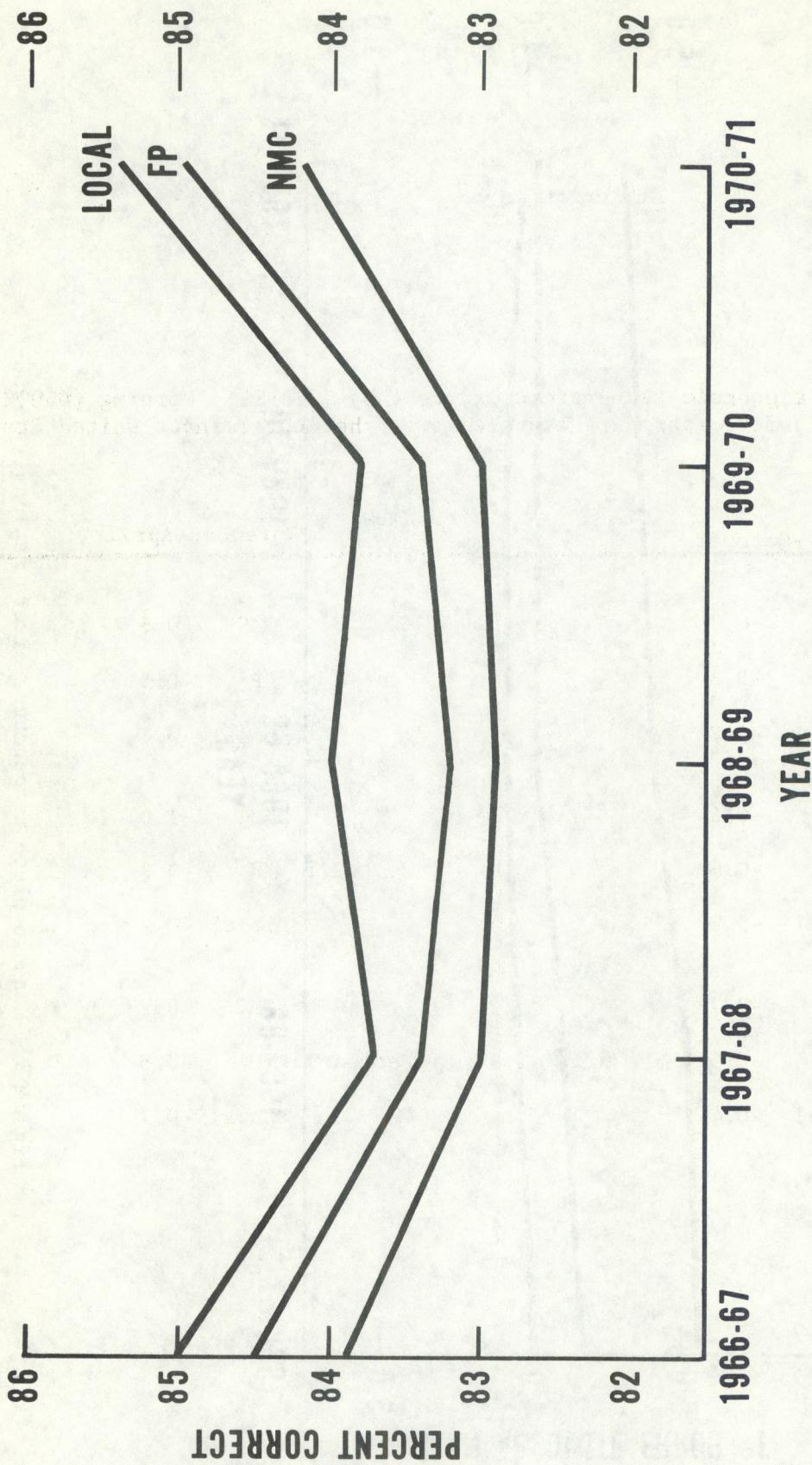


Figure 4.--Total precipitation and no precipitation forecasts correct nationally 1966-71. Morning (0600Z) and afternoon (1800Z) forecasts for all three periods were averaged over the conterminous United States.

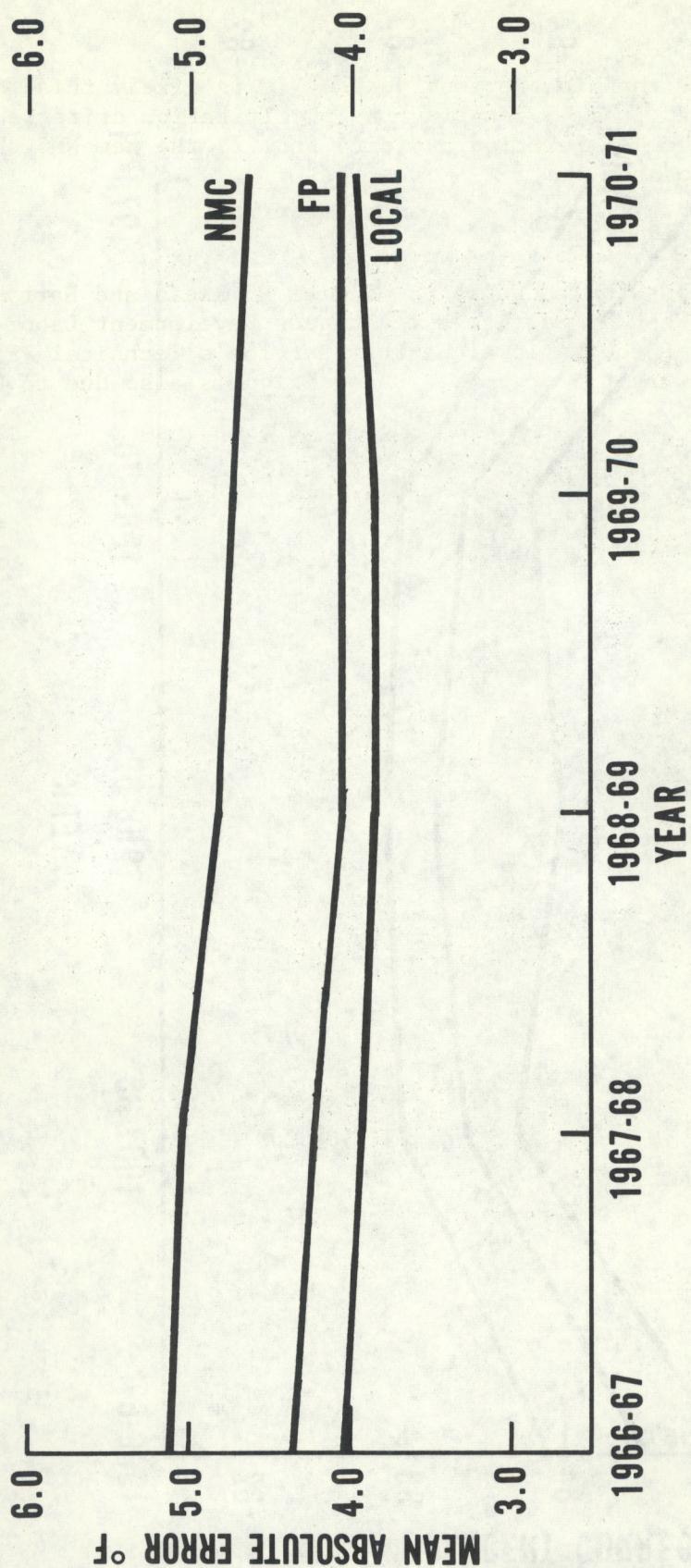


Figure 5.-Mean absolute temperature errors nationally 1966-71. Morning (0600Z) and afternoon (1800Z) forecasts for all three periods were averaged over the conterminous United States.

had better scores than in previous years. It is likely this improvement resulted, in part, from 1) lowering the precipitation criteria in the PE model from 100% to 90% relative humidity and, 2) the new NMC objective temperature forecasts.

#### 6. ACKNOWLEDGMENTS

The authors express their thanks to William H. Klein and Harry R. Glahn of the National Weather Service's Techniques Development Laboratory, and Duane S. Cooley of the National Weather Service's Technical Procedures Branch for reviewing this report. Recognition is also due to Carol A. Peterson and Nora E. Keel for typing the report.

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Klein, W.H., Lewis, F., and Hammons, G.A., "Recent Developments in Automated Max/Min Temperature Forecasting," Journal of Applied Meteorology, Vol. 10, No. 5, October, 1971, pp. 916-920.

Roberts, C.F., Porter, J., and Cobb, G., "Report on the Forecast Performance of Selected Weather Bureau Offices for 1966-67," ESSA Technical Memorandum WBTM FCST -9, December 1967, 52 pp.

National Weather Service, "Latest Change and Summary of Current Procedures in Precipitation Forecasting in the 6-Layer (PE) Numerical Prediction Model," Its Technical Procedures Bulletin No. 55, Silver Spring, Md., October 1970, 9 pp.

## APPENDIX

### CONDENSED SUMMARY OF RESULTS

All pages show data for 0600Z and 1800Z for three periods for summer and winter 1970-71.

Pages 16 through 71 summarize the precipitation frequencies, Brier Scores, mean absolute temperature errors, and mean 24-hour temperature variabilities for NMC, WSFOs, WSFO/NMC areas, and WSOs.

Pages 72 through 77 summarize the constants and correlation coefficients for the precipitation quadratic curves and temperature regression lines.

Pages 78 through 89 summarize the echelon verification data on a regional and national (Alaskan Region is not included) level.

NMC PRECIPITATION FORECASTS MAY 1970 - OCT 1970

EASTERN REGION

| 0600Z SCORES |                          | 1ST PERIOD |   |     |   | 2ND PERIOD |   |     |   | 3RD PERIOD |   |     |   | 1800Z SCORES |   |     |   |
|--------------|--------------------------|------------|---|-----|---|------------|---|-----|---|------------|---|-----|---|--------------|---|-----|---|
| INDEX        | NO.                      | PF         | B | PF  | B | PF         | B | PF  | B | PF         | B | PF  | B | PF           | B | PF  | B |
| 518          | ALBANY, NEW YORK         | 132        |   | 239 |   | 239        |   | 239 |   | 239        |   | 239 |   | 239          |   | 239 |   |
| 509          | BOSTON, MASS.            | 106        |   | 148 |   | 150        |   | 152 |   | 157        |   | 150 |   | 150          |   | 156 |   |
| 502          | BUFFALO, N.Y.            | 293        |   | 255 |   | 255        |   | 183 |   | 140        |   | 136 |   | 136          |   | 139 |   |
| 617          | CARLISLE, V.T.           | 148        |   | 299 |   | 150        |   | 155 |   | 168        |   | 143 |   | 143          |   | 147 |   |
| 712          | CARIBOU, MAINE           | 155        |   | 315 |   | 153        |   | 288 |   | 167        |   | 145 |   | 145          |   | 147 |   |
| 304          | CHARLESTON, S.C.         | 155        |   | 315 |   | 153        |   | 155 |   | 182        |   | 159 |   | 159          |   | 162 |   |
| 314          | CHARLOTTE, N.C.          | 125        |   | 186 |   | 186        |   | 118 |   | 159        |   | 125 |   | 125          |   | 134 |   |
| 304          | CINCINNATI, OHIO         | 180        |   | 169 |   | 169        |   | 118 |   | 159        |   | 119 |   | 119          |   | 119 |   |
| 524          | CLEVELAND, OHIO          | 128        |   | 144 |   | 144        |   | 128 |   | 148        |   | 126 |   | 126          |   | 126 |   |
| 524          | COLUMBUS, OHIO           | 126        |   | 127 |   | 127        |   | 100 |   | 158        |   | 124 |   | 124          |   | 124 |   |
| 341          | CORLEON, N.Y.            | 145        |   | 145 |   | 145        |   | 112 |   | 158        |   | 126 |   | 126          |   | 126 |   |
| 508          | CORLEONSBORO, N.C.       | 145        |   | 145 |   | 145        |   | 112 |   | 158        |   | 126 |   | 126          |   | 126 |   |
| 508          | CARTERTWORTH, CONN.      | 128        |   | 128 |   | 128        |   | 112 |   | 148        |   | 128 |   | 128          |   | 128 |   |
| 503          | CHESTER, PENNSYLVANIA    | 174        |   | 174 |   | 174        |   | 114 |   | 174        |   | 124 |   | 124          |   | 124 |   |
| 308          | CHESAPEAKE BAY, MARYLAND | 134        |   | 134 |   | 134        |   | 103 |   | 174        |   | 124 |   | 124          |   | 124 |   |
| 503          | CHESAPEAKE BAY, VIRGINIA | 152        |   | 98  |   | 98         |   | 100 |   | 134        |   | 122 |   | 122          |   | 122 |   |
| 408          | CHESAPEAKE BAY, PA.      | 152        |   | 154 |   | 154        |   | 110 |   | 134        |   | 122 |   | 122          |   | 122 |   |
| 408          | PHILADELPHIA, PA.        | 154        |   | 154 |   | 154        |   | 110 |   | 134        |   | 122 |   | 122          |   | 122 |   |
| 408          | PITTSBURGH, PA.          | 154        |   | 154 |   | 154        |   | 110 |   | 134        |   | 122 |   | 122          |   | 122 |   |
| 606          | PORTLAND, MAINE          | 174        |   | 134 |   | 134        |   | 114 |   | 174        |   | 122 |   | 122          |   | 122 |   |
| 306          | PORTLAND, N.C.           | 114        |   | 114 |   | 114        |   | 114 |   | 174        |   | 122 |   | 122          |   | 122 |   |
| 401          | RICHMOND, VIRGINIA       | 115        |   | 115 |   | 115        |   | 115 |   | 115        |   | 102 |   | 102          |   | 102 |   |
| 401          | WASHINGTON, D.C.         | 179        |   | 179 |   | 179        |   | 112 |   | 156        |   | 109 |   | 109          |   | 109 |   |
| 514          | WILLINGPORT, PA.         | 112        |   | 112 |   | 112        |   | 112 |   | 156        |   | 109 |   | 109          |   | 109 |   |
| 514          | WILLINGPORT, PA.         | 123        |   | 123 |   | 123        |   | 123 |   | 156        |   | 136 |   | 136          |   | 136 |   |

$PF_B = \text{RELATIVE PRECIPITATION FREQUENCY}$

## NMC PRECIPITATION FORECASTS NOV 1970 - APR 1971

## EASTERN REGION

| INDEX<br>NO. | 0600Z SCORES       |                  |                  | 1800Z SCORES    |                  |                  |
|--------------|--------------------|------------------|------------------|-----------------|------------------|------------------|
|              | 1ST PERIOD<br>PF   | 2ND PERIOD<br>PF | 3RD PERIOD<br>PF | 1ST PERIOD<br>B | 2ND PERIOD<br>PF | 3RD PERIOD<br>PF |
| 518          | ALBANY, NEW YORK   | *263             | *261             | *278            | *111             | *282             |
| 509          | BOSTON, MASS.      | *122             | *276             | *147            | *106             | *141             |
| 521          | BUFFALO, N.Y.      | *122             | *205             | *271            | *276             | *260             |
| 617          | BURLINGTON, V.T.   | *165             | *339             | *230            | *447             | *134             |
| 712          | CARIBOU, MAINE     | *165             | *170             | *365            | *146             | *212             |
| 208          | CHARLESTON, S.C.   | *182             | *182             | *343            | *140             | *164             |
| 314          | CHARLOTTE, N.C.    | *173             | *177             | *182            | *098             | *365             |
| 421          | CINCINNATI, OHIO   | *120             | *122             | *105            | *177             | *167             |
| 524          | CLEVELAND, OHIO    | *166             | *177             | *188            | *177             | *167             |
| 428          | COLUMBUS, OHIO     | *331             | *320             | *137            | *146             | *167             |
| 317          | CORNING, N.Y.      | *260             | *232             | *263            | *230             | *193             |
| 503          | COTTSBURG, CONN.   | *183             | *183             | *137            | *146             | *137             |
| 303          | CRAVENFORD, N.Y.   | *103             | *102             | *127            | *114             | *112             |
| 308          | CROWN POINT, N.Y.  | *203             | *202             | *116            | *239             | *238             |
| 408          | NORFOLK, VIRGINIA  | *215             | *210             | *107            | *103             | *111             |
| 520          | PHILADELPHIA, PA.  | *228             | *228             | *106            | *215             | *111             |
| 606          | PITTSBURGH, PA.    | *236             | *356             | *147            | *227             | *106             |
| 306          | PORTLAND, MAINE    | *168             | *320             | *162            | *359             | *223             |
| 405          | Raleigh, N.C.      | *116             | *243             | *144            | *329             | *196             |
| 514          | RICHMOND, VIRGINIA | *227             | *182             | *106            | *320             | *168             |
| 301          | WASHINGTON, D.C.   | *078             | *204             | *095            | *184             | *109             |
| 405          | WILLIAMSPORT, PA.  | *086             | *183             | *115            | *090             | *095             |
| 514          | WILLIAMSPORT, PA.  | *152             | *135             | *294            | *081             | *102             |

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|-------|----------------------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
|       |                      | PF         | B   | PF  | PF         | B   | PF  | B          | PF  | B   | PF         | B   | PF  | PF         | B   | PF  | PF         | B   |     |
| 365   | ALBUQUERQUE, N. M.   | 072        | 075 | 151 | 123        | 079 | 077 | 077        | 077 | 151 | 128        | 079 | 078 | 145        | 123 | 123 | 123        | 123 | 123 |
| 351   | AMARILLO, TEXAS      | 077        | 093 | 141 | 091        | 190 | 132 | 071        | 071 | 144 | 093        | 133 | 079 | 109        | 144 | 098 | 114        | 114 | 114 |
| 352   | ATHENS, GEORGIA      | 190        | 132 | 150 | 101        | 233 | 156 | 150        | 150 | 153 | 097        | 144 | 194 | 144        | 153 | 112 | 112        | 112 | 112 |
| 218   | AUGUSTA, GEORGIA     | 152        | 132 | 136 | 109        | 223 | 151 | 152        | 152 | 139 | 106        | 146 | 146 | 128        | 112 | 112 | 112        | 112 | 112 |
| 223   | BIRMINGHAM, ALABAMA  | 152        | 132 | 119 | 114        | 090 | 123 | 117        | 117 | 118 | 104        | 131 | 131 | 127        | 112 | 112 | 112        | 112 | 112 |
| 228   | BROWNSVILLE, TEXAS   | 174        | 130 | 119 | 114        | 090 | 123 | 116        | 116 | 114 | 103        | 119 | 119 | 127        | 112 | 112 | 112        | 112 | 112 |
| 250   | DEL PASO, TEXAS      | 174        | 130 | 119 | 114        | 090 | 123 | 116        | 116 | 114 | 103        | 119 | 119 | 127        | 112 | 112 | 112        | 112 | 112 |
| 270   | FORTHWORTH, TEXAS    | 071        | 064 | 102 | 091        | 084 | 102 | 102        | 102 | 102 | 081        | 081 | 081 | 081        | 103 | 087 | 087        | 087 | 087 |
| 247   | HOUSTON, TEXAS       | 120        | 120 | 103 | 091        | 084 | 102 | 103        | 103 | 103 | 081        | 081 | 081 | 081        | 104 | 085 | 085        | 085 | 085 |
| 247   | JACKSONVILLE, FLA.   | 125        | 125 | 103 | 091        | 084 | 102 | 103        | 103 | 103 | 081        | 081 | 081 | 081        | 104 | 085 | 085        | 085 | 085 |
| 247   | KNOXVILLE, TENN.     | 135        | 135 | 124 | 124        | 115 | 136 | 125        | 125 | 125 | 113        | 136 | 136 | 136        | 125 | 135 | 135        | 135 | 135 |
| 247   | LITTLE ROCK, ARK.    | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 247   | Louisville, KY.      | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 247   | MEMPHIS, TENNESSEE   | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 247   | MONTGOMERY, ALABAMA  | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 247   | NASHVILLE, TENNESSEE | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 247   | NEW ORLEANS, LA.     | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 342   | OKLAHOMA CITY, OKLA. | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 343   | ORLANDO, FLORIDA     | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 278   | PHOENIX, ARIZONA     | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 245   | SAN ANTONIO, TEXAS   | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 248   | SHERIFF, FLORIDA     | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |
| 211   | TAMPA, FLORIDA       | 125        | 125 | 115 | 115        | 115 | 115 | 115        | 115 | 115 | 113        | 113 | 113 | 113        | 125 | 114 | 114        | 114 | 114 |

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|--------------|----------------------------|------|------|------------|------|------|------------|------|------|--------------|------|------|
|              | PF                         | B    | PF   | PF         | B    | PF   | B          | PF   | B    | PF           | B    | PF   |
| 365          | ALBUQUERQUE, N.M.          | .050 | .034 | .039       | .035 | .050 | .044       | .039 | .035 | .039         | .039 | .043 |
| 366          | AMARILLO, TEXAS            | .039 | .025 | .044       | .030 | .039 | .044       | .039 | .035 | .044         | .039 | .041 |
| 311          | ATLANTA, GEORGIA           | .210 | .088 | .214       | .105 | .214 | .115       | .210 | .107 | .210         | .099 | .125 |
| 219          | AUGUSTA, GEORGIA           | .233 | .097 | .249       | .104 | .238 | .112       | .249 | .107 | .249         | .103 | .141 |
| 221          | BIRMINGHAM, ALABAMA        | .224 | .090 | .215       | .093 | .224 | .112       | .215 | .097 | .215         | .097 | .145 |
| 228          | BROWNSVILLE, TEXAS         | .243 | .104 | .265       | .123 | .243 | .136       | .265 | .123 | .265         | .123 | .144 |
| 250          | DEL RIO, TEXAS             | .066 | .059 | .055       | .061 | .066 | .066       | .055 | .058 | .066         | .069 | .069 |
| 227          | EL PASO, TEXAS             | .023 | .031 | .030       | .023 | .028 | .035       | .030 | .032 | .035         | .036 | .036 |
| 225          | FORT WORTH, TEXAS          | .017 | .019 | .017       | .017 | .017 | .019       | .017 | .017 | .020         | .020 | .042 |
| 244          | HOUSTON, TEXAS             | .038 | .044 | .038       | .044 | .038 | .044       | .038 | .044 | .038         | .045 | .045 |
| 235          | JACKSONVILLE, MISS. * FLA. | .116 | .073 | .070       | .064 | .116 | .086       | .070 | .064 | .116         | .086 | .065 |
| 206          | JACKSONVILLE, FLA.         | .215 | .116 | .191       | .109 | .215 | .144       | .191 | .109 | .215         | .144 | .148 |
| 201          | JACK WEST FLORIDA          | .138 | .082 | .108       | .062 | .138 | .074       | .108 | .062 | .138         | .074 | .074 |
| 204          | KNOXVILLE, TENNESSEE       | .061 | .055 | .055       | .062 | .061 | .074       | .055 | .062 | .061         | .062 | .069 |
| 326          | LAKE CHARLES, LA.          | .138 | .088 | .109       | .071 | .142 | .132       | .109 | .117 | .107         | .117 | .117 |
| 240          | LITTLE ROCK, ARK.          | .171 | .089 | .171       | .089 | .171 | .099       | .171 | .089 | .171         | .089 | .160 |
| 420          | LOUISVILLE, KENTUCKY       | .193 | .093 | .193       | .093 | .193 | .111       | .193 | .123 | .193         | .133 | .145 |
| 334          | MEMPHIS, TENNESSEE         | .094 | .073 | .094       | .073 | .094 | .132       | .094 | .131 | .094         | .131 | .131 |
| 329          | MONTGOMERY, ALABAMA        | .072 | .073 | .072       | .073 | .072 | .080       | .072 | .082 | .072         | .072 | .072 |
| 223          | MOBILE, ALABAMA            | .166 | .109 | .171       | .109 | .166 | .109       | .171 | .109 | .166         | .108 | .124 |
| 204          | MONTGOMERY, TENNESSEE      | .204 | .107 | .204       | .107 | .204 | .110       | .204 | .107 | .204         | .110 | .121 |
| 242          | NASHVILLE, TENNESSEE       | .182 | .108 | .190       | .108 | .182 | .104       | .182 | .104 | .182         | .104 | .136 |
| 327          | NEW ORLEANS, LA.           | .182 | .108 | .198       | .108 | .182 | .108       | .198 | .108 | .182         | .108 | .183 |
| 353          | OKLAHOMA CITY, OKLA.       | .083 | .051 | .083       | .051 | .083 | .066       | .083 | .053 | .083         | .052 | .078 |
| 205          | ORLANDO, FLORIDA           | .094 | .067 | .094       | .067 | .094 | .073       | .094 | .067 | .094         | .067 | .038 |
| 273          | PHOENIX, ARIZONA           | .017 | .017 | .017       | .017 | .017 | .044       | .034 | .022 | .017         | .024 | .024 |
| 253          | SAN ANTONIO, TEXAS         | .050 | .041 | .041       | .041 | .041 | .083       | .034 | .048 | .041         | .083 | .048 |
| 248          | SHREVEPORT, LA.            | .110 | .063 | .110       | .063 | .110 | .065       | .110 | .065 | .110         | .065 | .104 |
| 211          | TAMPA, FLORIDA             | .066 | .066 | .066       | .066 | .066 | .099       | .066 | .076 | .099         | .069 | .074 |

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|------------------------------|--------------|-----|-----|--------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|-----|
|                              | PF           | B   | PF  | B            | PF  | B   | PF         | B   | PF  | B          | PF  | B   | PF         | B   | PF  | B          | PF  | B   | PF         | B   | PF  | B   |
| 569 CASPER, WYOMING          | 137          | 108 | 142 | 104          | 137 | 108 | 142        | 104 | 137 | 108        | 142 | 104 | 137        | 108 | 142 | 104        | 137 | 108 | 142        | 104 | 137 | 108 |
| 445 CHICAGO, ILLINOIS        | 123          | 123 | 200 | 142          | 231 | 148 | 200        | 142 | 231 | 148        | 200 | 142 | 231        | 148 | 200 | 142        | 231 | 148 | 200        | 142 | 231 | 148 |
| 469 COLUMBIA, MISSOURI       | 126          | 126 | 213 | 144          | 251 | 154 | 213        | 144 | 251 | 154        | 213 | 144 | 251        | 154 | 213 | 144        | 251 | 154 | 213        | 144 | 251 | 154 |
| 446 DENVER, COLORADO         | 115          | 115 | 172 | 139          | 156 | 129 | 172        | 139 | 156 | 129        | 172 | 139 | 156        | 129 | 172 | 139        | 156 | 129 | 172        | 139 | 156 | 129 |
| 537 DES MOINES, IOWA         | 130          | 130 | 235 | 140          | 192 | 142 | 235        | 140 | 192 | 142        | 235 | 140 | 192        | 142 | 235 | 140        | 192 | 142 | 235        | 140 | 192 | 142 |
| 447 DETROIT, MICHIGAN        | 142          | 142 | 242 | 156          | 250 | 163 | 242        | 156 | 250 | 163        | 242 | 156 | 250        | 163 | 242 | 156        | 250 | 163 | 242        | 156 | 250 | 163 |
| 531 DODGE CITY, KANSAS       | 104          | 104 | 104 | 104          | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104 |
| 447 GRAND JUNCTION, COLORADO | 104          | 104 | 104 | 104          | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104        | 104 | 104 | 104 |
| 637 GRAND RAPIDS, MICHIGAN   | 143          | 143 | 228 | 143          | 190 | 143 | 228        | 143 | 190 | 143        | 228 | 143 | 190        | 143 | 228 | 143        | 190 | 143 | 228        | 143 | 190 | 143 |
| 635 GREEN BAY, WISCONSIN     | 143          | 143 | 143 | 143          | 143 | 143 | 143        | 143 | 143 | 143        | 143 | 143 | 143        | 143 | 143 | 143        | 143 | 143 | 143        | 143 | 143 | 143 |
| 635 HUON, S. DAK.            | 185          | 142 | 179 | 134          | 190 | 134 | 185        | 142 | 179 | 134        | 185 | 142 | 179        | 134 | 185 | 142        | 179 | 134 | 185        | 142 | 179 | 134 |
| 437 INDIANAPOLIS, INDO.      | 216          | 216 | 201 | 134          | 223 | 144 | 216        | 216 | 201 | 134        | 223 | 144 | 216        | 216 | 201 | 134        | 223 | 144 | 216        | 216 | 201 | 134 |
| 747 IRVING, TEXAS            | 160          | 160 | 239 | 138          | 245 | 146 | 239        | 138 | 245 | 146        | 239 | 138 | 245        | 146 | 239 | 138        | 245 | 146 | 239        | 138 | 245 | 146 |
| 447 KANSAS CITY, MISSOURI    | 213          | 213 | 213 | 142          | 213 | 142 | 213        | 142 | 213 | 142        | 213 | 142 | 213        | 142 | 213 | 142        | 213 | 142 | 213        | 142 | 213 | 142 |
| 447 KANSAS CITY, MO.         | 213          | 213 | 213 | 127          | 213 | 127 | 213        | 127 | 213 | 127        | 213 | 127 | 213        | 127 | 213 | 127        | 213 | 127 | 213        | 127 | 213 | 127 |
| 637 LANDER, WYOMING          | 087          | 087 | 071 | 067          | 087 | 087 | 087        | 071 | 087 | 087        | 087 | 087 | 087        | 087 | 087 | 087        | 087 | 087 | 087        | 087 | 087 | 087 |
| 637 MINNEAPOLIS, MINN.       | 167          | 167 | 071 | 067          | 167 | 167 | 071        | 067 | 167 | 167        | 071 | 067 | 167        | 167 | 071 | 067        | 167 | 167 | 071        | 067 | 167 | 167 |
| 562 MINNEAPOLIS, MINN.       | 194          | 194 | 194 | 133          | 200 | 154 | 194        | 194 | 194 | 133        | 200 | 154 | 194        | 194 | 194 | 133        | 200 | 154 | 194        | 194 | 194 | 133 |
| 562 PEORIA, ILLINOIS         | 194          | 194 | 194 | 126          | 200 | 154 | 194        | 194 | 194 | 126        | 200 | 154 | 194        | 194 | 194 | 126        | 200 | 154 | 194        | 194 | 194 | 126 |
| 532 PELTON, COLORADO         | 160          | 160 | 160 | 142          | 160 | 142 | 160        | 142 | 160 | 142        | 160 | 142 | 160        | 142 | 160 | 142        | 160 | 142 | 160        | 142 | 160 | 142 |
| 447 PUEBLO, COLORADO         | 160          | 160 | 160 | 140          | 160 | 140 | 160        | 140 | 160 | 140        | 160 | 140 | 160        | 140 | 160 | 140        | 160 | 140 | 160        | 140 | 160 | 140 |
| 637 RAPID CITY, SOUTH DAK.   | 140          | 140 | 140 | 126          | 140 | 126 | 140        | 126 | 140 | 126        | 140 | 126 | 140        | 126 | 140 | 126        | 140 | 126 | 140        | 126 | 140 | 126 |
| 637 SAUL LOUIS, MISSISSIPPI  | 140          | 140 | 140 | 126          | 140 | 126 | 140        | 126 | 140 | 126        | 140 | 126 | 140        | 126 | 140 | 126        | 140 | 126 | 140        | 126 | 140 | 126 |
| 447 ST. LOUIS, MISSOURI      | 120          | 120 | 120 | 106          | 120 | 106 | 120        | 106 | 120 | 106        | 120 | 106 | 120        | 106 | 120 | 106        | 120 | 106 | 120        | 106 | 120 | 106 |
| 767 WILLISTON, NORTH DAK.    | 119          | 119 | 119 | 105          | 119 | 105 | 119        | 105 | 119 | 105        | 119 | 105 | 119        | 105 | 119 | 105        | 119 | 105 | 119        | 105 | 119 | 105 |

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| NO.   | PF                       | B          | PF         | B          | PF         | B          | PF         | B          | PF         |
| 569   | CASPER, WYOMING          | .102       | .148       | .166       | .114       | .232       | .127       | .166       | .109       |
| 534   | CHICAGO, ILLINOIS        | *131       | *223       | *147       | *222       | *144       | *228       | *144       | *232       |
| 445   | COLLIER, COLORADO        | *122       | *149       | *109       | *122       | *157       | *104       | *122       | *164       |
| 546   | DES MOINES, IOWA         | *064       | *092       | *133       | *094       | *139       | *080       | *094       | *130       |
| 537   | DETROIT, MICHIGAN        | *133       | *133       | *165       | *133       | *167       | *133       | *133       | *127       |
| 421   | DODGE CITY, KANSAS       | *265       | *133       | *160       | *271       | *167       | *157       | *171       | *176       |
| 476   | GRAND JUNCTION, COLORADO | *088       | *074       | *083       | *089       | *083       | *083       | *083       | *094       |
| 6215  | GREEN BAY, WISC.         | *153       | *094       | *165       | *165       | *166       | *161       | *163       | *136       |
| 6215  | HURON, S. DAK.           | *125       | *125       | *126       | *261       | *163       | *218       | *263       | *220       |
| 6215  | INDIANAPOLIS, INDIANA    | *115       | *115       | *126       | *138       | *116       | *131       | *118       | *146       |
| 437   | KANSAS CITY, MISSOURI    | *144       | *144       | *144       | *144       | *147       | *147       | *147       | *143       |
| 747   | LANDER, WYOMING          | *147       | *147       | *147       | *147       | *147       | *147       | *147       | *145       |
| 446   | MINNEAPOLIS, MINN.       | *144       | *036       | *116       | *030       | *122       | *033       | *037       | *038       |
| 658   | NORTH PLATTE, NEBR.      | *149       | *149       | *126       | *145       | *144       | *103       | *144       | *101       |
| 532   | PEORIA, ILLINOIS         | *127       | *127       | *126       | *145       | *143       | *103       | *127       | *127       |
| 463   | PUEBLO, COLORADO         | *167       | *094       | *156       | *096       | *167       | *103       | *156       | *156       |
| 621   | RAPID CITY, SOUTH DAK.   | *066       | *071       | *071       | *030       | *061       | *077       | *061       | *062       |
| 737   | SAULSBURY, MARIE         | *140       | *140       | *130       | *130       | *163       | *182       | *113       | *177       |
| 447   | ST. LOUIS, MISSOURI      | *149       | *088       | *166       | *166       | *188       | *337       | *129       | *337       |
| 450   | ST. MARY'S, KANSAS       | *149       | *149       | *166       | *167       | *149       | *109       | *150       | *178       |
| 767   | WILLISTON, N. DAK.       | *139       | *113       | *166       | *054       | *106       | *035       | *052       | *066       |

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| NO.   | PF                       | B          | PF         | B          | PF         | B          | PF         | B          | PF         |
| 569   | CASPER, WYOMING          | .166       | .148       | .166       | .157       | .222       | .144       | .228       | .162       |
| 534   | CHICAGO, ILLINOIS        | *131       | *223       | *147       | *122       | *153       | *104       | *122       | *150       |
| 445   | COLLIER, COLORADO        | *122       | *149       | *109       | *122       | *139       | *080       | *094       | *130       |
| 546   | DES MOINES, IOWA         | *064       | *092       | *133       | *133       | *167       | *157       | *157       | *094       |
| 537   | DETROIT, MICHIGAN        | *133       | *133       | *165       | *271       | *167       | *083       | *171       | *172       |
| 421   | DODGE CITY, KANSAS       | *265       | *074       | *083       | *083       | *083       | *083       | *083       | *075       |
| 476   | GRAND JUNCTION, COLORADO | *088       | *076       | *094       | *087       | *077       | *057       | *077       | *094       |
| 6215  | GREEN BAY, WISC.         | *125       | *094       | *120       | *320       | *166       | *320       | *163       | *136       |
| 6215  | HURON, S. DAK.           | *125       | *125       | *126       | *261       | *163       | *218       | *263       | *220       |
| 6215  | INDIANAPOLIS, INDIANA    | *115       | *115       | *126       | *138       | *116       | *091       | *118       | *146       |
| 437   | KANSAS CITY, MISSOURI    | *144       | *144       | *144       | *144       | *147       | *147       | *147       | *143       |
| 747   | LANDER, WYOMING          | *147       | *147       | *147       | *147       | *147       | *147       | *147       | *145       |
| 446   | MINNEAPOLIS, MINN.       | *144       | *036       | *116       | *030       | *122       | *033       | *123       | *038       |
| 658   | NORTH PLATTE, NEBR.      | *149       | *149       | *126       | *145       | *144       | *103       | *144       | *101       |
| 532   | PEORIA, ILLINOIS         | *127       | *127       | *126       | *145       | *143       | *103       | *127       | *127       |
| 463   | PUEBLO, COLORADO         | *167       | *094       | *156       | *096       | *167       | *103       | *156       | *156       |
| 621   | RAPID CITY, SOUTH DAK.   | *066       | *071       | *071       | *030       | *061       | *077       | *061       | *062       |
| 737   | SAULSBURY, MARIE         | *140       | *140       | *130       | *130       | *163       | *182       | *113       | *177       |
| 447   | ST. LOUIS, MISSOURI      | *149       | *088       | *166       | *166       | *188       | *337       | *129       | *337       |
| 450   | ST. MARY'S, KANSAS       | *149       | *149       | *166       | *167       | *149       | *109       | *150       | *178       |
| 767   | WILLISTON, N. DAK.       | *139       | *113       | *166       | *054       | *106       | *035       | *052       | *066       |

PF = RELATIVE PRECIPITATION FREQUENCY

B = BETTER SCORE

NMC PRECIPITATION FORECASTS MAY 1970 - OCT 1970

## WESTERN REGION

## 0600Z SCORES

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|---------------------------|------------|-------|-------|------------|-------|-------|------------|-------|-------|--------------|-------|-------|
|                           | PF         | B     | PF    | B          | PF    | B     | PF         | B     | PF    | B            | PF    | B     |
| 677 BILLINGS, MONTANA     | .125       | *.105 | *.168 | *.130      | *.125 | *.108 | *.168      | *.116 | *.125 | *.108        | *.168 | *.130 |
| 681 BOISE, IDAHO          | *.099      | *.106 | *.150 | *.107      | *.099 | *.081 | *.150      | *.106 | *.172 | *.128        | *.150 | *.144 |
| 486 ELKO, NEVADA          | *.167      | *.104 | *.180 | *.147      | *.172 | *.140 | *.150      | *.106 | *.071 | *.056        | *.150 | *.119 |
| 494 FRESNO, CALIFORNIA    | *.071      | *.045 | *.052 | *.047      | *.071 | *.052 | *.082      | *.048 | *.060 | *.056        | *.071 | *.088 |
| 769 GLASGOW, MONTANA      | *.070      | *.100 | *.015 | *.114      | *.009 | *.022 | *.016      | *.016 | *.009 | *.015        | *.047 | *.014 |
| 768 GREAT FALLS, MONTANA  | *.167      | *.108 | *.122 | *.122      | *.147 | *.132 | *.136      | *.105 | *.147 | *.095        | *.136 | *.046 |
| 775 HELENA, MONTANA       | *.167      | *.108 | *.122 | *.122      | *.147 | *.121 | *.183      | *.107 | *.156 | *.109        | *.183 | *.136 |
| 772 LAS VEGAS, NEVADA     | *.147      | *.134 | *.168 | *.128      | *.147 | *.121 | *.168      | *.107 | *.147 | *.109        | *.168 | *.134 |
| 386 LOS ANGELES, CALIF.   | *.027      | *.023 | *.022 | *.023      | *.027 | *.029 | *.028      | *.027 | *.027 | *.032        | *.022 | *.022 |
| 329 MEDFORD, OREGON       | *.016      | *.016 | *.002 | *.002      | *.017 | *.016 | *.027      | *.027 | *.017 | *.032        | *.022 | *.022 |
| 597 MISSOULA, MONTANA     | *.076      | *.131 | *.065 | *.127      | *.076 | *.055 | *.093      | *.045 | *.093 | *.072        | *.093 | *.072 |
| 773 PENDLETON, OREGON     | *.201      | *.104 | *.071 | *.126      | *.201 | *.139 | *.174      | *.057 | *.130 | *.077        | *.201 | *.135 |
| 578 POCAHONTAS, IDAHO     | *.126      | *.101 | *.101 | *.126      | *.104 | *.086 | *.126      | *.083 | *.099 | *.077        | *.132 | *.102 |
| 578 PORTLAND, OREGON      | *.156      | *.082 | *.126 | *.126      | *.126 | *.101 | *.150      | *.112 | *.122 | *.113        | *.148 | *.124 |
| 698 RENO, NEVADA          | *.038      | *.028 | *.028 | *.084      | *.139 | *.101 | *.140      | *.086 | *.151 | *.068        | *.195 | *.053 |
| 483 SACRAMENTO, CALIF.    | *.052      | *.049 | *.049 | *.052      | *.038 | *.034 | *.049      | *.052 | *.038 | *.039        | *.049 | *.053 |
| 572 SALT LAKE CITY, UTAH  | *.022      | *.019 | *.022 | *.019      | *.023 | *.019 | *.042      | *.016 | *.023 | *.027        | *.022 | *.027 |
| 290 SAN FRANCISCO, CALIF. | *.153      | *.113 | *.147 | *.113      | *.153 | *.106 | *.147      | *.104 | *.153 | *.107        | *.147 | *.124 |
| 494 SEATTLE, WASHINGTON   | *.014      | *.001 | *.014 | *.016      | *.016 | *.014 | *.004      | *.004 | *.017 | *.014        | *.004 | *.004 |
| 793 SPOKANE, WASHINGTON   | *.023      | *.015 | *.015 | *.015      | *.033 | *.026 | *.017      | *.017 | *.034 | *.031        | *.017 | *.018 |
| 785 YAKIMA, WASHINGTON    | *.087      | *.175 | *.123 | *.123      | *.180 | *.127 | *.176      | *.115 | *.176 | *.111        | *.167 | *.131 |
| 781                       | *.098      | *.125 | *.096 | *.096      | *.098 | *.086 | *.126      | *.086 | *.093 | *.079        | *.127 | *.099 |
|                           | *.027      | *.048 | *.027 | *.048      | *.038 | *.047 | *.033      | *.052 | *.033 | *.047        | *.033 | *.051 |

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## 0600Z SCORES

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|---------------------------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|
|                           | PF         | B    | PF   | B          | PF   | B    | PF         | B    | PF   | B          | PF   | B    | PF         | B    | PF   | B          | PF   | B    |
| 677 BILLINGS, MONTANA     | .210       | .140 | .199 | .161       | .210 | .156 | .199       | .138 | .210 | .138       | .199 | .167 | .210       | .138 | .199 | .167       | .210 | .138 |
| 681 BOISE, IDAHO          | .257       | .133 | .285 | .163       | .257 | .167 | .285       | .153 | .257 | .153       | .285 | .167 | .257       | .153 | .285 | .167       | .257 | .153 |
| 686 ELKO, NEVADA          | .144       | .094 | .156 | .105       | .144 | .114 | .156       | .090 | .144 | .114       | .156 | .103 | .144       | .114 | .156 | .103       | .144 | .114 |
| 486 EUREKA, CALIFORNIA    | .150       | .123 | .156 | .137       | .150 | .183 | .150       | .137 | .156 | .144       | .150 | .144 | .150       | .144 | .150 | .144       | .150 | .144 |
| 5384 FRESNO, CALIFORNIA   | .161       | .104 | .161 | .152       | .161 | .183 | .161       | .149 | .161 | .149       | .161 | .149 | .161       | .149 | .161 | .149       | .161 | .149 |
| 768 GLASGOW, MONTANA      | .204       | .137 | .230 | .182       | .204 | .169 | .204       | .155 | .210 | .157       | .210 | .157 | .210       | .157 | .210 | .157       | .210 | .157 |
| 772 HELENA, MONTANA       | .210       | .138 | .230 | .182       | .210 | .169 | .210       | .155 | .210 | .157       | .210 | .157 | .210       | .157 | .210 | .157       | .210 | .157 |
| 386 LAS VEGAS, NEVADA     | .193       | .137 | .193 | .162       | .193 | .162 | .193       | .155 | .193 | .162       | .193 | .155 | .193       | .162 | .193 | .155       | .193 | .162 |
| 295 LOS ANGELES, CALIF.   | .194       | .162 | .194 | .162       | .194 | .162 | .194       | .162 | .194 | .162       | .194 | .162 | .194       | .162 | .194 | .162       | .194 | .162 |
| 597 MEDFORD, OREGON       | .354       | .174 | .354 | .174       | .354 | .174 | .354       | .174 | .354 | .174       | .354 | .174 | .354       | .174 | .354 | .174       | .354 | .174 |
| 773 MISSOURI, MONTANA     | .293       | .161 | .264 | .166       | .293 | .161 | .264       | .166 | .293 | .161       | .264 | .166 | .293       | .161 | .264 | .166       | .293 | .161 |
| 633 PENDLETON, OREGON     | .193       | .150 | .193 | .150       | .193 | .150 | .193       | .150 | .193 | .150       | .193 | .150 | .193       | .150 | .193 | .150       | .193 | .150 |
| 578 PORTLAND, OREGON      | .256       | .170 | .256 | .170       | .256 | .170 | .256       | .170 | .256 | .170       | .256 | .170 | .256       | .170 | .256 | .170       | .256 | .170 |
| 638 RENO, NEVADA          | .157       | .103 | .129 | .103       | .157 | .103 | .129       | .103 | .157 | .103       | .129 | .103 | .157       | .103 | .129 | .103       | .157 | .103 |
| 433 SACRAMENTO, CALIF.    | .132       | .092 | .132 | .092       | .132 | .092 | .132       | .092 | .132 | .092       | .132 | .092 | .132       | .092 | .132 | .092       | .132 | .092 |
| 572 SALT LAKE CITY, UTAH  | .138       | .094 | .138 | .094       | .138 | .094 | .138       | .094 | .138 | .094       | .138 | .094 | .138       | .094 | .138 | .094       | .138 | .094 |
| 290 SAN DIEGO, CALIF.     | .088       | .054 | .088 | .054       | .088 | .054 | .088       | .054 | .088 | .054       | .088 | .054 | .088       | .054 | .088 | .054       | .088 | .054 |
| 494 SAN FRANCISCO, CALIF. | .032       | .014 | .032 | .014       | .032 | .014 | .032       | .014 | .032 | .014       | .032 | .014 | .032       | .014 | .032 | .014       | .032 | .014 |
| 793 SEATTLE, WASHINGTON   | .506       | .151 | .506 | .151       | .506 | .151 | .506       | .151 | .506 | .151       | .506 | .151 | .506       | .151 | .506 | .151       | .506 | .151 |
| 785 SPOKANE, WASHINGTON   | .281       | .166 | .281 | .166       | .281 | .166 | .281       | .166 | .281 | .166       | .281 | .166 | .281       | .166 | .281 | .166       | .281 | .166 |
| 781 YAKIMA, WASHINGTON    | .174       | .148 | .174 | .148       | .174 | .148 | .174       | .148 | .174 | .148       | .174 | .148 | .174       | .148 | .174 | .148       | .174 | .148 |

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|---------------------------|--------------|------|------------|------|------------|------|--------------|------|------------|------|------------|------|
|                           | 1ST PERIOD   |      | 2ND PERIOD |      | 3RD PERIOD |      | 1ST PERIOD   |      | 2ND PERIOD |      | 3RD PERIOD |      |
|                           | PF           | B    | PF         | B    | PF         | B    | PF           | B    | PF         | B    | PF         | B    |
| 509 BOSTON MASS., MASS.   | *243         | *131 | *258       | *154 | *243       | *157 | *258         | *138 | *243       | *143 | *260       | *161 |
| 524 CLEVELAND, OHIO       | *243         | *139 | *215       | *127 | *239       | *126 | *215         | *120 | *240       | *159 | *217       | *144 |
| 310 COLUMBIA, S.C.        | *235         | *155 | *186       | *121 | *206       | *145 | *191         | *125 | *206       | *138 | *197       | *134 |
| 503 NEW YORK, N.Y.        | *206         | *128 | *231       | *141 | *182       | *115 | *207         | *123 | *186       | *135 | *234       | *148 |
| 408 PHILADELPHIA, PA.     | *182         | *110 | *166       | *115 | *182       | *115 | *169         | *097 | *164       | *115 | *165       | *111 |
| 520 PITTSBURGH, PA.       | *282         | *141 | *262       | *141 | *282       | *141 | *167         | *167 | *264       | *129 | *173       | *144 |
| 306 RALEIGH, N.C.         | *183         | *129 | *176       | *121 | *183       | *102 | *186         | *140 | *176       | *121 | *173       | *122 |
| 405 WASHINGTON, D.C.      | *164         | *102 | *151       | *103 | *164       | *102 | *162         | *118 | *151       | *094 | *110       | *109 |
| 365 ALBUQUERQUE, N.M.     | *054         | *054 | *101       | *066 | *057       | *056 | *101         | *091 | *057       | *057 | *057       | *087 |
| 219 ATLANTA, GA.          | *219         | *139 | *142       | *100 | *215       | *146 | *146         | *099 | *220       | *141 | *146       | *109 |
| 252 BIRMINGHAM, ALA.      | *257         | *097 | *184       | *127 | *255       | *161 | *184         | *120 | *255       | *154 | *181       | *132 |
| 259 FOOTWORTH, TEX.       | *098         | *097 | *107       | *090 | *098       | *098 | *107         | *085 | *098       | *094 | *107       | *093 |
| 334 MEMPHIS, TENN.        | *230         | *127 | *127       | *115 | *229       | *145 | *176         | *115 | *231       | *140 | *178       | *128 |
| 202 MIAMI, FLA.           | *290         | *189 | *195       | *153 | *291       | *199 | *194         | *154 | *291       | *195 | *196       | *156 |
| 231 NEW ORLEANS, LA.      | *245         | *149 | *144       | *111 | *242       | *155 | *144         | *107 | *242       | *153 | *140       | *109 |
| 353 OKLAHOMA CITY, OKLA.  | *122         | *096 | *150       | *125 | *133       | *111 | *145         | *107 | *145       | *110 | *140       | *124 |
| 253 SAN ANTONIO, TEX.     | *143         | *100 | *109       | *090 | *142       | *107 | *109         | *089 | *142       | *107 | *103       | *092 |
| 534 CHICAGO, ILL.         | *227         | *135 | *228       | *138 | *225       | *150 | *228         | *126 | *225       | *140 | *228       | *152 |
| 469 DENVER, COLO.         | *112         | *090 | *122       | *102 | *114       | *096 | *122         | *092 | *114       | *096 | *132       | *103 |
| 537 INDIANAPOLIS, IND.    | *279         | *142 | *228       | *141 | *272       | *167 | *226         | *125 | *222       | *144 | *250       | *155 |
| 438 KANSAS CITY, MO.      | *211         | *112 | *178       | *130 | *222       | *126 | *178         | *117 | *173       | *145 | *169       | *145 |
| 446 MINNEAPOLIS, MINN.    | *152         | *112 | *172       | *126 | *154       | *124 | *172         | *117 | *153       | *122 | *173       | *134 |
| 434 ST. LOUIS, MO.        | *184         | *126 | *200       | *148 | *187       | *140 | *200         | *127 | *187       | *130 | *204       | *152 |
| 681 BOISE, IDAHO          | *070         | *070 | *128       | *104 | *095       | *080 | *130         | *096 | *092       | *086 | *129       | *105 |
| 775 GREAT FALLS, MONT.    | *095         | *111 | *166       | *125 | *155       | *125 | *166         | *112 | *155       | *115 | *166       | *131 |
| 295 LOS ANGELES, CALIF.   | *156         | *016 | *007       | *009 | *007       | *009 | *020         | *020 | *012       | *021 | *021       | *008 |
| 698 PORTLAND, ORE.        | *112         | *065 | *119       | *081 | *112       | *080 | *119         | *078 | *107       | *074 | *127       | *127 |
| 572 SALT LAKE CITY, UT.   | *157         | *098 | *157       | *121 | *157       | *125 | *157         | *109 | *157       | *121 | *159       | *121 |
| 494 SAN FRANCISCO, CALIF. | *033         | *024 | *037       | *030 | *033       | *027 | *033         | *027 | *033       | *034 | *033       | *034 |
| 793 SEATTLE, WASH.        | *102         | *071 | *113       | *091 | *104       | *087 | *104         | *084 | *101       | *079 | *109       | *094 |

