

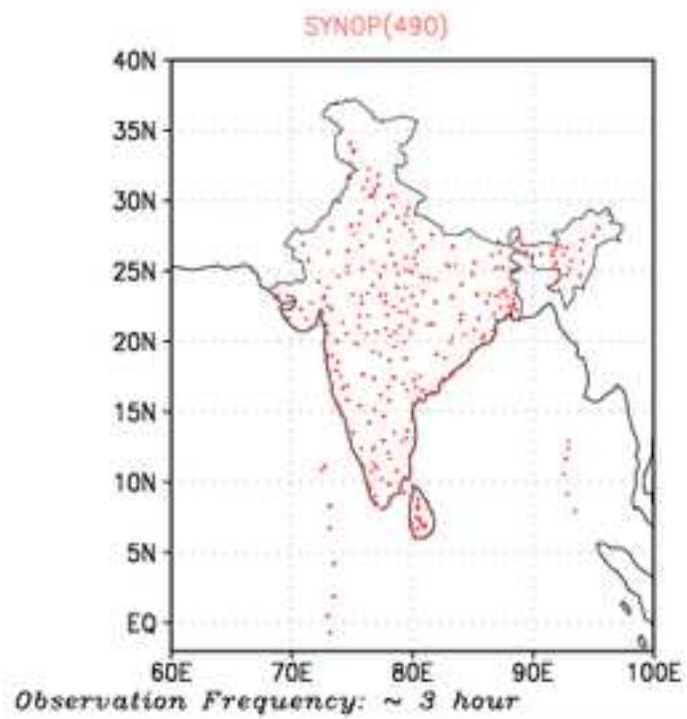
# Observation Monitoring

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

for 28062017 (1200 UTC)

# Indian Observation Coverage

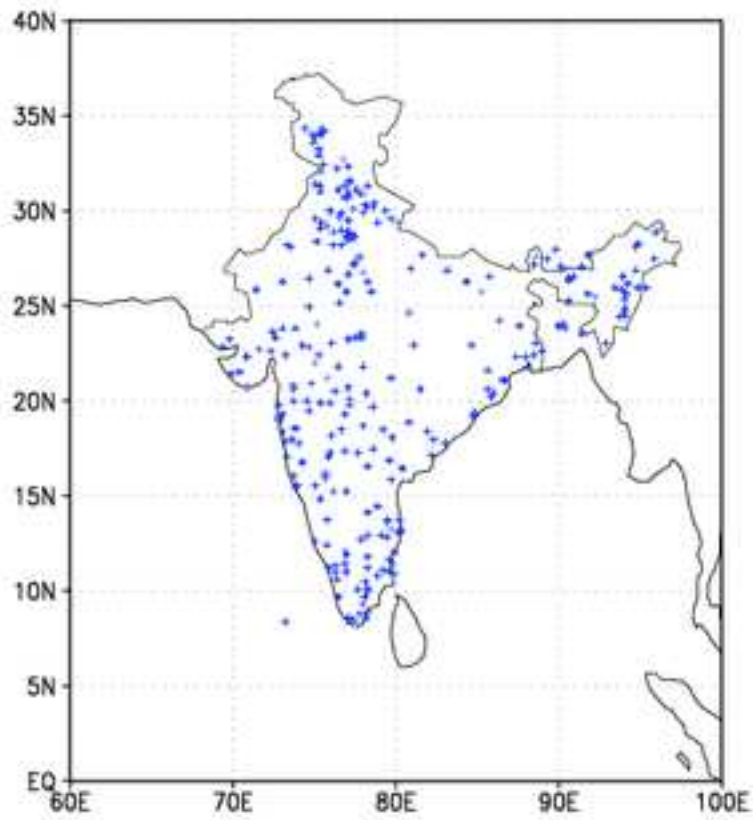
Data Coverage: Surface (28062017 1200UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 490  
(42 & 43 Block)



Data Coverage: Indian AWS (28062017 1200UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 1143

AWS PRESSURE (1143)

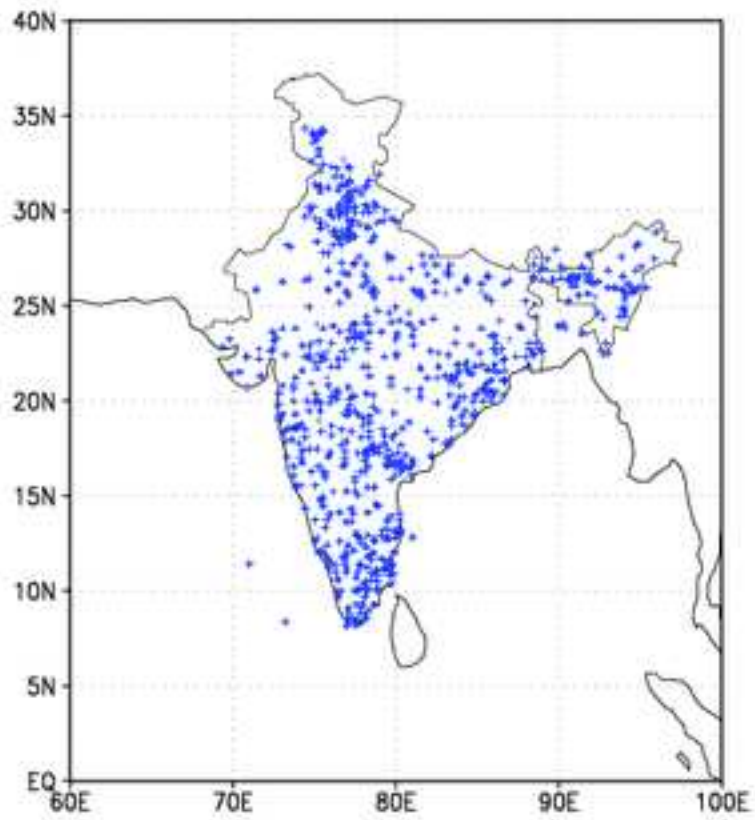


Observation Frequency: ~ 1 hour

Data Coverage: Indian AWS (28062017 1200UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 3329

AWS + ARG (3329)

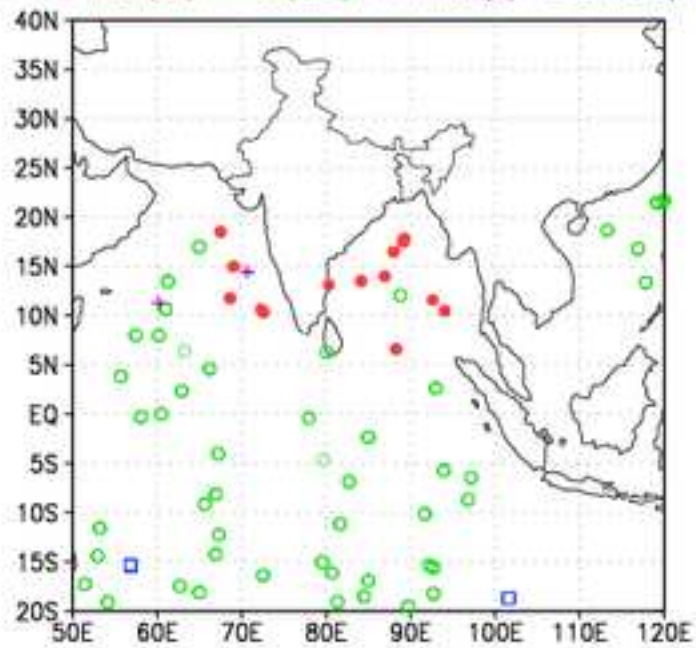


Observation Frequency: ~ 1 hour

Data Coverage: BUOY (28062017 1200UTC +/- 3 Hrs)

