

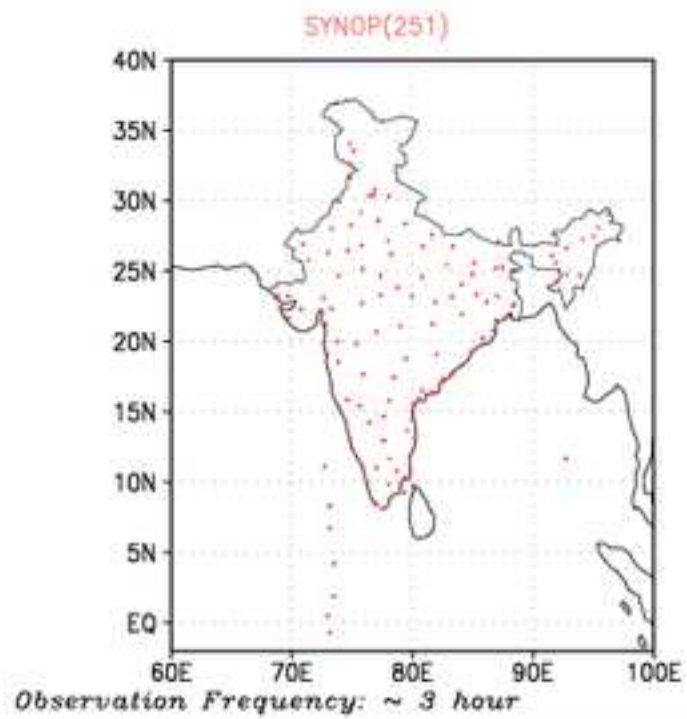
# Observation Monitoring

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

for 28062017 (0000 UTC)

# Indian Observation Coverage

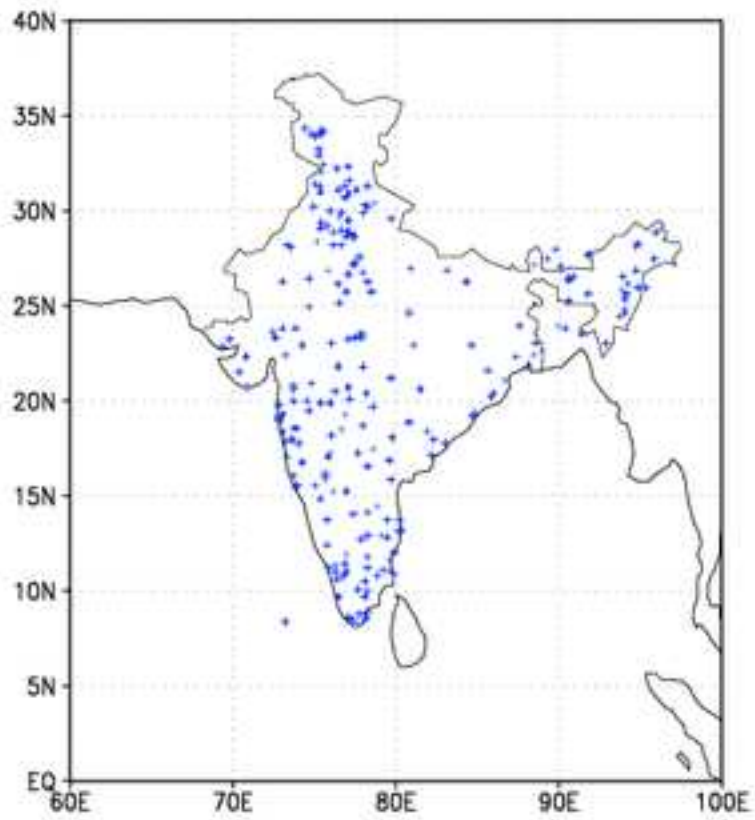
Data Coverage: Surface (28062017 0000UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 251  
(42 & 43 Block)



Data Coverage: Indian AWS (28062017 0000UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 936

AWS PRESSURE (936)

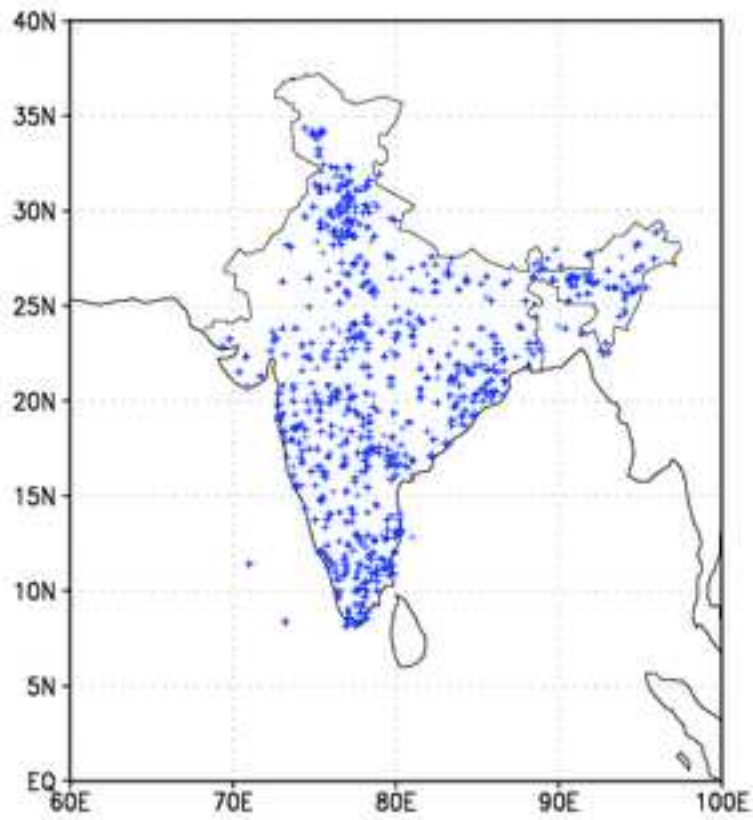


Observation Frequency: ~ 1 hour

Data Coverage: Indian AWS (28062017 0000UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 2450

AWS + ARG (2450)

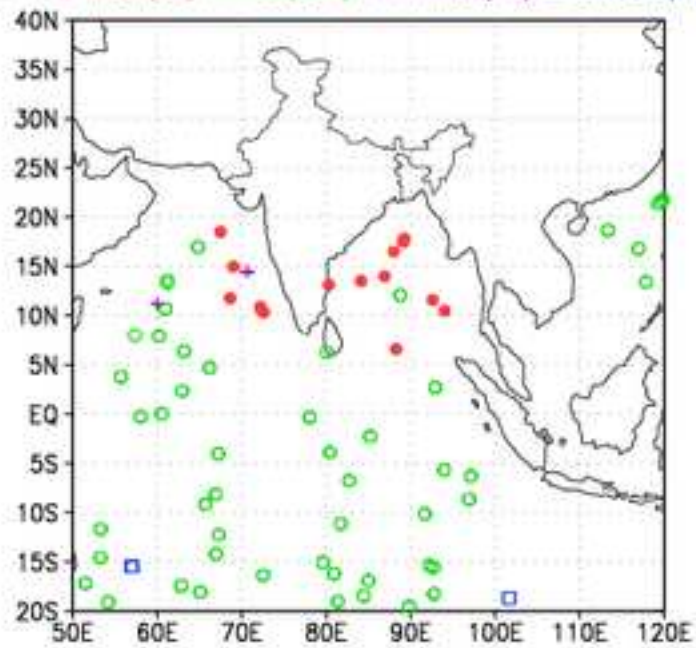


Observation Frequency: ~ 1 hour

Data Coverage: BUOY (28062017 0000UTC +/- 3 Hrs)

