





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI TROPICAL CYCLONE ADVISORY NO. 11

DEMS-RSMCSPECIAL TROPICAL CYCLONES NEW DELHI DATED 31.08.2024 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. 11 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 31.08.2024 BASED ON 1200 UTC OF 31.08.2024

SUB: (A) CYCLONIC STORM "ASNA" (PRONOUNCED AS AS-NA) OVER CENTRAL PARTS OF NORTH ARABIAN SEA AND (B) DEPRESSION OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL

(A) CYCLONIC STORM "ASNA" (PRONOUNCED AS AS-NA) OVER CENTRAL PARTS OF NORTH ARABIAN SEA

THE **CYCLONIC STORM "ASNA" (PRONOUNCED AS AS-NA)** OVER NORTHEAST & ADJOINING NORTHWEST ARABIAN SEA MOVED WESTWARDS WITH A SPEED OF 15 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1200 UTC OF 31ST AUGUST, 2024 OVER CENTRAL PARTS OF NORTH ARABIAN SEA NEAR LATITUDE 23.6°N AND LONGITUDE 64.4°E, 190 KM SOUTH-SOUTHEAST OF PASNI (41759), 350 KM WEST-SOUTHWEST OF KARACHI (41780), 500 KM WEST OF NALIYA (42631) AND 580 KM EAST OF MUSCAT (41256).

IT IS LIKELY TO CONTINUE TO MOVE NEARLY WESTWARDS OVER NORTH ARABIAN SEA AND MAINTAIN ITS INTENSITY TILL 0000 UTC OF 1ST SEPTEMBER. THEREAFTER, IT IS LIKELY TO MOVE WEST-SOUTHWESTWARDS FOR SUBSEQUENT 24 HOURS AND WEAKEN GRADUALLY INTO A DEPRESSION OVER NORTHWEST ARABIAN SEA BY 0000 UTC OF 2ND SEPTEMBER 2024.

AS PER INSAT 3DR IMAGERY, AT 1200 UTC OF 31ST AUGUST, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 2.5. SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHEAST AND ADJOINING NORTHWEST ARABIAN SEA, (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 88°C). MODERATE TO INTENSE CONVECTION LAY OVER SOUTH PAKISTAN. TOTAL PRECIPITABLE WATER IMAGERY STILL INDICATES WARM MOIST AIR INCURSION INTO THE CORE OF THE SYSTEM. 85 GHZ MICROWAVE IMAGERY AT 1126 UTC INDICATE CENTE NEAR 23.7/63.6.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 40 KTS GUSTING TO 50 KTS. ESTIMATED CENTRAL PRESSURE (MSLP) IS 990 HPA. AT 1200 UTC, PASNI REPORTED MEAN SEA LEVEL PRESSURE OF 1001.7 HPA & WINDS AS 90° / 12 KT AND JIWANI REPORTED 1000.9 HPA & WINDS AS 90° / 12 KT. A SHIP NEAR 21.0/61.9 REPORTED MSLP OF 1002 HPA AND WINDS AS 270° / 15KT.

DATE/TIME (UTC)	POSITION (LAT. ºN/ LONG. ºE)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
31.08.24/1200	23.6/64.0	70-80 GUSTING TO 90	CYCLONIC STORM
31.08.24/1800	23.6/63.4	70-80 GUSTING TO 90	CYCLONIC STORM
01.09.24/0000	23.5/62.6	65-75 GUSTING TO 85	CYCLONIC STORM
01.09.24/0600	23.3/61.9	60-70 GUSTING TO 80	CYCLONIC STORM
01.09.24/1200	23.0/61.4	50-60 GUSTING TO 70	DEEP DEPRESSION
02.09.24/0000	22.3/60.9	40-50 GUSTING TO 60	DEPRESSION

WARNINGS:

SEA CONDITION AND ADVISORY FOR FISHERMEN IN ASSOCIATION WITH CYCLONIC STORM ASNA OVER CENTRAL PARTS OF NORTH ARABIAN SEA:

