



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 01 (ARB/05/2019)

TIME OF ISSUE: 2040 HOURS IST

DATED: 02.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)  
CONTROL ROOM NDMA (FAX.NO. 26701729)  
CABINET SECRETARIAT (FAX.NO.23012284, 23018638)  
PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)  
SECRETARY, MOES, (FAX NO. 24629777)  
H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)  
DIRECTOR GENERAL, DOORDARSHAN (23385843)  
DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)  
PIB MOES (FAX NO. 23389042)  
UNI (FAX NO. 23355841)  
D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)  
DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)  
CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)  
ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)  
ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)  
ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)  
CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)  
CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)  
CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)  
CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

Sub: (a) Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean &  
(b) Low pressure area over Lakshadweep area and adjoining southeast Arabian Sea.

**(a) Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean**

Latest satellite imageries indicate that a depression has formed over **southwest Arabian Sea & adjoining equatorial Indian Ocean** and lay centred at 1730 hrs IST of today, the 02<sup>nd</sup> December, 2019 near latitude 5.7°N and longitude 56.6°E, about 820 km south-southeast of Socotra (Yemen), 1020 km southeast of Bosaso (Somalia) . It is very likely to intensify gradually into a cyclonic storm during next 48 hours. It is very likely to move west-northwestwards towards Somalia coast during next 72 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
02.12.19/1730	5.7/56.6	40-50 gusting to 60	Depression
02.12.19/2330	6.0/56.6	40-50 gusting to 60	Depression
03.12.19/0530	6.1/56.6	50-60 gusting to 70	Deep Depression
03.12.19/1130	6.2/56.5	50-60 gusting to 70	Deep Depression
03.12.19/1730	6.4/56.4	60-70 gusting to 80	Cyclonic Storm
04.12.19/0530	6.7/56.0	60-70 gusting to 80	Cyclonic Storm
04.12.19/1730	7.0/55.7	70-80 gusting to 90	Cyclonic Storm
05.12.19/0530	7.4/54.9	70-80 gusting to 90	Cyclonic Storm
05.12.19/1730	7.7/53.3	70-80 gusting to 90	Cyclonic Storm

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(b) Low pressure area over Lakshadweep area and adjoining southeast Arabian Sea.**

A low pressure area lies over Lakshadweep Area and adjoining Southeast Arabian Sea. It is likely to become more marked during next 24 hours and concentrate into a Depression during subsequent 24 hours.

**Warnings:**

**(i) Rainfall:**

- Lakshadweep: Light to moderate rainfall at most places with heavy to very heavy falls at isolated places during next 12 hours and Light to moderate rainfall at many places with isolated heavy falls during subsequent 24 hours and reduce thereafter.
- Kerala: Light to moderate rainfall at most places with heavy to very heavy falls at isolated places during next 24 hours.
- Tamil Nadu, Puducherry & Karaikal: Light to moderate rainfall at many places with heavy to very heavy falls over south coastal Tamil Nadu during next 12 hours and light to moderate rainfall at a few places with heavy falls at isolated places over south coastal Tamil Nadu during the subsequent 24 hours. Rainfall activity to further reduce thereafter.
- Coastal & south Interior Karnataka: Light to moderate rainfall at most places and heavy falls at isolated places during next 24 hours.

**(ii) Wind warning**

- Squally wind speed reaching 40-50 kmph gusting to 60 kmph very likely to prevail over southwest Arabian Sea, Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 12 hours.
- It is very likely to increase becoming squally wind speed reaching 50-60 kmph gusting to 70 kmph over southwest Arabian Sea and along & off Somalia coast from 3<sup>rd</sup> December morning. Also squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely to prevail over Lakshadweep area, southeast & adjoining eastcentral Arabian Sea and along & off Karnataka coast on 3<sup>rd</sup> December.
- Wind speed is very likely to further increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph, over southwest Arabian Sea and along & off Somalia coast from 3<sup>rd</sup> December evening and 70-80 kmph gusting to 90 kmph from 4<sup>th</sup> December evening. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea and along & off Maharashtra coast.

**(iii) Sea condition**

- The Sea condition is very likely to be rough to very rough over southwest Arabian Sea, Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 12 hours.
- It is very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from 3<sup>rd</sup> December evening and continue to remain rough to very rough over east central Arabian Sea and along & off Karnataka – Maharashtra- Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December.

**(iv) Fishermen Warning**

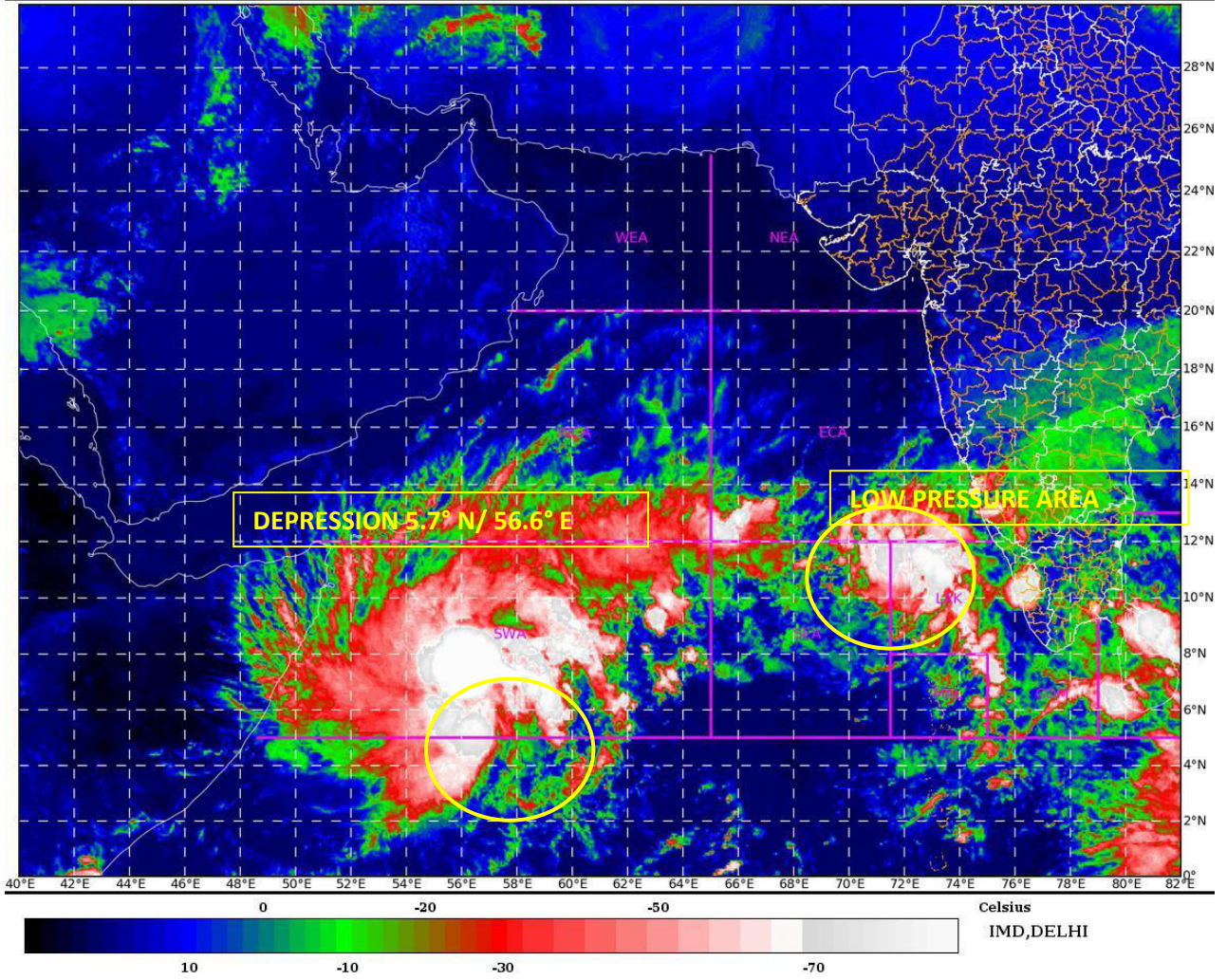
- The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 5 days.
- The fishermen are also advised not to venture into Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 12 hours and over southeast & adjoining east central Arabian Sea and along & off Karnataka- Maharashtra – Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December 2019.

*The next bulletin will be issued at 2330 hrs IST of 02<sup>nd</sup> December, 2019.*

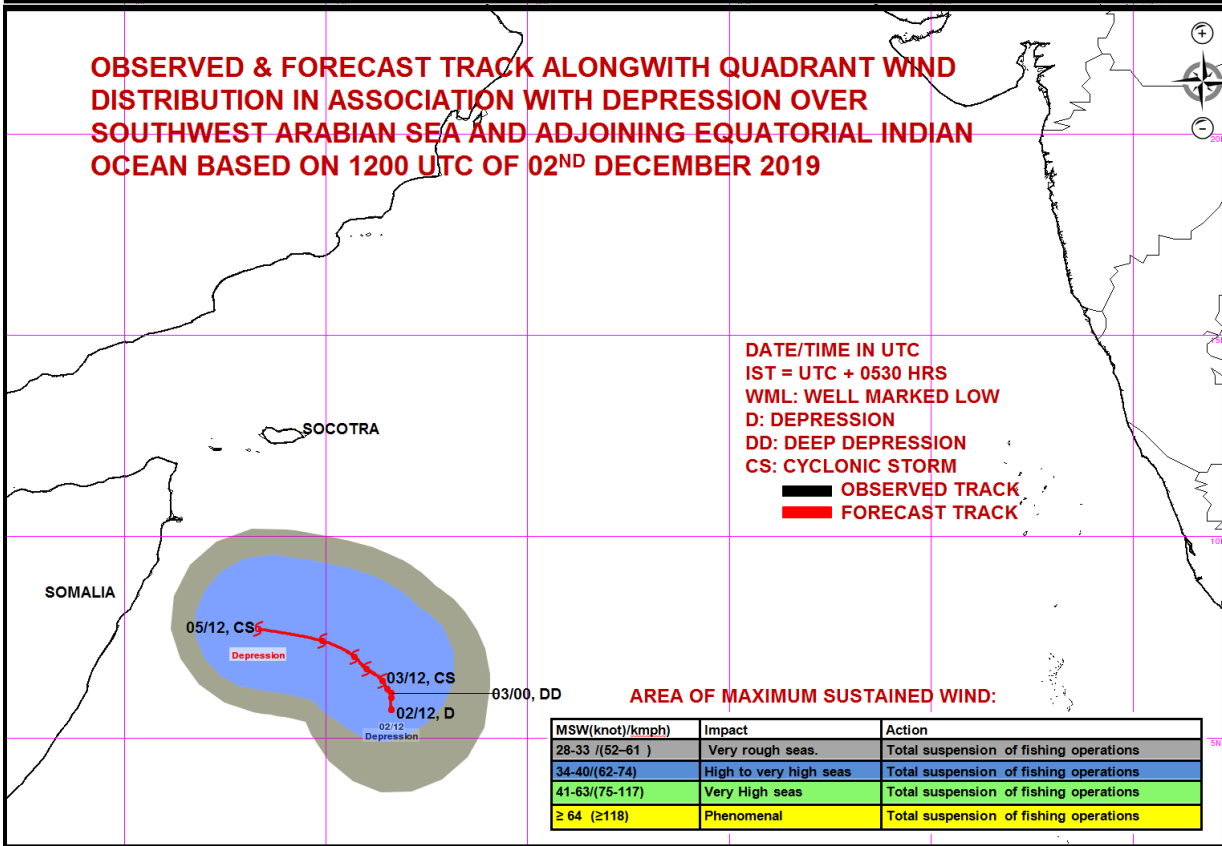
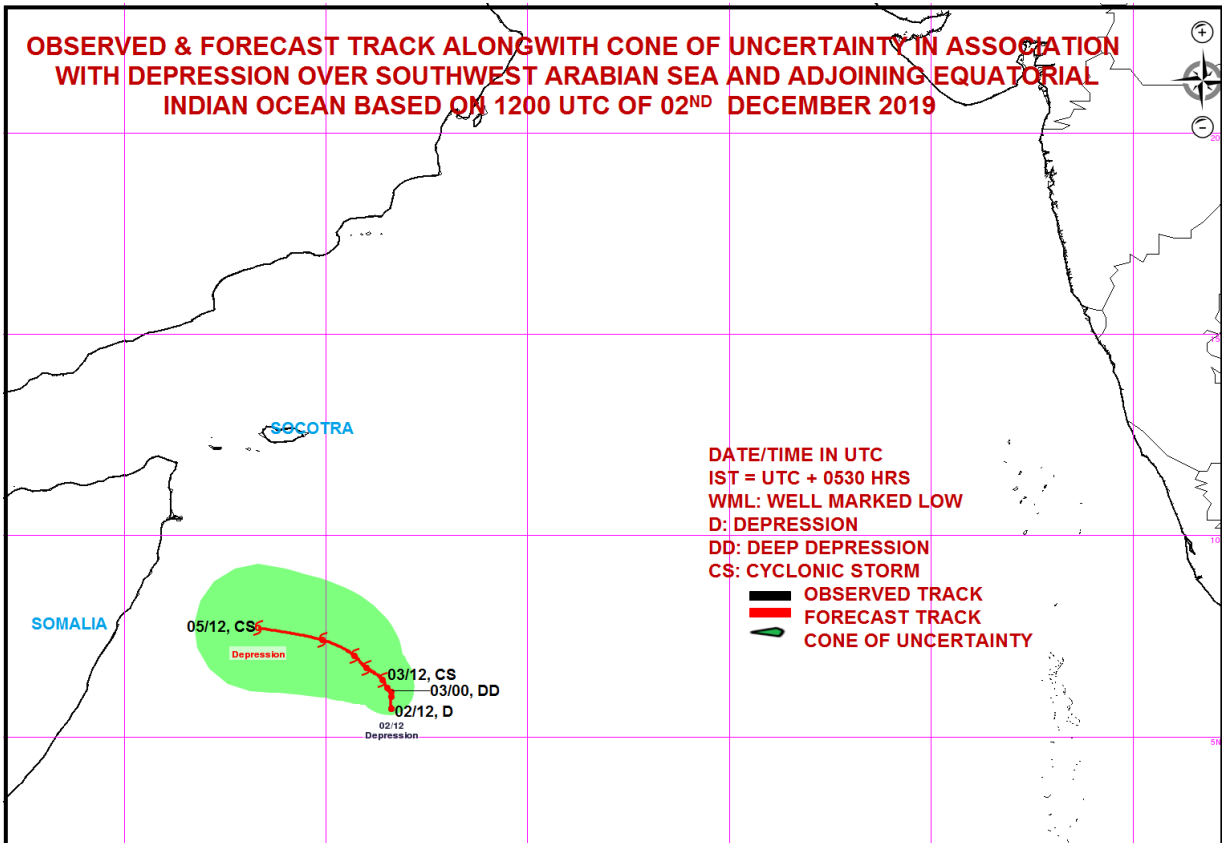
**(Sunitha Devi.S)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 02 (ARB/05/2019)

TIME OF ISSUE: 0130 HOURS IST

DATED: 03.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

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DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

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D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

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CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

Sub: (a) Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean &  
(b) Low pressure area over Lakshadweep area and adjoining southeast Arabian Sea.

(a) Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean

The depression over southwest Arabian Sea & adjoining equatorial Indian Ocean moved north-northwestwards with a speed of 07 Kmph during the past 06 hrs and lay centred at 2330 hrs IST of 02<sup>nd</sup> December, 2019 near latitude 6.1°N and longitude 56.5°E, about 780 km south-southeast of Socotra (Yemen) and 990 km southeast of Bosaso (Somalia). It is very likely to intensify gradually into a cyclonic storm during next 48 hours. It is very likely to move north-northwestwards initially and then west-northwestwards towards Somalia coast during next 72 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
02.12.19/2330	6.1/56.5	40-50 gusting to 60	Depression
03.12.19/0530	6.2/56.5	50-60 gusting to 70	Deep Depression
03.12.19/1130	6.3/56.5	50-60 gusting to 70	Deep Depression
03.12.19/1730	6.5/56.4	60-70 gusting to 80	Cyclonic Storm
03.12.19/2330	6.7/56.2	60-70 gusting to 80	Cyclonic Storm
04.12.19/1130	6.9/55.9	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	7.3/55.1	70-80 gusting to 90	Cyclonic Storm
05.12.19/1130	7.7/53.5	70-80 gusting to 90	Cyclonic Storm
05.12.19/2330	7.8/52.9	70-80 gusting to 90	Cyclonic Storm

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(b) Low pressure area over Lakshadweep area and adjoining southeast Arabian Sea.**

A low pressure area lies over Lakshadweep Area and adjoining Southeast Arabian Sea. It is likely to become more marked during next 24 hours and concentrate into a Depression during subsequent 24 hours.

**Warnings:**

**(i) Rainfall:**

- Lakshadweep: Light to moderate rainfall at most places with heavy to very heavy falls at isolated places during next 12 hours and Light to moderate rainfall at many places with isolated heavy falls during subsequent 24 hours and reduce thereafter.
- Kerala: Light to moderate rainfall at most places with heavy to very heavy falls at isolated places during next 24 hours.
- Tamil Nadu, Puducherry & Karaikal: Light to moderate rainfall at many places with heavy to very heavy falls over south coastal Tamil Nadu during next 12 hours and light to moderate rainfall at a few places with heavy falls at isolated places over south coastal Tamil Nadu during the subsequent 24 hours. Rainfall activity to further reduce thereafter.
- Coastal & south Interior Karnataka: Light to moderate rainfall at most places and heavy falls at isolated places during next 24 hours.

**(ii) Wind warning**

- Squally wind speed reaching 40-50 kmph gusting to 60 kmph very likely to prevail over southwest Arabian Sea, Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 06 hours.
- It is very likely to increase becoming squally wind speed reaching 50-60 kmph gusting to 70 kmph over southwest Arabian Sea and along & off Somalia coast from 3<sup>rd</sup> December morning. Also squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely to prevail over Lakshadweep area, southeast & adjoining eastcentral Arabian Sea and along & off Karnataka coast on 3<sup>rd</sup> December.
- Wind speed is very likely to further increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph, over southwest Arabian Sea and along & off Somalia coast from 3<sup>rd</sup> December evening and 70-80kmph gusting to 90 kmph from 4<sup>th</sup> December evening. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea and along & off Maharashtra coast.

**(iii) Sea condition**

- The Sea condition is very likely to be rough to very rough over southwest Arabian Sea, Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 06 hours.
- It is very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from 3<sup>rd</sup> December evening and continue to remain rough to very rough over east central Arabian Sea and along & off Karnataka – Maharashtra- Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December.

**(iv) Fishermen Warning**

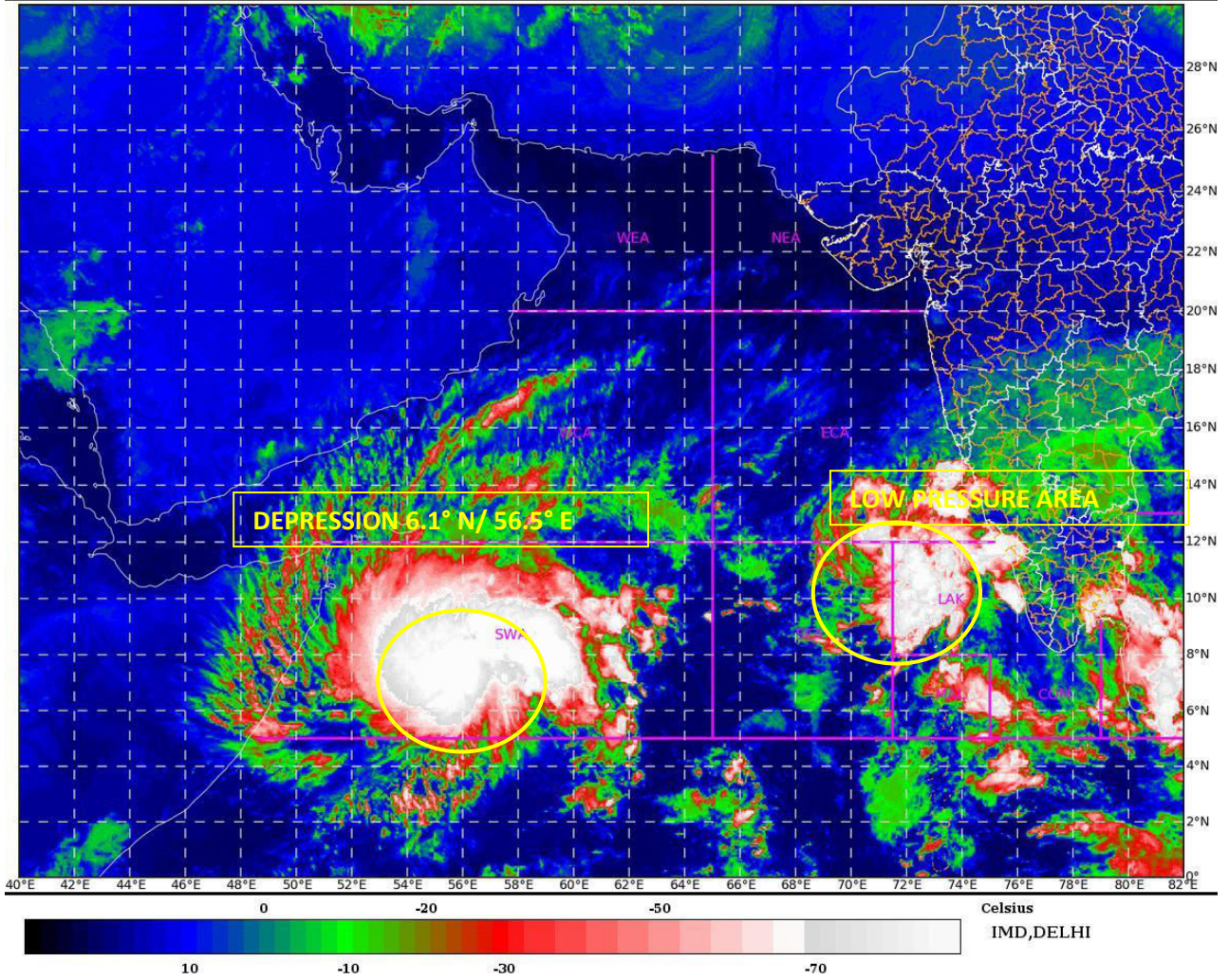
- The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 5 days.
- The fishermen are also advised not to venture into Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 06 hours and over southeast & adjoining east central Arabian Sea and along & off Karnataka - Maharashtra – Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December 2019.

*The next bulletin will be issued at 0830 hrs IST of 03<sup>rd</sup> December, 2019.*

**(S.P. Singh)  
Scientist-B, RSMC, New Delhi**

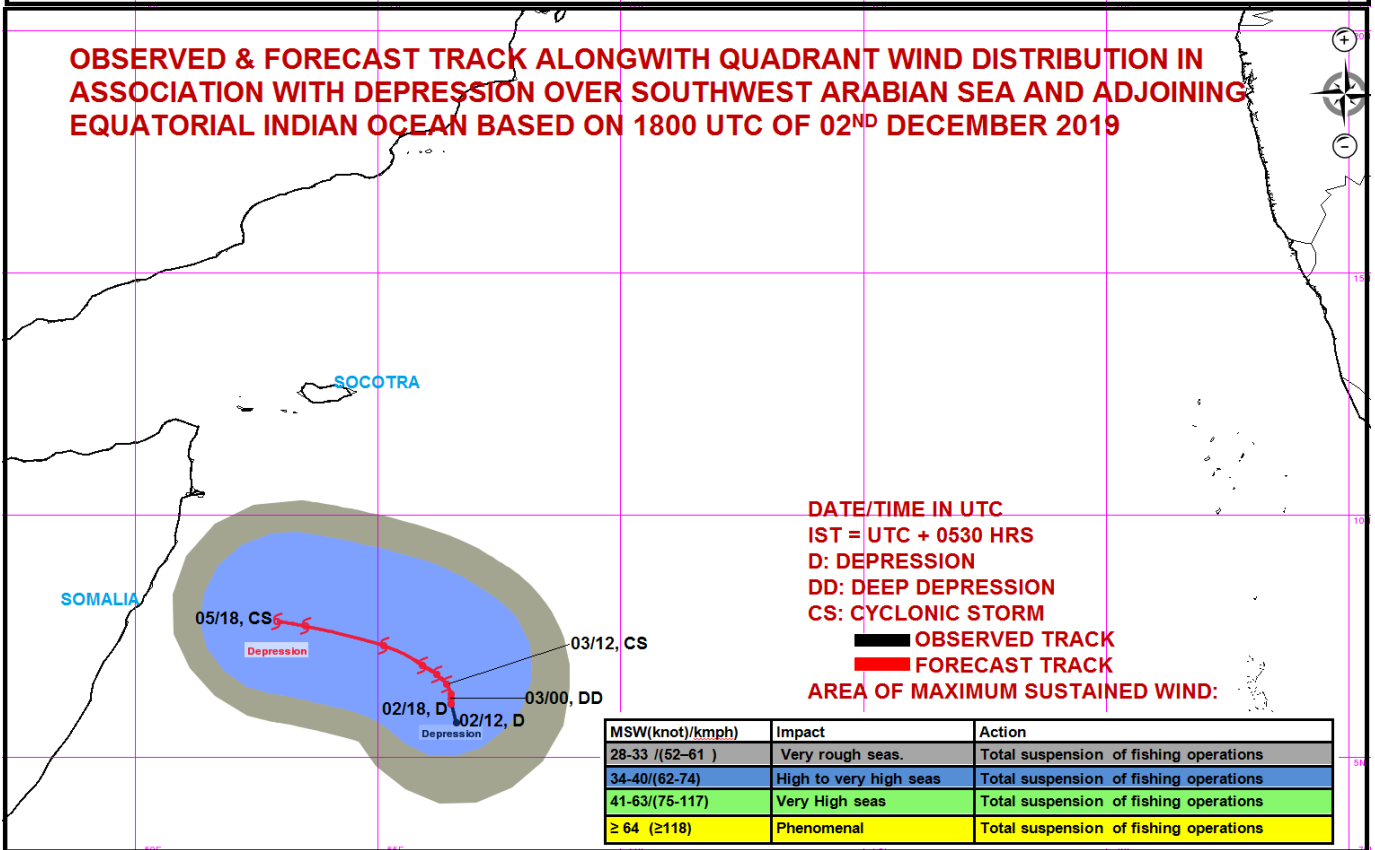
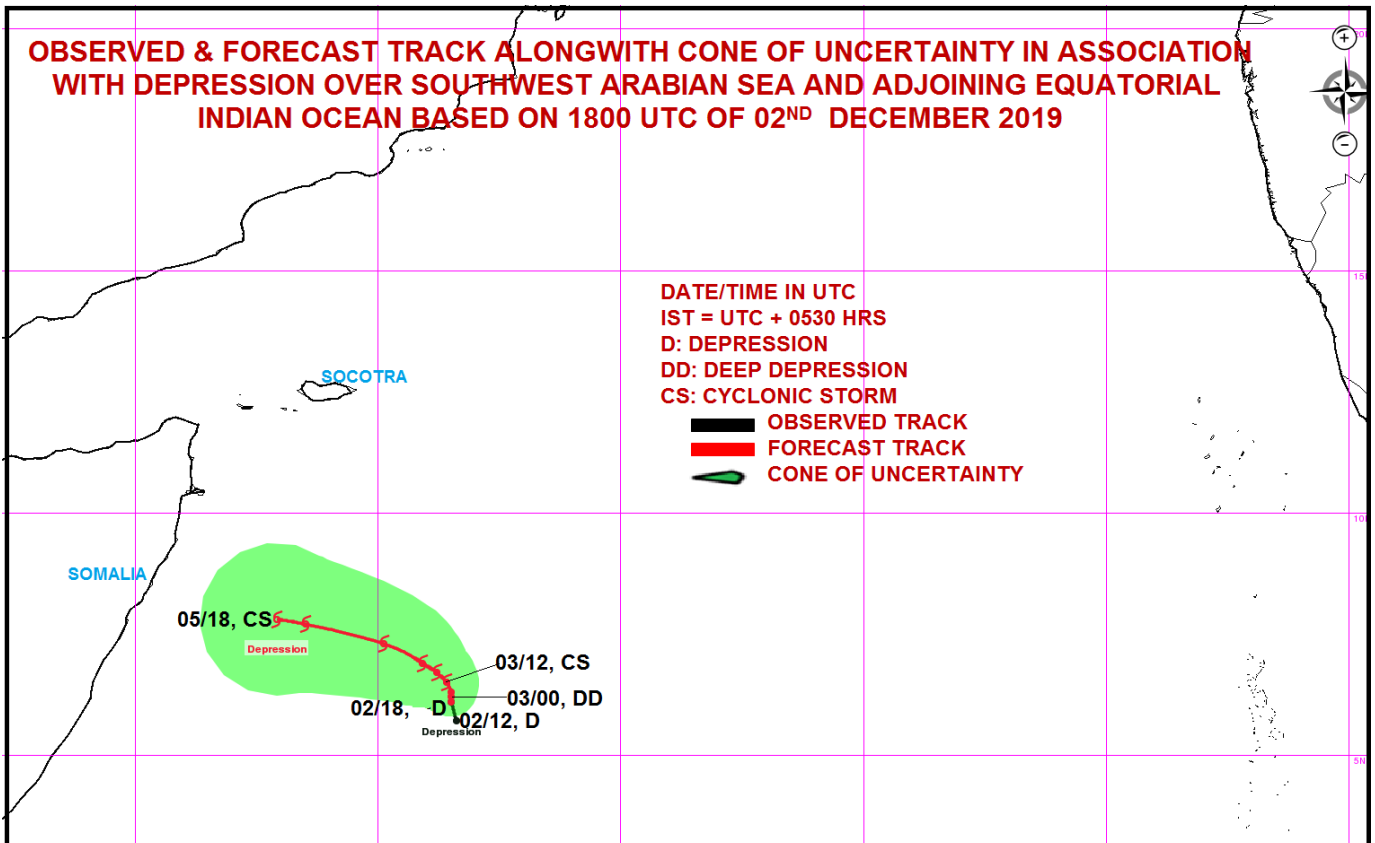
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**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
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**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





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Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 03 (ARB/05/2019)

TIME OF ISSUE: 0850 HOURS IST

DATED: 03.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

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CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

Sub: (a) Depression intensified into Deep Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean &

(b) Low pressure area over Lakshadweep area and adjoining southeast Arabian Sea.

(a) Deep Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean

The depression over southwest Arabian Sea & adjoining equatorial Indian Ocean moved northwestwards with a speed of 07 Kmph during past 06 hrs, intensified into a **deep depression** over southwest Arabian Sea & adjoining equatorial Indian Ocean and lay centred at 0530 hrs IST of today, the 03<sup>rd</sup> December, 2019 near latitude 6.5°N and longitude 56.5°E, about 740 km south-southeast of Socotra (Yemen) and 960 km southeast of Bosaso (Somalia). It is very likely to intensify into a cyclonic storm during next 24 hours. It is very likely to move north-northwestwards initially and then west-northwestwards towards Somalia coast during next 4 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
03.12.19/0530	6.5/56.5	50-60 gusting to 70	Deep Depression
03.12.19/1130	6.5/56.5	55-65 gusting to 75	Deep Depression
03.12.19/1730	6.6/56.5	60-70 gusting to 80	Cyclonic Storm
03.12.19/2330	6.8/56.4	65-75 gusting to 85	Cyclonic Storm
04.12.19/0530	7.0/56.3	70-80 gusting to 90	Cyclonic Storm
04.12.19/1730	7.3/56.1	70-80 gusting to 90	Cyclonic Storm
05.12.19/0530	7.9/55.3	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	8.3 /53.9	55-65 gusting to 75	Deep Depression
06.12.19/0530	7.5/51.7	40-50 gusting to 60	Depression
06.12.19/1730	6.6 /49.5	35-45 gusting to 55	Depression

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(b) Low pressure area over Lakshadweep area and adjoining southeast Arabian Sea.**

The low pressure area over Lakshadweep Area and adjoining Southeast Arabian Sea persists. It is very likely to become more marked during next 12 hours and concentrate into a Depression during subsequent 24 hours.

**Warnings:**

**(i) Rainfall:**

- Lakshadweep: Light to moderate rainfall at most places with heavy falls at isolated places during next 24 hours and Light to moderate rainfall at many places during subsequent 24 hours and reduce thereafter.
- Kerala: Light to moderate rainfall at most places with heavy to very heavy falls at isolated places during next 24 hours.
- Tamil Nadu, Puducherry & Karaikal: Light to moderate rainfall at many places with heavy falls at isolated places over south coastal Tamil Nadu during next 24 hours and light to moderate rainfall at a few places with heavy falls at isolated places over south coastal Tamil Nadu during the subsequent 24 hours.
- Coastal & south Interior Karnataka: Light to moderate rainfall at most places and heavy falls at isolated places during next 24 hours.

**(ii) Wind warning**

- Squally wind speed reaching 50-60 kmph gusting to 70 kmph very likely to prevail over southwest Arabian Sea and Squally wind speed reaching 40-50 kmph gusting to 60 kmph over Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts during next 24 hours and over Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 06 hours.
- It is very likely to increase becoming Gale wind speed reaching 70-80 kmph gusting to 90 kmph over southwest Arabian Sea and along & off Somalia coast from 4<sup>th</sup> December morning. Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail over Lakshadweep area & adjoining southeast & east central Arabian Sea, along & Karnataka and Maharashtra - Goa coasts on 4<sup>th</sup> December.
- Squally wind speed reaching 55-65 kmph gusting to 75 kmph, likely to prevail over southwest Arabian Sea and along & off Somalia coast from 5<sup>th</sup> December. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea on 5<sup>th</sup> December.

**(iii) Sea condition**

- The Sea condition is very likely to be rough to very rough over southwest Arabian Sea, Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts during next 24 hours and over Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 06 hours.
- It is very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from today evening and continue to remain rough to very rough over east central Arabian Sea and along & off Karnataka – Maharashtra- Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December.

**(iv) Fishermen Warning**

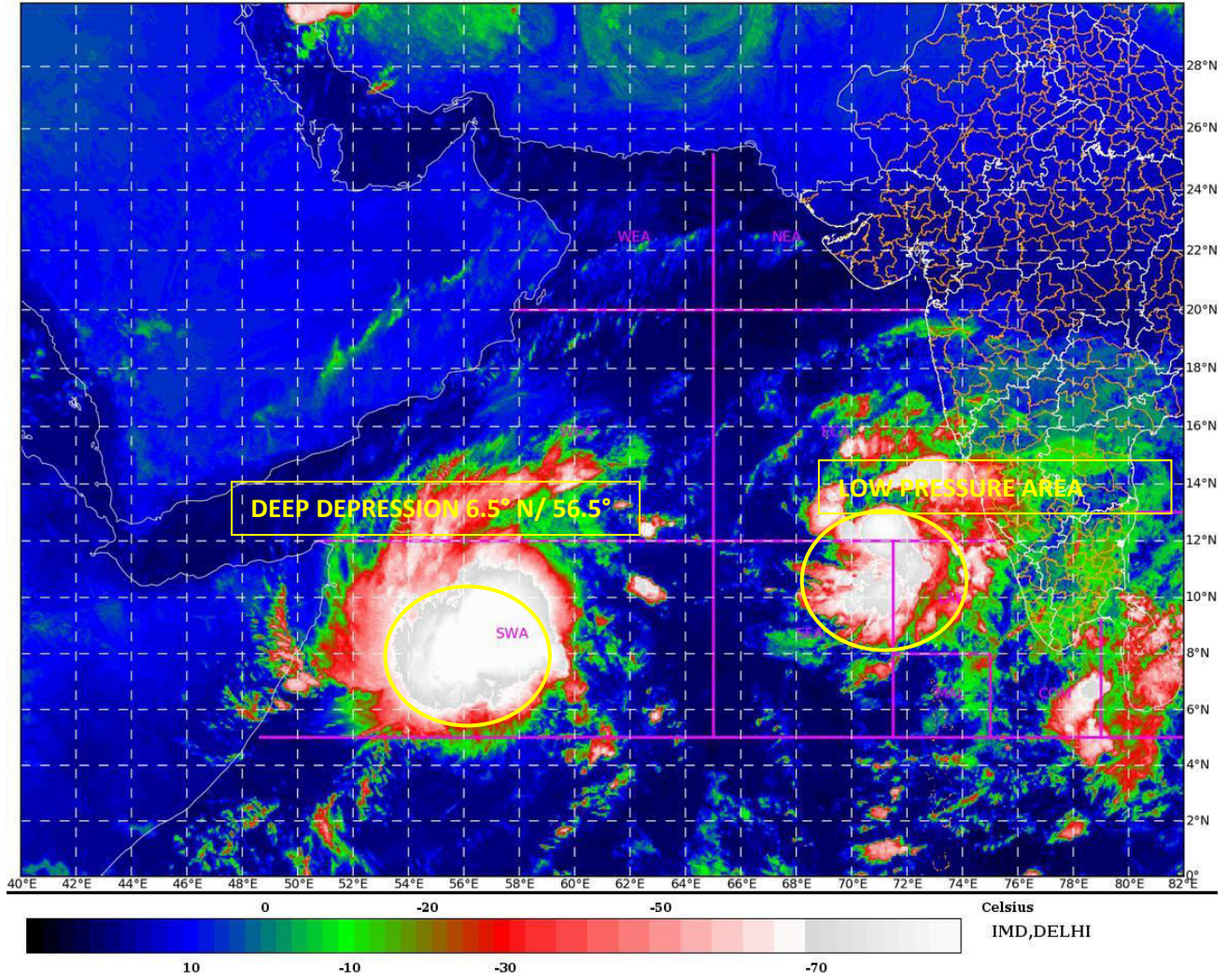
- The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 4 days.
- The fishermen are also advised not to venture into Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts during next 24 hours, Comorin-Maldives areas, Gulf of Mannar, and southwest Bay of Bengal along and off south Tamilnadu coast during next 06 hours and over southeast & adjoining east central Arabian Sea and along & off Karnataka - Maharashtra – Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December 2019.

*The next bulletin will be issued at 1130 hrs IST of 03<sup>rd</sup> December, 2019.*

**(Sunitha Devi. S)  
Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

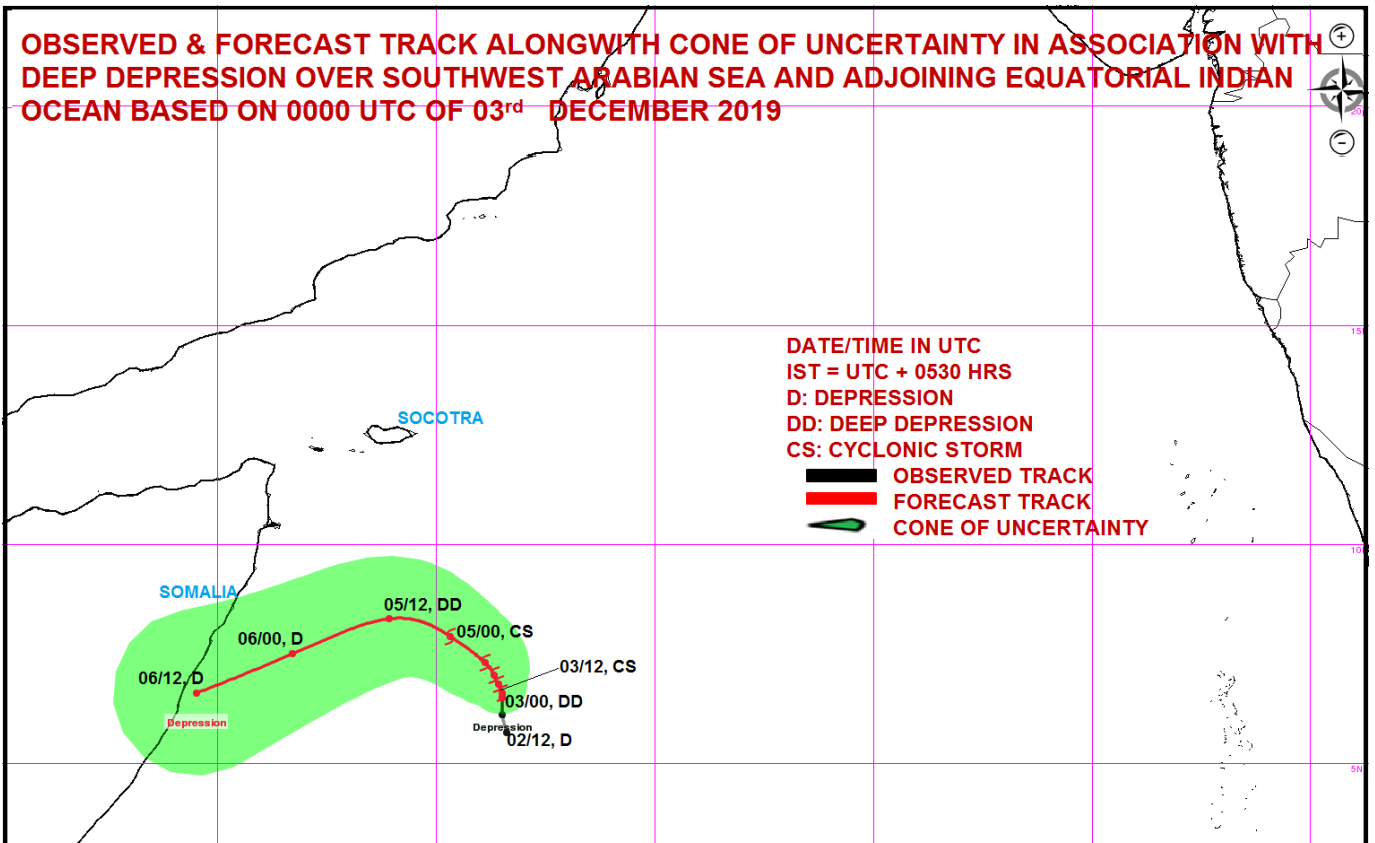
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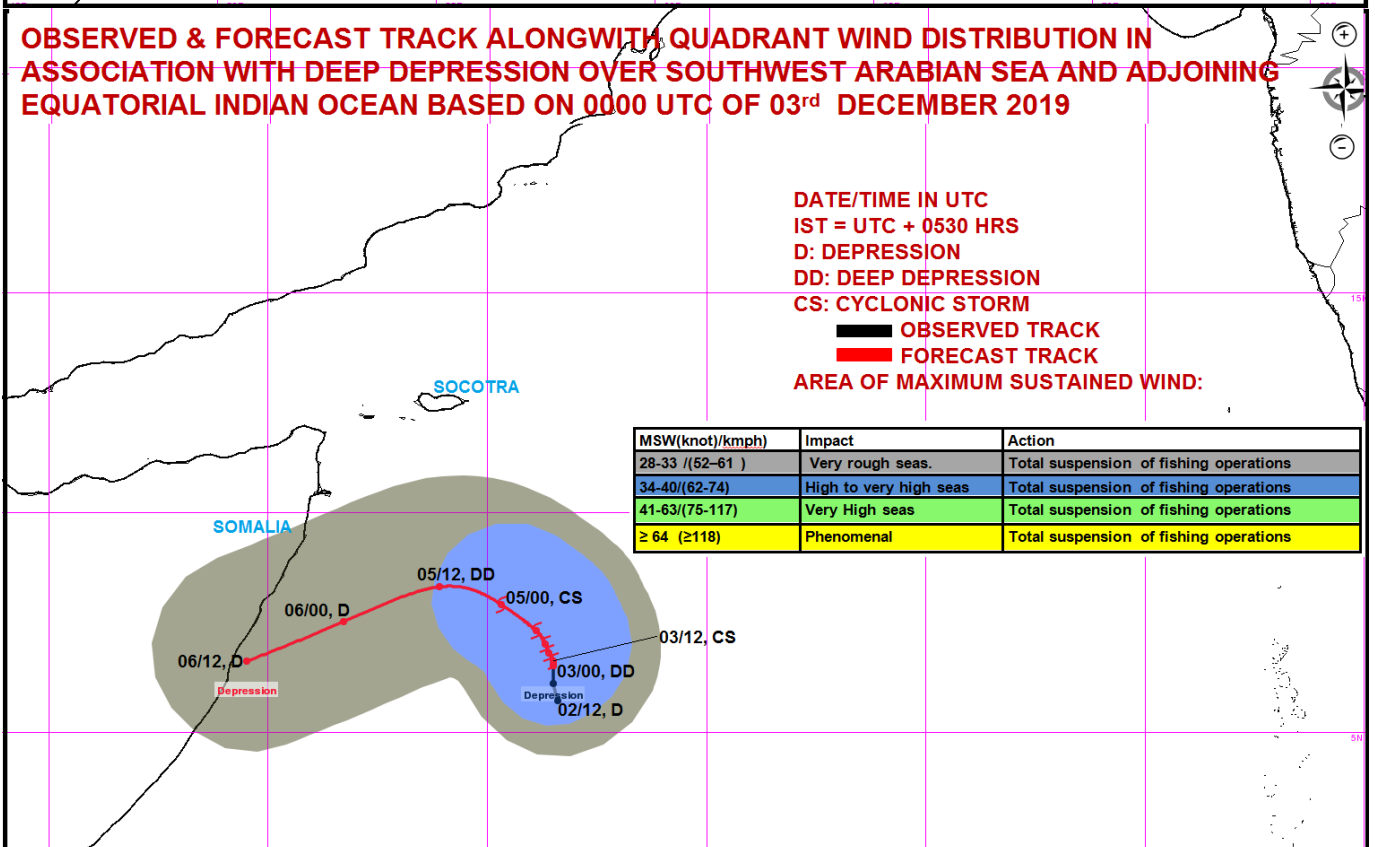
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**OBSERVED & FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH DEEP DEPRESSION OVER SOUTHWEST ARABIAN SEA AND ADJOINING EQUATORIAL INDIAN OCEAN BASED ON 0000 UTC OF 03<sup>rd</sup> DECEMBER 2019**



**OBSERVED & FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH DEEP DEPRESSION OVER SOUTHWEST ARABIAN SEA AND ADJOINING EQUATORIAL INDIAN OCEAN BASED ON 0000 UTC OF 03<sup>rd</sup> DECEMBER 2019**



Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.





**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 04 (ARB/05/2019)**

**TIME OF ISSUE: 1110 HOURS IST**

**DATED: 03.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Deep Depression over Southwest Arabian Sea**

**(b) Well Marked Low pressure area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area**

**(a) Deep Depression over Southwest Arabian Sea**

The Deep Depression over southwest Arabian Sea & adjoining equatorial Indian Ocean moved north-northwestwards with a speed of 08 Kmph during past 06 hrs and lay centred at 0830 hrs IST of today, the 03<sup>rd</sup> December, 2019 near latitude 6.7°N and longitude 56.3°E over Southwest Arabian Sea, about 710 km south-southeast of Socotra (Yemen) and 930 km southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move north-northwestwards initially and then west-northwestwards towards Somalia coast during next 4 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
03.12.19/0830	6.7/56.3	50-60 gusting to 70	Deep Depression
03.12.19/1130	6.8/56.2	55-65 gusting to 75	Deep Depression
03.12.19/1730	6.9/56.1	60-70 gusting to 80	Cyclonic Storm
03.12.19/2330	7.0/56.1	65-75 gusting to 85	Cyclonic Storm
04.12.19/0530	7.1/56.0	70-80 gusting to 90	Cyclonic Storm
04.12.19/1730	7.4/55.8	70-80 gusting to 90	Cyclonic Storm
05.12.19/0530	8.1/55.0	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	8.5 /53.6	55-65 gusting to 75	Deep Depression
06.12.19/0530	7.7/51.4	40-50 gusting to 60	Depression
06.12.19/1730	6.8 /49.5	35-45 gusting to 55	Depression

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(b) Well Marked Low pressure area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area.**

The low pressure area over Lakshadweep Area and adjoining Southeast Arabian Sea now lies as a Well Marked Low Pressure Area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area. It is very likely to concentrate into a Depression during next 24 hours.

**Warnings:**

**(i) Rainfall:**

- **Lakshadweep:** Light to moderate rainfall at most places with heavy falls at isolated places during next 24 hours and Light to moderate rainfall at many places during subsequent 24 hours.
- **Kerala:** Light to moderate rainfall at many places during next 24 hours.
- **Tamil Nadu, Puducherry & Karaikal:** Light to moderate rainfall at many places over south Tamil Nadu during next 24 hours.
- **Coastal & south Interior Karnataka:** Light to moderate rainfall at a few places during next 24 hours.
- **South Maharashtra & Goa:** Light to moderate rainfall at a few places during next 48 hours.

**(ii) Wind warning**

- Squally wind speed reaching 50-60 kmph gusting to 70 kmph very likely to prevail over southwest Arabian Sea during next 12 hours and Gale Wind, speed reaching 60-70 gusting 80 kmph during subsequent 12 hours. Squally wind speed reaching 40-50 kmph gusting to 60 kmph over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area, along & off Kerala & Karnataka coasts during next 24 hours.
- It is very likely to further increase becoming Gale wind speed reaching 70-80 kmph gusting to 90 kmph over southwest Arabian Sea and along & off Somalia coast from 04<sup>th</sup> December morning. Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail over Lakshadweep area & adjoining southeast & east central Arabian Sea, along & Karnataka and Maharashtra - Goa coasts on 04<sup>th</sup> December.
- Squally wind speed reaching 55-65 kmph gusting to 75 kmph, likely to prevail over southwest Arabian Sea and along & off Somalia coast from 5<sup>th</sup> December. Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea on 5<sup>th</sup> December.

**(iii) Sea condition**

- The Sea condition is very likely to remain rough to very rough Lakshadweep area & adjoining southeast Arabian Sea, along & off Kerala & Karnataka coasts during next 24 hours.
- Very rough Sea Conditions are prevailing over Southwest Arabian Sea and is very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from today evening and continue to remain rough to very rough over east central Arabian Sea and along & off Karnataka – Maharashtra- Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December.

