



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
SPECIAL TROPICAL WEATHER OUTLOOK**

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 22.10.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0700 UTC OF 22.10.2022 BASED ON 0300 UTC OF 22.10.2022.

SUBJECT: DEPRESSION OVER SOUTHEAST & ADJOINING EASTCENTRAL BAY OF BENGAL CLOSE TO WEST OF ANDAMAN ISLANDS (PRE-CYCLONE WATCH: WEST BENGAL COAST)

YESTERDAY'S LOW PRESSURE AREA OVER NORTH ANDAMAN SEA AND ADJOINING AREAS OF SOUTH ANDAMAN SEA & SOUTHEAST BAY OF BENGAL MOVED WEST-NORTHWESTWARD AND CONCENTRATED INTO A DEPRESSION IN THE MORNING AT 0300 UTC OF TODAY, THE 22ND OCTOBER, 2022 OVER SOUTHEAST ADJOINING EASTCENTRAL BAY OF BENGAL, CLOSE TO WEST OF ANDAMAN ISLANDS NEAR LATITUDE 12.7°N AND LONGITUDE 92.4°E, ABOUT 110 KM NORTH-NORTHWEST OF PORT BLAIR (43333), 1460 KM SOUTH-SOUTHEAST OF SAGAR ISLAND (42903) AND 1130 KM SOUTH-SOUTHEAST OF BARISAL (41950, BANGLADESH).

IT IS VERY LIKELY TO MOVE NORTHWESTWARD AND INTENSIFY FURTHER INTO A DEEP DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL BY 23RD OCTOBER MORNING. SUBSEQUENTLY, IT IS VERY LIKELY TO RECURVE GRADUALLY NORTH-NORTHEASTWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER CENTRAL BAY OF BENGAL BY 24TH OCTOBER MORNING. THEREAFTER, IT WOULD CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND CROSS BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP AROUND 25TH OCTOBER EARLY MORNING.

FORECAST TRACK & INTENSITY IS GIVEN BELOW:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
22.10.22/0300	12.7/92.4	40-50 gusting to 60	DEPRESSION
22.10.22/1200	14.2/90.2	45-55 gusting to 65	DEPRESSION
23.10.22/0000	15.2/88.7	55-65 gusting to 75	DEEP DEPRESSION
23.10.22/1200	16.3/88.2	60-70 gusting to 80	CYCLONIC STORM
24.10.22/0000	18.2/88.4	70-80 gusting to 90	CYCLONIC STORM
24.10.22/1200	20.3/89.3	80-90 gusting to 100	CYCLONIC STORM
25.10.22/0000	21.9/90.2	90-100 gusting to 110	CYCLONIC STORM
25.10.22/1200	24.0/91.6	50-60 gusting to 70	DEEP DEPRESSION

IN ASSOCIATION WITH THE SYSTEM, ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER ANDAMAN SEA AND ADJOINING BAY OF BENGAL. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS. CLOUDS ARE GRADUALLY ORGANISING AROUND THE CENTRE. AS PER MULTISATELLITE BASED WINDS, STRONGER WINDS ARE SEEN IN THE NORTHEAST SECTOR.

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IS ABOUT 20 KNOTS GUSTING TO 30 KNOTS AROUND SYSTEM AREA. ESTIMATED CENTRAL PRESSURE IS 1007 HPA. COCO ISLAND (43310) REPORTED LOWEST MEAN SEA LEVEL PRESSURE OF 1008.4 HPA AT 0300 UTC WITH MAXIMUM SUSTAINED WIND SPEED OF 040°/10 KTS. SEA CONDITION IS LIKELY TO BE ROUGH OVER SOUTHEAST BAY OF BENGAL & ADJOINING EASTCENTRAL AND NORTH ANDAMAN SEA.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 5 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE MJO IS NOT SUPPORTIVE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL OF BENGAL.

