

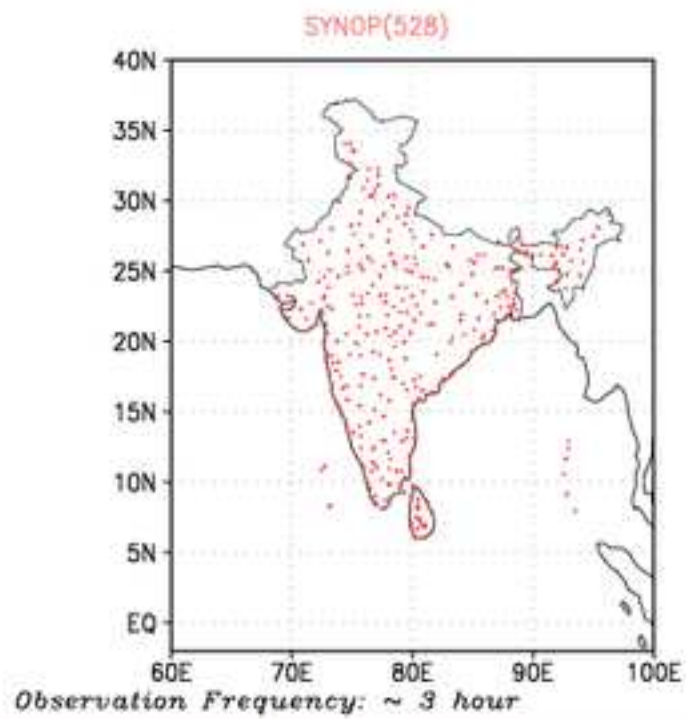
Observation Monitoring

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

for 12122017 (0600 UTC)

Indian Observation Coverage

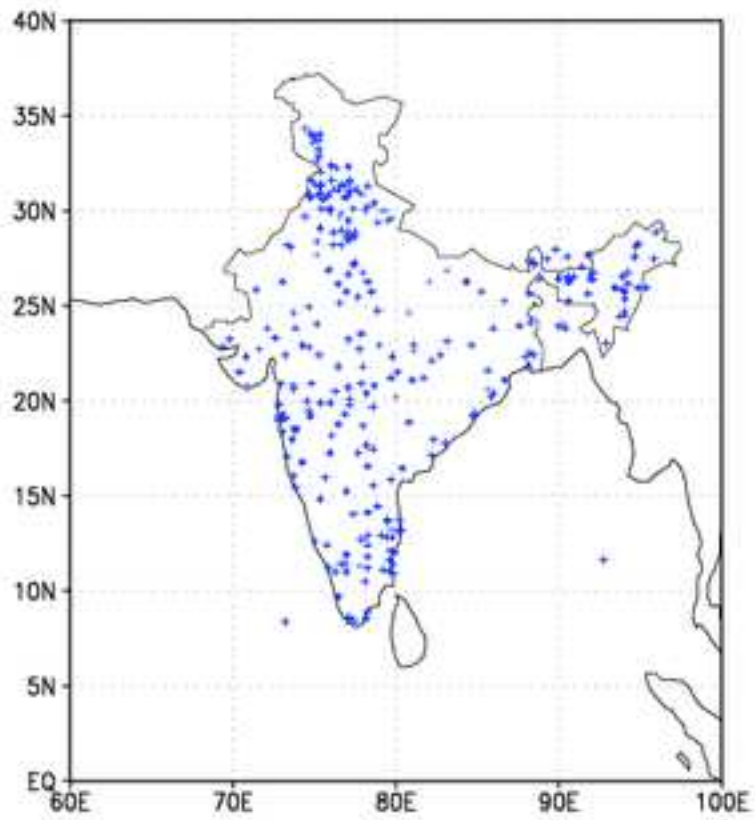
Data Coverage: Surface (12122017 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 528
(42 & 43 Block)



Data Coverage: Indian AWS (12122017 0600UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 1342

AWS PRESSURE (1342)

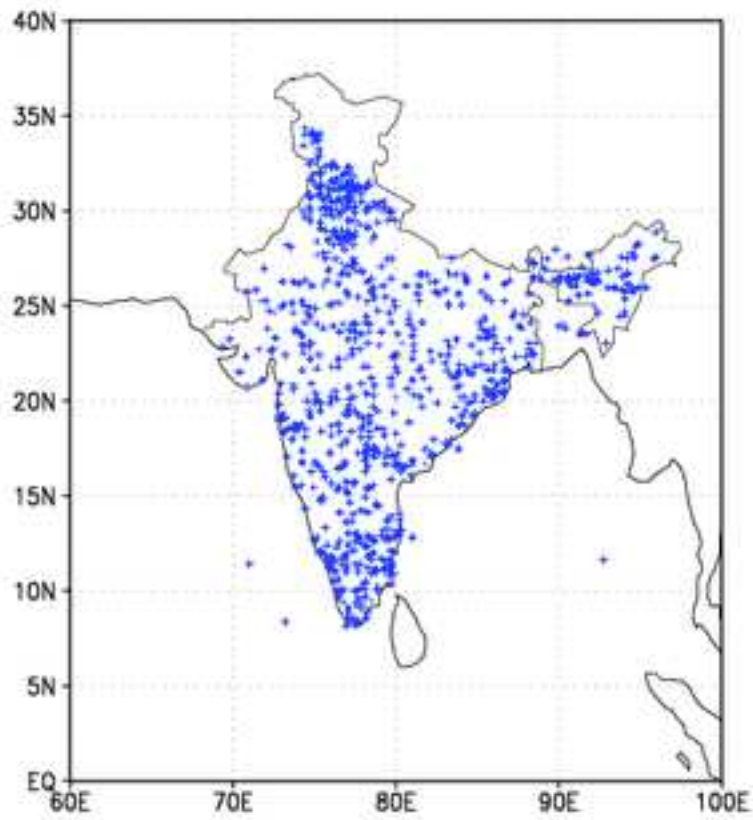


Observation Frequency: ~ 1 hour

Data Coverage: Indian AWS (12122017 0600UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 4181

AWS + ARG (4181)

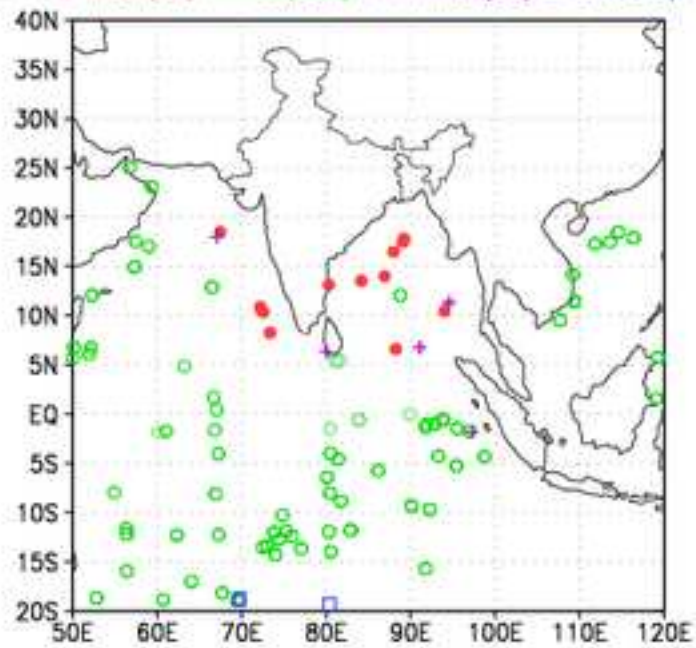


Observation Frequency: ~ 1 hour

Data Coverage: BUOY (12122017 0600UTC +/- 3 Hrs)

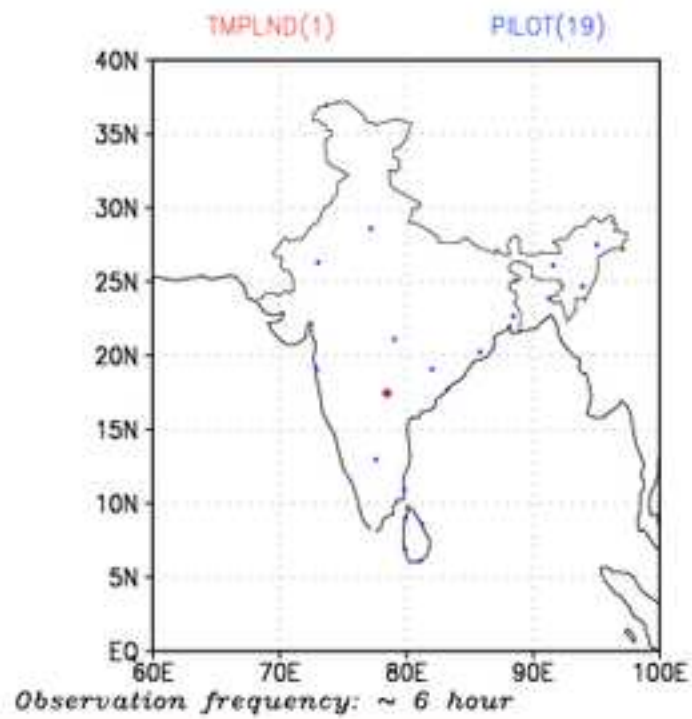
Total Number of Observations Received at NCMRWF: 452

country code in GTS as ● INDIA(25) ○ USA(383) + FRANCE(33) □ OTHERS(11)



