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(Ministry of Earth Sciences)**

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Sub: (A) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over Westcentral Arabian Sea and (B) Deep Depression over Westcentral Bay of Bengal

(A) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over Westcentral Arabian Sea

The Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over Westcentral Arabian Sea continued to move northwestwards with a speed of 15 kmph during past 6 hours and lay centered at 1130 hours IST of today, the 23rd October over Westcentral Arabian Sea, near latitude 15.0°N and longitude 52.9°E, about 280 km north-northwest of Socotra (Yemen), 250 km south-southwest of Salalah (Oman) and 140 km southeast of Al Ghaidah (Yemen).

It is very likely to continue to move northwestwards and cross Yemen coast close to Al-Ghaidah around early hours of 24th October as a **Very Severe Cyclonic Storm** with wind speed of 125-135 kmph gusting to 150 kmph.

Forecast track and intensity are given below:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
23.10.23/1130	15.0/52.9	145-155 gusting to 170	Very Severe Cyclonic Storm
23.10.23/1730	15.3/52.6	135-145 gusting to 160	Very Severe Cyclonic Storm
23.10.23/2330	15.6/52.3	125-135 gusting to 150	Very Severe Cyclonic Storm
24.10.23/0530	15.9/51.9	90-100 gusting to 110	Severe Cyclonic Storm
24.10.23/1130	16.2/51.5	45-55 gusting to 65	Depression
24.10.23/1730	16.4/51.1	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Wind warning (warning graphics enclosed):

• **Southwest Arabian Sea:**

Squally wind speed reaching **50-60 kmph gusting to 70 kmph** prevailing over the region is likely to decrease gradually from today evening.

• **Westcentral Arabian Sea:**

Gale wind speed reaching **145-155 kmph gusting to 170 kmph** is prevailing and is likely to decrease gradually becoming **135-145 kmph gusting to 160 kmph** by 23rd evening and **125-135 kmph gusting to 150 kmph** by early hours of 24th October. It would decrease rapidly after the landfall becoming **90-100 kmph gusting to 110 kmph** in the morning of 24th October and **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph by evening. It would decrease gradually thereafter.

(ii) Sea Condition

• **Southwest Arabian Sea:**

Very rough to rough Sea conditions, prevailing over the region is likely to improve further from evening of 23rd October.

• **Westcentral Arabian Sea:**

Phenomenal sea condition is prevailing and will continue till early hours of 24th October. It would improve gradually thereafter becoming **high to very rough** by 24th morning and rough to very rough by evening of 24th October. Thereafter, it would improve gradually.

(iii) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

- ❖ **Southwest Arabian Sea** till 24th October morning.
- ❖ **Westcentral Arabian Sea** till night of 24th October.

(B) Deep Depression over Westcentral Bay of Bengal

The Deep Depression over Westcentral Bay of Bengal moved north-northeastwards with a speed of 13 kmph during past 6 hours and lay centered at 1130 hours IST of today, the 23rd October over the same region, near latitude 17.4°N and longitude 87.0°E, about 320 km south-southeast of Paradip (Odisha), 470 km south-southwest of Digha (West Bengal) and 610 km south-southwest of Khepupara (Bangladesh).

It is likely to intensify into a **Cyclonic Storm** during next 6 hours. It is very likely to move nearly north-northeastwards and cross Bangladesh coast between Khepupara and Chittagong around evening of 25th October as a **Deep Depression**.

Forecast track and intensity are given below:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
23.10.23/1130	17.4/87.0	55-65 gusting to 75	Deep Depression
23.10.23/1730	18.1/87.3	60-70 gusting to 80	Cyclonic Storm
23.10.23/2330	18.7/87.7	70-80 gusting to 90	Cyclonic Storm
24.10.23/0530	19.3/88.1	80-90 gusting to 100	Cyclonic Storm
24.10.23/1130	19.9/88.7	70-80 gusting to 90	Cyclonic Storm
24.10.23/2330	20.7/89.4	55-65 gusting to 75	Deep Depression
25.10.23/1130	21.5/90.0	50-60 gusting to 70	Deep Depression
25.10.23/2330	22.4/90.5	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Rainfall Warning

Manipur, Mizoram & Tripura and south Assam & Meghalaya: Light to moderate rainfall at most places with isolated heavy rainfall over Mizoram and heavy to very rainfall over Tripura is likely on 23rd and 24th October. Isolated heavy rainfall is likely over the same region on 25th October. Rainfall intensity will decrease on 26th with light to moderate rainfall at a few places over the region.

Light to moderate rainfall is likely at many places over south Assam and eastern Meghalaya on 24th and 25th October with isolated heavy rainfall over south Assam.

Coastal Districts of Odisha: Light to moderate rainfall at most places is likely on 23rd and 24th October with isolate heavy rainfall over coastal areas of north Odisha on 23rd October.

