



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI  
TROPICAL CYCLONE ADVISORY BULLETIN NO. 9

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. 9 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0730 UTC OF 03.06.2020 BASED ON 0600 UTC OF 03.06.2020.

**SUB: SEVERE CYCLONIC STORM “NISARGA” OVER EASTCENTRAL ARABIAN SEA**

THE **SEVERE CYCLONIC STORM ‘NISARGA’** OVER EASTCENTRAL ARABIAN SEA MOVED NORTHEASTWARDS WITH A SPEED OF ABOUT 19 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 0600UTC OF TODAY THE 03<sup>RD</sup> JUNE, 2020 OVER EASTCENTRAL ARABIAN SEA, CLOSE TO MAHARASHTRA (RAIGAD DISTRICT) COAST NEAR LATITUDE 18.1°N AND LONGITUDE 72.8°E, ABOUT 60 KM SOUTH OF ALIBAGH (43058), 110 KM SOUTH OF MUMBAI (43003), AND 340 KM SOUTH-SOUTHWEST OF SURAT (42840).

IT IS VERY LIKELY TO MOVE NORTHEASTWARDS VERY CLOSE TO COAST AND CROSS NORTH MAHARASHTRA COAST **CLOSE TO SOUTH OF ALIBAGH(43058) (RAIGAD DISTRICT, MAHARASHTRA) DURING THE AFTERNOON (0730 -1030 UTC) OF TODAY THE 03<sup>RD</sup> JUNE AS A SEVERE CYCLONIC STORM WITH MAXIMUM SUSTAINED WIND SPEED OF 100-110 KMPH GUSTING TO 120 KMPH.**

THE SYSTEM IS NOW BEING CONTINUOUSLY TRACKED BY THE DOPPLER WEATHER RADARS (DWRS) AT MUMBAI (43003) AND GOA (43192).

AS PER THE LATEST SATELLITE AND RADAR OBSERVATIONS AT 0700UTC OF TODAY THE **LANDFALL PROCESS HAS STARTED AND WILL BE COMPLETED DURING NEXT 03 HOURS.**

Forecast track and intensity are given in the following table:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SURFACE WIND (KMPH)	SUSTAINED WIND SPEED	CATEGORY OF CYCLONIC DISTURBANCE
03.06.20/0600	18.1/72.8	100-110 GUSTING TO 120		SEVERE CYCLONIC STORM
03.06.20/1200	18.7/73.3	80-90 GUSTING TO 100		CYCLONIC STORM
03.06.20/1800	19.4/73.9	50-60 GUSTING TO 70		DEEP DEPRESSION
04.06.20/0000	20.2/74.6	40-50 GUSTING TO 60		DEPRESSION
04.06.20/0600	20.8/75.1	30-40 GUSTING TO 50		DEPRESSION

**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**

**AS PER INSAT-3D SATELLITE IMAGERY BASED ON 0600 UTC OF 03<sup>RD</sup> JUNE, THE SYSTEM HAS FURTHER INTENSIFIED AND THE CURRENT INTENSITY OF THE SYSTEM IS T 4.0. A BANDING EYE IS OBSERVED. EYE WALL CLOUD REGION HAS ENTERED THE COAST. THE SYSTEM IS VERY CLOSE TO THE COAST. INSAT 3D FURTHER SHOWS ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER EASTCENTRAL ARABIAN SEA BETWEEN LATITUDE 12.5<sup>0</sup>N TO 19.0<sup>0</sup>N AND LONGITUDE 67.5<sup>0</sup>E TO 77.0<sup>0</sup>E. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 93°C.**

**EYE IS ALSO VISIBLE IN THE DWR IMAGERIES OF MUMBAI AND GOA WITH A DIAMETER ROUGHLY AROUND 44 KM.**

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 55 KNOTS GUSTING TO 65 KNOTS. THE SEA CONDITION IS HIGH TO VERY HIGH AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA.

