

FACTORS OF EXTREME SUMMER CONDITIONS IN EAST ASIA IN 2013

Norihisa FUJIKAWA

Climate Prediction Division, Japan Meteorological Agency

nori_fujikawa@met.kishou.go.jp

ABSTRACT

The atmospheric circulation over East Asia is significantly different from the climatological conditions in summer 2013 and caused some extreme weather/climate events in East Asia. For example, heavy rainfall events in the northern India, the central China, North Korea, the northern Japan, the basin of the Amur River and the Indochina Peninsula and heat wave and draughts in the southern China and the southern Japan.

These events were caused by the anomalous atmospheric circulation such as northward shifted strong jet stream with active high frequency disturbances and the stationary enhanced sub-tropical high pressure system. The background factor of anomalous atmospheric circulation is the active Asian monsoon including Western North Pacific Monsoon.

To estimate factors of anomalous conditions, our group move ahead with an analysis such as a statistical analysis, a budget analysis and an impact experiment using GCM. The results will be discussed in the presentation.