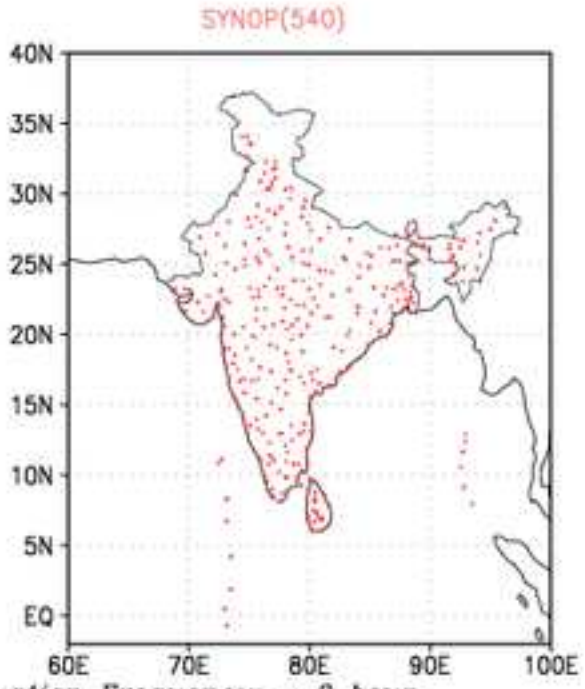
Observation Monitoring

based on data
received/decoded at NCMRWF
(within operational data cut-off)
and NGFS GDAS

for 19042018 (0600 UTC)

Indian Observation Coverage

Data Coverage: Surface (19042018 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 540
(42 & 43 Block)

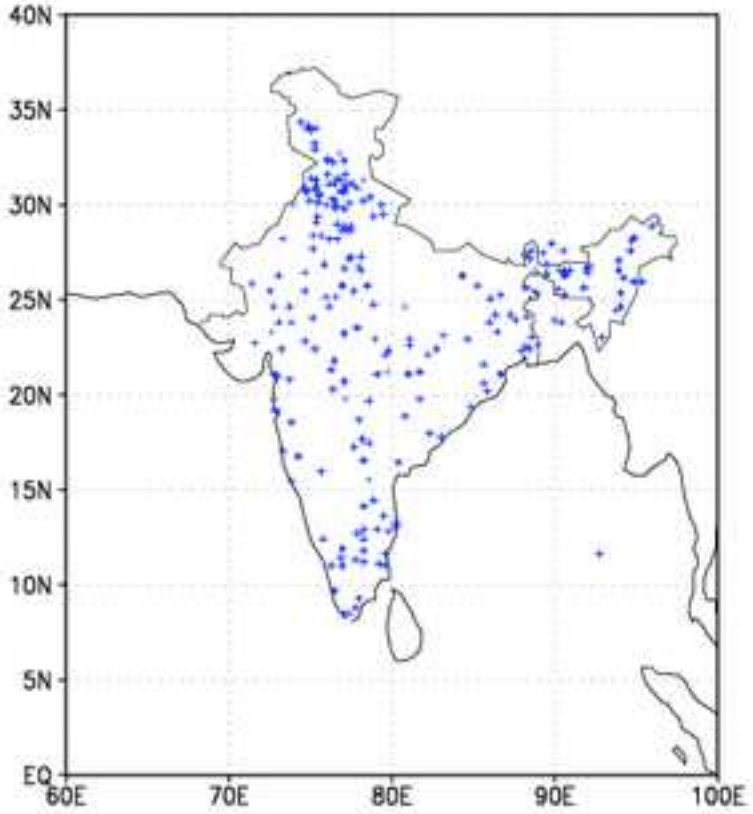


Observation Frequency: ~ 3 hour

Data Coverage: Indian AWS (19042018 0600UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 938

AWS PRESSURE (938)

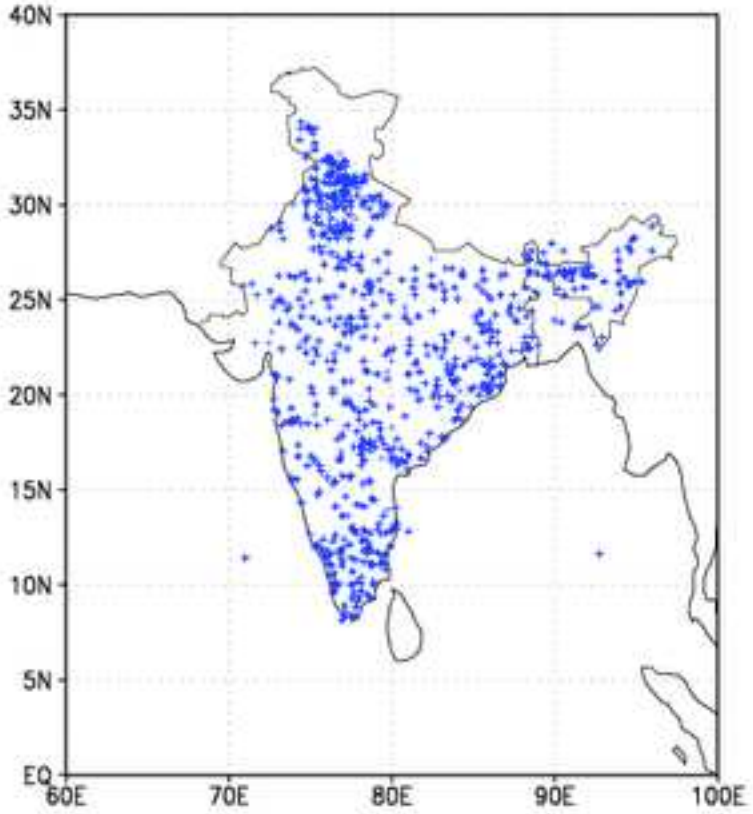


Observation Frequency: ~ 1 hour

Data Coverage: Indian AWS (19042018 0600UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 3140

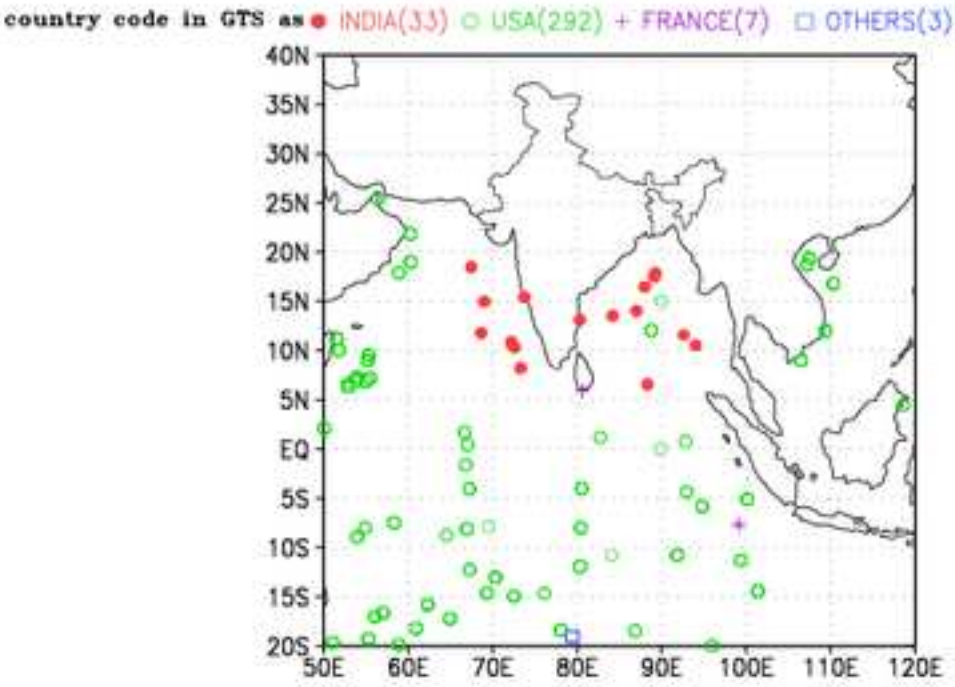
AWS + ARG (3140)



Observation Frequency: ~ 1 hour

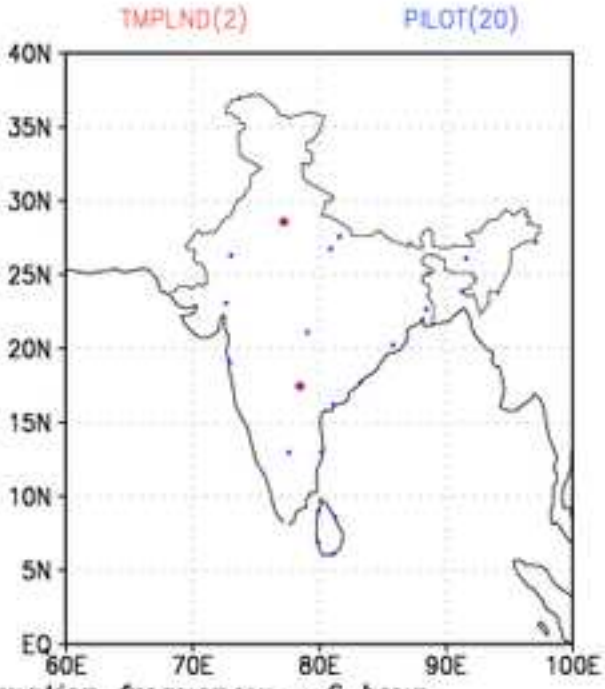
Data Coverage: BUOY (19042018 0600UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 335



