

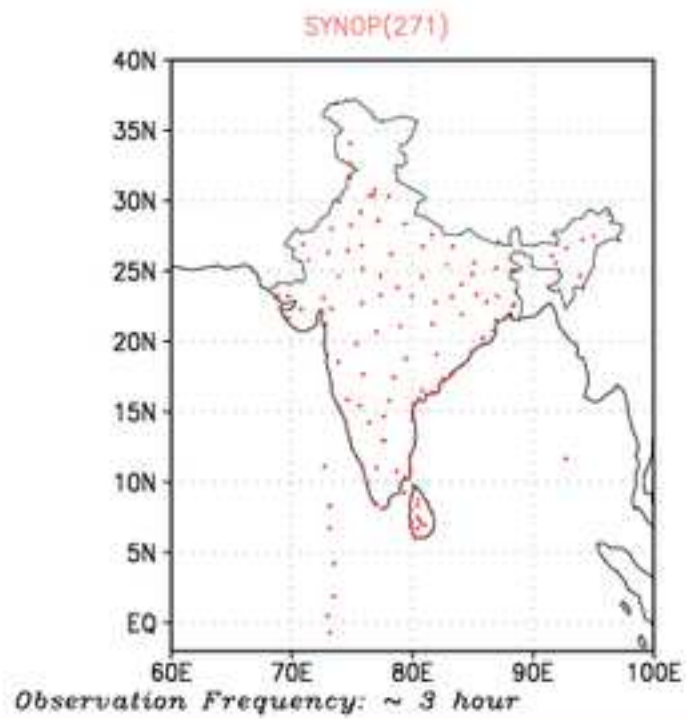
Observation Monitoring

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

for 20082017 (1800 UTC)

Indian Observation Coverage

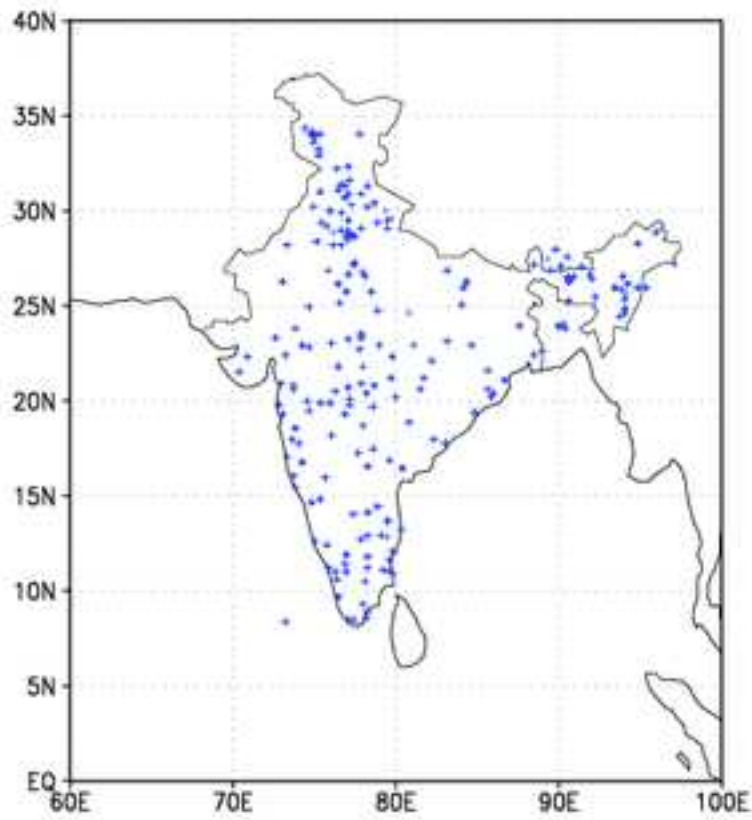
Data Coverage: Surface (20082017 1800UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 271
(42 & 43 Block)



Data Coverage: Indian AWS (20082017 1800UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 734

AWS PRESSURE (734)

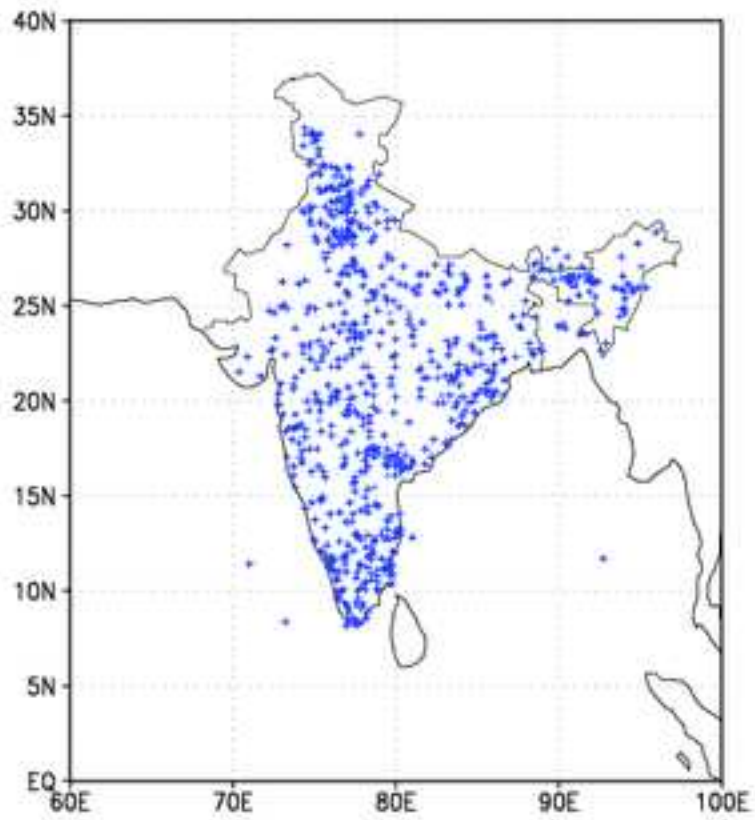


Observation Frequency: ~ 1 hour

Data Coverage: Indian AWS (20082017 1800UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 2556

AWS + ARG (2556)

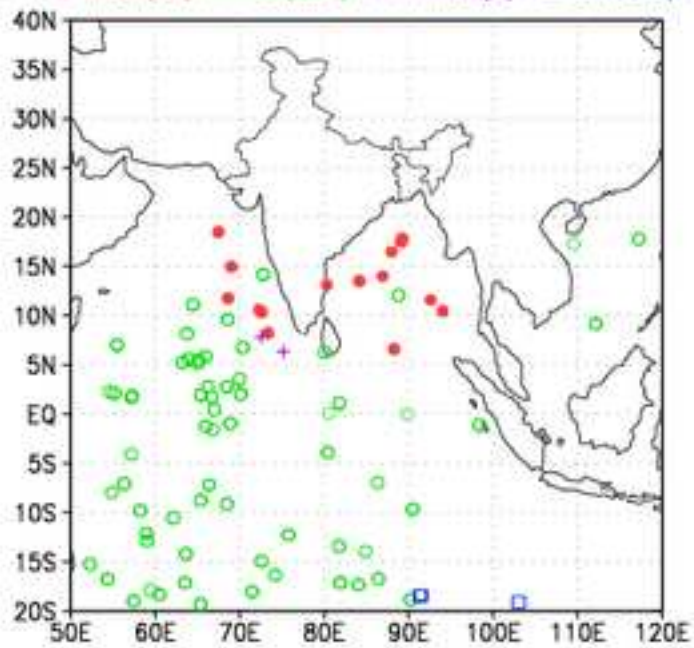


Observation Frequency: ~ 1 hour

Data Coverage: BUOY (20082017 1800UTC +/- 3 Hrs)

