TROPICAL CYCLONE ADVISORY BULLETIN NO. 22 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1600 UTC OF 09.11.2019 BASED ON 1500 UTC OF 09.11.2019.

SUB: VERY SEVERE CYCLONIC STORM ‘BULBUL’ (PRONOUNCED AS BUL BUL) OVER NORTHWEST BAY OF BENGAL

THE VERY SEVERE CYCLONIC STORM ‘BULBUL’ (PRONOUNCED AS BUL BUL) OVER NORTHWEST BAY OF BENGAL CONTINUED TO MOVE NORTHEASTWARDS WITH A SPEED OF 11 KMHP DURING PAST 06 HOURS, AND LAY CENTRED AT 1500 UTC OF TODAY, THE 09TH NOVEMBER 2019, OVER NORTHWEST BAY OF BENGAL, NEAR LAT. 21.4°N AND LONG. 88.3°E, 040 KM EAST-SOUTHEAST OF SAGAR ISLANDS (42903), 085 KM EAST-SOUTHEAST OF DIGHA(42901), 125KM SOUTH-SOUTHWEST OF KOLKATA (42807), 085 KM EAST-SOUTHEAST OF DIGHA(42901), 125KM SOUTH-SOUTHWEST OF KOLKATA (42807), 100 KM SOUTH-SOUTHWEST OF CANNING TOWN(42812) AND 210 WEST-SOUTHWEST OF KHEPUPARA (41984). THE LANDFALL PROCESS HAS STARTED. WALL CLOUD REGION IS ENTERING INTO LAND. IT IS VERY LIKELY TO MOVE NORTHEASTWARDS, WEAKEN GRADUALLY AND CROSS WEST BENGAL - BANGLADESH COASTS BETWEEN SAGAR ISLANDS (42903) AND KHEPUPARA (41984), ACROSS SUNDERBAN DELTA DURING DURING NEXT 03 HOURS AS A SEVERE CYCLONIC STORM WITH MAXIMUM SUSTAINED WIND SPEED OF 110-120 KMPH GUSTING TO 135 KMPH.

THE VERY SEVERE CYCLONIC STORM ‘BULBUL’ IS BEING TRACKED BY THE DOPPLER WEATHER RADARS AT GOPALPUR, PARADIP AND KOLKATA IN ADDITION TO OTHER OBSERVING PLATFORMS.

Forecast track and intensity are given in the following table:

<table>
<thead>
<tr>
<th>Date/Time (UTC)</th>
<th>Position</th>
<th>Maximum sustained surface wind speed (kmph)</th>
<th>Category of cyclonic disturbance</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.11.19/1500</td>
<td>21.4</td>
<td>88.3</td>
<td>120-130 gusting to 145</td>
</tr>
<tr>
<td>09.11.19/1800</td>
<td>21.8</td>
<td>88.7</td>
<td>110-120 gusting to 135</td>
</tr>
<tr>
<td>10.11.19/0000</td>
<td>22.4</td>
<td>89.3</td>
<td>80-90 gusting to 100</td>
</tr>
<tr>
<td>10.11.19/0600</td>
<td>22.9</td>
<td>90.0</td>
<td>50-60 gusting to 70</td>
</tr>
<tr>
<td>10.11.19/1200</td>
<td>23.1</td>
<td>90.6</td>
<td>30-40 gusting to 50</td>
</tr>
</tbody>
</table>

