

Seasonal outlook for summer 2018 over Japan

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JMA issued its outlook for the coming summer (June – August) over Japan in February and updated it in March and April based on output from its seasonal Ensemble Prediction System (EPS). The following outlook is based on the EPS products with the initial month of March.

1. Outlook summary (Table 1)

- Seasonal mean temperatures are expected to be above-normal all over Japan.
- Seasonal precipitation amounts are expected to be below-normal tendency in Okinawa/Amami.

2. Grounds for outlook

Figure 1 summarizes expected large-scale oceanic/atmospheric characteristics for the coming summer. The grounds for the outlook are given below.

- It is likely that La Niña conditions will end in spring, and neutral conditions are likely during summer. Meanwhile, SSTs in the tropical western Pacific are predicted to be above normal.
- Convective activity is predicted to be enhanced almost over the Asian monsoon region partly due to the warmer SST over the western Pacific.
- In the upper troposphere, it is predicted that the subtropical jet stream over Asia shifts northward, and the Tibetan High is strong in its northern part and extends towards Japan due to the enhanced Asian monsoon.
- In the sea level pressure field, negative anomalies are predicted to the east of the Philippines due to the enhanced convective activity there, while positive anomalies are seen over Japan, suggesting that the Pacific-Japan (PJ) pattern tends to appear and the North Pacific High extends towards Japan.
- The extension of the North Pacific High over Japan may bring drier conditions in its southern part of the country, especially in Okinawa/Amami, while moist air could possibly flow over northern Japan along the periphery of the high although the precipitation amount over the region is expected to be near normal.
- Overall temperatures in the troposphere are expected to be above normal due to the prevailing long-term increasing trend. These tendencies are likely to increase the chance of above-normal temperatures.

Table 1 Outlook for summer (JJA) 2018 tercile probabilities over Japan.

Category		Temperature			Precipitation		
		-	0	+	-	0	+
Northern Japan	Sea of Japan side	20	40	40	30	30	40
	Pacific side	20	40	40	30	30	40
Eastern Japan	Sea of Japan side	20	30	50	30	40	30
	Pacific side	20	30	50	40	30	30
Western Japan	Sea of Japan side	20	30	50	40	30	30
	Pacific side	20	30	50	40	30	30
Okinawa/Amami		20	30	50	40	40	20

Category -: Below Normal, 0: Near Normal, +: Above Normal

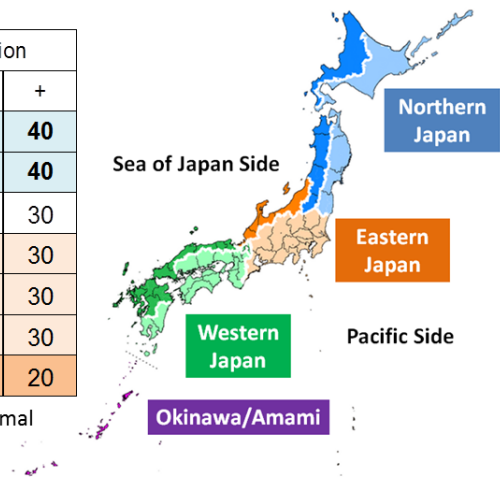


Figure 1 Conceptual diagram showing expected large-scale ocean/atmosphere characteristics for summer 2018

