INSAT-3D AMVs: February 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	2593	4.2	4.8	2.2	2.8	20.1	-0.3	8.3	8.5
Mid level IRW	3025	5.5	6.4	3.2	3.7	13.0	-0.5	17.2	17.7
High level IRW	2386	6.3	7.2	3.4	4.0	10.3	0.0	27.0	27.0
High level WVW	8832	7.0	8.2	4.3	4.6	11.9	0.5	25.8	25.3

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	994	3.2	3.5	1.4	1.9	24.3	-0.2	5.6	5.8
Mid level IRW	334	3.7	4.0	1.2	2.3	20.4	-0.1	8.1	8.3
High level IRW	3663	4.4	5.0	2.4	3.0	16.5	0.1	10.6	10.5
High level WVW	5857	4.7	5.4	2.6	3.1	17.1	0.5	11.3	10.8

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	16	5.4	5.5	0.4	3.1	23.7	0.8	9.9	9.1
Mid level IRW	21	3.9	4.3	1.5	3.3	10.2	-3.2	12.5	15.7
High level IRW	61	9.6	10.0	1.8	7.2	29.4	-5.9	11.1	17.0
High level WVW	248	9.7	10.0	1.7	7.1	26.6	-3.6	14.7	18.3

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	3603	3.9	4.5	2.2	2.5	21.5	-0.3	7.5	7.8
Mid level IRW	3380	5.2	6.2	3.2	3.6	13.5	-0.5	16.3	16.8
High level IRW	6110	5.1	6.0	3.1	3.4	14.1	0.1	16.5	16.4
High level WVW	14937	6.1	7.3	3.9	4.0	14.2	0.5	19.8	19.4

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.