

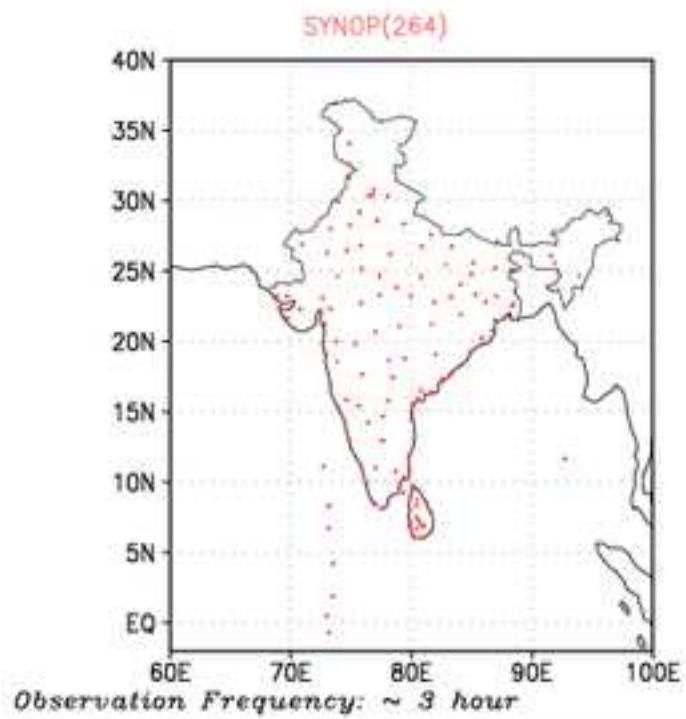
# Observation Monitoring

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

for 19042018 (1800 UTC)

# Indian Observation Coverage

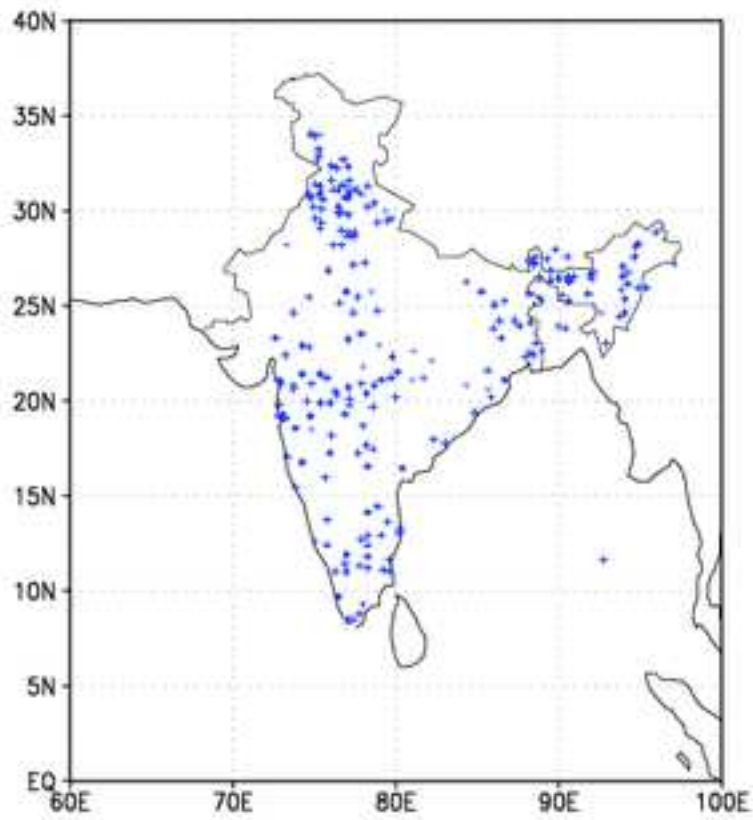
Data Coverage: Surface (19042018 1800UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 264  
(42 & 43 Block)



Data Coverage: Indian AWS (19042018 1800UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 1082

AWS PRESSURE (1082)

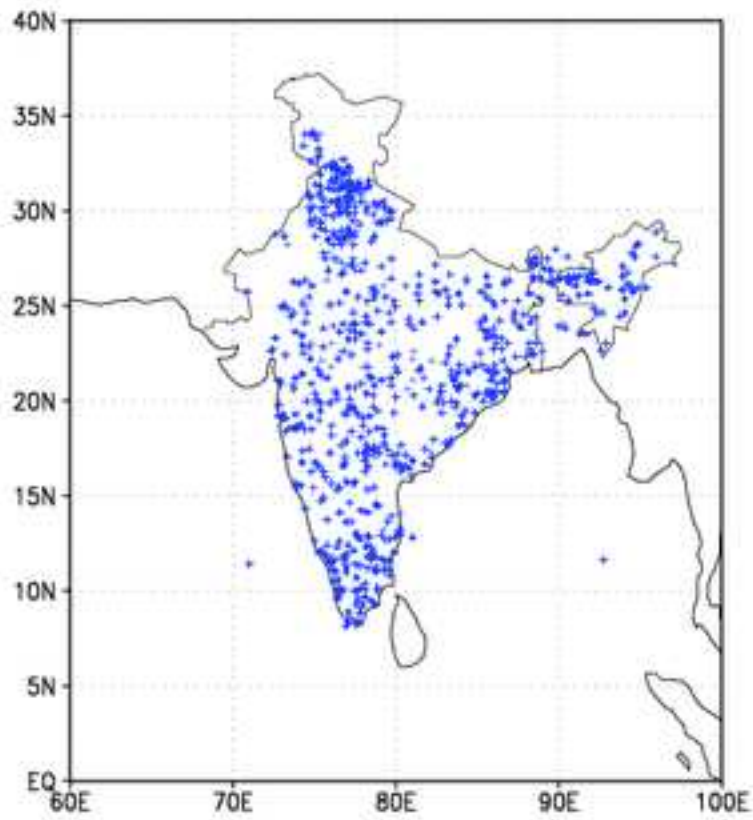


Observation Frequency: ~ 1 hour

Data Coverage: Indian AWS (19042018 1800UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 3583

AWS + ARG (3583)

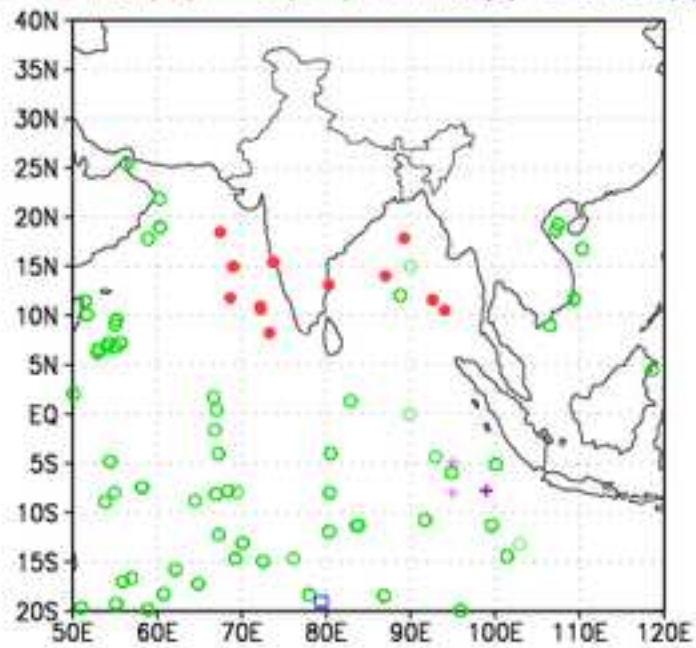


Observation Frequency: ~ 1 hour

Data Coverage: BUOY (19042018 1800UTC +/- 3 Hrs)

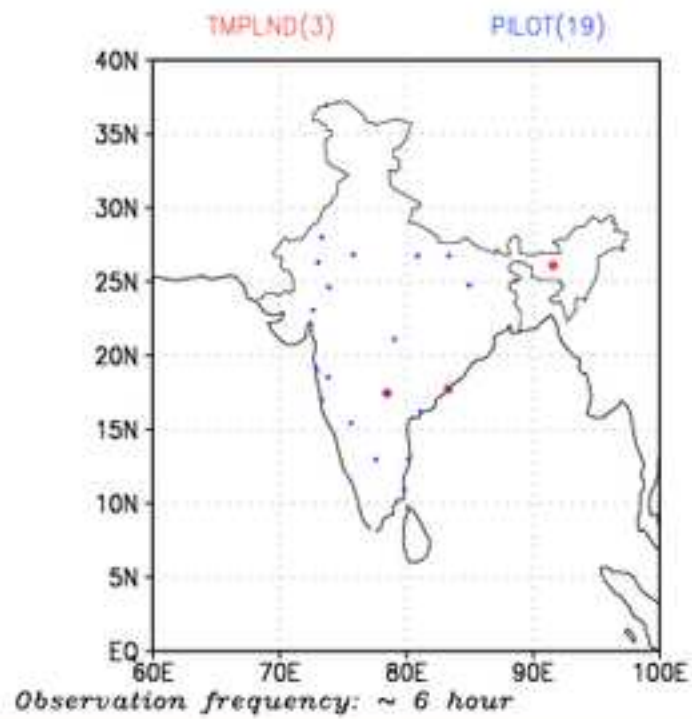
Total Number of Observations Received at NCMRWF: 346

country code in GTS as ● INDIA(16) ○ USA(317) + FRANCE(8) □ OTHERS(5)



