



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY NO. 16**

DEMS-RSMCSPECIAL TROPICAL CYCLONES NEW DELHI DATED 01.09.2024

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. 16 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0700 UTC OF 01.09.2024 BASED ON 0300 UTC OF 01.09.2024

SUB: (A) CYCLONIC STORM “ASNA” (PRONOUNCED AS AS-NA) OVER NORTHWEST ARABIAN SEA AND (B) DEPRESSION OVER SOUTH ODISHA ADJOINING SOUTH CHHATTISGARH & NORTH ANDHRA PRADESH

(A) CYCLONIC STORM “ASNA” (PRONOUNCED AS AS-NA) OVER NORTHWEST ARABIAN SEA

THE CYCLONIC STORM “ASNA” (PRONOUNCED AS AS-NA) OVER NORTHWEST ARABIAN SEA MOVED WEST-SOUTHWESTWARDS WITH A SPEED OF 13 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 0300 UTC OF TODAY, THE 01ST SEPTEMBER, 2024 OVER THE SAME REGION NEAR LATITUDE 23.0°N AND LONGITUDE 62.3°E, 280 KM SOUTH-SOUTHWEST OF PASNI (41780), 540 KM WEST-SOUTHWEST OF KARACHI (41780), 670 KM WEST OF NALIYA (42631) AND 420 KM EAST OF MUSCAT (41256).

IT IS LIKELY TO MOVE SOUTHWESTWARDS OVER NORTHWEST ARABIAN SEA AND WEAKEN GRADUALLY INTO A DEEP DEPRESSION BY 1200 UTC OF TODAY, THE 1ST SEPTEMBER AND INTO A DEPRESSION BY 0000 UTC OF TOMORROW, THE 2ND SEPTEMBER OVER THE SAME REGION.

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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AS PER INSAT 3DR IMAGERY, AT 0300 UTC OF 01ST SEPTEMBER, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 2.5. IT SHOWS CURVED BAND PATTERN. MAXIMUM CONVECTION LAY OVER NORTHWEST SECTOR. THE CONVECTION ASSOCIATED WITH ASNA IS INDICATING FILLING TREND AND CLOUD MASS IS SHOWING DISORGANISATION. SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHWEST ARABIAN SEA, (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 70°C). MODERATE TO INTENSE CONVECTION LAY OVER SOUTHEAST IRAN, OMAN, GULF OF OMAN AND SOUTHEAST IRAN AND ADJOINING PAKISTAN. ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 35 KTS GUSTING TO 45 KTS. ESTIMATED CENTRAL PRESSURE (MSLP) IS 991 HPA.

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
01.09.24/0300	23.0/62.3	65-75 GUSTING TO 85	CYCLONIC STORM
01.09.24/0600	22.8/62.1	60-70 GUSTING TO 80	CYCLONIC STORM
01.09.24/1200	22.4/61.7	50-60 GUSTING TO 70	DEEP DEPRESSION
01.09.24/1800	22.0/61.4	40-50 GUSTING TO 60	DEPRESSION
02.09.24/0000	21.6/61.1	35-45 GUSTING TO 55	DEPRESSION

WARNINGS:

SEA CONDITION AND ADVISORY FOR FISHERMEN IN ASSOCIATION WITH CYCLONIC STORM ASNA OVER NORTHWEST ARABIAN SEA:

WIND WARNING:

- SQUALLY WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY TO PREVAIL ALONG & OFF PAKISTAN DURING NEXT 12 HOURS.
- SQUALLY WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY TO PREVAIL OVER CENTRAL PARTS OF NORTH ARABIAN SEA DURING NEXT 12 HOURS AND DECREASE THEREAFTER.
- GALE WIND SPEED REACHING 65-75 KMPH GUSTING TO 85 KMPH ARE PREVAILING OVER NORTHWEST ARABIAN SEA. IT WOULD GRADUALLY DECREASE BECOMING SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH BY 1200 UTC OF 1ST SEPTEMBER AND IMPROVE THEREAFTER.
- SQUALLY WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH IS LIKELY TO PREVAIL OVER CENTRAL ARABIAN SEA TILL 2ND SEPTEMBER MORNING AND IMPROVE GRADUALLY THEREAFTER.
- STRONG WIND SPEED REACHING 30-40 KMPH GUSTING TO 50 KMPH IS LIKELY ALONG AND OFF GUJARAT, MAHARASHTRA AND KARNATAKA COAST DURING NEXT 24 HOURS.

