



Press Release

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Sub: India Meteorological Department organises 20th Annual Attachment Training for Tropical Cyclone Forecasters in 13 WMO/ESCAP Panel member countries (19-30 August)

India Meteorological Department (IMD) is one of the six Regional Specialised Meteorological Centres (RSMCs) recognised by the World Meteorological Organisation (WMO) for providing tropical cyclone advisories in different ocean basins in the world (Fig. 1). RSMC New Delhi issues daily tropical weather outlook, weekly extended range outlook and three hourly tropical cyclones and storm surge advisories in association with cyclonic disturbances over the north Indian Ocean (NIO) to 13 WMO/ Economic and Social Commission for Asia and Pacific (ESCAP) Panel member countries including Bangladesh, India, Iran, Maldives, Myanmar, Pakistan, Qatar, Saudi Arabia, Sultanate of Oman, Sri Lanka, Thailand, United Arab Emirates and Yemen (Fig.2). IMD also acts as one among the 7 WMO recognised Tropical Cyclone Advisory Centres (TCAC) to provide cyclone advisories to Asia Pacific countries and Middle East countries for international civil aviation. IMD is also one among the 16 centres recognised globally to issue bulletins for ships in High Seas under Global Maritime Distress Safety System (GMDSS) for designated area (Met Area VIII (N)) covering the north Indian Ocean (Fig. 3). Under Severe Weather Forecasting Programme, IMD also provides daily severe weather guidance on heavy rainfall, strong wind, storm surge, high waves and cyclonic disturbances to 9 member countries including Bangladesh, India, Bhutan, Nepal, Pakistan, Sri Lanka, Maldives, Myanmar and Thailand (Fig.4).

In addition to above, as RSMC, IMD also takes various initiatives for building capacity in the region as discussed below:

- i) Organisation of annual training for tropical cyclone forecasters in the region since 2005

- ii) Organisation of specialised trainings on specific subjects related to cyclones as and when needed
- iii) Preparation and publication of Annual Tropical Cyclone Operation Plan (TCP-21) for the WMO/ESCAP Panel member countries. The TCP-21 is updated every year with inputs from all member countries and is available on RSMC website.
- iv) Publication of Annual Report on Cyclonic Disturbances during the year. All reports are available on RSMC website since 1990.
- v) Publication of Annual Cyclone Review with inputs from member countries on various components including meteorology, hydrology, disaster risk reduction, training, research & publications
- vi) Digital best track data since 1891
- vii) Development and upgradation of dedicated website for tropical cyclones www.rsmcnewdelhi.imd.gov.in launched in April, 2014.

This year, the RSMC New Delhi is organizing 20th Annual Training for Cyclone Forecasters during 19-30 August, 2024 in hybrid mode. There are a total of 43 international participants with 9 joining in -person and remaining 34 joining online apart from the participants from India.

The training aims at building capacity of the cyclone forecasters in the region by understanding the latest developments in observations, monitoring, modelling, prediction and early warning services of cyclones over the Bay of Bengal and the Arabian Sea region.

The Inaugural ceremony of the training was held at Ministry of Earth Sciences (MoES) on 19th August. Dr. M Ravichandran, Secretary Ministry of Earth Science inaugurated the training programme. While appreciating RSMC New Delhi for organising such training programmes, he highlighted the success in early warning of cyclones in the region. He urged upon the trainees to learn to utilise the latest tools & technology and the standard operation procedure. As the human intelligence is crucial inspite of all technological developments including even the Artificial Intelligence, the capacity building through training programs is very much essential.

Dr. Mrutyunjay Mohapatra, Director General of Meteorology, India Meteorological Department in his address highlighted the role of competent forecasters in early warnings for early action by disaster managers. He also highlighted that various

initiatives by India Meteorological Department and Ministry of Earth Sciences have brought out a paradigm shift in the early warning system of tropical cyclones in the region, leading to significant improvement in forecast accuracy, reduction in death toll to double digit due to any cyclone in 13 countries in the North Indian Ocean region.

On this occasion, RSMC New Delhi released a Souvenir highlighting its international responsibilities, role in capacity building, monitoring and forecasting of tropical cyclones and its achievements (Fig. 5-6).