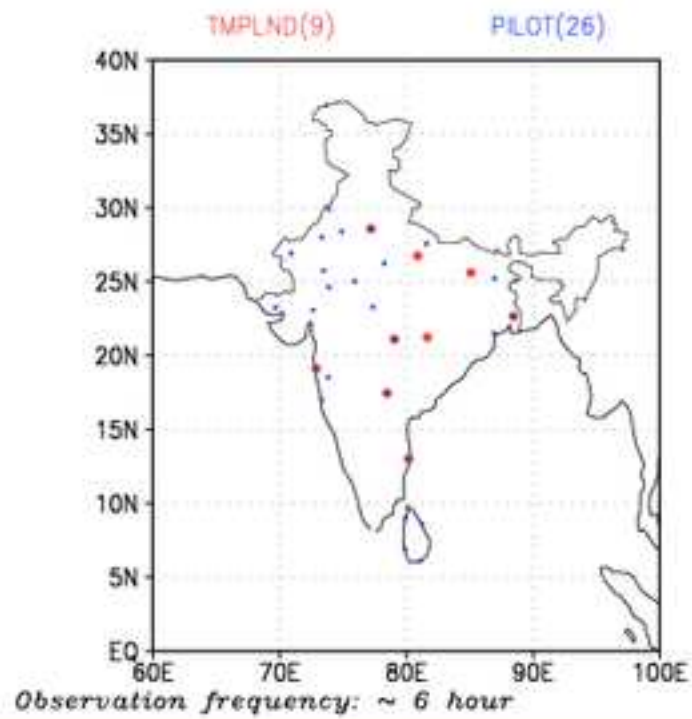
Total Number of Observations Received at NCMRWF: 277

country code in GTS as ● INDIA(25) ○ USA(229) + FRANCE(9) □ OTHERS(14)



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

Data Coverage: Sonde (28062017 1200UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 35  
(42 & 43 Block)



Count for different types of observation (Over Indian Region)  
for the last 45 days (valid for 12 UTC)

SYNOP

Avg=  
Today\_Cnt=  
Dep= %

BUOY

Avg=  
Today\_Cnt=  
Dep= %

AWS+ARG

Avg=  
Today\_Cnt=  
Dep= %

RS/RW

Avg=  
Today\_Cnt=  
Dep= %

PILOT

Avg=  
Today\_Cnt=  
Dep= %

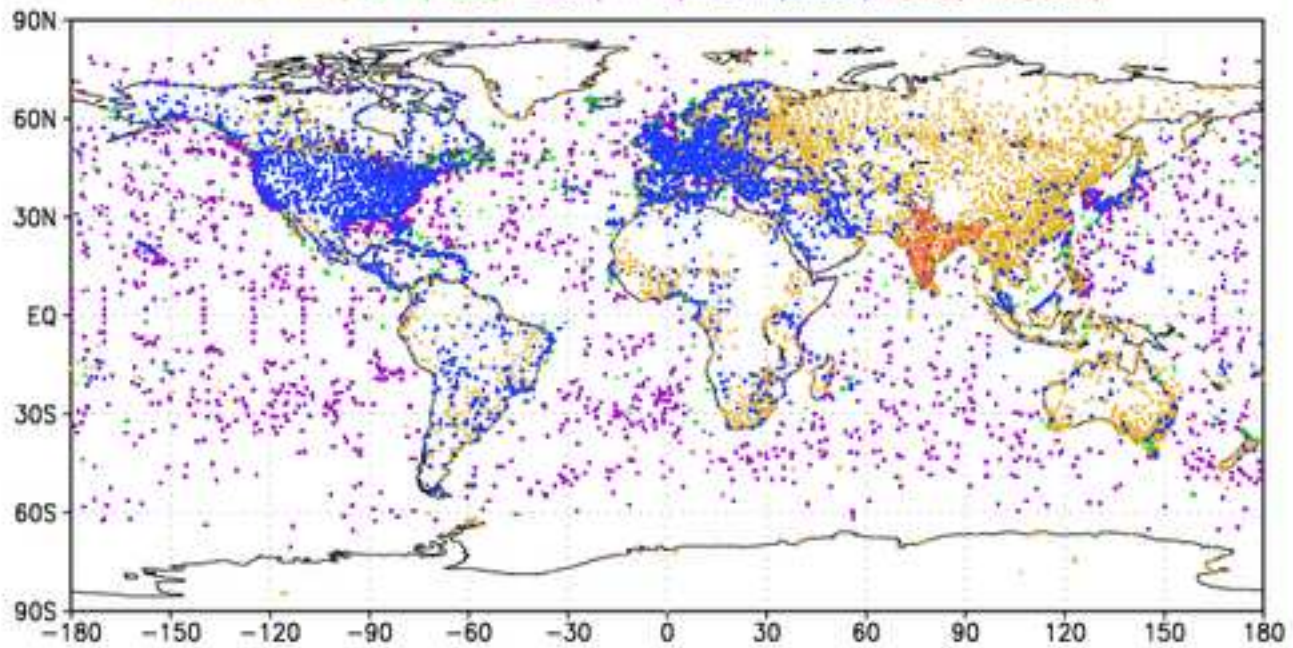


# Global Observation Coverage

Data Coverage: Surface (28062017 1200UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 47613

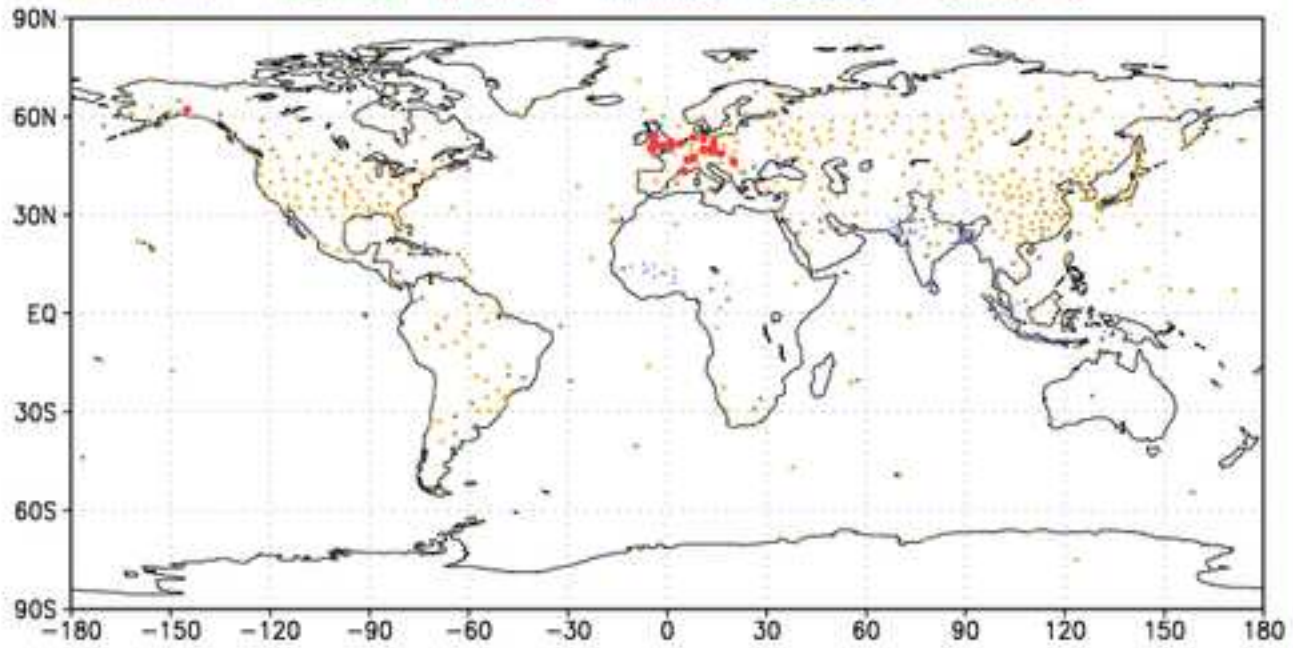
LNDSYN(14281) SHIP(1620) BUOY(11149) METAR(16965) MOBILE/AWS(3598)



Data Coverage: Sonde (28062017 1200UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 1239