Coastal Districts of West Bengal: Light to moderate rainfall at most places is likely on 23rd and 24th October with isolated heavy rainfall over coastal areas of West Bengal on 24th October.

(ii) Wind warning (warning graphics enclosed):

- **Westcentral Bay of Bengal:** Squally wind speed reaching **50-60 kmph gusting to 70 kmph** is prevailing and likely to increase becoming **55-65 kmph gusting to 75 kmph** from 23rd evening till 24th October morning. It is likely to decrease gradually from 24th noon becoming **squally wind** speed reaching **40-50 kmph gusting 60 kmph** by 24th evening.
- **Adjoining eastcentral Bay of Bengal:** Squally wind speed reaching **45-55 kmph gusting to 65 kmph** is likely to increase gradually becoming **50-60 kmph gusting to 70 kmph** on 24th and decrease from 25th onwards.
- **North Bay of Bengal:**
Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is prevailing and likely to become **50-60 kmph gusting to 70 kmph** from today evening. It would become **Gale wind** speed reaching **60-70 kmph gusting to 80 kmph** from 24th October morning and **80-90 kmph gusting 100 kmph** during 24th morning to noon. It would decrease gradually thereafter.
- **Along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts:**
Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely from 23rd evening to 24th along & off Odisha coast. Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely to commence along & off West Bengal, Bangladesh and North Myanmar coasts from 24th morning. It would gradually increase becoming **55-65 kmph gusting to 75 kmph** along & off Bangladesh coast, **50-60 kmph gusting to 70 kmph** along & off north Myanmar coast and **45-55 kmph gusting to 65** along & off west Bengal coast on 25th October.
- **Mizoram, Tripura, south Assam and Manipur:**
Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely to prevail over Mizoram and Tripura and Strong wind speed reaching **30-40 kmph gusting to 50 kmph** over south Assam & Manipur on 25th October.

(iii) Sea Condition

- **Westcentral Bay of Bengal: Rough to very rough sea condition** is prevailing and will continue till 25th October. It is likely to improve gradually thereafter.
- **Adjoining eastcentral Bay of Bengal: Moderate to rough sea condition** is prevailing and likely to continue till 24th October and **rough to very rough** on 25th October. It is likely to improve gradually thereafter.
- **North Bay of Bengal: Rough sea condition** is likely on 23rd and **Very rough to High** on 24th and very rough on 25th October.
- **Along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts: Rough sea condition** is likely on 23rd and **rough to very rough** on 24th and 25th October.

(iv) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

- ❖ **Adjoining eastcentral Bay of Bengal** from 23rd to 25th October.
- ❖ **Westcentral Bay of Bengal** till 24th October.
- ❖ **North Bay of Bengal and along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts** during 23rd to 25th October.

Both the systems are under continuous surveillance and the next bulletin will be issued at 1730 hours IST of today, the 23rd October, 2023.

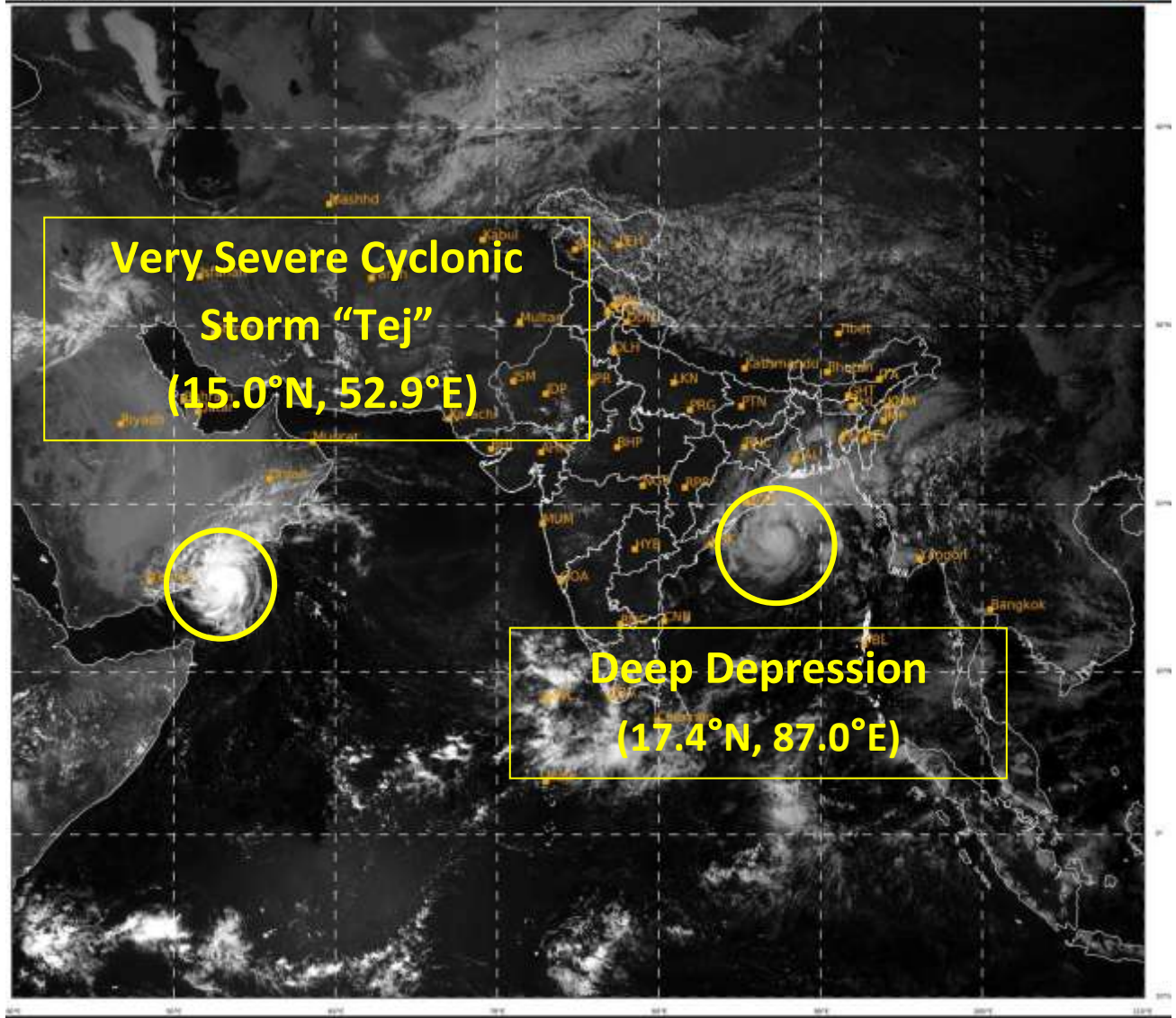
(Ananda K Das)