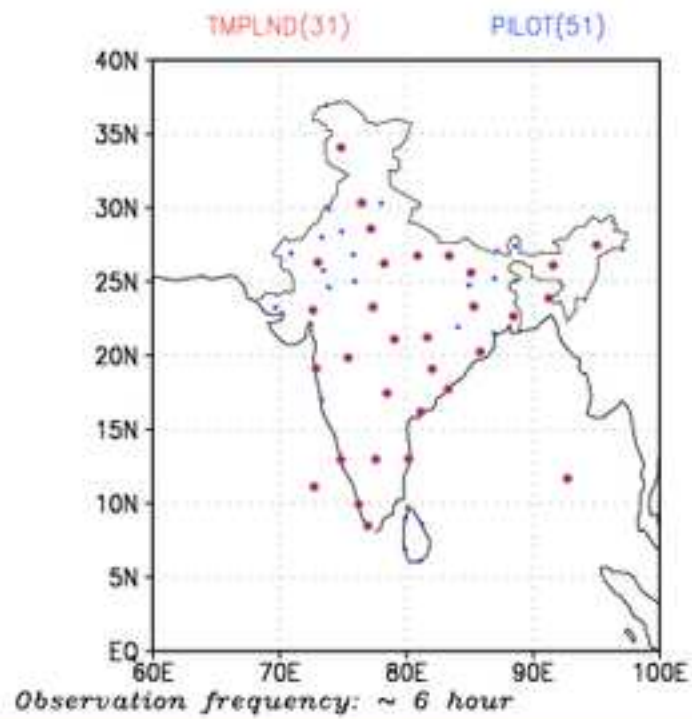
Total Number of Observations Received at NCMRWF: 361

country code in GTS as ● INDIA(29) ○ USA(301) + FRANCE(16) □ OTHERS(15)



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

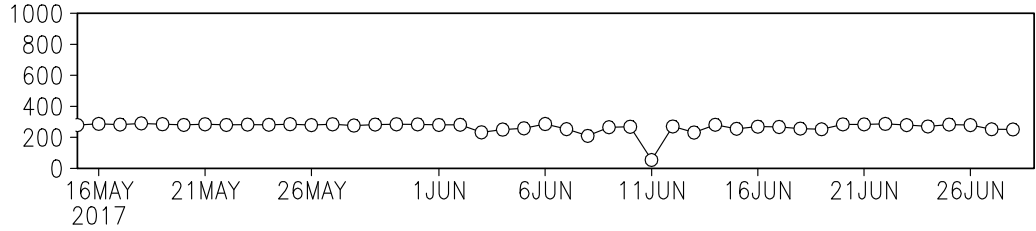
Data Coverage: Sonde (28062017 0000UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 82  
(42 & 43 Block)



