

Diagnosis of the atmospheric circulation in winter 2008/2009
Using newly developed software, Interactive Tool for Analysis of the Climate System
(ITACS) and LRF data on the TCC Website

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In the 2008/2009 winter season, evident cold surges occurred in January over Southeast Asia. In February, as the subtropical jet shifted northward over from northern Africa to East Asia, the Siberian high was extremely weaker than climatology over East Asia and high temperature anomalies were observed from the southern China to Okinawa, Japan.

In the second quarter of 2009, TCC's newly developed software, Interactive Tool for Analysis of the Climate System (ITACS), will be made available on the TCC website, enabling registered NMHSs to display various kinds of maps with selected parameters and to make statistical analysis.

JMA improved its one-month ensemble prediction system in March 2008. Accordingly, GPV products for one-month forecasts will be upgraded in April 2009 with the change of data format from GRIB1 to GRIB2 and the provision of new products (daily GPV data for individual ensemble members and hindcast data).

Using ITACS above mentioned and the LRF data, the analysis and verifications of our numerical prediction system will be described in the presentation focused on within one-month and seasonal forecast time. The predictability of such cold surges is good enough to use on an operational basis within two weeks.

In addition, JMA is preparing for the upgrade of its seasonal forecast model scheduled for early 2010. The upgraded version will introduce a one-tier coupled system instead of the current two-tier system. It is expected that the forecast skill of the new model will be improved, particularly for precipitation over the tropics and the Asian monsoon/Australian winter monsoon.