Observation Frequency: ~ 1 hour & ~ 3 hour (India)

Data Coverage: Sonde (19042018 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 22
(42 & 43 Block)

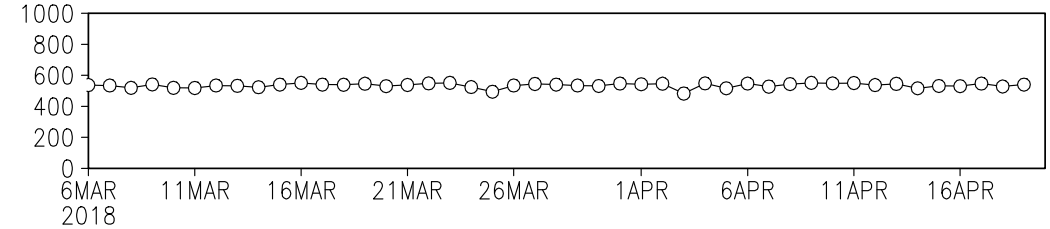


Observation frequency: ~ 6 hour

Count for different types of observation (Over Indian Region) for the last 45 days (valid for 06 UTC)

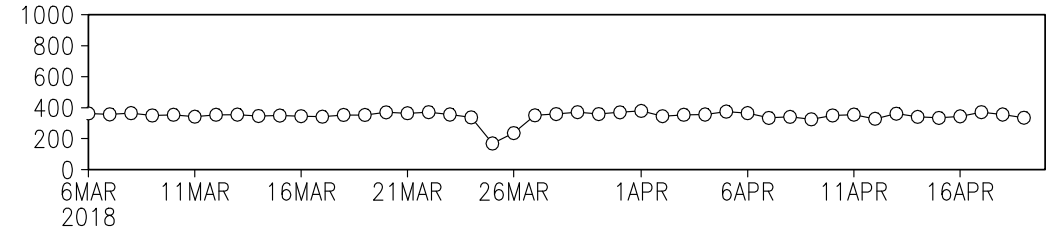
SYNOP

Avg=542
Today_Cnt=540
Dep=−0. %



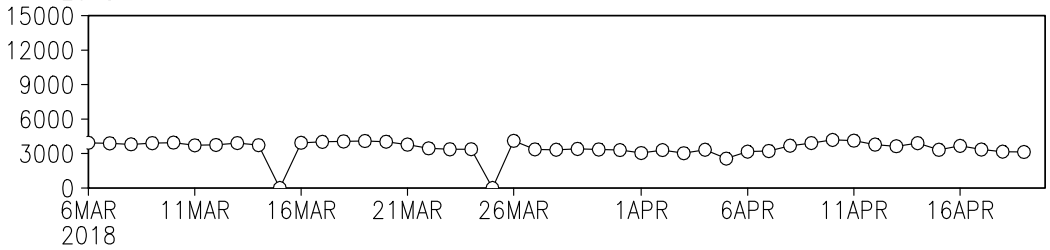
BUOY

Avg=359
Today_Cnt=335
Dep=−7. %



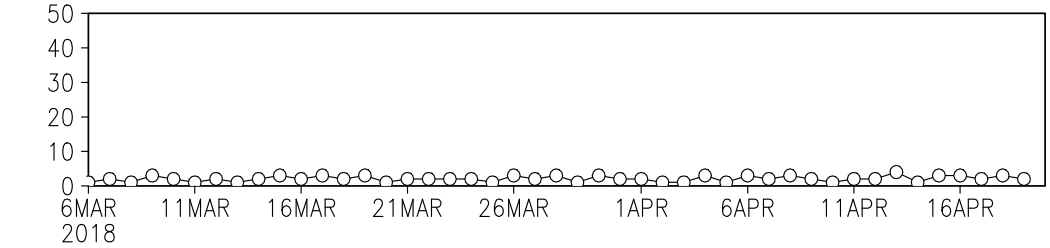
AWS+ARG

Avg=3866
Today_Cnt=3140
Dep=−19. %



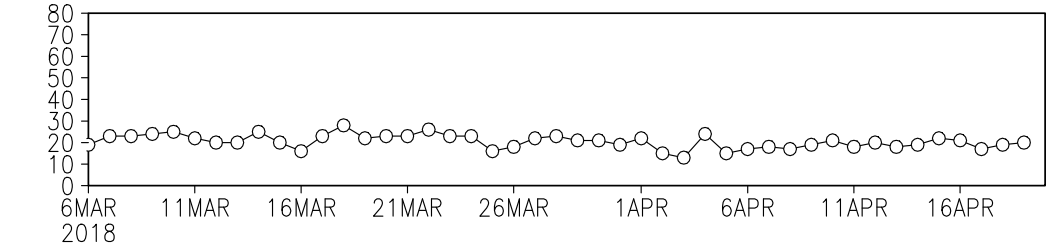
RS/RW

Avg=2
Today_Cnt=2
Dep=0. %



PILOT

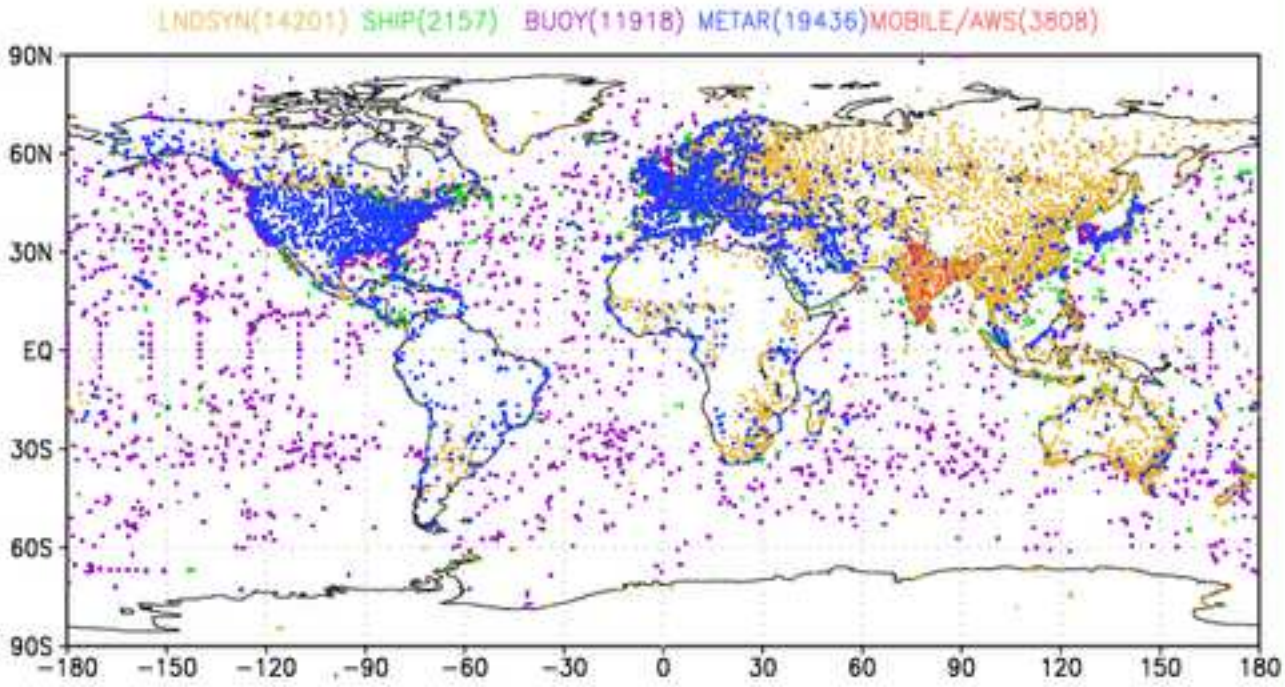
Avg=22
Today_Cnt=20
Dep=−9. %



Global Observation Coverage

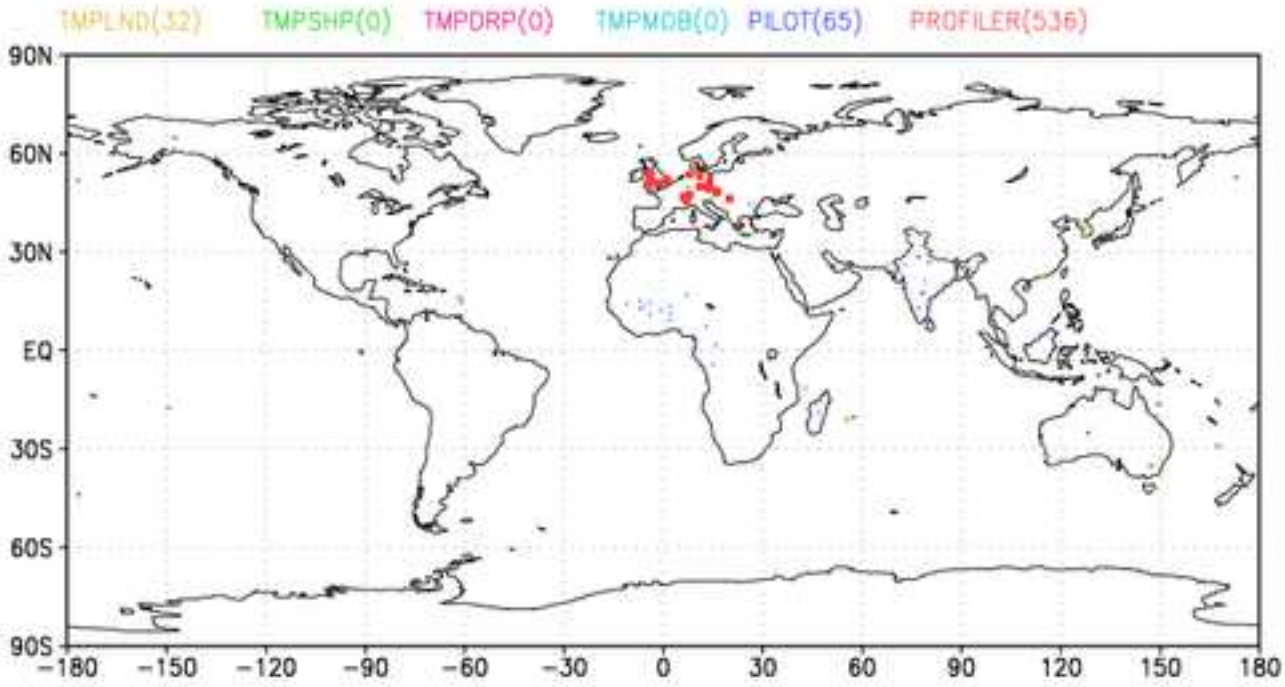
Data Coverage: Surface (19042018 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 51520



