REGIONALSPECIALISED METEOROLOGICALCENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY NO. 12

DEMS-RSMCSPECIAL TROPICAL CYCLONES NEW DELHI DATED 26.05.2024

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. 12 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2300 UTC OF 26.05.2024 BASED ON 2100 UTC OF 26.05.2024

SUB: SEVERE CYCLONIC STORM "REMAL" PRONOUNCED AS "RE-MAL" OVER COASTAL BANGLADESH AND ADJOINING COASTAL WEST BENGAL

THE SEVERE CYCLONIC STORM "REMAL" (PRONOUNCED AS "RE-MAL") OVER THE NORTH BAY OF BENGAL MOVED NEARLY NORTHWARDS, WITH A SPEED OF 11 KMPH DURING PAST 06 HOURS, CROSSED THE BANGLADESH AND ADJOINING WEST BENGAL COASTS BETWEEN SAGAR ISLANDS AND KHEPUPARA CLOSE TO SOUTHWEST OF MONGLA NEAR LATITUDE 21.75°N AND LONGITUDE 89.2°E BETWEEN 1700 UTC OF 26TH MAY TO 1900 UTC OF 26TH MAY 2024 AS A SEVERE CYCLONIC STORM WITH WIND SPEED OF 110 TO 120 KMPH GUSTING TO 135 KMPH. IT LAY CENTERED AT 2100 UTC OF TODAY, THE 26TH MAY, 2024 OVER COASTAL BANGLADESH AND ADJOINING COASTAL WEST BENGAL, NEAR LATITUDE 22.0°N AND LONGITUDE 89.2°E ABOUT 115 KM EAST-NORTHEAST OF SAGAR ISLANDS (41984,WEST BENGAL), 105 KM WEST OF KHEPUPARA (41984,BANGLADESH), 60 KM EAST-SOUTHEAST OF CANNING (42812,WEST BENGAL) AND 70 KM SOUTH-SOUTHWEST OF MONGLA (41958,BANGLADESH).

THE SYSTEM IS LIKELY TO MOVE NORTH-NORTHEASTWARDS AND GRADUALLY WEAKEN INTO A CYCLONIC STORM BY TODAY MORNING. THEREAFTER, IT WOULD MOVE NORTHEASTWARD AND GRADUALLY WEAKEN FURTHER

CURRENTLY MAXIMUM SUSTAINED WIND SPEED OF 95-105 KMPH GUSTING TO 115 KMPH SIMILAR WINDSPEED LIKELY TO CONTINUE FOR NEXT 3 HOURS AND DECREASE THEREAFTER. THE CYCLONEIS UNDER THE CONTINUOUS SURVEILLANCE OF KOLKATA

DOPPLER WEATHER RADAR.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. ^{0}N/ LONG. ^{0}E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
26.05.24/2100	22.0/89.2	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
27.05.24/0000	22.5/89.3	80-90 GUSTING TO 100	CYCLONIC STORM
27.05.24/0600	23.5/89.9	50-60 GUSTING TO 70	DEEP DEPRESSION
27.05.24/1200	24.3/90.6	35-45 GUSTING TO 55	DEPRESSION
27.05.24/1800	25.1/91.3	20-30 GUSTING TO 40	WELL MARKED LOW PRESSURE AREA

AS PER INSAT-3D IMAGERY, CLOUDS ARE ORGANISED IN CURVED BAND PATTERN. INTENSITY OF THE SYSTEM IS T3.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL BAY OF BENGAL, ODISHA, SOUTH JHARKHAND, SOUTH GANGETIC WEST BENGAL, MANIPUR, MIZORAM, TRIPURA, SOUTH GANGETIC WEST BENGAL, SOUTH MANIPUR, MIZORAM, TRIPURA, SOUTH ASSAM AND BANGLADESH (MINIMUM CLOUD TOP TEMPERATURE IS -93 DEG CESIUS). AS PER MULTISATELLITE WINDS, STRONGER WINDS ARE SEEN IN SOUTHEAST SECTOR. THE TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION FROM NORTH WEST SECTOR INTO THE CORE OF THE SYSTEM.

AS PER LATEST OBSERVATIONS, ESTIMATED CENTRAL PRESSURE IS 979 HPA AT 2100 UTC. ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 60 KNOTS GUSTING TO 70 KNOTS. SEA CONDITION IS HIGH TO VERY HIGH OVER NORTH BAY OF BENGAL AND VERY ROUGH OVER CENTRAL BAY OF BENGAL.