**(iv) Fishermen Warning**

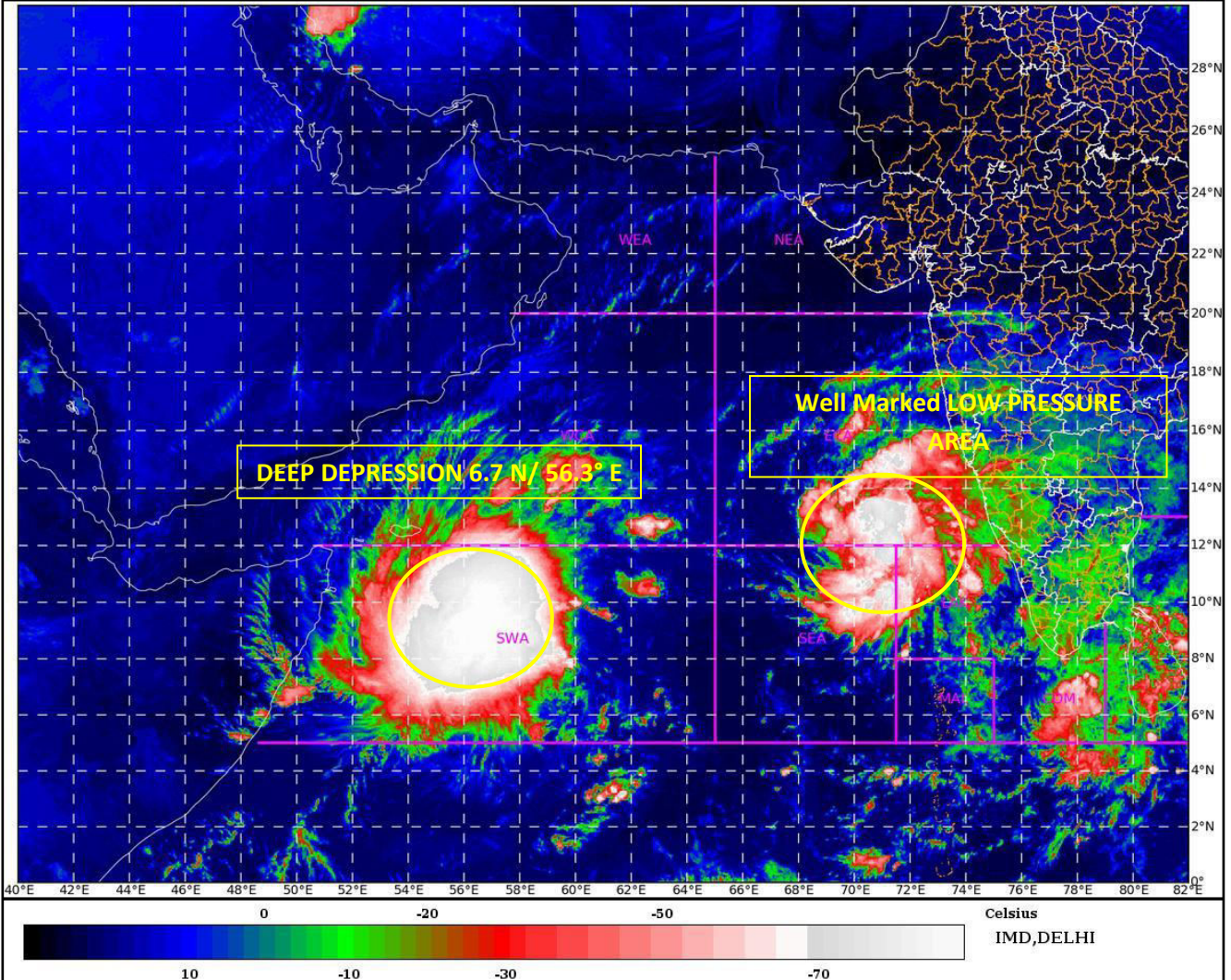
- The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 4 days.
- The fishermen are also advised not to venture into Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area, along & off Kerala & Karnataka coasts during next 24 hours and over southeast & adjoining east central Arabian Sea and along & off Karnataka - Maharashtra – Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December 2019.

*The next bulletin will be issued at 1430 hrs IST of today, the 03<sup>rd</sup> December, 2019.*

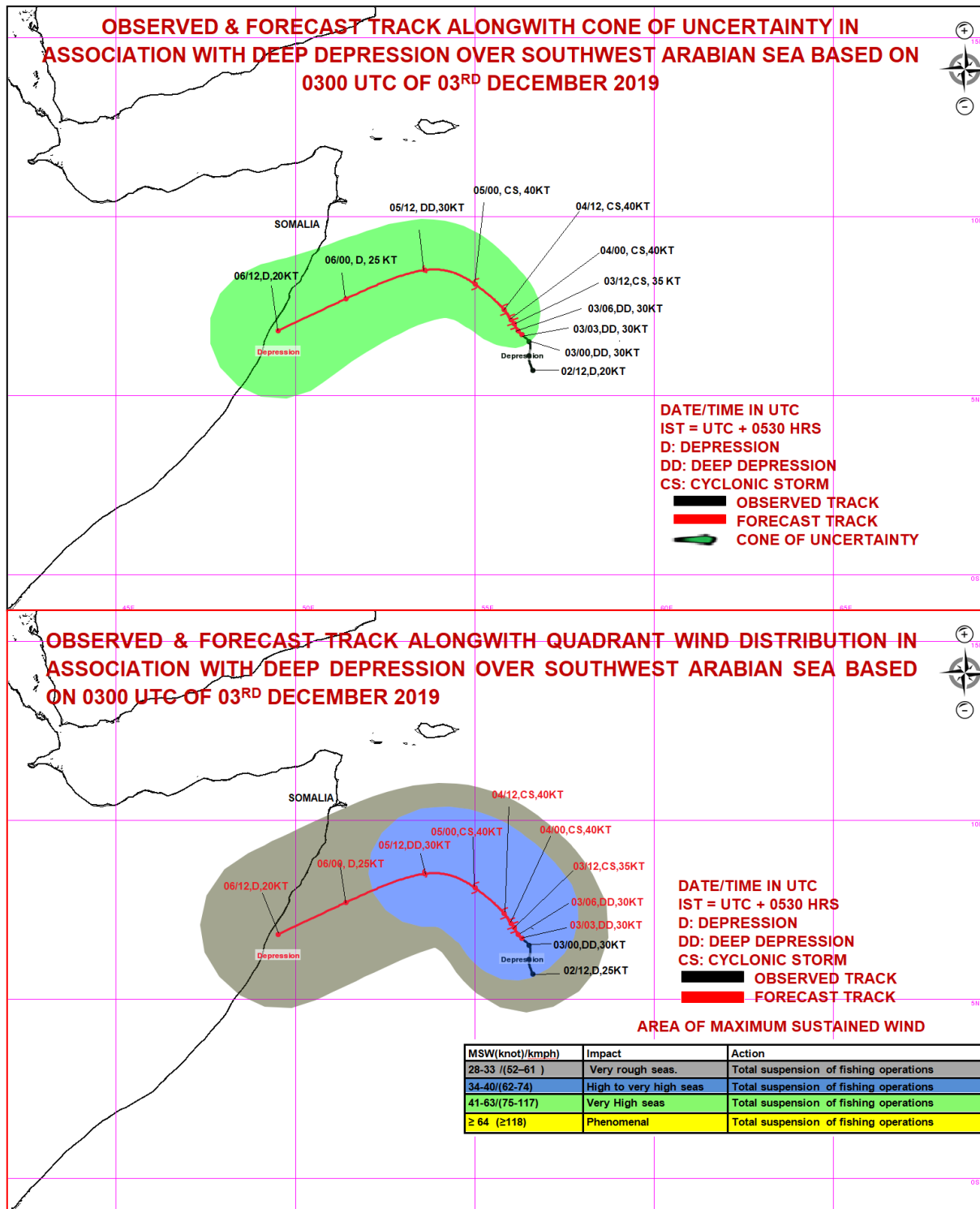
**(Sunitha Devi. S)  
Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 05 (ARB/05/2019)**

**TIME OF ISSUE: 1430 HOURS IST**

**DATED: 03.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Deep Depression over Southwest Arabian Sea**

**(b) Well Marked Low pressure area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area**

**(a) Deep Depression over Southwest Arabian Sea**

The Deep Depression over southwest Arabian Sea moved north-northwestwards with a speed of 13 Kmph during past 06 hrs and lay centred at 1130 hrs IST of today, the 03<sup>rd</sup> December, 2019 near latitude 7.2°N and longitude 56.3°E over Southwest Arabian Sea, about 660 km south-southeast of Socotra (Yemen) and 900 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 04 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
03.12.19/1130	7.2/56.3	55-65 gusting to 75	Deep Depression
03.12.19/1730	7.4/56.2	60-70 gusting to 80	Cyclonic Storm
03.12.19/2330	7.5/56.1	65-75 gusting to 85	Cyclonic Storm
04.12.19/0530	7.6/56.0	70-80 gusting to 90	Cyclonic Storm
04.12.19/1130	7.7/55.8	70-80 gusting to 90	Cyclonic Storm
05.12.19/2330	7.9/55.3	65-75 gusting to 85	Cyclonic Storm
05.12.19/1130	8.2/54.0	60-70 gusting to 80	Cyclonic Storm
06.12.19/2330	8.0/52.4	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	7.6/51.0	50-60 gusting to 70	Deep Depression
06.12.19/2330	7.1/49.4	40-50 gusting to 60	Depression

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(b) Well Marked Low pressure area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area:**

The Well Marked Low pressure area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area persists. It is very likely to concentrate into a Depression during next 24 hours.

**Warnings:**

**(i) Rainfall:**

- **Lakshadweep:** Light to moderate rainfall at most places with heavy falls at isolated places very likely during next 24 hours and Light to moderate rainfall at many places during subsequent 24 hours.
- **Kerala:** Light to moderate rainfall at many places very likely during next 24 hours.
- **Tamil Nadu, Puducherry & Karaikal:** Light to moderate rainfall at many places very likely over south Tamil Nadu during next 24 hours.
- **Coastal & south Interior Karnataka:** Light to moderate rainfall at a few places very likely during next 24 hours.
- **South Maharashtra & Goa:** Light to moderate rainfall at a few places very likely during next 48 hours.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 06 hours and Gale Wind, speed reaching 60-70 gusting 80 kmph during subsequent 12 hours. It is very likely to further increase becoming Gale wind speed reaching 70-80 kmph gusting to 90 kmph over southwest Arabian Sea and along & off Somalia coast from 04<sup>th</sup> December morning.
- **Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area, along & off Kerala and Karnataka coasts during next 24 hours.
  - Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail over Lakshadweep area & adjoining southeast & eastcentral Arabian Sea, along & Karnataka and Maharashtra-Goa coasts on 04<sup>th</sup> December.
  - Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea on 05<sup>th</sup> December.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from today evening.
- **Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area:** Rough to very rough Sea conditions are very likely to prevail over Lakshadweep area & adjoining southeast & Eastcentral Arabian Sea, along & off Kerala-Karnataka-Maharashtra coasts during next 24 hours and continue to remain rough to very rough over Eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December.

**(iv) Fishermen Warning**

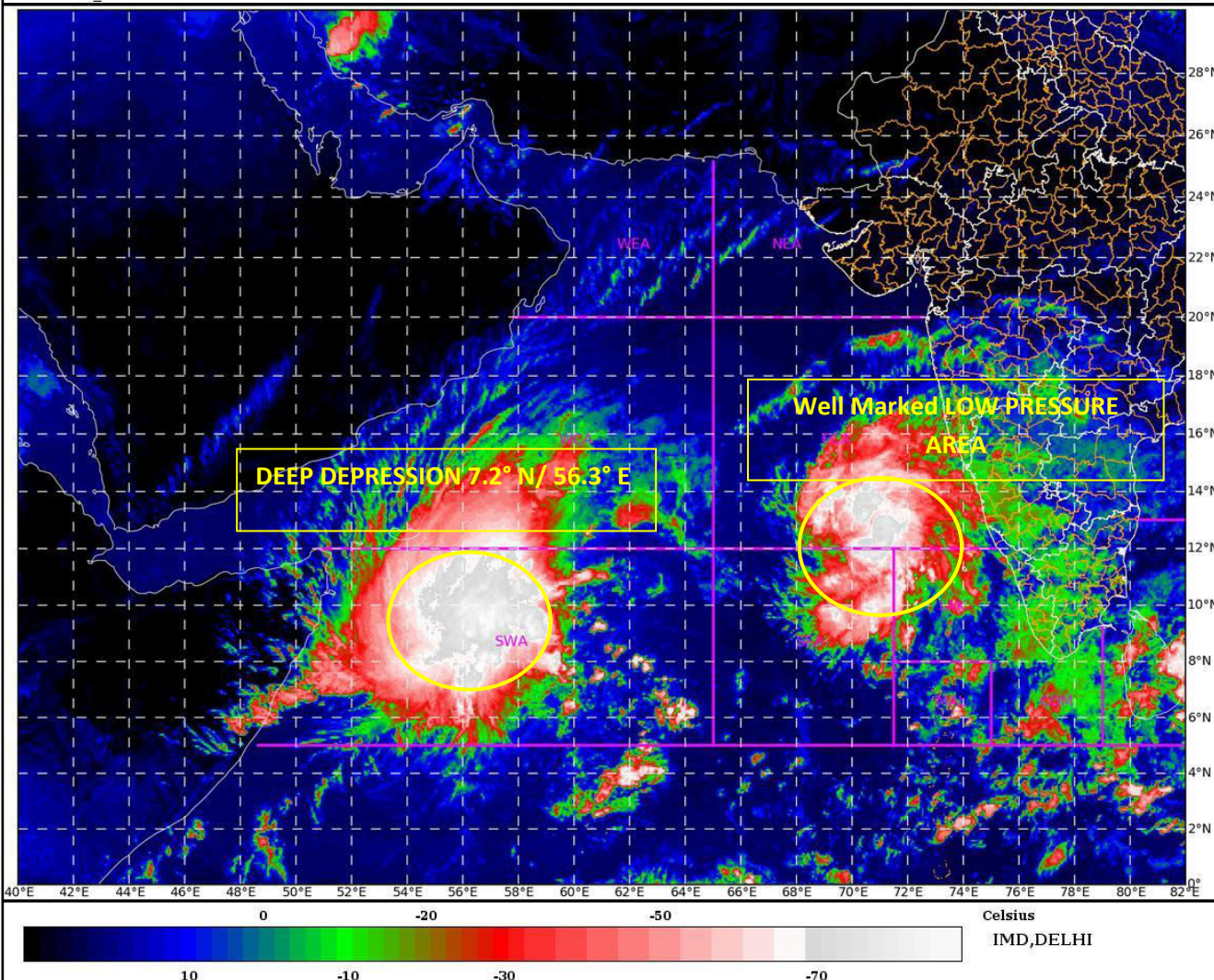
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 04 days.
- **Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area:** The fishermen are also advised not to venture into Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area, along & off Kerala and Karnataka coasts during next 24 hours and over southeast & adjoining east central Arabian Sea and along & off Karnataka-Maharashtra –Goa coasts on 3<sup>rd</sup> & 4<sup>th</sup> December 2019.

*The next bulletin will be issued at 2030 hrs IST of today, the 03<sup>rd</sup> December, 2019.*

**(Sunitha Devi. S)  
Scientist-E, RSMC, New Delhi**

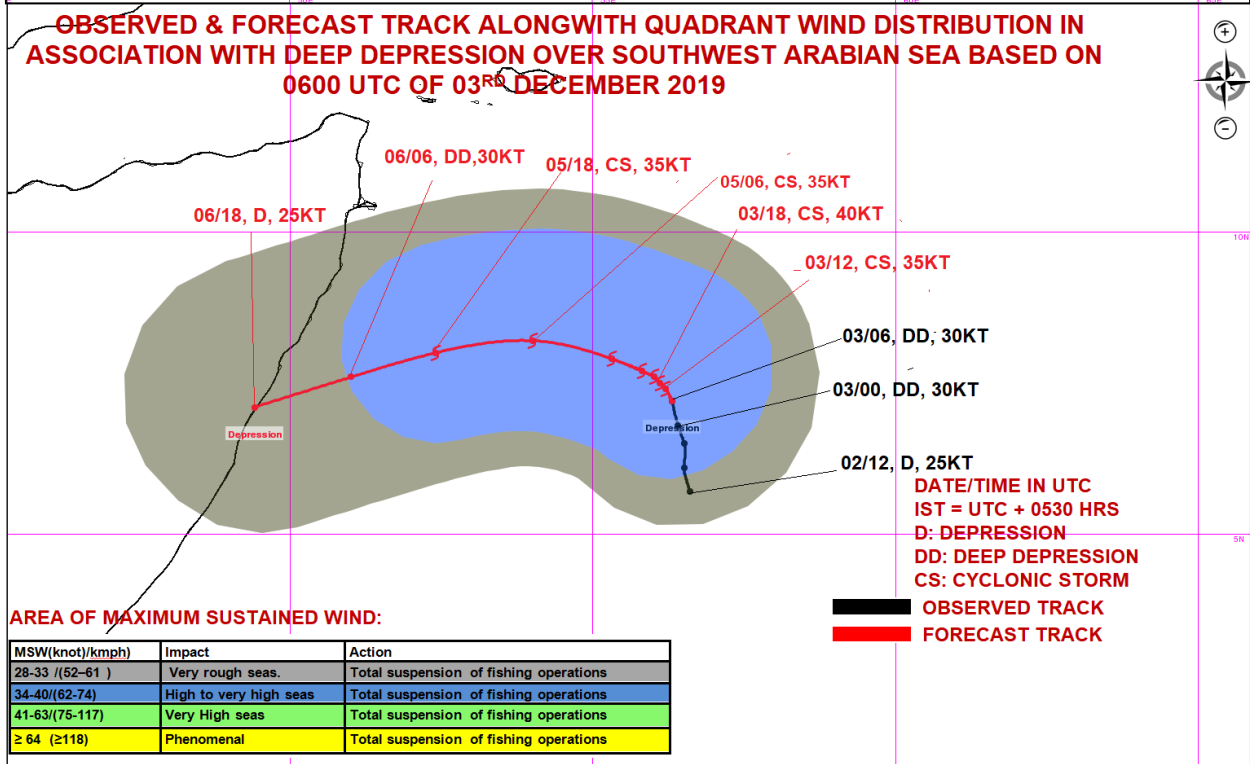
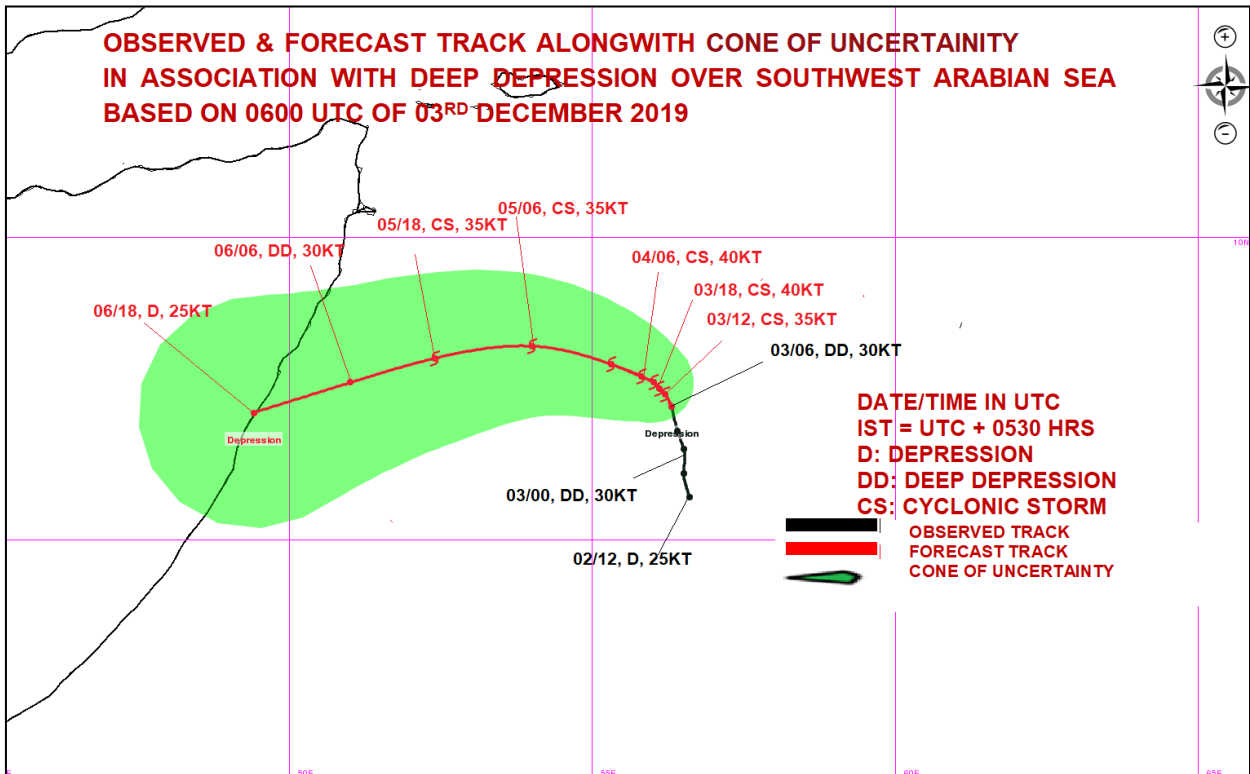
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 06 (ARB/05/2019)

TIME OF ISSUE: 2030 HOURS IST

DATED: 03.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

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DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

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ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

Sub: (a) Deep Depression over Southwest Arabian Sea

(b) Well Marked Low pressure area over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area

(a) Deep Depression over Southwest Arabian Sea:

The Deep Depression over southwest Arabian Sea moved slightly eastwards with a speed of 04 Kmph during past 06 hrs and lay centred at 1730 hrs IST of today, the 03<sup>rd</sup> December, 2019 near latitude 7.2°N and longitude 56.5°E over Southwest Arabian Sea, about 670 km south-southeast of Socotra (Yemen) and 920 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 24 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 04 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
03.12.19/1730	7.2/56.5	55-65 gusting to 75	Deep Depression
03.12.19/2330	6.9/56.7	55-65 gusting to 75	Deep Depression
04.12.19/0530	7.0/56.3	55-65 gusting to 75	Deep Depression
04.12.19/1130	7.2/56.0	55-65 gusting to 75	Deep Depression
04.12.19/1730	7.4/55.6	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	7.6/54.6	70-80 gusting to 90	Cyclonic Storm
05.12.19/1730	7.8/53.2	60-70 gusting to 80	Cyclonic Storm
06.12.19/0530	7.6/51.7	50-60 gusting to 70	Deep Depression
06.12.19/1730	7.1/50.2	40-50 gusting to 60	Depression
07.12.19/0530	6.6/48.6	20-30 gusting to 40	Well Marked Low

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(b) Well Marked Low pressure area over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area :**

The Well Marked Low pressure area over Southeast Arabian Sea and adjoining areas of Eastcentral Arabian Sea & Lakshadweep area now lies over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area. It is very likely to concentrate into a Depression during next 24 hours.

**(i) Heavy Rainfall Warning:**

- **Lakshadweep:** Light to moderate rainfall at most places with heavy falls at isolated places very likely during next 12 hours and Light to moderate rainfall at many places during subsequent 24 hours.
- **Kerala:** Light to moderate rainfall at many places very likely during next 12 hours.
- **Tamil Nadu, Puducherry & Karaikal:** Light to moderate rainfall at many places very likely over south Tamil Nadu during next 12 hours.
- **Coastal & south Interior Karnataka:** Light to moderate rainfall at a few places very likely during next 24 hours.
- **South Maharashtra & Goa:** Light to moderate rainfall at a few places very likely during next 36 hours.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 24 hours. It is very likely to increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph from 04<sup>th</sup> December evening and 70-80 kmph gusting to 90 kmph from 05<sup>th</sup> December morning.
- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours.
  - Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail over eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December.
  - Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea on 05<sup>th</sup> December.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from 04<sup>th</sup> December evening.
- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 12 hours and continue to remain rough to very rough over Eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December.

**(iv) Fishermen Warning:**

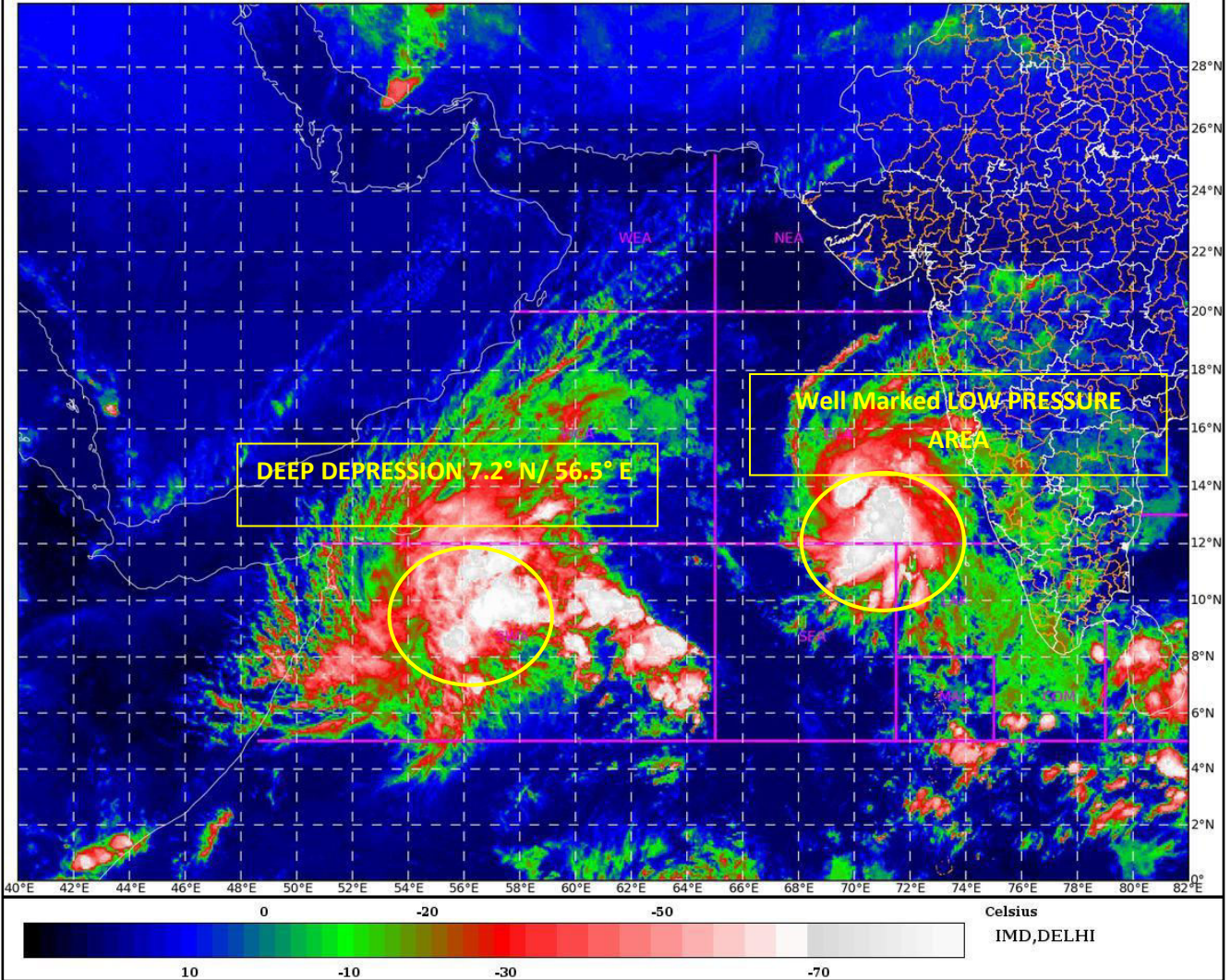
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 04 days.
- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are also advised not to venture into Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours and over Eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December 2019.

*The next bulletin will be issued at 0230 hrs IST of tomorrow, the 04<sup>th</sup> December, 2019.*

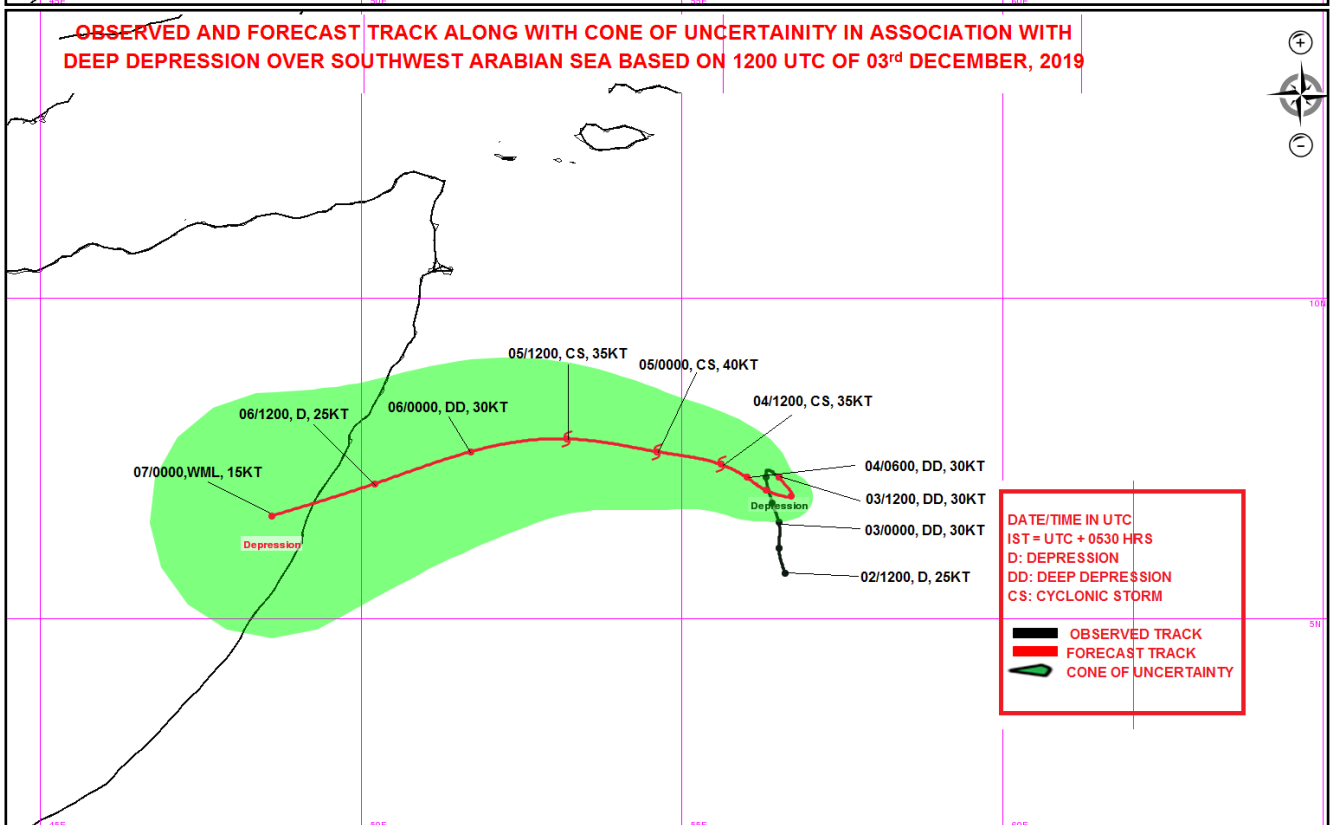
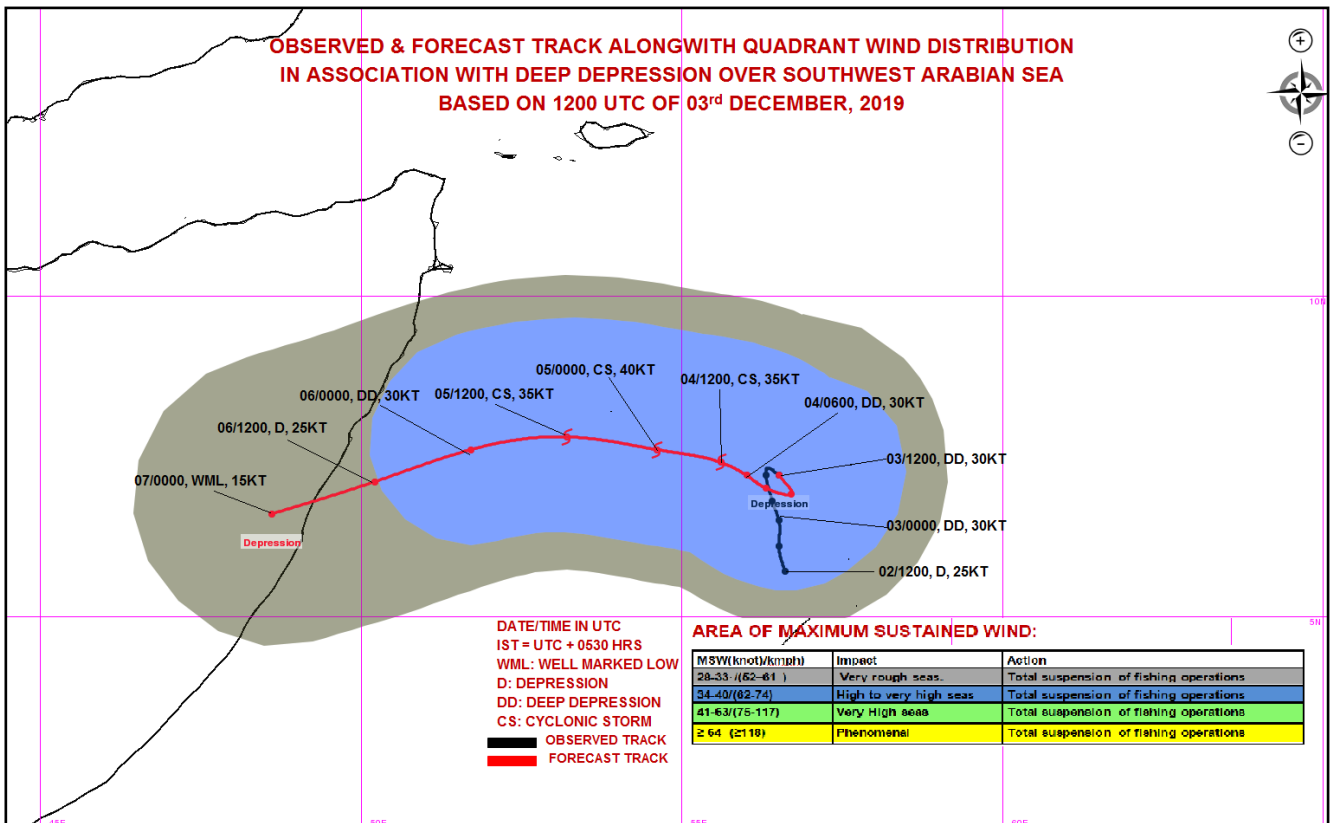
(Sunitha Devi. S)  
Scientist-E, RSMC, New Delhi

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
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**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 07 (ARB/05/2019)

TIME OF ISSUE: 0200 HOURS IST

DATED: 04.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

Sub: (a) Deep Depression over Southwest Arabian Sea

(b) Depression over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area

(a) Deep Depression over Southwest Arabian Sea:

The Deep Depression over southwest Arabian Sea moved south-eastwards with a speed of 04 Kmph during past 06 hrs and lay centred at 2330 hrs IST 03<sup>rd</sup> December, 2019 near latitude 7.0°N and longitude 56.6°E over Southwest Arabian Sea, about 690 km south-southeast of Socotra (Yemen) and 920 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 24 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 04 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
03.12.19/2330	7.0/56.6	55-65 gusting to 75	Deep Depression
04.12.19/0530	7.1/56.3	55-65 gusting to 75	Deep Depression
04.12.19/1130	7.2/56.0	55-65 gusting to 75	Deep Depression
04.12.19/1730	7.4/55.6	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	7.5/55.1	60-70 gusting to 80	Cyclonic Storm
05.12.19/1130	7.7/53.9	70-80 gusting to 90	Cyclonic Storm
05.12.19/2330	7.7/52.5	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	7.4/51.0	50-60 gusting to 70	Deep Depression
06.12.19/2330	6.9/49.4	40-50 gusting to 60	Depression
07.12.19/1130	6.7/48.8	20-30 gusting to 40	Well Marked Low

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(b) Depression over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area :**

The Well Marked Low pressure area over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area concentrated into a depression and centred at 2330 hrs IST of 03<sup>rd</sup> December, 2019 near latitude 12.7°N and longitude 71.0°E over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area. It is very likely to concentrate into a Deep Depression during next 24 hours.

**(i) Heavy Rainfall Warning:**

- **Lakshadweep:** Light to moderate rainfall at most places with heavy falls at isolated places very likely during next 12 hours and Light to moderate rainfall at many places during subsequent 24 hours.
- **Kerala:** Light to moderate rainfall at many places very likely during next 12 hours.
- **Tamil Nadu, Puducherry & Karaikal:** Light to moderate rainfall at many places very likely over south Tamil Nadu during next 12 hours.
- **Coastal & south Interior Karnataka:** Light to moderate rainfall at a few places very likely during next 24 hours.
- **South Maharashtra & Goa:** Light to moderate rainfall at a few places very likely during next 36 hours.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 24 hours. It is very likely to increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph from 04<sup>th</sup> December evening and 70-80 kmph gusting to 90 kmph from 05<sup>th</sup> December morning.
- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours.
  - Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail over eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December.
  - Squally weather (wind speed 40-50 kmph gusting to 60 kmph) likely to prevail over eastcentral Arabian Sea on 05<sup>th</sup> December.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from 04<sup>th</sup> December evening.
- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 12 hours and continue to remain rough to very rough over Eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 04 days.
- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are also advised not to venture into Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours and over Eastcentral Arabian Sea and along & off Karnataka-Maharashtra-Goa coasts on 04<sup>th</sup> December 2019.

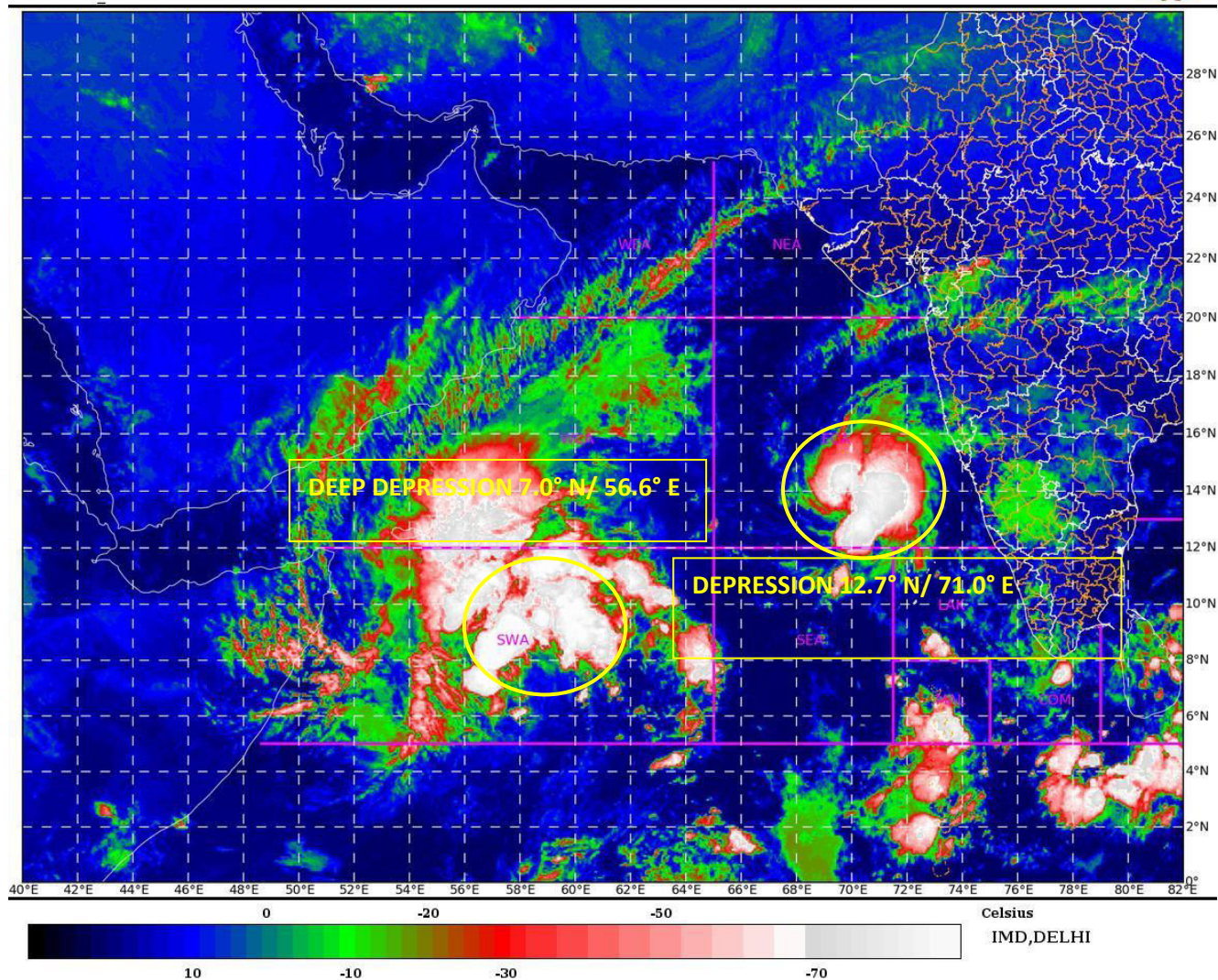
*The next bulletin will be issued at 0830 hrs IST of today, the 04<sup>th</sup> December, 2019.*

**(V R DURAI)**

**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

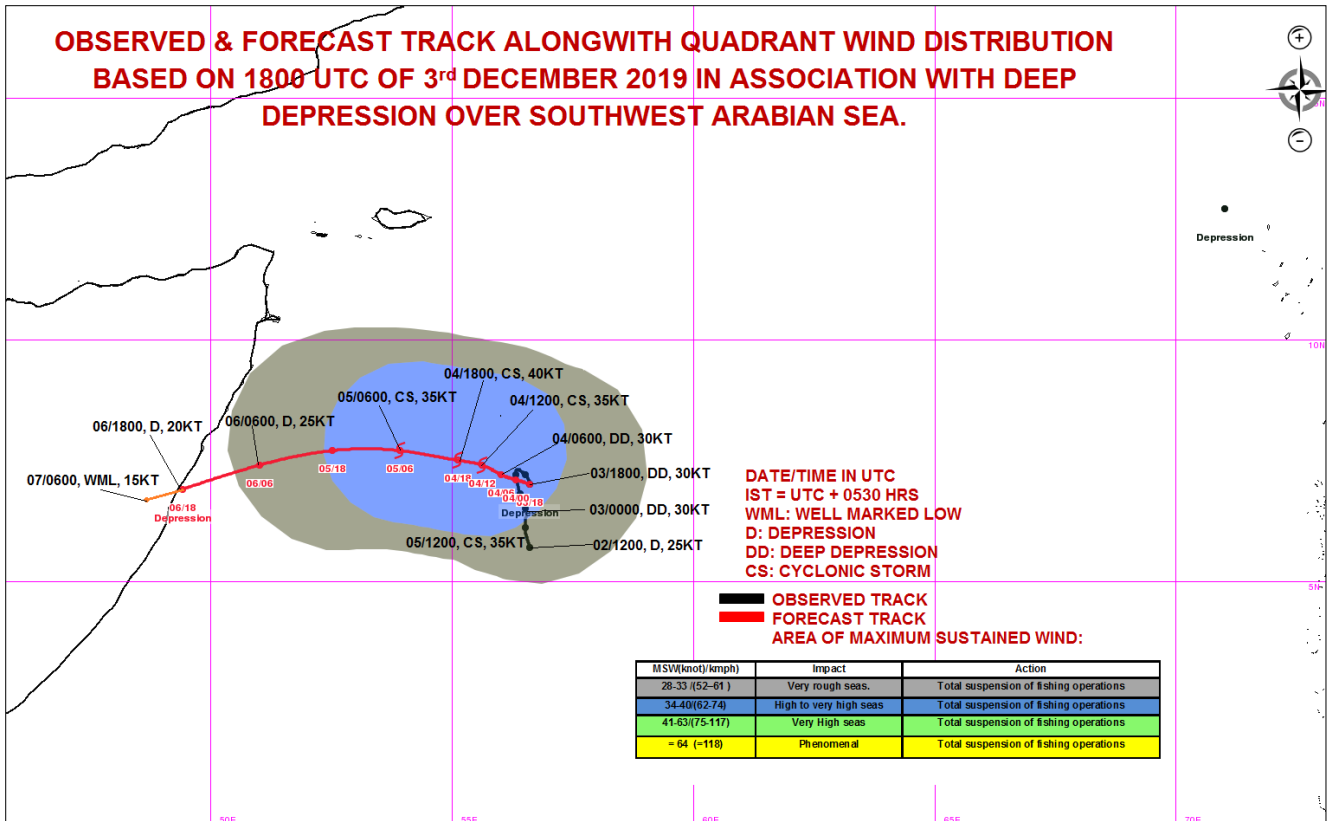
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



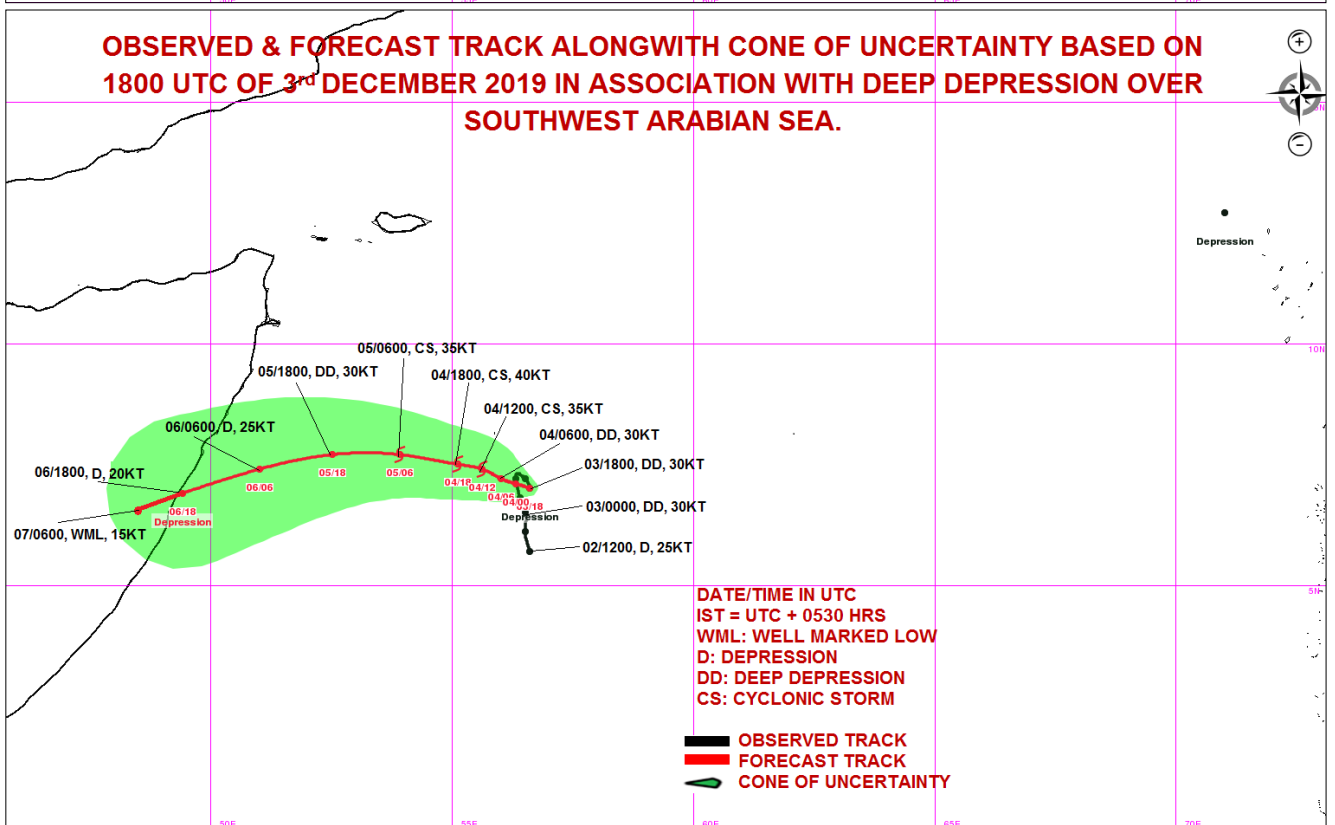
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



**OBSERVED & FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION  
BASED ON 1800 UTC OF 3<sup>rd</sup> DECEMBER 2019 IN ASSOCIATION WITH DEEP  
DEPRESSION OVER SOUTHWEST ARABIAN SEA.**



**OBSERVED & FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY BASED ON  
1800 UTC OF 3<sup>rd</sup> DECEMBER 2019 IN ASSOCIATION WITH DEEP DEPRESSION OVER  
SOUTHWEST ARABIAN SEA.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

**BULLETIN NO. : 08 (ARB/05/2019)**

**TIME OF ISSUE: 0930 HOURS IST**

**DATED: 04.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Depression over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area, intensified into Deep Depression over eastcentral Arabian Sea & (b) Deep Depression over Southwest Arabian Sea**

**(a) Deep Depression over Eastcentral Arabian Sea:**

The depression over Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area moved northwestwards with a speed of 30 kmph during past 06 hours, intensified into a deep depression and lay centred at 0530 hrs IST of today, the 04<sup>th</sup> December, 2019, over eastcentral Arabian Sea, near latitude 14.0°N and longitude 70.0°E about 640 km south-southwest of Mumbai, 440 km of west-southwest of Panjim (Goa). It is very likely to intensify into a Cyclonic Storm during next 24 hours. It is very likely to move northwestwards away from Indian coast during next 48 hours. Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
04.12.19/0530	14.0/70.0	50-60 gusting to 70	Deep Depression
04.12.19/1130	14.5/69.4	50-60 gusting to 70	Deep Depression
04.12.19/1730	14.9/68.8	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	15.3/68.2	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	15.6/67.6	60-70 gusting to 80	Cyclonic Storm
05.12.19/1730	16.2/66.4	55-65 gusting to 75	Deep Depression
06.12.19/0530	16.8/65.2	40-50 gusting to 60	Depression

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(b) Deep Depression over Southwest Arabian Sea:**

The Deep Depression over southwest Arabian Sea remained practically stationary during past 06 hours and lay centred at 0530 hrs IST of 04<sup>th</sup> December, 2019 near latitude 7.2°N and longitude 56.6°E over Southwest Arabian Sea, about 670 km south-southeast of Socotra (Yemen) and 930 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 03 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
04.12.19/0530	7.2/56.6	55-65 gusting to 75	Deep Depression
04.12.19/1130	7.4/56.6	55-65 gusting to 75	Deep Depression
04.12.19/1730	7.6/56.5	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	7.8/56.3	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	8.0/55.9	70-80 gusting to 90	Cyclonic Storm
05.12.19/1730	8.3/54.8	65-75 gusting to 85	Cyclonic Storm
06.12.19/0530	8.1/53.1	60-70 gusting to 80	Deep Depression
06.12.19/1730	7.6/51.1	40-50 gusting to 60	Depression
07.12.19/0530	6.7/48.3	30-40 gusting to 50	Depression

**(i) Rainfall Warning:**

- **Konkan & Goa:** Light to moderate rainfall at a few places very likely during next 24 hours.

