Tokyo Climate Center, Japan Meteorological Agency

TCC News

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General Information on Japan’s Climate Now Available

JMA has launched a new web resource providing general information on Japan’s climate at http://www.data.jma.go.jp/gmd/cpd/longfcst/en/tourist.html, which is also linked to on the TCC website.

The resource is intended to provide visitors to Japan with seasonal and regional information on the country’s weather conditions.

Japan’s terrain stretches from the subtropical southern region of Okinawa to the northern sub-frigid zone of Hokkaido, and its main island is also divided by mountains into the Pacific side and the Sea of Japan side. These geographical characteristics bring various climatic conditions to individual regions.

The page in Figure 1 shows 11 regions defined by JMA in consideration of climatic characteristics. A brief description of such characteristics in the four main regions of Japan (northern/eastern/western and Okinawa/Amami) is given, and the user can click on areas of interest on the map to view regional details (Figure 2). The data and information on the site are intended to support visitors in deciding destinations and appropriate clothing.

This resource is expected to be very useful for visitors as well as for anyone who is simply interested in Japan's climate.

(Norihisa Fujikawa, Climate Prediction Division)

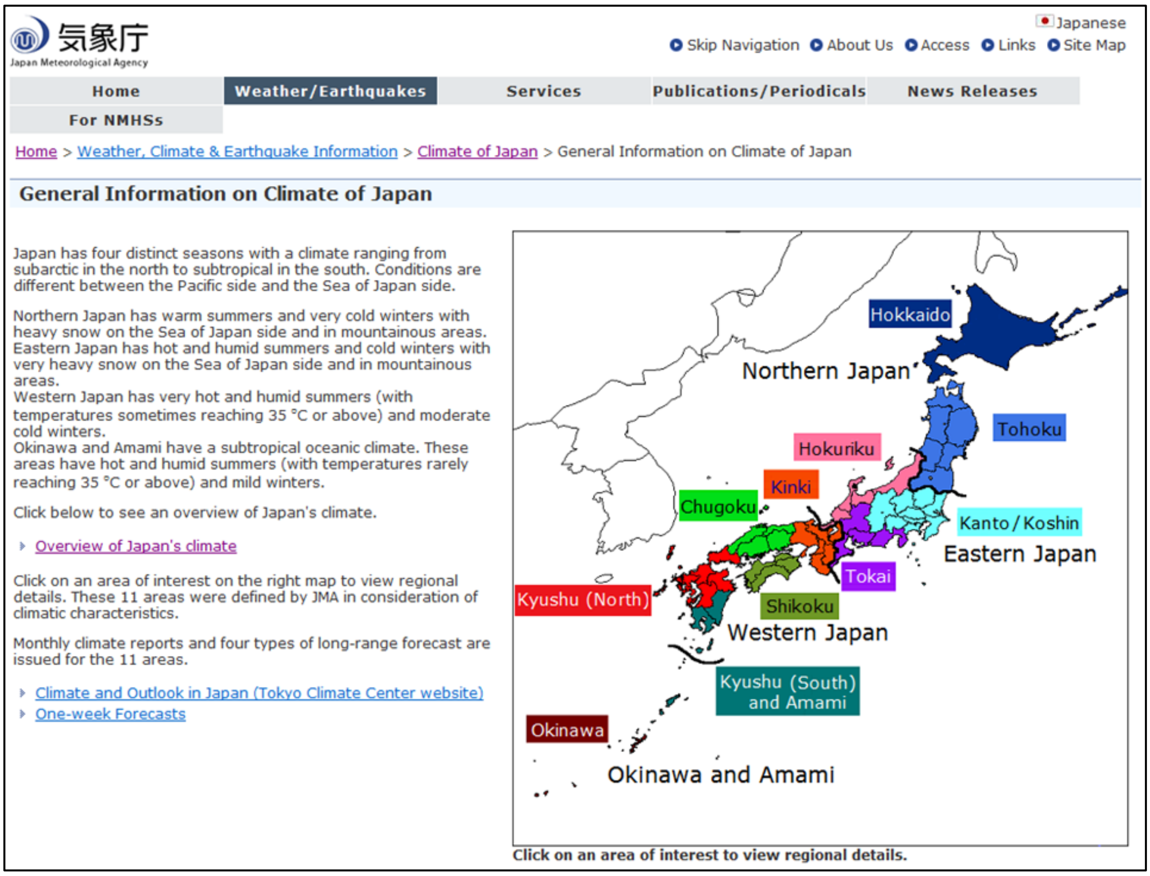

Figure 1 Top page of *General Information on Japan’s Climate*

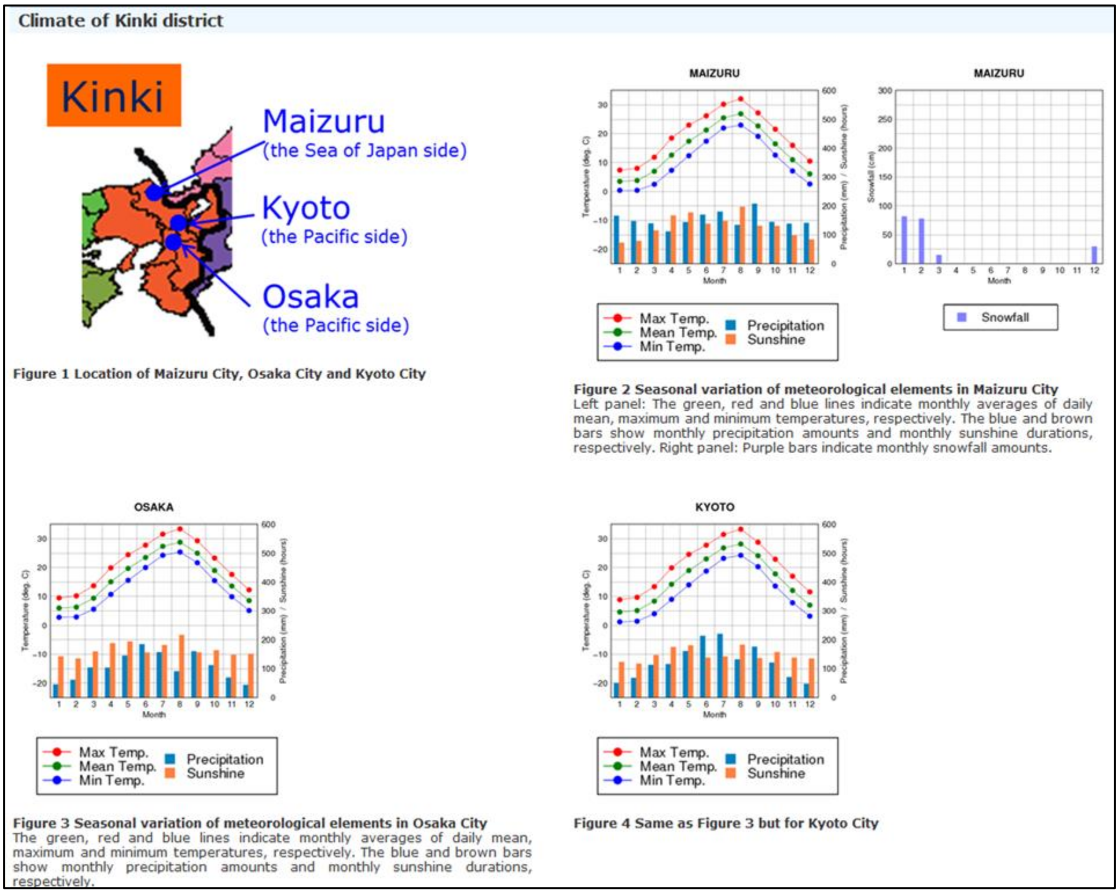

Figure 2 Detailed description for the Kinki sub-region

Summary of Kosa (Aeolian dust) Events over Japan in 2014

Characteristics of Kosa events in 2014

From January to June 2014, the number of days on which meteorological stations in Japan observed Kosa (referred to below simply as *the number of days*) was 10, which was below the 1981 – 2010 normal of 23.1. The number of days was lower than the normal in February, March and April, but higher in January, May and June (Figure 3, left).

