INSAT-3D AMVs: January 2015
AMVs vs Radiosonde (0000 & 1200 UTC)

Northern hemisphere	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level IRW	2644	4.2	4.8	2.3	2.7	20.9	-0.5	7.7	8.2
Mid level IRW	2713	5.6	6.6	3.3	3.8	12.9	-0.9	16.6	17.5
High level IRW	1644	6.9	7.7	3.3	4.5	10.2	-0.6	28.0	28.7
High level WVW	7811	7.1	8.3	4.4	4.6	12.4	-0.2	25.3	25.5

Tropics	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level IRW	568	3.7	4.0	1.4	2.5	23.6	0.4	6.2	5.9
Mid level IRW	300	3.7	3.9	0.9	2.4	16.4	-0.6	9.9	10.4
High level IRW	4308	4.7	5.4	2.7	3.3	15.0	0.3	12.0	11.8
High level WVW	6625	4.9	5.6	2.7	3.3	15.4	0.9	13.3	12.3

Southern hemisphere	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level IRW	13	3.4	3.5	0.4	2.8	21.2	-0.3	6.4	6.7
Mid level IRW	17	4.8	4.8	0.4	3.3	15.3	-2.4	13.8	16.2
High level IRW	38	5.9	6.4	1.9	3.1	21.8	-1.7	17.2	18.9
High level WVW	194	6.1	6.5	2.0	3.7	20.1	0.2	16.7	16.5

Global	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level IRW	3225	4.0	4.6	2.2	2.7	21.1	-0.3	7.5	7.9
Mid level IRW	3030	5.4	6.3	3.2	3.6	13.5	-0.8	15.8	16.6
High level IRW	5990	5.2	6.2	3.2	3.6	14.0	0.0	16.0	16.0
High level WVW	14632	6.1	7.3	4.0	4.0	13.8	0.3	19.7	19.3

MVD: Mean vector difference

RMSVD: Root mean square vector difference

SD: Standard Deviation

Mean Speed Dif (ABS): Absolute mean wind speed difference

Mean Dir Dif (ABS): Absolute mean wind direction difference

High level: 100-400hPa

Mid level: 401-700hPa

Low level: 701-975hPa

MVD, RMSVD, SD, Mean Speed Dif, Mean Speed AMV, Mean Speed RS are in ms^{-1}, Mean Dir Dif is in degree.

Collocation Criteria:

- All AMVs within 150km of each radiosonde location and pressure difference ±20hPa are considered for validation.
- Collocation pairs with speed difference greater than 30ms^{-1} and direction difference greater than 60° are screened out.
- Quality indicator is not used for the current validation.