**(ii) Wind warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 50-60 kmph gusting to 70 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours. It is likely to increase becoming Gale wind speed reaching 60-70 gusting to 80 kmph from today evening for subsequent 12 hours and likely to decrease gradually thereafter.
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Southeast Arabian Sea & Lakshadweep area and along & off Karnataka-south Maharashtra-Goa coasts during next 24 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 12 hours. It is very likely to increase becoming Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, from today evening and 70-80 kmph gusting to 90 kmph from 05<sup>th</sup> December morning.

**(iii) Sea conditions:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours. It is likely to become very rough to high during subsequent 12 hours and improve thereafter.
  - **Rough to very rough Sea conditions are likely to prevail over** Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 24 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from today evening for subsequent 24 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 48 hours and into Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 24 hours.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 03 days.

*The next bulletin will be issued at 1130 hrs IST of today, the 04<sup>th</sup> December, 2019.*

**(V R DURAI)**

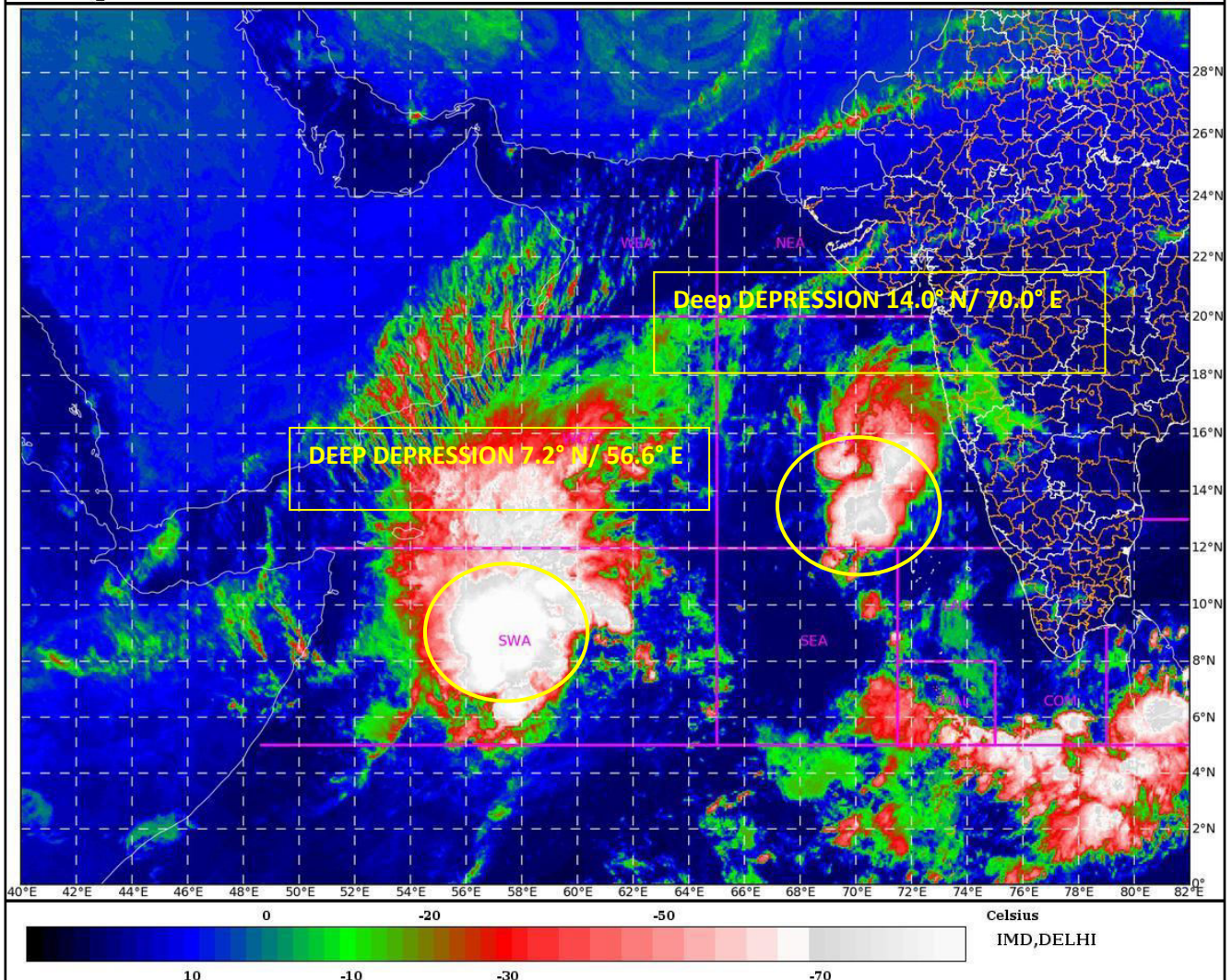
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**

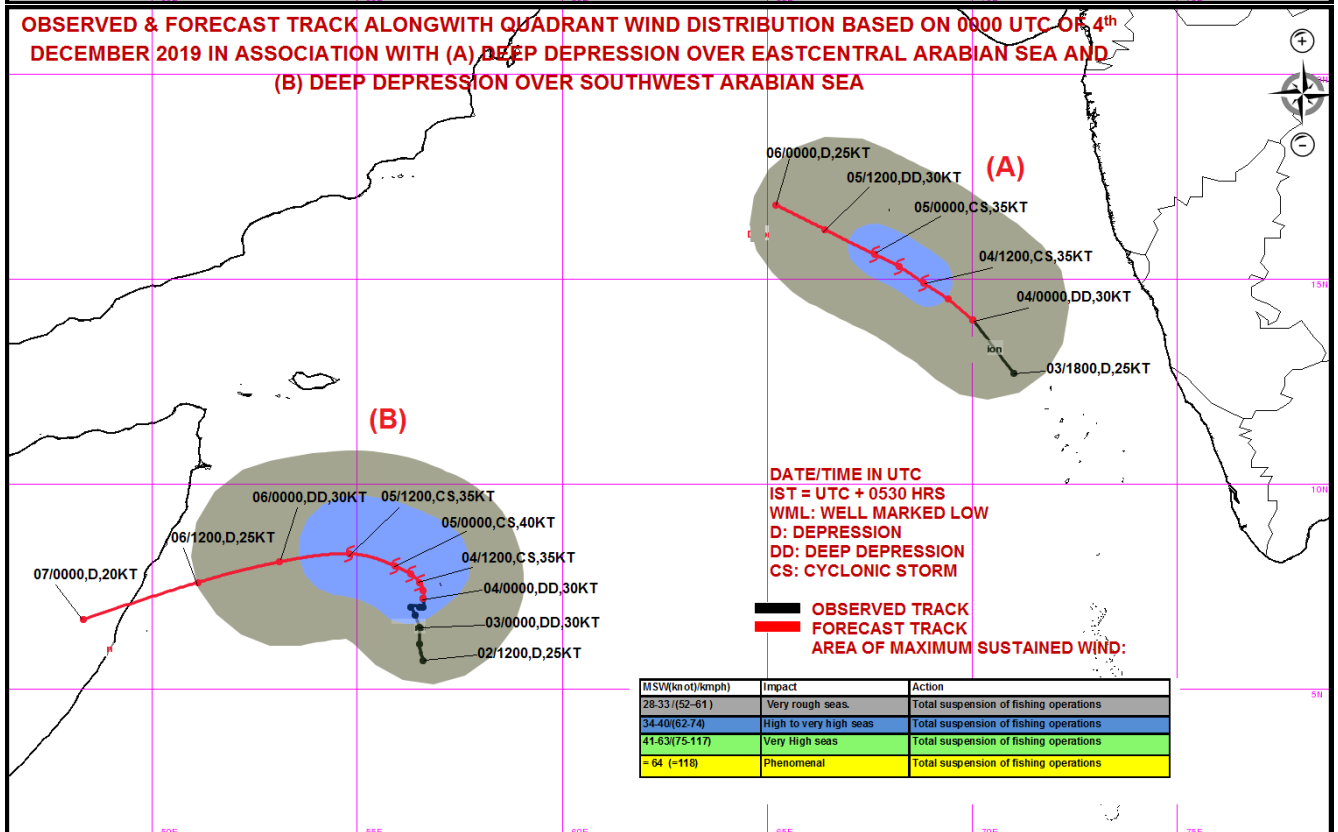
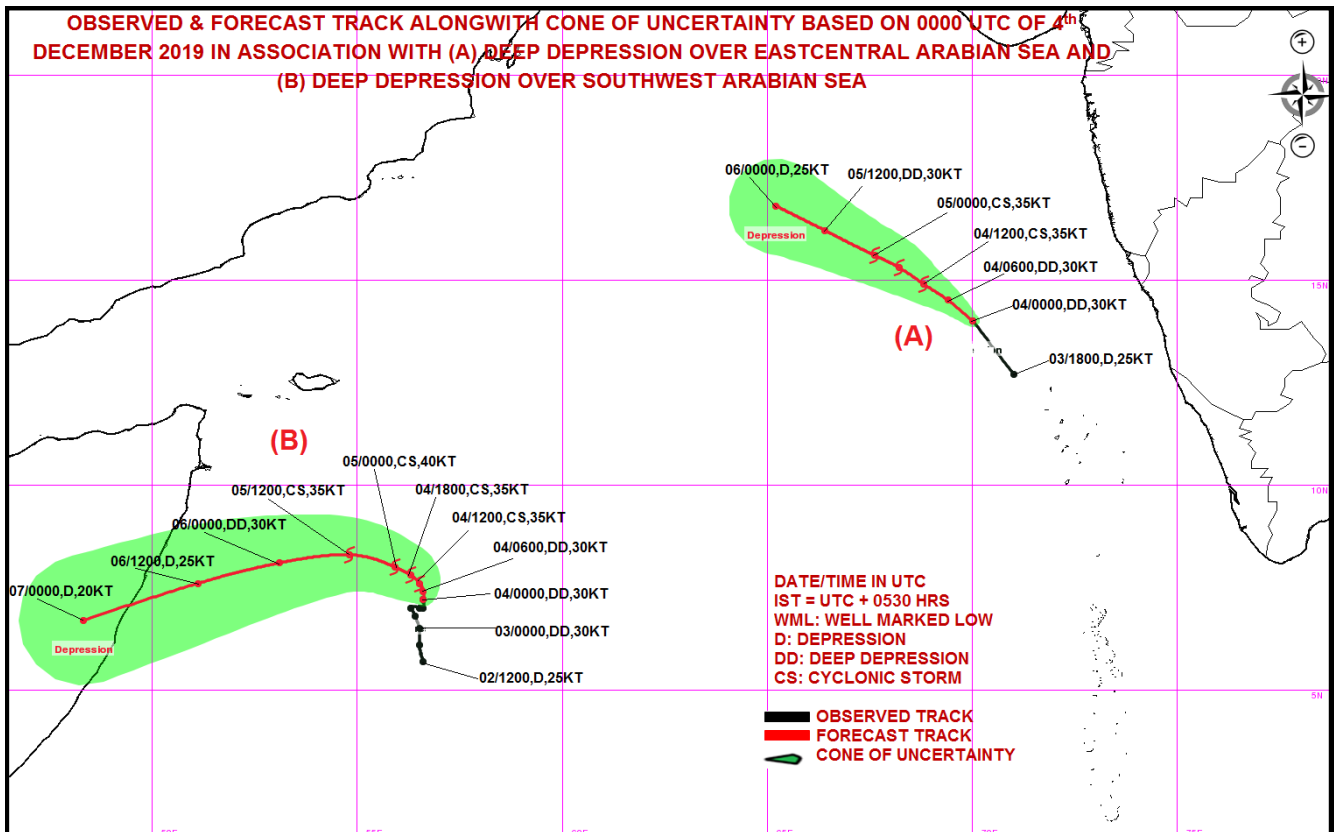
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

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

04-12-2019/(0230 to 0257) GMT  
04-12-2019/(0800 to 0827) IST



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 09 (ARB/05/2019)**

**TIME OF ISSUE: 1130 HOURS IST**

**DATED: 04.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Deep Depression over Eastcentral Arabian Sea & (b) Deep Depression over Southwest Arabian Sea**

**(a) Deep Depression over Eastcentral Arabian Sea:**

The Deep Depression over Eastcentral Arabian Sea moved north-northwestwards with a speed of 32 kmph during past 06 hours and lay centred at 0830 hrs IST of today, the 04<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 14.7°N and longitude 69.5°E about 600 km south-southwest of Mumbai and 470 km of west-southwest of Panjim (Goa). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move northwestwards, away from Indian coast during next 48 hours. Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
04.12.19/0830	14.7/69.5	50-60 gusting to 70	Deep Depression
04.12.19/1130	15.0/69.2	50-60 gusting to 70	Deep Depression
04.12.19/1730	15.4/68.8	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	15.8/68.2	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	16.1/67.6	60-70 gusting to 80	Cyclonic Storm
05.12.19/1730	16.5/66.4	55-65 gusting to 75	Deep Depression
06.12.19/0530	16.8/65.2	40-50 gusting to 60	Depression

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(b) Deep Depression over Southwest Arabian Sea:**

The Deep Depression over southwest Arabian Sea moved northwards with a speed of 06 kmph during past 06 hours and lay centred at 0830 hrs IST of 04<sup>th</sup> December, 2019 near latitude 7.4°N and longitude 56.6°E over Southwest Arabian Sea, about 650 km south-southeast of Socotra (Yemen) and 920 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 03 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
04.12.19/0830	7.4/56.6	55-65 gusting to 75	Deep Depression
04.12.19/1130	7.4/56.6	55-65 gusting to 75	Deep Depression
04.12.19/1730	7.6/56.5	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	7.8/56.3	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	8.0/55.9	70-80 gusting to 90	Cyclonic Storm
05.12.19/1730	8.3/54.8	65-75 gusting to 85	Cyclonic Storm
06.12.19/0530	8.1/53.1	60-70 gusting to 80	Deep Depression
06.12.19/1730	7.6/51.1	40-50 gusting to 60	Depression
07.12.19/0530	6.7/48.3	30-40 gusting to 50	Depression

**(i) Rainfall Warning:**

- **Konkan & Goa:** Light to moderate rainfall at a few places very likely during next 24 hours.

**(ii) Wind warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 50-60 kmph gusting to 70 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours. It is likely to increase becoming Gale wind speed reaching 60-70 gusting to 80 kmph from today evening for subsequent 12 hours and likely to decrease gradually thereafter.
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Southeast Arabian Sea & Lakshadweep area and along & off Karnataka-south Maharashtra-Goa coasts during next 24 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 12 hours. It is very likely to increase becoming Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, from today evening and 70-80 kmph gusting to 90 kmph from 05<sup>th</sup> December morning.

**(iii) Sea conditions:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours. It is likely to become very rough to high during subsequent 12 hours and improve thereafter.
  - **Rough to very rough Sea conditions are likely to prevail over** Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 24 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from today evening for subsequent 24 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 48 hours and into Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 24 hours.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 03 days.

*The next bulletin will be issued at 1430 hrs IST of today, the 04<sup>th</sup> December, 2019.*

**(Sunitha Devi.S)**

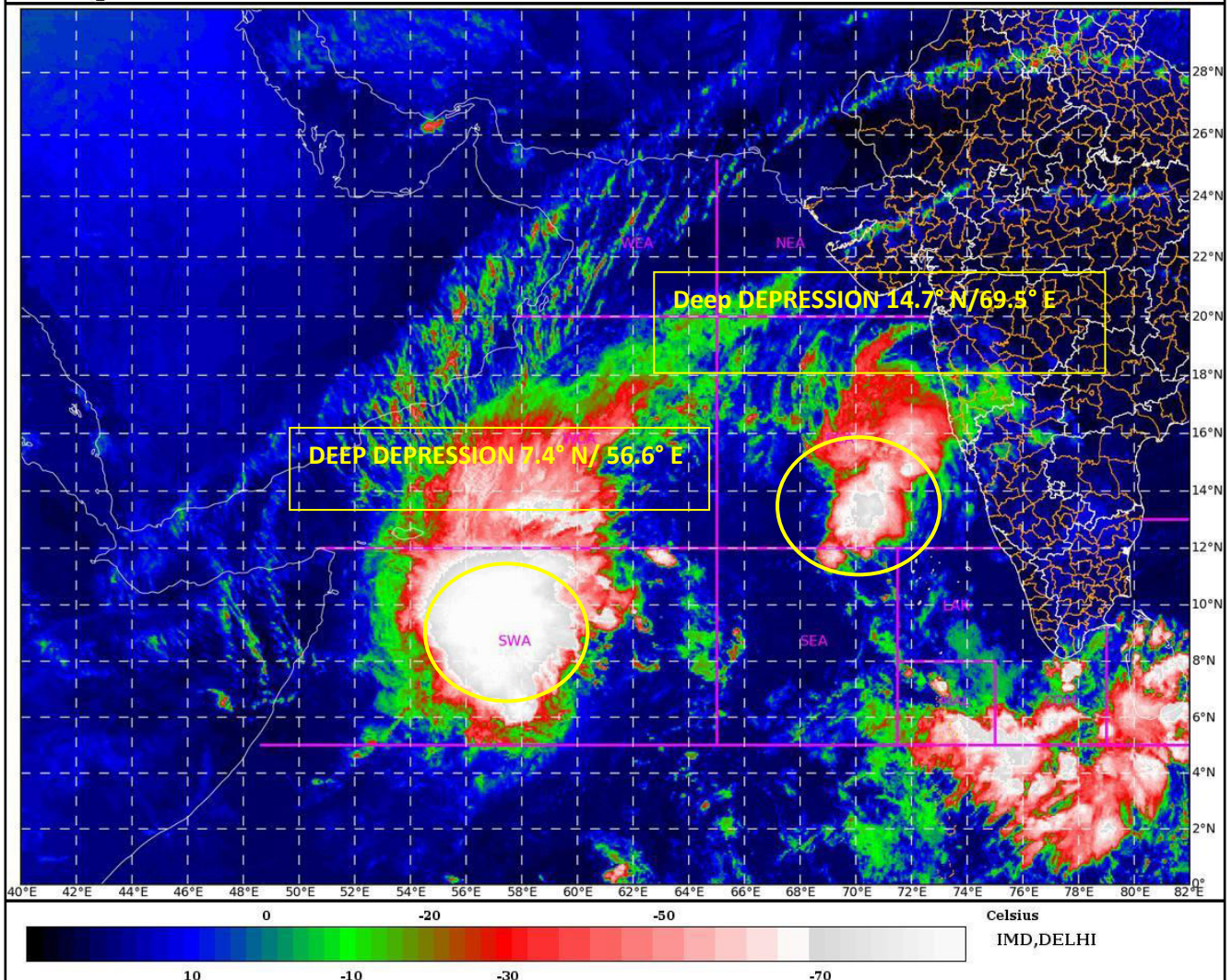
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

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

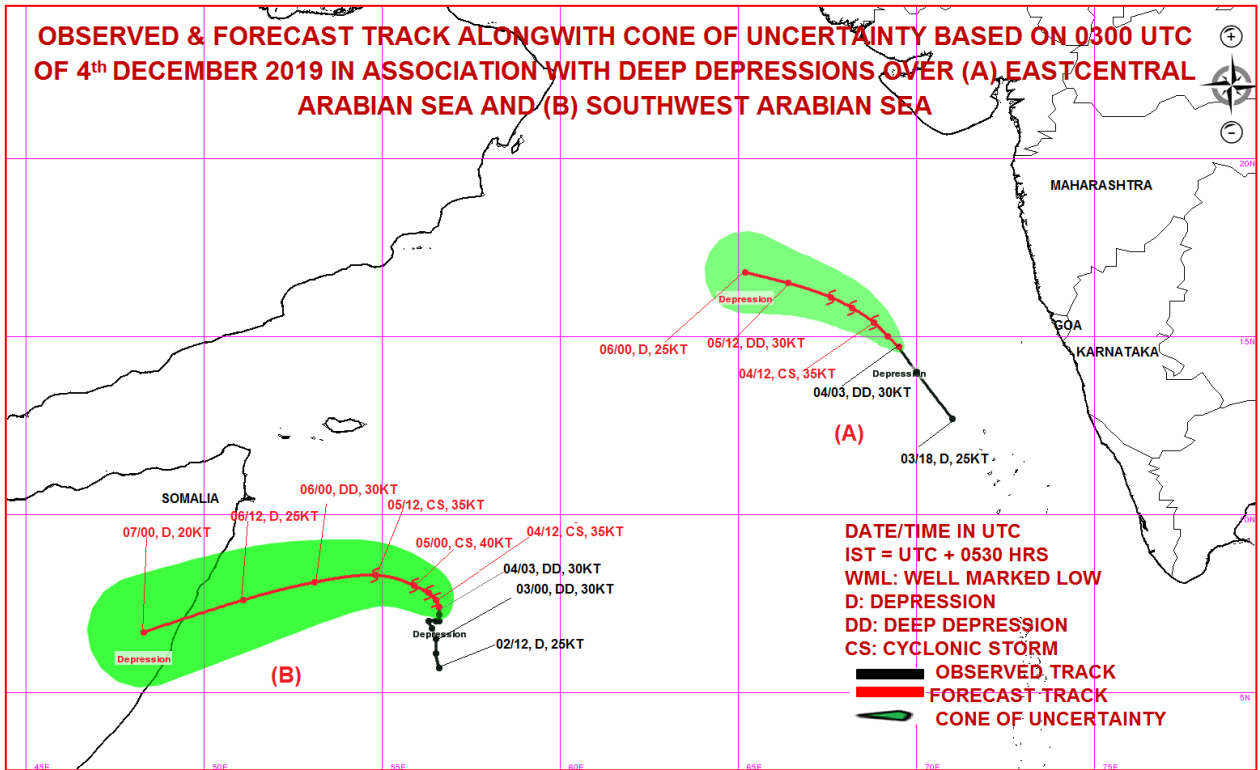
04-12-2019/(0500 to 0527) GMT  
04-12-2019/(1030 to 1057) IST



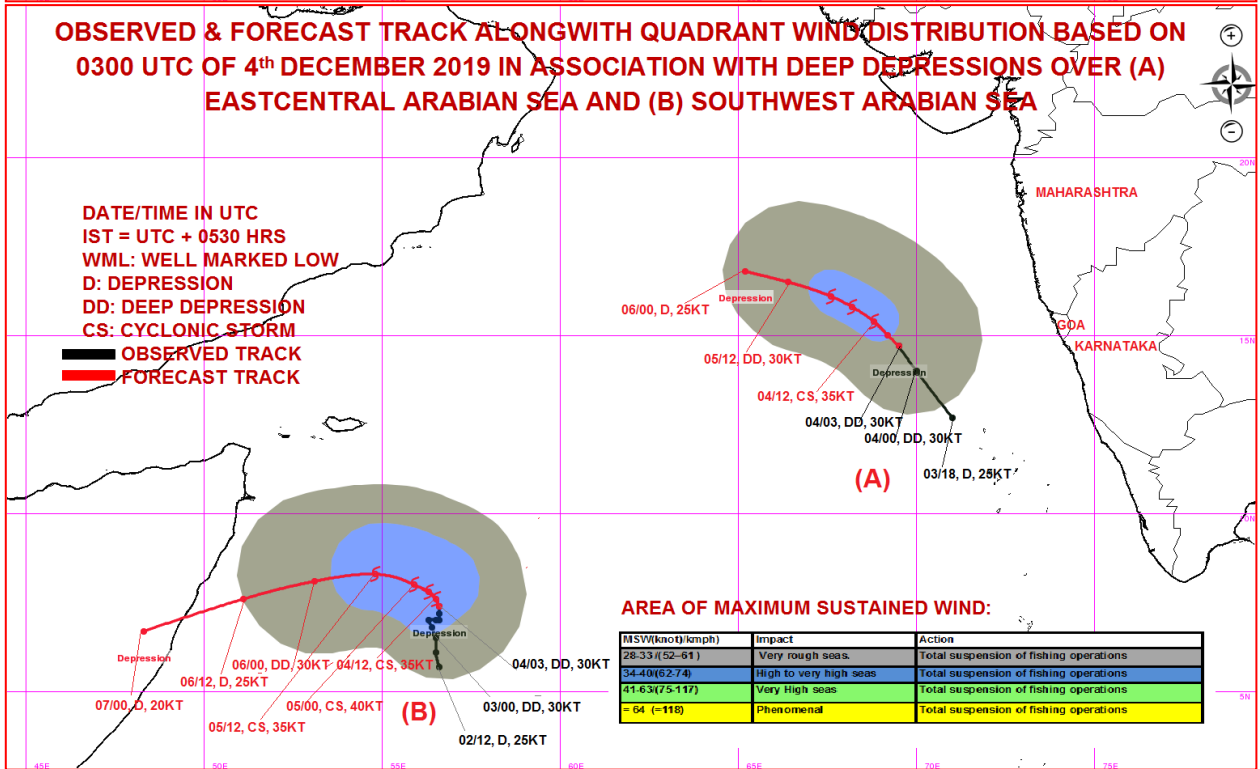
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**OBSERVED & FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY BASED ON 0300 UTC OF 4<sup>th</sup> DECEMBER 2019 IN ASSOCIATION WITH DEEP DEPRESSIONS OVER (A) EASTCENTRAL ARABIAN SEA AND (B) SOUTHWEST ARABIAN SEA**



**OBSERVED & FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION BASED ON 0300 UTC OF 4<sup>th</sup> DECEMBER 2019 IN ASSOCIATION WITH DEEP DEPRESSIONS OVER (A) EASTCENTRAL ARABIAN SEA AND (B) SOUTHWEST ARABIAN SEA**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 10 (ARB/05/2019)**

**TIME OF ISSUE: 1430 HOURS IST**

**DATED: 04.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Deep Depression over Eastcentral Arabian Sea & (b) Deep Depression over Southwest Arabian Sea**

**(a) Deep Depression over Eastcentral Arabian Sea:**

The Deep Depression over Eastcentral Arabian Sea moved north-northwestwards with a speed of 21 kmph during past 06 hours and lay centred at 1130 hrs IST of today, the 04<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 14.9°N and longitude 69.3°E about 600 km south-southwest of Mumbai (Maharashtra) and 490 km of west-southwest of Panjim (Goa). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move northwestwards, away from Indian coast during next 48 hours. Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
04.12.19/1130	14.9/69.3	50-60 gusting to 70	Deep Depression
04.12.19/1730	15.5/68.9	50-60 gusting to 70	Deep Depression
04.12.19/2330	16.0/68.3	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	16.3/67.7	60-70 gusting to 80	Cyclonic Storm
05.12.19/1130	16.5/67.1	55-65 gusting to 75	Deep Depression
05.12.19/2330	16.8/66.0	40-50 gusting to 60	Depression
06.12.19/1130	17.1/64.7	30-40 gusting to 50	Depression

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(b) Deep Depression over Southwest Arabian Sea:**

The Deep Depression over southwest Arabian Sea moved northwards with a speed of 04 kmph during past 06 hours and lay centred at 1130 hrs IST of today, the 04<sup>th</sup> December, 2019 near latitude 7.4°N and longitude 56.6°E over Southwest Arabian Sea, about 650 km south-southeast of Socotra (Yemen) and 920 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 06 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 03 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
04.12.19/1130	7.4/56.6	55-65 gusting to 75	Deep Depression
04.12.19/1730	7.7/56.3	60-70 gusting to 80	Cyclonic Storm
04.12.19/2330	8.0/56.0	60-70 gusting to 80	Cyclonic Storm
05.12.19/0530	8.2/55.7	70-80 gusting to 90	Cyclonic Storm
05.12.19/1130	8.4/55.0	65-75 gusting to 85	Cyclonic Storm
05.12.19/2330	8.5/53.8	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	8.2/52.3	40-50 gusting to 60	Deep Depression
06.12.19/2330	7.6/50.4	35-45 gusting to 55	Depression
07.12.19/1130	7.0/48.5	30-40 gusting to 50	Depression

**(i) Rainfall Warning:**

- **Konkan & Goa:** Light to moderate rainfall at a few places very likely during next 24 hours.

**(ii) Wind warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 50-60 kmph gusting to 70 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours. It is likely to increase becoming Gale wind, speed reaching 60-70 gusting to 80 kmph, from today night for subsequent 12 hours and likely to decrease gradually thereafter.
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Southeast Arabian Sea & Lakshadweep area and along & off Karnataka-south Maharashtra-Goa coasts during next 12 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 06 hours. It is very likely to increase becoming Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, from today evening and 70-80 kmph gusting to 90 kmph from 05<sup>th</sup> December morning.

**(iii) Sea conditions:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours. It is likely to become very rough to high during subsequent 12 hours and improve thereafter.
  - **Rough to very rough Sea conditions are likely to prevail over** Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 12 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from today evening for subsequent 24 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 48 hours and into Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 03 days.

*The next bulletin will be issued at 2030 hrs IST of today, the 04<sup>th</sup> December, 2019.*

**(Sunitha Devi.S)**

**Scientist-E, RSMC, New Delhi**

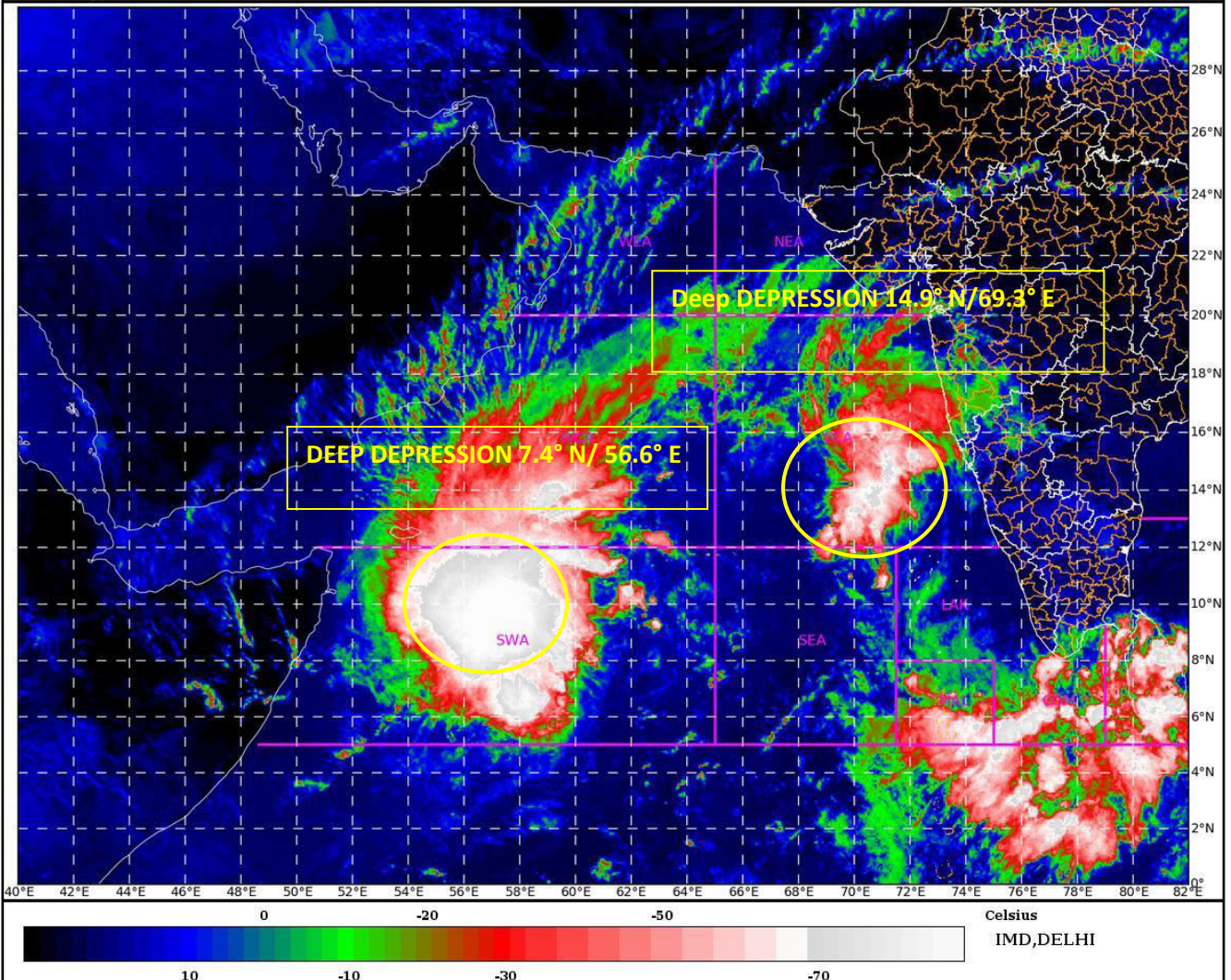
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

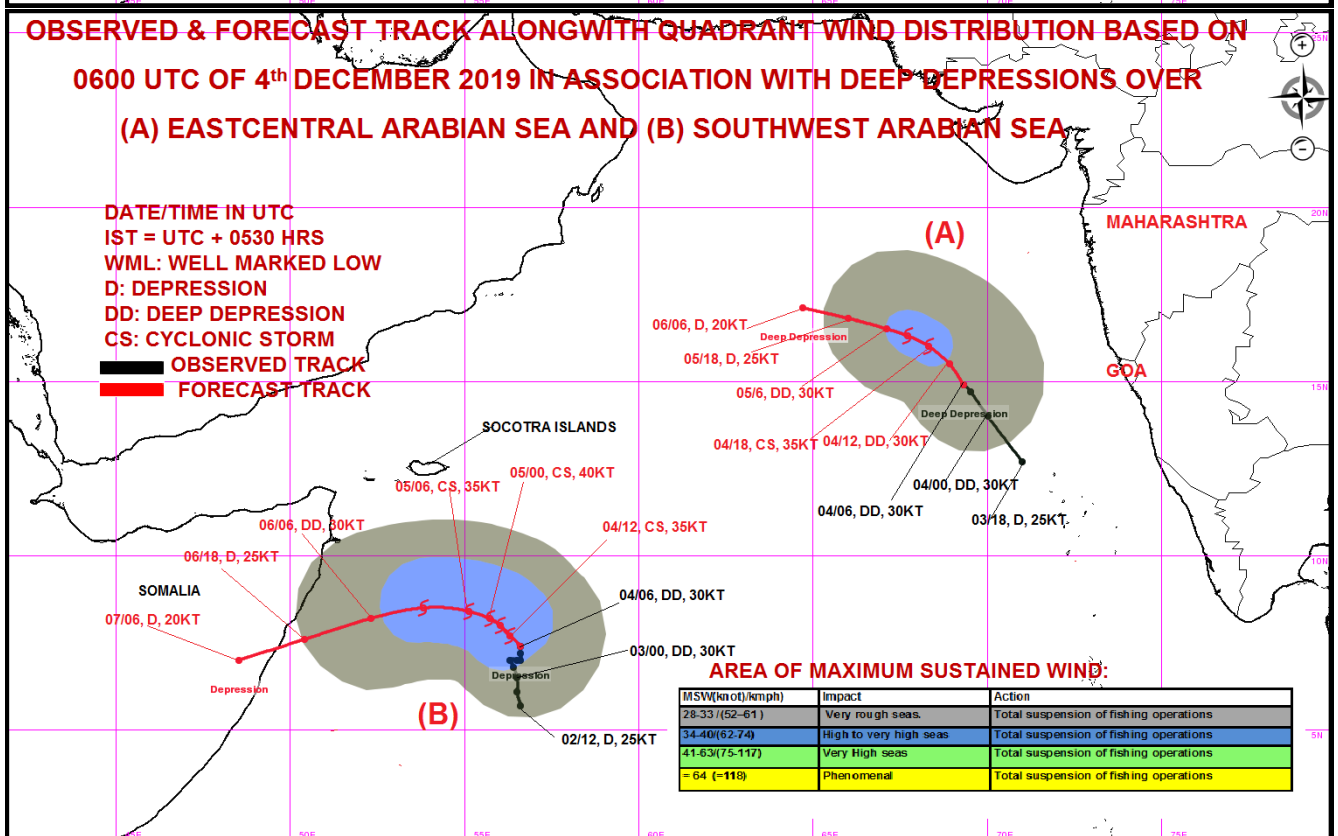
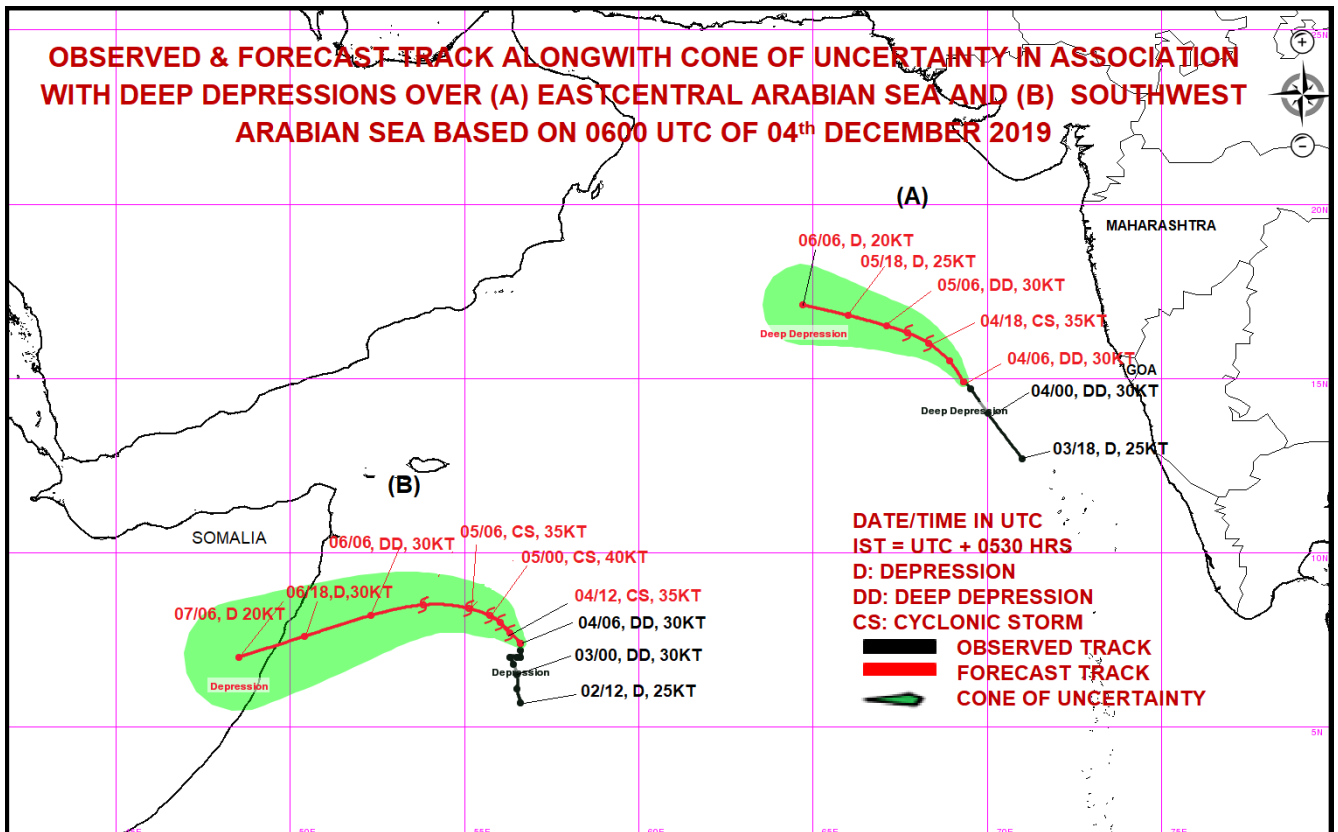


SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

04-12-2019/(0700 to 0727) GMT  
04-12-2019/(1230 to 1257) IST



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 11 (ARB/05/2019)**

**TIME OF ISSUE: 2015 HOURS IST**

**DATED: 04.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)  
CONTROL ROOM NDMA (FAX.NO. 26701729)  
CABINET SECRETARIAT (FAX.NO.23012284, 23018638)  
PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)  
SECRETARY, MOES, (FAX NO. 24629777)  
H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)  
DIRECTOR GENERAL, DOORDARSHAN (23385843)  
DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)  
PIB MOES (FAX NO. 23389042)  
UNI (FAX NO. 23355841)  
D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)  
DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)  
CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)  
ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)  
ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)  
ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)  
CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)  
CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)  
CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)  
CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Deep Depression over Eastcentral Arabian Sea & (b) Deep Depression over Southwest Arabian Sea**

**(a) Deep Depression over Eastcentral Arabian Sea:**

The Deep Depression over Eastcentral Arabian Sea moved westwards with a speed of 16 kmph during past 06 hours and lay centred at 1730 hrs IST of today, the 04<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 14.9°N and longitude 68.4°E about 660 km south-southwest of Mumbai (Maharashtra) and 580 km of west of Panjim (Goa). It is very likely to maintain intensity of Deep Depression during next 36 hours and weaken gradually thereafter. It is very likely to move west-northwestwards, away from Indian coast during next 48 hours. Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
04.12.19/1730	14.9/68.4	50-60 gusting to 70	Deep Depression
04.12.19/2330	15.2/67.9	50-60 gusting to 70	Deep Depression
05.12.19/0530	15.5/67.3	50-60 gusting to 70	Deep Depression
05.12.19/1130	15.8/66.7	50-60 gusting to 70	Deep Depression
05.12.19/1730	16.0/66.0	45-55 gusting to 65	Deep Depression
06.12.19/0530	16.3/64.6	40-50 gusting to 60	Depression
06.12.19/1730	16.4/63.9	30-40 gusting to 50	Depression

**(b) Deep Depression over Southwest Arabian Sea:**

The Deep Depression over southwest Arabian Sea remained practically stationary during past 06 hours and lay centred at 1730 hrs IST of today, the 04<sup>th</sup> December, 2019 near latitude 7.4°N and longitude 56.6°E over Southwest Arabian Sea, about 650 km south-southeast of Socotra (Yemen)

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

and 920 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 03 days.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
04.12.19/1730	7.4/56.6	50-60 gusting to 70	Deep Depression
04.12.19/2330	7.7/56.3	55-65 gusting to 75	Deep Depression
05.12.19/0530	7.9/56.0	60-70 gusting to 80	Cyclonic Storm
05.12.19/1130	8.1/55.3	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	8.1/54.7	60-70 gusting to 80	Cyclonic Storm
06.12.19/0530	8.0/53.3	50-60 gusting to 70	Deep Depression
06.12.19/1730	7.6/51.7	45-55 gusting to 65	Deep Depression
07.12.19/0530	7.0/49.7	40-50 gusting to 60	Depression
07.12.19/1730	6.4/47.7	30-40 gusting to 50	Depression

**(i) Rainfall Warning:**

- **Konkan & Goa:** Light rainfall at a few places very likely during next 24 hours.

**(ii) Wind warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 50-60 kmph gusting to 70 kmph, likely to prevail over Eastcentral Arabian Sea during next 24 hours and likely to decrease gradually thereafter.
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Southeast Arabian Sea & Lakshadweep area and along & off Karnataka-south Maharashtra-Goa coasts during next 12 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 12 hours. It is very likely to increase becoming Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, from tomorrow morning for subsequent 12 hours and likely to decrease thereafter.

**(iii) Sea conditions:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 24 hours and improve thereafter.
  - **Rough to very rough Sea conditions are likely to prevail over** Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 12 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from tomorrow morning for subsequent 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 48 hours and into Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 03 days.

The next bulletin will be issued at 0230 hrs IST of tomorrow, the 05<sup>th</sup> December, 2019.

(Sunitha Devi.S)

Scientist-E, RSMC, New Delhi

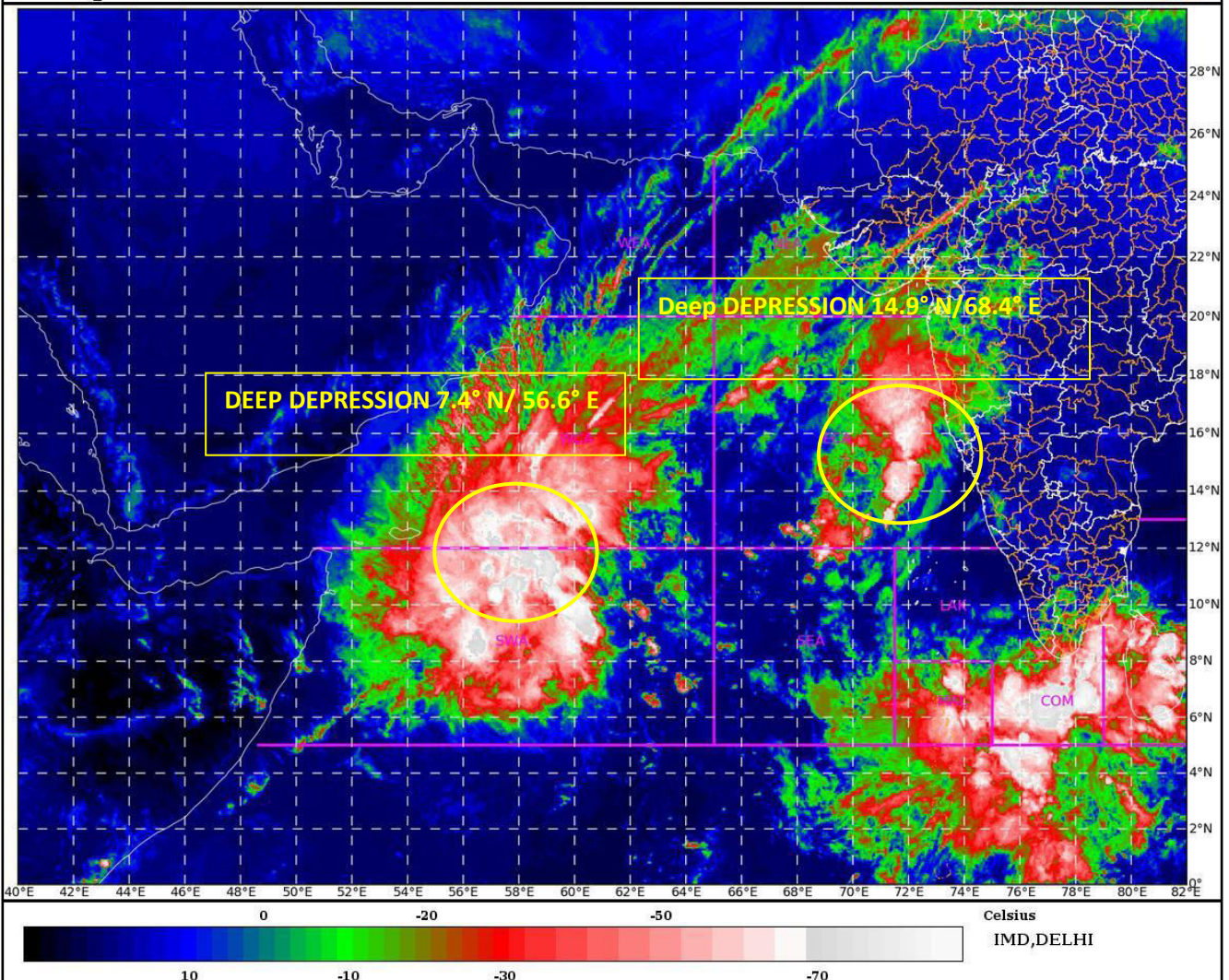
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

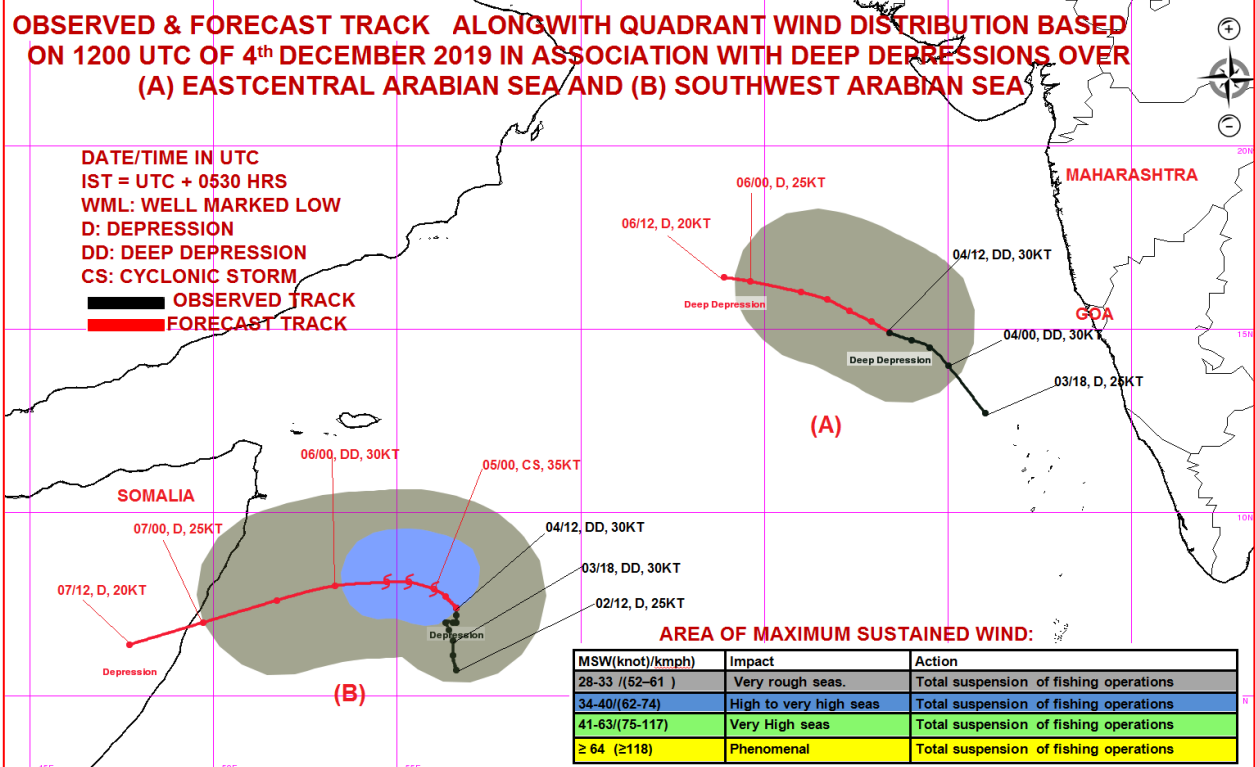
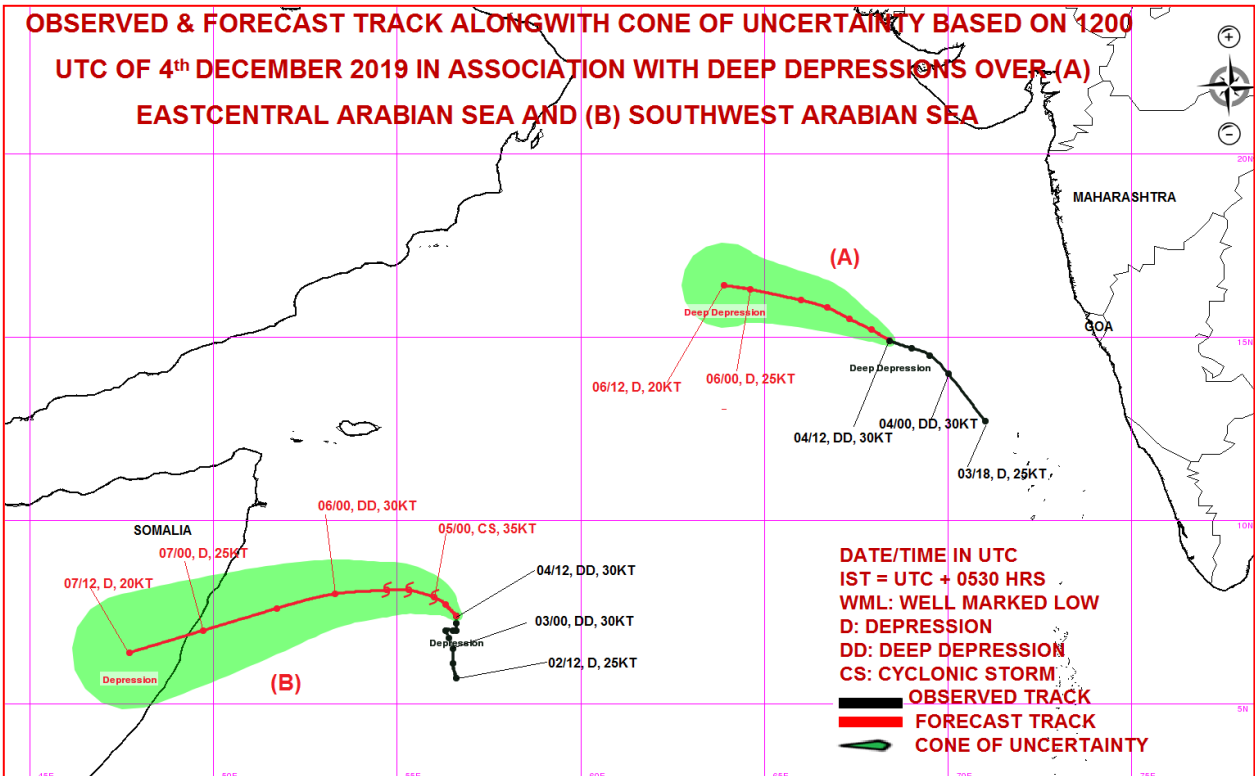


SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

04-12-2019/(1300 to 1326) GMT  
04-12-2019/(1830 to 1856) IST



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 12 (ARB/05/2019)**

**TIME OF ISSUE: 0210 HOURS IST**

**DATED: 05.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Deep Depression over Eastcentral Arabian Sea & (b) Deep Depression over Southwest Arabian Sea**

**(a) Deep Depression over Eastcentral Arabian Sea:**

The Deep Depression over Eastcentral Arabian Sea moved west-northwestwards with a speed of 7 kmph during past 06 hours and lay centred at 2330 hrs IST of 04<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 15.0°N and longitude 68.0°E about 690 km west-southwest of Mumbai (Maharashtra) and 620 km of west of Panjim (Goa). It is very likely to maintain intensity of Deep Depression during next 12 hours and weaken gradually thereafter. It is very likely to move west-northwestwards, away from Indian coast during next 24 hours.

Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
04.12.19/2330	15.0/68.0	50-60 gusting to 70	Deep Depression
05.12.19/0530	15.2/67.4	50-60 gusting to 70	Deep Depression
05.12.19/1130	15.5/66.7	45-55 gusting to 65	Depression
05.12.19/1730	15.8/66.0	40-50 gusting to 60	Depression
05.12.19/2330	16.1/65.3	30-40 gusting to 50	Well Marked Low

**(b) Deep Depression over Southwest Arabian Sea:**

The Deep Depression over southwest Arabian Sea moved nearly northwards with a speed of 20 kmph during past 06 hours and lay centred at 2330 hrs IST of 04<sup>th</sup> December, 2019 near latitude 8.5°N and longitude 56.7°E over Southwest Arabian Sea, about 550 km south-southeast of Socotra (Yemen) and 880 km east-southeast of Bosaso (Somalia). It is very likely to intensify into a Cyclonic Storm during next 12 hours. It is very likely to move north-northwestwards for some more time and then recurve west-southwestwards towards Somalia coast during next 03 days.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
04.12.19/2330	8.5/56.7	55-65 gusting to 75	Deep Depression
05.12.19/0530	9.0/56.4	60-70 gusting to 80	Cyclonic Storm
05.12.19/1130	9.2/55.9	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	9.1/55.1	60-70 gusting to 80	Cyclonic Storm
05.12.19/2330	8.8/54.0	50-60 gusting to 70	Deep Depression
06.12.19/1130	8.2/52.6	45-55 gusting to 65	Depression
06.12.19/2330	7.3/50.4	40-50 gusting to 60	Depression
07.12.19/1130	6.4/48.2	30-40 gusting to 50	Well Marked Low

**(i) Rainfall Warning:**

- **Konkan & Goa:** Light rainfall at a few places very likely during next 24 hours.

**(ii) Wind warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Squally wind, speed reaching 50-60 kmph gusting to 70 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours and likely to decrease gradually thereafter.
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Southeast Arabian Sea & Lakshadweep area and along & off Karnataka-south Maharashtra-Goa coasts during next 06 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail over southwest Arabian Sea during next 06 hours. It is very likely to increase becoming Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, from morning of 5<sup>th</sup> December for subsequent 12 hours and likely to decrease thereafter.

**(iii) Sea conditions:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:**
  - Very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours and improve thereafter.
  - **Rough to very rough Sea conditions are likely to prevail over** Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-Maharashtra coasts during next 06 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough Sea Conditions are prevailing over Southwest Arabian Sea and are very likely to become very rough to High over southwest Arabian Sea and along & off Somalia coast from the morning of 5<sup>th</sup> December for subsequent 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Eastcentral Arabian Sea and adjoining areas of Southeast Arabian Sea & Lakshadweep area:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 24 hours and into Southeast Arabian Sea & Lakshadweep area, along & off Kerala-Karnataka-south Maharashtra-Goa coasts during next 12 hours.
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 03 days.

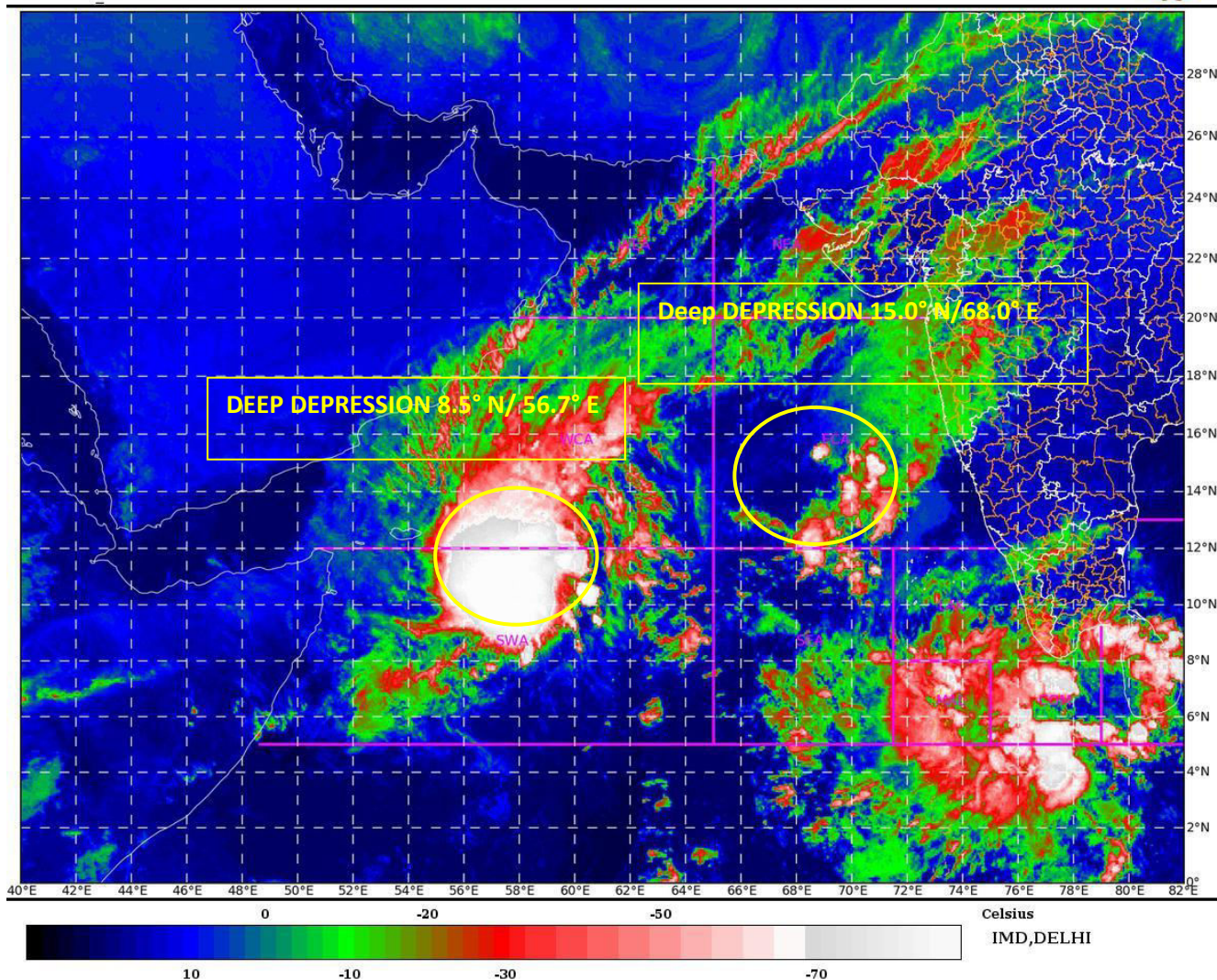
*The next bulletin will be issued at 0830 hrs IST of 05<sup>th</sup> December, 2019.*

**(Ananda Kumar Das)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

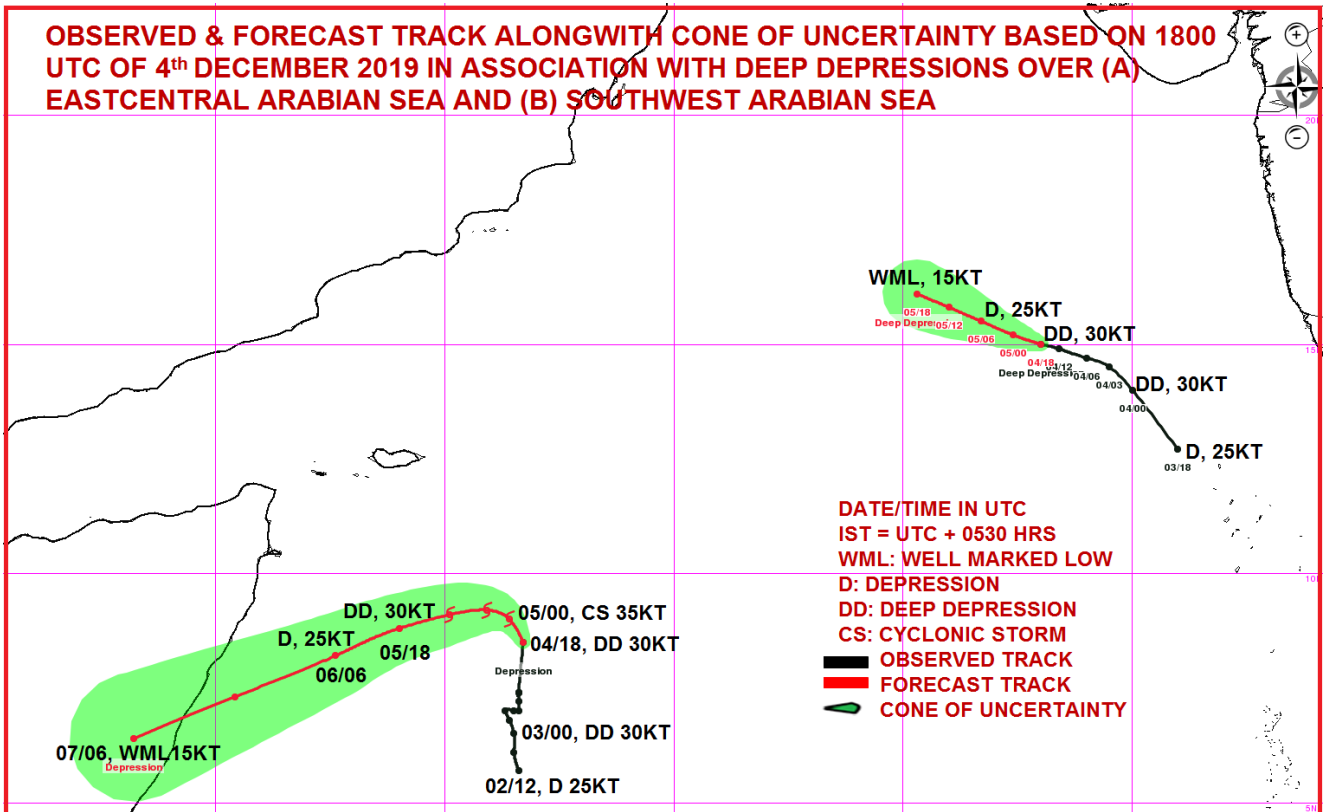
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



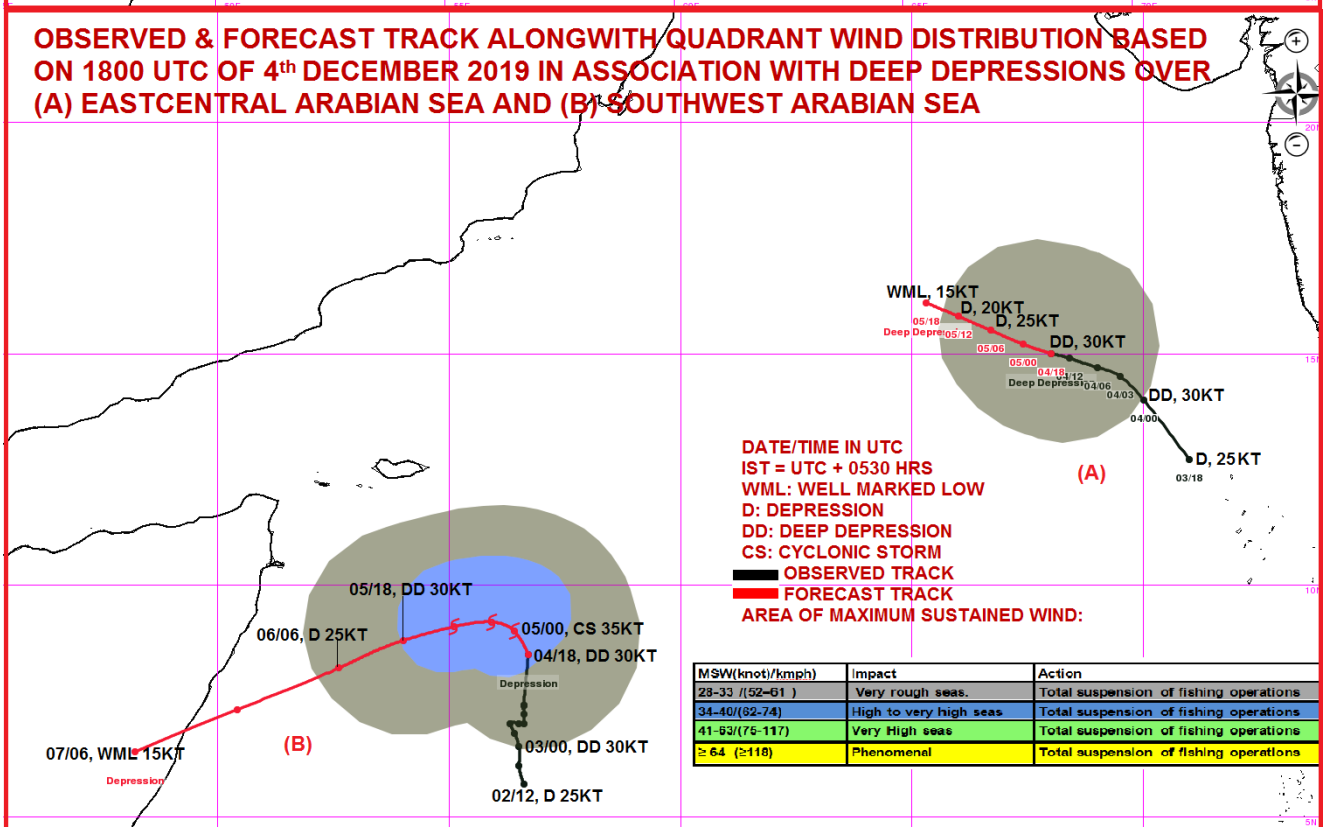


**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**OBSERVED & FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY BASED ON 1800 UTC OF 4<sup>th</sup> DECEMBER 2019 IN ASSOCIATION WITH DEEP DEPRESSIONS OVER (A) EASTCENTRAL ARABIAN SEA AND (B) SOUTHWEST ARABIAN SEA**



**OBSERVED & FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION BASED ON 1800 UTC OF 4<sup>th</sup> DECEMBER 2019 IN ASSOCIATION WITH DEEP DEPRESSIONS OVER (A) EASTCENTRAL ARABIAN SEA AND (B) SOUTHWEST ARABIAN SEA**



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
41-53(75-117)	Very High seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 13 (ARB/05/2019)

TIME OF ISSUE: 0900 HOURS IST

DATED: 05.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: (a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea & (b) Depression over Eastcentral Arabian Sea**

**(a) The Deep Depression intensified into Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea:**

The Deep Depression over southwest Arabian Sea moved north-northwestwards with a speed of 14 kmph during past 06 hours, intensified into **cyclonic storm 'Pawan' (Pronounced as 'Pavan')** and lay centred at 0530 hrs IST of 05<sup>th</sup> December, 2019 near latitude 9.2°N and longitude 56.4°E over Southwest Arabian Sea, about 470 km south-southeast of Socotra (Yemen) and 820 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm till tomorrow morning and weaken gradually thereafter. It is very likely to move north-northwestwards for some more time, then re-curve west-southwestwards and cross Somalia coast as a depression between Latitudes 7° & 8°N during 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/0530	9.2/56.4	65-75 gusting to 85	Cyclonic Storm
05.12.19/1130	9.3/55.9	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	9.1/55.1	60-70 gusting to 80	Cyclonic Storm
05.12.19/2330	8.8/54.2	60-70 gusting to 80	Cyclonic Storm
06.12.19/0530	8.5/53.3	50-60 gusting to 70	Deep Depression
06.12.19/1730	7.7/51.3	45-55 gusting to 65	Depression
07.12.19/0530	7.0/49.5	40-50 gusting to 60	Depression
07.12.19/1730	6.3/47.7	30-40 gusting to 50	Well Marked Low

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(b) Deep Depression weakened into a Depression over Eastcentral Arabian Sea:**

The Deep Depression over Eastcentral Arabian Sea moved slowly northwestwards with a speed of 2 kmph during past 06 hours weakened into a Depression and lay centred at 0530 hrs IST of 05<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 15.1°N and longitude 67.9°E about 690 km west-southwest of Mumbai (Maharashtra) and 630 km of west of Panjim (Goa). It is very likely to weaken gradually into a well marked low pressure area and move west-northwestwards away from Indian coast during next 12 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/0530	15.1/67.9	45-55 gusting to 65	Depression
05.12.19/1130	15.3/67.2	40-50 gusting to 60	Depression
05.12.19/1730	15.6/66.5	35-45 gusting to 55	Depression
05.12.19/2330	15.9/65.8	30-40 gusting to 50	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely in association with the depression over east central Arabian Sea over the mainland.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, very likely to prevail over southwest Arabian Sea during next 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the morning of 6<sup>th</sup> December for subsequent 06 hours and likely to further decrease thereafter.
- **Eastcentral Arabian Sea :**
  - Squally wind, speed reaching 45-55 kmph gusting to 65 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours and likely to decrease gradually thereafter.
  - Strong wind, speed reaching 30-40 kmph, likely to prevail over the Sea along & off Maharashtra-Goa coasts during next 12 hours.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough from tomorrow morning for the subsequent 12 hours and further improve thereafter.
- **Eastcentral Arabian Sea:**
  - Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 03 days.
- **Eastcentral Arabian Sea:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 24 hours.

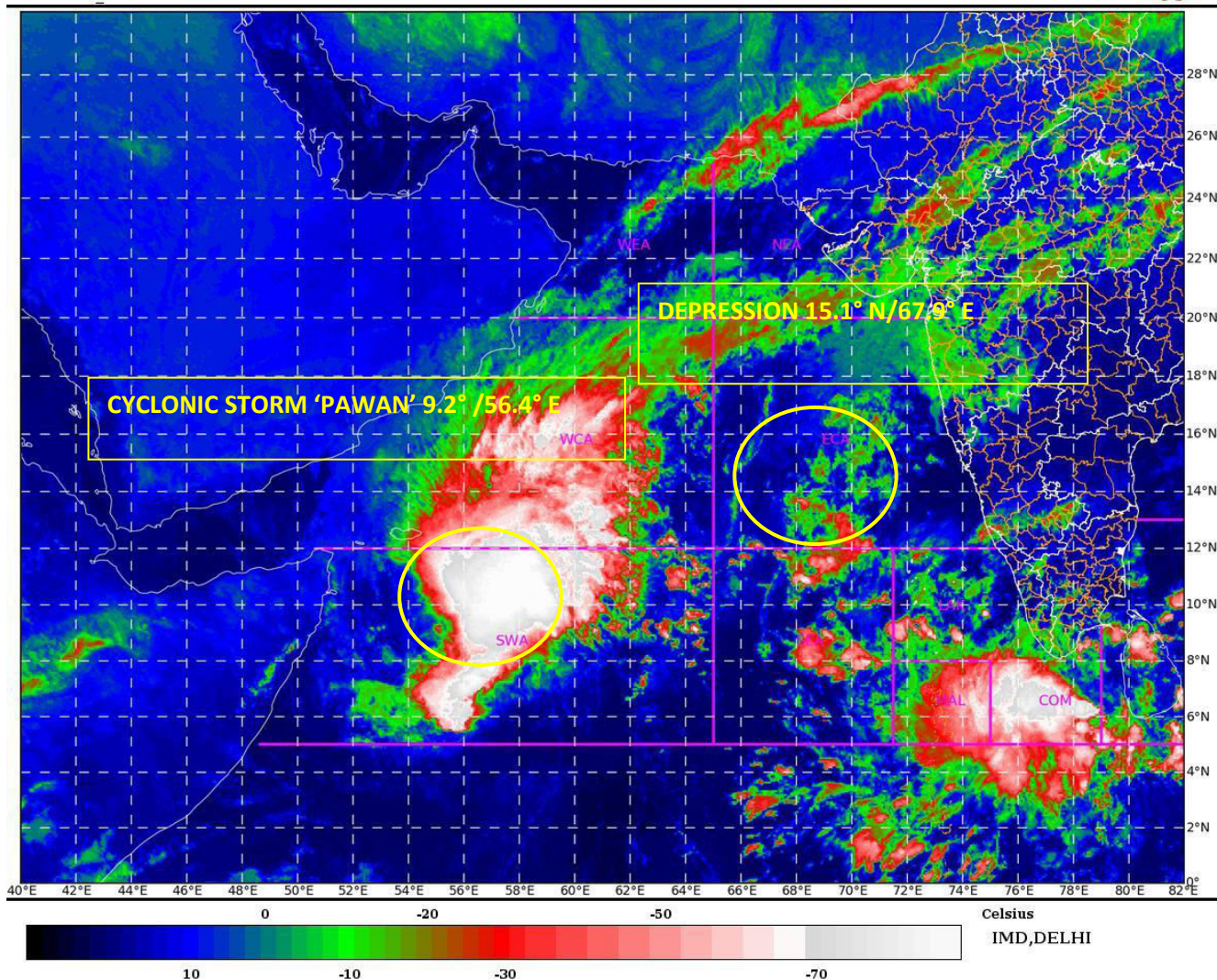
*The next bulletin will be issued at 1130 hrs IST of 05<sup>th</sup> December, 2019.*

**(Ananda Kumar Das)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

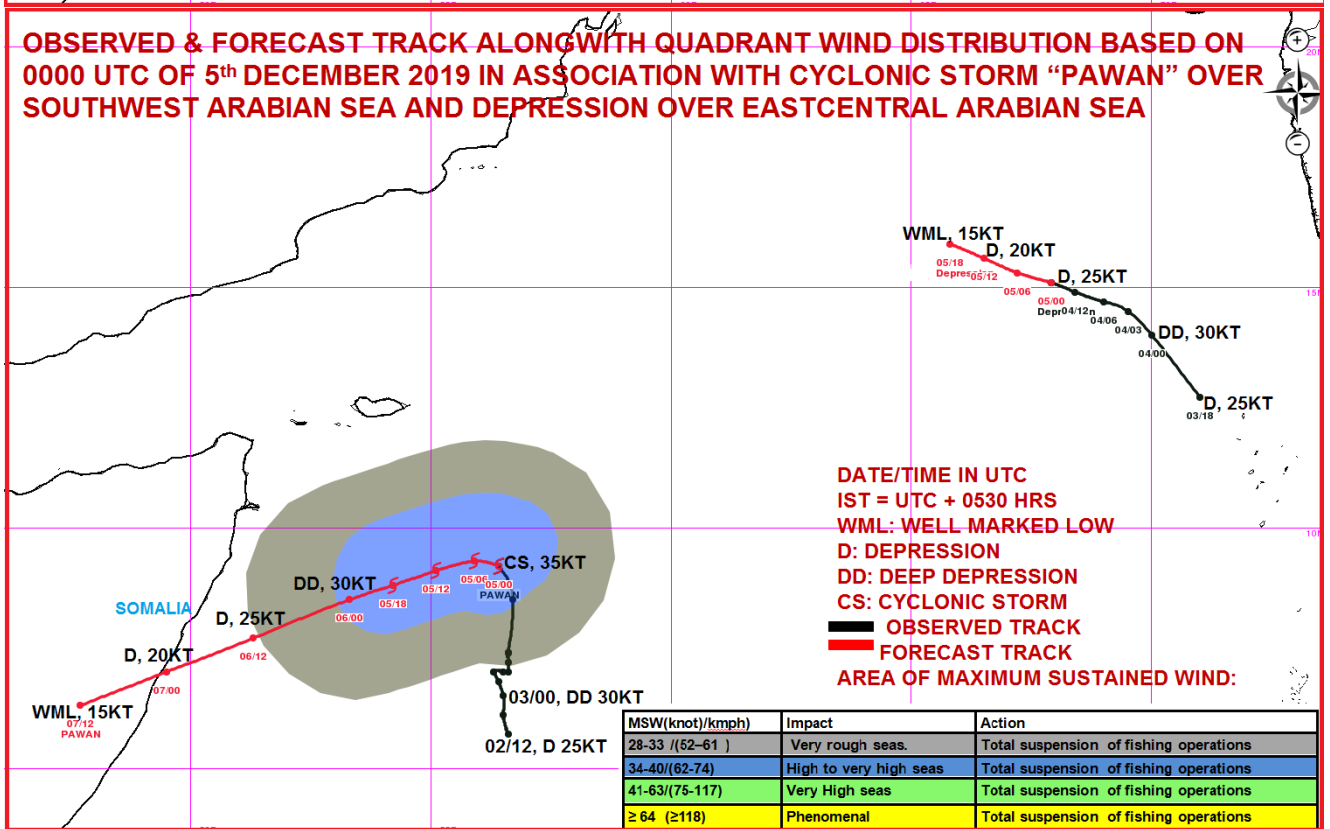
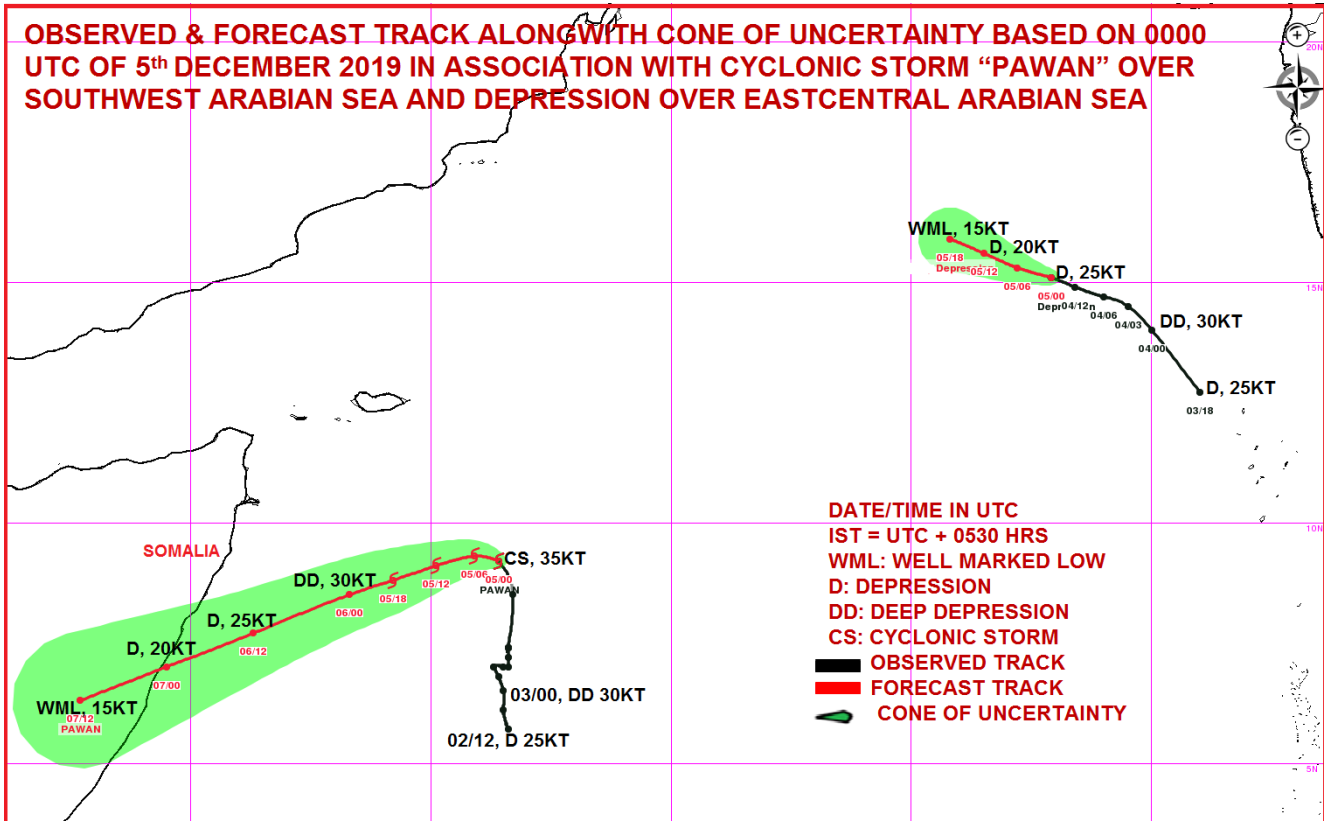
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 14 (ARB/05/2019)**

**TIME OF ISSUE: 1100 HOURS IST**

**DATED: 05.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea & (b) Depression over Eastcentral Arabian Sea**

**(a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea:**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over southwest Arabian Sea moved north-northwestwards with a speed of 07 kmph during past 06 hours and lay centred at 0830 hrs IST of 05<sup>th</sup> December, 2019 near latitude 09.2°N and longitude 56.4°E over Southwest Arabian Sea, about 470 km south-southeast of Socotra (Yemen) and 820 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 12 hours and weaken gradually thereafter. It is very likely to move northwestwards for some more time, then re-curve west-southwestwards and cross Somalia coast as a depression between Latitudes 07° & 08°N during 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
05.12.19/0830	9.2/56.4	65-75 gusting to 85	Cyclonic Storm
05.12.19/1130	9.3/56.0	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	9.1/55.1	60-70 gusting to 80	Cyclonic Storm
05.12.19/2330	8.8/54.2	60-70 gusting to 80	Cyclonic Storm
06.12.19/0530	8.5/53.3	50-60 gusting to 70	Deep Depression
06.12.19/1730	7.7/51.3	45-55 gusting to 65	Depression
07.12.19/0530	7.0/49.5	30-40 gusting to 50	Depression
07.12.19/1730	6.3/47.7	20-30 gusting to 40	Well Marked Low

**(b) Depression over Eastcentral Arabian Sea:**

The Depression over Eastcentral Arabian Sea moved west-northwestwards with a speed of 08 kmph during past 06 hours and lay centred at 0830 hrs IST of 05<sup>th</sup> December, 2019, over Eastcentral

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

Arabian Sea, near latitude 15.2°N and longitude 67.5°E about 710 km west-southwest of Mumbai (Maharashtra) and 680 km of west of Panjim (Goa). It is very likely to move west-northwestwards and weaken gradually into a well marked low pressure area during next 12 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/0830	15.2/67.5	40-50 gusting to 60	Depression
05.12.19/1130	15.3/67.2	35-45 gusting to 55	Depression
05.12.19/1730	15.6/66.5	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above systems.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, very likely to prevail over southwest Arabian Sea during next 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the morning of 6<sup>th</sup> December for subsequent 06 hours and likely to further decrease thereafter.
- **Eastcentral Arabian Sea :**
  - Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to prevail over Eastcentral Arabian Sea till today evening and likely to decrease gradually thereafter.
  - Strong wind, speed reaching 30-40 kmph, likely to prevail over the Sea along & off Maharashtra-Goa coasts during next 12 hours.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough from tomorrow morning for subsequent 06 hours and improve further thereafter.
- **Eastcentral Arabian Sea:**
  - Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea till today evening and improve thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.
- **Eastcentral Arabian Sea:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 12 hours.

*The next bulletin will be issued at 1430 hrs IST of 05<sup>th</sup> December, 2019.*

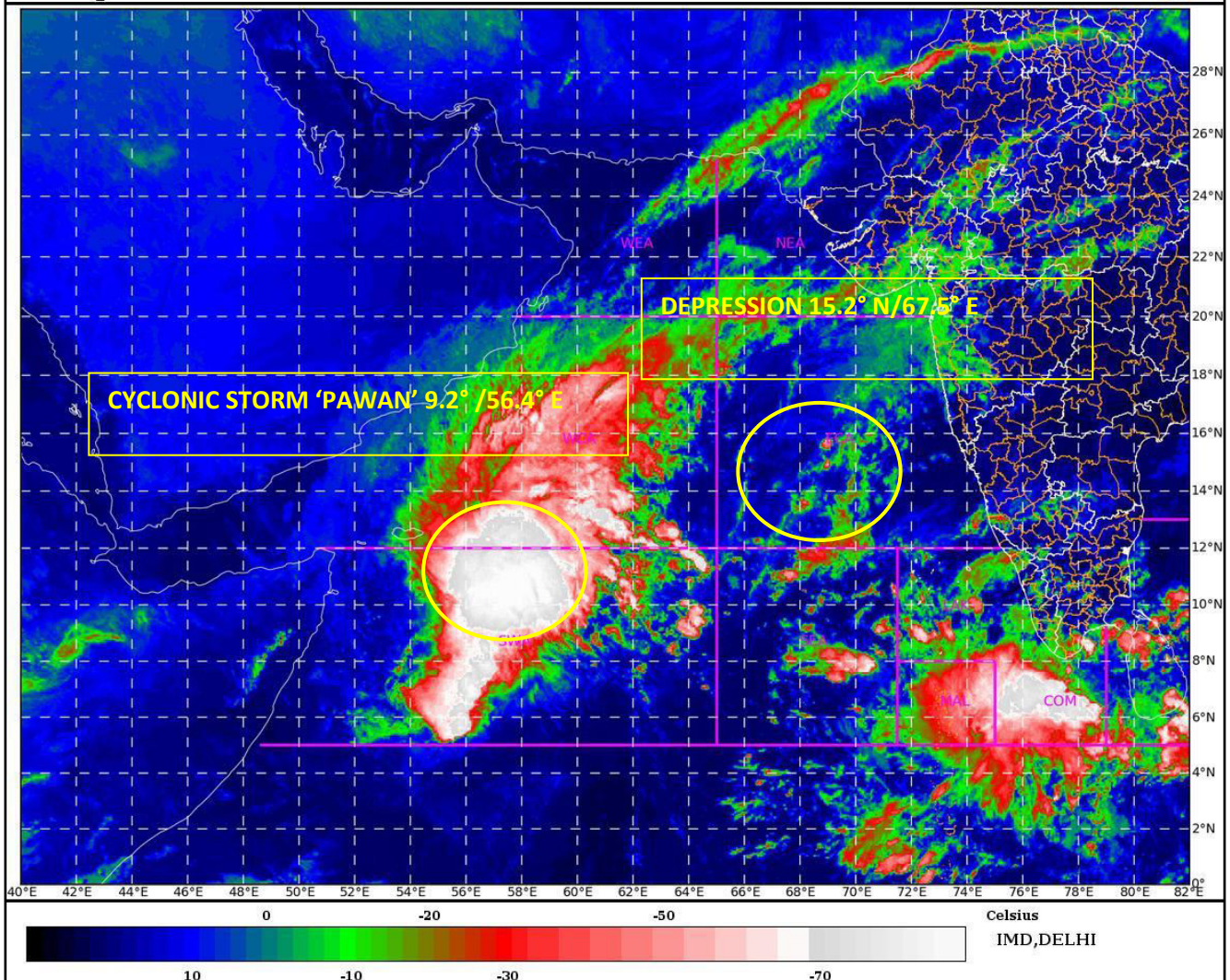
**(Sunitha Devi S)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**



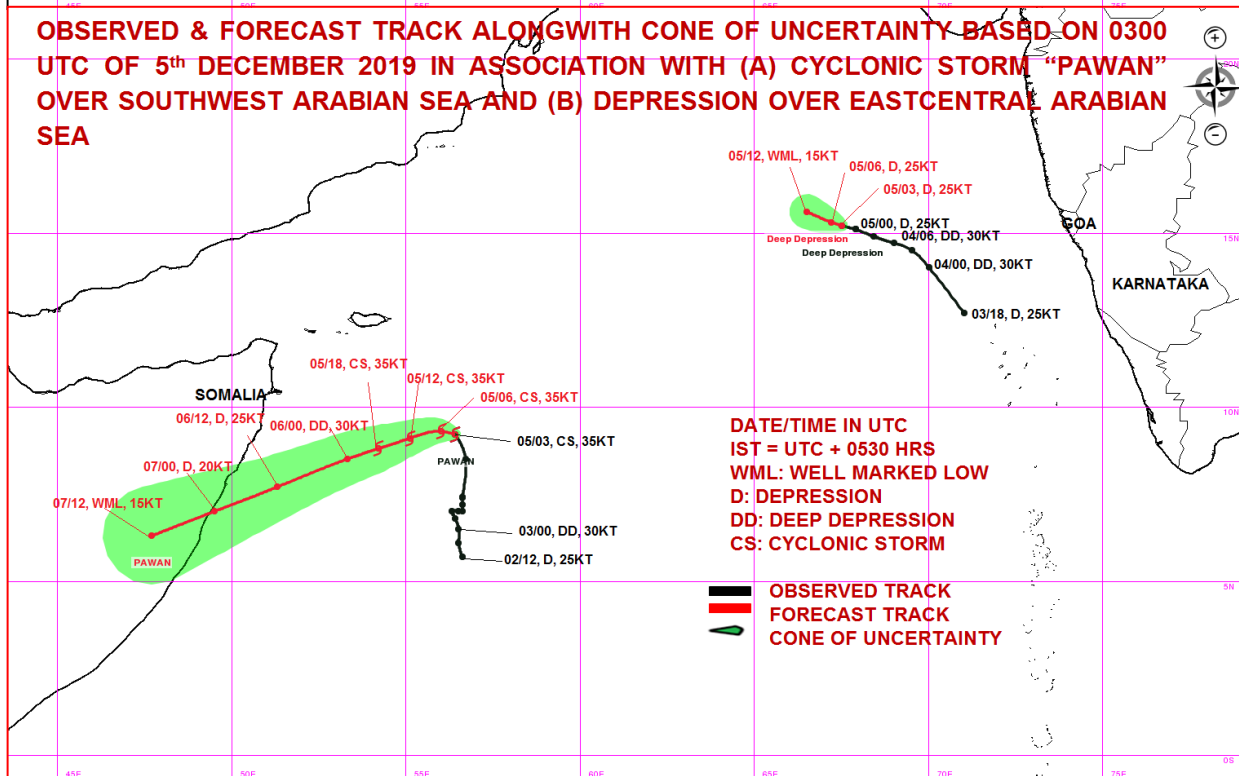
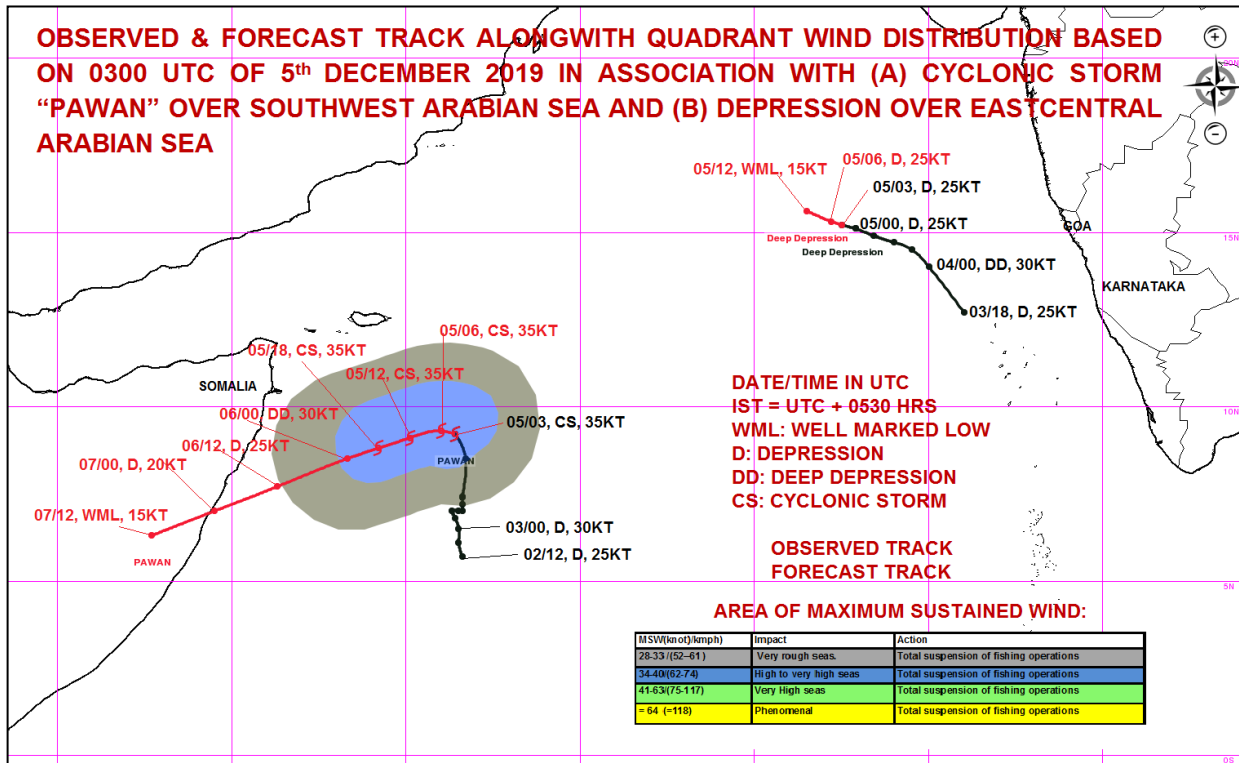
SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

05-12-2019/(0400 to 0426) GMT  
05-12-2019/(0930 to 0956) IST



SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 15 (ARB/05/2019)

TIME OF ISSUE: 1415 HOURS IST

DATED: 05.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: (a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea & (b) Depression over Eastcentral Arabian Sea**

**(a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea:**

Cyclonic storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea moved north-northwestwards with a speed of 06 kmph during past 06 hours and lay centred at 1130 hrs IST of 05<sup>th</sup> December, 2019 near latitude 09.5°N and longitude 56.3°E over Southwest Arabian Sea, about 430 km south-southeast of Socotra (Yemen) and 800 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 18 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 36 hours and cross Somalia coast as a Depression between Latitudes 07° & 08°N during 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/1130	9.5/56.3	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	9.5/55.4	70-80 gusting to 90	Cyclonic Storm
05.12.19/2330	9.2/54.5	70-80 gusting to 90	Cyclonic Storm
06.12.19/0530	8.8/53.6	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	8.4/52.7	50-60 gusting to 70	Deep Depression
06.12.19/2330	7.8/51.0	40-50 gusting to 60	Depression
07.12.19/1130	7.2/49.0	40-50 gusting to 60	Depression
07.12.19/2330	6.6/47.2	20-30 gusting to 40	Well Marked Low

**(b) Depression over Eastcentral Arabian Sea:**

The Depression over Eastcentral Arabian Sea moved west-northwestwards with a speed of 14 kmph during past 06 hours and lay centred at 1130 hrs IST of 05<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 15.4°N and longitude 67.2°E about 730 km west-southwest of Mumbai

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

(Maharashtra) and 710 km of west of Panjim (Goa). It is very likely to move west-northwestwards and weaken gradually into a well marked low pressure area during next 06 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/1130	15.4/67.2	30-40 gusting to 50	Depression
05.12.19/1730	15.6/66.5	20-30 gusting to 40	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above systems.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph is prevailing around the system centre over southwest Arabian Sea which is very likely to increase becoming 70-80 kmph gusting to 90 kmph from today evening for subsequent 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the forenoon of 06<sup>th</sup> December for subsequent 06 hours and likely to decrease further thereafter.
- **Eastcentral Arabian Sea :**
  - Squally wind, speed reaching 30-40 kmph gusting to 50 kmph, likely to prevail around the system centre over Eastcentral Arabian Sea till today evening and likely to decrease gradually thereafter.
  - Strong wind, speed reaching 30-40 kmph, likely to prevail over the Sea along & off Maharashtra-Goa coasts during next 12 hours.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 18 hours. It is very likely to improve gradually becoming very rough from tomorrow forenoon for subsequent 06 hours and improve further thereafter.
- **Eastcentral Arabian Sea:**
  - Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea till today evening and improve thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.
- **Eastcentral Arabian Sea:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 12 hours.