SEA CONDITION:

- HIGH SEA CONDITIONS WOULD PREVAIL OVER NORTHWEST ARABIAN SEA TILL 1800 UTC OF 1ST SEPTEMBER AND WOULD BECOME VERY ROUGH TO ROUGH TILL 0000 UTC OF 2ND SEPTEMBER AND IMPROVE THEREAFTER.
- SQUALLY WEATHER WITH ROUGH TO MODERATE SEA CONDITIONS IS LIKELY ALONG & OFF PAKISTAN COAST TILL DURING NEXT 12 HOURS.
- VERY ROUGH TO ROUGH SEA CONDITION ARE LIKELY OVER CENTRAL PARTS OF NORTH ARABIAN SEA DURING NEXT 12 HOURS AND WOULD IMPROVE THEREAFTER.

- ROUGH SEA CONDITION IS LIKELY OVER ADJOINING WESTCENTRAL ARABIAN SEA TILL 2ND SEPTEMBER.
- ROUGH SEA CONDITION IS LIKELY OVER ADJOINING WESTCENTRAL ARABIAN SEA TILL 2ND SEPTEMBER.

FISHERMEN WARNING:

FISHERMEN ARE ADVISED NOT VENTURE INTO

- NORTHWEST ARABIAN SEA TILL 2ND SEPTEMBER.
- NORTH ARABIAN SEA AND ALONG & OFF PAKISTAN COASTS TILL 1200 UTC OF 1ST SEPTEMBER
- WESTCENTRAL ARABIAN SEA TILL 2ND SEPTEMBER.

(B) DEPRESSION OVER SOUTH ODISHA AND ADJOINING SOUTH CHHATTISGARH & NORTH ANDHRA PRADESH

THE DEPRESSION OVER SOUTH ODISHA AND ADJOINING AREAS OF NORTH ANDHRA PRADESH & SOUTH CHHATTISGARH MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 20 KMPH DURING THE PAST 6 HOURS AND LAY CENTERED AT 0300 UTC OF TODAY, THE 01ST SEPTEMBER, 2024 OVER SOUTH ODISHA AND ADJOINING SOUTH CHHATTISGARH & NORTH ANDHRA PRADESH NEAR LATITUDE 18.7°N AND LONGITUDE 82.4°E, ABOUT 60 KM SOUTHEAST OF JAGDALPUR (CHHATTISGARH), 70 KM NORTHEAST OF MALKANGIRI (ODISHA), 150 KM NORTHWEST OF VISAKHAPATNAM (ANDHRA PRADESH), 190 KM WEST-NORTHWEST OF KALINGAPATNAM (ANDHRA PRADESH) AND 310 KM EAST OF RAMAGUNDAM (TELANGANA).

IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS SOUTH ODISHA & SOUTH CHHATTISGARH AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 24 HOURS.

ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH COASTAL ANDHRA PRADESH, TELANGANA, RAYALSEEMA, AND CHHATTISGARH. MINIMUM CTT IS MINUS 93 DEG CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 20-25 KTS GUSTING TO 35 KTS. ESTIMATED CENTRAL PRESSURE IS 998 HPA. AT 0300 UTC, JAGDALPUR (CHHATTISGARH) REPORTED MEAN SEA LEVEL PRESSURE (MSLP) OF 999.9 HPA, DEPARTURE FROM NORMAL AS -5.7 HPA AND 24 HOURS PRESSURE CHANGE (P24) OF -1.7 HPA. RAMAGUNDAM (TELANGANA) REPORTED MSLP OF 1000.3 HPA, DEPARTURE FROM NORMAL AS -3.1 HPA AND P24 OF -3.1 HPA. CHANDRAPUR (SOUTHEAST VIDARBHA) REPORTED MSLP OF 1003.0 HPA, DEPARTURE FROM NORMAL AS -3.4 HPA AND P24 OF -4.1 HPA. AMROTI (VIDARBHA) REPORTED MSLP OF 1001.6 HPA, DEPARTURE FROM NORMAL AS -4.2 HPA AND P24 OF -3.3 HPA.

