

Validation of

INSAT-3D

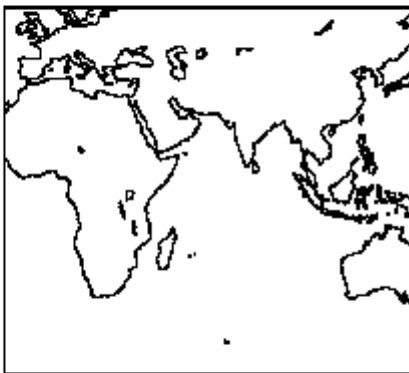
Atmospheric Motion Vectors

September 2024

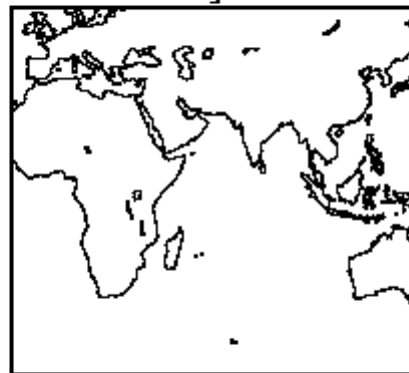
Validation Against
NCMRWF NGFS First Guess

INSAT-3D IR(10.8), High Level, Above 400 hPa, September 2024

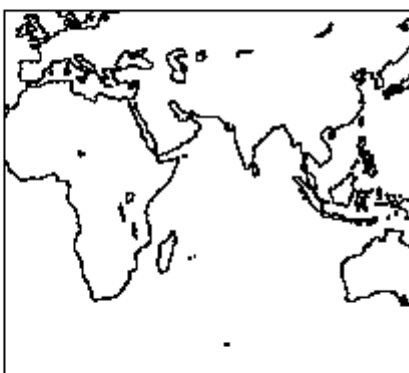
Mean Observation



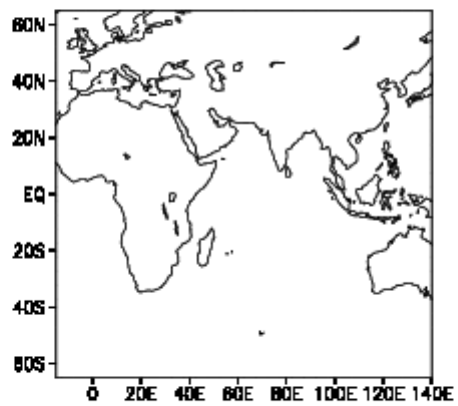
Mean Background



Mean Vector Difference

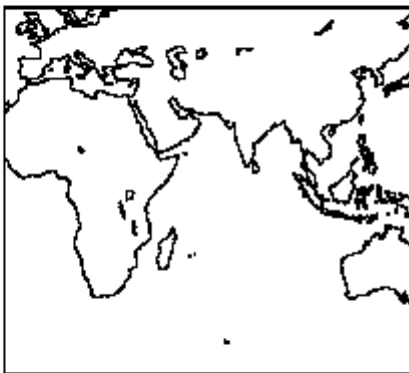


Number of winds

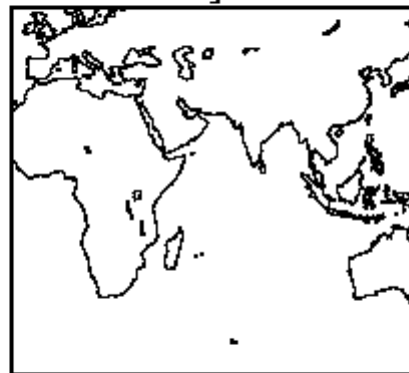


INSAT-3D IR(10.8), Mid Level, 700 – 401 hPa, September 2024

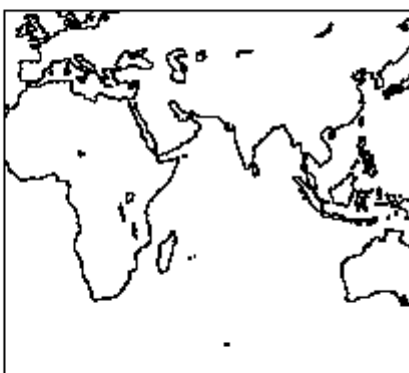
Mean Observation