TMP LND(608)    TMP SHP(0)    TMP DRP(0)    TMP MDB(0)    PILOT(228)    PROFILER(403)



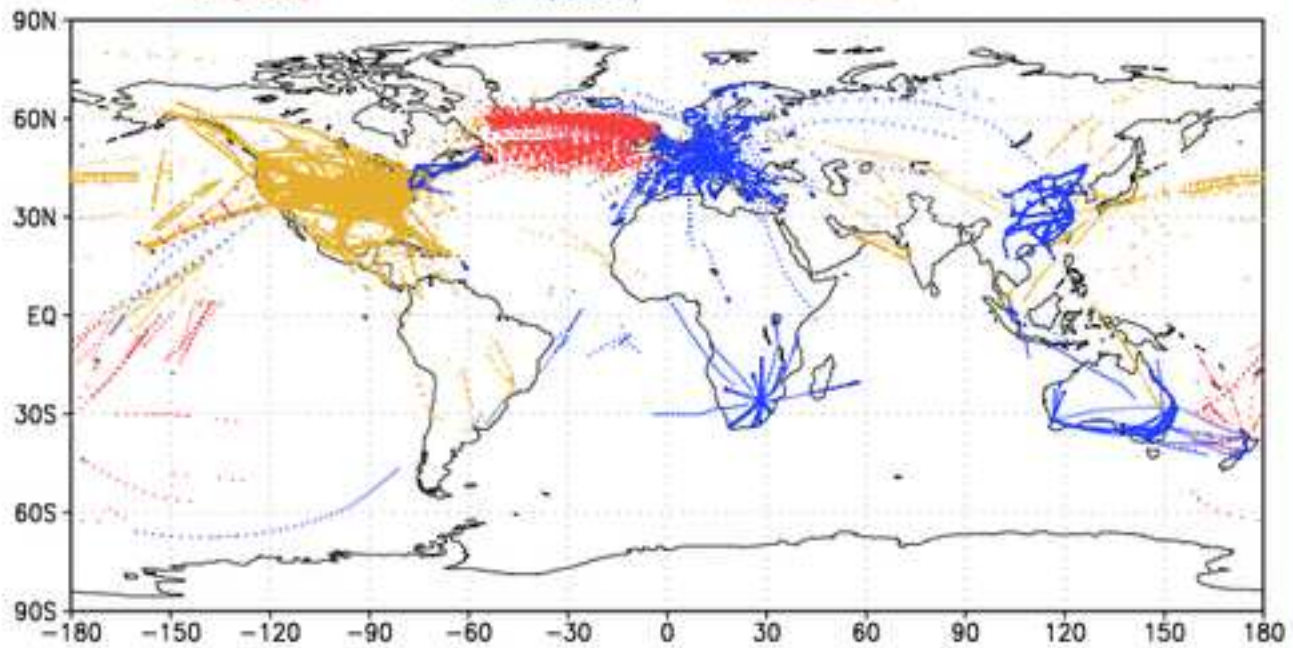
Data Coverage: AIRCFT (28062017 1200UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 109749

AIREP(6538)

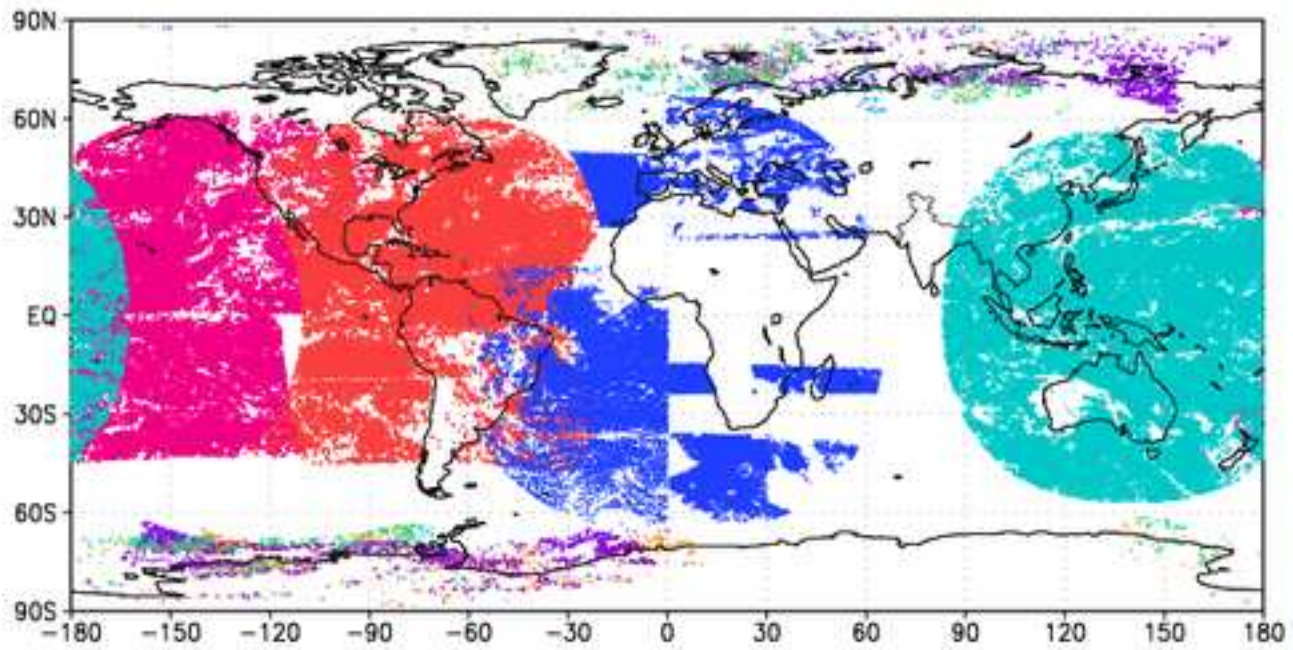
AMDAR(20534)

ACARS(82677)



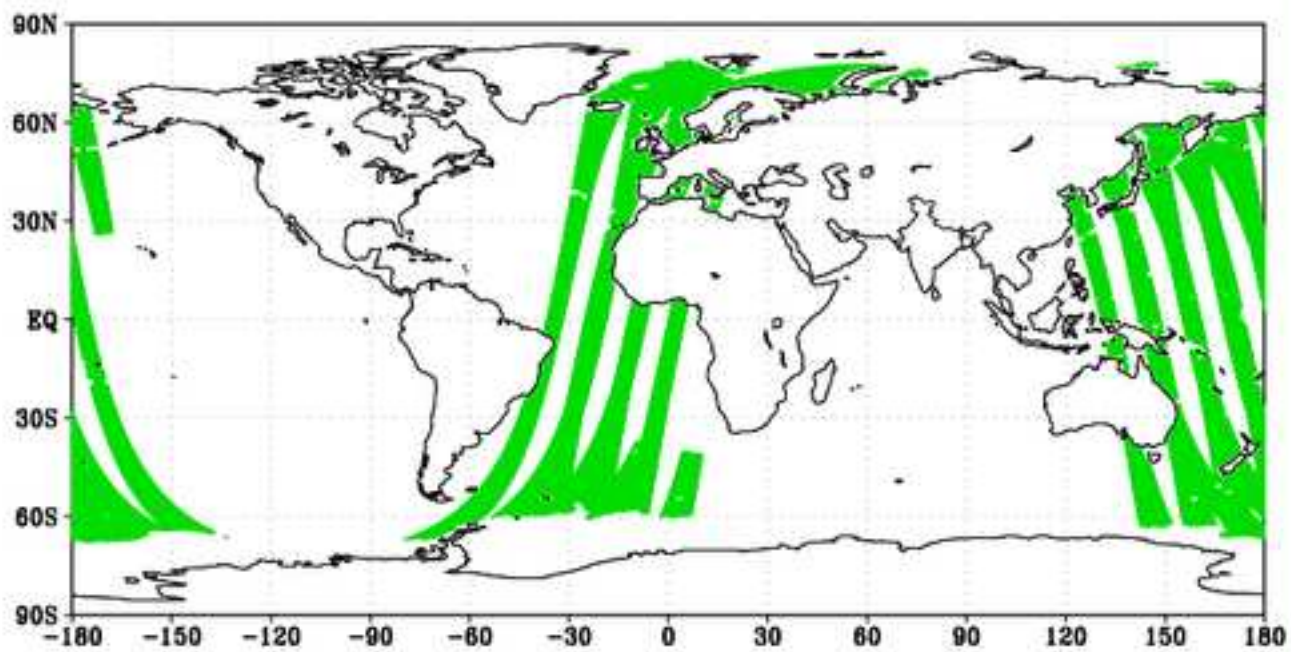
Data Coverage: AMV (28062017 1200UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 402332