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|---------------------------|--------------|------|------|------------|------|------|--------------|------|------|------------|------|------|------------|------|------|------------|------|------|
|                           | 1ST PERIOD   |      |      | 2ND PERIOD |      |      | 3RD PERIOD   |      |      | 1ST PERIOD |      |      | 2ND PERIOD |      |      | 3RD PERIOD |      |      |
|                           | PF           | B    | PF   | B          | PF   | B    | PF           | B    | PF   | B          | PF   | B    | PF         | B    | PF   | B          | PF   | B    |
| 503 BOSTON MASS., OHIO    | .305         | .142 | .314 | .143       | .305 | .164 | .305         | .167 | .314 | .130       | .305 | .147 | .314       | .167 | .314 | .150       | .314 | .150 |
| 524 CLEVELAND, S.C.       | .260         | .084 | .260 | .114       | .262 | .107 | .262         | .126 | .260 | .124       | .262 | .106 | .262       | .122 | .262 | .124       | .262 | .124 |
| 310 NEW YORK, N.Y.        | .254         | .107 | .259 | .126       | .252 | .121 | .252         | .146 | .258 | .105       | .258 | .105 | .258       | .131 | .258 | .146       | .258 | .146 |
| 408 PHILADELPHIA, PA.     | .281         | .118 | .261 | .121       | .278 | .145 | .278         | .145 | .260 | .102       | .276 | .131 | .276       | .131 | .276 | .145       | .276 | .145 |
| 520 PITTSBURGH, PA.       | .217         | .075 | .219 | .114       | .215 | .144 | .215         | .221 | .215 | .154       | .215 | .154 | .215       | .203 | .215 | .154       | .215 | .154 |
| 306 RALEIGH, N.C.         | .219         | .075 | .215 | .114       | .215 | .145 | .215         | .145 | .215 | .145       | .215 | .145 | .215       | .145 | .215 | .145       | .215 | .145 |
| 306 WASHINGTON, D.C.      | .201         | .081 | .201 | .108       | .201 | .103 | .201         | .103 | .201 | .087       | .201 | .098 | .201       | .098 | .201 | .120       | .201 | .120 |
| 365 ALBUQUERQUE, N.M.     | .026         | .041 | .041 | .035       | .023 | .031 | .023         | .031 | .041 | .032       | .032 | .031 | .032       | .031 | .041 | .040       | .040 | .040 |
| 218 ATLANTA, GA.          | .223         | .092 | .204 | .104       | .217 | .116 | .204         | .128 | .217 | .090       | .205 | .115 | .205       | .126 | .203 | .126       | .203 | .126 |
| 218 BIRMINGHAM, ALA.      | .204         | .092 | .204 | .116       | .204 | .154 | .204         | .154 | .204 | .106       | .204 | .107 | .204       | .115 | .218 | .130       | .218 | .130 |
| 259 FORT WORTH, TEX.      | .064         | .064 | .064 | .064       | .064 | .064 | .064         | .064 | .064 | .064       | .064 | .064 | .064       | .064 | .061 | .053       | .061 | .053 |
| 234 MEMPHIS, TENN.        | .197         | .097 | .197 | .113       | .202 | .113 | .197         | .123 | .197 | .103       | .202 | .103 | .197       | .110 | .221 | .121       | .221 | .121 |
| 234 MIAMI, FLA.           | .093         | .071 | .093 | .071       | .093 | .071 | .093         | .071 | .093 | .066       | .093 | .066 | .093       | .066 | .080 | .077       | .080 | .077 |
| 234 NEW ORLEANS, LA.      | .145         | .093 | .134 | .094       | .145 | .094 | .134         | .094 | .145 | .107       | .135 | .107 | .145       | .105 | .133 | .104       | .133 | .104 |
| 353 OKLAHOMA CITY, OKLA.  | .051         | .051 | .051 | .051       | .053 | .051 | .053         | .051 | .053 | .051       | .053 | .051 | .053       | .051 | .054 | .051       | .054 | .051 |
| 353 SAN ANTONIO, TEX.     | .055         | .045 | .054 | .050       | .054 | .050 | .054         | .050 | .054 | .055       | .054 | .055 | .054       | .055 | .057 | .054       | .057 | .054 |
| 534 CHICAGO, ILL.         | .117         | .123 | .103 | .123       | .117 | .147 | .217         | .147 | .201 | .121       | .217 | .139 | .217       | .142 | .203 | .142       | .203 | .142 |
| 469 DENVER, COLO.         | .110         | .050 | .131 | .102       | .103 | .171 | .103         | .171 | .131 | .092       | .130 | .091 | .131       | .092 | .106 | .106       | .106 | .106 |
| 537 DETROIT, MICH.        | .066         | .151 | .130 | .126       | .204 | .145 | .204         | .145 | .204 | .126       | .215 | .108 | .204       | .117 | .210 | .185       | .210 | .185 |
| 438 INDIANAPOLIS, IND.    | .106         | .147 | .215 | .126       | .183 | .197 | .183         | .197 | .183 | .145       | .195 | .177 | .195       | .117 | .210 | .143       | .210 | .143 |
| 446 KANSAS CITY, MO.      | .204         | .112 | .184 | .126       | .203 | .126 | .184         | .126 | .200 | .126       | .184 | .126 | .184       | .115 | .204 | .132       | .204 | .132 |
| 658 MINNEAPOLIS, MINN.    | .112         | .083 | .197 | .126       | .120 | .126 | .197         | .126 | .120 | .126       | .197 | .126 | .197       | .126 | .132 | .132       | .132 | .132 |
| 434 ST. LOUIS, MO.        | .129         | .034 | .129 | .034       | .129 | .144 | .100         | .131 | .131 | .144       | .131 | .144 | .131       | .144 | .132 | .143       | .144 | .143 |
| 534 BOISE, IDAHO          | .287         | .146 | .328 | .169       | .328 | .177 | .328         | .169 | .285 | .166       | .328 | .172 | .328       | .153 | .233 | .161       | .233 | .161 |
| 795 GREAT FALLS, MONT.    | .261         | .047 | .261 | .047       | .261 | .049 | .261         | .049 | .261 | .077       | .261 | .056 | .261       | .057 | .215 | .179       | .215 | .179 |
| 295 LOS ANGELES, CALIF.   | .107         | .161 | .068 | .161       | .068 | .161 | .068         | .161 | .068 | .161       | .161 | .161 | .161       | .161 | .075 | .060       | .075 | .060 |
| 698 PORTLAND, ORE.        | .318         | .116 | .318 | .116       | .318 | .116 | .318         | .116 | .318 | .130       | .318 | .130 | .318       | .130 | .318 | .123       | .318 | .123 |
| 572 SALT LAKE CITY, UT.   | .224         | .082 | .224 | .082       | .224 | .082 | .224         | .082 | .224 | .115       | .224 | .115 | .224       | .115 | .225 | .123       | .225 | .123 |
| 494 SAN FRANCISCO, CALIF. | .320         | .102 | .320 | .102       | .320 | .102 | .320         | .102 | .320 | .118       | .320 | .118 | .320       | .118 | .320 | .125       | .319 | .125 |
| 793 SEATTLE, WASH.        | .156         | .055 | .156 | .055       | .156 | .055 | .156         | .055 | .156 | .168       | .156 | .168 | .156       | .168 | .154 | .173       | .173 | .173 |

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 PB = BRIER SCORE

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|-------|---------------------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|--|
|       |                     | PF         | B   | PF  | PF         | B   | PF  | B          | PF  | B   | PF         | B   | PF  | PF         | B   | PF  | PF         | B   |  |
| 518   | ALBANY, NEW YORK    | 239        | 140 | 239 | 138        | 173 | 239 | 175        | 239 | 132 | 239        | 160 | 239 | 160        | 153 | 239 | 160        | 153 |  |
| 509   | BOSTON, MASS.       | 218        | 108 | 255 | 145        | 185 | 293 | 150        | 255 | 132 | 217        | 132 | 283 | 132        | 167 | 225 | 167        | 167 |  |
| 528   | BUFFALO, N.Y.       | 293        | 150 | 293 | 181        | 293 | 293 | 160        | 255 | 138 | 299        | 162 | 299 | 162        | 167 | 225 | 167        | 167 |  |
| 617   | BURLINGTON, Vt.     | 212        | 144 | 212 | 160        | 187 | 315 | 163        | 212 | 138 | 315        | 152 | 315 | 152        | 184 | 225 | 184        | 184 |  |
| 712   | CARIBOU, MAINE      | 215        | 143 | 288 | 160        | 187 | 288 | 163        | 215 | 147 | 299        | 152 | 299 | 152        | 185 | 225 | 185        | 185 |  |
| 218   | CHARLTON, S.C.      | 235        | 148 | 235 | 124        | 310 | 310 | 158        | 235 | 147 | 310        | 158 | 310 | 158        | 185 | 225 | 185        | 185 |  |
| 314   | CHARLOTTE, N.C.     | 185        | 127 | 185 | 168        | 168 | 190 | 124        | 185 | 147 | 190        | 177 | 190 | 177        | 185 | 225 | 185        | 185 |  |
| 524   | CINCINNATI, OHIO    | 267        | 127 | 267 | 127        | 217 | 217 | 123        | 267 | 145 | 267        | 155 | 267 | 155        | 185 | 225 | 185        | 185 |  |
| 521   | CLEVELAND, OHIO     | 267        | 127 | 267 | 127        | 217 | 217 | 123        | 267 | 145 | 267        | 155 | 267 | 155        | 185 | 225 | 185        | 185 |  |
| 427   | COLUMBUS, OHIO      | 245        | 128 | 245 | 128        | 223 | 223 | 129        | 245 | 145 | 245        | 155 | 245 | 155        | 185 | 225 | 185        | 185 |  |
| 528   | GREENSBORO, N.C.    | 217        | 128 | 217 | 128        | 201 | 201 | 129        | 217 | 145 | 217        | 155 | 217 | 155        | 185 | 225 | 185        | 185 |  |
| 503   | HARTFORD, CONN.     | 274        | 127 | 274 | 127        | 239 | 239 | 145        | 274 | 145 | 274        | 155 | 274 | 155        | 185 | 225 | 185        | 185 |  |
| 508   | NEW YORK, N.Y.      | 282        | 117 | 282 | 117        | 239 | 239 | 145        | 282 | 145 | 282        | 155 | 282 | 155        | 185 | 225 | 185        | 185 |  |
| 308   | NORTHUMBERLAND, PA. | 152        | 90  | 152 | 90         | 130 | 130 | 40         | 152 | 80  | 152        | 90  | 152 | 90         | 185 | 225 | 185        | 185 |  |
| 308   | PITTSBURGH, PA.     | 152        | 90  | 152 | 90         | 130 | 130 | 40         | 152 | 80  | 152        | 90  | 152 | 90         | 185 | 225 | 185        | 185 |  |
| 520   | PITTSBURGH, PA.     | 153        | 93  | 153 | 93         | 132 | 132 | 43         | 153 | 83  | 153        | 93  | 153 | 93         | 186 | 225 | 186        | 186 |  |
| 606   | PORTLAND, MAINE     | 179        | 123 | 179 | 123        | 127 | 127 | 125        | 179 | 119 | 127        | 125 | 127 | 125        | 146 | 225 | 146        | 146 |  |
| 306   | RALEIGH, N.C.       | 150        | 109 | 150 | 109        | 109 | 109 | 108        | 150 | 116 | 150        | 139 | 150 | 139        | 147 | 225 | 147        | 147 |  |
| 401   | RICHMOND, VIRGINIA  | 106        | 106 | 106 | 106        | 101 | 101 | 101        | 106 | 101 | 106        | 101 | 101 | 101        | 150 | 225 | 150        | 150 |  |
| 405   | WASHINGTON, D.C.    | 161        | 88  | 161 | 88         | 83  | 83  | 83         | 161 | 83  | 161        | 90  | 161 | 90         | 148 | 225 | 148        | 148 |  |
| 514   | WILLIAMSPORT, PA.   | 228        | 112 | 228 | 112        | 135 | 135 | 140        | 228 | 109 | 228        | 140 | 228 | 140        | 146 | 225 | 146        | 146 |  |

$PF_B = \frac{\text{RELATIVE PRECIPITATION FREQUENCY}}{\text{BRIER SCORE}}$

## WSFO PRECIPITATION FORECASTS NOV 1970 - APR 1971

## EASTERN REGION

## 0600Z SCORES

| INDEX<br>NO. | 1ST PERIOD            |      |      | 2ND PERIOD |      |      | 3RD PERIOD |      |      | 1800Z SCORES |      |      |
|--------------|-----------------------|------|------|------------|------|------|------------|------|------|--------------|------|------|
|              | PF                    | B    | PF   | PF         | B    | PF   | B          | PF   | B    | PF           | B    | PF   |
| 518          | ALBANY, NEW YORK      | .123 | .278 | .260       | .122 | .232 | .157       | .260 | .111 | .232         | .146 | .264 |
| 509          | BOSTON, MASS.         | .102 | .271 | .276       | .127 | .271 | .131       | .276 | .105 | .271         | .119 | .256 |
| 529          | BUFFALO, N.Y.         | .163 | .453 | .439       | .203 | .456 | .238       | .442 | .177 | .453         | .225 | .442 |
| 6712         | BURLINGTON, V.T.      | .148 | .365 | .327       | .162 | .365 | .176       | .337 | .132 | .365         | .136 | .337 |
| 203          | CHARLOTTESVILLE, S.C. | .168 | .394 | .320       | .151 | .343 | .176       | .320 | .144 | .343         | .136 | .320 |
| 132          | CHICAGO, ILL.         | .091 | .132 | .132       | .114 | .182 | .110       | .182 | .085 | .182         | .104 | .189 |
| 210          | CINCINNATI, OHIO      | .072 | .210 | .132       | .114 | .177 | .113       | .177 | .101 | .210         | .099 | .177 |
| 188          | CLEVELAND, OHIO       | .108 | .188 | .227       | .134 | .227 | .134       | .227 | .095 | .133         | .134 | .227 |
| 324          | COLUMBUS, OHIO        | .142 | .361 | .227       | .167 | .198 | .162       | .227 | .101 | .179         | .136 | .227 |
| 424          | GREENSBORO, N.C.      | .122 | .322 | .232       | .121 | .264 | .162       | .232 | .101 | .264         | .151 | .227 |
| 428          | HARTFORD, CONN.       | .081 | .221 | .221       | .121 | .221 | .122       | .221 | .076 | .221         | .113 | .221 |
| 317          | NEW YORK, N.Y.        | .105 | .233 | .276       | .127 | .233 | .129       | .276 | .109 | .233         | .118 | .233 |
| 508          | NORFOLK, VIRGINIA     | .087 | .239 | .238       | .129 | .238 | .128       | .238 | .079 | .238         | .106 | .238 |
| 308          | PITTSBURGH, PA.       | .076 | .215 | .210       | .093 | .215 | .096       | .210 | .034 | .215         | .095 | .204 |
| 409          | PITTSBURGH, PA.       | .074 | .227 | .227       | .091 | .227 | .096       | .227 | .068 | .227         | .104 | .227 |
| 506          | PORTLAND, MAINE       | .109 | .355 | .355       | .138 | .355 | .138       | .355 | .130 | .355         | .136 | .355 |
| 306          | RALEIGH, N.C.         | .047 | .360 | .360       | .146 | .360 | .146       | .360 | .119 | .360         | .124 | .360 |
| 401          | RICHMOND, VIRGINIA    | .072 | .182 | .182       | .109 | .182 | .109       | .182 | .035 | .182         | .107 | .182 |
| 405          | WASHINGTON, D.C.      | .081 | .204 | .204       | .103 | .204 | .103       | .204 | .036 | .204         | .107 | .204 |
| 514          | WILLIAMSPORT, PA.     | .146 | .331 | .326       | .135 | .326 | .135       | .326 | .106 | .326         | .159 | .326 |

PF = RELATIVE PRECIPITATION FREQUENCY  
PB = BRIER SCORE

## WFO PRECIPITATION FORECASTS MAY 1970 - OCT 1970

## SOUTHERN REGION

## 0600Z SCORES

| INDEX<br>NO.                   | 1ST PERIOD |      |      | 2ND PERIOD |      |      | 3RD PERIOD |      |      | 1800Z SCORES |      |      |
|--------------------------------|------------|------|------|------------|------|------|------------|------|------|--------------|------|------|
|                                | PF         | B    | PF   | PF         | B    | PF   | B          | PF   | B    | PF           | B    | PF   |
| 365 ALBUQUERQUE, N.M.          | .072       | .068 | *151 | *113       | *075 | *151 | *103       | *073 | *145 | *108         | *108 | *108 |
| 314-1 AMARILLO, TEXAS          | *077       | *069 | *109 | *085       | *078 | *109 | *090       | *076 | *109 | *109         | *109 | *109 |
| 244 ATLANTA, GEORGIA           | *190       | *113 | *141 | *083       | *190 | *131 | *143       | *192 | *126 | *143         | *097 | *097 |
| 223 AUGUSTA, GEORGIA           | *116       | *116 | *150 | *136       | *223 | *147 | *152       | *093 | *152 | *152         | *152 | *152 |
| 228 BIRMINGHAM, ALABAMA        | *144       | *144 | *116 | *105       | *223 | *152 | *137       | *090 | *145 | *226         | *145 | *145 |
| 250 BROWNSVILLE, TEXAS         | *223       | *144 | *178 | *119       | *217 | *149 | *178       | *101 | *172 | *217         | *172 | *172 |
| 261 DEL RIO, TEXAS             | *109       | *109 | *114 | *092       | *168 | *129 | *114       | *092 | *122 | *168         | *122 | *122 |
| 259 EL PASO, TEXAS             | *071       | *059 | *103 | *075       | *087 | *076 | *103       | *066 | *109 | *109         | *085 | *085 |
| 247 FORT WORTH, TEXAS          | *065       | *103 | *103 | *075       | *071 | *068 | *103       | *091 | *103 | *103         | *103 | *103 |
| 217 HOUSTON, TEXAS             | *120       | *088 | *109 | *094       | *107 | *107 | *104       | *060 | *104 | *104         | *060 | *060 |
| 241 JACKSONVILLE, FLA.         | *217       | *143 | *158 | *143       | *234 | *170 | *158       | *089 | *234 | *155         | *152 | *152 |
| 220 KEY WEST, FLA.             | *168       | *168 | *149 | *149       | *216 | *168 | *182       | *098 | *168 | *168         | *168 | *168 |
| 234 LAKELAND, FLORIDA          | *245       | *184 | *245 | *184       | *263 | *204 | *245       | *182 | *263 | *197         | *239 | *192 |
| 234 JACKSONVILLE, TENNESSEE    | *179       | *107 | *179 | *107       | *243 | *234 | *179       | *101 | *234 | *197         | *179 | *179 |
| 234 JACKSON, MISSISSIPPI       | *130       | *108 | *130 | *108       | *228 | *149 | *130       | *096 | *228 | *145         | *125 | *109 |
| 234 JACKSON, TENNESSEE         | *158       | *096 | *158 | *096       | *201 | *148 | *158       | *097 | *201 | *127         | *125 | *125 |
| 234 JACKSON, ARKANSAS          | *203       | *113 | *196 | *120       | *201 | *159 | *196       | *130 | *201 | *127         | *163 | *163 |
| 234 JACKSON, KENTUCKY          | *283       | *149 | *196 | *120       | *201 | *159 | *196       | *130 | *201 | *127         | *196 | *196 |
| 234 JACKSON, TENNESSEE         | *172       | *127 | *172 | *121       | *217 | *149 | *172       | *122 | *217 | *161         | *161 | *161 |
| 234 JACKSON, FLORIDA           | *278       | *182 | *306 | *199       | *263 | *201 | *263       | *183 | *263 | *183         | *183 | *183 |
| 223 MONTGOMERY, ALABAMA        | *348       | *165 | *190 | *135       | *207 | *128 | *194       | *181 | *207 | *171         | *190 | *190 |
| 223 MONTGOMERY, TENNESSEE      | *217       | *097 | *128 | *101       | *136 | *144 | *128       | *125 | *136 | *136         | *185 | *185 |
| 223 NEW ORLEANS, LOUISIANA     | *333       | *133 | *161 | *110       | *197 | *161 | *163       | *104 | *197 | *163         | *168 | *168 |
| 223 NEW ORLEANS, CITY OF OKLA. | *130       | *123 | *167 | *107       | *133 | *109 | *161       | *104 | *133 | *104         | *144 | *144 |
| 223 NEW ORLEANS, TEXAS         | *122       | *087 | *150 | *100       | *102 | *192 | *150       | *098 | *104 | *198         | *105 | *105 |
| 223 NEW ORLEANS, FLORIDA       | *130       | *084 | *060 | *052       | *037 | *037 | *060       | *089 | *037 | *042         | *063 | *063 |
| 223 NEW ORLEANS, ARIZONA       | *038       | *034 | *060 | *052       | *137 | *171 | *061       | *079 | *137 | *171         | *147 | *147 |
| 223 NEW ORLEANS, TEXAS         | *166       | *111 | *144 | *081       | *146 | *180 | *126       | *091 | *146 | *180         | *147 | *147 |
| 223 NEW ORLEANS, LOUISIANA     | *180       | *133 | *126 | *106       | *192 | *261 | *158       | *118 | *192 | *261         | *186 | *186 |
| 223 NEW ORLEANS, FLORIDA       | *261       | *178 | *158 | *126       | *192 | *261 | *158       | *118 | *192 | *261         | *186 | *186 |

PF = RELATIVE PRECIPITATION FREQUENCY

B = BRIEF SCORE

WSFO PRECIPITATION FORECASTS NOV 1970 - APR 1971

## SOUTHERN REGION

## 0600Z SCORES

| INDEX<br>NO.              | 1ST PERIOD |      |       | 2ND PERIOD |       |       | 3RD PERIOD |       |       | 1ST PERIOD |       |       | 2ND PERIOD |       |       | 3RD PERIOD |       |  |
|---------------------------|------------|------|-------|------------|-------|-------|------------|-------|-------|------------|-------|-------|------------|-------|-------|------------|-------|--|
|                           | PF         | B    | PF    | PF         | B     | PF    | B          | PF    | B     | PF         | B     | PF    | B          | PF    | B     | PF         | B     |  |
| 365 ALBUQUERQUE, N. M.    | .050       | .013 | .035  | .039       | .025  | .023  | .050       | .045  | .025  | .039       | .026  | .050  | .039       | .023  | .039  | .043       | .024  |  |
| 363 AMARILLO, TEXAS       | .0210      | .063 | .0210 | .0210      | .0111 | .0111 | .0211      | .0115 | .0115 | .0210      | .027  | .0210 | .023       | .0123 | .0210 | .023       | .0123 |  |
| 314 ATHENS, GEORGIA       | .0238      | .089 | .0242 | .0242      | .0138 | .0138 | .0239      | .0134 | .0134 | .0242      | .0144 | .0210 | .0243      | .0124 | .0210 | .0243      | .0124 |  |
| 313 AUGUSTA, GEORGIA      | .0221      | .081 | .0245 | .0245      | .0137 | .0137 | .0244      | .0148 | .0148 | .0245      | .0158 | .0224 | .0224      | .0114 | .0224 | .0224      | .0114 |  |
| 210 BIRMINGHAM, ALABAMA   | .0243      | .093 | .0243 | .0243      | .0157 | .0157 | .0244      | .0162 | .0162 | .0244      | .0160 | .0244 | .0244      | .0114 | .0244 | .0244      | .0114 |  |
| 2250 BROWNSVILLE, TEXAS   | .0166      | .057 | .0255 | .0255      | .0157 | .0157 | .0266      | .0162 | .0162 | .0265      | .0155 | .0265 | .0265      | .0162 | .0265 | .0265      | .0162 |  |
| 2261 DEL PASO, TEXAS      | .028       | .035 | .0330 | .0330      | .024  | .024  | .028       | .017  | .017  | .0330      | .0245 | .0330 | .0330      | .019  | .0330 | .0330      | .019  |  |
| 2259 FORT WORTH, TEXAS    | .017       | .014 | .035  | .035       | .025  | .025  | .017       | .017  | .017  | .035       | .025  | .035  | .035       | .050  | .035  | .043       | .043  |  |
| 2443 HOUSTON, TEXAS       | .088       | .077 | .070  | .070       | .061  | .061  | .088       | .073  | .073  | .070       | .053  | .077  | .077       | .057  | .070  | .077       | .057  |  |
| 2335 JACKSONVILLE, MISS.  | .0116      | .076 | .050  | .050       | .0116 | .0116 | .0116      | .0116 | .0116 | .050       | .053  | .057  | .057       | .056  | .057  | .056       | .056  |  |
| 2021 JACKSONVILLE, FLA.   | .0215      | .063 | .0138 | .0138      | .0067 | .0067 | .0138      | .0162 | .0162 | .0138      | .0177 | .0085 | .0085      | .0172 | .0172 | .0172      | .0172 |  |
| 2021 KEY WEST, FLORIDA    | .0138      | .099 | .0067 | .0067      | .0057 | .0057 | .0061      | .0061 | .0061 | .0057      | .0057 | .0054 | .0054      | .0055 | .0055 | .0055      | .0055 |  |
| 2021 KNOXVILLE, TENNESSEE | .0621      | .057 | .0055 | .0055      | .0057 | .0057 | .0056      | .0056 | .0056 | .0055      | .0055 | .0055 | .0055      | .0062 | .0062 | .0062      | .0062 |  |
| 2021 LAFAYETTE, LOUISIANA | .0232      | .050 | .0050 | .0050      | .0050 | .0050 | .0050      | .0050 | .0050 | .0050      | .0050 | .0050 | .0050      | .0071 | .0071 | .0071      | .0071 |  |
| 2021 LAKE CHARLES, LA.    | .0178      | .082 | .0052 | .0052      | .0052 | .0052 | .0052      | .0052 | .0052 | .0052      | .0052 | .0052 | .0052      | .0106 | .0106 | .0106      | .0106 |  |
| 2021 LEESVILLE, LOUISIANA | .0171      | .086 | .0050 | .0050      | .0050 | .0050 | .0050      | .0050 | .0050 | .0050      | .0050 | .0050 | .0050      | .0077 | .0077 | .0077      | .0077 |  |
| 2021 LOUISVILLE, KENTUCKY | .0199      | .100 | .0051 | .0051      | .0051 | .0051 | .0051      | .0051 | .0051 | .0051      | .0051 | .0051 | .0051      | .0119 | .0119 | .0119      | .0119 |  |
| 2021 MEMPHIS, TENNESSEE   | .0199      | .105 | .0051 | .0051      | .0051 | .0051 | .0051      | .0051 | .0051 | .0051      | .0051 | .0051 | .0051      | .0139 | .0139 | .0139      | .0139 |  |
| 2021 MIAMI, FLORIDA       | .0172      | .067 | .0067 | .0067      | .0063 | .0063 | .0063      | .0063 | .0063 | .0063      | .0072 | .0076 | .0076      | .0120 | .0120 | .0120      | .0120 |  |
| 2021 MOBILE, ALABAMA      | .0166      | .086 | .0066 | .0066      | .0066 | .0066 | .0066      | .0066 | .0066 | .0066      | .0066 | .0066 | .0066      | .0164 | .0164 | .0164      | .0164 |  |
| 2226 MONTGOMERY, ALABAMA  | .0204      | .086 | .0066 | .0066      | .0066 | .0066 | .0066      | .0066 | .0066 | .0066      | .0066 | .0066 | .0066      | .0166 | .0166 | .0166      | .0166 |  |
| 2327 NASHVILLE, TENNESSEE | .0182      | .091 | .0091 | .0091      | .0091 | .0091 | .0091      | .0091 | .0091 | .0091      | .0182 | .0116 | .0116      | .0119 | .0119 | .0119      | .0119 |  |
| 2327 NEW ORLEANS, LA.     | .0116      | .091 | .0091 | .0091      | .0091 | .0091 | .0091      | .0091 | .0091 | .0091      | .0116 | .0116 | .0116      | .0116 | .0116 | .0116      | .0116 |  |
| 353 OKLAHOMA CITY, OKLA.  | .0183      | .083 | .0083 | .0083      | .0083 | .0083 | .0083      | .0083 | .0083 | .0083      | .0117 | .0060 | .0060      | .0147 | .0147 | .0147      | .0147 |  |
| 353 ORLANDO, FLORIDA      | .0094      | .065 | .0065 | .0065      | .0065 | .0065 | .0065      | .0065 | .0065 | .0065      | .0070 | .0070 | .0070      | .0070 | .0070 | .0070      | .0070 |  |
| 2201 PHOENIX, ARIZONA     | .0050      | .047 | .0047 | .0047      | .0047 | .0047 | .0047      | .0047 | .0047 | .0047      | .0050 | .0050 | .0050      | .0050 | .0047 | .0047      | .0047 |  |
| 2253 SAN ANTONIO, TEXAS   | .0110      | .071 | .0054 | .0054      | .0054 | .0054 | .0054      | .0054 | .0054 | .0054      | .0050 | .0050 | .0050      | .0050 | .0050 | .0050      | .0050 |  |
| 2448 SHREVEPORT, LA.      | .0099      | .076 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 |  |
| 211 TAMPA, FLORIDA        | .0099      | .075 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 | .0099 | .0099      | .0099 |  |

PF = RELATIVE PRECIPITATION FREQUENCY  
 B = BRIEF SCORE

WSFO PRECIPITATION FORECASTS MAY 1970 - OCT 1970

## CENTRAL REGION

| INDEX<br>No. | 0600Z SCORES           |       |            |       |            |      | 1800Z SCORES |       |            |      |            |      |
|--------------|------------------------|-------|------------|-------|------------|------|--------------|-------|------------|------|------------|------|
|              | 1ST PERIOD             |       | 2ND PERIOD |       | 3RD PERIOD |      | 1ST PERIOD   |       | 2ND PERIOD |      | 3RD PERIOD |      |
|              | PF                     | B     | PF         | B     | PF         | B    | PF           | B     | PF         | B    | PF         | B    |
| 569          | CASPER, WYOMING        | *104  | *142       | *106  | *137       | *110 | *142         | *096  | *137       | *113 | *142       | *108 |
| 534          | CHICAGO, ILLINOIS      | *1239 | *124       | *200  | *141       | *200 | *119         | *233  | *123       | *139 | *200       | *139 |
| 445          | COLUMBIA, MISSOURI     | *250  | *212       | *138  | *250       | *153 | *202         | *107  | *250       | *141 | *212       | *140 |
| 469          | DENVER, COLORADO       | *150  | *104       | *130  | *156       | *123 | *118         | *126  | *156       | *127 | *172       | *128 |
| 546          | DESI MOINES, IOWA      | *186  | *105       | *2346 | *139       | *192 | *139         | *2346 | *191       | *124 | *240       | *165 |
| 537          | DETROIT, MICHIGAN      | *250  | *127       | *2126 | *126       | *250 | *162         | *2246 | *250       | *124 | *222       | *146 |
| 5451         | DODGE CITY, KANSAS     | *136  | *147       | *2146 | *147       | *137 | *113         | *2036 | *135       | *102 | *158       | *124 |
| 476          | GRAND JUNCTION, COLO   | *136  | *092       | *169  | *088       | *072 | *067         | *103  | *069       | *069 | *102       | *124 |
| 635          | GREEN BAY, WISC.       | *261  | *061       | *168  | *223       | *139 | *164         | *255  | *105       | *155 | *228       | *153 |
| 654          | HURON, S. DAK.         | *190  | *134       | *185  | *179       | *147 | *150         | *190  | *121       | *138 | *190       | *156 |
| 438          | INDIANAPOLIS, INDO     | *221  | *124       | *130  | *200       | *132 | *121         | *221  | *095       | *125 | *207       | *155 |
| 747          | INTERNATIONAL FALLS    | *239  | *124       | *140  | *146       | *130 | *124         | *239  | *095       | *125 | *172       | *144 |
| 446          | KANSAS CITY, MO.       | *212  | *126       | *126  | *146       | *126 | *124         | *212  | *124       | *125 | *212       | *150 |
| 576          | LANDER, WYOMING        | *087  | *171       | *064  | *059       | *087 | *070         | *071  | *087       | *071 | *071       | *067 |
| 656          | MINNEAPOLIS, MINN.     | *194  | *120       | *161  | *200       | *146 | *161         | *266  | *146       | *141 | *200       | *175 |
| 552          | NORTHERN PLATTE, NEBR. | *120  | *086       | *168  | *118       | *121 | *111         | *120  | *098       | *120 | *120       | *158 |
| 532          | PEORIA, ILLINOIS       | *251  | *121       | *135  | *110       | *150 | *150         | *251  | *105       | *151 | *251       | *153 |
| 464          | PUEBLO, COLORADO       | *098  | *120       | *158  | *174       | *158 | *103         | *103  | *103       | *103 | *136       | *117 |
| 662          | RAPID CITY, SOUTH DAK. | *326  | *134       | *154  | *154       | *134 | *121         | *092  | *109       | *123 | *163       | *123 |
| 734          | Sault City, MARIE      | *326  | *134       | *144  | *144       | *134 | *121         | *189  | *134       | *121 | *239       | *164 |
| 434          | ST. LOUIS, MO.         | *261  | *131       | *137  | *120       | *162 | *162         | *210  | *095       | *154 | *215       | *137 |
| 450          | WICHITA, KANSAS        | *261  | *115       | *165  | *111       | *123 | *123         | *127  | *127       | *111 | *165       | *115 |
| 767          | WILLISTON, N. DAK.     | *185  | *102       | *149  | *149       | *139 | *121         | *121  | *129       | *129 | *129       | *158 |

PF = RELATIVE PRECIPITATION FREQUENCY  
 B = BRIER SCORE

## WSFO PRECIPITATION FORECASTS NOV 1970 - APR 1971

## CENTRAL REGION

| INDEX<br>No.                 | 0600Z SCORES |      |      | 1800Z SCORES |      |      | 2ND PERIOD |      |      | 1ST PERIOD |      |      | 2ND PERIOD |      |      | 1ST PERIOD |      |      | 3RD PERIOD |      |      | 1800Z SCORES |      |      |      |      |
|------------------------------|--------------|------|------|--------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|--------------|------|------|------|------|
|                              | PF           | B    | PF   | B            | PF   | B    | PF         | B    | PF   | B          | PF   | B    | PF         | B    | PF   | B          | PF   | B    | PF         | B    | PF   | B            | PF   | B    | PF   |      |
| 569 CASPER, WYOMING          | .166         | .078 | .232 | .146         | .166 | .116 | .232       | .118 | .166 | .154       | .162 | .162 | .166       | .154 | .162 | .166       | .154 | .162 | .166       | .154 | .162 | .166         | .154 | .162 | .166 |      |
| 534 CHICAGO, ILLINOIS        | .221         | .109 | .147 | .140         | .221 | .159 | .227       | .149 | .221 | .154       | .224 | .232 | .221       | .232 | .221 | .232       | .221 | .232 | .221       | .232 | .221 | .232         | .221 | .232 | .221 | .232 |
| 445 COLUMBIA, MISSOURI       | .065         | .065 | .122 | .101         | .122 | .095 | .122       | .095 | .122 | .095       | .122 | .122 | .122       | .122 | .122 | .122       | .122 | .122 | .122       | .122 | .122 | .122         | .122 | .122 | .122 | .122 |
| 546 DENVER, COLORADO         | .053         | .053 | .053 | .035         | .053 | .035 | .053       | .035 | .053 | .035       | .053 | .035 | .053       | .035 | .053 | .035       | .053 | .035 | .053       | .035 | .053 | .035         | .053 | .035 | .053 | .035 |
| 537 DES MOINES, IOWA         | .111         | .111 | .187 | .188         | .187 | .188 | .187       | .188 | .187 | .188       | .187 | .188 | .187       | .188 | .187 | .188       | .187 | .188 | .187       | .188 | .187 | .188         | .187 | .188 | .187 | .188 |
| 537 DETROIT, MICHIGAN        | .265         | .111 | .287 | .149         | .287 | .149 | .287       | .149 | .287 | .149       | .287 | .149 | .287       | .149 | .287 | .149       | .287 | .149 | .287       | .149 | .287 | .149         | .287 | .149 | .287 | .149 |
| 447 DODGE CITY, KANSAS       | .062         | .062 | .083 | .062         | .083 | .062 | .083       | .062 | .083 | .062       | .083 | .062 | .083       | .062 | .083 | .062       | .083 | .062 | .083       | .062 | .083 | .062         | .083 | .062 | .083 | .062 |
| 447 GRAND JUNCTION, COLORADO | .064         | .064 | .094 | .073         | .094 | .073 | .094       | .073 | .094 | .073       | .094 | .073 | .094       | .073 | .094 | .073       | .094 | .073 | .094       | .073 | .094 | .073         | .094 | .073 | .094 | .073 |
| 645 GREEN RAPIDS, MICHIGAN   | .260         | .103 | .215 | .132         | .260 | .132 | .215       | .132 | .260 | .132       | .215 | .132 | .215       | .132 | .215 | .132       | .215 | .132 | .215       | .132 | .215 | .132         | .215 | .132 | .215 | .132 |
| 645 HIRON, SOUTH DAKOTA      | .097         | .097 | .148 | .132         | .148 | .132 | .148       | .132 | .148 | .132       | .148 | .132 | .148       | .132 | .148 | .132       | .148 | .132 | .148       | .132 | .148 | .132         | .148 | .132 | .148 | .132 |
| 654 INDIANAPOLIS, INDIANA    | .204         | .094 | .215 | .113         | .204 | .135 | .215       | .135 | .215 | .135       | .215 | .135 | .215       | .135 | .215 | .135       | .215 | .135 | .215       | .135 | .215 | .135         | .215 | .135 | .215 | .135 |
| 433 INTERNATIONAL FALLS      | .193         | .104 | .238 | .138         | .238 | .138 | .238       | .138 | .238 | .138       | .238 | .138 | .238       | .138 | .238 | .138       | .238 | .138 | .238       | .138 | .238 | .138         | .238 | .138 | .238 | .138 |
| 446 KANSAS CITY, MISSOURI    | .116         | .068 | .104 | .072         | .104 | .072 | .104       | .072 | .104 | .072       | .104 | .072 | .104       | .072 | .104 | .072       | .104 | .072 | .104       | .072 | .104 | .072         | .104 | .072 | .104 | .072 |
| 446 KANSAS CITY, NEBRASKA    | .069         | .069 | .127 | .093         | .127 | .093 | .127       | .093 | .127 | .093       | .127 | .093 | .127       | .093 | .127 | .093       | .127 | .093 | .127       | .093 | .127 | .093         | .127 | .093 | .127 | .093 |
| 576 LINCOLN, NEBRASKA        | .243         | .092 | .243 | .143         | .243 | .143 | .243       | .143 | .243 | .143       | .243 | .143 | .243       | .143 | .243 | .143       | .243 | .143 | .243       | .143 | .243 | .143         | .243 | .143 | .243 | .143 |
| 652 NORTH PLATTE, NEBRASKA   | .127         | .075 | .185 | .102         | .185 | .102 | .185       | .102 | .185 | .102       | .185 | .102 | .185       | .102 | .185 | .102       | .185 | .102 | .185       | .102 | .185 | .102         | .185 | .102 | .185 | .102 |
| 532 PEORIA, ILLINOIS         | .166         | .053 | .166 | .053         | .166 | .053 | .166       | .053 | .166 | .053       | .166 | .053 | .166       | .053 | .166 | .053       | .166 | .053 | .166       | .053 | .166 | .053         | .166 | .053 | .166 | .053 |
| 464 PUEBLA, COLORADO         | .066         | .066 | .066 | .066         | .066 | .066 | .066       | .066 | .066 | .066       | .066 | .066 | .066       | .066 | .066 | .066       | .066 | .066 | .066       | .066 | .066 | .066         | .066 | .066 | .066 | .066 |
| 662 RAPID CITY, SOUTH DAKOTA | .132         | .073 | .132 | .073         | .132 | .073 | .132       | .073 | .132 | .073       | .132 | .073 | .132       | .073 | .132 | .073       | .132 | .073 | .132       | .073 | .132 | .073         | .132 | .073 | .132 | .073 |
| 673 SAUL STE, MARIE          | .331         | .155 | .381 | .131         | .381 | .131 | .381       | .131 | .381 | .131       | .381 | .131 | .381       | .131 | .381 | .131       | .381 | .131 | .381       | .131 | .381 | .131         | .381 | .131 | .381 | .131 |
| 434 ST LOUIS, MISSOURI       | .149         | .068 | .149 | .068         | .149 | .068 | .149       | .068 | .149 | .068       | .149 | .068 | .149       | .068 | .149 | .068       | .149 | .068 | .149       | .068 | .149 | .068         | .149 | .068 | .149 | .068 |
| 450 WICHITA, KANSAS          | .099         | .070 | .066 | .054         | .066 | .054 | .066       | .054 | .066 | .054       | .066 | .054 | .066       | .054 | .066 | .054       | .066 | .054 | .066       | .054 | .066 | .054         | .066 | .054 | .066 | .054 |
| 767 WILLISTON, NORTH DAKOTA  | .182         | .110 | .182 | .110         | .182 | .110 | .182       | .110 | .182 | .110       | .182 | .110 | .182       | .110 | .182 | .110       | .182 | .110 | .182       | .110 | .182 | .110         | .182 | .110 | .182 | .110 |

PF = RELATIVE PRECIPITATION FREQUENCY  
B = BRIEF SCORE

## WSFO PRECIPITATION FORECASTS MAY 1970 - OCT 1970

## WESTERN REGION

| INDEX<br>NO.              | 0600Z SCORES     |       |        | 1800Z SCORES |                  |       | 2ND PERIOD |       |                  | 3RD PERIOD |       |       | 3RD PERIOD |       |  |
|---------------------------|------------------|-------|--------|--------------|------------------|-------|------------|-------|------------------|------------|-------|-------|------------|-------|--|
|                           | 1ST PERIOD<br>PF | B     | PF     | B            | 1ST PERIOD<br>PF | B     | PF         | B     | 1ST PERIOD<br>PF | B          | PF    | B     | PF         | B     |  |
| 677 BILLINGS, MONTANA     | 0.125            | .099  | *16.8  | *127         | *125             | *120  | *16.8      | *126  | *125             | *118       | *16.8 | *152  | *16.8      | *152  |  |
| 681 BOISE, IDAHO          | *0.059           | *10.3 | *14.3  | *19.6        | *19.6            | *17.5 | *14.3      | *18.5 | *14.3            | *0.86      | *15.9 | *11.0 | *15.9      | *11.0 |  |
| 498 BOYCE, NEVADA         | *0.167           | *10.3 | *15.0  | *15.0        | *15.0            | *13.3 | *17.2      | *19.5 | *15.1            | *17.4      | *12.0 | *11.4 | *17.4      | *11.4 |  |
| 594 EUREKA, CALIFORNIA    | *0.071           | *0.04 | *0.82  | *0.48        | *0.71            | *0.47 | *0.62      | *0.52 | *0.71            | *0.62      | *0.47 | *0.57 | *0.71      | *0.57 |  |
| 389 FRESNO, CALIFORNIA    | 0.000            | *10.4 | *0.16  | *0.15        | 0                | *0.04 | *0.06      | *0.13 | 0                | *0.06      | *0.06 | *0.16 | *0.06      | *0.16 |  |
| 768 GREAT FALLS, MONTANA  | *1.47            | *1.04 | *1.36  | *1.15        | *1.47            | *1.24 | *1.36      | *1.05 | *1.47            | *1.05      | *1.36 | *1.13 | *1.47      | *1.13 |  |
| 775 HELENA, MONTANA       | *1.61            | *1.04 | *1.68  | *1.08        | *1.56            | *1.25 | *1.83      | *1.01 | *1.56            | *1.01      | *1.63 | *1.28 | *1.56      | *1.28 |  |
| 772 JEROME, IDAHO         | *1.47            | *1.04 | *1.68  | *1.23        | *1.47            | *1.24 | *1.68      | *1.16 | *1.47            | *1.23      | *1.68 | *1.28 | *1.47      | *1.28 |  |
| 386 LAS VEGAS, NEVADA     | *0.27            | *0.25 | *0.022 | *0.25        | *0.27            | *0.25 | *0.25      | *0.26 | *0.27            | *0.27      | *0.26 | *0.24 | *0.27      | *0.24 |  |
| 295 LOS ANGELES, CALIF.   | *0.17            | *0.16 | *0.00  | *0.01        | *0.17            | *0.18 | *0.00      | *0.02 | *0.17            | *0.18      | *0.00 | *0.00 | *0.00      | *0.00 |  |
| 597 MEDFORD, OREGON       | *0.76            | *0.40 | *0.92  | *0.63        | *0.76            | *0.56 | *0.92      | *0.53 | *0.76            | *0.48      | *0.92 | *0.69 | *0.76      | *0.69 |  |
| 773 MISSOULA, MONTANA     | *2.01            | *1.28 | *1.74  | *1.07        | *2.01            | *1.46 | *1.74      | *1.08 | *2.01            | *1.35      | *1.74 | *1.32 | *1.74      | *1.32 |  |
| 688 PENDLETON, OREGON     | *1.04            | *0.54 | *1.26  | *1.04        | *1.04            | *0.86 | *1.26      | *1.04 | *1.04            | *0.84      | *1.04 | *1.05 | *1.04      | *1.05 |  |
| 598 POCAHONTAS, IDAHO     | *1.25            | *0.92 | *1.25  | *1.09        | *1.25            | *1.07 | *1.25      | *1.07 | *1.25            | *1.11      | *1.25 | *1.13 | *1.25      | *1.13 |  |
| 598 PORTLAND, OREGON      | *1.56            | *0.59 | *1.39  | *1.39        | *1.56            | *0.89 | *1.39      | *1.39 | *1.56            | *0.83      | *1.56 | *1.08 | *1.56      | *1.08 |  |
| 490 RENO, NEVADA          | *0.38            | *0.26 | *0.45  | *0.45        | *0.38            | *0.34 | *0.45      | *0.34 | *0.38            | *0.35      | *0.48 | *0.50 | *0.49      | *0.50 |  |
| 493 SACRAMENTO, CALIF.    | *0.22            | *0.10 | *0.22  | *0.22        | *0.22            | *0.19 | *0.22      | *0.19 | *0.22            | *0.15      | *0.22 | *0.13 | *0.22      | *0.13 |  |
| 572 SALT LAKE CITY, UTAH  | *1.53            | *1.14 | *1.47  | *1.15        | *1.53            | *1.14 | *1.53      | *1.15 | *1.53            | *1.12      | *1.53 | *1.10 | *1.53      | *1.10 |  |
| 290 SAN DIEGO, CALIF.     | *0.16            | *0.14 | *0.00  | *0.00        | *0.16            | *0.16 | *0.00      | *0.02 | *0.16            | *0.16      | *0.00 | *0.01 | *0.00      | *0.01 |  |
| 494 SAN FRANCISCO, CALIF. | *0.33            | *0.19 | *0.17  | *0.10        | *0.33            | *0.27 | *0.17      | *0.10 | *0.33            | *0.26      | *0.17 | *0.09 | *0.17      | *0.09 |  |
| 793 SEATTLE, WASHINGTON   | *1.60            | *0.71 | *1.75  | *1.20        | *1.80            | *1.17 | *1.75      | *1.05 | *1.80            | *0.97      | *1.75 | *1.29 | *1.75      | *1.29 |  |
| 785 SPOKANE, WASHINGTON   | *0.98            | *0.73 | *1.25  | *0.97        | *0.98            | *0.40 | *1.25      | *0.98 | *0.92            | *0.38      | *0.98 | *0.99 | *0.92      | *0.99 |  |
| 781 YAKIMA, WASHINGTON    | *0.27            | *0.34 | *0.38  | *0.40        | *0.38            | *0.40 | *0.38      | *0.40 | *0.38            | *0.38      | *0.38 | *0.38 | *0.38      | *0.38 |  |

