



Observation Monitoring

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

for 15102024 (0600 UTC)



Indian Observation Coverage

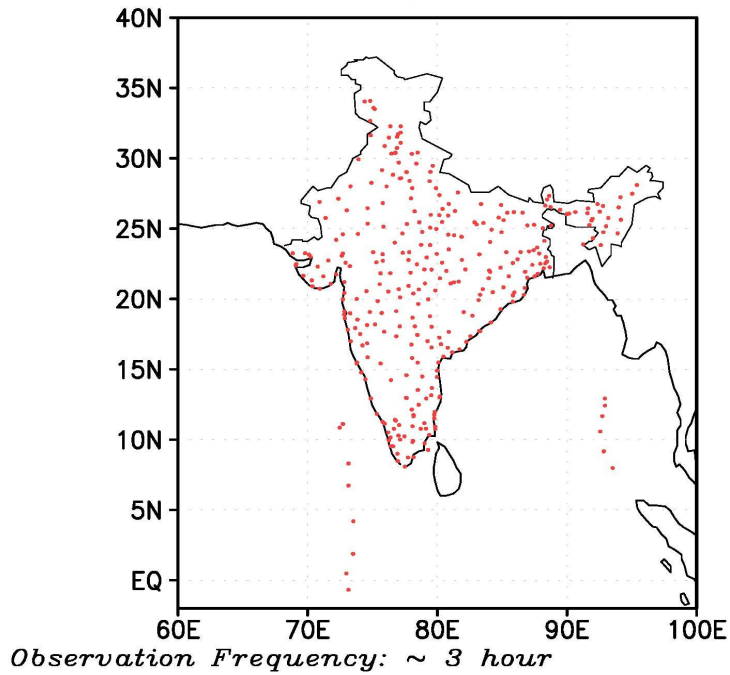


NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: Surface (15102024 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 516
(42 & 43 Block)

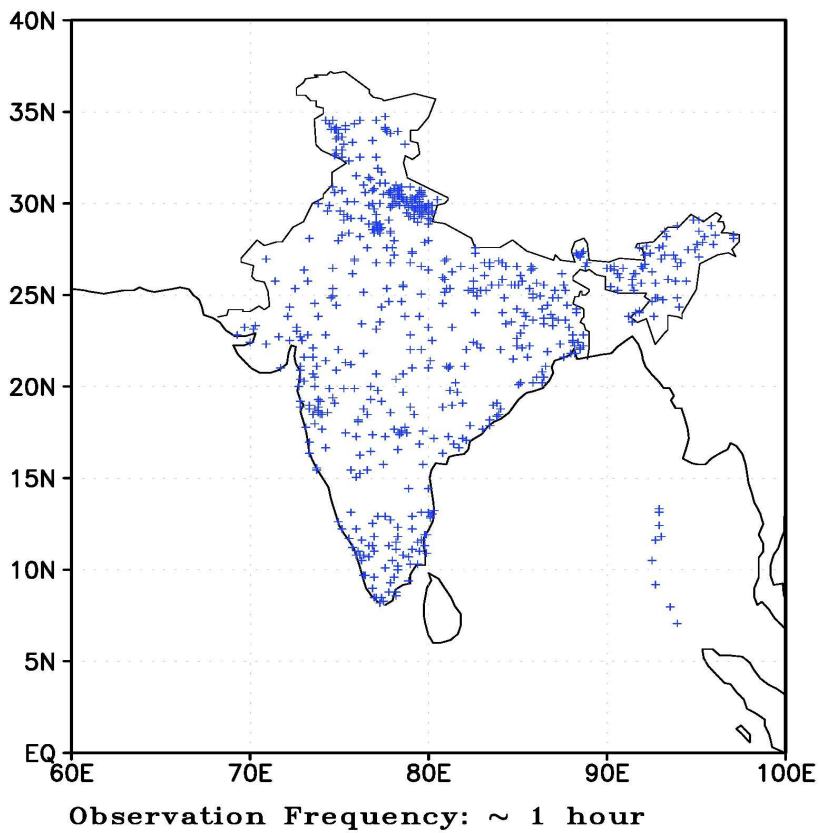
SYNOP(516)





NCMRWF OBSERVATIONS MONITORING

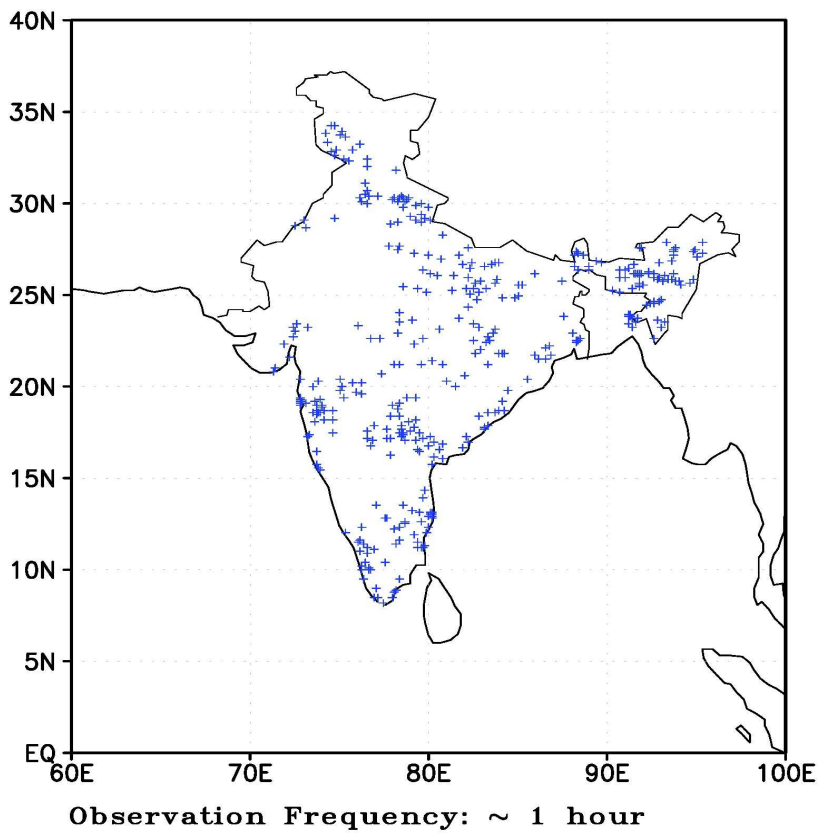
Data Coverage: Indian AWS (15102024 0600UTC +/- 3 Hrs) U_CYC
Total Number of Observations Received at NCMRWF: 3479





NCMRWF OBSERVATIONS MONITORING

Data Coverage: Indian ARG (15102024 0600UTC +/- 3 Hrs) U_CYC
Total Number of Observations Received at NCMRWF: 2243





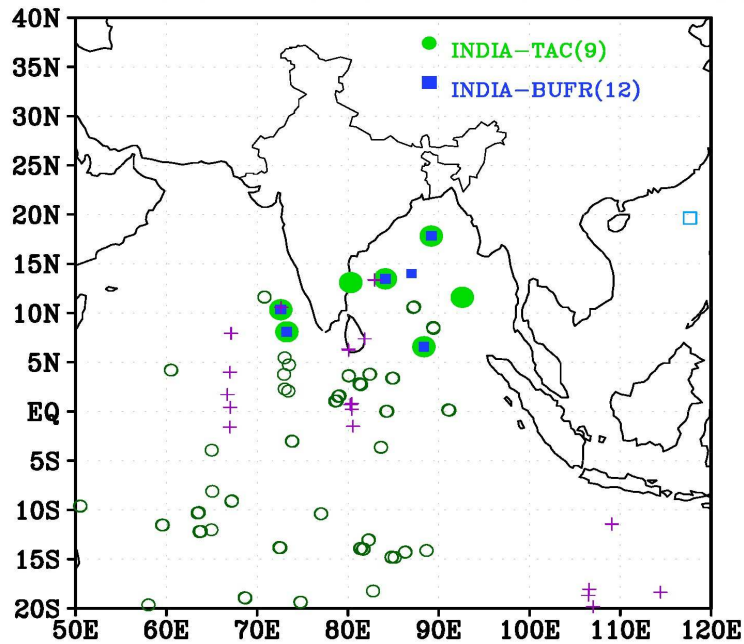
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: BUOY (15102024 0600UTC +/- 3 Hrs)

Total Number of Observations Received at NCMRWF: 350

country code in GTS as ● INDIA(21) ○ USA(190) + FRANCE(137) □ OTHERS(2)



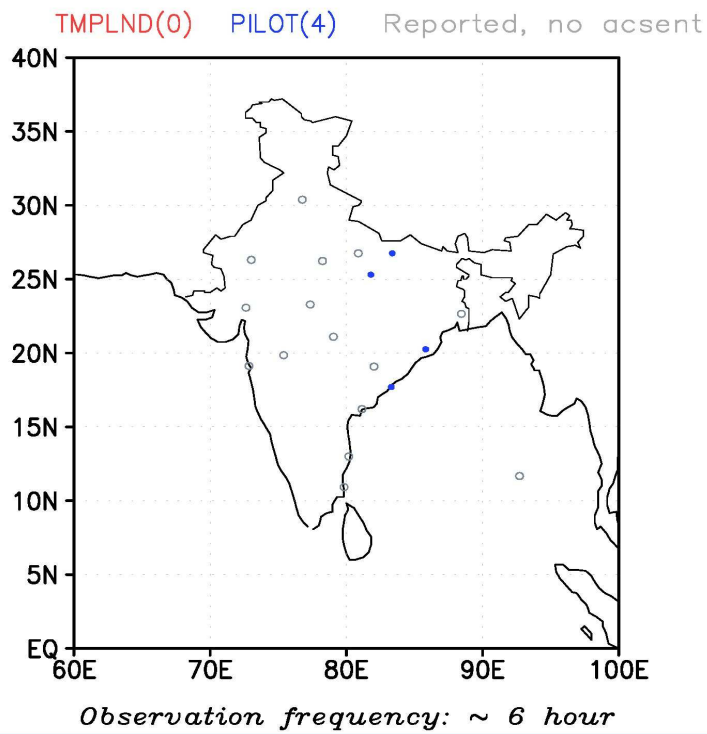
Observation Frequency: ~ 1 hour & ~ 3 hour (India)



NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: Sonde (15102024 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 4
(42 & 43 Block)

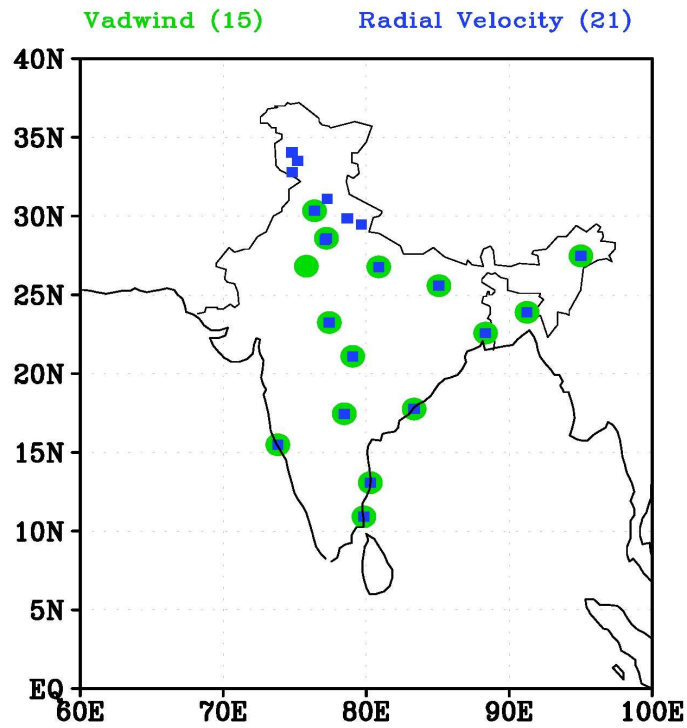




NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: Indian DWR Stations (15102024 0600UTC +/- 03Hrs)