AT 0600 UTC OF 02<sup>ND</sup> JUNE, ALIBAGH(43110) REPORTED MEAN SEA LEVEL PRESSURE OF 993.5 HPA AND SURFACE WIND SPEED OF 050°/12 KNOTS.

#### **STORM SURGE GUIDANCE**

STORM SURGE OF ABOUT 1-2 METERS HEIGHT ABOVE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE LOW LYING AREAS OF MUMBAI, THANE AND RAIGAD DISTRICTS AND 0.5-1 METER HEIGHT ABOVE THE ASTRONOMICAL TIDE LIKELY TO INUNDATE LOW LYING AREAS OF RATNAGIRI DISTRICT DURING THE TIME OF LANDFALL.

**(RK JENAMANI)  
SCIENTIST- E  
RSMC  
NEW DELHI**

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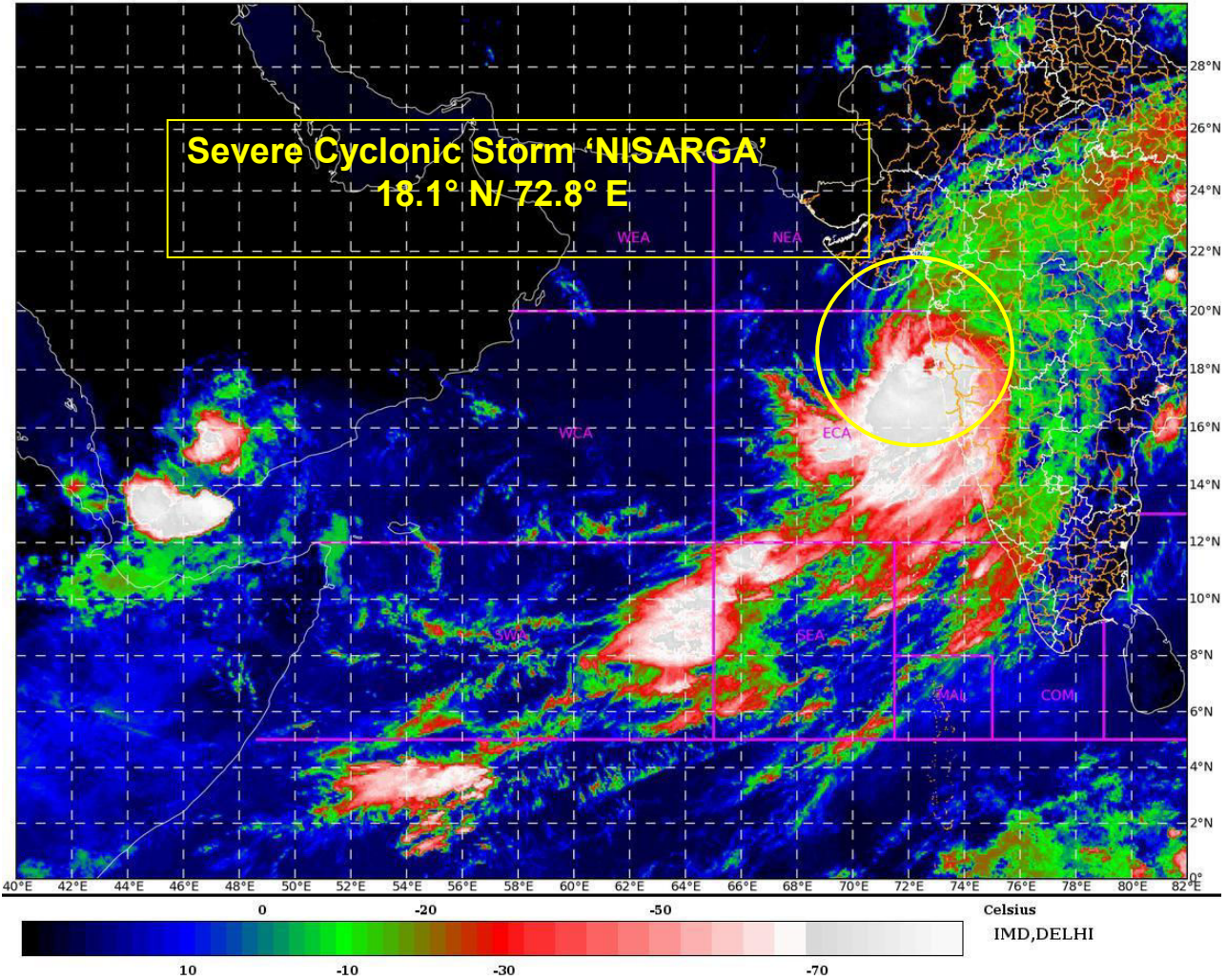
**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**