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## 0600Z SCORES

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|--------------|-----------------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|--|
|              | PF                    | B    | PF   | PF         | B    | PF   | B          | PF   | B    | PF         | B    | PF   | B          | PF   | B    | PF         | B    |  |
| 677          | BILLINGS, MONTANA     | *133 | *139 | *149       | *146 | *210 | *146       | *199 | *138 | *167       | *143 | *210 | *133       | *139 | *167 | *285       | *101 |  |
| 681          | BOLSE, IDAHO          | *118 | *118 | *154       | *169 | *257 | *169       | *285 | *133 | *165       | *143 | *257 | *133       | *165 | *143 | *156       | *101 |  |
| 486          | ELKO, NEVADA          | *144 | *156 | *156       | *144 | *144 | *112       | *156 | *173 | *144       | *151 | *144 | *151       | *156 | *144 | *151       | *101 |  |
| 594          | EUREKA, CALIFORNIA    | *116 | *150 | *155       | *186 | *450 | *186       | *411 | *117 | *141       | *154 | *450 | *117       | *141 | *154 | *155       | *088 |  |
| 389          | FRESNO, CALIFORNIA    | *116 | *150 | *155       | *169 | *116 | *116       | *155 | *154 | *154       | *154 | *116 | *179       | *155 | *154 | *155       | *088 |  |
| 763          | GLASGOW, MONTANA      | *133 | *133 | *204       | *147 | *204 | *150       | *204 | *118 | *204       | *118 | *204 | *118       | *204 | *118 | *204       | *106 |  |
| 775          | GREAT FALLS, MONTANA  | *210 | *118 | *238       | *154 | *210 | *150       | *238 | *126 | *210       | *147 | *210 | *147       | *210 | *147 | *210       | *106 |  |
| 772          | HELENA, MONTANA       | *137 | *193 | *193       | *159 | *160 | *160       | *193 | *144 | *160       | *152 | *193 | *144       | *160 | *152 | *160       | *106 |  |
| 336          | LAS VEGAS, NEVADA     | *028 | *024 | *017       | *022 | *028 | *031       | *017 | *020 | *023       | *021 | *017 | *020       | *023 | *021 | *023       | *021 |  |
| 295          | LOS ANGELES, CALIF.   | *117 | *055 | *034       | *065 | *117 | *071       | *034 | *039 | *117       | *065 | *034 | *039       | *117 | *065 | *034       | *065 |  |
| 552          | MEDFORD, OREGON       | *127 | *055 | *064       | *054 | *121 | *064       | *183 | *147 | *354       | *169 | *183 | *147       | *354 | *169 | *259       | *106 |  |
| 773          | MOSCOW, IDAHO         | *293 | *171 | *359       | *206 | *293 | *212       | *359 | *199 | *359       | *169 | *293 | *199       | *359 | *169 | *293       | *106 |  |
| 630          | PENDLETON, OREGON     | *199 | *149 | *254       | *166 | *199 | *166       | *254 | *156 | *317       | *141 | *254 | *156       | *317 | *141 | *254       | *106 |  |
| 577          | POCAHONTAS, IDAHO     | *256 | *134 | *317       | *156 | *256 | *133       | *317 | *133 | *317       | *141 | *256 | *133       | *317 | *141 | *256       | *106 |  |
| 638          | PORTLAND, OREGON      | *547 | *134 | *470       | *137 | *547 | *218       | *470 | *122 | *547       | *122 | *470 | *122       | *547 | *122 | *547       | *106 |  |
| 488          | RENO, NEVADA          | *133 | *076 | *138       | *104 | *138 | *087       | *138 | *086 | *138       | *091 | *138 | *086       | *138 | *091 | *138       | *098 |  |
| 483          | SACRAMENTO, CALIF.    | *182 | *080 | *182       | *108 | *182 | *111       | *221 | *088 | *221       | *127 | *221 | *088       | *221 | *127 | *221       | *127 |  |
| 572          | SALT LAKE CITY, UTAH  | *232 | *113 | *232       | *141 | *232 | *162       | *232 | *125 | *232       | *151 | *232 | *125       | *232 | *151 | *232       | *151 |  |
| 520          | SAN FRANCISCO, CALIF. | *033 | *044 | *033       | *062 | *088 | *072       | *033 | *043 | *088       | *059 | *033 | *043       | *088 | *059 | *033       | *043 |  |
| 499          | SEASIDE, CALIF.       | *230 | *074 | *199       | *092 | *232 | *115       | *199 | *065 | *199       | *127 | *199 | *065       | *199 | *127 | *199       | *127 |  |
| 733          | SEATTLE, WASHINGTON   | *503 | *127 | *519       | *169 | *503 | *174       | *519 | *139 | *503       | *197 | *519 | *139       | *503 | *197 | *519       | *197 |  |
| 735          | SEPOANE, WASHINGTON   | *276 | *154 | *276       | *192 | *276 | *192       | *276 | *122 | *276       | *197 | *276 | *122       | *276 | *197 | *276       | *197 |  |
| 731          | YAKIMA, WASHINGTON    | *115 | *115 | *115       | *166 | *115 | *135       | *115 | *166 | *115       | *135 | *115 | *166       | *115 | *135 | *115       | *135 |  |

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|----------------------------|--------------|------|------------|------|------------|------|--------------|------|------------|------|------------|------|
|                            | 1ST PERIOD   |      | 2ND PERIOD |      | 3RD PERIOD |      | 1ST PERIOD   |      | 2ND PERIOD |      | 3RD PERIOD |      |
|                            | PF           | B    | PF         | B    | PF         | B    | PF           | B    | PF         | B    | PF         | B    |
| 509 BOSTON MASS., MASS.    | *243         | *129 | *215       | *157 | *263       | *163 | *215         | *137 | *243       | *148 | *260       | *174 |
| 524 CLEVELAND, OHIO        | *239         | *148 | *190       | *124 | *239       | *158 | *190         | *107 | *239       | *144 | *212       | *130 |
| 310 COLUMBIA, S.C.         | *206         | *102 | *169       | *144 | *206       | *154 | *131         | *117 | *239       | *150 | *196       | *135 |
| 503 NEW YORK, N.Y.         | *180         | *102 | *169       | *148 | *186       | *126 | *169         | *088 | *186       | *120 | *169       | *159 |
| 408 PHILADELPHIA, PA.      | *180         | *102 | *164       | *135 | *283       | *126 | *176         | *104 | *283       | *124 | *186       | *160 |
| 520 PITTSBURGH, PA.        | *184         | *121 | *176       | *106 | *186       | *129 | *176         | *104 | *186       | *124 | *173       | *119 |
| 306 RALEIGH, NC.           | *164         | *095 | *151       | *105 | *162       | *114 | *151         | *089 | *163       | *107 | *154       | *105 |
| 405 WASHINGTON, D.C.       |              |      |            |      |            |      |              |      |            |      |            |      |
| 365 ALBUQUERQUE, N.M.      | *050         | *050 | *102       | *080 | *057       | *054 | *104         | *080 | *057       | *056 | *099       | *083 |
| 219 ATLANTA, GA.           | *219         | *124 | *257       | *137 | *127       | *160 | *143         | *091 | *218       | *140 | *196       |      |
| 222 BIRMINGHAM, ALA.       | *098         | *079 | *184       | *102 | *082       | *109 | *184         | *115 | *255       | *144 | *182       | *128 |
| 226 FORT WORTH, TEXAS      | *230         | *125 | *175       | *109 | *229       | *147 | *175         | *117 | *098       | *085 | *107       | *086 |
| 334 MEMPHIS, TENN.         | *230         | *125 | *194       | *109 | *291       | *160 | *194         | *137 | *229       | *135 | *178       | *127 |
| 320 MILAN, FLA.            | *245         | *144 | *144       | *109 | *242       | *165 | *144         | *097 | *291       | *193 | *195       | *159 |
| 231 NEW ORLEANS, LA.       | *295         | *144 | *150       | *109 | *242       | *165 | *144         | *097 | *242       | *155 | *140       | *117 |
| 233 OKLAHOMA CITY, OKLA.   | *142         | *087 | *150       | *109 | *133       | *109 | *150         | *083 | *133       | *104 | *144       | *125 |
| 253 SAN ANTONIO, TEX.      | *142         | *087 | *109       | *087 | *142       | *110 | *109         | *083 | *142       | *103 | *108       | *090 |
| 534 CHICAGO, ILL.          | *227         | *122 | *228       | *133 | *225       | *146 | *228         | *111 | *225       | *131 | *228       | *150 |
| 469 DENVER, COLO.          | *172         | *081 | *228       | *095 | *144       | *094 | *122         | *088 | *145       | *096 | *122       | *098 |
| 537 DETROIT, MICH.         | *209         | *133 | *220       | *137 | *216       | *129 | *176         | *079 | *220       | *120 | *187       | *136 |
| 438 INDIANA POLYS, IND.    | *230         | *133 | *176       | *124 | *123       | *121 | *172         | *097 | *153       | *109 | *173       |      |
| 446 KANSAS CITY, MO.       | *152         | *098 | *172       | *142 | *187       | *134 | *200         | *119 | *187       | *131 | *204       | *151 |
| 658 MINNEAPOLIS, MINN.     | *184         | *115 | *200       | *136 | *244       | *154 | *211         | *113 | *244       | *139 | *213       | *146 |
| 434 ST. LOUIS, MO.         | *244         | *118 | *211       |      |            |      |              |      |            |      |            |      |
| 681 BOISE, IDAHO           | *094         | *066 | *127       | *097 | *094       | *077 | *128         | *085 | *094       | *084 | *127       | *097 |
| 775 GREAT FALLS, MONT.     | *156         | *105 | *166       | *120 | *155       | *105 | *126         | *109 | *166       | *120 | *166       | *130 |
| 776 LOS ANGELES, CALIF.    | *020         | *018 | *007       | *079 | *020       | *021 | *020         | *010 | *007       | *020 | *012       | *008 |
| 698 PORTLAND, ORE.         | *120         | *051 | *075       | *119 | *159       | *119 | *159         | *119 | *157       | *112 | *160       | *123 |
| 572 PORT LAKELAND CITY, UT | *157         | *092 | *157       | *119 | *037       | *027 | *157         | *119 | *037       | *024 | *113       | *037 |
| 544 SAN FRANCISCO, CALIF.  | *033         | *019 | *037       | *086 | *104       | *085 | *033         | *078 | *078       | *026 | *030       | *089 |
| 793 SEATTLE, WASH.         | *102         | *059 | *113       | *086 | *104       | *085 | *113         | *078 | *104       | *074 | *113       | *089 |

PF = RELATIVE PRECIPITATION FREQUENCY  
B = BRIER SCORE

## WSFO AREA PRECIPITATION FORECASTS NOV 1970 - APR 1971

| INDEX<br>NO.              | 0600Z SCORES |      |      |      | 1800Z SCORES |      |      |      | 2ND PERIOD |      |      |      | 3RD PERIOD |      |      |      | 1ST PERIOD |      |      |      | 3RD PERIOD |      |      |      | 2ND PERIOD |      |      |      | 1ST PERIOD |      |      |      | 3RD PERIOD |  |  |  |
|---------------------------|--------------|------|------|------|--------------|------|------|------|------------|------|------|------|------------|------|------|------|------------|------|------|------|------------|------|------|------|------------|------|------|------|------------|------|------|------|------------|--|--|--|
|                           | PF           | B    | PF   | B    | PF           | B    | PF   | B    | PF         | B    | PF   | B    | PF         | B    | PF   | B    | PF         | B    | PF   | B    | PF         | B    | PF   | B    | PF         | B    | PF   | B    | PF         | B    | PF   | B    |            |  |  |  |
| 509 BOSTON MASS.          | .305         | .127 | .314 | .146 | .305         | .159 | .314 | .125 | .305       | .151 | .314 | .151 | .314       | .176 | .314 | .151 | .305       | .151 | .314 | .151 | .314       | .151 | .314 | .151 | .314       | .151 | .314 | .151 | .314       | .151 | .314 | .151 |            |  |  |  |
| 524 CLEVELAND, OHIO       | .260         | .124 | .260 | .134 | .260         | .144 | .260 | .152 | .260       | .162 | .260 | .162 | .260       | .176 | .260 | .162 | .260       | .162 | .260 | .162 | .260       | .162 | .260 | .162 | .260       | .162 | .260 | .162 | .260       | .162 | .260 | .162 |            |  |  |  |
| 310 COLUMBIA, S.C.        | .250         | .081 | .250 | .106 | .250         | .121 | .250 | .137 | .250       | .147 | .250 | .157 | .250       | .167 | .250 | .177 | .250       | .187 | .250 | .197 | .250       | .207 | .250 | .217 | .250       | .227 | .250 | .237 | .250       | .247 | .250 | .257 |            |  |  |  |
| 503 NEW YORK, N.Y.        | .250         | .106 | .250 | .121 | .250         | .137 | .250 | .153 | .250       | .171 | .250 | .171 | .250       | .181 | .250 | .191 | .250       | .191 | .250 | .191 | .250       | .191 | .250 | .191 | .250       | .191 | .250 | .191 | .250       | .191 | .250 | .191 |            |  |  |  |
| 408 PHILADELPHIA, PA.     | .165         | .413 | .165 | .413 | .165         | .413 | .165 | .413 | .165       | .413 | .165 | .413 | .165       | .413 | .165 | .413 | .165       | .413 | .165 | .413 | .165       | .413 | .165 | .413 | .165       | .413 | .165 | .413 | .165       | .413 | .165 | .413 |            |  |  |  |
| 520 PITTSBURGH, PA.       | .213         | .074 | .213 | .074 | .213         | .074 | .213 | .074 | .213       | .074 | .213 | .074 | .213       | .074 | .213 | .074 | .213       | .074 | .213 | .074 | .213       | .074 | .213 | .074 | .213       | .074 | .213 | .074 | .213       | .074 | .213 | .074 |            |  |  |  |
| 405 WASHINGTON, D.C.      | .201         | .076 | .201 | .076 | .201         | .076 | .201 | .076 | .201       | .076 | .201 | .076 | .201       | .076 | .201 | .076 | .201       | .076 | .201 | .076 | .201       | .076 | .201 | .076 | .201       | .076 | .201 | .076 | .201       | .076 | .201 | .076 |            |  |  |  |
| 365 ALBUQUERQUE, N.M.     | .025         | .041 | .025 | .041 | .025         | .041 | .025 | .041 | .025       | .041 | .025 | .041 | .025       | .041 | .025 | .041 | .025       | .041 | .025 | .041 | .025       | .041 | .025 | .041 | .025       | .041 | .025 | .041 | .025       | .041 | .025 | .041 |            |  |  |  |
| 219 ATLANTA, GA.          | .223         | .080 | .223 | .080 | .223         | .080 | .223 | .080 | .223       | .080 | .223 | .080 | .223       | .080 | .223 | .080 | .223       | .080 | .223 | .080 | .223       | .080 | .223 | .080 | .223       | .080 | .223 | .080 | .223       | .080 | .223 | .080 | .223       |  |  |  |
| 259 BIRMINGHAM, ALA.      | .047         | .023 | .047 | .023 | .047         | .023 | .047 | .023 | .047       | .023 | .047 | .023 | .047       | .023 | .047 | .023 | .047       | .023 | .047 | .023 | .047       | .023 | .047 | .023 | .047       | .023 | .047 | .023 | .047       | .023 | .047 | .023 | .047       |  |  |  |
| 334 FORT WORTH, TEXAS     | .036         | .026 | .036 | .026 | .036         | .026 | .036 | .026 | .036       | .026 | .036 | .026 | .036       | .026 | .036 | .026 | .036       | .026 | .036 | .026 | .036       | .026 | .036 | .026 | .036       | .026 | .036 | .026 | .036       | .026 | .036 | .026 | .036       |  |  |  |
| 334 MEMPHIS, TENN.        | .093         | .064 | .093 | .064 | .093         | .064 | .093 | .064 | .093       | .064 | .093 | .064 | .093       | .064 | .093 | .064 | .093       | .064 | .093 | .064 | .093       | .064 | .093 | .064 | .093       | .064 | .093 | .064 | .093       | .064 | .093 | .064 | .093       |  |  |  |
| 202 MIAMI, FLA.           | .034         | .091 | .034 | .091 | .034         | .091 | .034 | .091 | .034       | .091 | .034 | .091 | .034       | .091 | .034 | .091 | .034       | .091 | .034 | .091 | .034       | .091 | .034 | .091 | .034       | .091 | .034 | .091 | .034       | .091 | .034 | .091 |            |  |  |  |
| 353 NEW ORLEANS, LA.      | .033         | .039 | .033 | .039 | .033         | .039 | .033 | .039 | .033       | .039 | .033 | .039 | .033       | .039 | .033 | .039 | .033       | .039 | .033 | .039 | .033       | .039 | .033 | .039 | .033       | .039 | .033 | .039 | .033       | .039 | .033 | .039 |            |  |  |  |
| 253 OKLAHOMA CITY, OKLA.  | .035         | .046 | .035 | .046 | .035         | .046 | .035 | .046 | .035       | .046 | .035 | .046 | .035       | .046 | .035 | .046 | .035       | .046 | .035 | .046 | .035       | .046 | .035 | .046 | .035       | .046 | .035 | .046 | .035       | .046 | .035 | .046 |            |  |  |  |
| 253 SAN ANTONIO, TEX.     | .055         | .046 | .055 | .046 | .055         | .046 | .055 | .046 | .055       | .046 | .055 | .046 | .055       | .046 | .055 | .046 | .055       | .046 | .055 | .046 | .055       | .046 | .055 | .046 | .055       | .046 | .055 | .046 | .055       | .046 | .055 | .046 | .055       |  |  |  |
| 534 CHICAGO, ILL.         | .215         | .097 | .215 | .097 | .215         | .097 | .215 | .097 | .215       | .097 | .215 | .097 | .215       | .097 | .215 | .097 | .215       | .097 | .215 | .097 | .215       | .097 | .215 | .097 | .215       | .097 | .215 | .097 | .215       | .097 | .215 | .097 | .215       |  |  |  |
| 463 DENVER, COLO.         | .130         | .063 | .130 | .063 | .130         | .063 | .130 | .063 | .130       | .063 | .130 | .063 | .130       | .063 | .130 | .063 | .130       | .063 | .130 | .063 | .130       | .063 | .130 | .063 | .130       | .063 | .130 | .063 | .130       | .063 | .130 | .063 | .130       |  |  |  |
| 438 INDIANAPOLIS, IND.    | .106         | .137 | .106 | .137 | .106         | .137 | .106 | .137 | .106       | .137 | .106 | .137 | .106       | .137 | .106 | .137 | .106       | .137 | .106 | .137 | .106       | .137 | .106 | .137 | .106       | .137 | .106 | .137 | .106       | .137 | .106 | .137 |            |  |  |  |
| 446 MINNEAPOLIS, MINN.    | .104         | .094 | .104 | .094 | .104         | .094 | .104 | .094 | .104       | .094 | .104 | .094 | .104       | .094 | .104 | .094 | .104       | .094 | .104 | .094 | .104       | .094 | .104 | .094 | .104       | .094 | .104 | .094 | .104       | .094 | .104 |      |            |  |  |  |
| 434 ST. LOUIS, MO.        | .129         | .067 | .129 | .067 | .129         | .067 | .129 | .067 | .129       | .067 | .129 | .067 | .129       | .067 | .129 | .067 | .129       | .067 | .129 | .067 | .129       | .067 | .129 | .067 | .129       | .067 | .129 | .067 | .129       | .067 | .129 | .067 | .129       |  |  |  |
| 631 BOISE, IDAHO          | .287         | .128 | .287 | .128 | .287         | .128 | .287 | .128 | .287       | .128 | .287 | .128 | .287       | .128 | .287 | .128 | .287       | .128 | .287 | .128 | .287       | .128 | .287 | .128 | .287       | .128 | .287 | .128 | .287       | .128 | .287 | .128 | .287       |  |  |  |
| 775 GREAT FALLS, MONT.    | .215         | .139 | .215 | .139 | .215         | .139 | .215 | .139 | .215       | .139 | .215 | .139 | .215       | .139 | .215 | .139 | .215       | .139 | .215 | .139 | .215       | .139 | .215 | .139 | .215       | .139 | .215 | .139 | .215       | .139 | .215 | .139 | .215       |  |  |  |
| 235 LOS ANGELES, CALIF.   | .357         | .041 | .357 | .041 | .357         | .041 | .357 | .041 | .357       | .041 | .357 | .041 | .357       | .041 | .357 | .041 | .357       | .041 | .357 | .041 | .357       | .041 | .357 | .041 | .357       | .041 | .357 | .041 | .357       | .041 | .357 | .041 | .357       |  |  |  |
| 698 PORTLAND, ORE.        | .350         | .136 | .350 | .136 | .350         | .136 | .350 | .136 | .350       | .136 | .350 | .136 | .350       | .136 | .350 | .136 | .350       | .136 | .350 | .136 | .350       | .136 | .350 | .136 | .350       | .136 | .350 | .136 | .350       | .136 | .350 | .136 | .350       |  |  |  |
| 572 SALT LAKE CITY, UTAH  | .134         | .099 | .134 | .099 | .134         | .099 | .134 | .099 | .134       | .099 | .134 | .099 | .134       | .099 | .134 | .099 | .134       | .099 | .134 | .099 | .134       | .099 | .134 | .099 | .134       | .099 | .134 | .099 | .134       | .099 | .134 | .099 | .134       |  |  |  |
| 494 SAN FRANCISCO, CALIF. | .224         | .081 | .224 | .081 | .224         | .081 | .224 | .081 | .224       | .081 | .224 | .081 | .224       | .081 | .224 | .081 | .224       | .081 | .224 | .081 | .224       | .081 | .224 | .081 | .224       | .081 | .224 | .081 | .224       | .081 | .224 | .081 | .224       |  |  |  |
| 733 SEATTLE, WASH.        | .317         | .133 | .317 | .133 | .317         | .133 | .317 | .133 | .317       | .133 | .317 | .133 | .317       | .133 | .317 | .133 | .317       | .133 | .317 | .133 | .317       | .133 | .317 | .133 | .317       | .133 | .317 | .133 | .317       | .133 | .317 | .133 | .317       |  |  |  |

PF = RELATIVE PRECIPITATION FREQUENCY  
 B = BRIER SCORE

**WSO PRECIPITATION FORECASTS    MAY 1970 - OCT 1970**

| INDEX  | NO.                | 1ST PERIOD |   |      | 2ND PERIOD |   |      | 3RD PERIOD |    |      | 1ST PERIOD |   |      | 2ND PERIOD |   |      | 3RD PERIOD |   |          |
|--------|--------------------|------------|---|------|------------|---|------|------------|----|------|------------|---|------|------------|---|------|------------|---|----------|
|        |                    | PF         | B | PF   | PF         | B | PF   | B          | PF | B    | PF         | B | PF   | PF         | B | PF   | PF         | B |          |
| 7251-8 | ALBANY, NEW YORK   | .126       |   | .239 | .130       |   | .239 | .171       |    | .239 | .108       |   | .239 | .185       |   | .239 | .185       |   | .239     |
| 7240-6 | BALTIMORE, MD.     | .195       |   | .283 | .120       |   | .179 | .173       |    | .179 | .093       |   | .179 | .120       |   | .179 | .120       |   | .179     |
| 7241-2 | BELLEVILLE, N. J.  | .155       |   | .234 | .137       |   | .185 | .137       |    | .185 | .103       |   | .185 | .137       |   | .185 | .137       |   | .185     |
| 7250-4 | BINGHAMPTON, N. Y. | .137       |   | .274 | .143       |   | .195 | .143       |    | .195 | .105       |   | .195 | .143       |   | .195 | .143       |   | .195     |
| 7250-8 | BRIDGEPORT, CONN.  | .091       |   | .293 | .139       |   | .195 | .139       |    | .195 | .105       |   | .195 | .139       |   | .195 | .139       |   | .195     |
| 7251-7 | BUFFALO, N. Y.     | .139       |   | .293 | .142       |   | .175 | .142       |    | .175 | .105       |   | .175 | .142       |   | .175 | .142       |   | .175     |
| 7251-9 | BURLINGTON, Vt.    | .128       |   | .293 | .142       |   | .175 | .142       |    | .175 | .105       |   | .175 | .142       |   | .175 | .142       |   | .175     |
| 7252-1 | CARTERSVILLE, GA.  | .138       |   | .315 | .138       |   | .288 | .138       |    | .288 | .105       |   | .288 | .138       |   | .288 | .138       |   | .288     |
| 7252-4 | CHARLOTTE, N. C.   | .142       |   | .314 | .135       |   | .230 | .135       |    | .230 | .105       |   | .230 | .135       |   | .230 | .135       |   | .230     |
| 7252-5 | CHARLESSTON, S. C. | .089       |   | .197 | .089       |   | .192 | .089       |    | .192 | .095       |   | .192 | .089       |   | .192 | .089       |   | .192     |
| 7252-9 | CONCORD, N. H.     | .138       |   | .212 | .138       |   | .179 | .138       |    | .179 | .105       |   | .179 | .138       |   | .179 | .138       |   | .179     |
| 7253-1 | COLUMBUS, OHIO     | .127       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7253-7 | ELKINS, W. Va.     | .128       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7253-9 | HUNTINGTON, W. Va. | .128       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7254-2 | HUNTINGTON, W. Va. | .128       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7254-5 | LYNCHBURG, VA.     | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7254-8 | MONTGOMERY, ALA.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7255-0 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7255-2 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7255-5 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7255-7 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7255-9 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7256-0 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7256-2 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7256-5 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7256-7 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7256-9 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7257-0 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7257-2 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7257-5 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7257-7 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7257-9 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7258-0 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7258-2 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7258-5 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7258-7 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7258-9 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7259-0 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7259-2 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7259-5 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7259-7 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7259-9 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7260-0 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7260-2 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7260-5 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7260-7 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7260-9 | NEW YORK CITY      | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7261-0 | PROVIDENCE, R. I.  | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7261-2 | RICHMOND, VIRGINIA | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7261-4 | ROANOKE, VIRGINIA  | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7261-6 | ROCHESTER, N. Y.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7261-8 | SYRACUSE, NEW YORK | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7262-0 | WILMINGTON, DEL.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7262-2 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7262-5 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7262-7 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7262-9 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7263-0 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7263-2 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7263-5 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7263-7 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7263-9 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7264-0 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7264-2 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7264-5 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7264-7 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7264-9 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7265-0 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7265-2 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7265-5 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7265-7 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7265-9 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7266-0 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7266-2 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7266-5 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7266-7 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7266-9 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7267-0 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7267-2 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179     |
| 7267-5 | WORCESTER, MASS.   | .125       |   | .212 | .132       |   | .179 | .132       |    | .179 | .105       |   | .179 | .132       |   | .179 | .132       |   | .179</td |

**PF<sub>B</sub>** = RELATIVE PRECIPITATION FREQUENCY

**EASTERN REGION**

PF = RELATIVE PRECIPITATION FREQUENCY  
B = BRIER SCORE

MSO PRECIPITATION FORECASTS MAY 1970 - OCT 1970

SOUTHERN SECTION

$PF_B = \frac{\text{RELATIVE PRECIPITATION SCORE}}{\text{BRIER SCORE}}$

## WSO PRECIPITATION FORECASTS NOV 1970 - APR 1971

## SOUTHERN REGION

| INDEX<br>NO.                     | 0600Z SCORES     |                  |      | 1800Z SCORES     |                  |      |
|----------------------------------|------------------|------------------|------|------------------|------------------|------|
|                                  | 1ST PERIOD<br>PF | 2ND PERIOD<br>PF | B    | 1ST PERIOD<br>PF | 2ND PERIOD<br>PF | B    |
| 722366 ABILENE, TEXAS            | 0.33             | 0.41             | 0.23 | 0.33             | 0.39             | 0.41 |
| 722363 AMARILLO, GEORGIA         | 0.39             | 0.45             | 0.25 | 0.39             | 0.39             | 0.44 |
| 722313 ATHENS, GEORGIA           | 0.75             | 1.15             | 1.26 | 1.03             | 1.60             | 1.30 |
| 722254 AUSTIN, TEXAS             | 0.33             | 0.36             | 1.02 | 0.39             | 0.35             | 0.40 |
| 992000 AUSTIN, ROGUE, TENNESSEE  | 1.50             | 1.04             | 1.22 | 1.26             | 1.65             | 1.29 |
| 722207 BRISTOL, VILLLIE, TEXAS   | 2.60             | 0.55             | 1.25 | 1.26             | 1.60             | 1.60 |
| 722205 BROWNTOWN, LOGALORI, TEX. | 0.55             | 0.51             | 2.54 | 1.26             | 2.23             | 1.28 |
| 722204 BROOKLYN, CHIECHAS, TEXAS | 2.04             | 1.44             | 2.49 | 1.34             | 2.27             | 1.44 |
| 722203 BROWNTOWN, LOGALORI, TEX. | 0.91             | 1.47             | 2.27 | 1.34             | 2.27             | 1.44 |
| 722202 BROWNTOWN, LOGALORI, TEX. | 0.67             | 1.07             | 1.07 | 1.07             | 1.07             | 1.07 |
| 722201 COLUMBUS, TEXAS           | 0.50             | 0.67             | 0.53 | 0.52             | 0.52             | 0.52 |
| 722200 CORPUS CHRISTI, FLA.      | 0.28             | 0.23             | 0.23 | 0.28             | 0.28             | 0.28 |
| 722207 DEL PASO, TEXAS           | 0.30             | 0.57             | 0.54 | 0.34             | 0.46             | 0.46 |
| 722201 EL PASO, TEXAS            | 0.30             | 0.57             | 0.54 | 0.34             | 0.46             | 0.46 |
| 722204 FLAGSTAFF, ARIZONA        | 1.23             | 1.44             | 1.48 | 1.23             | 1.45             | 1.45 |
| 722203 FORT SMYTH, ARKANSAS      | 1.16             | 1.22             | 1.16 | 1.16             | 1.16             | 1.16 |
| 722202 GALVESTON, TEXAS          | 1.43             | 1.43             | 1.32 | 1.38             | 1.38             | 1.38 |
| 722205 HUNTSVILLE, ALABAMA       | 1.00             | 1.05             | 1.19 | 1.25             | 1.25             | 1.25 |
| 722204 JACKSONVILLE, MISS.       | 1.15             | 1.15             | 0.76 | 0.84             | 0.84             | 0.84 |
| 722203 JACKSONVILLE, FLA.        | 1.13             | 1.13             | 0.76 | 0.66             | 0.66             | 0.66 |
| 722202 KEY-XVILLE, LOUISIANA     | 1.06             | 1.06             | 0.73 | 0.73             | 0.73             | 0.73 |
| 722201 LAKELAND, FLORIDA         | 0.75             | 1.07             | 1.07 | 0.95             | 1.05             | 1.05 |
| 722200 LITTLE ROCK, ARK.         | 1.53             | 1.91             | 1.01 | 1.01             | 1.01             | 1.01 |
| 722203 LUTTISBOCK, KENTUCKY      | 1.53             | 1.53             | 1.01 | 1.01             | 1.01             | 1.01 |
| 722202 MACON, GEORGIA            | 2.44             | 2.44             | 1.06 | 1.06             | 1.06             | 1.06 |
| 722201 MERRIDIAN, MISS.          | 2.00             | 2.00             | 1.01 | 1.01             | 1.01             | 1.01 |
| 722200 MERIDIAN, TEXAS           | 1.00             | 1.00             | 1.00 | 1.00             | 1.00             | 1.00 |
| 722203 MONTGOMERY, ALABAMA       | 1.63             | 1.63             | 1.03 | 1.03             | 1.03             | 1.03 |
| 722202 MONTGOMERY, TENNESSEE     | 1.63             | 1.63             | 1.03 | 1.03             | 1.03             | 1.03 |
| 722201 NASHVILLE, TENNESSEE      | 1.63             | 1.63             | 1.03 | 1.03             | 1.03             | 1.03 |
| 722200 ORLANDO, FLORIDA          | 0.66             | 0.66             | 0.44 | 0.44             | 0.44             | 0.44 |
| 722201 PHOENIX, ARIZONA          | 0.17             | 0.15             | 0.15 | 0.15             | 0.15             | 0.15 |
| 722200 PORT ARTHUR, TEXAS        | 1.38             | 1.38             | 1.02 | 1.02             | 1.02             | 1.02 |
| 722203 SAN ANGELO, TEXAS         | 1.23             | 1.08             | 0.24 | 0.24             | 0.24             | 0.24 |
| 722202 SAN JUAN, P.R.            | 1.66             | 1.66             | 0.23 | 0.23             | 0.23             | 0.23 |
| 722201 SAVANNAH, GEORGIA         | 1.66             | 1.66             | 0.23 | 0.23             | 0.23             | 0.23 |
| 722200 SHREVEPORT, LOUISIANA     | 1.07             | 1.07             | 0.04 | 0.04             | 0.04             | 0.04 |
| 722201 TALLAHASSEE, FLA.         | 0.85             | 0.85             | 0.75 | 0.75             | 0.75             | 0.75 |
| 722200 TAMPA, FLORIDA            | 1.93             | 1.93             | 0.67 | 0.67             | 0.67             | 0.67 |
| 722201 WACO, TEXAS               | 0.94             | 0.94             | 0.29 | 0.29             | 0.29             | 0.29 |
| 722200 WEST PALM BEACH, FLA.     | 1.27             | 1.27             | 0.61 | 0.61             | 0.61             | 0.61 |
| 722351 WICHITA FALLS, TEXAS      | 0.67             | 0.67             | 0.43 | 0.43             | 0.43             | 0.43 |

| INDEX<br>NO.                      | 0600Z SCORES     |                  |      | 1800Z SCORES     |                  |      |
|-----------------------------------|------------------|------------------|------|------------------|------------------|------|
|                                   | 1ST PERIOD<br>PF | 2ND PERIOD<br>PF | B    | 1ST PERIOD<br>PF | 2ND PERIOD<br>PF | B    |
| 722313 ABILENE, TEXAS             | 0.33             | 0.41             | 0.23 | 0.33             | 0.39             | 0.41 |
| 722312 AMARILLO, GEORGIA          | 0.39             | 0.45             | 0.25 | 0.39             | 0.39             | 0.44 |
| 722311 ATHENS, GEORGIA            | 0.75             | 1.15             | 1.26 | 1.03             | 1.60             | 1.30 |
| 722310 AUSTIN, TEXAS              | 0.33             | 0.36             | 1.02 | 0.39             | 0.35             | 0.40 |
| 992000 AUSTIN, ROGUE, TENNESSEE   | 1.50             | 1.04             | 1.22 | 1.26             | 1.65             | 1.29 |
| 722309 BRISTOL, VILLLIE, TEXAS    | 2.60             | 0.55             | 2.54 | 1.26             | 2.23             | 1.28 |
| 722308 BROWNTOWN, LOGALORI, TEXAS | 0.55             | 0.51             | 2.54 | 1.26             | 2.23             | 1.28 |
| 722307 BROWNTOWN, LOGALORI, TEXAS | 2.49             | 1.44             | 2.27 | 1.34             | 2.27             | 1.44 |
| 722306 BROWNTOWN, LOGALORI, TEXAS | 0.50             | 0.50             | 2.49 | 1.34             | 2.27             | 1.44 |
| 722305 BROWNTOWN, LOGALORI, TEXAS | 0.50             | 0.50             | 2.49 | 1.34             | 2.27             | 1.44 |
| 722304 BROWNTOWN, LOGALORI, TEXAS | 0.50             | 0.50             | 2.49 | 1.34             | 2.27             | 1.44 |
| 722303 BROWNTOWN, LOGALORI, TEXAS | 0.50             | 0.50             | 2.49 | 1.34             | 2.27             | 1.44 |
| 722302 BROWNTOWN, LOGALORI, TEXAS | 0.50             | 0.50             | 2.49 | 1.34             | 2.27             | 1.44 |
| 722301 COLUMBUS, TEXAS            | 0.28             | 0.23             | 0.23 | 0.28             | 0.28             | 0.28 |
| 722300 CORPUS CHRISTI, FLA.       | 0.28             | 0.23             | 0.23 | 0.28             | 0.28             | 0.28 |
| 722307 DEL PASO, TEXAS            | 0.30             | 0.57             | 0.54 | 0.34             | 0.46             | 0.46 |
| 722306 EL PASO, TEXAS             | 0.30             | 0.57             | 0.54 | 0.34             | 0.46             | 0.46 |
| 722305 FLAGSTAFF, ARIZONA         | 1.23             | 1.44             | 1.16 | 1.16             | 1.16             | 1.16 |
| 722304 FORT SMYTH, ARKANSAS       | 1.16             | 1.22             | 1.16 | 1.16             | 1.16             | 1.16 |
| 722303 GALVESTON, TEXAS           | 1.43             | 1.43             | 1.16 | 1.16             | 1.16             | 1.16 |
| 722302 HUNTSVILLE, ALABAMA        | 1.00             | 1.05             | 1.19 | 1.25             | 1.25             | 1.25 |
| 722301 JACKSONVILLE, MISS.        | 1.15             | 1.15             | 0.76 | 0.84             | 0.84             | 0.84 |
| 722300 JACKSONVILLE, FLA.         | 1.13             | 1.13             | 0.76 | 0.66             | 0.66             | 0.66 |
| 722301 KEY-XVILLE, LOUISIANA      | 1.06             | 1.06             | 0.73 | 0.73             | 0.73             | 0.73 |
| 722300 LAKELAND, FLORIDA          | 0.75             | 1.07             | 1.07 | 0.95             | 1.05             | 1.05 |
| 722301 LITTLE ROCK, ARK.          | 1.53             | 1.91             | 1.01 | 1.01             | 1.01             | 1.01 |
| 722300 LUTTISBOCK, KENTUCKY       | 1.53             | 1.53             | 1.01 | 1.01             | 1.01             | 1.01 |
| 722301 MACON, GEORGIA             | 2.44             | 2.44             | 1.06 | 1.06             | 1.06             | 1.06 |
| 722300 MERRIDIAN, MISS.           | 2.00             | 2.00             | 1.01 | 1.01             | 1.01             | 1.01 |
| 722301 MERRIDIAN, TEXAS           | 1.00             | 1.00             | 1.00 | 1.00             | 1.00             | 1.00 |
| 722303 MONTGOMERY, ALABAMA        | 1.63             | 1.63             | 1.03 | 1.03             | 1.03             | 1.03 |
| 722302 MONTGOMERY, TENNESSEE      | 1.63             | 1.63             | 1.03 | 1.03             | 1.03             | 1.03 |
| 722301 NASHVILLE, TENNESSEE       | 1.63             | 1.63             | 1.03 | 1.03             | 1.03             | 1.03 |
| 722300 ORLANDO, FLORIDA           | 0.66             | 0.66             | 0.44 | 0.44             | 0.44             | 0.44 |
| 722301 PHOENIX, ARIZONA           | 0.17             | 0.15             | 0.15 | 0.15             | 0.15             | 0.15 |
| 722300 PORT ARTHUR, TEXAS         | 1.38             | 1.38             | 1.02 | 1.02             | 1.02             | 1.02 |
| 722303 SAN ANGELO, P.R.           | 1.23             | 1.08             | 0.24 | 0.24             | 0.24             | 0.24 |
| 722302 SAN JUAN, P.R.             | 1.66             | 1.66             | 0.23 | 0.23             | 0.23             | 0.23 |
| 722301 SAVANNAH, GEORGIA          | 1.66             | 1.66             | 0.23 | 0.23             | 0.23             | 0.23 |
| 722300 SHREVEPORT, LOUISIANA      | 1.07             | 1.07             | 0.04 | 0.04             | 0.04             | 0.04 |
| 722301 TALLAHASSEE, FLA.          | 0.85             | 0.85             | 0.75 | 0.75             | 0.75             | 0.75 |
| 722300 TAMPA, FLORIDA             | 1.93             | 1.93             | 0.67 | 0.67             | 0.67             | 0.67 |
| 722301 WACO, TEXAS                | 0.94             | 0.94             | 0.29 | 0.29             | 0.29             | 0.29 |
| 722300 WEST PALM BEACH, FLA.      | 1.27             | 1.27             | 0.61 | 0.61             | 0.61             | 0.61 |
| 722351 WICHITA FALLS, TEXAS       | 0.67             | 0.67             | 0.43 | 0.43             | 0.43             | 0.43 |

PF = RELATIVE PRECIPITATION FREQUENCY  
 PF B = BRIER SCORE

## WSO PRECIPITATION FORECASTS MAY 1970 - OCT 1970

## CENTRAL REGION

| INDEX<br>NO. | 0600Z SCORES                |      |            | 1800Z SCORES |      |            |            |            |
|--------------|-----------------------------|------|------------|--------------|------|------------|------------|------------|
|              | 1ST PERIOD                  |      | 2ND PERIOD | 3RD PERIOD   |      | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD |
|              | PF                          | B    | PF         | B            | PF   | B          | PF         | B          |
| 72462        | ALAMOSA, COLORADO           | *148 | *072       | *137         | *098 | *142       | *102       | *141       |
| 99149        | AURVILLE, YONKERS, ILLINOIS | *202 | *103       | *208         | *131 | *202       | *099       | *214       |
| 772563       | CASPER, WYOMING             | *118 | *087       | *111         | *093 | *118       | *096       | *136       |
| 772564       | CHEYENNE, WYOMING           | *152 | *099       | *125         | *094 | *152       | *109       | *085       |
| 772451       | DES MOINES, IOWA            | *100 | *100       | *239         | *143 | *129       | *136       | *120       |
| 772451       | DODGE CITY, KANSAS          | *136 | *099       | *158         | *124 | *136       | *132       | *140       |
| 772451       | GRAND JUNCTION, COLORADO    | *085 | *054       | *075         | *124 | *114       | *120       | *166       |
| 772456       | HURON, SOUTH DAK.           | *124 | *057       | *055         | *085 | *072       | *050       | *158       |
| 772456       | INTERSTATE FALLS            | *239 | *142       | *201         | *147 | *164       | *054       | *074       |
| 772457       | LANDER, WYOMING             | *087 | *061       | *134         | *162 | *239       | *152       | *111       |
| 772457       | MARQUETTE, MICHIGAN         | *255 | *122       | *067         | *196 | *087       | *071       | *202       |
| 772458       | MOLINE, ILLINOIS            | *250 | *118       | *261         | *171 | *075       | *077       | *077       |
| 772458       | PUEBLO, COLORADO            | *093 | *068       | *139         | *142 | *250       | *149       | *064       |
| 772459       | RAGSDALE, TEXAS             | *125 | *064       | *139         | *123 | *093       | *115       | *255       |
| 772459       | SAUERBRUN, WYOMING          | *326 | *116       | *147         | *111 | *097       | *137       | *171       |
| 772466       | SHERIDAN, WYOMING           | *158 | *084       | *198         | *146 | *276       | *147       | *137       |
| 772466       | TOPEKA, KANSAS              | *207 | *092       | *201         | *115 | *158       | *108       | *158       |
| 772470       | WICHITA, KANSAS             | *153 | *097       | *234         | *128 | *207       | *140       | *234       |
| 772477       | WILLISTON, N. DAK.          | *190 | *105       | *135         | *107 | *131       | *106       | *140       |
|              |                             |      |            |              | *207 | *147       | *207       | *149       |

PF = RELATIVE PRECIPITATION FREQUENCY  
 B = BRIER SCORE

## WFO PRECIPITATION FORECASTS NOV 1970 - APR 1971

## CENTRAL REGION

| INDEX<br>NO. | 0600Z SCORES                     |       |       | 1300Z SCORES |       |       | 1ST PERIOD |       |       | 2ND PERIOD |       |       | 3RD PERIOD |       |       |
|--------------|----------------------------------|-------|-------|--------------|-------|-------|------------|-------|-------|------------|-------|-------|------------|-------|-------|
|              | PF                               | B     | PF    | PF           | B     | PF    | PF         | B     | PF    | B          | PF    | B     | PF         | B     | PF    |
| 72462        | ALAMOSA, COLORADO                | 0.44  | 0.19  | 0.67         | 0.43  | 0.44  | 0.35       | 0.66  | 0.28  | 0.44       | 0.25  | 0.66  | 0.49       | 0.25  | 0.49  |
| 72514        | BURLINGTON, IOWA                 | 0.177 | 0.032 | 0.237        | 0.157 | 0.179 | 0.171      | 0.127 | 0.095 | 0.110      | 0.07  | 0.122 | 0.095      | 0.07  | 0.122 |
| 72515        | CASPER, WYOMING                  | 0.653 | 0.650 | 0.653        | 0.653 | 0.653 | 0.653      | 0.653 | 0.653 | 0.653      | 0.653 | 0.653 | 0.653      | 0.653 | 0.653 |
| 72544        | CHEYENNE, NEBRASKA               | 0.133 | 0.133 | 0.188        | 0.108 | 0.144 | 0.104      | 0.132 | 0.118 | 0.138      | 0.144 | 0.138 | 0.144      | 0.138 | 0.144 |
| 72546        | DES MOINES, IOWA                 | 0.652 | 0.652 | 0.653        | 0.653 | 0.653 | 0.653      | 0.653 | 0.653 | 0.653      | 0.653 | 0.653 | 0.653      | 0.653 | 0.653 |
| 72451        | DODGE CITY, KANSAS               | 0.94  | 0.94  | 0.94         | 0.94  | 0.94  | 0.94       | 0.94  | 0.94  | 0.94       | 0.94  | 0.94  | 0.94       | 0.94  | 0.94  |
| 72476        | GRAND JUNCTION, COLORADO         | 0.144 | 0.144 | 0.177        | 0.073 | 0.138 | 0.141      | 0.105 | 0.105 | 0.105      | 0.105 | 0.105 | 0.105      | 0.105 | 0.105 |
| 72454        | HURON, SOUTH DAK.                | 0.144 | 0.144 | 0.144        | 0.144 | 0.144 | 0.144      | 0.139 | 0.139 | 0.139      | 0.139 | 0.139 | 0.139      | 0.139 | 0.139 |
| 72747        | INTERNATIONAL FALLS, MINNESOTA   | 1.88  | 1.22  | 1.84         | 1.05  | 1.84  | 1.05       | 1.22  | 1.22  | 1.22       | 1.22  | 1.22  | 1.22       | 1.22  | 1.22  |
| 72576        | LANDER, WYOMING                  | 1.44  | 0.49  | 1.44         | 0.49  | 1.44  | 0.49       | 1.02  | 0.61  | 1.02       | 0.61  | 1.02  | 0.61       | 1.02  | 0.61  |
| 72743        | MARquette, MICHIGAN              | 4.25  | 1.60  | 3.76         | 1.60  | 4.25  | 1.60       | 2.34  | 1.47  | 2.34       | 1.47  | 2.34  | 1.47       | 2.34  | 1.47  |
| 72544        | MOLINE, ILLINOIS                 | 1.28  | 0.86  | 1.28         | 0.86  | 1.28  | 0.86       | 1.28  | 0.93  | 1.28       | 0.93  | 1.28  | 0.93       | 1.28  | 0.93  |
| 72464        | PUEBLO, COLORADO                 | 0.62  | 0.67  | 1.00         | 0.67  | 1.00  | 0.67       | 0.00  | 0.00  | 0.00       | 0.00  | 0.00  | 0.00       | 0.00  | 0.00  |
| 72692        | RAGETTE CITY, MARSHALL, MARYLAND | 2.05  | 1.98  | 2.05         | 1.98  | 2.05  | 1.98       | 2.05  | 1.98  | 2.05       | 1.98  | 2.05  | 1.98       | 2.05  | 1.98  |
| 72734        | SHERIDAN, WYOMING                | 2.33  | 1.63  | 2.33         | 1.63  | 2.33  | 1.63       | 2.33  | 1.63  | 2.33       | 1.63  | 2.33  | 1.63       | 2.33  | 1.63  |
| 72456        | TOPEKA, KANSAS                   | 1.27  | 1.61  | 1.05         | 0.78  | 1.33  | 0.84       | 1.05  | 0.55  | 1.05       | 0.55  | 1.05  | 0.55       | 1.05  | 0.55  |
| 72450        | WICHITA, KANSAS                  | 1.93  | 1.60  | 1.60         | 1.14  | 1.60  | 1.14       | 1.35  | 0.99  | 1.60       | 1.00  | 1.60  | 1.00       | 1.60  | 1.00  |
| 72767        | WILLISTON, NORTH DAKOTA          | 1.05  | 1.05  | 1.05         | 1.05  | 1.05  | 1.05       | 1.05  | 1.05  | 1.05       | 1.05  | 1.05  | 1.05       | 1.05  | 1.05  |