Scientist F, Cyclone Warning Division, New Delhi

Copy to: ACWC Mumbai/ ACWC Chennai/ ACWC Kolkata/CWC Ahmedabad/CWC Bhubaneswar/CWC Vishakhapatnam/CWC Thiruvananthapuram/MC Goa

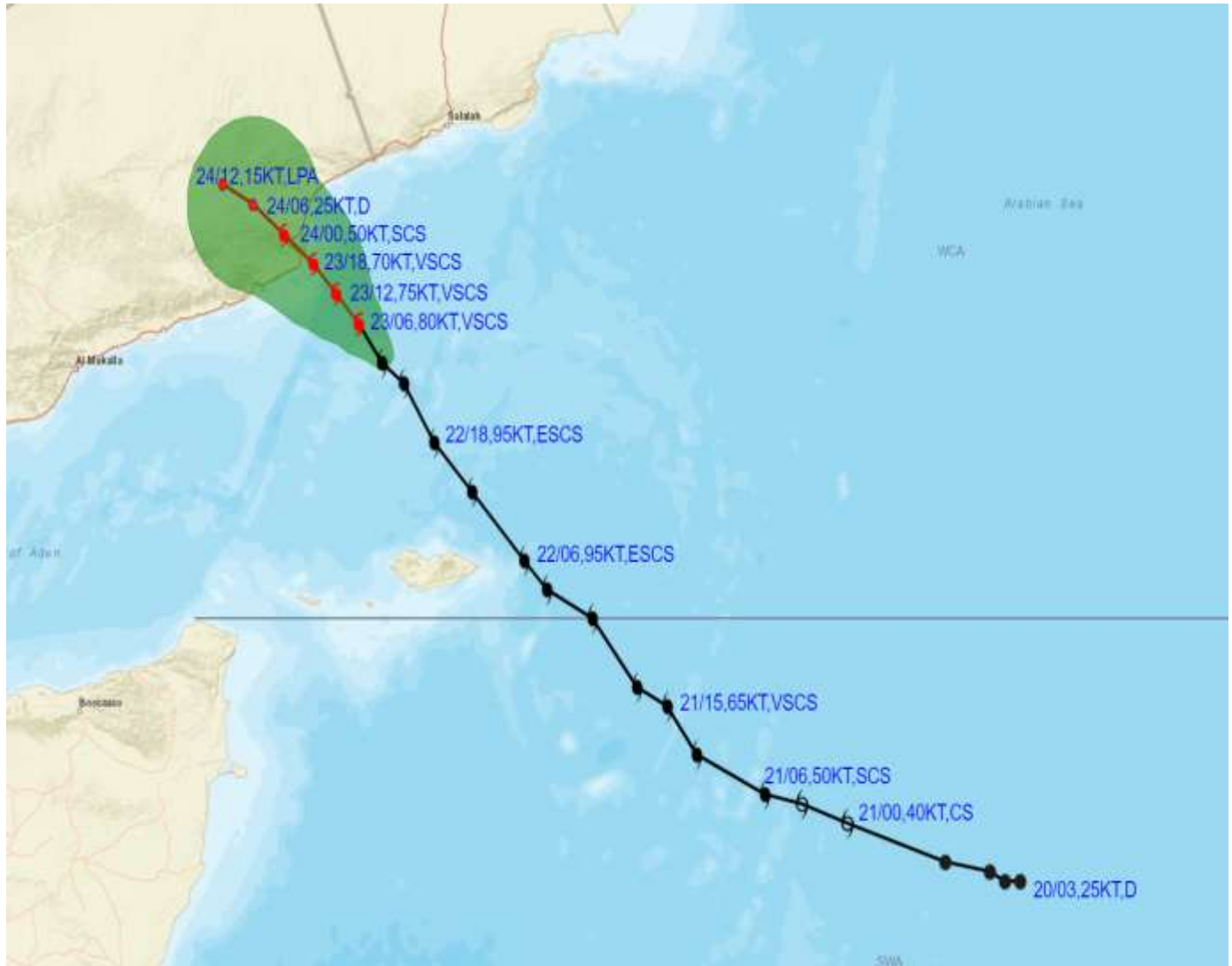
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL ARABIAN SEA BASED ON 0600 UTC (1130 IST) OF 23RD OCTOBER 2023.