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

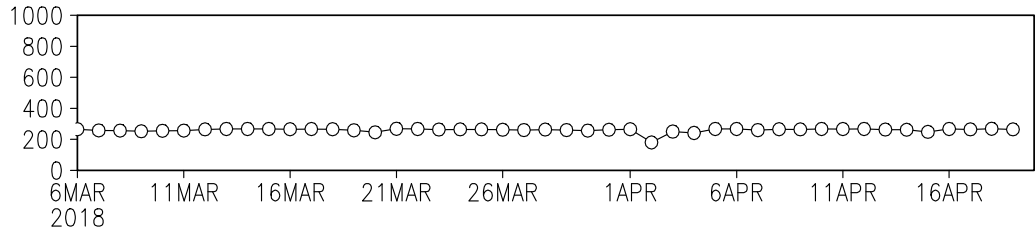
Data Coverage: Sonde (19042018 1800UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 22  
(42 & 43 Block)



# Count for different types of observation (Over Indian Region) for the last 45 days (valid for 18 UTC)

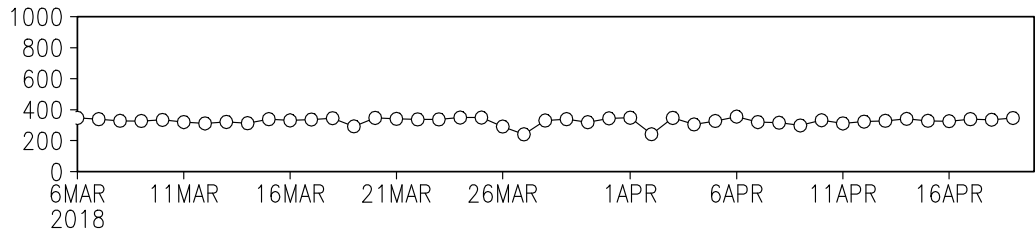
## SYNOP

Avg=264  
Today\_Cnt=264  
Dep=0. %



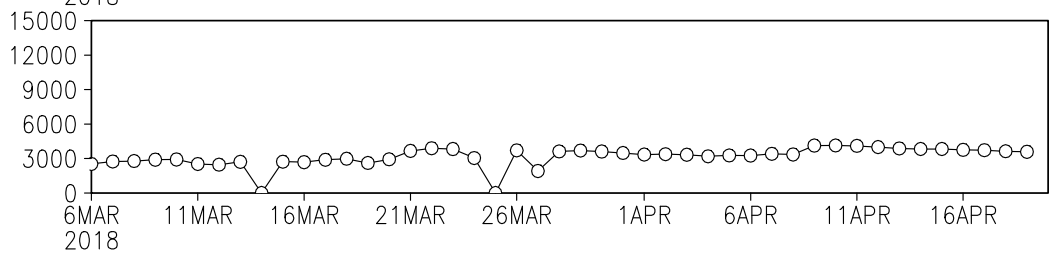
## BUOY

Avg=337  
Today\_Cnt=346  
Dep=3. %



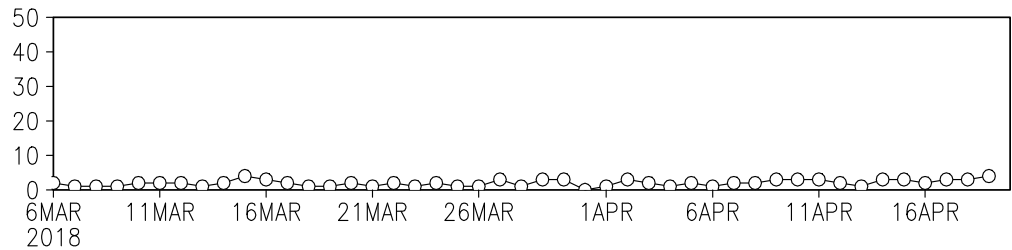
## AWS+ARG

Avg=3657  
Today\_Cnt=3583  
Dep=-2. %



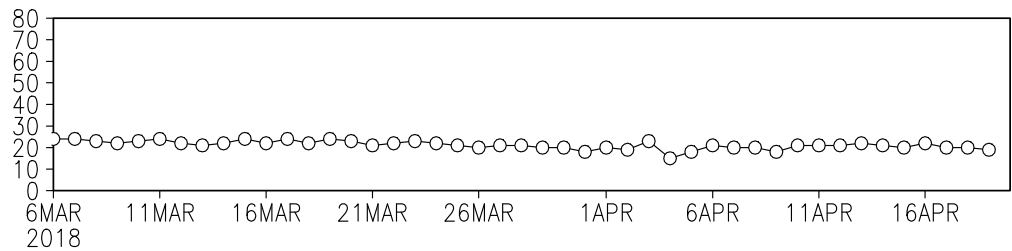
## RS/RW

Avg=1  
Today\_Cnt=4  
Dep=300. %



## PILOT

Avg=22  
Today\_Cnt=19  
Dep=-14. %



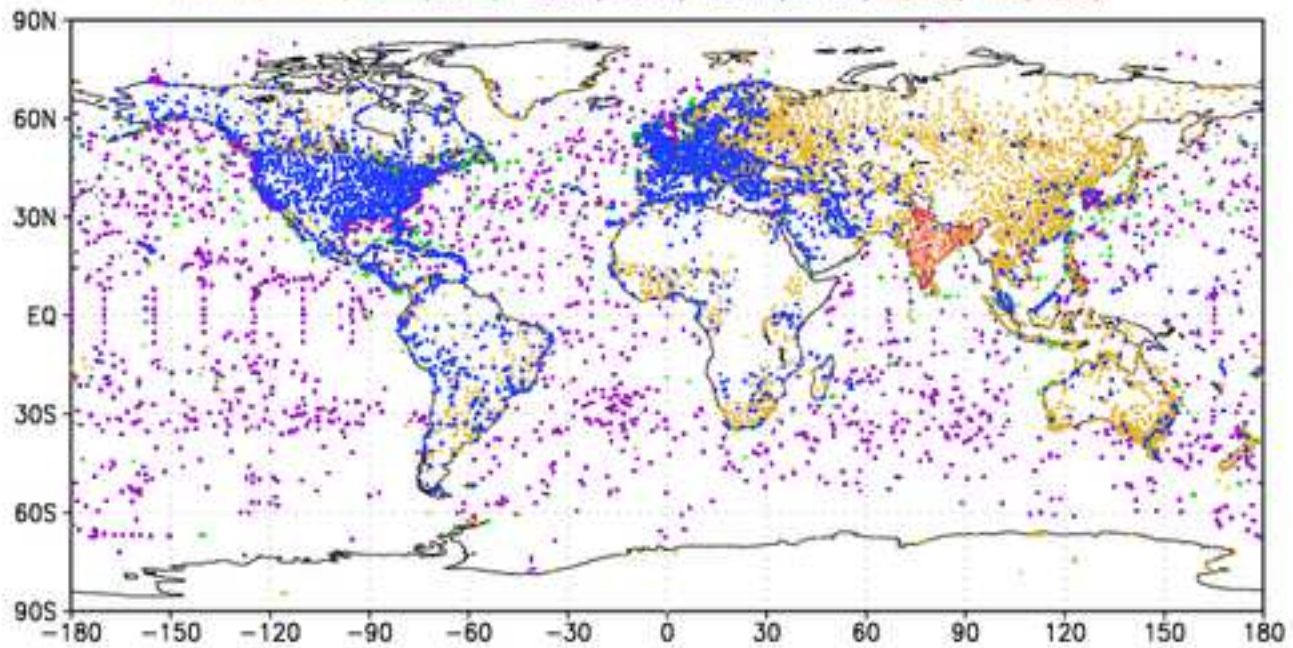


# Global Observation Coverage

Data Coverage: Surface (19042018 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 51945