The total number of stations observing Kosa (referred to below simply as *the total number of stations*) over the same period was 164, which was also below the normal of 208.3. The total number of stations was much lower than the normal from February to April as with the number of days, but higher in May and June (Figure 3, right). The total number of stations in June was 29, which was the highest figure for the month since records began in 1967.

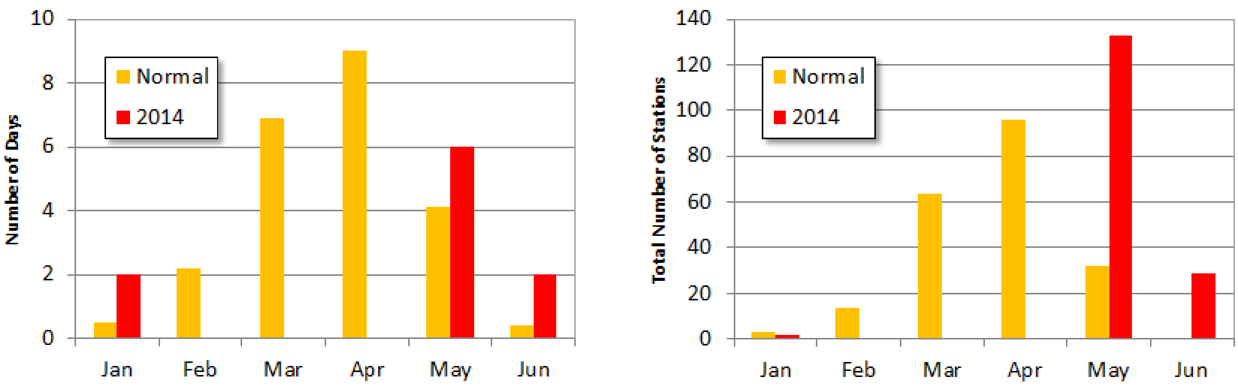

Figure 3 Monthly number of days when meteorological stations in Japan observed Kosa (left), and the monthly total number of stations observing Kosa (right) from January to June 2014

The red and yellow bars show the values for 2014 and the 1981 – 2010 normals, respectively.

Significant Kosa event in late May to early June

Kosa was extensively observed at stations in Japan from 26 May to 2 June (Figure 4). A large dust storm arose in an area of the Gobi Desert from around 23 to 26 May, and massive volumes of dust were blown up into the atmosphere and carried over to Japan by upper-air westerly winds. The Kosa moved over Japan as low-pressure systems passed over the country from 26 to 28 May. At that time, the surface atmosphere in and around Japan showed a stagnant tendency due to a stationary front off the southern coast of the country, and Kosa was observed continuously for a further few days (Figure 5). Based on results from JMA's Kosa prediction model, the Kosa was expected to move across the East China Sea and prevail over western Japan on 26 May (Figure 6). Using this forecast along with surface observation reports from meteorological stations in Japan, JMA released information on the Kosa event to the public in order to call attention to potential traffic hazards due to visibility degradation on 30 May.