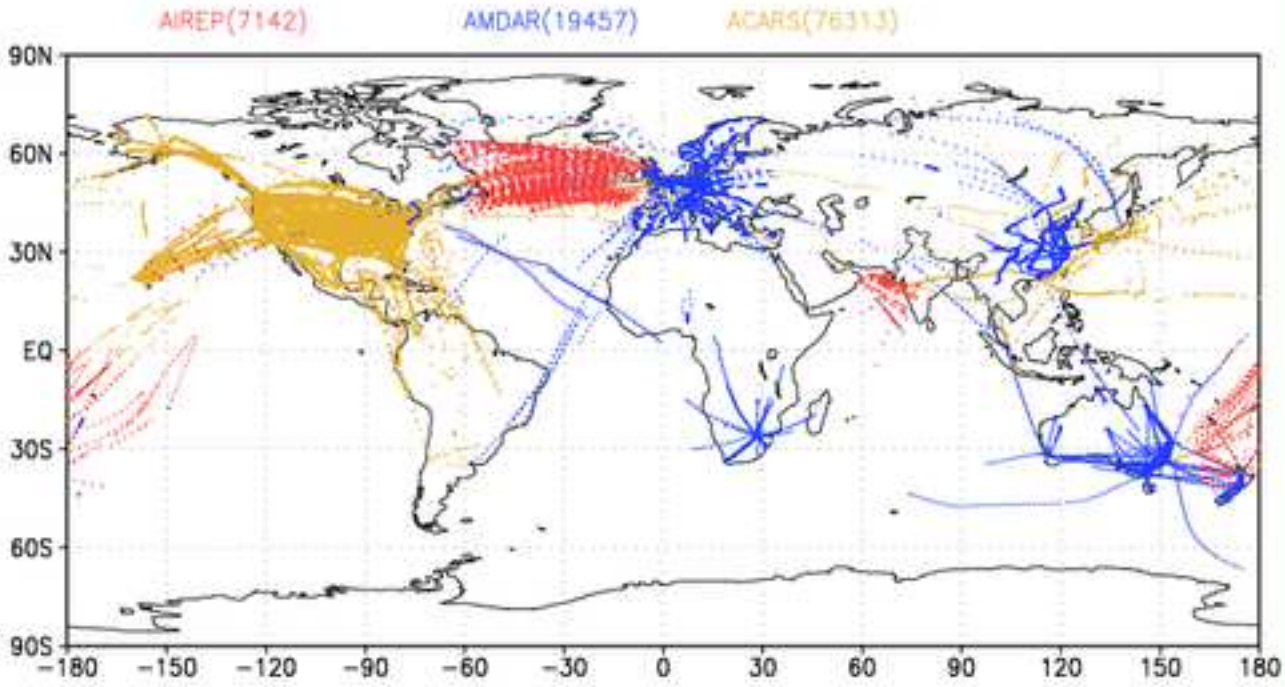
Data Coverage: Sonde (19042018 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 633

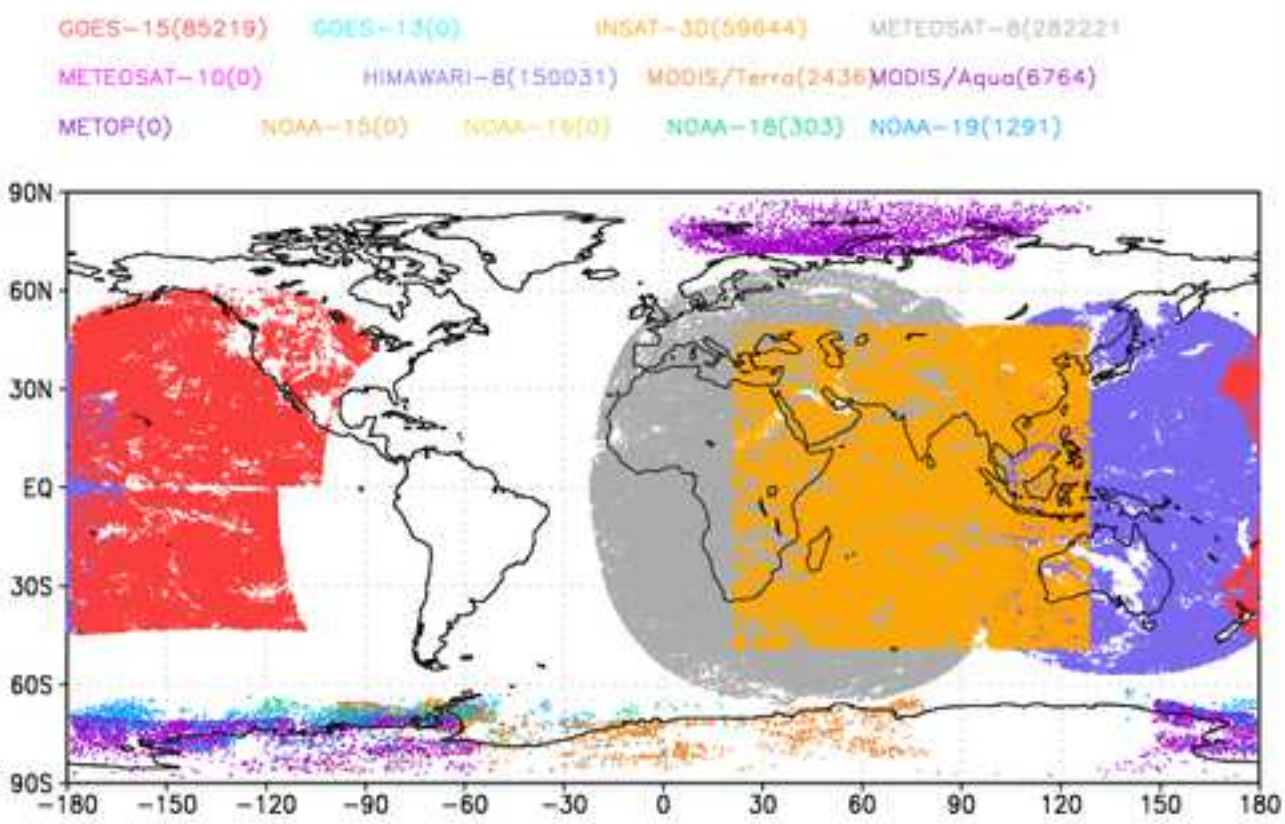


Data Coverage: AIRCFT (19042018 0600UTC +/- 03Hrs)