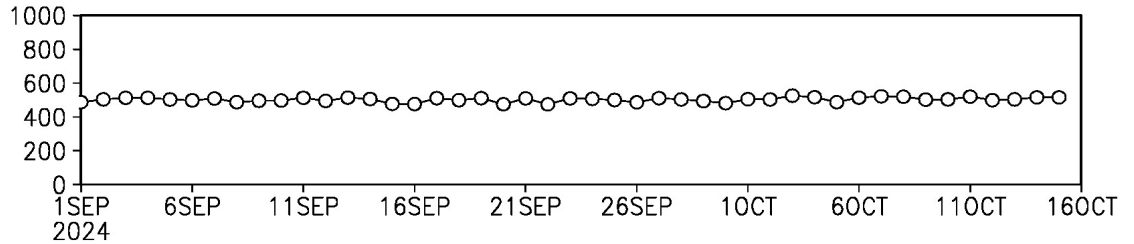


NCMRWF OBSERVATIONS MONITORING

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

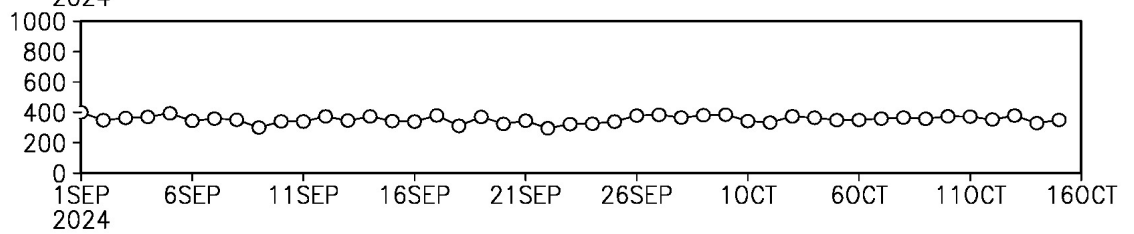
SYNOP

Avg=511
Today_Cnt=516
Dep=1. %



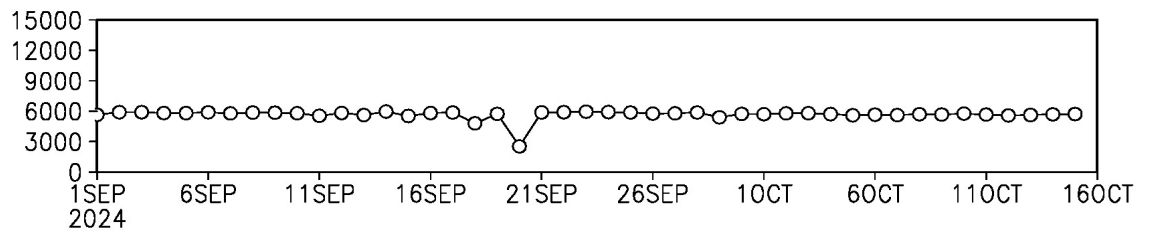
BUOY

Avg=373
Today_Cnt=350
Dep=-6. %



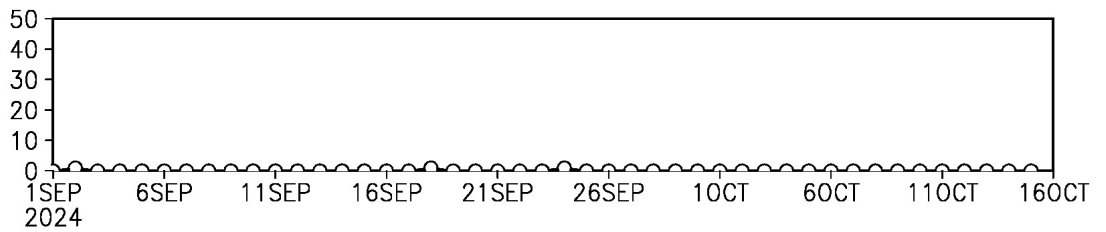
AWS+ARG

Avg=5811
Today_Cnt=5722
Dep=-2. %



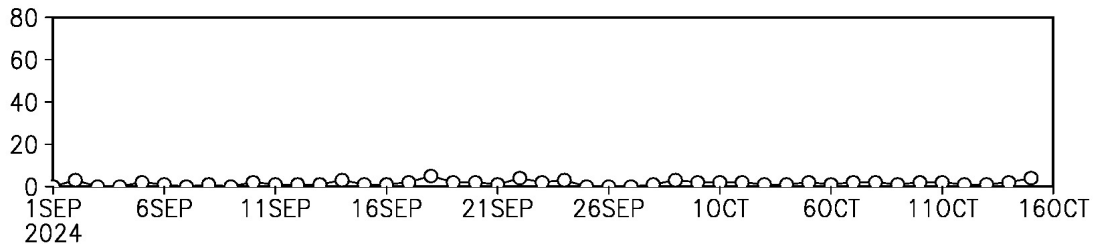
RS/RW

Avg=0
Today_Cnt=0
Dep=NaN %



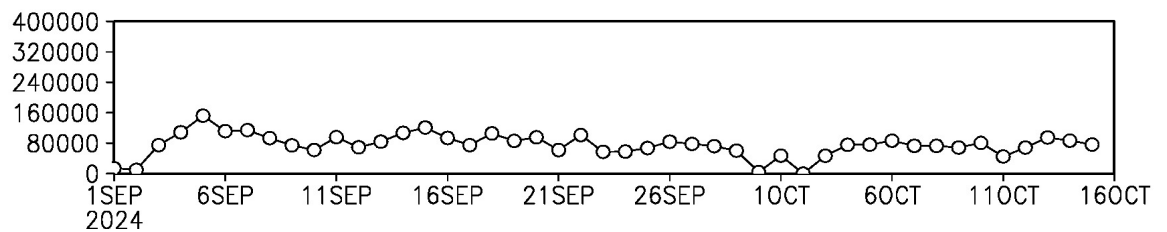
PILOT

Avg=1
Today_Cnt=4
Dep=300. %



INSAT-3DR AMV

Avg=76971
Today_Cnt=60942
Dep=-21. %





Global Observation Coverage



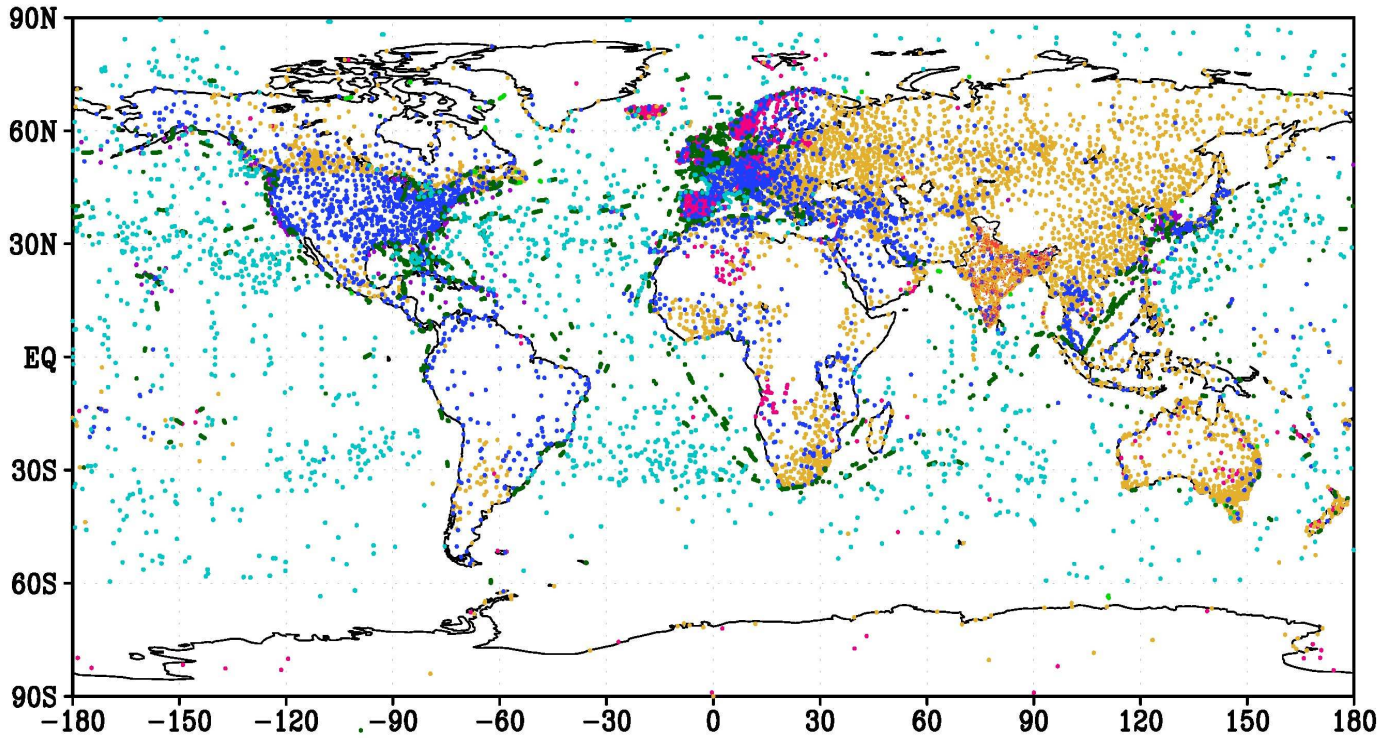
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: Surface (15102024 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 69187

LNDSYN(16896) SHIP(3124) BUOY(6548) METAR(20115) MOBILE/AWS(5722)

LNDSYN_BUFR(2834) SHIP_BUFR(4360) BUOY_BUFR(9588)





NCMRWF OBSERVATIONS MONITORING

U_CYC

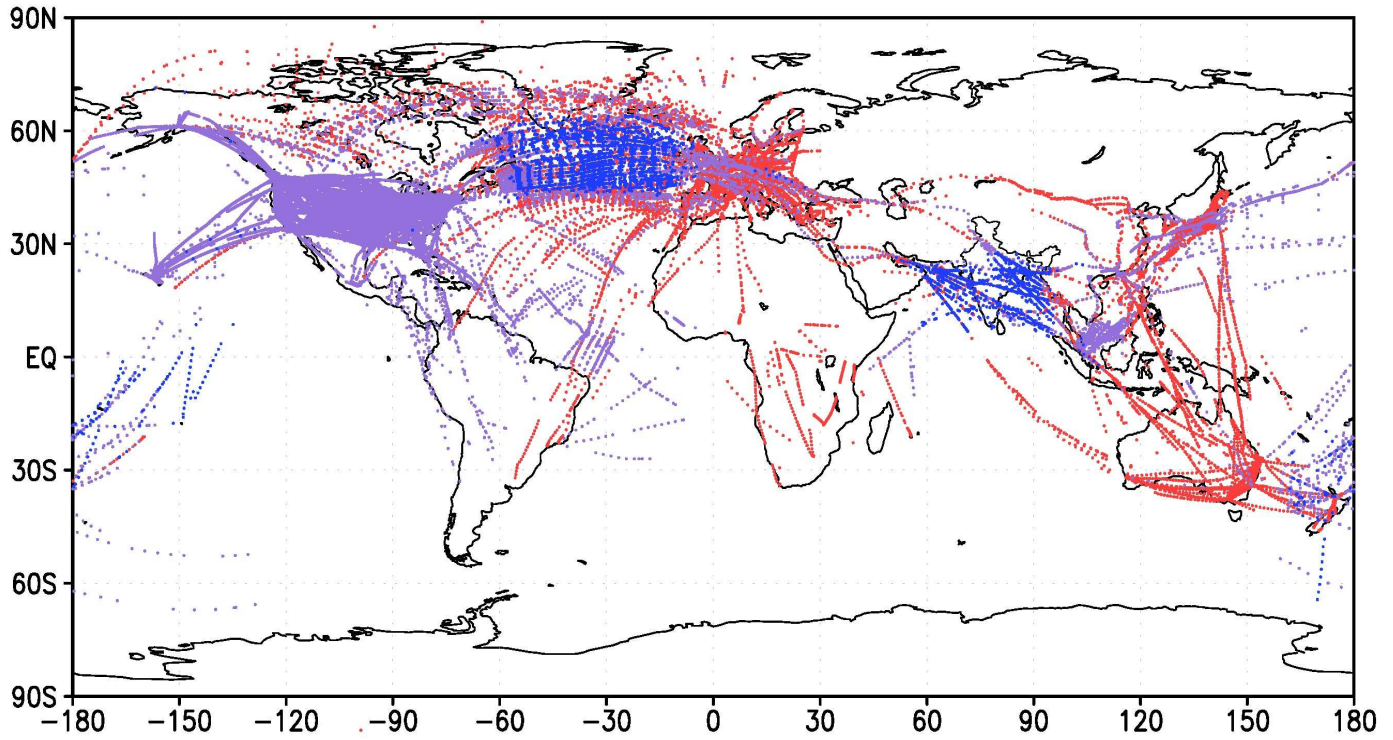
Data Coverage: AIRCFT (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 113863

AIREP(5442)

AMDAR(33283)

WIGOS-AMDAR(75138)



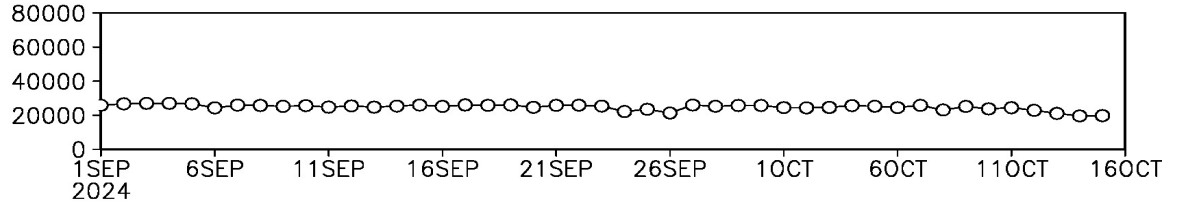


NCMRWF OBSERVATIONS MONITORING

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

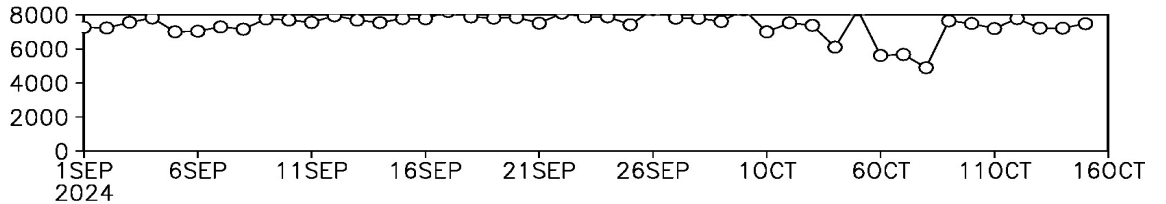
SYNOP

Avg=25866
Today_Cnt=19730
Dep=-24. %



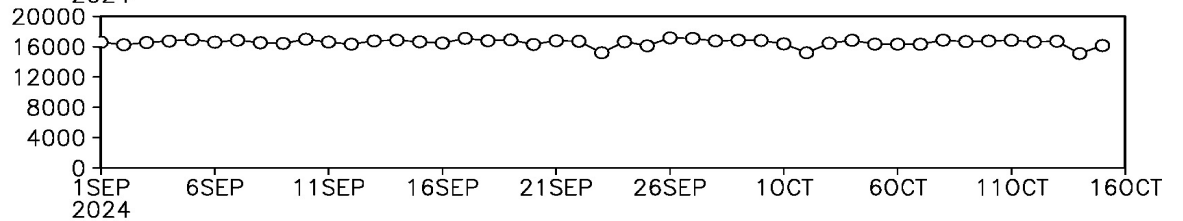
SHIP

Avg=7813
Today_Cnt=7484
Dep=-4. %



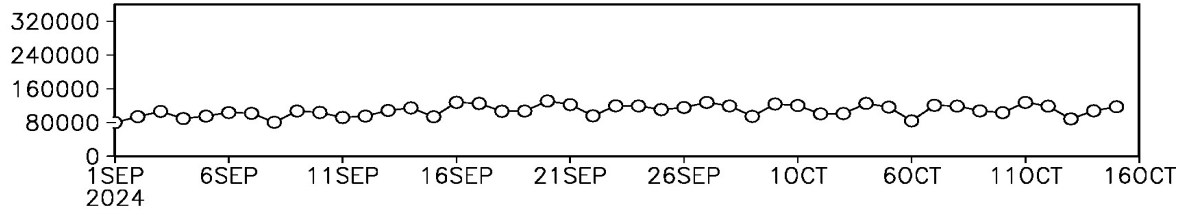
BUOY

Avg=16799
Today_Cnt=16136
Dep=-4. %



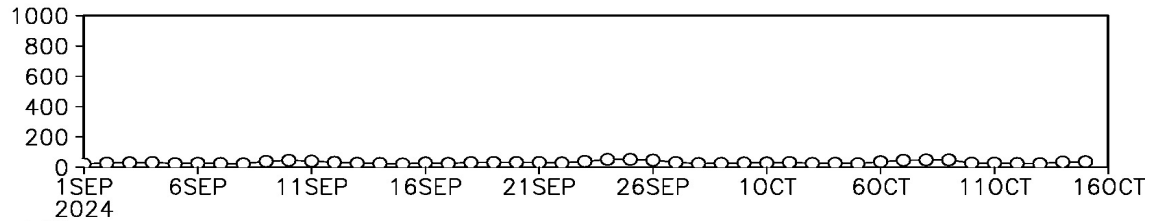
AIRCRAFT

Avg=118190
Today_Cnt=113863
Dep=-4. %



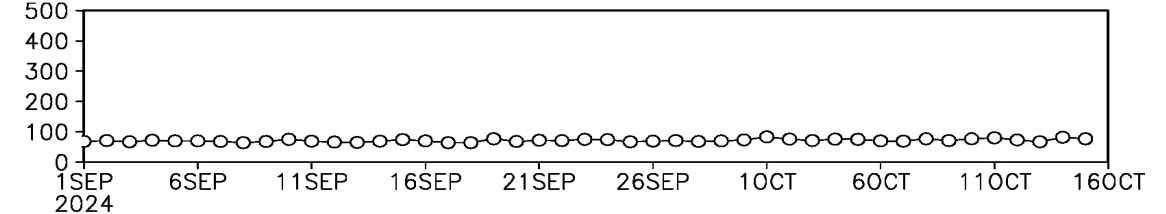
RS/RW

Avg=39
Today_Cnt=37
Dep=-5. %



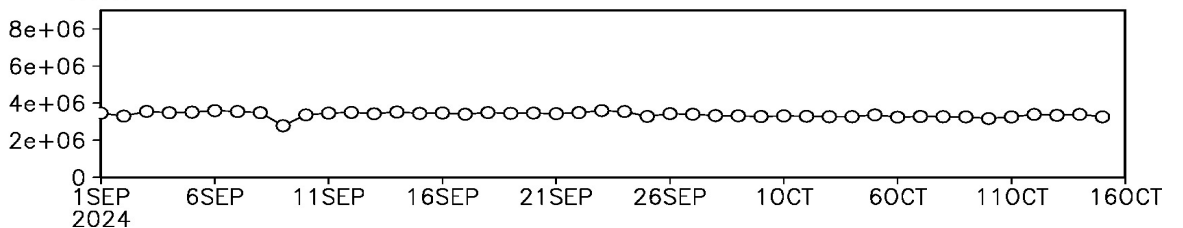
PILOT

Avg=74
Today_Cnt=77
Dep=4. %



AMV

Avg=3474137
Today_Cnt=3256108
Dep=-6. %





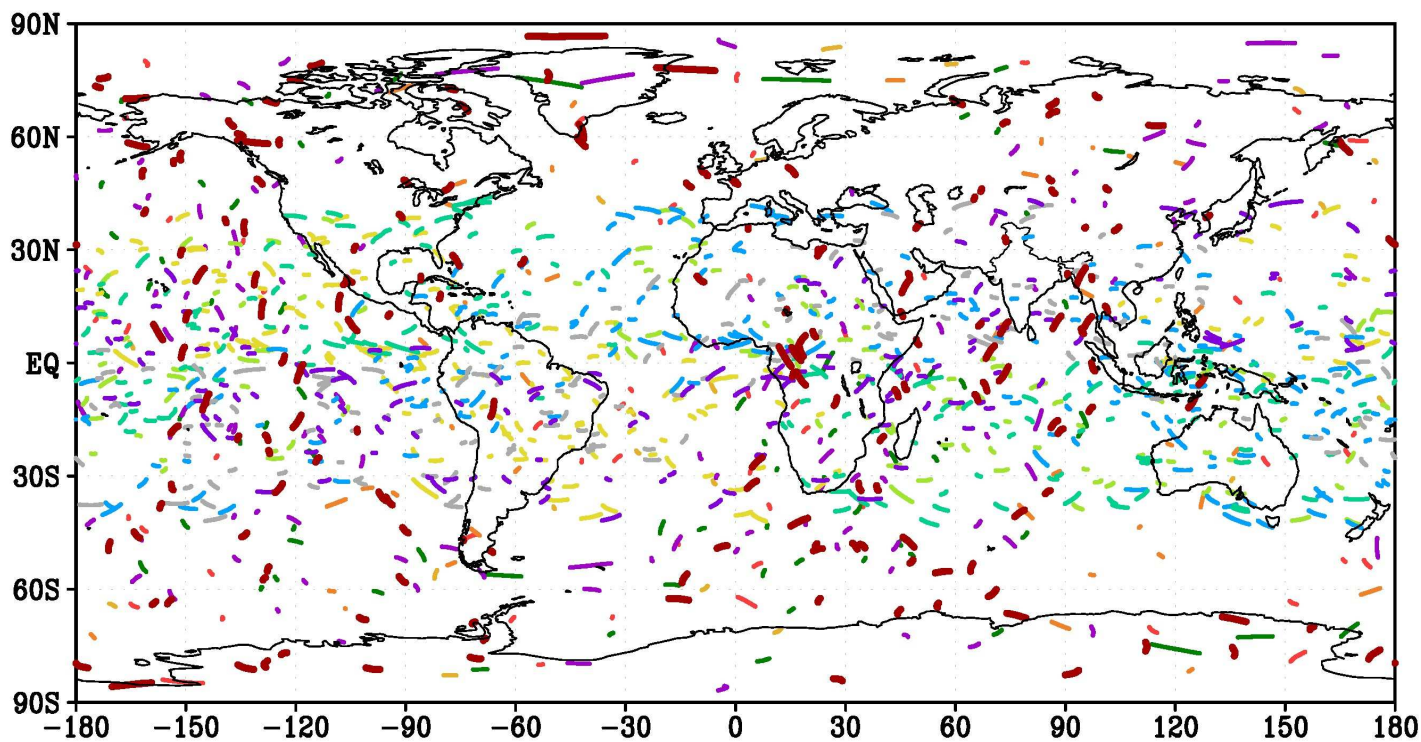
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage:GNSSR0 (15102024 0600UTC +/-03Hrs)

Total Number of Observations Received at NCMRWF: 345989

TerraSAR-X(13469)	TenDEM-X(4785)	FY-3D(9975)	SPIRE(42975)	COSMIC-2E1(37615)
COSMIC-2E2(29448)	COSMIC-2E3(49880)	COSMIC-2E4(39548)	COSMIC-2E5(37889)	COSMIC-2E6(35455)
METOP-B(27786)	METOP-C(17164)	PAZ(0)	KOMPSAT-5(0)	GeoOptics(0)