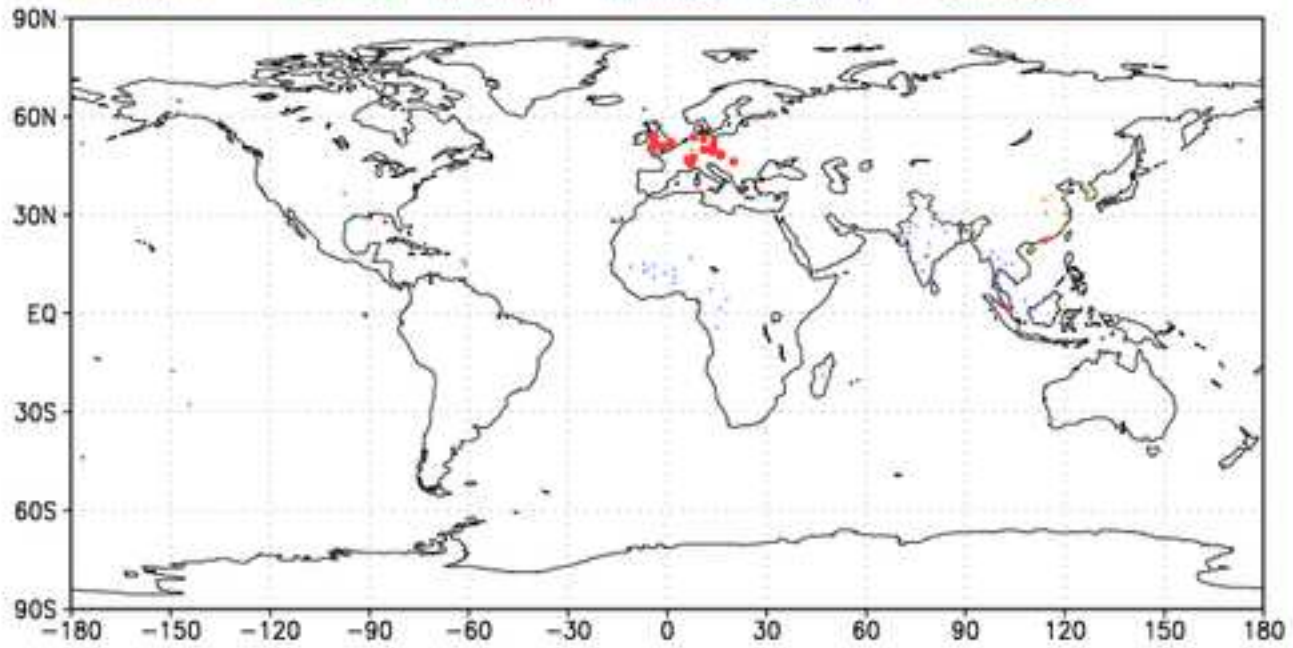
LNDSYN(13735) SHIP(2029) BUOY(12137) METAR(19791) MOBILE/AWS(4253)



Data Coverage: Sonde (19042018 1800UTC +/- 03Hrs)

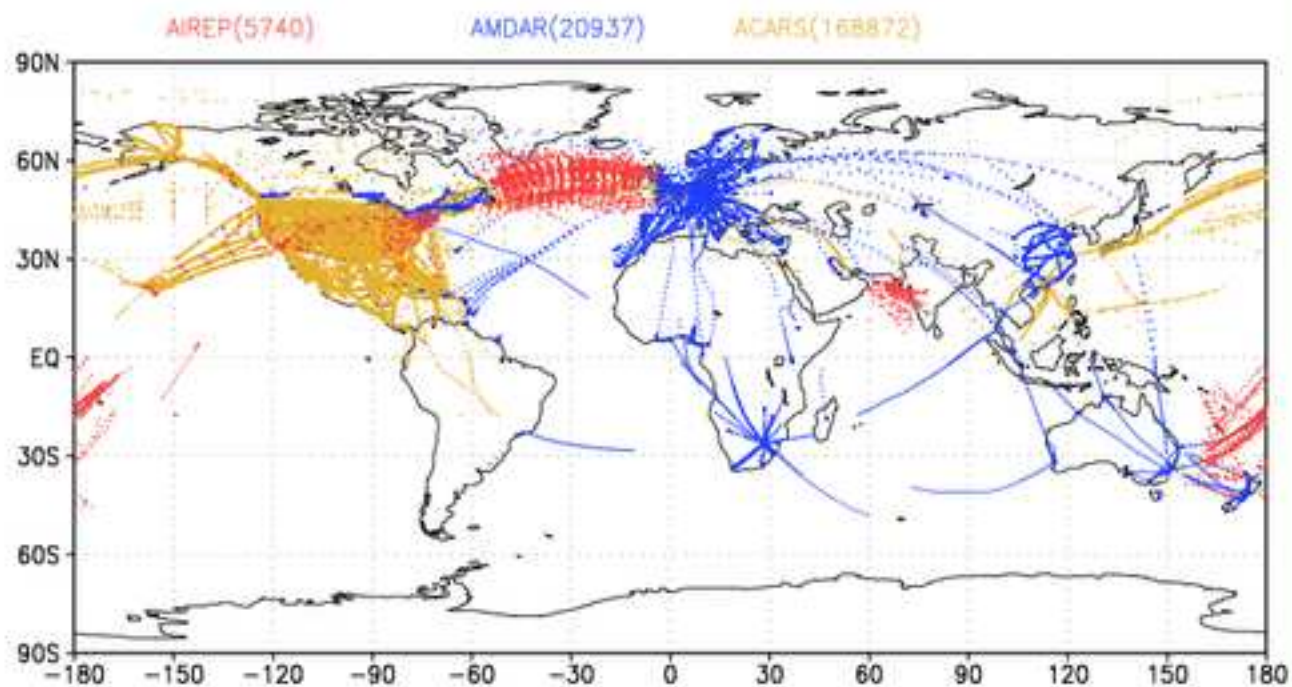
Total Number of Observations Received at NCMRWF: 659

TMP LND(31)    TMP SHP(0)    TMP DRP(1)    TMP MDB(0)    PILOT(77)    PROFILER(550)



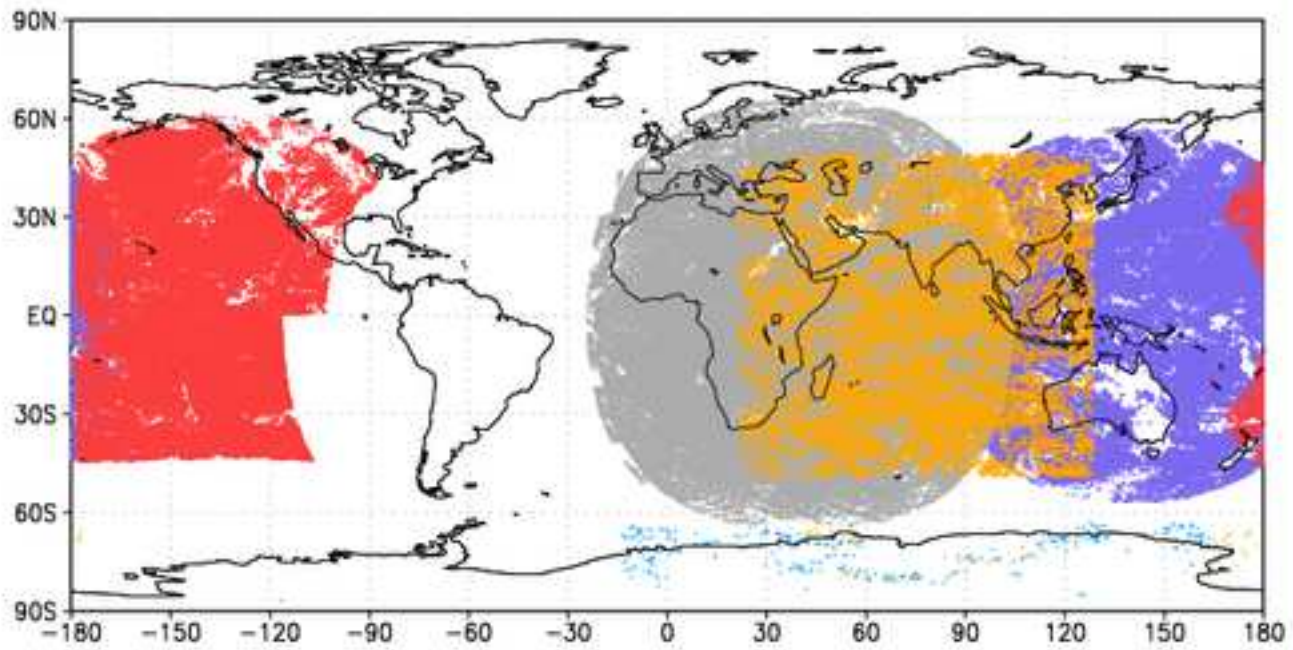
Data Coverage: AIRCFT (19042018 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 195549



