INSAT-3D AMVs: June 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	1464	3.5	4.0	1.8	2.4	21.2	-0.2	6.3	6.5
Mid level IRW	1970	4.0	4.5	2.0	2.7	16.2	-0.8	10.2	10.9
High level IRW	5648	4.5	5.3	2.7	3.0	14.5	-0.3	14.4	14.7
High level WVW	14194	4.9	5.7	2.9	3.3	13.6	0.0	16.6	16.5

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	385	3.7	4.0	1.2	2.6	22.7	1.3	7.0	5.6
Mid level IRW	718	3.1	3.4	1.2	1.9	20.4	0.1	6.7	6.6
High level IRW	8018	4.0	4.6	2.2	2.7	14.3	0.1	11.2	11.1
High level WVW	8933	4.5	5.0	2.3	3.0	14.5	0.9	12.8	11.8

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	130	4.1	4.2	0.9	2.5	22.2	-0.4	7.7	8.1
Mid level IRW	35	4.4	4.6	0.9	3.4	13.9	0.2	14.9	14.7
High level IRW	43	5.4	5.8	1.7	3.6	12.2	0.8	24.9	24.0
High level WVW	172	5.3	5.6	1.4	3.4	14.5	0.9	18.7	17.8

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	1979	3.6	4.0	1.8	2.4	21.1	0.0	6.5	6.5
Mid level IRW	2723	3.7	4.2	2.0	2.5	17.0	-0.5	9.4	9.9
High level IRW	13709	4.2	4.9	2.5	2.8	14.3	0.0	12.5	12.5
High level WVW	23299	4.7	5.4	2.7	3.2	13.8	0.3	15.1	14.8

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.