PF = RELATIVE PRECIPITATION FREQUENCY  
B = RATER SCORE

## WFO PRECIPITATION FORECASTS MAY 1970 - OCT 1970

## WESTERN REGION

| INDEX<br>NO. | 0600Z SCORES         |      |            |      |            |      | 1800Z SCORES |      |            |      |            |      |
|--------------|----------------------|------|------------|------|------------|------|--------------|------|------------|------|------------|------|
|              | 1ST PERIOD           |      | 2ND PERIOD |      | 3RD PERIOD |      | 1ST PERIOD   |      | 2ND PERIOD |      | 3RD PERIOD |      |
|              | PF                   | B    | PF         | B    | PF         | B    | PF           | B    | PF         | B    | PF         | B    |
| 72791        | ASTORIA, OREGON      | .086 | .228       | .096 | .228       | .128 | .228         | .094 | .228       | .125 | .230       | .117 |
| 72677        | BILLINGS, MONTANA    | .097 | .225       | .174 | .132       | .111 | .125         | .112 | .125       | .103 | .174       | .149 |
| 72486        | BELLEVUE, IDAHO      | .036 | .147       | .158 | .118       | .147 | .120         | .108 | .147       | .147 | .158       | .122 |
| 72693        | BOISE, IDAHO         | .036 | .136       | .114 | .061       | .136 | .081         | .153 | .049       | .065 | .103       | .071 |
| 72694        | EUREKA, CALIFORNIA   | .036 | .136       | .061 | .051       | .071 | .053         | .031 | .010       | .043 | .082       | .060 |
| 72389        | GLASGOW, MONTANA     | .027 | .004       | .082 | .016       | .001 | .001         | .010 | .001       | .004 | .016       | .019 |
| 72777        | HAILEY, IDAHO        | .033 | .103       | .106 | .051       | .147 | .123         | .142 | .097       | .152 | .147       | .106 |
| 72772        | HELENA, MONTANA      | .033 | .103       | .114 | .093       | .152 | .123         | .142 | .098       | .152 | .114       | .114 |
| 72779        | KALISPELL, MONTANA   | .033 | .103       | .154 | .116       | .154 | .126         | .159 | .120       | .154 | .131       | .133 |
| 72386        | LAS VEGAS, NEVADA    | .027 | .025       | .180 | .128       | .208 | .134         | .159 | .120       | .159 | .159       | .129 |
| 72387        | LEWISTON, IDAHO      | .027 | .025       | .028 | .025       | .027 | .029         | .022 | .025       | .027 | .022       | .025 |
| 72388        | MOSCOW, IDAHO        | .027 | .025       | .020 | .016       | .061 | .058         | .022 | .025       | .027 | .022       | .025 |
| 72389        | MISSOULA, MONTANA    | .027 | .025       | .019 | .016       | .201 | .143         | .169 | .101       | .054 | .050       | .074 |
| 72773        | OLYMPTIC, WASHINGTON | .036 | .136       | .152 | .105       | .105 | .084         | .153 | .072       | .207 | .141       | .122 |
| 72777        | OLOCATELLO, IDAHO    | .036 | .136       | .147 | .126       | .141 | .122         | .147 | .098       | .141 | .166       | .194 |
| 72591        | RED BLUFF, CALIF.    | .055 | .015       | .055 | .028       | .055 | .037         | .055 | .055       | .055 | .145       | .118 |
| 72488        | RENO, NEVADA         | .049 | .045       | .055 | .048       | .038 | .034         | .045 | .045       | .038 | .041       | .037 |
| 72483        | SACRAMENTO, CALIF.   | .024 | .022       | .024 | .022       | .022 | .015         | .022 | .015       | .022 | .015       | .014 |
| 72694        | SALEM, OREGON        | .022 | .020       | .022 | .019       | .020 | .016         | .017 | .015       | .015 | .120       | .073 |
| 72290        | SAN DIEGO, CALIF.    | .011 | .007       | .005 | .007       | .011 | .012         | .005 | .010       | .010 | .013       | .005 |
| 72785        | SPOKANE, WASHINGTON  | .062 | .062       | .094 | .094       | .103 | .096         | .120 | .103       | .089 | .103       | .120 |
| 72492        | STOCKTON, CALIFORNIA | .042 | .020       | .013 | .027       | .022 | .022         | .020 | .009       | .027 | .016       | .020 |
| 72274        | TUCSON, ARIZONA      | .043 | .019       | .086 | .054       | .048 | .054         | .009 | .009       | .062 | .054       | .092 |
| 72274        | YUMA, ARIZONA        | .055 | .022       | .114 | .092       | .060 | .060         | .114 | .093       | .065 | .144       | .110 |
| 72781        | YAKIMA, WASHINGTON   | .033 | .033       | .033 | .033       | .033 | .033         | .033 | .033       | .033 | .033       | .032 |

PF = RELATIVE PRECIPITATION FREQUENCY

B = BRIER SCORE

## MSO PRECIPITATION FORECASTS NOV 1970 - APR 1971

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## 0600Z SCORES

| INDEX<br>NO. | 1ST PERIOD               |      |     | 2ND PERIOD |     |      | 3RD PERIOD |      |     | 1800Z SCORES |     |      |
|--------------|--------------------------|------|-----|------------|-----|------|------------|------|-----|--------------|-----|------|
|              | PF                       | B    | PF  | PF         | B   | PF   | B          | PF   | B   | PF           | B   | PF   |
| 72731        | ASTORIA, OREGON          | *108 | 652 | *624       | 167 | *652 | 197        | *624 | 114 | *183         | 166 | *624 |
| 72677        | BILLINGS, MONTANA        | *121 | 204 | *156       | 204 | *144 | 214        | *142 | 204 | *167         | 200 | *206 |
| 72436        | BILLY NEVADA, OREGON     | *150 | 139 | *139       | 145 | *144 | 110        | *144 | 104 | *134         | 134 | *134 |
| 72613        | EUGENE, OREGON           | *152 | 464 | *414       | 128 | *453 | 192        | *414 | 120 | *147         | 147 | *147 |
| 72534        | EUREKA, CALIFORNIA       | *453 | 084 | *414       | 128 | *453 | 192        | *414 | 120 | *147         | 147 | *147 |
| 72514        | FRESNO, CALIFORNIA       | *121 | 036 | *131       | 221 | *121 | 159        | *116 | 155 | *153         | 153 | *153 |
| 72399        | GLENWOOD, MONTANA        | *166 | 120 | *120       | 215 | *166 | 130        | *215 | 106 | *149         | 149 | *149 |
| 72377        | HAYWARD, MONTANA         | *166 | 120 | *120       | 215 | *166 | 130        | *215 | 106 | *149         | 149 | *149 |
| 73772        | HELL'S MOUNTAIN, MONTANA | *130 | 130 | *130       | 130 | *160 | 158        | *193 | 134 | *141         | 141 | *141 |
| 72773        | KALISPELL, MONTANA       | *333 | 333 | *315       | 192 | *337 | 206        | *333 | 197 | *197         | 197 | *197 |
| 72639        | LAS VEGAS, NEVADA        | *353 | 029 | *029       | 111 | *353 | 026        | *337 | 158 | *178         | 178 | *178 |
| 72673        | MEDFORD, OREGON          | *353 | 029 | *029       | 111 | *353 | 026        | *337 | 158 | *178         | 178 | *178 |
| 72673        | MISSOURI, MONTANA        | *304 | 029 | *029       | 111 | *353 | 026        | *337 | 158 | *178         | 178 | *178 |
| 72732        | OLYMPIA, WASHINGTON      | *525 | 084 | *091       | 168 | *304 | 215        | *304 | 121 | *304         | 215 | *304 |
| 72578        | OCAVILLE, IDAHO          | *122 | 254 | *122       | 141 | *122 | 190        | *122 | 104 | *144         | 144 | *144 |
| 72591        | RED BLUFF, CALIF.        | *249 | 066 | *124       | 132 | *249 | 110        | *249 | 128 | *254         | 254 | *254 |
| 72413        | RENO, NEVADA             | *144 | 064 | *105       | 105 | *144 | 110        | *144 | 105 | *144         | 144 | *144 |
| 72413        | SACRAMENTO, CALIF.       | *144 | 064 | *105       | 105 | *144 | 110        | *144 | 105 | *144         | 144 | *144 |
| 72629        | SALEM, OREGON            | *558 | 101 | *101       | 105 | *558 | 209        | *558 | 117 | *102         | 102 | *102 |
| 72629        | SAN DIEGO, CALIF.        | *040 | 105 | *105       | 105 | *040 | 105        | *040 | 136 | *053         | 053 | *053 |
| 72629        | SPOKANE, CHILOE          | *040 | 105 | *105       | 105 | *040 | 105        | *040 | 136 | *053         | 053 | *053 |
| 72492        | SPOKANE, WASHINGTON      | *287 | 118 | *118       | 217 | *287 | 115        | *287 | 112 | *237         | 237 | *237 |
| 72492        | STOCKTON, CALIFORNIA     | *287 | 118 | *118       | 217 | *287 | 115        | *287 | 112 | *237         | 237 | *237 |
| 72374        | TUCSON, ARIZONA          | *055 | 034 | *034       | 034 | *055 | 044        | *044 | 044 | *050         | 050 | *050 |
| 72781        | YAKIMA, WASHINGTON       | *044 | 110 | *110       | 155 | *044 | 094        | *044 | 115 | *038         | 038 | *038 |

PF = RELATIVE PRECIPITATION FREQUENCY  
 B = BRIER SCORE

NMC TEMPERATURE FORECASTS MAY 1970 - OCT 1970

EASTERN REGION

| INDEX | NO.  | 1ST PERIOD        |    |    | 2ND PERIOD |    |    |   |
|-------|------|-------------------|----|----|------------|----|----|---|
|       |      | TV                | TE | TG | TV         | TE | TG |   |
|       | 5108 | ALBANY, NEW YORK  | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5109 | BOSTON, MASS.     | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5110 | BUFFALO, N.Y.     | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5111 | BURLINGTON, Vt.   | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5112 | CARIBOU, MAINE    | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5113 | CHARLOTTE, N.C.   | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5114 | CINCINNATI, OHIO  | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5115 | CLEVELAND, OHIO   | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5116 | COLUMBUS, OHIO    | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5117 | GREENSBORO, N.C.  | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5118 | HARTFORD, CONN.   | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5119 | NEW YORK, N.Y.    | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5120 | NORFOLK, VA.      | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5121 | PHILADELPHIA, PA. | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5122 | PITTSBURGH, PA.   | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5123 | PORTLAND, MAINE   | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5124 | RALEIGH, N.C.     | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5125 | RICHMOND, VA.     | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5126 | WASHINGTON, D.C.  | 5  | 5  | 5          | 5  | 5  | 5 |
|       | 5127 | WILLIAMSPORT, PA. | 5  | 5  | 5          | 5  | 5  | 5 |

$$\begin{aligned}TV &= \text{MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY} \\TE &= \text{MEAN ABSOLUTE FORECAST ERROR} \\TG &= \text{MEAN ALGEBRAIC FORECAST ERROR}\end{aligned}$$

$\text{MEAN} = \text{MEAN}$  ABSOLUTE FORECAST ERROR  
 $\text{MEAN} = \text{MEAN}$  ALGEBRAIC FORECAST ERROR

## NMC TEMPERATURE FORECASTS NOV 1970 - APR 1971

## EASTERN REGION

## 0600Z SCORES

INDEX  
NO.

ALBANY, NEW YORK  
BOSTON, MASS.  
BUFFALO, N.Y.  
CARIBBEAN, W.I.  
CHARLOTTE, N.C.  
CINCINNATI, OHIO  
COLUMBUS, OHIO  
COLUMBURN, OHIO  
CORNELL, ITHACA, N.Y.  
DETROIT, MICH.  
FALL RIVER, MASS.  
HARTFORD, CONN.  
HOBOKEN, N.J.  
NEW YORK, N.Y.  
NORFOLK, VIRGINIA  
PHILADELPHIA, PA.  
PIERSBURGH, PA.  
PORTLAND, MAINE  
RALEIGH, N.C.  
RICHMOND, VA.  
WASHINGTON, D.C.  
WILLIAMSPORT, PA.

## 1800Z SCORES

| INDEX<br>NO. | 1ST PERIOD |     |     | 2ND PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |      |     | 2ND PERIOD |     |     | 3RD PERIOD |     |    |
|--------------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|------|-----|------------|-----|-----|------------|-----|----|
|              | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE   | TG  | TV         | TE  | TG  | TV         | TE  | TG |
| 518          | 4.0        | 7.0 | 3.0 | 9.0        | 0.0 | 6.0 | -1.0       | 7.0 | 4.0 | 5.0        | 1.0  | 9.0 | 4.0        | 2.0 | 7.0 | 4.0        | 3.0 |    |
| 509          | 5.0        | 2.0 | 3.0 | 4.0        | 3.0 | 5.0 | -1.0       | 5.0 | 4.0 | 2.0        | 0.0  | 5.0 | 4.0        | 2.0 | 5.0 | 4.0        | 2.0 |    |
| 523          | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 | -1.0       | 4.0 | 4.0 | 4.0        | 0.0  | 4.0 | 4.0        | 4.0 | 4.0 | 4.0        | 4.0 |    |
| 617          | 7.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 7.0 | 0.0 | 0.0        | 0.0  | 7.0 | 0.0        | 0.0 | 7.0 | 0.0        | 0.0 |    |
| 712          | 2.0        | 3.0 | 1.0 | 1.0        | 2.0 | 1.0 | -2.0       | 2.0 | 3.0 | 1.0        | -1.0 | 2.0 | 3.0        | 1.0 | 2.0 | 3.0        | 1.0 |    |
| 203          | 5.0        | 4.0 | 4.0 | 3.0        | 4.0 | 5.0 | -2.0       | 7.0 | 4.0 | 4.0        | -1.0 | 5.0 | 4.0        | 4.0 | 7.0 | 4.0        | 4.0 |    |
| 314          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 321          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 524          | 5.0        | 5.0 | 5.0 | 5.0        | 5.0 | 5.0 | -1.0       | 5.0 | 5.0 | 5.0        | 0.0  | 5.0 | 5.0        | 5.0 | 5.0 | 5.0        | 5.0 |    |
| 428          | 5.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 5.0 | 0.0 | 0.0        | 0.0  | 5.0 | 0.0        | 0.0 | 5.0 | 0.0        | 0.0 |    |
| 317          | 7.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 7.0 | 0.0 | 0.0        | 0.0  | 7.0 | 0.0        | 0.0 | 7.0 | 0.0        | 0.0 |    |
| 503          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 508          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 308          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 408          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 606          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 306          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 401          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 405          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |
| 514          | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | -1.0       | 0.0 | 0.0 | 0.0        | 0.0  | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 |    |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE 24-HOUR FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

## NMC TEMPERATURE FORECASTS MAY 1970 - OCT 1970

## SOUTHERN REGION

## INDEX

| NO. | ALBUQUERQUE, N.M.      | 0600Z SCORES |            |            | 1800Z SCORES |            |            | 3RD PERIOD |     |      |
|-----|------------------------|--------------|------------|------------|--------------|------------|------------|------------|-----|------|
|     |                        | 1ST PERIOD   | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD   | 2ND PERIOD | 3RD PERIOD | TV         | TE  | TG   |
| 365 | AMARILLO, TEXAS        | 5.0          | 1.2        | 4.5        | 3.0          | 3.8        | 7          | 5.5        | 2.0 | 1.2  |
| 314 | ATLANTA, GEORGIA       | 5.0          | -1.1       | 4.2        | 3.2          | 3.8        | -9         | 5.0        | 2.0 | -1.1 |
| 219 | AUGUSTINIA, ALABAMA    | 3.5          | 2.8        | 2.6        | 2.5          | 2.4        | -7         | 4.0        | 1.4 | -1.2 |
| 228 | BROWNSVILLE, TEXAS     | 3.5          | 3.5        | 3.2        | 3.0          | 2.9        | -8         | 4.0        | 1.5 | -1.2 |
| 261 | DEL RIO, TEXAS         | 3.0          | 0.6        | 0.5        | 0.4          | 0.3        | -9         | 3.0        | 1.4 | -1.2 |
| 270 | FORT WORTH, TEXAS      | 2.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.5        | 1.3 | -1.2 |
| 243 | HOUXTON, MISSISSIPPI   | 2.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.5        | 1.3 | -1.2 |
| 235 | JACKSONVILLE, FLA.     | 2.0          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.0        | 1.3 | -1.2 |
| 206 | KNOXVILLE, TENNESSEE   | 2.0          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.0        | 1.3 | -1.2 |
| 232 | LITTLE ROCK, ARK.      | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 423 | MEMPHIS, KENTUCKY      | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 342 | Miami, FLORIDA         | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 223 | MOBILE, ALABAMA        | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 226 | MONTGOMERY, ALABAMA    | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 327 | NASHVILLE, TENNESSEE   | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 334 | NEW ORLEANS, LOUISIANA | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 205 | ORLANDO, FLORIDA       | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 207 | PHOENIX, ARIZONA       | 1.5          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 1.5        | 1.3 | -1.2 |
| 253 | SAN ANTONIO, TEXAS     | 2.0          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.0        | 1.3 | -1.2 |
| 248 | SHREVEPORT, LOUISIANA  | 2.0          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.0        | 1.3 | -1.2 |
| 211 | TAMPA, FLORIDA         | 2.0          | 0.4        | 0.3        | 0.2          | 0.1        | -9         | 2.0        | 1.3 | -1.2 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TE = MEAN ALGEBRAIC FORECAST ERROR  
 TG = MEAN ABSOLUTE 24-HOUR FORECAST ERROR

NMC TEMPERATURE FORECASTS NOV 1970 - APR 1971

SOUTHERN REGION

|    | MEAN | ABSOLUTE | 24-HOUR  | OBSERVED | VARIABILITY |
|----|------|----------|----------|----------|-------------|
| TV |      |          |          |          |             |
| TE |      |          |          |          |             |
| TG |      |          |          |          |             |
|    | MEAN | ABSOLUTE | FORECAST | ERROR    |             |
|    |      |          |          |          | ALGEBRAIC   |
|    |      |          |          |          | FORECAST    |

## NMC TEMPERATURE FORECASTS MAY 1970 - OCT 1970

## CENTRAL REGION

## INDEX

## NO.

|      | 1ST PERIOD               |      |      | 2ND PERIOD |     |      | 3RD PERIOD |      |     |
|------|--------------------------|------|------|------------|-----|------|------------|------|-----|
|      | TV                       | TE   | TG   | TV         | TE  | TG   | TV         | TE   | TG  |
| 569  | CASPER, WYOMING          | -0.7 | 0.6  | 6.4        | 6.4 | -2.1 | 5.5        | -2.1 | 3.2 |
| 534  | CHICAGO, ILLINOIS        | 4.1  | -0.7 | 5.8        | 3.6 | -1.6 | 5.5        | -1.6 | 4.5 |
| 445  | COLUMBIA, MISSOURI       | 6.0  | 4.0  | 5.9        | 4.7 | -1.0 | 5.8        | -1.0 | 4.1 |
| 469  | DENVER, COLORADO         | 6.6  | 4.0  | 5.9        | 3.2 | -2.4 | 5.6        | -1.1 | 5.0 |
| 546  | DES MOINES, IOWA         | 5.6  | 4.0  | 5.4        | 2.0 | -2.5 | 5.4        | -1.1 | 5.0 |
| 537  | DETROIT, MICHIGAN        | 5.7  | 4.0  | 5.8        | 4.0 | -1.2 | 5.8        | -1.2 | 5.8 |
| 451  | DODGE CITY, KANSAS       | 6.5  | 4.0  | 5.7        | 4.0 | -1.3 | 5.9        | -1.3 | 5.8 |
| 4716 | GRAND JUNCTION, COLORADO | 6.5  | 5.0  | 5.1        | 4.2 | -1.9 | 5.3        | -1.9 | 5.4 |
| 635  | GREEN RAPIDS, MICH.      | 6.5  | 5.5  | 5.5        | 4.2 | -1.9 | 5.7        | -1.9 | 5.8 |
| 645  | GREEN BAY, WISC.         | 6.7  | 4.0  | 5.1        | 4.0 | -1.9 | 5.9        | -1.9 | 5.8 |
| 446  | HUON, S. DAK.            | 7.0  | 7.0  | 5.7        | 5.7 | -1.0 | 6.0        | -1.0 | 6.0 |
| 546  | INDIANAPOLIS, IND.       | 5.0  | 3.0  | 3.0        | 2.0 | -2.0 | 3.0        | -2.0 | 3.0 |
| 747  | INTERNAL FALLS           | 6.0  | 3.0  | 3.0        | 2.0 | -1.0 | 3.0        | -1.0 | 3.0 |
| 446  | KANSAS CITY, MO.         | 6.5  | 3.5  | 3.5        | 2.0 | -1.0 | 3.5        | -1.0 | 3.5 |
| 576  | LANDER, WYOMING          | 5.5  | 4.5  | 4.5        | 3.5 | -1.0 | 4.5        | -1.0 | 4.5 |
| 658  | MINNEAPOLIS, MINN.       | 6.3  | 4.5  | 4.5        | 3.5 | -1.0 | 4.5        | -1.0 | 4.5 |
| 658  | NORTH PLATTE, NEBR.      | 6.1  | 4.5  | 4.5        | 3.5 | -1.0 | 4.5        | -1.0 | 4.5 |
| 552  | PEORIA, ILLINOIS         | 5.6  | 3.0  | 3.0        | 2.0 | -1.0 | 3.0        | -1.0 | 3.0 |
| 464  | PUEBLO, COLORADO         | 5.6  | 2.0  | 2.0        | 1.0 | -1.0 | 2.0        | -1.0 | 2.0 |
| 462  | RABID CITY, SOUTH DAK.   | 7.3  | 4.0  | 4.0        | 3.0 | -1.0 | 4.0        | -1.0 | 4.0 |
| 734  | SAULT STE. MARIE         | 4.5  | 2.0  | 2.0        | 1.0 | -1.0 | 2.0        | -1.0 | 2.0 |
| 450  | ST. LOUIS, MO.           | 6.0  | 1.0  | 1.0        | 0.5 | -0.5 | 1.0        | -0.5 | 1.0 |
| 476  | WILLISTON, N. DAK.       | 6.8  | 0.8  | 0.8        | 0.5 | -0.5 | 0.8        | -0.5 | 0.8 |

## 1800Z SCORES

|      | 1ST PERIOD               |      |      | 2ND PERIOD |     |      | 3RD PERIOD |      |     |
|------|--------------------------|------|------|------------|-----|------|------------|------|-----|
|      | TV                       | TE   | TG   | TV         | TE  | TG   | TV         | TE   | TG  |
| 569  | CASPER, WYOMING          | -0.7 | 0.6  | 6.4        | 6.4 | -2.1 | 5.5        | -2.1 | 3.2 |
| 534  | CHICAGO, ILLINOIS        | 4.1  | -0.7 | 5.8        | 3.6 | -1.6 | 5.5        | -1.6 | 4.5 |
| 445  | COLUMBIA, MISSOURI       | 6.0  | 4.0  | 5.9        | 4.7 | -1.0 | 5.8        | -1.0 | 4.1 |
| 469  | DENVER, COLORADO         | 6.6  | 4.0  | 5.4        | 3.2 | -2.4 | 5.6        | -1.1 | 5.0 |
| 546  | DES MOINES, IOWA         | 5.6  | 4.0  | 5.8        | 4.0 | -1.2 | 5.8        | -1.2 | 5.8 |
| 537  | DETROIT, MICHIGAN        | 5.7  | 4.0  | 5.8        | 4.0 | -1.3 | 5.9        | -1.3 | 5.8 |
| 451  | DODGE CITY, KANSAS       | 6.5  | 4.0  | 5.7        | 4.0 | -1.3 | 5.9        | -1.3 | 5.8 |
| 4716 | GRAND JUNCTION, COLORADO | 6.5  | 5.0  | 5.1        | 4.2 | -1.9 | 5.3        | -1.9 | 5.4 |
| 635  | GREEN RAPIDS, MICH.      | 6.5  | 5.5  | 5.5        | 4.2 | -1.9 | 5.7        | -1.9 | 5.8 |
| 645  | GREEN BAY, WISC.         | 6.7  | 4.0  | 5.1        | 4.0 | -1.9 | 5.9        | -1.9 | 5.8 |
| 446  | HUON, S. DAK.            | 7.0  | 7.0  | 5.7        | 5.7 | -1.0 | 6.0        | -1.0 | 6.0 |
| 546  | INDIANAPOLIS, IND.       | 5.0  | 3.0  | 3.0        | 2.0 | -2.0 | 3.0        | -2.0 | 3.0 |
| 747  | INTERNAL FALLS           | 6.0  | 3.0  | 3.0        | 2.0 | -1.0 | 3.0        | -1.0 | 3.0 |
| 446  | KANSAS CITY, MO.         | 6.5  | 3.5  | 3.5        | 2.0 | -1.0 | 3.5        | -1.0 | 3.5 |
| 576  | LANDER, WYOMING          | 5.5  | 4.5  | 4.5        | 3.5 | -1.0 | 4.5        | -1.0 | 4.5 |
| 658  | MINNEAPOLIS, MINN.       | 6.3  | 4.5  | 4.5        | 3.5 | -1.0 | 4.5        | -1.0 | 4.5 |
| 658  | NORTH PLATTE, NEBR.      | 6.1  | 4.5  | 4.5        | 3.5 | -1.0 | 4.5        | -1.0 | 4.5 |
| 552  | PEORIA, ILLINOIS         | 5.6  | 3.0  | 3.0        | 2.0 | -1.0 | 3.0        | -1.0 | 3.0 |
| 464  | PUEBLO, COLORADO         | 5.6  | 2.0  | 2.0        | 1.0 | -1.0 | 2.0        | -1.0 | 2.0 |
| 462  | RABID CITY, SOUTH DAK.   | 7.3  | 4.0  | 4.0        | 3.0 | -1.0 | 4.0        | -1.0 | 4.0 |
| 734  | SAULT STE. MARIE         | 4.5  | 2.0  | 2.0        | 1.0 | -1.0 | 2.0        | -1.0 | 2.0 |
| 450  | ST. LOUIS, MO.           | 6.0  | 1.0  | 1.0        | 0.5 | -0.5 | 1.0        | -0.5 | 1.0 |
| 476  | WILLISTON, N. DAK.       | 6.8  | 0.8  | 0.8        | 0.5 | -0.5 | 0.8        | -0.5 | 0.8 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

## NMC TEMPERATURE FORECASTS NOV 1970 - APR 1971

## CENTRAL REGION

| INDEX<br>NO. | 0600Z SCORES             |                  |                  | 1800Z SCORES     |                  |                  | 2400Z PERIOD     |                  |                  | 3RU PERIOD       |                  |                  |
|--------------|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|              | 1ST PERIOD<br>TV         | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG |
| 569          | GASPER, WYOMING          | 4.5              | 1                | 6.5              | -3.7             | 7.4              | 5.7              | -1.4             | 6.3              | -3.8             | 5.4              | -1.5             |
| 534          | CHICAGO, ILLINOIS        | 7.3              | -3.8             | 5.8              | -3.5             | 7.7              | 3.5              | -2.8             | 7.3              | -3.5             | 7.2              | -6.2             |
| 445          | COLUMBIA, MISSOURI       | 7.3              | 5.4              | -1.6             | 0.9              | 7.7              | 6.8              | -1.8             | 7.5              | -3.5             | 7.5              | -3.5             |
| 469          | DENVER, COLORADO         | 9.4              | 6.7              | 5.4              | -4.7             | 9.3              | 5.5              | -1.1             | 9.5              | -4.4             | 9.4              | -3.4             |
| 545          | DETROIT, MICHIGAN        | 6.6              | 6.9              | -1.1             | 5.5              | 6.6              | 6.0              | -1.1             | 6.7              | -3.6             | 6.7              | -3.4             |
| 537          | DODGE CITY, KANSAS       | 6.6              | 4.9              | -2.0             | 5.0              | 6.7              | 6.7              | -1.1             | 6.5              | -4.0             | 6.7              | -2.8             |
| 471          | GRAND JUNCTION, COLORADO | 5.1              | 4.6              | -1.5             | 4.8              | 5.0              | 4.9              | -0.4             | 5.0              | -0.2             | 5.0              | -1.0             |
| 631          | GRAND RAPIDS, MICH.      | 6.5              | 6.2              | 4.1              | 1.5              | 6.3              | 6.5              | -0.6             | 6.7              | -0.2             | 6.7              | -1.5             |
| 635          | GREEN BAY, WIS.          | 8.4              | 5.1              | 1.3              | 3.3              | 7.6              | -3.3             | 2.4              | 9.3              | -4.5             | 9.3              | -4.5             |
| 645          | THURON & COLONIAL FALLS  | 8.0              | 2.5              | 1.1              | 1.1              | 8.0              | 8.0              | -0.5             | 8.0              | -0.5             | 8.0              | -0.5             |
| 647          | INDIANAPOLIS, IND.       | 6.0              | 2.5              | 1.1              | 1.1              | 6.0              | 6.0              | -0.5             | 6.0              | -0.5             | 6.0              | -0.5             |
| 747          | KANSAS CITY, MO.         | 7.2              | 4.7              | 1.0              | 1.5              | 7.0              | 7.0              | -0.5             | 7.0              | -0.5             | 7.0              | -0.5             |
| 576          | KANSAS CITY, WYOMING     | 7.0              | 4.0              | 1.0              | 1.5              | 7.1              | 6.3              | -0.5             | 7.1              | -0.5             | 7.1              | -0.5             |
| 658          | MINNEAPOLIS, MINN.       | 7.0              | 4.2              | 1.0              | 1.5              | 7.0              | 7.0              | -0.5             | 7.0              | -0.5             | 7.0              | -0.5             |
| 562          | NORTH PLATTE, NEBR.      | 7.1              | 4.3              | 1.0              | 1.5              | 7.1              | 7.1              | -0.5             | 7.1              | -0.5             | 7.1              | -0.5             |
| 532          | PEORIA, ILLINOIS         | 10.0             | 3.3              | 1.5              | 1.5              | 10.0             | 9.0              | -1.5             | 10.0             | -1.5             | 10.0             | -1.5             |
| 464          | PUEBLO, COLORADO         | 9.7              | 3.2              | 1.0              | 1.5              | 9.7              | 9.7              | -1.5             | 9.7              | -1.5             | 9.7              | -1.5             |
| 546          | RAPID CITY, S. DAK.      | 10.2             | 3.2              | 1.0              | 1.5              | 10.2             | 9.2              | -1.5             | 10.2             | -1.5             | 10.2             | -1.5             |
| 662          | SAULSBURY, MARIE         | 10.5             | 3.9              | 1.0              | 1.5              | 10.5             | 9.5              | -1.5             | 10.5             | -1.5             | 10.5             | -1.5             |
| 734          | ST. LOUIS, MO.           | 9.6              | 3.8              | 1.0              | 1.5              | 9.6              | 9.2              | -1.5             | 9.6              | -1.5             | 9.6              | -1.5             |
| 470          | WICHITTA, KANSAS         | 8.0              | 3.7              | 1.0              | 1.5              | 8.0              | 8.2              | -1.5             | 8.0              | -1.5             | 8.0              | -1.5             |
| 767          | WILLISTON, N. DAK.       | 8.0              | 3.1              | 1.0              | 1.5              | 8.0              | 8.2              | -1.5             | 8.0              | -1.5             | 8.0              | -1.5             |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

NMC TEMPERATURE FORECASTS MAY 1970 - OCT 1970

WESTERN REGION

$T_V$  = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 $T_E$  = MEAN ABSOLUTE FORECAST ERROR  
 $T_G$  = MEAN ALGEBRAIC FORECAST ERROR

$T_V = \text{MEAN ABSOLUTE } 24\text{-HOUR OBSERVED}$   
 $T_E = \text{MEAN ABSOLUTE } 24\text{-HOUR FORECAST ERROR}$   
 $T_G = \text{MEAN ALGEBRAIC FORECAST ERROR}$

## NMC TEMPERATURE FORECASTS NOV 1970 - APR 1971

## WESTERN REGION

| INDEX<br>NO.             | 0600Z SCORES |     |      | 1800Z SCORES |     |      | 1ST PERIOD |     |      | 2ND PERIOD |     |      | 3RD PERIOD |     |      | 1ST PERIOD |     |      | 2ND PERIOD |     |      | 3RD PERIOD |     |      |
|--------------------------|--------------|-----|------|--------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|
|                          | TV           | TE  | TG   | TV           | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   |
| 677 BILLINGS, MONTANA    | 9.8          | 6.7 | 3.0  | 7.6          | 5.4 | -1.0 | 9.9        | 7.5 | 3.0  | 7.6        | 5.0 | -1.5 | 7.5        | 7.0 | 2.0  | 7.5        | 7.8 | 2.7  | 7.5        | 7.8 | 2.5  | 7.5        | 7.8 | 2.5  |
| 681 BOISE, IDAHO         | 4.9          | 3.6 | -0.7 | 5.9          | 6.9 | -1.5 | 5.0        | 4.1 | -2.4 | 5.9        | 5.3 | -3.3 | 5.0        | 4.1 | -3.3 | 5.0        | 5.3 | -3.1 | 5.0        | 5.3 | -3.1 | 5.0        | 5.3 | -3.1 |
| 686 ELY, NEVADA          | 6.3          | 2.9 | 2.5  | 3.7          | 3.4 | -0.2 | 6.3        | 5.0 | -2.4 | 6.3        | 5.6 | -2.6 | 6.3        | 5.6 | -2.6 | 6.3        | 5.6 | -2.6 | 6.3        | 5.6 | -2.6 | 6.3        | 5.6 | -2.6 |
| 486 EUREKA, CALIFORNIA   | 5.9          | 2.9 | 2.5  | 3.7          | 3.4 | -0.2 | 5.9        | 4.8 | -2.4 | 5.9        | 5.3 | -2.4 | 5.9        | 5.3 | -2.4 | 5.9        | 5.3 | -2.4 | 5.9        | 5.3 | -2.4 | 5.9        | 5.3 | -2.4 |
| 583 GLASGOW, MONTANA     | 4.8          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 5.8        | 4.9 | -2.5 | 5.8        | 5.3 | -2.7 | 5.8        | 5.3 | -2.7 | 5.8        | 5.3 | -2.7 | 5.8        | 5.3 | -2.7 | 5.8        | 5.3 | -2.7 |
| 768 GREAT FALLS, MONTANA | 6.2          | 3.5 | 2.1  | 5.2          | 4.5 | -0.2 | 6.2        | 5.0 | -2.5 | 6.2        | 5.5 | -2.7 | 6.2        | 5.5 | -2.7 | 6.2        | 5.5 | -2.7 | 6.2        | 5.5 | -2.7 | 6.2        | 5.5 | -2.7 |
| 775 HELENA, MONTANA      | 4.7          | 3.5 | 2.2  | 5.2          | 4.8 | -0.2 | 5.7        | 5.2 | -2.3 | 5.7        | 5.7 | -2.3 | 5.7        | 5.7 | -2.3 | 5.7        | 5.7 | -2.3 | 5.7        | 5.7 | -2.3 | 5.7        | 5.7 | -2.3 |
| 386 LAS VEGAS, NEVADA    | 4.4          | 3.5 | 2.2  | 5.1          | 4.8 | -0.2 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 |
| 389 LOS ANGELES, CALIF.  | 4.4          | 3.5 | 2.2  | 5.1          | 4.8 | -0.2 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 | 5.4        | 5.0 | -2.0 |
| 295 MEDFORD, OREGON      | 6.0          | 4.1 | 1.4  | 5.0          | 4.5 | -0.2 | 6.0        | 5.4 | -1.6 | 6.0        | 5.5 | -1.6 | 6.0        | 5.5 | -1.6 | 6.0        | 5.5 | -1.6 | 6.0        | 5.5 | -1.6 | 6.0        | 5.5 | -1.6 |
| 597 MISSOULINA, MONTANA  | 3.9          | 2.5 | 0.7  | 4.5          | 3.8 | -0.2 | 5.5        | 4.2 | -1.5 | 5.5        | 4.7 | -1.5 | 5.5        | 4.7 | -1.5 | 5.5        | 4.7 | -1.5 | 5.5        | 4.7 | -1.5 | 5.5        | 4.7 | -1.5 |
| 688 POCATELLO, IDAHO     | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 578 RENO, NEVADA         | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 483 SACRAMENTO, CALIF.   | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 572 SALT LAKE CITY, UTAH | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 493 SAN DIEGO, CALIF.    | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 494 SEATTLE, WASHINGTON  | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 793 SPOKANE, WASHINGTON  | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |
| 781 YAKIMA, WASHINGTON   | 5.0          | 3.5 | 1.4  | 5.5          | 4.0 | -0.2 | 6.0        | 4.4 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 | 6.0        | 4.9 | -1.4 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

NMC AREA TEMPERATURE FORECASTS MAY 1970 - OCT 1970

NMC AREA TEMPERATURE FORECASTS NOV 1970 - APR 1971

WSFO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

## EASTERN REGION

## INDEX

| NO. | CITY               | 0600Z SCORES |    |    | 1800Z SCORES |    |    | 1ST PERIOD |    |    | 2ND PERIOD |     |    | 3RD PERIOD |     |    | 1ST PERIOD |     |    | 2ND PERIOD |     |    | 3RD PERIOD |     |    |
|-----|--------------------|--------------|----|----|--------------|----|----|------------|----|----|------------|-----|----|------------|-----|----|------------|-----|----|------------|-----|----|------------|-----|----|
|     |                    | TV           | TE | TG | TV           | TE | TG | TV         | TE | TG | TV         | TE  | TG | TV         | TE  | TG | TV         | TE  | TG | TV         | TE  | TG | TV         | TE  | TG |
| 518 | ALBANY, NEW YORK   | 5.6          | -6 | 6  | 4.3          | -2 | 6  | 5.6        | 7  | -6 | 7.0        | 0   | 2  | 5.6        | 5   | -4 | 5.1        | 0   | 2  | 5.8        | 0   | 1  | 5.1        | 0   | 2  |
| 519 | BUFFALO, N.Y.      | 6.0          | 6  | 6  | 4.0          | 1  | 0  | 5.7        | 9  | 1  | 4.1        | 2   | 4  | 6.0        | 6   | 0  | 4.6        | 2   | 4  | 6.0        | 6   | 0  | 4.6        | 2   | 4  |
| 520 | BURLINGTON, V.T.   | 6.0          | 8  | 8  | 4.2          | 1  | 0  | 6.0        | 3  | 4  | 1.6        | 6.0 | 6  | 6          | 6.0 | 6  | 0          | 1.6 | 6  | 0          | 1.6 | 6  | 0          | 1.6 |    |
| 617 | CARIBOU, MAINE     | 6.0          | 2  | 2  | 3.7          | -1 | 3  | 3.8        | 2  | 1  | 6.0        | 3   | 6  | 7.2        | 2   | 1  | 4.4        | 3   | 6  | 7.2        | 2   | 1  | 4.4        | 3   | 6  |
| 618 | CHARLOTTE, N.C.    | 6.0          | 1  | 1  | 3.5          | 0  | 0  | 1.5        | 1  | 1  | 6.0        | 1   | 1  | 6.0        | 1   | 1  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 619 | CINCINNATI, OHIO   | 6.0          | 4  | 4  | 3.5          | 3  | 4  | 6.0        | 9  | 7  | 6.0        | 7   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  |
| 620 | CLEVELAND, OHIO    | 6.0          | 4  | 4  | 3.5          | 3  | 4  | 6.0        | 9  | 7  | 6.0        | 7   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  |
| 621 | COLUMBUS, OHIO     | 6.0          | 5  | 5  | 4.0          | 3  | 5  | 6.0        | 1  | 0  | 6.0        | 1   | 0  | 6.0        | 1   | 0  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 622 | GREENSBORO, N.C.   | 6.0          | 4  | 4  | 3.5          | 3  | 4  | 6.0        | 9  | 7  | 6.0        | 7   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  |
| 623 | HARTFORD, CONN.    | 6.0          | 5  | 5  | 4.0          | 3  | 5  | 6.0        | 1  | 0  | 6.0        | 1   | 0  | 6.0        | 1   | 0  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 624 | NEW YORK, N.Y.     | 6.0          | 4  | 4  | 3.5          | 3  | 4  | 6.0        | 9  | 7  | 6.0        | 7   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  |
| 625 | NORFOLK, VIRGINIA  | 6.0          | 4  | 4  | 3.5          | 3  | 4  | 6.0        | 9  | 7  | 6.0        | 7   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  | 6.0        | 7   | 7  | 1.6        | 6   | 7  |
| 626 | PITTSBURGH, PA.    | 6.0          | 0  | 0  | 2.9          | 2  | 9  | 6.0        | 8  | 6  | 6.0        | 9   | 8  | 6.0        | 9   | 8  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 627 | PORTLAND, MAINE    | 6.0          | 3  | 3  | 2.7          | 1  | 3  | 5.0        | 6  | 0  | 6.0        | 3   | 4  | 6.0        | 3   | 4  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 628 | RALEIGH, N.C.      | 6.0          | 8  | 2  | 5            | 1  | 9  | 4.1        | 1  | 9  | 6.0        | 7   | 3  | 6.0        | 7   | 3  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 629 | RICHMOND, VIRGINIA | 6.0          | 4  | 4  | 3            | 2  | 7  | 6.0        | 8  | 6  | 6.0        | 9   | 8  | 6.0        | 9   | 8  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 630 | WASHINGTON, D.C.   | 6.0          | 0  | 0  | 2.5          | 2  | 5  | 6.0        | 8  | 6  | 6.0        | 9   | 8  | 6.0        | 9   | 8  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 631 | WILLIAMSPORT, PA.  | 6.0          | 4  | 4  | 3            | 2  | 7  | 6.0        | 8  | 6  | 6.0        | 9   | 8  | 6.0        | 9   | 8  | 4.4        | 3   | 6  | 7.0        | 2   | 1  | 4.4        | 3   | 6  |
| 514 |                    |              |    |    |              |    |    |            |    |    |            |     |    |            |     |    |            |     |    |            |     |    |            |     |    |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE 24-HOUR FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

## WSFO TEMPERATURE FORECASTS NOV 1970 - APR 1971

## EASTERN REGION

## 0600Z SCORES

| INDEX<br>NO. | ALBANY, NEW YORK | BOSTON, MASS. | BUFFALO, N.Y. | BURLINGTON, Vt. | CARIBOU, MAINE | CHARLESTON, S.C. | CHARLOTTE, N.C. | CLEVELAND, OHIO | COLUMBUS, OHIO | GREENSBORO, N.C. | HARTFORD, CONN. | NEW YORK, N.Y. | NORFOLK, VIRGINIA | PHILADELPHIA, PA. | PITTSBURGH, PA. | PORTLAND, MAINE | RALEIGH, N.C. | RICHMOND, VA. | WASHINGTON, D.C. | WILLIAMSPORT, PA. |
|--------------|------------------|---------------|---------------|-----------------|----------------|------------------|-----------------|-----------------|----------------|------------------|-----------------|----------------|-------------------|-------------------|-----------------|-----------------|---------------|---------------|------------------|-------------------|
| 518          | -0.2             | 0.3           | 1.0           | 0.2             | 0.5            | 0.5              | 0.5             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 509          | 0.2              | 0.0           | 0.2           | 0.0             | 0.0            | 0.0              | 0.0             | 0.1             | 0.1            | 0.1              | 0.1             | 0.1            | 0.1               | 0.1               | 0.1             | 0.1             | 0.1           | 0.1           | 0.1              |                   |
| 523          | 0.2              | 0.3           | 1.0           | 0.3             | 0.3            | 0.3              | 0.3             | 0.3             | 0.3            | 0.3              | 0.3             | 0.3            | 0.3               | 0.3               | 0.3             | 0.3             | 0.3           | 0.3           | 0.3              |                   |
| 511          | 0.2              | 0.0           | 0.0           | 0.0             | 0.0            | 0.0              | 0.0             | 0.0             | 0.0            | 0.0              | 0.0             | 0.0            | 0.0               | 0.0               | 0.0             | 0.0             | 0.0           | 0.0           | 0.0              |                   |
| 710          | 0.0              | 0.0           | 0.0           | 0.0             | 0.0            | 0.0              | 0.0             | 0.0             | 0.0            | 0.0              | 0.0             | 0.0            | 0.0               | 0.0               | 0.0             | 0.0             | 0.0           | 0.0           | 0.0              |                   |
| 214          | 0.2              | 0.2           | 0.1           | 0.2             | 0.2            | 0.2              | 0.2             | 0.2             | 0.2            | 0.2              | 0.2             | 0.2            | 0.2               | 0.2               | 0.2             | 0.2             | 0.2           | 0.2           | 0.2              |                   |
| 521          | 0.2              | 0.1           | 0.1           | 0.1             | 0.1            | 0.1              | 0.1             | 0.1             | 0.1            | 0.1              | 0.1             | 0.1            | 0.1               | 0.1               | 0.1             | 0.1             | 0.1           | 0.1           | 0.1              |                   |
| 424          | 0.4              | 0.3           | 0.3           | 0.3             | 0.3            | 0.3              | 0.3             | 0.3             | 0.3            | 0.3              | 0.3             | 0.3            | 0.3               | 0.3               | 0.3             | 0.3             | 0.3           | 0.3           | 0.3              |                   |
| 423          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 427          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 508          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 503          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 308          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 308          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 306          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 405          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |
| 514          | 0.4              | 0.4           | 0.4           | 0.4             | 0.4            | 0.4              | 0.4             | 0.4             | 0.4            | 0.4              | 0.4             | 0.4            | 0.4               | 0.4               | 0.4             | 0.4             | 0.4           | 0.4           | 0.4              |                   |

## 1300Z SCORES

| INDEX<br>NO. | 0600Z PERIOD |     |     | 2NU PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |     |     | 2NU PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |     |     |
|--------------|--------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | TV           | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  |
| 518          | 0.8          | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 |
| 509          | 0.9          | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 |
| 523          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 511          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 710          | 0.0          | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 |
| 214          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 521          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 424          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 423          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 427          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 508          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 503          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 308          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 308          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 306          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 405          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 514          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |

| INDEX<br>NO. | 0600Z PERIOD |     |     | 2NU PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |     |     | 2NU PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |     |     |
|--------------|--------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              | TV           | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  |
| 518          | 0.8          | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 | 0.8        | 0.8 | 0.8 |
| 509          | 0.9          | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 | 0.9        | 0.9 | 0.9 |
| 523          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 511          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 710          | 0.0          | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 | 0.0        | 0.0 | 0.0 |
| 214          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 521          | 0.2          | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 | 0.2        | 0.2 | 0.2 |
| 424          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 423          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 427          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 508          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 503          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 308          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 308          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 306          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 405          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |
| 514          | 0.4          | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 | 0.4        | 0.4 | 0.4 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE 24-HOUR FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

WSFO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

SOUTHEASTERN SECTION

44A44BEEDEWLI-22222008001  
INDEX NO. 365

| 3RD PERIOD | TV | TE | TG |
|------------|----|----|----|
| 5          | 5  | 0  | 0  |
| -1         | 0  | 4  | 0  |
| -1         | 1  | 2  | 2  |
| -1         | 1  | 2  | 4  |
| -1         | 1  | 2  | 4  |
| -1         | 1  | 2  | 4  |
| 8          | 8  | 0  | 0  |
| 9          | 8  | 4  | 5  |
| 5          | 1  | 8  | 4  |
| 1          | 1  | 2  | 3  |
| 1          | 1  | 2  | 3  |
| 1          | 1  | 2  | 3  |
| 1          | 1  | 2  | 3  |
| 3          | 3  | 3  | 3  |
| 3          | 3  | 3  | 3  |
| 3          | 3  | 3  | 3  |
| 3          | 3  | 3  | 3  |
| 3          | 3  | 3  | 3  |
| 1          | 1  | 4  | 3  |
| 6          | 6  | 6  | 6  |
| 1          | 1  | 6  | 5  |
| 6          | 6  | 6  | 6  |
| 1          | 1  | 6  | 5  |
| 6          | 6  | 6  | 6  |
| 1          | 1  | 6  | 5  |
| 6          | 6  | 6  | 6  |
| 4          | 4  | 3  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |
| 4          | 4  | 3  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |
| 3          | 3  | 2  | 3  |

$T_V$  = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 $T_E$  = MEAN ABSOLUTE FORECAST ERROR  
 $T_G$  = MEAN ALGEBRAIC FORECAST ERROR

WSFO TEMPERATURE FORECASTS NOV 1970 - APR 1971

## SOUTHERN REGION

## 4600Z SCORES

## INDEX

| NO.  | ALBUQUERQUE, N.M.     | 1ST PERIOD |      |     | 2ND PERIOD |     |      | 3RD PERIOD |     |      | 1ST PERIOD |     |      | 2ND PERIOD |     |      | 3RD PERIOD |     |      |
|------|-----------------------|------------|------|-----|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|
|      |                       | TV         | TE   | TG  | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   |
| 365  | AMARILLO, TEXAS       | 3.6        | -0.2 | 2.0 | 6.0        | 4.3 | -1.3 | 5.0        | 1   | -1.2 | 5.0        | 1   | -1.2 | 5.0        | 1   | -1.2 | 5.0        | 1   | -1.2 |
| 363  | ATHENS, GEORGIA       | 4.6        | -0.9 | 2.1 | 7.8        | 4.5 | -0.5 | 1.0        | 3   | -0.3 | 8.0        | 1.0 | -0.2 | 8.0        | 1.0 | -0.2 | 8.0        | 1.0 | -0.2 |
| 314  | ATLANTA, GEORGIA      | 4.2        | -0.5 | 3.0 | 8.0        | 4.6 | -0.6 | 7.5        | 4.7 | -0.6 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 |
| 216  | AUGUSTA, GEORGIA      | 4.3        | -0.5 | 3.0 | 8.0        | 4.6 | -0.6 | 7.5        | 4.7 | -0.6 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 |
| 223  | BIRMINGHAM, ALABAMA   | 4.3        | -0.5 | 3.0 | 8.0        | 4.6 | -0.6 | 7.5        | 4.7 | -0.6 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 |
| 261  | BROWNSVILLE, TEXAS    | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 270  | BROWNWOOD, TEXAS      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 259  | EL PASO, TEXAS        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 243  | FORT WORTH, TEXAS     | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 235  | Houston, Texas        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 206  | JACKSONVILLE, FLA.    | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 201  | KEY WEST, FLORIDA     | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 202  | KNOXVILLE, TENNESSEE  | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 326  | LAKELAND, FLA.        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 324  | MONTGOMERY, ALABAMA   | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 325  | NASHVILLE, TENNESSEE  | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 327  | NEW ORLEANS, LA.      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 328  | OKLAHOMA CITY, OKLA.  | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 329  | ORLANDO, FLORIDA      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 330  | PHOENIX, ARIZONA      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 3253 | SAN ANTONIO, TEXAS    | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 248  | SHREVEPORT, LOUISIANA | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 211  | TAMPA, FLORIDA        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |

## 1300Z SCORES

| INDEX | ALBUQUERQUE, N.M.     | 1ST PERIOD |      |     | 2ND PERIOD |     |      | 3RD PERIOD |     |      | 1ST PERIOD |     |      | 2ND PERIOD |     |      | 3RD PERIOD |     |      |
|-------|-----------------------|------------|------|-----|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|
|       |                       | TV         | TE   | TG  | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   |
| 365   | AMARILLO, TEXAS       | 3.6        | -0.2 | 2.0 | 6.0        | 4.3 | -1.3 | 5.0        | 1   | -1.2 | 5.0        | 1   | -1.2 | 5.0        | 1   | -1.2 | 5.0        | 1   | -1.2 |
| 363   | ATHENS, GEORGIA       | 4.6        | -0.9 | 2.1 | 7.8        | 4.5 | -0.5 | 1.0        | 3   | -0.3 | 8.0        | 1.0 | -0.2 | 8.0        | 1.0 | -0.2 | 8.0        | 1.0 | -0.2 |
| 314   | ATLANTA, GEORGIA      | 4.2        | -0.5 | 3.0 | 8.0        | 4.6 | -0.6 | 7.5        | 4.7 | -0.6 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 |
| 216   | AUGUSTA, GEORGIA      | 4.3        | -0.5 | 3.0 | 8.0        | 4.6 | -0.6 | 7.5        | 4.7 | -0.6 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 |
| 223   | BIRMINGHAM, ALABAMA   | 4.3        | -0.5 | 3.0 | 8.0        | 4.6 | -0.6 | 7.5        | 4.7 | -0.6 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 | 8.0        | 0.6 | -0.7 |
| 261   | BROWNSVILLE, TEXAS    | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 270   | BROWNWOOD, TEXAS      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 243   | EL PASO, TEXAS        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 235   | FORT WORTH, TEXAS     | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 206   | Houston, Texas        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 201   | JACKSONVILLE, FLA.    | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 202   | KEY WEST, FLORIDA     | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 326   | KNOXVILLE, TENNESSEE  | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 324   | LAKELAND, FLA.        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 325   | MONTGOMERY, ALABAMA   | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 326   | NASHVILLE, TENNESSEE  | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 327   | NEW ORLEANS, LA.      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 328   | OKLAHOMA CITY, OKLA.  | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 329   | ORLANDO, FLORIDA      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 330   | PHOENIX, ARIZONA      | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 3253  | SAN ANTONIO, TEXAS    | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 248   | SHREVEPORT, LOUISIANA | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |
| 211   | TAMPA, FLORIDA        | 4.6        | -0.6 | 3.0 | 9.6        | 4.4 | -1.1 | 9.0        | 4.4 | -1.1 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 | 10.0       | 0.6 | -0.7 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

WSFO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

CENTRAL REGION

| INDEX<br>NO. | 1ST PERIOD        |          |       | 2ND PERIOD |      |     | 3RD PERIOD |      |     | 1ST PERIOD |      |     | 2ND PERIOD |      |     | 3RD PERIOD |      |     |
|--------------|-------------------|----------|-------|------------|------|-----|------------|------|-----|------------|------|-----|------------|------|-----|------------|------|-----|
|              | TV                | TE       | TG    | TV         | TE   | TG  | TV         | TE   | TG  | TV         | TE   | TG  | TV         | TE   | TG  | TV         | TE   | TG  |
| 569          | CASPER,           | WYOMING  | -0-7  | 5-5        | -0-5 | 0   | 6-4        | -1-4 | 0-4 | 5-5        | -1-1 | 0-1 | 5-5        | -1-1 | 0-1 | 5-5        | -1-1 | 0-1 |
| 534          | CHIAGO,           | ILLINOIS | 2-0-5 | 5-4        | -0-8 | 0   | 6-5        | -1-0 | 0-9 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 445          | COLMENITA,        | MISSOURI | 2-0-1 | 4-0        | -0-4 | 0   | 5-5        | -1-0 | 0-9 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 469          | DESIER,           | KANSAS   | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 446          | DESMOINES,        | IDAHO    | 1-0-1 | 5-5        | -1-0 | 0-9 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 537          | DETROIT,          | KANSAS   | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 545          | DODGE CITY,       | KANSAS   | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 531          | GRAND JUNCTION,   | COLO.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 476          | GRAND RAPIDS,     | MICH.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 635          | HURON,            | WISC.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 654          | INDIANAPOLIS,     | IND.     | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 438          | INTERSTATE,       | KANSAS   | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 747          | KANSAS CITY,      | MO.      | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 446          | KANSAS CITY,      | MO.      | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 558          | LINNEAUS,         | MINN.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 562          | NORTH PLATE,      | NEBR.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 632          | PEORIA,           | ILLINOIS | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 464          | PUEBLO,           | COLORADO | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 662          | RAPID CITY,       | SDAK.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 734          | SAULT STE. MARIE, | MICH.    | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 434          | SCHAUMBURG,       | KANSAS   | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 450          | SHILLINGTON,      | N. DAK.  | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |
| 767          | WILLISTON,        | N. DAK.  | 1-0-7 | 5-5        | -1-0 | 0-5 | 6-4        | -1-0 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 | 5-5        | -1-1 | 0-2 |

$V = \text{MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY}$

## WSFO TEMPERATURE FORECASTS NOV 1970 - APR 1971

## CENTRAL REGION

| INDEX<br>NO. | 0600Z SCORES             |      |      |            |     |      | 1300Z SCORES |     |      |            |     |      |            |     |      |            |     |      |
|--------------|--------------------------|------|------|------------|-----|------|--------------|-----|------|------------|-----|------|------------|-----|------|------------|-----|------|
|              | 1ST PERIOD               |      |      | 2ND PERIOD |     |      | 3RD PERIOD   |     |      | 1ST PERIOD |     |      | 2ND PERIOD |     |      | 3RD PERIOD |     |      |
|              | TV                       | TE   | TG   | TV         | TE  | TG   | TV           | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   | TV         | TE  | TG   |
| 563          | CASPER, WYOMING          | 6.1  | -3.0 | 7.4        | 5.5 | -7.6 | 6.9          | 5.2 | -2.6 | 7.4        | 4.6 | -9.3 | 8.9        | 7.2 | -4.0 | 7.5        | 4.0 | -1.9 |
| 534          | CHICAGO, ILLINOIS        | 8.9  | 4.5  | 7.7        | 5.6 | -1.4 | 7.3          | 3.8 | -4.1 | 7.6        | 3.5 | -7.7 | 7.6        | 5.5 | -1.2 | 7.5        | 5.5 | -1.7 |
| 445          | COLUMBIA, MISSOURI       | 7.3  | 3.4  | 7.0        | 4.1 | -2.7 | 7.5          | 5.7 | -1.1 | 7.0        | 3.5 | -7.5 | 7.0        | 5.0 | -1.2 | 7.0        | 5.0 | -1.3 |
| 546          | DES MOINES, IOWA         | 8.1  | 4.0  | 7.0        | 3.9 | -1.0 | 8.2          | 5.5 | -3.5 | 8.2        | 4.0 | -7.3 | 8.2        | 4.0 | -1.3 | 8.2        | 4.0 | -1.3 |
| 537          | DETROIT, MICHIGAN        | 6.6  | 3.6  | 7.1        | 4.0 | -2.0 | 6.2          | 4.0 | -4.4 | 6.7        | 3.7 | -7.7 | 6.7        | 4.0 | -1.3 | 6.7        | 4.0 | -1.3 |
| 451          | DODGE CITY, KANSAS       | 10.1 | 5.3  | 12.0       | 7.5 | -0.7 | 10.1         | 5.4 | -2.7 | 10.1       | 5.4 | -2.7 | 10.1       | 5.4 | -2.7 | 10.1       | 5.4 | -2.7 |
| 475          | GRAND JUNCTION, COLORADO | 6.5  | 3.4  | 7.0        | 4.8 | -0.1 | 6.4          | 4.5 | -2.7 | 6.5        | 4.5 | -2.7 | 6.5        | 4.5 | -2.7 | 6.5        | 4.5 | -2.7 |
| 635          | GRAND RAPIDS, MICH.      | 6.0  | 3.3  | 7.0        | 8.3 | -0.1 | 6.1          | 4.1 | -0.0 | 6.0        | 7.0 | -1.0 | 6.0        | 7.0 | -1.0 | 6.0        | 7.0 | -1.0 |
| 645          | GREEN BAY, WISC.         | 7.3  | 3.9  | 7.1        | 4.5 | -1.7 | 9.9          | 4.3 | -1.7 | 8.8        | 6.0 | -1.7 | 8.8        | 6.0 | -1.7 | 8.8        | 6.0 | -1.7 |
| 654          | HURON, S. DAK.           | 8.0  | 4.2  | 8.0        | 5.5 | -0.1 | 8.0          | 5.5 | -0.1 | 8.0        | 5.5 | -0.1 | 8.0        | 5.5 | -0.1 | 8.0        | 5.5 | -0.1 |
| 438          | INDIANAPOLIS, IND.       | 8.0  | 3.2  | 8.0        | 3.2 | -0.2 | 8.0          | 5.2 | -2.2 | 8.0        | 5.2 | -2.2 | 8.0        | 5.2 | -2.2 | 8.0        | 5.2 | -2.2 |
| 747          | INTERNATIONAL FALLS      | 6.3  | 3.4  | 7.0        | 4.0 | -0.2 | 7.0          | 4.0 | -0.2 | 7.0        | 4.0 | -0.2 | 7.0        | 4.0 | -0.2 | 7.0        | 4.0 | -0.2 |
| 446          | KANSAS CITY, MO.         | 3.0  | 1.7  | 4.0        | 3.0 | -1.7 | 3.0          | 1.7 | -1.7 | 3.0        | 1.7 | -1.7 | 3.0        | 1.7 | -1.7 | 3.0        | 1.7 | -1.7 |
| 576          | LANDER, WYOMING          | 7.0  | 4.0  | 7.0        | 4.0 | -0.2 | 7.0          | 4.0 | -0.2 | 7.0        | 4.0 | -0.2 | 7.0        | 4.0 | -0.2 | 7.0        | 4.0 | -0.2 |
| 653          | MINNEAPOLIS, MINN.       | 6.0  | 3.2  | 6.0        | 3.2 | -0.2 | 6.0          | 3.2 | -0.2 | 6.0        | 3.2 | -0.2 | 6.0        | 3.2 | -0.2 | 6.0        | 3.2 | -0.2 |
| 553          | MONTPELIER, VERMONT      | 10.1 | 3.3  | 10.1       | 3.3 | -0.7 | 10.1         | 3.3 | -0.7 | 10.1       | 3.3 | -0.7 | 10.1       | 3.3 | -0.7 | 10.1       | 3.3 | -0.7 |
| 532          | MONROVIA, ILLINOIS       | 18.0 | 3.0  | 18.0       | 3.0 | -0.7 | 18.0         | 3.0 | -0.7 | 18.0       | 3.0 | -0.7 | 18.0       | 3.0 | -0.7 | 18.0       | 3.0 | -0.7 |
| 562          | PEORIA, ILLINOIS         | 9.0  | 8.0  | 9.0        | 8.0 | -2.0 | 7.5          | 5.5 | -2.3 | 10.2       | 6.5 | -1.6 | 7.5        | 5.5 | -2.3 | 10.2       | 6.5 | -1.6 |
| 464          | PUEBLA, COLORADO         | 15.0 | 9.0  | 15.0       | 9.0 | -2.1 | 15.0         | 9.0 | -2.1 | 15.0       | 9.0 | -2.1 | 15.0       | 9.0 | -2.1 | 15.0       | 9.0 | -2.1 |
| 662          | RAPID CITY, S. DAK.      | 15.0 | 9.0  | 15.0       | 9.0 | -2.1 | 15.0         | 9.0 | -2.1 | 15.0       | 9.0 | -2.1 | 15.0       | 9.0 | -2.1 | 15.0       | 9.0 | -2.1 |
| 734          | SAULSBURY, MARIE         | 4.3  | 2.0  | 4.3        | 2.0 | -0.4 | 3.0          | 6.0 | -0.4 | 3.0        | 6.0 | -0.4 | 3.0        | 6.0 | -0.4 | 3.0        | 6.0 | -0.4 |
| 434          | ST. LOUIS, MISSOURI      | 3.0  | 6.0  | 3.0        | 6.0 | -0.4 | 3.0          | 6.0 | -0.4 | 3.0        | 6.0 | -0.4 | 3.0        | 6.0 | -0.4 | 3.0        | 6.0 | -0.4 |
| 450          | WICHITA, KANSAS          | 8.0  | 7.0  | 8.0        | 7.0 | -0.2 | 8.0          | 7.0 | -0.2 | 8.0        | 7.0 | -0.2 | 8.0        | 7.0 | -0.2 | 8.0        | 7.0 | -0.2 |
| 767          | WILLISTON, N. DAK.       | 8.0  | 8.0  | 8.0        | 8.0 | -0.2 | 8.0          | 8.0 | -0.2 | 8.0        | 8.0 | -0.2 | 8.0        | 8.0 | -0.2 | 8.0        | 8.0 | -0.2 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TE = MEAN ABSOLUTE 24-HOUR FORECAST ERROR  
 TG = MEAN ALGEBRAIC FORECAST ERROR

WSFO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

WESTERN REGION

| INDEX         | NO.  | 1ST PERIOD                  |     |    | 2ND PERIOD |      |      | 3RD PERIOD |      |      |
|---------------|------|-----------------------------|-----|----|------------|------|------|------------|------|------|
|               |      | TV                          | TE  | TG | TV         | TE   | TG   | TV         | TE   | TG   |
| 18002Z SCORES | 6677 | BILLINGS, MONTANA           | 1.0 | 5  | -1.2       | -1.2 | -1.2 | -1.2       | -1.2 | -1.2 |
|               | 6681 | BOISE, IDAHO                | 1.0 | 2  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 4846 | ELKO, NEVADA                | 3.0 | 3  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 5949 | EUREKA, CALIFORNIA          | 3.0 | 5  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 3889 | FRESNO, CALIFORNIA          | 3.0 | 2  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 7768 | GREAT FALLS, MONTANA        | 3.0 | 5  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 7775 | GRANITE NEVADA              | 3.0 | 8  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 7777 | HAZEL PARK, MONTANA         | 3.0 | 5  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 6678 | HOLLYWOOD, CALIF.           | 3.0 | 2  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 7759 | MISSOULINA, MONTANA         | 3.0 | 4  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 6688 | POTCHEFSTROOM, SOUTH AFRICA | 3.0 | 6  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 6698 | POCATELLO, IDAHO            | 3.0 | 9  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 6699 | RENO, NEVADA                | 3.0 | 9  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 4883 | SACRAMENTO, CALIF.          | 3.0 | 4  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 5792 | SALT LAKE CITY, UTAH        | 3.0 | 7  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 5294 | SAN FRANCISCO, CALIF.       | 3.0 | 4  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 7785 | SEATTLE, WASHINGTON         | 3.0 | 2  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |
|               | 7811 | YAKIMA, WASHINGTON          | 3.0 | 6  | -1.1       | -1.1 | -1.1 | -1.1       | -1.1 | -1.1 |

$T_V$  = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 $T_E$  = MEAN ABSOLUTE FORECAST ERROR  
 $T_G$  = MEAN ALGEBRAIC FORECAST ERROR

WSFO TEMPERATURE FORECASTS NOV 1970 - APR 1971

WESTERN REGION

| INDEX |                        | 1800Z SCORES |     |     |            |     |     | 0600Z SCORES |     |     |            |     |     |            |     |     |            |     |     |
|-------|------------------------|--------------|-----|-----|------------|-----|-----|--------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
| NO.   |                        | 1ST PERIOD   |     |     | 2ND PERIOD |     |     | 3RD PERIOD   |     |     | 1ST PERIOD |     |     | 2ND PERIOD |     |     | 3RD PERIOD |     |     |
|       |                        | TV           | TE  | TG  | TV         | TE  | TG  | TV           | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  |
| 6777  | BILLINGS, MONTANA      | 9.8          | 5.3 | .8  | 7.6        | 4.5 | 1.3 | 3.9          | 1.4 | 1.1 | 7.1        | 1.4 | 1.1 | 3.9        | 1.4 | 1.1 | 7.1        | 1.4 | 1.1 |
| 6831  | BOISE, IDAHO           | 4.6          | 3.4 | 1.1 | 5.0        | 2.3 | 1.1 | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 4.836 | BOISE, NEVADA          | 5.9          | 2.0 | 0.5 | 4.0        | 2.0 | 0.5 | 4.0          | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 |
| 5.984 | ELY, NEVADA            | 4.0          | 2.0 | 0.5 | 4.0        | 2.0 | 0.5 | 4.0          | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 |
| 5.389 | EUREKA, CALIFORNIA     | 3.7          | 1.9 | .5  | 3.7        | 1.9 | .5  | 3.7          | 1.1 | 1.1 | 3.7        | 1.1 | 1.1 | 3.7        | 1.1 | 1.1 | 3.7        | 1.1 | 1.1 |
| 7.663 | FRESNO, CALIFORNIA     | 3.9          | 1.9 | .5  | 3.9        | 1.9 | .5  | 3.9          | 1.1 | 1.1 | 3.9        | 1.1 | 1.1 | 3.9        | 1.1 | 1.1 | 3.9        | 1.1 | 1.1 |
| 7.663 | GLASGOW FALLS, MONTANA | 3.9          | 1.9 | .5  | 3.9        | 1.9 | .5  | 3.9          | 1.1 | 1.1 | 3.9        | 1.1 | 1.1 | 3.9        | 1.1 | 1.1 | 3.9        | 1.1 | 1.1 |
| 7.772 | HELENA, MONTANA        | 4.7          | 2.0 | .5  | 4.7        | 2.0 | .5  | 4.7          | 1.1 | 1.1 | 4.7        | 1.1 | 1.1 | 4.7        | 1.1 | 1.1 | 4.7        | 1.1 | 1.1 |
| 3.205 | LAS VEGAS, NEVADA      | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.205 | LOS ANGELES, CALIF.    | 4.0          | 2.0 | 0.5 | 4.0        | 2.0 | 0.5 | 4.0          | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 | 4.0        | 1.1 | 1.1 |
| 5.773 | MEDFORD, OREGON        | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.007 | MISSOURI CITY, TEXAS   | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.007 | PENDLETON, OREGON      | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.078 | POCATELLO, IDAHO       | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 6.93  | PORTLAND, OREGON       | 6.0          | 3.0 | .8  | 6.0        | 3.0 | .8  | 6.0          | 1.1 | 1.1 | 6.0        | 1.1 | 1.1 | 6.0        | 1.1 | 1.1 | 6.0        | 1.1 | 1.1 |
| 4.883 | RENO, NEVADA           | 4.8          | 2.3 | .8  | 4.8        | 2.3 | .8  | 4.8          | 1.1 | 1.1 | 4.8        | 1.1 | 1.1 | 4.8        | 1.1 | 1.1 | 4.8        | 1.1 | 1.1 |
| 4.883 | SACRAMENTO, CALIFORNIA | 4.8          | 2.3 | .8  | 4.8        | 2.3 | .8  | 4.8          | 1.1 | 1.1 | 4.8        | 1.1 | 1.1 | 4.8        | 1.1 | 1.1 | 4.8        | 1.1 | 1.1 |
| 5.200 | SALT LAKE CITY, UTAH   | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.244 | SAN DIEGO, CALIFORNIA  | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.743 | SEATTLE, WASHINGTON    | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.781 | SPokane, Washington    | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |
| 5.781 | YAKIMA, WASHINGTON     | 5.0          | 2.3 | .8  | 5.0        | 2.3 | .8  | 5.0          | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 | 5.0        | 1.1 | 1.1 |

|    | TV                            | MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY |
|----|-------------------------------|--|
| TE | MEAN ABSOLUTE FORECAST ERROR  |  |
| TG | MEAN ALGEBRAIC FORECAST ERROR |  |

## WSFO AREA TEMPERATURE FORECASTS MAY 1970 - OCT 1970

| INDEX<br>NO. | 0600Z SCORES          |      |     |     |            |     |     |      |            |     |      |     | 1800Z SCORES |     |     |     |            |     |     |      |            |     |      |     |
|--------------|-----------------------|------|-----|-----|------------|-----|-----|------|------------|-----|------|-----|--------------|-----|-----|-----|------------|-----|-----|------|------------|-----|------|-----|
|              | 1ST PERIOD            |      |     |     | 2ND PERIOD |     |     |      | 3RD PERIOD |     |      |     | 1ST PERIOD   |     |     |     | 2ND PERIOD |     |     |      | 3RD PERIOD |     |      |     |
|              | TV                    | TE   | TG  | TV  | TE         | TG  | TV  | TE   | TG         | TV  | TE   | TG  | TV           | TE  | TG  | TV  | TE         | TG  | TV  | TE   | TG         | TV  | TE   | TG  |
| 509          | BOSTON MASS., MASS.   | 1.3  | 5.6 | 3.5 | -1.1       | 6.4 | 5.5 | 1.2  | 5.6        | 3.1 | -1.1 | 6.4 | 4.7          | 1.2 | 5.6 | 4.1 | -1.0       | 5.6 | 4.8 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 524          | CLEVELAND, OHIO       | 0.8  | 5.6 | 3.3 | -1.0       | 5.5 | 3.5 | 1.1  | 5.6        | 3.9 | -0.9 | 5.5 | 4.7          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 310          | COLUMBIA, S.C.        | -1.1 | 5.5 | 3.0 | -1.2       | 5.5 | 3.0 | 0.1  | 5.6        | 3.2 | -0.8 | 5.5 | 4.5          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 503          | NEW YORK, N.Y.        | -1.1 | 5.5 | 3.0 | -1.0       | 5.5 | 3.0 | 0.1  | 5.6        | 3.2 | -0.7 | 5.5 | 4.5          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 408          | PHILADELPHIA, PA.     | -0.8 | 5.5 | 3.0 | -1.0       | 5.5 | 3.0 | 0.1  | 5.6        | 3.3 | -0.7 | 5.5 | 4.5          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 520          | PITTSBURGH, PA.       | -0.6 | 5.5 | 3.0 | -1.0       | 5.5 | 3.0 | 0.1  | 5.6        | 3.3 | -0.7 | 5.5 | 4.5          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 306          | RALEIGH, N.C.         | -0.5 | 5.5 | 3.0 | -1.0       | 5.5 | 3.0 | 0.1  | 5.6        | 3.3 | -0.7 | 5.5 | 4.5          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 405          | WASHINGTON, D.C.      | -0.2 | 4.5 | 3.0 | -0.7       | 4.5 | 3.0 | -0.4 | 5.6        | 3.3 | -0.7 | 5.5 | 4.5          | 1.1 | 5.6 | 4.1 | -1.0       | 5.5 | 3.4 | -0.8 | 5.5        | 3.4 | -0.8 | 5.5 |
| 365          | ALBUQUERQUE, N.M.     | 1.3  | 2.6 | 2.5 | 0.1        | 2.6 | 2.5 | 0.1  | 3.6        | 2.7 | 0.1  | 3.5 | 2.7          | 0.1 | 3.6 | 2.7 | 0.1        | 3.5 | 2.7 | 0.1  | 3.6        | 2.7 | 0.1  | 3.6 |
| 219          | ATLANTA, GA.          | 0.8  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 228          | BIRMINGHAM, ALA.      | -0.2 | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 259          | FORT WORTH, TEXAS     | -0.1 | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 334          | FORT WORTH, TEXAS     | -0.1 | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 324          | MEMPHIS, TENN.        | -0.1 | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 230          | MIAMI, FLA.           | 0.1  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 231          | NEW ORLEANS, LA.      | 0.1  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 232          | OKLAHOMA CITY, OKLA.  | 0.1  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 253          | SAN ANTONIO, TEX.     | 0.2  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 534          | CHICAGO, ILL.         | 1.4  | 2.6 | 2.5 | 0.1        | 2.6 | 2.5 | 0.1  | 3.6        | 2.7 | 0.1  | 3.5 | 2.7          | 0.1 | 3.6 | 2.7 | 0.1        | 3.5 | 2.7 | 0.1  | 3.6        | 2.7 | 0.1  | 3.6 |
| 469          | DENVER, COLO.         | 0.8  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 537          | DETROIT, MICH.        | 0.7  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 438          | KANSAS CITY, MO.      | 0.6  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 658          | MINNEAPOLIS, MINN.    | 0.5  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 434          | ST. LOUIS, MO.        | 0.5  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 681          | BOISE, IDAHO          | 1.2  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 775          | GREAT FALLS, MONT.    | 0.6  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 295          | LOS ANGELES, CALIF.   | 0.7  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 698          | PORTLAND, ORE.        | 0.7  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 572          | SALT LAKE CITY, UTAH  | 0.7  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 494          | SAN FRANCISCO, CALIF. | 0.7  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |
| 793          | SEATTLE, WASH.        | 0.7  | 3.4 | 2.2 | 0.6        | 3.4 | 2.2 | 0.6  | 3.5        | 2.7 | 0.6  | 3.4 | 2.7          | 0.6 | 3.5 | 2.7 | 0.6        | 3.4 | 2.7 | 0.6  | 3.5        | 2.7 | 0.6  | 3.5 |

## WSFO AREA TEMPERATURE FORECASTS NOV 1970 - APR 1971

## 0600Z SCORES

| INDEX<br>NO. | 1ST PERIOD           |     |     |      |     |     | 2ND PERIOD |     |     |     |     |     | 3RD PERIOD |     |     |     |     |     | 1ST PERIOD |     |     |     |     |     | 2ND PERIOD |     |     |     |     |     | 3RD PERIOD |     |     |     |   |  |
|--------------|----------------------|-----|-----|------|-----|-----|------------|-----|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----|------------|-----|-----|-----|---|--|
|              | TV                   | TE  | TG  | TV   | TE  | TG  | TV         | TE  | TG  | TV  | TE  | TG  | TV         | TE  | TG  | TV  | TE  | TG  | TV         | TE  | TG  | TV  | TE  | TG  | TV         | TE  | TG  | TV  | TE  | TG  |            |     |     |     |   |  |
| 503          | BOSTON MASS., MA.    | 1.1 | 7.9 | 5.3  | 2   | 6.2 | 4.9        | 1.1 | 7.3 | 4.4 | 1.4 | 6.2 | 4.5        | 1.4 | 7.0 | 4.7 | 1   | 6.3 | 4.7        | 1   | 7.8 | 4.5 | 1   | 7.3 | 4.5        | 1   | 7.0 | 4.5 | 1   | 7.5 | 4.5        | 1   | 7.4 | 4.5 | 1 |  |
| 524          | CLEVELAND, OHIO      | 3.6 | 3.7 | 1.1  | 7.8 | 4.1 | 1.4        | 8.3 | 4.9 | 1.4 | 7.8 | 4.9 | 1.2        | 8.3 | 4.9 | 1.2 | 7.8 | 4.5 | 1          | 7.3 | 4.5 | 1   | 7.5 | 4.5 | 1          | 7.4 | 4.5 | 1   | 7.5 | 4.5 | 1          | 7.4 | 4.5 | 1   |   |  |
| 310          | COLUMBIA, S.C.       | 3.7 | 3.7 | -0.1 | 7.3 | 4.1 | 1.4        | 7.3 | 4.4 | 1.4 | 7.3 | 4.4 | 1.6        | 7.3 | 4.4 | 1.6 | 7.3 | 4.4 | 1          | 7.3 | 4.4 | 1   | 7.3 | 4.4 | 1          | 7.3 | 4.4 | 1   | 7.3 | 4.4 | 1          | 7.3 | 4.4 | 1   |   |  |
| 503          | NEW YORK, N.Y.       | 3.7 | 3.7 | -0.3 | 7.3 | 4.3 | 1.9        | 6.8 | 4.8 | 1.5 | 6.8 | 4.8 | 1.6        | 6.8 | 4.8 | 1.6 | 6.8 | 4.8 | 1          | 6.8 | 4.8 | 1   | 6.8 | 4.8 | 1          | 6.8 | 4.8 | 1   | 6.8 | 4.8 | 1          | 6.8 | 4.8 | 1   |   |  |
| 408          | PHILADELPHIA, PA.    | 3.3 | 3.3 | -0.9 | 7.0 | 4.0 | 1.0        | 6.1 | 4.3 | 1.2 | 7.1 | 4.7 | 1.6        | 7.1 | 4.7 | 1.6 | 7.1 | 4.7 | 1          | 7.1 | 4.7 | 1   | 7.1 | 4.7 | 1          | 7.1 | 4.7 | 1   | 7.1 | 4.7 | 1          | 7.1 | 4.7 | 1   |   |  |
| 520          | PITTSBURGH, PA.      | 3.7 | 3.7 | -0.5 | 7.0 | 4.0 | 1.6        | 6.7 | 3.9 | 1.6 | 7.0 | 3.9 | 1.6        | 7.0 | 3.9 | 1.6 | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   |   |  |
| 306          | RALEIGH, NC.         | 3.5 | 3.5 | -0.1 | 7.0 | 4.0 | 1.6        | 6.6 | 3.9 | 1.6 | 7.0 | 3.9 | 1.6        | 7.0 | 3.9 | 1.6 | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   |   |  |
| 405          | WASHINGTON, D.C.     | 3.7 | 3.7 | -0.1 | 7.0 | 4.0 | 1.6        | 6.7 | 3.9 | 1.6 | 7.0 | 3.9 | 1.6        | 7.0 | 3.9 | 1.6 | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   | 7.0 | 3.9 | 1          | 7.0 | 3.9 | 1   |   |  |
| 365          | ALBUQUERQUE, N.M.    | 1.1 | 2   | 0.2  | 4.2 | 1.7 | 0.7        | 4.8 | 1.2 | 0.7 | 4.8 | 1.2 | 0.7        | 4.8 | 1.2 | 0.7 | 4.8 | 1.2 | 0          | 4.8 | 1.2 | 0   | 4.8 | 1.2 | 0          | 4.8 | 1.2 | 0   | 4.8 | 1.2 | 0          | 4.8 | 1.2 | 0   |   |  |
| 219          | ATLANTA, GA.         | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 228          | BIRMINGHAM, ALA.     | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 225          | BOSTON, MASS.        | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 334          | BROOKLYN, N.Y.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 202          | CHICAGO, ILL.        | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 231          | DETROIT, MICH.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 235          | MEMPHIS, TENN.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 253          | MILWAUKEE, WIS.      | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 534          | MINNEAPOLIS, MINN.   | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 469          | NEW ORLEANS, LA.     | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 437          | OKLAHOMA CITY, OKLA. | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 438          | PORTLAND, ORE.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 446          | SEATTLE, WASH.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 434          | SACRAMENTO, CALIF.   | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 681          | BOISE, IDAHO         | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 775          | BROOKLYN, N.Y.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 295          | DETROIT, MICH.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 698          | INDIANAPOLIS, IND.   | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 658          | KANSAS CITY, MO.     | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 434          | MINNEAPOLIS, MN.     | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 733          | NEW YORK, N.Y.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 737          | OKLAHOMA CITY, OKLA. | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 436          | PHILADELPHIA, PA.    | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 658          | PORTLAND, ORE.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |
| 793          | SEATTLE, WASH.       | 1.1 | 2   | 0.6  | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0   |   |  |

## 1300Z SCORES

| INDEX<br>NO. | 1ST PERIOD        |     |    |     |     |     | 2ND PERIOD |     |     |     |     |     | 3RD PERIOD |     |     |     |     |     | 1ST PERIOD |     |     |    |     |     | 2ND PERIOD |     |     |    |     |     | 3RD PERIOD |     |     |   |  |  |
|--------------|-------------------|-----|----|-----|-----|-----|------------|-----|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----|------------|-----|-----|----|-----|-----|------------|-----|-----|----|-----|-----|------------|-----|-----|---|--|--|
|              | TV                | TE  | TG | TV  | TE  | TG  | TV         | TE  | TG  | TV  | TE  | TG  | TV         | TE  | TG  | TV  | TE  | TG  | TV         | TE  | TG  | TV | TE  | TG  | TV         | TE  | TG  | TV | TE  | TG  |            |     |     |   |  |  |
| 503          | BOSTON MASS., MA. | 1.1 | 2  | 0.6 | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0  | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0  | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0 |  |  |
| 524          | CLEVELAND, OHIO   | 1.1 | 2  | 0.6 | 4.2 | 1.5 | 0.7        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0.5        | 4.8 | 1.5 | 0.5 | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0  | 4.8 | 1.5 | 0          | 4.8 | 1.5 | 0  | 4.  |     |            |     |     |   |  |  |

WSO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

EASTERN REGION

0600Z SCORES

$\bar{V}_T = \frac{\text{MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY}}{\text{MEAN ABSOLUTE FORECAST ERROR}}$

## MSO TEMPERATURE FORECASTS NOV 1970 - APR 1971

## EASTERN REGION

## 0600Z SCORES

## INDEX

## NO.

|       | 1ST PERIOD                | 2ND PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD | 2ND PERIOD |     |      | 3RD PERIOD |      |     |
|-------|---------------------------|------------|-----|-----|------------|-----|-----|------------|------------|-----|------|------------|------|-----|
|       |                           | TV         | TE  | TG  | TV         | TE  | TG  |            | TV         | TE  | TG   | TV         | TE   | TG  |
| 72518 | ALBANY, NEW YORK          | 7.0        | 3.6 | 0   | 9.0        | 5.8 | .6  | 7.4        | 4.7        | .2  | 9.0  | 4.2        | -0.8 | 6.0 |
| 72406 | BALTIMORE, M.D.           | 7.0        | 2.9 | 1.2 | 6.0        | 2.0 | 1.3 | 7.1        | 4.5        | 1.7 | 6.0  | 2.3        | -0.3 | 5.0 |
| 72412 | BECKLEY, W. VA.           | 7.0        | 5.5 | 1.7 | 7.0        | 4.1 | 1.7 | 6.6        | 4.0        | 1.9 | 6.0  | 2.7        | -0.7 | 5.0 |
| 72515 | BETHLEHEM, PA.            | 6.5        | 6.6 | 1.3 | 5.0        | 8.8 | 1.0 | 6.6        | 5.5        | 1.0 | 6.5  | 3.4        | -0.7 | 5.0 |
| 72514 | BEDFORDPORT, CONN.        | 7.0        | 6.0 | 2.9 | 5.0        | 5.9 | 1.4 | 7.0        | 5.0        | 2.1 | 7.0  | 4.5        | -0.5 | 5.0 |
| 72529 | BELFAST, N.H.             | 7.0        | 7.0 | 1.9 | 7.0        | 7.0 | 1.9 | 7.0        | 7.0        | 1.9 | 7.0  | 7.0        | -0.1 | 5.0 |
| 72617 | BELFAST, N.Y.             | 6.0        | 6.0 | 1.9 | 6.0        | 6.0 | 1.9 | 6.0        | 6.0        | 1.9 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72612 | BELLEVILLE, N.J.          | 7.0        | 7.0 | 1.9 | 7.0        | 7.0 | 1.9 | 7.0        | 7.0        | 1.9 | 7.0  | 7.0        | -0.1 | 5.0 |
| 72414 | BELMONT, N.H.             | 6.0        | 8.0 | 1.5 | 6.0        | 8.0 | 1.5 | 6.0        | 8.0        | 1.5 | 6.0  | 8.0        | -0.5 | 5.0 |
| 72605 | BELMONT, OHIO             | 7.0        | 7.0 | 1.5 | 7.0        | 7.0 | 1.5 | 7.0        | 7.0        | 1.5 | 7.0  | 7.0        | -0.1 | 5.0 |
| 72429 | BELMONT, VA.              | 10.0       | 1.0 | 6   | 10.0       | 1.0 | 6   | 10.0       | 1.0        | 6   | 10.0 | 1.0        | -0.1 | 5.0 |
| 72417 | BELMONT, W. VA.           | 10.0       | 1.0 | 6   | 10.0       | 1.0 | 6   | 10.0       | 1.0        | 6   | 10.0 | 1.0        | -0.1 | 5.0 |
| 72508 | BELMONT, CONN.            | 6.0        | 8.0 | 1.7 | 6.0        | 8.0 | 1.7 | 6.0        | 8.0        | 1.7 | 6.0  | 8.0        | -0.5 | 5.0 |
| 72425 | BELMONT, N.H.             | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72440 | BELMONT, V. A.            | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72602 | BELMONT, MAINE            | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72619 | BELMONT, MASS.            | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72401 | BELMONT, ILLINOIS         | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72441 | BELMONT, RICHMOND, VA.    | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72523 | BELMONT, ROCHester, N.Y.  | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 99007 | BELMONT, WILMINGTON, DEL. | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 99017 | BELMONT, WORCESTER, MASS. | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |

## 1800Z SCORES

|       | 1ST PERIOD                | 2ND PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD | 2ND PERIOD |     |      | 3RD PERIOD |      |     |
|-------|---------------------------|------------|-----|-----|------------|-----|-----|------------|------------|-----|------|------------|------|-----|
|       |                           | TV         | TE  | TG  | TV         | TE  | TG  |            | TV         | TE  | TG   | TV         | TE   | TG  |
| 72518 | ALBANY, NEW YORK          | 7.0        | 3.6 | 0   | 9.0        | 5.8 | .6  | 7.4        | 4.7        | .2  | 9.0  | 4.2        | -0.8 | 6.0 |
| 72406 | BALTIMORE, M.D.           | 7.0        | 2.9 | 1.2 | 6.0        | 2.0 | 1.3 | 7.1        | 4.5        | 1.7 | 6.0  | 2.3        | -0.3 | 5.0 |
| 72412 | BECKLEY, W. VA.           | 7.0        | 5.5 | 1.7 | 7.0        | 4.1 | 1.7 | 6.6        | 4.0        | 1.9 | 6.0  | 2.7        | -0.7 | 5.0 |
| 72515 | BETHLEHEM, PA.            | 6.5        | 6.6 | 1.3 | 5.0        | 8.8 | 1.0 | 6.6        | 5.5        | 1.0 | 6.5  | 3.4        | -0.5 | 5.0 |
| 72514 | BEDFORDPORT, CONN.        | 7.0        | 6.0 | 2.9 | 5.0        | 5.9 | 1.4 | 7.0        | 5.0        | 2.1 | 7.0  | 4.5        | -0.5 | 5.0 |
| 72529 | BELFAST, N.H.             | 7.0        | 7.0 | 1.9 | 7.0        | 7.0 | 1.9 | 7.0        | 7.0        | 1.9 | 7.0  | 7.0        | -0.1 | 5.0 |
| 72617 | BELFAST, N.Y.             | 6.0        | 6.0 | 1.9 | 6.0        | 6.0 | 1.9 | 6.0        | 6.0        | 1.9 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72612 | BELLEVILLE, N.J.          | 7.0        | 7.0 | 1.9 | 7.0        | 7.0 | 1.9 | 7.0        | 7.0        | 1.9 | 7.0  | 7.0        | -0.1 | 5.0 |
| 72414 | BELMONT, N.H.             | 6.0        | 8.0 | 1.5 | 6.0        | 8.0 | 1.5 | 6.0        | 8.0        | 1.5 | 6.0  | 8.0        | -0.5 | 5.0 |
| 72605 | BELMONT, OHIO             | 7.0        | 7.0 | 1.5 | 7.0        | 7.0 | 1.5 | 7.0        | 7.0        | 1.5 | 7.0  | 7.0        | -0.1 | 5.0 |
| 72429 | BELMONT, VA.              | 10.0       | 1.0 | 6   | 10.0       | 1.0 | 6   | 10.0       | 1.0        | 6   | 10.0 | 1.0        | -0.1 | 5.0 |
| 72417 | BELMONT, W. VA.           | 10.0       | 1.0 | 6   | 10.0       | 1.0 | 6   | 10.0       | 1.0        | 6   | 10.0 | 1.0        | -0.1 | 5.0 |
| 72508 | BELMONT, CONN.            | 6.0        | 8.0 | 1.7 | 6.0        | 8.0 | 1.7 | 6.0        | 8.0        | 1.7 | 6.0  | 8.0        | -0.5 | 5.0 |
| 72425 | BELMONT, N.H.             | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72440 | BELMONT, V. A.            | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72602 | BELMONT, MAINE            | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72619 | BELMONT, MASS.            | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72401 | BELMONT, ILLINOIS         | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72441 | BELMONT, RICHMOND, VA.    | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 72523 | BELMONT, ROCHester, N.Y.  | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 99007 | BELMONT, WILMINGTON, DEL. | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |
| 99017 | BELMONT, WORCESTER, MASS. | 6.0        | 6.0 | 1.7 | 6.0        | 6.0 | 1.7 | 6.0        | 6.0        | 1.7 | 6.0  | 6.0        | -0.1 | 5.0 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TE = MEAN ALGEBRAIC FORECAST ERROR  
 TG = MEAN ABSOLUTE ALGEBRAIC FORECAST ERROR

WMO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

SOUTHERN SECTION

|       |   |
|-------|---|
| INDEX | <p>NO.</p> <p>7722663 ABILENE, TEXAS<br/>     7723111 ATHENS, GEORGIA<br/>     7722184 AUGUSTA, GEORGIA<br/>     7722154 AUSTIN, TEXAS<br/>     7720142 BATESVILLE, MISSISSIPPI<br/>     7720111 BROWNSVILLE, TEXAS<br/>     7720044 COLUMBUS, GEORGIA<br/>     7720014 DAYTONA BEACH, FLA.<br/>     7720017 DEL RIO, TEXAS<br/>     7722261 EL PASO, TEXAS<br/>     7722270 FLAIGHT MIVERS, ARIZONA<br/>     7723076 FORT SMITH, ARKANSAS<br/>     7722244 GALTWOOD, TEXAS<br/>     7722244 HARRISON, TEXAS<br/>     7722244 HUNTSVILLE, ALABAMA<br/>     7722261 JACKSONVILLE, MISSISSIPPI<br/>     7722261 KEY WEST, FLORIDA<br/>     7722270 KNOXVILLE, TENNESSEE<br/>     7722270 LAKE CHARLES, LOUISIANA<br/>     7722270 LAKE ELMER, FLORIDA<br/>     7722270 LOUISVILLE ROCK, KENTUCKY<br/>     7722270 LUBBOCK, TEXAS<br/>     7722270 MERCED, CALIFORNIA<br/>     7722270 MIDLAND, TEXAS<br/>     7722270 MONTGOMERY, ALABAMA<br/>     7722270 NASHVILLE, TENNESSEE<br/>     7722270 PHOENIX, ARIZONA<br/>     7722270 PORT ARTHUR, TEXAS<br/>     7722270 SAN ANGELO, TEXAS<br/>     7722270 SAN JUAN, PUERTO RICO<br/>     7722270 SAN JUAN, VIRGIN ISLANDS<br/>     7722270 SHREVEPORT, LOUISIANA<br/>     7722270 SILICOTIA, TEXAS<br/>     7722270 TAMPA, FLORIDA<br/>     7722270 TULSA, OKLAHOMA<br/>     7722270 WACO, TEXAS<br/>     7722270 WICHITA FALLS, TEXAS   </p> |
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0600Z SCORES

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TE = MEAN ABSOLUTE FORECAST ERROR  
 TG = MEAN ALGEBRAIC FORECAST ERROR

**SOUTHERN REGION**

SOUTHERN REGION

| INDEX |                                  | 1800Z SCORES |    |    |            | 0600Z SCORES |    |    |        | 1800Z SCORES |    |    |        |    |            |
|-------|----------------------------------|--------------|----|----|------------|--------------|----|----|--------|--------------|----|----|--------|----|------------|
| NO.   | PERIOD                           | TG           | TE | TV | PERIOD     | TG           | TE | TV | PERIOD | TG           | TE | TV | PERIOD | TG |            |
| 72266 | ABILENE, TEXAS                   | -6           | -1 | 3  | 2ND PERIOD | TG           | 7  | 0  | 10     | 3RD PERIOD   | TG | 7  | 0      | 10 | 3RD PERIOD |
| 72267 | ATLANTA, GEORGIA                 | -6           | -1 | 3  | TV         | 6            | 3  | 10 | TV     | 6            | 3  | 10 | TV     | 6  | 3          |
| 72268 | AUGUSTA, GEORGIA                 | -5           | -1 | 4  | TE         | 6            | 3  | 9  | TE     | 6            | 3  | 9  | TE     | 6  | 3          |
| 72269 | AUSTIN, TEXAS                    | -5           | -1 | 4  | 1ST PERIOD | TG           | 1  | 0  | 10     | 1ST PERIOD   | TG | 1  | 0      | 10 | 1ST PERIOD |
| 72270 | BATON ROUGE, LOUISIANA           | -5           | -1 | 4  | TV         | 7            | 0  | 10 | TV     | 7            | 0  | 10 | TV     | 7  | 0          |
| 72271 | BRAZOSVILLE, TEXAS               | -5           | -1 | 4  | TE         | 7            | 0  | 10 | TE     | 7            | 0  | 10 | TE     | 7  | 0          |
| 72272 | BROOKLYN, NEW YORK               | -5           | -1 | 4  | 1          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72273 | COLUMBUS, OHIO                   | -5           | -1 | 4  | 2          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72274 | COVINGTON, KENTUCKY              | -5           | -1 | 4  | 3          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72275 | DETROIT, MICHIGAN                | -5           | -1 | 4  | 4          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72276 | EL PASO, TEXAS                   | -5           | -1 | 4  | 5          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72277 | FORT WORTH, TEXAS                | -5           | -1 | 4  | 6          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72278 | GALVESTON, TEXAS                 | -5           | -1 | 4  | 7          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72279 | HARRISBURG, PENNSYLVANIA         | -5           | -1 | 4  | 8          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72280 | HOLLYWOOD, FLORIDA               | -5           | -1 | 4  | 9          | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72281 | JACKSONVILLE, FLORIDA            | -5           | -1 | 4  | 10         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72282 | KNOXVILLE, TENNESSEE             | -5           | -1 | 4  | 11         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72283 | LAKELAND, FLORIDA                | -5           | -1 | 4  | 12         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72284 | LITTLE ROCK, ARKANSAS            | -5           | -1 | 4  | 13         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72285 | MONTGOMERY, ALABAMA              | -5           | -1 | 4  | 14         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72286 | MURFREESBORO, TENNESSEE          | -5           | -1 | 4  | 15         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72287 | NASHVILLE, TENNESSEE             | -5           | -1 | 4  | 16         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72288 | NEW ORLEANS, LOUISIANA           | -5           | -1 | 4  | 17         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72289 | OKLAHOMA CITY, OKLAHOMA          | -5           | -1 | 4  | 18         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72290 | PENSACOLA, FLORIDA               | -5           | -1 | 4  | 19         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72291 | PHILADELPHIA, PENNSYLVANIA       | -5           | -1 | 4  | 20         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72292 | PORT CHARLOTTE, FLORIDA          | -5           | -1 | 4  | 21         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72293 | RALEIGH, NORTH CAROLINA          | -5           | -1 | 4  | 22         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72294 | SAVANNAH, GEORGIA                | -5           | -1 | 4  | 23         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72295 | SHERIFFPORT, LOUISIANA           | -5           | -1 | 4  | 24         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72296 | ST. LOUIS, MISSOURI              | -5           | -1 | 4  | 25         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72297 | ST. PETERSBURG, FLORIDA          | -5           | -1 | 4  | 26         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72298 | TAHOE CITY, CALIFORNIA           | -5           | -1 | 4  | 27         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72299 | TEXAS CITY, TEXAS                | -5           | -1 | 4  | 28         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72300 | WACO, TEXAS                      | -5           | -1 | 4  | 29         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72301 | WICHITA FALLS, TEXAS             | -5           | -1 | 4  | 30         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72302 | WILMINGTON, DELAWARE             | -5           | -1 | 4  | 31         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72303 | WILMINGTON, NORTH CAROLINA       | -5           | -1 | 4  | 32         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72304 | WILMINGTON, SOUTH CAROLINA       | -5           | -1 | 4  | 33         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72305 | WILMINGTON, VERMONT              | -5           | -1 | 4  | 34         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72306 | WILMINGTON, VIRGINIA             | -5           | -1 | 4  | 35         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72307 | WILMINGTON, WISCONSIN            | -5           | -1 | 4  | 36         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72308 | WILMINGTON, WYOMING              | -5           | -1 | 4  | 37         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72309 | WILMINGTON, YORK, PENNSYLVANIA   | -5           | -1 | 4  | 38         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72310 | WILMINGTON, YORK, SOUTH CAROLINA | -5           | -1 | 4  | 39         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72311 | WILMINGTON, YORK, PENNSYLVANIA   | -5           | -1 | 4  | 40         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72312 | WILMINGTON, DELEWARE             | -5           | -1 | 4  | 41         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72313 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 42         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72314 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 43         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72315 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 44         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72316 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 45         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72317 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 46         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72318 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 47         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72319 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 48         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72320 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 49         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72321 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 50         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72322 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 51         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72323 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 52         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72324 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 53         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72325 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 54         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72326 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 55         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72327 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 56         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72328 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 57         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72329 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 58         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72330 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 59         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72331 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 60         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72332 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 61         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72333 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 62         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72334 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 63         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72335 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 64         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72336 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 65         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72337 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 66         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72338 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 67         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72339 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 68         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72340 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 69         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72341 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 70         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72342 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 71         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72343 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 72         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72344 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 73         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72345 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 74         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72346 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 75         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72347 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 76         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72348 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 77         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72349 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 78         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72350 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 79         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72351 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 80         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72352 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 81         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72353 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 82         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72354 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 83         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72355 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 84         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72356 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 85         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72357 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 86         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72358 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 87         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72359 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 88         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72360 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 89         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72361 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 90         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72362 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 91         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72363 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 92         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72364 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 93         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72365 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 94         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72366 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 95         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72367 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 96         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72368 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 97         | 0            | 1  | 1  | 1      | 1            | 0  | 1  | 1      | 1  | 0          |
| 72369 | WILMINGTON, MASSACHUSETTS        | -5           | -1 | 4  | 98         | 0            | 1  |    |        |              |    |    |        |    |            |