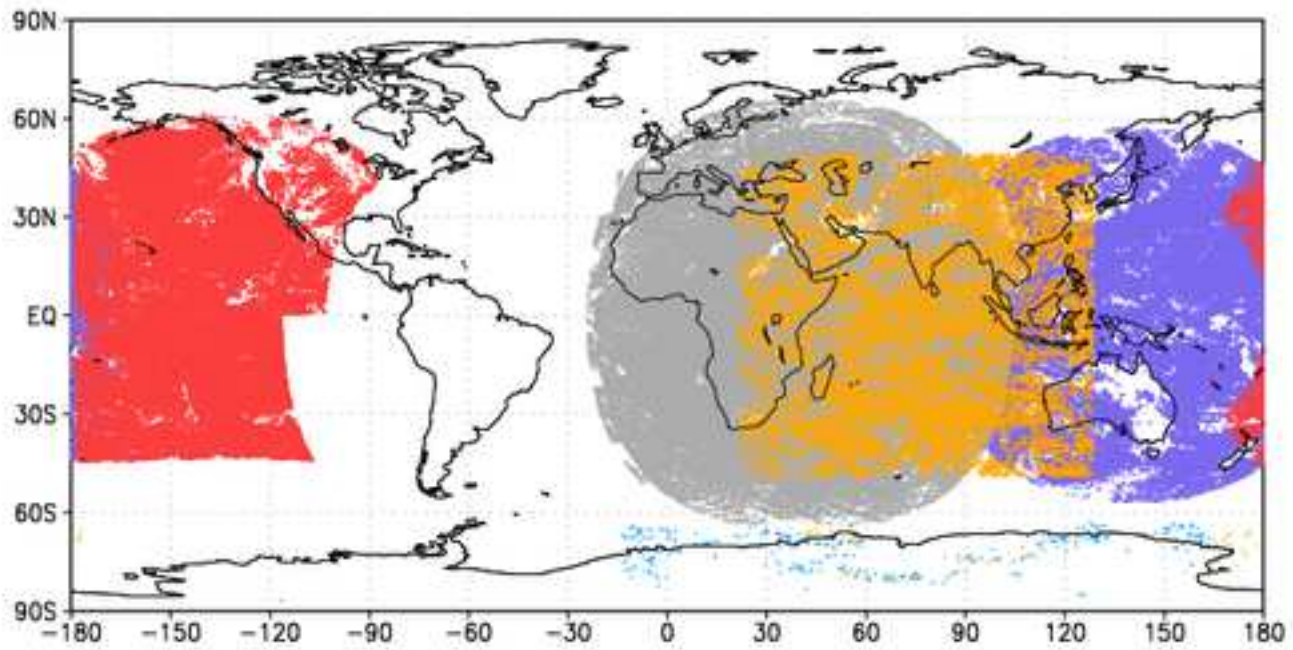
Data Coverage: AMV (19042018 1800UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 471031

GOES-15(140408)	GOES-13(0)	INSAT-3D(20038)	METEOSAT-8(200132)	
METEOSAT-10(0)	HIMAWARI-8(110010)	MODIS/Terra(0)	MODIS/Aqua(0)	
METOP(0)	NOAA-15(107)	NOAA-18(0)	NOAA-18(0)	NOAA-19(336)



Data Coverage: AMV (19042018 1800UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 471031

GOES-15(140408)	GOES-13(0)	INSAT-3D(20038)	METEOSAT-8(200132)	
METEOSAT-10(0)	HIMAWARI-8(110010)	MODIS/Terra(0)	MODIS/Aqua(0)	
METOP(0)	NOAA-15(107)	NOAA-18(0)	NOAA-18(0)	NOAA-19(336)



Data Coverage: SAT RADIANCE (19042018 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 3749264

NOAA15(63791)

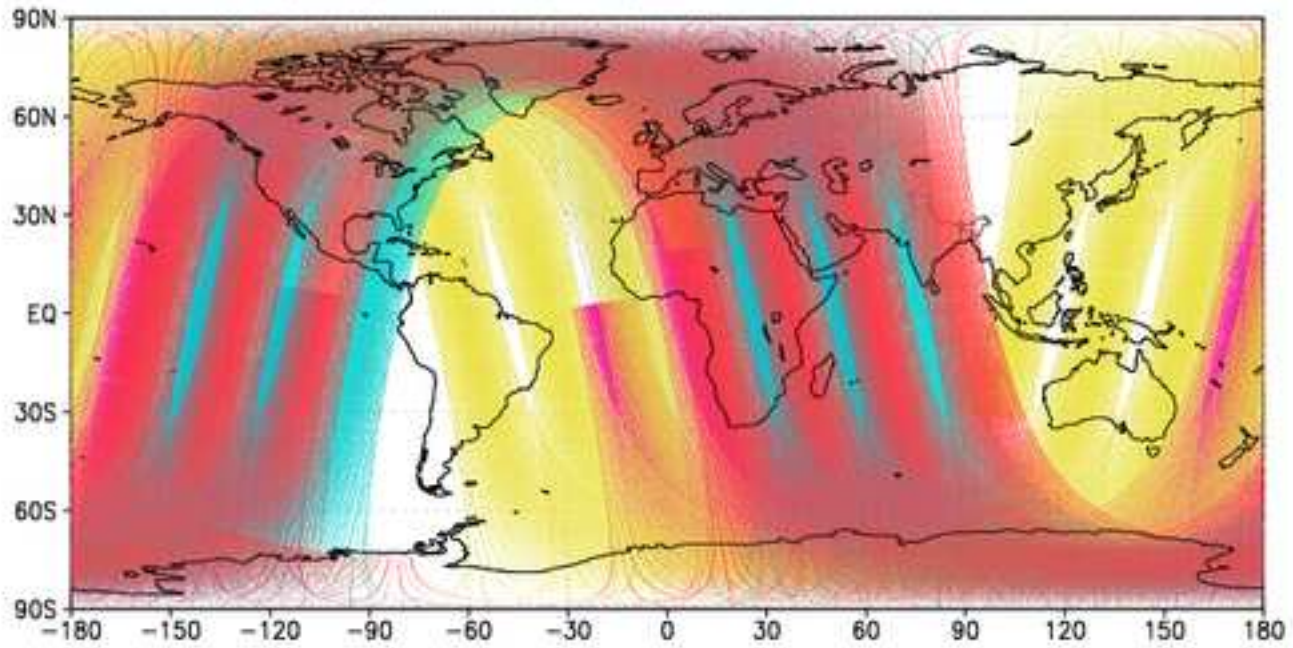
NOAA18(0)

NOAA18(983022)

NOAA18(837728)

METOP1(952854)

METOP2(811869)



Data Coverage: SAT RADIANCE (EARS+IMD RARS) (19042018 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 545367

NOAA15(0)

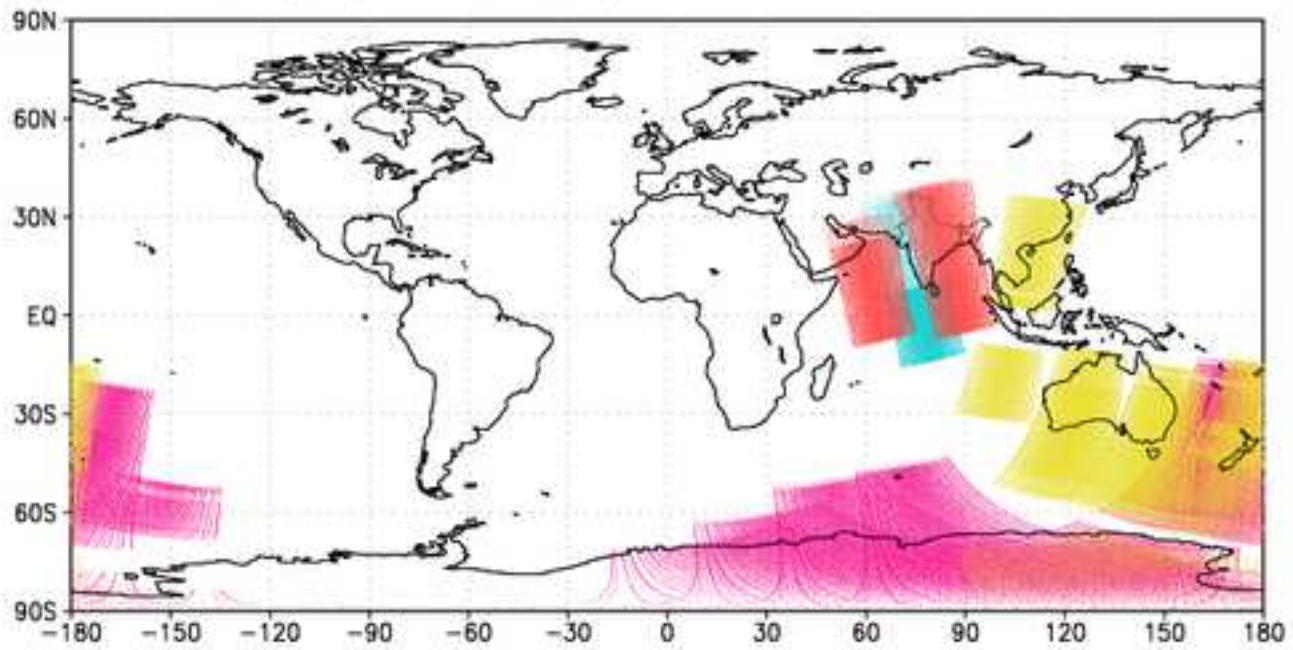
NOAA18(0)

NOAA19(241914)

NOAA18(221242)

METOP1(58794)

METOP2(23416)