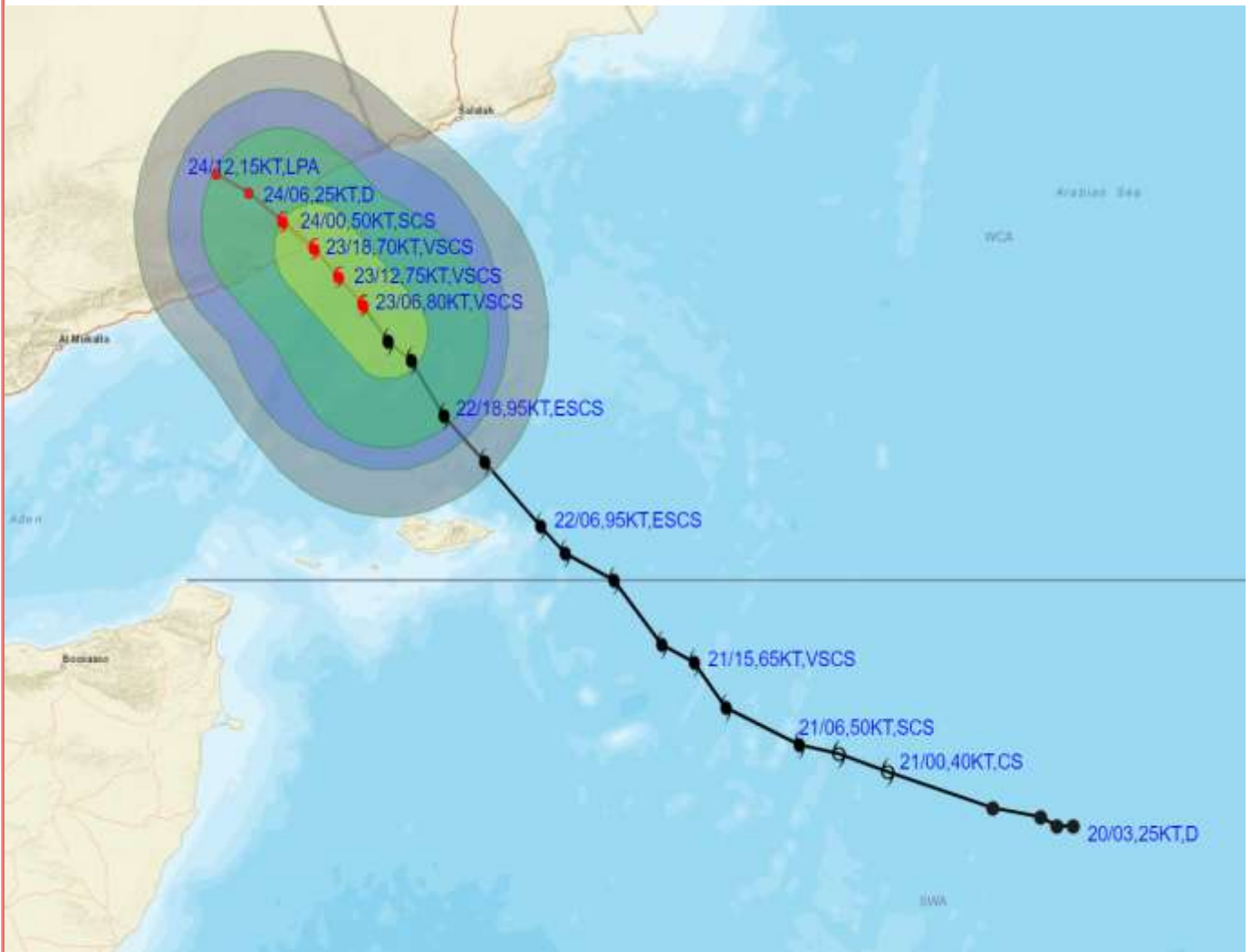
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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		
	SOCOTRA	SALALAH	AL-GHAIDAH
Date and Time			
24.10.23/0000	420, NNW	270, WSW	30, SW



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL ARABIAN SEA BASED ON 0600 UTC (1130 IST) OF 23RD OCTOBER 2023.