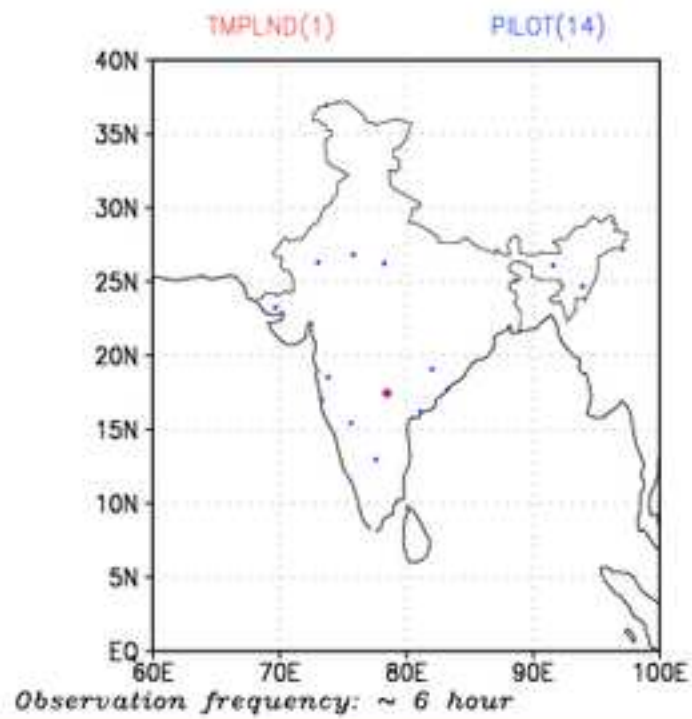
Total Number of Observations Received at NCMRWF: 269

country code in GTS as ● INDIA(25) ○ USA(227) + FRANCE(6) □ OTHERS(11)



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

Data Coverage: Sonde (20082017 1800UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 15
(42 & 43 Block)



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

SYNOP

Avg=
Today_Cnt=
Dep= %

BUOY

Avg=
Today_Cnt=
Dep= %

AWS+ARG

Avg=
Today_Cnt=
Dep= %

RS/RW

Avg=
Today_Cnt=
Dep= %

PILOT

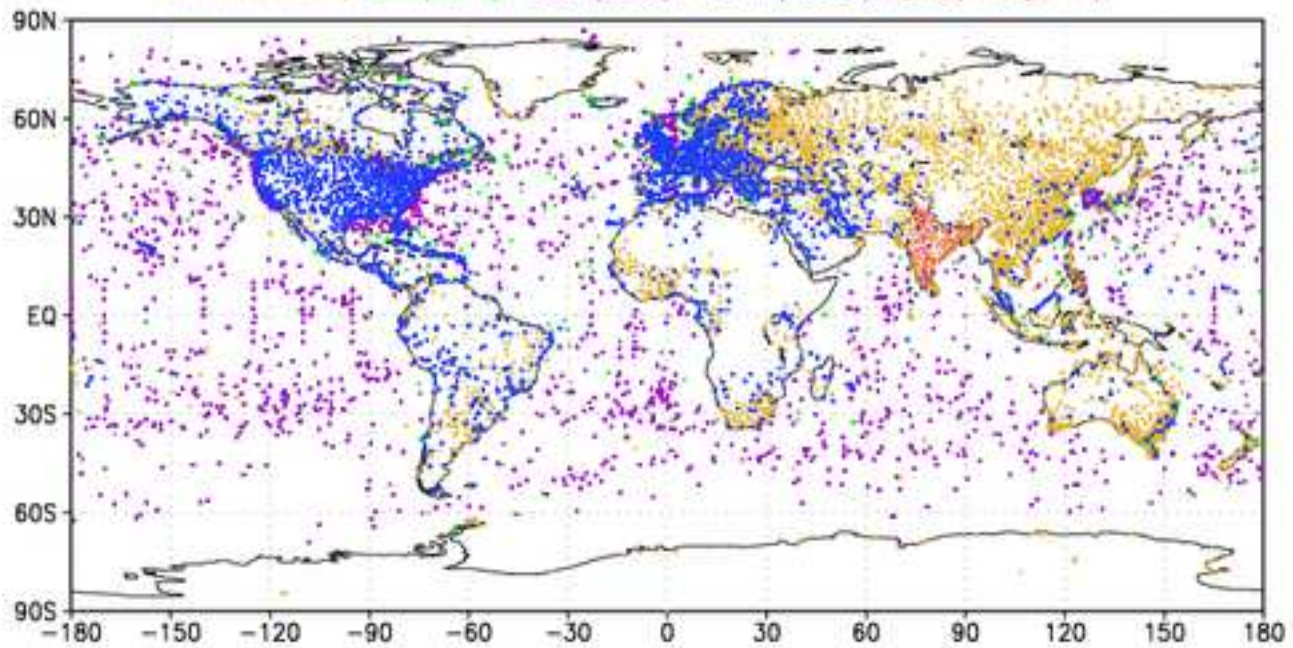
Avg=
Today_Cnt=
Dep= %

Global Observation Coverage

Data Coverage: Surface (20082017 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 37691

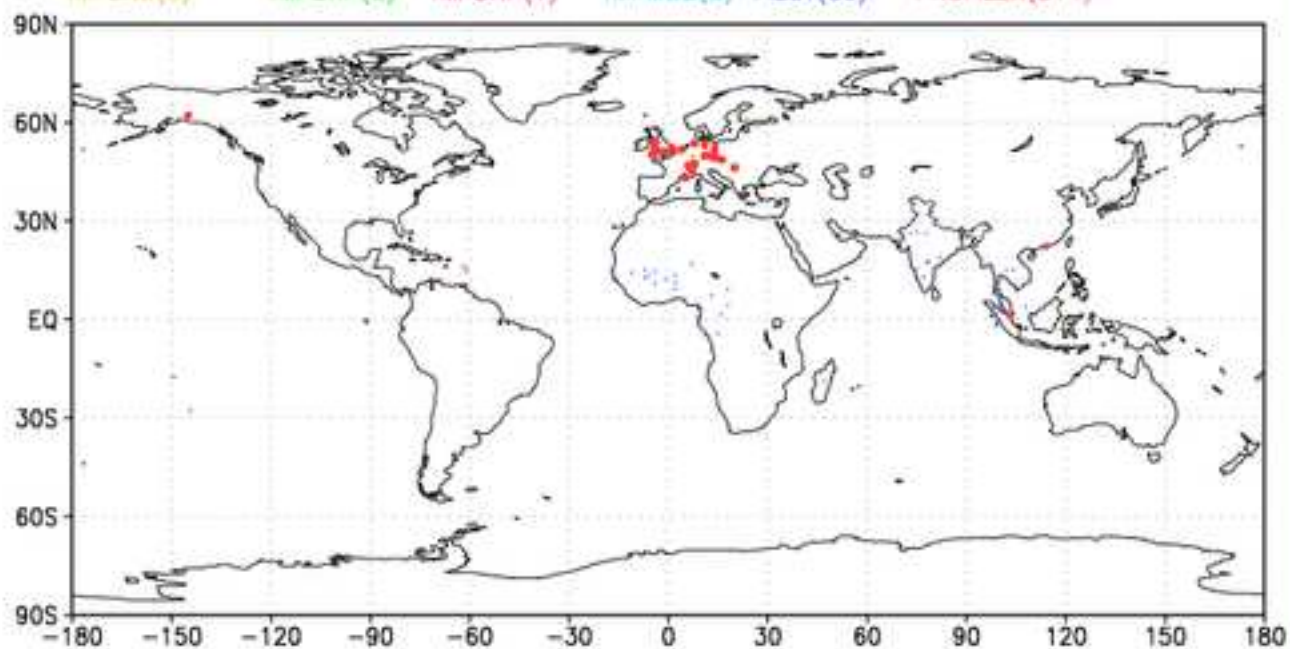
LNDSYN(11818) SHIP(1275) BUOY(8848) METAR(13033) MOBILE/AWS(2717)



