Announcement on Global Deterministic and Ensemble Forecast Data Provision in accordance with the manual on the Global Data-processing and Forecasting System (WMO-No. 485) 2017 edition

In line with a comprehensive revision and review of the Manual on the Global Data-processing and Forecasting System (GDPFS) (WMO-No.485), the Japan Meteorological Agency (JMA) was designated as a Regional Specialized Meteorological Centre (RSMC) for general-purpose activities in global deterministic and ensemble numerical weather prediction. Accordingly, the Agency will begin providing global deterministic and ensemble forecast datasets via the GISC Tokyo server on May 21st 2019.

Table 1 below shows the directories and file names of the related global forecasting data. File names are based on the Manual on the Global Telecommunication System (WMO-No. 386) with GRIB2 formatted data. The values of yyyy, mm, dd and hh represent the year, month, date and hour of the forecast initial time. The initial times for deterministic 132-hour forecasts are 00, 06, 12 and 18 UTC. Such forecasts up to 264 hours are available only at 12 UTC, and the initial times for ensemble forecasts are 00 and 12 UTC.

Table 1 Directories and File Names of the Global Forecasting Data

Deterministic / Ensemble (grid interval)	Forecast Time (Time Interval)	Directory under main*	File Name
Deterministic (1.25 deg.)	0–132 hours (6 hourly)	Global_Spectral_Model/Latitude_Longitude/1.25_1.25/90.0_-90.0_0.0_358.75/Upper_air_layers/[yyyymmdd]/[hh0000]/	W_jp-JMA-tokyo,MODEL,JMA+gsm+gpv,C_RJTD_[yyyymmddhh0000]_GSM_GPV_Rgl_Gll1p25deg_L-all_FD0000-0512_grib2.bin
	144–264 hours (12 hourly)		W_jp-JMA-tokyo,MODEL,JMA+gsm+gpv,C_RJTD_[yyyymmddhh0000]_GSM_GPV_Rgl_Gll1p25deg_L-all_FD0600-1100_grib2.bin
Ensemble (1.25 deg.)	0–264 hours (12 hourly)	One-week_Ensemble_Prediction_System/Latitude_Longitude/1.25_1.25/90.0_-90.0_0.0_358.75/Upper_air_layers/[yyyymmdd]/[hh0	W_jp-JMA-tokyo,MODEL,JMA+epsg+gpv,C_RJTD_[yyyymmddhh0000]_EPSG_GPV_Rgl_Gll1p25deg_L-all_FD0000-1100_Eem_grib2.bin

* https://www.wis-jma.go.jp/d/o/RJTD/GRIB/

The parameters of deterministic forecasts up to 132 and 264 hours are identical (Table 2). Table 3 shows the parameters of global ensemble forecasts (ensemble means, spreads, and probabilities as specified in Appendix 2.2.5 of the Manual on GDPFS (WMO-No. 485)). The data domain for global deterministic and ensemble forecast data is worldwide in latitude and longitude projection.

Table 2 Parameters of the Global Deterministic Forecast Data

Parameter	Levels (hPa)
Geopotential height	1000, 925, 850, 700, 600, 500, 400, 300, 250, 200, 150, 100, 70, 50, 30, 20, 10
Temperature	
Zonal (u) and meridional (v) wind speed	
Relative Humidity	1000, 925, 850, 700, 600, 500, 400, 300
Vertical pressure velocity	1000, 925, 850, 700, 600, 500, 400, 300
Vorticity	925, 700, 500, 250
Divergence	925, 700, 250
Velocity potential, and stream function	850, 200
Mean Sea Level Pressure, 2 m temperature, relative humidity, 10 m wind (u, v), and total precipitation	Surface

Table 3 Parameters of the Global Ensemble Forecast Data

Parameter		Threshold
Precipitation	Probability	1, 5, 10, 25, 50, 100 mm/24 hours
10 m sustained wind, and gusts		10, 15, 25 m/s
Temperature anomalies at 850 hPa		± 1, ± 1.5, ± 2 standard deviation with respect to a reanalysis climatology
Geopotential height at 1000 and 500 hPa	Ensemble mean, and spread (standard deviation)	N / A
Mean sea level pressure		
Wind speed at 850 and 250 hPa		
Zonal wind speed at 850 and 250 hPa		
Meridional wind speed at 850 and 250 hPa		
Temperature at 850 hPa		