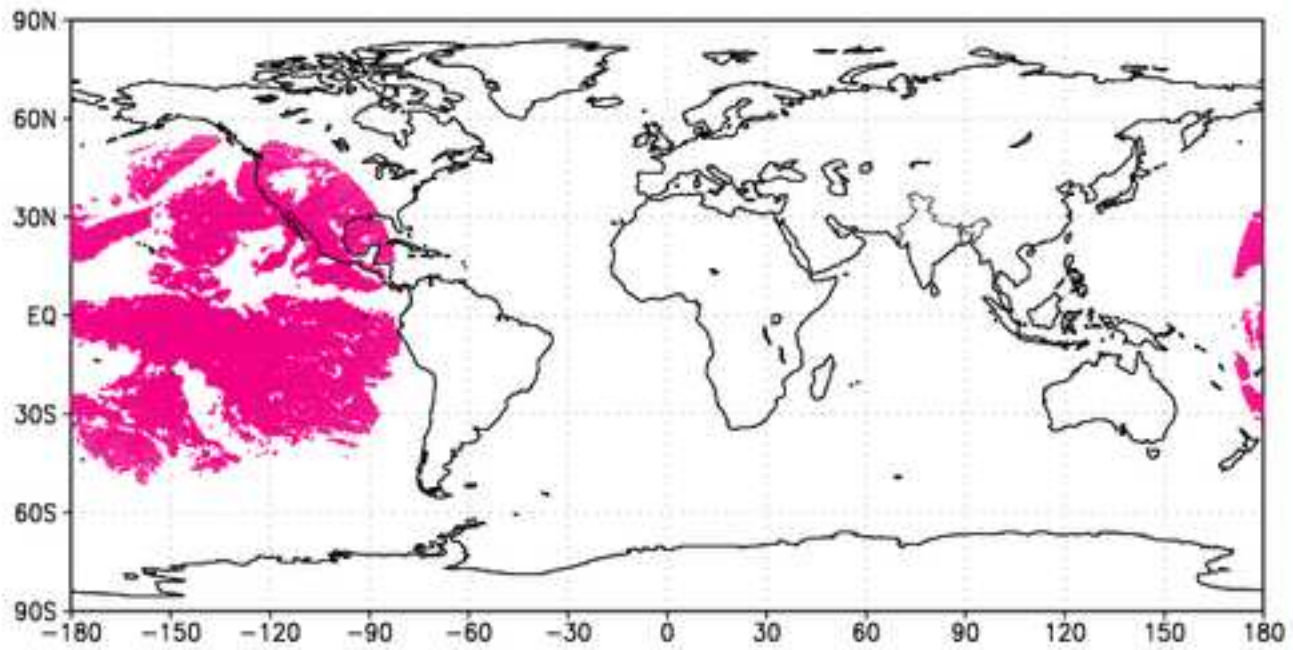


Data Coverage: GOES CSBT (19042018 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 25336

GOES-15(25336)

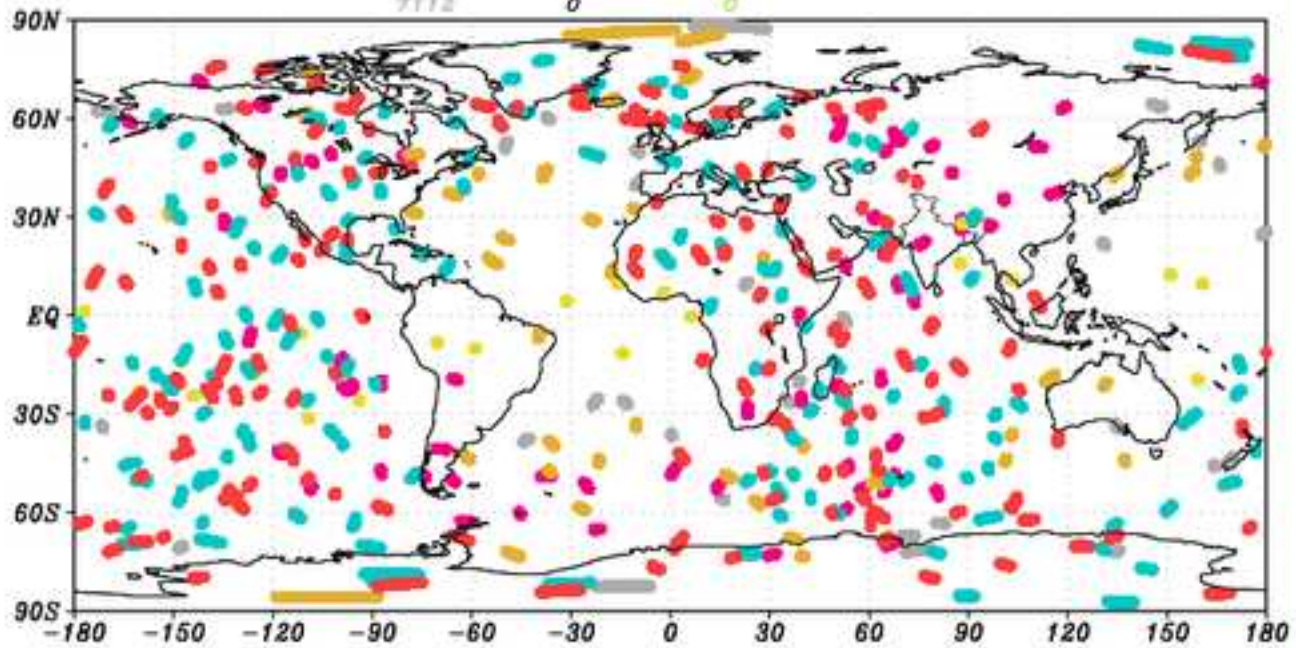
GOES-13(0)



Data Coverage:GPSRO (19042018 1800UTC +/-03Hrs)

Total Number of Observations Received at NCMRWF: 118734

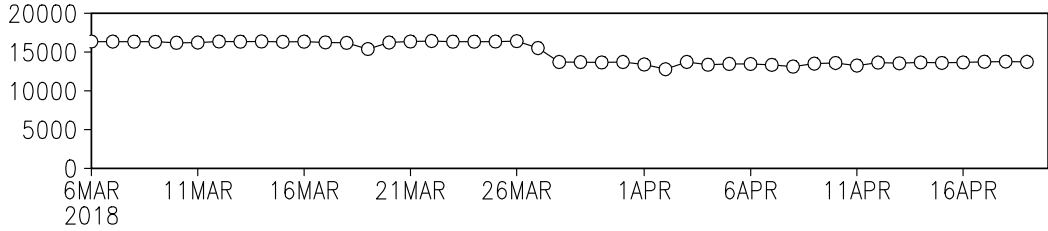
GRACE-A	METOP-B	METOP-A	COSMIC-1	COSMIC-2	COSMIC-3	COSMIC-4	COSMIC-5	COSMIC-6
0	38997	36834	18963	0	3584	0	0	13244
		TerraSAR-X	TenDEM-X	GRACE-B				
		7112	0	0				