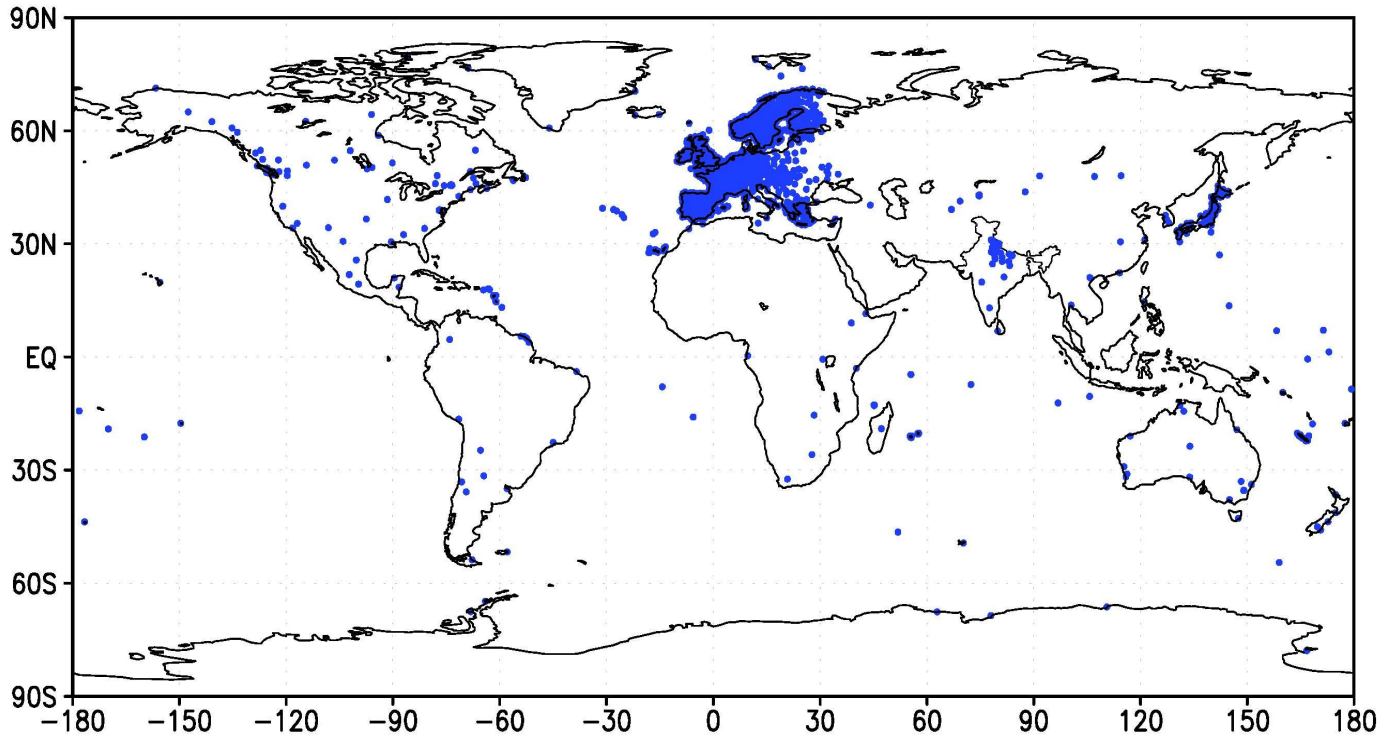
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: GNSS-IPW (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 23821

GPSIPW(23821)





NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: OZONE (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 0

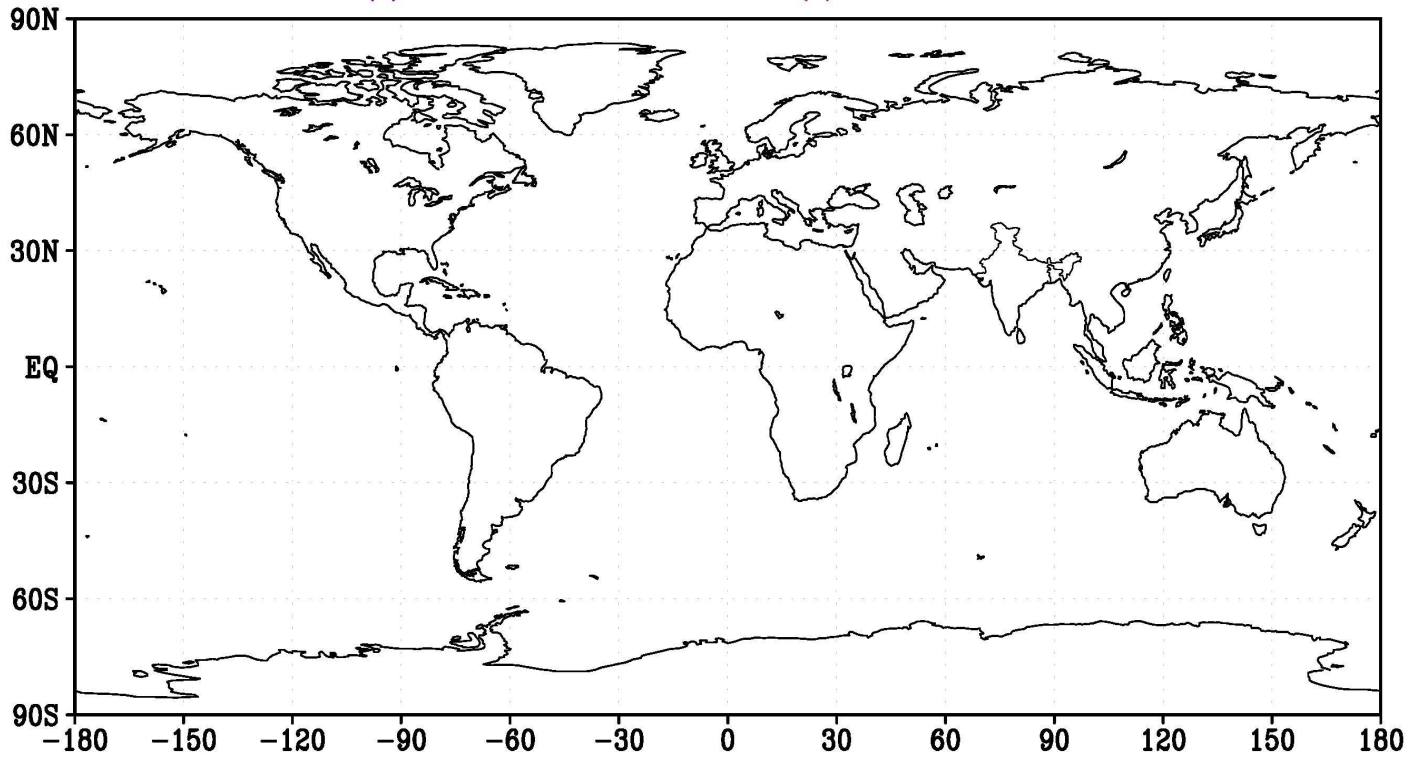
GOME-METOP-B(0)

OMPS-Nadir-NPP(0)

OMPS-Nadir-NOAA20(0)

OMPS-TotCol-NPP(0)

OMPS-TotCol-NOAA20(0)





NCMRWF OBSERVATIONS MONITORING

U_CYC

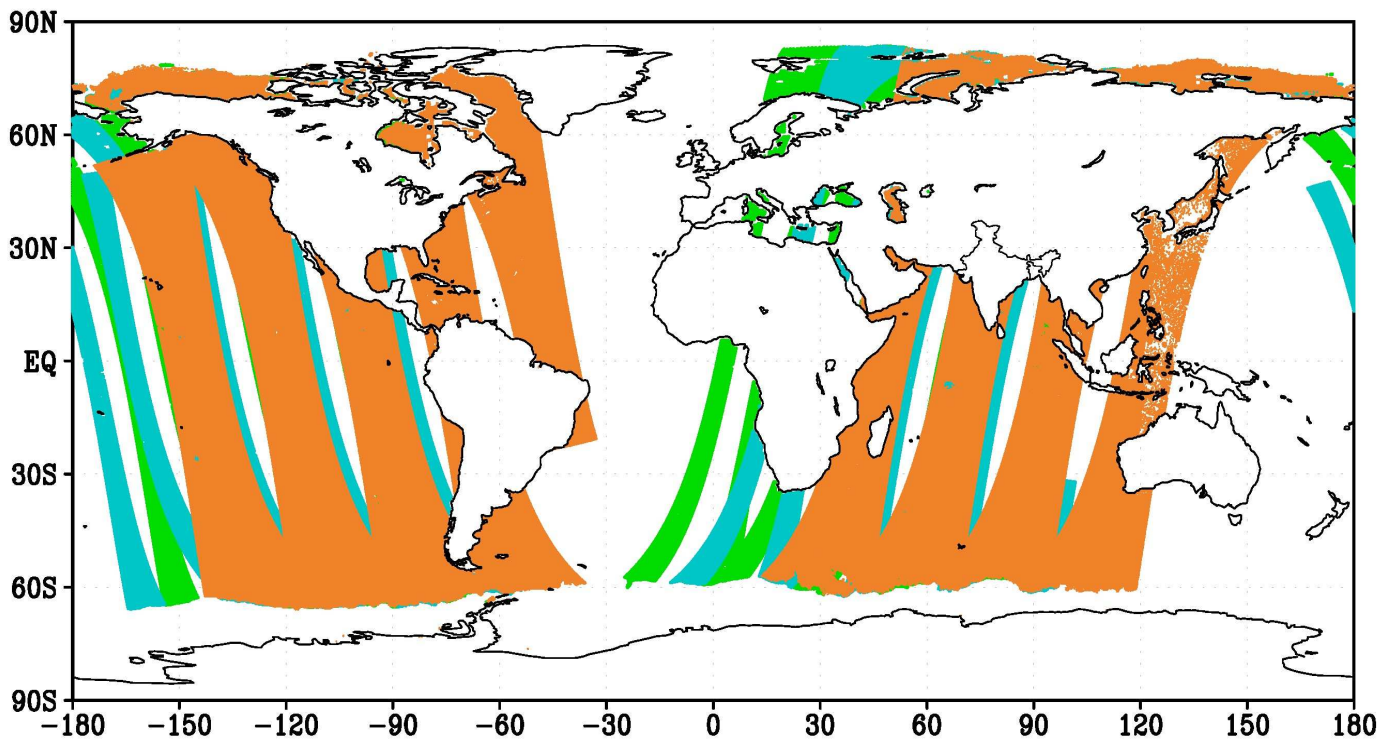
Data Coverage: Scatterometer winds (15102024 06UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 1895933

ASCAT (METOP-B) (475817)

ASCAT (METOP-C) (493743)

SCATSAT (OCEANSAT-3) (926373)





Atmospheric Motion Wind Vectors



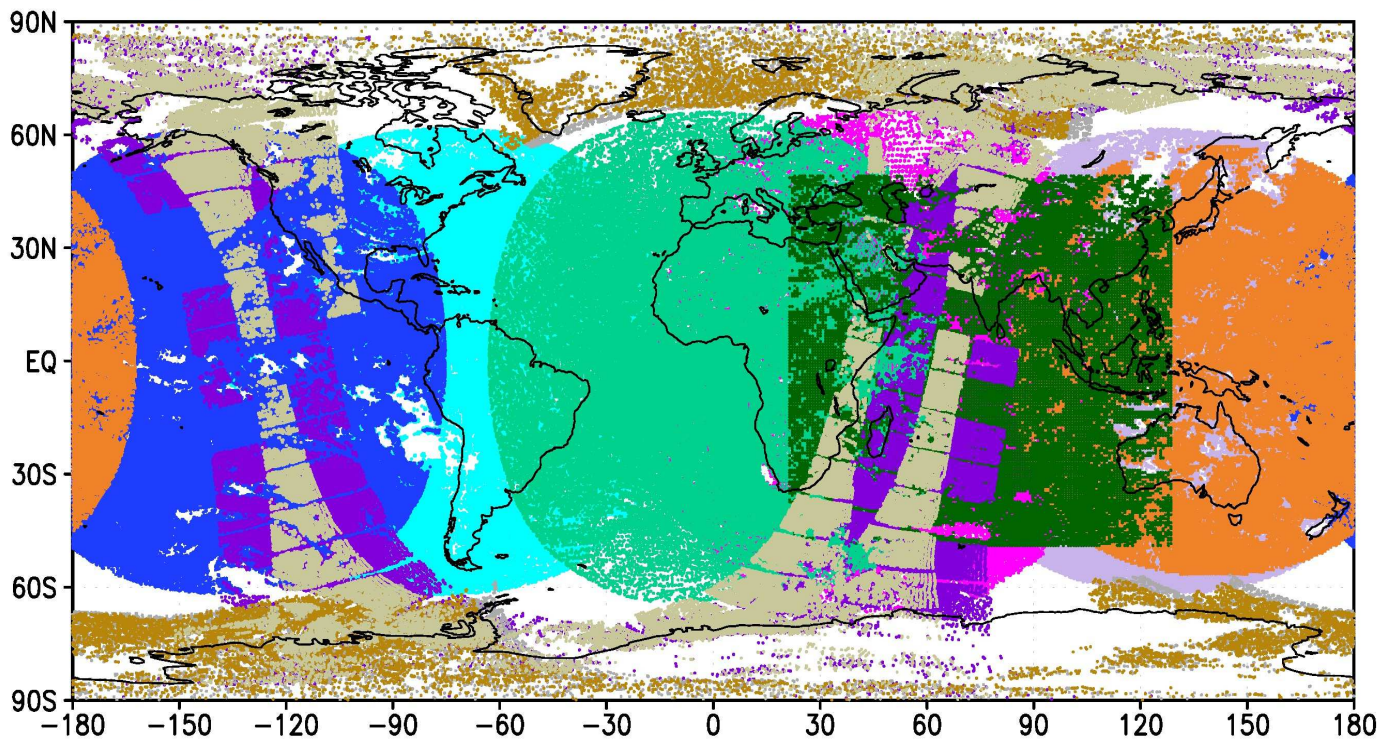
NCMRWF OBSERVATIONS MONITORING

U_CYC

Total Number of Observations Received at NCMRWF: 3256107

Data Coverage: AMV_ALL (15102024 0600UTC +/- 03Hrs)

- | | | | | |
|-----------------|-----------------|---------------------|------------------|--------------------|
| GOES-16(750820) | GOES-18(975694) | NOAA-18(0) | NOAA-19(0) | METEOSAT-9(215535) |
| METEOSAT-11(0) | NPP(19107) | NOAA-20(18051) | MODIS/Terra(0) | MODIS/Aqua(0) |
| METOP-B(50212) | METOP-C(47673) | INSAT-3D(0) | INSAT-3DR(60941) | HIMAWARI-9(165082) |
| NOAA-15(0) | COMS-2(765422) | METEOSAT-10(168258) | | |



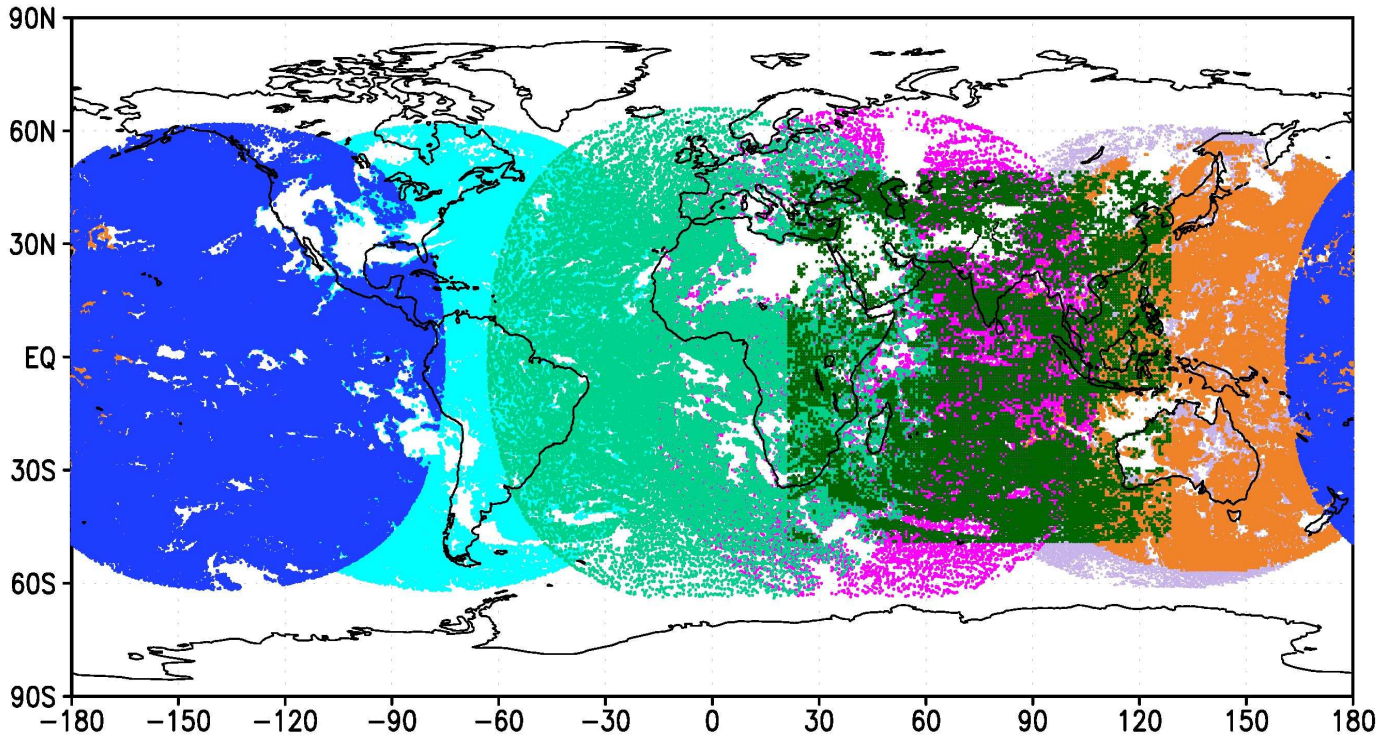


NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: AMV IR (15102024 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 1647852

GOES-16(494776) GOES-18(724552) INSAT-3DR(29389) INSAT-3D(0) COMS-2(246491)
METEOSAT-9(42906) METEOSAT-10(44526) METEOSAT-11(0) HIMAWARI-9(65212)