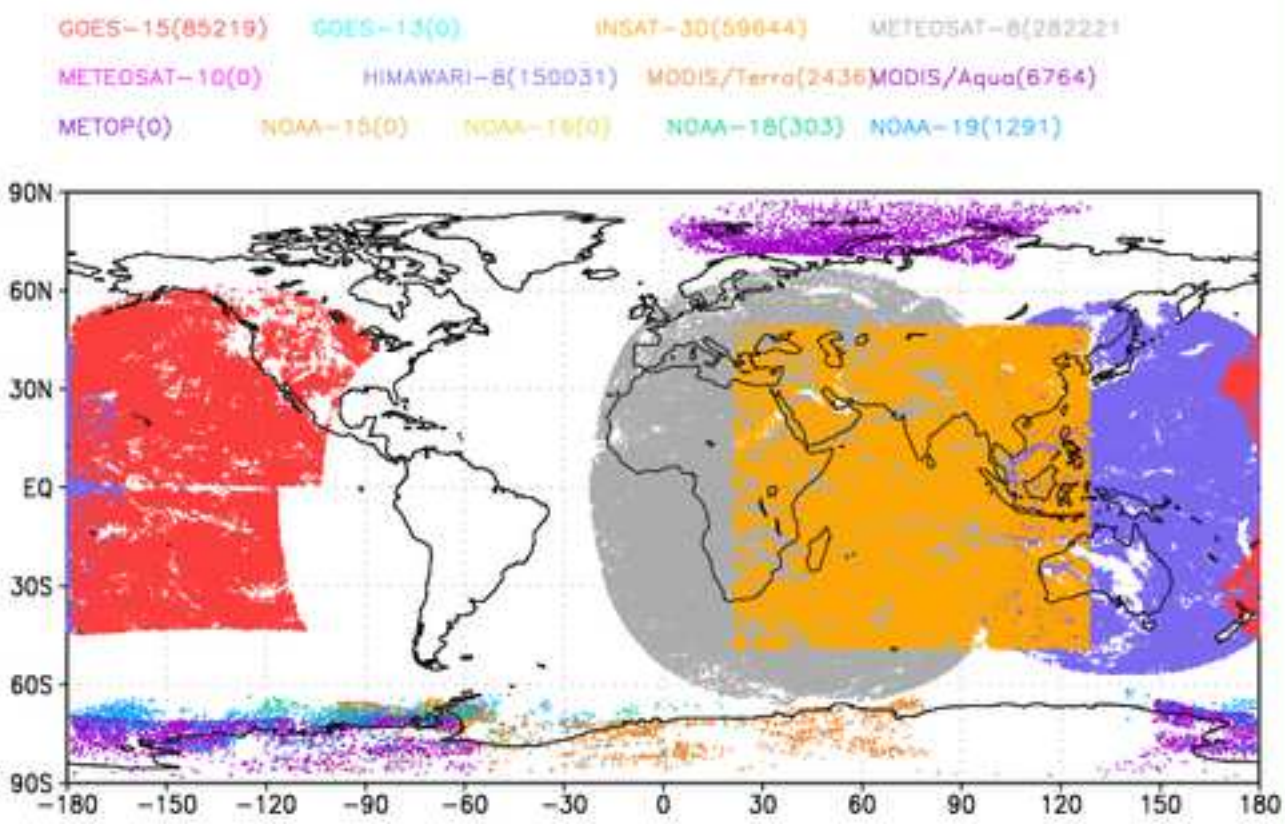
Total Number of Observations Received at NCMRWF: 102912

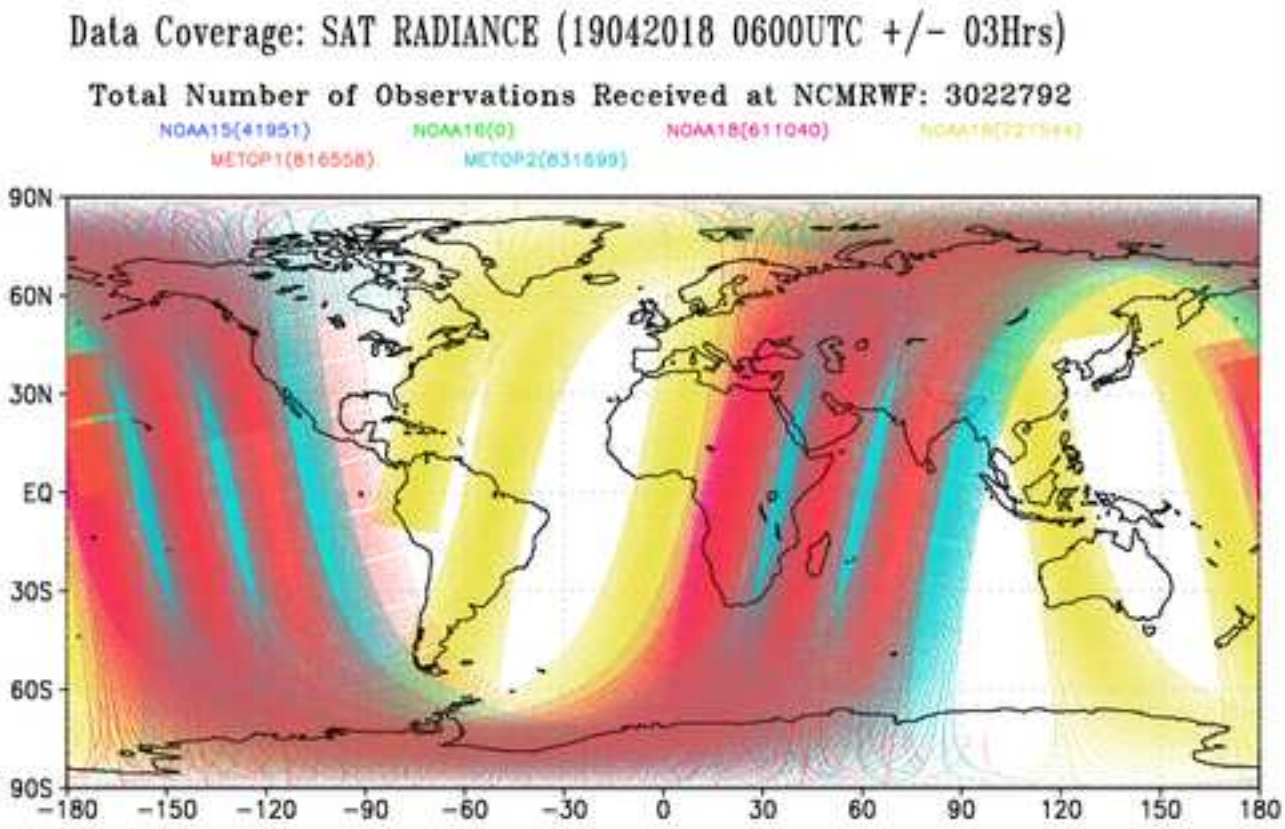


Data Coverage: AMV (19042018 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 589639



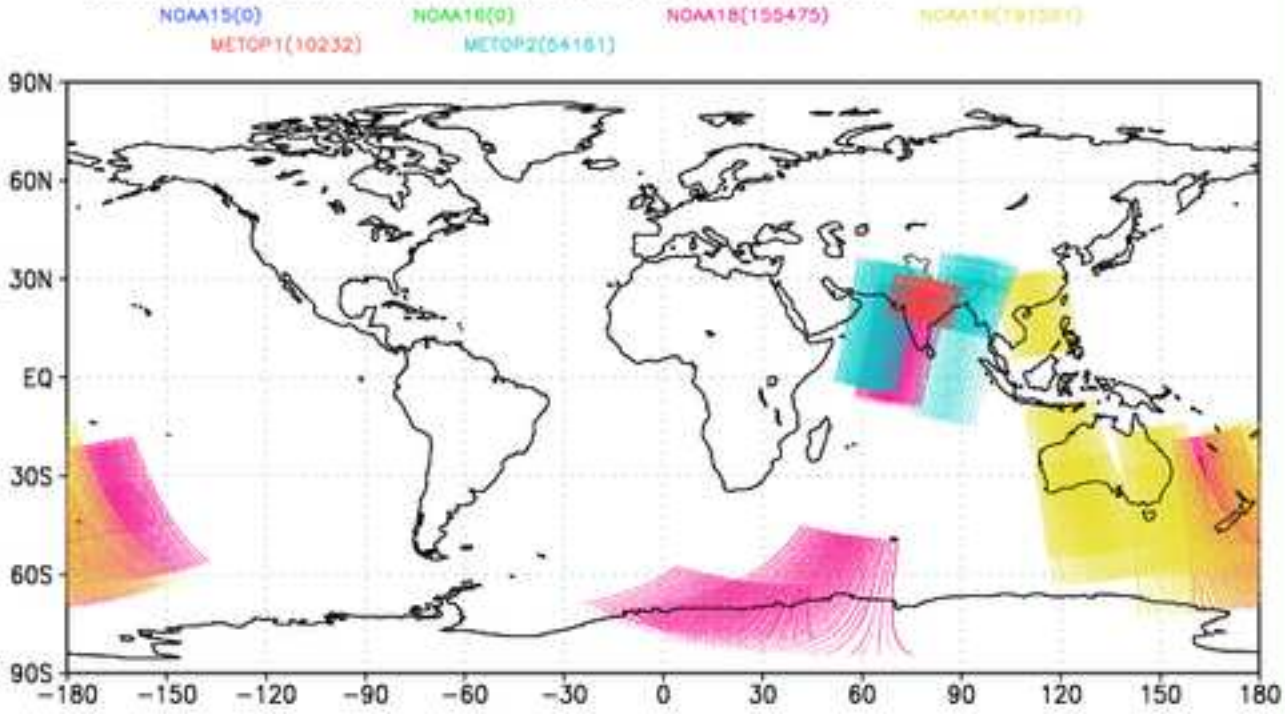
Data Coverage: AMV (19042018 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 589639




Data Coverage: SAT RADIANCE (19042018 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 3022792
NOAA15(41951)
NOAA16(0)
NOAA18(611040)
METOP1(816558)
METOP2(831699)
90N
60N
30N
EQ
30S
60S
90S
-180
-150
-120
-90
-60
-30
0
30
60
90
120
150
180