(Nozomu Ohkawara, Atmospheric Environment Division)

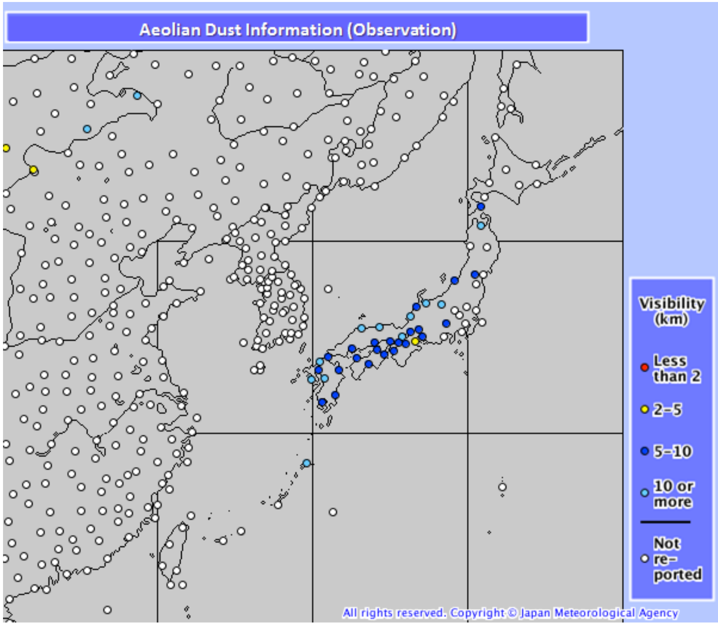

Figure 4 Meteorological stations observing Kosa and minimum visibility on 31 May

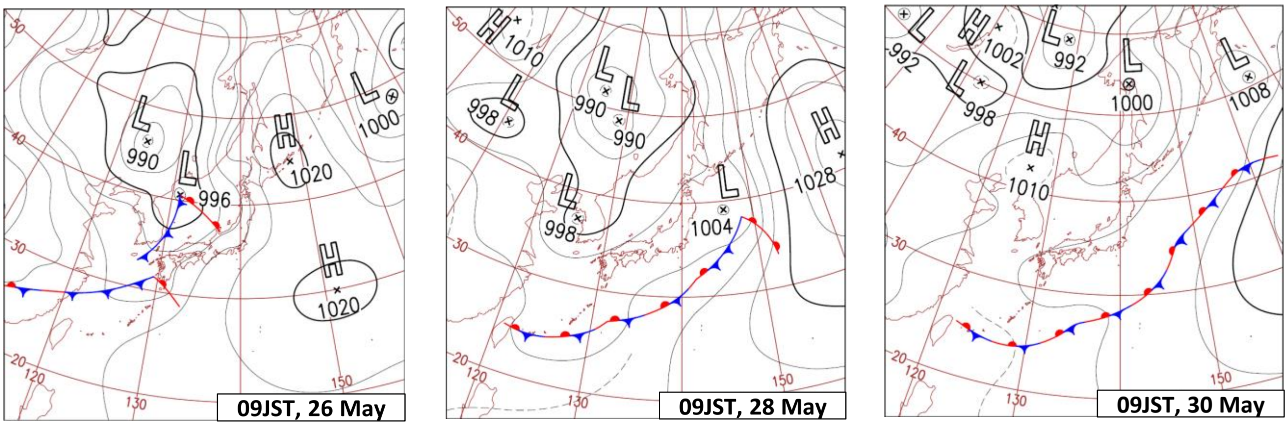

Figure 5 Surface weather analysis charts at 09 JST (00 UTC) on 26, 28 and 30 May

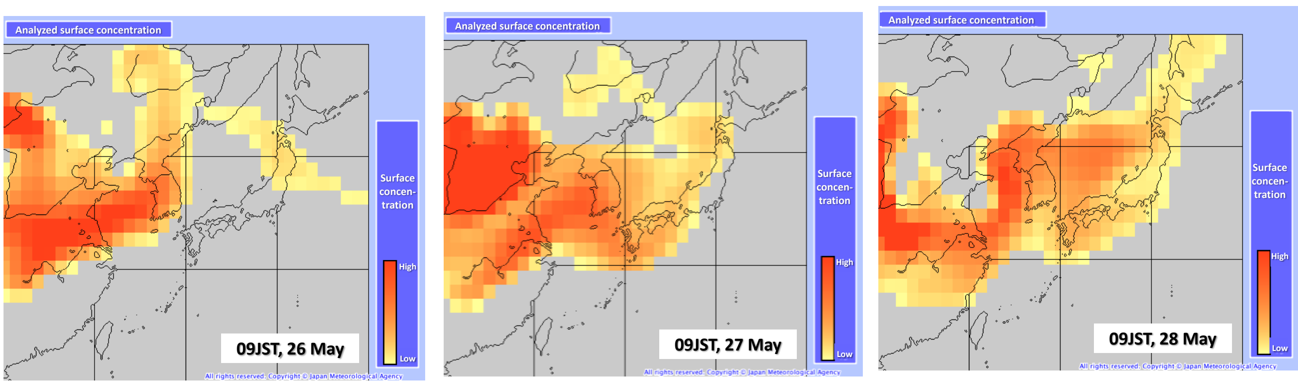

Figure 6 Forecasts of surface dust concentration and surface wind by JMA's Kosa prediction model at 09 JST (00 UTC) on 26, 27 and 28 May (initial time: 21 JST (12 UTC) on 25 May)

The Kosa was expected to reach Japan on 26 May.

Sea Ice in the Sea of Okhotsk for the 2013/2014 Winter Season

The sea ice extent in the Sea of Okhotsk was less than normal from December 2013 to May 2014.

