INSAT-3D AMVs: January 2017
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	3558	3.7	4.3	2.2	2.6	19.4	-0.6	7.2	7.8
Mid level IRW	3557	4.7	5.5	2.7	3.3	12.6	-1.2	15.5	16.8
High level IRW	1650	5.4	6.3	3.0	3.8	8.6	-0.3	26.5	26.8
High level WVW	3588	5.4	6.3	3.2	3.6	9.4	0.4	25.6	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	545	3.1	3.5	1.4	2.1	22.4	0.0	5.2	5.2
Mid level IRW	490	3.4	3.7	1.0	2.3	20.3	-1.3	6.3	7.6
High level IRW	10662	4.2	4.7	2.3	2.9	15.1	0.0	10.6	10.6
High level WVW	12875	4.7	5.4	2.7	3.3	14.8	0.9	14.5	13.6

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	30	5.2	5.2	0.3	4.0	23.8	0.4	9.6	9.3
Mid level IRW	48	4.7	4.9	0.8	3.0	23.7	-0.4	10.0	10.4
High level IRW	188	5.0	5.2	1.2	3.7	14.1	0.7	14.9	14.2
High level WVW	62	6.6	6.8	1.6	5.8	8.7	4.0	26.9	22.9

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	4133	3.6	4.3	2.2	2.5	19.4	-0.4	7.0	7.4
Mid level IRW	4095	4.5	5.3	2.7	3.2	13.5	-1.2	14.3	15.5
High level IRW	12500	4.3	5.1	2.5	3.1	14.2	0.0	12.9	13.0
High level WVW	16525	4.8	5.7	2.9	3.4	13.7	0.8	16.8	16.0

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 as a criteria for collocation.