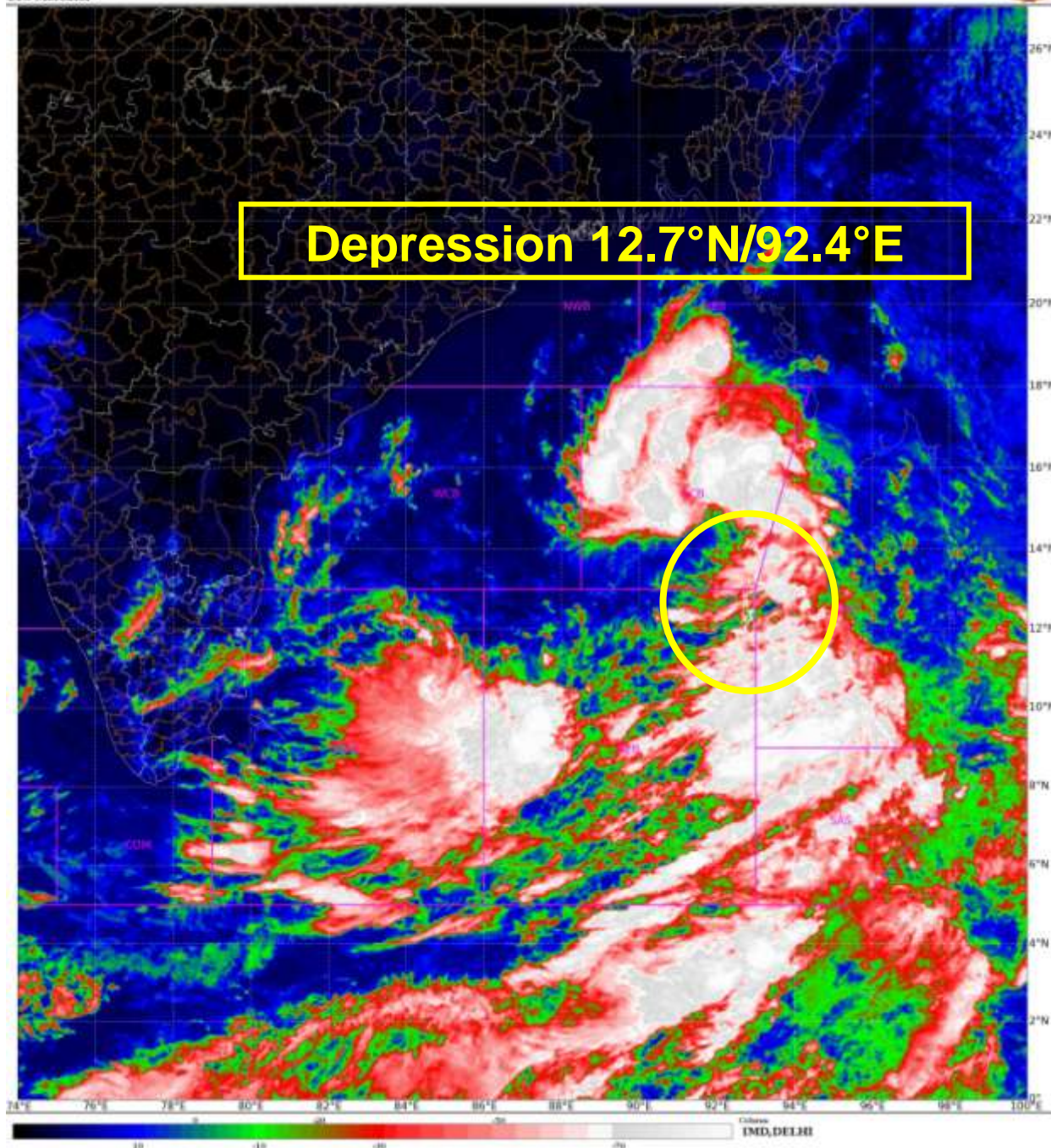
SEA SURFACE TEMPERATURE (SST) IS AROUND 29-31°C OVER ENTIRE BOB. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM² OVER ENTIRE ANDAMAN SEA, CENTRAL BOB AND SOUTH BOB AND 50-70 KJ/CM² OVER WESTERN PARTS OF BOB.

LOW LEVEL VORTICITY IS ABOUT 100 X10⁻⁶ S⁻¹ AROUND SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE HAS INCREASED AND IS AROUND 40 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS INCREASED AND IS AROUND 30 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. STRONG EQUATORWARD OUTFLOW IS ALSO SEEN IN UPPER LEVELS. WIND SHEAR IS MODERATE (10-15 KNOTS) OVER SOUTHEAST BAY OF BENGAL AND ANDAMAN SEA AND IS HIGH TO THE NORTH OF 15°N. CURRENTLY, THE LOW PRESSURE AREA OVER NORTH ANDAMAN SEA IS IN A FAVOURABLE ENVIRONMENT FOR FURTHER INTENSIFICATION AND INITIAL WEST-NORTHWESTWARD MOVEMENT. UPPER TROPOSPHERIC RIDGE ROUGHLY RUNS ALONG 18°N OVER BAY OF BENGAL. A TROUGH IN MID-LATITUDE WESTERLIES ROUGHLY RUNNING ALONG 79°E UPTO 18°N WOULD TEND TO RECURVE THE SYSTEM NORTH-NORTHEASTWARDS.