The sea ice extent in the Sea of Okhotsk was less than normal from December 2013 to May 2014 (Figure 7), and reached its seasonal maximum of 100.77 x 10^4 km^2 (less than the normal of 116.92 x 10^4 km^2) on 5 March (Figures 7 and 8). Figure 9 shows overall trends for the period from 1971 to 2014. Although the sea ice extent in the Sea of Okhotsk shows large interannual variations, there is a long-term downward trend of 186 [86 – 286] x 10^4 km^2 per decade (the numbers in square brackets indicate the two-sided 95% confidence interval) in the accumulated sea ice extent, and another long-term downward trend of 6.0 [2.6 – 9.5] x 10^4 km^2 (equivalent to 3.8% of the area of the Sea of Okhotsk) per decade in the maximum extent.

(Ryohei Okada, Office of Marine Prediction)

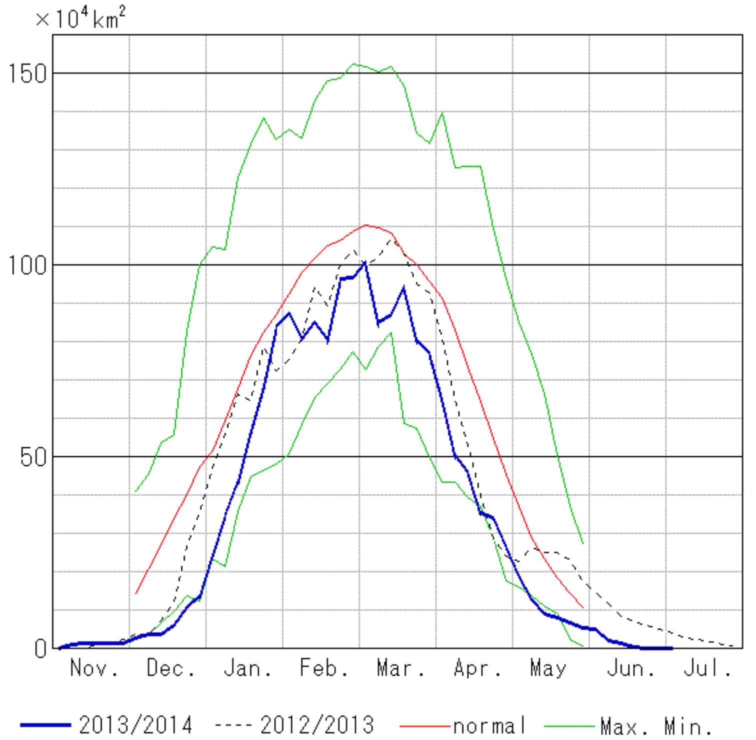

Figure 7 Seasonal variation of sea ice extent at five-day intervals in the Sea of Okhotsk from November 2013 to July 2014

