January 2014
AMVs vs Radiosonde (0000 & 1200 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	363	5.9	6.4	2.0	4.5	23.5	2.3	10.3	8.0
Mid level CMV	1526	7.6	8.9	4.5	5.9	16.5	1.1	17.3	16.2
High level CMV	5113	7.1	8.3	4.3	5.1	18.9	-0.3	14.6	14.9
High level WVWV	5827	7.3	8.6	4.6	5.3	17.5	1.0	16.9	15.9

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	277	5.9	6.4	1.9	4.6	22.1	2.3	10.7	8.4
Mid level CMV	1346	7.8	9.1	4.5	6.0	15.6	0.9	18.0	17.0
High level CMV	1085	8.4	9.5	4.2	6.4	12.4	-2.5	21.6	24.1
High level WVWV	1993	8.4	8.4	4.9	6.1	13.7	0.3	23.6	23.3

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	77	5.9	6.1	0.7	4.3	30.6	3.2	9.5	6.3
Mid level CMV	180	6.2	6.7	1.8	4.4	27.8	3.5	10.3	6.8
High level CMV	3954	6.9	8.0	4.0	4.9	21.2	0.4	12.1	11.6
High level WVWV	3762	6.8	7.9	4.0	4.9	19.7	1.6	13.3	11.7

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	9	6.5	6.5	0.4	4.4	25.8	-3.1	8.3	11.4
Mid level CMV	-	-	-	-	-	-	-	-	-
High level CMV	74	7.2	7.3	1.0	3.7	30.2	-1.9	10.9	12.9
High level WVWV	72	6.8	7.0	1.0	3.9	22.8	-1.6	11.8	13.4

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.