September 2013
AMV vs Radiosonde (00 & 12 UTC)

Indian Region (20E-130E ; 50S-50N)	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level CMV	315	6.2	6.7	2.1	4.4	22.9	2.7	11.3	8.6
Mid level CMV	697	6.9	7.8	3.4	5.0	17.6	1.1	15.3	14.1
High level CMV	5439	6.6	7.9	4.2	4.9	14.7	-0.8	15.7	16.5
High level WVWV	6437	7.0	8.4	4.6	5.1	14.8	0.0	18.2	18.2

Northern hemisphere (20E-130E ; 20N-50N)	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level CMV	226	6.1	6.5	1.8	4.4	21.5	2.2	11.1	8.9
Mid level CMV	538	7.0	7.9	3.1	5.2	15.8	0.6	16.3	15.7
High level CMV	1179	6.9	7.8	3.4	5.1	15.3	0.7	18.9	18.2
High level WVWV	2600	7.2	7.2	4.3	5.2	15.6	0.2	19.6	19.4

Tropics (20E-130E ; 20S-20N)	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level CMV	75	6.4	6.6	0.8	4.6	27.5	3.9	10.3	6.4
Mid level CMV	155	6.7	7.0	1.3	4.7	25.3	3.5	11.5	7.9
High level CMV	4248	6.5	7.7	4.2	4.8	14.7	-1.3	14.6	15.8
High level WVWV	3793	6.8	8.1	4.3	4.9	15.0	-0.3	16.4	16.7

Southern hemisphere (20E-130E ; 50S-20S)	No of Collocation	MVD	RMSVD	SD	Mean Speed Dif (ABS)	Mean Dir Dif (ABS)	Bias	Mean Speed AMV	Mean Speed RS
Low level CMV	14	7.6	7.8	1.3	3.2	29.4	2.8	19.1	16.3
Mid level CMV	4	5.4	5.4	0.8	4.0	11.7	0.4	26.1	25.7
High level CMV	12	10.7	11.2	3.1	7.9	23.4	-7.9	14.4	22.3
High level WVWV	44	9.1	9.2	0.7	6.0	23.6	-1.8	16.5	18.3

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.