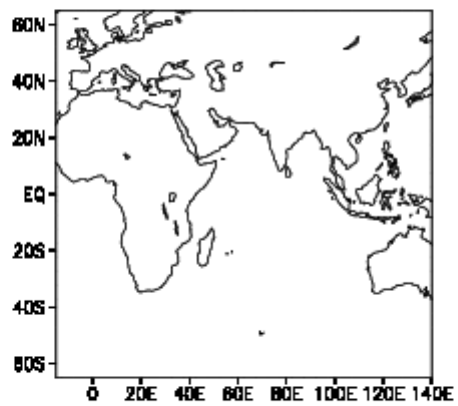
Mean Background



Mean Vector Difference

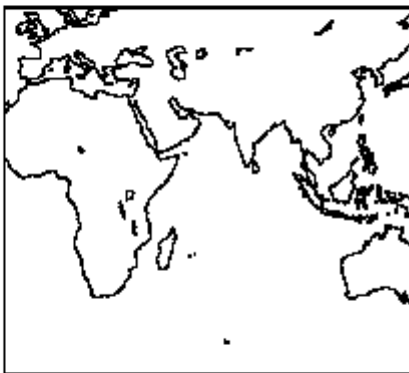


Number of winds

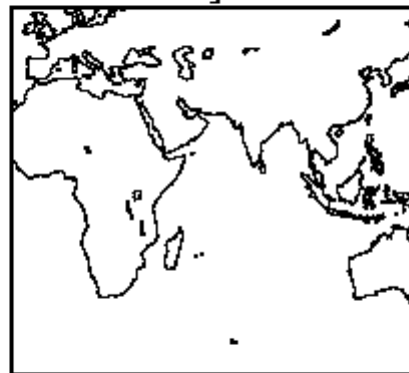


INSAT-3D IR(10.8), Low Level, Below 700 hPa, September 2024

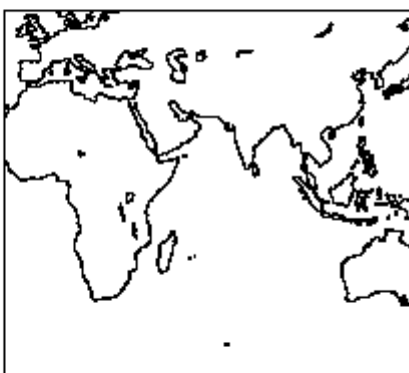
Mean Observation



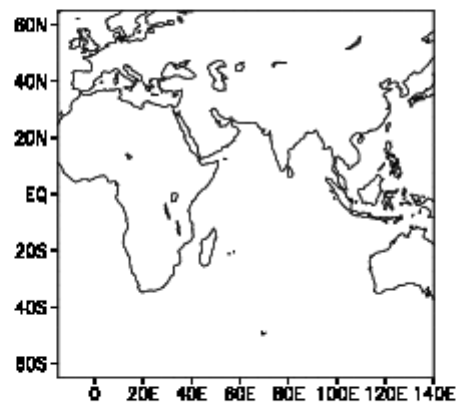
Mean Background



Mean Vector Difference

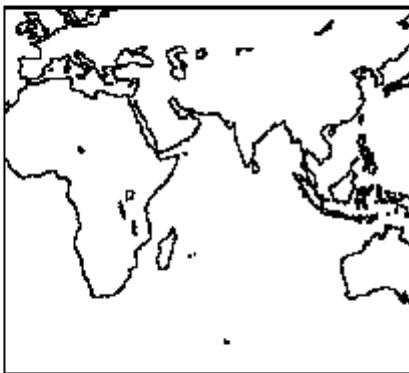


Number of winds

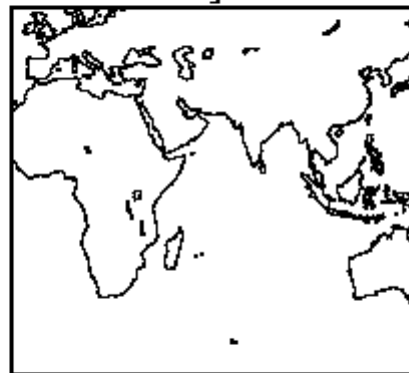


INSAT-3D IR(3.8), Low Level, Below 700 hPa, September 2024

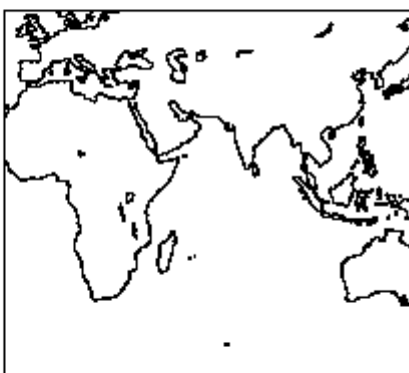
Mean Observation



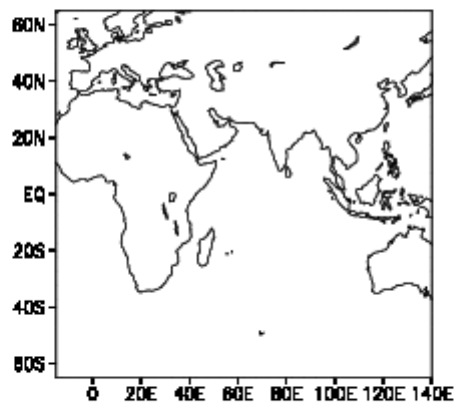