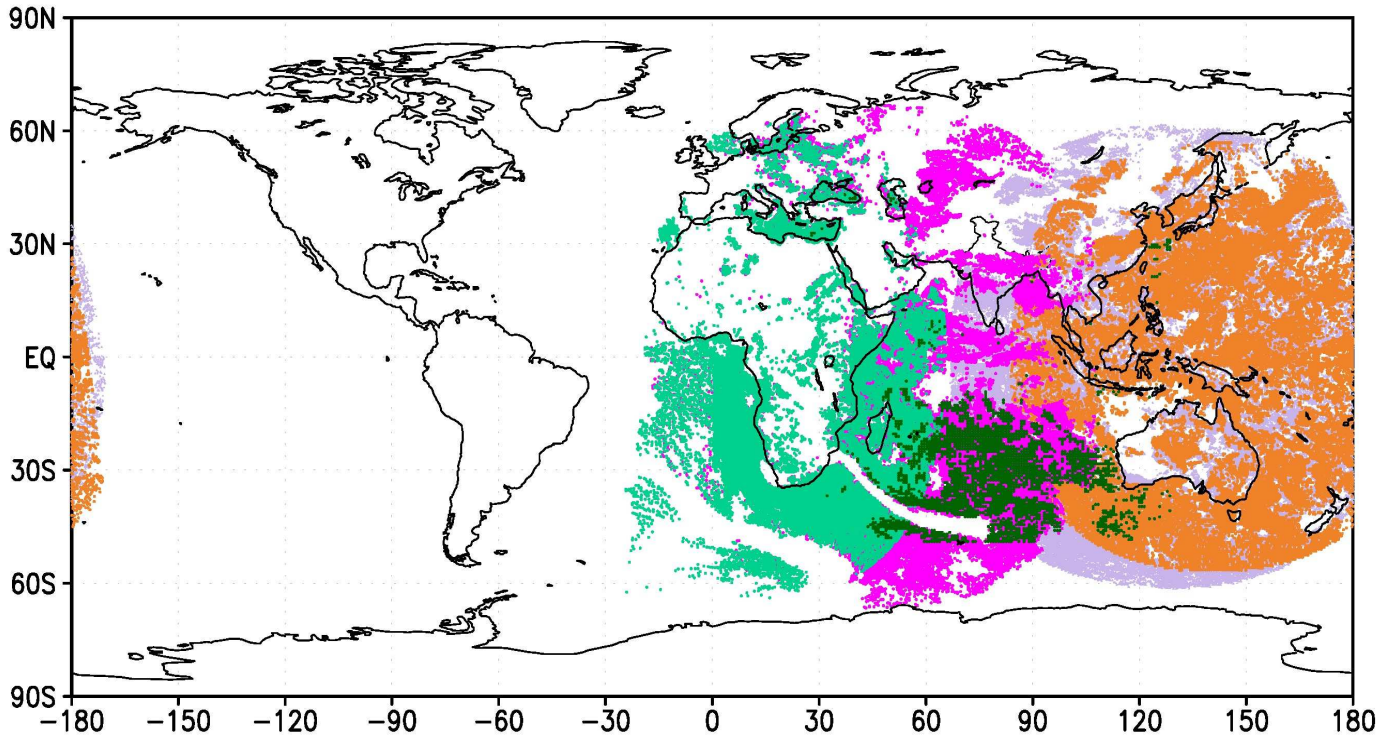


NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: AMV VIS (15102024 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 425672

- GOES-16(0)
- GOES-18(0)
- INSAT-3DR(5226)
- INSAT-3D(0)
- COMS-2(249492)
- METEOSAT-9(88649)
- METEOSAT-10(42366)
- METEOSAT-11(0)
- HIMAWARI-9(39939)



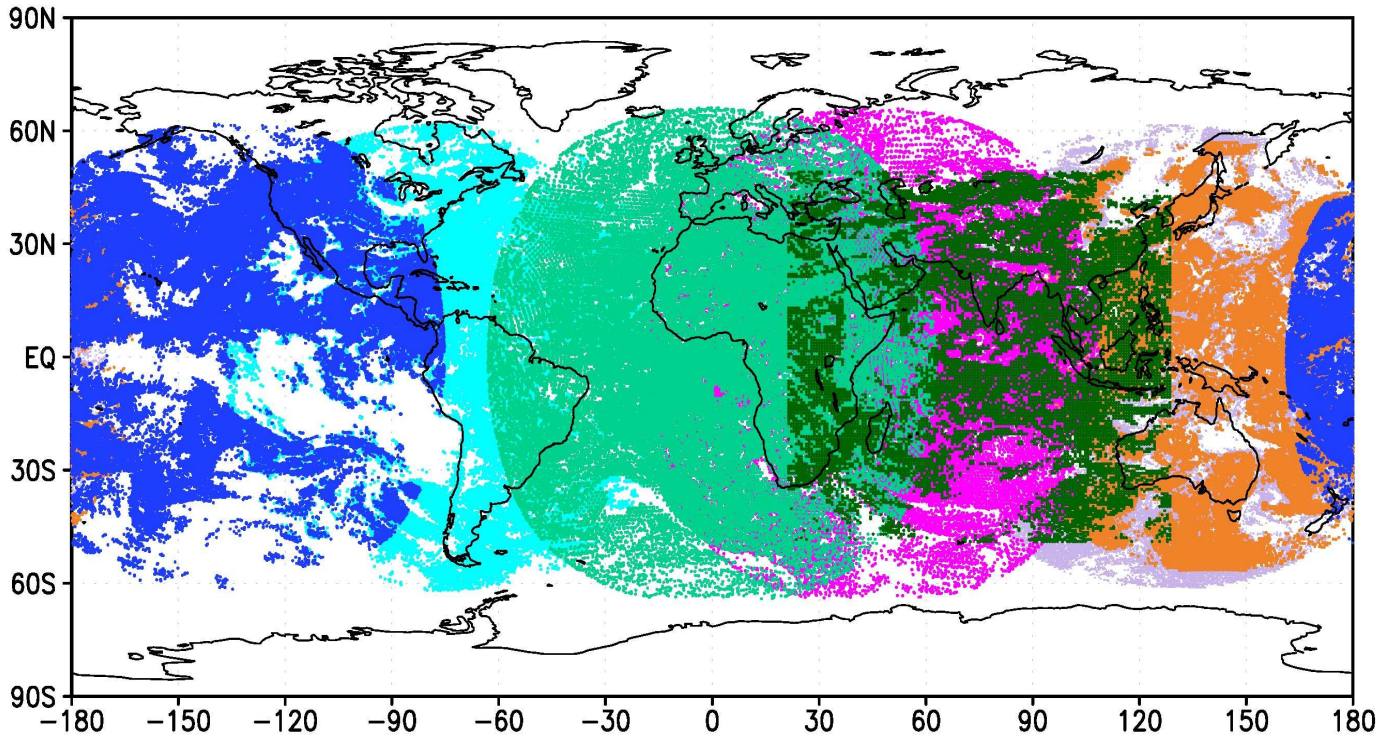


NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: AMV WV (15102024 0600UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 1028225

GOES-16(256044) GOES-18(251142) INSAT-3DR(26323) INSAT-3D(0) COMS-2(269439)
METEOSAT-9(83980) METEOSAT-10(81366) METEOSAT-11(0) HIMAWARI-9(59931)



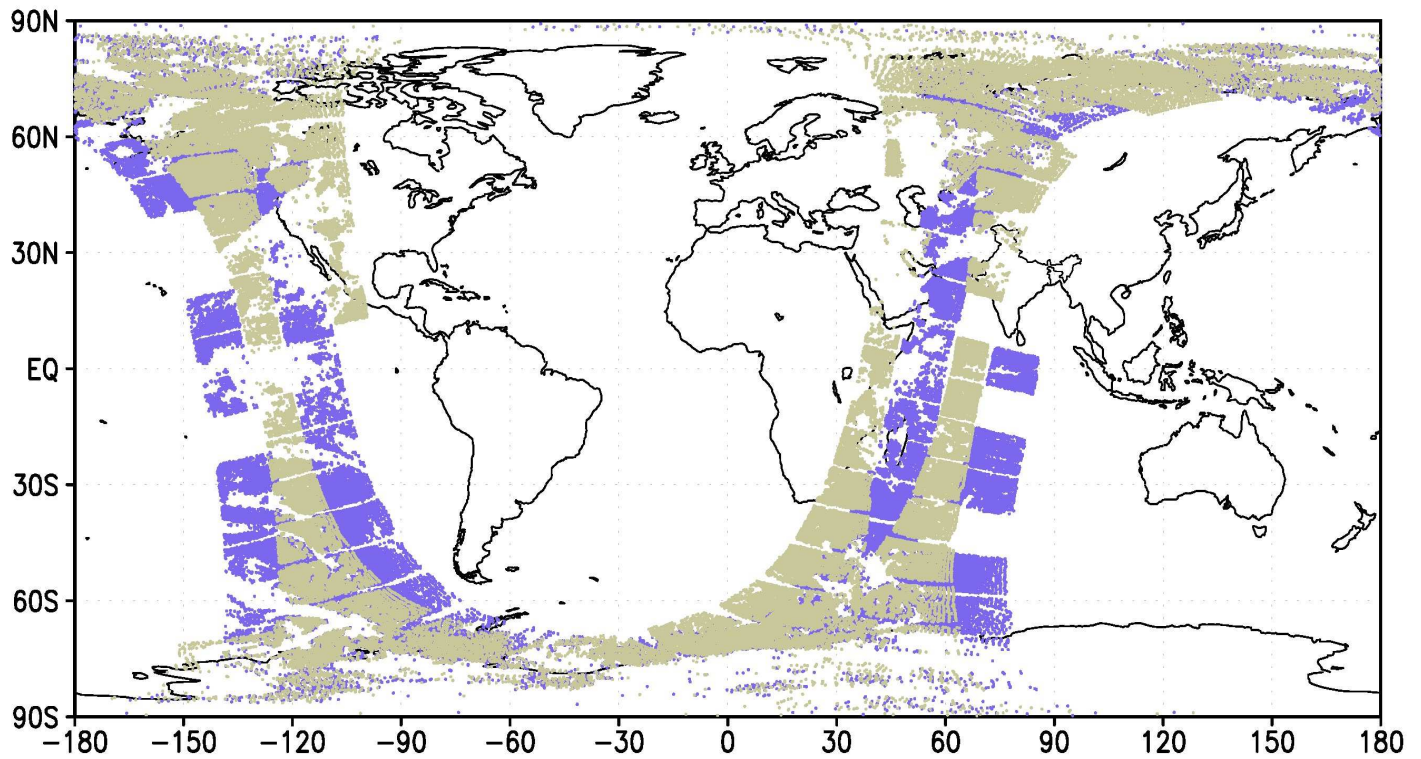


NCMRWF OBSERVATIONS MONITORING

AMV POLAR (15102024 0600UTC +/- 03Hrs) U_CYC

Total Number of Observations Received at NCMRWF: 97885

- NOAA-15(0)
- NOAA-18(0)
- NOAA-19(0)
- MODIS/Aqua(0)
- MODIS/Terra(0)
- METOP-B(0)
- DUAL-MetOp-B(50212)
- DUAL-MetOp-C(47673)



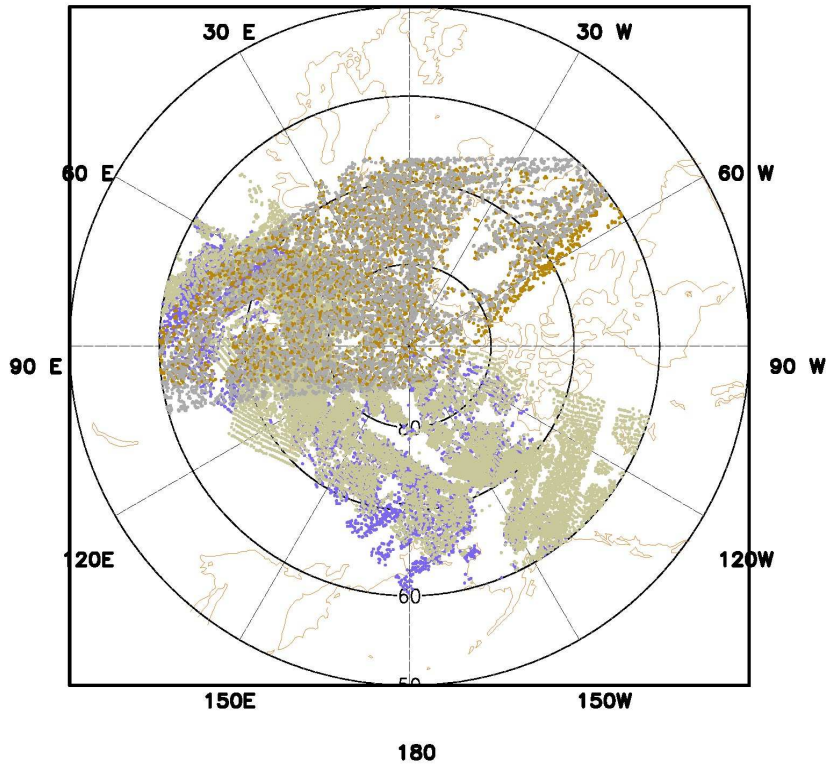


NCMRWF OBSERVATIONS MONITORING

AMV IR POLAR NH (15102024 0600UTC +/- 03Hrs) U_CYC

Total Number of Observations Received at NCMRWF: 45895

NOAA-15(0)	NOAA-18(0)	NOAA-19(0)	NOAA-20(6424)
NPP(6745)	MODIS/Aqua(0)	MODIS/Terra(0)	
METOP-B(0)	METOP-C(12488)	DUAL-METOP(7188)	



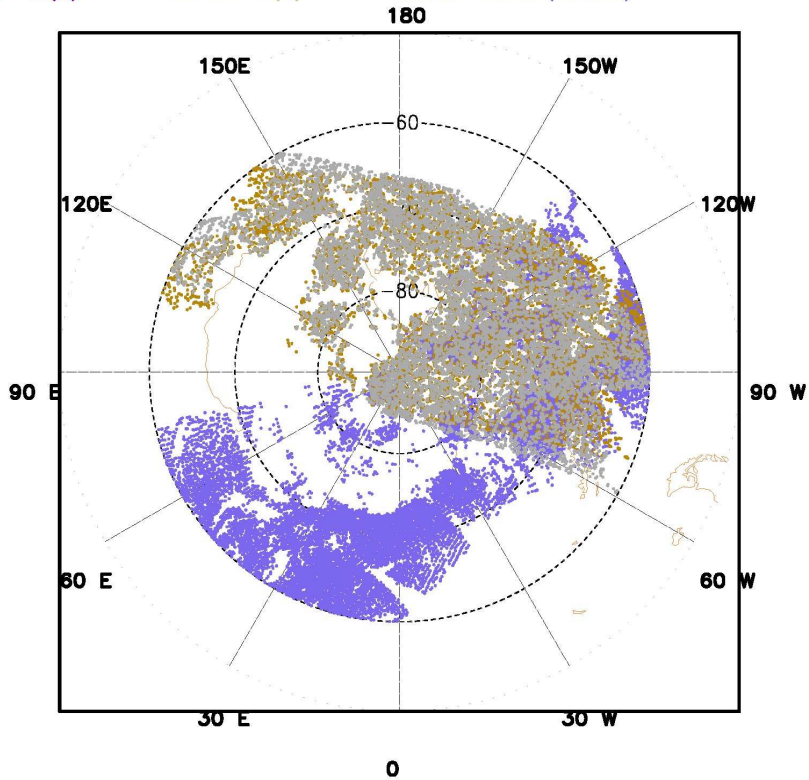


NCMRWF OBSERVATIONS MONITORING

AMV IR POLAR SH (15102024 0600UTC +/- 03Hrs) U_CYC

Total Number of Observations Received at NCMRWF: 46784

- NOAA-15(0)
- NOAA-18(0)
- NOAA-19(0)
- NOAA-20(11362)
- NPP(11892)
- MODIS/Aqua(0)
- MODIS/Terra(0)
- METOP-B(0)
- METOP-C(0)
- DUAL-METOP(17644)





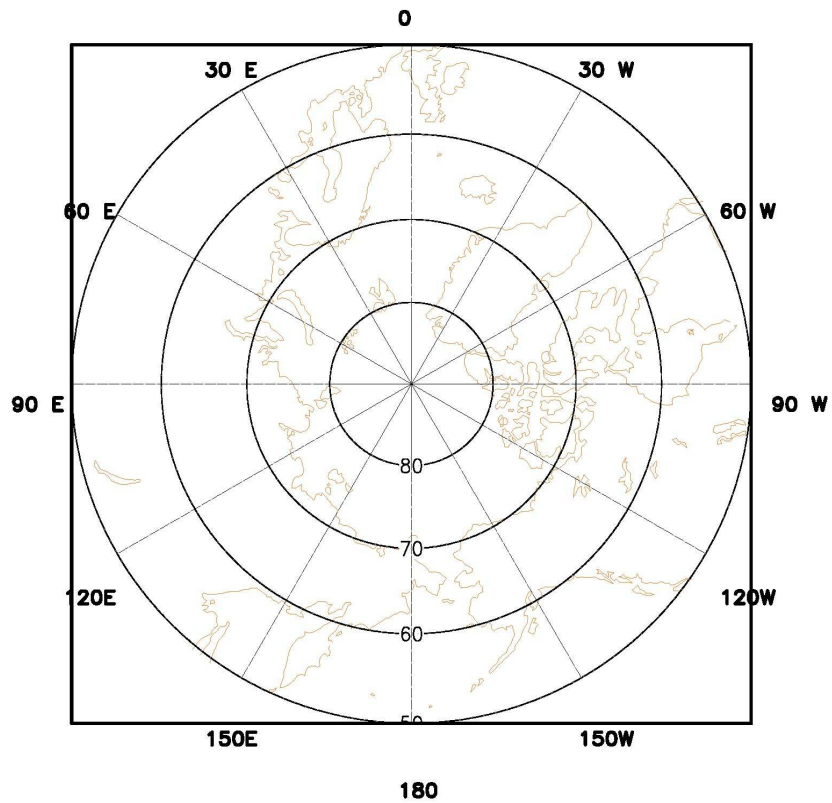
NCMRWF OBSERVATIONS MONITORING

AMV WV POLAR NH (15102024 0600UTC +/- 03Hrs) U_CYC

Total Number of Observations Received at NCMRWF: 0

MODIS/Aqua(0)

MODIS/Terra(0)