$V_{TV}$  = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 $V_{TE}$  = MEAN ABSOLUTE FORECAST ERROR  
 $V_{TG}$  = MEAN ALGEBRAIC FORECAST ERROR

## WFO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

## CENTRAL REGION

## 0600Z SCORES

| INDEX<br>NO. |                                | 1ST PERIOD |      |      | 2ND PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |     |     | 2ND PERIOD |     |     | 3RD PERIOD |     |     |
|--------------|--------------------------------|------------|------|------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              |                                | TV         | TE   | TG   | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  |
| 72462        | ALAMOSA, COLORADO              | -1.9       | -1.9 | -1.1 | 2.3        | 1.7 | 2.2 | 4.3        | 2.1 | 2.5 | 4.3        | 2.0 | 1.5 | 3.4        | 2.0 | 1.5 | 4.5        | 2.5 | 0.0 |
| 99014        | BURLINGTON, IOWA               | 1.9        | 1.0  | -0.3 | 2.3        | 1.4 | 2.2 | 4.5        | 1.7 | 2.5 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72569        | CASPER, WYOMING                | -0.5       | -0.5 | -0.5 | 2.3        | 1.3 | 2.5 | 4.5        | 1.3 | 2.2 | 4.5        | 1.3 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72564        | CHEYENNE, WYOMING              | -0.5       | -0.5 | -0.5 | 2.3        | 1.3 | 2.5 | 4.5        | 1.3 | 2.2 | 4.5        | 1.3 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72546        | CHESHOOTER, KANSAS             | -1.2       | -1.2 | -1.4 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72541        | DODGE CITY, KANSAS             | -1.2       | -1.2 | -1.4 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72476        | DOUGLAS COUNTY, COLORADO       | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72451        | GARFIELD COUNTY, COLORADO      | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72471        | HURON NATIONAL FALLS           | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72654        | LANDER, WYOMING                | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72747        | MARquette, MICHIGAN            | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72756        | MOLINE, ILLINOIS               | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72743        | PUEBLO, COLORADO               | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72664        | RAPID CITY, SOUTH DAK.         | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72662        | SAUERIDAN, MARSHALL, MINNESOTA | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72734        | SHERIDAN, WYOMING              | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72666        | TOPKAP, KANSAS                 | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72456        | WICHITISTON, N. DAK.           | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72767        | WILLISTON, N. DAK.             | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |

## 1800Z SCORES

| INDEX<br>NO. |                                | 1ST PERIOD |      |      | 2ND PERIOD |     |     | 3RD PERIOD |     |     | 1ST PERIOD |     |     | 2ND PERIOD |     |     | 3RD PERIOD |     |     |
|--------------|--------------------------------|------------|------|------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
|              |                                | TV         | TE   | TG   | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  | TV         | TE  | TG  |
| 72462        | ALAMOSA, COLORADO              | -1.9       | -1.9 | -1.1 | 2.3        | 1.7 | 2.2 | 4.3        | 2.1 | 2.5 | 4.3        | 2.0 | 1.5 | 3.4        | 2.0 | 1.5 | 5.4        | 4.0 | 0.6 |
| 99014        | BURLINGTON, IOWA               | 1.9        | 1.0  | -0.3 | 2.3        | 1.4 | 2.2 | 4.5        | 1.7 | 2.5 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72569        | CASPER, WYOMING                | -0.5       | -0.5 | -0.5 | 2.3        | 1.3 | 2.5 | 4.5        | 1.3 | 2.2 | 4.5        | 1.3 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72564        | CHEYENNE, WYOMING              | -0.5       | -0.5 | -0.5 | 2.3        | 1.3 | 2.5 | 4.5        | 1.3 | 2.2 | 4.5        | 1.3 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72546        | CHESHOOTER, KANSAS             | -1.2       | -1.2 | -1.4 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72541        | DODGE CITY, KANSAS             | -1.2       | -1.2 | -1.4 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72476        | DOUGLAS COUNTY, COLORADO       | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72451        | GARFIELD COUNTY, COLORADO      | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72471        | HURON NATIONAL FALLS           | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72654        | LANDER, WYOMING                | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72747        | MARquette, MICHIGAN            | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72756        | MOLINE, ILLINOIS               | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72743        | PUEBLO, COLORADO               | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72664        | RAPID CITY, SOUTH DAK.         | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72662        | SAUERIDAN, MARSHALL, MINNESOTA | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72734        | SHERIDAN, WYOMING              | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72666        | TOPKAP, KANSAS                 | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72456        | WICHITISTON, N. DAK.           | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |
| 72767        | WILLISTON, N. DAK.             | -0.2       | -0.2 | -0.2 | 2.3        | 1.4 | 2.5 | 4.5        | 1.4 | 2.2 | 4.5        | 1.4 | 1.7 | 3.4        | 2.4 | 1.3 | 5.4        | 4.0 | 0.6 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TE = MEAN ABSOLUTE 24-HOUR FORECAST ERROR  
 TG = MEAN ALGEBRAIC FORECAST ERROR

## WSO TEMPERATURE FORECASTS NOV 1970 - APR 1971

## CENTRAL REGION

## 0600Z SCORES

| INDEX<br>NO. | 1ST PERIOD                 | 2ND PERIOD |     |     | 3RD PERIOD |     |      | 1ST PERIOD | 2ND PERIOD |     |      | 3RD PERIOD |     |      |
|--------------|----------------------------|------------|-----|-----|------------|-----|------|------------|------------|-----|------|------------|-----|------|
|              |                            | TV         | TE  | TG  | TV         | TE  | TG   |            | TV         | TE  | TG   | TV         | TE  | TG   |
| 72462        | ALAMOSA, COLORADO          | 5.9        | 4.7 | -2  | 7.4        | 1.9 | .7   | 6.1        | 2.1        | 0   | -1   | 5.9        | 1.8 | -.3  |
| 92014        | BURINGTON, IOWA            | 8.3        | 3.7 | -8  | 7.7        | 4.1 | -.1  | 5.2        | 1.5        | -.5 | -1.0 | 2.0        | -.4 | -.3  |
| 92569        | CASPER, WYOMING            | 8.3        | 2.7 | -2  | 7.9        | 5.7 | -2.2 | 5.4        | 1.4        | -.5 | -1.4 | 2.5        | -.0 | -2.6 |
| 72564        | CHEYENNE, WYOMING          | 8.3        | 3.7 | -8  | 7.6        | 4.7 | -2.2 | 5.4        | 1.4        | -.5 | -1.4 | 2.4        | -.0 | -2.3 |
| 72546        | DES MOINES, IOWA           | 3.2        | 3.9 | -10 | 7.8        | 4.8 | -2.1 | 8.2        | 6.7        | 3.7 | -1.2 | 7.0        | 2.2 | 5.6  |
| 72451        | DODGE CITY, KANSAS         | 10.2       | 4.3 | -9  | 7.4        | 4.4 | -.9  | 5.7        | 1.7        | -.3 | -1.4 | 4.7        | 1.2 | 1.9  |
| 72476        | GRAND JUNCTION, COLORADO   | 5.4        | 1.7 | -1  | 5.6        | 4.5 | -1.3 | 5.1        | 1.7        | -.9 | -1.5 | 4.9        | 1.7 | 1.7  |
| 72547        | HURON, SOUTH DAK.          | 3.4        | 3.9 | -8  | 5.6        | 5.6 | -1.3 | 8.5        | 6.5        | 3.7 | -1.3 | 4.3        | 1.2 | 1.2  |
| 72747        | INTERNATIONAL FALLS        | 9.3        | 3.7 | -7  | 6.6        | 5.3 | -1.0 | 7.7        | 4.3        | 3.3 | -1.3 | 7.1        | 1.7 | 1.2  |
| 72743        | LANSING, MICHIGAN          | 6.4        | 5.7 | -7  | 7.5        | 6.8 | -2.8 | 5.7        | 1.0        | -.3 | -1.3 | 4.3        | 1.9 | 1.5  |
| 72544        | MARIONETTE, ILLINOIS       | 6.4        | 5.5 | -7  | 7.9        | 7.3 | -1.1 | 5.8        | 1.8        | -.3 | -1.3 | 4.8        | 1.8 | 1.5  |
| 72464        | MOLINE, ILLINOIS           | 3.6        | 5.2 | -1  | 7.0        | 5.3 | -1.3 | 3.3        | 7.2        | 1.7 | -1.7 | 7.6        | 0.6 | 2.1  |
| 72462        | PUEBLO, COLORADO           | 10.2       | 4.0 | -2  | 7.0        | 4.8 | -1.9 | 1.0        | 2          | 2   | -2.2 | 6.0        | 0.6 | 1.9  |
| 72662        | RAPID CITY, S. DAK.        | 3.9        | 3.7 | -7  | 7.8        | 4.8 | -.3  | 5.9        | 4.0        | 1.8 | -1.9 | 3.6        | 1.2 | 1.3  |
| 72734        | SAULT STE. MARIE, MICHIGAN | 5.9        | 3.7 | -5  | 6.7        | 5.6 | -2.4 | 9.0        | 1.3        | -.3 | -2.4 | 8.7        | 0.7 | 2.9  |
| 72656        | SHERIDAN, WYOMING          | 3.9        | 3.7 | -7  | 3.7        | 5.1 | -1.4 | 6.1        | 1.4        | -.3 | -1.7 | 3.7        | 0.3 | 2.0  |
| 72456        | TOPEKA, KANSAS             | 8.7        | 3.6 | -8  | 7.3        | 4.8 | -.1  | 3.7        | 3.3        | 1.4 | -1.5 | 8.7        | 0.7 | 2.2  |
| 72450        | WICHITA, KANSAS            | 8.0        | 4.0 | -3  | 8.8        | 3.3 | 5.7  | 1.3        | 1.1        | 4.5 | -1.3 | 8.4        | 0.6 | 2.4  |
| 72767        | WILLISTON, N. DAK.         | 8.0        | 4.0 | -3  | 8.8        | 3.3 | 5.7  | 1.3        | 1.1        | 4.5 | -1.3 | 8.4        | 0.6 | 2.4  |

## 1800Z SCORES

| INDEX<br>NO. | 1ST PERIOD                 | 2ND PERIOD |     |     | 3RD PERIOD |     |      | 1ST PERIOD | 2ND PERIOD |     |      | 3RD PERIOD |     |     |
|--------------|----------------------------|------------|-----|-----|------------|-----|------|------------|------------|-----|------|------------|-----|-----|
|              |                            | TV         | TE  | TG  | TV         | TE  | TG   |            | TV         | TE  | TG   | TV         | TE  | TG  |
| 72462        | ALAMOSA, COLORADO          | 5.9        | 4.7 | -2  | 7.4        | 1.9 | .7   | 6.1        | 2.1        | 0   | -1   | 5.9        | 1.8 | -.3 |
| 92014        | BURINGTON, IOWA            | 8.3        | 3.7 | -8  | 7.7        | 4.1 | -.1  | 5.2        | 1.5        | -.5 | -1.0 | 2.0        | -.4 | -.3 |
| 92569        | CASPER, WYOMING            | 8.3        | 2.7 | -2  | 7.9        | 5.7 | -2.2 | 5.4        | 1.4        | -.5 | -1.4 | 2.5        | 1.0 | 2.3 |
| 72564        | CHEYENNE, WYOMING          | 8.3        | 3.7 | -8  | 7.6        | 4.7 | -2.2 | 5.4        | 1.4        | -.5 | -1.4 | 2.4        | 1.0 | 2.3 |
| 72546        | DES MOINES, IOWA           | 3.2        | 3.9 | -10 | 7.8        | 4.8 | -.9  | 5.7        | 1.7        | -.3 | -1.4 | 4.7        | 1.2 | 1.7 |
| 72451        | DODGE CITY, KANSAS         | 10.2       | 4.3 | -9  | 7.4        | 4.4 | -.9  | 5.1        | 1.7        | -.9 | -1.4 | 4.9        | 1.7 | 1.7 |
| 72476        | GRAND JUNCTION, COLORADO   | 5.4        | 1.7 | -1  | 5.6        | 4.5 | -1.3 | 8.5        | 6.5        | 3.7 | -1.3 | 4.3        | 1.2 | 1.2 |
| 72547        | HURON, SOUTH DAK.          | 3.4        | 3.9 | -8  | 5.6        | 5.6 | -1.0 | 7.7        | 4.3        | 3.3 | -1.3 | 7.1        | 1.7 | 1.2 |
| 72747        | INTERNATIONAL FALLS        | 9.3        | 3.7 | -7  | 6.6        | 5.3 | -1.0 | 7.5        | 4.9        | 4.9 | -1.7 | 5.7        | 1.9 | 1.5 |
| 72743        | LANSING, MICHIGAN          | 6.4        | 5.7 | -7  | 7.5        | 6.8 | -2.8 | 5.7        | 1.0        | -.3 | -1.3 | 4.8        | 1.8 | 1.5 |
| 72544        | MARIONETTE, ILLINOIS       | 6.4        | 5.5 | -7  | 7.9        | 7.3 | 1.1  | 5.8        | 1.8        | -.3 | -1.7 | 7.6        | 0.6 | 2.1 |
| 72464        | MOLINE, ILLINOIS           | 3.6        | 5.2 | -1  | 7.0        | 5.3 | 1.3  | 3.3        | 7.2        | 1.7 | -.7  | 6.0        | 0.6 | 1.9 |
| 72462        | PUEBLO, COLORADO           | 10.2       | 4.0 | -2  | 7.0        | 4.8 | 1.9  | 1.0        | 2          | 2   | -2.2 | 6.0        | 0.6 | 1.9 |
| 72662        | RAPID CITY, S. DAK.        | 3.9        | 3.7 | -7  | 7.8        | 4.8 | 1.3  | 5.9        | 4.0        | 1.8 | -1.9 | 3.6        | 1.2 | 1.3 |
| 72734        | SAULT STE. MARIE, MICHIGAN | 5.9        | 3.7 | -5  | 6.7        | 5.6 | 2.4  | 9.0        | 1.3        | 1.3 | -2.4 | 8.7        | 0.7 | 2.9 |
| 72656        | SHERIDAN, WYOMING          | 3.9        | 3.7 | -7  | 3.7        | 5.1 | 1.4  | 6.1        | 1.4        | 1.4 | -1.7 | 3.7        | 0.3 | 2.0 |
| 72456        | TOPEKA, KANSAS             | 8.7        | 3.6 | -8  | 7.3        | 4.8 | 1.1  | 3.7        | 3.3        | 1.4 | -1.5 | 8.7        | 0.7 | 2.2 |
| 72450        | WICHITA, KANSAS            | 8.0        | 4.0 | -3  | 8.8        | 3.3 | 5.7  | 1.3        | 1.1        | 4.5 | -1.3 | 8.4        | 0.6 | 2.4 |
| 72767        | WILLISTON, N. DAK.         | 8.0        | 4.0 | -3  | 8.8        | 3.3 | 5.7  | 1.3        | 1.1        | 4.5 | -1.3 | 8.4        | 0.6 | 2.4 |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TE = MEAN ABSOLUTE 24-HOUR FORECAST ERROR  
 TG = MEAN ALGEBRAIC FORECAST ERROR

## WFO TEMPERATURE FORECASTS MAY 1970 - OCT 1970

## WESTERN REGION

INDEX  
NO.

72791 ASTORIA, OREGON  
72674 BILLINGS, MONTANA  
72486 EUGENE, OREGON  
72693 FRESNO, CALIFORNIA  
72389 GLASGOW, MONTANA  
72768 HAVRE, MONTANA  
72777 HELLSPELLE, NEVADA  
72322 HEDDUFORO, OREGON  
72772 KALISVERA, OREGON  
72359 HEDOSPIA, WASHINGTON  
72577 HEDOSPIA 2, IDAHO  
72578 HOGCATELL, IDAHO  
72591 REDO BLUFF, CALIF.  
72488 RENO, NEVADA, CALIF.  
72483 SACRAMENTO, CALIF.  
72694 SALEM, OREGON, CALIF.  
72290 SAN DIEGO, CALIF.  
72785 SPOKANE, WASHINGTON  
72492 STOCKTON, CALIFORNIA  
72274 TUCSON, ARIZONA  
72374 YAKIMA, WASHINGTON

|       | 0600Z SCORES |            |            | 1200Z SCORES |            |            | 1800Z SCORES |            |            | 2400Z SCORES |            |            |
|-------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|
|       | 1ST PERIOD   | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD   | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD   | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD   | 2ND PERIOD | 3RD PERIOD |
|       | TV           | TE         | TG         |
| 72791 | -0.6         | -0.6       | -1.2       | 4.0          | 4.0        | -0.8       | 4.0          | 4.0        | -1.6       | 4.0          | 4.0        | -1.4       |
| 72674 | 1.0          | 1.0        | -1.5       | 4.0          | 4.0        | -0.1       | 4.0          | 4.0        | -1.0       | 4.0          | 4.0        | -1.0       |
| 72486 | 0.7          | 0.7        | -1.0       | 5.0          | 5.0        | -0.3       | 5.0          | 5.0        | -1.0       | 5.0          | 5.0        | -1.0       |
| 72693 | 0.8          | 0.8        | -0.8       | 5.0          | 5.0        | -0.1       | 5.0          | 5.0        | -0.8       | 5.0          | 5.0        | -0.8       |
| 72389 | 0.4          | 0.4        | -0.8       | 2.0          | 2.0        | -0.1       | 2.0          | 2.0        | -0.7       | 2.0          | 2.0        | -0.7       |
| 72768 | 0.7          | 0.7        | -1.0       | 3.0          | 3.0        | -0.8       | 3.0          | 3.0        | -1.7       | 3.0          | 3.0        | -1.7       |
| 72777 | 0.3          | 0.3        | -0.7       | 1.0          | 1.0        | -0.5       | 1.0          | 1.0        | -1.0       | 1.0          | 1.0        | -1.0       |
| 72322 | 0.3          | 0.3        | -0.6       | 3.0          | 3.0        | -0.5       | 3.0          | 3.0        | -1.0       | 3.0          | 3.0        | -1.0       |
| 72772 | 0.1          | 0.1        | -0.7       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72359 | 0.1          | 0.1        | -0.7       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72577 | 0.1          | 0.1        | -0.7       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72591 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72488 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72483 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72694 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72290 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72785 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72492 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72274 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72374 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |
| 72371 | 0.0          | 0.0        | -0.8       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       | 0.0          | 0.0        | -0.1       |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
TE = MEAN ABSOLUTE FORECAST ERROR  
TG = MEAN ALGEBRAIC FORECAST ERROR

1800Z SCORES

2400Z SCORES

1ST PERIOD

TV

TE

TG

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## WSO TEMPERATURE FORECASTS NOV 1970 - APR 1971

## WESTERN REGION

| INDEX<br>NO.                 | 0600Z SCORES     |                  |                  | 1300Z SCORES     |                  |                  | 3RU PERIOD       |                  |                  | 2ND PERIOD       |                  |                  | 3RU PERIOD       |                  |                  |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                              | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG | 1ST PERIOD<br>TV | 2ND PERIOD<br>TE | 3RD PERIOD<br>TG |
| 722731 ASTORIA, OREGON       | 3.4              | -0.8             | -0.3             | 3.7              | -1.2             | -0.5             | 3.3              | -0.3             | -0.6             | 3.0              | -1.2             | -0.5             | 3.5              | -0.2             | -1.4             |
| 722631 BILLINGS, MONTANA     | 2.5              | -0.1             | -0.1             | 4.7              | -2.0             | -0.7             | 3.6              | -0.7             | -1.4             | 3.0              | -1.3             | -0.7             | 3.6              | -0.3             | -0.0             |
| 722436 ELY & NEVADA          | 2.0              | -0.3             | -0.1             | 5.0              | -1.0             | -0.3             | 4.9              | -0.1             | -1.8             | 3.5              | -0.9             | -0.5             | 3.2              | -0.7             | -0.4             |
| 722633 EUREKA, CALIFORNIA    | 1.9              | -0.3             | -0.1             | 5.9              | -1.0             | -0.2             | 5.2              | -0.2             | -1.4             | 3.2              | -0.6             | -0.4             | 3.4              | -0.7             | -0.4             |
| 722534 FRESNO, CALIFORNIA    | 2.0              | -0.3             | -0.1             | 4.3              | -0.2             | -0.1             | 4.8              | -0.6             | -1.5             | 2.4              | -0.6             | -0.5             | 2.4              | -0.6             | -0.5             |
| 722339 GLASCO, MONTANA       | 2.4              | -0.2             | -0.1             | 3.0              | -0.5             | -0.2             | 3.6              | -0.5             | -1.2             | 2.4              | -0.5             | -0.4             | 2.4              | -0.5             | -0.4             |
| 722732 HELENA, MONTANA       | 1.1              | -0.1             | -0.1             | 3.9              | -0.3             | -0.1             | 4.7              | -0.7             | -1.5             | 3.0              | -0.9             | -0.7             | 3.0              | -0.7             | -0.5             |
| 722737 KALISPELL, MONTANA    | 1.0              | -0.2             | -0.1             | 7.0              | -1.1             | -0.2             | 5.0              | -0.5             | -1.6             | 3.0              | -0.7             | -0.5             | 3.0              | -0.7             | -0.5             |
| 722339 KELLOGG, IDAHO        | 0.6              | -0.2             | -0.1             | 5.5              | -0.4             | -0.2             | 4.0              | -0.4             | -1.6             | 2.2              | -0.6             | -0.5             | 2.2              | -0.6             | -0.5             |
| 722531 LAS VEGAS, NEVADA     | 0.6              | -0.1             | -0.1             | 5.5              | -0.4             | -0.2             | 4.0              | -0.4             | -1.6             | 2.2              | -0.6             | -0.5             | 2.2              | -0.6             | -0.5             |
| 722532 MEDFORD, OREGON       | 0.5              | -0.1             | -0.1             | 6.0              | -1.1             | -0.6             | 5.0              | -1.1             | -2.0             | 2.0              | -0.7             | -0.6             | 2.0              | -0.7             | -0.6             |
| 722533 MIAMI, FLORIDA        | 0.5              | -0.1             | -0.1             | 6.5              | -1.1             | -0.6             | 5.5              | -1.1             | -2.0             | 2.0              | -0.7             | -0.6             | 2.0              | -0.7             | -0.6             |
| 722732 MISSOULA, MONTANA     | 0.5              | -0.1             | -0.1             | 4.6              | -0.6             | -0.1             | 4.5              | -0.5             | -1.5             | 2.5              | -0.7             | -0.6             | 2.5              | -0.7             | -0.6             |
| 722532 MOLOCHE, IDAHO        | 0.5              | -0.1             | -0.1             | 4.5              | -0.5             | -0.1             | 4.5              | -0.5             | -1.5             | 2.5              | -0.7             | -0.6             | 2.5              | -0.7             | -0.6             |
| 722532 RED BLUFF, CALIF.     | 0.5              | -0.1             | -0.1             | 4.7              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722431 RENO, NEVADA          | 0.5              | -0.1             | -0.1             | 4.7              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722433 SACRAMENTO, CALIF.    | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722631 SALEM, OREGON         | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722531 SAN DIEGO, CALIFORNIA | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722531 SPOKANE, WASHINGTON   | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722531 STOCKTON, CALIFORNIA  | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722531 TUCSON, ARIZONA       | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |
| 722334 YAKIMA, WASHINGTON    | 0.5              | -0.1             | -0.1             | 4.8              | -0.7             | -0.1             | 5.0              | -0.3             | -1.7             | 2.7              | -0.7             | -0.6             | 2.7              | -0.7             | -0.6             |

TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TE = MEAN ABSOLUTE FORECAST ERROR

TG = MEAN ALGEBRAIC FORECAST ERROR

## NMC QUADRATIC CURVE (PRECIPITATION) AND LINEAR REGRESSION (TEMPERATURE) DATA MAY 1970 - OCT 1970

|      | 0600Z      |             |            | 1800Z       |            |             |
|------|------------|-------------|------------|-------------|------------|-------------|
|      | 1ST PERIOD | 2ND PERIOD  | 3RD PERIOD | 1ST PERIOD  | 2ND PERIOD | 3RD PERIOD  |
| A    | .79157     | .85103      | .88481     | .78212      | .83332     | .89248      |
| RQ   | .93511     | .94152      | .97716     | .91550      | .95737     | .96428      |
| AO   | 1.03458    | 1.70288     | 1.26802    | 1.32330     | 1.55084    | 1.64708     |
| AI   | .54794     | .43927      | .63429     | .46742      | .52288     | .52868      |
| RL   | .70031     | .79676      | .88557     | .83532      | .84424     | .79867      |
| PF   |            | $\hat{B}$   |            | $\hat{B}$   |            | $\hat{B}$   |
| TV   |            | $\hat{T}_E$ |            | $\hat{T}_E$ |            | $\hat{T}_E$ |
| 0.0  | 0.00000    | 0.00000     | 0.00000    | 0.00000     | 0.00000    | 0.00000     |
| .1   | .07124     | .07659      | .07963     | .07039      | .07500     | .08032      |
| .2   | .12665     | .13616      | .14157     | .12514      | .13333     | .14280      |
| .3   | .16623     | .17872      | .18581     | .16425      | .17500     | .18742      |
| .4   | .18998     | .20425      | .21236     | .18771      | .20000     | .21420      |
| .5   | .19789     | .21276      | .22120     | .19553      | .20833     | .22312      |
| .6   | .18998     | .20425      | .21236     | .18771      | .20000     | .21420      |
| .7   | .16623     | .17872      | .18581     | .16425      | .17500     | .18742      |
| .8   | .12665     | .13616      | .14157     | .12514      | .13333     | .14280      |
| .9   | .07124     | .07659      | .07963     | .07039      | .07500     | .08032      |
| 1.0  | .00000     | .00000      | .00000     | .00000      | .00000     | .00000      |
| TV   |            | $\hat{T}_E$ |            | $\hat{T}_E$ |            | $\hat{T}_E$ |
| 0.0  | 1.03458    | 1.70288     | 1.26802    | 1.32330     | 1.55084    | 1.64708     |
| 10.0 | 6.51398    | 6.09558     | 7.61092    | 5.99750     | 6.77964    | 6.93388     |

A = QUADRATIC CONSTANT ESTIMATION

RQ = QUADRATIC CORRELATION COEFFICIENT OF B AND PF

AO = REGRESSION CONSTANT

AI = REGRESSION CONSTANT

RL = REGRESSION CORRELATION COEFFICIENT OF TE AND TV

PF = RELATIVE PRECIPITATION FREQUENCY

 $\hat{B} = A \cdot PF (1-PF)$ 

TV = MEAN ABSOLUTE 24-HOUR VARIABILITY

 $\hat{T}_E = AO + AI \cdot TV$

## NMC QUADRATIC CURVE (PRECIPITATION) AND LINEAR REGRESSION (TEMPERATURE) DATA NOV 1970 - APR 1971

|      | 0600Z      | 1800Z      |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|      | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD |
| A    | .68721     | .76276     | .82890     | .67708     | .77635     | .83734     |            |            |            |            |
| RQ   | .86318     | .90590     | .92753     | .87931     | .88936     | .94089     |            |            |            |            |
| AO   | 1.27035    | 2.42811    | 1.32211    | 2.11353    | 1.63243    | 3.04960    |            |            |            |            |
| AL   | .47024     | .38563     | .59547     | .37336     | .51718     | .36410     |            |            |            |            |
| RL   | .86275     | .68036     | .87133     | .71531     | .83339     | .58457     |            |            |            |            |
| PF   |            |            |            |            |            |            |            |            |            |            |
| B    |            |            |            |            |            |            |            |            |            |            |
| 0.0  | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    |
| .1   | .06185     | .06865     | .07460     | .06094     | .06987     | .07536     |            |            |            |            |
| .2   | .10995     | .12204     | .13262     | .10833     | .12422     | .13397     |            |            |            |            |
| .3   | .14431     | .16018     | .17407     | .14219     | .16303     | .17584     |            |            |            |            |
| .4   | .16493     | .18306     | .19894     | .16250     | .18632     | .20096     |            |            |            |            |
| .5   | .17180     | .19069     | .20722     | .16927     | .19409     | .20933     |            |            |            |            |
| .6   | .16493     | .18306     | .19894     | .16250     | .18632     | .20096     |            |            |            |            |
| .7   | .14431     | .16018     | .17407     | .14219     | .16303     | .17584     |            |            |            |            |
| .8   | .10995     | .12204     | .13262     | .10833     | .12422     | .13397     |            |            |            |            |
| .9   | .06185     | .06865     | .07460     | .06094     | .06987     | .07536     |            |            |            |            |
| 1.0  | .00000     | .00000     | .00000     | .00000     | .00000     | .00000     |            |            |            |            |
| TV   |            |            |            |            |            |            |            |            |            |            |
| TE   |            |            |            |            |            |            |            |            |            |            |
| 0.0  | 1.27035    | 2.42811    | 1.32211    | 2.11353    | 1.63243    | 3.04960    |            |            |            |            |
| 10.0 | 5.97275    | 6.28441    | 7.27681    | 5.84713    | 6.80423    | 6.69060    |            |            |            |            |

A = QUADRATIC CONSTANT ESTIMATION  
 RQ = QUADRATIC CORRELATION COEFFICIENT OF B AND PF  
 AO = REGRESSION CONSTANT  
 AL = REGRESSION CONSTANT  
 RL = REGRESSION CORRELATION COEFFICIENT OF TE AND TV  
 PF = RELATIVE PRECIPITATION FREQUENCY  
 $\hat{B} = A \cdot PF (1-PF)$   
 $\hat{TV} = \text{MEAN ABSOLUTE } 24\text{-HOUR VARIABILITY}$   
 $\hat{TE} = AO + AL \cdot TV$

## WSFO QUADRATIC CURVE (PRECIPITATION) AND LINEAR REGRESSION (TEMPERATURE) DATA MAY 1970 - OCT 1970

|      | 0600Z      | 1800Z      | 0600Z      | 1800Z      | 0600Z      | 1800Z      |
|------|------------|------------|------------|------------|------------|------------|
|      | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD |
| A    | .74612     | .82663     | .88795     | .73458     | .82627     | .89658     |
| RQ   | .93478     | .94288     | .97353     | .90956     | .95445     | .96533     |
| AO   | .97139     | 1.36240    | 1.01637    | 1.00889    | .93089     | 1.26850    |
| A1   | .41721     | .42113     | .62751     | .41714     | .53073     | .54034     |
| RL   | .90342     | .84602     | .92910     | .83015     | .91066     | .89629     |
| PF   | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  |
| 0.0  | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    |
| .1   | .06715     | .07440     | .07992     | .06611     | .07436     | .08069     |
| .2   | .11938     | .13226     | .14207     | .11753     | .13220     | .14345     |
| .3   | .15668     | .17359     | .18647     | .15426     | .17352     | .18828     |
| .4   | .17907     | .19839     | .21311     | .17630     | .19831     | .21518     |
| .5   | .18653     | .20666     | .22199     | .18364     | .20657     | .22415     |
| .6   | .17907     | .19839     | .21311     | .17630     | .19831     | .21518     |
| .7   | .15668     | .17359     | .18647     | .15426     | .17352     | .18828     |
| .8   | .11938     | .13226     | .14207     | .11753     | .13220     | .14345     |
| .9   | .06715     | .07440     | .07992     | .06611     | .07436     | .08069     |
| 1.0  | .00000     | .00000     | .00000     | .00000     | .00000     | .00000     |
| TV   | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  |
| 0.0  | .97139     | 1.36240    | 1.01637    | 1.00889    | .93089     | 1.26850    |
| 10.0 | 5.14349    | 5.57370    | 7.29147    | 5.18029    | 6.23819    | 6.67190    |

$\hat{A}$  = QUADRATIC CONSTANT ESTIMATION  
 $RQ$  = QUADRATIC CORRELATION COEFFICIENT OF B AND PF  
 $AO$  = REGRESSION CONSTANT  
 $A1$  = REGRESSION CONSTANT  
 $RL$  = REGRESSION CORRELATION COEFFICIENT OF TE AND TV  
 $PF$  = RELATIVE PRECIPITATION FREQUENCY  
 $\hat{B}$  =  $A \cdot PF$  ( $1 - PF$ )  
 $TV$  = MEAN ABSOLUTE 24-HOUR VARIABILITY  
 $\hat{TE}$  =  $AO + A1 \cdot TV$

## WSFO QUADRATIC CURVE (PRECIPITATION) AND LINEAR REGRESSION (TEMPERATURE) DATA NOV 1970 - APR 1971

0600Z

1800Z

|      | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD |
|------|------------|------------|------------|------------|------------|------------|
| A    | .61535     | .72848     | .82373     | .61699     | .76286     | .82330     |
| RQ   | .85249     | .91596     | .92501     | .88169     | .91320     | .95024     |
| A0   | 1.56555    | 1.96179    | 1.74806    | 2.01863    | 1.65858    | 2.28364    |
| A1   | .30195     | .35928     | .47042     | .25266     | .39294     | .40409     |
| RL   | .77055     | .73946     | .83264     | .62362     | .80903     | .71990     |
| PF   | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  | $\hat{B}$  | $\hat{B}$  | $\hat{B}$  |
| 0.0  | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    |
| .1   | .05538     | .06556     | .07414     | .05553     | .06866     | .07410     |
| .2   | .09846     | .11656     | .13180     | .09872     | .12206     | .13173     |
| .3   | .12922     | .15298     | .17298     | .12957     | .16020     | .17289     |
| .4   | .14769     | .17484     | .19770     | .14808     | .18309     | .19759     |
| .5   | .15384     | .18212     | .20593     | .15425     | .19071     | .20583     |
| .6   | .14769     | .17484     | .19770     | .14808     | .18309     | .19759     |
| .7   | .12922     | .15298     | .17298     | .12957     | .16020     | .17289     |
| .8   | .09846     | .11656     | .13180     | .09872     | .12206     | .13173     |
| .9   | .05538     | .06556     | .07414     | .05553     | .06866     | .07410     |
| 1.0  | .00000     | .00000     | .00000     | .00000     | .00000     | .00000     |
| TV   | $\hat{A}$  | $\hat{TE}$ | $\hat{TE}$ | $\hat{TE}$ | $\hat{TE}$ | $\hat{TE}$ |
| 0.0  | 1.56555    | 1.96179    | 1.74806    | 2.01863    | 1.65858    | 2.28364    |
| 10.0 | 4.58505    | 5.55459    | 6.45226    | 4.54523    | 5.58798    | 6.32454    |

A = QUADRATIC CONSTANT ESTIMATION  
 RQ = QUADRATIC CORRELATION COEFFICIENT OF B AND PF  
 AO = REGRESSION CONSTANT  
 A1 = REGRESSION CONSTANT  
 RL = REGRESSION CORRELATION COEFFICIENT OF TE AND TV  
 PF = RELATIVE PRECIPITATION FREQUENCY  
 $\hat{A}$  = A PF  $(1-PF)$   
 TV = MEAN ABSOLUTE 24-HOUR VARIABILITY  
 $\hat{TE}$  = AO + A1 TV

## WSO QUADRATIC CURVE (PRECIPITATION) AND LINEAR REGRESSION (TEMPERATURE) DATA MAY 1970 - OCT 1970

|      | 0600Z      | 0600Z      | 0600Z      | 0600Z     | 1800Z      | 1800Z      | 1800Z      |
|------|------------|------------|------------|-----------|------------|------------|------------|
|      | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD |           | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD |
| A    | .71037     | .83350     | .88919     |           | .71020     | .82481     | .90803     |
| RQ   | .91752     | .92600     | .96723     |           | .87741     | .95811     | .94785     |
| AO   | .91366     | .96967     | .87066     |           | .88314     | .70966     | 1.18801    |
| A1   | .39954     | .48630     | .66208     |           | .42283     | .56183     | .56632     |
| RL   | .87825     | .87922     | .92436     |           | .82754     | .92552     | .89478     |
| PF   |            |            |            | $\hat{B}$ |            |            | $\hat{B}$  |
| 0.0  | 0.00000    | 0.00000    | 0.00000    | 0.00000   | 0.00000    | 0.00000    | 0.00000    |
| .1   | .06393     | .07502     | .08003     | .08003    | .06392     | .07423     | .08172     |
| .2   | .11366     | .13336     | .14227     | .14227    | .11363     | .13197     | .14528     |
| .3   | .14918     | .17504     | .18673     | .18673    | .14914     | .17321     | .19069     |
| .4   | .17049     | .20004     | .21341     | .21341    | .17045     | .19795     | .21793     |
| .5   | .17759     | .20838     | .22230     | .22230    | .17755     | .20620     | .22701     |
| .6   | .17049     | .20004     | .21341     | .21341    | .17045     | .19795     | .21793     |
| .7   | .14918     | .17504     | .18673     | .18673    | .14914     | .17321     | .19069     |
| .8   | .11366     | .13336     | .14227     | .14227    | .11363     | .13197     | .14528     |
| .9   | .06393     | .07502     | .08003     | .08003    | .06392     | .07423     | .08172     |
| 1.0  | .00000     | .00000     | .00000     | .00000    | .00000     | .00000     | .00000     |
| TV   |            |            |            | $\hat{A}$ |            |            | $\hat{TE}$ |
| 0.0  | .91366     | .96967     | .87066     | .88314    |            |            |            |
| 10.0 | 4.90906    | 5.83267    | 7.49146    | 5.11144   |            |            |            |
|      |            |            |            |           | .70966     | .70966     | 1.18801    |
|      |            |            |            |           | 6.32796    | 6.32796    | 6.85121    |

$\hat{A}$  = QUADRATIC CONSTANT ESTIMATION  
 RQ = QUADRATIC CORRELATION COEFFICIENT OF B AND PF  
 AO = REGRESSION CONSTANT  
 A1 = REGRESSION CONSTANT  
 RL = REGRESSION CORRELATION COEFFICIENT OF TE AND TV  
 PF = RELATIVE PRECIPITATION FREQUENCY  
 $\hat{B}$  =  $A \cdot PF / (1 - PF)$   
 TV = MEAN ABSOLUTE 24-HOUR VARIABILITY  
 $\hat{TE}$  = AO + A1 TV

## WSO QUADRATIC CURVE (PRECIPITATION) AND LINEAR REGRESSION (TEMPERATURE) DATA NOV 1970 - APR 1971

0600Z

1800Z

|      | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD | 1ST PERIOD | 2ND PERIOD | 3RD PERIOD |
|------|------------|------------|------------|------------|------------|------------|
| A    | .55383     | .72611     | .82208     | .57640     | .74195     | .82022     |
| RQ   | .81284     | .91931     | .94020     | .88943     | .93178     | .95529     |
| A0   | 1.52475    | 1.61561    | 1.63399    | 1.70332    | 1.48365    | 2.02526    |
| A1   | .26177     | .37927     | .46229     | .25750     | .38730     | .43316     |
| RL   | .69429     | .73001     | .80172     | .60275     | .79890     | .71330     |
| PF   | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  |
| 0.0  | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    | 0.00000    |
| .1   | .04985     | .06535     | .07399     | .05188     | .06678     | .07382     |
| .2   | .08861     | .11618     | .13153     | .09222     | .11871     | .13123     |
| .3   | .11631     | .15248     | .17264     | .12104     | .15581     | .17225     |
| .4   | .13292     | .17427     | .19730     | .13834     | .17807     | .19685     |
| .5   | .13846     | .18153     | .20552     | .14410     | .18549     | .20505     |
| .6   | .13292     | .17427     | .19730     | .13834     | .17807     | .19685     |
| .7   | .11631     | .15248     | .17264     | .12104     | .15581     | .17225     |
| .8   | .08861     | .11618     | .13153     | .09222     | .11871     | .13123     |
| .9   | .04985     | .06535     | .07399     | .05188     | .06678     | .07382     |
| 1.0  | .00000     | .00000     | .00000     | .00000     | .00000     | .00000     |
| TV   | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  | $\hat{A}$  | $\hat{B}$  | $\hat{B}$  |
| 0.0  | 1.52475    | 1.61561    | 1.63399    | 1.70332    | 1.48365    | 2.02526    |
| 10.0 | 4.14245    | 5.40831    | 6.25689    | 4.27832    | 5.35665    | 6.35686    |

$\hat{A}$  = QUADRATIC CONSTANT ESTIMATION  
 $\hat{RQ}$  = QUADRATIC CORRELATION COEFFICIENT OF B AND PF  
 $\hat{AO}$  = REGRESSION CONSTANT  
 $\hat{AI}$  = REGRESSION CONSTANT  
 $\hat{RL}$  = REGRESSION CORRELATION COEFFICIENT OF TE AND TV  
 $\hat{PF}$  = RELATIVE PRECIPITATION FREQUENCY  
 $\hat{B}$  =  $A \cdot PF (1-PF)$   
 $\hat{TV}$  = MEAN ABSOLUTE 24-HOUR VARIABILITY  
 $\hat{TE}$  =  $AO + AI \cdot TV$

| MAY 1970 - OCT 1970 1ST PERIOD PRECIPITATION FORECASTING PERFORMANCE WITHIN ECHELONS |  |  |   |   |   |  |  |   |   |   |   |  |
|--|--|--|---|---|---|--|--|---|---|---|---|--|
|  | F  | P  | PC  | MP  | MN  | PF   | B  | BC  | S   | BS  | SS  |  |
| EASTERN  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 1472<br>337<br>332<br>335<br>335<br>332              | 81 <sup>0</sup><br>81 <sup>0</sup><br>83 <sup>0</sup><br>81 <sup>0</sup><br>83 <sup>0</sup><br>83 <sup>0</sup>                    | 47 <sup>0</sup><br>51 <sup>0</sup><br>55 <sup>0</sup><br>47 <sup>0</sup><br>54 <sup>0</sup><br>54 <sup>0</sup>                    | 20 <sup>3</sup><br>19 <sup>0</sup><br>19 <sup>1</sup><br>18 <sup>3</sup><br>16 <sup>7</sup><br>16 <sup>7</sup>                    | 2239<br>1265<br>2276<br>2276<br>2289<br>2289         | 1745<br>1745<br>1227<br>1227<br>1167<br>1167         | 25 <sup>6</sup><br>27 <sup>5</sup><br>32 <sup>6</sup><br>29 <sup>4</sup><br>33 <sup>2</sup><br>33 <sup>2</sup>                    | 1635<br>1685<br>1692<br>1669<br>1676<br>1676  | 23 <sup>0</sup><br>24 <sup>0</sup><br>30 <sup>1</sup><br>26 <sup>4</sup><br>23 <sup>0</sup><br>23 <sup>0</sup>                  |   |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 1472<br>3310<br>3310<br>3309<br>3299<br>3305<br>3309 | 732<br>732<br>81 <sup>4</sup><br>83 <sup>8</sup><br>85 <sup>8</sup><br>85 <sup>9</sup>  | 45 <sup>3</sup><br>44 <sup>7</sup><br>46 <sup>6</sup><br>39 <sup>6</sup><br>41 <sup>4</sup><br>41 <sup>4</sup>                    | 23 <sup>0</sup><br>19 <sup>8</sup><br>17 <sup>4</sup><br>18 <sup>7</sup><br>15 <sup>1</sup><br>15 <sup>1</sup>                    | 2211<br>2211<br>2215<br>1491<br>1483<br>1529         | 1399<br>1350<br>1263<br>1131<br>1043<br>1031         | 16 <sup>3</sup><br>19 <sup>8</sup><br>24 <sup>8</sup><br>1269<br>1268<br>1294   | 1612<br>1612<br>1613<br>1216<br>1214<br>1245  | 13 <sup>2</sup><br>16 <sup>2</sup><br>21 <sup>7</sup><br>7 <sup>0</sup><br>14 <sup>1</sup><br>17 <sup>2</sup>                   |   |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 3310<br>3309<br>492<br>492<br>506                    | 732<br>732<br>83 <sup>8</sup><br>85 <sup>8</sup><br>85 <sup>9</sup>   | 45 <sup>3</sup><br>44 <sup>7</sup><br>46 <sup>6</sup><br>39 <sup>6</sup><br>41 <sup>4</sup>                                       | 23 <sup>0</sup><br>19 <sup>8</sup><br>17 <sup>4</sup><br>18 <sup>7</sup><br>15 <sup>1</sup>                                       | 2211<br>2211<br>2215<br>1491<br>1483<br>1529         | 1399<br>1350<br>1263<br>1131<br>1043<br>1031         | 16 <sup>3</sup><br>19 <sup>8</sup><br>24 <sup>8</sup><br>1269<br>1268<br>1294   | 1612<br>1612<br>1613<br>1216<br>1214<br>1245  | 13 <sup>2</sup><br>16 <sup>2</sup><br>21 <sup>7</sup><br>7 <sup>0</sup><br>14 <sup>1</sup><br>17 <sup>2</sup>                   |   |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 1988<br>1988<br>292<br>292<br>310<br>310<br>308      | 84 <sup>0</sup><br>86 <sup>0</sup><br>87 <sup>0</sup><br>87 <sup>0</sup><br>84 <sup>0</sup><br>86 <sup>0</sup><br>86 <sup>0</sup> | 32 <sup>3</sup><br>32 <sup>1</sup><br>34 <sup>0</sup><br>34 <sup>0</sup><br>38 <sup>6</sup><br>39 <sup>3</sup><br>40 <sup>0</sup> | 18 <sup>1</sup><br>13 <sup>7</sup><br>12 <sup>1</sup><br>12 <sup>1</sup><br>16 <sup>3</sup><br>16 <sup>3</sup><br>11 <sup>0</sup> | 1463<br>1463<br>1469<br>1469<br>1553<br>1553<br>1542 | 1080<br>1066<br>0907<br>0907<br>1087<br>1098<br>0940 | 1248<br>1248<br>1250<br>1250<br>1313<br>1313<br>1280  | 13 <sup>5</sup><br>22 <sup>6</sup><br>27 <sup>5</sup><br>27 <sup>5</sup><br>17 <sup>6</sup><br>17 <sup>6</sup><br>26 <sup>6</sup> | 1181<br>1181<br>1183<br>1183<br>1253<br>1253<br>1221  | 8 <sup>6</sup><br>18 <sup>1</sup><br>23 <sup>4</sup><br>23 <sup>4</sup><br>13 <sup>6</sup><br>13 <sup>6</sup><br>23 <sup>1</sup>  |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 1988<br>1988<br>1997<br>1997<br>1933<br>1933<br>1931 | 84 <sup>0</sup><br>86 <sup>0</sup><br>87 <sup>0</sup><br>87 <sup>0</sup><br>84 <sup>0</sup><br>86 <sup>0</sup><br>86 <sup>0</sup> | 32 <sup>3</sup><br>32 <sup>1</sup><br>34 <sup>0</sup><br>34 <sup>0</sup><br>38 <sup>6</sup><br>39 <sup>3</sup><br>40 <sup>0</sup> | 18 <sup>1</sup><br>13 <sup>7</sup><br>12 <sup>1</sup><br>12 <sup>1</sup><br>16 <sup>3</sup><br>16 <sup>3</sup><br>11 <sup>0</sup> | 1463<br>1463<br>1469<br>1469<br>1553<br>1553<br>1542 | 1080<br>1066<br>0907<br>0907<br>1087<br>1098<br>0940 | 1248<br>1248<br>1250<br>1250<br>1313<br>1313<br>1280  | 13 <sup>5</sup><br>22 <sup>6</sup><br>27 <sup>5</sup><br>27 <sup>5</sup><br>17 <sup>6</sup><br>17 <sup>6</sup><br>26 <sup>6</sup> | 1181<br>1181<br>1183<br>1183<br>1253<br>1253<br>1221  | 8 <sup>6</sup><br>18 <sup>1</sup><br>23 <sup>4</sup><br>23 <sup>4</sup><br>13 <sup>6</sup><br>13 <sup>6</sup><br>23 <sup>1</sup>  |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 2754<br>2755<br>2756<br>2756<br>2740<br>2750<br>2753 | 236<br>236<br>239<br>92 <sup>5</sup><br>254<br>90 <sup>0</sup><br>91 <sup>5</sup>   | 90 <sup>8</sup><br>92 <sup>0</sup><br>92 <sup>5</sup><br>45 <sup>8</sup><br>30 <sup>0</sup><br>36 <sup>3</sup><br>41 <sup>0</sup> | 37 <sup>1</sup><br>32 <sup>1</sup><br>45 <sup>8</sup><br>7 <sup>4</sup><br>36 <sup>3</sup><br>8 <sup>6</sup><br>7 <sup>1</sup>    | 857<br>857<br>867<br>867<br>927<br>927<br>926        | 0635<br>0635<br>0549<br>0549<br>0691<br>0651<br>0617 | 0751<br>0751<br>0757<br>0757<br>0807<br>0807<br>0810  | 15 <sup>3</sup><br>21 <sup>3</sup><br>27 <sup>5</sup><br>27 <sup>5</sup><br>14 <sup>4</sup><br>14 <sup>4</sup><br>23 <sup>9</sup> | 0706<br>0706<br>0712<br>0712<br>0761<br>0761<br>0765  | 16 <sup>0</sup><br>16 <sup>0</sup><br>22 <sup>9</sup><br>22 <sup>9</sup><br>9 <sup>5</sup><br>9 <sup>5</sup><br>19 <sup>4</sup>   |  |
| WESTERN  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 2754<br>2755<br>2756<br>2756<br>2740<br>2750<br>2753 | 236<br>236<br>239<br>92 <sup>5</sup><br>254<br>90 <sup>0</sup><br>91 <sup>5</sup>   | 37 <sup>1</sup><br>32 <sup>1</sup><br>45 <sup>8</sup><br>7 <sup>4</sup><br>36 <sup>3</sup><br>8 <sup>6</sup><br>7 <sup>1</sup>    | 857<br>857<br>867<br>867<br>927<br>927<br>926   | 0635<br>0635<br>0549<br>0549<br>0691<br>0651<br>0617 | 0751<br>0751<br>0757<br>0757<br>0807<br>0807<br>0810 | 15 <sup>3</sup><br>21 <sup>3</sup><br>27 <sup>5</sup><br>27 <sup>5</sup><br>14 <sup>4</sup><br>14 <sup>4</sup><br>23 <sup>9</sup> | 0706<br>0706<br>0712<br>0712<br>0761<br>0761<br>0765  | 16 <sup>0</sup><br>16 <sup>0</sup><br>22 <sup>9</sup><br>22 <sup>9</sup><br>9 <sup>5</sup><br>9 <sup>5</sup><br>19 <sup>4</sup> |   |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 230<br>231<br>220<br>221<br>1391<br>1392<br>1398     | 75 <sup>4</sup><br>75 <sup>7</sup><br>75 <sup>2</sup><br>79 <sup>7</sup><br>85 <sup>1</sup><br>86 <sup>7</sup><br>86 <sup>4</sup> | 45 <sup>3</sup><br>49 <sup>5</sup><br>54 <sup>0</sup><br>54 <sup>0</sup><br>47 <sup>1</sup><br>47 <sup>1</sup><br>44 <sup>0</sup> | 18 <sup>5</sup><br>18 <sup>0</sup><br>21 <sup>1</sup><br>21 <sup>2</sup><br>17 <sup>2</sup><br>13 <sup>0</sup><br>11 <sup>4</sup> | 3286<br>3236<br>3133<br>3135<br>1037<br>1036<br>1461 | 1718<br>1663<br>1736<br>1572<br>0937<br>0968<br>0912 | 2112<br>2103<br>2116<br>2113<br>1332<br>1333<br>1220  | 18 <sup>7</sup><br>21 <sup>2</sup><br>17 <sup>9</sup><br>25 <sup>6</sup><br>17 <sup>8</sup><br>27 <sup>3</sup><br>25 <sup>2</sup> | 1990<br>1992<br>1949<br>1946<br>1271<br>1273<br>1166  | 13 <sup>7</sup><br>16 <sup>5</sup><br>10 <sup>9</sup><br>19 <sup>2</sup><br>13 <sup>8</sup><br>13 <sup>4</sup><br>21 <sup>3</sup> |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 700<br>703<br>701<br>705                             | 230<br>231<br>220<br>221<br>1391<br>1392<br>1398  | 75 <sup>4</sup><br>75 <sup>7</sup><br>75 <sup>2</sup><br>79 <sup>7</sup><br>85 <sup>1</sup><br>86 <sup>7</sup><br>86 <sup>4</sup> | 45 <sup>3</sup><br>49 <sup>5</sup><br>54 <sup>0</sup><br>54 <sup>0</sup><br>47 <sup>1</sup><br>47 <sup>1</sup><br>44 <sup>0</sup> | 3286<br>3236<br>3133<br>3135<br>1037<br>1036<br>1461 | 1718<br>1663<br>1736<br>1572<br>1037<br>1036<br>1461 | 2112<br>2103<br>2116<br>2113<br>1332<br>1333<br>1220  | 18 <sup>7</sup><br>21 <sup>2</sup><br>17 <sup>9</sup><br>25 <sup>6</sup><br>17 <sup>8</sup><br>27 <sup>3</sup><br>25 <sup>2</sup> | 1990<br>1992<br>1949<br>1946<br>1271<br>1273<br>1166  | 13 <sup>7</sup><br>16 <sup>5</sup><br>10 <sup>9</sup><br>19 <sup>2</sup><br>13 <sup>8</sup><br>13 <sup>4</sup><br>21 <sup>3</sup> |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 9524<br>9432<br>9499<br>9517<br>9490                 | 1597<br>1597<br>1596<br>1391<br>1392<br>1398  | 33 <sup>6</sup><br>85 <sup>1</sup><br>36 <sup>2</sup><br>85 <sup>4</sup><br>36 <sup>7</sup><br>37 <sup>4</sup>                    | 43 <sup>5</sup><br>44 <sup>0</sup><br>47 <sup>1</sup><br>40 <sup>7</sup><br>41 <sup>6</sup><br>44 <sup>0</sup>                    | 1677<br>1677<br>1681<br>1464<br>1463<br>1461         | 1096<br>1096<br>1037<br>1010<br>1095<br>1091         | 1332<br>1332<br>1333<br>1219<br>1218<br>1220  | 17 <sup>8</sup><br>22 <sup>1</sup><br>27 <sup>3</sup><br>17 <sup>7</sup><br>21 <sup>4</sup><br>25 <sup>2</sup>                    | 1271<br>1271<br>1273<br>1164<br>1164<br>1166  | 13 <sup>8</sup><br>13 <sup>4</sup><br>13 <sup>3</sup><br>13 <sup>2</sup><br>13 <sup>2</sup><br>13 <sup>2</sup>                    |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 9524<br>9432<br>9499<br>9517<br>9490                 | 1597<br>1597<br>1596<br>1391<br>1392<br>1398  | 33 <sup>6</sup><br>85 <sup>1</sup><br>36 <sup>2</sup><br>85 <sup>4</sup><br>36 <sup>7</sup><br>37 <sup>4</sup>                    | 43 <sup>5</sup><br>44 <sup>0</sup><br>47 <sup>1</sup><br>40 <sup>7</sup><br>41 <sup>6</sup><br>44 <sup>0</sup>                    | 1677<br>1677<br>1681<br>1464<br>1463<br>1461         | 1096<br>1096<br>1037<br>1010<br>1095<br>1091         | 1332<br>1332<br>1333<br>1219<br>1218<br>1220  | 17 <sup>8</sup><br>22 <sup>1</sup><br>27 <sup>3</sup><br>17 <sup>7</sup><br>21 <sup>4</sup><br>25 <sup>2</sup>                    | 1271<br>1271<br>1273<br>1164<br>1164<br>1166  | 13 <sup>8</sup><br>13 <sup>4</sup><br>13 <sup>3</sup><br>13 <sup>2</sup><br>13 <sup>2</sup><br>13 <sup>2</sup>                    |  |
|  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL<br>18 <sup>2</sup><br>NMC<br>FP<br>LCL | 9524<br>9432<br>9499<br>9517<br>9490                 | 1597<br>1597<br>1596<br>1391<br>1392<br>1398  | 33 <sup>6</sup><br>85 <sup>1</sup><br>36 <sup>2</sup><br>85 <sup>4</sup><br>36 <sup>7</sup><br>37 <sup>4</sup>                    | 43 <sup>5</sup><br>44 <sup>0</sup><br>47 <sup>1</sup><br>40 <sup>7</sup><br>41 <sup>6</sup><br>44 <sup>0</sup>                    | 1677<br>1677<br>1681<br>1464<br>1463<br>1461         | 1096<br>1096<br>1037<br>1010<br>1095<br>1091         | 1332<br>1332<br>1333<br>1219<br>1218<br>1220  | 17 <sup>8</sup><br>22 <sup>1</sup><br>27 <sup>3</sup><br>17 <sup>7</sup><br>21 <sup>4</sup><br>25 <sup>2</sup>                    | 1271<br>1271<br>1273<br>1164<br>1164<br>1166  | 13 <sup>8</sup><br>13 <sup>4</sup><br>13 <sup>3</sup><br>13 <sup>2</sup><br>13 <sup>2</sup><br>13 <sup>2</sup>                    |  |