# Count for different types of observation (Over Indian Region) for the last 45 days (valid for 00 UTC)

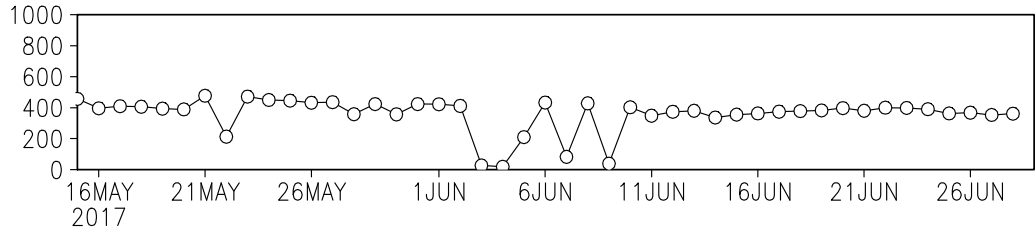
## SYNOP

Avg=280  
Today\_Cnt=251  
Dep=-10. %



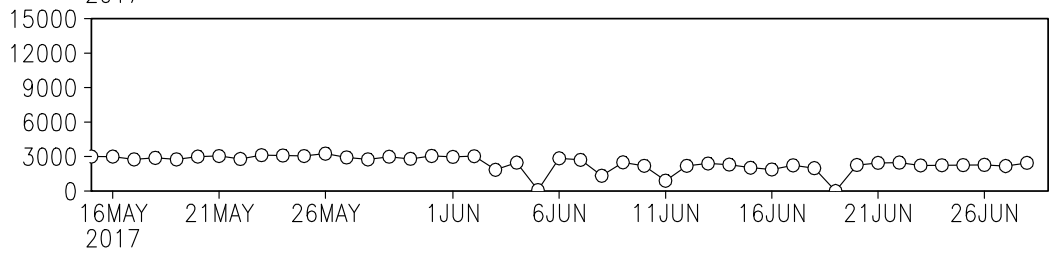
## BUOY

Avg=402  
Today\_Cnt=361  
Dep=-10. %



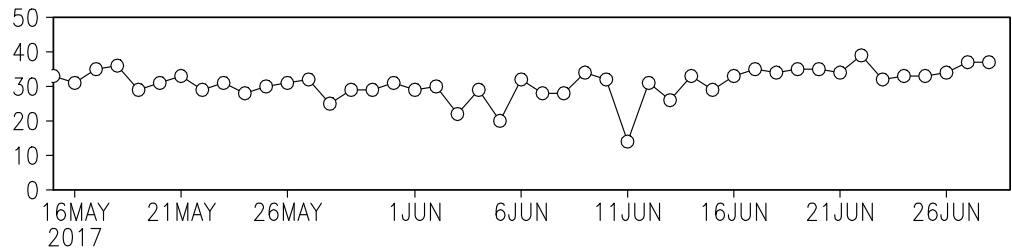
## AWS+ARG

Avg=2875  
Today\_Cnt=2450  
Dep=-15. %



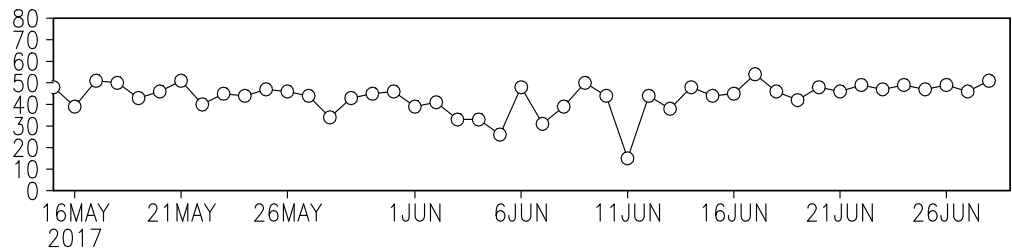
## RS/RW

Avg=33  
Today\_Cnt=37  
Dep=12. %



## PILOT

Avg=47  
Today\_Cnt=51  
Dep=9. %



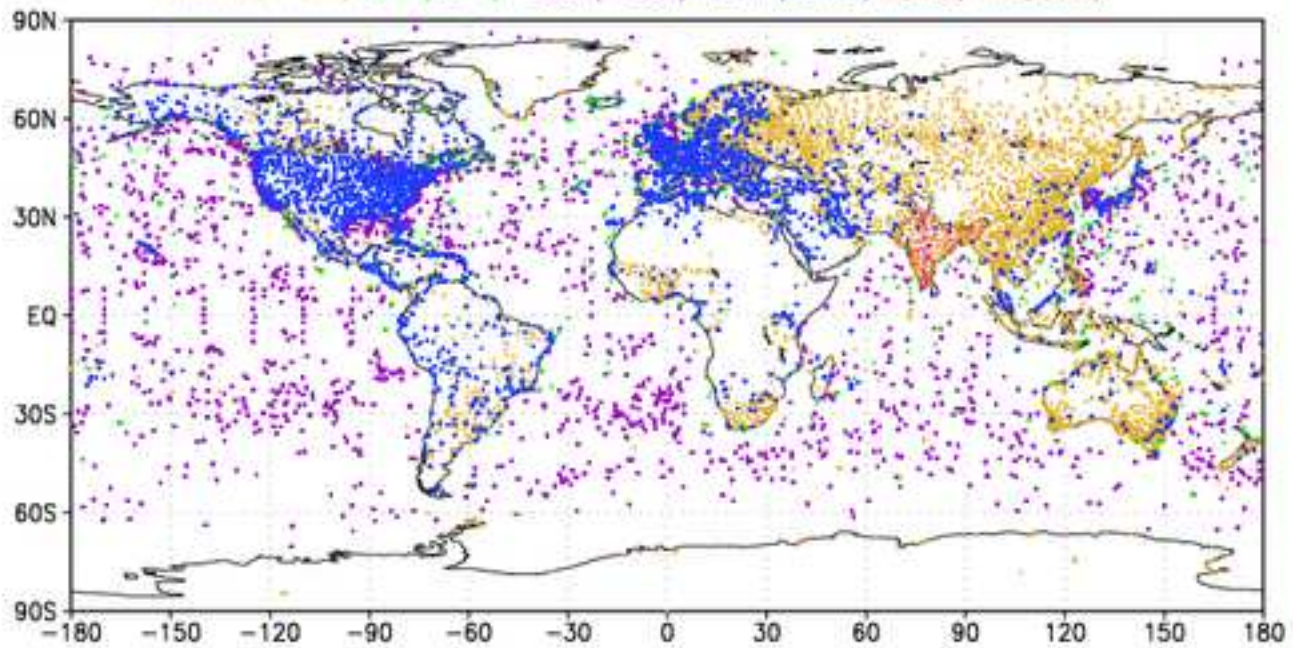


# Global Observation Coverage

Data Coverage: Surface (28062017 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 52840

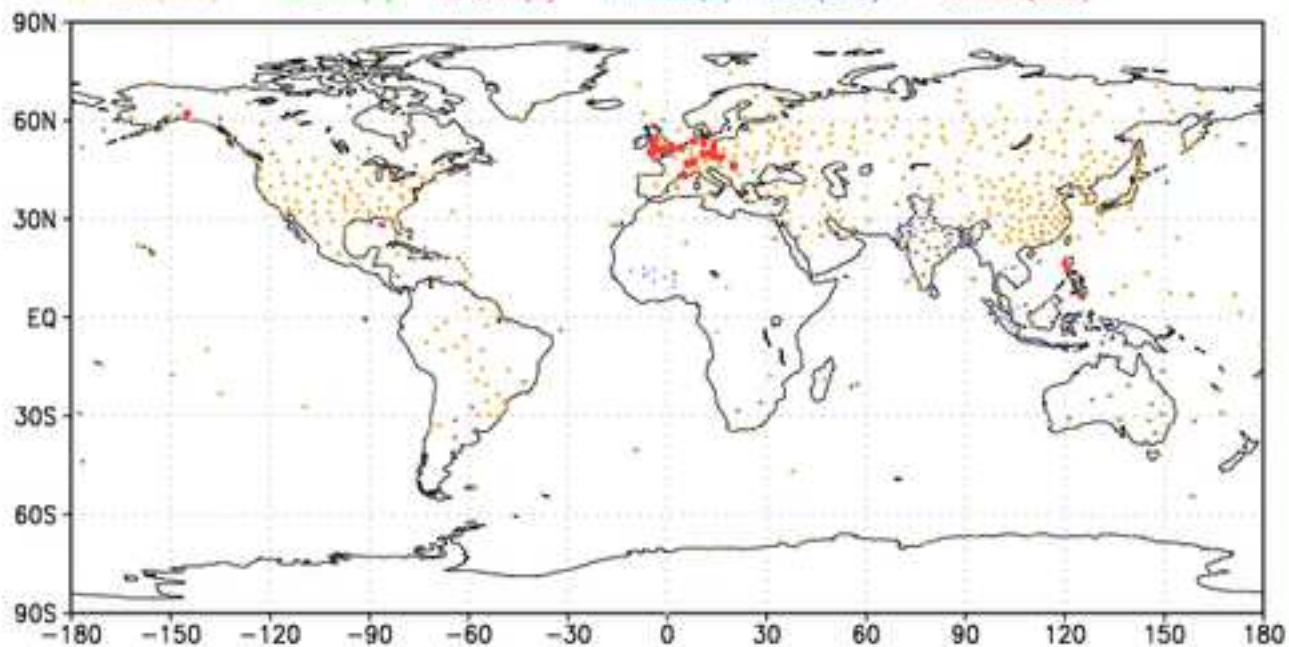
LNDSYN(14480) SHIP(2211) BUOY(14337) METAR(18727) MOBILE/AWS(3085)



Data Coverage: Sonde (28062017 0000UTC +/- 03Hrs)

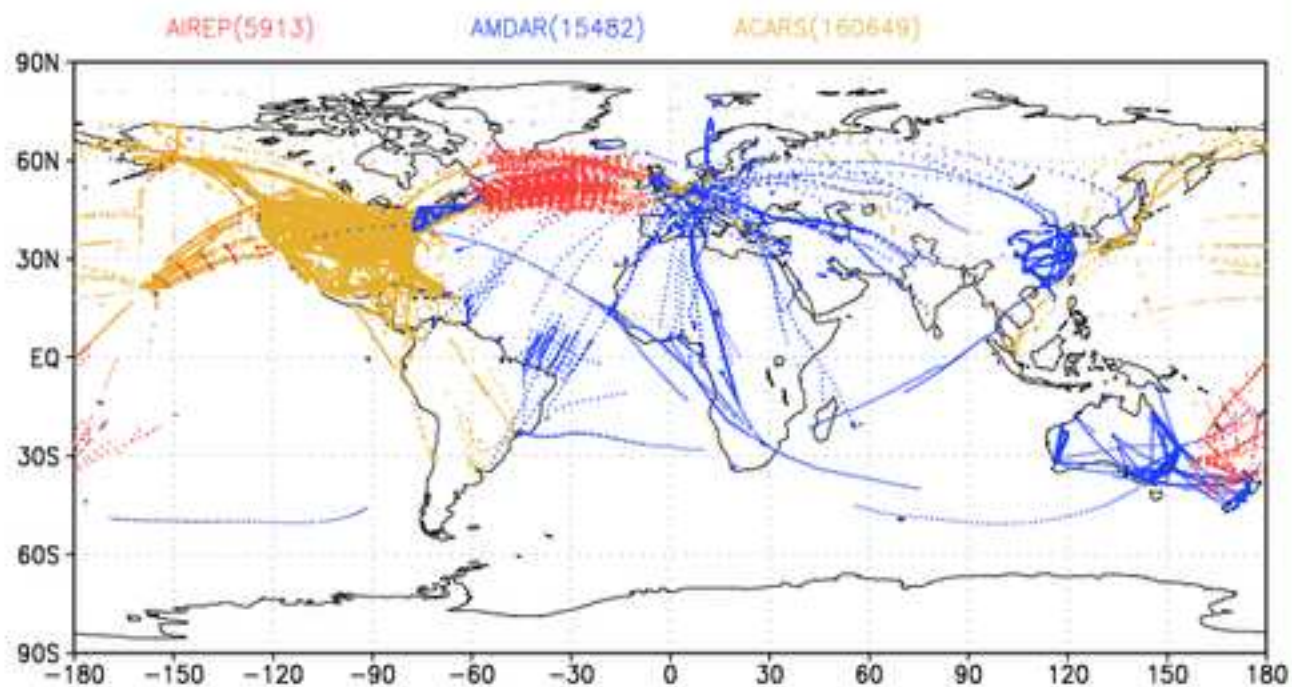
Total Number of Observations Received at NCMRWF: 1494

TMP LND(663)   TMP SHP(1)   TMP DRP(2)   TMP MDB(0)   PILOT(275)   PROFILER(553)



