

Annex B

(a) Deterministic NWP Products to be made available to IMD New Delhi by Global Centres (All product is provided every 6-hourly out to 72 hours including Analysis)

Parameters	ECMWF	NCEP	JMA	NCMRWF
Every 6 hours and 24 hours total accumulated precipitation			YES(6 hours, and 12 hours,not 24 hours)	
2 meters temperature and dew point temperature			YES(2mT,not dewpoint)	
2 meters relative humidity or specific humidity			YES	
10 meters wind (speed and direction)			YES	
Mean sea level pressure (MSLP)			YES	
Parameters: wind (streamlines and speed/direction), temperature, geopotential height, humidity Levels:1000mb,925mb, 850mb, 700mb, 500mb, 300mb, 250mb, 200mb			YES(except for 1000mb)	
Parameter: vorticity Level: 850mb, 700mb, 500mb, 300mb			YES(500, 300)	
Parameter: divergence Level: 500mb, 300mb, 200mb			NO	
Parameter: vertical velocity Level: 850mb, 700mb, 500mb			YES	
Parameter: potential temperature and equivalent potential temperature Level: 850mb, 700mb			850 hPa equivalent potential temperature	
Parameter: Vertical Wind Shear 500-850 hPa, 200-850 hPa			NO	
Parameter: lifted index, K index, total totals index, CAPE, CIN, Showalter index, etc			K index, CAPE, CIN	
SKEW-T logarithmic forecast plots for selected grid points based on NWP output (out to 144 hours, 12-hourly)			NO	

(b) Ensemble NWP Products to be made available to IMD New Delhi by Global Centres

Parameters	ECMWF	UKMO	JMA	NCEP	NCMRWF
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 significant wave height exceeding 2 m, 4 m and 6 m threshold value			YES		
Probability of mean wave period exceeding 10			YES		

s and 15 s threshold value					
Ensemble Prediction System meteograms for specified locations (10- day/ 15-day)			YES 11- day		
Spaghetti diagrams for 500mb geopotential height			YES		
Thumbnails of probability of precipitation in excess of threshold of 50mm/6h at 6 hours intervals or more			YES		
ECMWF Extreme Forecast Index and Shift of Tails, and M-Climate for TMean, Tmax, Tmin, wind gust, wind speed, total precipitation, Max significant wave height, total snowfall			NO		
ENS Cumulative Distribution Functions (Forecast and M-Climate) and EFI values (for precipitation)			NO		
MJO Index - Extended range forecast			NO		
Tropical cyclone occurrence and genesis probability maps- including extended range forecast			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		