MOST OF THE MODELS ARE INDICATING LIKELY FORMATION OF CYCLONIC STORM ON 24TH OVER WESTCENTRAL & ADJOINING EASTCENTRAL BOB. THE MODELS ARE ALSO INDICATING GRADUAL NORTHEASTWARDS RECURVATURE OF THE SYSTEM FROM 23RD EVENING & INTENSIFICATION INTO A CYCLONIC STORM. MODELS ARE FURTHER INDICATING THE SYSTEM TO CROSS BANGLADESH COAST AROUND 25/0000 UTC BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP AROUND 25TH OCTOBER EARLY MORNING.

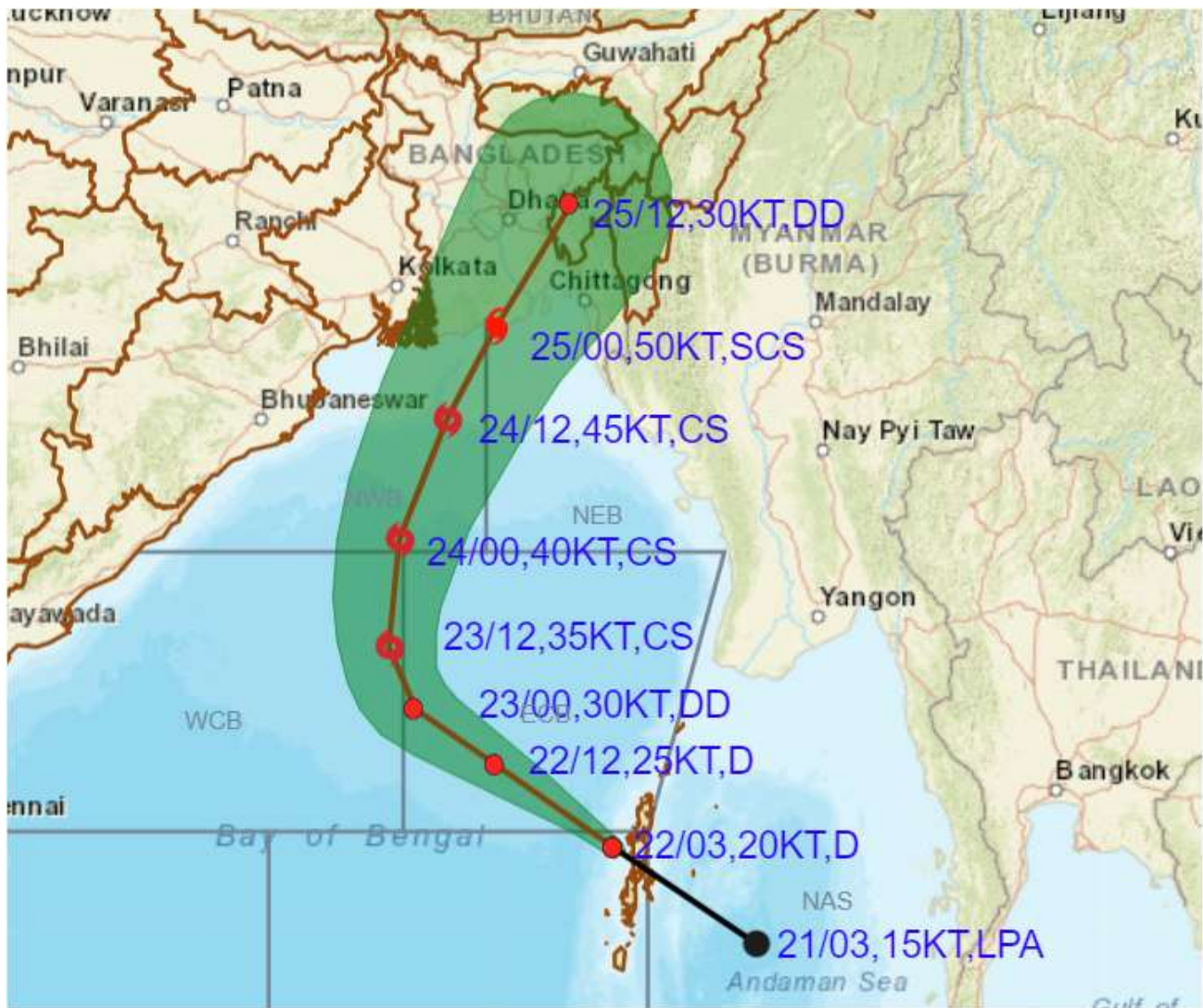
IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT THE IT IS VERY LIKELY TO MOVE NORTHWESTWARD AND INTENSIFY FURTHER INTO A DEEP DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL BY 23RD OCTOBER MORNING. SUBSEQUENTLY, IT IS VERY LIKELY TO RECURVE GRADUALLY NORTH-NORTHEASTWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER CENTRAL BAY OF BENGAL BY 24TH OCTOBER MORNING. THEREAFTER, IT WOULD CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND CROSS BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP AROUND 25TH OCTOBER EARLY MORNING (0000 UTC).