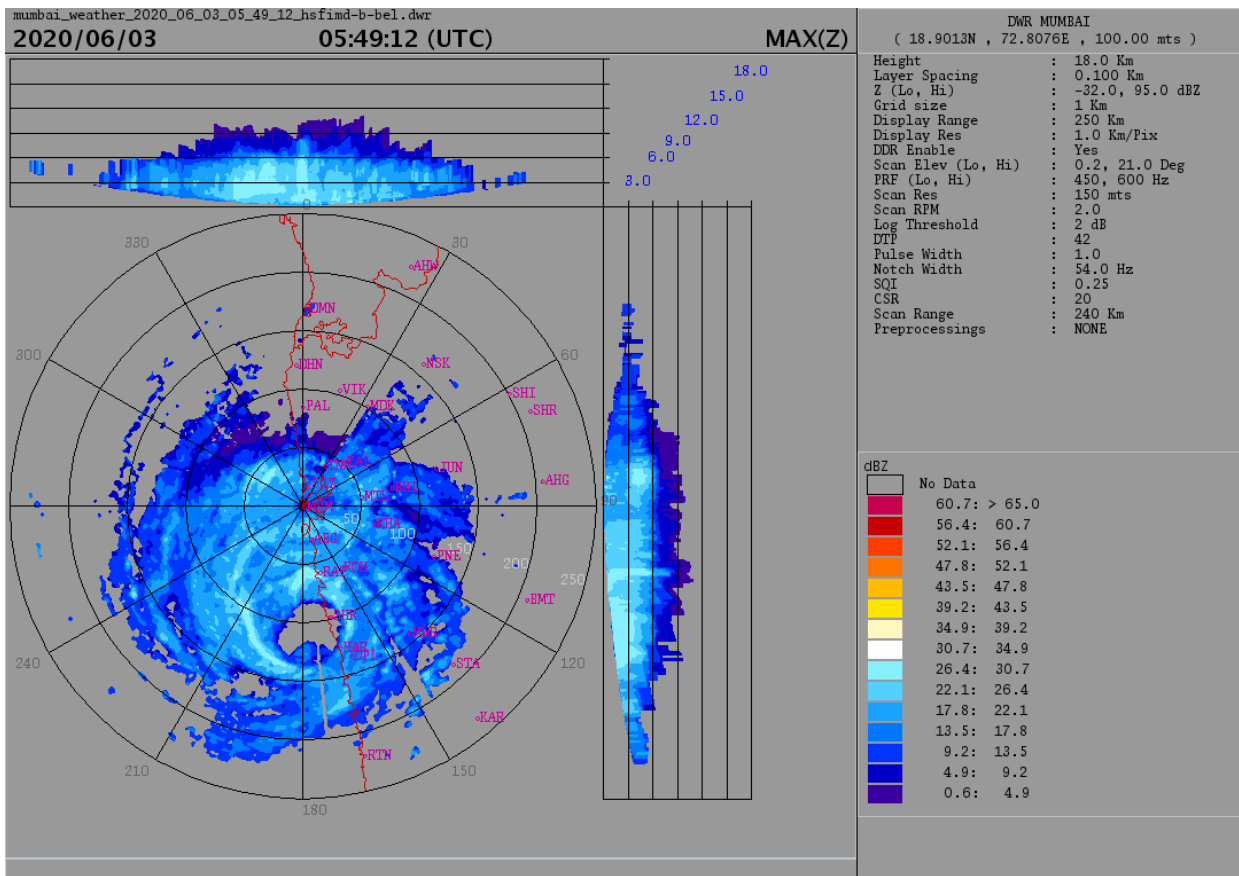
Legend: ECA- east-Central Arabian Sea

SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