THE CYCLONEIS UNDER THE CONTINUOUS SURVEILLANCE OF KOLKATA DOPPLER WEATHER RADAR. RADAR ECHO SUGGESTS THAT THE A PART OF WALL CLOUD ZONE ALREADY ENTERED INTO OVER LAND BUT STILL CENTRE OF THE EYE IS LOCATED OUTER SEA NEAR COASTLINE.

HEAVY RAINFALL WARNING:

(A) WEST BENGAL: LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH HEAVY TO VERY HEAVY RAINFALL AT A FEW PLACES IS LIKELY OVER COASTAL DISTRICTS OF WEST BENGAL AND EASTERN DISTRICTS OF GANGETIC WEST BENGAL ADJACENT TO BANGLADESH ON 27TH MAY. THE PEAK RAINFALL ACTIVITY IS LIKELY TILL 0600 UTC OF 27TH MAY.
LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH HEAVY TO VERY HEAVY RAINFALL AT ISOLATED PLACES LIKELY OVER EASTERN DISTRICTS OF SUB-HIMALAYAN WEST BENGAL ON 27TH AND 28TH MAY.

(B) ODISHA: LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH ISOLATED HEAVY RAINFALL LIKELY OVER NORTH COASTAL ODISHA TILL 0000 UTC OF 27TH MAY.

(C) NORTHEASTERN STATES: LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH HEAVY TO VERY HEAVY RAINFALL AT ISOLATED PLACES IS LIKELY OVER ASSAM, MEGHALAYA, ARUNACHAL PRADESH, NAGALAND, MIZORAM, MANIPUR & TRIPURA ON 27TH & 28TH MAY. ISOLATED EXTREMELY HEAVY RAINFALL (≥ 20 CM) IS ALSO LIKELY OVER ASSAM, MEGHALAYA ON 27TH & 28TH MAY, ARUNACHAL PRADESH ON 28TH MAY AND MIZORAM & TRIPURA ON 27TH MAY.

WIND WARNING:

(A) BAY OF BENGAL

 → GALE WIND SPEED REACHING 95-105 KMPH GUSTING TO 115 KMPH WILL PREVAIL OVER NORTH BAY OF BENGAL DURING NEXT 3 HOURS. IT IS LIKELY DECREASE BECOMING 80-90 KMPH GUSTING TO 100 KMPH BY MORNING ON 27TH MAY AND SQUALLY WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH BY EVENING OF 27TH MAY.

 SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH WILL CONTINUE TO PREVAIL OVER ADJOINING CENTRAL BAY OF BENGAL TILL MORNING OF 27TH .

(B) ALONG & OFF BANGLADESH AND WEST BENGAL COASTS

 GALE WIND SPEED REACHING 95-105 KMPH GUSTING TO 115 KMPH WILL CONTINUE TO PREVAIL ALONG & OFF BANGLADESH AND ADJOINING WEST BENGAL COASTS DURING NEXT 3 HOURS. IT IS LIKELY DECREASE THEREAFTER GRADUALLY TO BECOME 60-70 KMPH GUSTING TO 80 KMPH BY 0600 UTC AND SQUALLY WIND 50-60 KMPH GUSTING TO 70 KMPH BY 0900 UTC OF 27TH MAY.

 GALE WIND SPEED REACHING 70-80 KMPH GUSTING TO 90 KMPH WILL CONTINUE TO PREVAIL OVER HOWRAH, HOOGLY & KOLKATA, 60-70 KMPH GUSTING TO 80 KMPH OVER EAST MEDINIPUR DURING NEXT 3 HOURS AND DECREASE GRADUALLY THEREAFTER.

(C) ALONG & OFF NORTH ODISHA COASTS

SQUALLY WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH IS LIKELY TO PREVAIL DURING NEXT 3 HOURS AND DECREASE GRADUALLY THEREAFTER.

(D) NORTHEASTERN STATES

SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH IS LIKELY OVER MIZORAM TRIPURA & SOUTH MANIPUR ON 27TH MAY AND 40-50 KMPH GUSTING TO 60 KMPH IS LIKELY OVER SOUTH ASSAM AND MEGHALAYA ON 27TH MAY.

SEA CONDITION WARNING:

(A) NORTH BAY OF BENGAL

HIGH TO VERY HIGH SEA CONDITION IS LIKELY OVER NORTH BAY OF BENGAL TILL 0000 UTC OF 27TH MAY AND GRADUALLY IMPROVE BECOMING VERY ROUGH TO ROUGH BY 1200 OF 27TH MAY.

(B) ALONG & OFF BANGLADESH AND WEST BENGAL COASTS

HIGH TO VERY HIGH SEA CONDITION IS PREVAILING ALONG & OFF BANGLADESH AND WEST BENGAL COASTS TILL 0000 UTC OF 27TH MAY AND VERY ROUGH TO ROUGH BY 1200 OF 27TH MAY.

