July2013
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	68	6.5	7.2	2.6	4.9	27.2	4.5	11.7	7.2
Mid level CMV	292	6.4	7.3	3.2	4.7	19.5	3.5	12.9	9.5
High level CMV	1795	7.0	8.4	4.6	5.4	15.6	-1.5	13.8	15.2
High level WVWV	1355	7.3	8.8	4.8	5.5	15.9	0.9	15.7	14.8

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	56	6.7	7.4	2.8	5.0	25.7	4.5	12.5	8.0
Mid level CMV	138	7.4	8.3	3.4	6.0	16.5	4.2	15.1	10.9
High level CMV	610	6.9	8.1	4.3	5.4	15.5	-1.1	13.6	14.6
High level WVWV	498	8.0	8.0	5.0	6.3	17.9	1.5	15.1	13.5

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	4	5.4	5.5	0.2	3.9	22.8	3.4	9.8	6.4
Mid level CMV	148	5.2	5.7	2.0	3.2	21.8	2.1	10.5	8.3
High level CMV	1180	7.0	8.3	4.5	5.3	15.7	-1.9	13.7	15.5
High level WVWV	845	6.7	8.0	4.2	4.9	14.3	0.4	16.1	15.7

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	8	7.9	7.9	0.6	6.4	46.9	6.4	9.7	3.4
Mid level CMV	6	4.5	5.0	2.3	2.8	4.7	1.1	34.7	33.5
High level CMV	5	15.1	15.3	2.0	12.9	10.6	-12.9	37.2	50.1
High level WVWV	12	11.3	11.8	2.1	8.8	26.4	-5.1	12.8	17.9

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.