(M. SHARMA)
RSMC NEW DELHI





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER SOUTHEAST AND ADJOINING EASTCENTRAL BAY OF BENGAL NEAR ANDAMAN ISLANDS BASED ON 0300 UTC OF 22nd OCTOBER, 2022

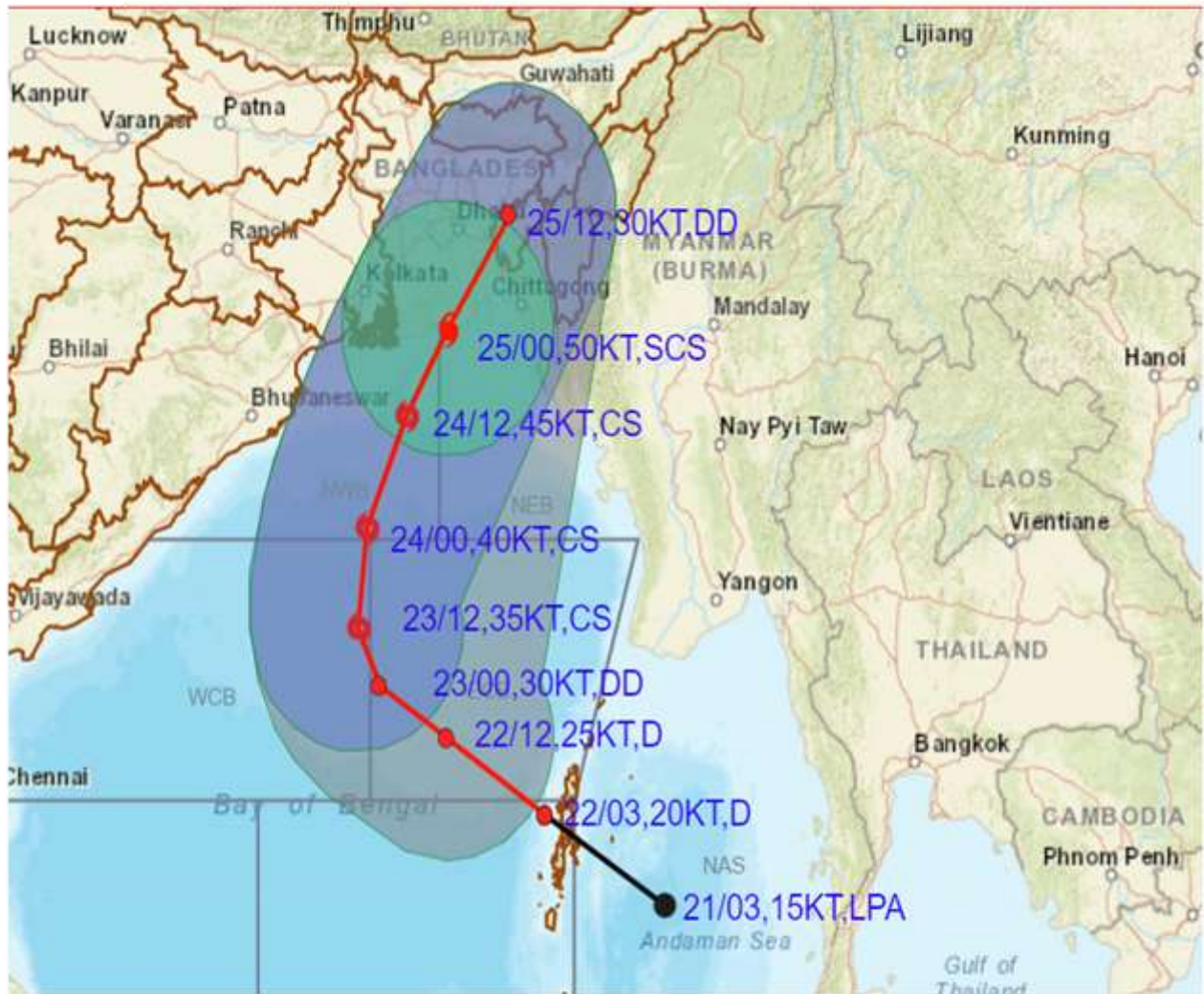


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34.47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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

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DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

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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