SEA CONDITION AND ADVISORY FOR FISHERMEN IN ASSOCIATION WITH DEPRESSION OVER SOUTH ODISHA AND ADJOINING SOUTH CHHATTISGARH & NORTH ANDHRA PRADESH

WIND WARNING:

- SQUALLY WEATHER WITH WIND SPEED REACHING 40-50 KMPH GUSTING TO 60 KMPH LIKELY OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL AND ALONG AND OFF NORTH ANDHRA PRADESH & SOUTH ODISHA COASTS DURING NEXT 12 HOURS AND GRADUALLY DECREASE THEREAFTER.
- SQUALLY WEATHER WITH WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY OVER NORTH ANDHRA PRADESH, SOUTH ODISHA, SOUTH CHHATTISGARH, TELANGANA DURING NEXT 24 HOURS.

SEA CONDITION:

- ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL AND ALONG & OFF NORTH ANDHRA PRADESH & SOUTH ODISHA COASTS ON 1ST SEPTEMBER.

FISHERMEN WARNING:

- FISHERMEN ARE ADVISED NOT VENTURE INTO WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL AND ALONG & OFF SOUTH ODISHA AND NORTH ANDHRA PRADESH COASTS ON 1ST SEPTEMBER.

REMARKS:

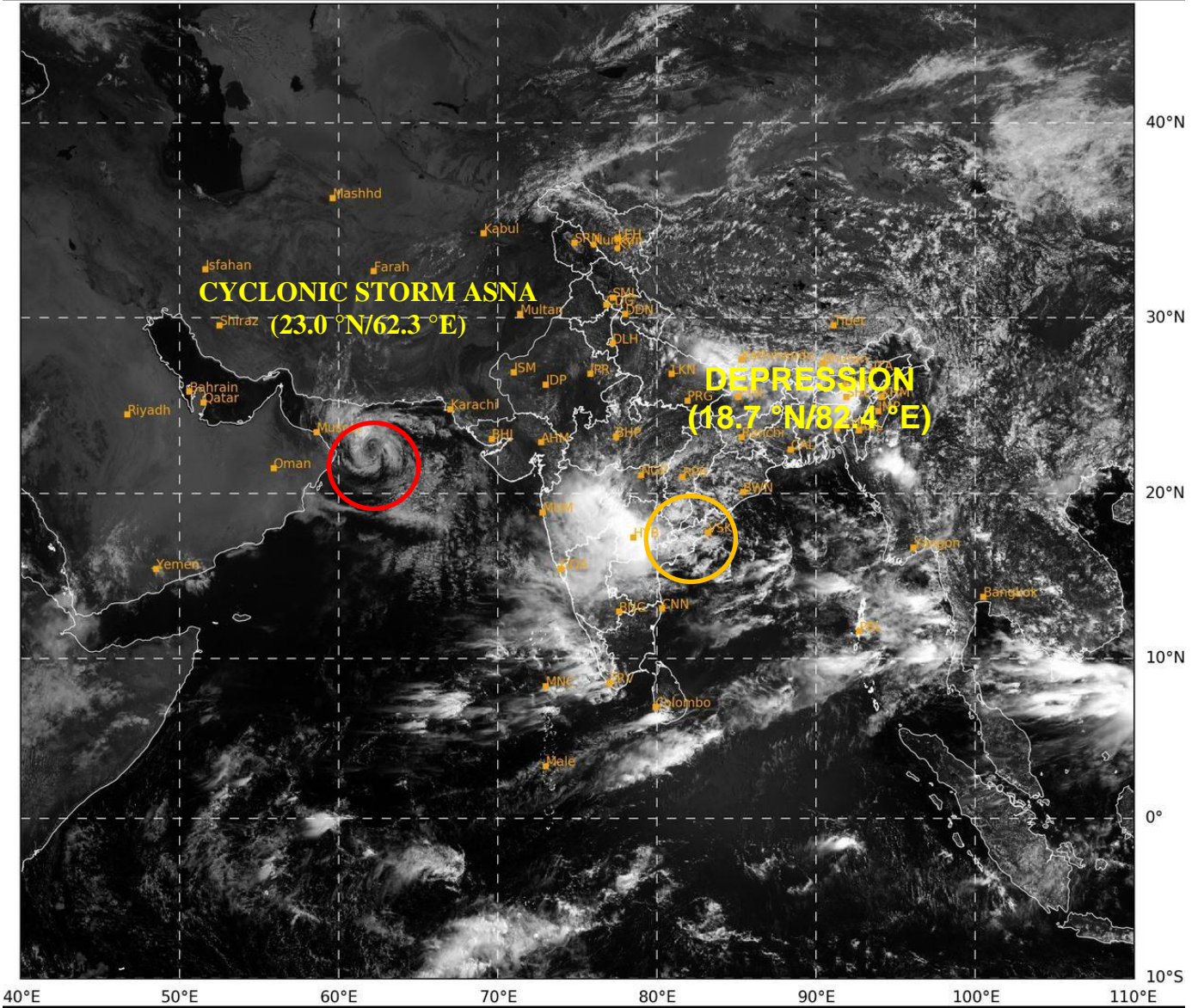
SEA SURFACE TEMPERATURE IS 28-29°C OVER WESTCENTRAL ARABIAN SEA AND IS LIKELY TO DECREASE ALONG THE FORECAST PATH OF SYSTEM. THE TROPICAL CYCLONE HEAT POTENTIAL IS LESS THAN 50 KJ/CM² OVER NORTHWEST AS. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE CORE. HOWEVER, DRY COLD AIR INCURSION FROM NORTHWEST WILL GRADUALLY COMMENCE INTO THE SYSTEM AREA. WATER VAPOUR IMAGERY INDICATES MOISTURE UPTO MIDTROPOSPHERIC LEVELS. THE LOW LEVEL VORTICITY HAS DECREASED AND IS AROUND $100 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTH OF THE SYSTEM AREA. LOW LEVEL CONVERGENCE IS $10 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHEAST OF THE SYSTEM CENTRE AND UPPER LEVEL DIVERGENCE IS ALSO $10 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTH OF THE SYSTEM CENTRE. WIND SHEAR IS LOW TO MODERATE (15-20 KT) OVER SYSTEM AREA AND IS LIKELY TO BECOME HIGH OVER THE FORECAST PATH OF SYSTEM. THE NORTHEASTERLY WINDS IN THE UPPER LEVELS OVER SYSTEM AREA ARE STEERING THE SYSTEM SOUTHWESTWARDS.