Data Coverage: Sonde (20082017 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 389

TMP LND(8) TMP SHP(0) TMP DRP(1) TMP MDB(0) PILOT(66) PROFILER(314)



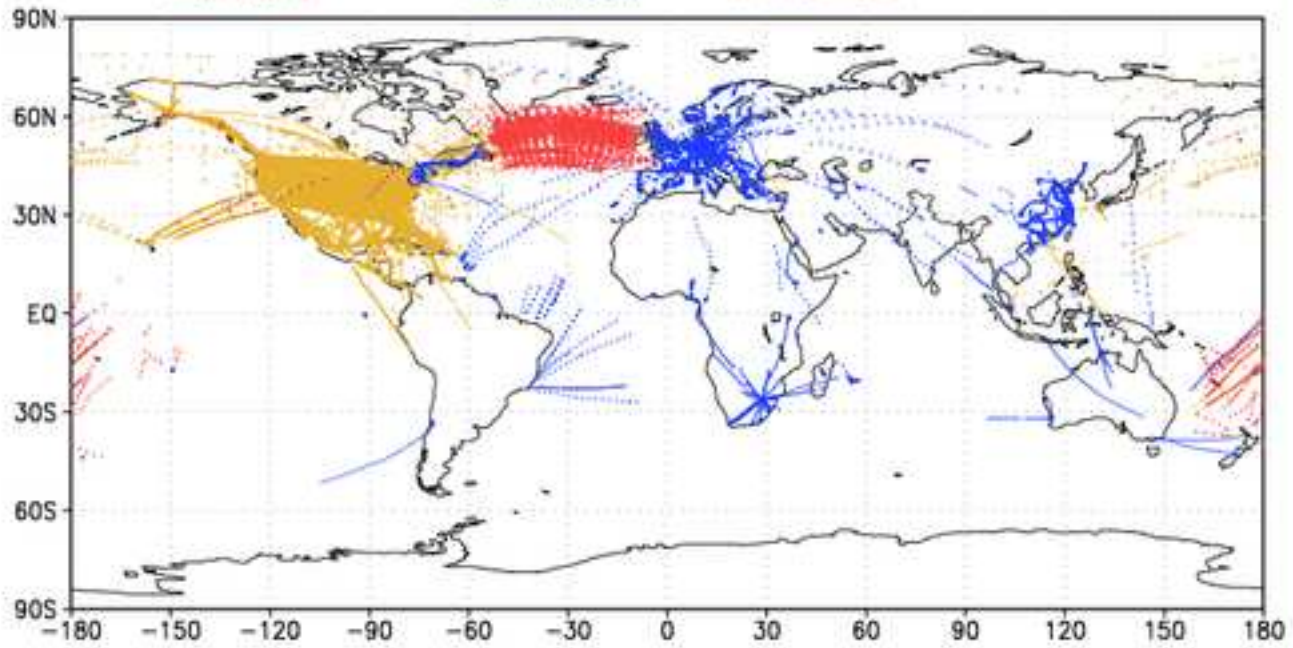
Data Coverage: AIRCFT (20082017 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 119545

AIREP(5081)

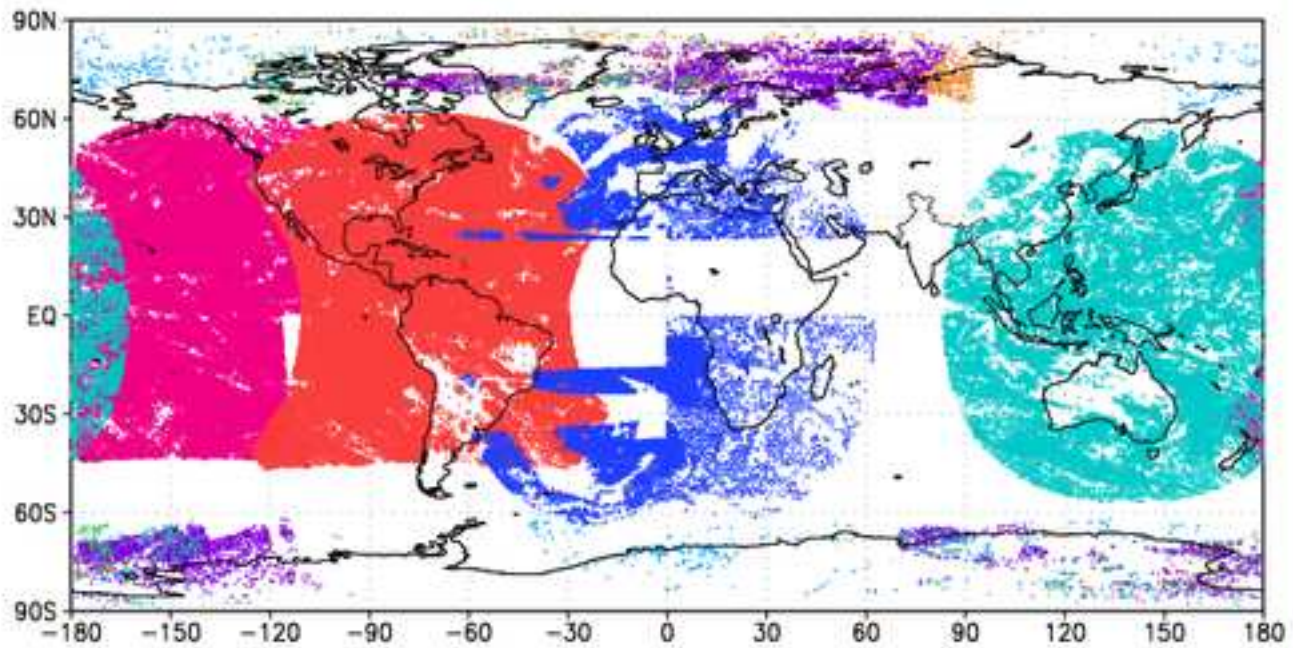
AMDAR(15037)