GOES-15(122148) GOES-13(102569) METEOSAT-7(0) METEOSAT-8(0)  
METEOSAT-10(38115) GMS/MTSAT(89372) MODIS/Terra(1097) MODIS/Aqua(0)  
METOP(4302) NOAA-15(944) NOAA-16(0) NOAA-18(1094) NOAA-19(220)



Data Coverage: ASCAT winds (28062017 12UTC +/- 03Hrs)

ASCAT (140161)



Data Coverage: SAT RADIANCE (28062017 1200UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 2463174

NOAA15(51830)

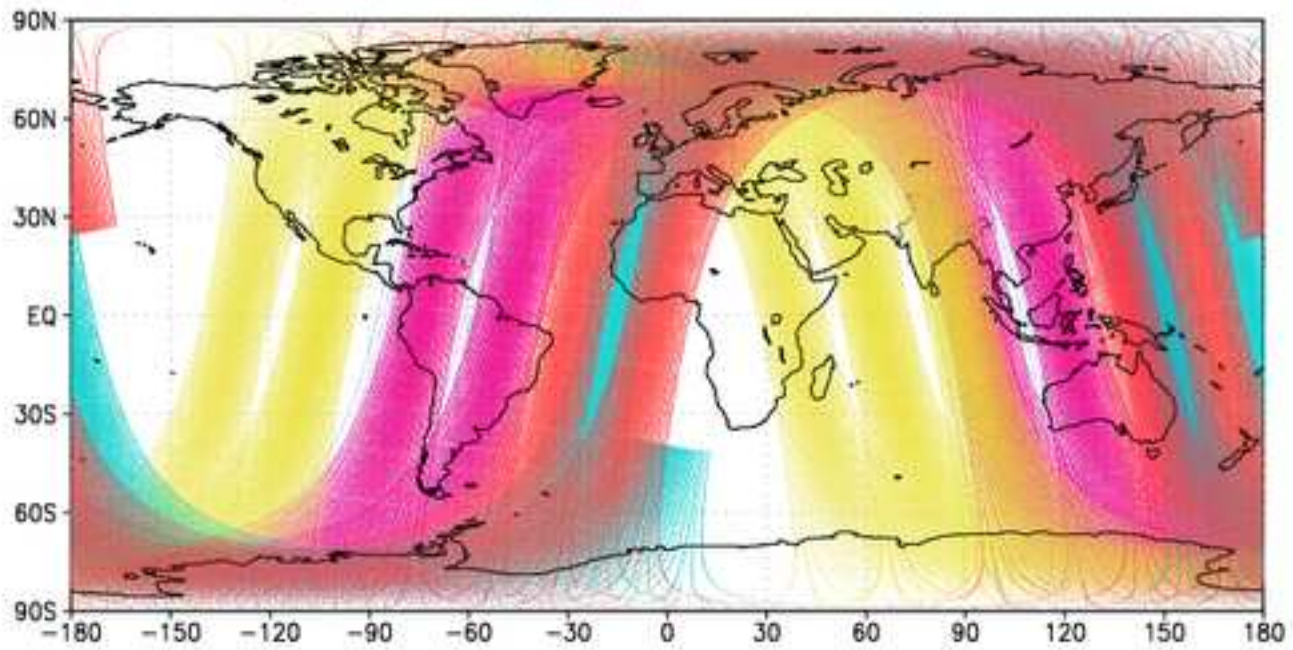
NOAA18(0)

NOAA19(714532)

NOAA18(6634002)

METOP1(600511)

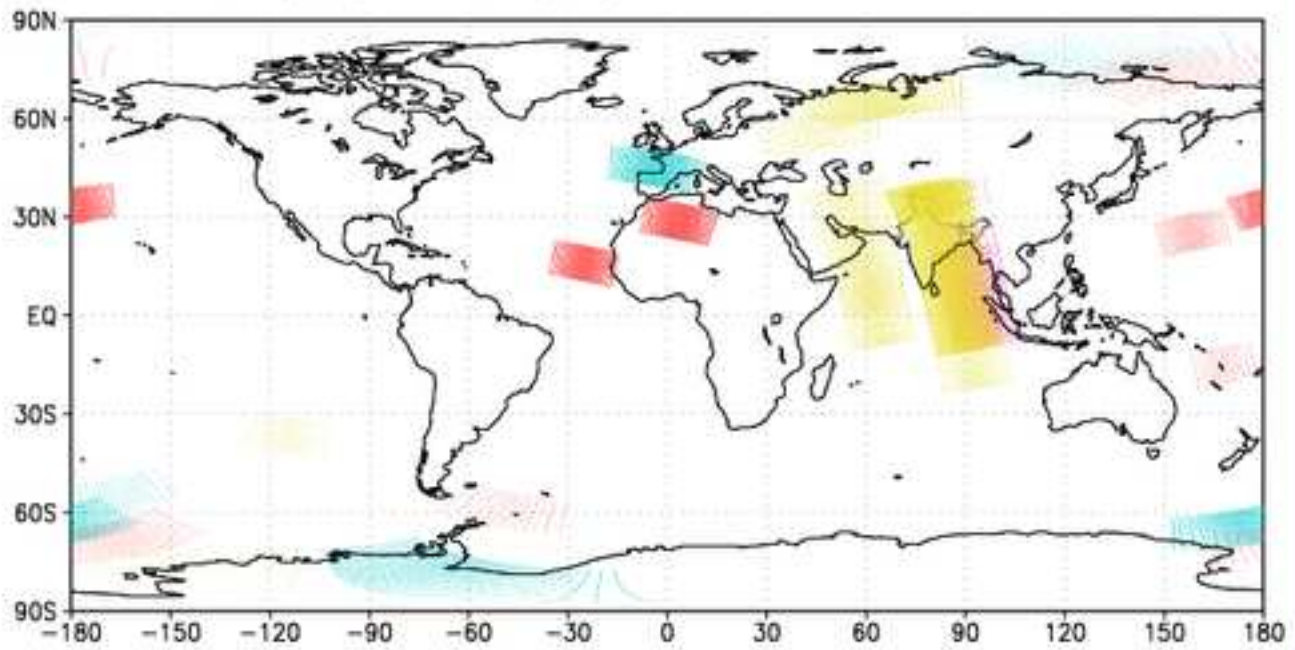
METOP2(462249)



Data Coverage: SAT RADIANCE (EARS+IMD RARS) (28062017 1200UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 122526

NOAA15(0)      NOAA16(0)      NOAA18(7120)      NOAA19(99428)  
METOP1(25888)      METOP2(20498)



