April 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	170	5.7	6.0	1.6	3.8	23.9	2.8	11.1	8.3
Mid level CMV	1117	7.5	8.6	4.0	5.3	17.7	1.6	16.9	15.3
High level CMV	1882	9.2	10.8	5.5	7.1	12.5	-1.5	23.5	25.0
High level WVWV	3403	8.4	8.4	5.2	6.0	13.1	-1.0	24.1	25.1

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	97	5.3	5.4	0.6	4.0	26.8	3.8	8.7	5.0
Mid level CMV	205	6.4	6.6	1.3	4.2	30.6	3.2	9.9	6.7
High level CMV	4570	5.7	6.8	3.0	3.7	20.8	0.8	11.2	10.4
High level WVWV	4315	5.9	6.8	3.2	3.9	20.3	1.0	12.1	11.1

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	5.0	5.0	0.2	2.7	27.6	-2.8	6.9	9.7
Mid level CMV	12	6.1	6.4	1.6	4.0	16.0	1.5	16.8	15.4
High level CMV	74	15.9	16.1	2.1	12.0	24.8	-3.5	21.2	24.7
High level WVWV	83	13.2	13.4	1.3	8.9	26.7	0.0	22.1	22.1

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	272	5.5	5.9	1.8	3.9	24.1	2.9	10.2	7.2
Mid level CMV	1334	7.2	8.3	3.9	5.1	18.8	1.7	16.1	14.4
High level CMV	6526	6.9	8.3	4.5	4.8	18.5	0.1	15.0	14.9
High level WVWV	7801	7.1	8.5	4.6	4.8	17.2	0.2	17.6	17.3

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.