WMO Lead Center for MME

wmolc.org

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Climate Prediction Center
NCEP, NOAA
Global Producing Centers for Long-Range Forecasts (LRF)

- Global Producing Centers (GPCs) for LRF are
  - WMO recognized centers (for LRF)
  - Recognition is mandated based on meeting a minimum set of functional requirements (listed in the GDPFS manual)
    - Have fixed production cycles and time of issuance;
    - Provide a limited set of mandatory products;
    - Provide verifications as per the WMO SVSLRF;
    - Provide up-to-date information on methodology used by the GPC;
    - Make products accessible through the GPC website and/or disseminated through the GTS and/or the Internet
<table>
<thead>
<tr>
<th>GPC name</th>
<th>Centre</th>
<th>System Configuration (ensemble size of forecast)</th>
<th>Resolution (atmosphere)</th>
<th>Hindcast period used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>Beijing Climate Centre</td>
<td>Coupled (48)</td>
<td>T63/L16</td>
<td>1983-2004</td>
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<tr>
<td>CPTEC</td>
<td>Centre for Weather Forecasts and Climate Studies</td>
<td>2-tier (15)</td>
<td>T62/L28</td>
<td>1979-2001</td>
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<td>ECMWF</td>
<td>European Centre for Medium Range Weather Forecasts</td>
<td>Coupled (41)</td>
<td>T159/L62</td>
<td>1981-2005</td>
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<tr>
<td>Exeter</td>
<td>Met Office Hadley Centre</td>
<td>Coupled (42)</td>
<td>1.25°x1.85°/L38</td>
<td>1989-2002</td>
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<td>Melbourne</td>
<td>Australian Bureau of Meteorology</td>
<td>Coupled (30)</td>
<td>T47/L17</td>
<td>1980-2006</td>
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<tr>
<td>Montreal</td>
<td>Meteorological Service of Canada</td>
<td>Coupled</td>
<td>T32/T63/T95/2.0°x2.0° (4-model combination)</td>
<td>1969-2004</td>
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<td>Tokyo</td>
<td>Japan Meteorological Agency</td>
<td>Coupled (51)</td>
<td>T95/L40</td>
<td>1979-2008</td>
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<td>Toulouse</td>
<td>Météo-France</td>
<td>Coupled (41)</td>
<td>T63/L91</td>
<td>1979-2007</td>
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<td>Washington</td>
<td>National Centres for Environmental Prediction</td>
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<td>T62/L64</td>
<td>1981-2004</td>
</tr>
<tr>
<td>Moscow</td>
<td>Hydromet Centre of Russia</td>
<td>2-tier (10)</td>
<td>1.1°x1.4°/L28</td>
<td>1979-2003</td>
</tr>
</tbody>
</table>

**The 12 WMO-designated GPCs**

_WGSIP - 24 September, 2012_
Current Status

• Seasonal forecast anomaly are sent to KMA by 12 GPCs individually ~ 15\textsuperscript{th} of the month

• Graphical products are generated and disseminated from the LC web site ~ 25\textsuperscript{th} of the month
  – Monthly and seasonal mean anomalies
  – Probabilistic outlooks
  – Agreement maps
  – Individual models or MME

• A parallel lead center for verifications of seasonal forecasts
Role of LRF-MME

• Input to the RCOFs seasonal forecasts
• Will play a key function in GFCS’s “Climate Service Information System (CSIS)”
• Global Seasonal Climate Update (GSCU)
  – Similar to WMO El Nino/La Nina update
  – Seasonal outlook guidance for surface temperature & precipitation
  – Use data from GPCs collected at the KMA
Role of LRF-MME

• Reorganization of the Expert team as a joint “CBS-CCI”

• Extending to monthly & sub-sesaonal forecasts, and connecting with WWRP/WCRP project on “sub-seasonal to seasonal (s2s)” prediction

• Need to develop more effective engagement between WGSIP and LRF-MME (i.e., between research and operations)

• Many different seasonal hindcast archives... CHFP; NMME; ENSEMBELS; APCC; LC-LRF;... Could they be better coordinated?
Questions?