

ANNEX A

Availability of Minimum Required NWP Products from Global Centres (JMA)

For the South Pacific SWFDDP (product list from SWFDP RA I subproject for discussion)

Note that tbd means: to be determined

Deterministic Forecasts:	Availability			
6-hourly out to 72 hours, then 12-hourly up to 144 hours	ECMWF	UK Met	NCEP	JMA
Parameters: wind (streamlines and speed/direction), temperature, geopotential height, humidity Levels: sfc, 925mb, 850mb, 700mb, 500mb, 300mb, 200mb Purpose: General forecasting parameters to gain a perspective on the overall atmosphere. For determination of frontal system and pressure maxima locations.				YES
Parameter: vorticity Level: 500mb, 300mb Purpose: Determination of frontal and low pressure system locations. Crucial in locating potential severe weather outbreak locations. Can be used in determination of severe weather type				YES
Parameter: vertical velocity Level: 850mb, 700mb, 300mb Purpose: Determination of mesoscale patterns of rising and sinking air masses (convective updrafts)				YES
Parameter: 850mb wet bulb potential temperature Level: 850mb Purpose: Frontal position diagnosis and change in airmass				NO
Parameters: instantaneous and accumulated precipitation, minimum temperature, maximum temperature, sea level pressure, relative humidity Level: sfc Purpose: General forecasting parameters				YES except instantaneous precipitation
Parameter: 1000-500mb thickness Level: partial atmospheric column Purpose: Freezing level determination and air mass distinguishing				YES
Parameter: precipitable water Level: atmospheric column Purpose: Determination of total liquid water in the atmosphere and thus potential rainfall				YES
Parameter: convective available potential energy (CAPE), Theta-E Level: atmospheric column Purpose: Amount of energy available in the atmosphere for storm production				YES
Parameter: lifted index, K index, total totals index Level: stability index Purpose: Pre-calculated indices to generalize severe weather potential				K index is only available
Parameter: convective inhibition (CIN) Level: stability index Purpose: Strength of force preventing convective initiation. The amount of energy (frontal forcing or daytime heating) that is needed to begin convection.				YES
Parameters: significant wave height, mean wave direction and mean wave period Purpose: General sea-state forecasting parameters.				NO

Parameters: swell wave height and period, wind sea wave height and period, spectral decomposition of wave energy by range of periods Purpose: Marine forecasting parameters. Crucial in locating potential heavy swell areas.				NO
Ensemble Forecasts:				
12-hourly out to 144 hours	Availability			
	ECMWF	UK Met	NCEP	JMA
Probability of 6-hour accumulated precipitation exceeding 50mm and 100mm threshold value				YES
Probability of 24-hour accumulated precipitation exceeding 100mm threshold value				YES
Probability of 10-meter wind speed exceeding 20kt and 30kt threshold value				YES
Probability of 850hPa Temperature Anomaly exceeding 2K, 4K, 8K threshold value				NO
Probability of significant wave height exceeding 2 m, 4 m and 6 m threshold value				NO
Probability of mean wave period exceeding 10 s and 15 s threshold value				NO
Wave EPSgrams for specific sea points and associated spectra				NO
Ensemble Prediction System meteograms for specified locations				YES
Spaghetti diagrams for 500mb geopotential height				YES
Spaghetti diagrams for sea level pressure				NO
Thumbnails of probability of precipitation in excess of threshold of 50mm/6h at 6 hours intervals				YES
ECMWF Extreme Forecast Index for precipitation and wind				NO
Tropical cyclone occurrence and genesis probability maps				NO
Tropical cyclone strike probability maps				NO
Tropical cyclone forecast tracks from ensemble members, including ensemble mean, deterministic and control tracks				NO
Tropical Cyclone Lagrangian meteograms (ECMWF)				NO
Other REQUESTED Products:				
	Availability			
	ECMWF	UK Met	NCEP	JMA
SKEW-T logarithmic forecast plots for selected grid points based on NWP output (out to 144 hours, 12-hourly)				NO