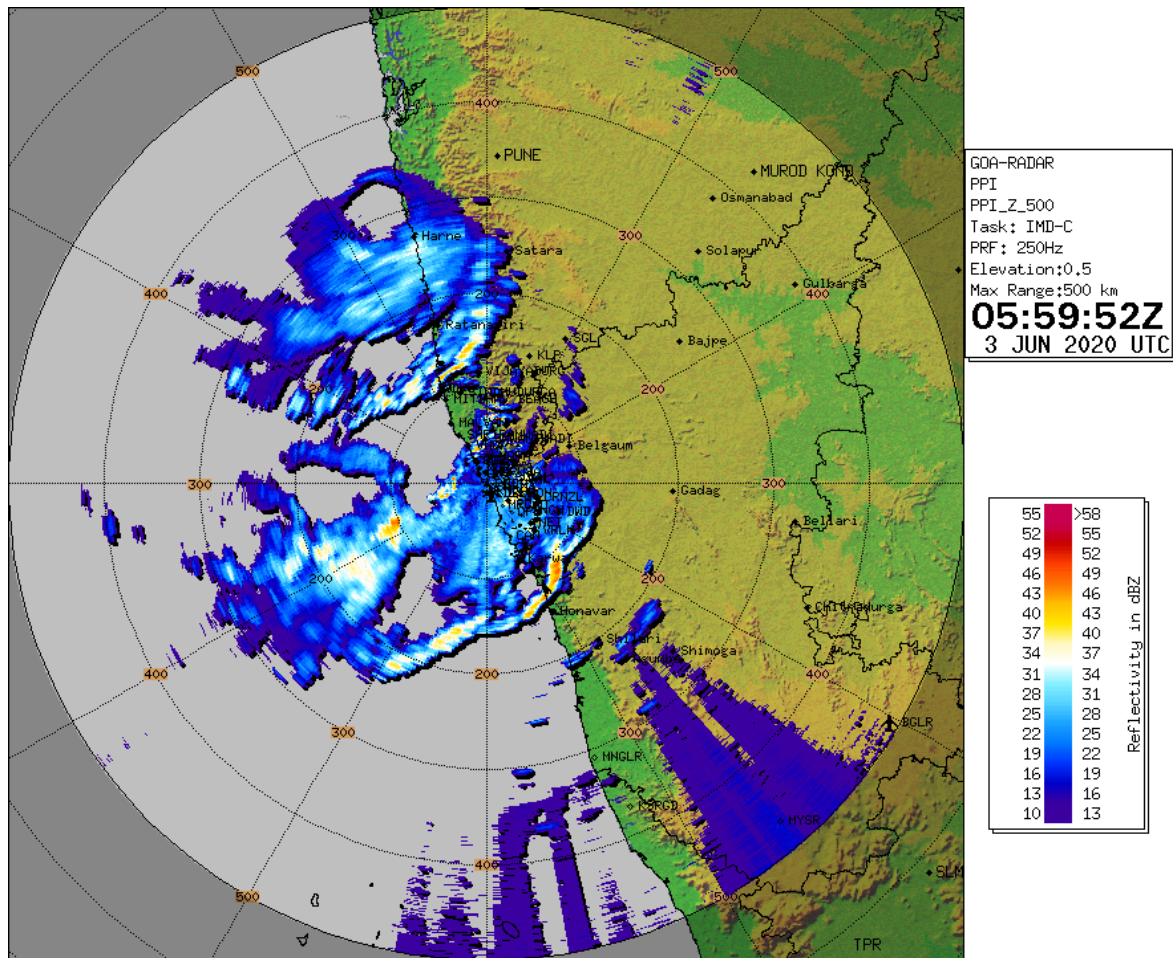
03-06-2020/(0600 to 0627) GMT  
03-06-2020/(1130 to 1157) IST