## Count for different types of observation (Global) for the last 45 Days (valid for 18 UTC)

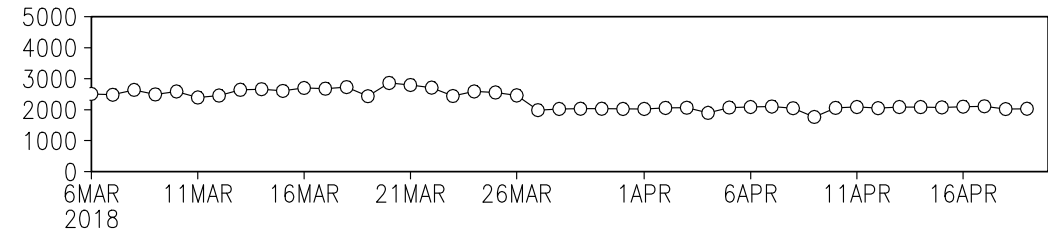
### SYNOPSIS

Avg=16235  
Today\_Cnt=13735  
Dep=-15. %



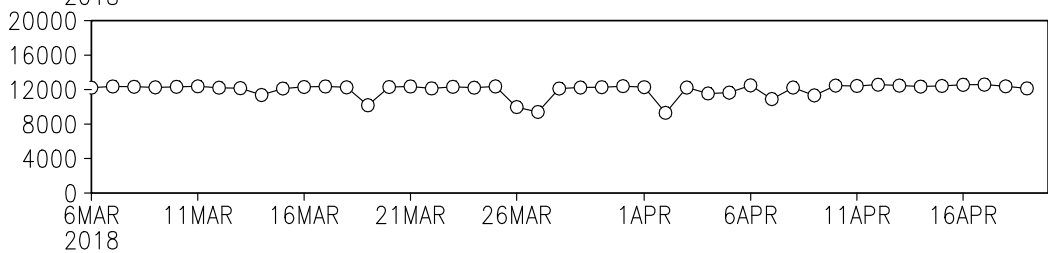
### SHIP

Avg=2586  
Today\_Cnt=2029  
Dep=-22. %



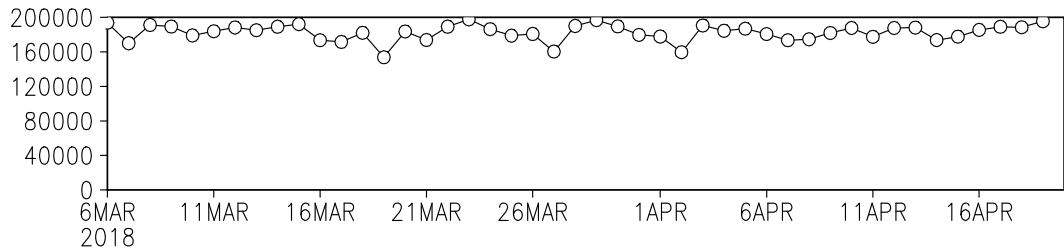
### BUOY

Avg=12327  
Today\_Cnt=12137  
Dep=-2. %



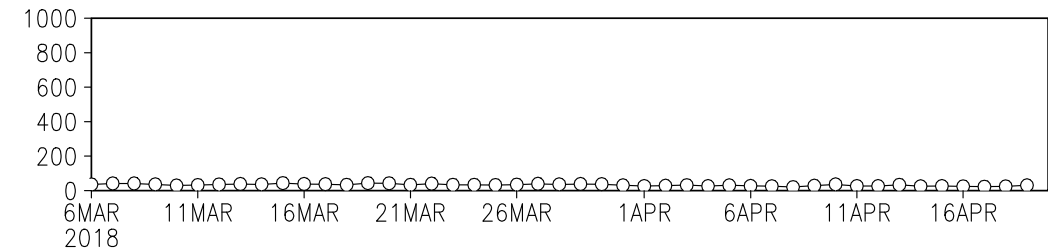
### AIRCRAFT

Avg=191763  
Today\_Cnt=195549  
Dep=2. %



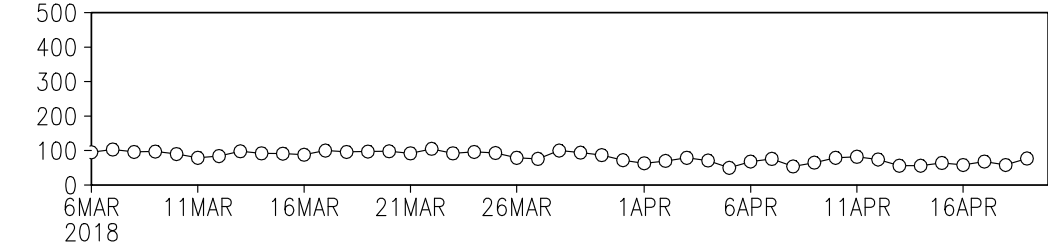
### RS/RW

Avg=37  
Today\_Cnt=31  
Dep=-16. %



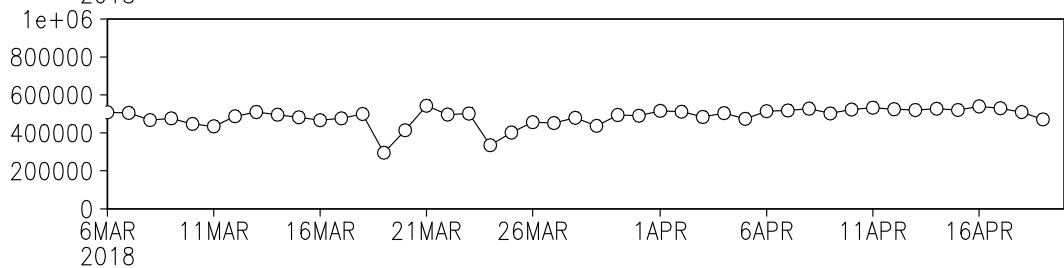
### PILOT

Avg=94  
Today\_Cnt=77  
Dep=-18. %



### AMV

Avg=512949  
Today\_Cnt=471031  
Dep=-8. %



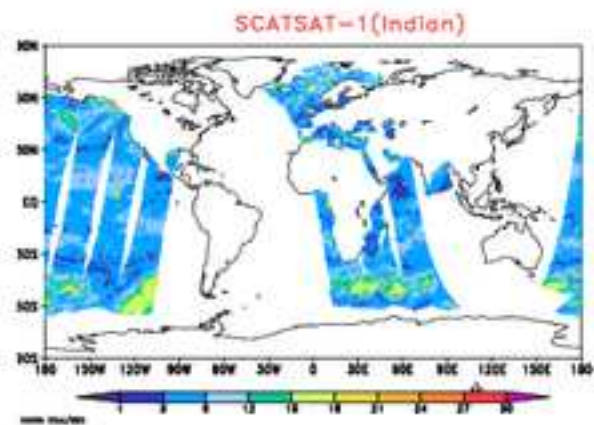
SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20180419 18Z)

SCATTEROMETER SURFACE WINDS (19042018 1800UTC +/- 03Hrs)

ASCAT:Metop-A

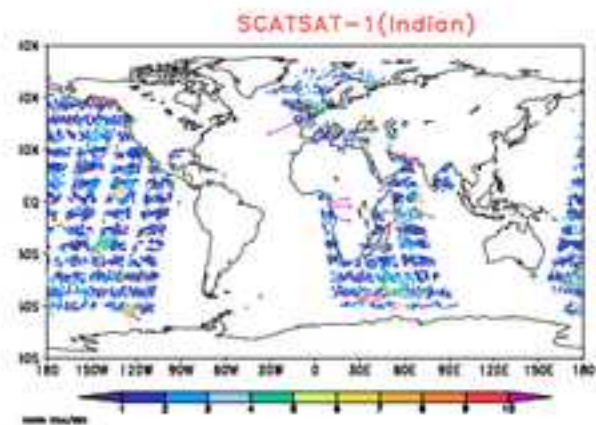
ASCAT:Metop-B



OBSERVATION—FIRST GUESS (19042018 18 UTC):NCMRWF

ASCAT:Metop-A

ASCAT:Metop-B



# INSAT-3D

## ATMOSPHERIC MOTION VECTORS (AMV)

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

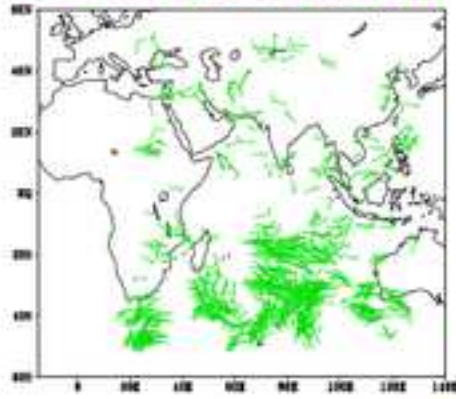
WATER VAPOUR WINDS (WV)

VISIBLE WINDS (VIS) }

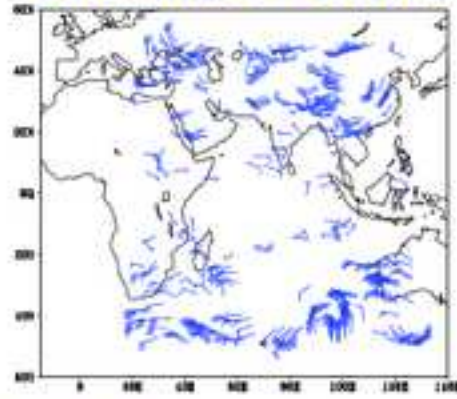
AMV DEVIATION  
(OBSERVATION - FIRST GUESS)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) (19042018 1800UTC)

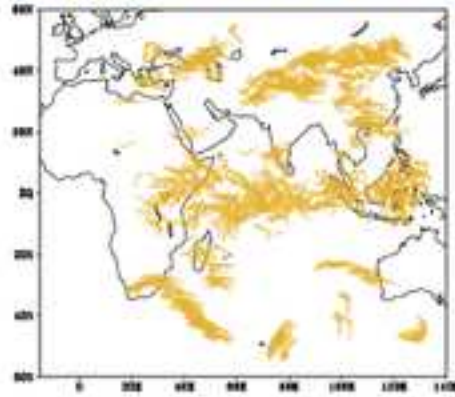
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



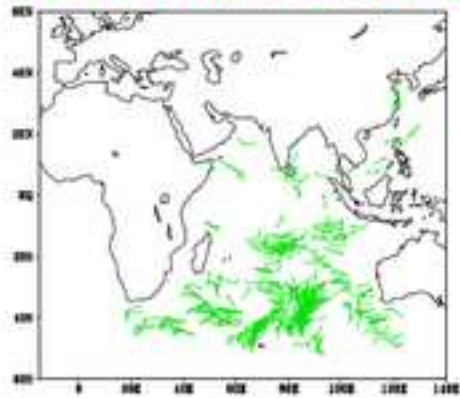
High Level (Above 400 hPa)