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

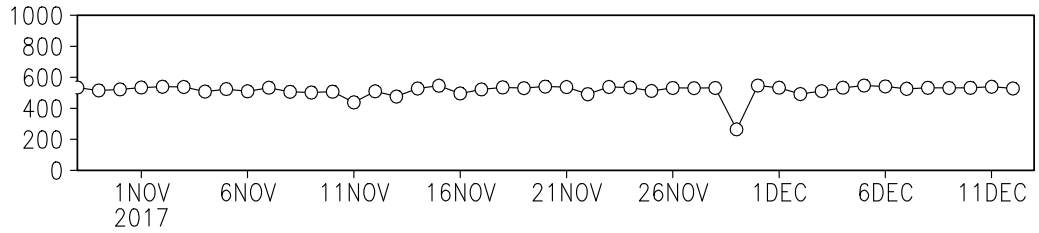
Data Coverage: Sonde (12122017 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 20
(42 & 43 Block)



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

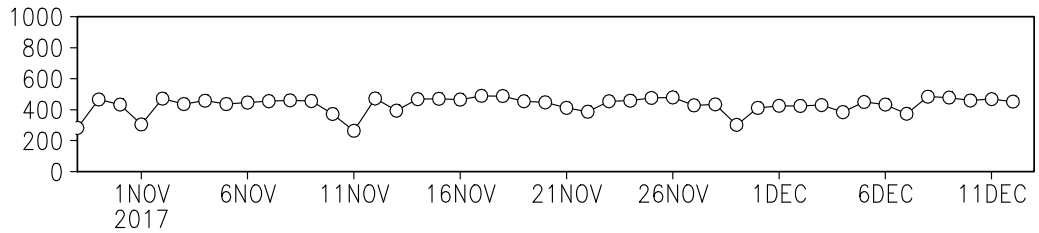
SYNOP

Avg=534
Today_Cnt=528
Dep=-1. %



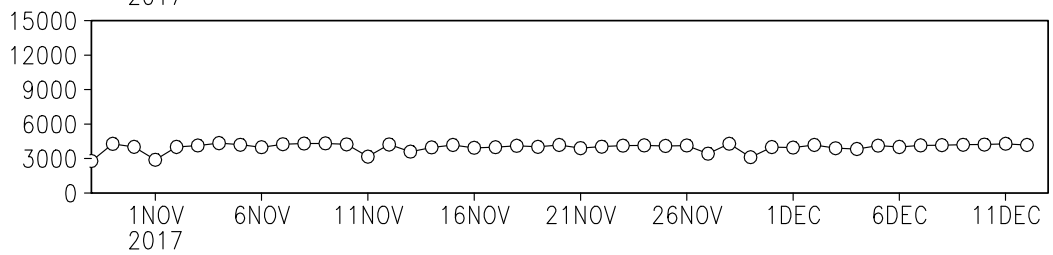
BUOY

Avg=458
Today_Cnt=452
Dep=-1. %



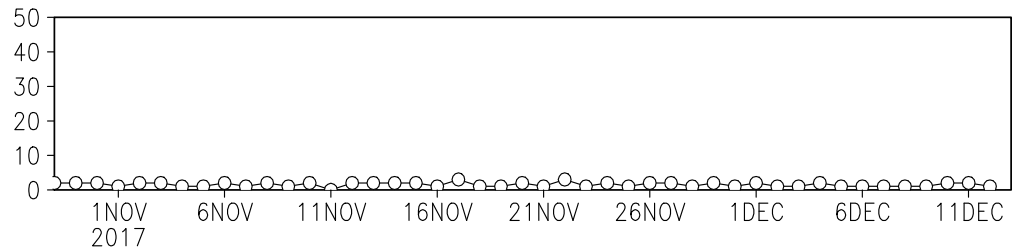
AWS+ARG

Avg=4148
Today_Cnt=4181
Dep=1. %



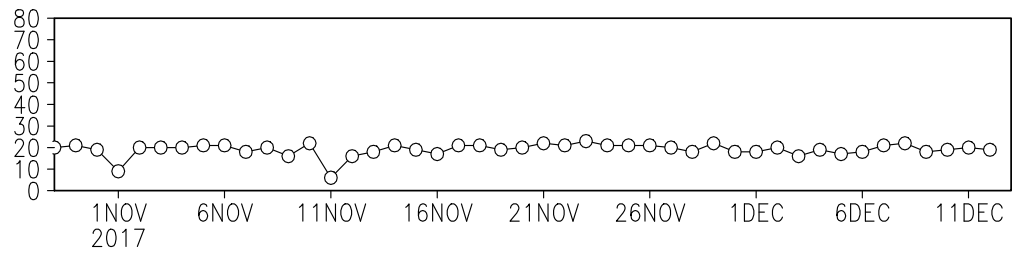
RS/RW

Avg=1
Today_Cnt=1
Dep=0. %



PILOT

Avg=20
Today_Cnt=19
Dep=-5. %

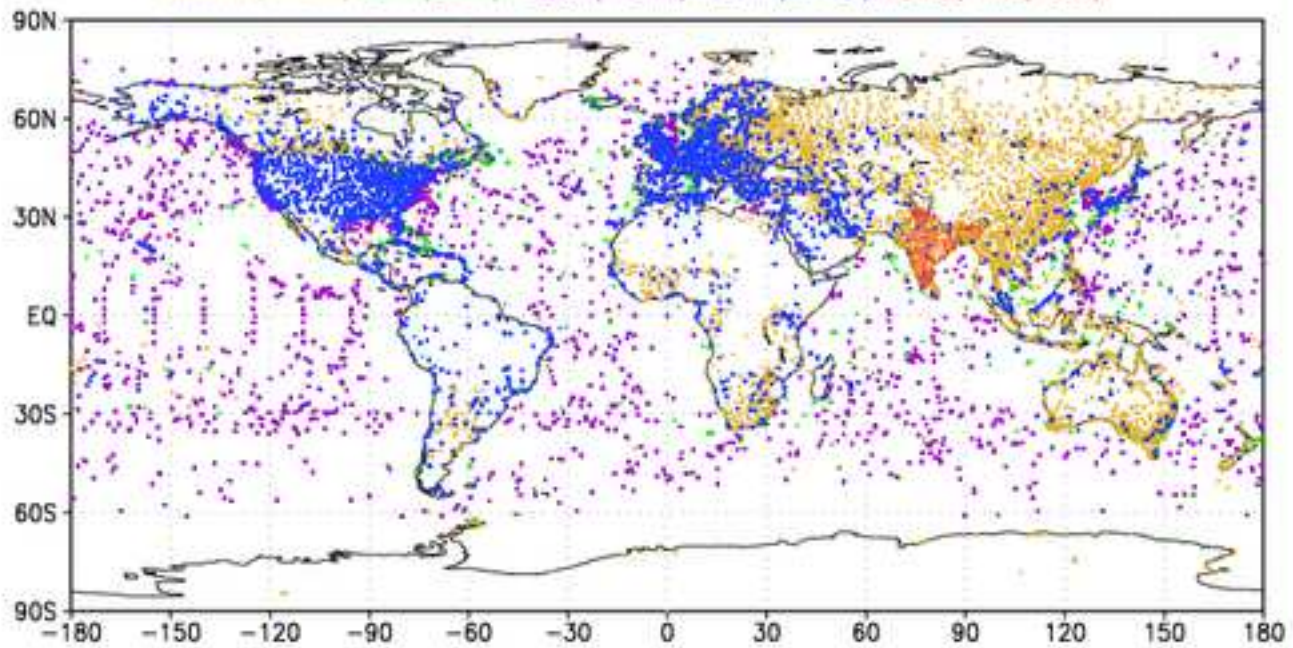


Global Observation Coverage

Data Coverage: Surface (12122017 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 52229