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)

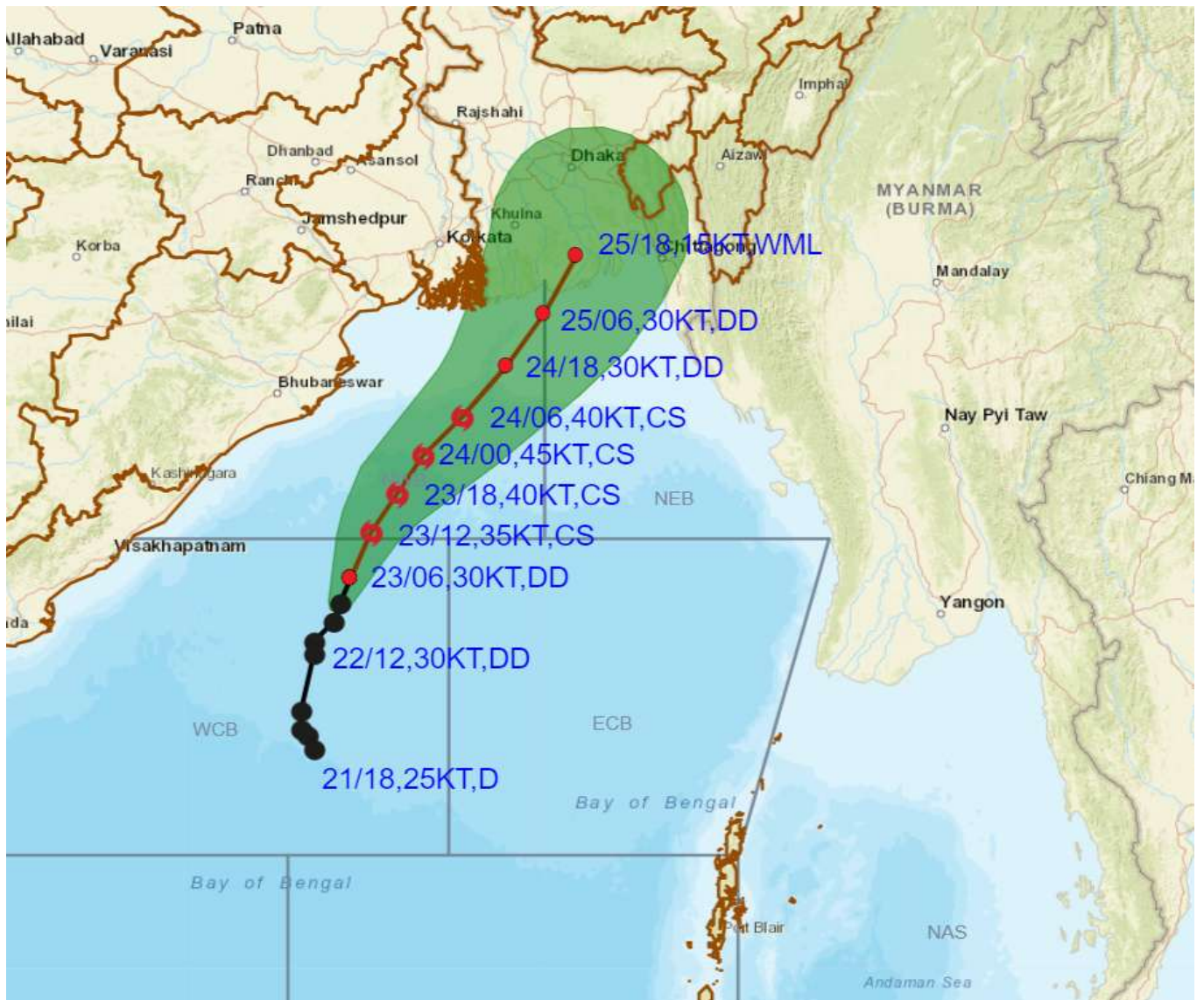
- LESS THAN 34 KT
 - 34-47 KT
 - \geq 48 KT
 - OBSERVED TRACK
 - FORECAST TRACK
 - ▲ CONE OF UNCERTAINTY
- AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 28-33 KT (52-61 KMPH)
 - 34-49 KT (62-91 KMPH)
 - 50-63 KT (92-117 KMPH)
 - \geq 64 KT (\geq 118 KMPH)

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



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 23RD OCTOBER 2023.



