



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY NO. 17**

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 27.05.2024

FROM: RSMC –TROPICAL CYCLONES, NEW DELHI

TO:

**STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)
STORM WARNING CENTRE, COLOMBO (SRILANKA)
STORM WARNING CENTRE, DHAKA (BANGLADESH)
STORM WARNING CENTRE, KARACHI (PAKISTAN)
METEOROLOGICAL OFFICE, MALE (MALDIVES)
OMAN METEOROLOGICAL DEPARTMENT,
MUSCAT (THROUGH RTH JEDDAH)
YEMEN METEOROLOGICAL SERVICES,
REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)
NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)
PRESIDENCY OF METEOROLOGY AND ENVIRONMENT,
SAUDI ARABIA (THROUGH RTH JEDDAH)
IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

TROPICAL CYCLONE ADVISORY NO. 17 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 27.05.2024 BASED ON 1200 UTC OF 27.05.2024

SUB: CYCLONIC STORM “REMAL” PRONOUNCED AS “RE-MAL” OVER BANGLADESH

THE CYCLONIC STORM “REMAL” (PRONOUNCED AS “RE-MAL”) OVER BANGLADESH AND ADJOINING WEST BENGAL MOVED NORTHEASTWARDS, WITH A SPEED OF 14 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 1200 UTC OF TODAY, THE 27TH MAY, 2024 OVER BANGLADESH, NEAR LATITUDE 23.6°N AND LONGITUDE 89.7°E ABOUT 120 KM NORTH OF MONGLA (41958, BANGLADESH), 190 KM EAST-NORTHEAST OF KOLKATA (42807, WEST BENGAL) AND 70 KM WEST-SOUTHWEST OF DHAKA (41923, BANGLADESH)

THE SYSTEM IS LIKELY TO MOVE NEARLY NORTHEASTWARDS, AND GRADUALLY WEAKEN FURTHER INTO A DEEP DEPRESSION DURING NEXT 6 HOURS.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
27.05.24/1200	23.6/89.7	60-70 gusting to 80	CYCLONIC STORM
27.05.24/1800	24.0/90.4	50-60 gusting to 70	DEEP DEPRESSION
28.05.24/0000	24.4/91.1	35-45 gusting to 55	DEPRESSION
28.05.24/0600	24.8/91.8	25-35 gusting to 45	WELL MARKED LOW PRESSURE AREA

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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THE LATEST SATELLITE IMAGERY INDICATES THAT CONVECTION HAS GOT DISORGANIZED AND REDUCED IN TERMS OF SIZE & DEPTH. HOWEVER, INTENSE CONVECTION IS SEEN IN SOUTHERN SECTOR. ALSO, THERE IS NO COLD AIR ADVECTION INTO THE CORE OF THE SYSTEM. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER NORTH BAY OF BENGAL, EASTERN PARTS OF GANGETIC WEST BENGAL, BANGLADESH, (CLOUD TOP TEMPERATURE IS -93 DEG CEL) AND EAST ODISHA, TRIPURA, GANGETIC WEST BENGAL, EAST JHARKHAND, EAST BIHAR, SUB HIMALAYAN WEST BENGAL, SIKKIM.

AS PER LATEST OBSERVATIONS, ESTIMATED CENTRAL PRESSURE IS 982 HPA AT 1200 UTC OF 27TH MAY. ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS. A STATION IN BANGLADESH (41936) REPORTED LOWEST PRESSURE OF 982.6 HPA. PRESSURE OF OUTERMOST CLOSED ISOBAR IS 992 HPA.

WIND WARNING:

WIND WARNING:

(A) BAY OF BENGAL

❖ GALE WIND SPEED REACHING 60-70 KMPH GUSTING TO 80 KMPH IS PREVAILING OVER NORTH BAY OF BENGAL. IT IS LIKELY TO DECREASE BECOMING SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH BY 1800 UTC OF 27TH MAY.

(B) ALONG & OFF BANGLADESH AND WEST BENGAL COASTS

❖ GALE WIND SPEED REACHING 60-70 KMPH GUSTING TO 80 KMPH WILL CONTINUE TO PREVAIL ALONG & OFF BANGLADESH AND ADJOINING WEST BENGAL COASTS DURING NEXT 3 HOURS. IT IS LIKELY TO DECREASE BECOMING SQUALLY WIND REACHING 45-55 KMPH GUSTING TO 65 KMPH BY 1800 UTC OF 27TH MAY AND DECREASE GRADUALLY THEREAFTER.

❖ SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH WILL CONTINUE TO PREVAIL OVER KOLKATA & NADIA DURING NEXT 3 HOURS. THE WIND SPEED WOULD DECREASE OVER THESE REGIONS GRADUALLY THEREAFTER.