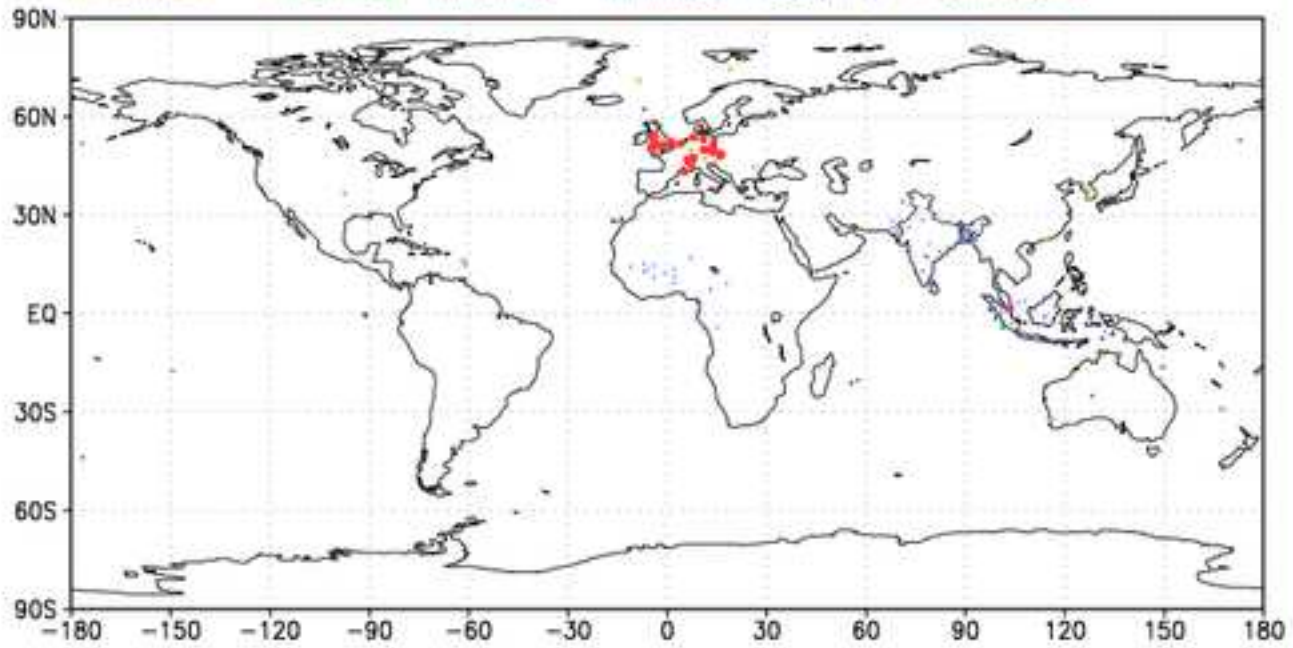
LNDSYN(14138) SHIP(2041) BUOY(11814) METAR(19433) MOBILE/AWS(4803)



Data Coverage: Sonde (12122017 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 717

TMPLND(32) TMPSHP(2) TMPDRP(0) TMPMDB(0) PILOT(114) PROFILER(569)



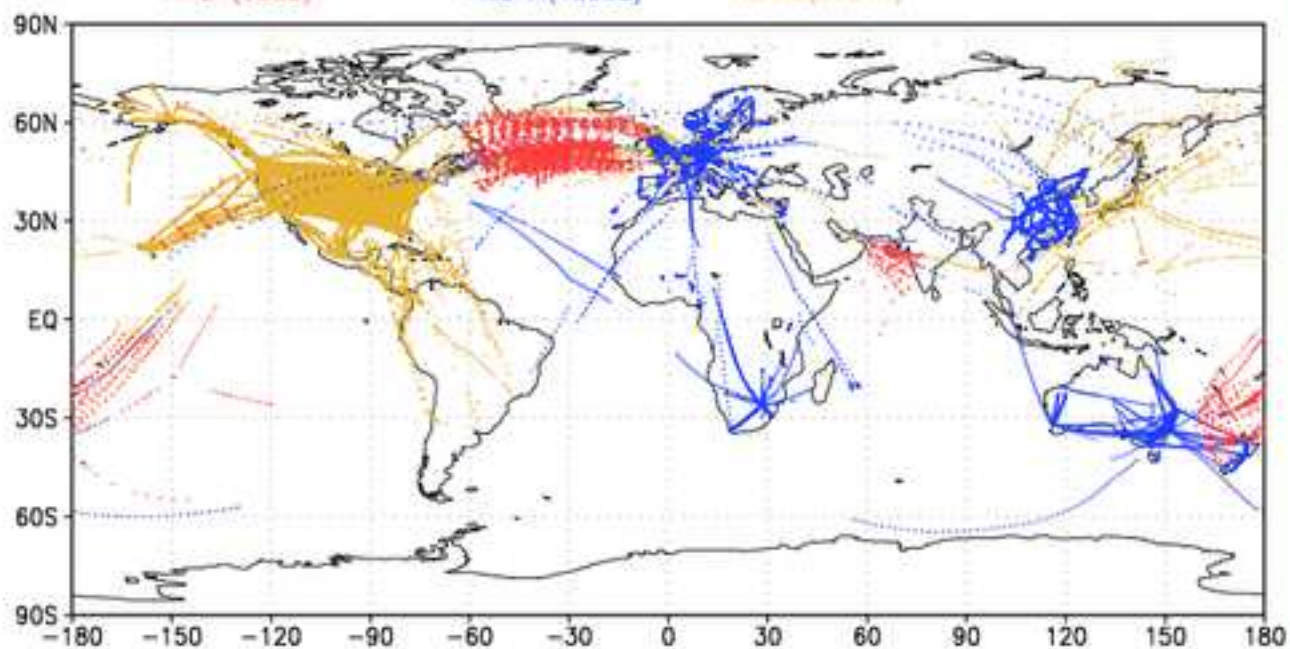
Data Coverage: AIRCFT (12122017 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 113564

AIREP(6988)

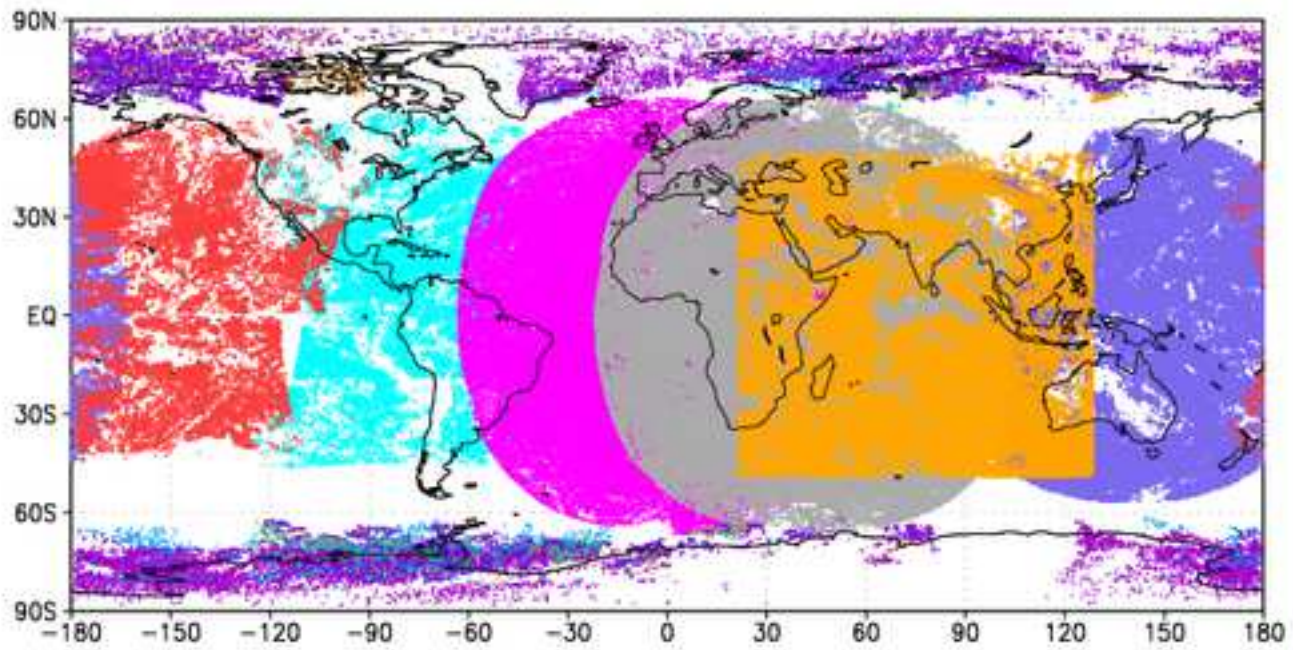
AMDAR(18932)

ACARS(87644)



