REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY BULLETIN NO.40

FROM: RSMC–TROPICAL CYCLONES, NEW DELHI
TO:  STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
      STORM WARNING CENTRE, BANGKOK (THAILAND)
      STORM WARNING CENTRE, COLOMBO (SRLANKA)
      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. 40 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0000 UTC OF 30.10.2019 BASED ON 2100 UTC OF 29.10.2019.

SUB:  (A) EXTREMELY SEVERE CYCLONIC STORM ‘KYARR’ (PRONOUNCED AS KYARR) OVER WESTCENTRAL AND ADJOINING EASTCENTRAL & NORTH ARABIAN SEA.
      (B) WELL MARKED LOW PRESSURE AREA OVER LAKSHADWEEP, MALDIVES & ADJOINING COMORIN AREA

(A) EXTREMELY SEVERE CYCLONIC STORM ‘KYARR’ (PRONOUNCED AS KYARR) OVER WESTCENTRAL AND ADJOINING EASTCENTRAL & NORTH ARABIAN SEA

THE EXTREMELY SEVERE CYCLONIC STORM ‘KYARR’ OVER WESTCENTRAL AND ADJOINING EASTCENTRAL & NORTH ARABIAN SEA MOVED SLOWLY WEST-NORTHWESTWARDS WITH A SPEED OF 05 KMPH DURING PAST 06 HRS AND LAY CENTRED AT 2100 HRS UTC OF 29TH OCTOBER, 2019 NEAR LATITUDE 19.6°N AND LONGITUDE 62.6°E, ABOUT 1070 KM WEST-NORTHWEST OF MUMBAI (MAHARASHTRA), 960 KM EAST-NORTHEAST OF SALalah (OMAN) AND 420 KM EAST-SOUTHEAST OF MASIRAH (OMAN). IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS DURING NEXT 06 HOURS, RE-CURVE WEST-SOUTHWESTWARDS THEREAFTER AND MOVE TOWARDS GULF OF ADEN OFF SOUTH OMAN-YEMEN COASTS DURING SUBSEQUENT 3 DAYS. IT IS VERY LIKELY TO WEAKEN INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 06 HOURS AND FURTHER INTO A SEVERE CYCLONIC STORM BY THE 0000UTC OF 31ST OCTOBER.
FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

<table>
<thead>
<tr>
<th>DATE/TIME (IST)</th>
<th>POSITION (LAT. °N/ LONG. °E)</th>
<th>MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)</th>
<th>CATEGORY OF CYCLONIC DISTURBANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.10.19/1800</td>
<td>19.6/62.6</td>
<td>165-175 GUSTING TO 190</td>
<td>EXTREMELY SEVERE CYCLONIC STORM</td>
</tr>
<tr>
<td>30.10.19/0000</td>
<td>19.6/62.3</td>
<td>160-170 GUSTING TO 190</td>
<td>EXTREMELY SEVERE CYCLONIC STORM</td>
</tr>
<tr>
<td>30.10.19/0600</td>
<td>19.5/61.9</td>
<td>140-150 GUSTING TO 165</td>
<td>VERY SEVERE CYCLONIC STORM</td>
</tr>
<tr>
<td>30.10.19/1200</td>
<td>19.4/61.6</td>
<td>130-140 GUSTING TO 155</td>
<td>VERY SEVERE CYCLONIC STORM</td>
</tr>
<tr>
<td>30.10.19/1800</td>
<td>19.2/61.3</td>
<td>110-120 GUSTING TO 130</td>
<td>SEVERE CYCLONIC STORM</td>
</tr>
<tr>
<td>31.10.19/0600</td>
<td>18.9/60.8</td>
<td>100-110 GUSTING TO 120</td>
<td>SEVERE CYCLONIC STORM</td>
</tr>
<tr>
<td>31.11.19/1800</td>
<td>18.1/59.8</td>
<td>80-90 GUSTING TO 100</td>
<td>CYCLONIC STORM</td>
</tr>
<tr>
<td>01.11.19/0600</td>
<td>17.2/58.8</td>
<td>70-80 GUSTING TO 90</td>
<td>CYCLONIC STORM</td>
</tr>
<tr>
<td>01.11.19/1800</td>
<td>16.2/57.6</td>
<td>60-70 GUSTING TO 80</td>
<td>CYCLONIC STORM</td>
</tr>
<tr>
<td>02.11.19/0600</td>
<td>15.2/56.5</td>
<td>50-60 GUSTING TO 70</td>
<td>DEEP DEPRESSION</td>
</tr>
<tr>
<td>02.11.19/1800</td>
<td>14.2/55.4</td>
<td>40-50 GUSTING TO 60</td>
<td>DEPRESSION</td>
</tr>
<tr>
<td>03.11.19/0600</td>
<td>13.2/54.3</td>
<td>30-40 GUSTING TO 50</td>
<td>DEPRESSION</td>
</tr>
</tbody>
</table>