Mean Background



Mean Vector Difference

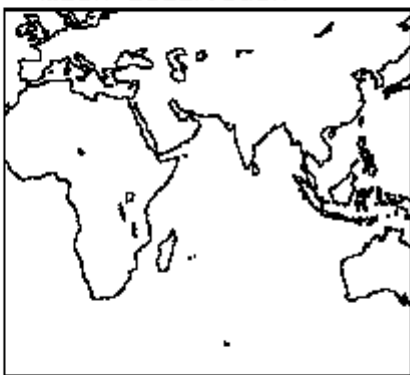


Number of winds

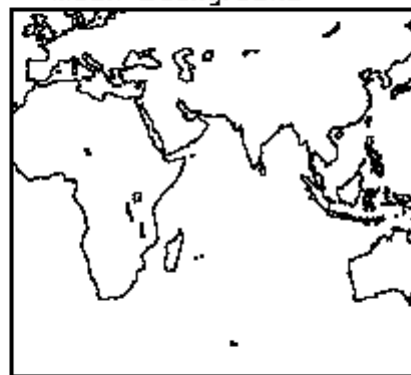


INSAT-3D WV, High Level, Above 400 hPa, September 2024

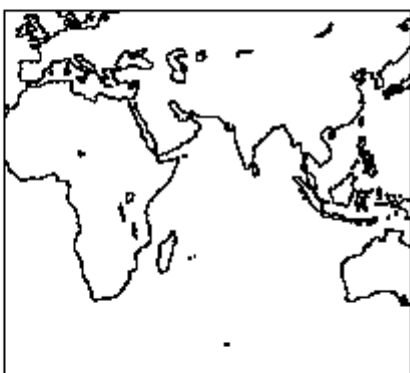
Mean Observation



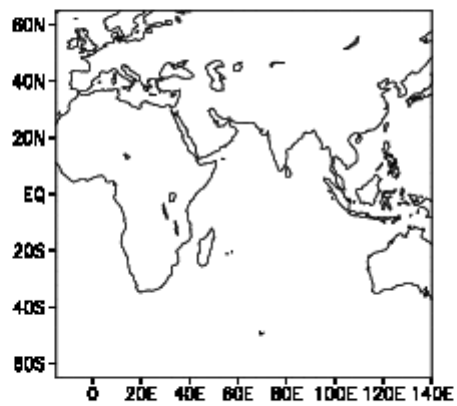
Mean Background



Mean Vector Difference

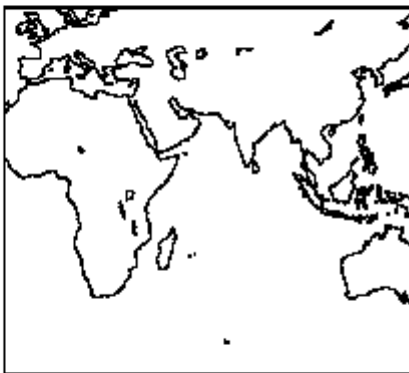


Number of winds

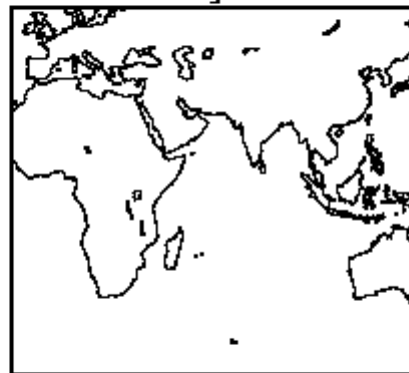


INSAT-3D VIS, Low Level, Below 700 hPa, September 2024

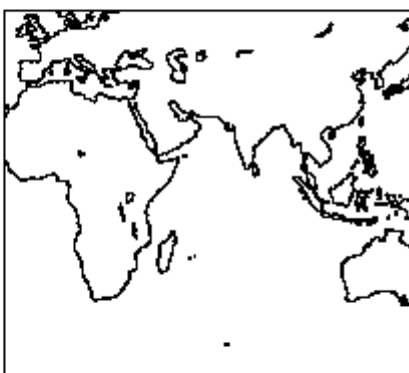
Mean Observation



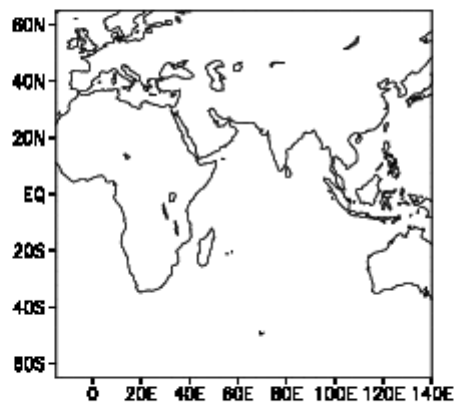
Mean Background