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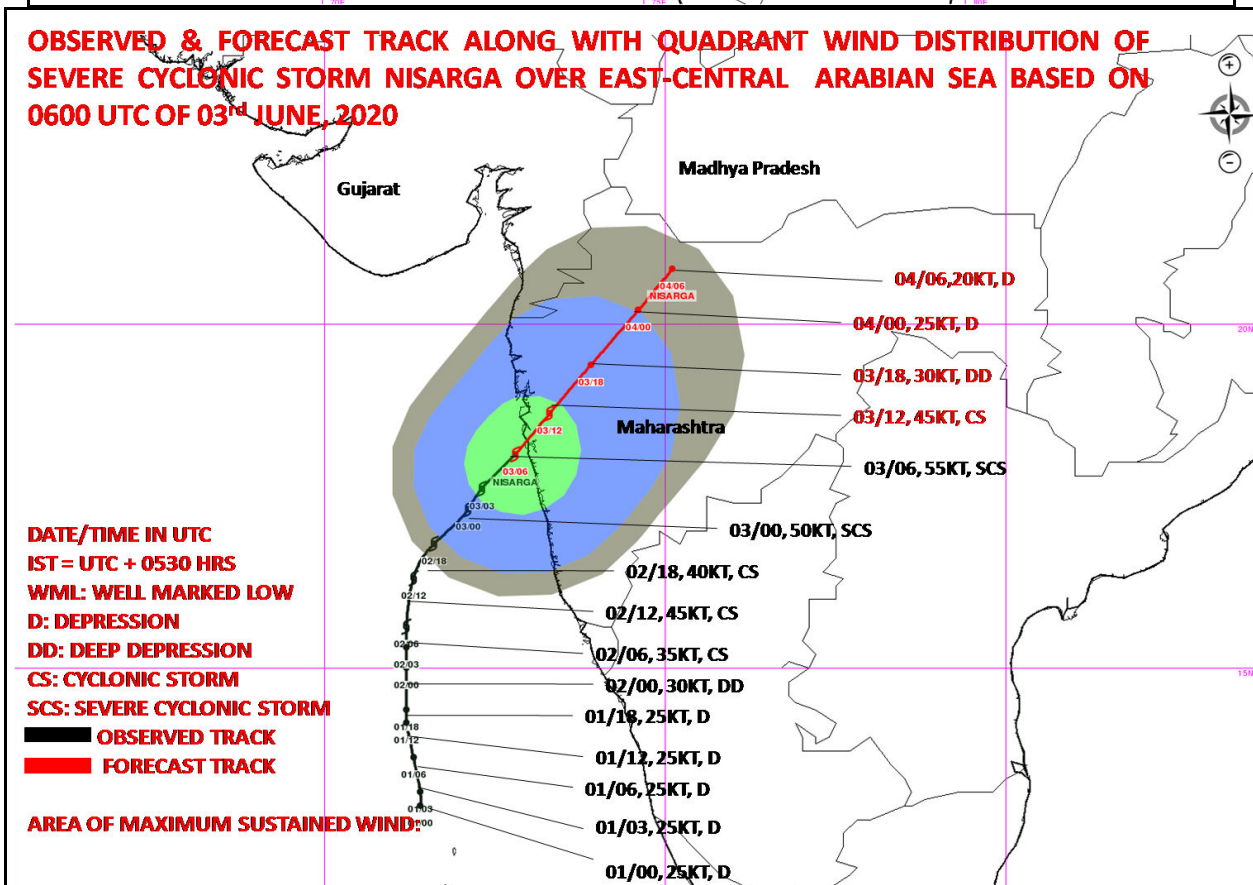