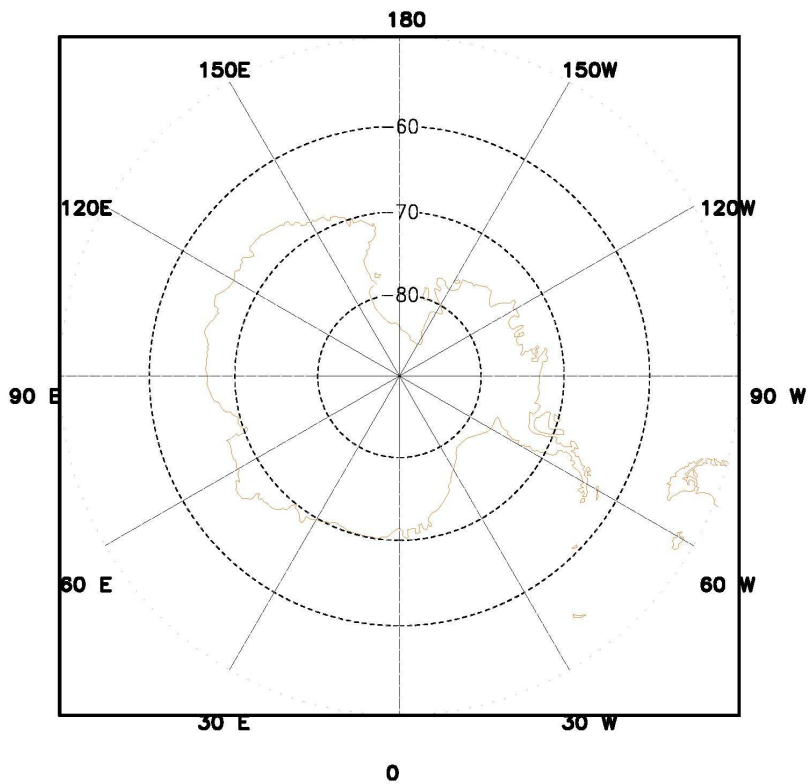


NCMRWF OBSERVATIONS MONITORING

AMV WV POLAR SH (15102024 0600UTC +/- 03Hrs) U_CYC
Total Number of Observations Received at NCMRWF: 0

MODIS/Aqua(0)

MODIS/Terra(0)





Radiance Observations



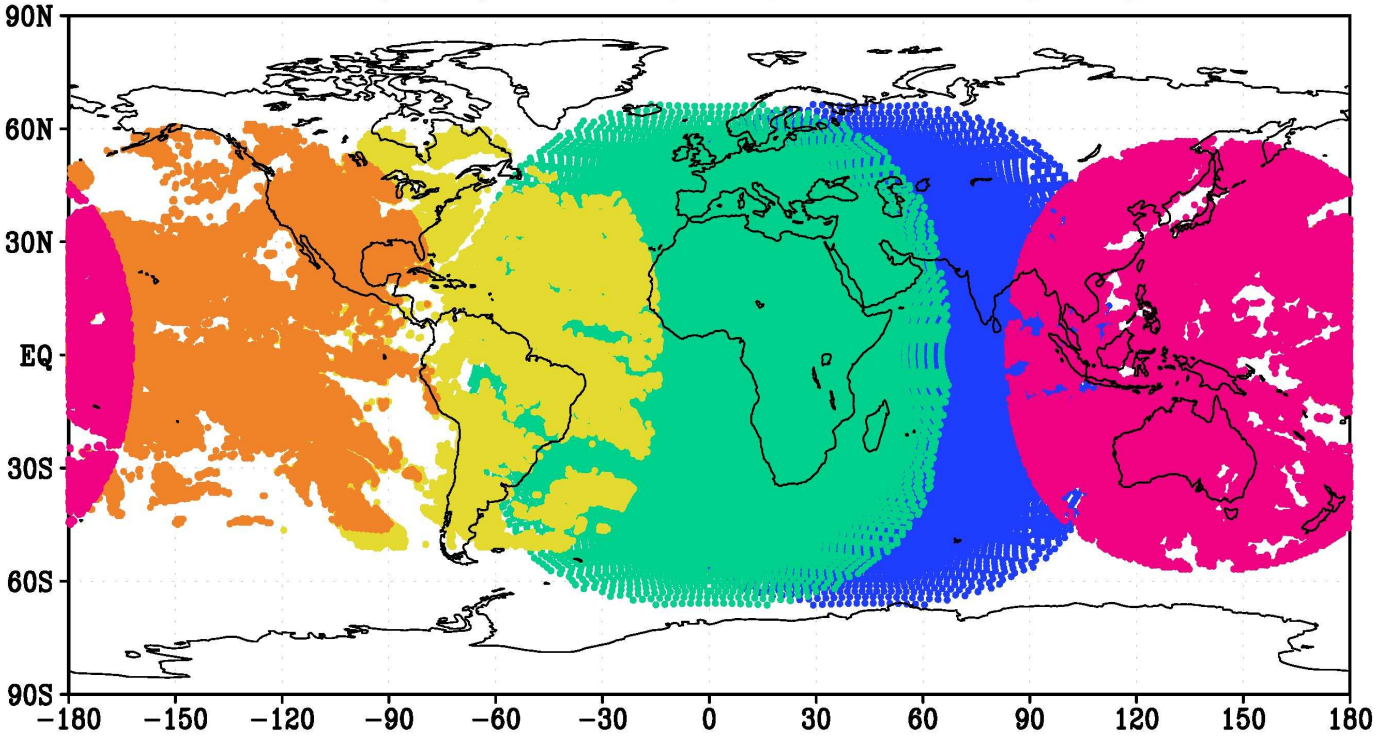
NCMRWF OBSERVATIONS MONITORING

U_CYC

Geostationary Radiance (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 1120123

- METEOSAT-9(226082)
- METEOSAT-10(226536)
- METEOSAT-11(0)
- HIMAWARI-9(146631)
- GOES-16(258150)
- GOES-18(262724)





NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: SAT RADIANCE (EARS+IMD RARS) (15102024 0600UTC +/- 03Hrs)

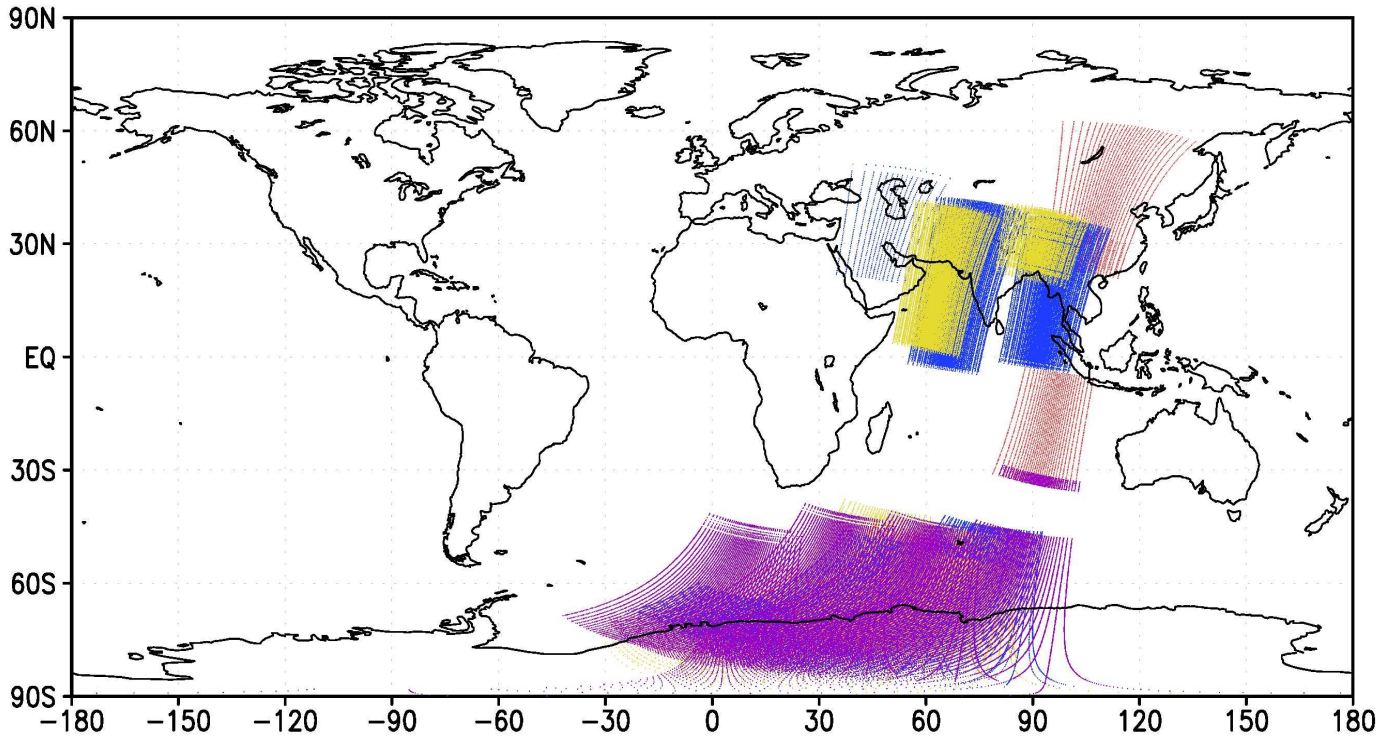
Total Number of Observations Received at NCMRWF: 391440

NOAA18(25510)

NOAA19(151512)

METOP-B(81304)

METOP-C(133114)





NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: Humidity Sounders (15102024 0600UTC +/- 03Hrs)

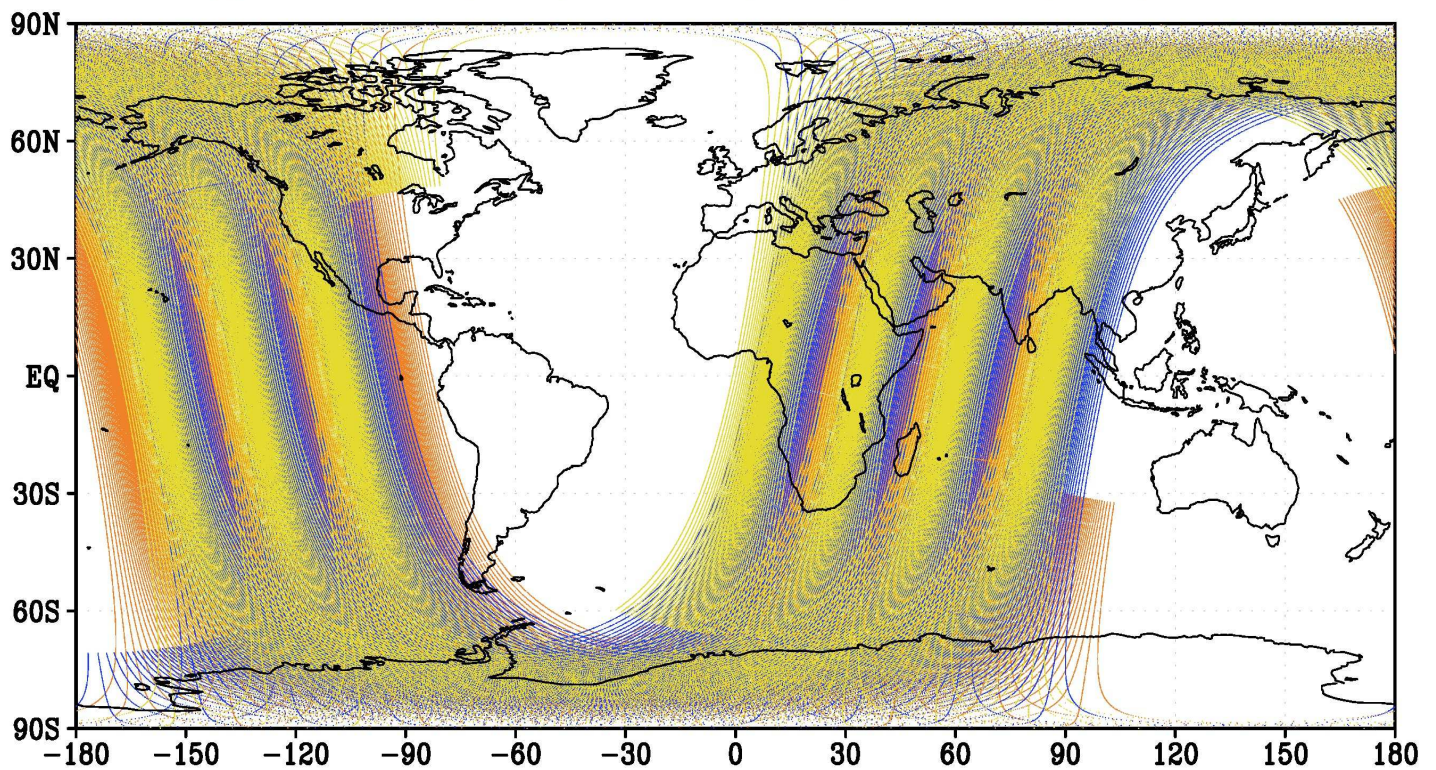
Total Number of Observations Received at NCMRWF: 1453948

SAPHIR(0)

NOAA19(725562)

METOP-B(728386)

METOP-C(713729)





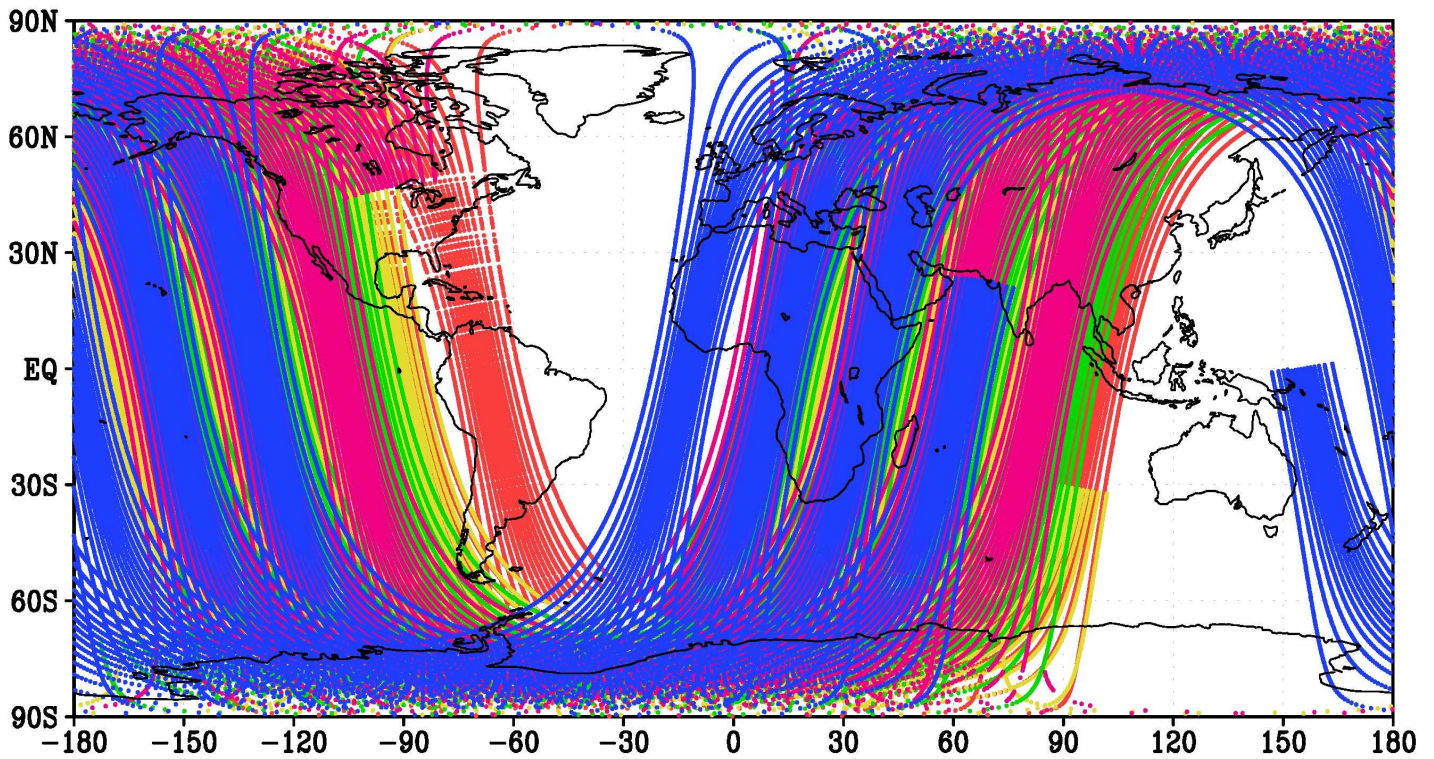
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: AMSUA (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 399199

NOAA15(80970) NOAA18(75208) NOAA19(80940) METOP-B(81052) METOP-C(81029)