(C) ALONG &OFF NORTH ODISHA COAST

VERY ROUGH SEA CONDITION IS LIKELY ALONG & OFF NORTH ODISHA COAST TILL 0000 UTC OF 27TH MAY AND IMPROVE THEREAFTER.

(D) CENTRAL BAY OF BENGAL

VERY ROUGH SEA CONDITION IS LIKELY TO PREVAIL OVER CENTRAL BAY OF BENGAL TILL 0000 UTC OF 27TH MAY AND IMPROVE THEREAFTER.

FISHERMEN WARNING (GRAPHICS ATTACHED):

FISHERMEN ARE ADVISED NOT TO VENTURE INTO CENTRAL BAY OF BENGAL ON 26TH MAY AND NORTH BAY OF BENGAL TILL 27TH MAY.

REMARKS:

ALTHOUGH THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN 100

KJ/CM^2 OVER MAJOR PARTS OF BAY OF BENGAL, LOWER VALUES ARE SEEN OVER NORTH BOB ALONG COAST AND OVER THE SAME REGION SST IS AROUND 30-32°C OVER ENTIRE BOB, BEING MORE THAN 32°C OVER SOME PARTS OF NORTH BOB. BUT DUE TO FREASH RAIN FALL SPELL HIGHER SST ZONE BECOME COOLER WITH TIME WHICH PROHIBITATED HEAT SUPPLY TO THE SYTEM FOR FURTHER INTENSIFICATION.

LOW LEVEL VORTICITY IS ABOUT 300x10^{-5}S^{-1} OVER NORTH BAY OF BENGAL WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS ABOUT 30x10^{-5} S^{-1} TO THE SOUTH OF THE SYSTEM CENTER. STRONG EQUATORWARD OUTFLOW IS SEEN. UPPER LEVEL DIVERGENCE IS ABOUT 10x10^{-5}S^{-1} TO THE SOUTHWEST OF THE SYSTEM CENTRE. VERTICAL WIND SHEAR (VWS) IS ANTICYCLONIC AND LOW (05-10 KT) ALONG THE FORECAST TRACK.

THE SYSTEM CROSSED THE BANGLADESH AND ADJOINING WEST BENGAL COASTS BETWEEN SAGAR ISLANDS AND KHEPUPARA CLOSE TO SOUTHWEST OF MONGLA BETWEEN 1700 UTC OF 26TH MAY TO 1900 UTC OF 26TH MAY 2024 DUE TO LAND INTERACTION AND FRICTION INTENSITY OF THE SYSTEM IS LIKELY TO DECREASE GRADUALLY.

ALL ENVIRONMENTAL FEATURES AND NWP GUIDANCE INDICATES THE SYSTEM IS LIKELY TO MOVE NORTH-NORTHEASTWARDS AND MAINTAIN THE INTENSITY OF CYCLONIC STORM TILL MORNING OF 27TH MAY. UNDER ITS INFLUENCE, HEAVY TO VERY HEAVY RAINFALL LIKELY OVER INTERIOR DISTRICTS OF EASTERN PARTS OF GANGETIC WEST BENGAL ADJACENT TO BANGLADESH TILL NOON OF 27TH MAY. SQUALLY WIND IS LIKELY OVER THESE DISTRICTS DURING THE SAME PERIOD.