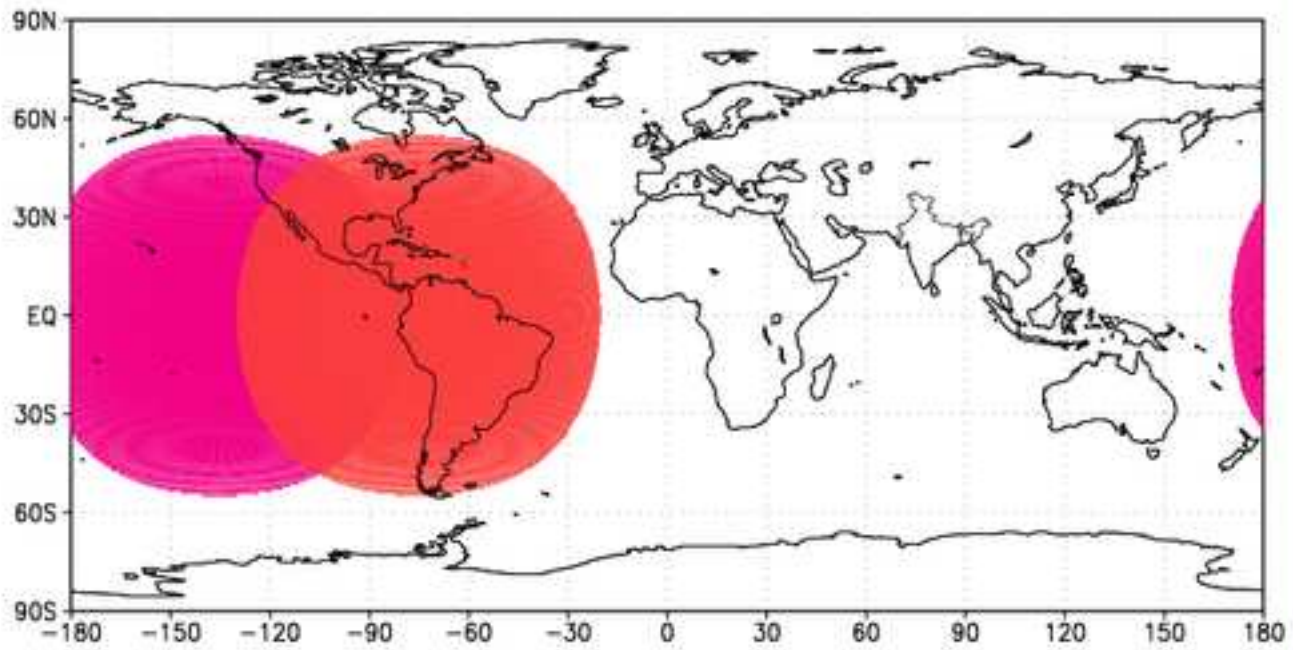


Data Coverage: GOES CSBT (28062017 1200UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 84777

GOES-15(42392)

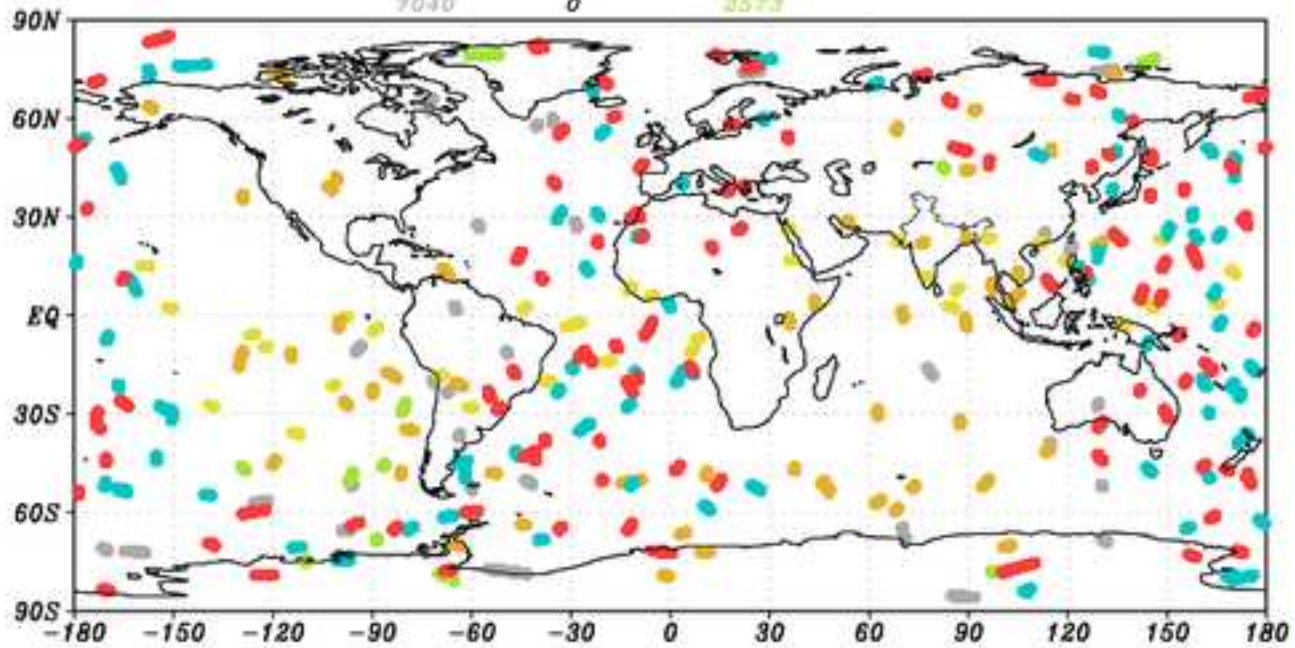
GOES-13(42385)



Data Coverage:GPSRO (28062017 1200UTC +/-03Hrs)

Total Number of Observations Received at NCMRWF: 74347

GRACE-A	METOP-B	METOP-A	COSMIC-1	COSMIC-2	COSMIC-3	COSMIC-4	COSMIC-5	COSMIC-6
0	24508	18465	0	0	6410	0	0	15351
		TerraSAR-X	TenDEM-X	GRACE-B				
		7040	0	3573				



Count for different types of observation (Global)  
for the last 45 Days (valid for 12 UTC)

SYN0P

Avg=  
Today\_Cnt=  
Dep= %

SHIP

Avg=  
Today\_Cnt=  
Dep= %

BUOY

Avg=  
Today\_Cnt=  
Dep= %

AIRCRAFT

Avg=  
Today\_Cnt=  
Dep= %

RS/RW

Avg=  
Today\_Cnt=  
Dep= %

PILOT

Avg=  
Today\_Cnt=  
Dep= %

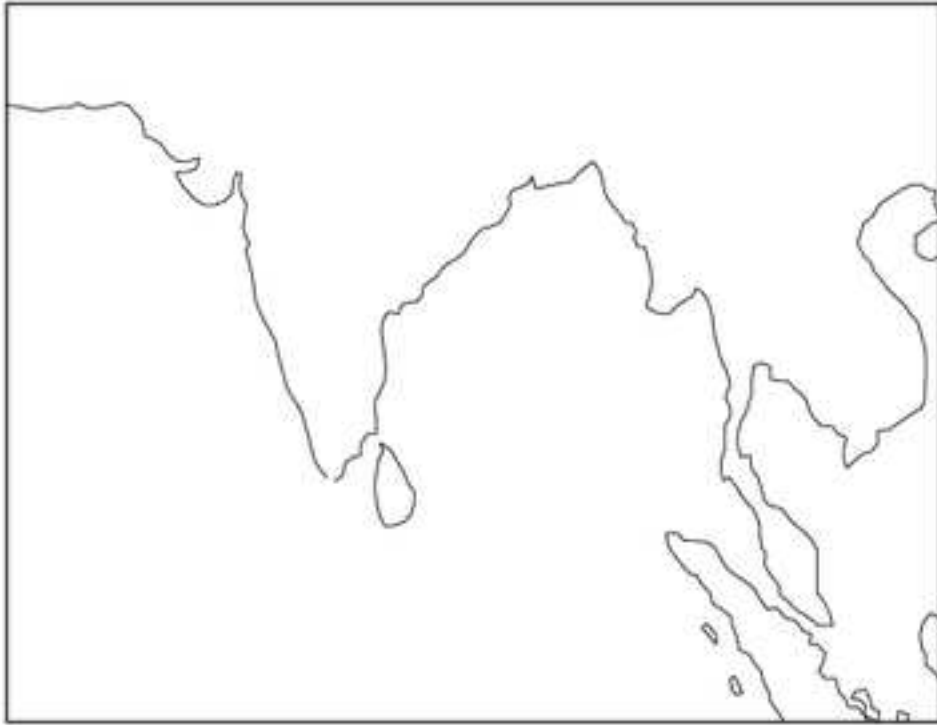
AMV

Avg=  
Today\_Cnt=  
Dep= %

SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20170628 12Z)

