Observation Monitoring

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

for 18062020 (0000 UTC)
Indian Observation Coverage
E_CYC

Data Coverage: Surface (18002020 0000UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 300
(42 & 43 Block)

Observation Frequency: ~ 3 hour
Data Coverage: Indian AWS (18062020 0000UTC +/- 3 Hrs) E_CYC
Total Number of Observations Received at NCMRWF: 1215

Observation Frequency: ~ 1 hour
Data Coverage: Indian ARG (16082029 0000UTC +/- 3 Hrs) E_CYC
Total Number of Observations Received at NCMRWF: 1125

Observation Frequency: ~ 1 hour
Data Coverage: BUOY (18062020 0000UTC +/- 3 Hrs)
Total Number of Observations Received at NCMRWF: 194

country code in GTS as: • INDIA(25) ○ USA(136) + FRANCE(33) □ OTHERS(0)

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

Data Coverage: Sondes (1800Z 2020 0000UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 47
(42 & 43 Block)

Templnd(22) Pilot(25) Reported, no ascent

Observation frequency: ~ 6 hour
Count for different types of observation (Over Indian Region) for the last 45 days (valid for 00 UTC) E_CYC

SYNOP
Avg=287
Today_CNT=300
Dep=5. %

BUOY
Avg=224
Today_CNT=194
Dep=-13. %

AWS+ARG
Avg=2713
Today_CNT=2340
Dep=-14. %

RS/RW
Avg=21
Today_CNT=22
Dep=5. %

PILOT
Avg=54
Today_CNT=54
Dep=0. %

INSAT—3D AMV
Avg=90752
Today_CNT=90467
Dep=-0. %
Global Observation Coverage
E_CYC

Data Coverage: Surface (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 51804

BUFR(6787)  LNDSYN(12482)SHIP(2166) BUOY(12575) METAR(14900)MOBILE/AWS(2883)
E_CYC

Data Coverage: Sonde (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 1887

TWPPTND(454)  TMPHSH(0)  TMP4DP(0)  TMP4MB(0)  PILOT(227)  PROFILER(1209)
E_CYC

Data Coverage: AIRCFT (18082020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRF: 66562

AIREP(1218)   AMDAR(5463)   WIGOS--AMDA(59881)
Count for different types of observation (Global) for the last 45 Days (valid for 00 UTC) E_CYC

**SYNOP**
- Avg=20370
- Today_Cnt=19269
- Dep=-5.%

**SHIP**
- Avg=2339
- Today_Cnt=2166
- Dep=-7.%

**BUOY**
- Avg=12050
- Today_Cnt=12576
- Dep=4.%

**AIRCRAFT**
- Avg=55075
- Today_Cnt=66562
- Dep=21.%

**RS/RW**
- Avg=455
- Today_Cnt=454
- Dep=-0.%

**PILOT**
- Avg=231
- Today_Cnt=227
- Dep=-2.%

**AMV**
- Avg=5446296
- Today_Cnt=6182863
- Dep=14.%
E_CYC

Data Coverage: SCATSAT-1 & ASCAT winds (18062020 00UTC +/- 03Hrs)

SCATSAT-1 (264765)  ASCAT-A (741B6)  ASCAT-B (79722)
E_CYC

Data Coverage: SAT RADIANCE (MARS+IMD MARS) (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 597327

- NOAA15(0)
- NOAA18(0)
- NOAA18(110174)
- NOAA19(461565)
- METOP1(0)
- METOP2(25580)

90N  60N  30N  EQ  30S  60S  90S
-180 -150 -120 -90 -60 -30  0   30  60  90  120  150  180
Data Coverage: GPSRO (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 72628
Atmospheric Motion Wind Vectors
Data Coverage: AMV IR (18062020 0000UTC +/- 03hrs)
Total Number of Observations Received at NCMRWF: 1082676
Data Coverage: AVHRR VIS (180020 0000 UTC +/- 03Hrs)
Total Number of Observations Received at NCMRF: 4277052

GOES-15(0)  GOES-16(09993)  GOES-17(3574677)  INSAT-3D(0)
METEOSAT-8(777)  METEOSAT-11(409)  HIMAWARI-8(42198)
Data Coverage: AMV WV (180622020 0000UTC +/- 03Hrs)
Total Number of Observations Received at NCMRWF: 619694
AMV IR POLAR NH (18062020 0000UTC +/- 03Hrs) E_CYC