TRISANU BANIK
SCIENTIST D
RSMC NEW DELHI

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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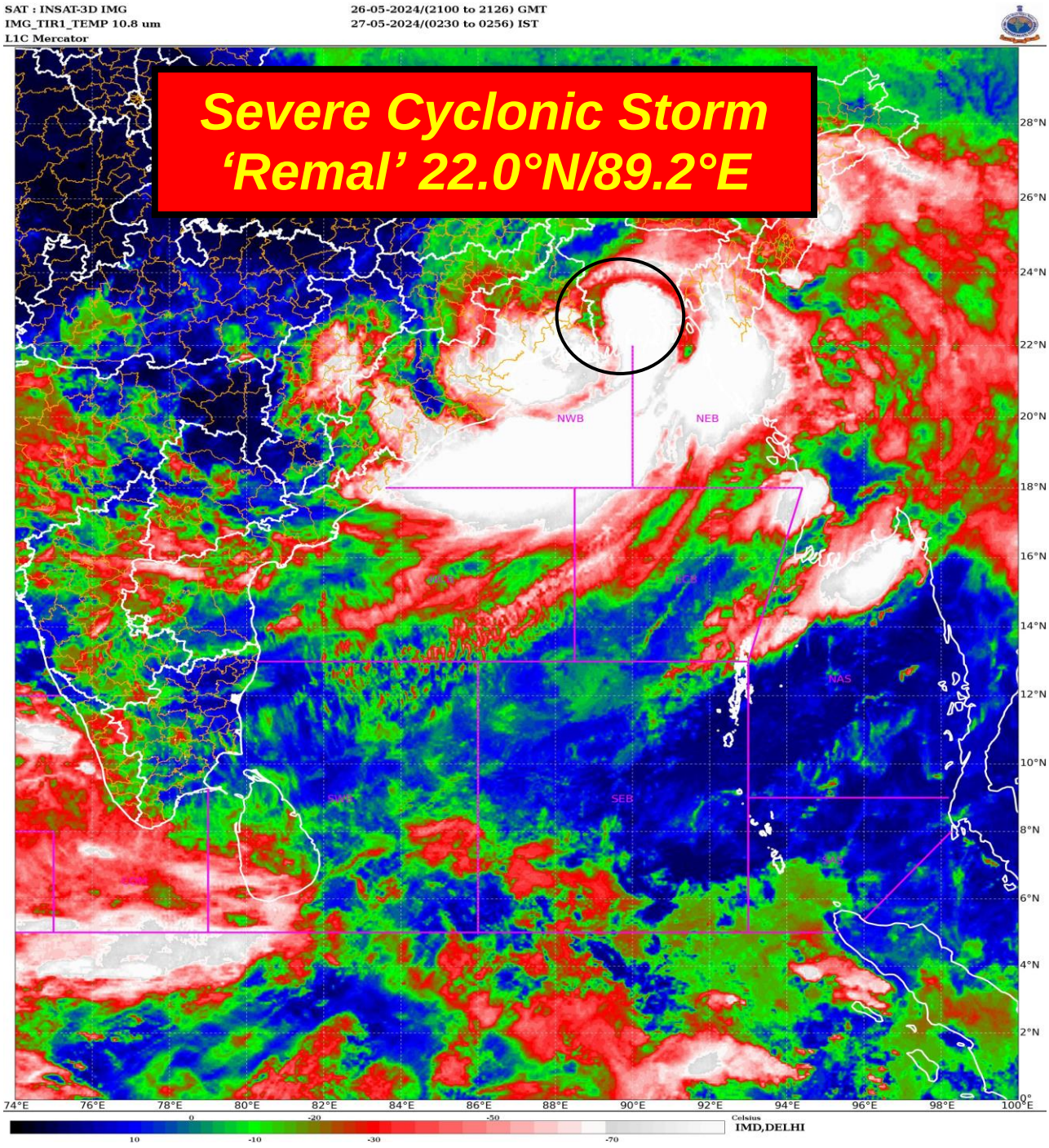