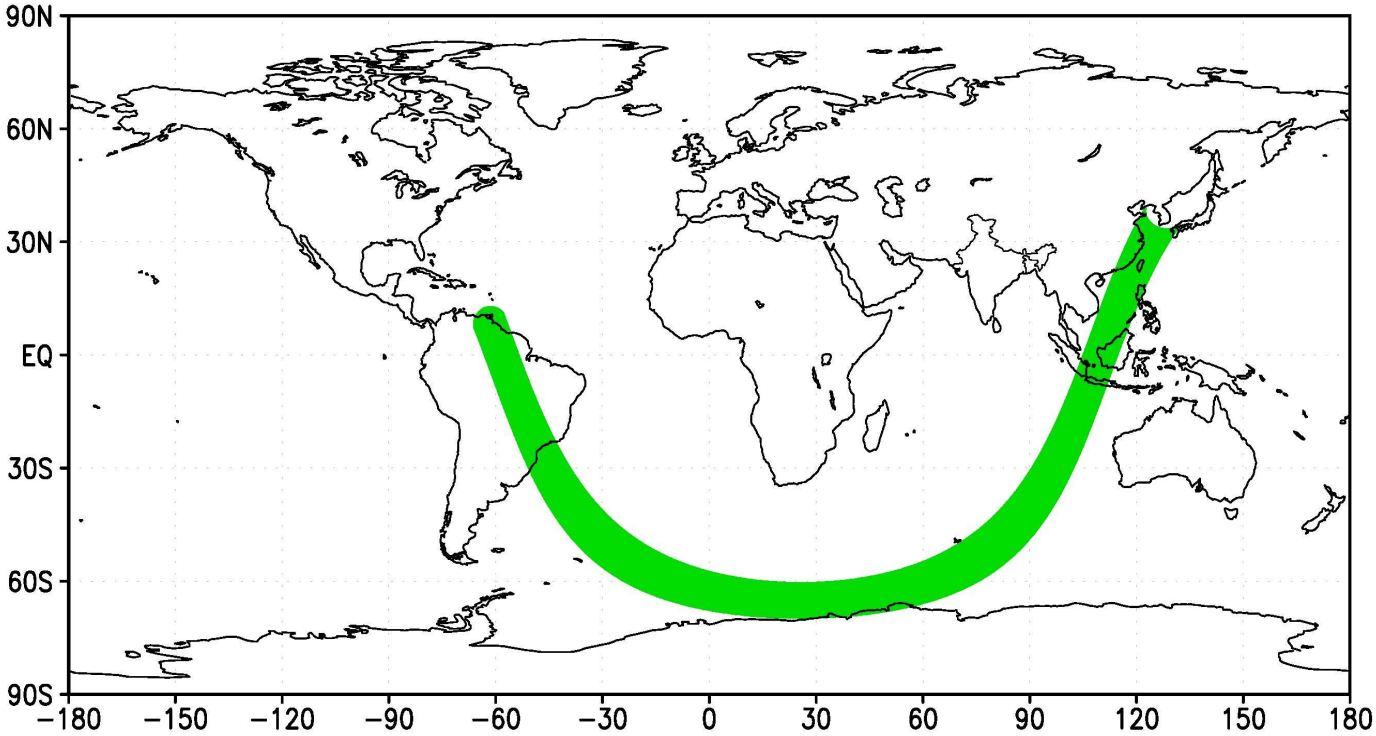
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: GPM-GMI (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 424320

GPM(424320)





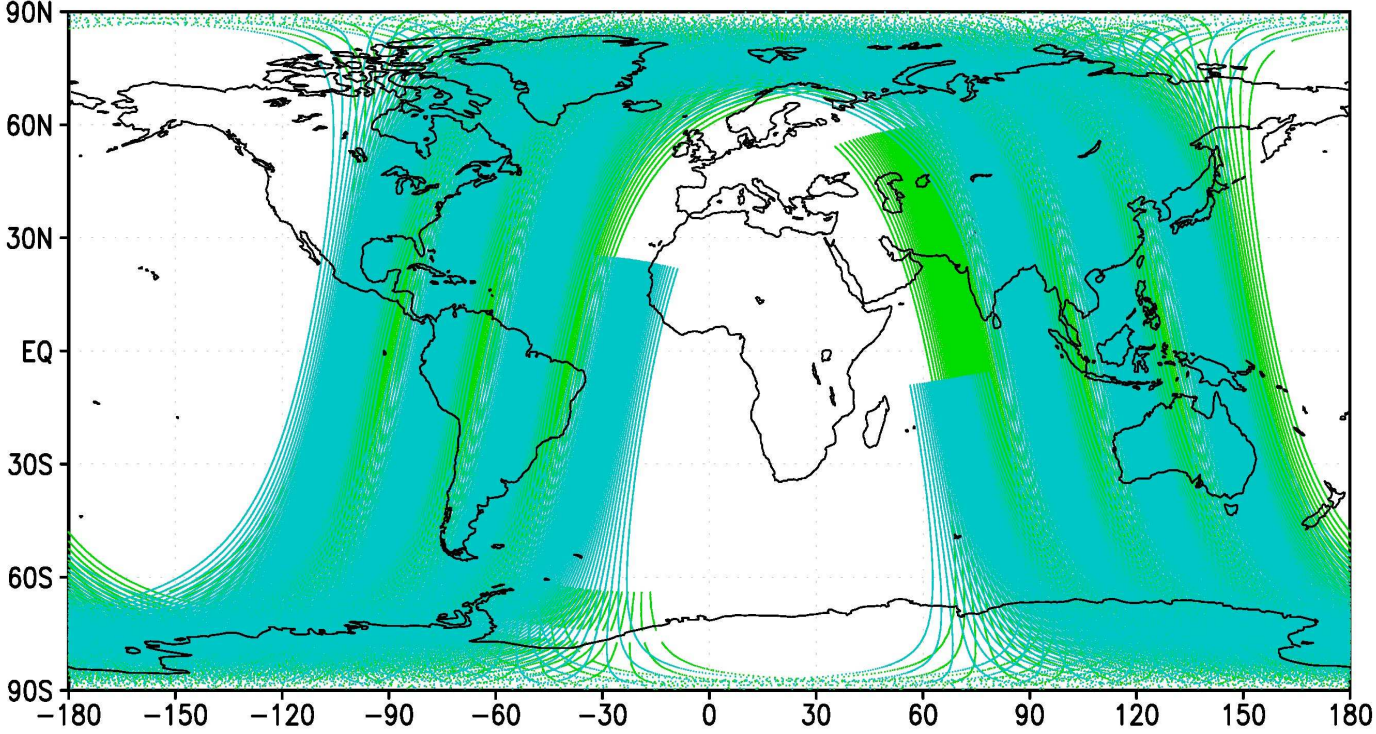
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: ATMS (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 1528440

NOAA-20(777600) NPP(750840)





NCMRWF OBSERVATIONS MONITORING

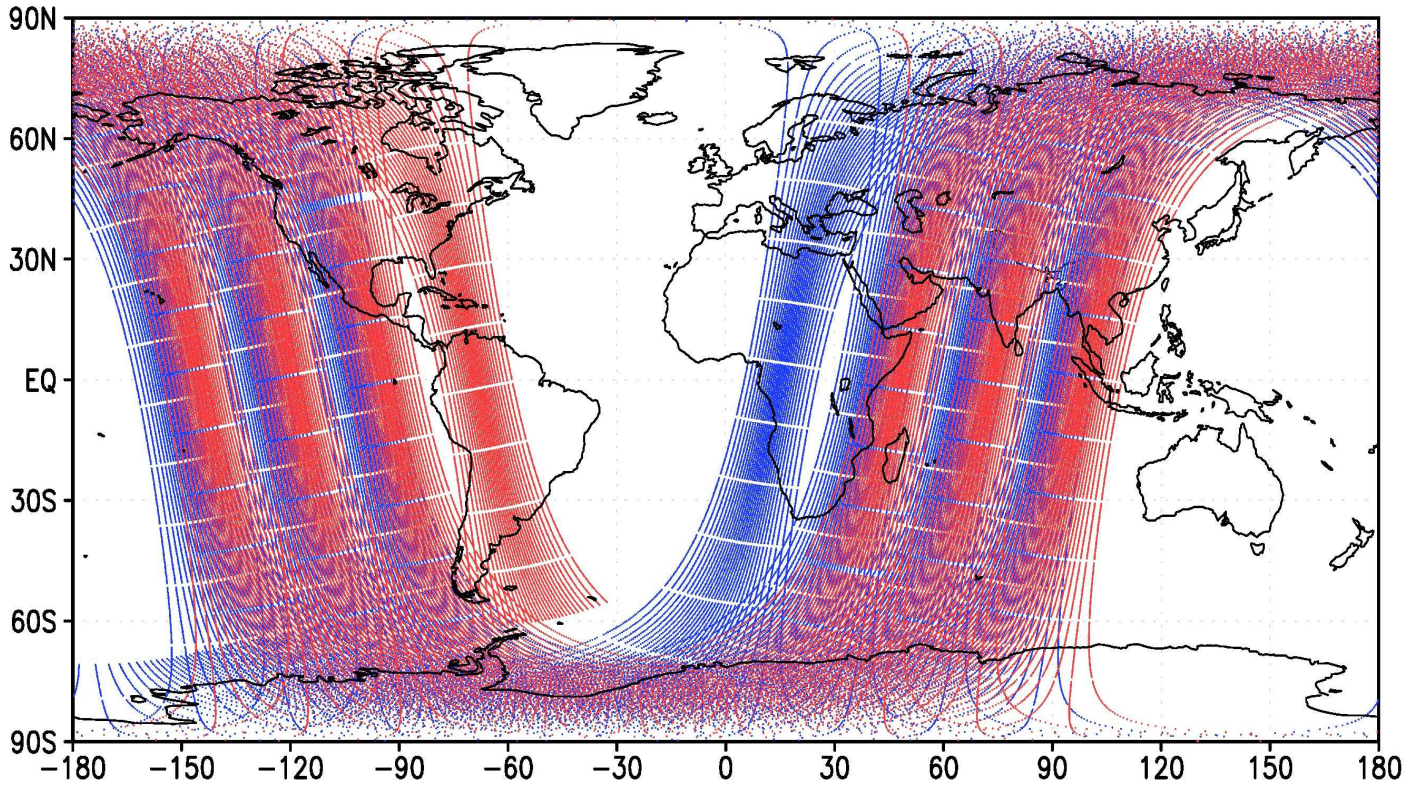
U_CYC

Data Coverage: HIRS (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 353133

NOAA18(173541)

NOAA19(179592)





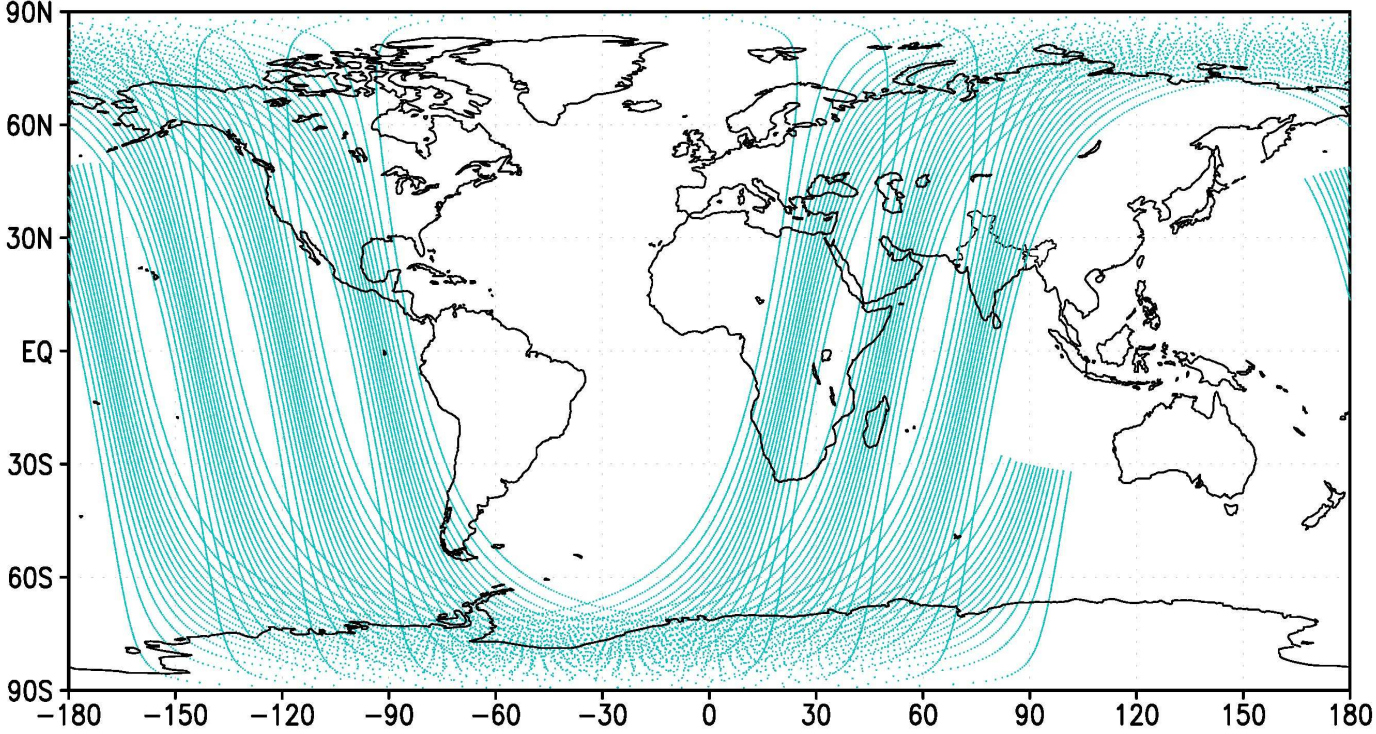
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: IASI (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 81000

METOP-C(81000) METOP-B(0)





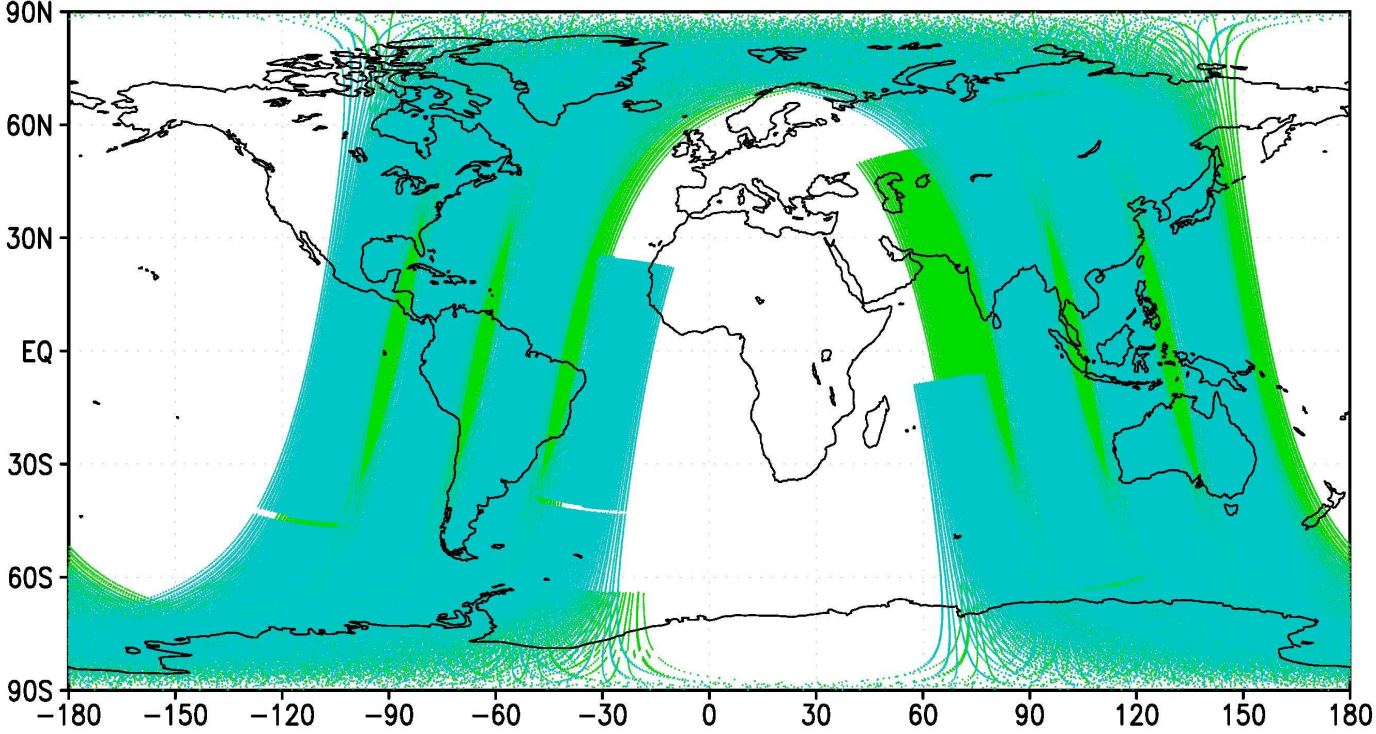
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: CrIS (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 1440297

NOAA-20(726246) NPP(714051)





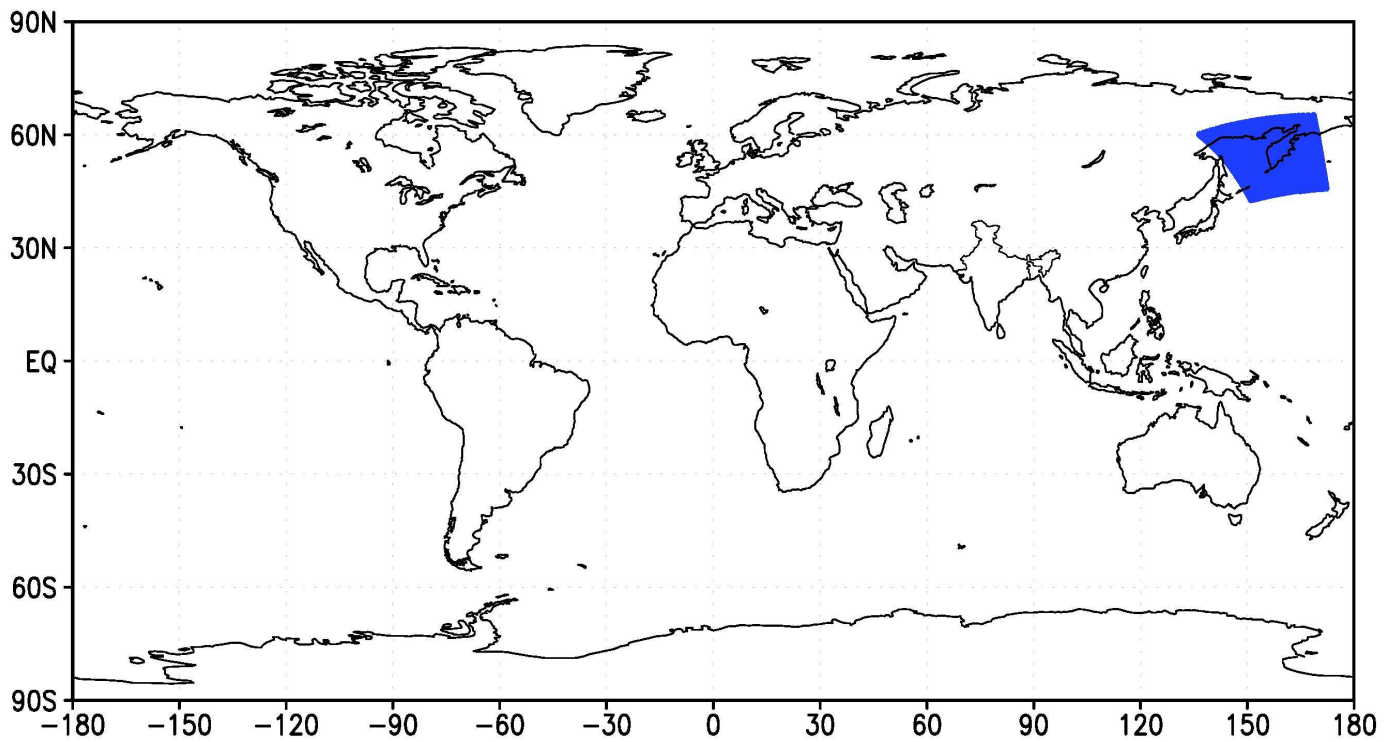
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: AIRS (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF(UM): 10829

