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IMPACT OF COMPUTER WORDED FORECAST OPERATIONS ON VERIFICATION
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Editor's Note: After going through the meteorological thought process, the lead forecasters at WSFO Charleston, WV were instructed to start from the computer-worded zone forecasts (CRWOZFWV) when composing the official zone forecasts in the winter 87-88. Although the results are not conclusive, they seem to indicate that the use of computer-worded zone forecasts produced no significant adverse effects in the official zone forecasts. This is an important result for the future because we will come to rely more and more on computer-worded and formatted products.

As you know, there is a considerable learning curve involved with the Interactive Computer Worded Forecast Program (ICWF). In addition, it was difficult for the lead forecasters (they were the group that transitioned first during the Winter of 87-88) to adjust their thought processes from dealing with generalities to a vast array of specific values. I was concerned, and in fact anticipated, that the forecasts would be adversely effected during the transition to the program.

I went back over the last four seasons; Summer 86, Winter 86-87, Summer 87, Winter 87-88. I separated the lead and journeyman forecaster scores. Finally, I focused on "improvement over guidance" (see attachment). Following is a summary:

- * In the last four seasons the leads improved on guidance more often than the journeymen and they had better improvement scores than the journeymen more often. This would be expected.
- * The leads only failed to improve on guidance for the summer of 87 temperatures at Beckley and Charleston. Otherwise, they always improved on guidance.
- * The Winter of 87-88 season (the transition season) appears to have been a season in which guidance could be improved upon as both the leads and journeymen improved on guidance.
- * The Winter of 87-88 season was generally the most improved upon season of the last four.

When looking at the "improvement to guidance" verification results, there were no apparent adverse effects to the verification of the lead forecasters as a result of transitioning to the ICWF.

Improvement Over Guidance

1s = Summer 86
 2w = Winter 86-87
 3s = Summer 87
 4w = Winter 87-88

T = Temperature
 P = Precipitation

| season | Beckley (Leads) | | | | average |
|--------|--------------------|----|----|----|---------|
| | 24 | 36 | 48 | 60 | |

| | | | | | |
|-----|-------|-------|------|-------|--------|
| 1sT | 0.0 | 13.3 | 1.1 | -9.5 | 1.23 |
| 1sP | 7.3 | 1.7 | 2.0 | | 3.67 |
| 2wT | -1.9 | 0.6 | 0.0 | 3.1 | .45 |
| 2wP | 13.7 | 8.9 | 2.2 | | 8.27 |
| 3sT | -23.8 | -14.0 | -9.6 | -10.7 | -14.55 |
| 3sP | 4.4 | -6.4 | 10.1 | | 2.7 |
| 4wT | 8.6 | 6.9 | 4.5 | -2.2 | 4.45 |
| 4wP | 12.0 | -6.4 | 3.8 | | 3.13 |

Beckley
(Journeymen)

| | | | | | |
|-----|-------|-------|------|-------|-------|
| 1sT | -16.9 | -13.2 | -3.9 | 2.5 | -7.88 |
| 1sP | 11.1 | 6.3 | 0.1 | | 5.83 |
| 2wT | -18.2 | 6.1 | -5.6 | 3.6 | -3.53 |
| 2wP | 11.6 | 4.8 | 4.8 | | 7.07 |
| 3sT | -0.9 | -9.5 | -8.9 | -19.2 | -9.63 |
| 3sP | -8.9 | 1.6 | 4.1 | | -1.07 |
| 4wT | 13.0 | 3.5 | -3.3 | 3.5 | 4.18 |
| 4wP | -1.7 | 8.0 | 17.0 | | 7.77 |

Beckley
(station)

| | Lead | Jnymen | Station |
|-----|--------|--------|---------|
| 1sT | 1.23 | -7.88 | -3.33 |
| 1sP | 3.67 | 5.83 | 4.75 |
| 2wT | 0.45 | -3.53 | -1.54 |
| 2wP | 8.27 | 7.07 | 7.67 |
| 3sT | -14.55 | -9.63 | -12.09 |
| 3sP | 2.7 | -1.07 | 0.82 |
| 4wT | 4.45 | 4.18 | 4.32 |
| 4wP | 3.13 | 7.77 | 5.45 |

Charleston
(Leads)

| season | forecast periods | | | | average |
|--------|------------------|-------|------|------|---------|
| | 24 | 36 | 48 | 60 | |
| 1sT | -1.0 | 3.1 | 6.6 | -6.5 | 0.55 |
| 1sP | -5.8 | 1.8 | 6.5 | | 0.83 |
| 2wT | 10.2 | 1.9 | -7.9 | 5.1 | 2.33 |
| 2wP | 4.3 | 8.1 | 6.1 | | 6.17 |
| 3sT | 2.2 | -13.4 | -6.5 | -6.5 | -6.05 |
| 3sP | 9.3 | 1.7 | 3.8 | | 4.93 |
| 4wT | 2.2 | 1.5 | 11.5 | 2.8 | 4.50 |
| 4wP | 15.5 | 6.9 | 8.2 | | 10.20 |

Charleston
(Journeymen)

| | | | | | |
|-----|------|------|-------|-------|-------|
| 1sT | 3.5 | -1.5 | -2.9 | -1.8 | -0.68 |
| 1sP | 1.9 | 0.0 | -2.7 | | -0.27 |
| 2wT | 12.2 | 0.0 | 0.9 | 0.4 | 3.38 |
| 2wP | 14.9 | -1.2 | 8.6 | | 7.43 |
| 3sT | 4.3 | -7.5 | -23.2 | -10.9 | -9.33 |
| 3sP | -6.8 | -6.7 | -1.3 | | -4.93 |
| 4wT | 9.6 | 0.3 | 11.6 | 11.5 | 8.25 |
| 4wP | 1.5 | 12.6 | 6.9 | | 7.00 |

Charleston
(Station)

| | Lead | Jnymen | Station |
|-----|-------|--------|---------|
| 1sT | 0.55 | -0.68 | -0.62 |
| 1sP | 0.83 | -0.27 | 0.28 |
| 2wT | 2.33 | 3.38 | 2.85 |
| 2wP | 6.17 | 7.43 | 6.80 |
| 3sT | -6.05 | -9.33 | -7.69 |
| 3sP | 4.93 | -4.93 | 0.00 |
| 4wT | 4.50 | 8.25 | 6.38 |
| 4wP | 10.20 | 7.00 | 8.60 |

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