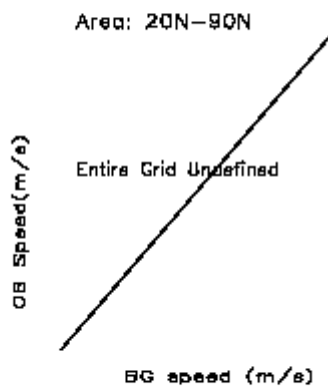
Mean Vector Difference



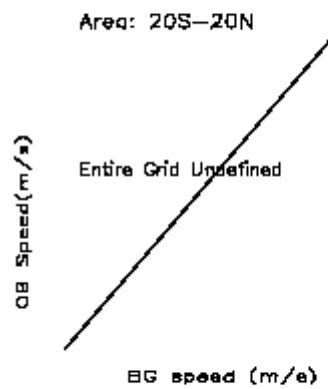
Number of winds



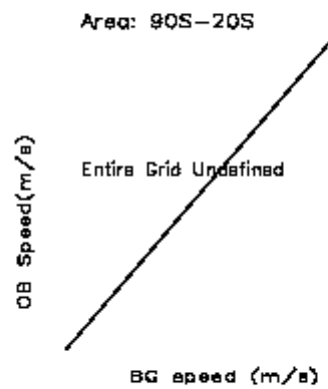
INSAT-3D IR(10.8), September 2024, High Level, Above 400 hPa



No. of OBS:
Bias :
STD :

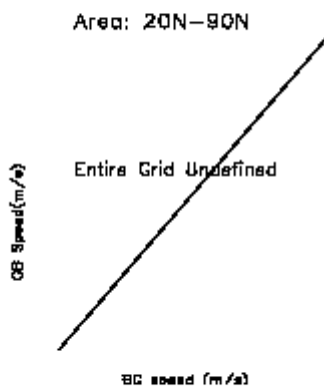


No. of OBS:
Bias :
STD :

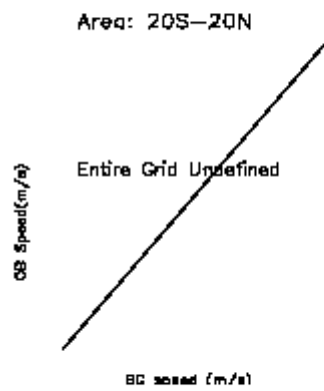


No. of OBS:
Bias :
STD :

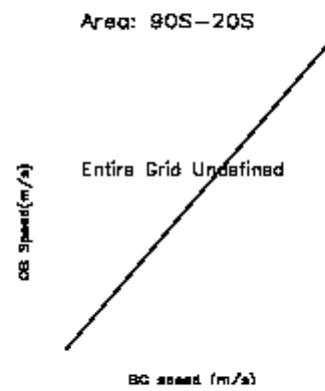
INSAT-3D IR(10.8), September 2024, Mid Level, 700 – 401 hPa



No. of OBS:
Bias :
STD :

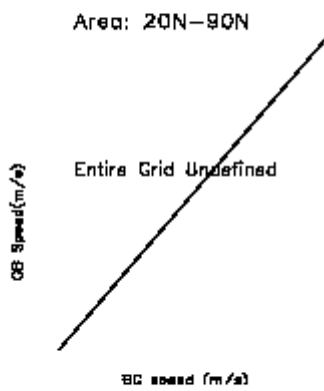


No. of OBS:
Bias :
STD :

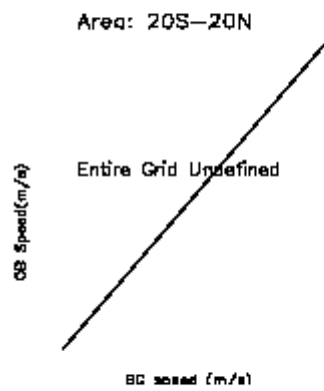


No. of OBS:
Bias :
STD :

