

Seasonal Highlights (December 2016 – February 2017)

- In the equatorial Pacific, remarkably positive SST anomalies were observed in the western part.
- Convective activity was enhanced over the area from the eastern part of the Bay of Bengal to the seas east of the Philippines, and over and around the Maritime Continent.
- In the 500-hPa height field, positive anomalies were observed over northern Europe and to the south of Alaska, and negative anomalies were observed over Western Siberia and to the east of Japan.
- Seasonal mean temperatures were extremely high from the eastern USA to eastern Mexico.
- Seasonal mean temperatures were above normal in most of Japan.

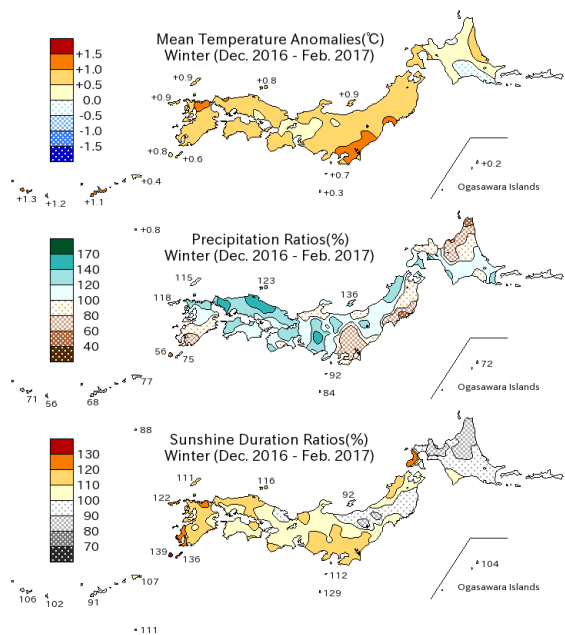


Fig. S1 Seasonal climate anomaly / ratio over Japan (December 2016 - February 2017)
 Top: Temperature anomalies (degree C)
 Middle: Precipitation ratio (%)
 Bottom: Sunshine duration ratio (%)
 Anomalies are defined as the deviations from the normal (1981-2010 average).

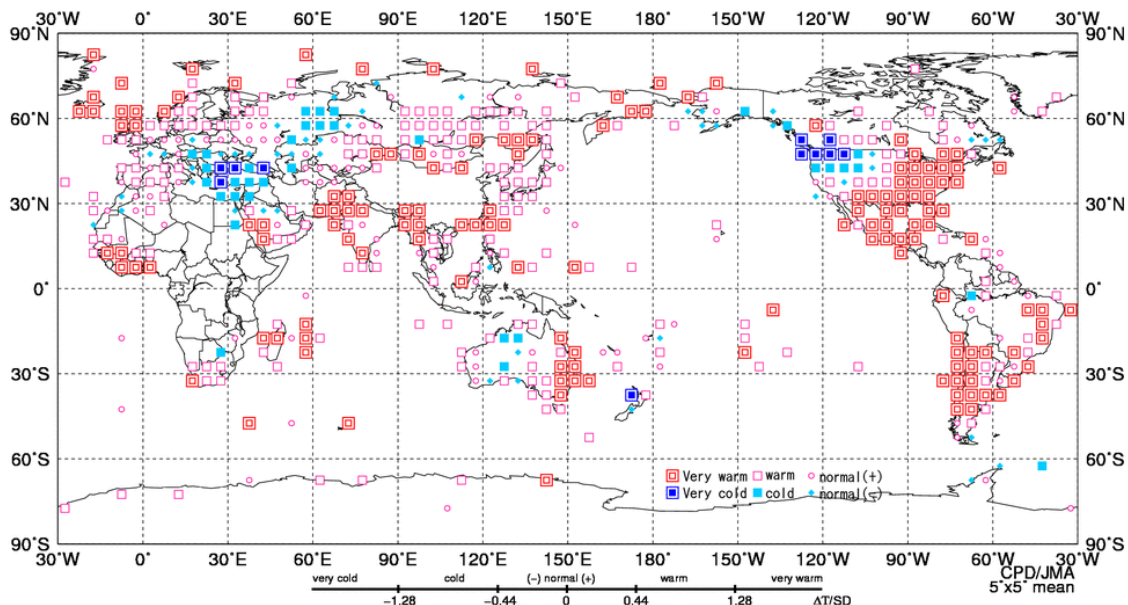


Fig. S2 Three-month mean temperature anomaly (normalized) category (December 2016 - February 2017)

