Weather forecast prediction accuracy illustrates a performance indicator

Yoshiyasu Takefuji

In News at a glance, an article entitled "Nominee ducks climate query" was reported (1). The similar article entitled "Researchers welcome Trump's pick to head science office" was published in Science (2). Weather forecasting models play a key role in predicting climate changes. For international weather prediction comparisons, weather forecasting models have been compared by forecast errors: the root mean square error (RMSE) of 500 hPa geopotential height (3). Figure entitled "Day 1 (24-hour) forecast errors" indicates that eta of U.S. North American Model is the worst among nine models (4). In figure, the lower (RMSE/EQM: meter), the better model is illustrated where EQM (Empirical Quantile Mapping) method is used for bias correction. Besides, data feeds from eta model have been frozen since 2017 (4). We should know when eta data feeds will restart for accuracy-comparing weather forecast models. The prediction improvement of U.S. North American Model in the near future is determined by science policy head, meteorologist Kelvin Droegemeier. In other words, weather forecast prediction accuracy improvement will illustrate a performance indicator of the science policy head.

References:
1. *Science* 31 Aug 2018: Vol. 361, Issue 6405, pp. 828-829
2. Researchers welcome Trump's pick to head science office, Science 03 Aug 2018: Vol. 361, Issue 6401, pp. 434
3. https://www.ecmwf.int/
4. https://weather.gc.ca/verification/monthly_ts_e.html