IN ASOCIATION WITH THE DEPRESSION OVER SOUTH ODISHA AND ADJOINING SOUTH CHHATTISGARH & NORTH ANDHRA PRADESH, THE LOW LEVEL VORTICITY IS POSITIVE AND IS AROUND $100 \times 10^{-5} \text{ S}^{-1}$ OVER COASTAL ANDHRA PRADESH WITH EXTENSION UPTO MID TROPOSPHERIC LEVELS. LOW LEVEL CONVERGENCE IS $30 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHWEST OF SYSTEM AREA AND UPPER LEVEL DIVERGENCE IS $20 \times 10^{-5} \text{ S}^{-1}$ TO THE WEST OF SYSTEM AREA. WIND SHEAR IS MODERATE OVER THE SYSTEM AREA AND IS LIKELY TO BE HIGH ALONG THE PREDICTED PATH.

CONSIDERING ALL THE ABOVE, IT IS INFERRED THAT:

- (1) CYCLONIC STORM "ASNA" (PRONOUNCED AS AS-NA) OVER NORTHWEST ARABIAN SEA IS LIKELY TO MOVE SOUTHWESTWARDS OVER NORTHWEST ARABIAN SEA, WEAKEN INTO A DEEP DEPRESSION BY 1200 UTC OF TODAY, THE 1ST SEPTEMBER AND INTO A DEPRESSION BY 0000 UTC OF 2ND SEPTEMBER OVER THE SAME REGION.
- (2) THE DEPRESSION OVER DEPRESSION OVER SOUTH ODISHA AND ADJOINING SOUTH CHHATTISGARH & NORTH ANDHRA PRADESH IS LIKELY TO MOVE WEST-NORTHWESTWARDS ACROSS SOUTH ODISHA & SOUTH CHHATTISGARH AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 24 HOURS.