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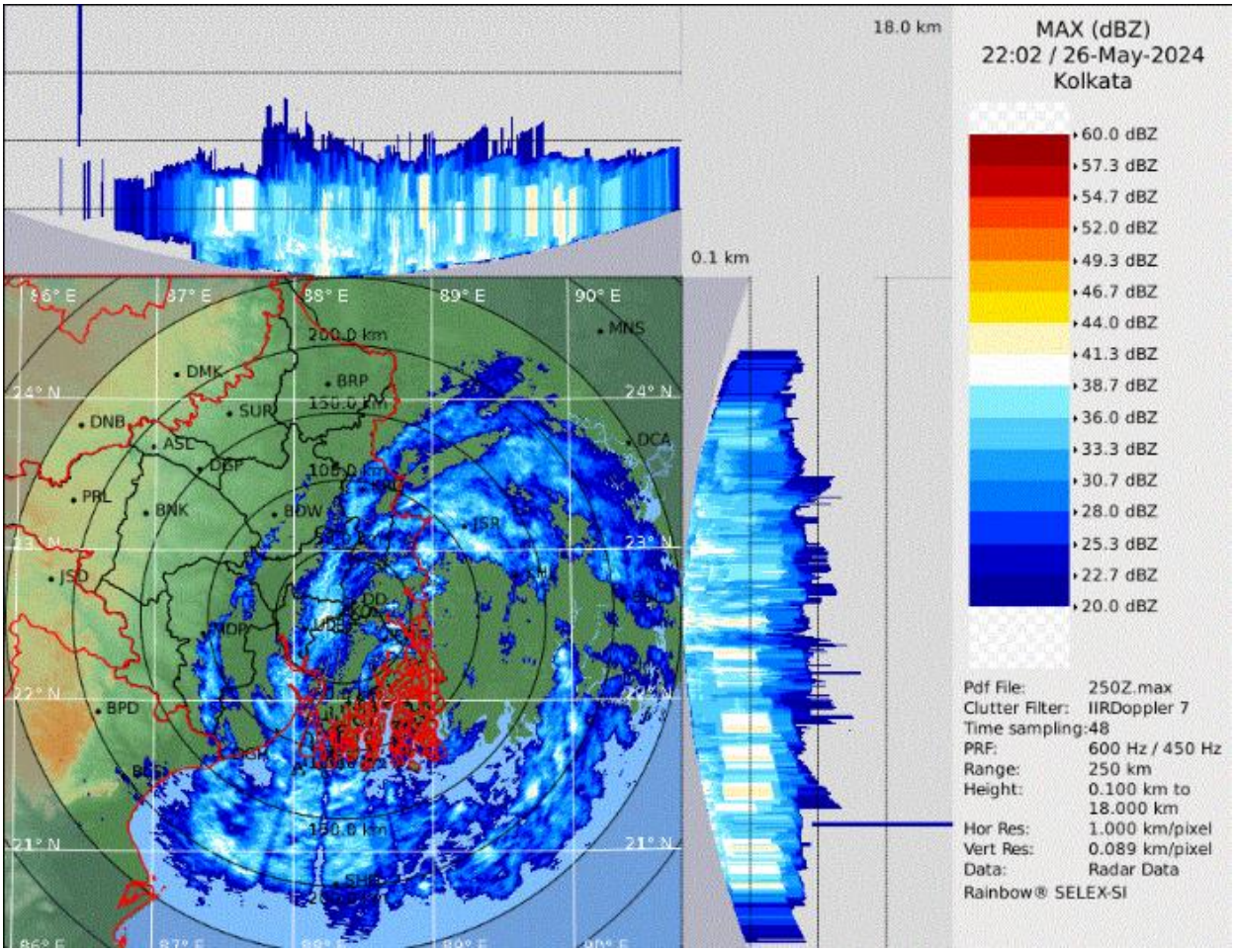

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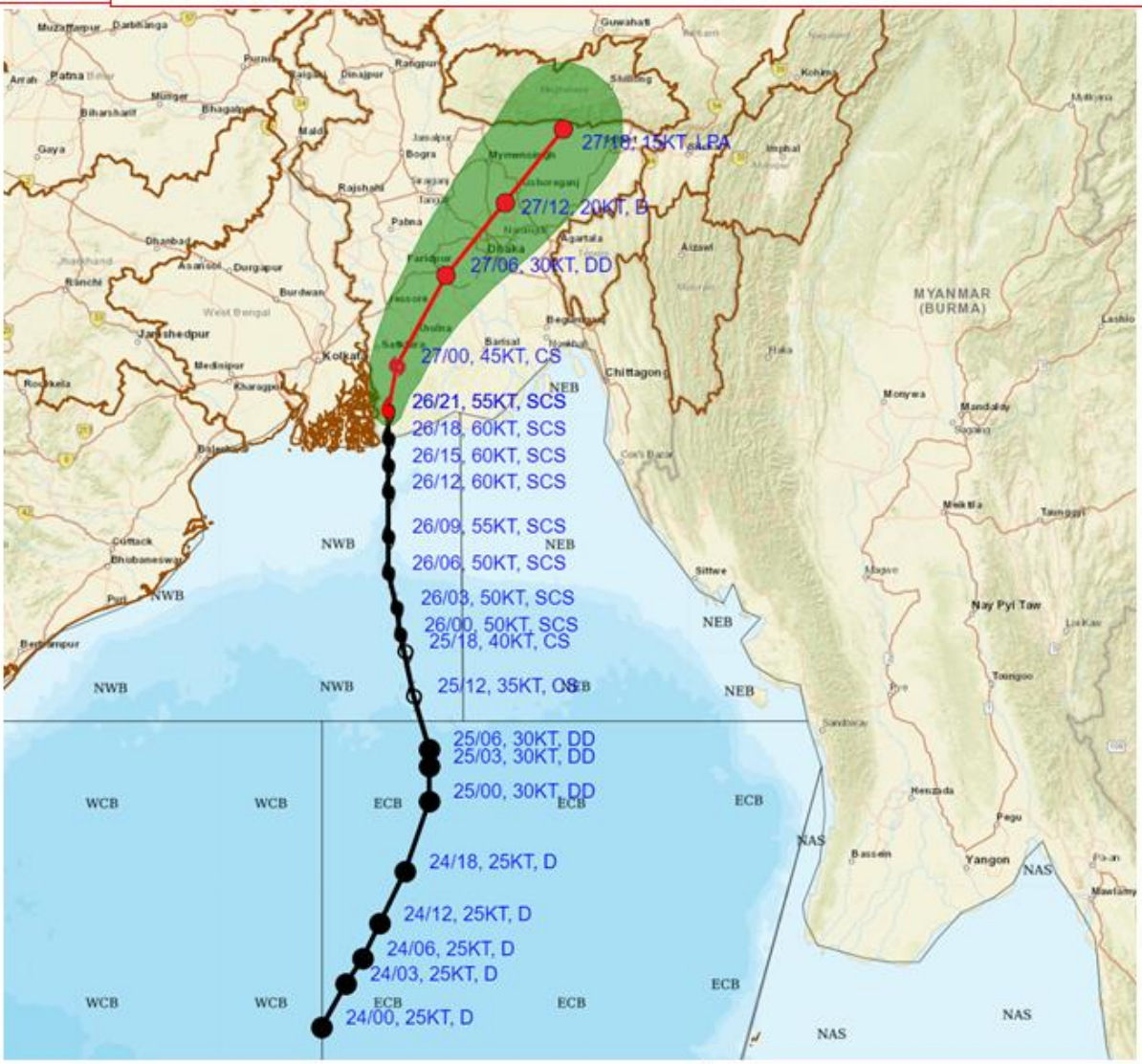
FORECAST TRACK ALONGWITH CONE OF UNCERTAINITY IN ASSOCIATION WITH SEVERE CYCLONIC STORM 'REMAL' OVER NORTH BAY OF BENGAL BASED ON 2100 UTC (0230 IST) OF 26TH MAY 2024.