ACARS(99427)



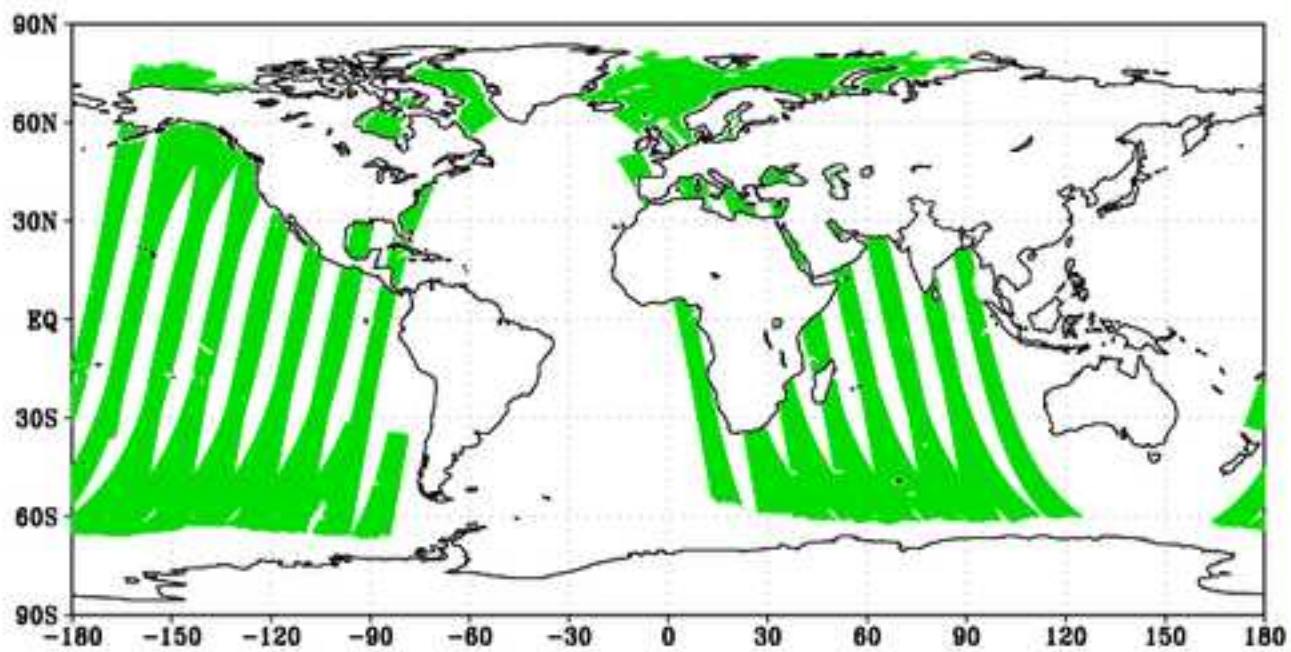
Data Coverage: AMV (20082017 1800UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 441192

GOES-15(157442) GOES-13(189523) METEOSAT-7(0) METEOSAT-8(0)
METEOSAT-10(23899) GMS/MTSAT(38266) MODIS/Terra(1958) MODIS/Aqua(489)
METOP(7205) NOAA-15(428) NOAA-16(0) NOAA-18(842) NOAA-19(985)



Data Coverage: ASCAT winds (20082017 18UTC +/- 03Hrs)

ASCAT (232782)



Data Coverage: SAT RADIANCE (20082017 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 3804359

NOAA15(80850)

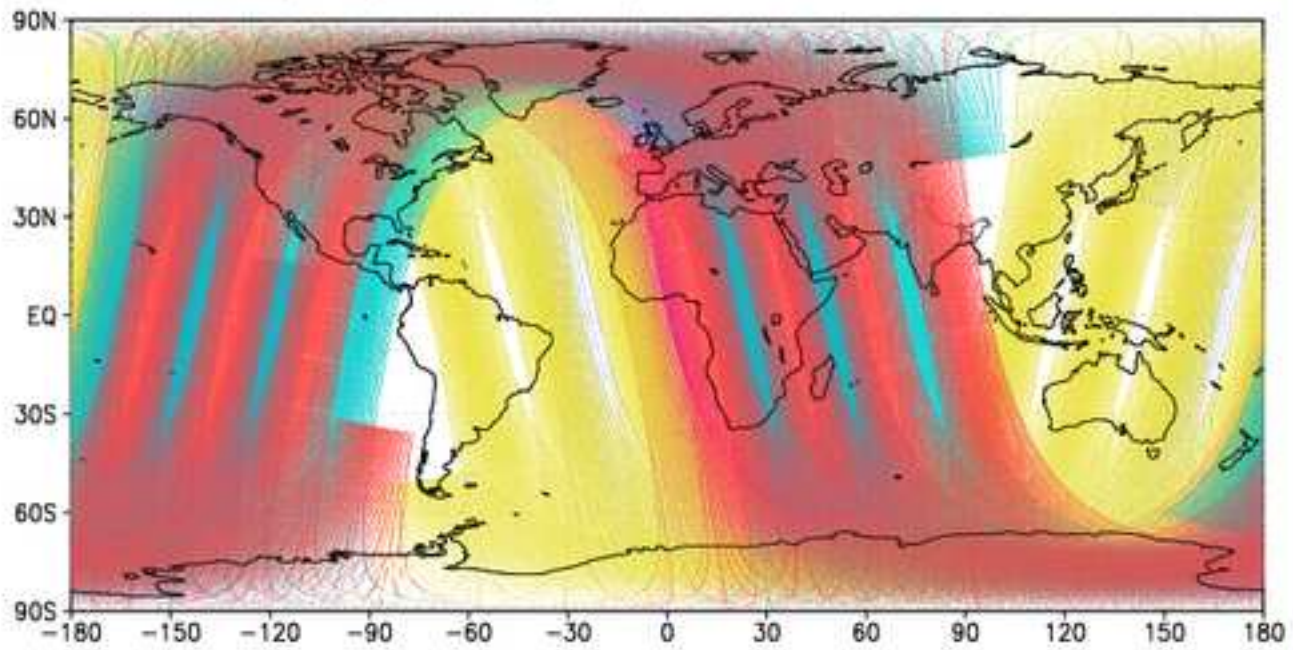
NOAA18(0)

NOAA18(775239)

NOAA18(981182)

METOP1(984968)