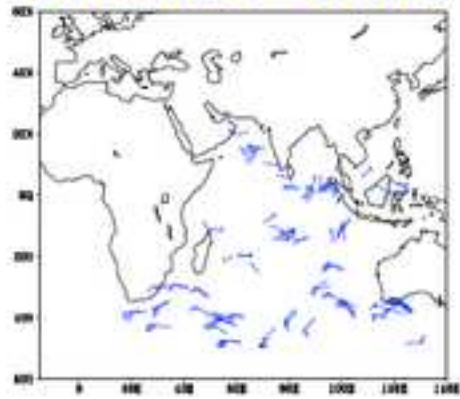


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (19042018 1800UTC)

Low Level (Below 700 hPa)



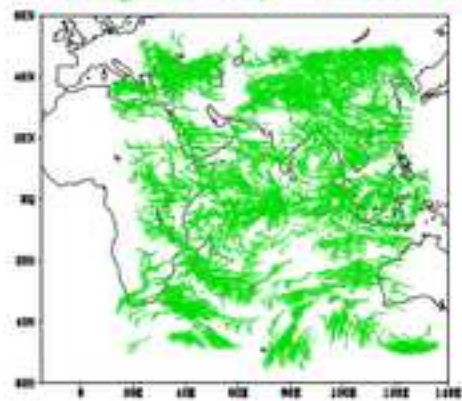
Mid Level (700 - 401 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (19042018 1800UTC)

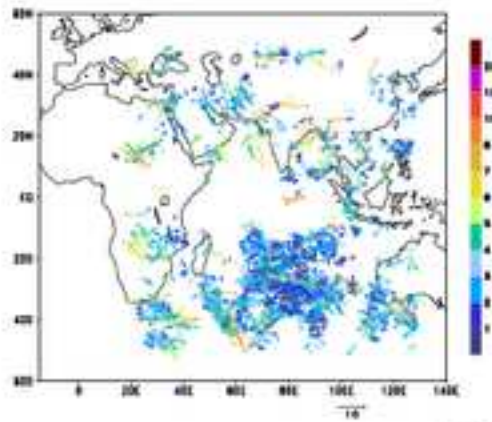
WV, High Level (Above 400 hPa)

VIS, Low Level (Below 700 hPa)

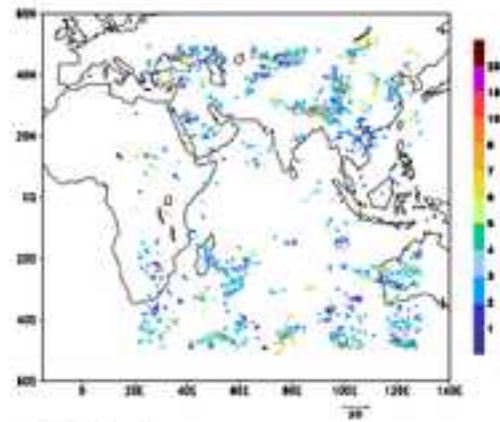


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (19042018 1800UTC)

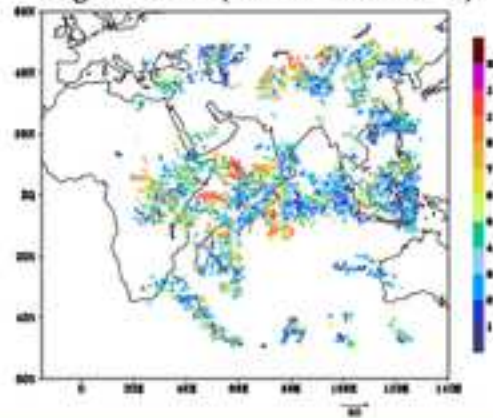
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)

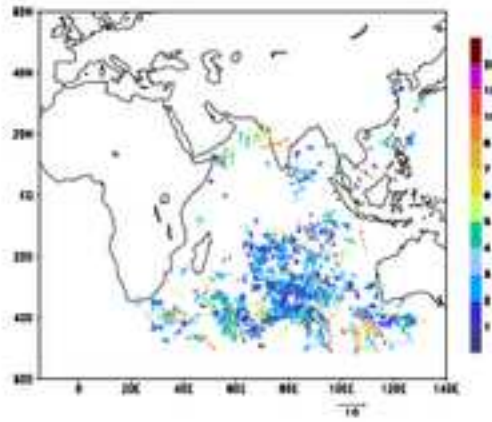


High Level (Above 400 hPa)

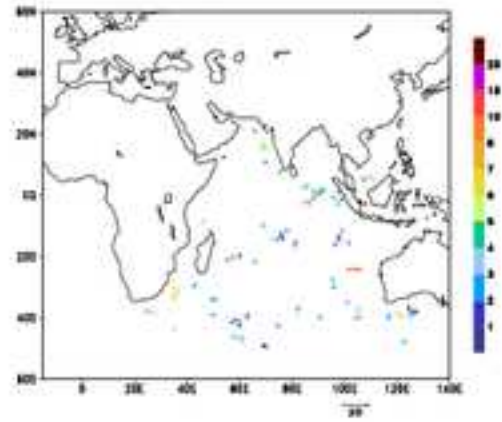


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) DEVIATION (19042018 1800UTC)

Low Level (Below 700 hPa)



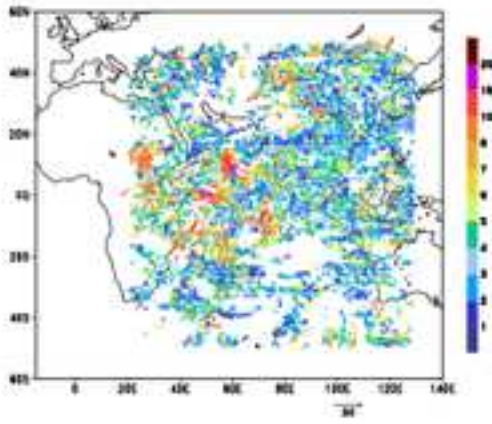
Mid Level (700 - 401 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 1800UTC)

WV, High Level (Above 400 hPa)

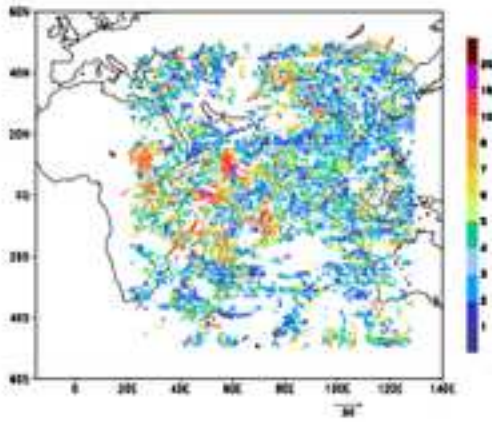
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 1800UTC)

WV, High Level (Above 400 hPa)

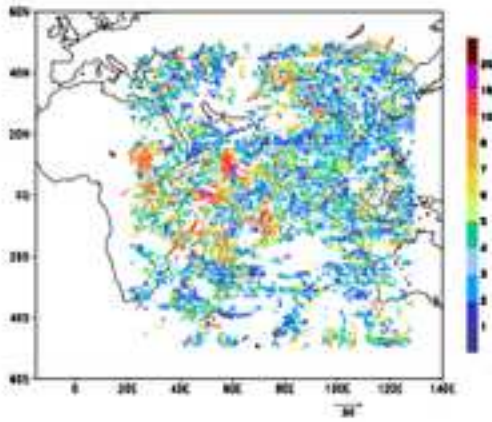
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 1800UTC)

WV, High Level (Above 400 hPa)

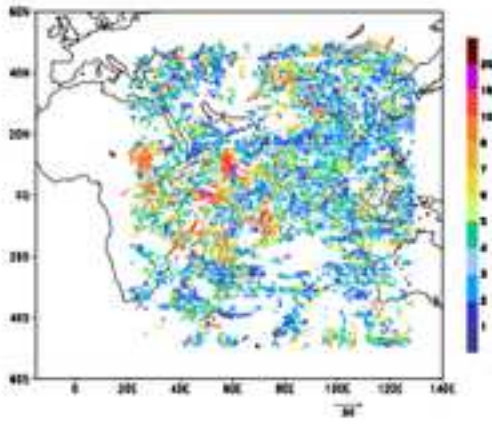
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 1800UTC)

WV, High Level (Above 400 hPa)

VIS, Low level (Below 700 hPa)

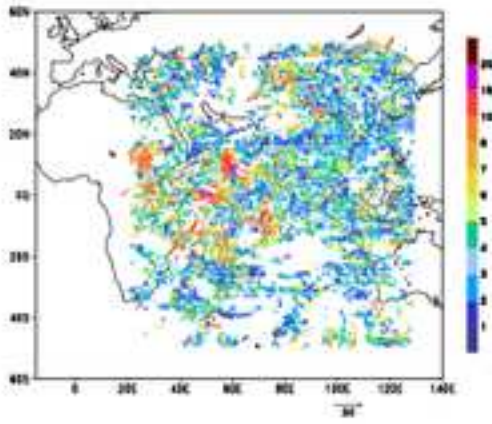




INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (19042018 1800UTC)