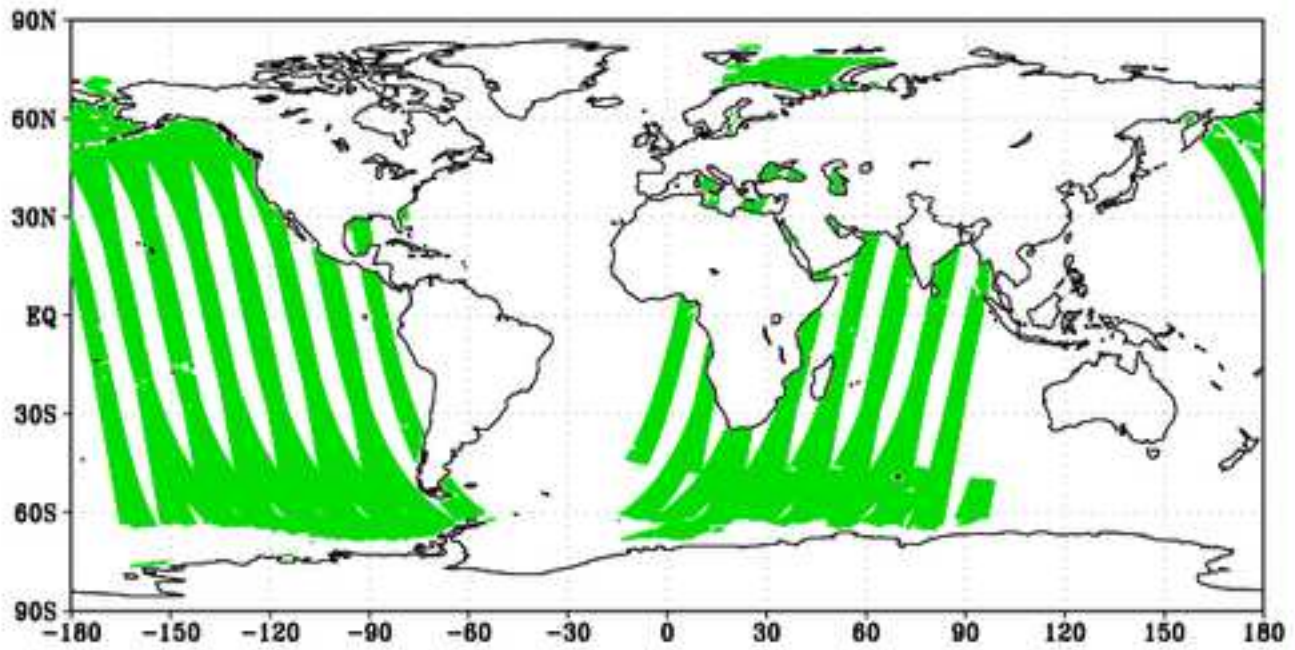
Data Coverage: AMV (12122017 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 872098

GOES-15(24277) GOES-13(48165) INSAT-3D(60609) METEOSAT-8(205254)
METEOSAT-10(245307) HIMAWARI-8(153650) MODIS/Terra(3572) MODIS/Aqua(13668)
METOP(11838) NOAA-15(485) NOAA-18(0) NOAA-18(791) NOAA-19(1656)



Data Coverage: ASCAT winds (12122017 06UTC +/- 03Hrs)

ASCAT (235784)



Data Coverage: SAT RADIANCE (12122017 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 3983620

NOAA15(57540)

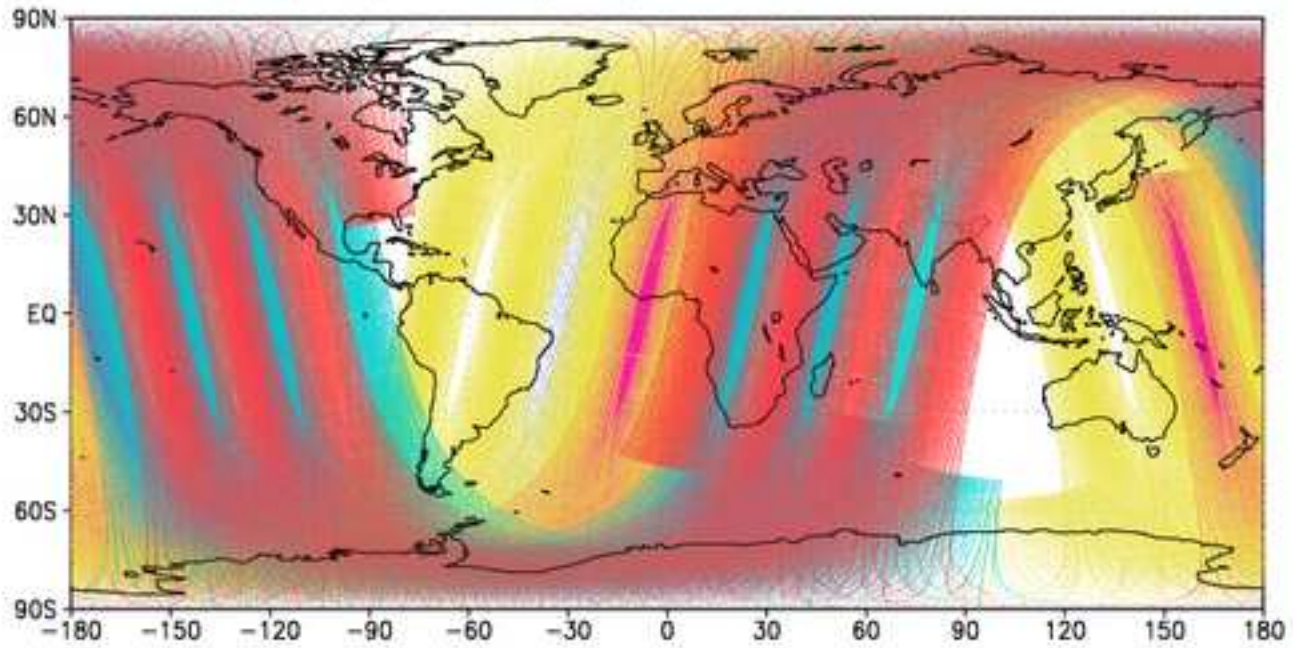
NOAA18(0)

NOAA18(980052)

NOAA18(983940)

METOP1(984629)

METOP2(977559)



Data Coverage: SAT RADIANCE (EARS+IMD RARS) (12122017 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 2207438

NOAA15(0)

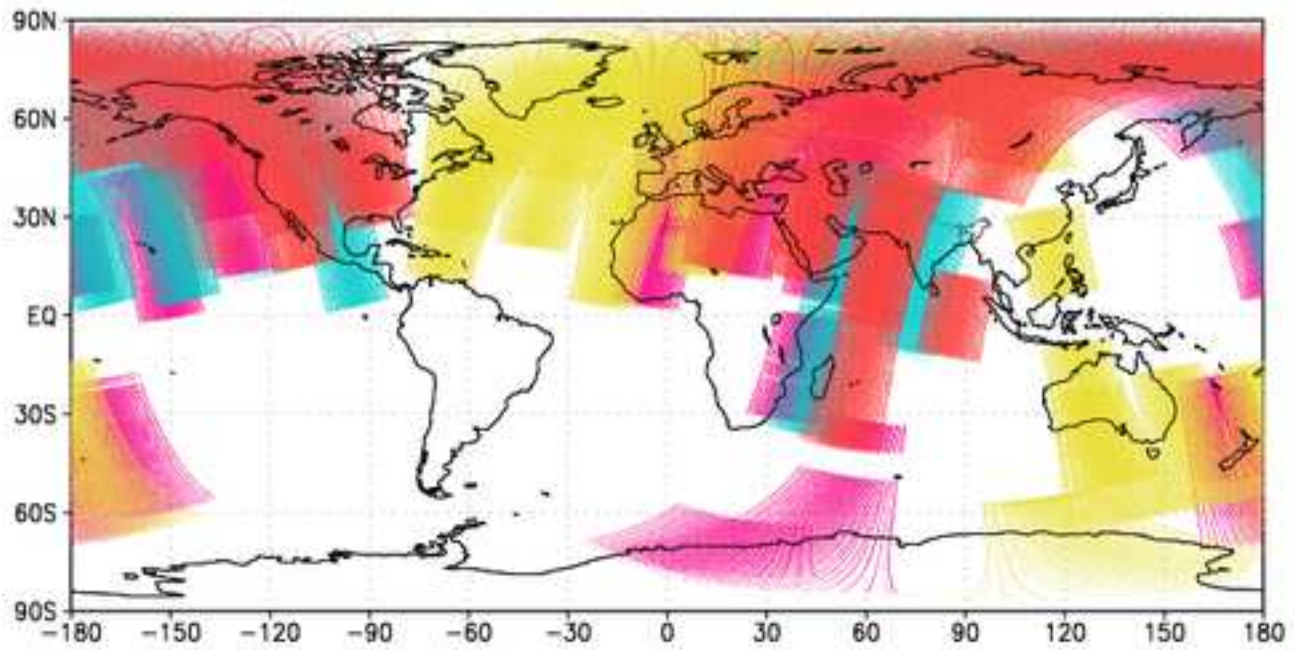
NOAA16(0)