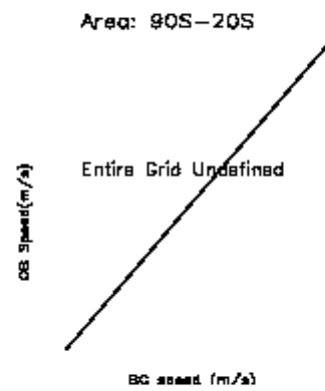
INSAT-3D IR(10.8), September 2024, Low Level, Below 700 hPa



No. of OBS:
Bias :
STD :

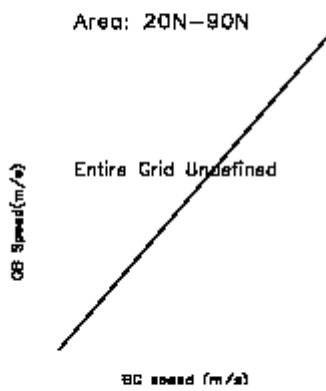


No. of OBS:
Bias :
STD :

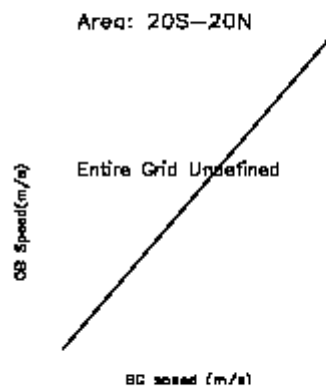


No. of OBS:
Bias :
STD :

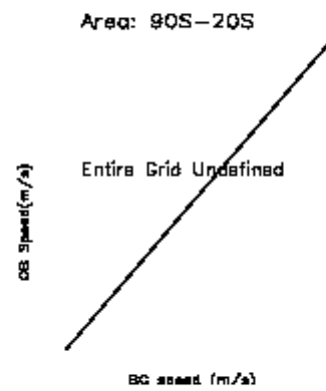
INSAT-3D IR(3.8), September 2024, Low Level, Below 700 hPa



No. of OBS:
Bias :
STD :

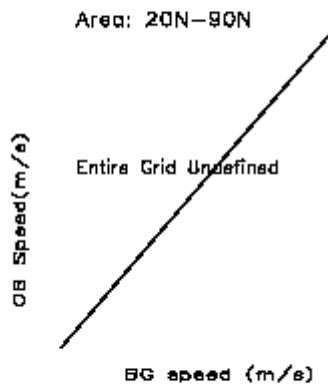


No. of OBS:
Bias :
STD :

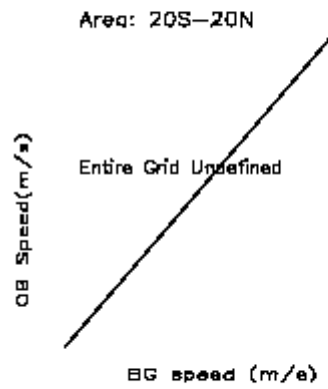


No. of OBS:
Bias :
STD :

INSAT-3D WV, September 2024, High Level, Above 400 hPa



No. of OBS:
Bias :
STD :

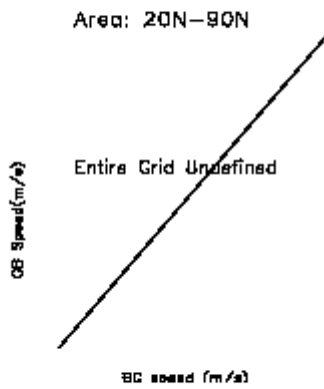


No. of OBS:
Bias :
STD :

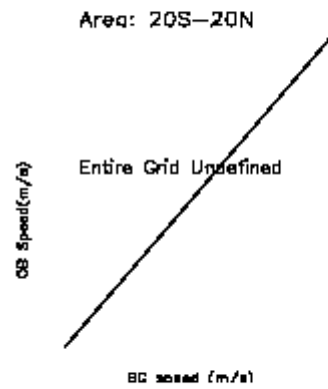


No. of OBS:
Bias :
STD :

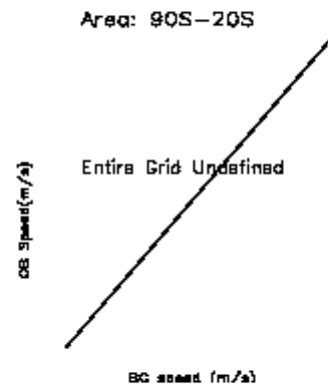
INSAT-3d VIS, September 2024, Low Level, Below 700 hPa



No. of OBS:
Bias :
STD :

