February 2015
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	275	8.1	8.6	2.2	6.3	23.6	2.9	12.6	9.7
Mid level CMV	2297	9.5	11.1	5.7	7.4	17.7	-0.6	18.1	18.7
High level CMV	1777	10.6	12.2	5.9	8.3	13.7	-5.5	25.4	30.9
High level WVWV	1223	10.0	10.0	5.6	8.0	13.2	0.1	25.2	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	341	6.4	6.8	1.8	4.6	30.5	3.1	9.0	5.8
Mid level CMV	730	7.5	8.2	2.9	5.3	29.2	4.5	11.7	7.2
High level CMV	2105	7.7	8.7	4.1	5.3	23.8	-1.0	11.7	12.7
High level WVWV	1297	7.4	8.3	3.8	5.2	22.9	2.3	13.2	10.9

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	8	8.6	8.8	1.5	4.8	49.5	4.8	10.9	6.1
Mid level CMV	40	8.8	9.1	1.7	6.1	27.0	5.1	16.0	10.9
High level CMV	46	9.6	9.6	0.8	6.3	32.1	-5.5	9.8	15.3
High level WVWV	38	11.1	11.3	1.1	8.7	23.6	2.5	18.2	15.8

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	624	7.4	8.1	3.0	5.6	25.4	3.6	11.2	7.6
Mid level CMV	3067	9.0	10.5	5.5	6.9	20.2	0.6	16.4	15.8
High level CMV	3928	8.9	10.5	5.5	6.5	19.4	-2.8	17.3	20.1
High level WVWV	2558	8.7	10.1	5.2	6.5	18.8	1.2	18.6	17.4

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.

Note: During this month, the errors viz. RMSVD, Bias etc are higher due to changes in vertical levels of NCEP GFS forecast and while the corresponding retrieval algorithm were not updated.