ASCAT WINDS (28062017 12 UTC):NCMRWF



# INSAT-3D

## ATMOSPHERIC MOTION VECTORS (AMV)

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

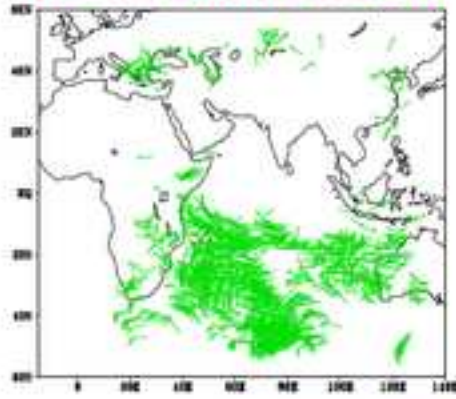
WATER VAPOUR WINDS (WV)

VISIBLE WINDS (VIS) }

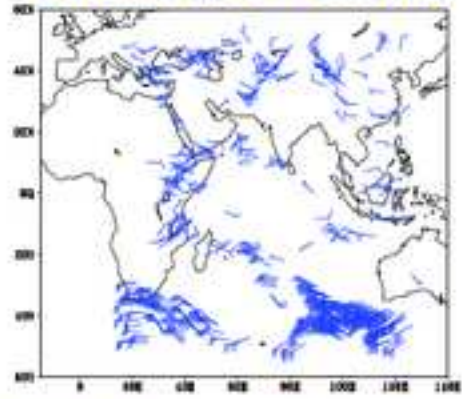
AMV DEVIATION  
(OBSERVATION - FIRST GUESS)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) (28062017 1200UTC)

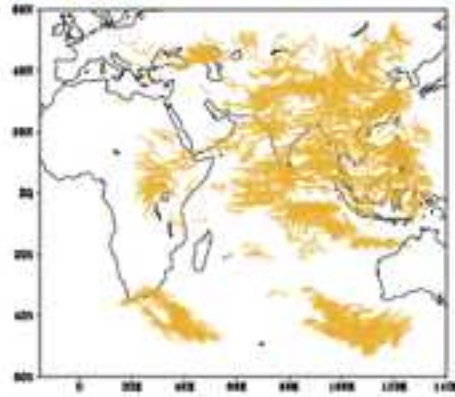
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (28062017 1200UTC)

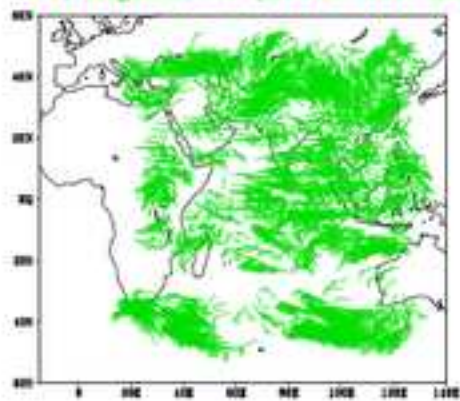
Low Level (Below 700 hPa)

Mid Level (700 - 401 hPa)

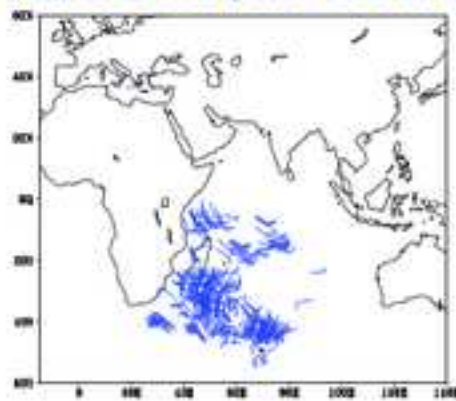


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (28062017 1200UTC)

WV, High Level (Above 400 hPa)

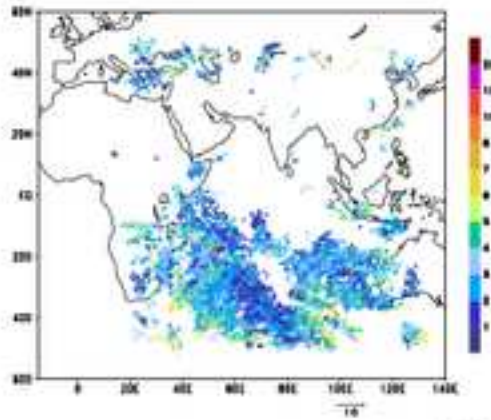


VIS, Low Level (Below 700 hPa)

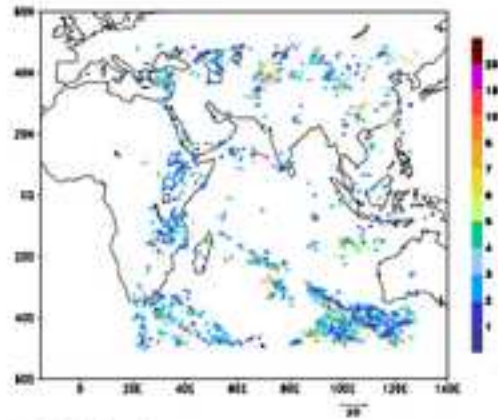


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (28062017 1200UTC)

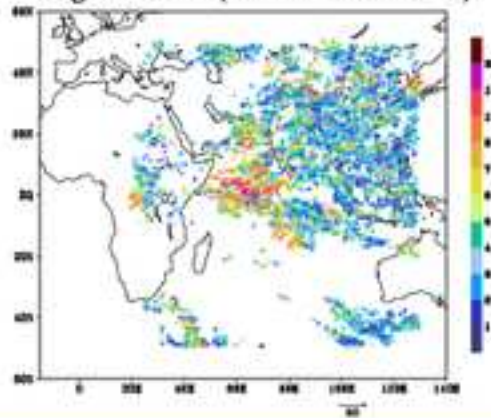
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)



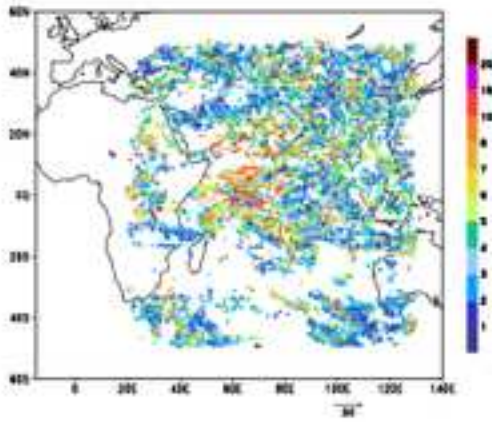
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) DEVIATION (28062017 1200UTC)

Low Level (Below 700 hPa)

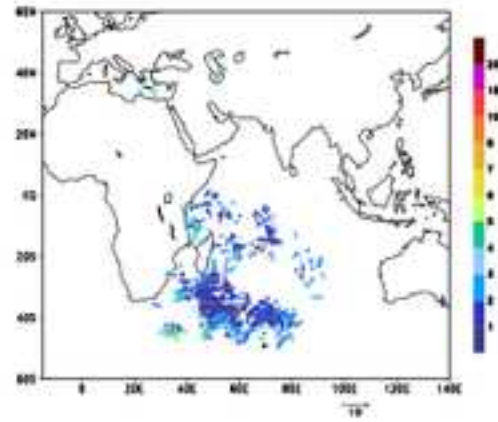
Mid Level (700 - 401 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 1200UTC)

WV, High Level (Above 400 hPa)