(M SHARMA)
SCIENTIST-D
RSMC NEW DELHI



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IMD, DELHI



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTH ODISHA AND ADJOINING AREAS OF NORTH ANDHRA PRADESH AND SOUTH CHHATTISGARH BASED ON 0300 UTC (0830 IST) OF 1ST SEPTEMBER, 2024.



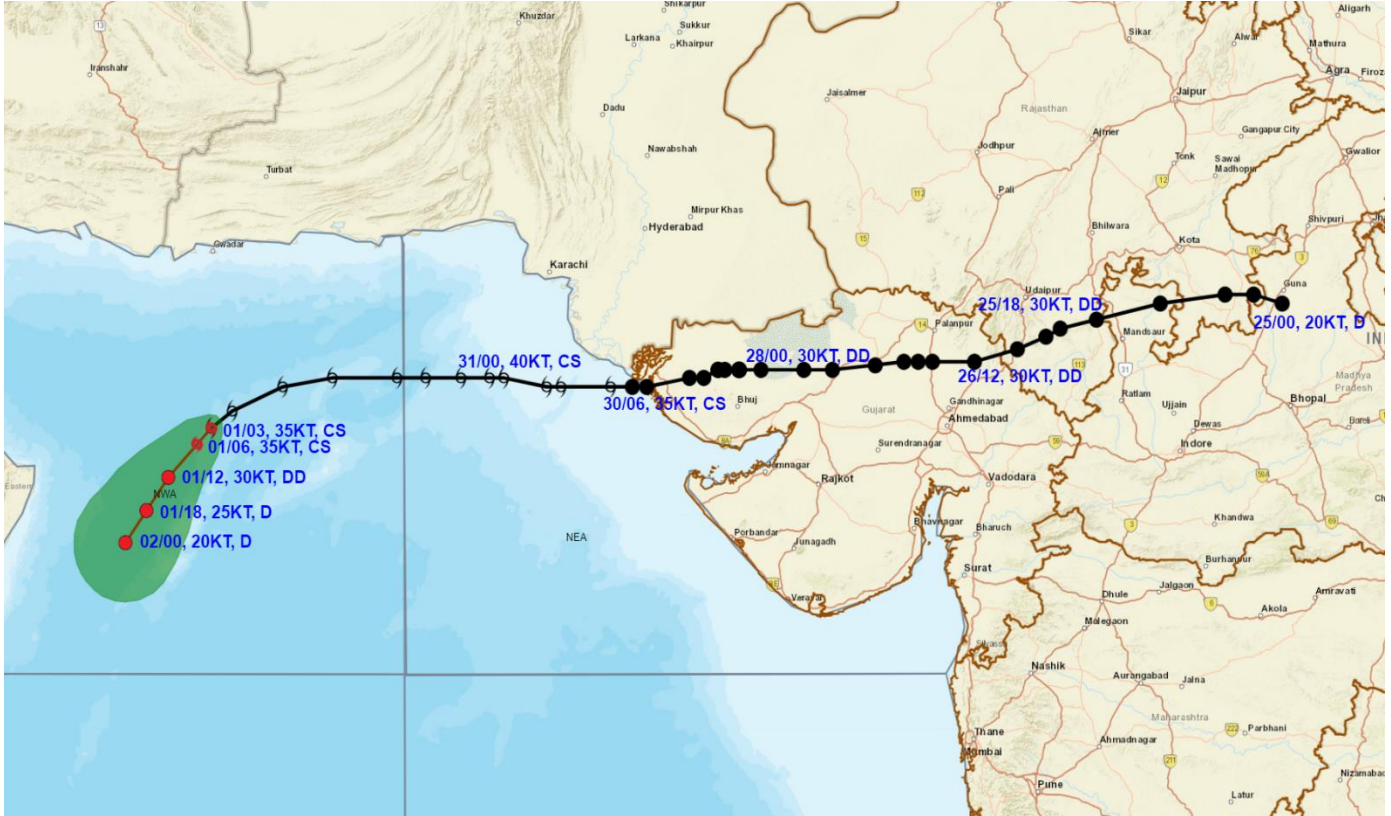
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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







WCB: WESTCENTRAL BAY OF BENGAL
 ECB: EASTCENTRAL BAY OF BENGAL
 NWB: NORTHWEST BAY OF BENGAL



OBSERVED AND FORECAST TRACK OF CYCLONIC STORM ASNAOVER NORTHWEST ARABIAN SEABASED ON 0300 UTC (0830 IST) OF 1st SEPTEMBER, 2024.



