THE VERIFICATION OF WEATHER FORECASTS COMPARED TO NUMERICAL MODEL GUIDANCE, CLIMATOLOGY, HUMAN FORECASTS AND SEASONAL VARIATIONS

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ABSTRACT
The accuracy of weather forecasts has been a topic of discussion for many years, and a simple but useful method for showing forecast accuracy has been an issue for meteorologists over time. My study on the comparison of meteorological computer forecast models coupled with climatology data and a human produced forecast (from meteorologists at KOMU-TV, Columbia, MO) produced some interesting results. Not surprisingly, the computer models and human produced forecasts were, by far, more accurate than the climatology forecasts, but when I compared all of the data and results with the seasonality variance of temperature data, the outcome was more interesting. Essentially, all forecasts and outcomes had distinct seasonal variability. Some of the more surprising findings were that in seasons with large variability, the computer modeling did a decent job at producing an accurate forecast. It is my hope that the findings in this research will instill more confidence in a human produced forecast and forecasters can determine which computer model has a better handle on seasonal variance based on the model physics.