(C) NORTHEASTERN STATES

❖ SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH IS LIKELY OVER SOUTH ASSAM AND MEGHALAYA, TRIPURA AND 40-50 KMPH GUSTING TO 60 KMPH IS LIKELY OVER & MIZORAM, MANIPUR AND REMAINING PARTS OF ASSAM ON 27TH MAY. IT WOULD REDUCE TO 40-50 GUSTING TO 60 KMPH OVER ASSAM & MEGHALAYA TILL 0600 UTC OF 28TH MAY.

SEA CONDITION:

(A) NORTH BAY OF BENGAL

❖ HIGH SEA CONDITION IS LIKELY OVER NORTH BAY OF BENGAL DURING NEXT 3 HOURS AND GRADUALLY IMPROVE BECOMING VERY ROUGH TO ROUGH THEREAFTER TILL 2100 UTC OF 27TH MAY. IT WOULD IMPROVE THEREAFTER.

(B) ALONG & OFF BANGLADESH AND WEST BENGAL COASTS

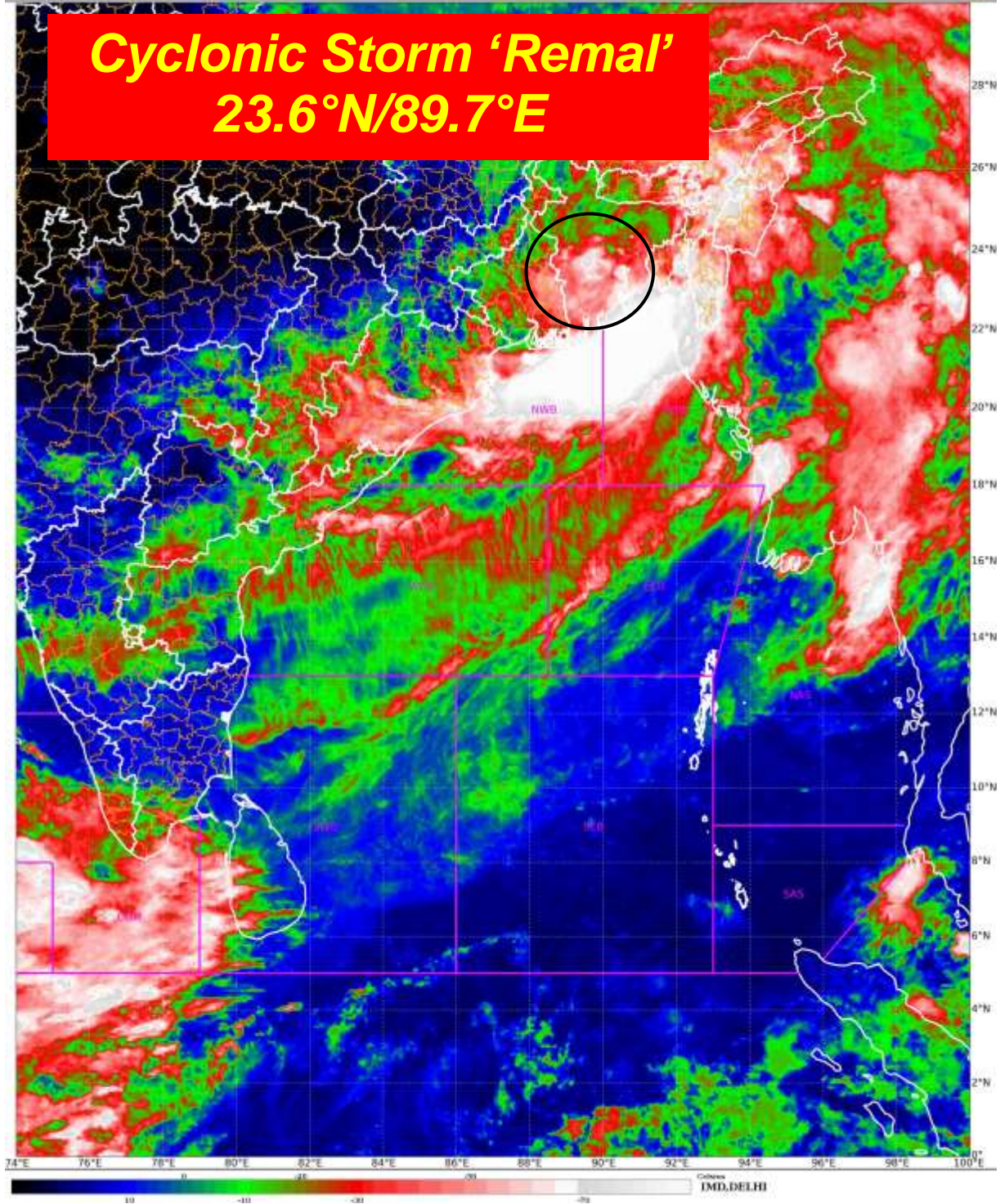
❖ HIGH TO VERY ROUGH SEA CONDITION IS LIKELY ALONG & OFF BANGLADESH AND WEST BENGAL TILL 1800 UTC 27TH MAY. IT WOULD IMPROVE THEREAFTER.