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

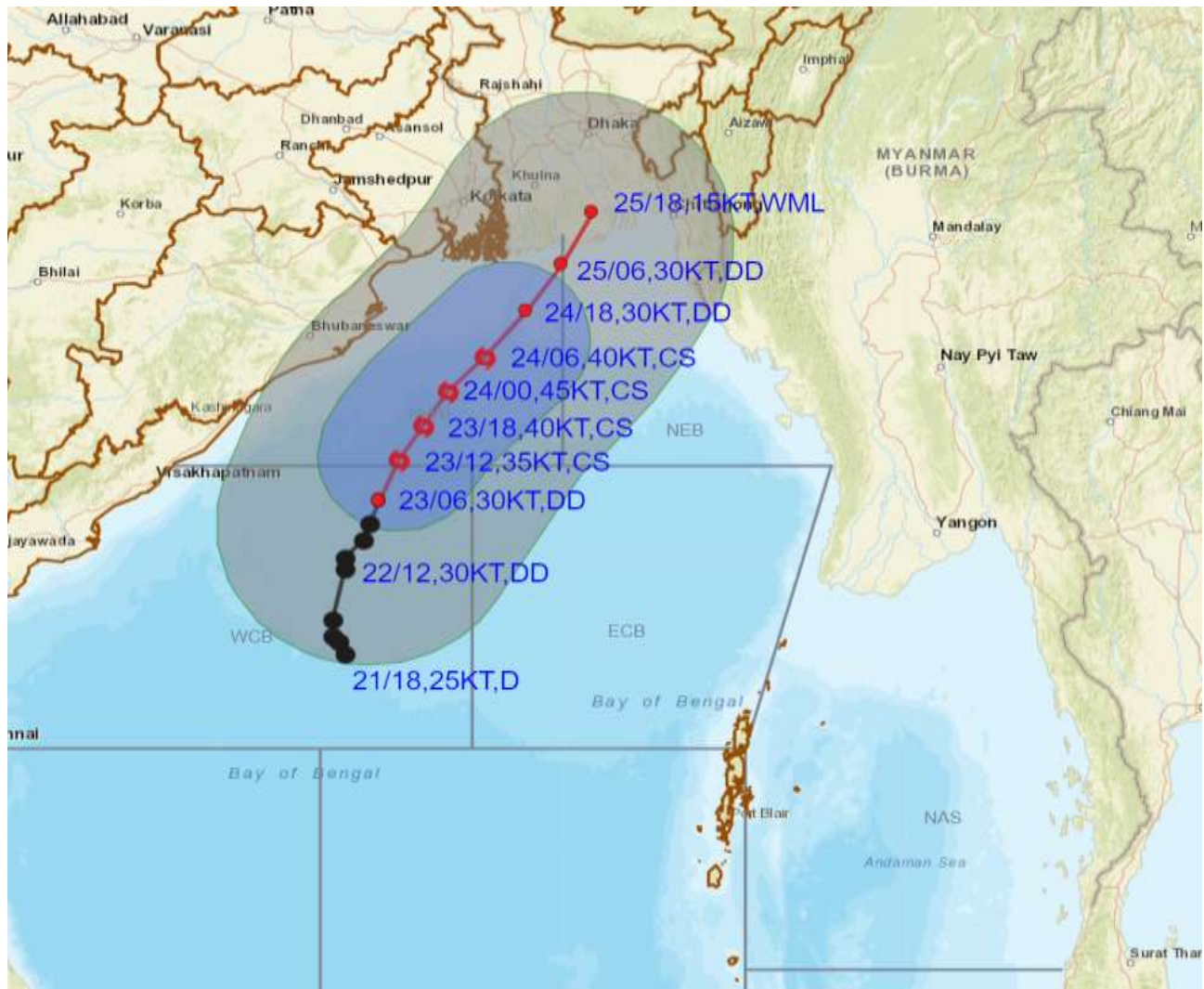
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 23RD OCTOBER 2023.