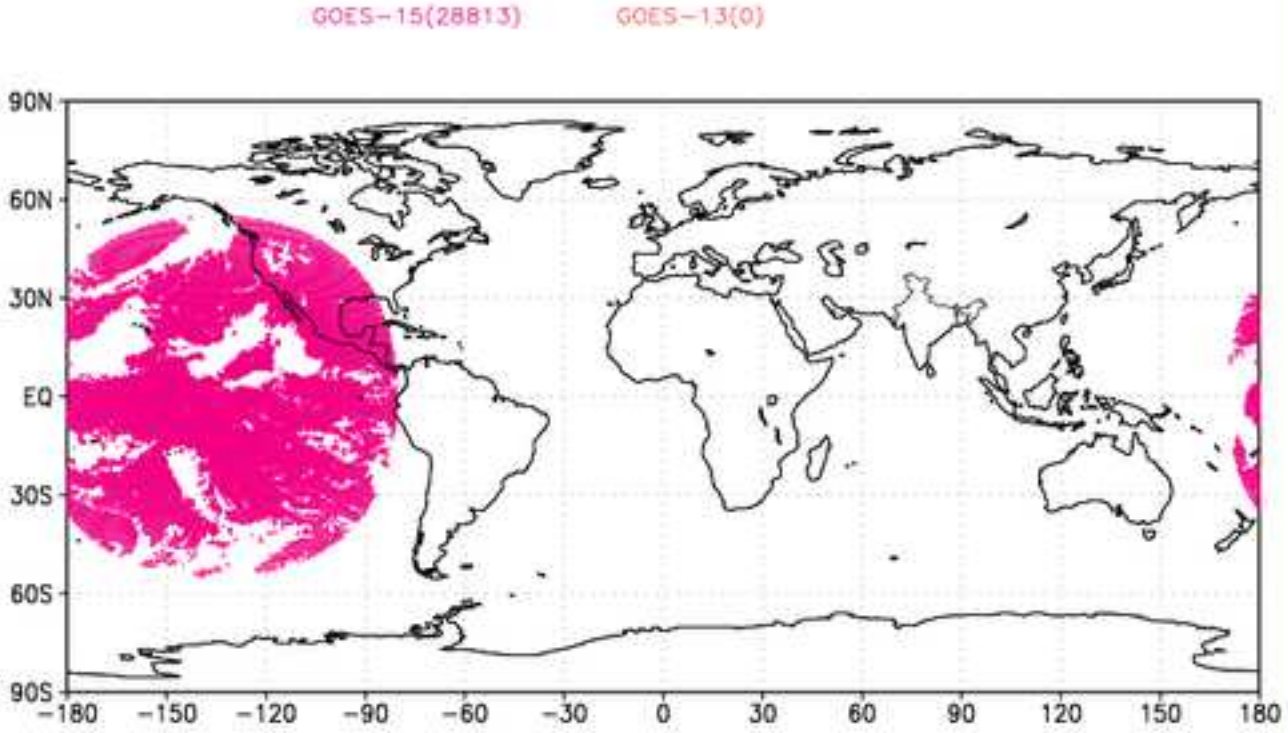
Data Coverage: SAT RADIANCE (EARS+IMD RARS) (19042018 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 411369



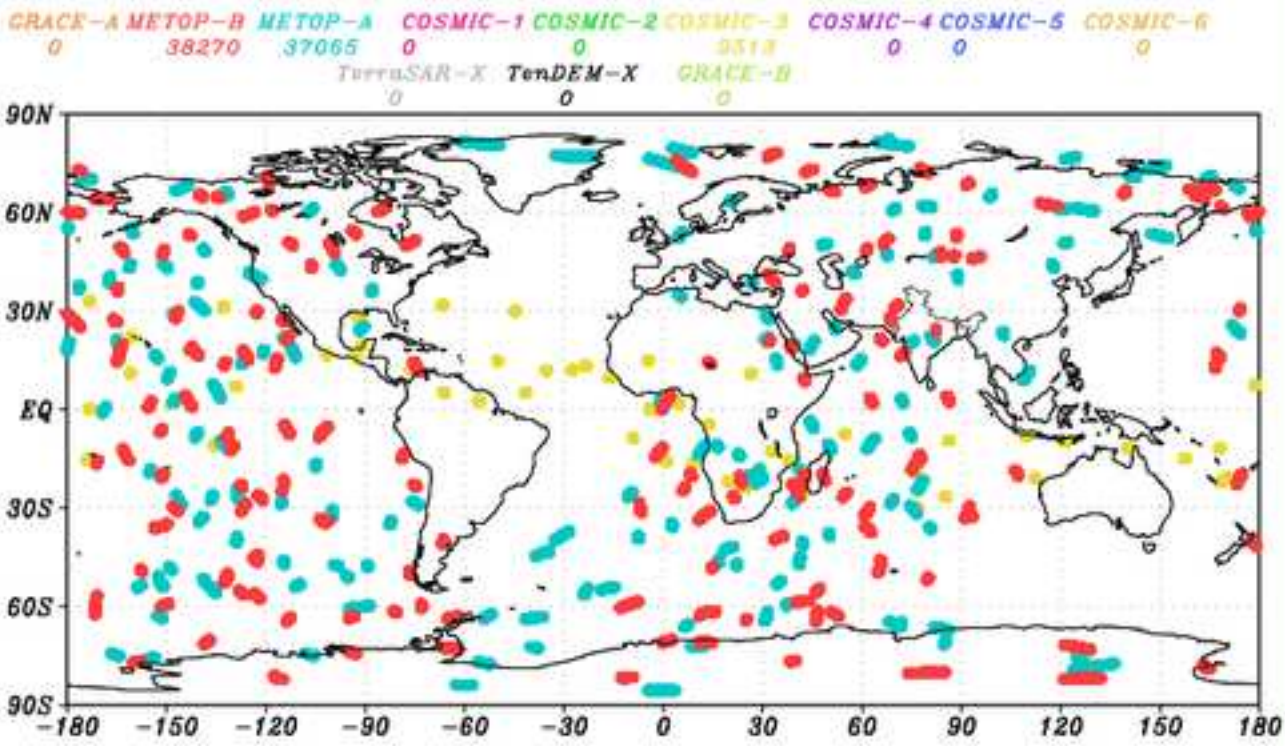
Data Coverage: GOES CSBT (19042018 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 28813



Data Coverage:GPSRO (19042018 0600UTC +/-03Hrs)

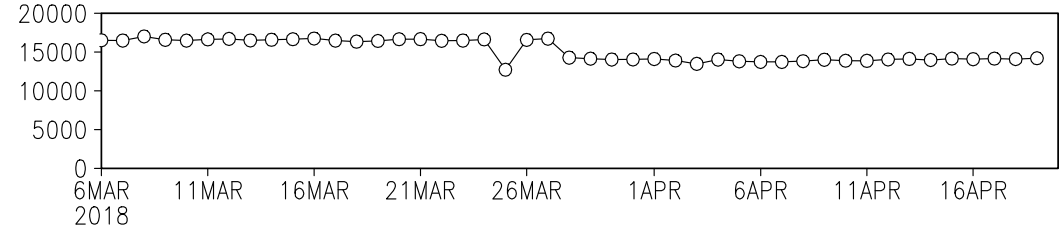
Total Number of Observations Received at NCMRWF: 84848



Count for different types of observation (Global) for the last 45 Days (valid for 06 UTC)