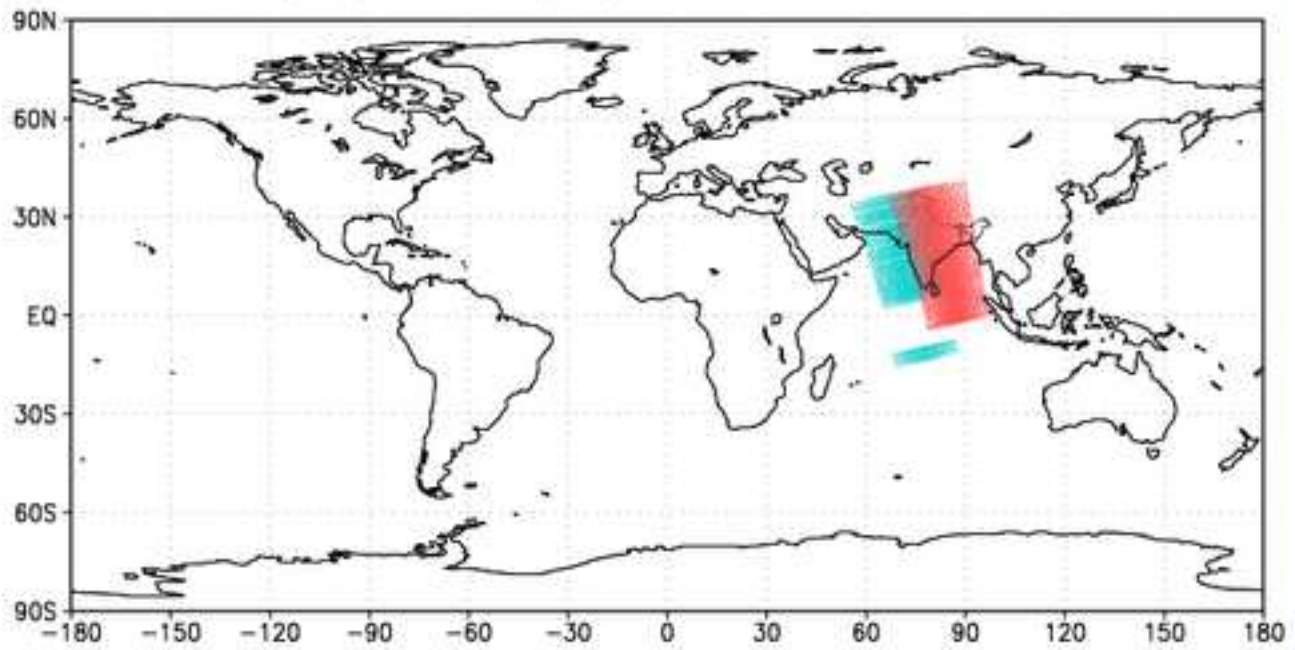
METOP2(976140)



Data Coverage: SAT RADIANCE (EARS+IMD RARS) (20082017 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 57768

NOAA15(0) NOAA18(0) NOAA19(0) NOAA18(0)
METOP1(32090) METOP2(25678)

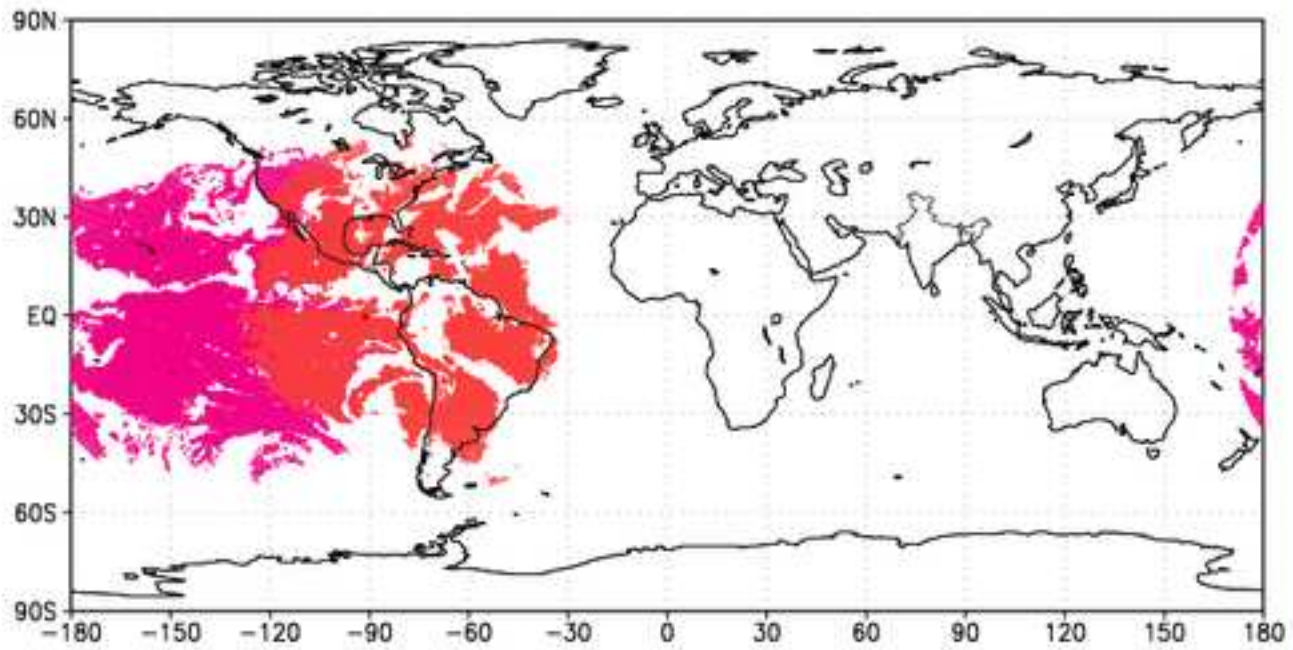


Data Coverage: GOES CSBT (20082017 1800UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 45227

GOES-15(26916)

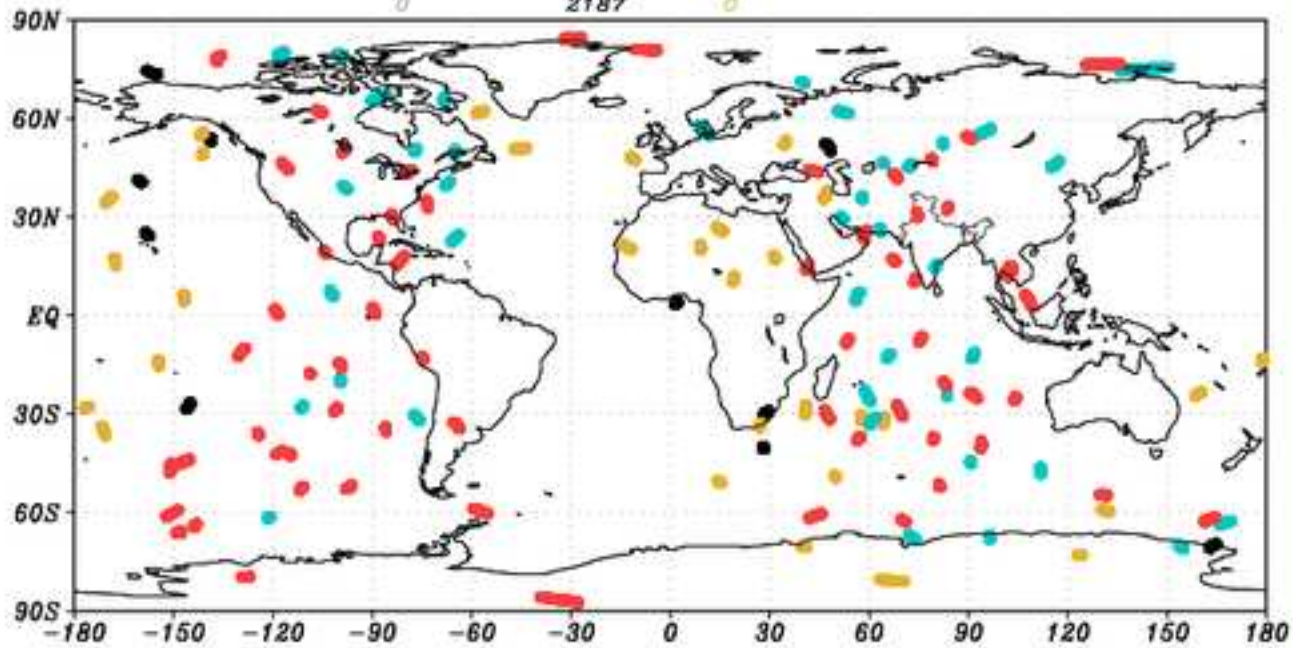
GOES-13(18311)