NOAA18(562218)

NOAA19(845318)

METOP1(677320)

METOP2(362584)

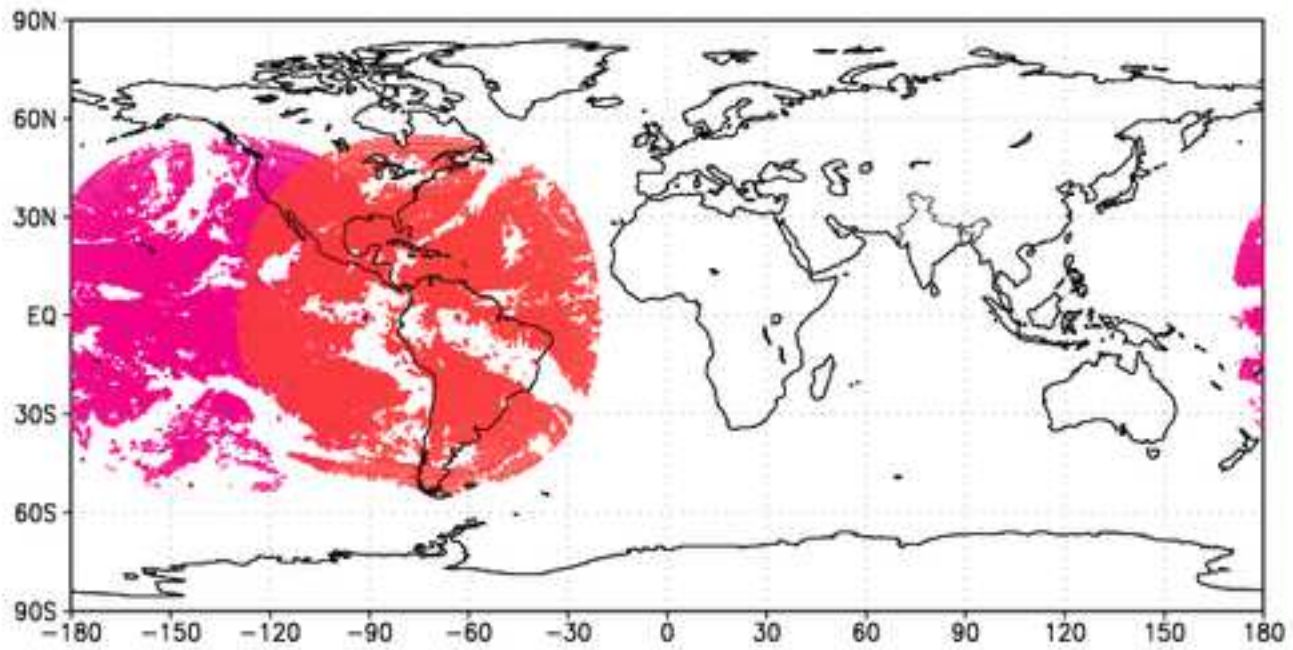


Data Coverage: GOES CSBT (12122017 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 57250

GOES-15(28810)

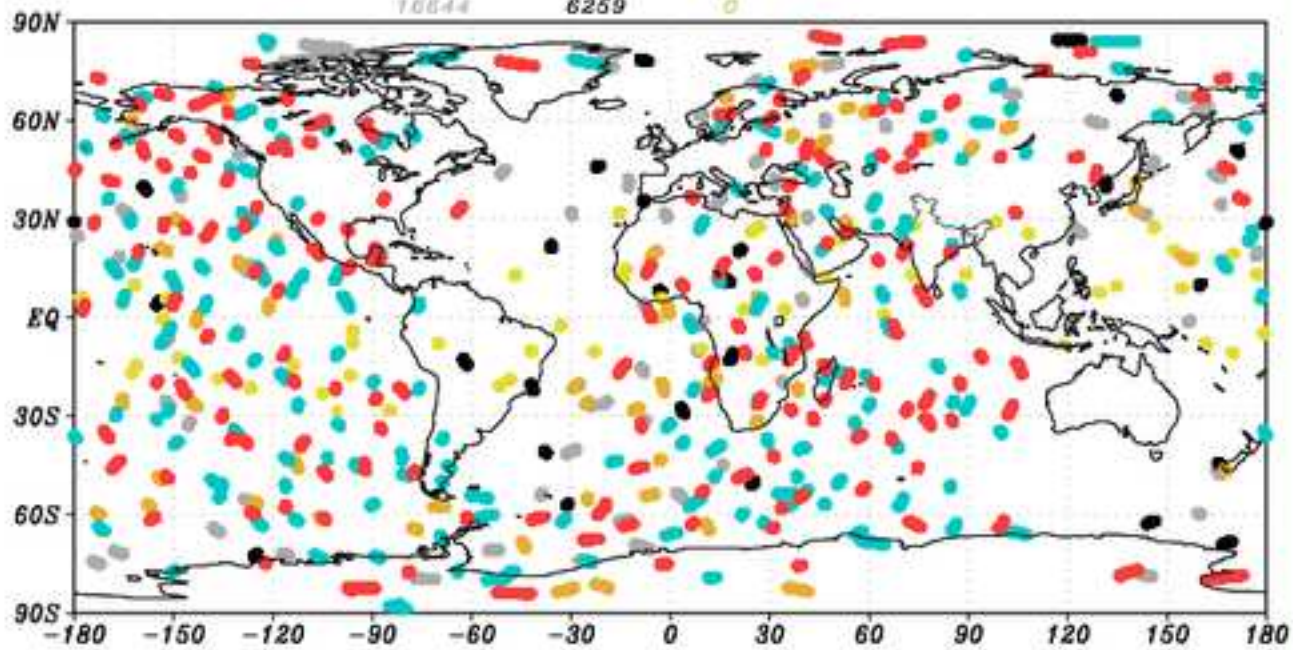
GOES-13(28440)



Data Coverage:GPSRO (12122017 0600UTC +/-03Hrs)

Total Number of Observations Received at NCMRWF: 129134

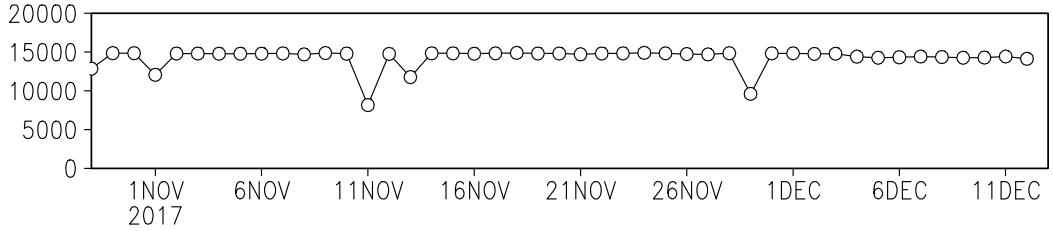
| | | | | | | | | |
|---------|---------|---------|------------|----------|----------|----------|----------|----------|
| GRACE-A | METOP-B | METOP-A | COSMIC-1 | COSMIC-2 | COSMIC-3 | COSMIC-4 | COSMIC-5 | COSMIC-6 |
| 0 | 40080 | 40075 | 0 | 0 | 3922 | 0 | 0 | 16254 |
| | | | TerraSAR-X | TenDEM-X | GRACE-B | | | |
| | | | 16644 | 6259 | 0 | | | |