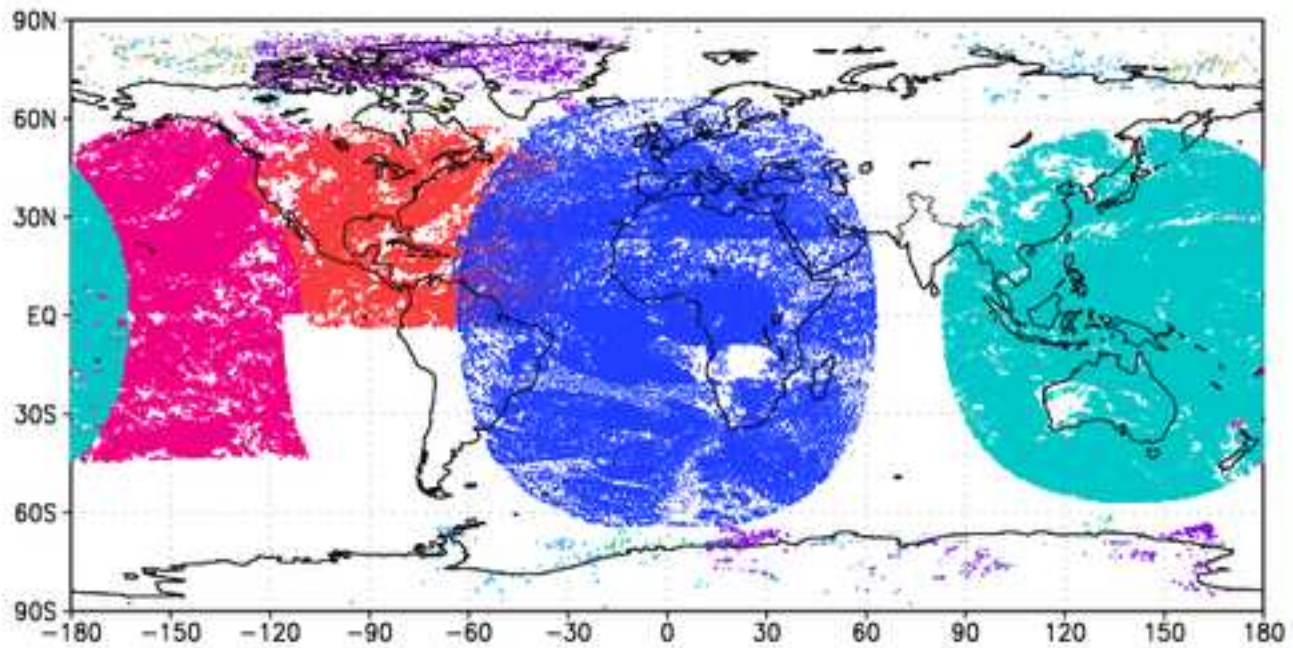
Data Coverage: AIRCFT (28062017 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 182044



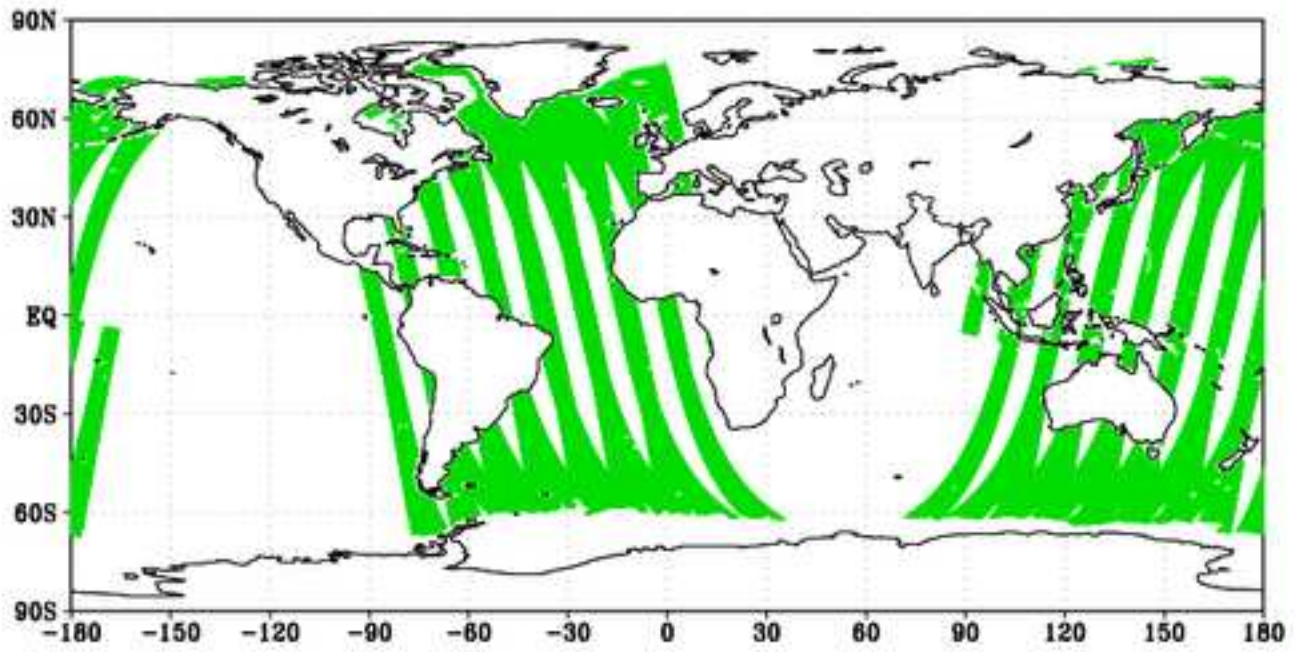
Data Coverage: AMV (28062017 0000UTC +/- 03Hrs)  
Total Number of Observations Received at NCMRWF: 369370

GOES-15(82022) GOES-13(45561) METEOSAT-7(0) METEOSAT-8(0)  
METEOSAT-10(58631) GMS/MTSAT(177209) MODIS/Terra(0) MODIS/Aqua(0)  
METOP(2451) NOAA-15(400) NOAA-16(0) NOAA-18(113) NOAA-19(516)



Data Coverage: ASCAT winds (28062017 00UTC +/- 03Hrs)

ASCAT (232835)



Data Coverage: SAT RADIANCE (28062017 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 4014390

NOAA15(81000)

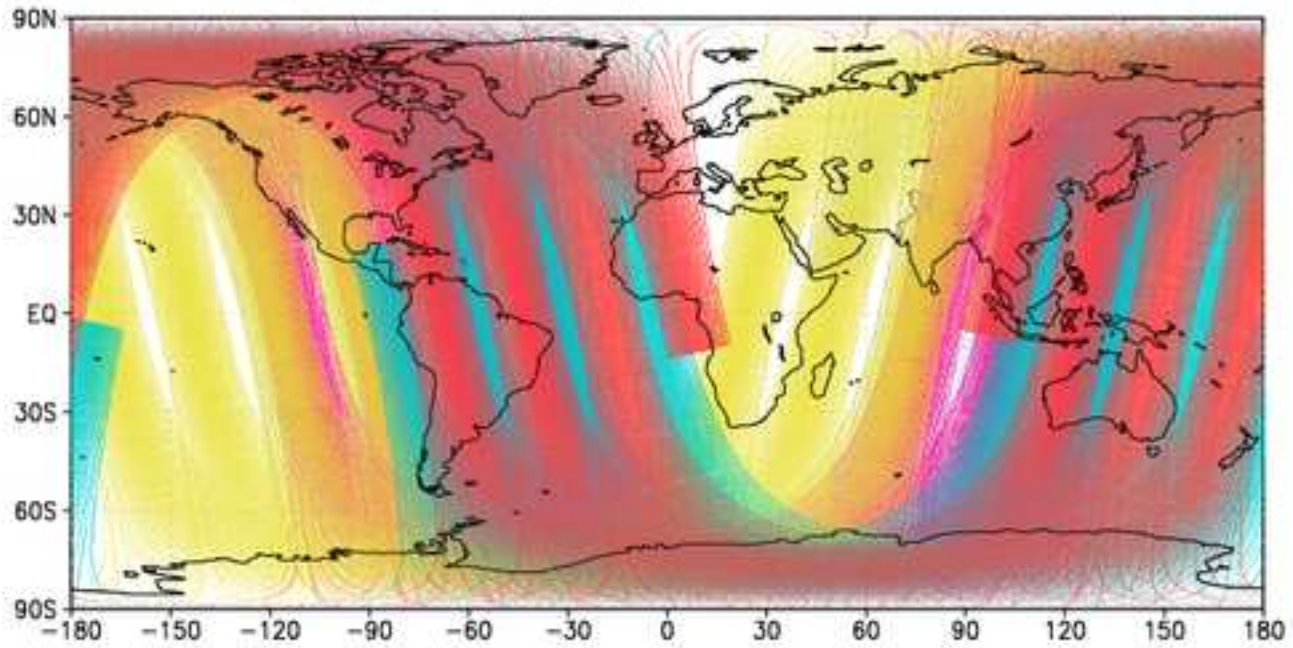
NOAA18(0)