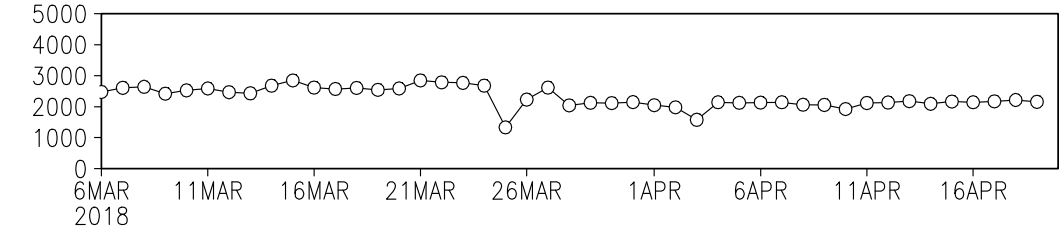
SYNOP

Avg=16587
Today_Cnt=14201
Dep=−14. %



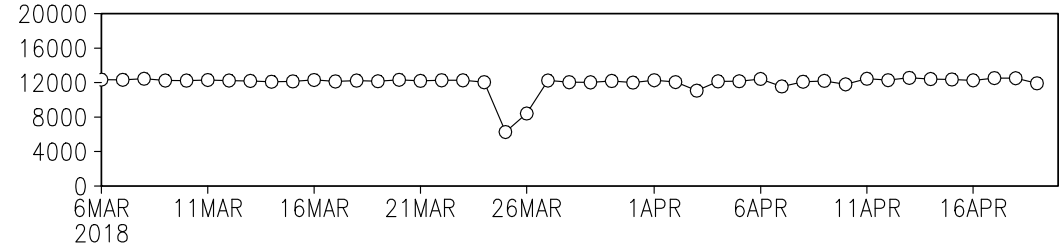
SHIP

Avg=2607
Today_Cnt=2157
Dep=−17. %



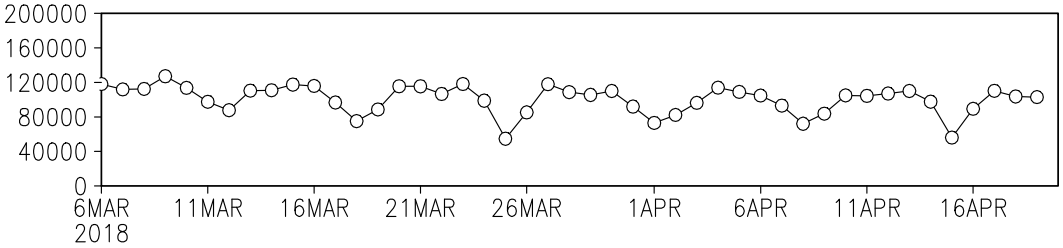
BUOY

Avg=12245
Today_Cnt=11918
Dep=−3. %



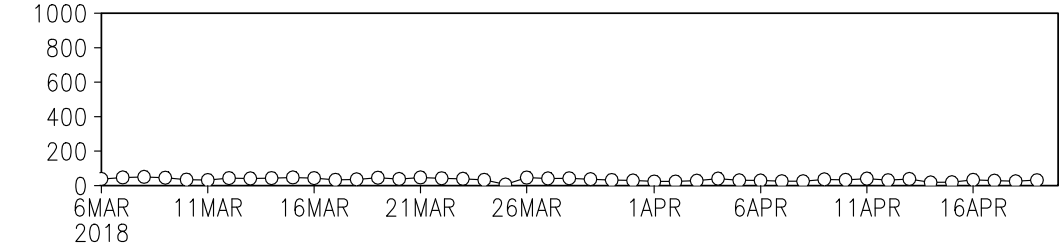
AIRCRAFT

Avg=114026
Today_Cnt=102912
Dep=−10. %



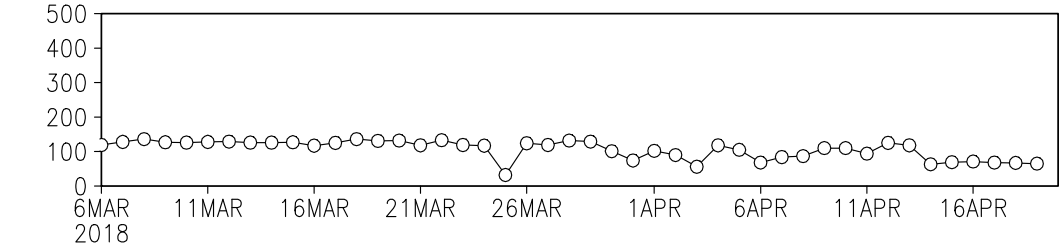
RS/RW

Avg=43
Today_Cnt=32
Dep=−26. %



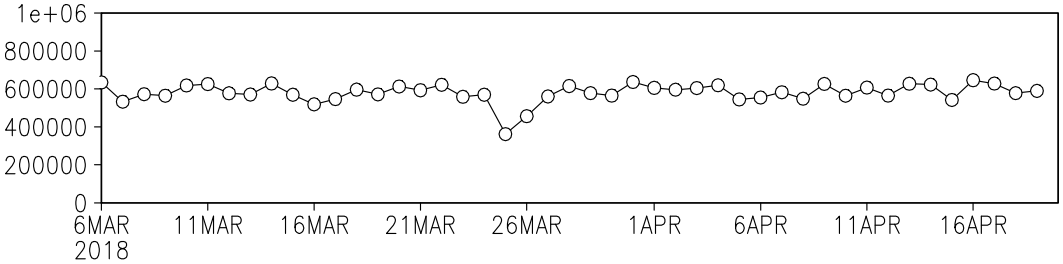
PILOT

Avg=124
Today_Cnt=65
Dep=−48. %



AMV

Avg=617713
Today_Cnt=589639
Dep=−5. %



SCATTEROMETER WIND VECTORS

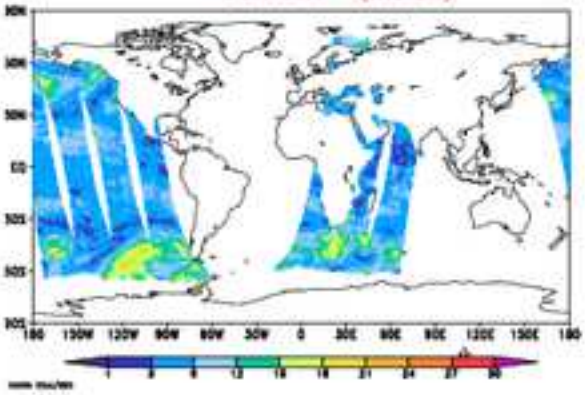
RECEIVED AT NCMRWF (20180419 06Z)

SCATTEROMETER SURFACE WINDS (19042018 0600UTC +/- 03Hrs)

ASCAT:Metop-A

ASCAT:Metop-B

SCATSAT-1(Indian)

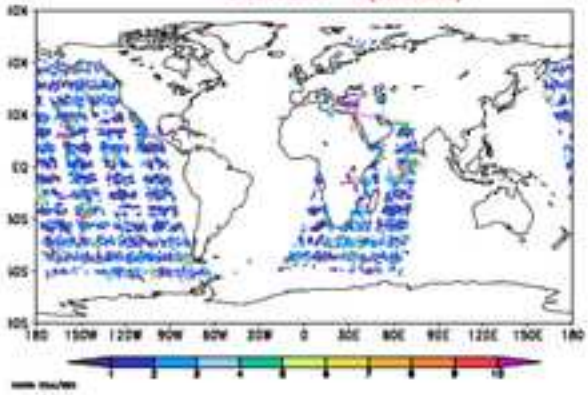


OBSERVATION–FIRST GUESS (19042018 06 UTC):NCMRWF

ASCAT:Metop–A

ASCAT:Metop–B

SCATSAT–1(Indian)



INSAT-3D

ATMOSPHERIC MOTION VECTORS (AMV)

{ INFRA-RED WINDS [IR (10.8 & 3.8)]

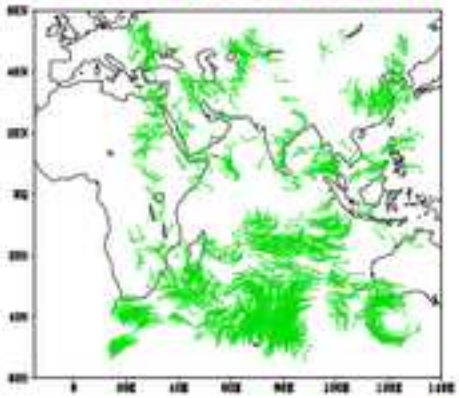
WATER VAPOUR WINDS (WV)

VISIBLE WINDS (VIS) }

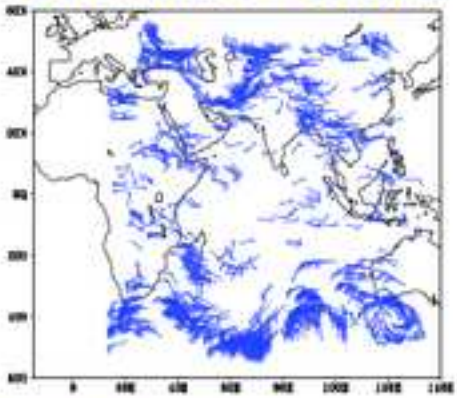
AMV DEVIATION
(OBSERVATION - FIRST GUESS)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) (19042018 0600UTC)

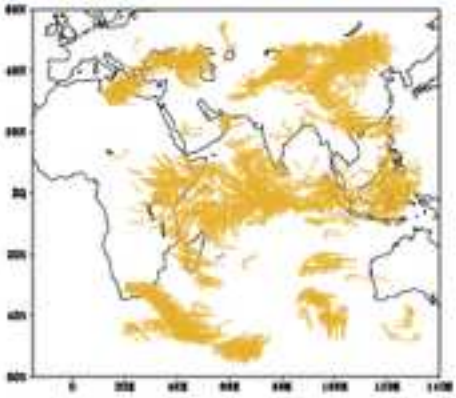
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)



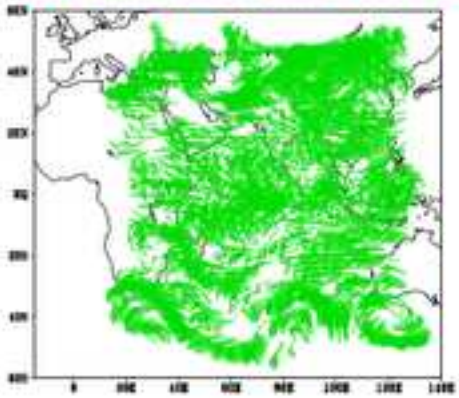
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (19042018 0600UTC)

Low Level (Below 700 hPa)

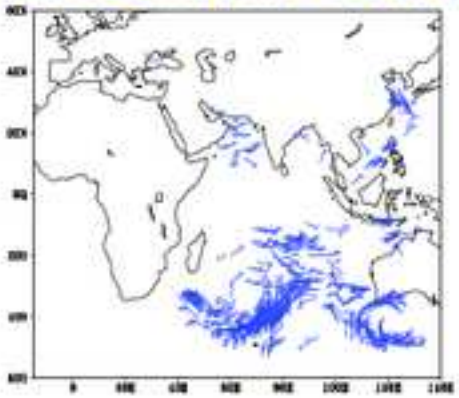
Mid Level (700 - 401 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (19042018 0600UTC)

WV, High Level (Above 400 hPa)

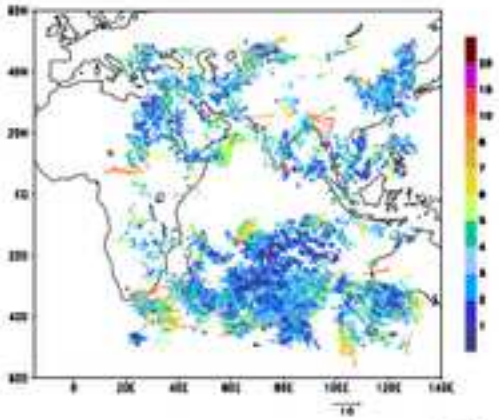


VIS, Low Level (Below 700 hPa)