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

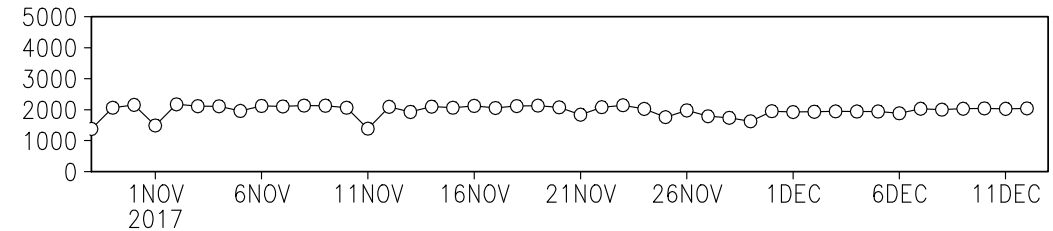
SYNOP

Avg=14710
Today_Cnt=14138
Dep=-4. %



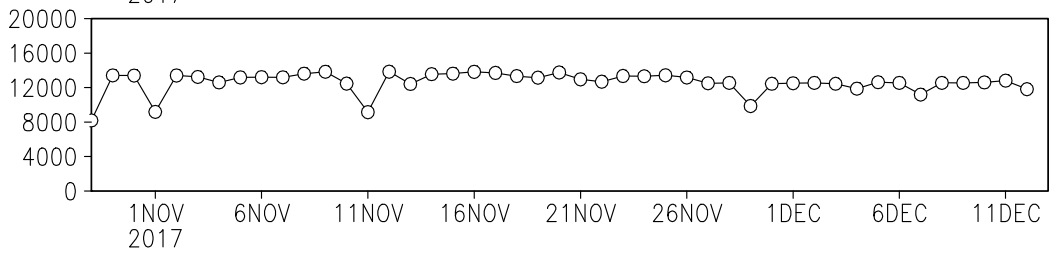
SHIP

Avg=2079
Today_Cnt=2041
Dep=-2. %



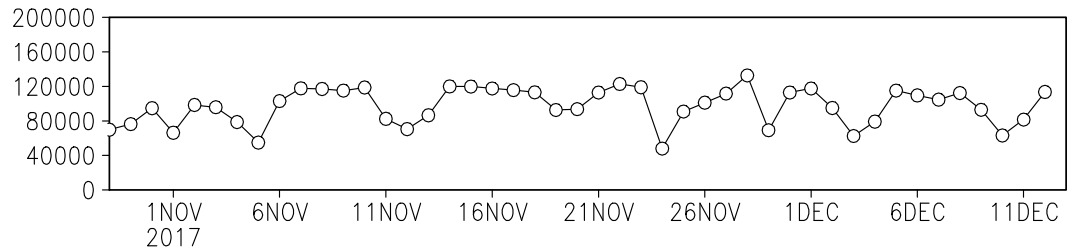
BUOY

Avg=13168
Today_Cnt=11814
Dep=-10. %



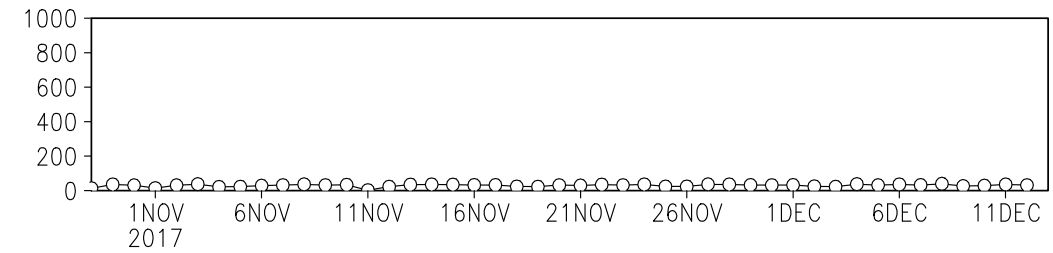
AIRCRAFT

Avg=115787
Today_Cnt=113564
Dep=-2. %



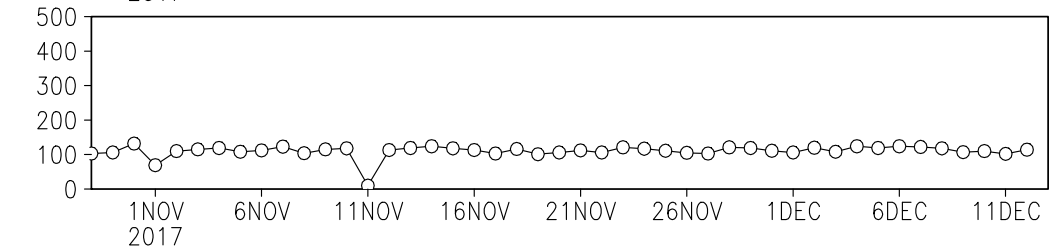
RS/RW

Avg=33
Today_Cnt=32
Dep=-3. %



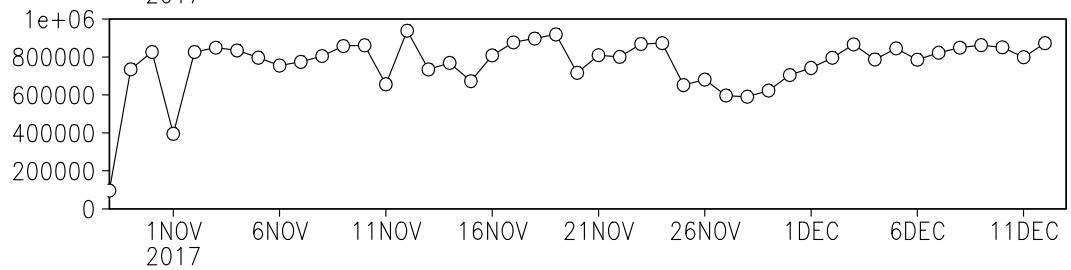
PILOT

Avg=117
Today_Cnt=114
Dep=-3. %



AMV

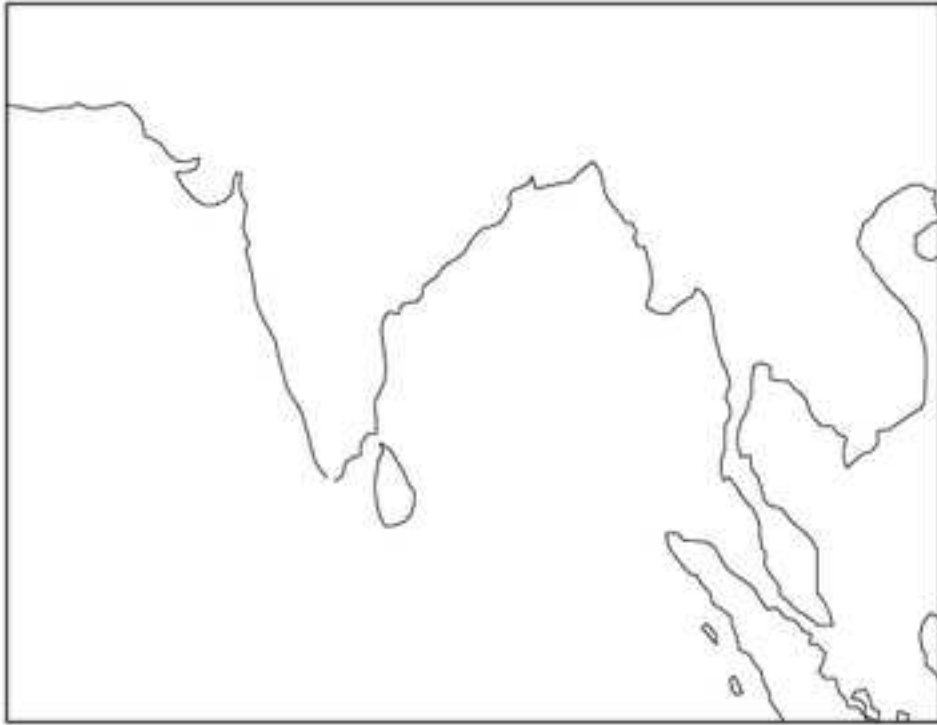
Avg=835905
Today_Cnt=872098
Dep=4. %



SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20171212 06Z)

ASCAT WINDS (12122017 06 UTC):NCMRWF



INSAT-3D

ATMOSPHERIC MOTION VECTORS (AMV)

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

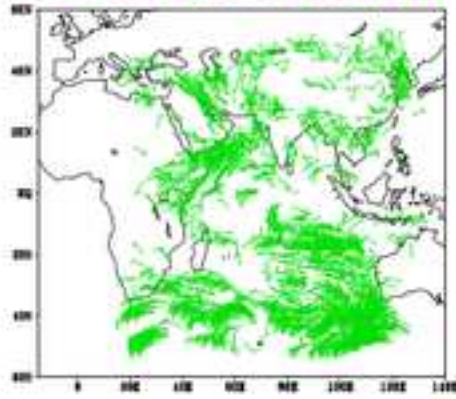
WATER VAPOUR WINDS (WV)

VISIBLE WINDS (VIS) }

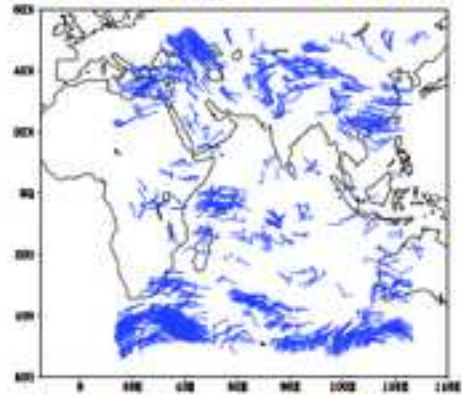
AMV DEVIATION
(OBSERVATION - FIRST GUESS)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) (12122017 0600UTC)