NOAA18(984261)

NOAA18(988148)

METOP1(984417)

METOP2(978563)



Data Coverage: SAT RADIANCE (EARS+IMD RARS) (28062017 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 559776

NOAA15(0)

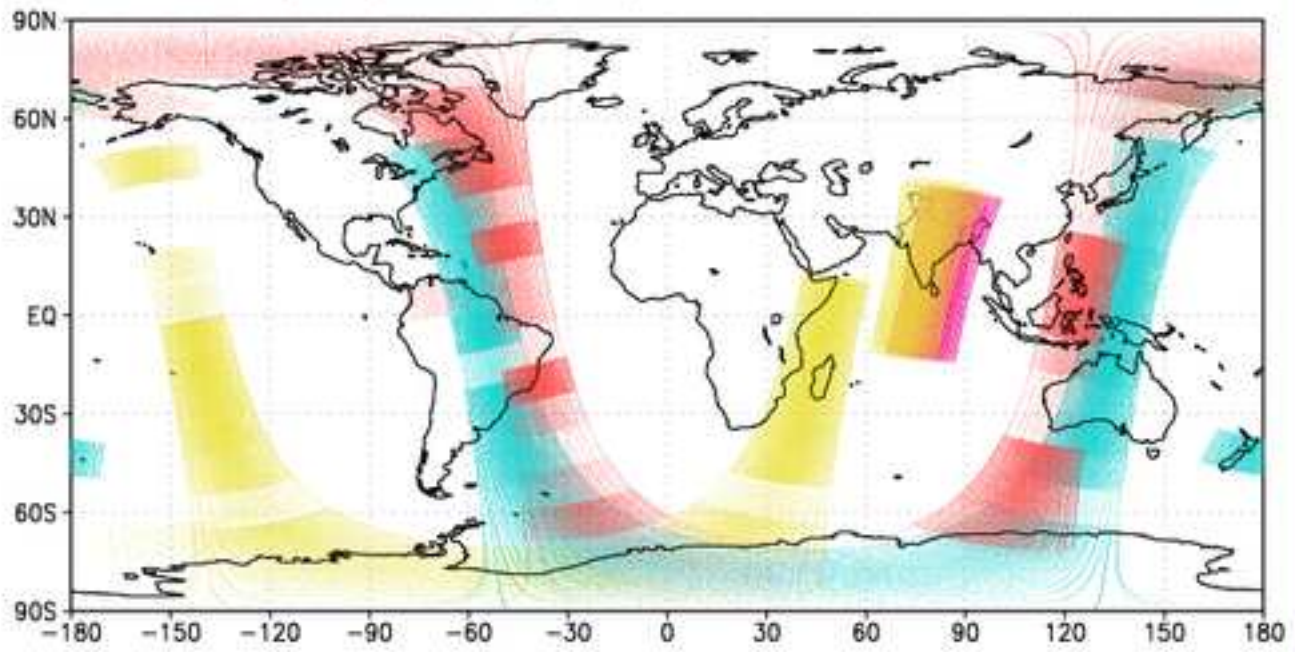
NOAA18(0)

NOAA18(39858)

NOAA18(178774)

METOP1(144778)

METOP2(195366)



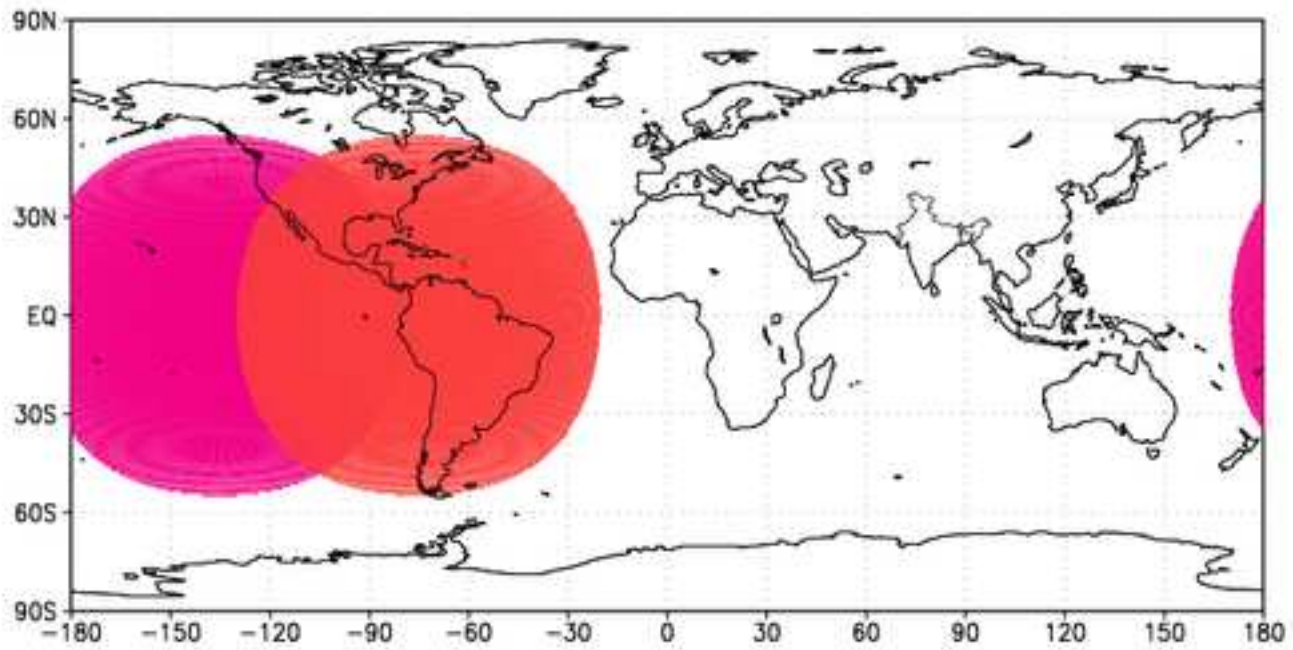


Data Coverage: GOES CSBT (28062017 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 84777

GOES-15(42392)

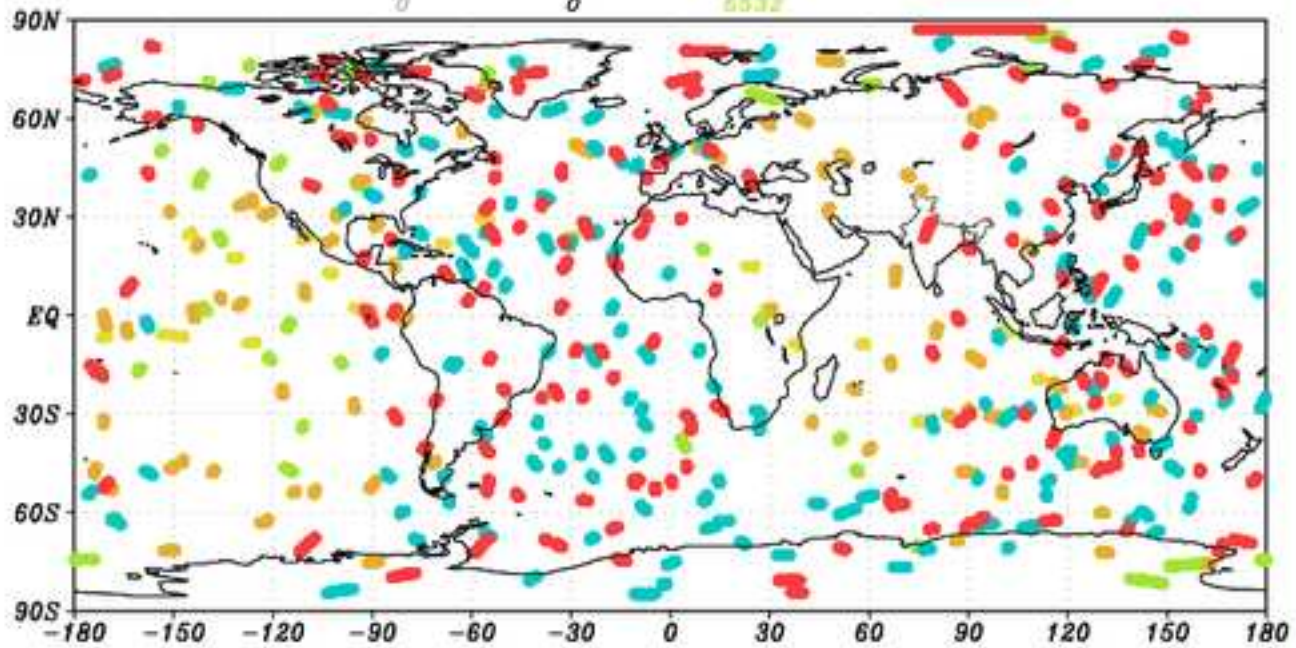
GOES-13(42385)