Data Coverage:GPSRO (20082017 1800UTC +/-03Hrs)

Total Number of Observations Received at NCMRWF: 36549

GRACE-A	METOP-B	METOP-A	COSMIC-1	COSMIC-2	COSMIC-3	COSMIC-4	COSMIC-5	COSMIC-6
0	15499	9833	0	0	0	0	0	9030
		TerraSAR-X	TenDEM-X	GRACE-B				
		0	2187	0				



Count for different types of observation (Global)
for the last 45 Days (valid for 18 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= %

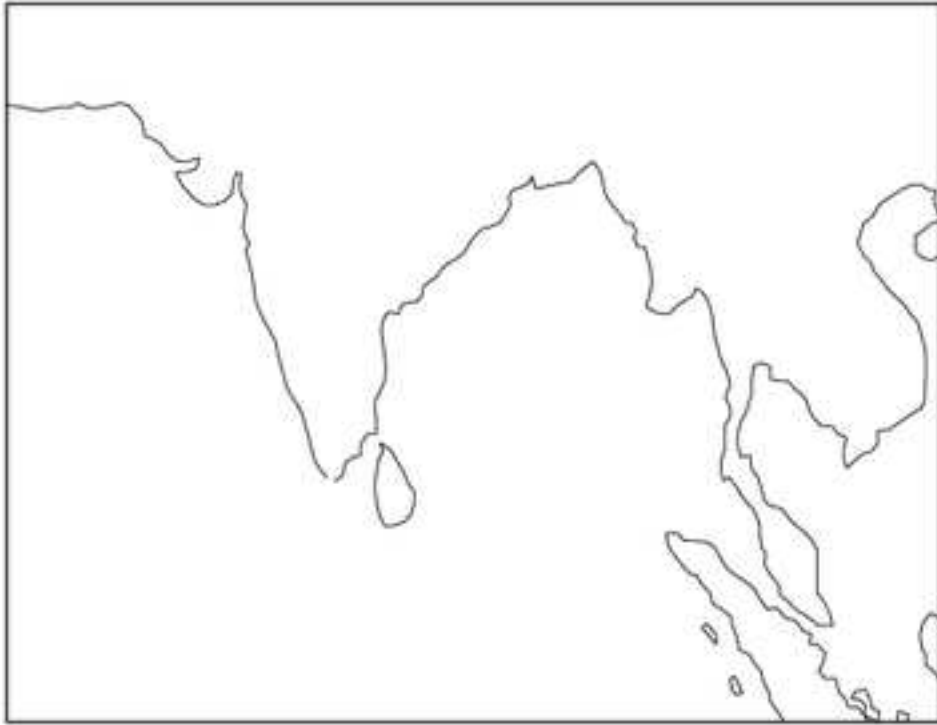
AMV

Avg=
Today_Cnt=
Dep= %

SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20170820 18Z)

ASCAT WINDS (20082017 18 UTC):NCMRWF



INSAT-3D

ATMOSPHERIC MOTION VECTORS (AMV)

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

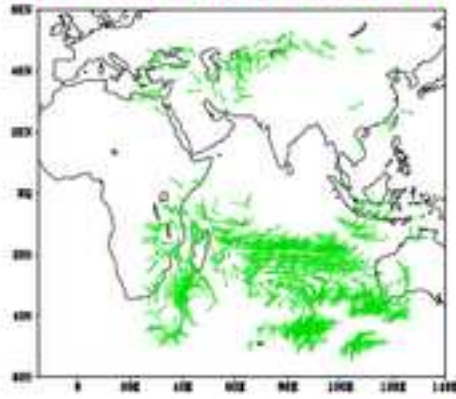
WATER VAPOUR WINDS (WV)

VISIBLE WINDS (VIS) }

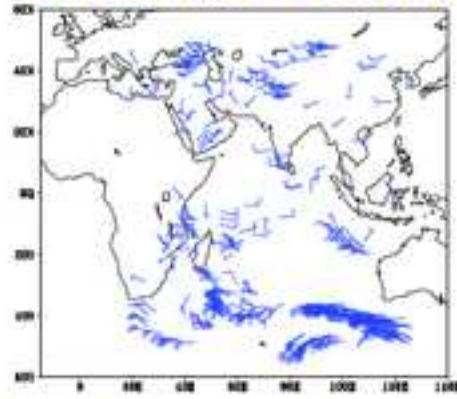
AMV DEVIATION
(OBSERVATION - FIRST GUESS)

INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) (20082017 1800UTC)

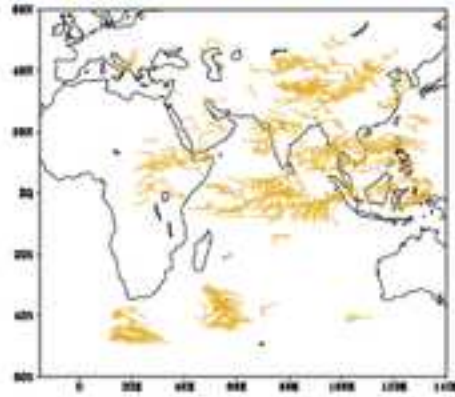
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)

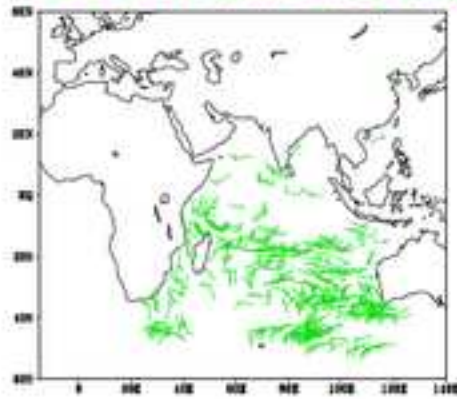


High Level (Above 400 hPa)