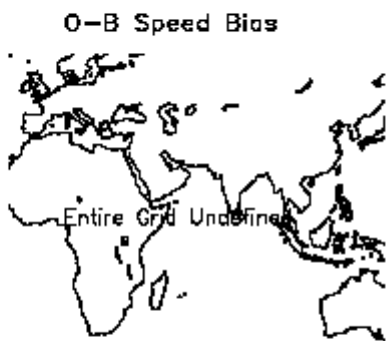


No. of OBS:
Bias :
STD :



No. of OBS:
Bias :
STD :

INSAT-3D IR(10.8), High Level, Above 400 hPa, September 2024



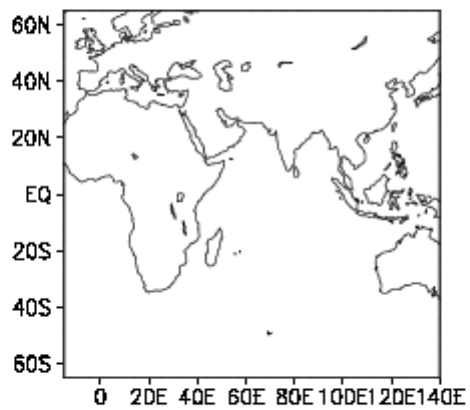
mean vector difference

Entire Grid Undefined

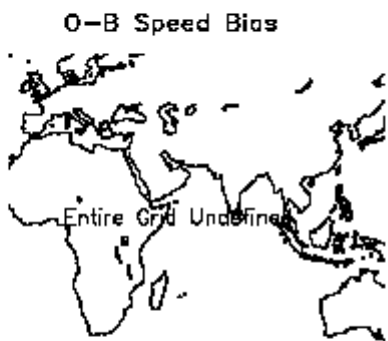
Normalised Root Mean Square Vector Diff

Entire Grid Undefined

NUMBER OF WINDS



INSAT-3D IR(10.8), Mid Level, 700 – 401 hPa, September 2024



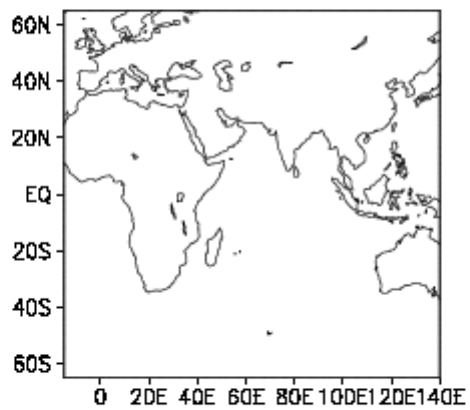
mean vector difference

Entire Grid Undefined

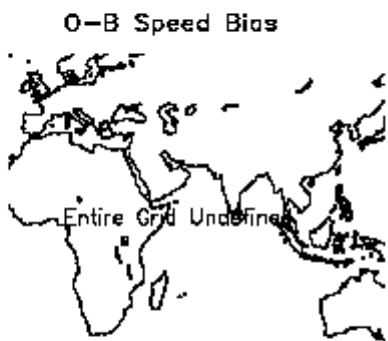
Normalised Root Mean Square Vector Diff

Entire Grid Undefined

NUMBER OF WINDS



INSAT-3D IR(10.8), Low Level, Below 700 hPa, September 2024



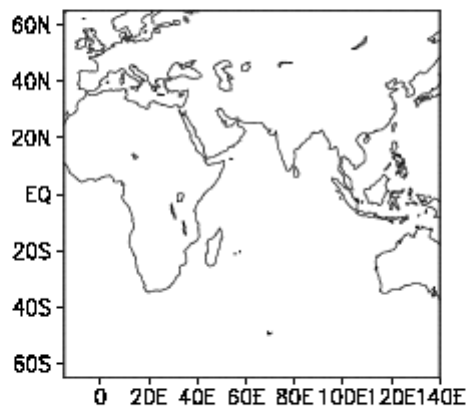
mean vector difference

Entire Grid Undefined

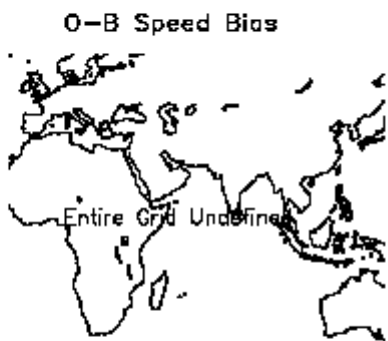
Normalised Root Mean Square Vector Diff

Entire Grid Undefined

NUMBER OF WINDS



INSAT-3D IR(3.8), Low Level, Below 700 hPa, September 2024



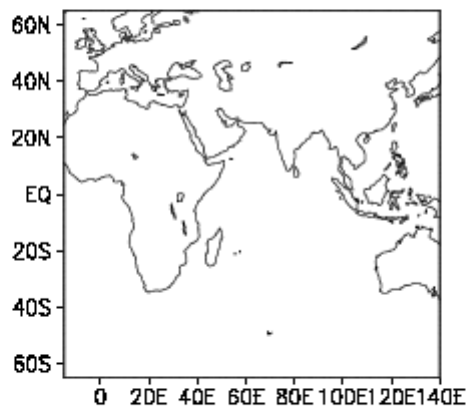
mean vector difference

Entire Grid Undefined

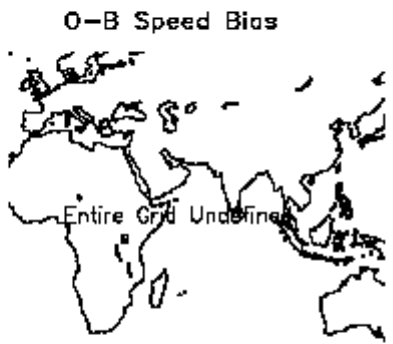
Normalised Root Mean Square Vector Diff

Entire Grid Undefined

NUMBER OF WINDS



INSAT-3D WV, High Level, Above 400 hPa, September 2024



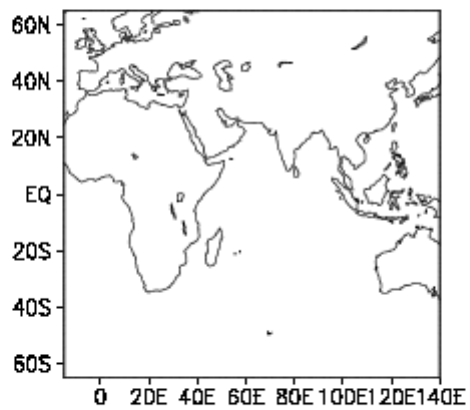
mean vector difference