Dr Taoyong Peng, Chief TCP Division, WMO in his address highlighted the importance of Early Warning for All (EW4All) and the regional as well as national coordination mechanism. He appreciated the national coordination mechanism in India and the role of RSMC New Delhi for monitoring and forecasting of tropical cyclones. He also appreciated RSMC New Delhi for organising such training continuously for the capacity building in the region.

Dr. Sanjay Srivastava, Chief DRR, Economic & Social Commission for Asia & Pacific (ESCAP) in his address also appreciated the role of RSMC New Delhi and India Meteorological Department in the capacity-building exercise in the region. He highlighted the role of UN-ESCAP in this regard especially w.r.t Impact Based Forecasting and Early Warning for disaster risk reduction.

A group photograph of participants and delegates during the Inaugural ceremony is placed at Fig.7.

The address by Dr. Mrutyunjay Mohapatra, Director General of Meteorology, India Meteorological Department for the RSMC Training, 2024 can be accessed at:

<https://youtu.be/GSRxA09IZgk>

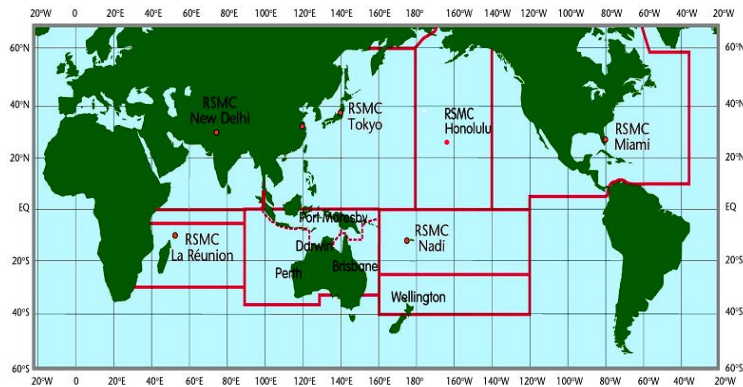


Fig.1: WMO's recognized 6 Regional Specialised Meteorological Centres globally

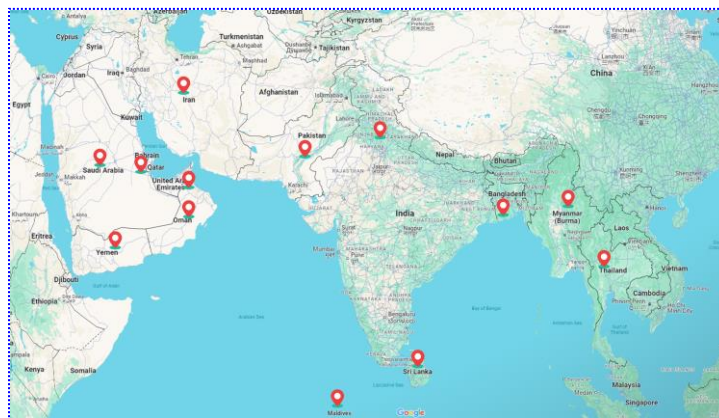


Fig.2: Area of responsibility of RSMC New Delhi (Bay of Bengal, Arabian Sea and 13 countries in North Indian Ocean region)

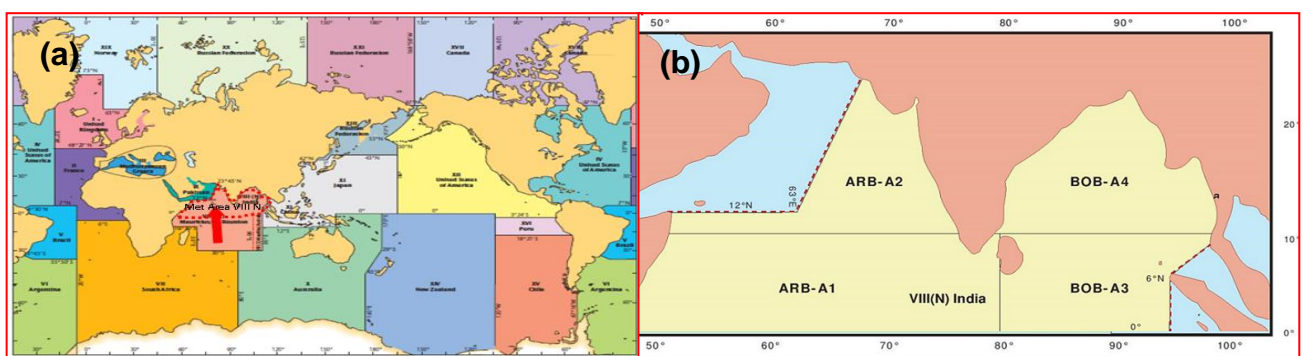


Fig.3: (a) Area of responsibility of 16 centres globally recognised to issue advisories under Global Maritime Distress Safety System (GMDSS) for ships in high seas and (b) Met Area VIII (N) subdivisions

