April 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 CMV	601	4.6	5.2	2.2	3.0	23.9	-0.1	7.9	7.9
Mid level CMV	752	6.3	7.0	3.0	4.1	17.2	-1.3	14.6	15.9
High level CMV	1295	8.1	9.3	4.4	5.7	12.5	-0.5	25.3	25.8
High level WVWV	2648	8.2	8.2	5.0	5.7	12.4	0.9	26.7	25.8

Tropics	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level CMV	177	4.5	4.7	0.9	3.2	27.8	2.0	7.0	5.0
Mid level CMV	80	3.8	4.0	0.6	2.0	25.2	0.8	7.3	6.5
High level CMV	2868	4.7	5.3	2.5	2.9	21.6	0.0	8.9	8.9
High level WVWV	4418	4.8	5.4	2.5	3.0	20.4	1.1	10.0	9.0

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 CMV	5	6.9	6.9	0.1	4.5	33.5	4.5	11.2	6.7
Mid level CMV	21	5.0	5.0	0.3	4.2	17.4	-1.6	11.0	12.6
High level CMV	34	7.2	7.3	0.9	6.0	10.9	0.0	19.7	19.7
High level WVWV	91	7.4	7.6	1.4	6.0	9.7	1.6	23.2	21.6

Global	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level CMV	783	4.6	5.2	2.3	3.1	24.5	0.5	7.8	7.3
Mid level CMV	853	6.0	6.7	2.9	4.0	17.2	-1.2	13.9	15.1
High level CMV	4197	5.7	6.8	3.6	3.8	18.5	-0.1	14.1	14.2
High level WVWV	7157	6.1	7.4	4.1	4.1	17.2	1.1	16.5	15.4

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.