Entire Grid Undefined

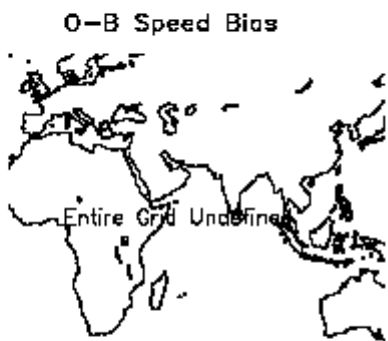
Normalised Root Mean Square Vector Diff

Entire Grid Undefined

NUMBER OF WINDS



INSAT-3D VIS, Low Level, Below 700 hPa, September 2024



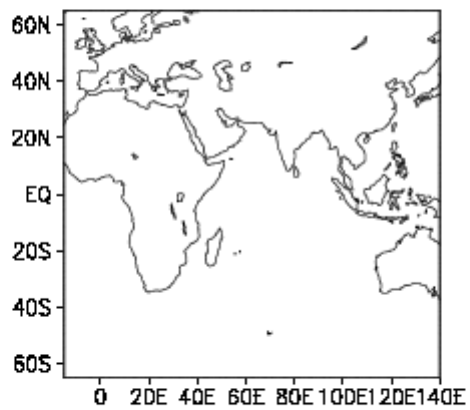
mean vector difference

Entire Grid Undefined

Normalised Root Mean Square Vector Diff

Entire Grid Undefined

NUMBER OF WINDS



INSAT-3D IR (10.8), September 2024

O-B Speed Bias

mean vector difference

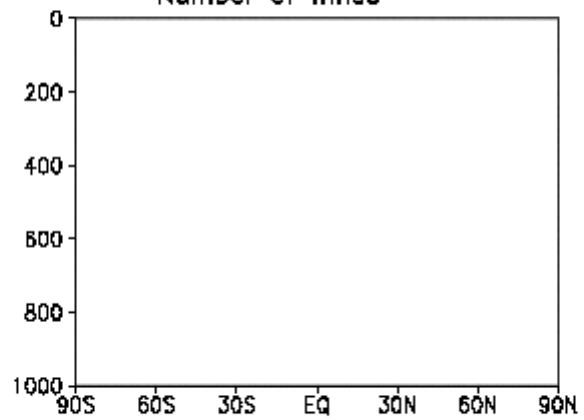
Entire Grid Undefined

Entire Grid Undefined

Normalised Root Mean Square Vector Diff

NUMBER OF WINDS

Entire Grid Undefined



INSAT-3D IR (3.8), September 2024

O-B Speed Bias

mean vector difference

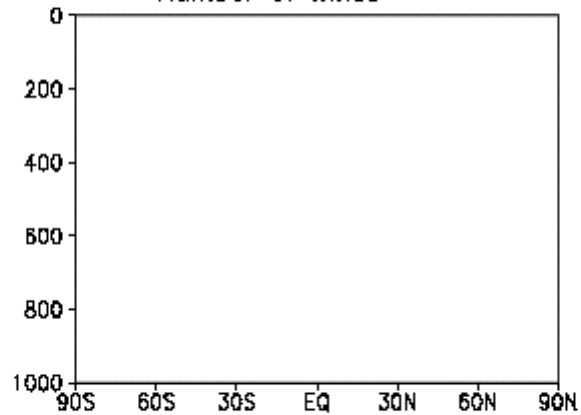
Entire Grid Undefined

Entire Grid Undefined

Normalised Root Mean Square Vector Diff

NUMBER OF WINDS

Entire Grid Undefined



INSAT-3D WV, September 2024

O-B Speed Bias

mean vector difference

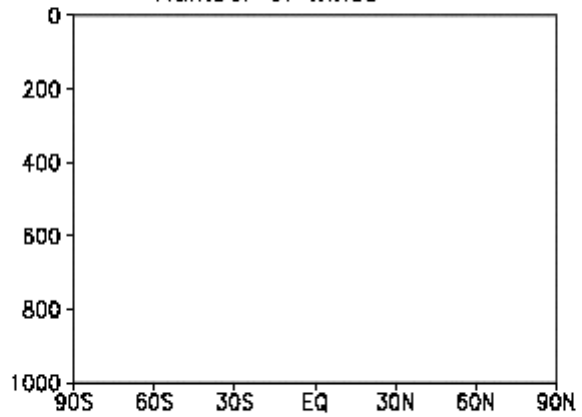
Entire Grid Undefined

Entire Grid Undefined

Normalised Root Mean Square Vector Diff

NUMBER OF WINDS

Entire Grid Undefined



INSAT-3D VIS, September 2024

O-B Speed Bias

mean vector difference

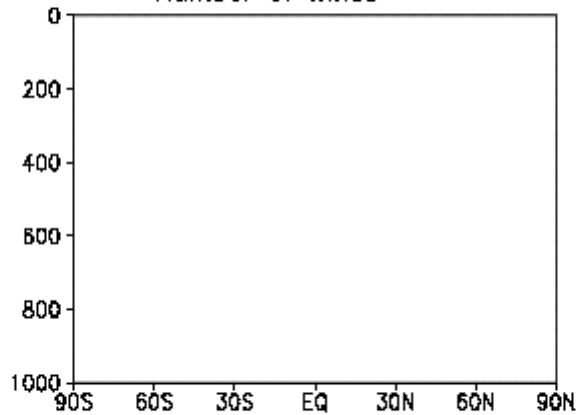
Entire Grid Undefined

Entire Grid Undefined

Normalised Root Mean Square Vector Diff

NUMBER OF WINDS