REMARKS:

CURRENT ENVIRONMENTAL CONDITIONS INDICATE THAT SYSTEM IS STILL IN A FAVORABLE ENVIRONMENT, LEADING TO SLOW WEAKENING OF THE SYSTEM. LOW LEVEL VORTICITY IS ABOUT $250 \times 10^{-5} \text{S}^{-1}$ OVER NORTH BAY OF BENGAL & ADJOINING COASTAL BANGLADESH TO THE SOUTH OF SYSTEM CENTRE, WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS ABOUT $60 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTH OF THE SYSTEM CENTER. UPPER-LEVEL DIVERGENCE IS ABOUT $30 \times 10^{-5} \text{S}^{-1}$ NEAR SYSTEM CENTRE. VERTICAL WIND SHEAR (VWS) IS LOW (05-10 KT) ALONG THE FORECAST TRACK. THE SYSTEM IS LYING NOW MOVING AWAY FROM THE RIDGE AT AROUND 21.5N. THE SYSTEM HAS MOVED NORTHEASTWARDS. AS IT MOVES FURTHER NORTHEASTWARDS, THE MOIST AIR ADVECTION INTO THE CORE WILL DECREASE AND THE SYSTEM WOULD WEAKEN GRADUALLY BY 1800 UTC OF TODAY.

IN VIEW OF ALL THE ABOVE, THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND WEAKEN INTO A DEEP DEPRESSION BY 1800 UTC OF TODAY, THE 27TH MAY 2024.

M. SHARMA
SCIENTIST D
RSMC NEW DELHI



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PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH CYCLONIC STORM 'REMAL' OVER BANGLADESH BASED ON 1200 UTC (1730 IST) OF 27TH MAY 2024.



DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

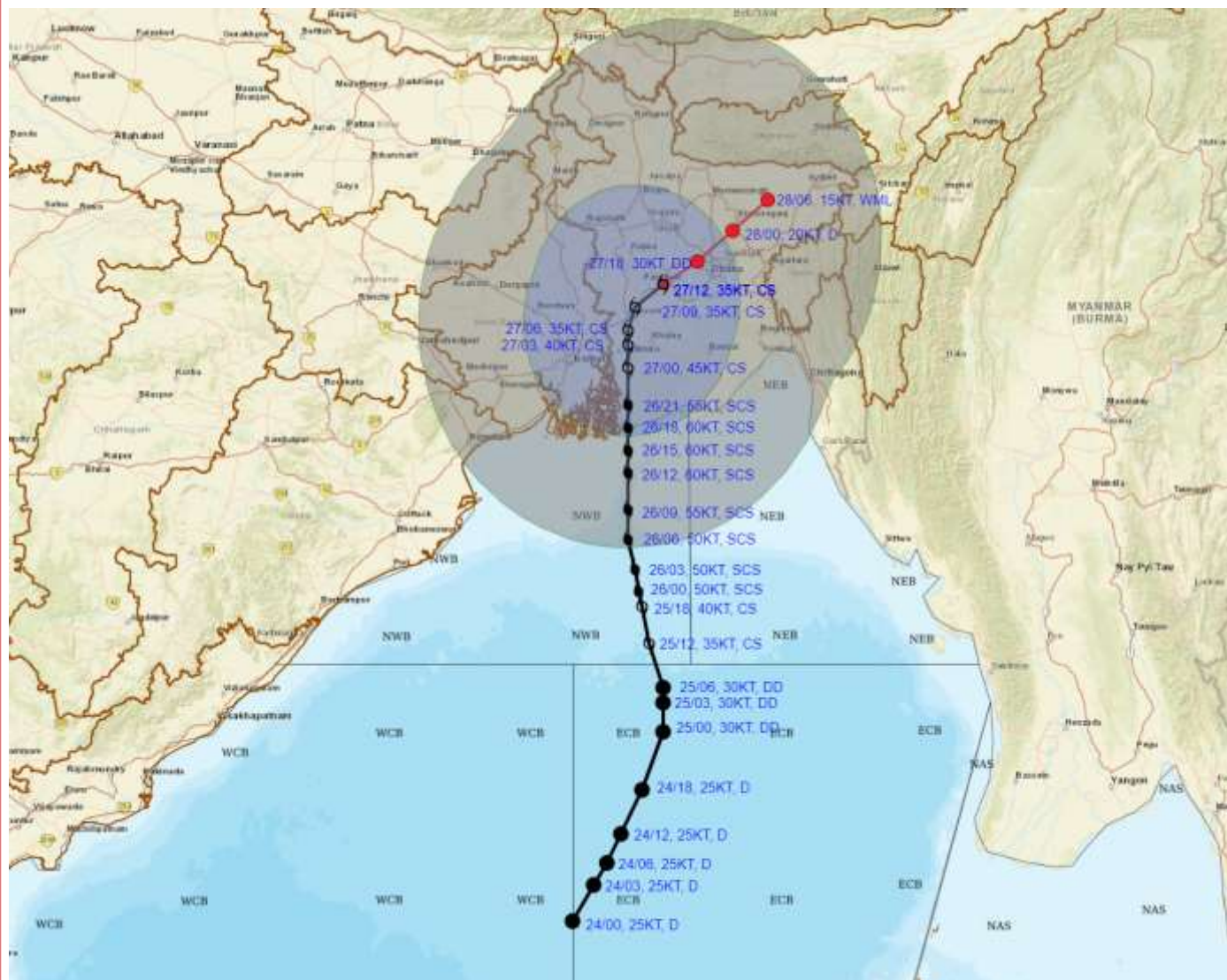
- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS		
Date and Time (UTC)	Kolkata	DHAKA	Mongla
27.05.24/1200	190, ENE	70, WSW	120, N
27.05.24/1800	370, ENE	30, N	190, NNE
28.05.24/0000	450, ENE	110, NE	260, NE
28.05.24/0600	530, ENE	190, NE	340, NE