WIND WARNING:

- SQUALLY WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH IS PREVAILING ALONG & OFF PAKISTAN TILL 1ST SEPTEMBER.
- GALE WIND SPEED REACHING 70-80 KMPH GUSTING TO 90 KMPH PREVAILING OVER CENTRAL PARTS OF NORTH ARABIAN SEA DURING NIGHT OF 31ST AUGUST AND DECREASE GRADUALLY THEREAFTER BECOMING SQUALLY WIND SPEED REACHING 40-50 KMPH GUSTING TO 60 KMPH BY 0000 UTC OF 1ST SEPTEMBER. IT WILL FURTHER DECREASE THEREAFTER.
- GALE WIND SPEED REACHING 70-80 KMPH GUSTING TO 90 KMPH PREVAILING OVER ADJOINING 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 ADJOINING CENTRAL ARABIAN SEA TILL 2ND SEPTEMBER MORNING AND IMPROVE GRADUALLY THEREAFTER.
- SQUALLY WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY ALONG & OFF SAURASHTRA & KACHCHH COASTS ON 31ST AUGUST.
- STRONG WIND SPEED REACHING 30-40 KMPH GUSTING TO 50 KMPH IS LIKELY ALONG AND OFF MAHARASHTRA & KARNATAKA COASTS ON 31ST AUGUST & 1ST SEPTEMBER AND ALONG & OFF GUJARAT COAST ON 1ST SEPTEMBER.

SEA CONDITION:

- SQUALLY WEATHER WITH ROUGH TO VERY ROUGH SEA CONDITIONS IS LIKELY ALONG & OFF PAKISTAN COAST TILL 0000 UTC OF 1ST SEPTEMBER.
- VERY ROUGH TO HIGH SEA CONDITION IS LIKELY TO PREVAIL OVER CENTRAL PARTS OF NORTH ARABIAN SEA DURING 31ST AUGUST TILL 1ST SEPTEMBER 0900 UTC AND BECOMING VERY ROUGH TO ROUGH SEA CONDITION FROM 1200 UTC OF 1ST SEPTEMBER TILL 0000 UTC OF 2ND SEPTEMBER AND IMPROVE THEREAFTER.
- ROUGH SEA CONDITION IS LIKELY OVER ADJOINING WESTCENTRAL ARABIAN SEA TILL 2ND SEPTEMBER.

FISHERMEN WARNING:

FISHERMEN ARE ADVISED NOT VENTURE INTO

- $\circ~$ NORTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA AND ALONG & OFF GUJARAT & ADJOINING NORTH MAHARASHTRA COASTS TILL 31 $^{\rm ST}$ AUGUST.
- NORTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA OFF GUJARAT COAST AND ALONG & OFF PAKISTAN COASTS DURING 31ST AUGUST TO 1ST SEPTEMBER.
- NORTHWEST & ADJOINING WESTCENTRAL ARABIAN SEA AND ALONG & OFF PAKISTAN COAST FROM 31ST AUGUST TILL 2ND SEPTEMBER.

(B) DEPRESSION OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL

THE DEPRESSION OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH & SOUTH ODISHA COASTS MOVED NORTHWESTWARDS WITH A SPEED OF 07 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1200 UTC OF TODAY, THE 31ST AUGUST, 2024 OVER THE SAME REGION NEAR LATITUDE 18.1°N AND LONGITUDE 84.0°E, ABOUT 30 KM SOUTH-SOUTHWEST OF KALINGAPATNAM (ANDHRA PRADESH), 90 KM EAST-NORTHEAST OF VISAKHAPATNAM (ANDHRA PRADESH) AND 160 KM SOUTHWEST OF GOPALPUR (ODISHA).

IT IS LIKELY TO MOVE FURTHER NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ADJOINING SOUTH ODISHA COASTS BETWEEN VISAKHAPATNAM AND GOPALPUR CLOSE TO KALINGAPATNAM AROUND 1800 UTC OF TODAY, THE 31ST AUGUST 2024.

ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER COASTAL ANDHRA PRADESH AND WESTCENTRAL BAY OF BENGAL. MINIMUM CTT IS MINUS 93 DEG CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 20-25 KTS GUSTING TO 35 KTS. ESTIMATED CENTRAL PRESSURE IS 996 HPA. AT 1200 UTC, KALINGAPATNAM REPORTED MEAN SEA LEVEL PRESSURE OF 997.3 HPA, PRESSURE CHANGE IN 24 HOURS AS -1.7 HPA & -5.0 DEPARTURE FROM NORMAL. VISAKHAPATNAM REPORTED MSLP OF 997.3 HPA, 24 HR PRESSURE CHANGE OF -3.2 & -4.8 HPA DEPARTURE FROM NORMAL.

SEA CONDITION AND ADVISORY FOR FISHERMEN IN ASSOCIATION WITH DEPRESSION OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGALOVER THE BAY OF BENGAL

WIND WARNING:

 SQUALLY WEATHER WITH WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH LIKELY OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL ON 31ST AUGUST.

- SQUALLY WIND SPEED REACHING 45-55 KMPH GUSTING TO 65 KMPH IS LIKELY TO PREVAIL ALONG & OFF NORTH ANDHRA PRADESH & SOUTH ODISHA COASTS ON 31ST AUGUST.
- SQUALLY WEATHER WITH WIND SPEED REACHING 35-45 KMPH GUSTING TO 55 KMPH IS LIKELY TO PREVAIL ALONG AND OFF NORTH ODISHA AND SOUTH ANDHRA PRADESH COASTS ON 31ST AUGUST.

SEA CONDITION:

- ROUGH TO VERY ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL ON 31ST AUGUST AND 1ST SEPTEMBER.
- ROUGH TO VERY ROUGH SEA CONDITION IS VERY LIKELY TO PREVAIL ALONG & OFF NORTH ANDHRA PRADESH & SOUTH ODISHA COASTS ON $31^{\rm ST}$ AUGUST AND $1^{\rm ST}$ SEPTEMBER

FISHERMEN WARNING:

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

REMARKS:

THE MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE PHASE 5 WITH AMPLITUDE GREATER THAN 1. IT WILL MOVE ACROSS THE SAME PHASE DURING NEXT 5 DAYS WITH AMPLITUDE REMAINING HIGHER THAN 1 THROUGHOUT. MJO PHASE AND AMPLITUDE IS HIGHLY FAVOURABLE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL.

CONSIDERING THE EXISTING ENVIRONMENTAL CONDITIONS, THE SEA SURFACE TEMPERATURE OVER THE BOB AND ARABIAN SEA (AS) IS 28-29°C. IT IS COLDER (<26°C) OVER WESTCENTRAL AS AND VERY WARM (>32°C) OVER GULF OF ADEN. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS HIGH (>100 KJ/CM²) OVER CENTRAL BOB AND LESS (<50 KJ/CM²) OVER NORTH & ADJOINING CENTRAL ARABIAN SEA. SEA CONDITIONS INDICATE THAT THE CYCLONE ASNA OVER NORTHEAST & ADJOINING NORTHWEST ARABIAN SEA HAS ENTERED INTO AN AREA WITH TCHP LESS THAN 50 KJ/CM² AND THUS, MAY NOT INTENSIFY SIGNIFICANTLY.