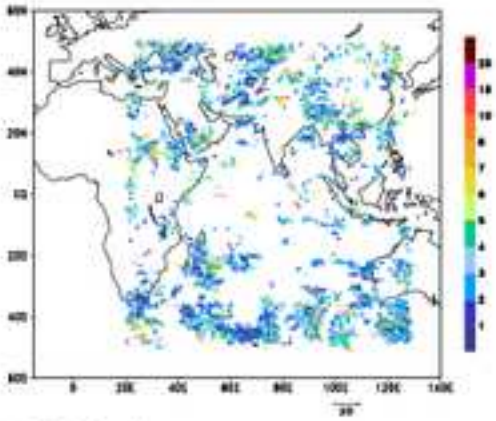


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (19042018 0600UTC)

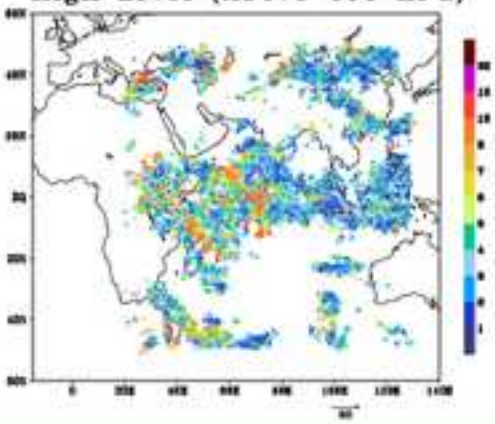
Low Level (Below 700 hPa)



Mid Level (700 – 401 hPa)



High Level (Above 400 hPa)



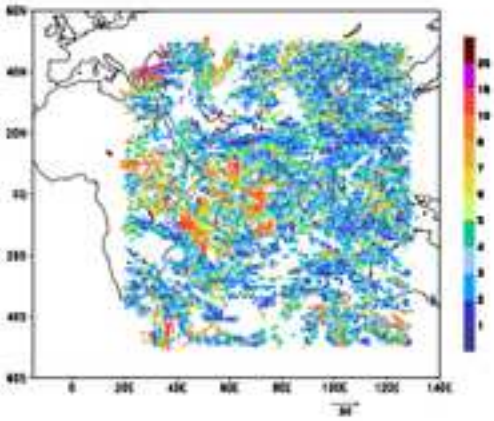
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) DEVIATION (19042018 0600UTC)

Low Level (Below 700 hPa)

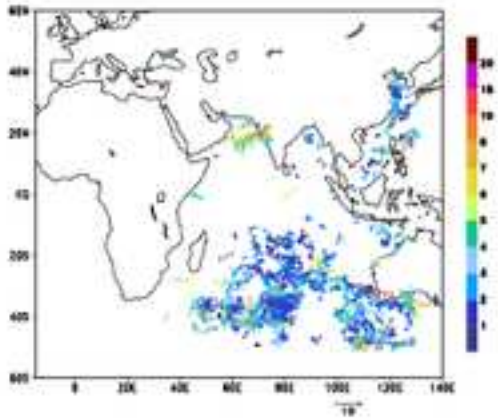
Mid Level (700 - 401 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 0600UTC)

WV, High Level (Above 400 hPa)

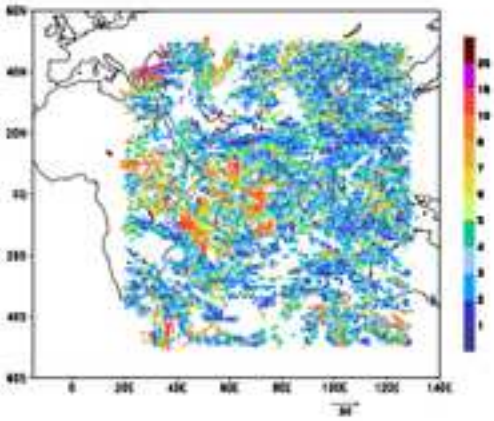


VIS, Low level (Below 700 hPa)

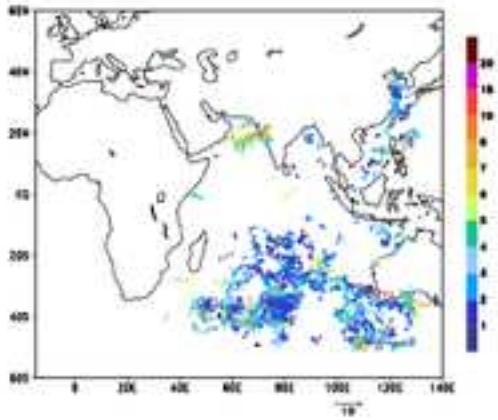


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 0600UTC)

WV, High Level (Above 400 hPa)

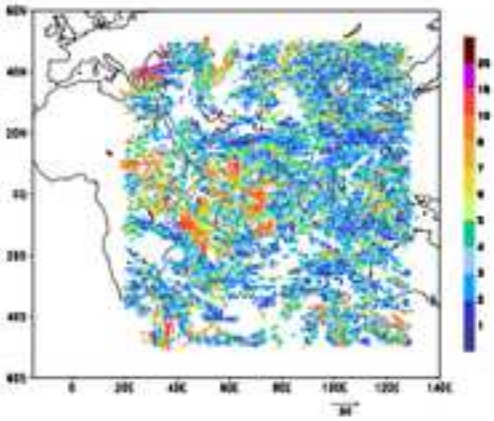


VIS, Low level (Below 700 hPa)

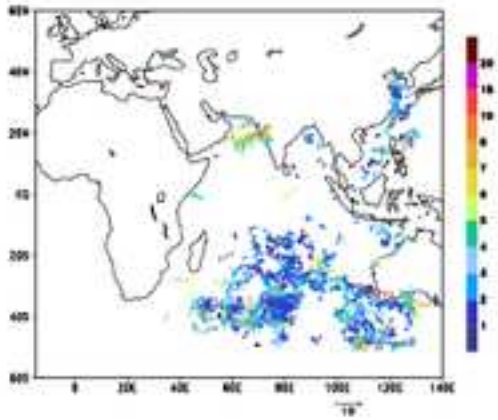


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 0600UTC)

WV, High Level (Above 400 hPa)

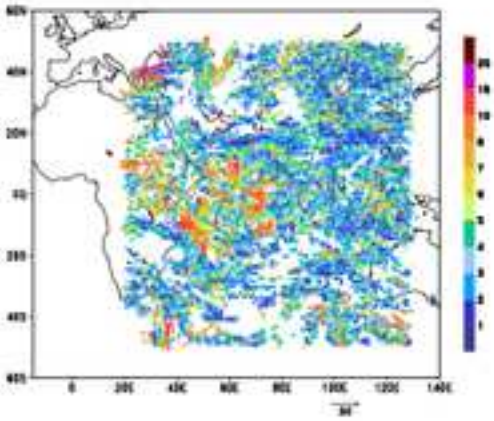


VIS, Low level (Below 700 hPa)

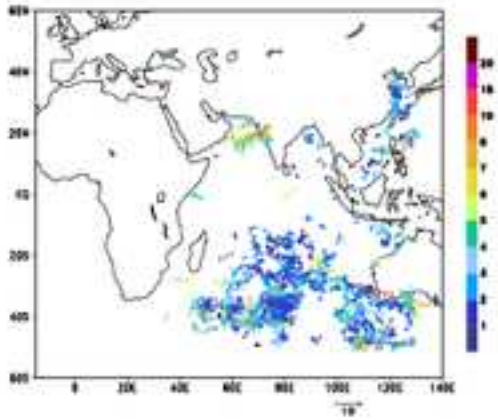


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 0600UTC)

WV, High Level (Above 400 hPa)

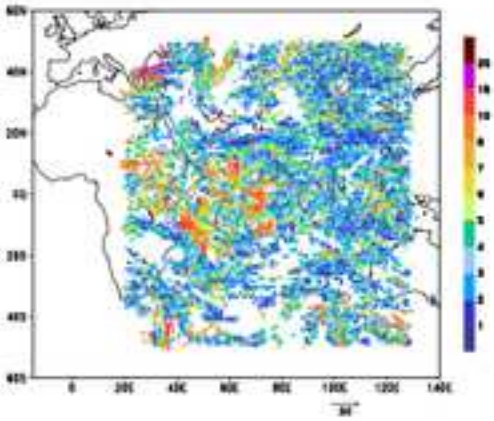


VIS, Low level (Below 700 hPa)

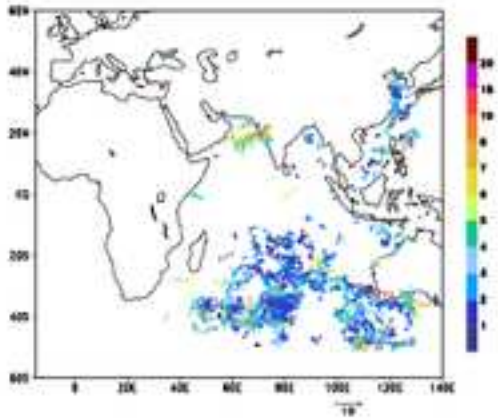


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 0600UTC)

WV, High Level (Above 400 hPa)