AQUA(10829)





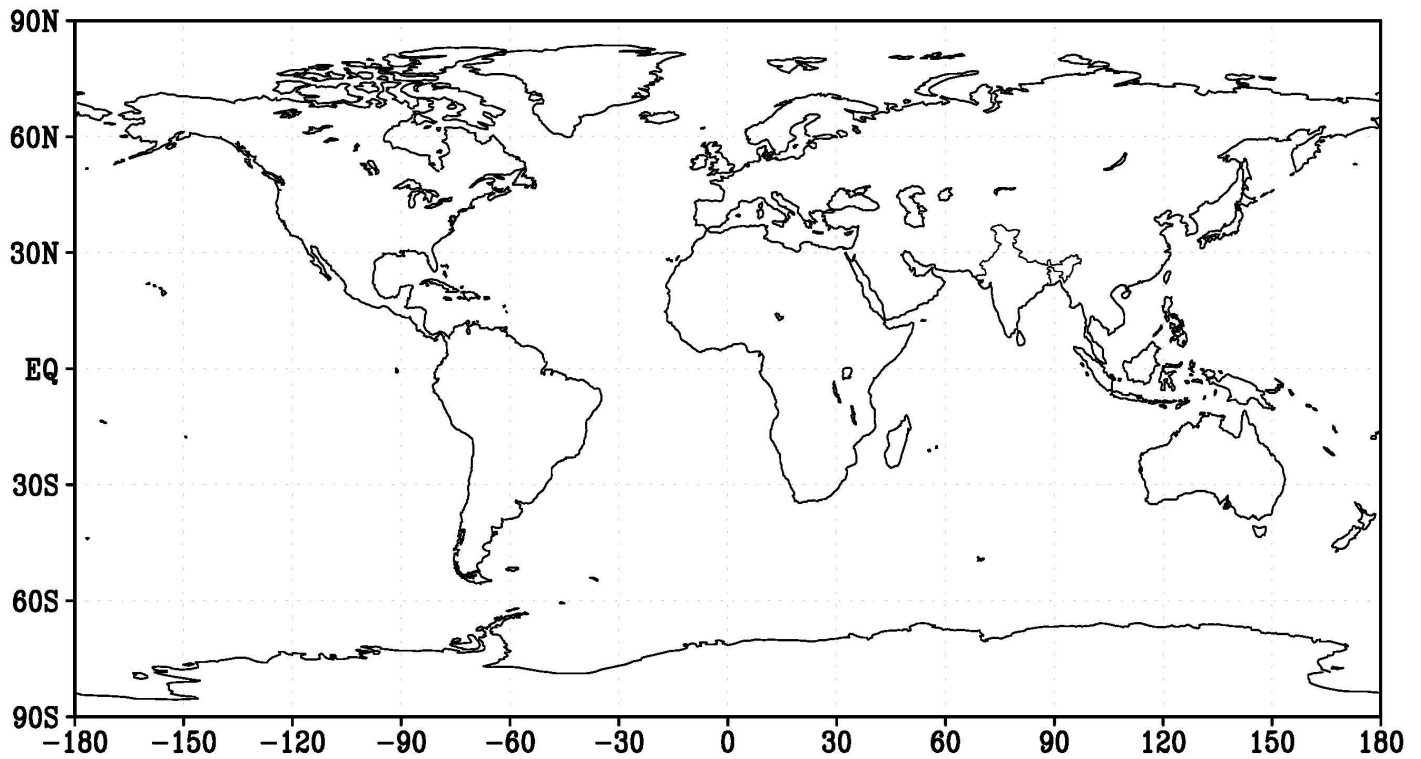
NCMRWF OBSERVATIONS MONITORING

U_CYC

Data Coverage: UV radiances (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 0

SBUV-NOAA19(0)





NCMRWF OBSERVATIONS MONITORING

U_CYC

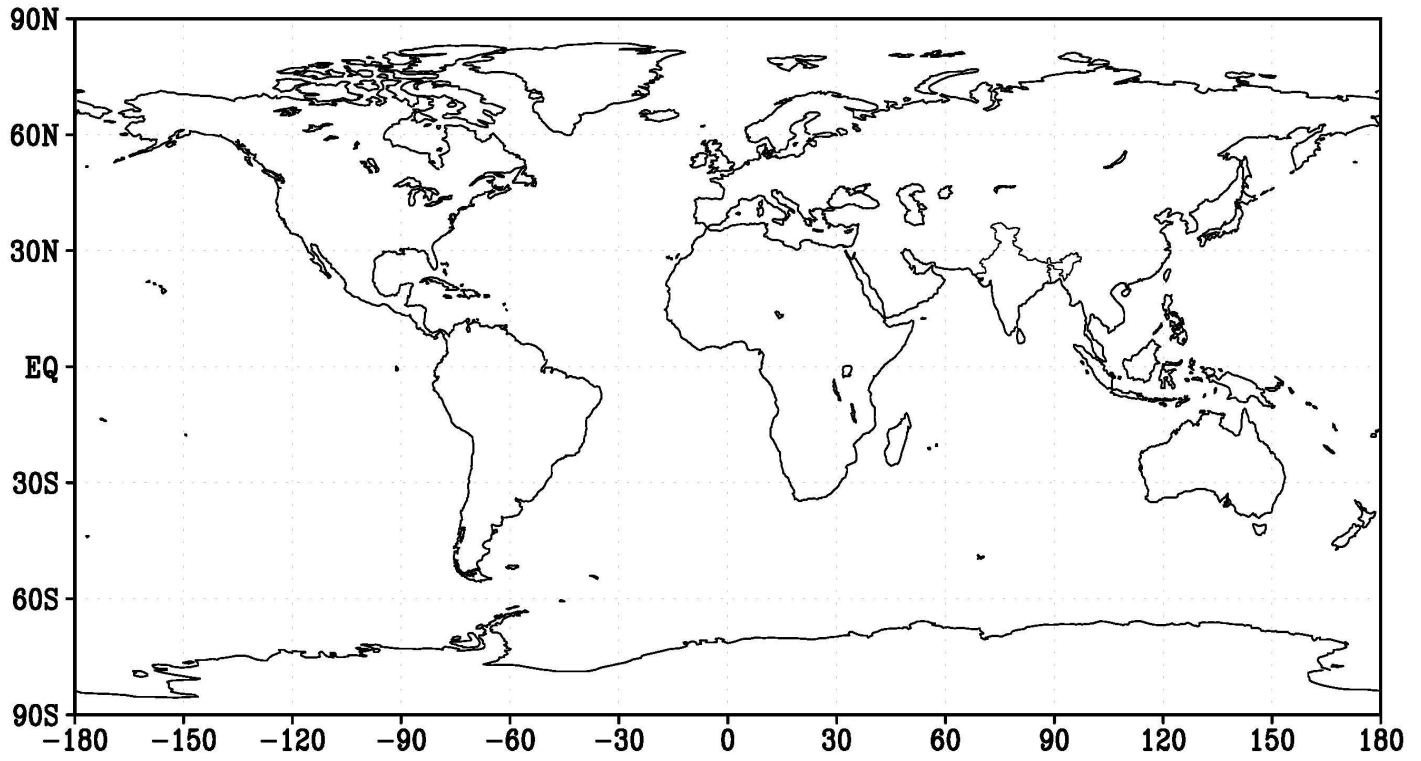
Data Coverage: AVHRR NCEP-BT (15102024 0600UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 0

NOAA18(0)

METOP-B(0)

METOP-C(0)





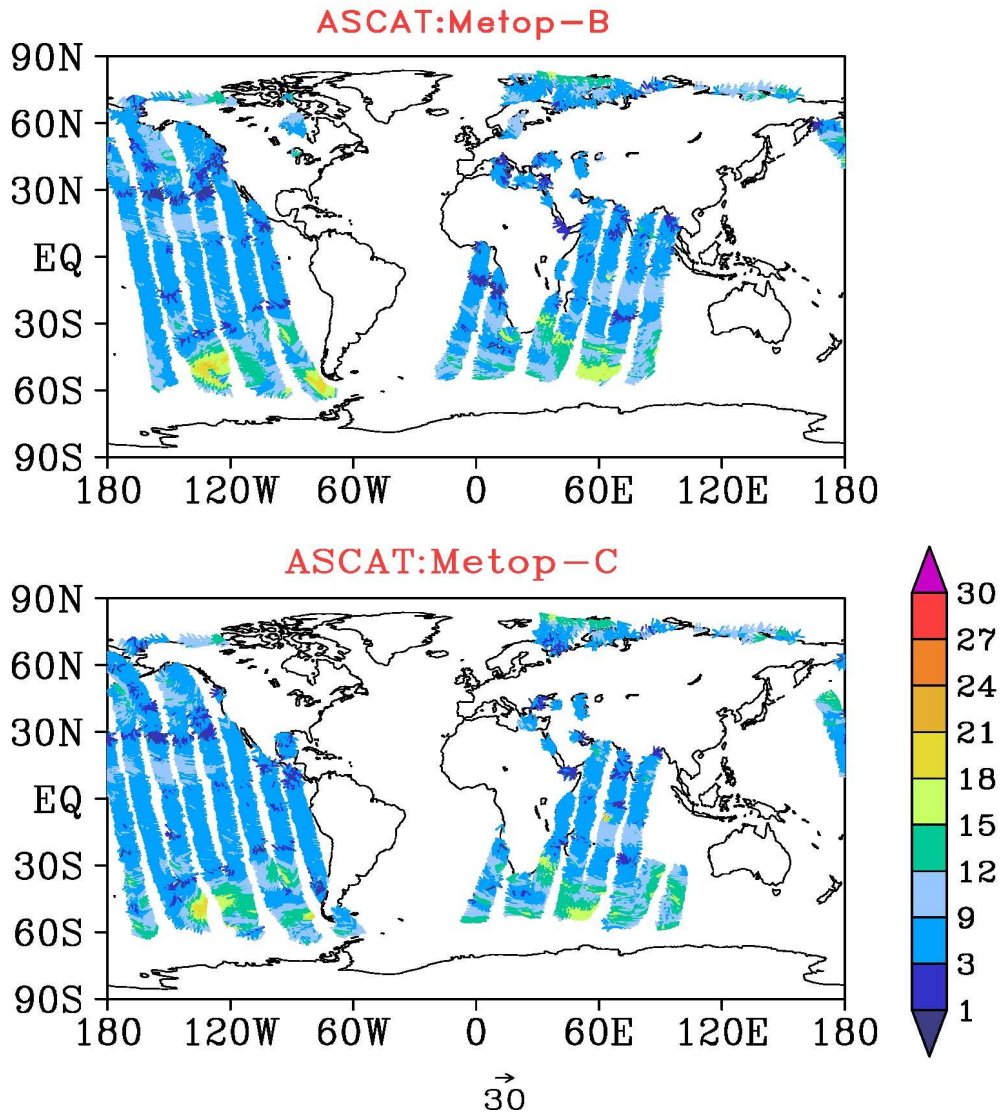
SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20241015 06Z)



NCMRWF OBSERVATIONS MONITORING

SCATTEROMETER SURFACE WINDS (15102024 0600UTC +/- 03Hrs)

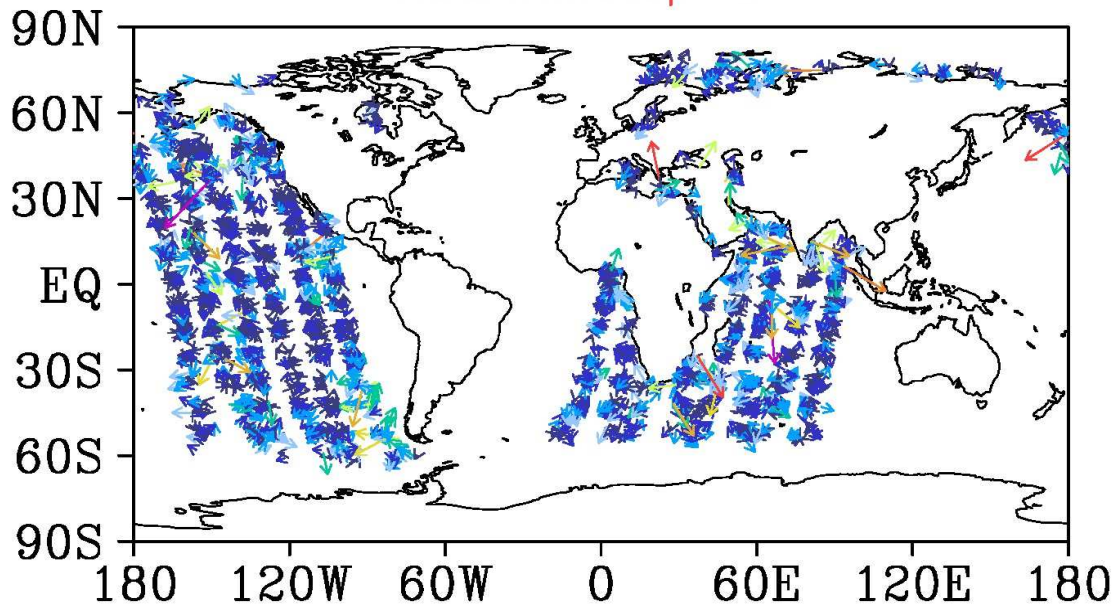




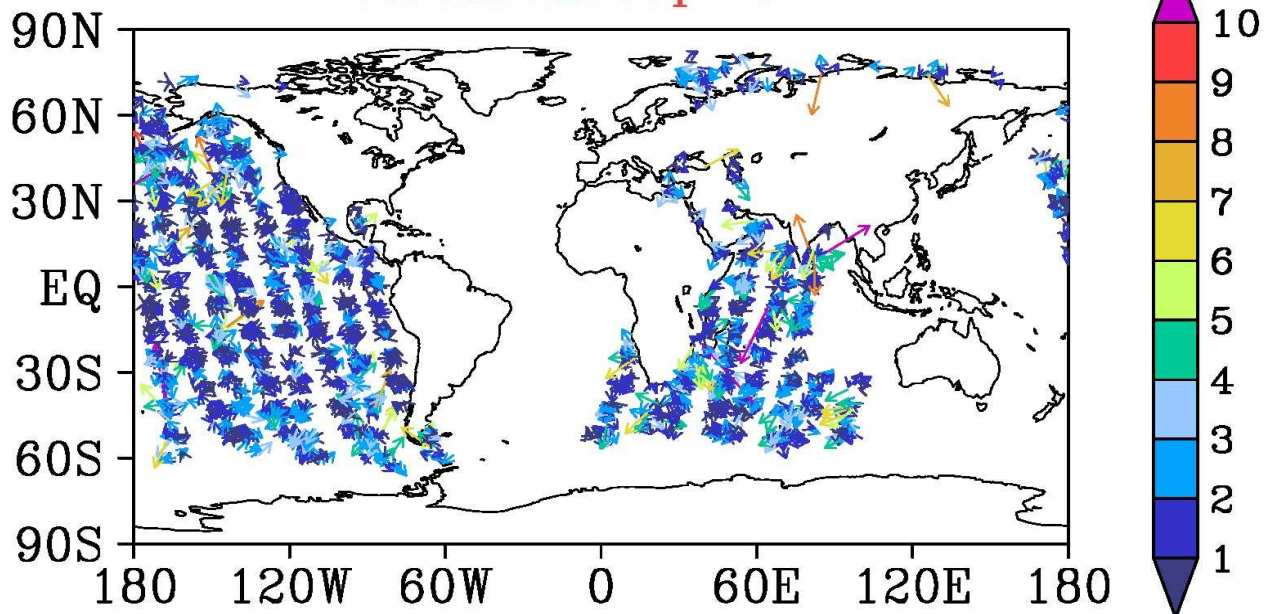
NCMRWF OBSERVATIONS MONITORING

OBSERVATION—FIRST GUESS (15102024 06 UTC):NCMRWF

ASCAT:Metop-B



ASCAT:Metop-C





ATMOSPHERIC MOTION VECTORS (AMVs)

INFRARED (IR) WINDS

WATER VAPOUR (WV) WINDS

VISIBLE (VIS) WINDS

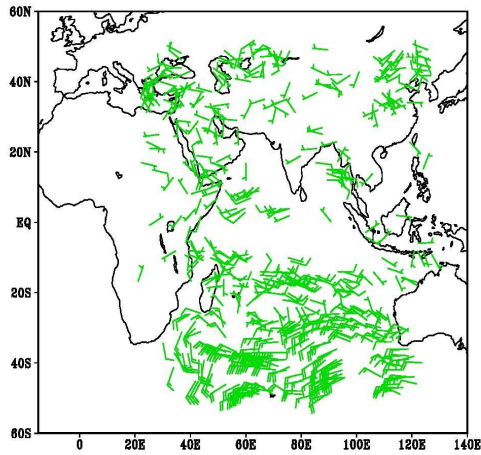
AMV DEVIATION
(OBSERVATION – FIRST GUESS)



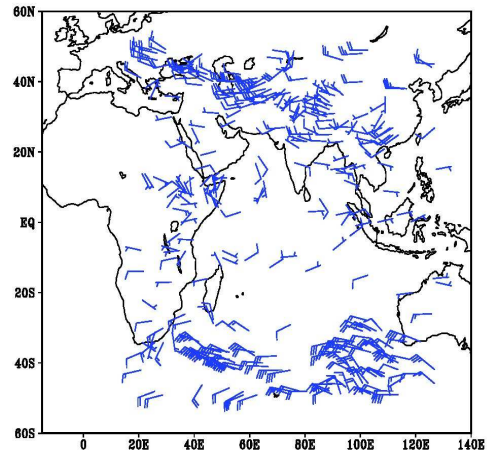
NCMRWF OBSERVATIONS MONITORING

INSAT-3DR ATMOSPHERIC MOTION VECTORS (IR,10.8) (15102024 0600UTC)