REMARKS:

AS PER THE SATELLITE IMAGERY AT 2100 UTC OF 29TH OCTOBER, 2019, THE CURRENT INTENSITY OF THE SYSTEM IS T 4.5/C1 5.5. ASSOCIATED BROKEN LOW TO MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER WESTCENTRAL AND ADJOINING EAST CENTRAL ARABIAN SEA BETWEEN LAT 17.5°N TO 22.0°N AND LONG 60.0°E TO 64.0°E. THE MINIMUM CTT IS MINUS 93 DEG C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 95 KNOTS GUSTING TO 105 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 955 HPA. THE SEA CONDITION IS PHENOMENAL AROUND THE SYSTEM CENTRE. AT 2100 UTC A SHIP LOCATED NEAR LAT. 15.9°N / 62.4°E REPORTED MEAN SEA LEVEL PRESSURE 1007.2 HPA AND WIND 200°/20 KNOTS.


TOTAL PRECIPITABLE WATER IMAGERIES INDICATE CONTINUED REDUCTION IN WARM AND DRY AIR INCURSION IN THE SOUTHWESTERN SECTORS OF THE SYSTEM CENTRE. EQUATORWARD OUTFLOW IS TAKING PLACE IN THE UPPER TROPOSPHERIC LEVELS. ALL THESE ENVIRONMENTAL, DYNAMIC AND THERMODYNAMIC CONDITIONS INDICATE GRADUAL WEAKENING OF THE SYSTEM.

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19°N. THE SYSTEM IS BEING STEERED BY THE WINDS IN THE WESTERN PERIPHERY OF THE ANTI-CYCLONE LOCATED TO THE EAST OF THE SYSTEM. AS A RESULT, IT IS CONTINUING TO MOVE WEST-NORTHWESTWARDS SLOWLY BEING IN THE COL REGION. IT WILL COME UNDER THE INFLUENCE OF THE ANTICYCLONIC CIRCULATION OVER ARABIAN PENINSULA, LOCATED TO THE NORTHWEST OF SYSTEM BY 0000 UTC OF 30TH OCTOBER. SUBSEQUENTLY THE SYSTEM IS MOST LIKELY TO RECURVE WEST-SOUTHWESTWARDS AND VERY LIKELY TO MOVE TOWARDS GULF OF ADEN OFF SOUTH OMAN-YEMEN COASTS THEREAFTER. MAJORITY OF NUMERICAL MODELS AGREE WITH THE ABOVE INFERENCE.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%
(B) WELL MARKED LOW PRESSURE AREA OVER LAKSHADWEEP, MALDIVES & ADJOINING COMORIN AREA

THE WELL MARKED LOW PRESSURE AREA OVER LAKSHADWEEP, MALDIVES & ADJOINING COMORIN AREA PERSISTS. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER LAKSHADWEEP-MALDIVES AREAS AND ADJOINING SOUTHEAST ARABIAN SEA DURING NEXT 12 HOURS. IT IS LIKELY TO MOVE NORTHWESTWARDS ACROSS LAKSHADWEEP ISLANDS AND INTENSIFY INTO A DEEP DEPRESSION DURING SUBSEQUENT 12 HOURS.

(V R DURAI)
SCIENTIST-E, RSMC, NEW DELHI
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

EXTREMELY SEVERE CYCLONIC STORM 'KYARR' 19.6°N/62.6°E

Well Marked Low Pressure Area
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%