Entire Grid Undefined



Validation against
Insitu Observations

INSAT-3D SATELLITE AMVS
 (Comparison against Insitu Observations)
 Reporting Period: 01 09 2024 - 30 09 2024

NORTHERN HEMISPHERE

	Mean AMV WS	Mean INSITU WS	Speed Bias	RMSVD	Number of Collocations
Hig Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Mid Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Low Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Low Lev IR(3.8):	0.00	0.00	0.00	0.00	0
Hig Lev WV:	0.00	0.00	0.00	0.00	0
Low Lev VIS:	0.00	0.00	0.00	0.00	0

TROPICS

	Mean AMV WS	Mean INSITU WS	Speed Bias	RMSVD	Number of Collocations
Hig Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Mid Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Low Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Low Lev IR(3.8):	0.00	0.00	0.00	0.00	0
Hig Lev WV:	0.00	0.00	0.00	0.00	0
Low Lev VIS:	0.00	0.00	0.00	0.00	0

SOUTHERN HEMISPHERE

	Mean AMV WS	Mean INSITU WS	Speed Bias	RMSVD	Number of Collocations
Hig Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Mid Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Low Lev IR(10.8):	0.00	0.00	0.00	0.00	0
Low Lev IR(3.8):	0.00	0.00	0.00	0.00	0
Hig Lev WV:	0.00	0.00	0.00	0.00	0
Low Lev VIS:	0.00	0.00	0.00	0.00	0

Hig Lev = Above 400 hPa
 Mid Lev = 700 - 401 hPa
 Low Lev = Below 700 hPa