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FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH CYCLONIC STORM 'REMAL' OVER BANGLADESH BASED ON 1200 UTC (1730 IST) OF 27TH MAY 2024.



DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

WML: WELL MARKED LOW PRESSURE AREA

D: DEPRESSION (17-27 KT)

DD: DEEP DEPRESSION (28-33 KT)

CS: CYCLONIC STORM (34.47 KT)

SCS: SEVERE CYCLONIC STORM (48-63KT)

VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)

ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

● LESS THAN 34 KT

○ 34-47 KT

● \geq 48 KT

— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY

AREA OF MAXIMUM SUSTAINED WIND SPEED:

■ 28-33 KT (52-61 KMPH)

■ 34-49 KT (62-91 KMPH)

■ 50-63 KT (92-117 KMPH)

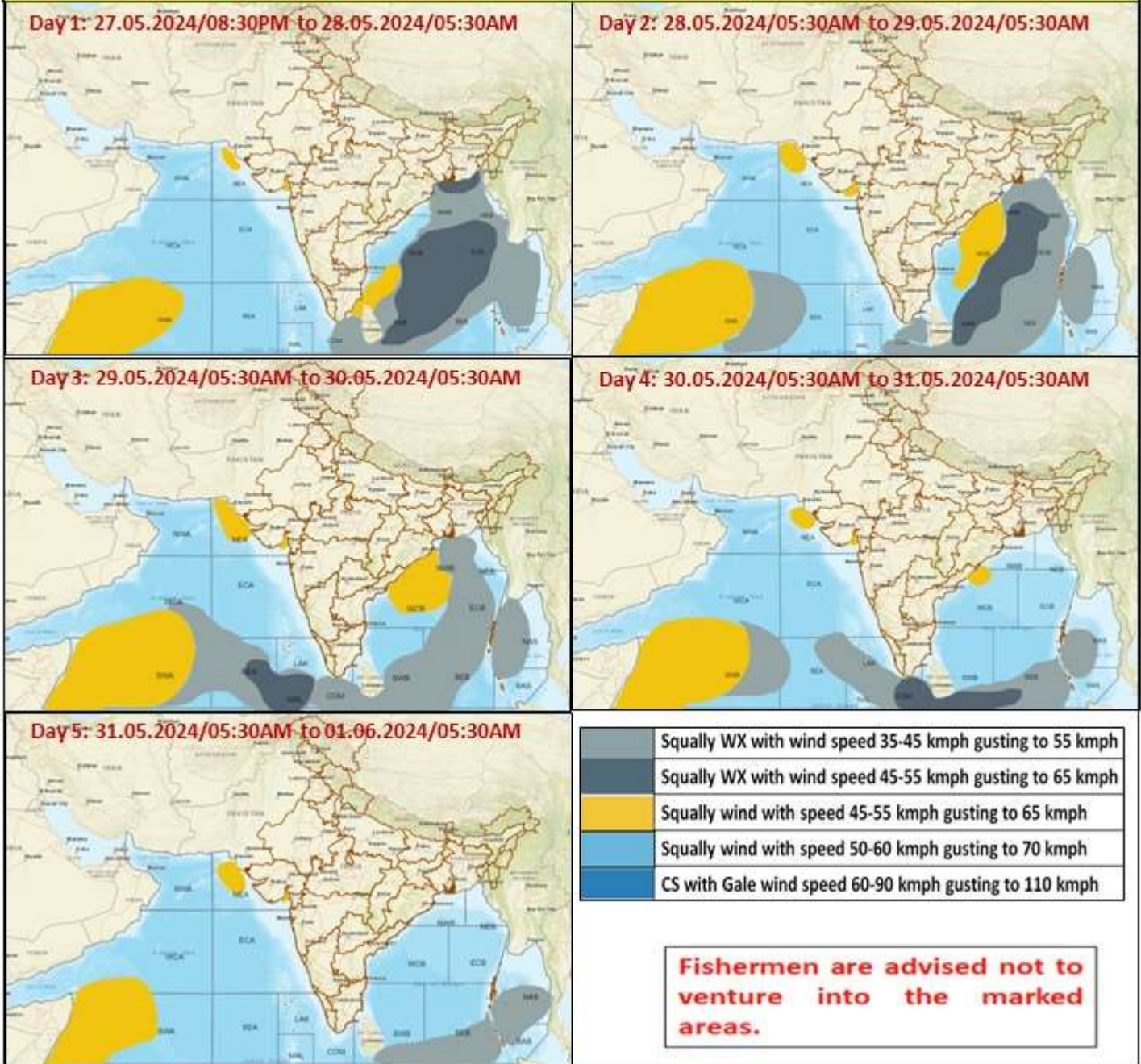
■ \geq 64 KT (\geq 118 KMPH)

IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
\geq 64 (\geq 118)	Phenomenal	Total suspension of fishing operations

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Fishermen Warning Graphics



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FLASH FLOOD GUIDANCE FOR BANGLADESH

Persistent Flood Threat (PFFT) **Till 1200 UTC of 27.05.2024:**

Low to Moderate flash flood threat likely over Bangladesh for next 06 hours.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 6 hours.