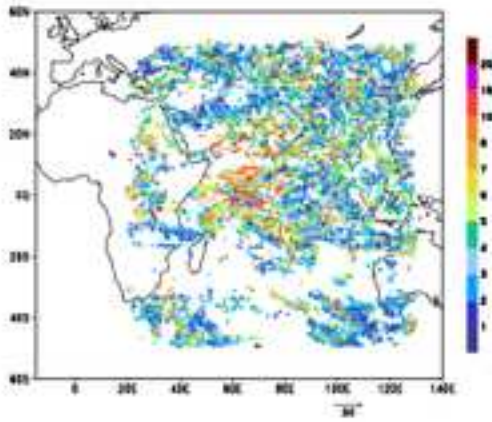


VIS, Low level (Below 700 hPa)

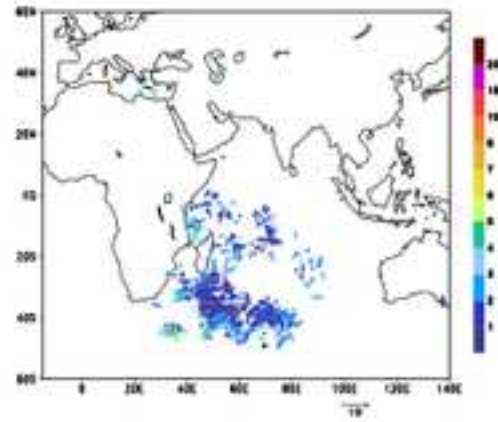


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 1200UTC)

WV, High Level (Above 400 hPa)

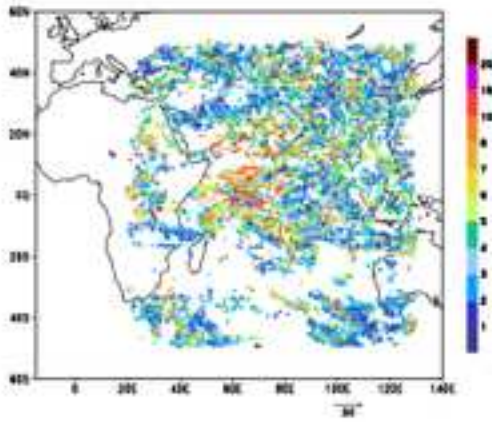


VIS, Low level (Below 700 hPa)

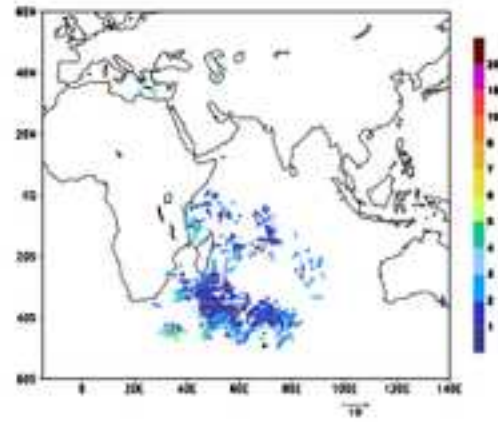


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 1200UTC)

WV, High Level (Above 400 hPa)

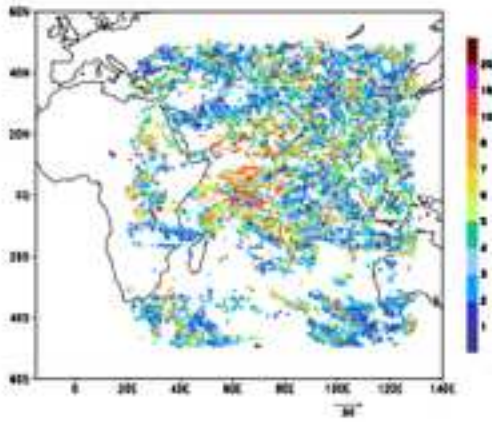


VIS, Low level (Below 700 hPa)

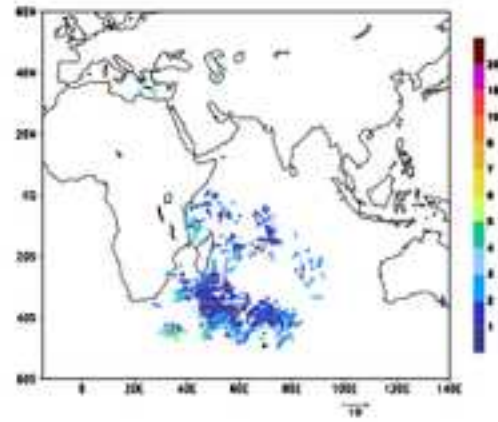


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 1200UTC)

WV, High Level (Above 400 hPa)

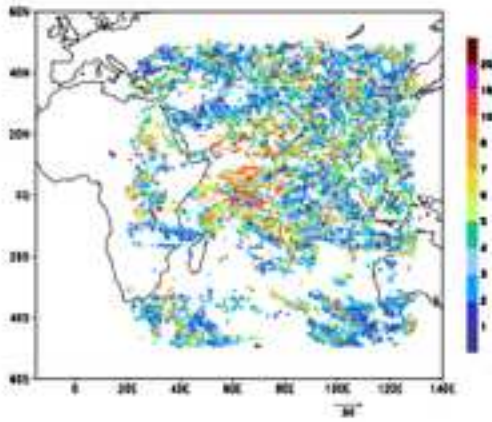


VIS, Low level (Below 700 hPa)

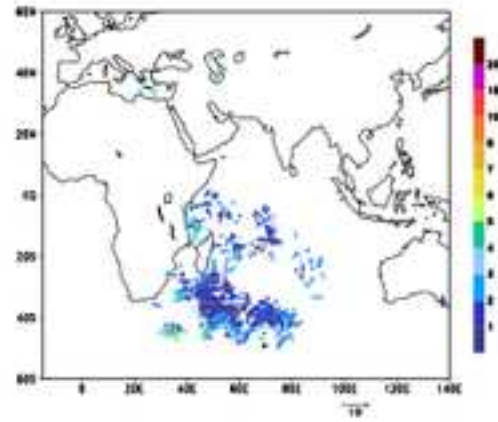


INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 1200UTC)

WV, High Level (Above 400 hPa)



VIS, Low level (Below 700 hPa)