*The next bulletin will be issued at 1730 hrs IST of 05<sup>th</sup> December, 2019.*

**(Sunitha Devi S)**  
**Scientist-E, RSMC, New Delhi**

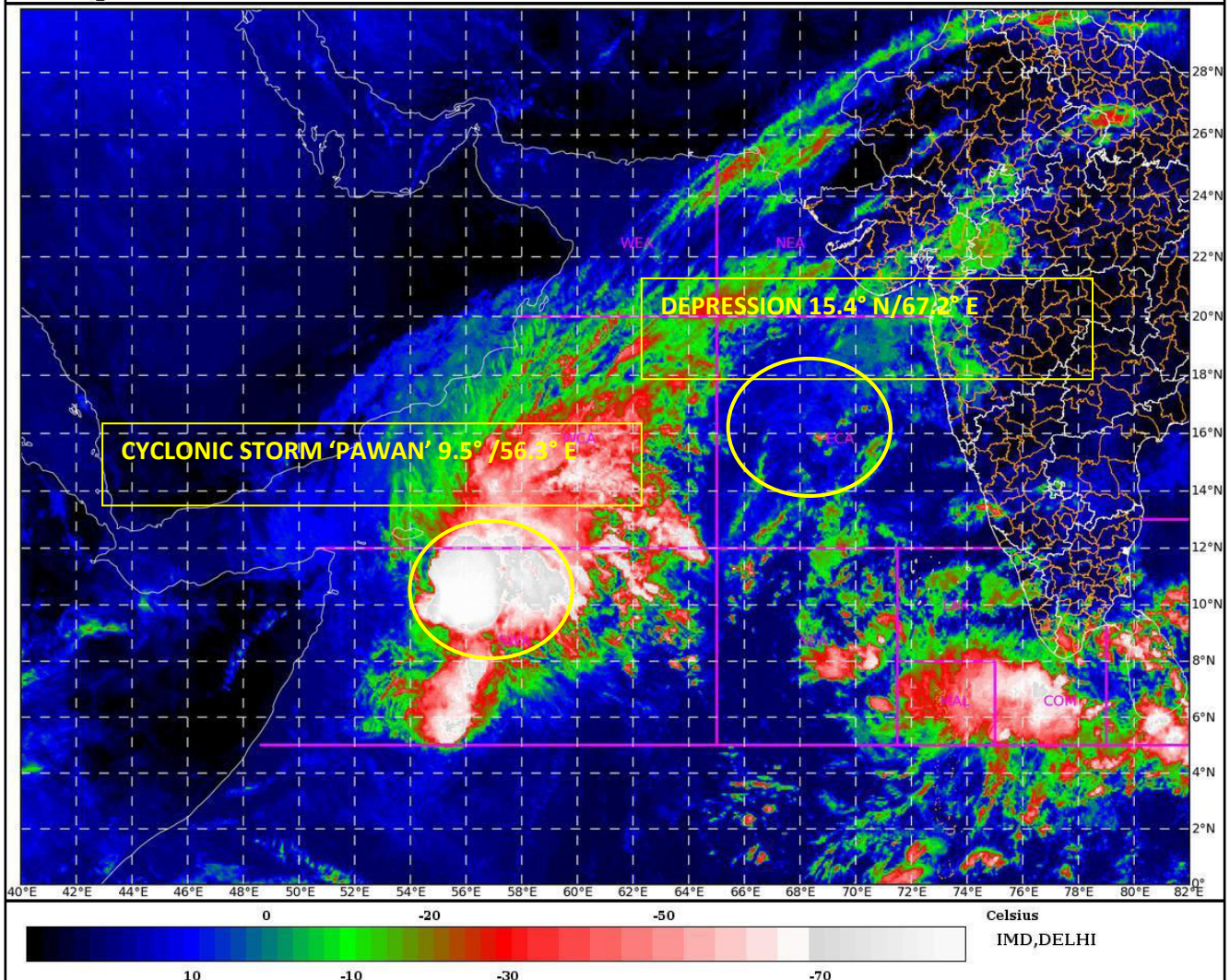
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



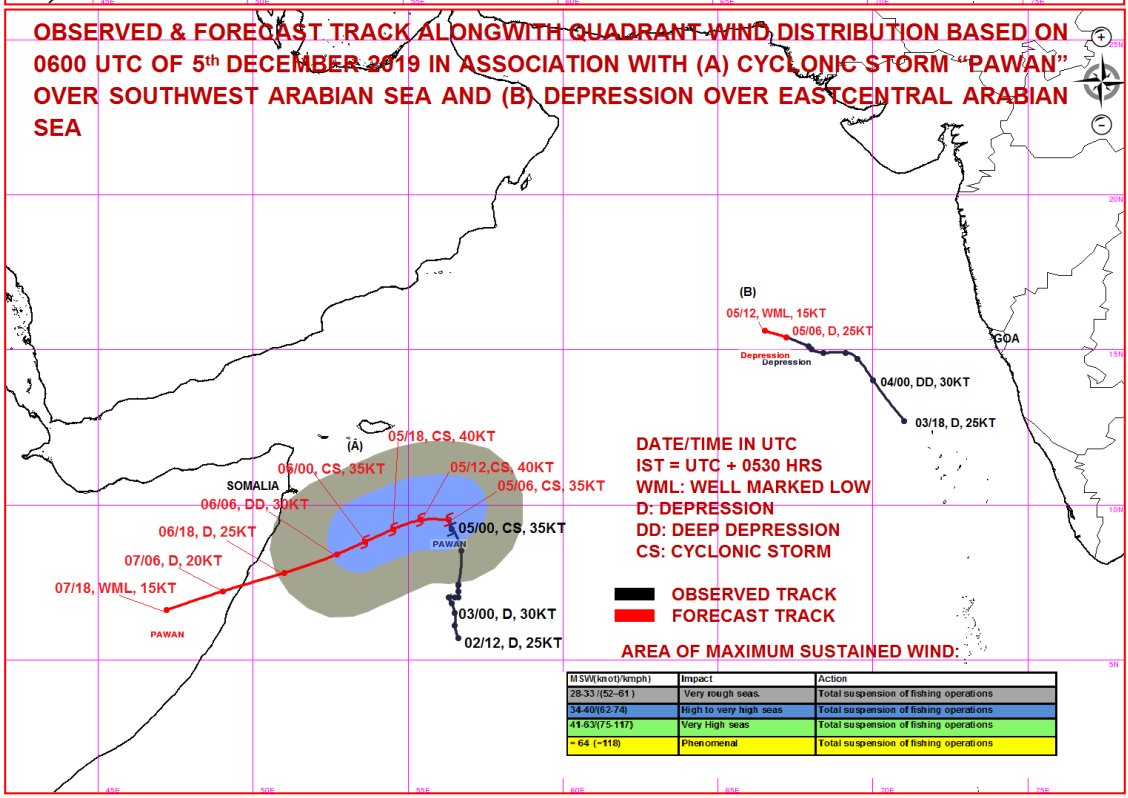
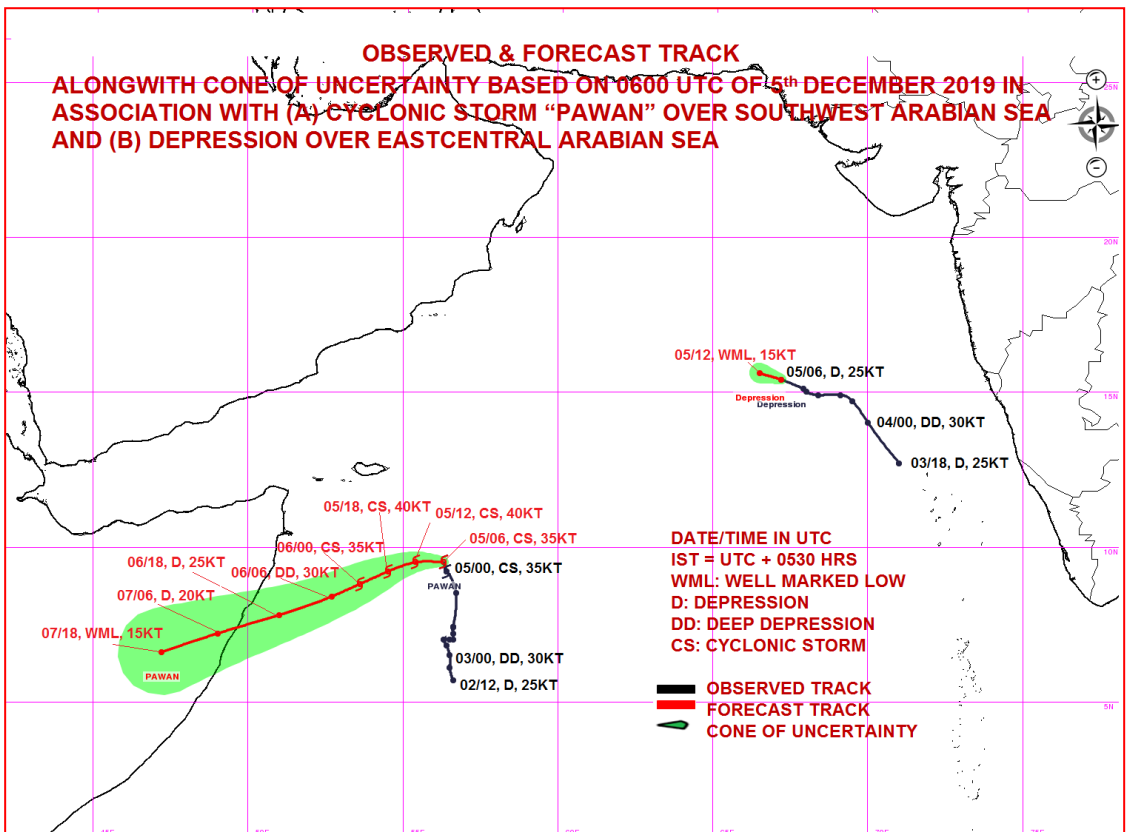
SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

05-12-2019/(0630 to 0657) GMT  
05-12-2019/(1200 to 1227) IST



SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 16 (ARB/05/2019)

TIME OF ISSUE: 1700 HOURS IST

DATED: 05.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: (a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea & (b) Depression over Eastcentral Arabian Sea**

**(a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea:**

Cyclonic storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea moved west-northwestwards with a speed of 15 kmph during past 06 hours and lay centred at 1430 hrs IST of 05<sup>th</sup> December, 2019 near latitude 9.5°N and longitude 55.6°E over Southwest Arabian Sea, about 390 km south-southeast of Socotra (Yemen) and 730 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm till tomorrow morning and weaken gradually thereafter. It is very likely to move west-southwestwards during next 36 hours and cross Somalia coast as a Depression between Latitudes 07° & 08°N during 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/1430	9.5/55.6	65-75 gusting to 85	Cyclonic Storm
05.12.19/1730	9.5/55.4	70-80 gusting to 90	Cyclonic Storm
05.12.19/2330	9.2/54.5	70-80 gusting to 90	Cyclonic Storm
06.12.19/0530	8.8/53.6	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	8.4/52.7	50-60 gusting to 70	Deep Depression
06.12.19/2330	7.8/51.0	40-50 gusting to 60	Depression
07.12.19/1130	7.2/49.0	40-50 gusting to 60	Depression
07.12.19/2330	6.6/47.2	20-30 gusting to 40	Well Marked Low

**(b) Depression over Eastcentral Arabian Sea:**

The Depression over Eastcentral Arabian Sea moved west-northwestwards with a speed of 12 kmph during past 06 hours and lay centred at 1430 hrs IST of 05<sup>th</sup> December, 2019, over Eastcentral Arabian Sea, near latitude 15.5°N and longitude 66.9°E about 750 km west-southwest of Mumbai

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

(Maharashtra) and 740 km of west of Panjim (Goa). It is very likely to move west-northwestwards and weaken into a well marked low pressure area during next 03 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/1430	15.5/66.9	30-40 gusting to 50	Depression
05.12.19/1730	15.6/66.5	20-30 gusting to 40	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above systems.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph is prevailing around the system centre over southwest Arabian Sea which is very likely to increase becoming 70-80 kmph gusting to 90 kmph from today evening for subsequent 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the forenoon of 06<sup>th</sup> December for subsequent 06 hours and likely to decrease further thereafter.
- **Eastcentral Arabian Sea :**
  - Squally wind, speed reaching 30-40 kmph gusting to 50 kmph, likely to prevail around the system centre over Eastcentral Arabian Sea during next 03 hours and decrease gradually thereafter.
  - Strong wind, speed reaching 30-40 kmph, likely to prevail over the Sea along & off Maharashtra-Goa coasts during next 12 hours.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough from tomorrow forenoon for subsequent 06 hours and improve further thereafter.
- **Eastcentral Arabian Sea:**
  - Rough to very rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 03 hours and improve thereafter.

**(iv) Fishermen Warning:**

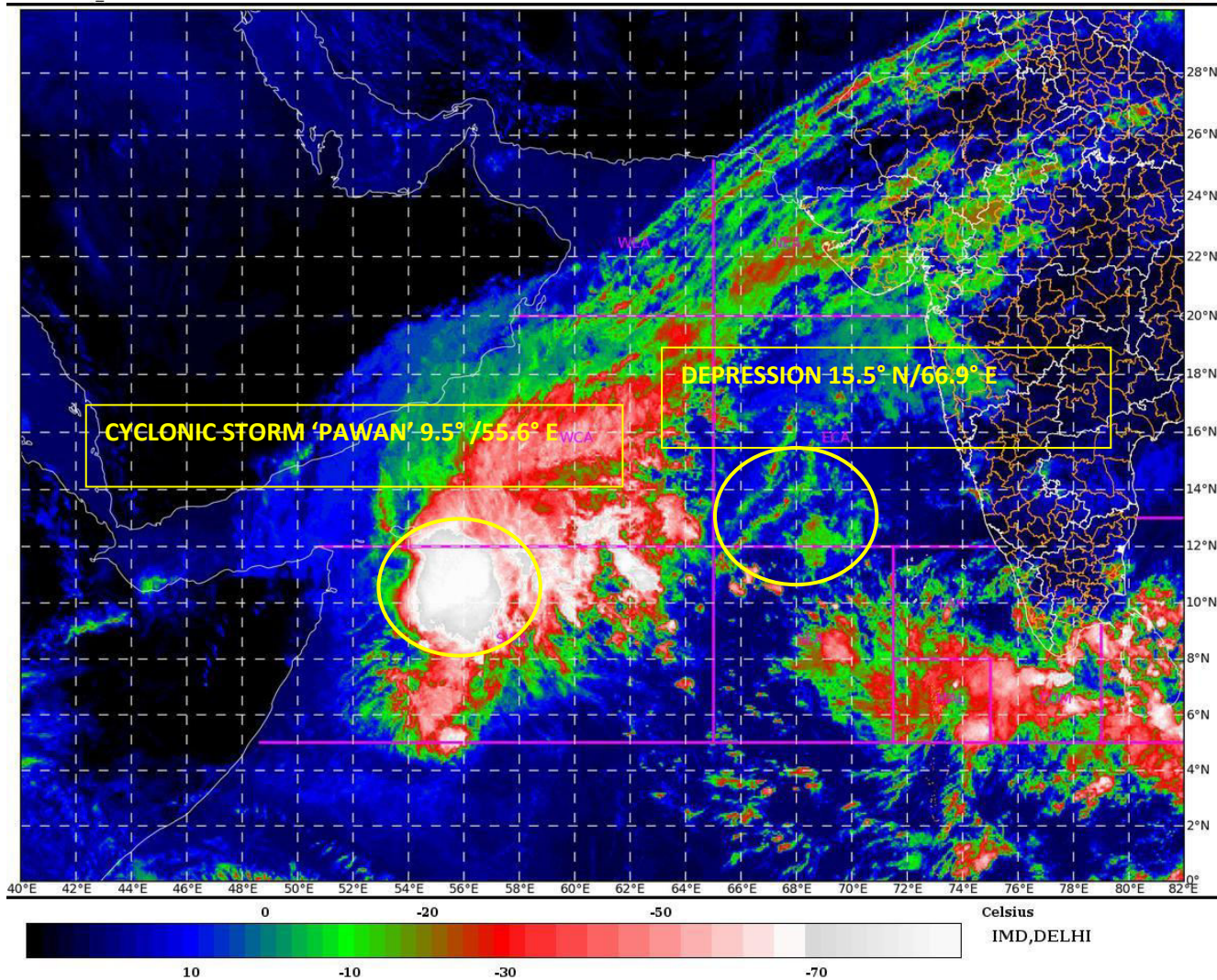
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.
- **Eastcentral Arabian Sea:** The fishermen are advised not to venture into Eastcentral Arabian Sea during next 12 hours.

*The next bulletin will be issued at 2030 hrs IST of 05<sup>th</sup> December, 2019.*

**(Sunitha Devi S)**  
**Scientist-E, RSMC, New Delhi**

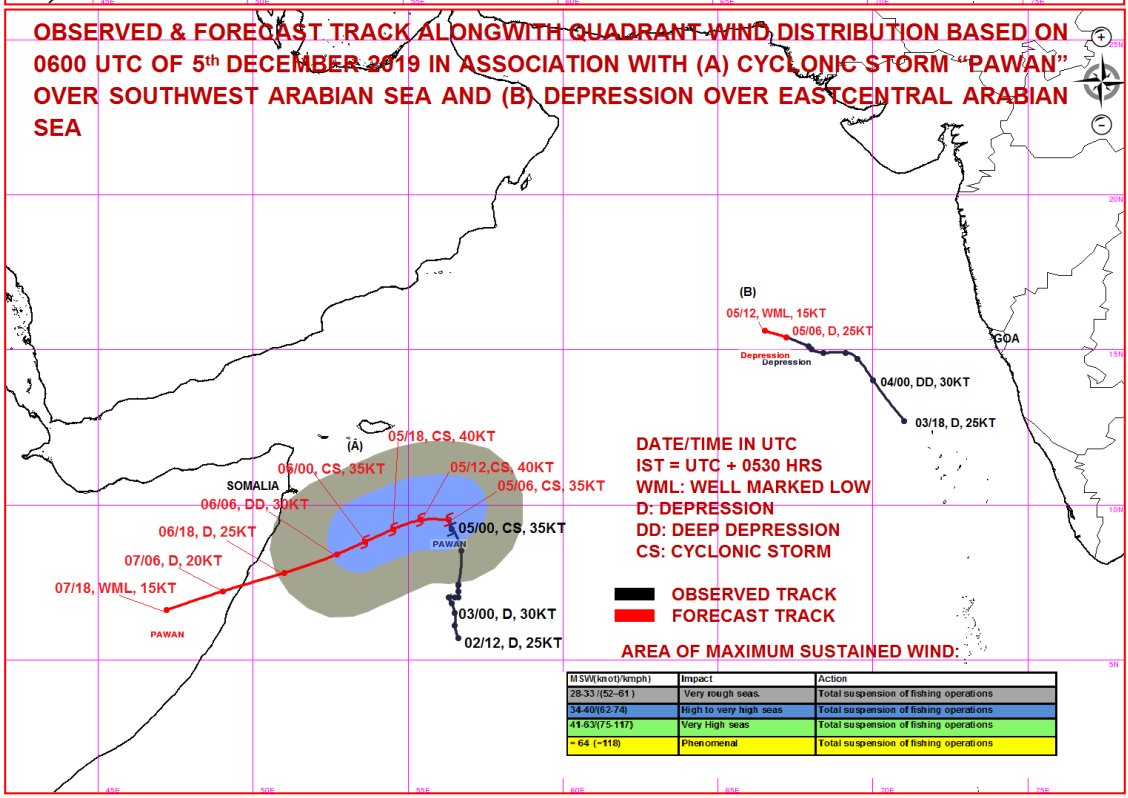
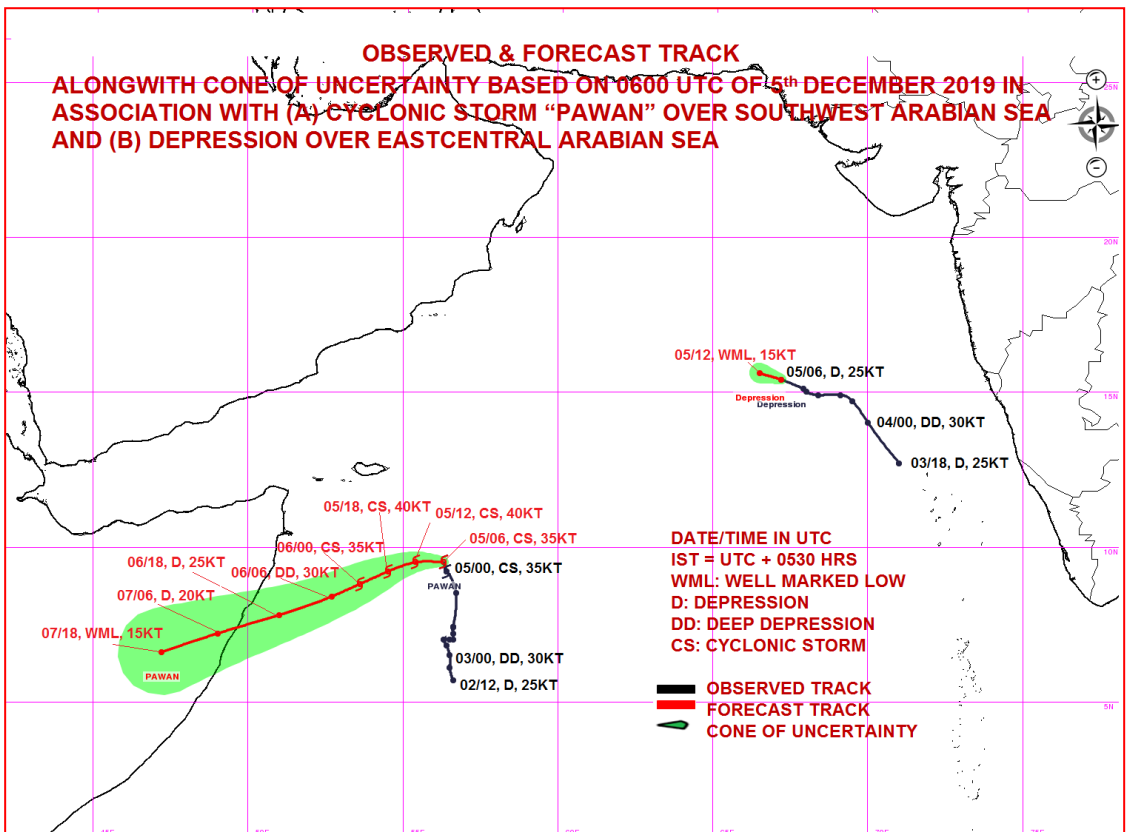
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





SWA: Southwest Arabian Sea

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 17 (ARB/05/2019)**

**TIME OF ISSUE: 2000 HOURS IST**

**DATED: 05.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea  
& (b) Well Marked Low Pressure Area over Eastcentral Arabian Sea**

**(a) Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea:**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved nearly westwards with a speed of 22 kmph during past 06 hours and lay centred at 1730 hrs IST of today, the 05<sup>th</sup> December, 2019 near latitude 9.6°N and longitude 55.1°E over Southwest Arabian Sea, about 360 km south-southeast of Socotra (Yemen) and 670 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm till tomorrow morning and weaken gradually thereafter. It is very likely to move west-southwestwards during next 36 hours and cross Somalia coast as a Depression between Latitudes 07° & 08°N during 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
05.12.19/1730	9.6/55.1	65-75 gusting to 85	Cyclonic Storm
05.12.19/2330	9.3/54.2	65-75 gusting to 85	Cyclonic Storm
06.12.19/0530	8.9/53.3	65-75 gusting to 85	Cyclonic Storm
06.12.19/1130	8.5/52.4	50-60 gusting to 70	Deep Depression
06.12.19/1730	8.2/51.6	40-50 gusting to 60	Deep Depression
07.12.19/0530	7.7/50.1	40-50 gusting to 60	Depression
07.12.19/1730	7.0/47.8	20-30 gusting to 40	Depression
08.12.19/0530	6.4/45.9	20-30 gusting to 40	Well Marked Low

**(b) Well Marked Low Pressure Area over Eastcentral Arabian Sea:**

The Depression over Eastcentral Arabian Sea moved west-northwestwards, weakened into a well marked low pressure area and lay over eastcentral Arabian Sea & neighbourhood at 1730 hours IST of today, the 05<sup>th</sup> December 2019.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

This is the last Bulletin associated with this system. However, regular weather Bulletins & Sea area Bulletins will continue from ACWC Mumbai.

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above systems.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the forenoon of 06<sup>th</sup> December for subsequent 06 hours and decrease further thereafter.
- **Eastcentral Arabian Sea :**
  - Strong wind, speed reaching 20-30 kmph gusting to 40 kmph, likely to prevail around the system centre over Eastcentral Arabian Sea during next 12 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough from tomorrow forenoon for subsequent 06 hours and improve further thereafter.
- **Eastcentral Arabian Sea:**
  - Rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.

*The next bulletin will be issued at 2330 hrs IST of today, the 05<sup>th</sup> December, 2019.*

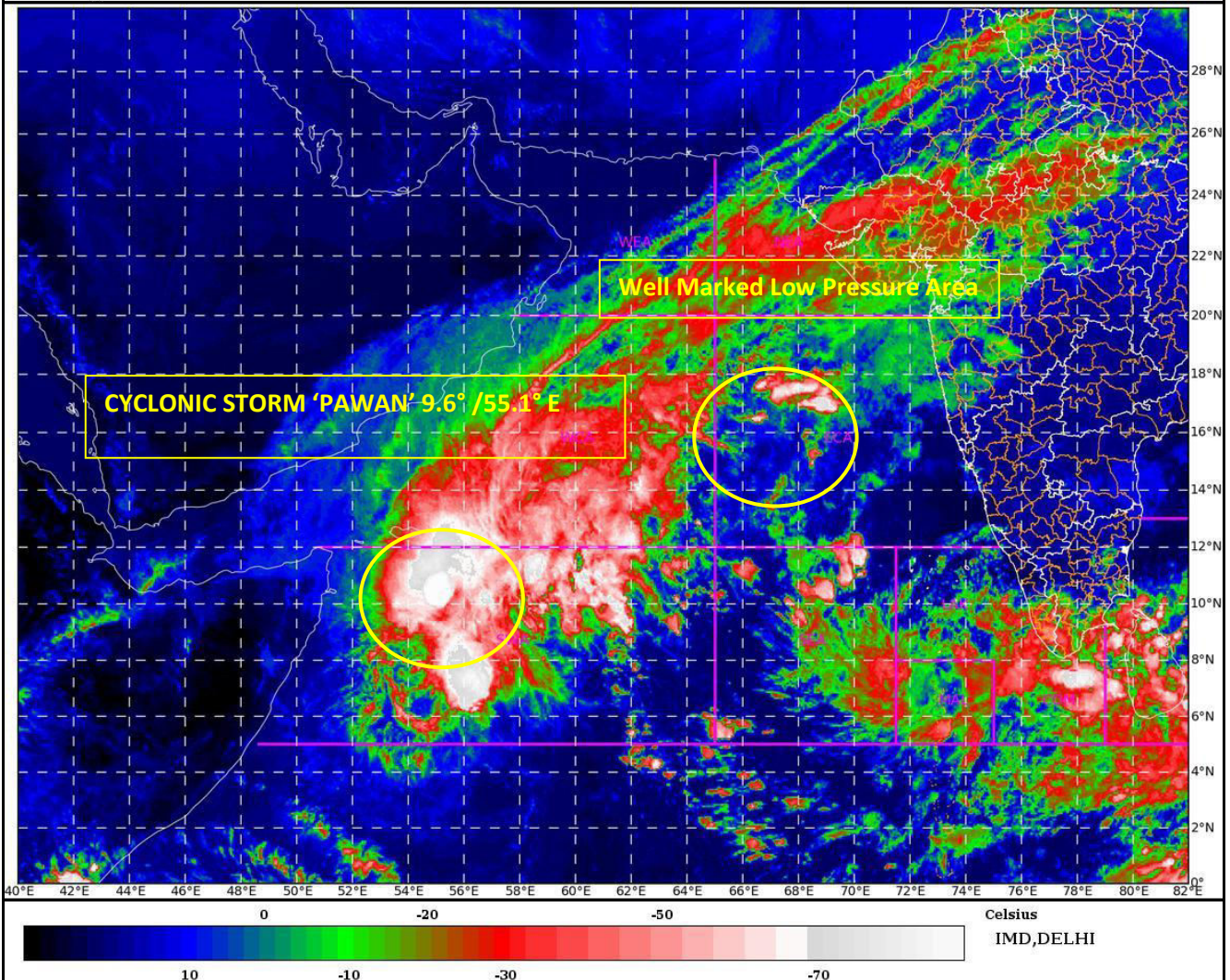
**(Sunitha Devi S)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**



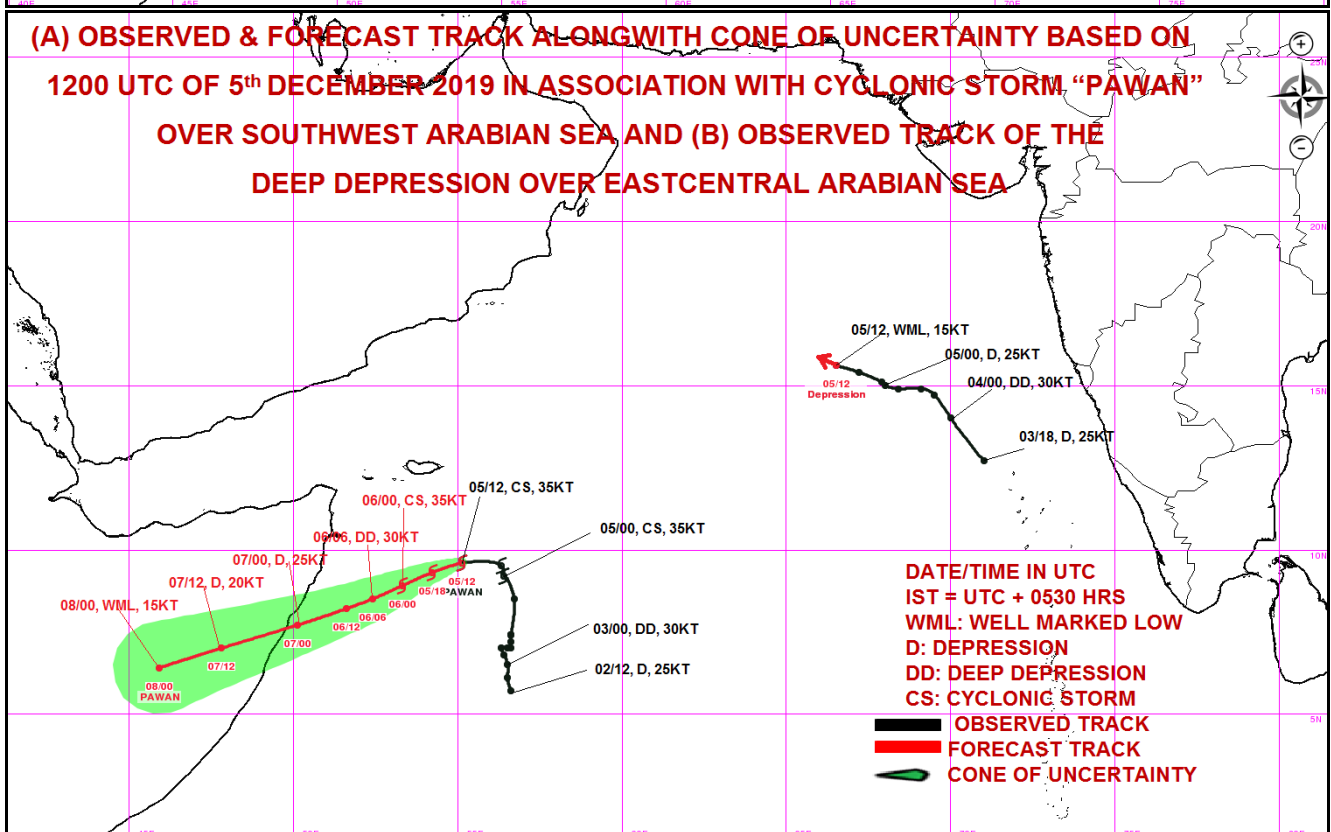
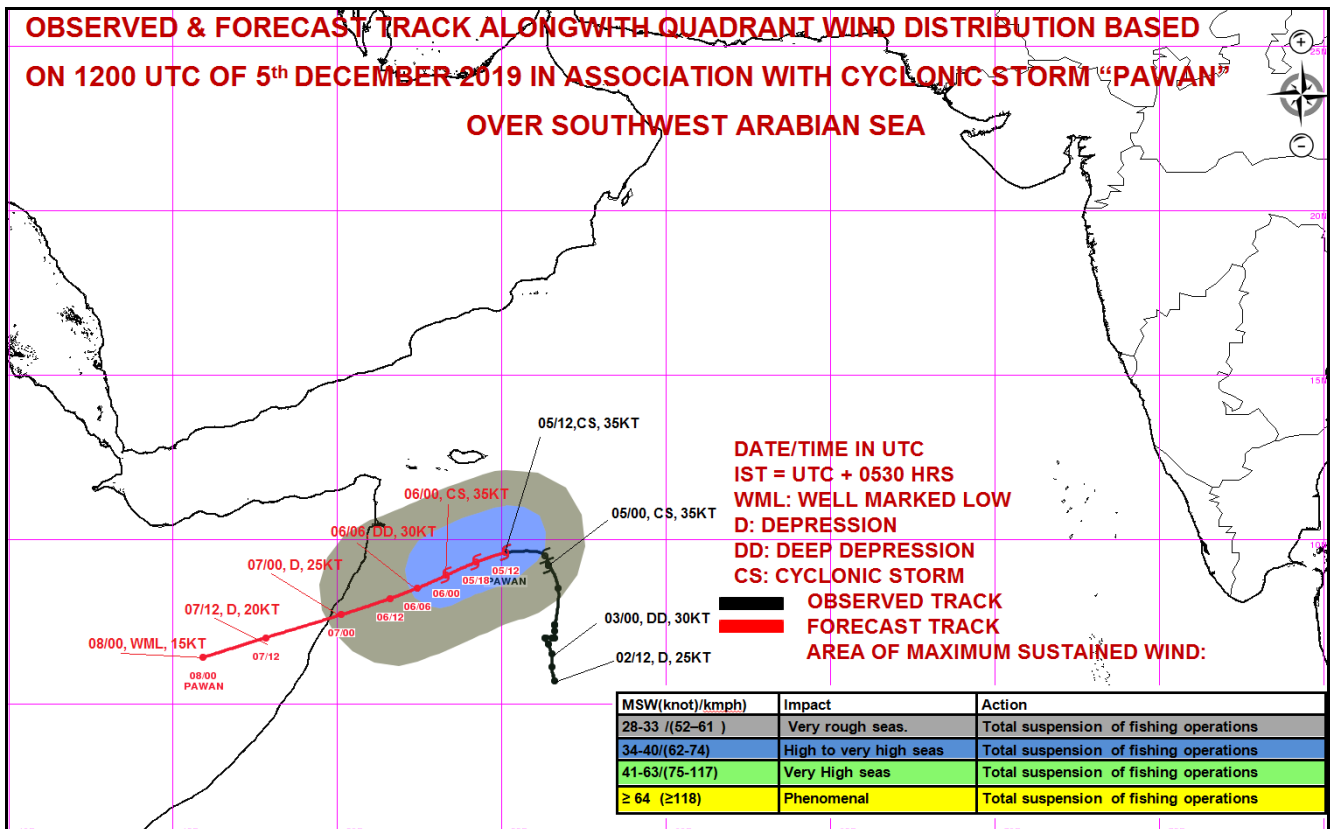
SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN SEA

05-12-2019/(1230 to 1256) GMT  
05-12-2019/(1800 to 1826) IST



SWA: Southwest Arabian Sea

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 18 (ARB/05/2019)

TIME OF ISSUE: 2250 HOURS IST

DATED: 05.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved nearly westwards with a speed of 13 kmph during past 06 hours and lay centred at 2030 hrs IST of today, the 05<sup>th</sup> December, 2019 near latitude 9.6°N and longitude 54.9°E over Southwest Arabian Sea, about 350 km south-southeast of Socotra (Yemen) and 650 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm till tomorrow morning and weaken gradually thereafter. It is very likely to move west-southwestwards during next 36 hours and cross Somalia coast as a Depression between Latitudes 07° & 08°N during 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/2030	9.6/54.9	65-75 gusting to 85	Cyclonic Storm
05.12.19/2330	9.3/54.2	65-75 gusting to 85	Cyclonic Storm
06.12.19/0530	8.9/53.3	65-75 gusting to 85	Cyclonic Storm
06.12.19/1130	8.5/52.4	50-60 gusting to 70	Deep Depression
06.12.19/1730	8.2/51.6	40-50 gusting to 60	Deep Depression
07.12.19/0530	7.7/50.1	40-50 gusting to 60	Depression
07.12.19/1730	7.0/47.8	20-30 gusting to 40	Depression
08.12.19/0530	6.4/45.9	20-30 gusting to 40	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

likely to continue during next 12 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from the forenoon of 06<sup>th</sup> December for subsequent 06 hours and decrease further thereafter.

- **Eastcentral Arabian Sea :**

- Strong wind, speed reaching 20-30 kmph gusting to 40 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough from tomorrow forenoon for subsequent 06 hours and improve further thereafter.

- **Eastcentral Arabian Sea:**

- Rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.

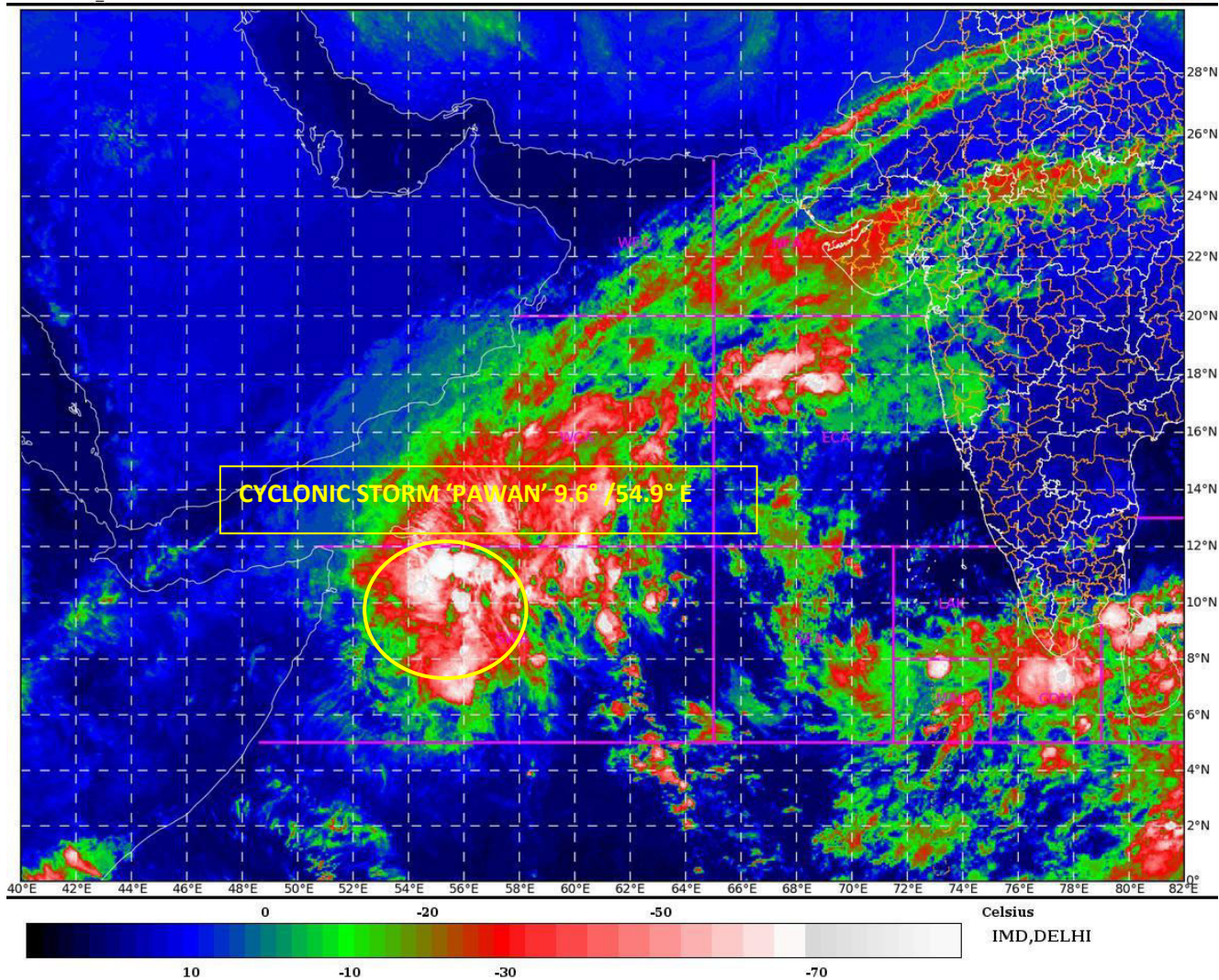
*The next bulletin will be issued at 0230 hrs IST of tomorrow, the 06<sup>th</sup> December, 2019.*

**(D. R. Pattanaik)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

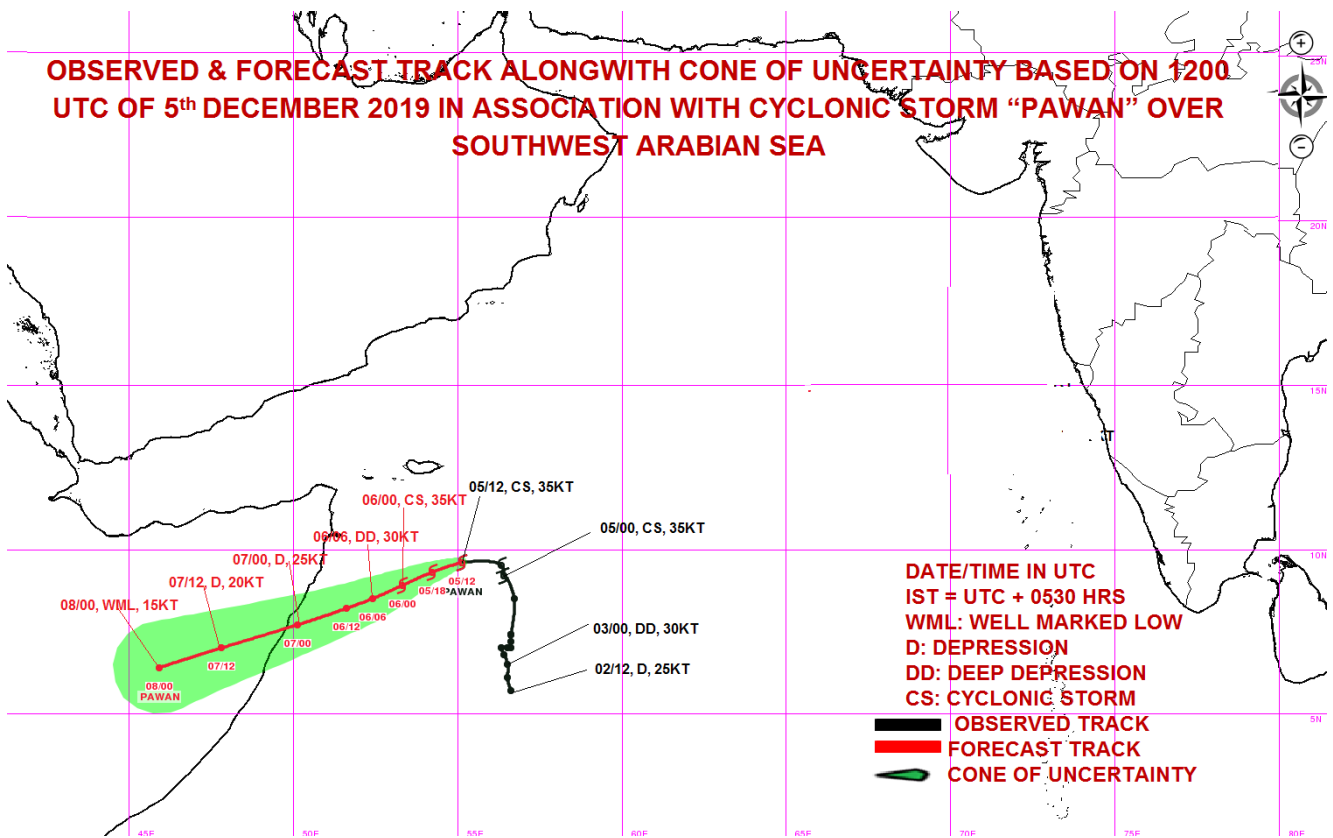
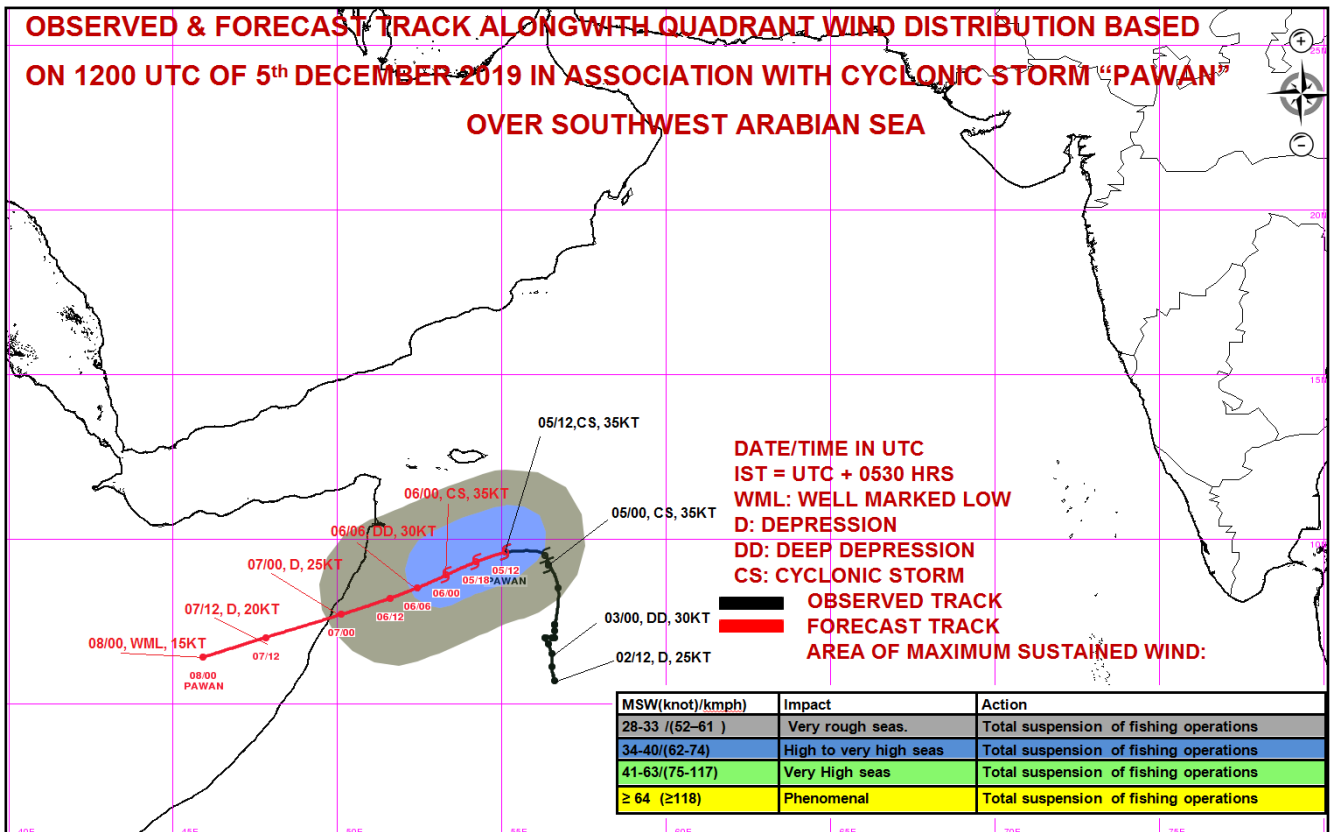
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 19 (ARB/05/2019)

TIME OF ISSUE: 0200 HOURS IST

DATED: 06.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

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DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

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ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 12 kmph during past 06 hours and lay centred at 2330 hrs IST of 05<sup>th</sup> December, 2019 near latitude 9.3°N and longitude 54.5°E over Southwest Arabian Sea, about 375 km south-southeast of Socotra (Yemen) and 620 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 06 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 36 hours and cross Somalia coast as a Depression between Latitudes 07° & 08°N around 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
05.12.19/2330	9.3/54.5	65-75 gusting to 85	Cyclonic Storm
06.12.19/0530	8.9/53.6	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	8.6/52.7	55-65 gusting to 75	Deep Depression
06.12.19/1730	8.3/51.9	50-60 gusting to 70	Deep Depression
06.12.19/2330	7.8/50.6	45-55 gusting to 65	Depression
07.12.19/1130	6.8/48.2	35-45 gusting to 55	Depression
07.12.19/2330	6.0/46.0	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 06 hours. It is very likely to decrease gradually becoming, squally wind

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

speed reaching 50-60 kmph gusting to 70 kmph, from the afternoon of 06<sup>th</sup> December for subsequent 06 hours and decrease further thereafter.

- **Eastcentral Arabian Sea :**

- Strong wind, speed reaching 20-30 kmph gusting to 40 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 06 hours. It is very likely to improve gradually becoming very rough during subsequent 06 hours and improve further thereafter.

- **Eastcentral Arabian Sea:**

- Rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.