F = NUMBER OF FORECASTS  
 PC = NUMBER OF PRECORRECTED CASES  
 MP = TOTAL PERCENT CORRECT  
 MN = MEAN PROBABILITY FORECAST  
 PF = RELATIVE PROBABILITY FORECAST  
 PB = BRIER SCORE  
 AC = CLIMATOLOGICAL BRIER SCORE  
 BS = SAMPLE BRIER SCORE  
 SS = PERCENT IMPROVEMENT OF B OVER BC  
 DS = PERCENT IMPROVEMENT OF A OVER BS

## NOV 1970 - APR 1971 1ST PERIOD PRECIPITATION FORECASTING PERFORMANCE WITHIN ECHELONS

|          | F   | P    | PC   | MP   | MN   | PF    | B     | BC    | S     | BS    | SS    |       |
|----------|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| EASTERN  | 06Z | 1445 | 423  | 80.9 | 55.7 | 13.3  | .2927 | .2018 | 36.9  | .1969 | 35.4  |       |
|          | NMC | 1446 | 422  | 83.1 | 62.4 | 18.7  | .2916 | .2011 | 41.9  | .1963 | 35.6  |       |
|          | FP  | 1447 | 422  | 85.9 | 63.8 | 17.9  | .2916 | .2010 | 48.8  | .1962 | 47.6  |       |
|          | LCL | 1446 | 423  | 32.3 | 56.1 | 13.4  | .2360 | .2033 | 38.3  | .1985 | 37.5  |       |
|          | NMC | 1448 | 429  | 82.9 | 60.9 | 17.3  | .2963 | .2034 | 41.2  | .1986 | 33.8  |       |
|          | FP  | 1445 | 427  | 84.7 | 66.1 | 2.955 | .1125 | .2029 | 44.6  | .1984 | 43.3  |       |
| SOUTHERN | 06Z | 3250 | 449  | 89.7 | 46.3 | 11.6  | .1378 | .0783 | 11.59 | .32.5 | 11.17 |       |
|          | NMC | 3258 | 449  | 80.3 | 48.1 | 3.9   | .1373 | .0724 | 11.59 | .32.8 | 11.17 |       |
|          | FP  | 3161 | 430  | 91.4 | 51.0 | 6.4   | .1360 | .0659 | 11.46 | .42.5 | 11.02 |       |
|          | LCL | 137  | NMC  | 3258 | 425  | 89.1  | .1304 | .0761 | 11.05 | .31.1 | 10.48 |       |
|          | NMC | 3258 | 425  | 89.7 | 48.6 | 1.8   | .1304 | .0713 | 11.05 | .35.5 | 10.48 |       |
|          | FP  | 3158 | 415  | 90.7 | 48.7 | 5.9   | .1314 | .0663 | 11.07 | .40.1 | 10.56 |       |
| CENTRAL  | 06Z | 1991 | 276  | 86.9 | 41.2 | 16.1  | .1386 | .0986 | 11.81 | 16.6  | 11.35 |       |
|          | NMC | 1991 | 276  | 89.0 | 43.9 | 10.9  | .1386 | .0826 | 11.81 | 30.1  | 11.35 |       |
|          | FP  | 1987 | 281  | 90.1 | 46.9 | 10.4  | .1414 | .0765 | 12.01 | 36.3  | 11.53 |       |
|          | LCL | 132  | NMC  | 1991 | 285  | 88.0  | 45.0  | .1431 | .0937 | 12.06 | 22.3  | 11.55 |
|          | NMC | 1991 | 285  | 89.1 | 45.8 | 11.2  | .1420 | .0785 | 12.00 | 34.9  | 11.43 |       |
|          | FP  | 1986 | LCL  | 1986 | 282  | 89.7  | 46.2  | .1420 | .0781 | 12.00 | 34.9  | 11.43 |
| WESTERN  | 06Z | 2707 | 555  | 31.3 | 48.6 | 18.3  | .2050 | .1202 | .1544 | 22.2  | 14.46 |       |
|          | NMC | 2713 | 555  | 84.6 | 54.3 | 16.3  | .2046 | .1060 | .1542 | 31.3  | 14.44 |       |
|          | FP  | 2712 | 564  | 33.3 | 61.7 | 13.2  | .2080 | .0901 | .1560 | 42.2  | 14.54 |       |
|          | LCL | 182  | NMC  | 2707 | 576  | 81.4  | 48.4  | .2128 | .1220 | .1590 | 23.3  | 14.97 |
|          | NMC | 2707 | 577  | 84.4 | 54.6 | 16.3  | .2123 | .1063 | .1593 | 40.1  | 14.99 |       |
|          | FP  | 2712 | LCL  | 2714 | 579  | 86.6  | 58.7  | .2133 | .0955 | .1594 | 40.1  | 14.99 |
| ALASKAN  | 06Z | NMC  | 723  | 195  | 32.2 | 51.1  | 14.9  | .2697 | .1329 | .1735 | 23.4  |       |
|          | FP  | 724  | 195  | 85.4 | 59.1 | 12.1  | .2693 | .1124 | .1733 | 35.2  | 14.89 |       |
|          | LCL | 182  | NMC  | 723  | 181  | 79.9  | 51.7  | .2503 | .1328 | .1673 | 20.6  |       |
|          | NMC | 723  | 181  | 34.4 | 62.3 | 13.7  | .2500 | .1082 | .1671 | 35.3  | 14.56 |       |
|          | FP  | 724  | LCL  | 724  | 181  | 79.9  | 51.7  | .2503 | .1328 | .1673 | 20.6  |       |
|          | LCL | 182  | NMC  | 724  | 181  | 79.9  | 51.7  | .2503 | .1328 | .1673 | 20.6  |       |
| NATIONAL | 06Z | 9401 | 1703 | 85.4 | 48.5 | 15.5  | .1812 | .1022 | .1407 | 27.4  | 13.47 |       |
|          | NMC | 9403 | 1702 | 37.3 | 52.3 | 12.7  | .1803 | .0912 | .1405 | 35.7  | 13.45 |       |
|          | FP  | 9307 | 1697 | 89.4 | 58.3 | 10.3  | .1823 | .0810 | .1413 | 42.7  | 13.49 |       |
|          | LCL | 182  | NMC  | 9402 | 1714 | 85.7  | 49.8  | .1823 | .1005 | .1409 | 28.7  | 13.44 |
|          | NMC | 9402 | 1714 | 87.2 | 52.3 | 12.4  | .1824 | .0903 | .1409 | 35.7  | 13.45 |       |
|          | FP  | 9403 | 1703 | 88.4 | 56.1 | 10.6  | .1831 | .0845 | .1412 | 40.2  | 13.49 |       |
|          | LCL | 182  | NMC  | 9303 | 1703 | 88.4  | 56.1  | .1831 | .0845 | .1412 | 40.2  | 13.49 |

F = NUMBER OF FORECASTS  
 PC = NUMBER OF PRECIPITATION CASES

PC = TOTAL PERCENT CORRECT  
 MP = MEAN PROBABILITY FORCAST<sup>2</sup>  
 MN = MEAN PROBABILITY FORCAST<sup>2</sup> NO PRECIPITATION

PF = RELATIVE PRECIPITATION FREQUENCY

B = CLIMATOLOGICAL BRIER SCORE  
 BC = SAMPLE BRIER SCORE  
 BS = PERCENT IMPROVEMENT OF B OVER BC  
 SS = PERCENT IMPROVEMENT OF B OVER BS

| MAY 1970 - OCT 1970 2ND PERIOD |     |          |      |      |      |      |      |      |      | PRECIPITATION FORECASTING PERFORMANCE WITHIN ECHELONS |      |      |      |      |     |  |
|--------------------------------|-----|----------|------|------|------|------|------|------|------|---|------|------|------|------|-----|--|
|                                | F   | P        | PC   | MP   | MN   | PF   | B    | BC   | S    | BS  | SS   |      |      |      |     |  |
| EASTERN                        | 067 | NMC      | 1472 | 335  | 80.0 | 42.7 | 19.8 | 2276 | 1358 | 1738  | 1669 | 18.6 |      |      |     |  |
|                                |     | FP       | 1440 | 330  | 80.8 | 42.7 | 17.9 | 2276 | 1397 | 1738  | 1669 | 18.3 |      |      |     |  |
|                                |     | LCL      | 1482 | 337  | 79.5 | 42.0 | 19.8 | 2292 | 1368 | 1747  | 1677 | 18.4 |      |      |     |  |
|                                |     | NMC      | 1471 | 337  | 78.6 | 41.5 | 20.0 | 2231 | 1389 | 1747  | 1680 | 17.3 |      |      |     |  |
|                                |     | FP       | 1437 | 331  | 78.8 | 43.3 | 20.0 | 2203 | 1443 | 1753  | 1686 | 14.1 |      |      |     |  |
|                                |     | LCL      |      |      |      |      |      |      |      |   |      |      |      |      |     |  |
| SOUTHERN                       | 067 | NMC      | 3310 | 492  | 84.7 | 35.2 | 18.3 | 1486 | 1146 | 1266  | 9.5  | 1213 | 5.5  |      |     |  |
|                                |     | FP       | 3311 | 492  | 84.3 | 32.3 | 13.2 | 1486 | 1110 | 1266  | 12.1 | 1213 | 8.4  |      |     |  |
|                                |     | LCL      | 132  | 506  | 84.3 | 33.2 | 13.2 | 1534 | 1140 | 1293  | 12.3 | 1243 | 3.6  |      |     |  |
|                                |     | NMC      | 3239 | 727  | 79.1 | 38.2 | 21.2 | 2204 | 1448 | 1677  | 13.7 | 1605 | 9.8  |      |     |  |
|                                |     | FP       | 3306 | 727  | 78.8 | 38.7 | 19.5 | 2199 | 1441 | 1675  | 13.9 | 1603 | 10.1 |      |     |  |
|                                |     | LCL      | 3311 | 729  | 79.9 | 39.3 | 17.2 | 2202 | 1413 | 1672  | 15.5 | 1603 | 11.8 |      |     |  |
| CENTRAL                        | 067 | NMC      | 1988 | 310  | 83.0 | 33.9 | 18.5 | 1559 | 1202 | 1319  | 9.9  | 1259 | 4.5  |      |     |  |
|                                |     | FP       | 1988 | 303  | 84.0 | 30.3 | 14.2 | 1544 | 1157 | 1232  | 9.3  | 1223 | 5.4  |      |     |  |
|                                |     | LCL      | 1882 | 295  | 84.9 | 32.6 | 16.5 | 1484 | 1103 | 1258  | 11.9 | 1195 | 7.2  |      |     |  |
|                                |     | NMC      | 1988 | 295  | 85.2 | 29.9 | 14.0 | 1484 | 1097 | 1252  | 12.8 | 1195 | 3.1  |      |     |  |
|                                |     | FP       | 1990 | 296  | 85.5 | 29.4 | 12.6 | 1484 | 1079 | 1252  | 13.8 | 1137 |      |      |     |  |
|                                |     | LCL      |      |      |      |      |      |      |      |   |      |      |      |      |     |  |
| WESTERN                        | 067 | NMC      | 2754 | 255  | 89.7 | 28.3 | 9.3  | 926  | 744  | 803   | 7.0  | 761  | 2.3  |      |     |  |
|                                |     | FP       | 2755 | 256  | 90.3 | 31.1 | 7.7  | 926  | 716  | 830   | 7.3  | 761  | 5.3  |      |     |  |
|                                |     | LCL      | 182  | 236  | 89.9 | 30.5 | 9.5  | 861  | 706  | 812   | 11.8 | 766  | 6.6  |      |     |  |
|                                |     | NMC      | 2741 | 236  | 89.7 | 34.4 | 9.1  | 865  | 687  | 754   | 6.3  | 709  | 5.5  |      |     |  |
|                                |     | FP       | 2753 | 238  | 90.6 | 32.5 | 7.7  | 863  | 667  | 757   | 9.3  | 711  | 3.5  |      |     |  |
|                                |     | LCL      | 2754 | 239  | 90.6 |      |      |      |      |   | 7.7  | 714  | 6.5  |      |     |  |
| ALASKAN                        | 067 | NMC      | 701  | 220  | 71.5 | 42.7 | 23.3 | 3138 | 1907 | 2116  | 9.9  | 1949 | 2.1  |      |     |  |
|                                |     | FP       | 704  | 221  | 70.7 | 43.0 | 22.5 | 3139 | 1917 | 2115  | 9.4  | 1948 | 1.6  |      |     |  |
|                                |     | LCL      | 182  | NMC  | 701  | 232  | 71.5 | 42.0 | 22.4 | 3310  | 2004 | 2123 | 5.6  | 1939 | "2  |  |
|                                |     | FP       | 705  | 234  | 73.2 | 42.8 | 21.5 | 3319 | 2000 | 2128  | 6.0  | 2004 |      |      |     |  |
|                                |     | LCL      |      |      |      |      |      |      |      |   |      |      |      |      |     |  |
|                                |     | NATIONAL | 067  | NMC  | 9524 | 1332 | 35.0 | 35.5 | 15.3 | 1462  | 1074 | 1217 | 11.8 | 1162 | 7.6 |  |
|                                |     | FP       | 9525 | 1332 | 85.5 | 33.8 | 13.3 | 1461 | 1050 | 1217  | 13.8 | 1162 | 9.7  |      |     |  |
|                                |     | LCL      | 9496 | 1402 | 85.4 | 34.4 | 12.4 | 1463 | 1056 | 1222  | 13.6 | 1163 | 9.6  |      |     |  |
|                                |     | NMC      | 9499 | 1595 | 83.5 | 36.8 | 16.3 | 1673 | 1154 | 1334  | 13.5 | 1272 | 9.3  |      |     |  |
|                                |     | FP       | 9517 | 1597 | 83.3 | 37.2 | 13.6 | 1678 | 1150 | 1334  | 13.9 | 1272 | 9.5  |      |     |  |
|                                |     | LCL      | 9492 | 1595 | 84.0 |      |      | 1680 | 1132 | 1330  | 14.9 | 1270 | 10.9 |      |     |  |

F = NUMBER OF FORECASTS  
 PC = TOTAL PERCENT CORRECTION CASES  
 MP = MEAN PROBABILITY FORECAST, PRECIPITATION  
 MN = MEAN PROBABILITY FORECAST, NO PRECIPITATION  
 PF = RELATIVE PRECIPITATION FREQUENCY  
 BC = CLIMATOLOGICAL BRIER SCORE  
 BS = SAMPLE IMPROVEMENT OF B OVER AC  
 SS = PERCENT IMPROVEMENT OF B OVER BS

## NOV 1970 - APR 1971 2ND PERIOD PRECIPITATION FORECASTING PERFORMANCE WITHIN ECHELONS

|          | F   | P    | PC   | MP   | MN   | PF    | B     | BC    | S     | BS    | SS    |       |     |
|----------|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-----|
| EASTERN  | 06Z | 428  | 79.4 | 50.4 | 21.3 | *2958 | *1466 | *2036 | 28.0  | *1988 | 26.2  |       |     |
|          | NMC | 1445 | 428  | 52.1 | 18.6 | *2951 | *1393 | *2033 | 31.5  | *1985 | 29.8  |       |     |
|          | FP  | 1447 | 427  | 50.5 | 19.4 | *1370 | *2023 | 32.4  | *1933 | 30.3  | 30.3  |       |     |
|          | LCL | 182  | 423  | 51.4 | 21.0 | *2925 | *1386 | *2017 | 31.3  | *1961 | 29.3  |       |     |
|          | NMC | 1446 | 424  | 52.1 | 20.0 | *2918 | *1446 | *2018 | 28.4  | *1959 | 26.3  |       |     |
|          | FP  | 1446 | 422  | 55.6 |      | *1371 | *2014 | 31.9  |       | 30.0  | 30.0  |       |     |
| SOUTHERN | 06Z | 3258 | 424  | 41.3 | 12.8 | *1301 | *0847 | *1103 | 23.2  | *1046 | 19.7  |       |     |
|          | NMC | 3258 | 424  | 38.7 | 38.3 | *1301 | *0841 | *1103 | 23.3  | *1046 | 19.7  |       |     |
|          | FP  | 3165 | 420  | 33.2 | 33.7 | *1327 | *0834 | *1114 | 25.1  | *1064 | 21.6  |       |     |
|          | LCL | 182  | 3257 | 449  | 88.3 | 43.1  | *1379 | *0870 | *1158 | 24.9  | *1113 | 21.8  |     |
|          | NMC | 3257 | 449  | 88.2 | 37.9 | *1379 | *0866 | *1158 | 23.5  | *1113 | 20.4  |       |     |
|          | FP  | 3163 | 436  | 33.3 | 39.0 | *1373 | *0357 | *1157 | 26.0  | *1112 | 23.0  |       |     |
| CENTRAL  | 06Z | 1991 | 285  | 36.1 | 38.5 | 16.8  | *1431 | *1027 | *1206 | 14.8  | *1155 | 11.1  |     |
|          | NMC | 1991 | 235  | 37.5 | 35.3 | 12.4  | *1480 | *0967 | *1206 | 19.8  | *1155 | 16.3  |     |
|          | FP  | 1811 | 268  | 86.3 | 34.3 |       | *1480 | *0997 | *1245 | 19.9  | *1188 | 16.1  |     |
|          | LCL | 182  | 1991 | 277  | 84.4 | 38.9  | 18.4  | *1391 | *1090 | *1183 | 17.9  | *1137 | 4.2 |
|          | NMC | 1991 | 277  | 86.3 | 36.4 | 14.0  | *1486 | *1008 | *1257 | 19.8  | *1207 | 16.5  |     |
|          | FP  | 1310 | 263  |      |      |       |       |       |       |       |       |       |     |
| WESTERN  | 06Z | 2706 | 577  | 79.4 | 44.9 | 19.5  | *2132 | *1350 | *1593 | 15.2  | *1500 | 10.0  |     |
|          | NMC | 2712 | 577  | 81.7 | 47.4 | 16.3  | *2128 | *1215 | *1591 | 23.7  | *1499 | 18.9  |     |
|          | FP  | 2714 | 579  | 81.6 | 46.0 | 14.7  | *2133 | *1209 | *1594 | 24.1  | *1498 | 19.3  |     |
|          | LCL | 182  | 2706 | 553  | 79.5 | 42.2  | *2044 | *1330 | *1547 | 13.9  | *1442 | 7.3   |     |
|          | NMC | 2706 | 556  | 80.3 | 46.5 | 17.9  | *2043 | *1253 | *1547 | 21.5  | *1446 | 13.7  |     |
|          | FP  | 2714 | 565  | 82.0 | 46.1 | 15.6  | *2082 | *1227 | *1563 |       | *1457 | 15.7  |     |
| ALASKAN  | 06Z | 181  | 80.9 | 48.5 | 17.8 | *2503 | *1406 | *1673 | 15.9  | *1458 | 3.5   |       |     |
|          | NMC | 723  | 81.1 | 50.3 | 15.0 | *2500 | *1380 | *1671 | 17.4  | *1456 | 5.2   |       |     |
|          | FP  | 724  |      |      |      |       |       |       |       |       |       |       |     |
|          | LCL | 182  | NMC  | 723  | 194  | 73.1  | 46.6  | *2683 | *1437 | *1716 | 16.3  | *1460 | 1.6 |
|          | FP  | 724  |      |      |      |       |       |       |       |       |       |       |     |
|          | LCL |      |      |      |      |       |       |       |       |       |       |       |     |
| NATIONAL | 06Z | 9400 | 1714 | 83.3 | 44.4 | 16.7  | *1823 | *1125 | *1409 | 20.2  | *1345 | 16.3  |     |
|          | NMC | 9408 | 1714 | 84.9 | 44.3 | 13.5  | *1822 | *1060 | *1408 | 24.7  | *1344 | 21.1  |     |
|          | FP  | 9137 | 1694 | 84.8 | 44.5 | 12.2  | *1854 | *1063 | *1427 | 25.5  | *1363 | 22.0  |     |
|          | LCL | 182  | NMC  | 1702 | 84.3 | 44.2  | *1811 | *1128 | *1407 | 19.8  | *1343 | 16.0  |     |
|          | FP  | 9409 | 1706 | 84.4 | 43.9 | 14.5  | *1813 | *1102 | *1408 | 21.7  | *1345 | 18.0  |     |
|          | LCL | 9133 | 1692 | 85.4 | 44.9 | 12.8  | *1853 | *1078 | *1433 | 24.8  | *1367 | 21.1  |     |

F = NUMBER OF FORECASTS

P = NUMBER OF PRECIPITATION CASES

PC = TOTAL PERCENT CORRECT

MP = MEAN PROBABILITY FORECAST, PRECIPITATION

MN = MEAN PROBABILITY FORECAST, NO PRECIPITATION

PF = RELATIVE PRECIPITATION FREQUENCY

BC = CLIMATOLOGICAL BRIER SCORE

BS = SAMPLE BRIER SCORE

SS = PERCENT IMPROVEMENT OF B OVER BC

BS = PERCENT IMPROVEMENT OF B OVER BS

| MAY 1970 - OCT 1970 3RD PERIOD PRECIPITATION FORECASTING PERFORMANCE WITHIN ECHELONS |     |     |      |      |      |      |      |       |       |      |       |       |       |     |
|--|-----|-----|------|------|------|------|------|-------|-------|------|-------|-------|-------|-----|
|  | F   | P   | PC   | MP   | MN   | PF   | B    | BC    | S     | BS   | SS    |       |       |     |
| EASTERN  | 06Z | NMC | 1472 | 337  | 78°3 | 39°4 | 21°2 | *2289 | *1468 | 15°9 | *1679 | 12°6  |       |     |
|  |     | FP  | 1440 | 331  | 78°2 | 39°6 | 20°2 | *2289 | *1526 | 12°5 | *1673 | 11°0  |       |     |
|  |     | LCL | 182  |      |      |      |      | *2293 | *1497 | 14°5 | *1633 |       |       |     |
|  |     | NMC | 1471 | 336  | 80°0 | 38°4 | 19°3 | *2284 | *1418 | 12°7 | *1673 | 15°2  |       |     |
|  |     | FP  | 1434 | 332  | 78°0 | 34°6 | 17°8 | *2307 | *1538 | 12°5 | *1635 | 8°3   |       |     |
|  |     | LCL |      |      |      |      |      |       | *1758 |      |       | 3°7   |       |     |
| SOUTHERN   | 06Z | NMC | 3307 | 726  | 78°2 | 35°5 | 21°2 | *2195 | *1493 | 10°8 | *1601 | 6°7   |       |     |
|  |     | FP  | 3316 | 727  | 77°5 | 34°1 | 18°9 | *2196 | *1518 | 9°3  | *1601 | 5°2   |       |     |
|  |     | LCL | 132  |      |      |      |      | *2202 | *1517 | 9°3  | *1603 | 5°4   |       |     |
|  |     | NMC | 3297 | 490  | 84°5 | 27°8 | 16°8 | *1486 | *1194 | 12°6 | *1210 | 1°3   |       |     |
|  |     | FP  | 3306 | 491  | 84°4 | 26°8 | 14°8 | *1485 | *1195 | 12°5 | *1210 | 1°3   |       |     |
|  |     | LCL | 3310 | 504  | 83°5 | 27°0 | 13°0 | *1523 | *1239 | 3°3  | *1237 | 1°1   |       |     |
| CENTRAL  | 06Z | NMC | 1935 | 295  | 35°0 | 29°0 | 16°6 | *1486 | *1165 | 1260 | 7°6   | *1196 | 2°6   |     |
|  |     | FP  | 1936 | 295  | 85°1 | 24°8 | 12°5 | *1486 | *1132 | 1260 | 7°4   | *1136 | 5°6   |     |
|  |     | LCL | 182  |      |      |      |      |       | *1255 | 19°8 | *1189 | 4°8   |       |     |
|  |     | NMC | 1987 | 313  | 33°0 | 26°6 | 17°0 | *1575 | *1261 | 1331 | 5°3   | *1271 | 3°8   |     |
|  |     | FP  | 1988 | 313  | 83°5 | 25°1 | 14°6 | *1574 | *1232 | 1330 | 7°4   | *1270 | 4°1   |     |
|  |     | LCL | 1990 | 312  | 34°2 | 23°7 | 12°9 | *1568 | *1186 | 1295 | 8°4   | *1237 |       |     |
| WESTERN  | 06Z | NMC | 2754 | 238  | 90°7 | 23°8 | 8°6  | *0364 | *0722 | 0757 | 4°5   | *0712 | -1°5  |     |
|  |     | FP  | 2755 | 239  | 90°5 | 24°2 | 8°5  | *0864 | *0867 | 0728 | 3°8   | *0712 | -2°3  |     |
|  |     | LCL | 182  |      |      |      |      |       | *0717 | 0757 | 5°2   | *0713 | -5°5  |     |
|  |     | NMC | 2738 | 254  | 90°2 | 24°3 | 8°6  | *0928 | *0770 | 0807 | 4°6   | *0760 | -1°4  |     |
|  |     | FP  | 2754 | 255  | 90°2 | 27°3 | 3°5  | *0326 | *0743 | 0306 | 7°3   | *0753 | -1°5  |     |
|  |     | LCL | 2754 | 256  | 90°2 | 25°1 | 7°6  | *0930 | *0756 | 0811 | 6°8   | *0765 | 1°2   |     |
| ALASKAN  | 06Z | NYC | 701  | 232  | 70°2 | 39°3 | 23°6 | *3310 | *2020 | 2123 | 4°9   | *1999 | -1°0  |     |
|  |     | FP  | 705  | 234  | 68°2 | 38°5 | 23°4 | *3319 | *2081 | 2128 | 2°2   | *2004 | -3°9  |     |
|  |     | LCL | 182  |      |      |      |      |       |       |      |       |       |       |     |
|  |     | NMC | 701  | 219  | 69°5 | 39°3 | 24°6 | *3124 | *2008 | 2107 | 4°7   | *1954 | -2°1  |     |
|  |     | FP  | 705  | 220  | 69°9 | 39°6 | 23°6 | *3121 | *1993 | 2104 | 5°3   | *1952 |       |     |
|  |     | LCL |      |      |      |      |      |       |       |      |       |       |       |     |
| NATIONAL   | 06Z | NMC | 3518 | 1596 | 83°3 | 33°4 | 16°2 | *1677 | *1138 | 1333 | 10°2  | *1271 | 5°8   |     |
|  |     | FP  | 9522 | 1597 | 83°0 | 32°1 | 14°8 | *1677 | *1203 | 1333 | 9°3   | *1271 | 4°9   |     |
|  |     | LCL | 182  |      |      |      |      |       | *1678 | 1200 | 1330  | 9°8   | *1270 | 5°5 |
|  |     | NMC | 9493 | 1393 | 35°2 | 29°5 | 14°7 | *1467 | *1120 | 1221 | 8°3   | *1165 | 3°8   |     |
|  |     | FP  | 3513 | 1395 | 84°3 | 28°0 | 13°2 | *1465 | *1124 | 1220 | 7°8   | *1163 | 3°4   |     |
|  |     | LCL | 9493 | 1404 | 84°8 | 27°7 | 12°1 | *1473 | *1133 | 1223 | 7°3   | *1168 | 3°0   |     |

F = NUMBER OF FORECASTS  
 PC = NUMBER OF PRECIPITATION CASES  
 P = TOTAL PERCENT CORRECTNESS  
 MP = MEAN PROBABILITY FORECAST PRECIPITATION  
 MN = MEAN PROBABILITY FORECAST NO PRECIPITATION  
 PF = RELATIVE PRECIPITATION FREQUENCY  
 BC = BRIER SCORE  
 B = CLIMATOLOGICAL BRIER SCORE  
 BS = SAMPLE IMPROVEMENT OF B OVER BC  
 SS = PERCENT IMPROVEMENT OF B OVER BS

## NOV 1970 - APR 1971 3RD DEPIOD PRECIPITATION FORECASTING PERFORMANCE WITHIN ECHELONS

|                | F    | P    | PC   | MP   | MN   | PF   | B    | BC   | S     | BS    | SS   |
|----------------|------|------|------|------|------|------|------|------|-------|-------|------|
| <u>EASTERN</u> |      |      |      |      |      |      |      |      |       |       |      |
| 06Z            | 422  | 77.3 | 49.2 | 23.3 | 2920 | 1532 | 2016 | 24.0 | *1961 | 21.9  |      |
| NMC            | 424  | 78.2 | 48.8 | 21.1 | 2930 | 1520 | 2019 | 24.7 | *1962 | 22.5  |      |
| FP             | 423  | 77.9 | 51.4 | 21.7 | 2921 | 1473 | 2014 | 26.6 | *1358 | 24.5  |      |
| LCL            | 429  | 76.0 | 47.2 | 23.2 | 2967 | 1595 | 2036 | 21.6 | *1982 | 19.5  |      |
| 18Z            | 429  | 76.7 | 43.3 | 19.6 | 2963 | 1644 | 2035 | 21.2 | *1981 | 17.0  |      |
| NMC            | 427  | 76.3 | 46.7 | 20.6 | 2953 | 1575 | 2032 | 22.5 | *1981 | 20.5  |      |
| FP             | 427  |      |      |      |      |      |      |      |       |       |      |
| LCL            |      |      |      |      |      |      |      |      |       |       |      |
| SOUTHERN       | 06Z  | 449  | 87.3 | 36.5 | 13.3 | 1378 | 0931 | 1153 | 19.6  | *1113 | 16.4 |
| NMC            | 3258 | 449  | 87.3 | 31.5 | 10.1 | 1379 | 0953 | 1158 | 17.8  | *1114 | 14.5 |
| FP             | 3256 | 436  | 87.5 | 31.5 | 7.4  | 1378 | 0953 | 1157 | 17.6  | *1111 | 14.3 |
| LCL            | 3165 |      |      |      |      |      |      |      |       |       |      |
| 18Z            | 422  | 87.1 | 37.7 | 14.4 | 1296 | 0932 | 1097 | 15.0 | *1034 | 9.9   |      |
| NMC            | 422  | 87.7 | 31.7 | 9.6  | 1296 | 0911 | 1097 | 16.0 | *1034 | 11.9  |      |
| FP             | 3257 | 416  | 88.0 | 30.8 | 6.3  | 1315 | 0929 | 1105 | 15.9  | *1050 | 11.5 |
| LCL            | 3164 |      |      |      |      |      |      |      |       |       |      |
| CENTRAL        | 06Z  | 277  | 35.3 | 29.3 | 16.4 | 1393 | 1123 | 1135 | 5.2   | *1139 | 1.3  |
| NMC            | 1988 | 277  | 86.1 | 26.5 | 12.7 | 1393 | 1072 | 1185 | 9.6   | *1139 | 1.3  |
| FP             | 1388 | 269  | 85.0 | 26.5 | 12.6 | 1485 | 1113 | 1255 | 11.3  | *1205 | 7.7  |
| LCL            | 1812 |      |      |      |      |      |      |      |       |       |      |
| 18Z            | 283  | 84.5 | 34.5 | 17.7 | 1421 | 1103 | 1193 | 3.0  | *1145 | 3.7   |      |
| NMC            | 1991 | 253  | 35.2 | 30.0 | 14.0 | 1421 | 1062 | 1193 | 1.4   | *1145 | 3.7  |
| FP             | 1809 | 268  |      | 29.0 | 13.3 | 1481 | 1081 | 1246 | 13.3  | *1184 | 8.7  |
| LCL            |      |      |      |      |      |      |      |      |       |       |      |
| WESTERN        | 06Z  | 555  | 79.6 | 33.3 | 18.1 | 2050 | 1373 | 1545 | 11.2  | *1446 | 5.1  |
| NMC            | 2707 | 555  | 78.8 | 40.5 | 17.8 | 2046 | 1375 | 1544 | 11.9  | *1446 | 5.1  |
| FP             | 2713 | 565  | 79.4 | 38.9 | 15.8 | 2082 | 1375 | 1563 | 12.0  | *1456 | 5.6  |
| LCL            | 2714 |      |      |      |      |      |      |      |       |       |      |
| 18Z            | 577  | 73.5 | 35.4 | 17.9 | 2132 | 1454 | 1599 | 9.0  | *1495 | 2.7   |      |
| NMC            | 2707 | 580  | 73.5 | 40.5 | 17.2 | 2132 | 1354 | 1601 | 15.5  | *1499 | 9.7  |
| FP             | 2707 | 579  | 80.1 | 39.7 | 15.2 | 2133 | 1334 | 1599 | 16.5  | *1493 | 10.7 |
| LCL            | 2714 |      |      |      |      |      |      |      |       |       |      |
| ALASKAN        | 06Z  | 194  | 78.8 | 43.5 | 18.7 | 2683 | 1537 | 1716 | 10.5  | *1460 | -5.2 |
| NMC            | 723  | 194  | 78.5 | 44.6 | 17.4 | 2680 | 1532 | 1714 | 10.6  | *1458 | -5.1 |
| FP             | 724  |      |      |      |      |      |      |      |       |       |      |
| LCL            |      |      |      |      |      |      |      |      |       |       |      |
| 18Z            | 181  | 77.0 | 43.1 | 18.4 | 2503 | 1529 | 1666 | 8.3  | *1444 | -5.9  |      |
| NMC            | 723  | 181  | 78.9 | 44.5 | 17.6 | 2500 | 1501 | 1664 | 9.8   | *1442 | -4.1 |
| FP             | 724  |      |      |      |      |      |      |      |       |       |      |
| LCL            |      |      |      |      |      |      |      |      |       |       |      |
| NATIONAL       | 06Z  | 1703 | 83.1 | 39.1 | 16.7 | 1812 | 1191 | 1407 | 15.3  | *1345 | 11.4 |
| NMC            | 9398 | 1705 | 83.2 | 38.0 | 14.3 | 1813 | 1183 | 1408 | 16.0  | *1345 | 12.0 |
| FP             | 9404 | 1693 | 83.1 | 38.1 | 12.9 | 1853 | 1193 | 1433 | 16.7  | *1367 | 12.7 |
| LCL            | 9139 |      |      |      |      |      |      |      |       |       |      |
| 18Z            | 1711 | 82.4 | 38.8 | 17.2 | 1820 | 1221 | 1407 | 13.3 | *1336 | 8.6   |      |
| NMC            | 9401 | 1714 | 83.3 | 37.2 | 14.0 | 1822 | 1184 | 1408 | 16.0  | *1337 | 11.5 |
| FP             | 9408 | 1690 | 83.3 | 37.6 | 12.5 | 1850 | 1182 | 1427 | 17.1  | *1356 | 12.8 |
| LCL            | 9133 |      |      |      |      |      |      |      |       |       |      |