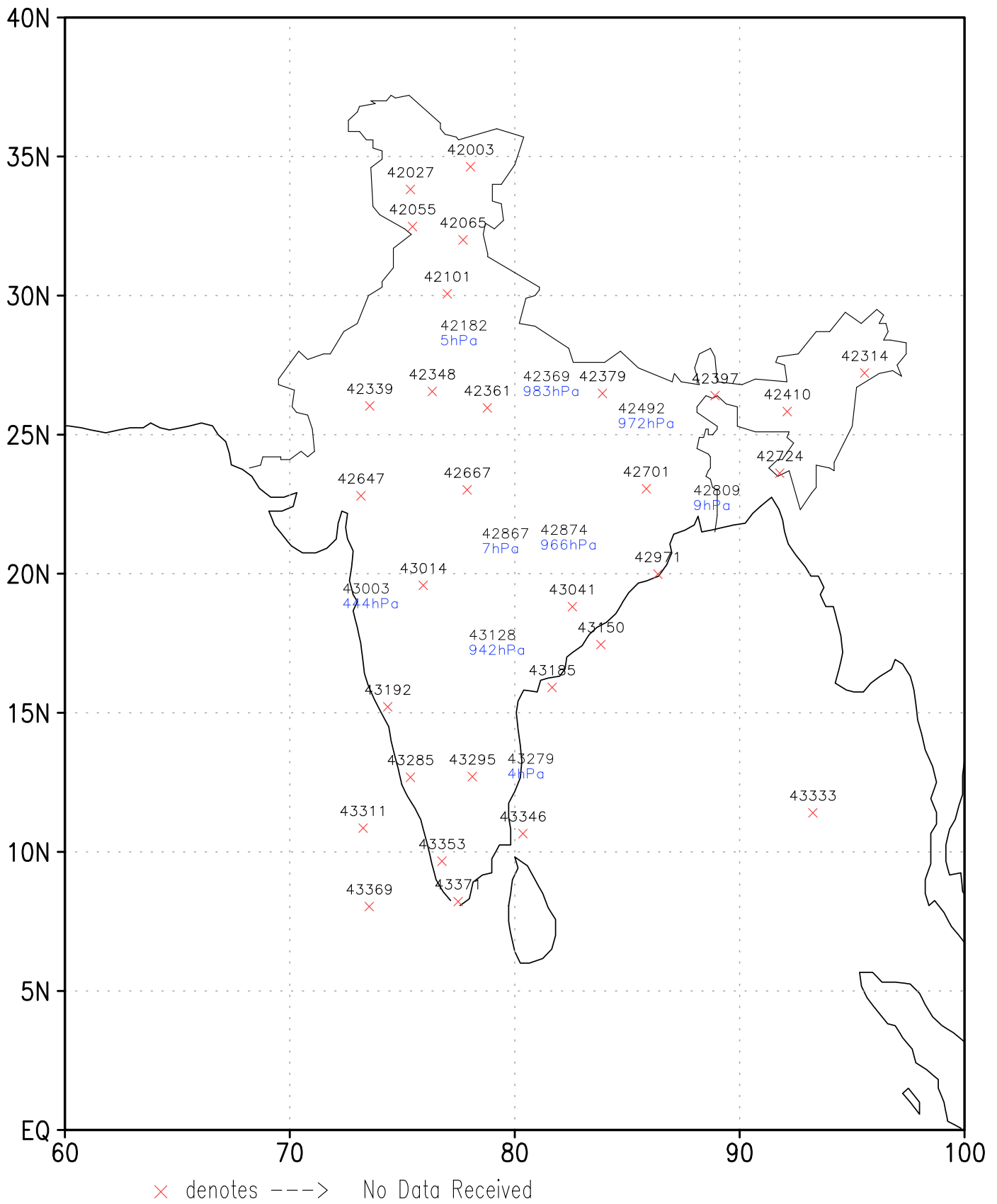


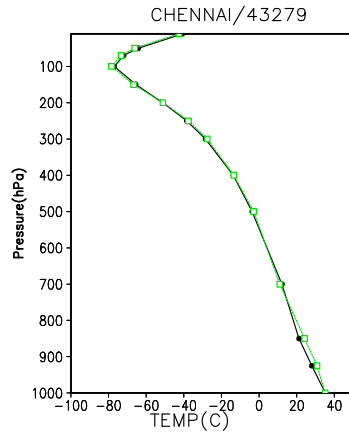
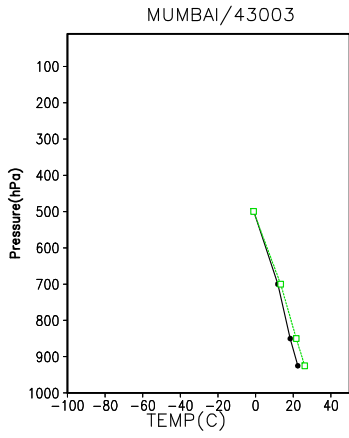
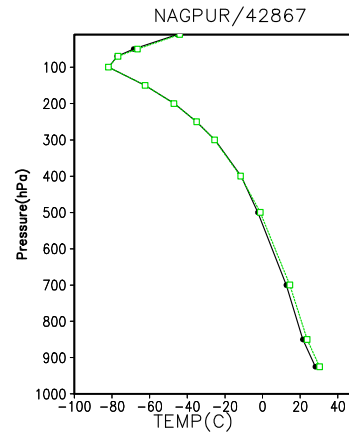
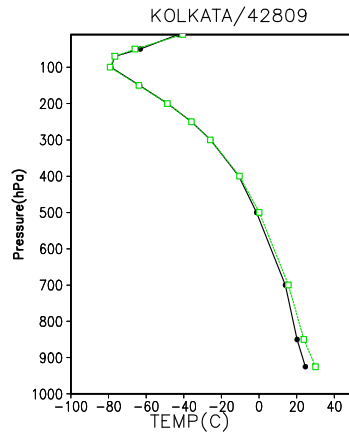
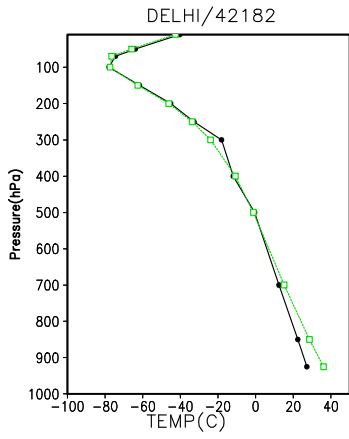
# Quality of Indian RS/RW Observations

Maximum height reported  
by RS/RW ascents

Temperature and Zonal Wind  
Rejections by NGFS GDAS

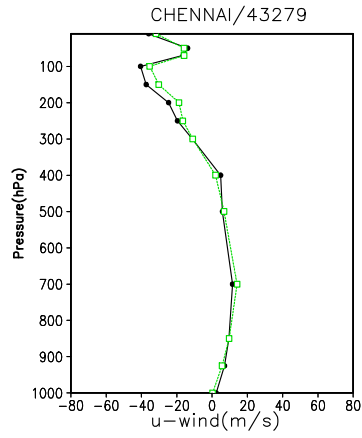
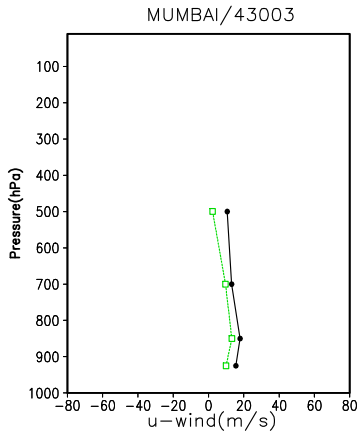
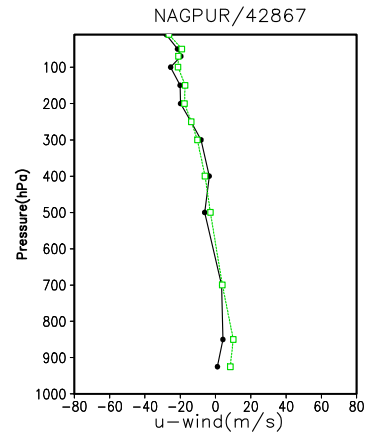
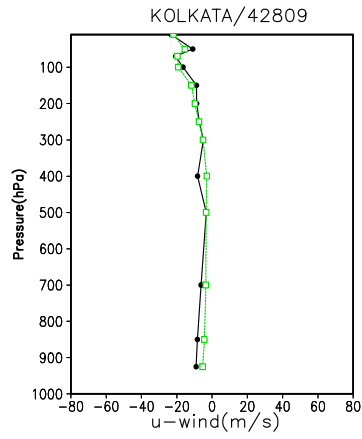
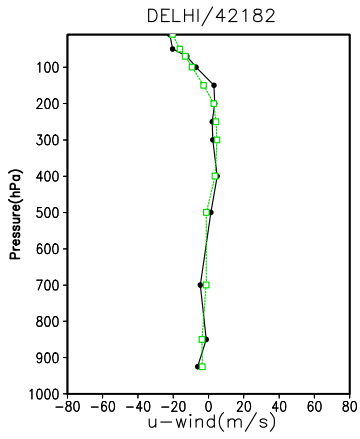
# Highest Level Reported by RS/RW (28062017 1200UTC +/- 03Hrs)





Observed ( — ) and 1st-guess ( - - ) Temperature (Deg C) for 12UTC 28062017

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



Observed ( — ) and 1st-guess ( - - ) Zonal wind (m/s) for 12UTC 28062017  
 × -- denotes the rejection of observation by NGFS GDAS  
 ( plotted for standard pressure levels only )