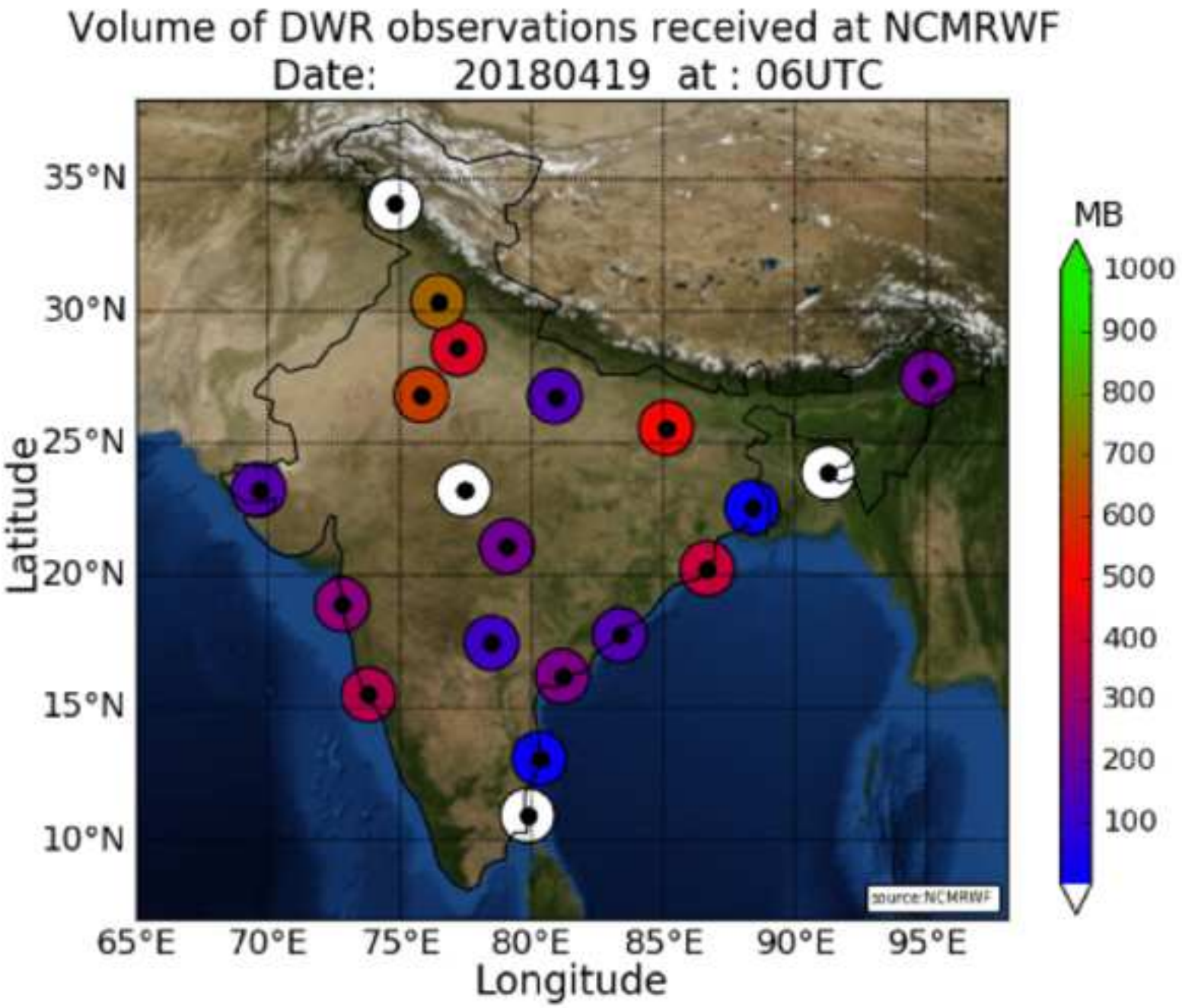


VIS, Low level (Below 700 hPa)



Indian Doppler Weather Radar

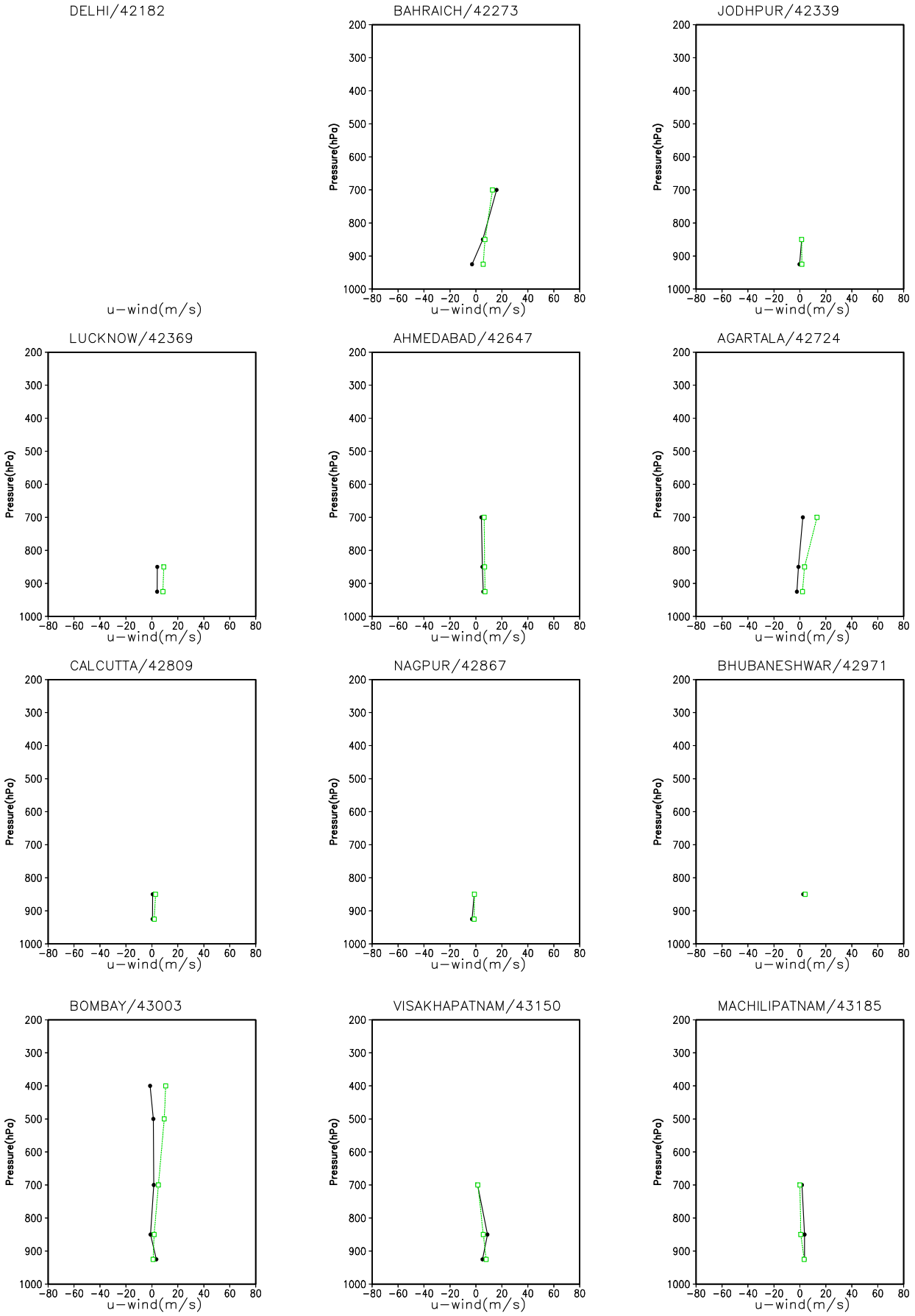
Data Monitoring


Volume of DWR observations received at NCMRWF
Date: 20180419 at : 06UTC
35°N
30°N
25°N
20°N
15°N
10°N
Latitude
65°E
70°E
75°E
80°E
85°E
90°E
95°E
Longitude
source:NCMRWF
MB
1000
900
800
700
600
500
400
300
200
100

Quality of Indian PIBAL Observations

Maximum height reported by PIBAL ascents

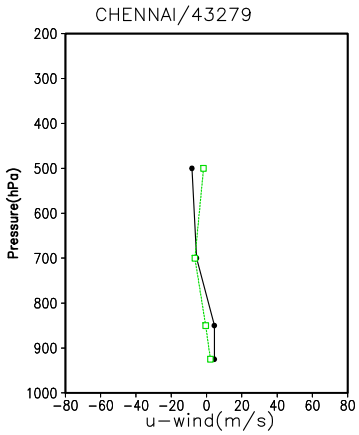
Zonal Wind Rejections by NGFS GDAS

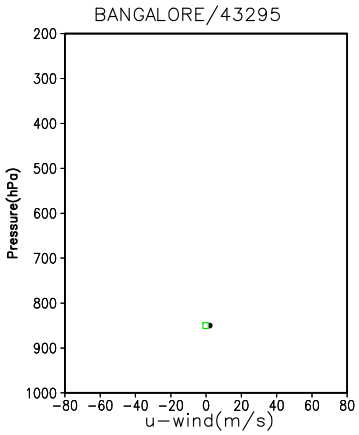


Observed (——) and 1st−guess (——) Zonal wind (m/s) for 06UTC 19042018

× −− denotes the rejection of observation by NGFS GDAS

(plotted for standard pressure levels only)





Observed (——) and 1st−guess (——) Zonal wind (m/s) for 06UTC 19042018

× −− denotes the rejection of observation by NGFS GDAS

(plotted for standard pressure levels only)