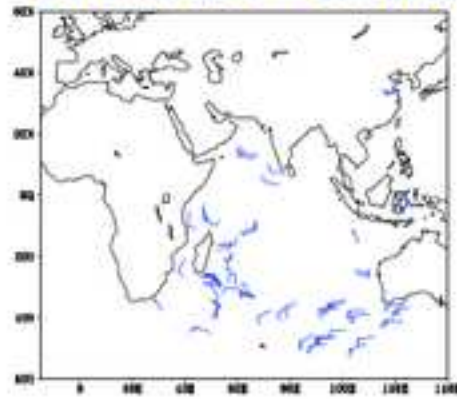


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (20082017 1800UTC)

Low Level (Below 700 hPa)



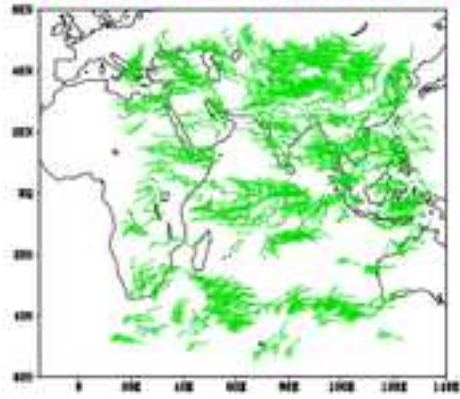
Mid Level (700 - 401 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (20082017 1800UTC)

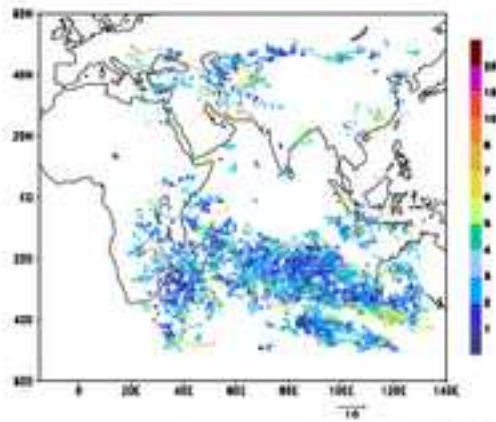
WV, High Level (Above 400 hPa)

VIS, Low Level (Below 700 hPa)

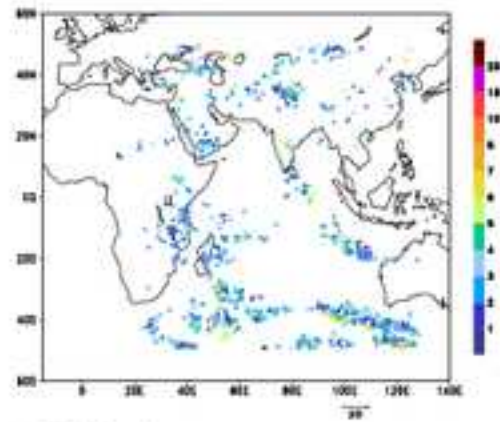


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (20082017 1800UTC)

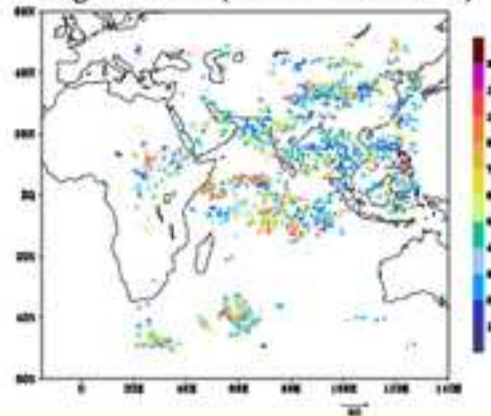
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)

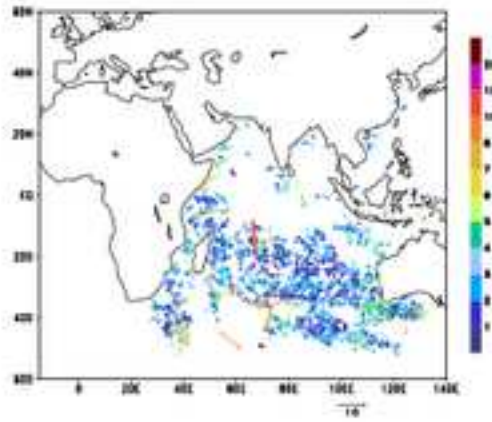


High Level (Above 400 hPa)

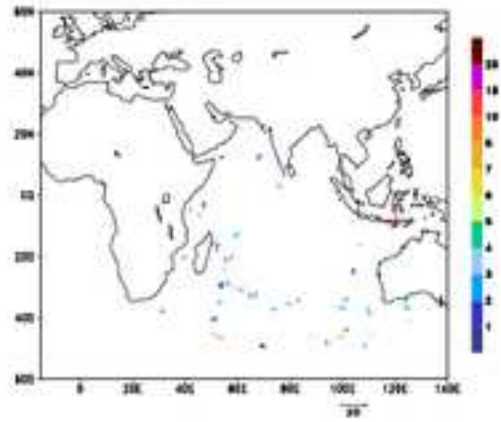


INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.8) DEVIATION (20082017 1800UTC)

Low Level (Below 700 hPa)



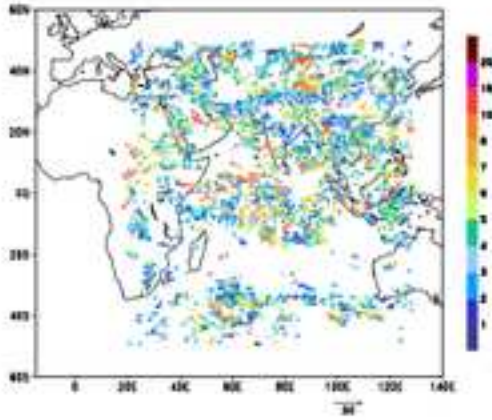
Mid Level (700 - 401 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (20082017 1800UTC)

WV, High Level (Above 400 hPa)

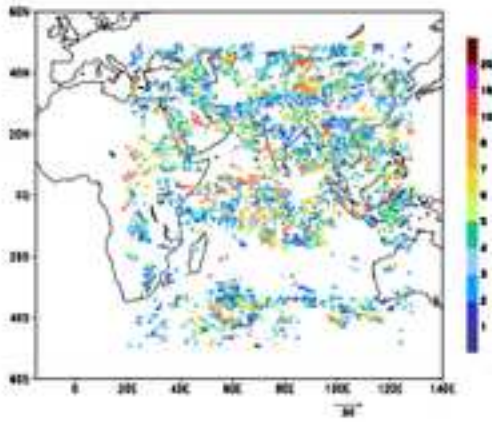
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (20082017 1800UTC)

WV, High Level (Above 400 hPa)

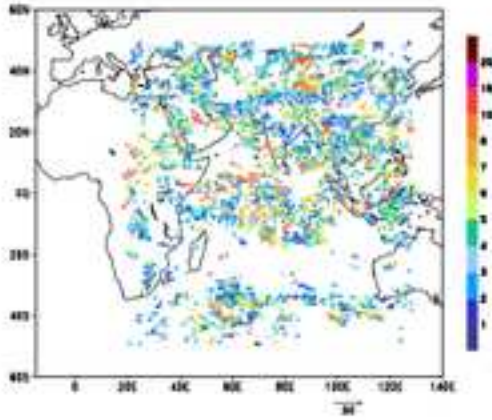
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (20082017 1800UTC)