Data Coverage:GPSRO (28062017 0000UTC +/-03Hrs)

Total Number of Observations Received at NCMRWF: 110198

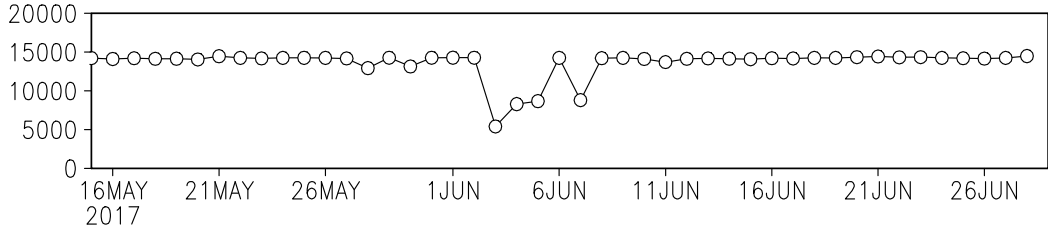
|         |         |            |          |          |          |          |          |          |
|---------|---------|------------|----------|----------|----------|----------|----------|----------|
| GRACE-A | METOP-B | METOP-A    | COSMIC-1 | COSMIC-2 | COSMIC-3 | COSMIC-4 | COSMIC-5 | COSMIC-6 |
| 0       | 38807   | 38281      | 0        | 0        | 4923     | 0        | 0        | 22575    |
|         |         | TerraSAR-X | TenDEM-X | GRACE-B  |          |          |          |          |
|         |         | 0          | 0        | 5532     |          |          |          |          |