24 hours Flash Flood Risk Outlook till 0600 UTC of 28.05.2024:

Moderate flash flood risk likely over Bangladesh for next 24 hours.

Surface runoff/ Inundation may occur on low lying areas due to persistent rainfall under the influence of impending Cyclonic Storm "Remal" in next 24 hours.



Flash Flood Threat	Flash Flood Risk
 High Threat (Take Action)	 High Risk (Take Action)
 Moderate threat (Be Prepared)	 Moderate Risk (Be Prepared)
 Low Threat (Be Updated)	 Low Risk (Be Updated)

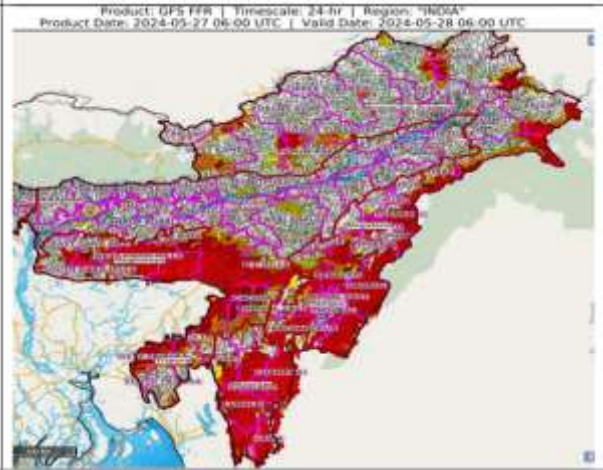
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Flash Flood Guidance for Northeastern States

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 28-05-2024 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of Arunachal Pradesh, Assam & Meghalaya and NMMT Met Sub-divisions during next 24 hours.

Surface runoff/ Inundation may occur on low lying areas due to persistent rainfall under the influence of impending Cyclonic Storm "Remal" in next 24 hours.



Flash Flood Threat	Flash Flood Risk
 High Threat (Take Action)	 High Risk (Take Action)
 Moderate threat (Be Prepared)	 Moderate Risk (Be Prepared)
 Low Threat (Be Updated)	 Low Risk (Be Updated)

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