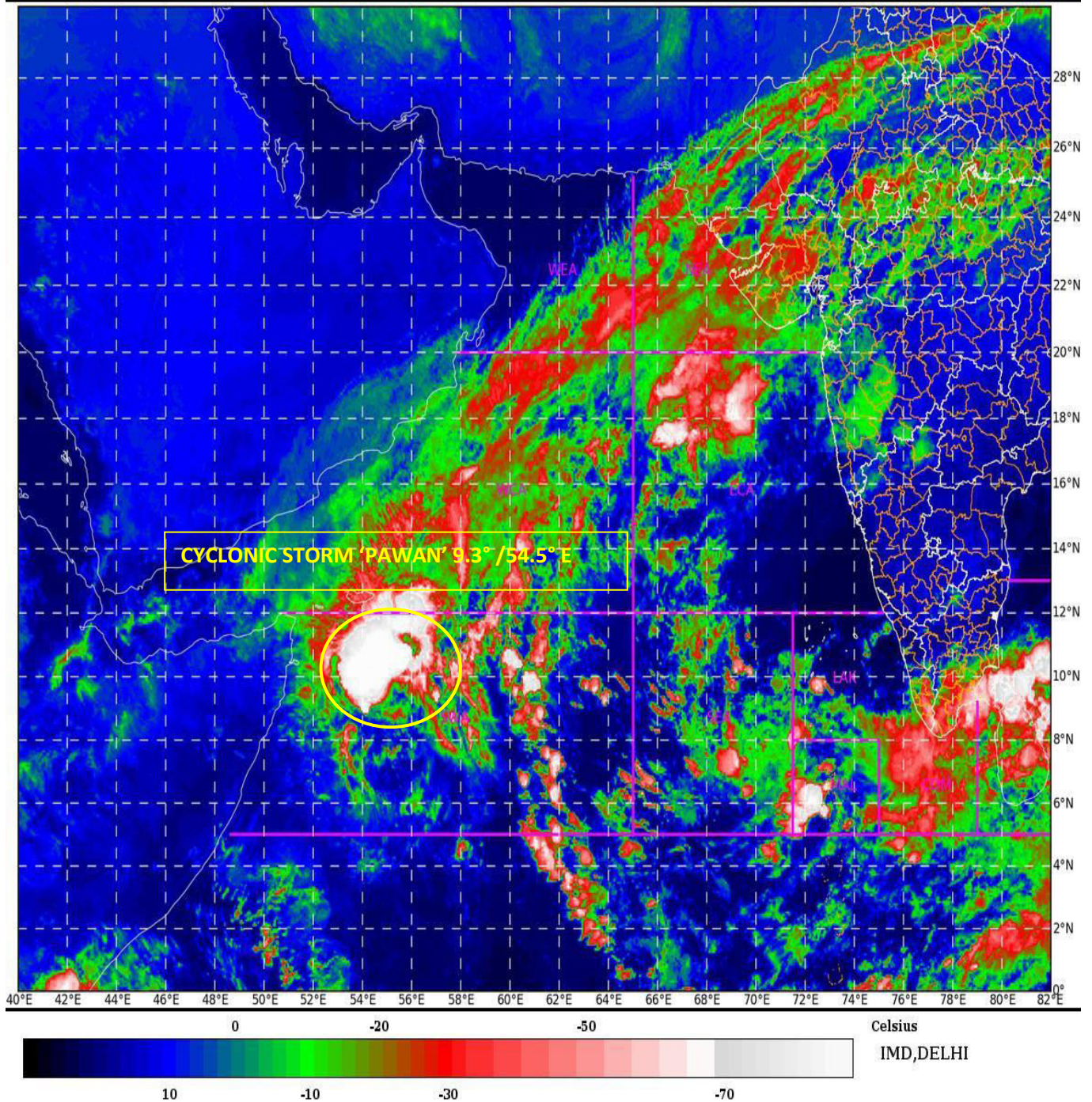
*The next bulletin will be issued at 0530 hrs IST of 06<sup>th</sup> December, 2019.*

**(D. R. Pattanaik)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**

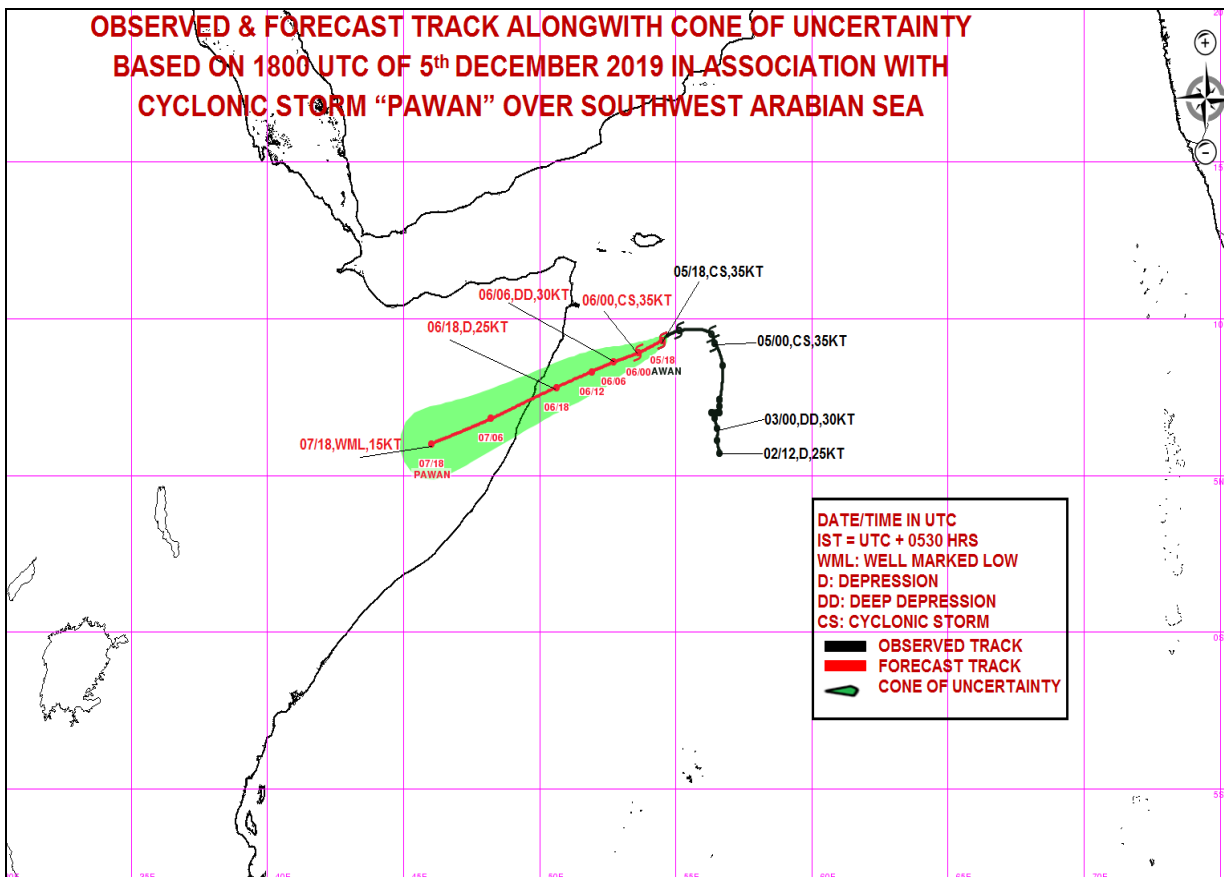
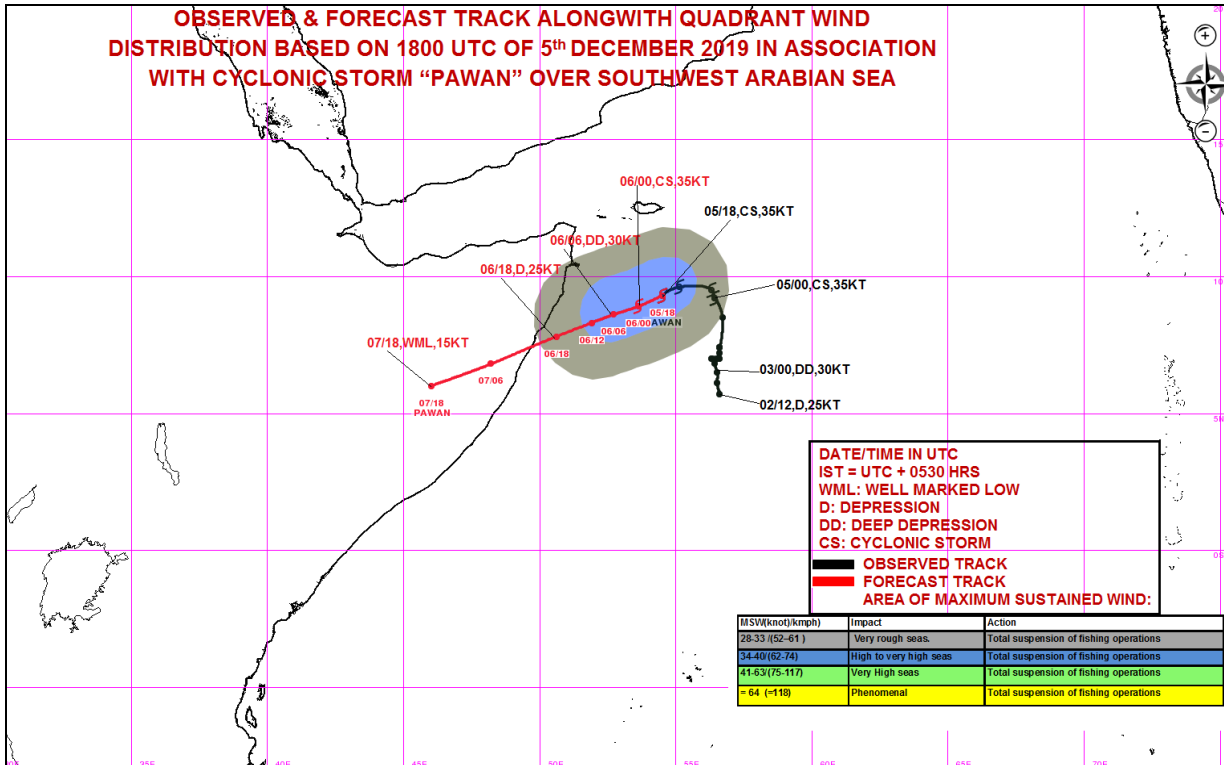
**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 20 (ARB/05/2019)

TIME OF ISSUE: 0530 HOURS IST

DATED: 06.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved southwestwards with a speed of 20 kmph during past 06 hours and lay centred at 0230 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 9.0°N and longitude 54.0°E over Southwest Arabian Sea, about 400 km nearly south of Socotra (Yemen) and 585 km east-southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 06 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 36 hours and cross Somalia coast as a Depression between Latitudes 07° & 08°N around 07<sup>th</sup> December morning.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
06.12.19/0230	9.0/54.0	65-75 gusting to 85	Cyclonic Storm
06.12.19/0530	8.9/53.6	60-70 gusting to 80	Cyclonic Storm
06.12.19/1130	8.6/52.7	55-65 gusting to 75	Deep Depression
06.12.19/1730	8.3/51.9	50-60 gusting to 70	Deep Depression
06.12.19/2330	7.8/50.6	45-55 gusting to 65	Depression
07.12.19/1130	6.8/48.2	35-45 gusting to 55	Depression
07.12.19/2330	6.0/46.0	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 06 hours. It is very likely to decrease gradually becoming, squally wind

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

speed reaching 50-60 kmph gusting to 70 kmph, from the afternoon of 06<sup>th</sup> December for subsequent 06 hours and decrease further thereafter.

- **Eastcentral Arabian Sea :**

- Strong wind, speed reaching 20-30 kmph gusting to 40 kmph, likely to prevail over Eastcentral Arabian Sea during next 12 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 06 hours. It is very likely to improve gradually becoming very rough during subsequent 06 hours and improve further thereafter.

- **Eastcentral Arabian Sea:**

- Rough Sea conditions are very likely to prevail over Eastcentral Arabian Sea during next 12 hours and improve thereafter.

**(iv) Fishermen Warning:**

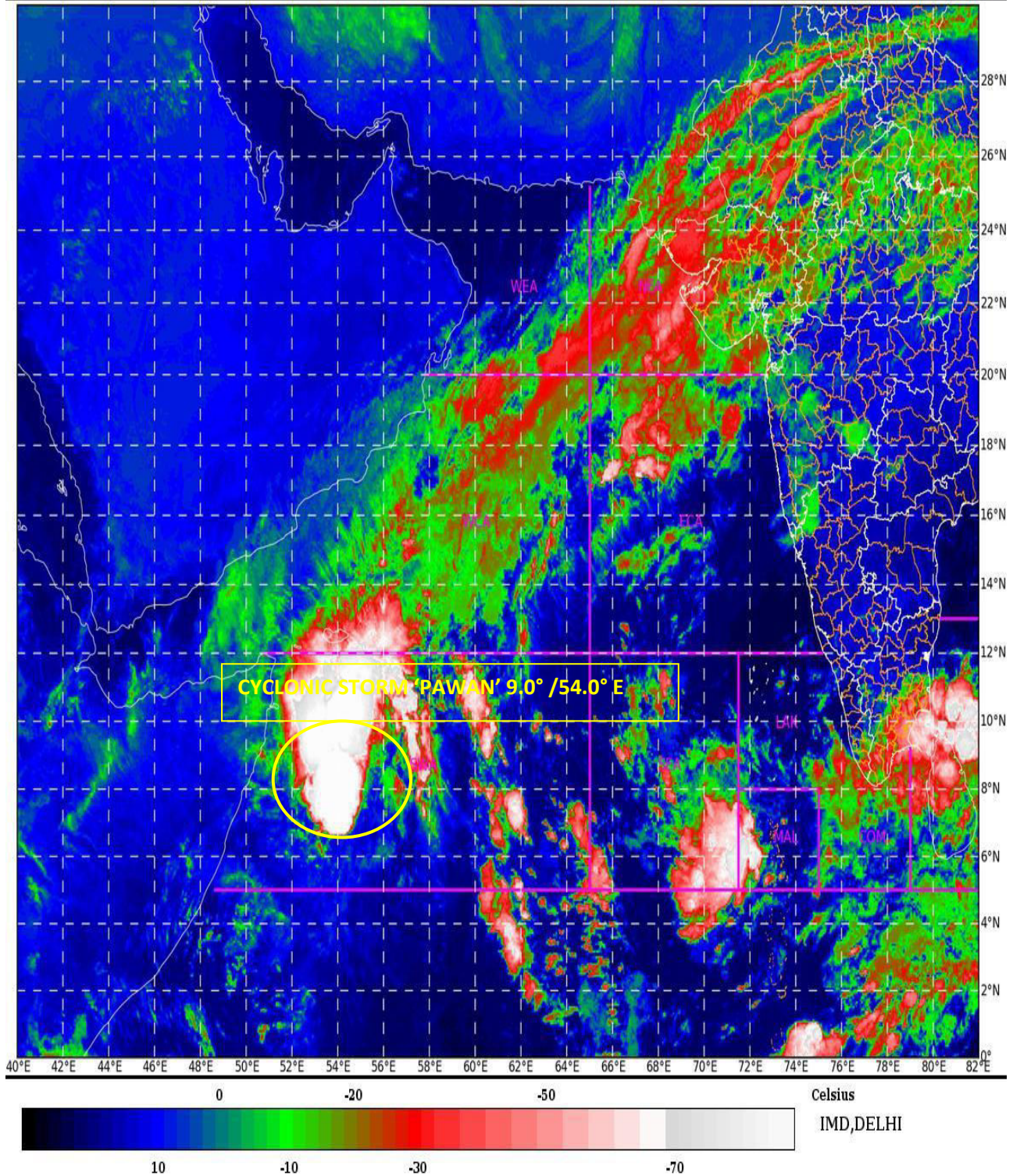
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 02 days.

*The next bulletin will be issued at 0830 hrs IST of 06<sup>th</sup> December, 2019.*

**(D. R. Pattanaik)**  
**Scientist-E, RSMC, New Delhi**

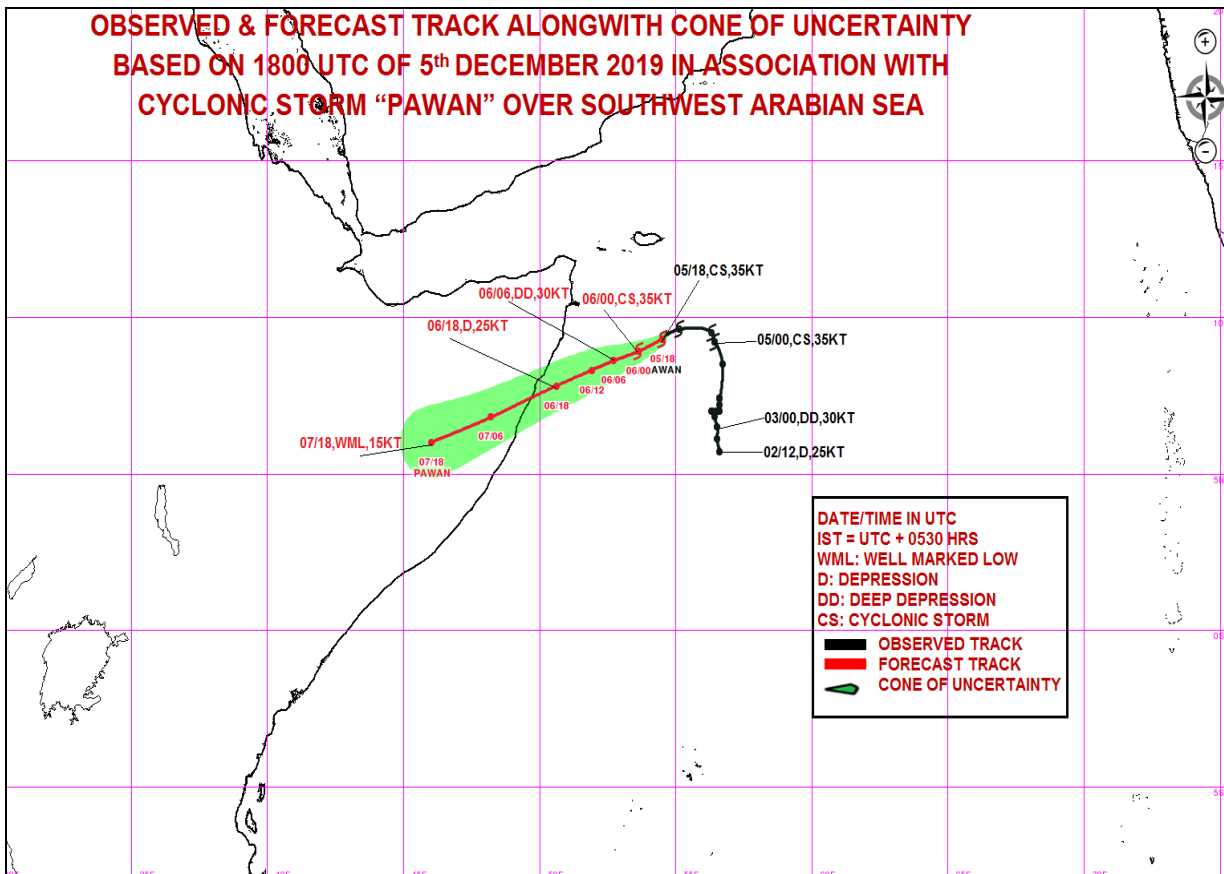
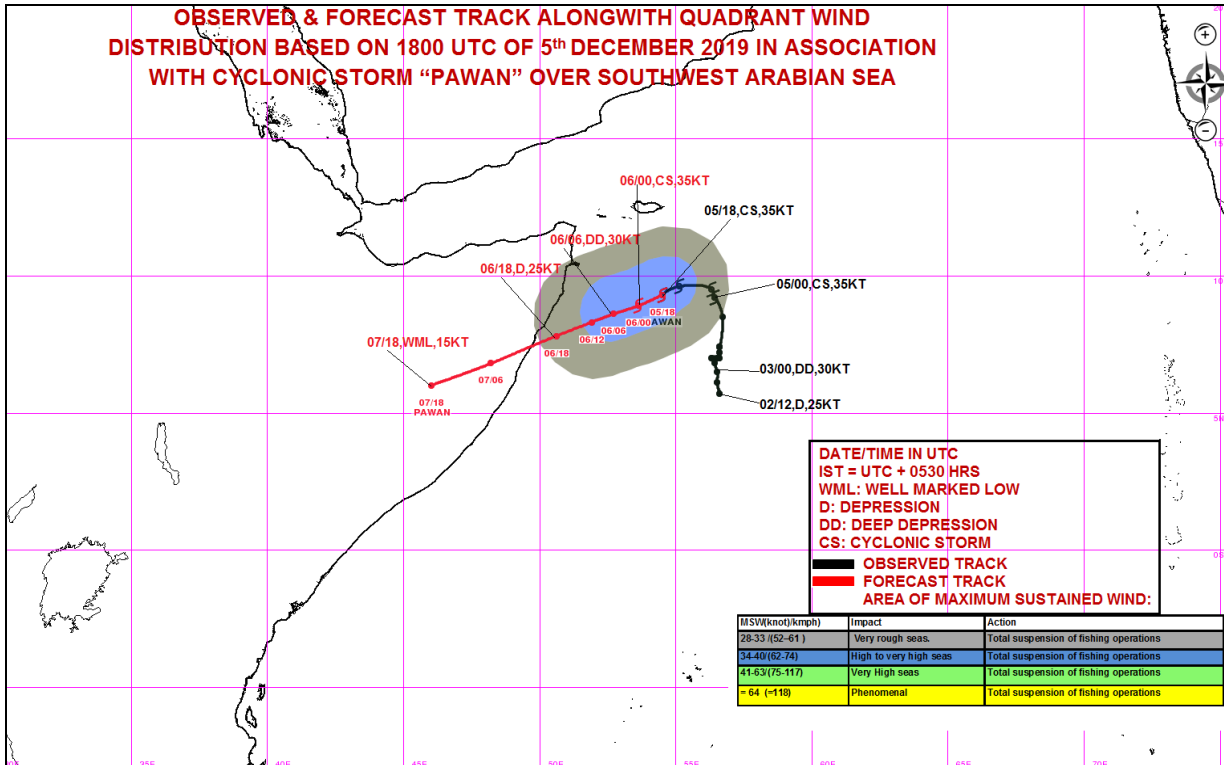
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**





India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 21 (ARB/05/2019)

TIME OF ISSUE: 0815 HOURS IST

DATED: 06.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 26 kmph during past 06 hours and lay centred at 0530 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 8.5°N and longitude 53.3°E over Southwest Arabian Sea, about 460 km south-southwest of Socotra (Yemen) and 540 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 06 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Depression around Latitude 07°N during the morning hours of 07th December.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
06.12.19/0530	8.5/53.3	65-75 gusting to 85	Cyclonic Storm
06.12.19/1130	8.2/52.4	60-70 gusting to 80	Cyclonic Storm
06.12.19/1730	7.8/51.6	55-65 gusting to 75	Deep Depression
06.12.19/2330	7.3/50.5	50-60 gusting to 70	Deep Depression
07.12.19/0530	7.0/49.6	45-55 gusting to 65	Depression
07.12.19/1730	6.1/46.9	40-50 gusting to 60	Depression
08.12.19/0530	5.4/45.5	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 06 hours. It is very likely to decrease gradually becoming, squally wind

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

speed reaching 50-60 kmph gusting to 70 kmph, from the afternoon of 06<sup>th</sup> December for subsequent 06 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 06 hours. It is very likely to improve gradually becoming very rough during subsequent 12 hours and improve further thereafter.

**(iv) Fishermen Warning:**

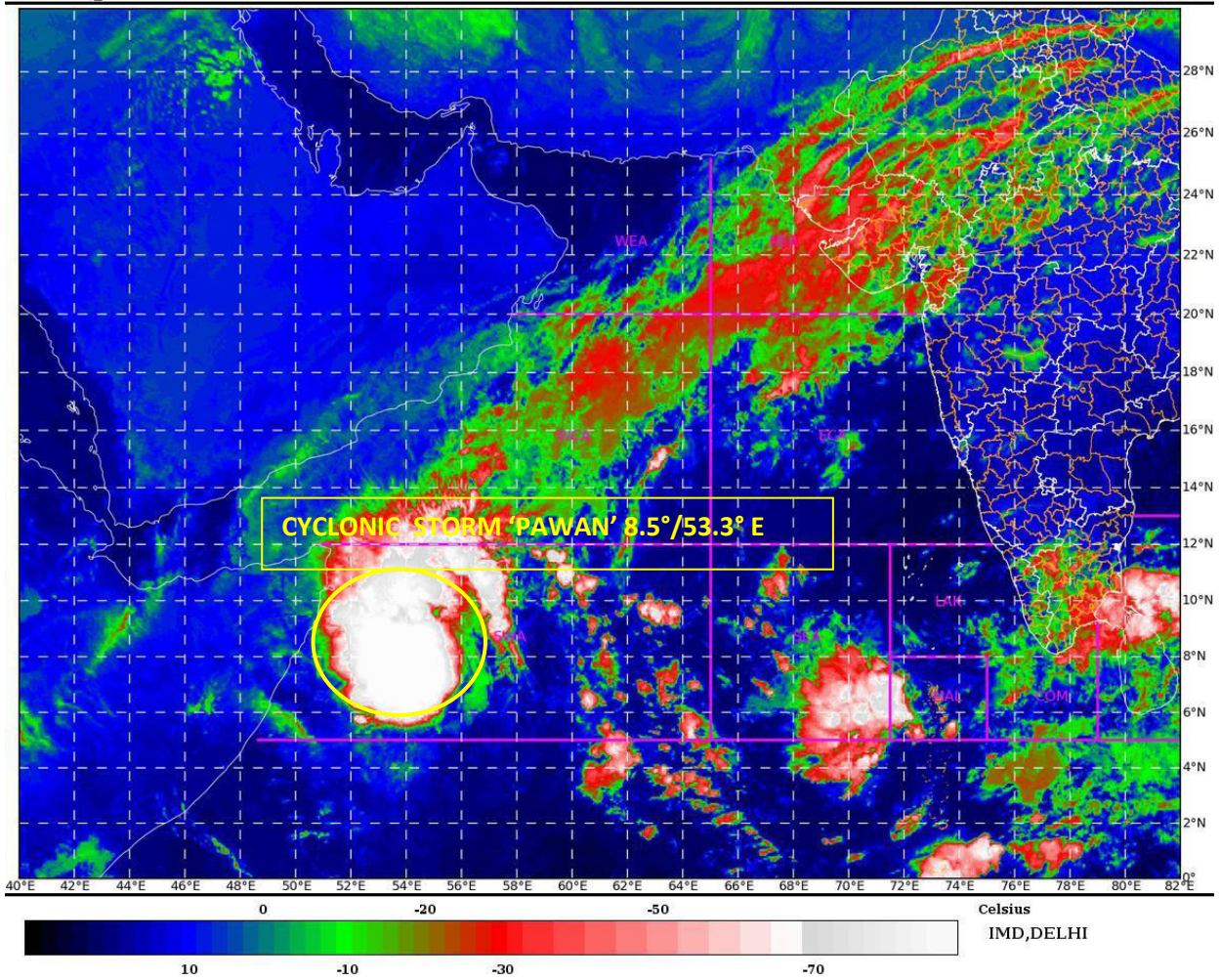
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 36 hours.

*The next bulletin will be issued at 1130 hrs IST of 06<sup>th</sup> December, 2019.*

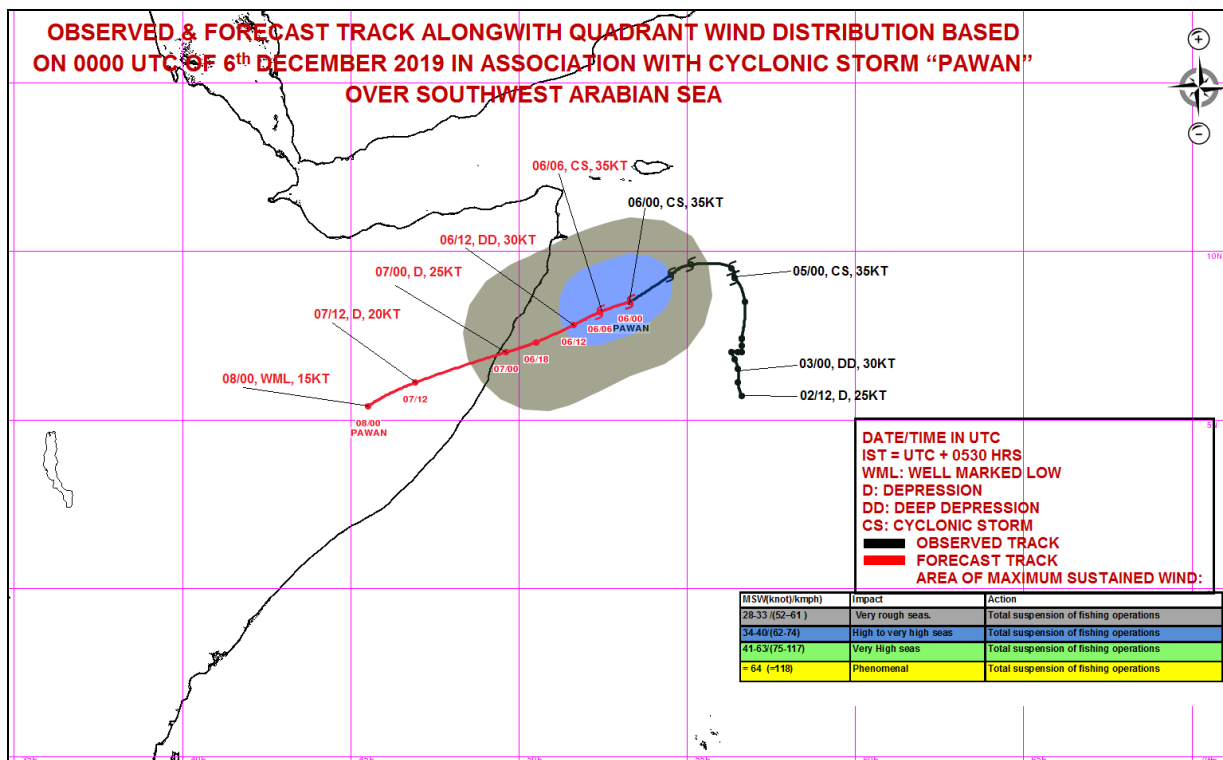
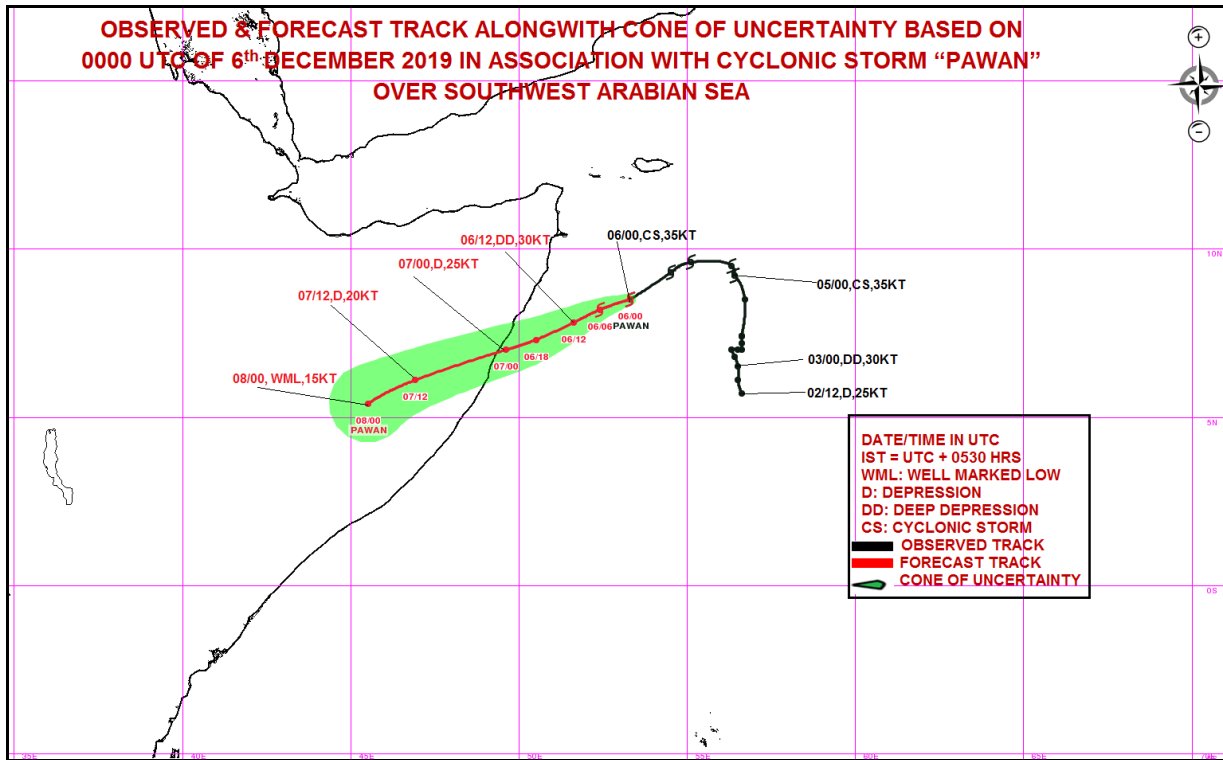
**(D. R. Pattanaik)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 22 (ARB/05/2019)

TIME OF ISSUE: 1045 HOURS IST

DATED: 06.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 24 kmph during past 06 hours and lay centered at 0830 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 8.1°N and longitude 53.0°E over Southwest Arabian Sea, about 510 km south-southwest of Socotra (Yemen) and 540 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 06 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Depression close to Latitude 07°N (around Garacad, Mudug) during the morning hours of 07<sup>th</sup> December.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
06.12.19/0830	8.1/53.0	65-75 gusting to 85	Cyclonic Storm
06.12.19/1130	7.8/52.4	60-70 gusting to 80	Cyclonic Storm
06.12.19/1730	7.5/51.6	55-65 gusting to 75	Deep Depression
06.12.19/2330	7.2/50.5	50-60 gusting to 70	Deep Depression
07.12.19/0530	6.9/49.6	45-55 gusting to 65	Depression
07.12.19/1730	6.2/47.6	40-50 gusting to 60	Depression
08.12.19/0530	5.5/45.5	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

likely to continue during next 06 hours. It is very likely to decrease gradually becoming, squally wind speed reaching 50-60 kmph gusting to 70 kmph, from tonight for subsequent 06 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 06 hours. It is very likely to improve gradually becoming very rough during subsequent 12 hours and improve further thereafter.

**(iv) Fishermen Warning:**

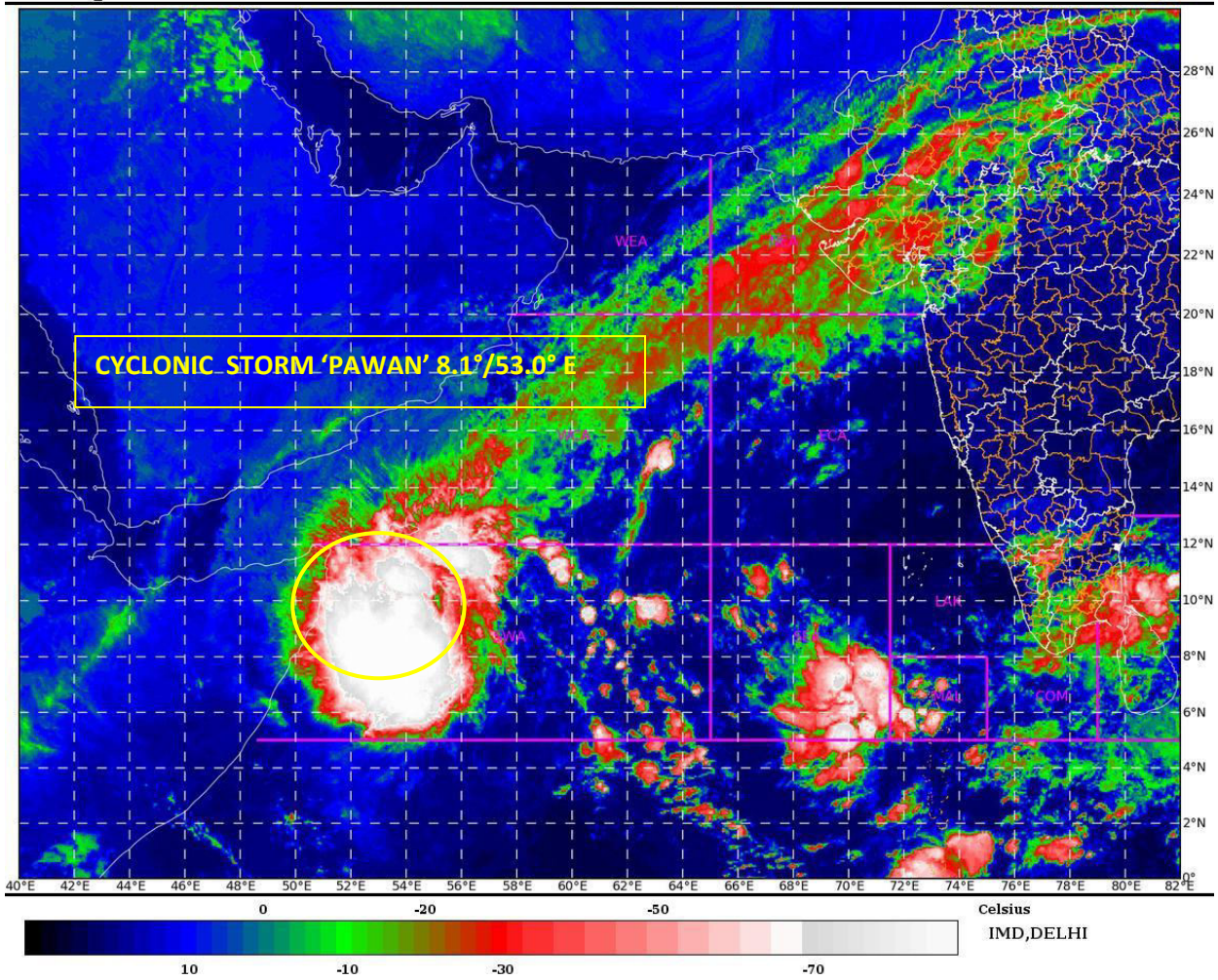
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 36 hours.

*The next bulletin will be issued at 1430 hrs IST of 06<sup>th</sup> December, 2019.*

**(Sunitha Devi S)  
Scientist-E, RSMC, New Delhi**

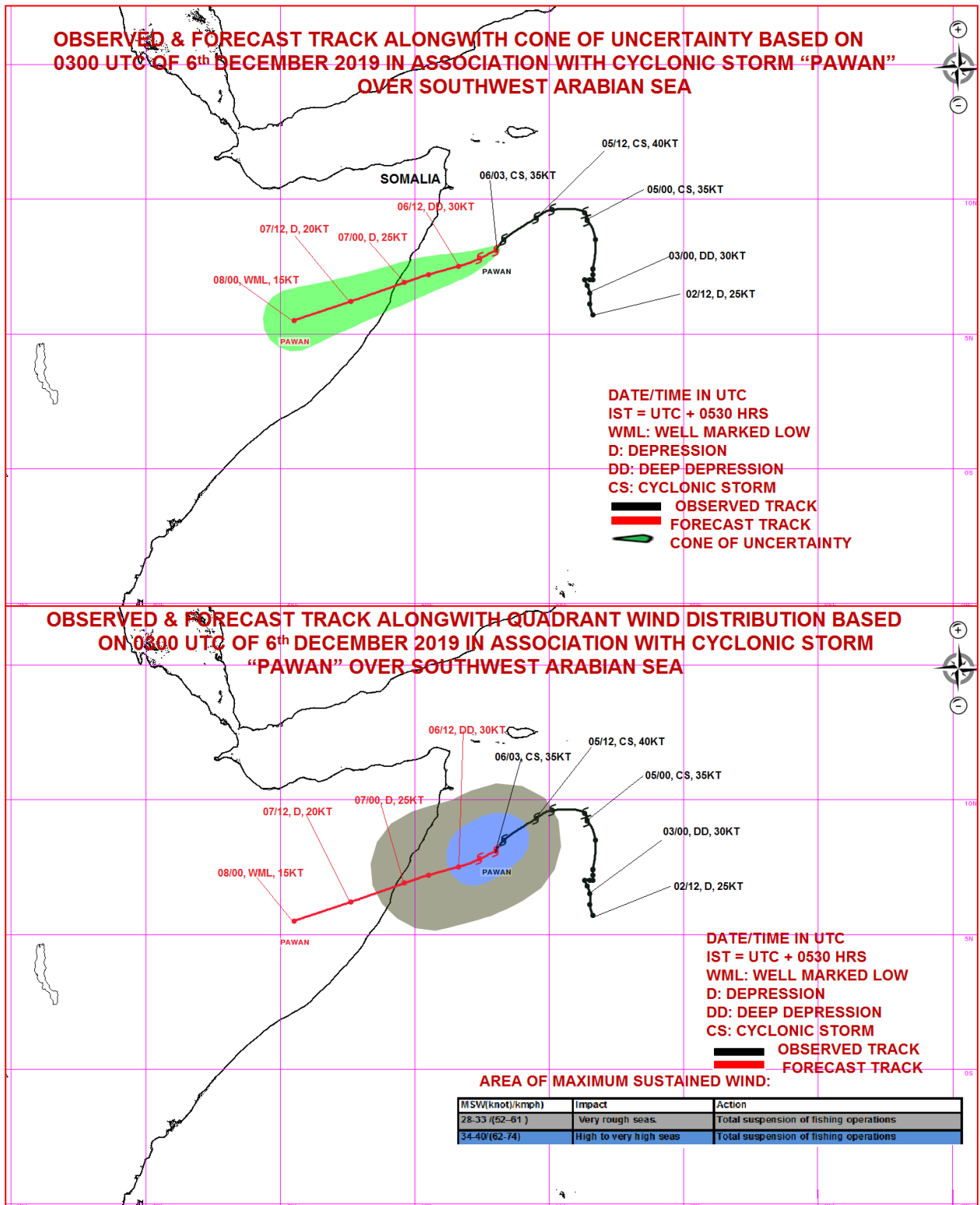
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**





SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 23 (ARB/05/2019)**

**TIME OF ISSUE: 1430 HOURS IST**

**DATED: 06.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 10 kmph during past 06 hours and lay centered at 1130 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 7.9°N and longitude 52.6°E over Southwest Arabian Sea, about 540 km south-southwest of Socotra (Yemen) and 530 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 12 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Deep Depression with maximum sustained wind speed of 55-65 Kmph gusting to 75 Kmph close to Latitude 07°N (around Garacad, Mudug) during the morning hours of 07th December.

Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
06.12.19/1130	7.9/52.6	65-75 gusting to 85	Cyclonic Storm
06.12.19/1730	7.5/51.6	65-75 gusting to 85	Cyclonic Storm
06.12.19/2330	7.2/50.6	60-70 gusting to 80	Cyclonic Storm
07.12.19/0530	6.9/49.6	55-65 gusting to 75	Deep Depression
07.12.19/1130	6.6/48.6	40-50 gusting to 60	Depression
07.12.19/2330	6.0/46.5	35-45 gusting to 55	Depression
08.12.19/1130	5.4/44.4	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 12 hours. It is very likely to decrease gradually becoming 60-70 kmph gusting to 80 kmph, from tonight for subsequent 06 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough during subsequent 12 hours and improve further thereafter.

**(iv) Fishermen Warning:**

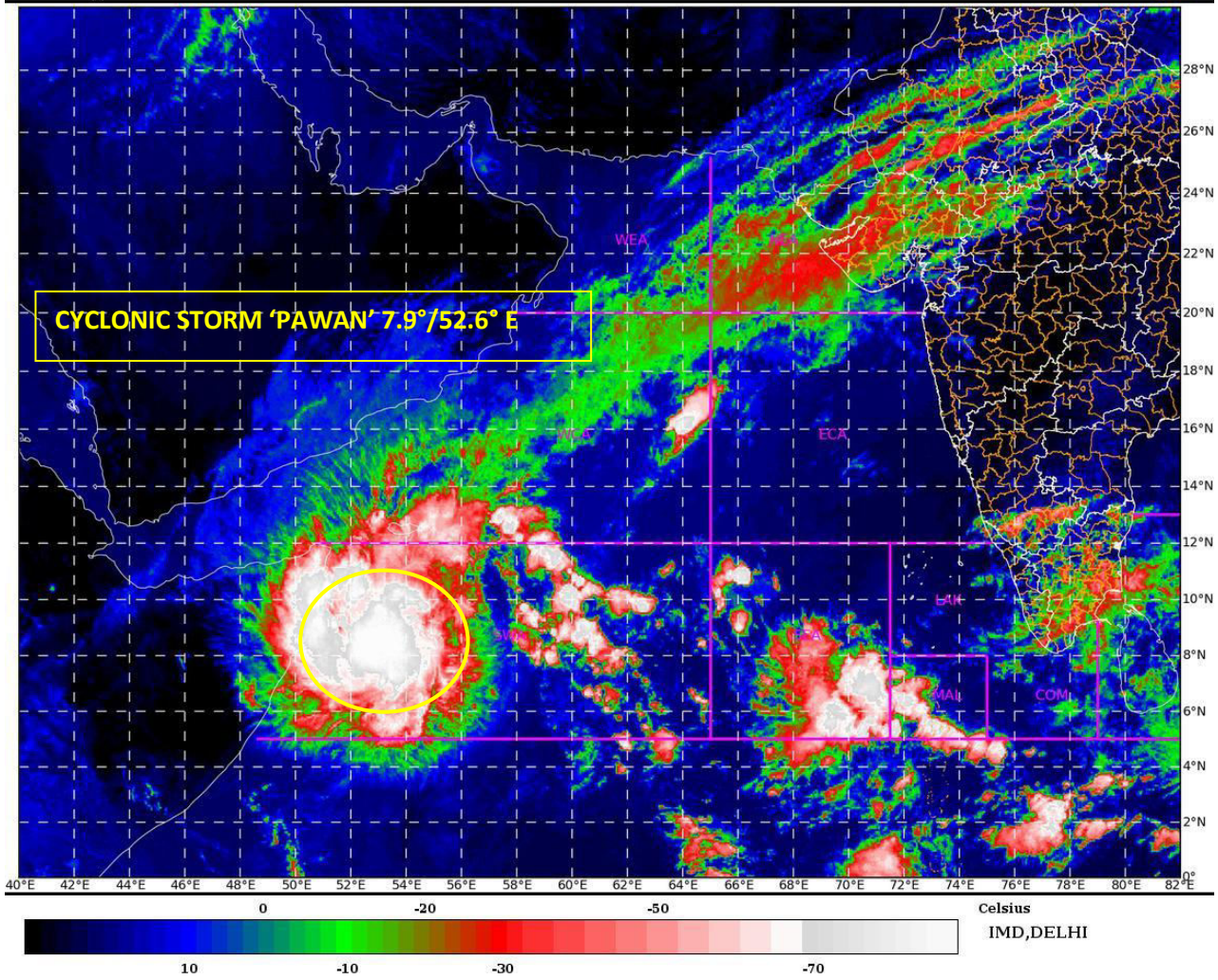
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 36 hours.

*The next bulletin will be issued at 1730 hrs IST of 06<sup>th</sup> December, 2019.*

**(Sunitha Devi S)  
Scientist-E, RSMC, New Delhi**

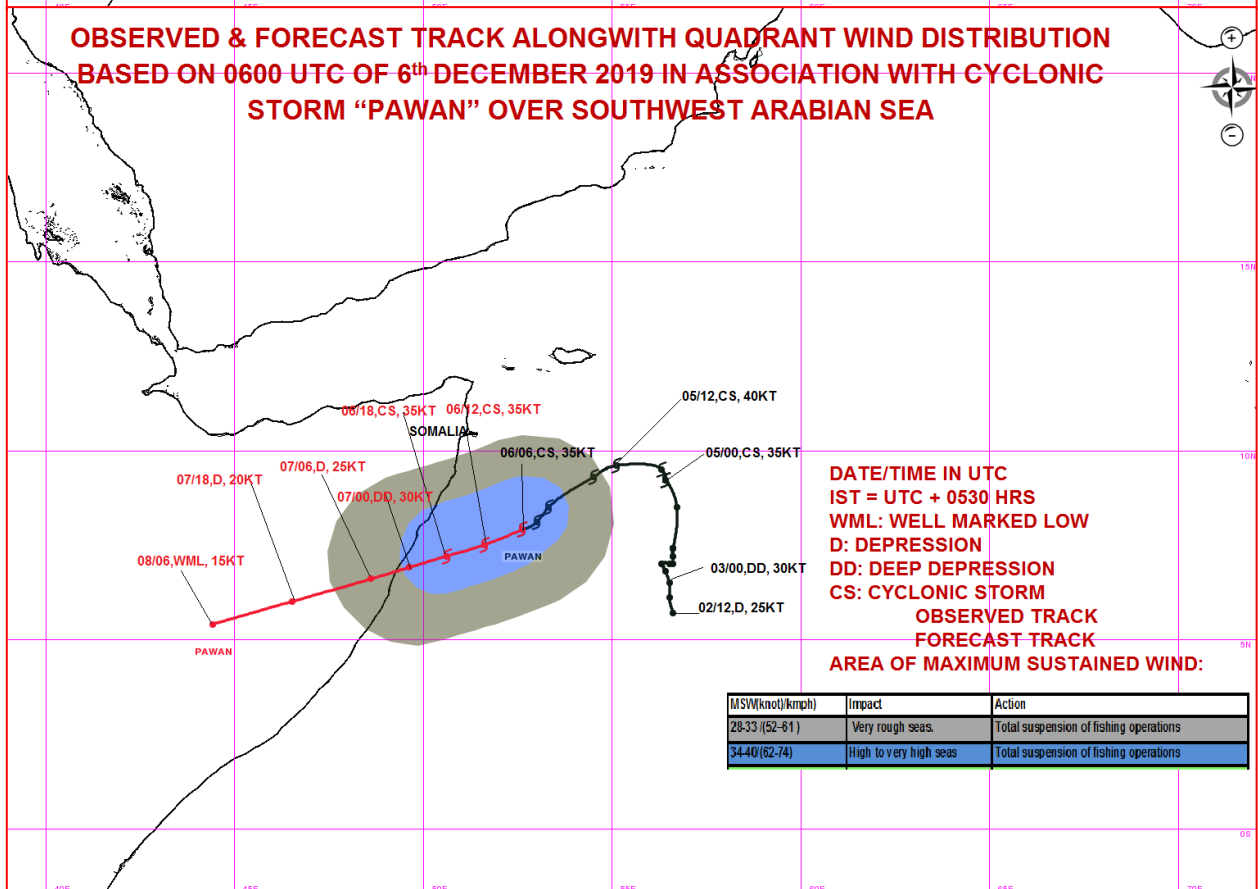
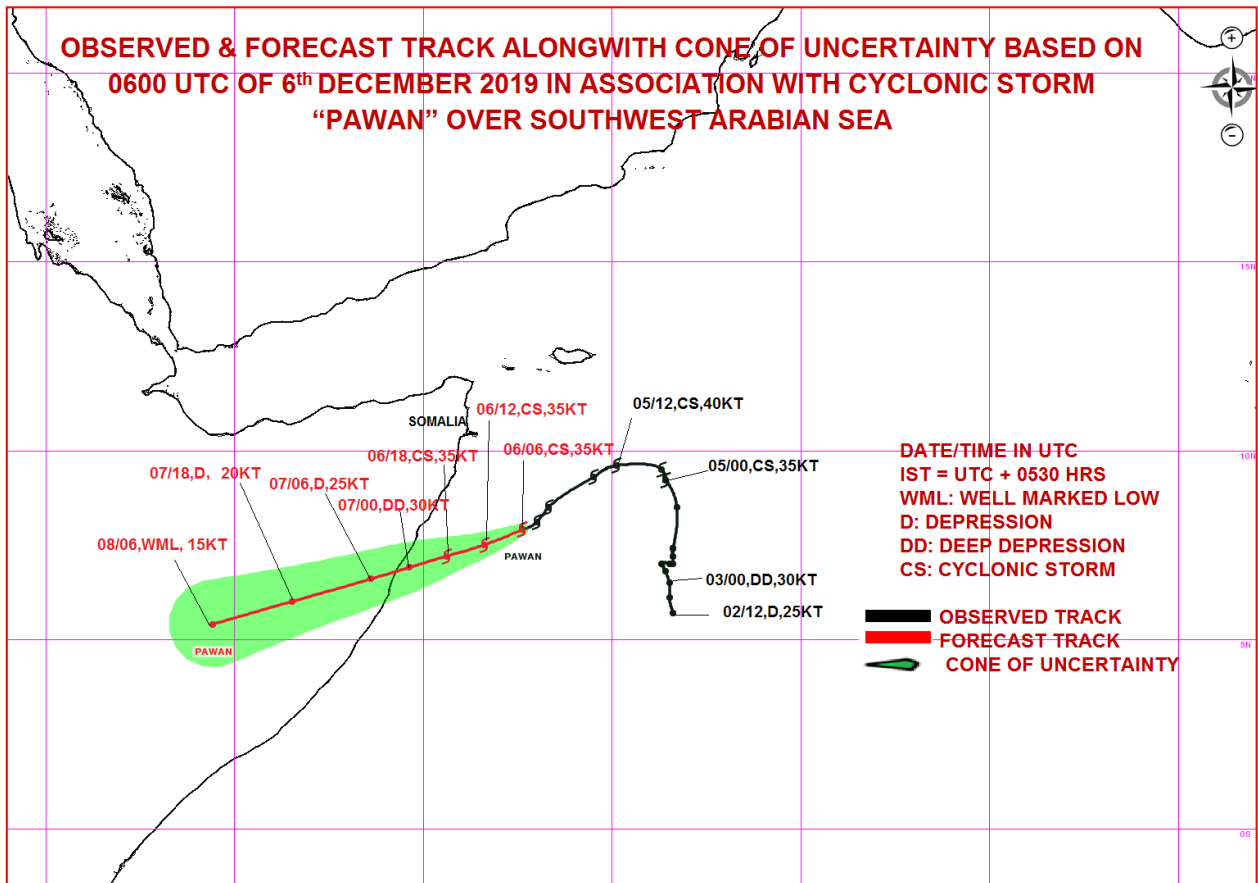
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**





SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)**

**BULLETIN NO. : 24 (ARB/05/2019)**

**TIME OF ISSUE: 1630 HOURS IST**

**DATED: 06.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**

**CONTROL ROOM NDMA (FAX.NO. 26701729)**

**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**

**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**

**SECRETARY, MOES, (FAX NO. 24629777)**

**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**

**DIRECTOR GENERAL, DOORDARSHAN (23385843)**

**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**

**PIB MOES (FAX NO. 23389042)**

**UNI (FAX NO. 23355841)**

**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**

**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**

**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**

**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**

**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**

**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**

**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**

**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**

**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**

**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 08 kmph during past 06 hours and lay centered at 1430 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 7.9°N and longitude 52.6°E over Southwest Arabian Sea, about 540 km south-southwest of Socotra (Yemen) and 530 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 12 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Deep Depression with maximum sustained wind speed of 55-65 Kmph gusting to 75 Kmph close to Latitude 07°N (around Garacad, Mudug) during the morning hours of 07th December.

Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
06.12.19/1430	7.9/52.6	65-75 gusting to 85	Cyclonic Storm
06.12.19/1730	7.7/52.1	65-75 gusting to 85	Cyclonic Storm
06.12.19/2330	7.3/50.8	60-70 gusting to 80	Cyclonic Storm
07.12.19/0530	6.9/49.6	55-65 gusting to 75	Deep Depression
07.12.19/1130	6.6/48.6	40-50 gusting to 60	Depression
07.12.19/2330	6.0/46.5	35-45 gusting to 55	Depression
08.12.19/1130	5.4/44.4	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 12 hours. It is very likely to decrease gradually becoming 60-70 kmph gusting to 80 kmph, from tonight for subsequent 06 hours and decrease gradually thereafter.

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours. It is very likely to improve gradually becoming very rough during subsequent 12 hours and improve further thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 36 hours.

*The next bulletin will be issued at 2030 hrs IST of today, the 06<sup>th</sup> December, 2019.*

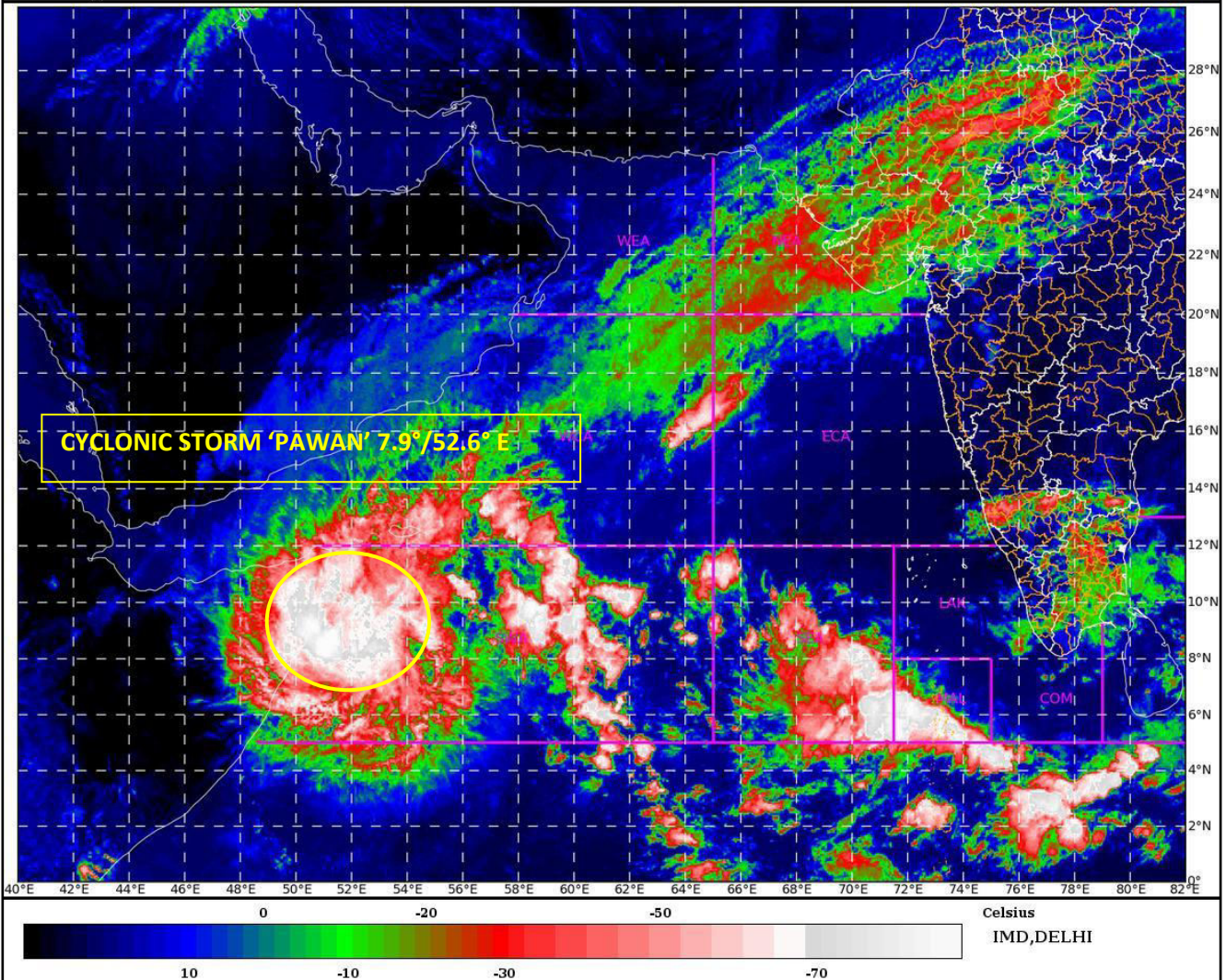
**(Krishna Mishra)  
Scientist-B, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**



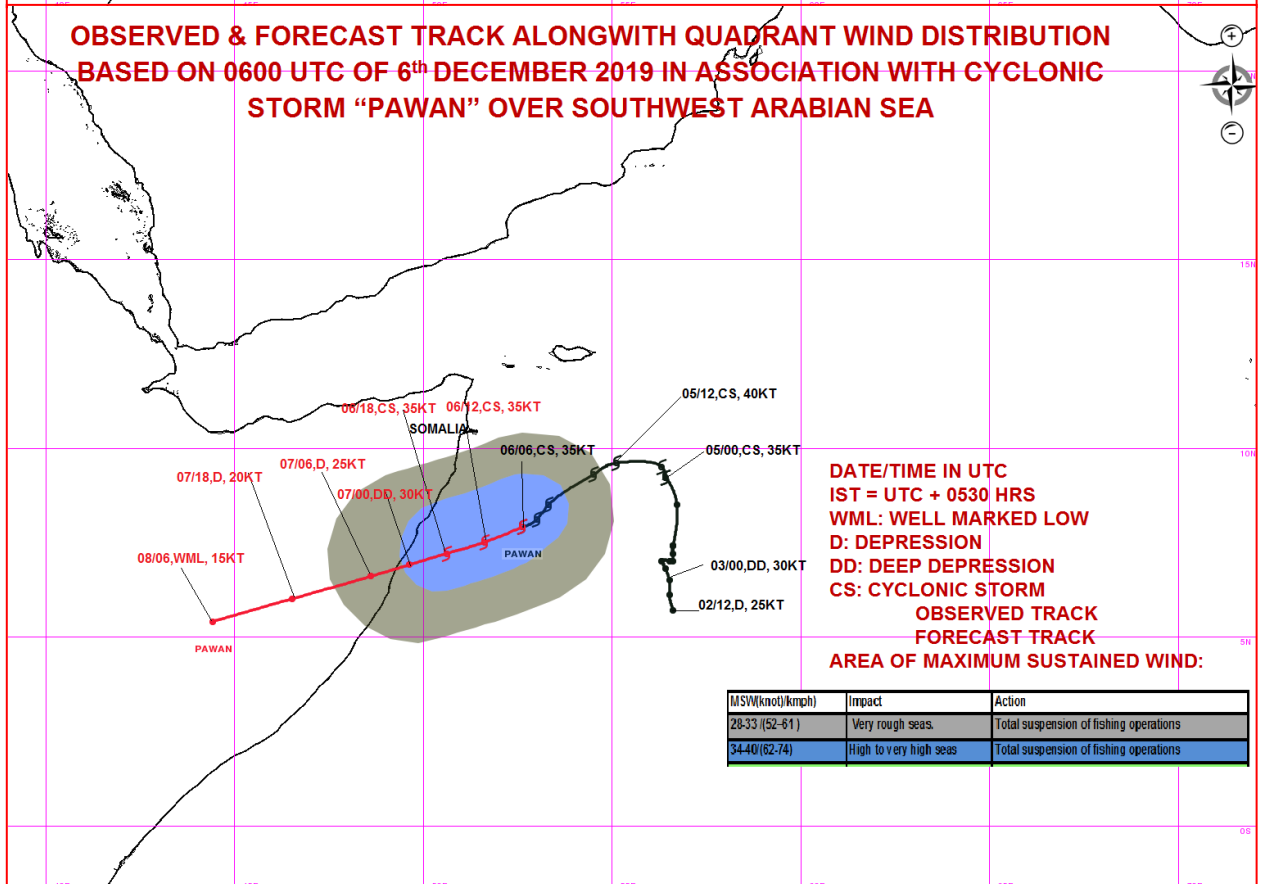
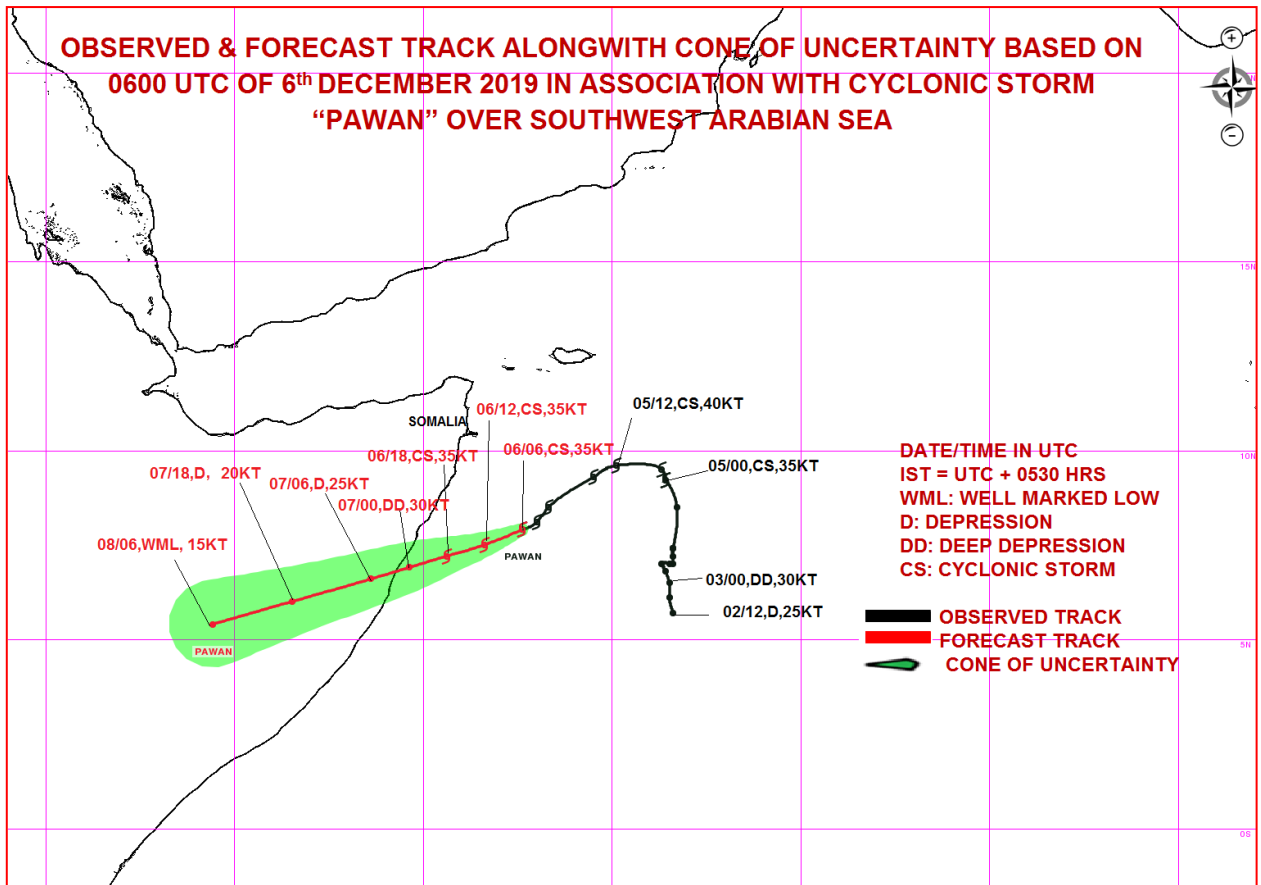
SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

06-12-2019/(1030 to 1056) GMT  
06-12-2019/(1600 to 1626) IST



SWA: Southwest Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 25 (ARB/05/2019)

TIME OF ISSUE: 2015 HOURS IST

DATED: 06.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved westwards with a speed of 06 kmph during past 06 hours and lay centered at 1730 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 7.9°N and longitude 52.3°E over Southwest Arabian Sea, about 550 km south-southwest of Socotra (Yemen) and 510 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 12 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Deep Depression with maximum sustained wind speed of 55-65 Kmph gusting to 75 Kmph close to Latitude 07°N (around Garacad, Mudug) during the forenoon of 07<sup>th</sup> December.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
06.12.19/1730	7.9/52.3	65-75 gusting to 85	Cyclonic Storm
06.12.19/2330	7.4/51.1	65-75 gusting to 85	Cyclonic Storm
07.12.19/0530	7.0/50.0	60-70 gusting to 80	Cyclonic Storm
07.12.19/1130	6.6/49.0	55-65 gusting to 75	Deep Depression
07.12.19/1730	6.1/47.7	40-50 gusting to 60	Depression
08.12.19/0530	5.5/45.6	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 12 hours. It is very likely to decrease gradually thereafter.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours and very rough during the subsequent 06 hours. It is very likely to improve gradually thereafter.

**(iv) Fishermen Warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 24 hours.

*The next bulletin will be issued at 2330 hrs IST of today, the 06<sup>th</sup> December, 2019.*

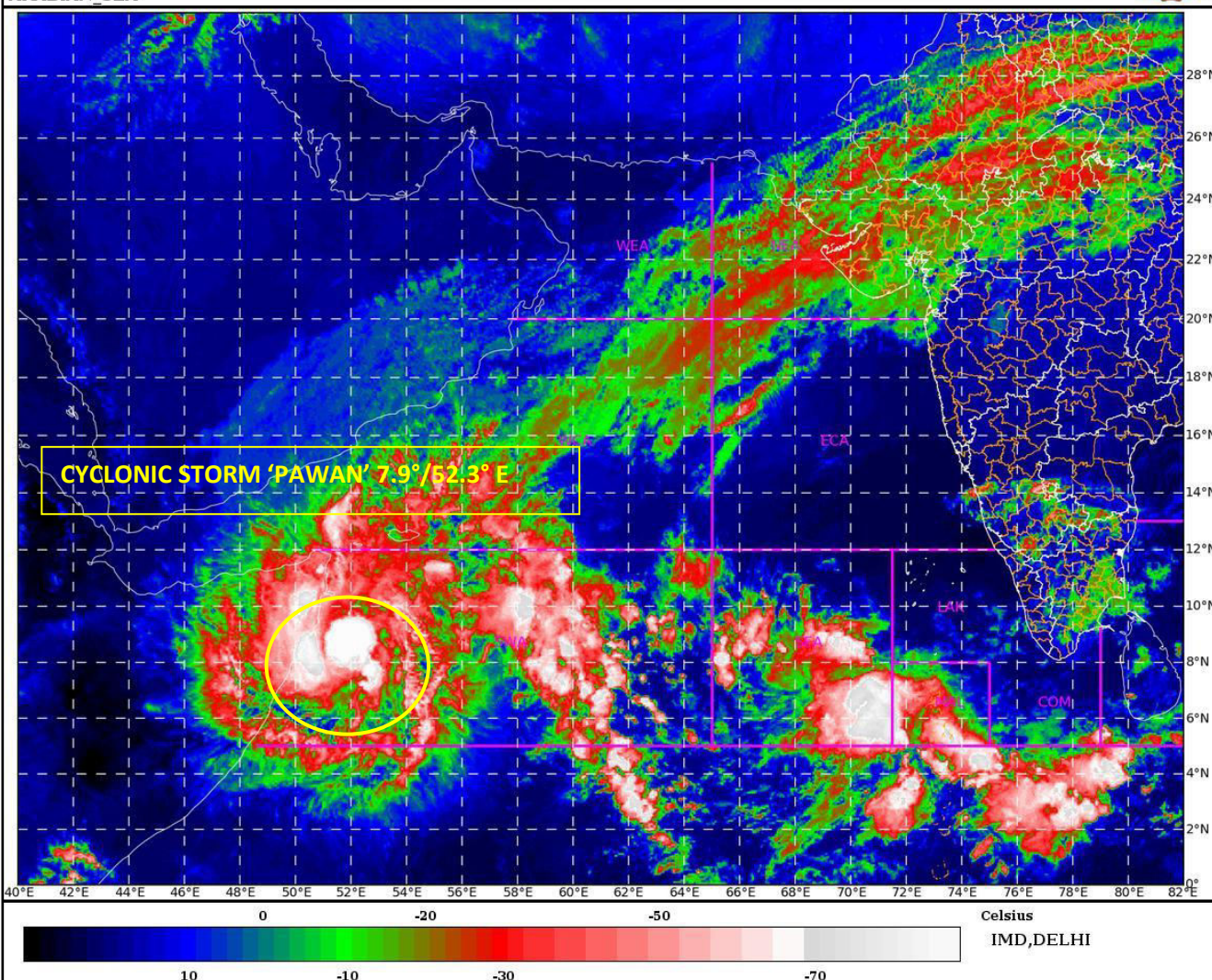
**(Sunitha Devi. S)  
Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**

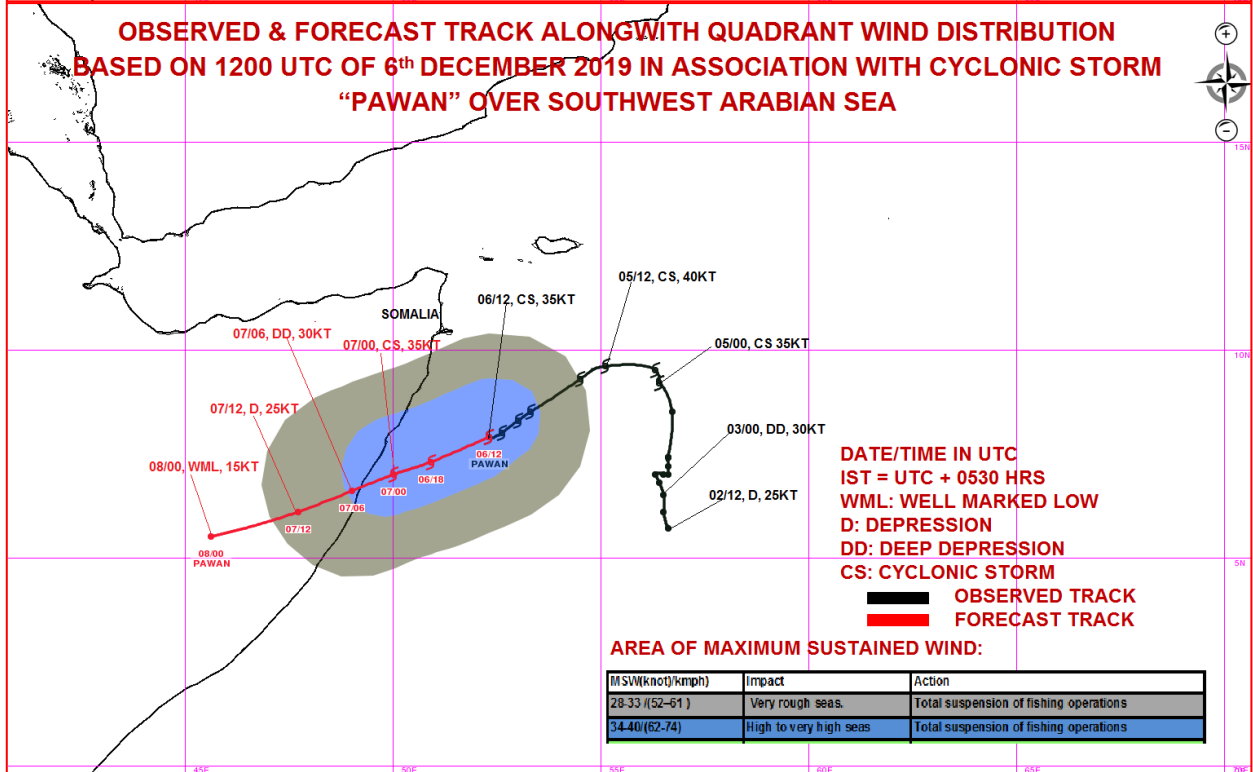
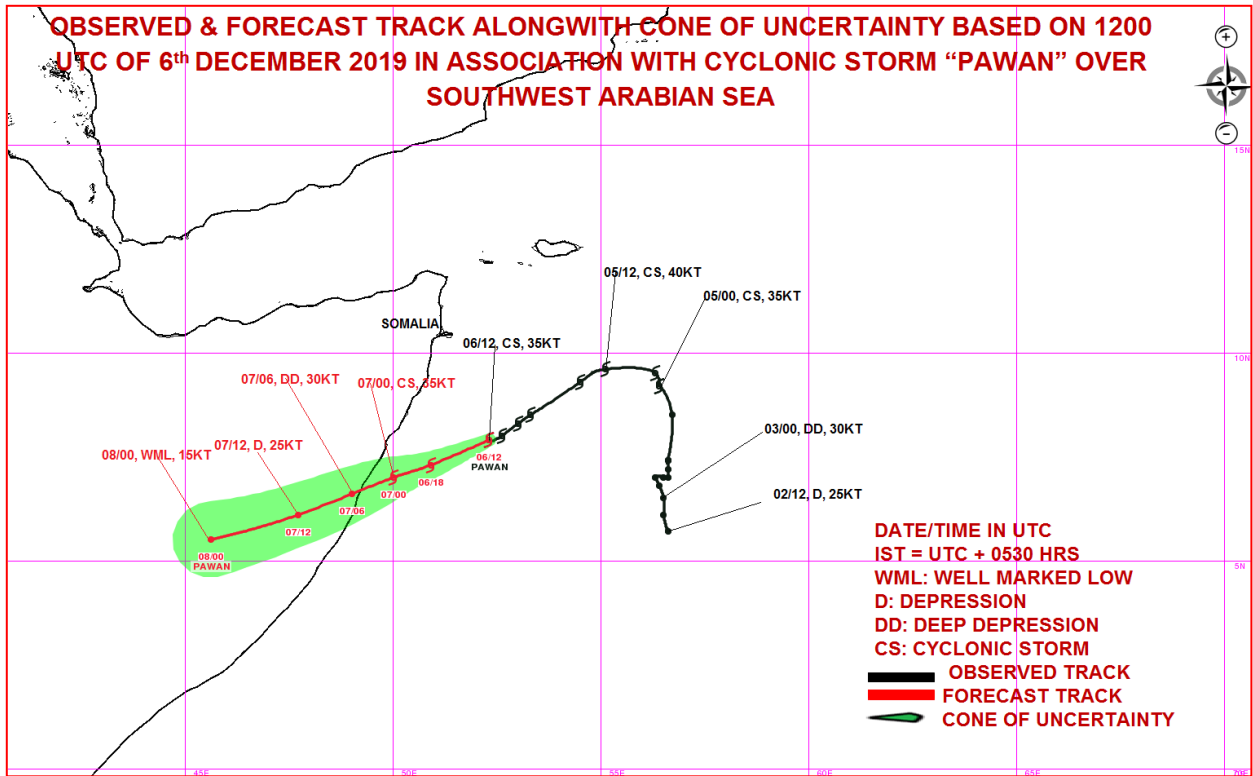


SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN SEA

06-12-2019/(1330 to 1356) GMT  
06-12-2019/(1900 to 1926) IST



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 26 (ARB/05/2019)

TIME OF ISSUE: 2200 HOURS IST

DATED: 06.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 15 kmph during past 06 hours and lay centered at 2030 hrs IST of today, the 06<sup>th</sup> December, 2019 near latitude 7.7°N and longitude 51.8°E over Southwest Arabian Sea, about 590 km south-southwest of Socotra (Yemen) and 490 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 12 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Deep Depression with maximum sustained wind speed of 55-65 Kmph gusting to 75 Kmph close to Latitude 07°N (around Garacad, Mudug) during the forenoon of 07th December.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
06.12.19/2030	7.7/51.8	65-75 gusting to 85	Cyclonic Storm
06.12.19/2330	7.4/51.1	65-75 gusting to 85	Cyclonic Storm
07.12.19/0530	7.0/50.0	60-70 gusting to 80	Cyclonic Storm
07.12.19/1130	6.6/49.0	55-65 gusting to 75	Deep Depression
07.12.19/1730	6.1/47.7	40-50 gusting to 60	Depression
08.12.19/0530	5.5/45.6	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 12 hours. It is very likely to decrease gradually thereafter.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours and very rough during the subsequent 06 hours. It is very likely to improve gradually thereafter.

**(iv) Fishermen Warning:**

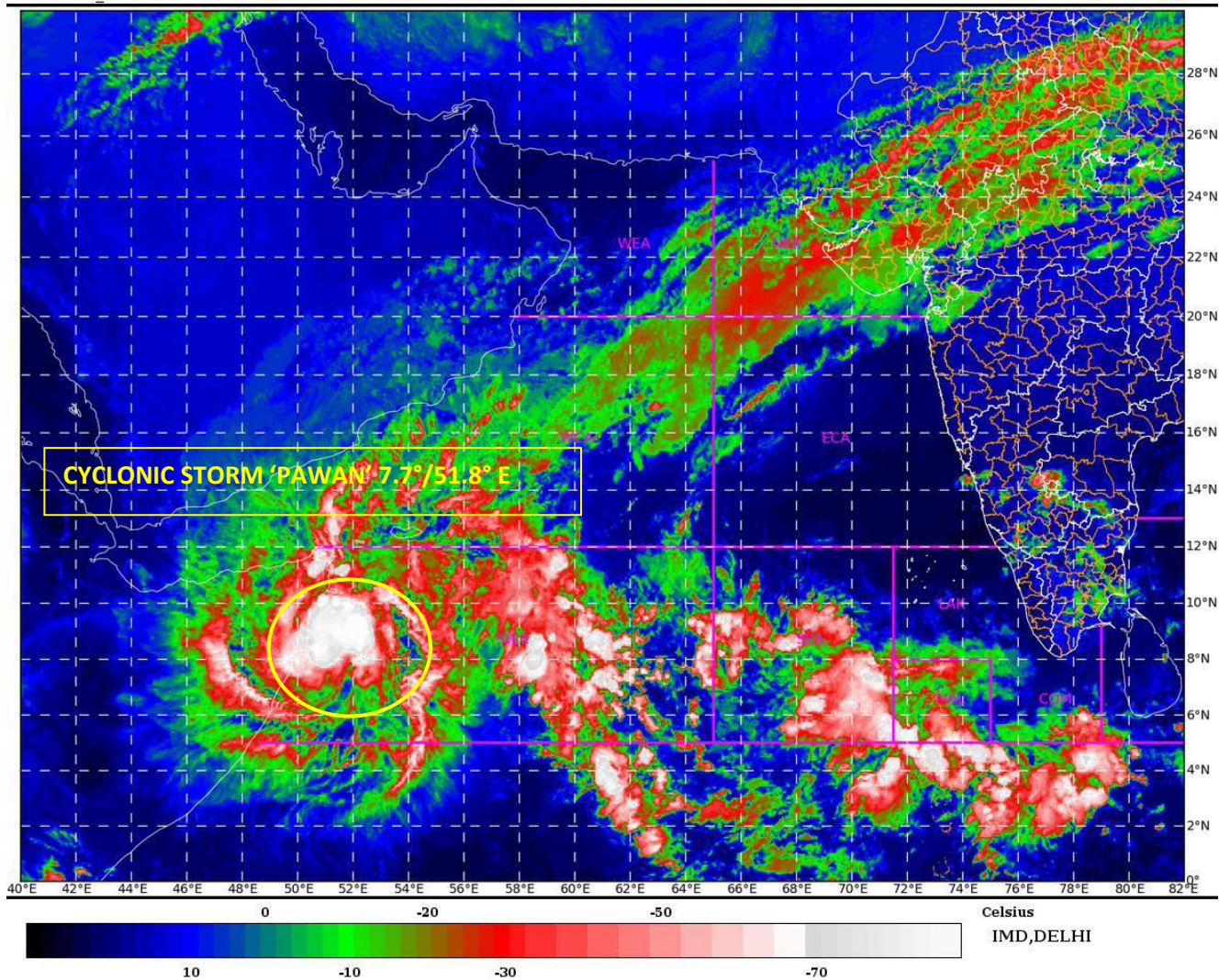
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 24 hours.

*The next bulletin will be issued at 0230 hrs IST of 07<sup>th</sup> December, 2019.*

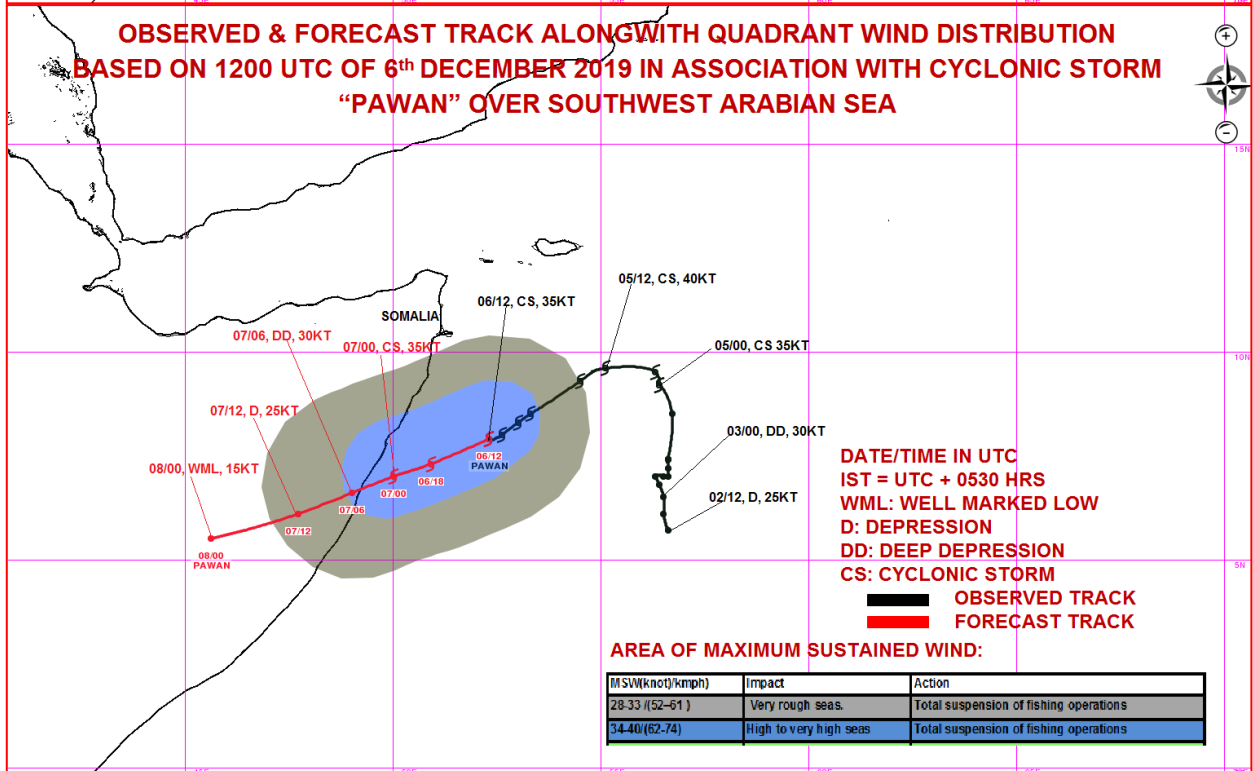
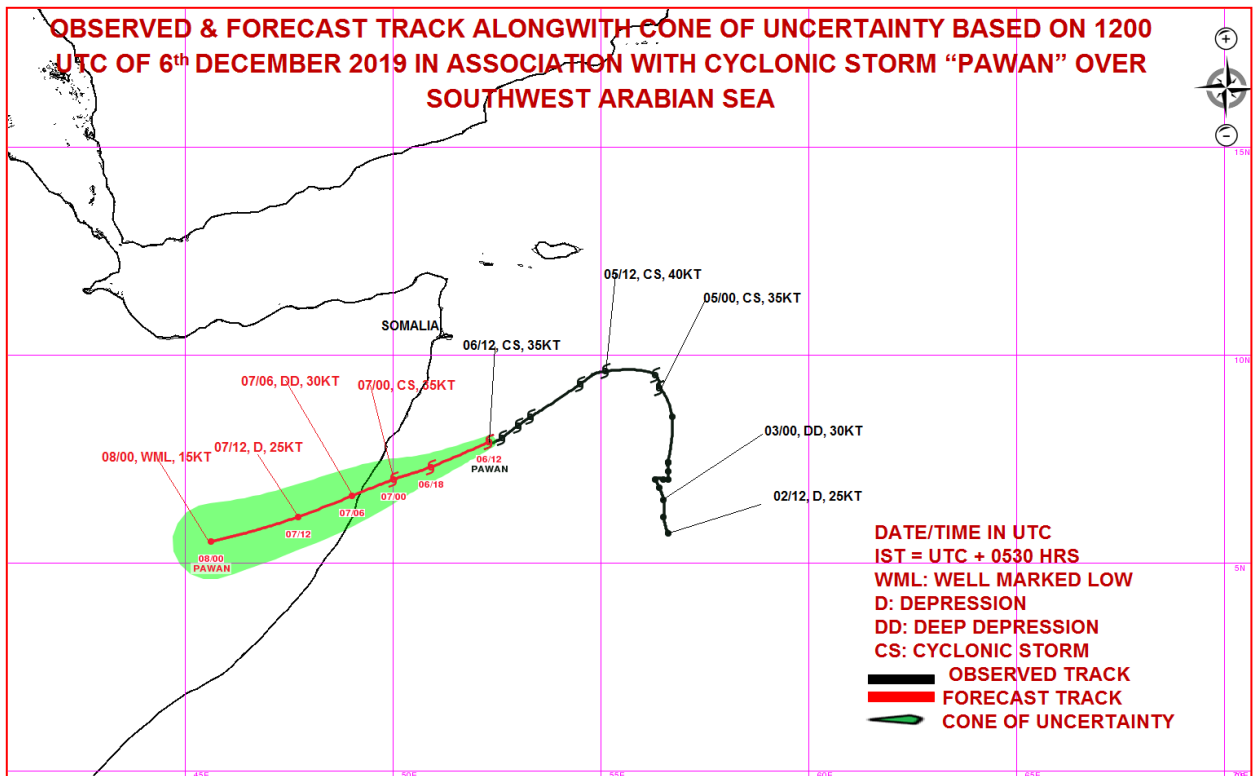
**(V. R. Durai)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 27 (ARB/05/2019)

TIME OF ISSUE: 0145 HOURS IST

DATED: 07.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 20 kmph during past 06 hours and lay centered at 2330 hrs IST of 06<sup>th</sup> December, 2019 near latitude 7.5°N and longitude 51.3°E over Southwest Arabian Sea, about 640 km south-southwest of Socotra (Yemen) and 480 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 06 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Deep Depression with maximum sustained wind speed of 55-65 Kmph gusting to 75 Kmph close to Latitude 07°N (around Garacad, Mudug) during the forenoon of 07<sup>th</sup> December.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
06.12.19/2330	7.5/51.3	65-75 gusting to 85	Cyclonic Storm
07.12.19/0530	7.0/50.1	60-70 gusting to 80	Cyclonic Storm
07.12.19/1130	6.6/49.0	55-65 gusting to 75	Deep Depression
07.12.19/1730	6.1/47.7	40-50 gusting to 60	Depression
07.12.19/2330	5.8/46.7	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 12 hours. It is very likely to decrease gradually thereafter.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 12 hours and very rough during the subsequent 06 hours. It is very likely to improve gradually thereafter.

**(iv) Fishermen Warning:**

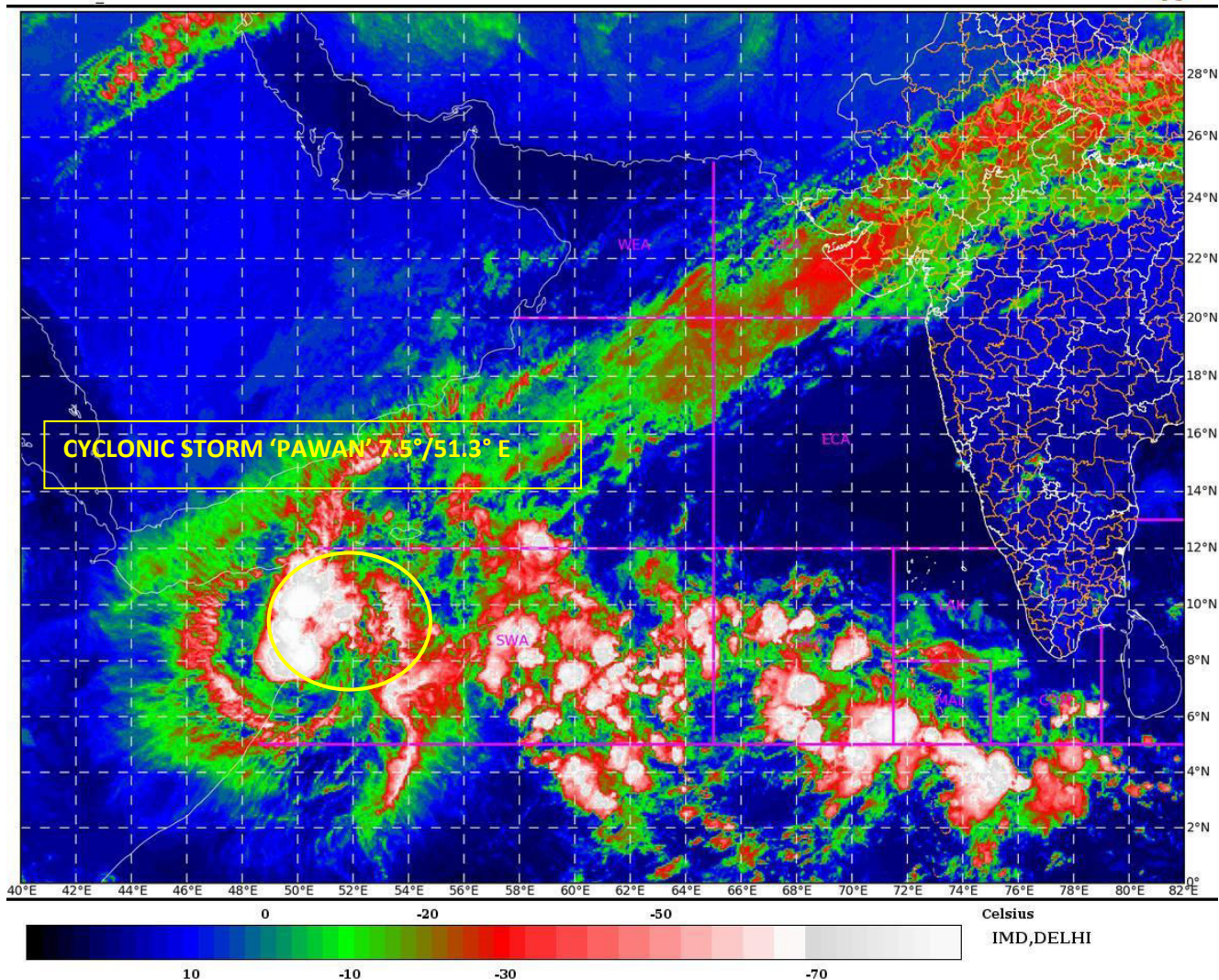
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 24 hours.

*The next bulletin will be issued at 0530 hrs IST of 07<sup>th</sup> December, 2019.*

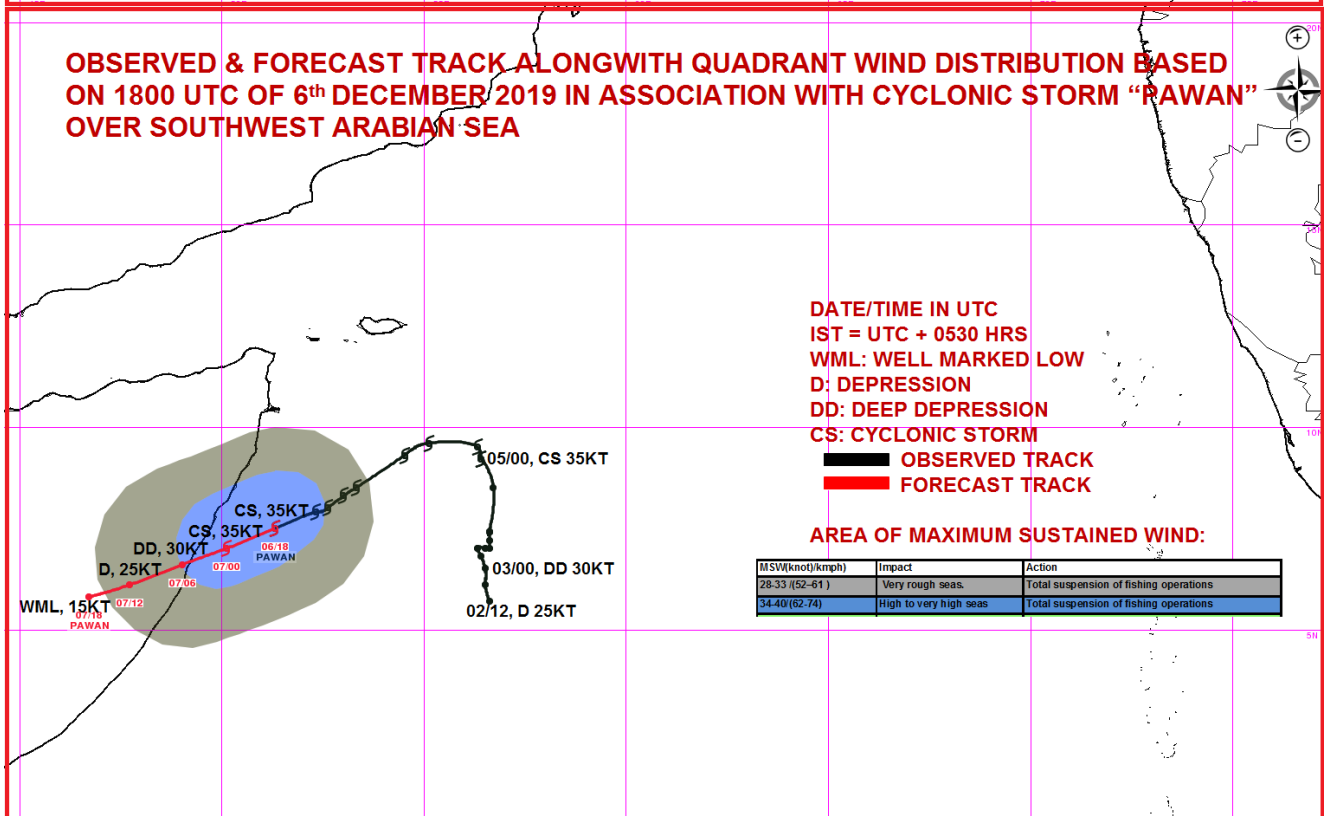
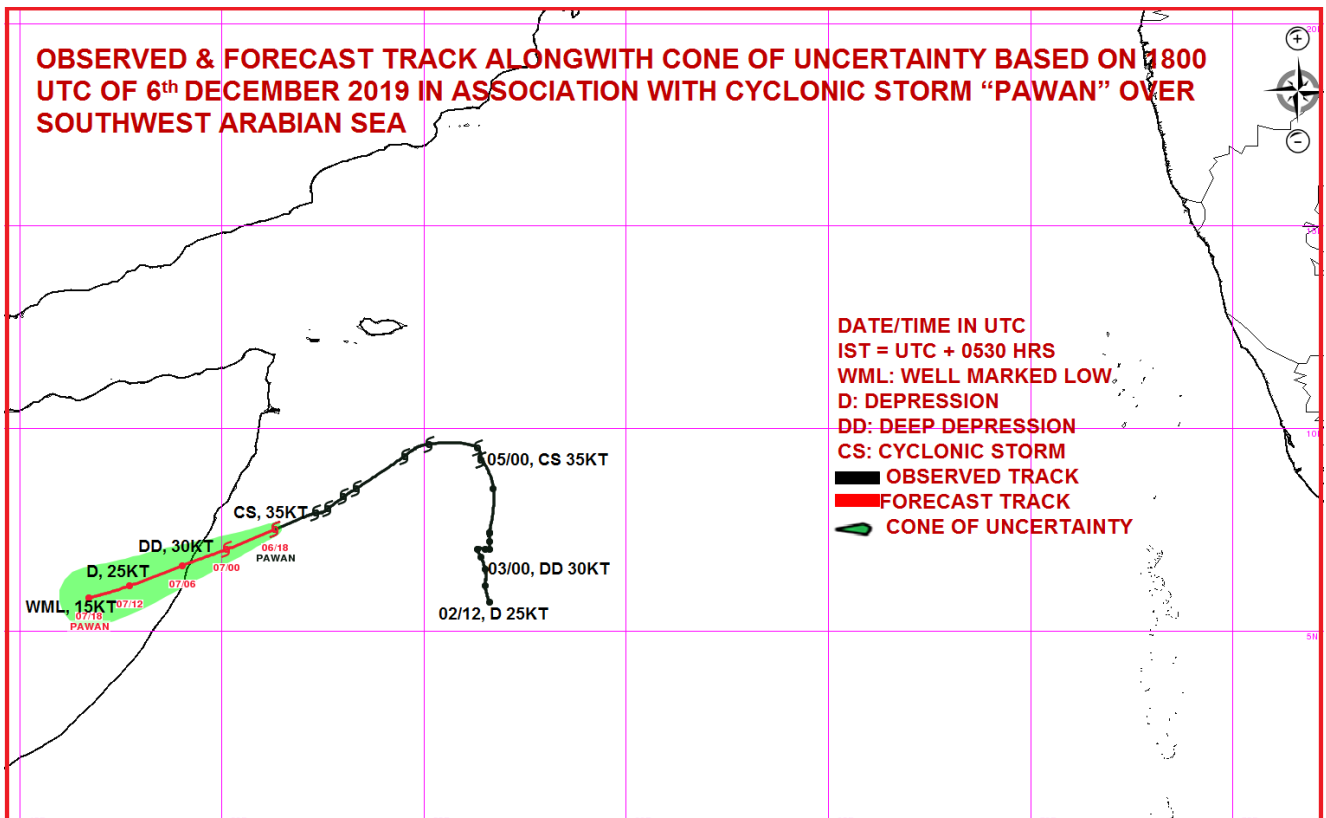
**(V. R. Durai)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 28 (ARB/05/2019)

TIME OF ISSUE: 0530 HOURS IST

DATED: 07.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 16 kmph during past 06 hours and lay centered at 0230 hrs IST of 07<sup>th</sup> December, 2019 near latitude 7.5°N and longitude 50.9°E over Southwest Arabian Sea, about 660 km south-southwest of Socotra (Yemen) and 460 km southeast of Bosaso (Somalia). It is very likely to maintain its intensity as a Cyclonic Storm during next 06 hours and weaken gradually thereafter. It is very likely to move west-southwestwards during next 24 hours and cross Somalia coast as a Deep Depression with maximum sustained wind speed of 55-65 Kmph gusting to 75 Kmph close to Latitude 07°N (around Garacad, Mudug) during the forenoon of 07<sup>th</sup> December.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
07.12.19/0230	7.5/50.9	65-75 gusting to 85	Cyclonic Storm
07.12.19/0530	7.0/50.1	60-70 gusting to 80	Cyclonic Storm
07.12.19/1130	6.6/49.0	55-65 gusting to 75	Deep Depression
07.12.19/1730	6.1/47.7	40-50 gusting to 60	Depression
07.12.19/2330	5.8/46.7	25-35 gusting to 45	Well Marked Low

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 65-75 kmph gusting to 85 kmph, is prevailing around the system centre over southwest Arabian Sea which is very likely to continue during next 06 hours. It is very likely to decrease gradually thereafter.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea during next 06 hours and very rough during the subsequent 06 hours. It is very likely to improve gradually thereafter.