THE LOW LEVEL VORTICITY IS 150X10⁻⁵ S⁻¹ TO THE SOUTH OF THE SYSTEM AREA. LOW LEVEL CONVERGENCE IS 15X10⁻⁵ S⁻¹ TO THE SOUTH OF THE SYSTEM CENTRE AND UPPER LEVEL DIVERGENCE IS ALSO 20X10⁻⁵ S⁻¹ TO THE SOUTHWEST OF THE SYSTEM CENTRE. WIND SHEAR IS LOW TO MODERATE (15-20 KT) OVER CENTRAL PART OF NORTH AS. THESE FEATURES INDICATE THAT THE CYCLONIC STORM ASNA OVER NORTHEAST ARABIAN SEA & ADJOINING AREAS OF PAKISTAN COAST IS LIKELY TO MAINTAIN ITS INTENSITY OF CYCLONIC STORM DURING NEXT 24 HOURS. THE SYSTEM IS TRACKING WESTWARDS UNDER THE INFLUENCE OF EASTERLIES PREVAILING TO THE SOUTH OF RIDGE.

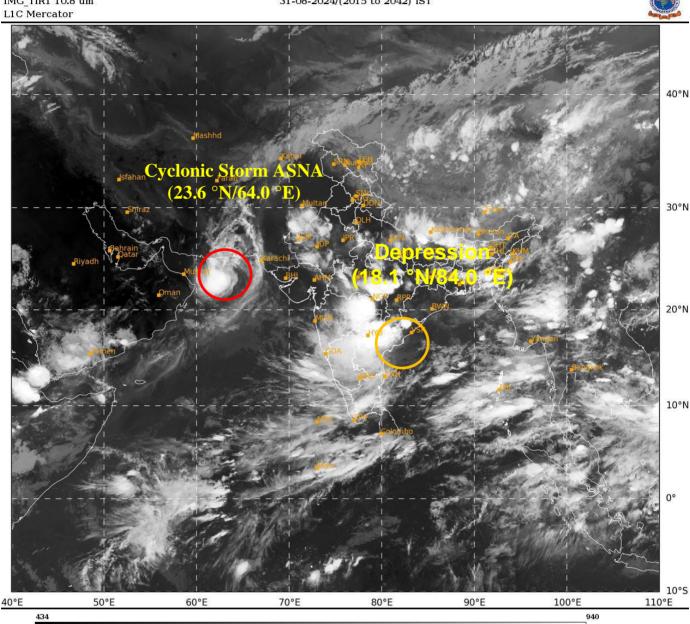
OVER THE BOB, THE LOW LEVEL VORTICITY IS POSITIVE AND IS AROUND 150×10^{-5} S⁻¹ OVER CENTRAL BOB WITH EXTENSION UPTO MID TROPOSPHERIC LEVELS. LOW LEVEL CONVERGENCE IS 10×10^{-5} S⁻¹ TO THE SOUTH OF LOW PRESSURE AREA AND UPPER LEVEL DIVERGENCE IS ALSO 20×10^{-5} S⁻¹ AROUND THE SYSTEM AREA EXTENDING UPTO SOUTHWEST BOB. WIND SHEAR IS LOW TO MODERATE OVER CENTRAL AND NORTH BOB. LOWER LEVEL WINDS INDICATE BROADSCALE CIRCULATION DEVELOPING OVER THE CENTRAL BOB.

CONSIDERING ALL THE ABOVE, IT IS INFERRED THAT:

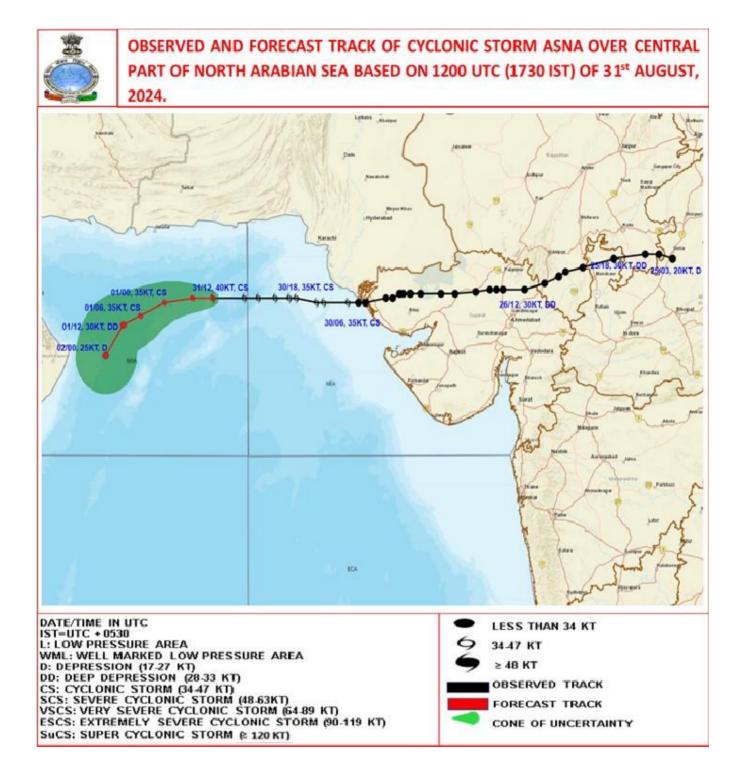
- (1)CYCLONIC STORM "ASNA" (PRONOUNCED AS AS-NA) OVER CENTRAL PARTS OF NORTH ARABIAN SEA IS LIKELY TO CONTINUE TO MOVE NEARLY WESTWARDS OVER NORTH ARABIAN SEA AND MAINTAIN ITS INTENSITY TILL 0000 UTC OF 1ST SEPTEMBER. THEREAFTER, IT IS LIKELY TO MOVE WEST-SOUTHWESTWARDS FOR SUBSEQUENT 24 HOURS AND WEAKEN GRADUALLY INTO A DEPRESSION OVER NORTHWEST ARABIAN SEA BY 0000 UTC OF 2ND SEPTEMBER 2024.
- (2) DEPRESION OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL IS LIKELY TO MOVE FURTHER WEST-NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ADJOINING SOUTH ODISHA COASTS BETWEEN VISHAKHAPATNAM AND GOPALPUR CLOSE TO KALINGAPATNAM AROUND 1800 UTC 31ST AUGUST 2024.

(M SHARMA) SCIENTIST-D RSMC NEW DELHI

SAT : INSAT-3DR IMG IMG_TIR1 10.8 um L1C Mercator 31-08-2024/(1445 to 1512) GMT 31-08-2024/(2015 to 2042) IST

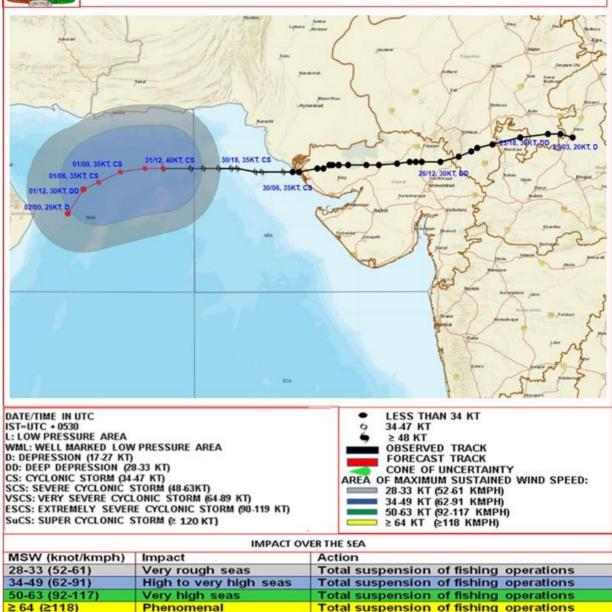


IMD, DELHI





OBSERVED AND FORECAST TRACK OF CYCLONIC STORM ASNA OVER CENTRAL PART OF NORTH ARABIAN SEA BASED ON 1200 UTC (1730 IST) OF 31st AUGUST, 2024.



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL BASED ON 1200 UTC (1730 IST) OF 31st AUGUST, 2024.