Total Number of Observations Received at NCMRWF: 1295

<table>
<thead>
<tr>
<th>Satellite</th>
<th>Count</th>
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<tbody>
<tr>
<td>METOP-A</td>
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<td>NOAA-18(23)</td>
<td>3</td>
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<tr>
<td>NOAA-18(223)</td>
<td>0</td>
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</table>
AMV WV POLAR NH (18092020 0000UTC +/- 03Hrs) R_CYC
Total Number of Observations Received at NCMRWF:

MODIS/Aqua()    MODIS/Terra()
AMV WV POLAR SH (16062020 0000UTC +/- 08Hrs) E_CYC

Total Number of Observations Received at NCMRWF:

MODIS/Aqua() MODIS/Terra()
Radiance Observations
Data Coverage: Humidity Sounders (15062020 0000UTC +/- 0.3Hrs)

Total Number of Observations Received at NCMRWF: 2550
E_CYC

Data Coverage: AMSUA (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 43373
E_CYC

Data Coverage: HIRS (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMWF: 258909
E_CYC
Geostationary Clear Sky Radiance (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 134747

METEOSAT-11(134747) METEOSAT-8(0) GEMS-15(0)
E_CYC

Data Coverage: IASI (18062020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 10680
E_CYC

Data Coverage: AIRS (18082020 0000UTC +/- 03Hrs)

Total Number of Observations Received at NCMRWF: 398468
SCATTEROMETER WIND VECTORS

RECEIVED AT NCMRWF (20200618 00Z)
SCATTEROMETER SURFACE WINDS (180620T0 0000UTC +/- 03Hrs)

ASCAT: Metop-A

ASCAT: Metop-B

SCATSAT-1 (Indian)
OBSERVATION–FIRST GUESS (16062020 00 UTC): NCMRWF

ASCAT: Metop–A

ASCAT: Metop–B

SCATSAT–1 (Indian)
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) (18062020 0000UTC)

Low Level (Below 700 hPa)

Mid Level (700 - 401 hPa)

High Level (Above 400 hPa)
INSAT–3D ATMOSPHERIC MOTION VECTORS (IR,3.8) (18062020 0000UTC)

Low Level (Below 700 hPa)

Mid Level (700 – 401 hPa)
INSAT–3D ATMOSPHERIC MOTION VECTORS (WV & VIS) (18062020 0000UTC)

WV, High Level (Above 400 hPa)  VIS, Low Level (Below 700 hPa)
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,10.8) DEVIATION (18062020 0000UTC)

Low Level (Below 700 hPa)  Mid Level (700 – 401 hPa)

High Level (Above 400 hPa)
INSAT-3D ATMOSPHERIC MOTION VECTORS (IR,3.B) DEVIATION (18062020 0000UTC)

Low Level (Below 700 hPa)                      Mid Level (700 – 401 hPa)
INSAT-3D ATMOSPHERIC MOTION VECTORS (WV & VIS) DEVIATION (18062020 0000UTC)

WV, High Level (Above 400 hPa)  VIS, Low level (Below 700 hPa)
METEOSAT–8 ATMOSPHERIC MOTION VECTORS (IR)(18062020 0000 UTC)

Low level (Below 700 hPa)

Mid Level (700 – 401 hPa)

High Level (Above 400 hPa)
METEOSAT–8 ATMOSPHERIC MOTION VECTORS (WV & VIS) (18062020 0000UTC)

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: 20200618 at: 00 UTC
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 (18062020 0000UTC +/- 03Hrs E_CYC)
Observed (---) and 1st-guess (---) Temperature (Deg C) for 00UTC 18062020

× —— denotes the rejection of observation by NGFS GDAS
(plotted for standard pressure levels only)
Observed (---) and 1st-guess (---) Temperature (Deg C) for 00UTC 18062020

× -- denotes the rejection of observation by NGFS GDAS

( plotted for standard pressure levels only)
Observed (——) and 1st-guess (——) Zonal wind (m/s) for 00UTC 18052020
×—— denotes the rejection of observation by NGFS GDAS
( plotted for standard pressure levels only )
Observed (—) and 1st-guess (—) Zonal wind (m/s) for 00UTC 18062020
× — denotes the rejection of observation by NGFS GDAS
( plotted for standard pressure levels only )