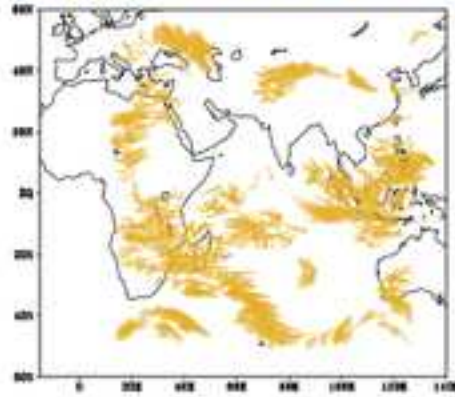
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)



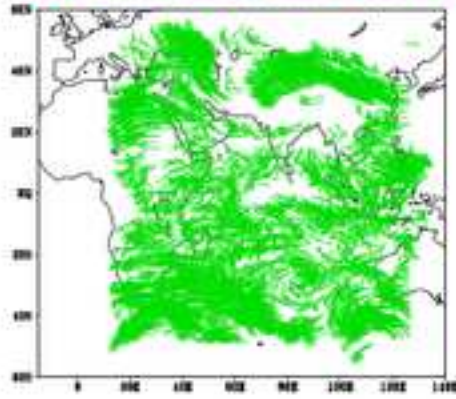
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (12122017 0600UTC)

Low Level (Below 700 hPa)

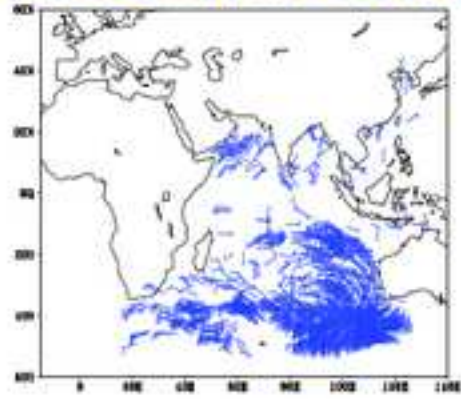
Mid Level (700 - 401 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (12122017 0600UTC)

WV, High Level (Above 400 hPa)

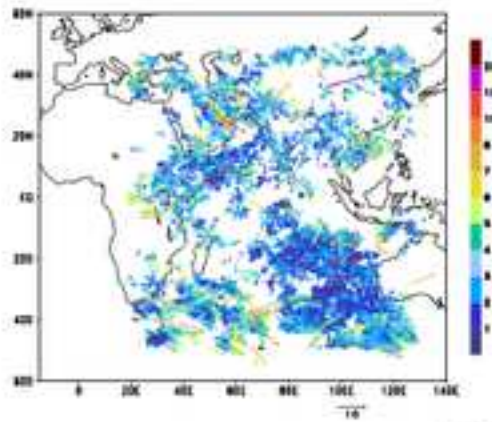


VIS, Low Level (Below 700 hPa)

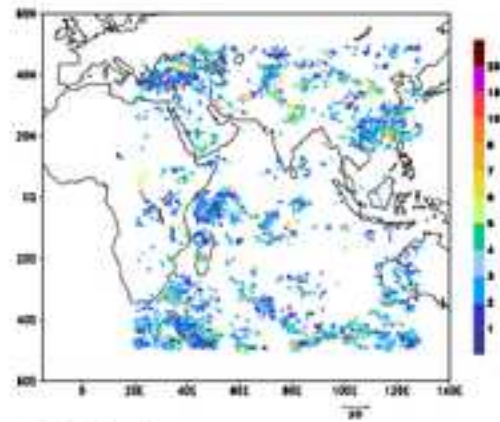


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (12122017 0600UTC)

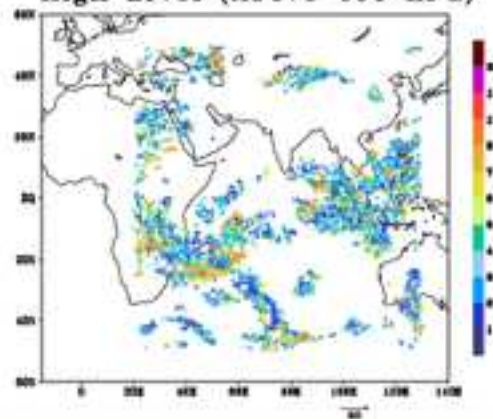
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)



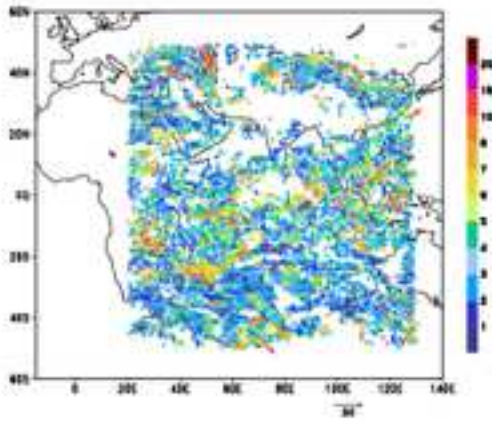
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) DEVIATION (12122017 0600UTC)

Low Level (Below 700 hPa)

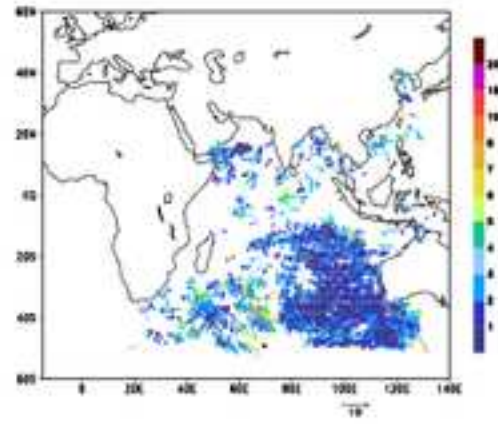
Mid Level (700 - 401 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (12122017 0600UTC)

WV, High Level (Above 400 hPa)

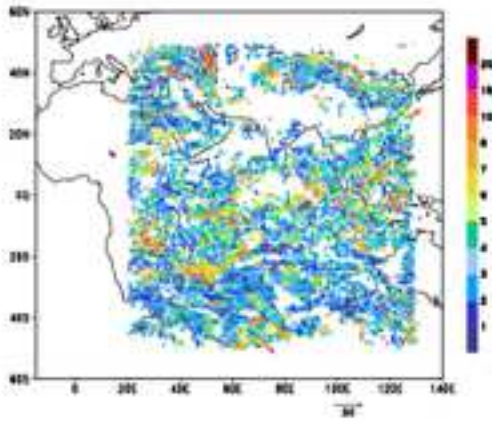


VIS, Low level (Below 700 hPa)

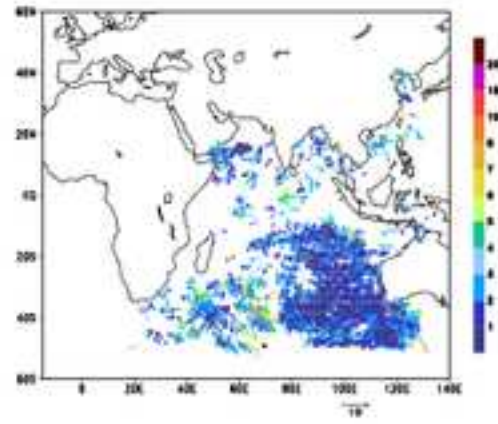


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (12122017 0600UTC)

WV, High Level (Above 400 hPa)

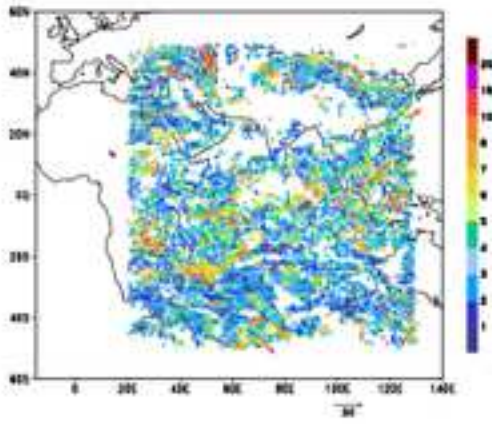


VIS, Low level (Below 700 hPa)

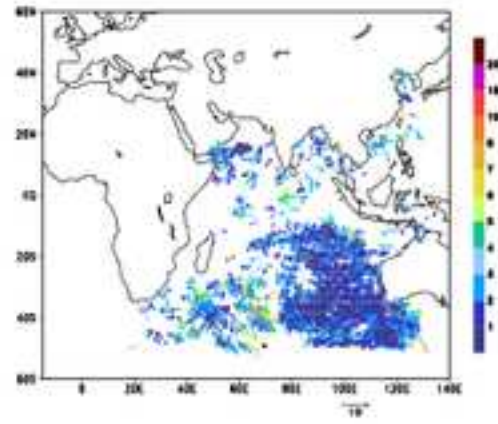


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (12122017 0600UTC)

WV, High Level (Above 400 hPa)