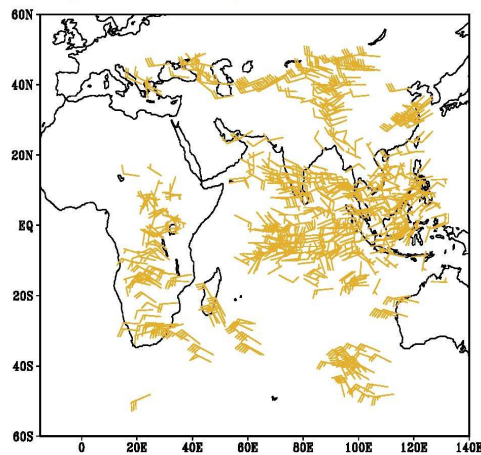
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)

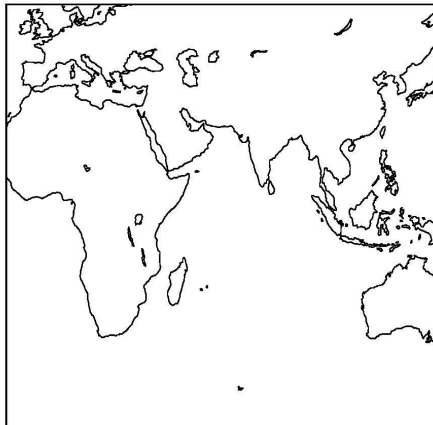




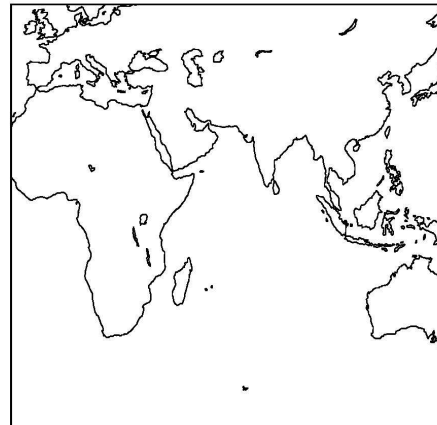
NCMRWF OBSERVATIONS MONITORING

INSAT-3DR ATMOSPHERIC MOTION VECTORS (IR,3.8) (15102024 0600UTC)

Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)

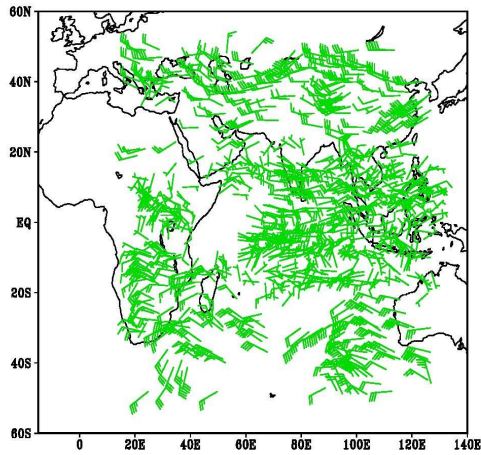




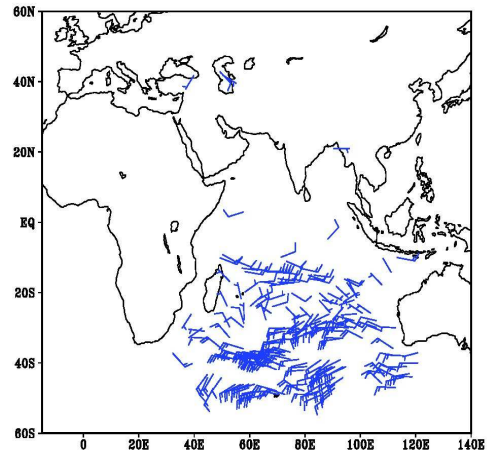
NCMRWF OBSERVATIONS MONITORING

INSAT-3DR ATMOSPHERIC MOTION VECTORS (WV & VIS) (15102024 0600UTC)

WV, High Level (Above 400 hPa)



VIS, Low Level (Below 700 hPa)

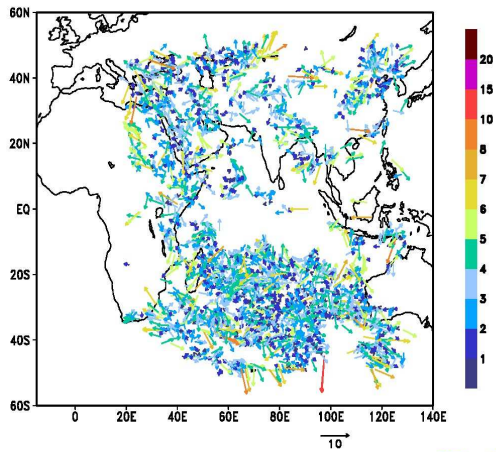




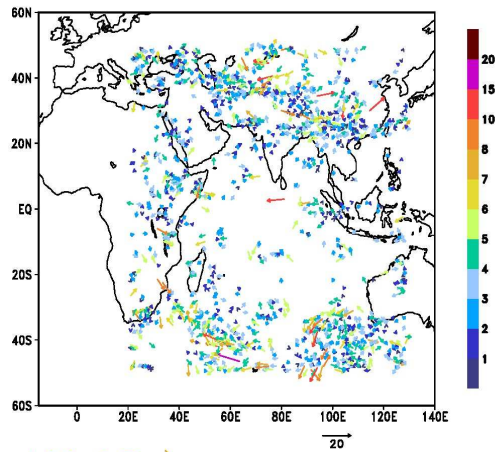
NCMRWF OBSERVATIONS MONITORING

INSAT-3DR ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (15102024 0600UTC)

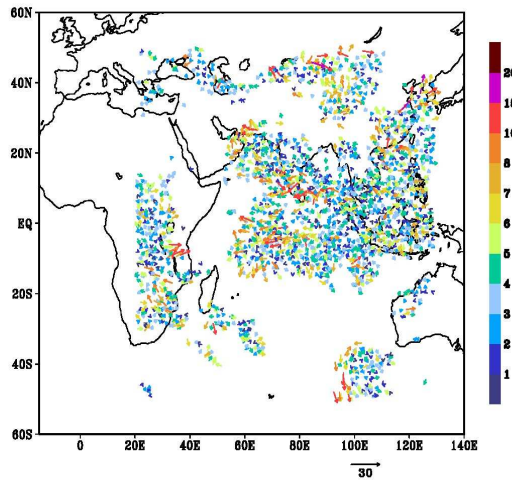
Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)

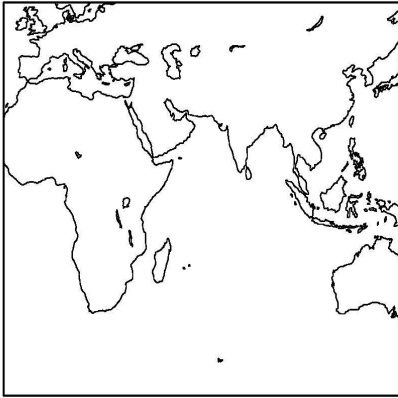




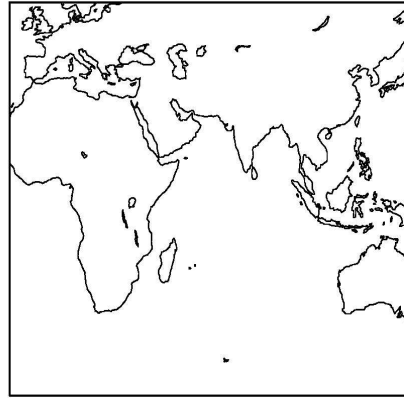
NCMRWF OBSERVATIONS MONITORING

INSAT-3DR ATMOSPHERIC MOTION VECTORS (IR,3.8) DEVIATION (15102024 0600UTC)

Low Level (Below 700 hPa)



Mid Level (700 - 401 hPa)

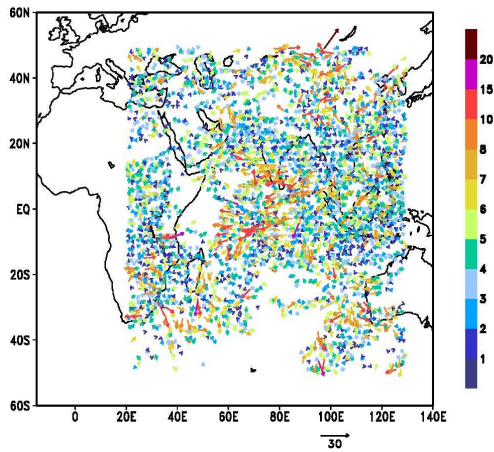




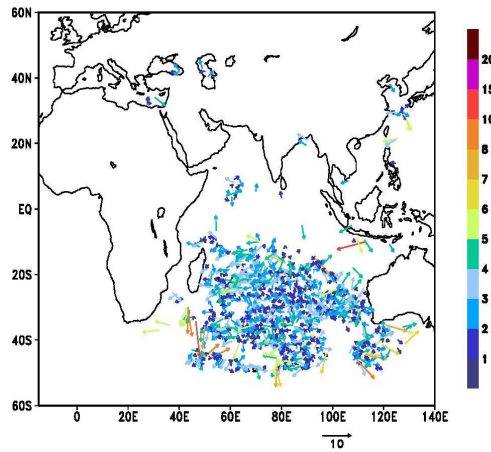
NCMRWF OBSERVATIONS MONITORING

INSAT-3DR ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (15102024 0600UTC)

WV, High Level (Above 400 hPa)



VIS, Low level (Below 700 hPa)

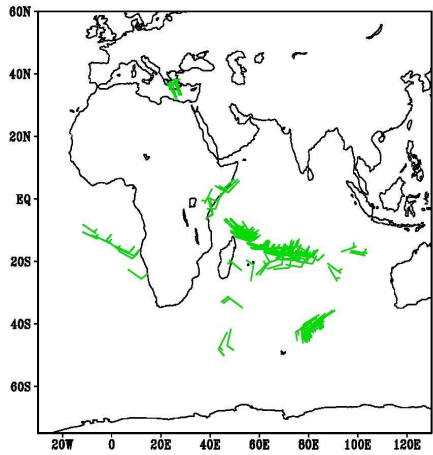




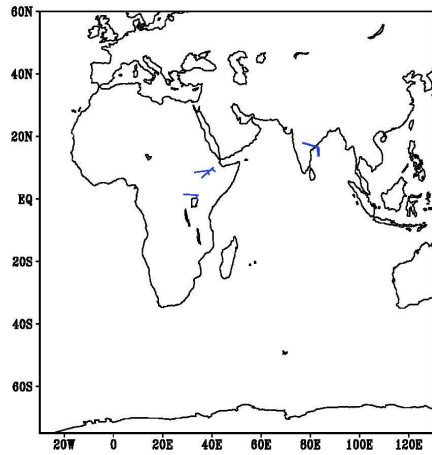
NCMRWF OBSERVATIONS MONITORING

METEOSAT-9 ATMOSPHERIC MOTION VECTORS (IR)(15102024 0600UTC)

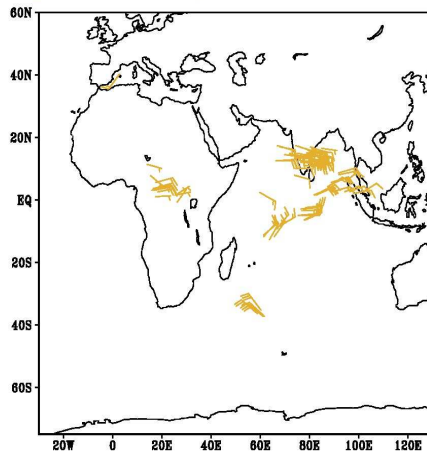
Low level (Below 700 hPa)



Mid Level (700 - 401 hPa)



High Level (Above 400 hPa)

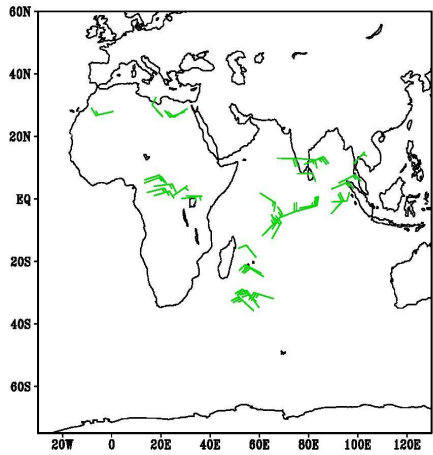




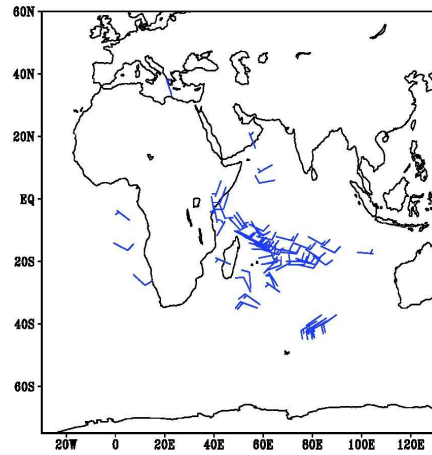
NCMRWF OBSERVATIONS MONITORING

METEOSAT-9 ATMOSPHERIC MOTION VECTORS (WV & VIS)(15102024 0600UTC)

WV, High Level (Above 400 hPa)



VIS, Low Level (Below 700 hPa)

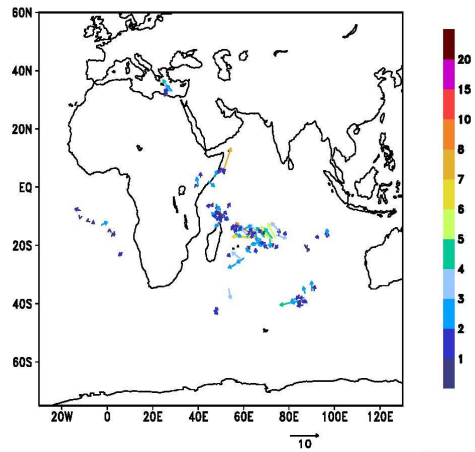




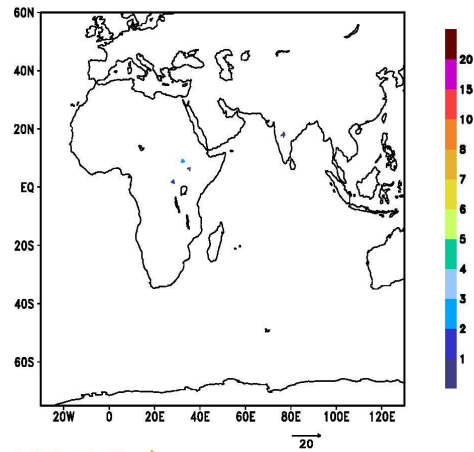
NCMRWF OBSERVATIONS MONITORING

METEOSAT-9 ATMOSPHERIC MOTION VECTORS (IR) DEVIATION (15102024 0600UTC)

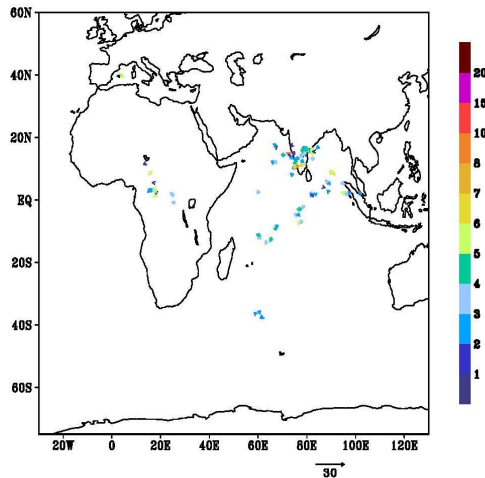
Low Level (Below 700 hPa)



Mid Level (700 – 401 hPa)



High Level (Above 400 hPa)

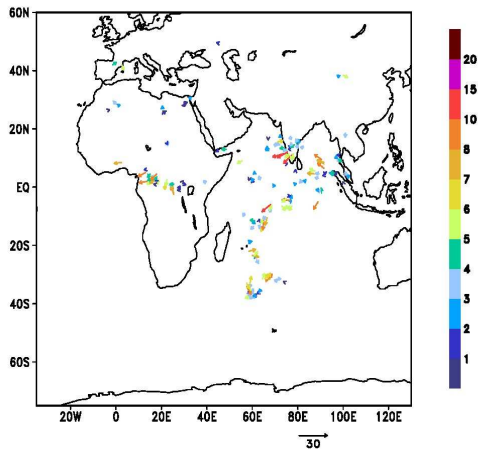




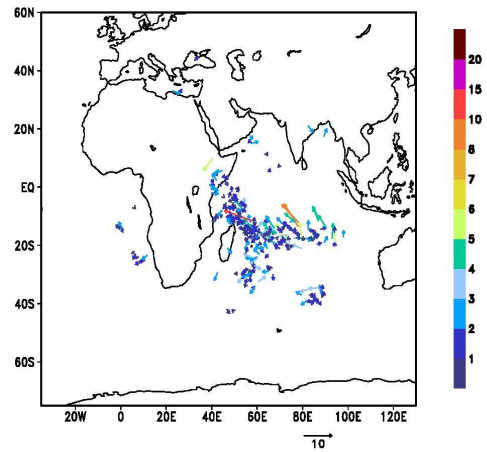
NCMRWF OBSERVATIONS MONITORING

METEOSAT-9 ATMOSPHERIC MOTION VECTORS(WV & VIS) DEVIATION (15102024 0600UTC)

WV, High Level (Above 400 hPa)



VIS, Low level (Below 700 hPa)





Indian Doppler Weather Radar Data Monitoring



NCMRWF OBSERVATIONS MONITORING

Volume of DWR observations received at NCMRWF
Date: 20241015 at : 06 UTC

