

# Verification of the Seasonal Forecast for the 2005/06 Winter

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## 1. Verification of the seasonal prediction for 2005/2006 winter by JMA's ensemble seasonal prediction system

### 1.1 One-month prediction (initial: 2005.12.1)

Anomalous circulation fields, such as strong negative phase of the AO in Dec. 2005, were well predicted

### 1.2 Three-month prediction (initial: 2005.11.13)

Skill was marginal. The prediction by the new model (V0502) was better than that by the old one (V0103) as expected from 21-years hindcast experiments.

### 1.3 Cold-season prediction (initial: 2005.9.11)

If real SST anomalies were fed in the model, the anomalous circulation fields were marginally predicted.

## 2. Summary of the Asian Summer Monsoon in 2006

### 2.1 Climate in Japan

Seasonal mean temperatures were above normal in Japan, because of the hot weather in August. Seasonal total precipitation amounts were above normal in the Western and Eastern Japan, and total sunshine duration were below normal in most parts of Japan. End of the Baiu season were later than normal.

### 2.2 Monsoon Activities

Temperatures are higher than normal most of Asia. Total precipitation of the summer monsoon season was near normal as a whole. SAMOI indicates convective activity shifted a little eastward and northward from normal position in these 8 consecutive years.

### 2.3 Tropical Cyclone Activities

Based on the analysis at RSMC Tokyo-Typhoon Center, nineteen named tropical cyclones formed in the western North Pacific, in 2006 as of 31 October 2006. The formation number is smaller than the 1971-2000 average of 26.7. Twelve cyclones out of them reached typhoon intensity.

### 2.4 Case Study (Heavy rain in Japan during 15-24 July)

During 15-24 July 2006, active Baiu front continued to be located over Japan, and brought heavy rainfall. 10-day accumulated rainfall during 15-24 July exceeded 1,200 mm in the southern part of Kyushu. It was analyzed that the heavy rain was caused by 1) the meandering of the sub-tropical jet due to the stationary Rossby wave propagation along it and 2) the strong sub-tropical high south of Japan, which is thought to be strengthened by the active convection east of the Philippines.