## Count for different types of observation (Global) for the last 45 Days (valid for 00 UTC)

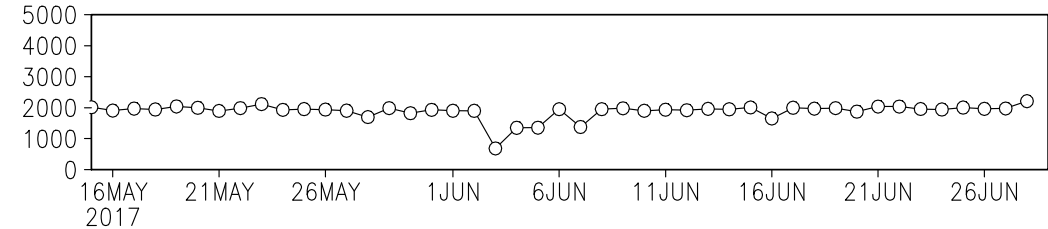
### SYNOP

Avg=14208  
Today\_Cnt=14480  
Dep=2. %



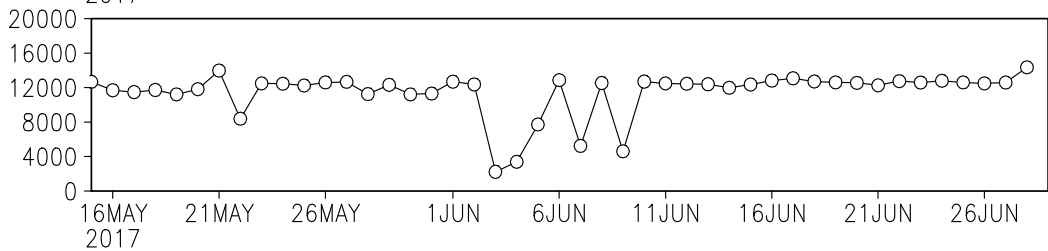
### SHIP

Avg=1974  
Today\_Cnt=2211  
Dep=12. %



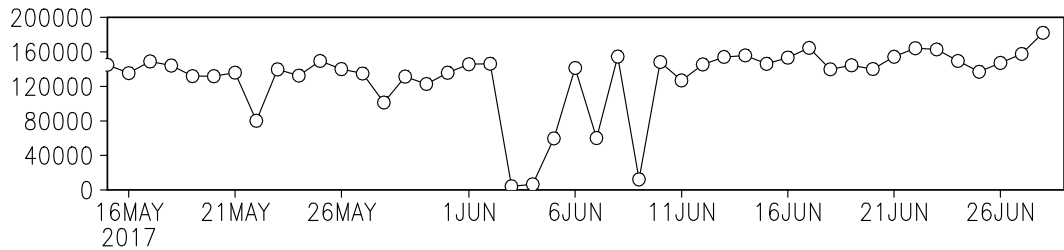
### BUOY

Avg=12453  
Today\_Cnt=14337  
Dep=15. %



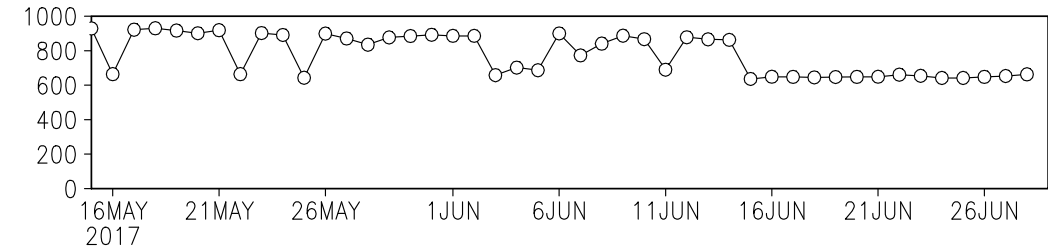
### AIRCRAFT

Avg=145757  
Today\_Cnt=182044  
Dep=25. %



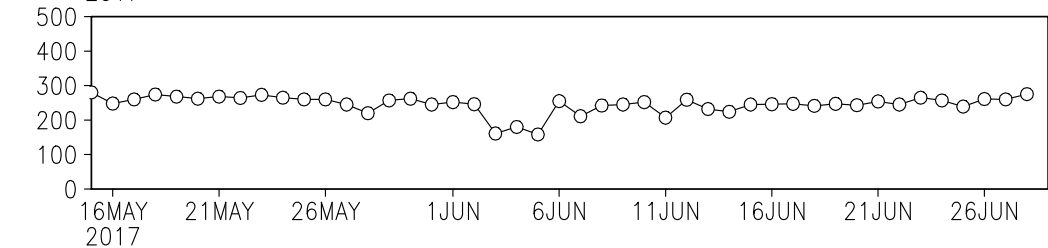
### RS/RW

Avg=890  
Today\_Cnt=663  
Dep=-26. %



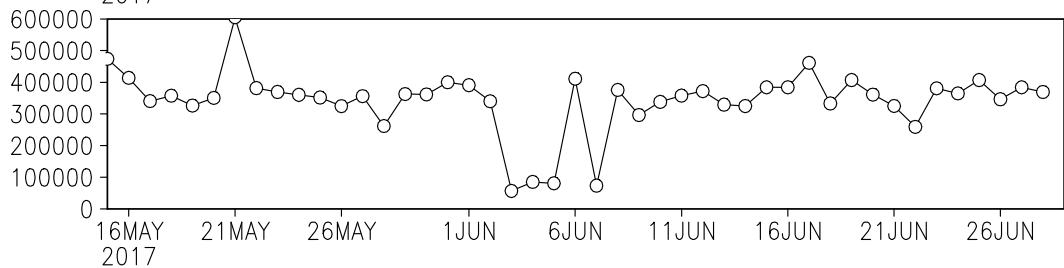
### PILOT

Avg=257  
Today\_Cnt=275  
Dep=7. %



### AMV

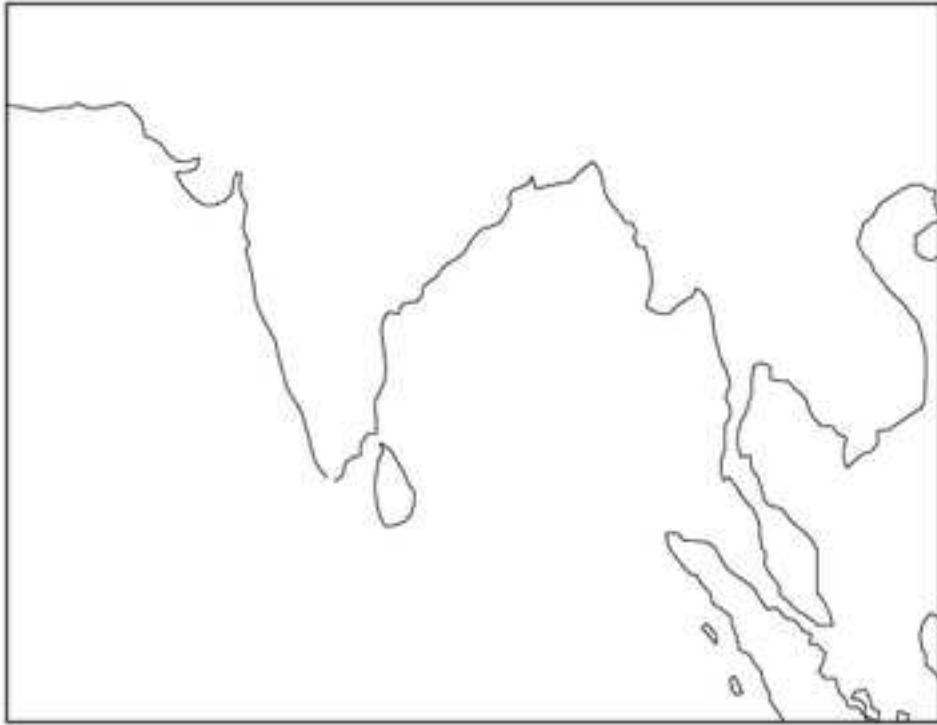
Avg=389702  
Today\_Cnt=369370  
Dep=-5. %



SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20170628 00Z)

ASCAT WINDS (28062017 00 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 0000UTC)

Low Level (Below 700 hPa)

Mid Level (700 - 401 hPa)

High Level (Above 400 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (28062017 0000UTC)

Low Level (Below 700 hPa)

Mid Level (700 - 401 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (28062017 0000UTC)

WV, High Level (Above 400 hPa)

VIS, Low Level (Below 700 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (28062017 0000UTC)

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 0000UTC)

Low Level (Below 700 hPa)

Mid Level (700 - 401 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 0000UTC)

WV, High Level (Above 400 hPa)

VIS, Low level (Below 700 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 0000UTC)

WV, High Level (Above 400 hPa)

VIS, Low level (Below 700 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 0000UTC)

WV, High Level (Above 400 hPa)

VIS, Low level (Below 700 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 0000UTC)

WV, High Level (Above 400 hPa)

VIS, Low level (Below 700 hPa)

INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (28062017 0000UTC)

WV, High Level (Above 400 hPa)

VIS, Low level (Below 700 hPa)