WV, High Level (Above 400 hPa)

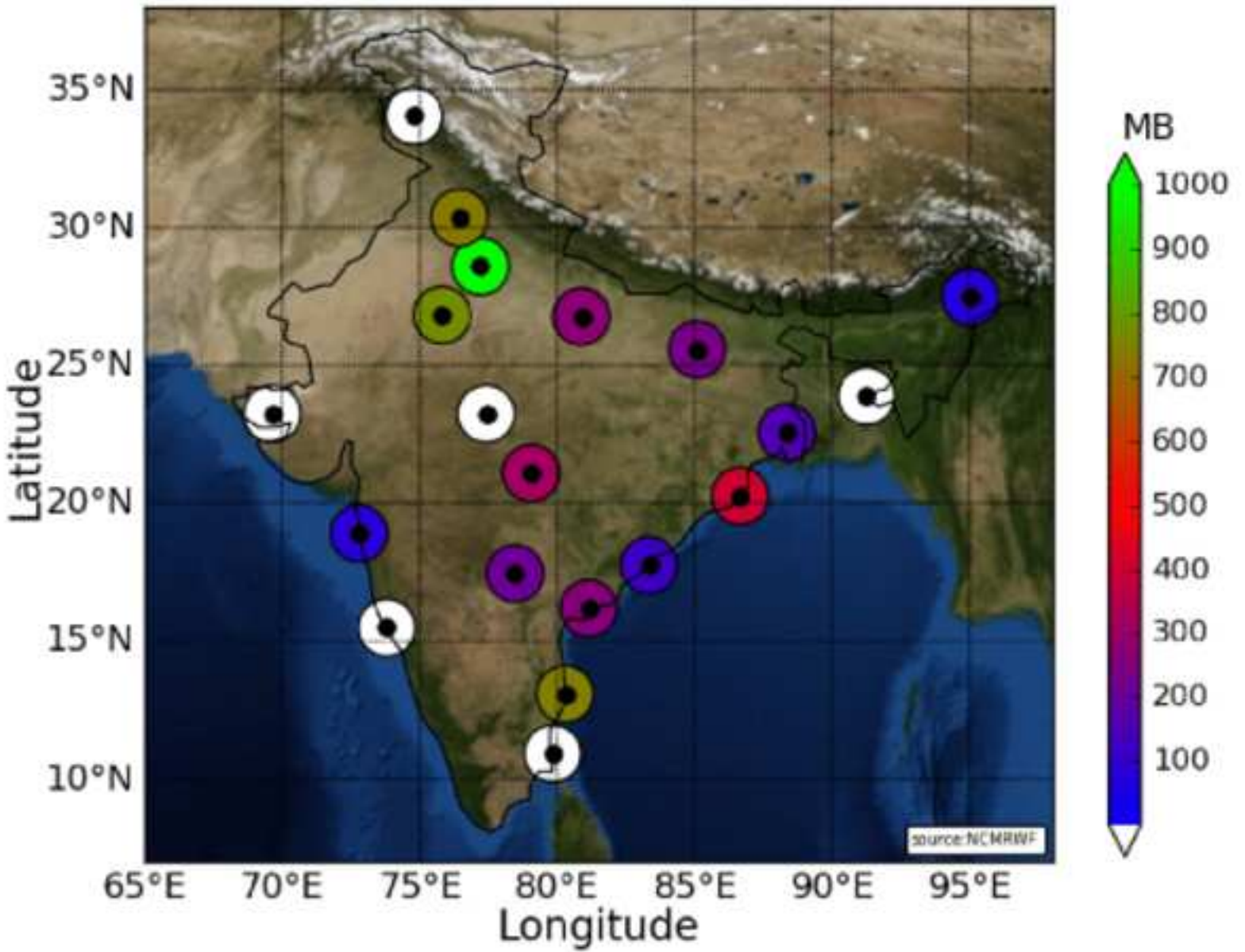
VIS, Low level (Below 700 hPa)



# Indian Doppler Weather Radar Data Monitoring

# Volume of DWR observations received at NCMRWF

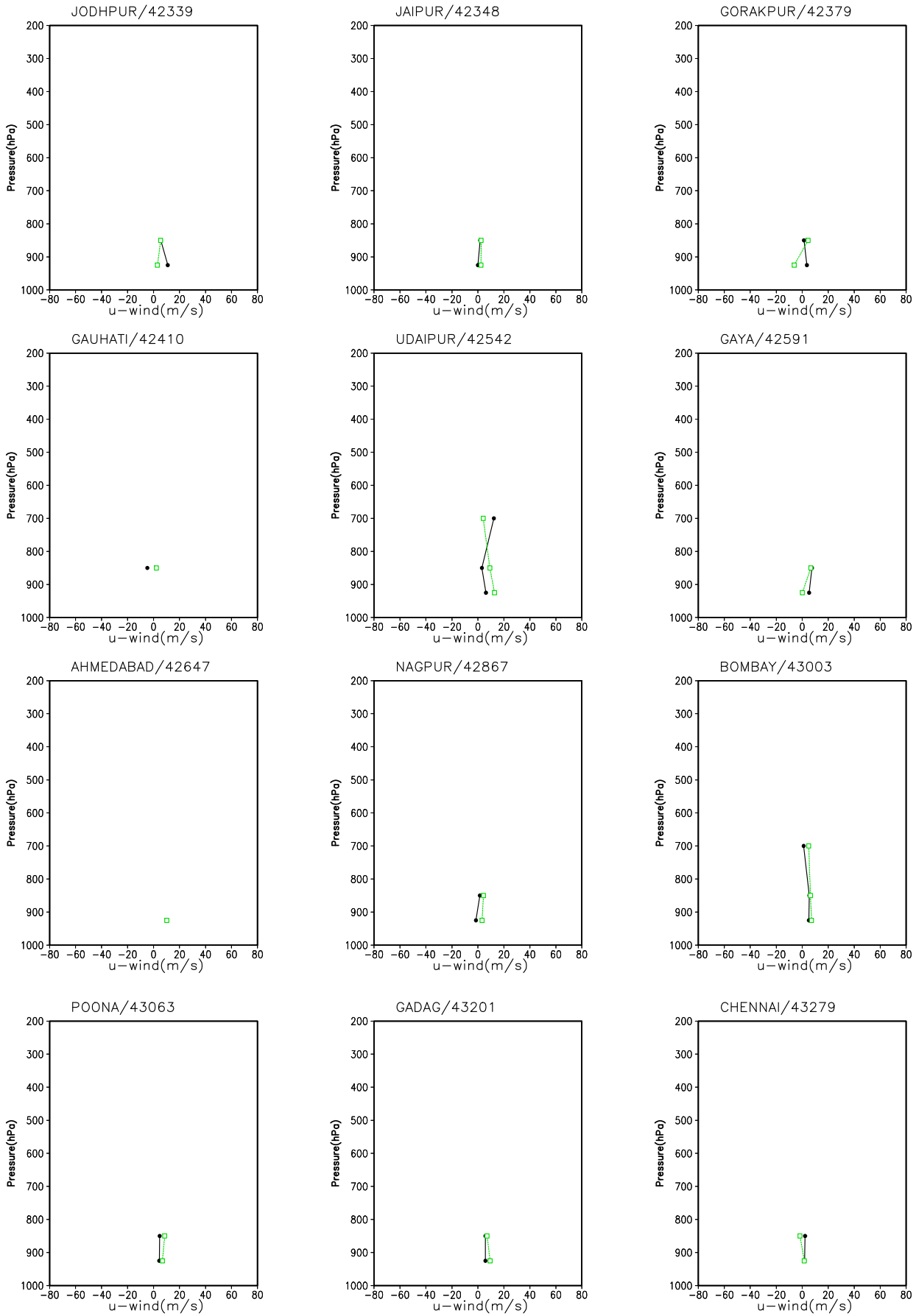
Date: 20180419 at : 18UTC



# Quality of Indian PIBAL Observations

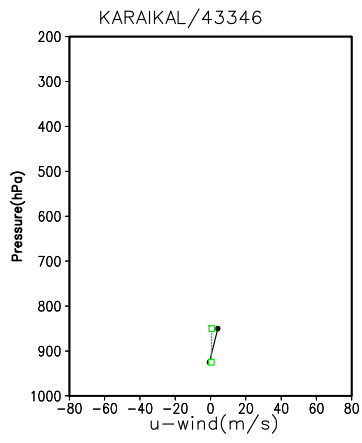
Maximum height reported  
by PIBAL ascents

Zonal Wind Rejections by NGFS GDAS



Observed ( — ) and 1st-guess ( — ) Zonal wind (m/s) for 18UTC 19042018

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



Observed ( — ) and 1st-guess ( — ) Zonal wind (m/s) for 18UTC 19042018

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