WV, High Level (Above 400 hPa)

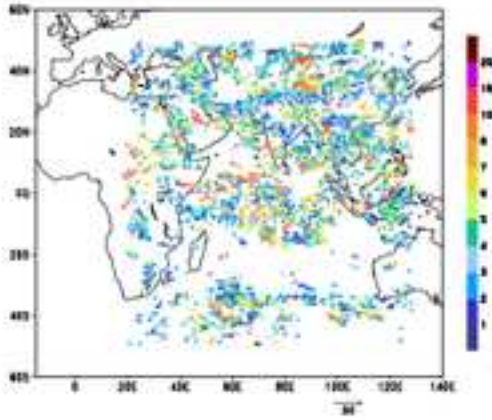
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (20082017 1800UTC)

WV, High Level (Above 400 hPa)

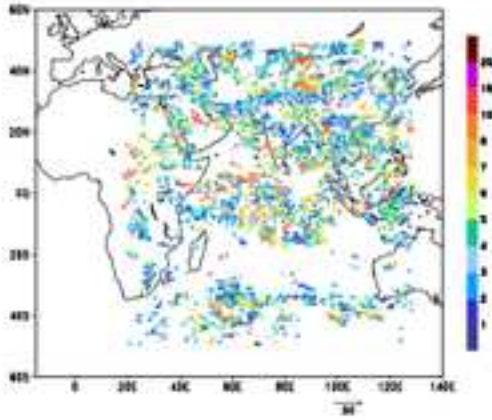
VIS, Low level (Below 700 hPa)



INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (20082017 1800UTC)

WV, High Level (Above 400 hPa)

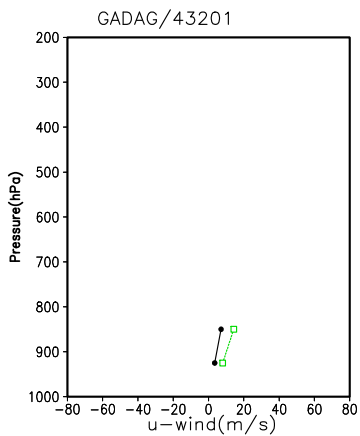
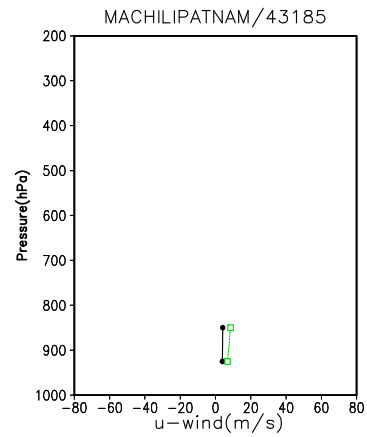
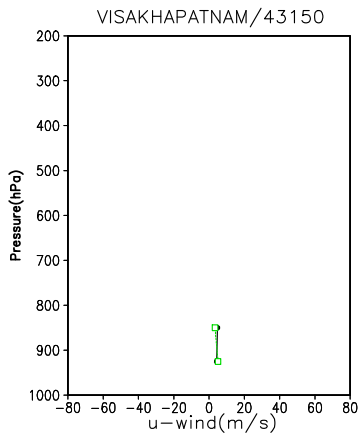
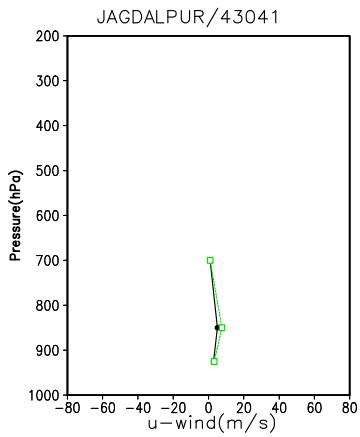
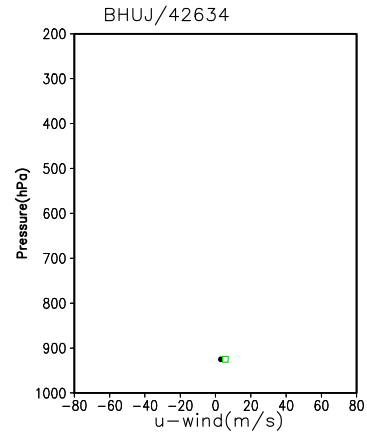
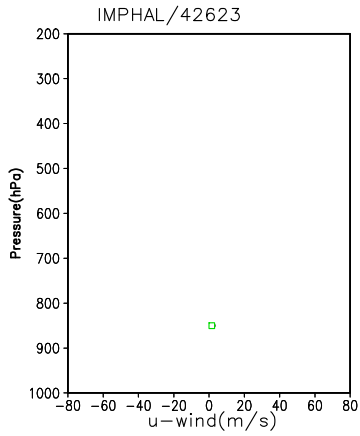
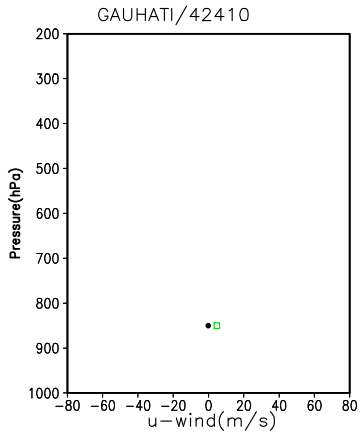
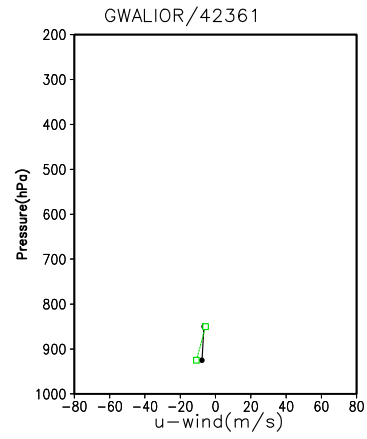
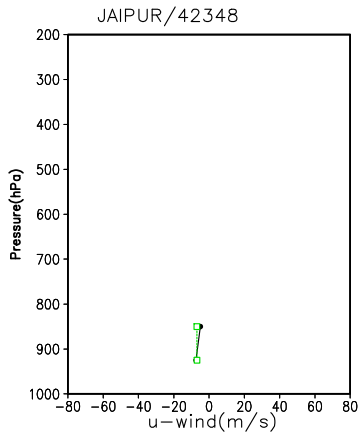
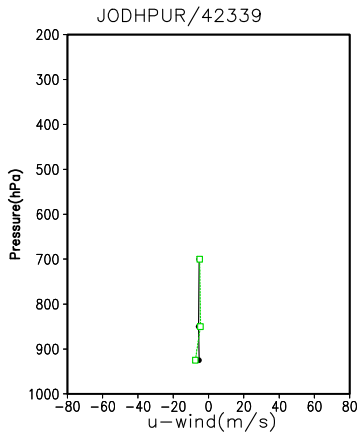
VIS, Low level (Below 700 hPa)



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 20082017

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