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ATMO 529 Assignment 1

NOAA Meteorological Development Laboratory (MDL) MOS archives.
http://www.mdl.nws.noaa.gov/~mos/archives/
Station Information:
GFS: http://www.nws.noaa.gov/mdl/synop/stadrg.php
NAM: http://www.nws.noaa.gov/mdl/synop/namstadrg.php

The NOAA MDL Model Output Statistics (MOS) archives contain every MOS text message for various NCEP products. The GFS model data dates back to May 2000. This includes long-term and short-term model guidance as well as the products for aviation, river forecasts, and marine forecasts. Some of these more specialized products do not go back as far as the basic GFS forecasts. The dataset also contains past NAM (February 2002 to present) and NGM (December 1993 to March 2009) forecasts. Users may also download GFS ensemble products (April 2001 to present).

MOS text messages vary based on length of forecast and model, but they all contain basic variables such as high and low temperature, temperature, dew point, forecasted precipitation, probability of precipitation, wind speed, wind direction and cloud cover for specific times.

It should be noted that new stations have been added to the MOS dataset since its introduction, so some station data may not go back as far as the entire dataset. MOS stations are located across the Contiguous US, Alaska, Hawaii, and in other US territories. Details about specific stations may be found in the links above. This database contains relatively large files, and the data are still organized with the same format as a standard MOS text message. The files each contain one month of MOS forecasts for every station, so these characteristics make processing by some type of computer code (such as Fortran or MATLAB) necessary.

This dataset has the potential to be useful for research related to forecast verification. Since each dataset encompasses one decade of data, a user can construct a basic climatology of MOS forecast skill. It may also be used to assess the impacts of changes made to any given model on the skill of MOS products.