INSAT-3D AMVs: June 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	1266	3.7	4.0	1.7	2.3	23.6	0.2	6.4	6.2
Mid level IRW	1238	4.6	5.2	2.3	3.0	18.1	-0.5	10.2	10.7
High level IRW	4886	5.6	6.4	3.2	3.7	15.3	-0.5	16.8	17.3
High level WVW	12681	6.1	7.2	3.8	3.9	16.0	0.1	16.9	16.8

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	482	3.6	3.8	1.1	2.5	24.5	0.8	6.3	5.5
Mid level IRW	160	3.2	3.3	0.5	2.2	15.2	-0.3	7.6	7.9
High level IRW	5107	4.0	4.5	2.2	2.7	15.4	0.3	10.1	9.8
High level WVW	7448	4.5	5.1	2.4	3.1	16.9	1.0	11.4	10.4

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	44	6.1	6.1	0.5	3.6	30.7	-1.8	8.4	10.2
Mid level IRW	52	5.2	5.3	0.9	3.8	11.7	-1.8	16.7	18.5
High level IRW	10	6.6	6.6	0.8	2.4	32.3	0.5	11.1	10.6
High level WVW	201	6.7	7.0	1.6	5.4	8.7	0.1	27.3	27.3

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	1792	3.7	4.1	1.7	2.4	23.9	0.3	6.4	6.1
Mid level IRW	1450	4.4	5.0	2.4	2.9	17.3	-0.4	10.1	10.5
High level IRW	10003	4.7	5.6	2.9	3.2	15.2	-0.1	13.3	13.4
High level WVW	20330	5.5	6.5	3.5	3.6	16.1	0.4	14.9	14.6

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.