MAY 2014
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	211	6.5	7.1	2.3	5.0	22.4	2.6	11.2	8.5
Mid level CMV	1216	7.2	8.3	3.8	4.8	20.3	2.2	15.4	13.2
High level CMV	3222	8.1	9.5	5.0	5.9	15.0	-0.7	19.7	20.5
High level WVWV	4352	7.8	7.8	5.1	5.6	14.2	-0.4	20.5	20.9

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	122	5.8	6.0	1.0	4.0	29.9	3.1	8.7	5.6
Mid level CMV	359	6.2	6.6	1.6	4.3	29.0	3.9	10.2	6.2
High level CMV	3965	4.8	5.4	2.4	3.3	20.4	0.7	9.5	8.7
High level WVWV	3409	4.7	5.4	2.5	3.1	20.6	1.0	9.9	8.9

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	27	5.1	5.2	0.5	2.8	28.9	2.5	9.4	6.9
Mid level CMV	12	8.3	8.5	1.2	6.7	15.3	2.2	23.7	21.5
High level CMV	55	14.4	14.7	1.4	12.7	17.6	9.3	27.8	18.9
High level WVWV	101	8.8	9.1	1.6	5.4	21.5	-0.3	17.8	18.1

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	360	6.0	6.7	2.5	4.4	25.0	2.9	10.2	7.3
Mid level CMV	1587	7.0	8.1	3.7	4.7	21.9	2.7	14.5	11.8
High level CMV	7242	6.2	7.6	4.2	4.4	17.5	0.0	14.2	14.2
High level WVWV	7862	6.4	7.8	4.4	4.5	17.0	0.3	15.9	15.5

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.