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 (≥ 120 KT)

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

Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS			
Date and Time (UTC)	Canning	Sagar Island	Khepupara	Mongla
26.05.24/2100	60, ESE	120, ENE	100, W	75, SSW
27.05.24/0000	70, ENE	110, WNW	110, WNW	25, WSW

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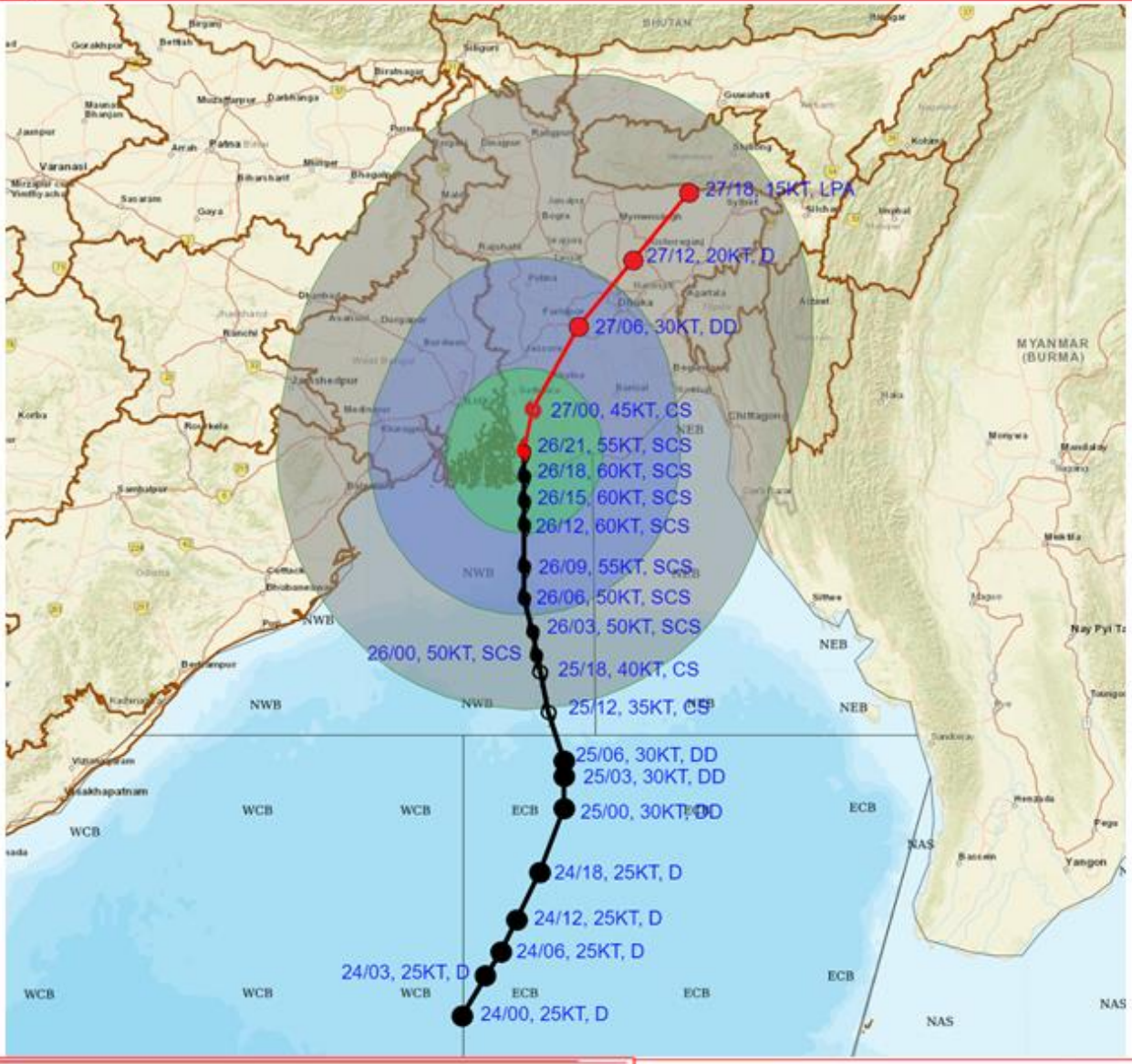
FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH SEVERE CYCLONIC STORM 'REMAL' OVER NORTH BAY OF BENGAL BASED ON 2100 UTC (0230 IST) OF 26TH MAY 2024.