**(iv) Fishermen Warning:**

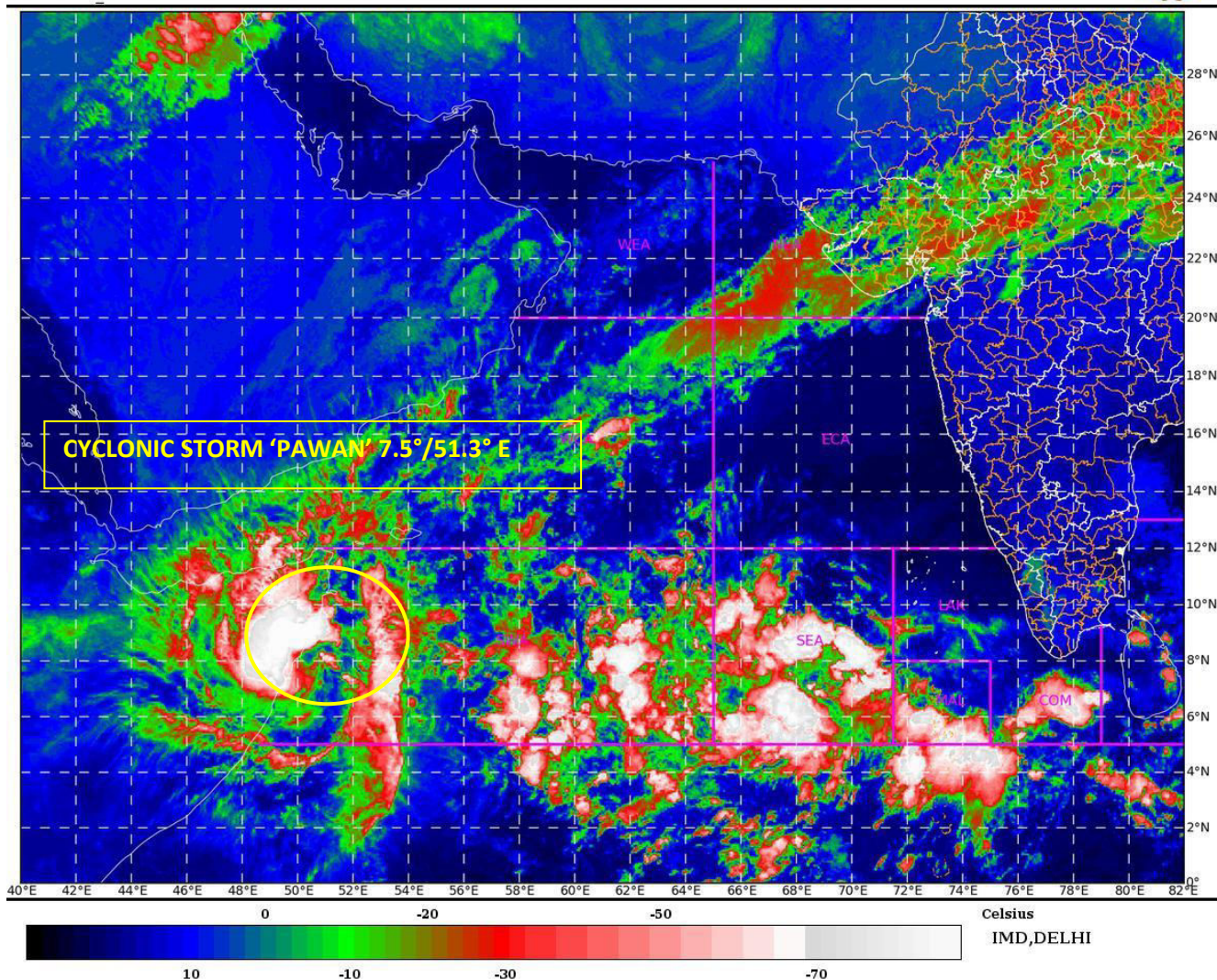
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 24 hours.

*The next bulletin will be issued at 0830 hrs IST of 07<sup>th</sup> December, 2019.*

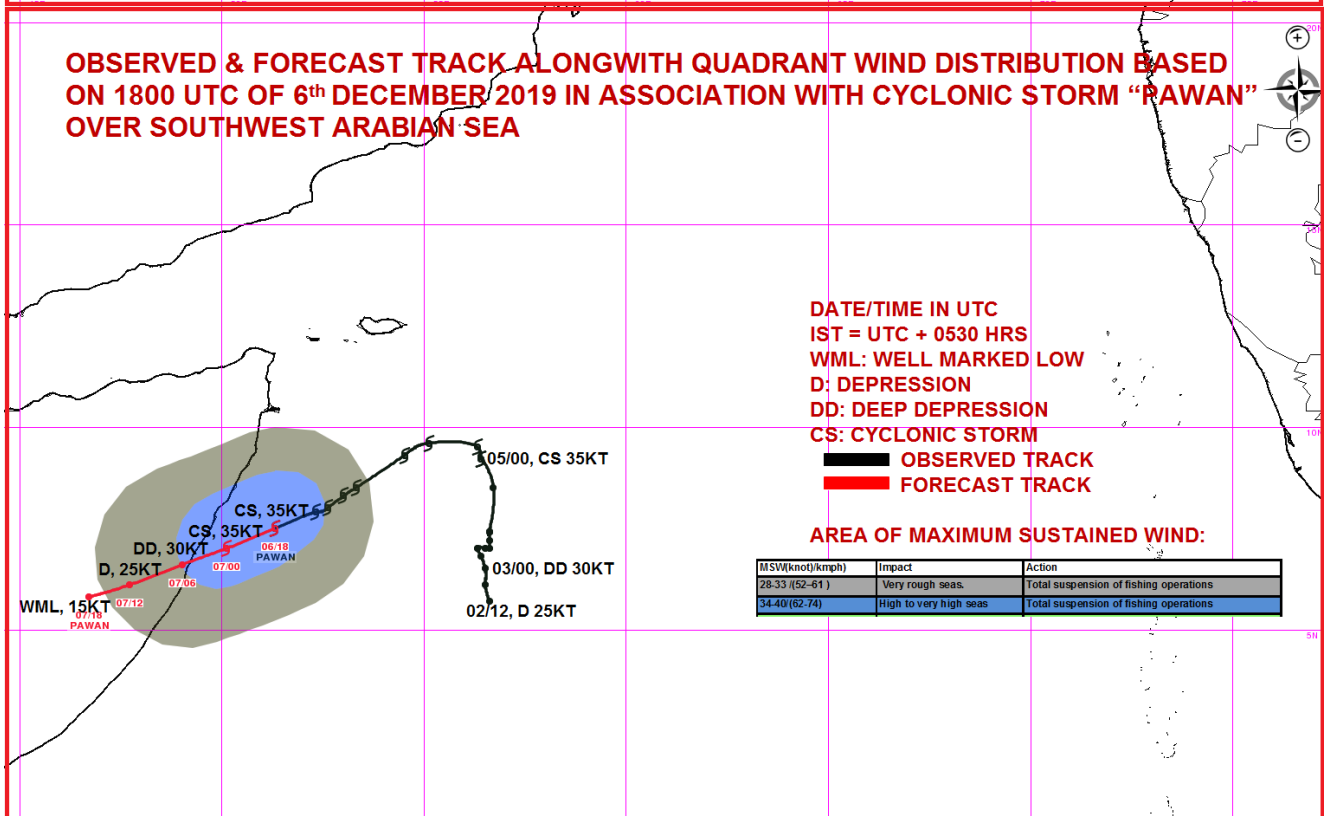
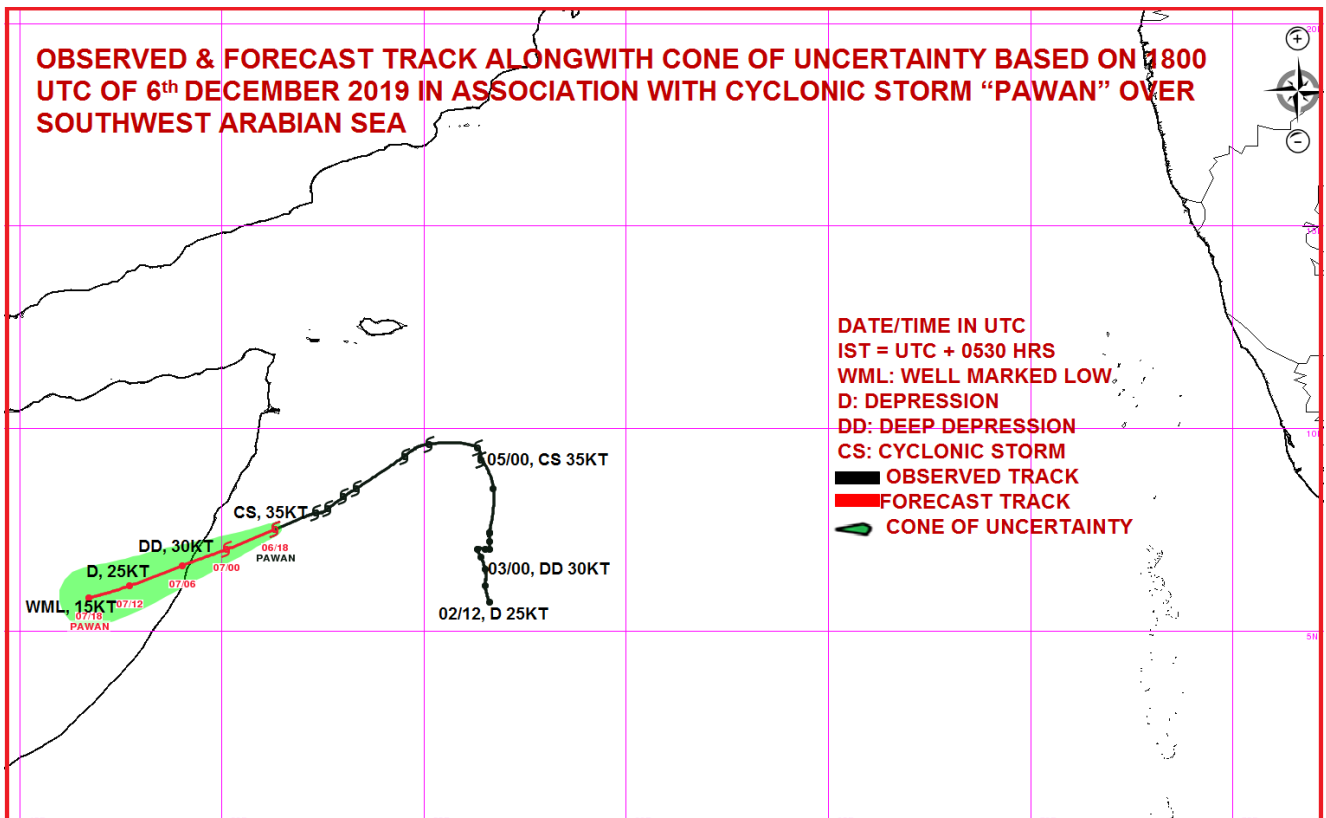
**(V. R. Durai)**  
**Scientist-E, RSMC, New Delhi**

**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%  
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 29 (ARB/05/2019)

TIME OF ISSUE: 0810 HOURS IST

DATED: 07.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea**

**Cyclonic storm 'Pawan' (Pronounced as 'Pavan')** over Southwest Arabian Sea moved west-southwestwards with a speed of 24 kmph during past 06 hours and lay centered at 0530 hrs IST of 07<sup>th</sup> December, 2019 near latitude 7.4°N and longitude 49.8°E over Southwest Arabian Sea. Latest observations indicate that the system is crossing Somalia coast, close to Latitude 7.4°N and longitude 49.6°E . It is very likely to move west-southwestwards and weaken gradually.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
07.12.19/0530	7.4/49.8	60-70 gusting to 80	Cyclonic Storm
07.12.19/1130	7.2/49.2	45-55gusting to 65	Depression
07.12.19/1730	7.0/48.7	40-50 gusting to 60	Depression

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, is prevailing around the system centre over southwest Arabian Sea and along & off Somalia Coast which is very likely to continue during next 06 hours. It is very likely to decrease gradually thereafter.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(iii) Sea conditions:**

- **Southwest Arabian Sea and along & off Somalia Coast:** Very Rough to High Sea Conditions are likely to prevail over Southwest Arabian Sea and along & off Somalia Coast during next 06 hours. It is very likely to improve gradually thereafter.

**(iv) Fishermen Warning:**

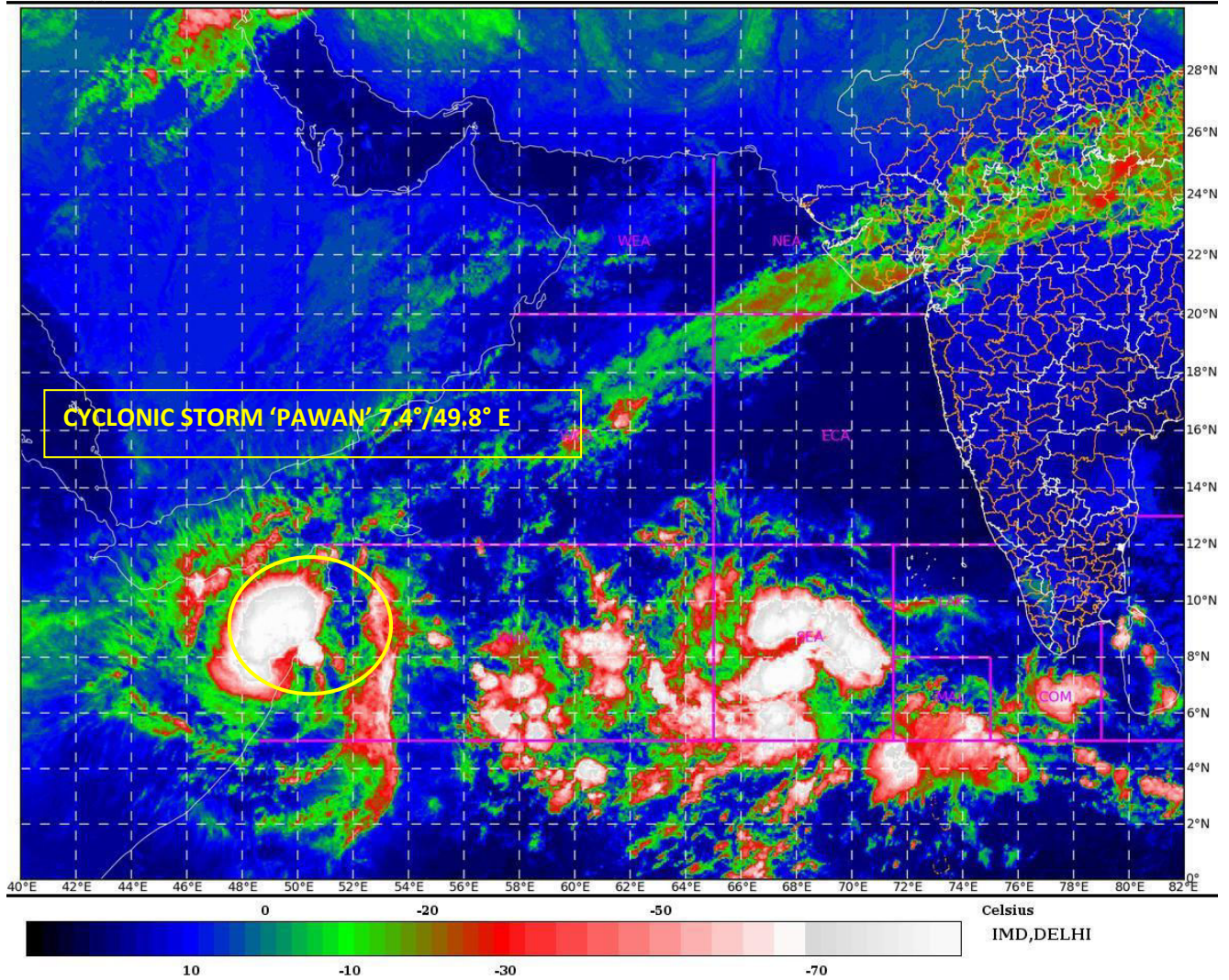
- **Southwest Arabian Sea and along & off Somalia Coast:** The fishermen are advised not to venture into southwest Arabian Sea and along & off Somalia coast during next 12 hours.

*The next bulletin will be issued at 1130 hrs IST of 07<sup>th</sup> December, 2019.*

**(V. R. Durai)**  
**Scientist-E, RSMC, New Delhi**

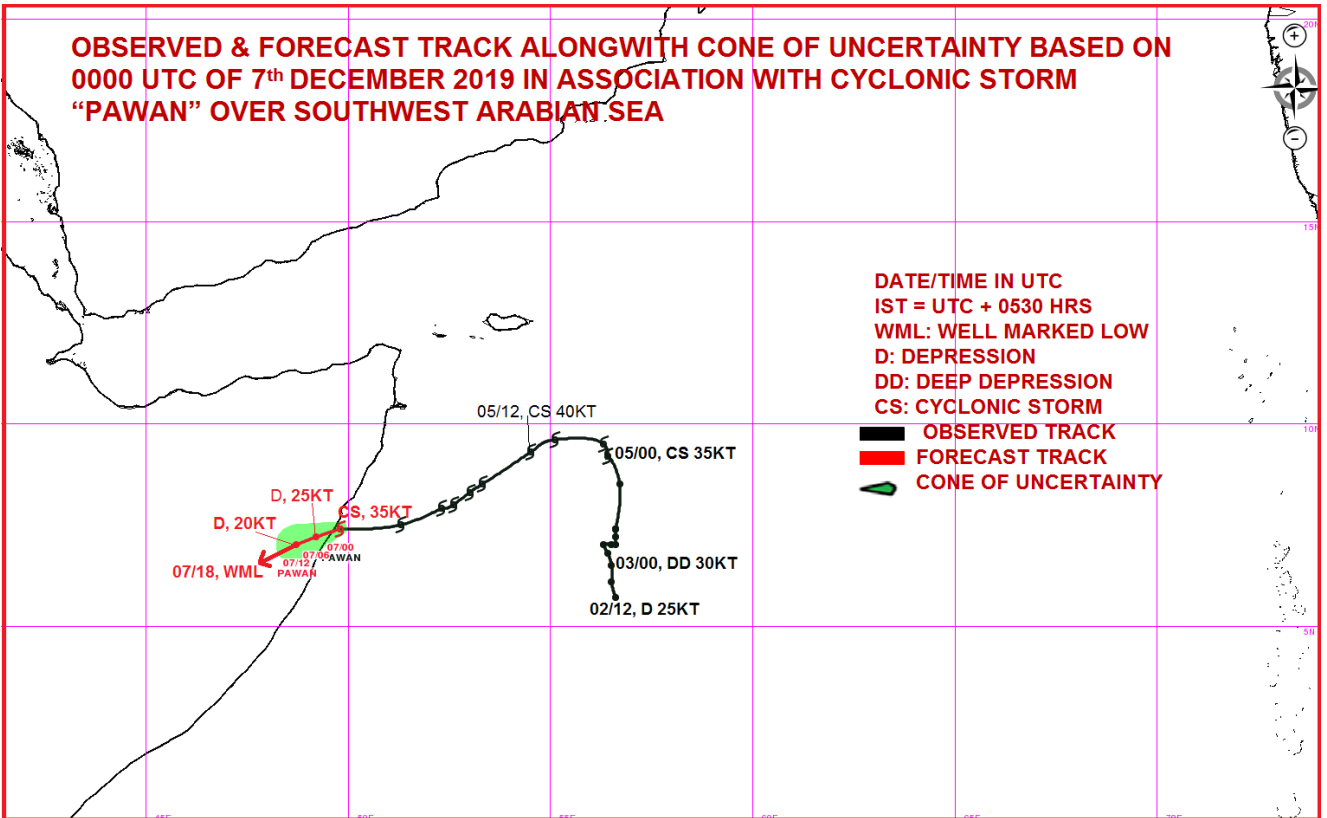
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**



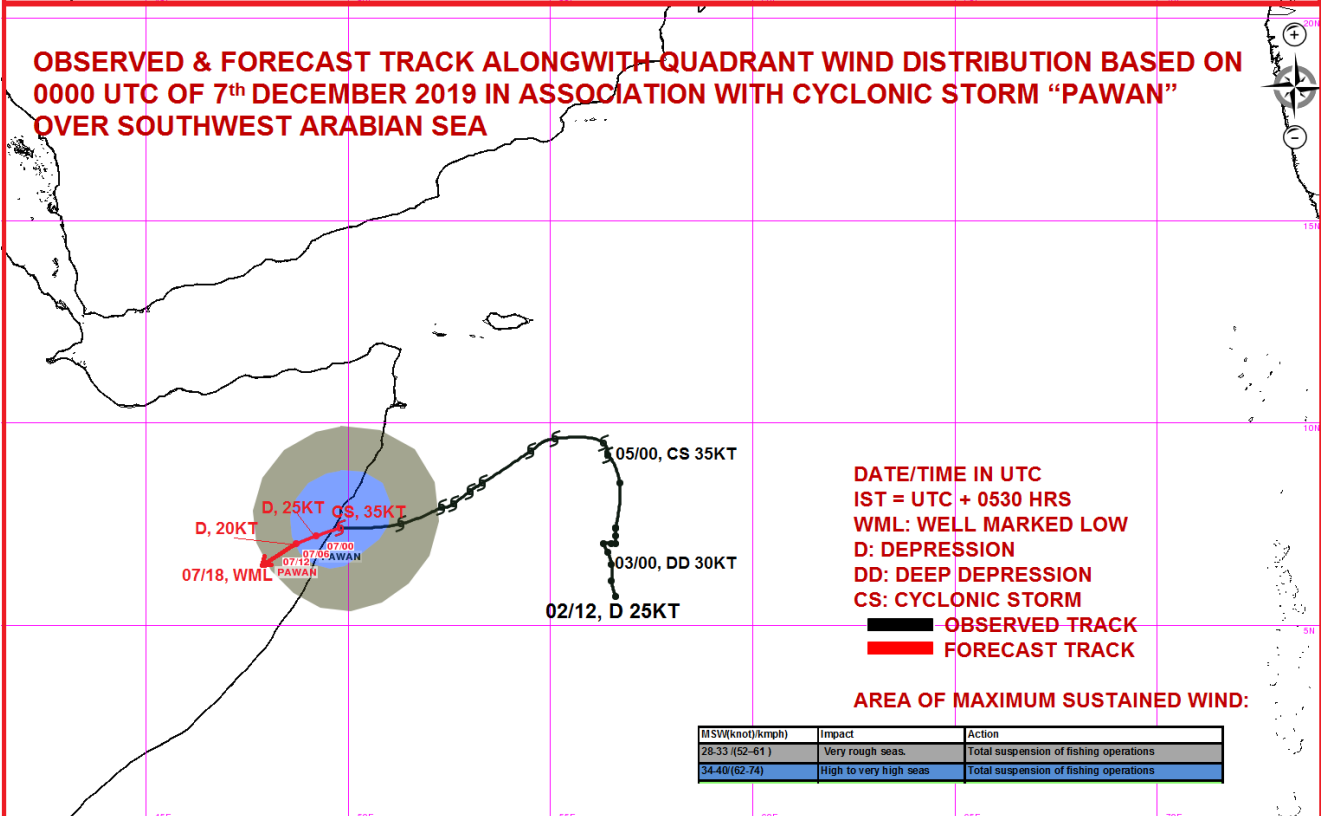


**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**OBSERVED & FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY BASED ON 0000 UTC OF 7<sup>th</sup> DECEMBER 2019 IN ASSOCIATION WITH CYCLONIC STORM "PAWAN" OVER SOUTHWEST ARABIAN SEA**



**OBSERVED & FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION BASED ON 0000 UTC OF 7<sup>th</sup> DECEMBER 2019 IN ASSOCIATION WITH CYCLONIC STORM "PAWAN" OVER SOUTHWEST ARABIAN SEA**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

BULLETIN NO. : 30 (ARB/05/2019)

TIME OF ISSUE: 1055 HOURS IST

DATED: 07.12.2019

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)

ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

**Sub: Cyclonic Storm 'Pawan' (Pronounced as 'Pavan') crossed Somalia coast and weakened into a Deep Depression over coastal Somalia**

The Cyclonic storm 'Pawan' (Pronounced as 'Pavan') over Southwest Arabian Sea moved nearly westwards with a speed of 26 kmph during past 06 hours, crossed Somalia coast near Latitude 7.4°N and Longitude 49.6°E during 0730 to 0830 hrs IST of today, the 07<sup>th</sup> December 2019 as a Cyclonic Storm with a wind speed of 60-70 Kmph gusting to 80 Kmph, weakened into a **Deep Depression** and lay centered at 0830 hrs IST of 07<sup>th</sup> December, 2019 over coastal Somalia and neighborhood near latitude 7.4°N and longitude 49.5°E. It is very likely to continue to move nearly westwards and weaken into a depression during next 06 hours and into a well marked low pressure area during the subsequent 12 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
07.12.19/0830	7.4/49.5	55-65 gusting to 75	Deep Depression
07.12.19/1130	7.2/49.0	45-55 gusting to 65	Depression
07.12.19/1730	7.0/47.8	35-45 gusting to 55	Depression

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**(ii) Wind warning:**

- Squally wind, speed reaching 55-65 kmph gusting to 75 kmph, is prevailing around the system centre and along & off Somalia coast and adjoining southwest Arabian Sea. It is very likely to decrease gradually becoming 35-45 Kmph gusting to 55 Kmph by today, the 07<sup>th</sup> December 2019.

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

**(iii) Sea conditions:**

- Rough to Very Rough to Sea conditions are likely to prevail over western parts of Southwest Arabian Sea and along & off Somalia Coast during next 12 hours. It is very likely to improve gradually thereafter.

**(iv) Fishermen Warning:**

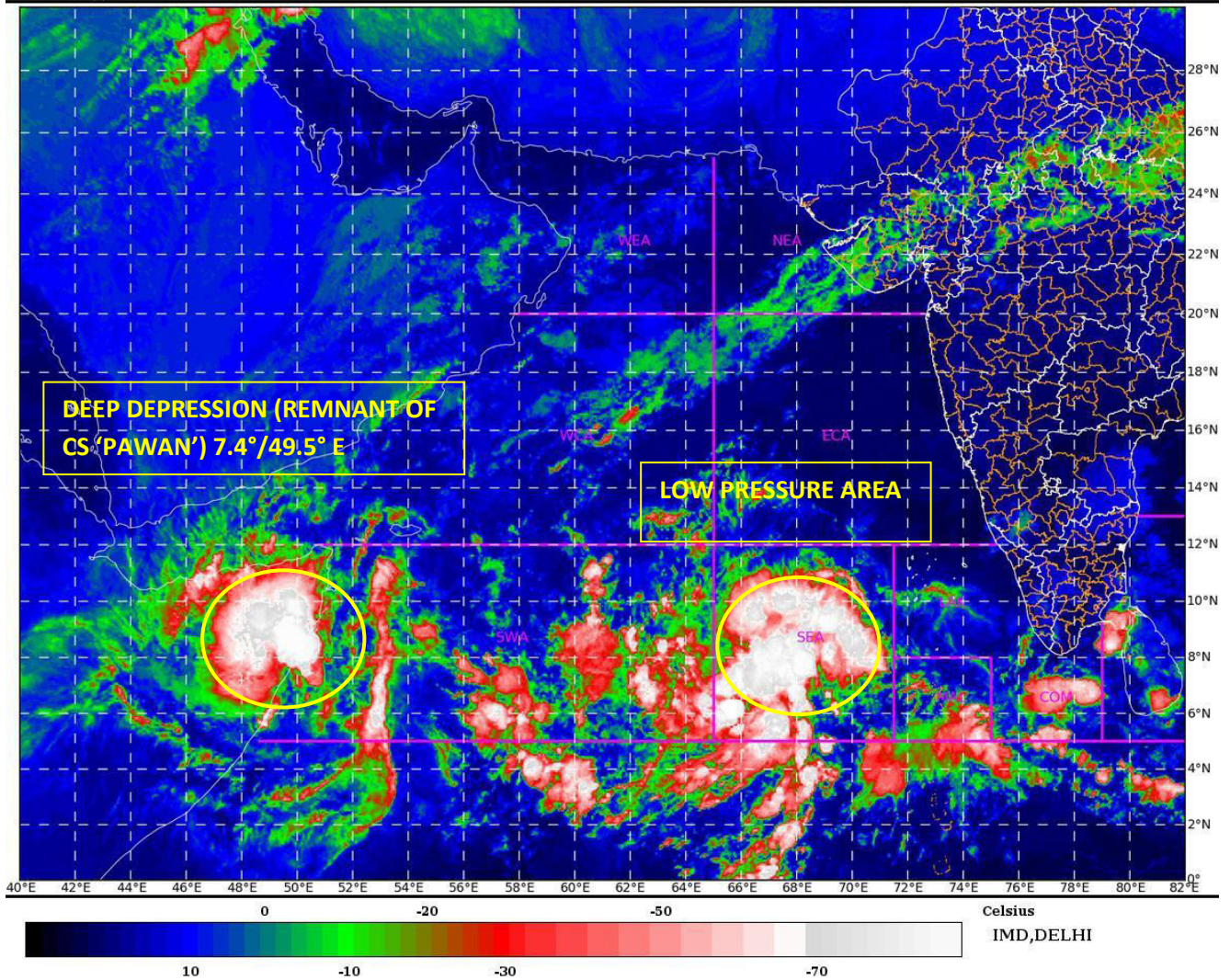
- The fishermen are advised not to venture into western parts of southwest Arabian Sea and along & off Somalia coast during next 12 hours.

*The next bulletin will be issued at 1430 hrs IST of 07<sup>th</sup> December, 2019.*

**(Sunitha Devi S)  
Scientist-E, RSMC, New Delhi**

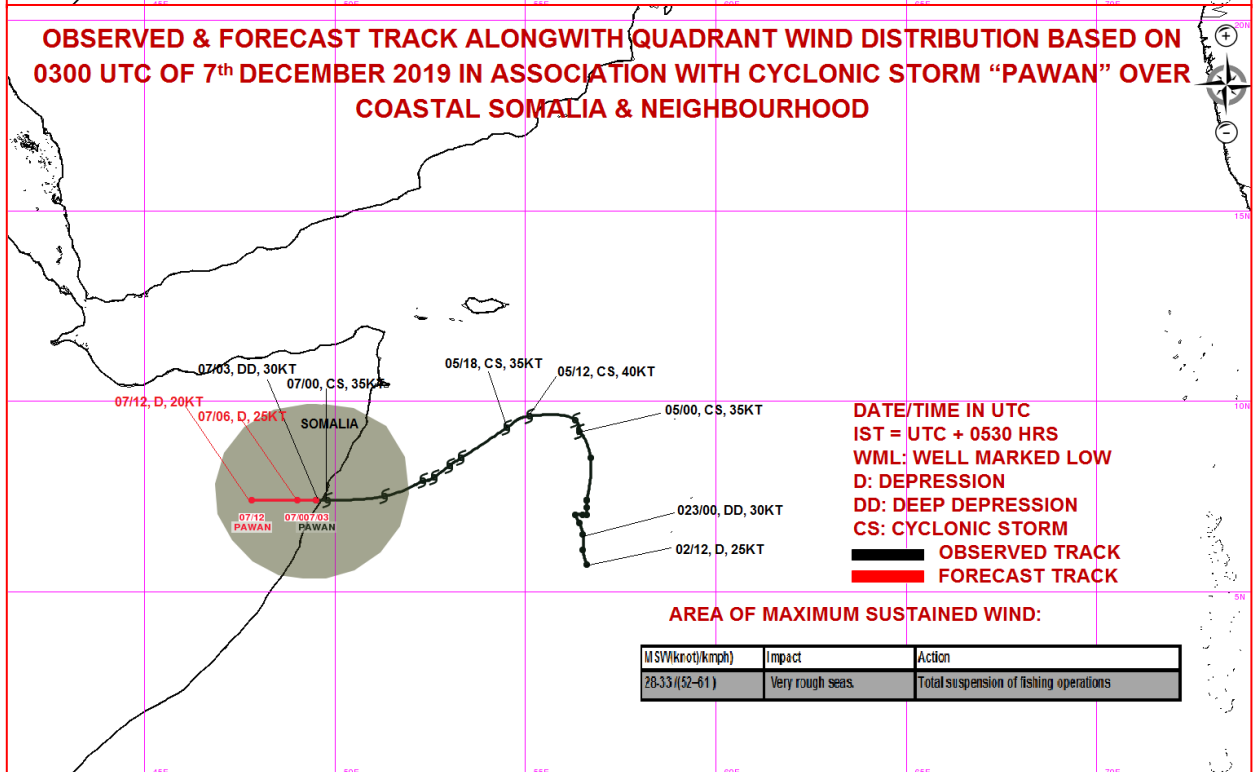
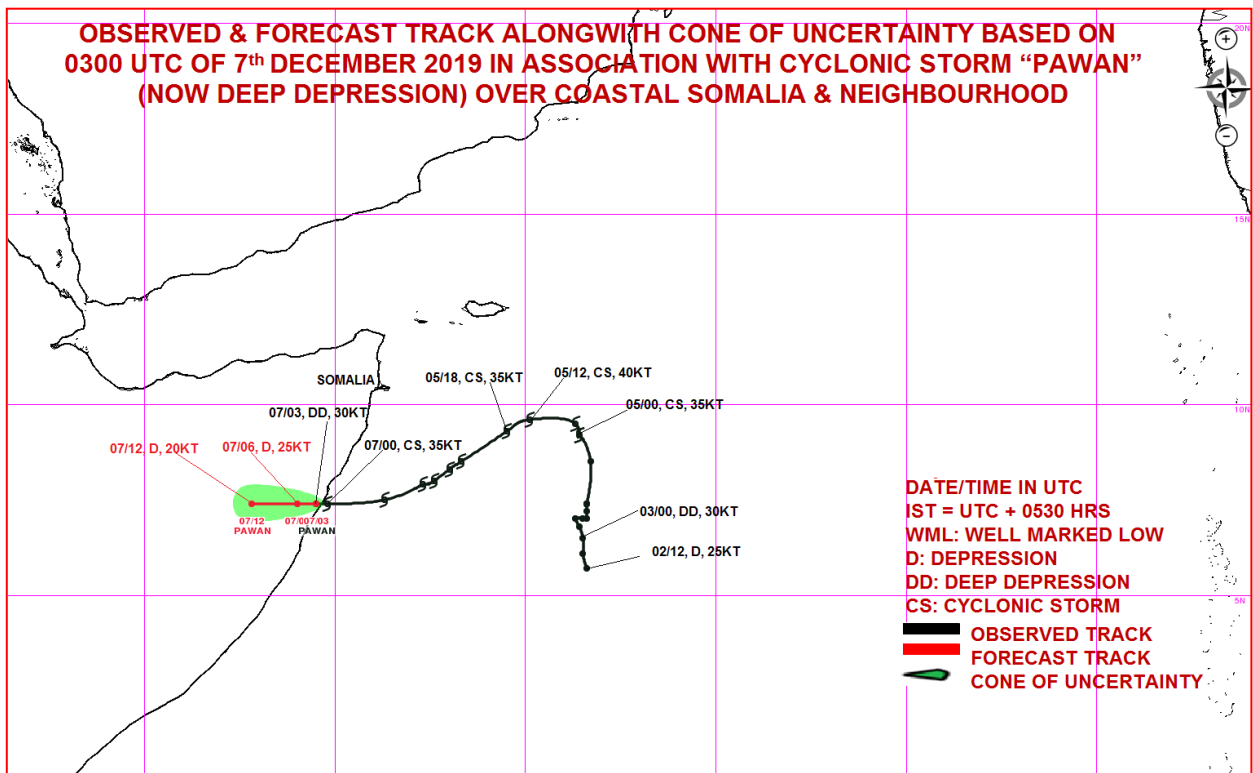
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/  
Thiruvananthapuram.**





SWA: Southwest Arabian Sea  
SEA: Southeast Arabian Sea

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

**BULLETIN NO. : 31 (ARB/05/2019)**

**TIME OF ISSUE: 1330 HOURS IST**

**DATED: 07.12.2019**

**FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)**

**TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23092398/23093750)**  
**CONTROL ROOM NDMA (FAX.NO. 26701729)**  
**CABINET SECRETARIAT (FAX.NO.23012284, 23018638)**  
**PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)**  
**SECRETARY, MOES, (FAX NO. 24629777)**  
**H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)**  
**DIRECTOR GENERAL, DOORDARSHAN (23385843)**  
**DIRECTOR GENERAL, AIR (23421101, 23421105, 23421219)**  
**PIB MOES (FAX NO. 23389042)**  
**UNI (FAX NO. 23355841)**  
**D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)**  
**DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)**  
**CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)**  
**ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)**  
**ADMINISTRATOR, UNION TERRITORY OF DAMAN & DIU (0260-2230775)**  
**ADMINISTRATOR, UNION TERRITORY OF DADRA NAGAR HAVELI (0260-2230775)**  
**CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)**  
**CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)**  
**CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)**  
**CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)**

**Sub: (a) The Deep Depression over north Somalia & neighbourhood.**  
**(b) Low pressure area over southeast Arabian Sea and adjoining equatorial Indian Ocean.**

**(a) The Deep Depression** over Coastal Somalia and neighborhood moved westwards with a speed of 16 kmph during past 06 hours and lay centered at 1130 hrs IST of today, the 07<sup>th</sup> December, 2019 over north Somalia and neighborhood near latitude 7.4°N and longitude 48.9°E. It is very likely to continue to move nearly westwards and weaken into a depression during next 06 hours and into a well marked low pressure area during the subsequent 06 hours.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
07.12.19/1130	7.4/48.9	50-60 gusting to 70	Deep Depression
07.12.19/1730	7.4/48.0	45-55 gusting to 65	Depression
07.12.19/2330	7.4/46.9	25-35 gusting to 45	Well Marked Low

**(b) Low pressure area over southeast Arabian Sea and adjoining equatorial Indian Ocean.**

A low pressure area formed over southeast Arabian Sea and adjoining equatorial Indian Ocean in the early morning (0530 hrs IST) of today, the 7th December, 2019. It persisted over the same region in the morning (0830 hrs IST) of today. It is likely to become more marked during next 24 hours. There is low probability for the system to concentrate into a depression during subsequent 24 hours.

**(i) Rainfall Warning:**

- No significant rainfall likely over the mainland in association with the above system.

**Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%**  
**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

**(ii) Wind warning:**

- **Along & off Somalia coast and adjoining southwest Arabian Sea:** Squally wind, speed reaching 50-60 kmph gusting to 70 kmph, is prevailing around the system centre and 40-50 kmph gusting to 60 kmph along & off Somalia coast and adjoining southwest Arabian Sea. It is very likely to decrease gradually becoming 30-40 Kmph gusting to 50 Kmph by evening of today, the 07<sup>th</sup> December 2019.
- **Southeast Arabian Sea and adjoining equatorial Indian Ocean:** Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph, likely to prevail over southeast Arabian Sea and adjoining equatorial Indian Ocean today, the 07<sup>th</sup> December 2019, increase subsequently, becoming 40-50 kmph gusting to 60 kmph by tomorrow and 45-55 kmph gusting to 65 kmph during the subsequent 24 hours.

**(iii) Sea conditions:**

- **Western parts of Southwest Arabian Sea and along & off Somalia Coast:** Rough to Very Rough Sea conditions are likely to prevail over western parts of Southwest Arabian Sea and along & off Somalia Coast during next 12 hours. It is very likely to improve gradually thereafter.
- **Southeast Arabian Sea and adjoining equatorial Indian Ocean:** Rough to very rough Sea conditions are likely to prevail over southeast Arabian Sea and adjoining equatorial Indian Ocean during next 3 days.

**(iv) Fishermen Warning:**

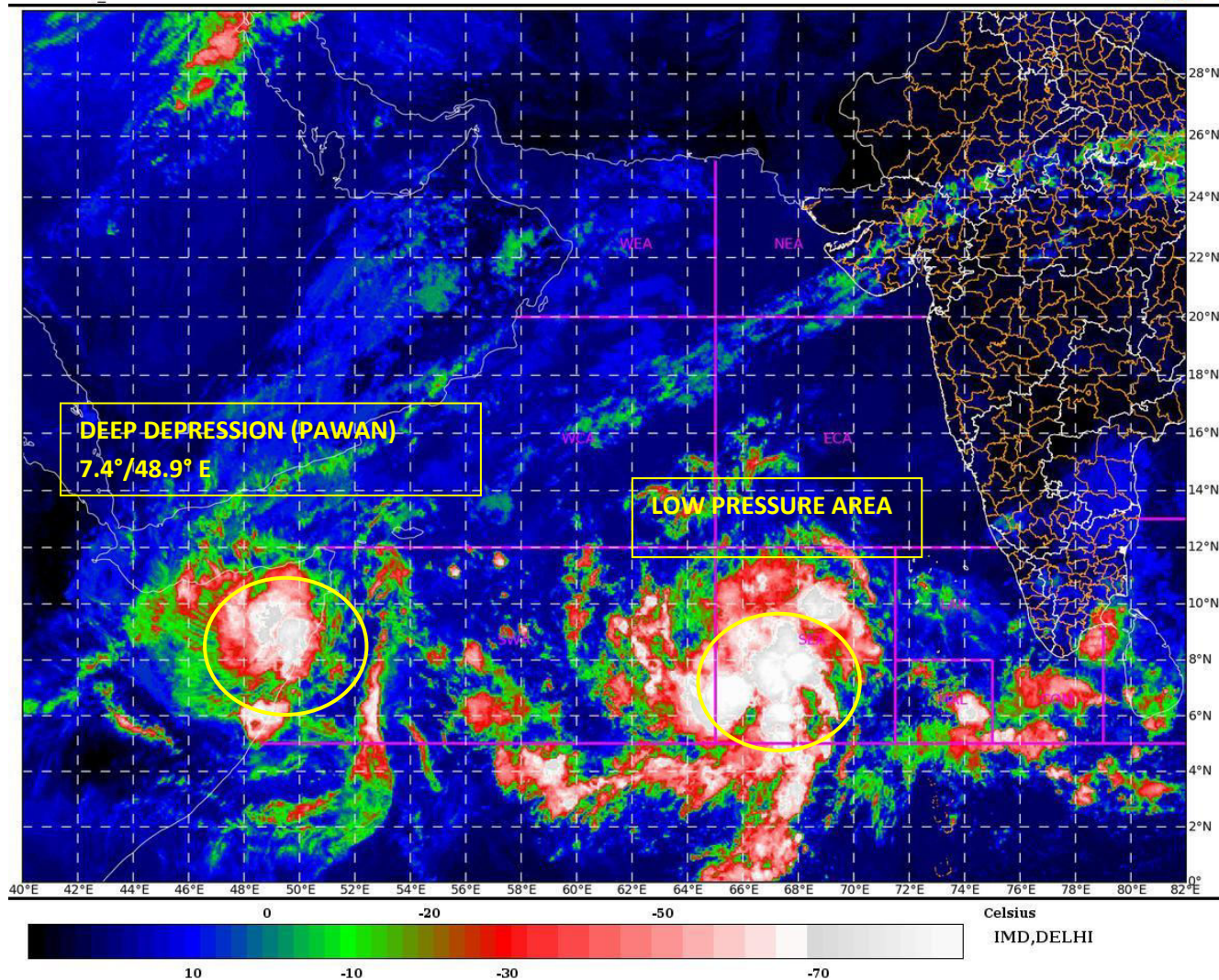
- **Southwest Arabian Sea and along & off Somalia coast:** The fishermen are advised not to venture into western parts of southwest Arabian Sea and along & off Somalia coast during next 12 hours.
- **Southeast Arabian Sea and adjoining equatorial Indian Ocean:** The fishermen are advised not to venture into southeast Arabian Sea and adjoining equatorial Indian Ocean during next 3 days.

*The next bulletin will be issued at 2030 hrs IST of 07<sup>th</sup> December, 2019.*

**(Sunitha Devi S)**  
**Scientist-E, RSMC, New Delhi**

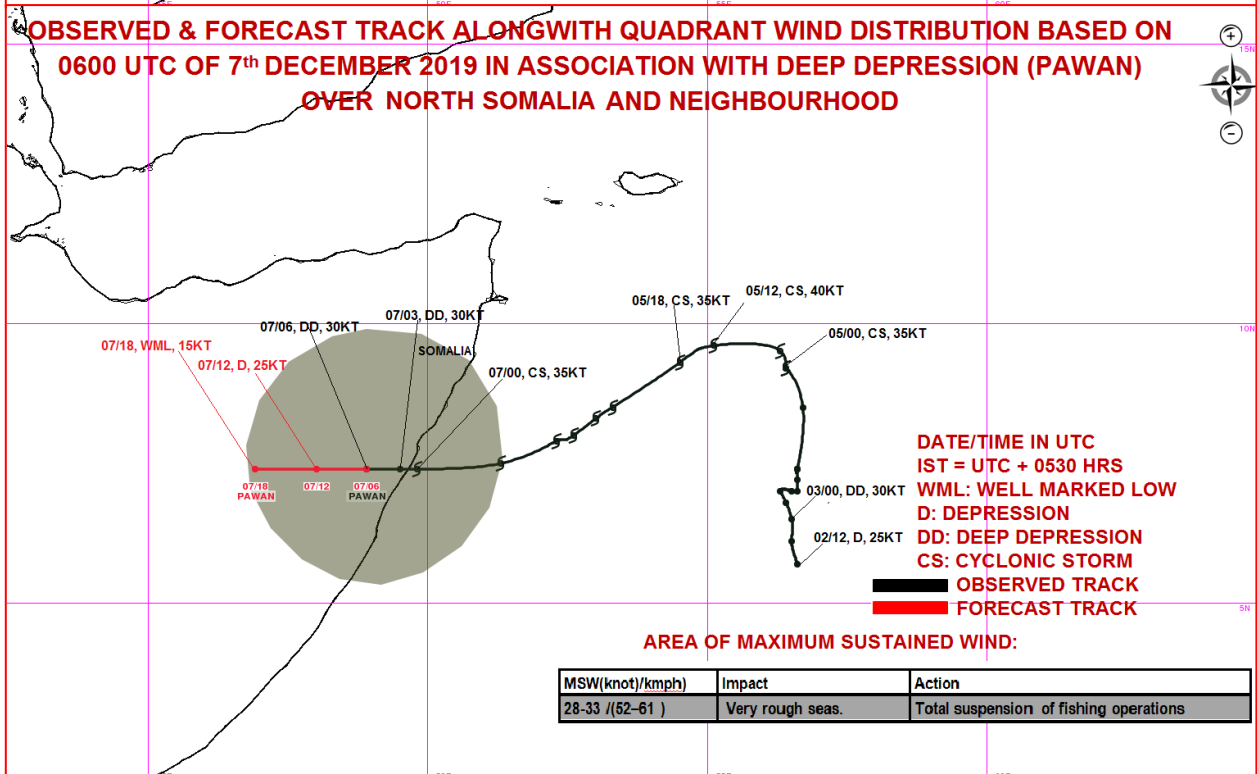
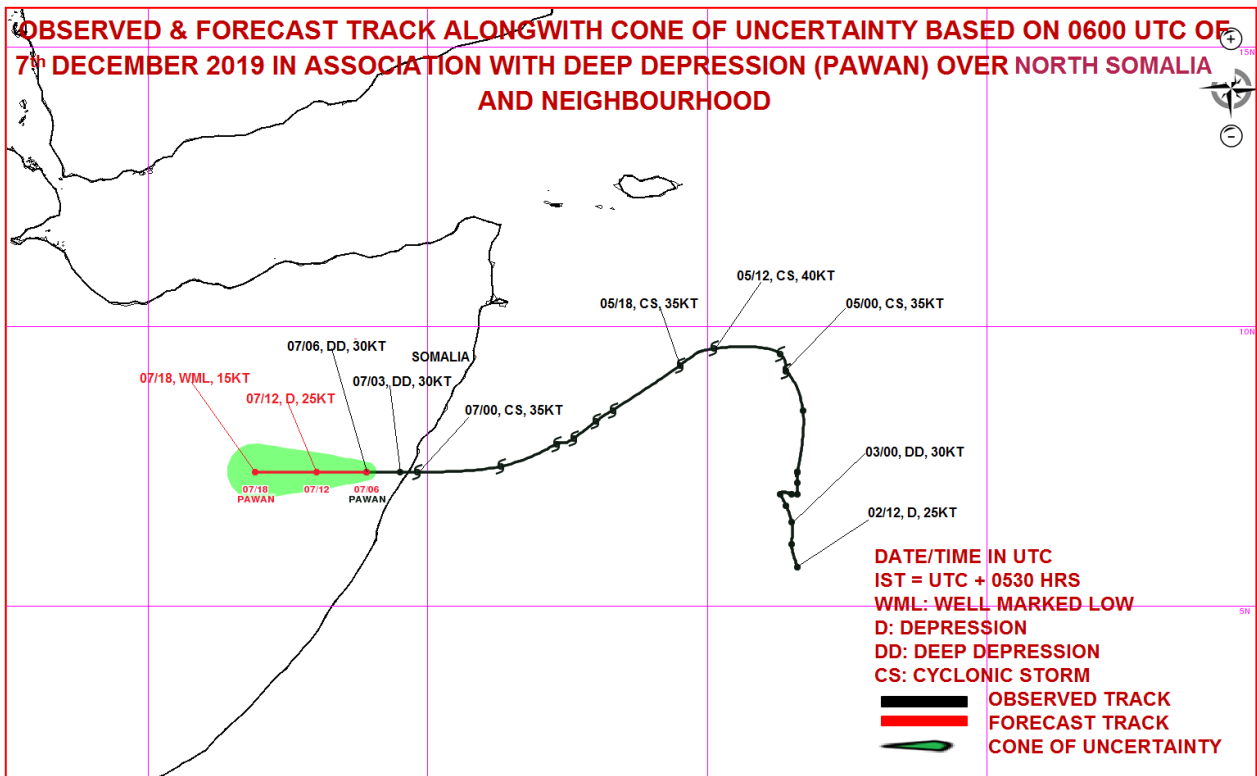
**Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.**





SWA: Southwest Arabian Sea  
SEA: Southeast Arabian Sea

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