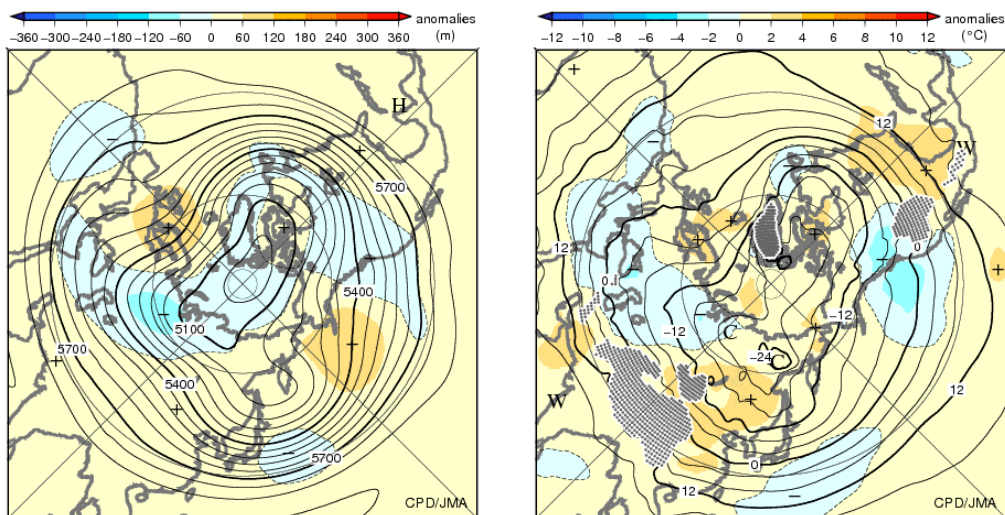


Fig. S3 Three-month mean 500-hPa height and anomaly (left) and 850-hPa temperature and anomaly (right) in the Northern Hemisphere (December 2016 - February 2017)

The contour intervals are 60 m (left) and 4 degree C (right). The shading shows anomalies. The base period for the normal is 1981-2010.

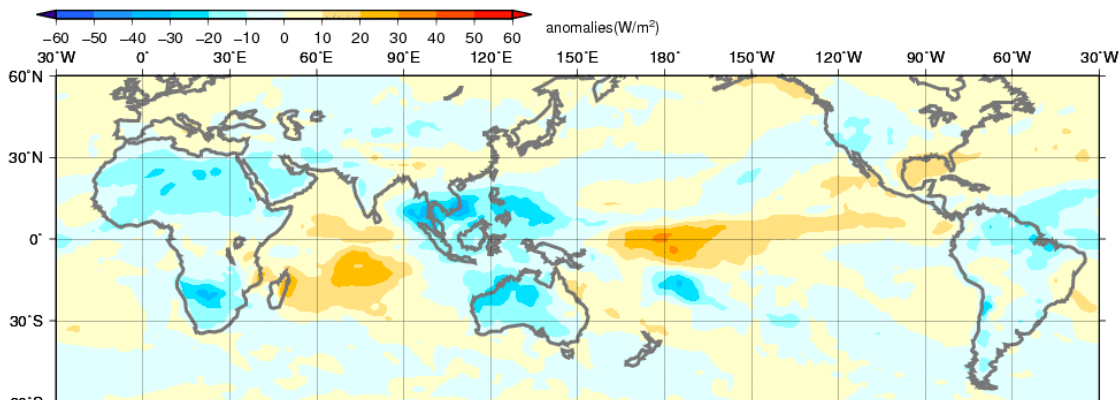


Fig. S4 Three-month mean Outgoing Longwave Radiation (OLR) anomaly (December 2016 - February 2017)

The contour interval is 10 W/m². The base period for the normal is 1981-2010. Original data provided by NOAA.

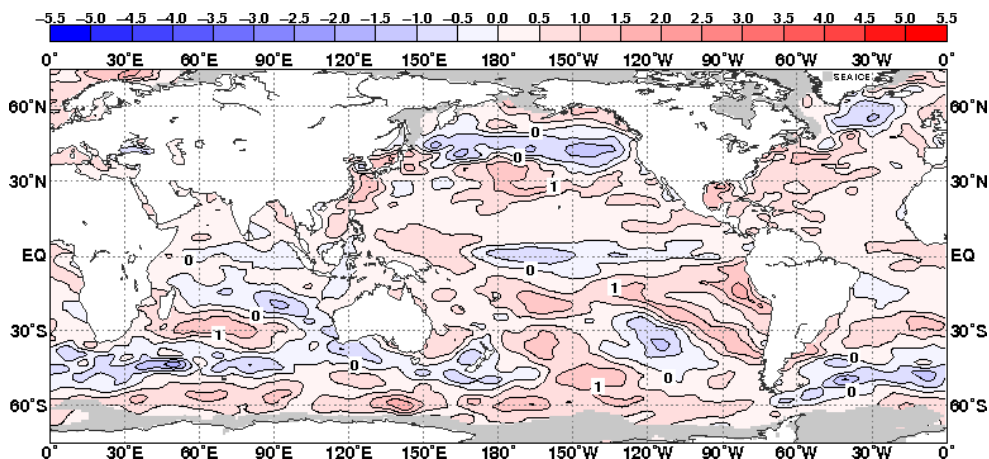


Fig. S5 Three-month mean sea surface temperature anomaly (December 2016 - February 2017)

The contour interval is 0.5 degree C. The base period for the normal is 1981-2010.

Detailed seasonal information on the climate system is available on the Tokyo Climate Center's website.
<http://ds.data.jma.go.jp/tcc/tcc/index.html>
 This report is prepared by the Climate Prediction Division, Global Environment and Marine Department, Japan Meteorological Agency.