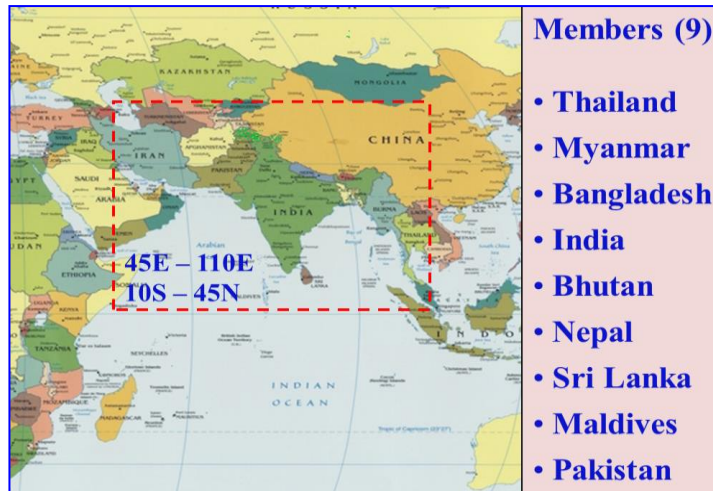


Fig. 4: Severe Weather Guidance to 9 countries in South Asia

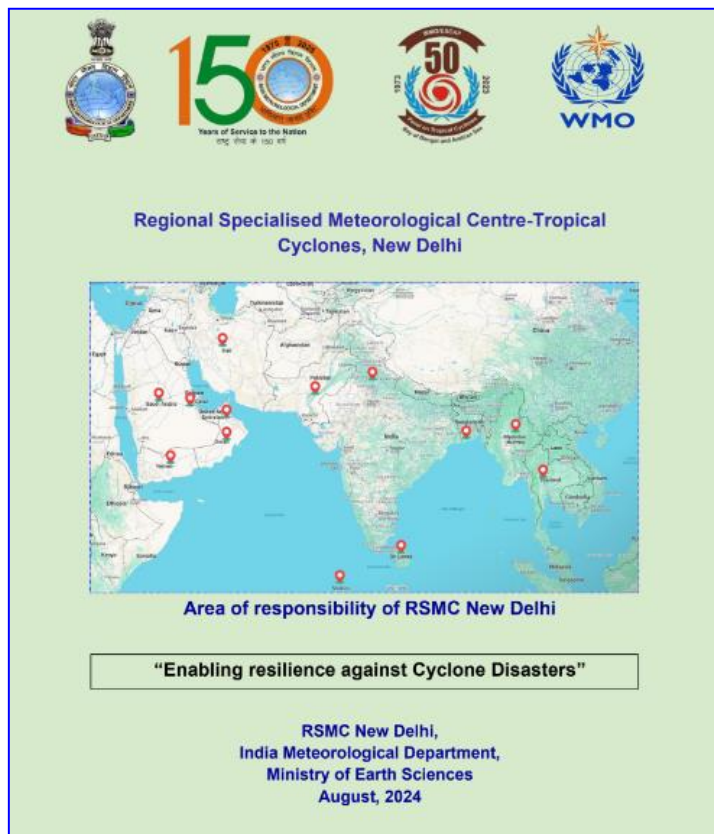


Fig.5: Souvenir Released during the Inaugural ceremony



Fig.6: Release of Souvenir by Secretary Ministry of Earth Sciences

(Left: Dr. AK Mitra, IMD, DR AK Das, IMD, DR RK Giri, IMD, Dr. Mahesh Kumar, MoES, Dr. M Ravichandran, Secretary MOES, Dr. M Mohapatra, DGM IMD, DR, D.S.Pai, IMD, DR DR Pattanaik, IMD, Mrs. Monica Sharma, IMD,



Fig. 7: Group photograph of participants and delegates during the Inaugural ceremony

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Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.