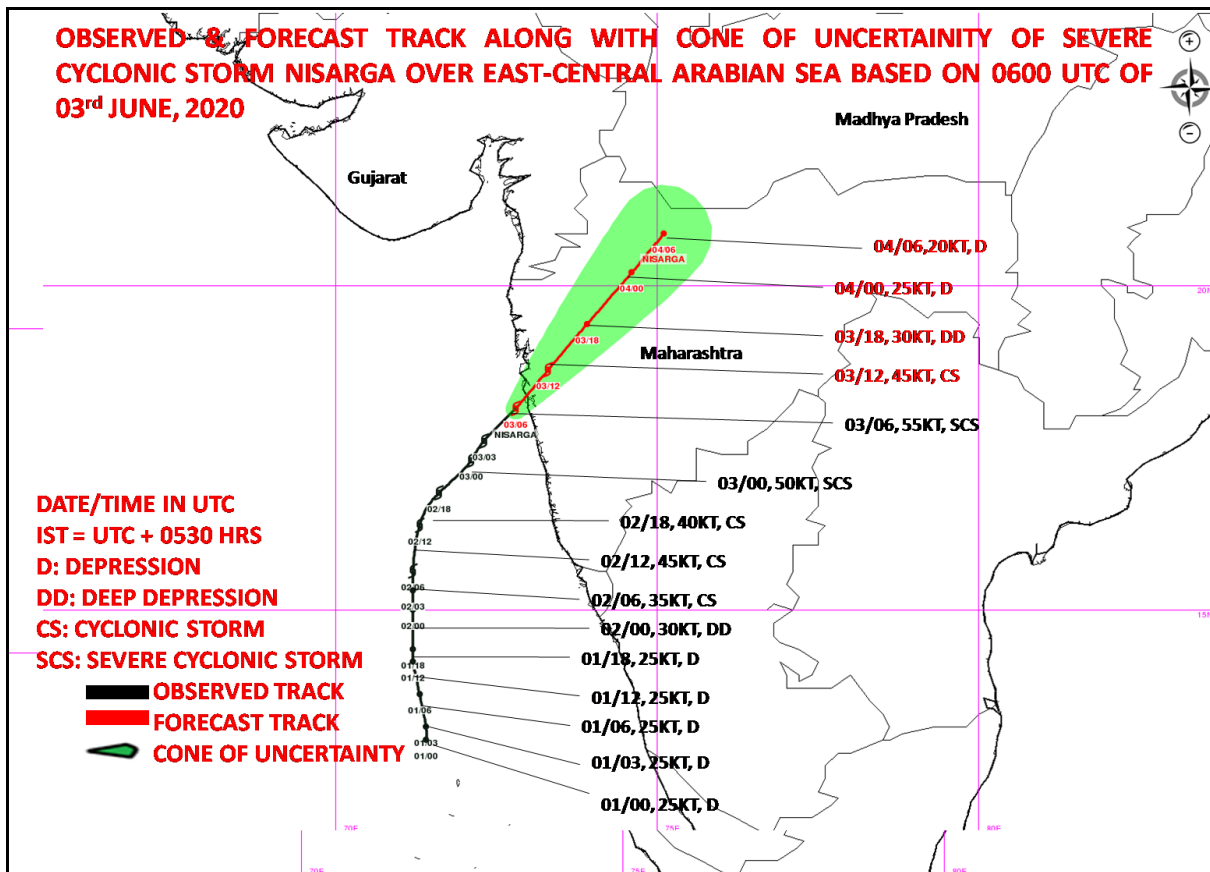
**DOPLER WEATHER RADAR MUMBAI AT 11:19 HOURS IST OF 03.06.2020**