DATE/TIME IN UTC
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D: DEPRESSION (17-27 KT)
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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 (≥ 120 KT)

LESS THAN 34 KT
34-47 KT
≥ 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)
≥ 64 KT (≥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
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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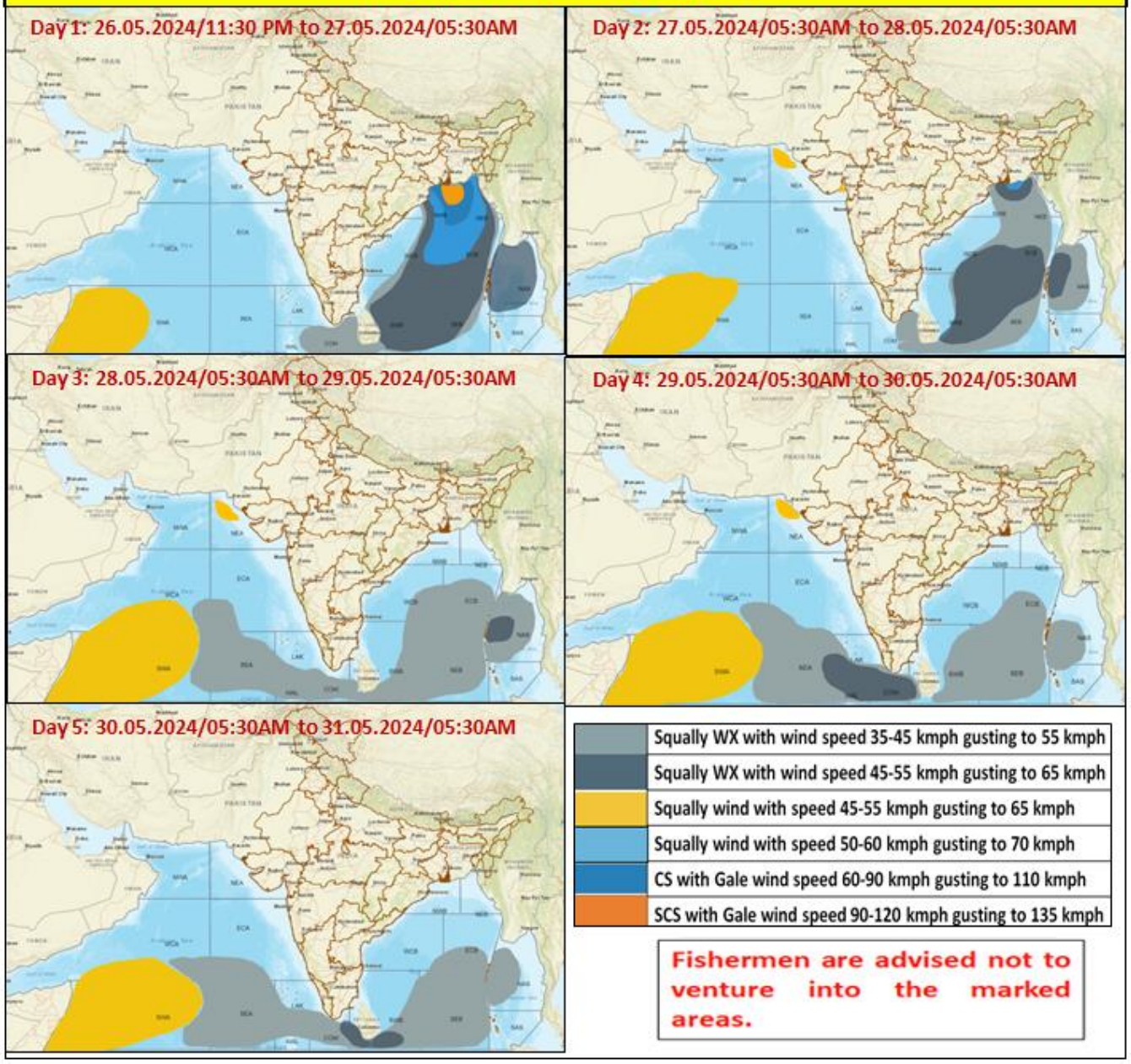
Fishermen Warning Graphics