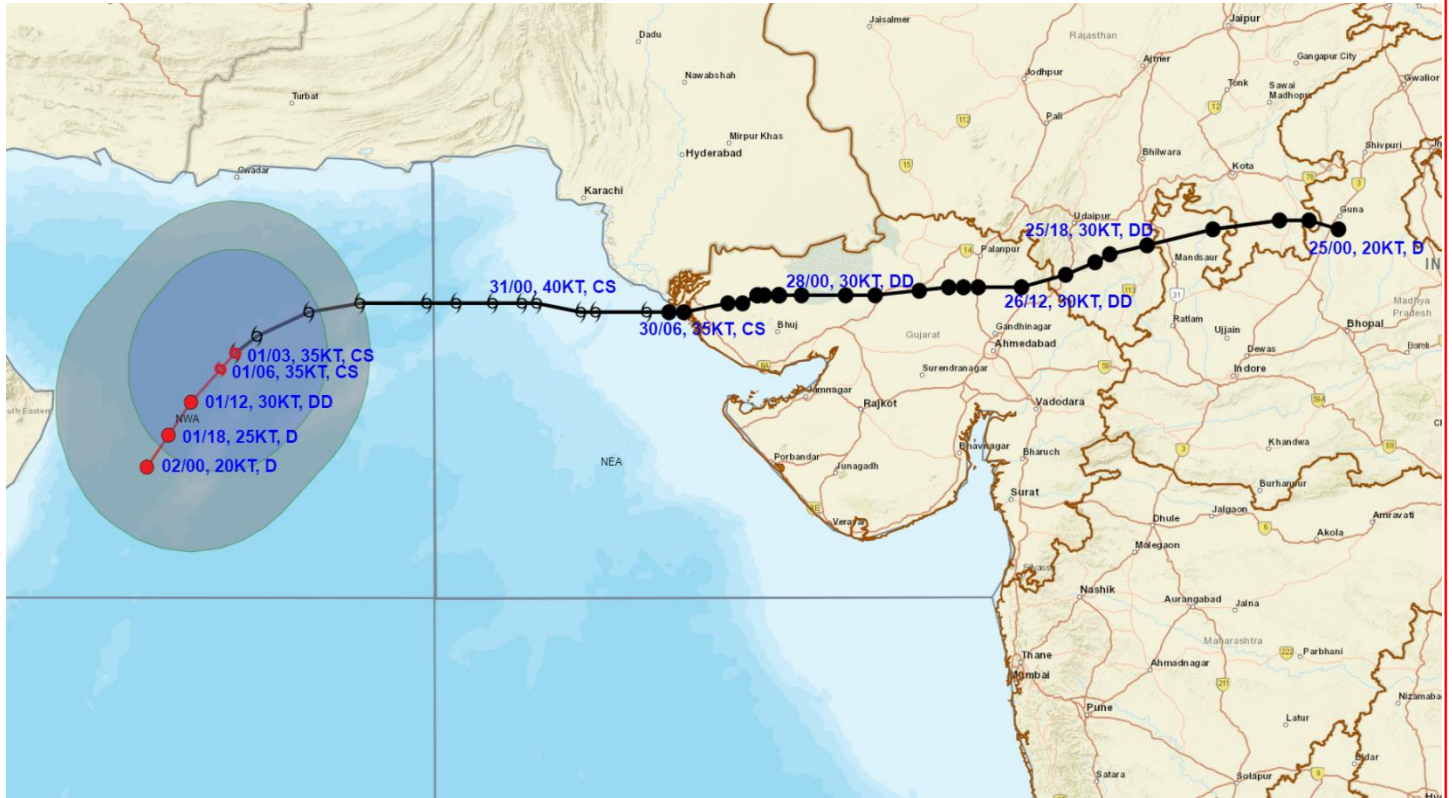
DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119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

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

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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OBSERVED AND FORECAST TRACK OF CYCLONIC STORM ASNA OVER NORTHWEST ARABIAN SEA BASED ON 0300 UTC (0830 IST) OF 1st SEPTEMBER, 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
 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

