

WMO Lead Center for MME

wmolc.org

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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**

**The 12
WMO-
designated
GPCs**

GPC name	Centre	System Configuration (ensemble size of forecast)	Resolution (atmosphere)	Hindcast period used
Beijing	Beijing Climate Centre	Coupled (48)	T63/L16	1983-2004
CPTEC	Centre for Weather Forecasts and Climate Studies	2-tier (15)	T62/L28	1979-2001
ECMWF	European Centre for Medium Range Weather Forecasts	Coupled (41)	T159/L62	1981-2005
Exeter	Met Office Hadley Centre	Coupled (42)	1.25°x1.85°/L38	1989-2002
Melbourne	Australian Bureau of Meteorology	Coupled (30)	T47/L17	1980-2006
Montreal	Meteorological Service of Canada	Coupled	T32/T63/ T95/2.0°x2.0° (4-model combination)	1969-2004
Seoul	Korean Meteorological Agency	2-tier (20)	T106/L21	1979-2007
Tokyo	Japan Meteorological Agency	Coupled (51)	T95/L40	1979-2008
Toulouse	Météo-France	Coupled (41)	T63/L91	1979-2007
Washington	National Centres for Environmental Prediction	Coupled (40)	T62/L64	1981-2004
Moscow	Hydromet Centre of Russia	2-tier (10)	1.1°x1.4°/L28	1979-2003
Pretoria	South African Weather Service	2-tier (6)	T42/L19	1983-2001

Current Status

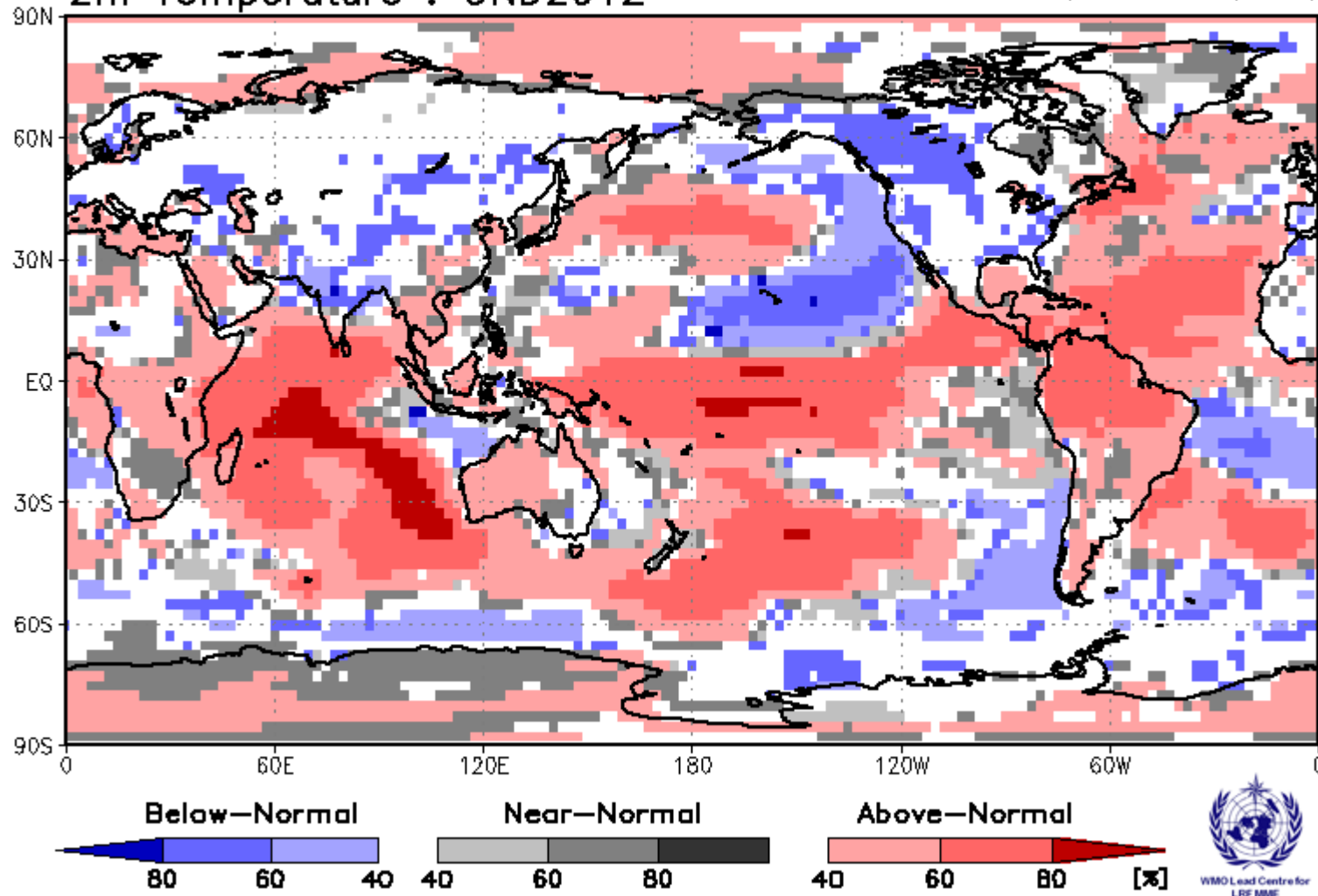
- **Seasonal forecast anomaly are sent to KMA by 12 GPCs individually ~ 15th of the month**
- **Graphical products are generated and disseminated from the LC web site ~ 25th of the month**
 - **Monthly and seasonal mean anomalies**
 - **Probabilistic outlooks**
 - **Agreement maps**
 - **Individual models or MME**
- **A parallel lead center for verifications of seasonal forecasts**

Probabilistic Multi-Model Ensemble Forecast

/GPC_seoul/GPC_washington/GPC_melbourne/GPC_tokyo/GPC_exeter/GPC_montreal_cancm3
/GPC_montreal_cancm4/GPC_moscow/GPC_beijing

2m Temperature : OND2012

(issued on Sep2012)



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?