AS PER THE SATELLITE IMAGERY AT 1500 UTC OF 09TH NOVEMBER, 2019, CURRENT INTENSITY OF THE SYSTEM IS T 4.5/4.5. ASSOCIATED BROKEN LOW TO MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER NORTHWEST AND ADJOINING WEST CENTRAL BAY OF BENGAL NORTH OF LAT. 21.5°N AND WEST OF LONG. 88.4°E. THE MINIMUM CTT IS MINUS 33°C.
AT 1500 UTC OF 09th NOVEMBER, 2019, SURFACE STATIONS DIGHA(42901), REPORTED MEAN SEA LEVEL PRESSURE 1000.1 HPA AND WIND 020°/1 KNOTS HALDIA (42806) REPORTED MEAN SEA LEVEL PRESSURE 1003.3 HPA AND WIND 050°/09 KNOTS, KOLKOTA(42807) REPORTED MEAN SEA LEVEL PRESSURE 1006.6 HPA AND WIND 090°/06KNOTS AND CHANDBALI (42973) REPORTED MEAN SEA LEVEL PRESSURE 1007.0 HPA AND WIND 360°/03KNOTS

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 60 GUSTING TO 70 KNOTS AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 988 HPA. THE SEA CONDITION IS PHENOMENAL AROUND THE SYSTEM CENTRE.

STORM SURGE GUIDANCE

STORM SURGE HEIGHT OF ABOUT 1.5 TO 2.5 METRES ABOVE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE LOW LYING COASTAL AREAS OF BANGLADESH DURING THE TIME OF LANDFALL. MAXIMUM EXTENT OF INUNDATION IS LIKELY TO BE AROUND 2-3 KM INLAND.

STORM SURGE OF ABOUT 1.0 TO 2.0 METER HEIGHT ABOVE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE LOW LYING AREAS OF SOUTH AND NORTH 24 PARGANAS (WEST BENGAL) AND 0.5-1.0 METER HEIGHT ABOVE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE LOW LYING AREAS OF EAST MEDINIPUR (WEST BENGAL) DURING THE TIME OF LANDFALL. MAXIMUM EXTENT OF INUNDATION IS LIKELY TO UPTO 2KM INLAND.

REMARKS


THE SYSTEM IS LYING NORTH OF THE UPPER TROPOSPHERIC RIDGE LINE ALONG 21° N. HENCE, THE SYSTEM STARTED TO MOVE NORTHEASTWARDS UNDER THE INFULENCE OF SOUTHWESTERLY WINDS TO THE NORTH OF THE RIDGE. THE SYSTEM IS EXPERIENCING HIGH VERTICAL WIND SHEAR AS WELL AS LOW TCHP VALUE OVER THE NORTH BAY OF BENGAL. ALONG WITH IT, INTERACTION WITH LAND SURFACE ALSO WILL CAUSE WEAKENING OF THE SYSTEM. DUE TO ALL THESE ENVIRONMENTAL CONDITIONS, THE SYSTEM IS EXPECTED TO WEAKEN SLIGHTLY WHILE MOVING NORTHEASTWARDS AND CROSS WEST BENGAL-BANGLADESH COASTS BETWEEN SAGAR ISLANDS (42903) AND KHEPUPARA (41984), ACROSS SUnderban Delta during 1430-1730 UTC of 9th NOVEMBER AS A SEVERE CYCLONIC STORM. MAJORITY OF THE NWP MODELS ARE IN AGREEMENT WITH THE ABOVE ANALYSIS.

(RK JENAMANI)
SCIENTIST-F, RSMC, NEW DELHI
Very Severe Cyclonic Storm 'Bulbul' (21.2°N/ 88.1° E)

15:43 / 09-Nov-2019

Kolkata

MAX (dBZ)

60.0 dBZ
57.3 dBZ
54.7 dBZ
52.0 dBZ
49.3 dBZ
46.7 dBZ
44.0 dBZ
41.3 dBZ
38.7 dBZ
36.0 dBZ
33.3 dBZ
30.7 dBZ
28.0 dBZ
25.3 dBZ
22.7 dBZ
20.0 dBZ

PDF File: 25OZ.max
Cut-off Filter: WRC/2006-7
Time sampling: 88
PRF: 600 Hz / 450 Hz
Range: 250 km
Height: 0.100 km to 18.000 km
Hor. Res: 1.000 km/pixel
Vert. Res: 0.0009 km/pixel