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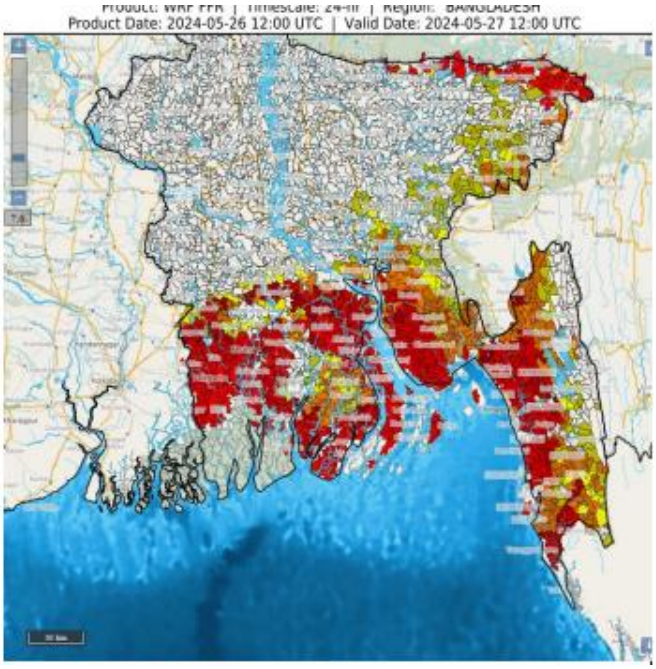
24 hours Flash Flood Risk Outlook till 1200 UTC of 27.05.2024 FOR BANGLADESH:

24 hours Flash Flood Risk Outlook till 1200 UTC of 27.05.2024:

Moderate to High flash flood risk likely over few watersheds & neighbourhoods of **coastal region and adjoining southern parts of Bangladesh** (as indicated in adjacent map) during next 24 hours.

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

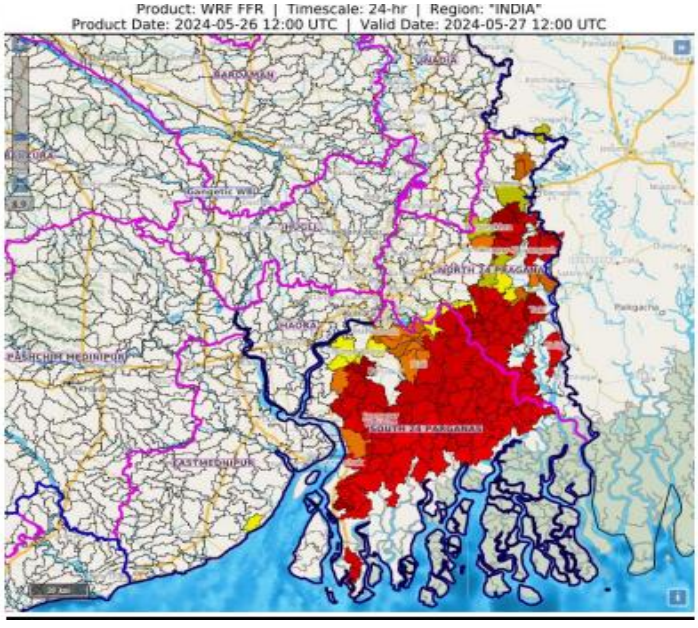


24 hours Flash Flood Risk Outlook till 1730 UTC of 27.05.2024 FOR WEST BENGAL

24 hours Outlook for the Flash Flood Risk (FFR) till 1730 IST of 27-05-2024 :

Moderate to High flash flood risk likely over few watersheds & neighbourhoods of **extreme southern parts of Gangetic West Bengal** Met Sub-divisions during next 24 hours.

Surface runoff may occur on low lying areas due to persistent rainfall under the influence of impending Severe 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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