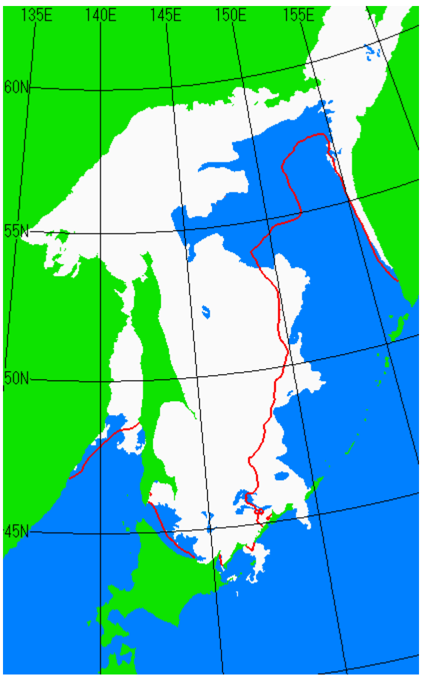

Figure 8 Sea ice situation on 5 March 2014
The white area shows the observed sea ice extent, and the red line indicates the extent of normal coverage (1981 – 2010).

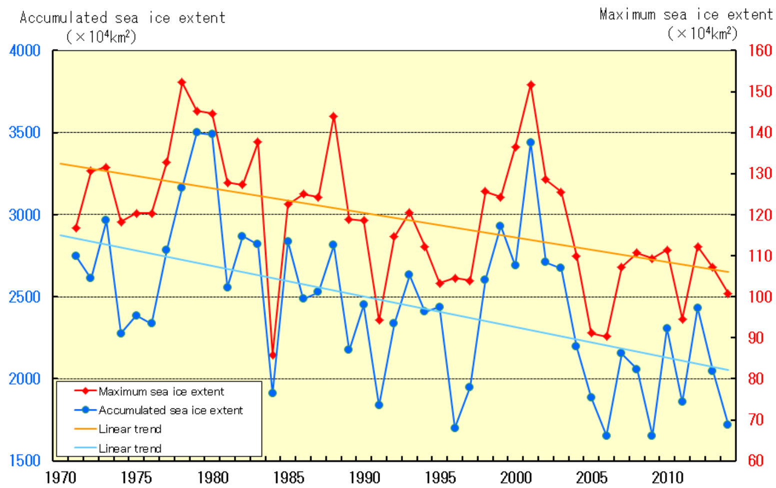

Figure 9 Interannual variation in the maximum sea ice extent (red line) and the accumulated sea ice extent (blue line) in the Sea of Okhotsk from 1971 to 2014
Accumulated sea ice extent: the sum of all five-day sea ice extent values from December to May.

TCC Expert Visits Myanmar

TCC arranges expert visits to NMHSs to support climate services and the effective transfer of technology.

As part of such efforts, a TCC expert visited the Department of Meteorology and Hydrology (DMH) in Myanmar from 24 to 26 June 2014 to conduct follow-up activities regarding the generation of guidance for seasonal forecasts using the statistical downscaling technique covered at the TCC Training Seminar in 2013.

In the presence of around 15 regional office representatives and other DMH experts, the TCC visitor outlined the formulation of statistical guidance for temperature and precipitation using JMA's numerical prediction model output. At the end of the session, the attendees produced seasonal statistical guidance using historical climate data for Myanmar.

The visit provided outstanding opportunities for attendees to deepen their understanding of statistical guidance and to discuss future collaborative work with TCC.

TCC will continue to arrange expert visits to NMHSs in Southeast Asia and elsewhere as necessary to assist with operational climate services.

(Ryuji Yamada, Tokyo Climate Center)

Any comments or inquiry on this newsletter and/or the TCC website would be much appreciated. Please e-mail to tcc@met.kishou.go.jp.
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