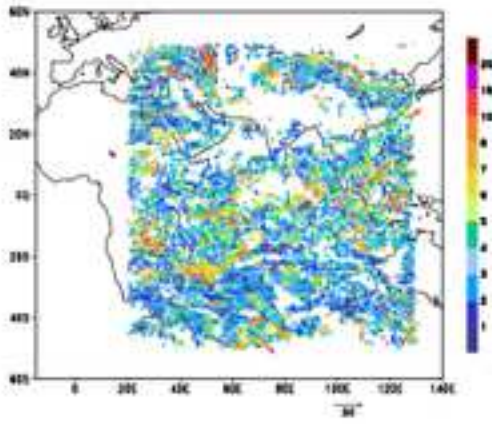


VIS, Low level (Below 700 hPa)

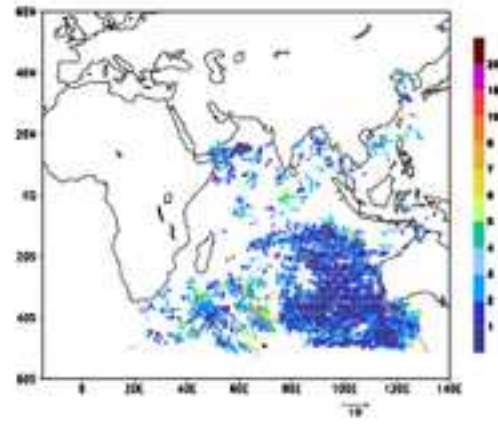


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (12122017 0600UTC)

WV, High Level (Above 400 hPa)

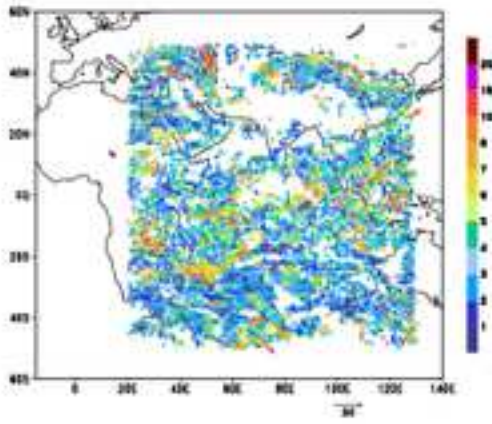


VIS, Low level (Below 700 hPa)

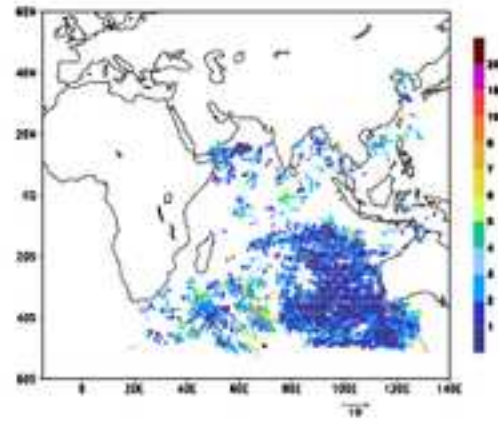


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (12122017 0600UTC)

WV, High Level (Above 400 hPa)



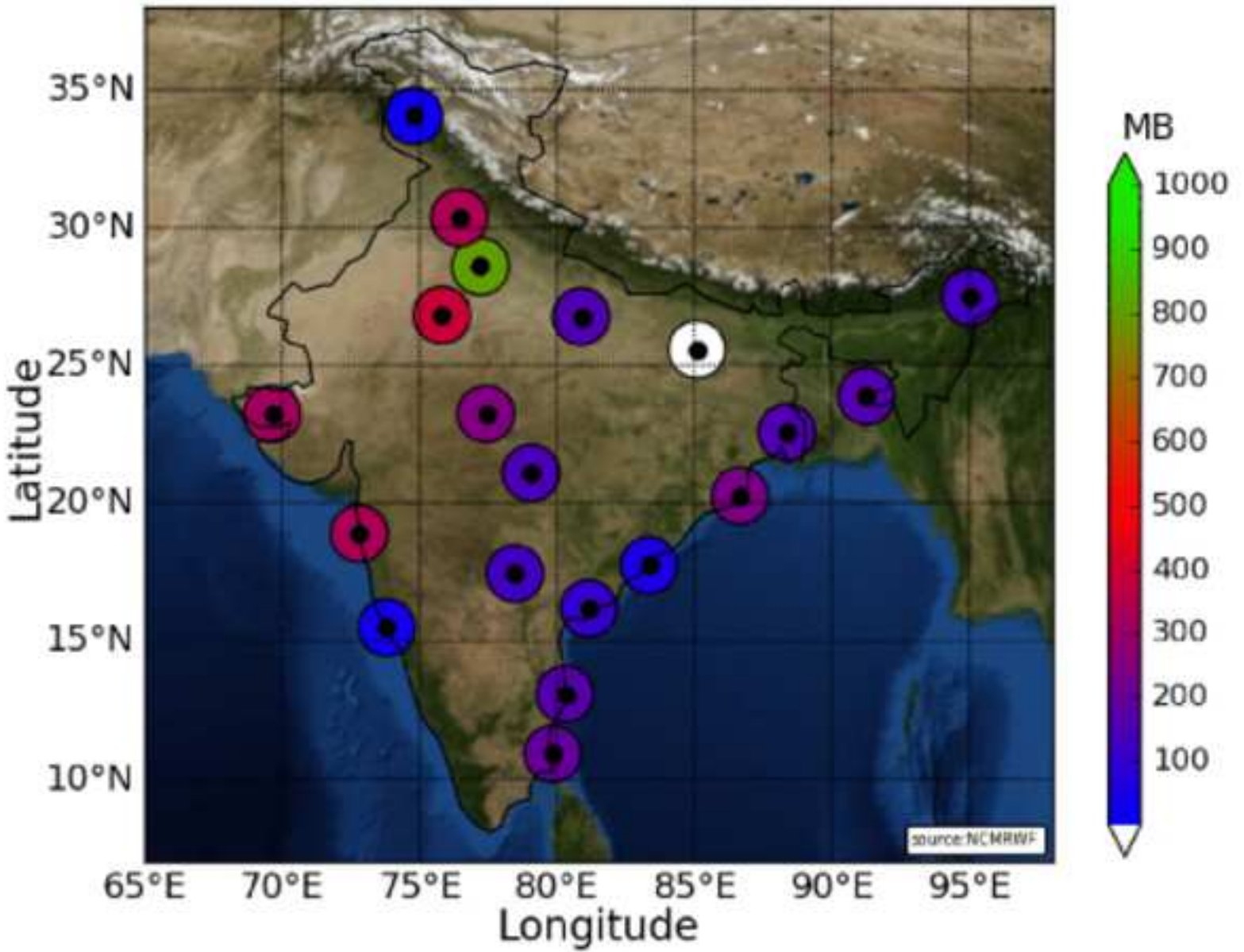
VIS, Low level (Below 700 hPa)



Indian Doppler Weather Radar Data Monitoring

Volume of DWR observations received at NCMRWF

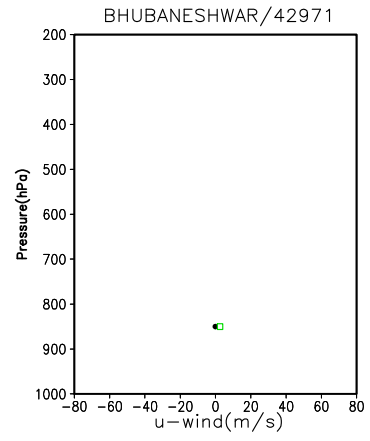
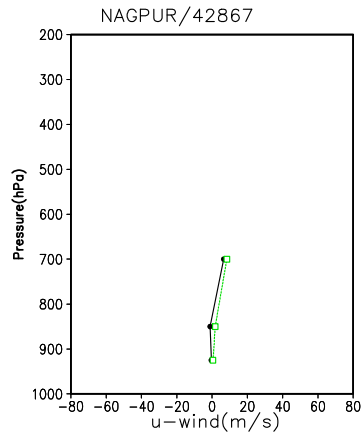
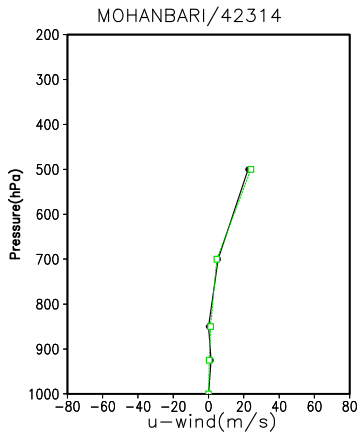
Date: 20171212 at : 06UTC



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 12122017
 × -- denotes the rejection of observation by NGFS GDAS
 (plotted for standard pressure levels only)