METplus for HAFS

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NCAR/RAL

HAFS Coordination Meeting – 19 Aug 2020
Developing Use-Cases to Evaluate Using HRD Data

In testing: 1st use-case is focused on ingesting radar data through python embedding.
Making Connections to JEDI

Executable
Convert PrepBUFR into IODA Format

JEDI IODA Data Flow

Observations
ObsVector
ObsOperator
OOPS UFO IODA

Python Script
Reformat into Matched Pair format

Stat-Analysis

• Method now developed to evaluate in Fcst in Obs Space
• Use-Case under development

Statistics

HAFS Coordination Meeting – 19 Aug 2020
HAFS Case: 2019-24-08T18:00:00Z - Hurricane Dorian

- prepbufr with 50112 each of U, V, T, and Q
- ObsType are 138/238
- 261 distinct lat/lon locations of vertical columns

Run JEDI app `hofx_nomodel.x` with bufr2nc-fortran data
- With coarse 6-tile background / surface level obs
- To do:
  - Convert full 50112 obs data
  - As a LAM with tile7

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>30° N</td>
<td>80° W</td>
</tr>
<tr>
<td>25° N</td>
<td>70° W</td>
</tr>
<tr>
<td>20° N</td>
<td>60° W</td>
</tr>
<tr>
<td>15° N</td>
<td>50° W</td>
</tr>
<tr>
<td>10° N</td>
<td>40° W</td>
</tr>
<tr>
<td>5° N</td>
<td>30° W</td>
</tr>
<tr>
<td>0°</td>
<td>20° W</td>
</tr>
</tbody>
</table>