**DOPLER WEATHER RADAR GOA AT 1129 HOURS IST OF 03.06.2020**

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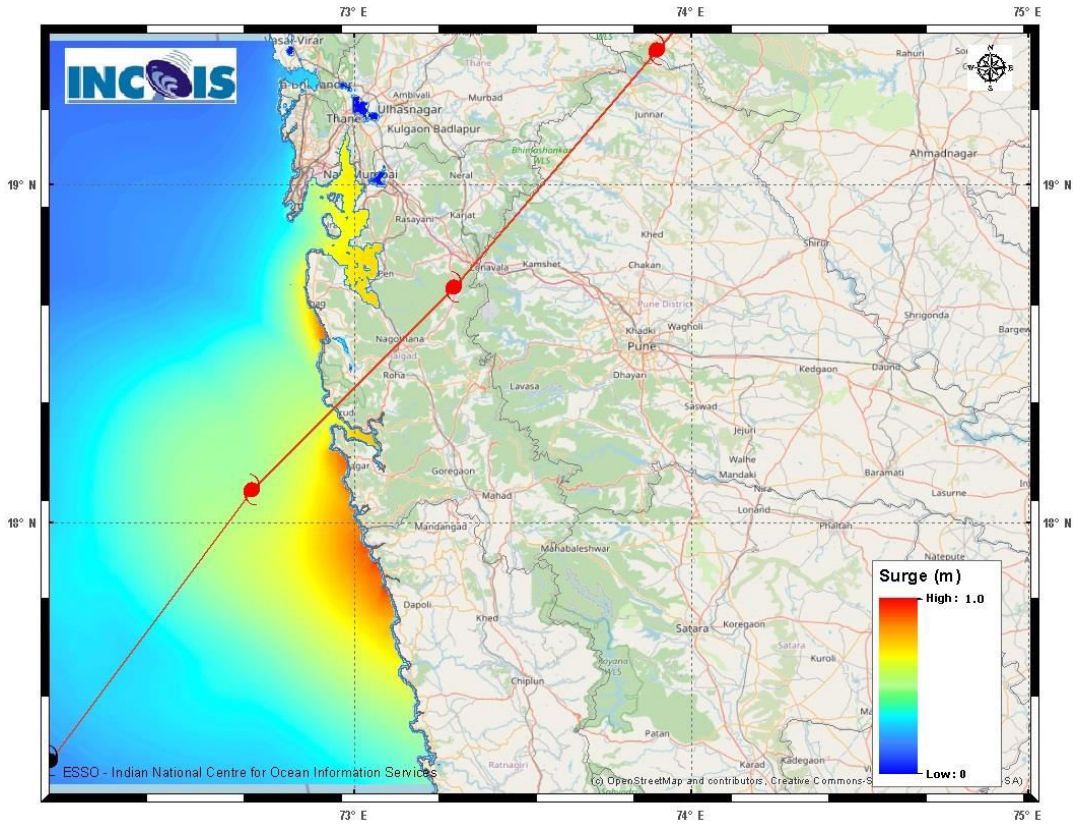


MSW(knot)/kmph	Impact	Action
28-33/(52-61)	Very rough seas.	Total suspension of fishing operations
34-40/(62-74)	High to very high seas	Total suspension of fishing operations
41-63/(75-117)	Very High seas	Total suspension of fishing operations

**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

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## Storm surge Warning



The below listed surge heights over and above astronomical tide.

MANDAL/TALUK	DISTRICT	STATE / UNION TERRITORY	NEAREST PLACE OF HABITATION	* STORM SURGE (m)	* EXPECTED INUNDATION EXTENT (km)
ALIBAG	RAIGAD	MAHARASHTRA	ALIBAG	0.5-1.3	Around 1.4
DAPOLI	RATNAGIRI	MAHARASHTRA	DAPOLI	0.6-0.9	Around 0.3
PEN	RAIGAD	MAHARASHTRA	PEN	0.7-0.9	Around 2.2
THANE	GREATER MUMBAI	MAHARASHTRA	THANE	0.7-0.9	Around 0.3

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