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)

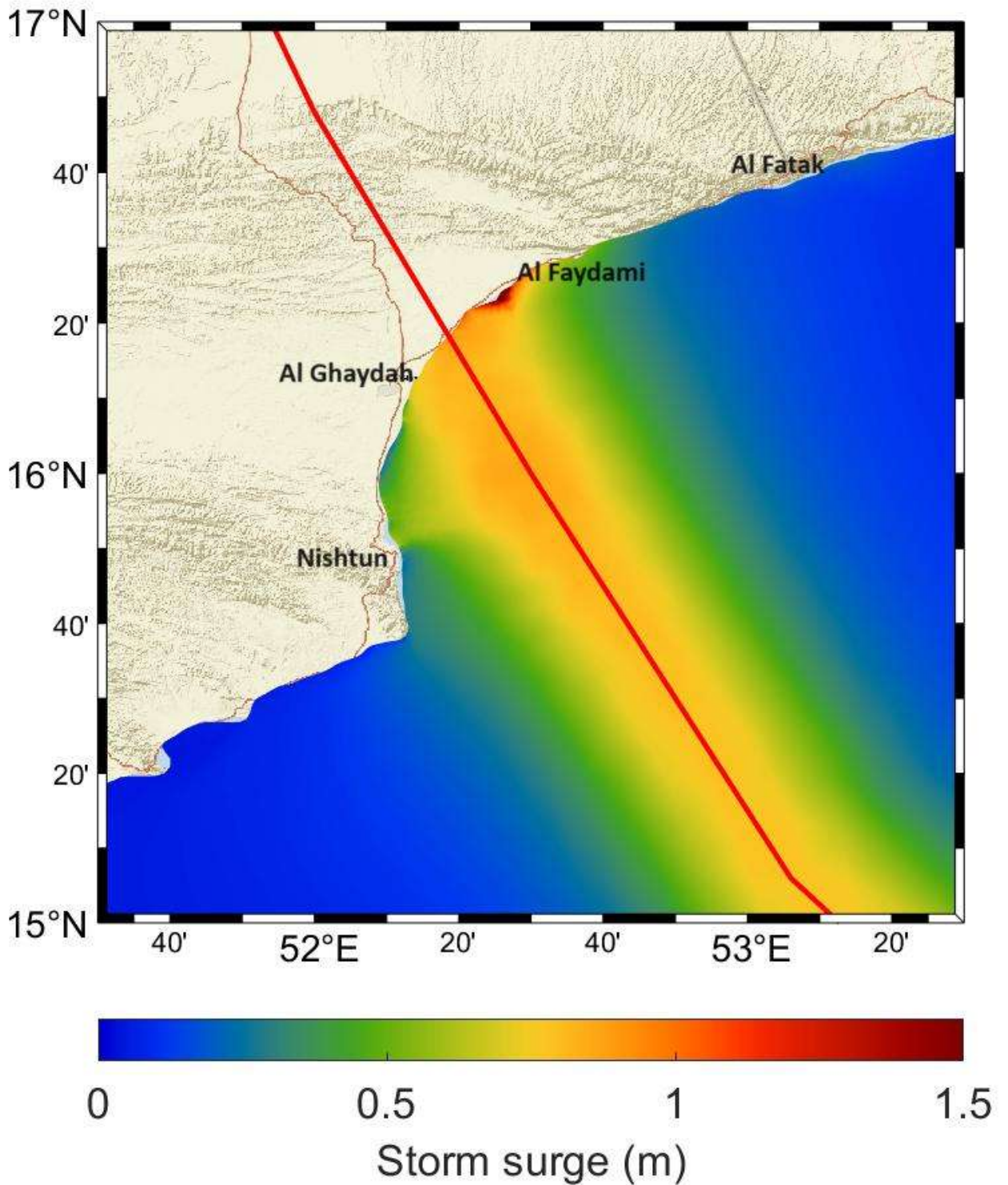
● LESS THAN 34 KT
 ○ 34-47 KT
 ● ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 — CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