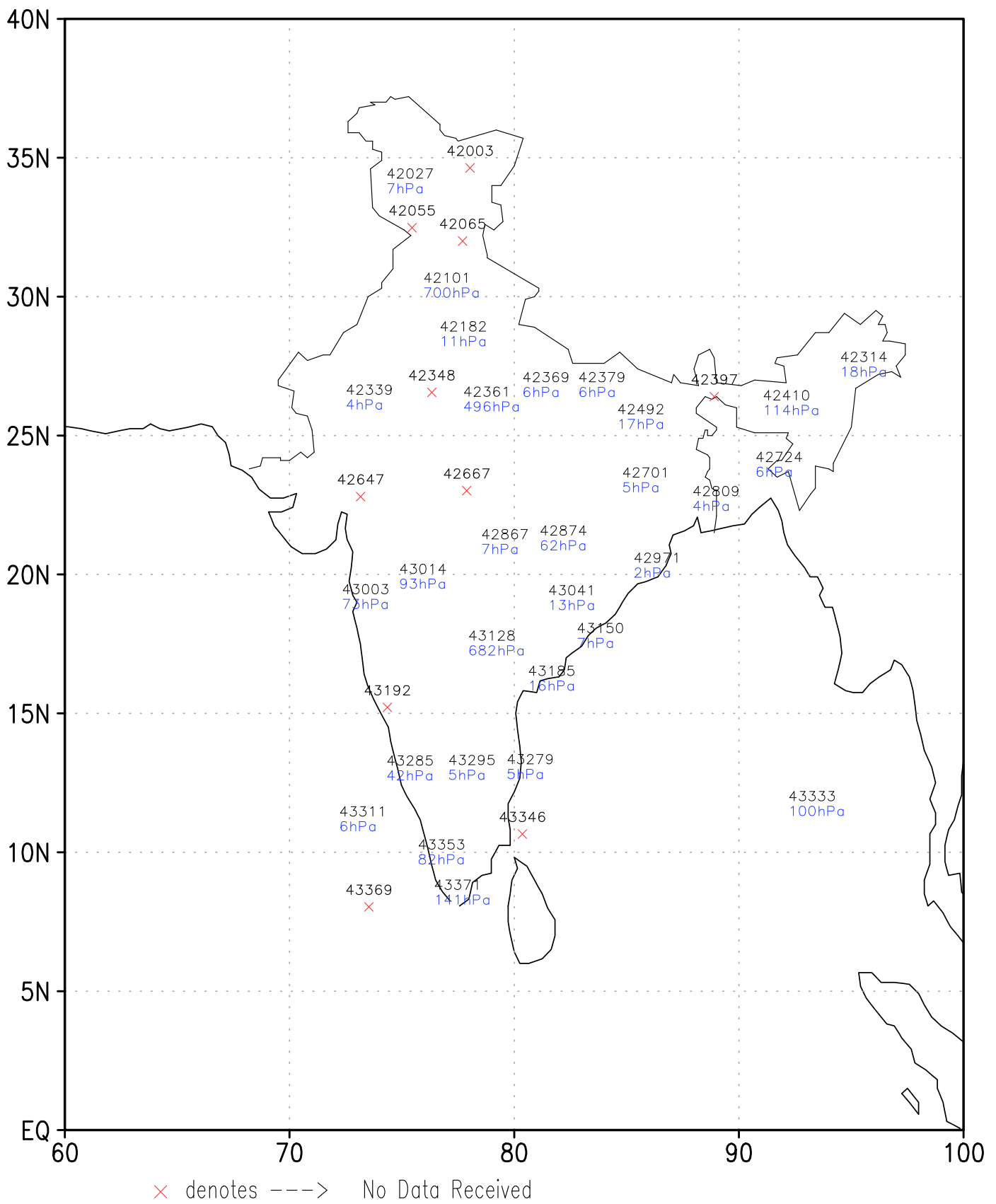


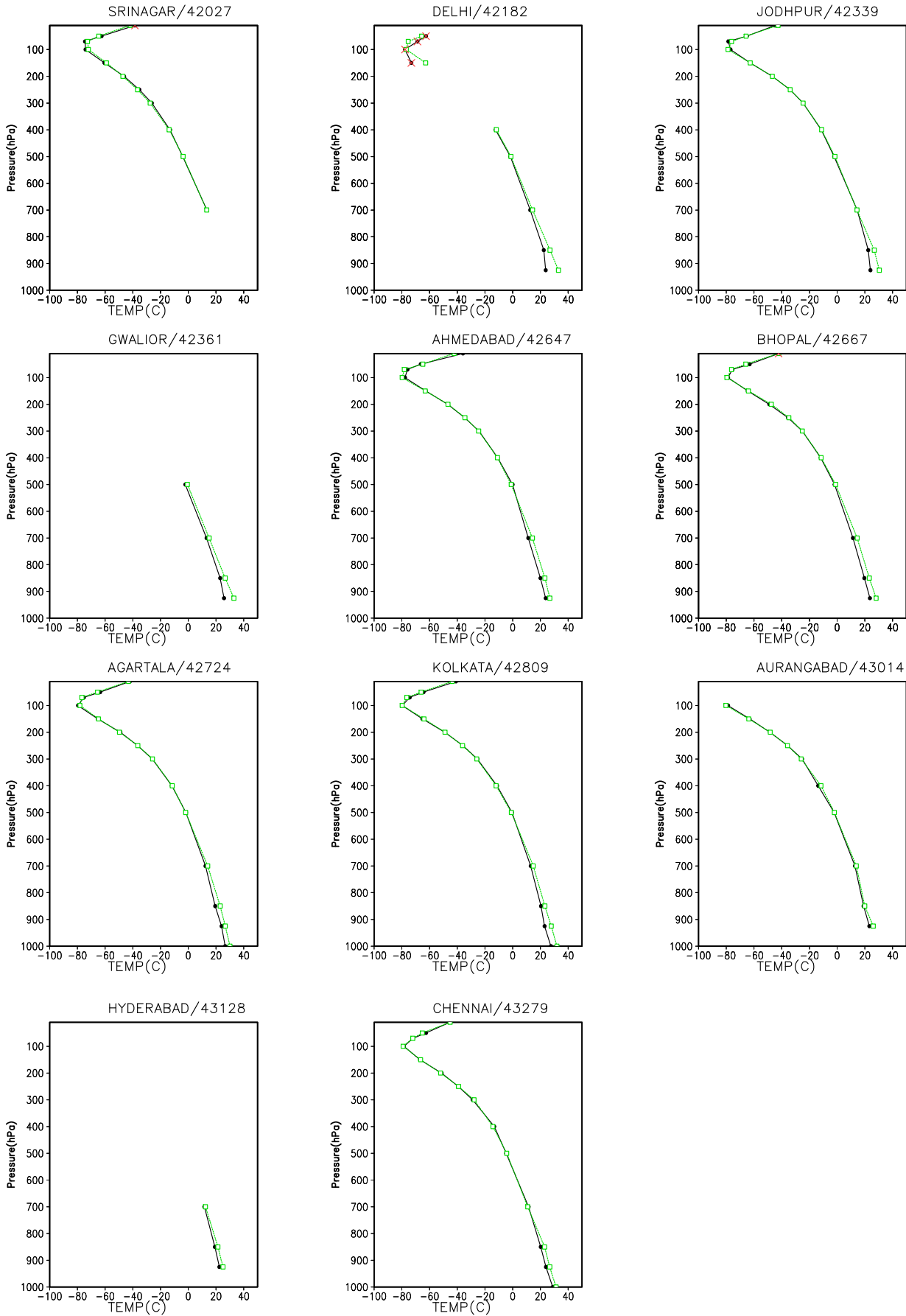
# Quality of Indian RS/RW Observations

Maximum height reported  
by RS/RW ascents

Temperature and Zonal Wind  
Rejections by NGFS GDAS

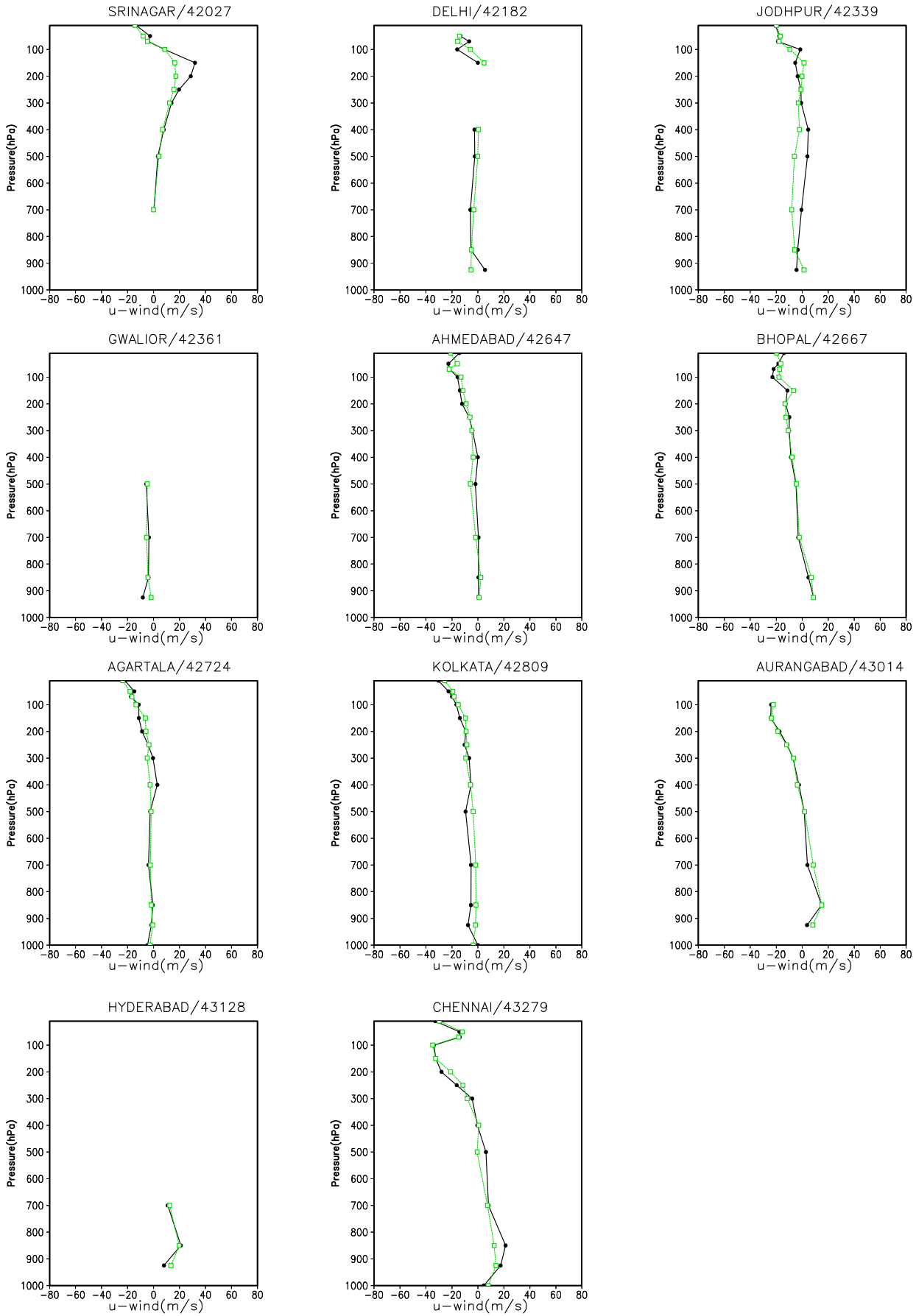
# Highest Level Reported by RS/RW (28062017 0000UTC +/- 03Hrs)





Observed ( — ) and 1st-guess ( — ) Temperature (Deg C) for 00UTC 28062017

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



Observed ( — ) and 1st-guess ( — ) Zonal wind (m/s) for 00UTC 28062017

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