F = NUMBER OF FORECASTS

P = NUMBER OF PRECIPITATION CASES

PC = TOTAL PERCENT CORRECT

MP = MEAN PROBABILITY FORECAST, PRECIPITATION

MN = MEAN PROBABILITY FORECAST, NO PRECIPITATION

PF = RELATIVE PRECIPITATION FREQUENCY

BC = BRIER SCORE

CLIMATOLOGICAL BRIER SCORE

BS = CLIMATOLOGICAL IMPROVEMENT OF B OVER BC

CS = SAMPLE BRIER SCORE

BS = PERCENT IMPROVEMENT OF B OVER BS

| MAY 1970 - OCT 1970 1ST PERIOD TEMPERATURE FORECASTING PERFORMANCE WITHIN ECHELONS |  |   |   |  |  |  |  |  |  |   |
|--|--|---|---|--|--|--|--|--|--|---|
|  | N                                      | TE  | TV  | TC   | TG   | TM   | T1   | T2   | T3   | T4  |
| EASTERN  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1451 <sup>1</sup><br>4 <sup>0</sup> .1<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .2  | 5 <sup>0</sup> .8<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .8 | 28 <sup>0</sup> .1<br>33 <sup>0</sup> .1<br>44 <sup>0</sup> .7 | .1<br>.4<br>.3   | 6 <sup>0</sup> .6<br>5 <sup>0</sup> .0<br>5 <sup>0</sup> .0    | 72 <sup>0</sup> .3<br>79 <sup>0</sup> .2<br>83 <sup>0</sup> .2 | 22 <sup>0</sup> .3<br>16 <sup>0</sup> .6<br>14 <sup>0</sup> .4 | 4 <sup>0</sup> .1<br>3 <sup>0</sup> .5<br>2 <sup>0</sup> .0    | 1 <sup>0</sup> .3<br>.7<br>.4                               |
|  | 1441 <sup>2</sup><br>NMC<br>FP<br>LCL  | 1472 <sup>1</sup><br>4 <sup>0</sup> .1<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .1  | 5 <sup>0</sup> .8<br>5 <sup>0</sup> .8<br>5 <sup>0</sup> .3 | 29 <sup>0</sup> .3<br>44 <sup>0</sup> .6<br>46 <sup>0</sup> .6 | -.1<br>-.1<br>-.1  | 5 <sup>0</sup> .7<br>4 <sup>0</sup> .0<br>4 <sup>0</sup> .0    | 73 <sup>0</sup> .3<br>83 <sup>0</sup> .3<br>84 <sup>0</sup> .0 | 22 <sup>0</sup> .7<br>14 <sup>0</sup> .6<br>14 <sup>0</sup> .7 | 4 <sup>0</sup> .6<br>4 <sup>0</sup> .9<br>1 <sup>0</sup> .2    | .4<br>.1<br>.1  |
|  | 3305 <sup>2</sup><br>NMC<br>FP<br>LCL  | 1418 <sup>2</sup><br>4 <sup>0</sup> .1<br>3 <sup>0</sup> .1<br>3 <sup>0</sup> .1  | 5 <sup>0</sup> .8<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .3 | 27 <sup>0</sup> .8<br>31 <sup>0</sup> .3<br>31 <sup>0</sup> .3 | .2<br>.4<br>.4   | 6 <sup>0</sup> .5<br>6 <sup>0</sup> .5<br>6 <sup>0</sup> .5    | 31 <sup>0</sup> .1<br>92 <sup>0</sup> .3<br>92 <sup>0</sup> .3 | 7 <sup>0</sup> .4<br>6 <sup>0</sup> .4<br>6 <sup>0</sup> .4    | 1 <sup>0</sup> .3<br>1 <sup>0</sup> .1<br>1 <sup>0</sup> .1    | .6<br>.2<br>.2  |
|  | 3237 <sup>2</sup><br>NMC<br>FP<br>LCL  | 1441 <sup>2</sup><br>2 <sup>0</sup> .7<br>2 <sup>0</sup> .2<br>2 <sup>0</sup> .2  | 3 <sup>0</sup> .2<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .2 | 16 <sup>0</sup> .1<br>31 <sup>0</sup> .3<br>31 <sup>0</sup> .3 | .4<br>.2<br>.2   | 9 <sup>0</sup> .2<br>8 <sup>0</sup> .6<br>8 <sup>0</sup> .6    | 33 <sup>0</sup> .9<br>88 <sup>0</sup> .2<br>88 <sup>0</sup> .2 | 3 <sup>0</sup> .7<br>10 <sup>0</sup> .4<br>10 <sup>0</sup> .4  | 1 <sup>0</sup> .7<br>1 <sup>0</sup> .2<br>1 <sup>0</sup> .2    | .6<br>.2<br>.2  |
|  | 3311 <sup>5</sup><br>NMC<br>FP<br>LCL  | 3115 <sup>2</sup><br>2 <sup>0</sup> .7<br>2 <sup>0</sup> .2<br>2 <sup>0</sup> .2  | 3 <sup>0</sup> .1<br>3 <sup>0</sup> .1<br>3 <sup>0</sup> .1 | 13 <sup>0</sup> .4<br>23 <sup>0</sup> .3<br>29 <sup>0</sup> .6 | -.7<br>-.4<br>-.4  | 8 <sup>0</sup> .6<br>5 <sup>0</sup> .1<br>5 <sup>0</sup> .1    | 32 <sup>0</sup> .1<br>93 <sup>0</sup> .2<br>93 <sup>0</sup> .2 | 17 <sup>0</sup> .4<br>6 <sup>0</sup> .2<br>6 <sup>0</sup> .2   | 4 <sup>0</sup> .4<br>.5<br>.5                                  | .4<br>.1<br>.1  |
|  | 3310 <sup>10</sup><br>NMC<br>FP<br>LCL | 3310 <sup>10</sup><br>2 <sup>0</sup> .7<br>2 <sup>0</sup> .2<br>2 <sup>0</sup> .2 | 3 <sup>0</sup> .1<br>3 <sup>0</sup> .1<br>3 <sup>0</sup> .1 | 23 <sup>0</sup> .3<br>29 <sup>0</sup> .6<br>29 <sup>0</sup> .6 | -.4<br>-.4<br>-.4  |  |  |  |  |   |
| SOUTHERN   | 06 <sup>2</sup><br>NMC<br>FP<br>LCL    | 182 <sup>2</sup><br>331 <sup>1</sup><br>331 <sup>1</sup>                          | 4 <sup>0</sup> .4<br>2 <sup>0</sup> .2<br>2 <sup>0</sup> .2 | 31 <sup>0</sup> .5<br>32 <sup>0</sup> .1<br>32 <sup>0</sup> .1 | .4<br>.2<br>.2   | 6 <sup>0</sup> .8<br>5 <sup>0</sup> .7<br>5 <sup>0</sup> .7    | 71 <sup>0</sup> .0<br>77 <sup>0</sup> .6<br>79 <sup>0</sup> .4 | 22 <sup>0</sup> .3<br>18 <sup>0</sup> .7<br>17 <sup>0</sup> .3 | 4 <sup>0</sup> .7<br>3 <sup>0</sup> .1<br>2 <sup>0</sup> .7    | 1 <sup>0</sup> .5<br>.6<br>.6                               |
|  | 182 <sup>2</sup><br>NMC<br>FP<br>LCL   | 3115 <sup>2</sup><br>3306 <sup>6</sup><br>3306 <sup>6</sup>                       | 2 <sup>0</sup> .7<br>3 <sup>0</sup> .6<br>3 <sup>0</sup> .6 | 31 <sup>0</sup> .3<br>42 <sup>0</sup> .8<br>44 <sup>0</sup> .1 | .2<br>.2<br>.2   | 6 <sup>0</sup> .3<br>6 <sup>0</sup> .3<br>5 <sup>0</sup> .9    | 74 <sup>0</sup> .6<br>78 <sup>0</sup> .0<br>79 <sup>0</sup> .6 | 19 <sup>0</sup> .3<br>19 <sup>0</sup> .8<br>17 <sup>0</sup> .8 | 3 <sup>0</sup> .5<br>2 <sup>0</sup> .5<br>2 <sup>0</sup> .3    | .2<br>.3<br>.3  |
|  | 182 <sup>2</sup><br>NMC<br>FP<br>LCL   | 1818 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 5 <sup>0</sup> .7<br>5 <sup>0</sup> .6<br>5 <sup>0</sup> .6    | -.8<br>-.8<br>-.8  | 6 <sup>0</sup> .1<br>5 <sup>0</sup> .9<br>5 <sup>0</sup> .9    |  |  |  |   |
|  | 182 <sup>2</sup><br>NMC<br>FP<br>LCL   | 1818 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 32 <sup>0</sup> .5<br>37 <sup>0</sup> .0<br>37 <sup>0</sup> .0 | -.1<br>-.1<br>-.1  |  |  |  |  |   |
|  | 182 <sup>2</sup><br>NMC<br>FP<br>LCL   | 1818 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 38 <sup>0</sup> .7<br>41 <sup>0</sup> .1<br>41 <sup>0</sup> .1 | .4<br>.4<br>.4   | 6 <sup>0</sup> .3<br>6 <sup>0</sup> .3<br>5 <sup>0</sup> .9    |  |  |  |   |
|  | 182 <sup>2</sup><br>NMC<br>FP<br>LCL   | 1818 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 41 <sup>0</sup> .1<br>44 <sup>0</sup> .4<br>44 <sup>0</sup> .4 | -.1<br>-.1<br>-.1  |  |  |  |  |   |
| CENTRAL  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1921 <sup>1</sup><br>1986 <sup>6</sup><br>1986 <sup>6</sup>                       | 4 <sup>0</sup> .4<br>3 <sup>0</sup> .6<br>3 <sup>0</sup> .6 | 31 <sup>0</sup> .5<br>42 <sup>0</sup> .8<br>44 <sup>0</sup> .1 | .4<br>.2<br>.2   | 6 <sup>0</sup> .8<br>5 <sup>0</sup> .7<br>5 <sup>0</sup> .7    | 71 <sup>0</sup> .0<br>77 <sup>0</sup> .6<br>79 <sup>0</sup> .4 | 22 <sup>0</sup> .3<br>18 <sup>0</sup> .7<br>17 <sup>0</sup> .3 | 4 <sup>0</sup> .7<br>3 <sup>0</sup> .1<br>2 <sup>0</sup> .7    | 1 <sup>0</sup> .5<br>.6<br>.6                               |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1985 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 5 <sup>0</sup> .7<br>5 <sup>0</sup> .6<br>5 <sup>0</sup> .6    | -.8<br>-.8<br>-.8  |  |  |  |  |   |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1985 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 32 <sup>0</sup> .5<br>37 <sup>0</sup> .0<br>37 <sup>0</sup> .0 | -.1<br>-.1<br>-.1  |  |  |  |  |   |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1985 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 38 <sup>0</sup> .7<br>41 <sup>0</sup> .1<br>41 <sup>0</sup> .1 | .4<br>.4<br>.4   | 6 <sup>0</sup> .3<br>6 <sup>0</sup> .3<br>5 <sup>0</sup> .9    |  |  |  |   |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1985 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 41 <sup>0</sup> .1<br>44 <sup>0</sup> .4<br>44 <sup>0</sup> .4 | -.1<br>-.1<br>-.1  |  |  |  |  |   |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 1985 <sup>8</sup><br>2023 <sup>5</sup><br>2023 <sup>5</sup>                       | 3 <sup>0</sup> .3<br>3 <sup>0</sup> .5<br>3 <sup>0</sup> .5 | 41 <sup>0</sup> .1<br>44 <sup>0</sup> .4<br>44 <sup>0</sup> .4 | .4<br>.4<br>.4   |  |  |  |  |   |
| WESTERN  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL    | 2675 <sup>5</sup><br>2744 <sup>6</sup><br>2756 <sup>6</sup>                       | 3 <sup>0</sup> .7<br>3 <sup>0</sup> .1<br>3 <sup>0</sup> .0 | 5 <sup>0</sup> .1<br>5 <sup>0</sup> .1<br>5 <sup>0</sup> .1    | 26 <sup>0</sup> .1<br>38 <sup>0</sup> .7<br>41 <sup>0</sup> .1 | 1 <sup>0</sup> .1<br>1 <sup>0</sup> .4<br>1 <sup>0</sup> .4    | 6 <sup>0</sup> .9<br>6 <sup>0</sup> .5<br>6 <sup>0</sup> .3    | 77 <sup>0</sup> .9<br>84 <sup>0</sup> .6<br>85 <sup>0</sup> .4 | 18 <sup>0</sup> .0<br>12 <sup>0</sup> .7<br>12 <sup>0</sup> .1 | 3 <sup>0</sup> .3<br>2 <sup>0</sup> .1<br>2 <sup>0</sup> .1 |
|  | 18 <sup>2</sup><br>NMC<br>FP<br>LCL    | 2565 <sup>5</sup><br>2754 <sup>6</sup><br>2756 <sup>6</sup>                       | 3 <sup>0</sup> .6<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .0 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 19 <sup>0</sup> .0<br>27 <sup>0</sup> .3<br>31 <sup>0</sup> .6 | 1 <sup>0</sup> .6<br>1 <sup>0</sup> .2<br>1 <sup>0</sup> .1    | 7 <sup>0</sup> .5<br>7 <sup>0</sup> .0<br>6 <sup>0</sup> .5    | 79 <sup>0</sup> .0<br>82 <sup>0</sup> .1<br>84 <sup>0</sup> .5 | 17 <sup>0</sup> .2<br>15 <sup>0</sup> .0<br>12 <sup>0</sup> .8 | 3 <sup>0</sup> .2<br>2 <sup>0</sup> .3<br>2 <sup>0</sup> .3 |
|  | 18 <sup>2</sup><br>NMC<br>FP<br>LCL    | 2565 <sup>5</sup><br>2754 <sup>6</sup><br>2756 <sup>6</sup>                       | 3 <sup>0</sup> .6<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .0 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 19 <sup>0</sup> .0<br>27 <sup>0</sup> .3<br>31 <sup>0</sup> .6 | 1 <sup>0</sup> .6<br>1 <sup>0</sup> .2<br>1 <sup>0</sup> .1    | 7 <sup>0</sup> .5<br>7 <sup>0</sup> .0<br>6 <sup>0</sup> .5    | 79 <sup>0</sup> .0<br>82 <sup>0</sup> .1<br>84 <sup>0</sup> .5 | 17 <sup>0</sup> .2<br>15 <sup>0</sup> .0<br>12 <sup>0</sup> .8 | 3 <sup>0</sup> .2<br>2 <sup>0</sup> .3<br>2 <sup>0</sup> .3 |
|  | 18 <sup>2</sup><br>NMC<br>FP<br>LCL    | 2565 <sup>5</sup><br>2754 <sup>6</sup><br>2756 <sup>6</sup>                       | 3 <sup>0</sup> .6<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .0 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 19 <sup>0</sup> .0<br>27 <sup>0</sup> .3<br>31 <sup>0</sup> .6 | 1 <sup>0</sup> .6<br>1 <sup>0</sup> .2<br>1 <sup>0</sup> .1    | 7 <sup>0</sup> .5<br>7 <sup>0</sup> .0<br>6 <sup>0</sup> .5    | 79 <sup>0</sup> .0<br>82 <sup>0</sup> .1<br>84 <sup>0</sup> .5 | 17 <sup>0</sup> .2<br>15 <sup>0</sup> .0<br>12 <sup>0</sup> .8 | 3 <sup>0</sup> .2<br>2 <sup>0</sup> .3<br>2 <sup>0</sup> .3 |
|  | 18 <sup>2</sup><br>NMC<br>FP<br>LCL    | 2565 <sup>5</sup><br>2754 <sup>6</sup><br>2756 <sup>6</sup>                       | 3 <sup>0</sup> .6<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .0 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 19 <sup>0</sup> .0<br>27 <sup>0</sup> .3<br>31 <sup>0</sup> .6 | 1 <sup>0</sup> .6<br>1 <sup>0</sup> .2<br>1 <sup>0</sup> .1    | 7 <sup>0</sup> .5<br>7 <sup>0</sup> .0<br>6 <sup>0</sup> .5    | 79 <sup>0</sup> .0<br>82 <sup>0</sup> .1<br>84 <sup>0</sup> .5 | 17 <sup>0</sup> .2<br>15 <sup>0</sup> .0<br>12 <sup>0</sup> .8 | 3 <sup>0</sup> .2<br>2 <sup>0</sup> .3<br>2 <sup>0</sup> .3 |
|  | 18 <sup>2</sup><br>NMC<br>FP<br>LCL    | 2565 <sup>5</sup><br>2754 <sup>6</sup><br>2756 <sup>6</sup>                       | 3 <sup>0</sup> .6<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .0 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 19 <sup>0</sup> .0<br>27 <sup>0</sup> .3<br>31 <sup>0</sup> .6 | 1 <sup>0</sup> .6<br>1 <sup>0</sup> .2<br>1 <sup>0</sup> .1    | 7 <sup>0</sup> .5<br>7 <sup>0</sup> .0<br>6 <sup>0</sup> .5    | 79 <sup>0</sup> .0<br>82 <sup>0</sup> .1<br>84 <sup>0</sup> .5 | 17 <sup>0</sup> .2<br>15 <sup>0</sup> .0<br>12 <sup>0</sup> .8 | 3 <sup>0</sup> .2<br>2 <sup>0</sup> .3<br>2 <sup>0</sup> .3 |
| ALASKAN  | 06 <sup>2</sup><br>NMC<br>FP<br>LCL    | 701 <sup>5</sup><br>705 <sup>5</sup><br>705 <sup>5</sup>                          | 3 <sup>0</sup> .5<br>3 <sup>0</sup> .2<br>3 <sup>0</sup> .2 | 4 <sup>0</sup> .2<br>24 <sup>0</sup> .5<br>24 <sup>0</sup> .5  | 16 <sup>0</sup> .5<br>15 <sup>0</sup> .6<br>15 <sup>0</sup> .6 | -.3<br>-.5<br>-.5  | 7 <sup>0</sup> .2<br>8 <sup>0</sup> .1<br>8 <sup>0</sup> .1    | 17 <sup>0</sup> .8<br>17 <sup>0</sup> .0<br>17 <sup>0</sup> .0 | 2 <sup>0</sup> .9<br>1 <sup>0</sup> .8<br>1 <sup>0</sup> .8    | .6<br>.1<br>.1  |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 701 <sup>5</sup><br>705 <sup>5</sup><br>705 <sup>5</sup>                          | 3 <sup>0</sup> .8<br>3 <sup>0</sup> .3<br>3 <sup>0</sup> .3 | 4 <sup>0</sup> .5<br>4 <sup>0</sup> .5<br>4 <sup>0</sup> .5    | 26 <sup>0</sup> .5<br>26 <sup>0</sup> .5<br>26 <sup>0</sup> .5 | -.2<br>-.2<br>-.2  | 9 <sup>0</sup> .5<br>8 <sup>0</sup> .4<br>8 <sup>0</sup> .4    | 76 <sup>0</sup> .6<br>81 <sup>0</sup> .6<br>81 <sup>0</sup> .6 | 19 <sup>0</sup> .4<br>16 <sup>0</sup> .5<br>16 <sup>0</sup> .5 | 3 <sup>0</sup> .1<br>.6<br>.6                               |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 701 <sup>5</sup><br>705 <sup>5</sup><br>705 <sup>5</sup>                          | 3 <sup>0</sup> .8<br>3 <sup>0</sup> .3<br>3 <sup>0</sup> .3 | 4 <sup>0</sup> .5<br>4 <sup>0</sup> .5<br>4 <sup>0</sup> .5    | 26 <sup>0</sup> .5<br>26 <sup>0</sup> .5<br>26 <sup>0</sup> .5 | -.2<br>-.2<br>-.2  | 9 <sup>0</sup> .5<br>8 <sup>0</sup> .4<br>8 <sup>0</sup> .4    | 76 <sup>0</sup> .6<br>81 <sup>0</sup> .6<br>81 <sup>0</sup> .6 | 19 <sup>0</sup> .4<br>16 <sup>0</sup> .5<br>16 <sup>0</sup> .5 | 3 <sup>0</sup> .1<br>.6<br>.6                               |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 701 <sup>5</sup><br>705 <sup>5</sup><br>705 <sup>5</sup>                          | 3 <sup>0</sup> .8<br>3 <sup>0</sup> .3<br>3 <sup>0</sup> .3 | 4 <sup>0</sup> .5<br>4 <sup>0</sup> .5<br>4 <sup>0</sup> .5    | 26 <sup>0</sup> .5<br>26 <sup>0</sup> .5<br>26 <sup>0</sup> .5 | -.2<br>-.2<br>-.2  | 9 <sup>0</sup> .5<br>8 <sup>0</sup> .4<br>8 <sup>0</sup> .4    | 76 <sup>0</sup> .6<br>81 <sup>0</sup> .6<br>81 <sup>0</sup> .6 | 19 <sup>0</sup> .4<br>16 <sup>0</sup> .5<br>16 <sup>0</sup> .5 | 3 <sup>0</sup> .1<br>.6<br>.6                               |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 701 <sup>5</sup><br>705 <sup>5</sup><br>705 <sup>5</sup>                          | 3 <sup>0</sup> .8<br>3 <sup>0</sup> .3<br>3 <sup>0</sup> .3 | 4 <sup>0</sup> .5<br>4 <sup>0</sup> .5<br>4 <sup>0</sup> .5    | 26 <sup>0</sup> .5<br>26 <sup>0</sup> .5<br>26 <sup>0</sup> .5 | -.2<br>-.2<br>-.2  | 9 <sup>0</sup> .5<br>8 <sup>0</sup> .4<br>8 <sup>0</sup> .4    | 76 <sup>0</sup> .6<br>81 <sup>0</sup> .6<br>81 <sup>0</sup> .6 | 19 <sup>0</sup> .4<br>16 <sup>0</sup> .5<br>16 <sup>0</sup> .5 | 3 <sup>0</sup> .1<br>.6<br>.6                               |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 701 <sup>5</sup><br>705 <sup>5</sup><br>705 <sup>5</sup>                          | 3 <sup>0</sup> .8<br>3 <sup>0</sup> .3<br>3 <sup>0</sup> .3 | 4 <sup>0</sup> .5<br>4 <sup>0</sup> .5<br>4 <sup>0</sup> .5    | 26 <sup>0</sup> .5<br>26 <sup>0</sup> .5<br>26 <sup>0</sup> .5 | -.2<br>-.2<br>-.2  | 9 <sup>0</sup> .5<br>8 <sup>0</sup> .4<br>8 <sup>0</sup> .4    | 76 <sup>0</sup> .6<br>81 <sup>0</sup> .6<br>81 <sup>0</sup> .6 | 19 <sup>0</sup> .4<br>16 <sup>0</sup> .5<br>16 <sup>0</sup> .5 | 3 <sup>0</sup> .1<br>.6<br>.6                               |
| NATIONAL   | 06 <sup>2</sup><br>NMC<br>FP<br>LCL    | 9284 <sup>7</sup><br>9532 <sup>4</sup><br>9532 <sup>4</sup>                       | 3 <sup>0</sup> .6<br>2 <sup>0</sup> .9<br>2 <sup>0</sup> .9 | 4 <sup>0</sup> .8<br>4 <sup>0</sup> .8<br>4 <sup>0</sup> .8    | 25 <sup>0</sup> .7<br>37 <sup>0</sup> .4<br>40 <sup>0</sup> .5 | 6 <sup>0</sup> .6<br>3 <sup>0</sup> .4<br>5 <sup>0</sup> .3    | 7 <sup>0</sup> .1<br>6 <sup>0</sup> .2<br>5 <sup>0</sup> .3    | 79 <sup>0</sup> .4<br>84 <sup>0</sup> .6<br>36 <sup>0</sup> .1 | 16 <sup>0</sup> .4<br>12 <sup>0</sup> .7<br>11 <sup>0</sup> .6 | 3 <sup>0</sup> .2<br>2 <sup>0</sup> .9<br>1 <sup>0</sup> .3 |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 9532 <sup>4</sup><br>8916 <sup>4</sup><br>8916 <sup>4</sup>                       | 3 <sup>0</sup> .4<br>3 <sup>0</sup> .4<br>3 <sup>0</sup> .4 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 23 <sup>0</sup> .3<br>34 <sup>0</sup> .0<br>34 <sup>0</sup> .0 | -1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2 | 6 <sup>0</sup> .9<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .3    | 80 <sup>0</sup> .2<br>84 <sup>0</sup> .9<br>86 <sup>0</sup> .4 | 16 <sup>0</sup> .4<br>13 <sup>0</sup> .9<br>11 <sup>0</sup> .9 | 2 <sup>0</sup> .8<br>1 <sup>0</sup> .5<br>1 <sup>0</sup> .5 |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 9532 <sup>4</sup><br>8916 <sup>4</sup><br>8916 <sup>4</sup>                       | 3 <sup>0</sup> .4<br>3 <sup>0</sup> .4<br>3 <sup>0</sup> .4 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 23 <sup>0</sup> .3<br>34 <sup>0</sup> .0<br>34 <sup>0</sup> .0 | -1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2 | 6 <sup>0</sup> .9<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .3    | 80 <sup>0</sup> .2<br>84 <sup>0</sup> .9<br>86 <sup>0</sup> .4 | 16 <sup>0</sup> .4<br>13 <sup>0</sup> .9<br>11 <sup>0</sup> .9 | 2 <sup>0</sup> .8<br>1 <sup>0</sup> .5<br>1 <sup>0</sup> .5 |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 9532 <sup>4</sup><br>8916 <sup>4</sup><br>8916 <sup>4</sup>                       | 3 <sup>0</sup> .4<br>3 <sup>0</sup> .4<br>3 <sup>0</sup> .4 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 23 <sup>0</sup> .3<br>34 <sup>0</sup> .0<br>34 <sup>0</sup> .0 | -1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2 | 6 <sup>0</sup> .9<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .3    | 80 <sup>0</sup> .2<br>84 <sup>0</sup> .9<br>86 <sup>0</sup> .4 | 16 <sup>0</sup> .4<br>13 <sup>0</sup> .9<br>11 <sup>0</sup> .9 | 2 <sup>0</sup> .8<br>1 <sup>0</sup> .5<br>1 <sup>0</sup> .5 |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 9532 <sup>4</sup><br>8916 <sup>4</sup><br>8916 <sup>4</sup>                       | 3 <sup>0</sup> .4<br>3 <sup>0</sup> .4<br>3 <sup>0</sup> .4 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 23 <sup>0</sup> .3<br>34 <sup>0</sup> .0<br>34 <sup>0</sup> .0 | -1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2 | 6 <sup>0</sup> .9<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .3    | 80 <sup>0</sup> .2<br>84 <sup>0</sup> .9<br>86 <sup>0</sup> .4 | 16 <sup>0</sup> .4<br>13 <sup>0</sup> .9<br>11 <sup>0</sup> .9 | 2 <sup>0</sup> .8<br>1 <sup>0</sup> .5<br>1 <sup>0</sup> .5 |
|  | 13 <sup>2</sup><br>NMC<br>FP<br>LCL    | 9532 <sup>4</sup><br>8916 <sup>4</sup><br>8916 <sup>4</sup>                       | 3 <sup>0</sup> .4<br>3 <sup>0</sup> .4<br>3 <sup>0</sup> .4 | 4 <sup>0</sup> .4<br>4 <sup>0</sup> .4<br>4 <sup>0</sup> .4    | 23 <sup>0</sup> .3<br>34 <sup>0</sup> .0<br>34 <sup>0</sup> .0 | -1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2<br>-1 <sup>0</sup> .2 | 6 <sup>0</sup> .9<br>5 <sup>0</sup> .3<br>5 <sup>0</sup> .3    | 80 <sup>0</sup> .2<br>84 <sup>0</sup> .9<br>86 <sup>0</sup> .4 | 16 <sup>0</sup> .4<br>13 <sup>0</sup> .9<br>11 <sup>0</sup> .9 | 2 <sup>0</sup> .8<br>1 <sup>0</sup> .5<br>1 <sup>0</sup> .5 |

N =

NUMBER OF

FORECAST

ERRORS

OBSERVED

VARIABILITY

E" data-label="Text"&gt;TE = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY

TV = MEAN ABSOLUTE 24-HOUR TV

TG = PERCENT IMPROVEMENT OF

## NOV 1970 - APR 1971 1ST PERIOD TEMPERATURE FORECASTING PERFORMANCE WITHIN ECHELONS

|          | N   | TE  | TV  | TC   | TG  | TM  | T1   | T2   | T3  | T4   |
|----------|---|---|---|--|---|---|--|--|---|--|
| EASTERN  | 062<br>NMC<br>FP<br>LCL<br>1446<br>1419   | 4.5<br>3.3<br>5.2<br>4.2<br>3.7                             | 7.1<br>7.1<br>8.1<br>8.1<br>3.1                             | 36.1<br>53.6<br>35.3<br>47.4<br>54.0                                 | 1.6<br>.1<br>-1.4<br>-.7<br>-.3                           | 6.2<br>4.2<br>6.9<br>5.6<br>4.6                             | 67.2<br>80.6<br>71.7<br>71.7<br>76.7                                 | 25.4<br>17.3<br>26.5<br>19.8<br>21.5                                 | 6.2<br>3.0<br>5.5<br>5.1<br>5.1                             | 1.1<br>.1<br>3.0<br>1.3<br>.4                              |
| SOUTHERN | 062<br>NMC<br>FP<br>LCL<br>3205<br>3195   | 4.0<br>3.2<br>4.8<br>3.3<br>3.5                             | 7.0<br>7.1<br>8.2<br>8.2<br>8.2                             | 40.0<br>50.6<br>41.7<br>54.1<br>57.1                                 | .3<br>.2<br>-.9<br>-.3<br>-.3                             | 6.4<br>5.3<br>6.4<br>6.4<br>4.4                             | 72.0<br>78.3<br>64.2<br>76.0<br>79.1                                 | 21.4<br>17.9<br>27.4<br>20.4<br>17.9                                 | 4.0<br>3.0<br>7.2<br>3.5<br>2.5                             | 1.3<br>.3<br>1.2<br>.4<br>.5                               |
| CENTRAL  | 062<br>NMC<br>FP<br>LCL<br>1331<br>1990   | 5.3<br>4.1<br>5.8<br>4.3                                    | 3.1<br>8.1<br>8.2<br>8.2                                    | 35.3<br>46.1<br>29.3<br>43.3   | 5<br>.1<br>-2.5<br>-1.7                                   | 7.3<br>6.6<br>7.3<br>7.8                                    | 61.1<br>69.5<br>55.3<br>69.8   | 27.6<br>23.5<br>23.3<br>24.0   | 7.7<br>5.4<br>11.3<br>16.0                                  | 3.6<br>1.6<br>3.4<br>1.4                                   |
| WESTERN  | 062<br>NMC<br>FP<br>LCL<br>1845<br>1933<br>1988                                 | 4.4<br>5.0<br>4.6<br>4.3                                    | 4.1<br>8.2<br>8.2<br>8.2                                    | 2.9<br>4.3<br>47.0<br>3.3  | -2.5<br>-1.5<br>-1.7                                      | 7.3<br>6.3<br>7.0<br>7.8                                    | 69.8<br>69.8<br>69.8<br>69.8   | 23.3<br>23.3<br>24.0<br>24.0   | 16.3<br>16.0<br>4.8<br>4.8                                  | 3.4<br>3.4<br>1.4<br>1.4                                   |
| ALASKAN  | 062<br>NMC<br>FP<br>LCL<br>2582<br>2713<br>2715                                 | 4.2<br>3.3<br>3.3<br>3.7                                    | 5.5<br>5.5<br>5.5<br>5.9                                    | 23.1<br>34.6<br>39.1<br>33.5   | 1.0<br>-.2<br>-.1<br>-1.6                                 | 8.0<br>6.7<br>5.9<br>6.8                                    | 73.2<br>78.6<br>81.2<br>76.9   | 20.0<br>17.8<br>15.9<br>18.7   | 5.3<br>3.1<br>2.6<br>3.8                                    | 1.6<br>1.5<br>.3<br>.3                                     |
| NATIONAL | 062<br>NMC<br>FP<br>LCL<br>8953<br>9410<br>9319<br>1332<br>8872<br>9407<br>9316 | 5.3<br>4.4<br>3.9<br>3.9<br>4.8<br>3.4<br>5.1<br>4.1<br>3.8 | 7.9<br>7.8<br>6.1<br>6.1<br>6.1<br>6.8<br>7.5<br>7.5<br>7.5 | 33.1<br>44.5<br>21.8<br>37.3<br>37.3<br>49.7<br>32.5<br>45.9<br>49.8 | -.3<br>-.0<br>.9<br>.9<br>-.1<br>-.1<br>-.1<br>-.2<br>-.2 | 8.4<br>6.5<br>9.8<br>7.6<br>5.0<br>5.0<br>7.2<br>5.7<br>5.6 | 64.2<br>71.5<br>68.2<br>74.6<br>80.1<br>80.1<br>72.6<br>72.6<br>76.1 | 23.2<br>20.5<br>22.0<br>20.0<br>16.5<br>16.5<br>22.6<br>22.6<br>19.8 | 8.3<br>5.9<br>6.2<br>3.7<br>3.6<br>3.6<br>5.8<br>5.6<br>3.4 | 4.3<br>2.1<br>3.6<br>1.7<br>1.7<br>1.7<br>2.0<br>2.0<br>.7 |

N = NUMBER OF FORECASTS  
 TE = MEAN ABSOLUTE FORECAST ERROR  
 TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TC = PERCENT IMPROVEMENT OF TE OVER TV  
 TM = MEAN ALGEBRAIC FORECAST ERROR CLASSES  
 TM = MEAN ABSOLUTE FORECAST ERROR CLASSES  
 T1 = TEMPERATURE  
 T2 = 0 - 5  
 T3 = 6 - 10  
 T4 = 11 - 15  
 T5 = GREATER THAN 15 DEGREES

| MAY 1970 - OCT 1970 2ND PERIOD TEMPERATURE FORECASTING PERFORMANCE WITHIN ECHELONS |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
|  | N  | TE                                     | TV                                     | TC   | TG   | TM                                     | T1   | T2   | T3                                     |
|  |  |  |  |  |  |  |  |  | T4                                     |
| EASTERN  | 06Z<br>NMC<br>FD<br>LCL<br>18Z<br>NMC<br>FP<br>LCL | 4.4<br>3.5<br>3.5<br>4.6<br>4.3<br>4.0 | 5.3<br>5.8<br>5.8<br>5.7<br>5.7<br>5.7 | 24.3<br>36.5<br>39.1<br>25.6<br>29.6<br>29.6 | -1.9<br>-1.1<br>-1.0<br>-1.1<br>-1.3<br>-1.3 | 5.9<br>5.1<br>5.1<br>6.7<br>7.2<br>7.0 | 69.9<br>77.0<br>79.0<br>67.1<br>71.2<br>74.5 | 23.7<br>18.6<br>18.0<br>25.5<br>21.4<br>19.2 | 5.6<br>3.7<br>2.6<br>6.2<br>6.0<br>5.2 |
| SOUTHERN   | 06Z<br>NMC<br>FP<br>LCL<br>13Z<br>NMC<br>FP<br>LCL | 3.6<br>2.4<br>2.4<br>3.2<br>2.6<br>2.5 | 3.1<br>3.1<br>3.1<br>3.2<br>3.2<br>3.2 | 17.4<br>24.2<br>24.2<br>23.0<br>22.4<br>22.4 | -1.3<br>-1.2<br>-1.2<br>-1.4<br>-1.5<br>-1.5 | 6.3<br>6.6<br>6.6<br>7.6<br>7.7<br>7.7 | 83.8<br>88.6<br>90.7<br>88.6<br>89.1<br>89.1 | 13.8<br>10.0<br>10.0<br>13.6<br>19.2<br>8.8  | 2.0<br>1.1<br>1.0<br>1.7<br>1.9<br>1.7 |
| CENTRAL  | 06Z<br>NMC<br>FP<br>LCL<br>18Z<br>NMC<br>FP<br>LCL | 4.0<br>3.3<br>3.3<br>4.3<br>4.4        | 5.7<br>5.6<br>5.6<br>6.4<br>6.4        | 23.7<br>34.3<br>32.3<br>23.1<br>30.3         | -1.7<br>-1.3<br>-1.3<br>-1.2<br>-1.0         | 6.1<br>6.3<br>6.3<br>7.0<br>7.5        | 73.1<br>75.4<br>75.4<br>64.2<br>70.6         | 22.9<br>21.8<br>21.3<br>27.1<br>22.1         | 3.7<br>2.6<br>2.8<br>6.6<br>5.1        |
| WESTERN  | 06Z<br>NMC<br>FP<br>LCL<br>13Z<br>NMC<br>FP<br>LCL | 3.8<br>3.3<br>3.3<br>4.6<br>3.6        | 4.4<br>4.4<br>4.4<br>5.0<br>5.1        | 14.4<br>19.7<br>24.3<br>27.3<br>29.3         | -1.4<br>-1.4<br>-1.9<br>-1.0<br>-0.2         | 6.3<br>7.6<br>7.6<br>7.3<br>7.8        | 75.9<br>78.5<br>81.1<br>70.7<br>79.2         | 19.9<br>18.1<br>15.2<br>23.6<br>16.2         | 3.4<br>2.8<br>3.0<br>4.7<br>3.5        |
| ALASKAN  | 06Z<br>NMC<br>FP<br>LCL<br>18Z<br>NMC<br>FP<br>LCL | 4.4<br>4.0<br>4.0<br>3.8<br>3.8        | 4.5<br>4.5<br>4.5<br>4.2<br>4.2        | 10.1<br>10.6<br>10.6<br>9.9<br>9.9           | -0.9<br>-0.1<br>-0.1<br>-0.2<br>-0.2         | 10.1<br>10.0<br>10.0<br>7.7<br>8.7     | 70.5<br>73.6<br>73.6<br>76.8<br>75.9         | 23.1<br>20.9<br>20.9<br>13.4<br>19.7         | 5.0<br>4.6<br>4.6<br>3.7<br>3.7        |
| NATIONAL   | 06Z<br>NMC<br>FP<br>LCL<br>18Z<br>NMC<br>FP<br>LCL | 4.0<br>4.0<br>4.0<br>3.8<br>3.8        | 4.5<br>4.5<br>4.5<br>4.2<br>4.2        | 10.1<br>10.6<br>10.6<br>9.9<br>9.9           | -0.9<br>-0.1<br>-0.1<br>-0.2<br>-0.2         | 7.7<br>8.7<br>8.7<br>7.7<br>8.7        | 76.8<br>75.9<br>75.9<br>76.8<br>75.9         | 13.4<br>19.0<br>16.1<br>21.1<br>16.1         | 1.4<br>1.3<br>1.3<br>1.1<br>1.1        |

N = NUMBER OF FORECASTS  
 TE = MEAN ABSOLUTE FORECAST ERROR  
 TV = MEAN ABSOLUTE 24-HOUR OBSERVED VARIABILITY  
 TC = PERCENT IMPROVEMENT OF FORECAST OVER TV  
 TG = MEAN ALGEBRAIC FORECAST ERROR CLASSES  
 TM = MEAN ABSOLUTE FORECAST ERROR WHEN TV EXCEEDS 10 DEGREES  
 T1 = TEMP 0 - 5  
 T2 = 6 - 10  
 T3 = 11 - 15  
 T4 = GREATER THAN 15 DEGREES

NOV 1970 - APR 1971 2ND PERIOD TEMPERATURE FORECASTING PERFORMANCE WITHIN ECHELONS

|          | N           | TE  | TV  | TC   | TG   | TM   | T1   | T2   | T3   | T4  |
|----------|-------------|-----|-----|------|------|------|------|------|------|-----|
| EASTERN  | 06Z<br>NMC  | 5.7 | 8.1 | 29.8 | -1.4 | 6.3  | 57.3 | 23.3 | 10.5 | 3.7 |
|          | FB<br>1443  | 5.2 | 8.1 | 35.3 | -0.5 | 6.2  | 65.3 | 26.3 | 7.5  | 3.2 |
|          | LCL<br>18Z  | 4.9 | 8.1 | 39.6 | -0.1 | 6.0  | 63.3 | 26.2 | 5.5  | 3.0 |
|          | NMC         | 5.0 | 7.1 | 29.6 | 1.3  | 6.6  | 66.1 | 26.3 | 3.3  | 2.2 |
|          | FP<br>1443  | 4.6 | 7.1 | 34.7 | -0.2 | 6.0  | 70.6 | 24.0 | 3.9  | 2.2 |
|          | LCL<br>1418 | 4.3 | 7.1 | 33.0 | -0.1 | 8.8  |      |      | 4.7  | 1.7 |
| SOUTHERN | 06Z<br>NMC  | 5.2 | 3.2 | 36.3 | -7   | 6.5  | 53.3 | 28.6 | 3.6  | 1.3 |
|          | FP<br>3030  | 4.7 | 8.2 | 42.3 | -3   | 6.2  | 66.8 | 25.0 | 2.2  | 1.0 |
|          | LCL<br>3258 | 4.3 | 8.2 | 46.3 | -4   | 6.8  | 69.9 | 23.5 | 5.3  | 1.3 |
|          | 18Z<br>NMC  | 5.0 | 7.1 | 29.7 | -7   | 6.7  | 63.4 | 27.1 | 7.3  | 2.2 |
|          | FP<br>3075  | 4.1 | 7.1 | 42.6 | -7   | 5.3  | 72.8 | 20.3 | 4.6  | 1.7 |
|          | LCL<br>3258 | 3.9 | 7.1 | 44.9 | -0.1 | 5.6  | 75.1 | 18.7 | 4.8  | 1.4 |
| CENTRAL  | 06Z<br>NMC  | 6.2 | 8.2 | 24.6 | -2.5 | 7.3  | 52.8 | 28.3 | 14.0 | 4.3 |
|          | FP<br>1884  | 5.3 | 8.2 | 34.8 | -1.4 | 7.1  | 60.4 | 27.2 | 9.9  | 2.5 |
|          | LCL<br>1991 | 5.3 | 8.2 | 35.7 | -1.5 | 9.3  | 60.8 | 26.9 | 9.3  | 3.0 |
|          | 18Z<br>NMC  | 6.2 | 3.2 | 23.7 | -5   | 3.9  | 53.0 | 23.4 | 12.6 | 3.5 |
|          | FP<br>1931  | 5.3 | 8.2 | 34.7 | -0.6 | 7.7  | 61.4 | 22.8 | 19.3 | 3.5 |
|          | LCL<br>1979 | 5.1 | 8.1 | 37.5 | -0.3 | 9.1  | 64.0 | 24.4 | 7.9  | 2.7 |
| WESTERN  | 06Z<br>NMC  | 5.2 | 5.9 | 11.1 | -2.9 | 7.9  | 61.1 | 26.9 | 9.2  | 2.7 |
|          | FP<br>2583  | 4.6 | 5.9 | 22.5 | -2.0 | 7.5  | 67.3 | 24.4 | 6.4  | 2.9 |
|          | LCL<br>2713 | 4.4 | 5.9 | 26.0 | -1.5 | 7.8  | 71.4 | 21.0 | 5.6  | 2.0 |
|          | 18Z<br>NMC  | 5.6 | 5.6 | 13.1 | -1   | 8.9  | 65.5 | 25.2 | 7.1  | 2.1 |
|          | FP<br>2562  | 4.8 | 5.6 | 24.9 | -4   | 7.7  | 72.5 | 21.3 | 4.7  | 1.4 |
|          | LCL<br>2713 | 4.2 | 5.5 | 25.5 | -0.4 | 10.2 | 73.4 | 20.9 | 4.3  | 1.4 |
| ALASKAN  | 06Z<br>NMC  | 5.6 | 6.1 | 9.5  | -3   | 12.0 | 60.9 | 26.6 | 7.4  | 5.1 |
|          | FP<br>7223  | 5.2 | 6.1 | 15.0 | -2   | 11.7 | 66.0 | 21.0 | 3.0  | 5.0 |
|          | LCL<br>132  |     |     |      |      |      |      |      |      |     |
|          | NMC         |     |     |      |      |      |      |      |      |     |
|          | FP<br>7223  |     |     |      |      |      |      |      |      |     |
|          | LCL<br>724  |     |     |      |      |      |      |      |      |     |
| NATIONAL | 06Z<br>NMC  | 5.5 | 7.5 | 26.8 | -1.8 | 7.4  | 58.4 | 28.1 | 10.6 | 2.9 |
|          | FP<br>8956  | 4.9 | 7.5 | 35.2 | -1.0 | 6.7  | 64.9 | 25.5 | 7.3  | 2.3 |
|          | LCL<br>9410 | 4.6 | 7.5 | 38.3 | -1.0 | 7.5  | 67.7 | 23.3 | 6.2  | 2.2 |
|          | 13Z<br>NMC  | 5.2 | 6.9 | 24.4 | -4   | 7.3  | 61.9 | 26.9 | 8.5  | 2.8 |
|          | FP<br>8874  | 4.5 | 6.9 | 35.2 | -3   | 6.3  | 69.3 | 22.9 | 5.9  | 1.9 |
|          | LCL<br>9410 | 4.3 | 6.9 | 37.7 | -3   | 8.0  | 71.5 | 21.4 | 5.3  | 1.3 |

N = NUMBER OF FORECASTS  
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 TG = MEAN ALGEBRAIC FORECAST ERROR WHEN TV EXCEEDS 10 DEGREES  
 TM = MEAN ABSOLUTE FORECAST ERROR CLASSES  
 TH = MEAN ABSOLUTE TEMPERATURE ERROR  
 T1 = 0  
 T2 = 0  
 T3 = 1.5  
 T4 = 1.5  
 GREATER THAN 15 DEGREES

| MAY 1970 - OCT 1970 3RD PERIOD TEMPERATURE FORECASTING PERFORMANCE WITHIN ECHELONS |     |      |     |      |      |      |      |      |      |     |
|--|-----|------|-----|------|------|------|------|------|------|-----|
|  | N   | TE   | TV  | TC   | TG   | TM   | T1   | T2   | T3   | T4  |
| EASTERN  | 06Z | 4.7  | 5.7 | 18.0 | -0.0 | 6.8  | 65.7 | 25.3 | 6.7  | 1.7 |
|  | NMC | 1433 | 4.7 | 5.7  | 19.5 | .4   | 7.6  | 67.7 | 23.3 | 6.9 |
|  | FP  | 1471 | 4.6 | 5.7  |      |      | 68.4 | 22.8 |      | 1.9 |
|  | LCL | 1440 |     |      |      |      |      |      |      |     |
|  | 13Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 1419 | 4.3 | 5.7  | 25.5 | -2.4 | 6.3  | 65.3 | 26.3 | 1.0 |
| SOUTHERN   | FP  | 1472 | 4.2 | 5.7  | 26.4 | -1.3 | 6.0  | 70.3 | 23.8 | .9  |
|  | LCL | 1440 |     |      |      |      |      |      |      | .7  |
|  | 06Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 3206 | 3.2 | 3.2  | 7.0  | .1   | 8.7  | 83.9 | 13.2 | .2  |
|  | FP  | 3307 | 3.0 | 3.2  | 7.5  | .2   | 8.2  | 85.9 | 11.8 | .7  |
|  | LCL | 18Z  |     |      |      |      |      |      |      | .9  |
| CENTRAL  | NMC | 3113 | 3.3 | 3.1  | -5.2 | -0.9 | 8.8  | 82.3 | 14.3 | .6  |
|  | FP  | 3305 | 2.9 | 3.1  | 6.0  | -5   | 7.0  | 85.3 | 12.2 | .5  |
|  | LCL | 3311 |     |      |      |      |      |      |      |     |
|  | 06Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 1898 | 5.6 | 6.4  | 12.8 | -6   | 7.5  | 57.6 | 29.7 | 3.5 |
|  | LCL | 2022 | 5.1 | 6.3  | 20.5 | -3   | 7.4  | 61.5 | 23.2 | 3.0 |
| WESTERN  | 13Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 1923 | 4.3 | 5.6  | 23.3 | -0.1 | 7.9  | 62.4 | 26.7 | 8.1 |
|  | FP  | 1985 | 4.3 | 5.6  | 23.4 | -1.0 | 6.8  | 70.9 | 23.3 | 2.3 |
|  | LCL | 2023 | 4.5 | 5.6  | 19.8 | -1.2 | 7.2  | 68.0 | 25.6 |     |
|  | 06Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 2650 | 4.6 | 5.0  | 7.2  | .6   | 8.0  | 68.6 | 23.6 | 3.5 |
| ALASKAN  | FP  | 2739 | 4.3 | 5.1  | 14.1 | .4   | 8.4  | 71.7 | 21.4 | 1.5 |
|  | LCL | 2757 |     |      |      |      |      |      |      |     |
|  | 18Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 2567 | 4.2 | 4.4  | 4.4  | -2.0 | 7.5  | 71.4 | 22.3 | 5.3 |
|  | FP  | 2755 | 3.9 | 4.4  | 12.9 | -1.7 | 7.5  | 75.0 | 22.0 | 4.4 |
|  | LCL | 2757 |     |      |      |      |      |      |      |     |
| NATIONAL   | 06Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 701  | 4.3 | 4.2  | -2.9 | -2   | 7.6  | 72.5 | 21.0 | 5.5 |
|  | FP  | 705  | 4.1 | 4.2  | 2.4  | .1   | 7.3  |      |      | 1.3 |
|  | LCL |      |     |      |      |      |      |      |      |     |
|  | 18Z |      |     |      |      |      |      |      |      |     |
|  | NMC | 701  | 4.3 | 4.5  | -6.3 | -0.6 | 8.8  | 66.0 | 25.4 | 5.2 |
|  | LCL | 705  | 4.6 | 4.5  | -1.7 | -0.2 | 9.3  | 67.0 | 25.4 | 2.4 |

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 TM = MEAN ABSOLUTE FORECAST ERROR WHEN TV EXCEEDS 10 DEGREES  
 T1 = 0 - 5  
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 T3 = 11 - 15  
 T4 = GREATER THAN 15 DEGREES

NOV 1970 - APR 1971 3RD PERIOD TEMPERATURE FORECASTING PERFORMANCE WITHIN ECHELONS

|          | N   | TE   | TV  | TC   | TG    | TM   | T1   | T2   | T3   | T4   |
|----------|-----|------|-----|------|-------|------|------|------|------|------|
| EASTERN  | 06Z | 5.4  | 7.1 | 23.7 | 1.3   | 7.0  | 53.6 | 23.3 | 3.6  | 2.9  |
|          | NMC | 1400 | 5.0 | 7.1  | 23.5  | 0.8  | 63.3 | 26.0 | 7.7  | 2.0  |
|          | FP  | 1448 | 4.7 | 7.1  | 34.2  | 0.2  | 66.9 | 23.0 | 7.4  | 2.0  |
|          | LCL | 1410 |     |      |       |      |      |      |      |      |
|          | 18Z | 6.0  | 8.2 | 26.5 | -1.1  | 7.4  | 55.1 | 29.6 | 1.0  | 5.1  |
|          | NMC | 1347 | 5.7 | 3.2  | 23.5  | -0.2 | 57.3 | 23.4 | 0.2  | 5.0  |
| SOUTHERN | FP  | 1447 | 5.6 | 8.1  | 30.7  | -0.3 | 58.5 | 27.3 | 9.2  | 5.0  |
|          | LCL | 1413 |     |      |       |      |      |      |      |      |
|          | 06Z | 5.1  | 7.1 | 27.4 | -0.5  | 7.3  | 63.2 | 24.3 | 8.5  | 3.5  |
|          | NMC | 3031 | 4.7 | 7.1  | 33.1  | -0.1 | 6.5  | 68.2 | 23.4 | 7.0  |
|          | FP  | 3256 | 4.6 | 7.1  | 34.9  | -0.4 | 7.4  | 68.2 | 22.4 | 7.2  |
|          | LCL | 3195 |     |      |       |      |      |      |      |      |
| CENTRAL  | 13Z | 5.6  | 8.1 | 30.8 | -0.4  | 7.4  | 57.4 | 23.2 | 11.1 | 3.3  |
|          | NMC | 3057 | 5.2 | 3.1  | 35.6  | -0.5 | 6.3  | 61.5 | 26.3 | 9.5  |
|          | FP  | 3253 | 5.2 | 8.1  | 35.8  | -0.5 | 7.1  | 61.5 | 26.8 | 8.9  |
|          | LCL | 3195 |     |      |       |      |      |      |      |      |
|          | 06Z | 6.7  | 8.2 | 18.3 | -0.4  | 8.6  | 50.5 | 23.7 | 13.0 | 6.8  |
|          | NMC | 1886 | 6.0 | 8.2  | 25.4  | -0.2 | 8.2  | 54.9 | 28.7 | 5.7  |
| WESTERN  | 19Z | 6.0  | 8.2 | 26.3 | -0.2  | 8.2  | 55.9 | 23.1 | 9.6  | 6.4  |
|          | LCL | 1981 |     |      |       |      |      |      |      |      |
|          | 13Z | 6.3  | 3.1 | 16.5 | -3.4  | 7.9  | 49.1 | 28.8 | 15.0 | 7.1  |
|          | NMC | 1333 | 6.1 | 8.1  | 24.6  | -2.3 | 7.6  | 52.9 | 30.8 | 12.0 |
|          | FP  | 1331 | 6.1 | 8.2  | 25.0  | -1.8 | 8.1  | 53.1 | 30.2 | 11.6 |
|          | LCL | 1981 |     |      |       |      |      |      |      |      |
| ALASKAN  | 06Z | 5.0  | 5.6 | 16.0 | -0.4  | 8.4  | 64.5 | 25.0 | 7.7  | 2.8  |
|          | NMC | 2588 | 4.9 | 5.5  | 12.4  | -0.3 | 8.4  | 65.5 | 24.8 | 6.8  |
|          | FP  | 2713 | 4.9 | 5.5  | 10.6  | -0.3 | 3.7  | 65.7 | 24.2 | 7.1  |
|          | LCL | 2715 |     |      |       |      |      |      |      |      |
|          | 13Z | 5.9  | 5.8 | -2.5 | -3.9  | 8.5  | 55.8 | 27.5 | 11.6 | 5.0  |
|          | NMC | 2550 | 5.2 | 5.8  | 10.2  | -2.3 | 8.1  | 62.1 | 25.9 | 8.7  |
| NATIONAL | FP  | 2712 | 5.2 | 5.8  | 10.4  | -2.0 | 8.6  | 63.8 | 24.5 | 8.3  |
|          | LCL | 2714 |     |      |       |      |      |      |      |      |
|          | 06Z | 8.4  | 7.8 | -7.1 | 1.4   | 13.6 | 45.0 | 25.4 | 14.5 | 15.1 |
|          | NMC | 7223 | 3.1 | 7.3  | -3.5  | 1.7  | 13.5 | 44.3 | 27.5 | 14.8 |
|          | FP  | 7224 |     |      |       |      |      |      |      |      |
|          | LCL | 7224 |     |      |       |      |      |      |      |      |
|          | 18Z | 5.0  | 7.0 | 6.2  | -13.1 | 1.0  | 13.7 | 51.5 | 26.7 | 12.0 |
|          | NMC | 7223 | 6.5 | 6.2  | -4.4  | 1.0  | 12.9 | 55.5 | 25.0 | 10.4 |
|          | FP  | 7224 |     |      |       |      |      |      |      |      |
|          | LCL | 7224 |     |      |       |      |      |      |      |      |
|          | 06Z | 5.5  | 6.9 | 20.5 | -0.7  | 7.8  | 60.2 | 26.6 | 9.4  | 3.4  |
|          | NMC | 8965 | 5.1 | 6.9  | 25.7  | -0.1 | 7.4  | 63.3 | 25.3 | 3.0  |
|          | FP  | 9408 | 5.0 | 6.9  | 27.0  | -0.1 | 7.3  | 64.7 | 24.3 | 3.3  |
|          | LCL | 9310 |     |      |       |      |      |      |      |      |
|          | 18Z | 6.0  | 7.5 | 19.4 | -2.1  | 7.7  | 54.3 | 28.4 | 11.9 | 4.9  |
|          | NMC | 8832 | 5.0 | 7.5  | 26.4  | -1.5 | 7.3  | 59.3 | 27.5 | 9.6  |
|          | FP  | 9408 | 5.5 | 7.4  | 26.7  | -1.2 | 3.0  | 59.3 | 26.3 | 3.4  |
|          | LCL | 9303 |     |      |       |      |      |      |      |      |

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 TM = MEAN ABSOLUTE FORECAST ERROR WHEN TV EXCEEDS 10 DEGREES  
 T1 = TEMPERATURE CLASSES  
 T2 = 0 - 5  
 T3 = 6 - 15  
 T4 = 16 - 30  
 G = GREATER THAN 15 DEGREES

(Continued from inside front cover)

- WBTM FCST 11 Report on Weather Bureau Forecast Performance 1967-1968 and Comparison With Previous Years. Charles F. Roberts, John M. Porter, and Geraldine F. Cobb, March 1969. (PB-184 366)
- WBTM FCST 12 Severe Local Storm Occurrences 1955-1967. Staff, SELS Unit, NSSFC, Maurice E. Pautz, Editor, September 1969. (PB-187 761)
- WBTM FCST 13 On the Problem of Developing Weather Forecasting Equations by Statistical Methods. Charles F. Roberts, October 1969. (PB-187 796)
- WBTM FCST 14 Preliminary Results of an Empirical Study of Some Spectral Characteristics of Skill in Present Weather and Circulation Forecasts. Charles F. Roberts, November 1969. (PB-188 529)
- WBTM FCST 15 Weather Bureau Forecast Verification Scores 1968-69 and Some Performance Trends From 1966. Robert G. Derouin and Geraldine F. Cobb, May 1970. (PB-192 949)

NOAA Technical Memoranda

- NWS FCST 16 Weather Bureau April 1969-March 1970 Verification Report With Special Emphasis on Performance Scores Within Echelons. Robert G. Derouin and Geraldine F. Cobb, April 1971. (COM-71-00555)