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

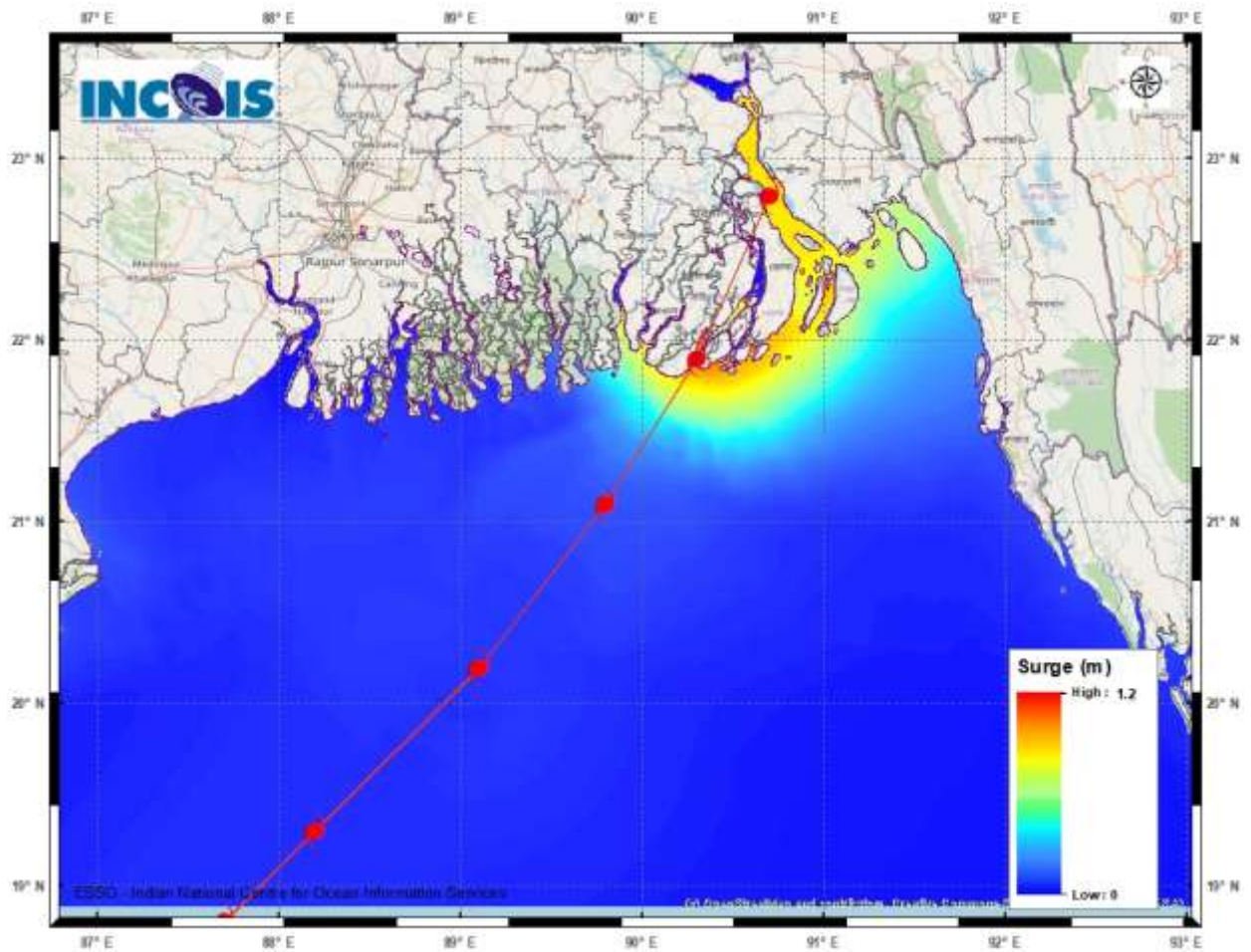
STORM SURGE GUIDANCE FOR YEMEN:

Storm surge of about 2 meter height above the astronomical tide is Likely to inundate low lying areas between al Ghaydah and al Faydami near the landfall point at the time of landfall.



STORM SURGE GUIDANCE FOR BANGLADESH:

Storm surge of about 1.0-1.5 metre height above the astronomical tide is likely to inundate low lying areas between Khepupara and Chittagong (Bangladesh) around the time of landfall.



WEATHER WARNING GRAPHICS



SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(23-10-2023)



- | | |
|--|---|
| <ul style="list-style-type: none"> ● Heavy Rain ⊖ Heavy Snow ⚡ Thunderstorms & Lightning ☁ Haze/fog ☄ Dust Storm ⚡ Strong Surface Winds 🌡 Heat Wave ❄ Cold wave 🌫 Fog | <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|---|



SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(24-10-2023)



- | | |
|--|---|
| <ul style="list-style-type: none"> ● Heavy Rain ⊖ Heavy Snow ⚡ Thunderstorms & Lightning ☁ Haze/fog ☄ Dust Storm ⚡ Strong Surface Winds 🌡 Heat Wave ❄ Cold wave 🌫 Fog | <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|---|



SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(25-10-2023)



- | | |
|--|---|
| <ul style="list-style-type: none"> ● Heavy Rain ⊖ Heavy Snow ⚡ Thunderstorms & Lightning ☁ Haze/fog ☄ Dust Storm ⚡ Strong Surface Winds 🌡 Heat Wave ❄ Cold wave 🌫 Fog | <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|---|



SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(26-10-2023)



- | | |
|--|---|
| <ul style="list-style-type: none"> ● Heavy Rain ⊖ Heavy Snow ⚡ Thunderstorms & Lightning ☁ Haze/fog ☄ Dust Storm ⚡ Strong Surface Winds 🌡 Heat Wave ❄ Cold wave 🌫 Fog | <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|---|



SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(27-10-2023)



- | | |
|--|---|
| <ul style="list-style-type: none"> ● Heavy Rain ⊖ Heavy Snow ⚡ Thunderstorms & Lightning ☁ Haze/fog ☄ Dust Storm ⚡ Strong Surface Winds 🌡 Heat Wave ❄ Cold wave 🌫 Fog | <ul style="list-style-type: none"> 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|--|---|

- WATCH(BE UPDATED)
- ALERT (BE PREPARED)
- WARNING (TAKE ACTION)