Kalpana-1 AMV: January 2017
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	870	4.9	5.5	2.3	3.4	21.9	-0.5	8.4	9.0
Mid level CMV	1044	6.6	7.4	3.2	4.5	14.5	-2.5	16.5	19.1
High level CMV	624	8.7	9.5	3.2	6.4	12.4	-1.5	28.4	29.8
High level WVWV	1917	9.1	9.1	5.1	6.5	11.5	2.4	33.8	31.4

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	156	4.2	4.3	0.7	2.9	24.7	0.6	6.3	5.7
Mid level CMV	102	5.2	5.3	0.6	3.3	25.2	0.5	8.9	8.4
High level CMV	6538	5.8	6.7	3.2	4.1	18.2	0.1	12.0	11.9
High level WVWV	8186	6.6	7.6	3.7	4.9	17.4	2.6	14.5	11.9

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	18	5.3	5.3	0.3	3.4	13.2	0.6	15.6	14.9
Mid level CMV	10	5.5	5.6	1.2	3.1	22.3	-1.8	13.8	15.7
High level CMV	70	6.2	6.5	1.2	4.1	18.0	0.2	16.7	16.6
High level WVWV	164	7.9	8.2	1.9	6.0	14.8	2.5	22.2	19.7

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	1044	4.8	5.4	2.3	3.3	22.3	-0.1	8.4	8.5
Mid level CMV	1156	6.6	7.4	3.3	4.5	15.9	-2.3	15.8	18.1
High level CMV	7232	6.0	7.0	3.5	4.3	17.6	0.0	13.5	13.5
High level WVWV	10267	7.0	8.2	4.2	5.2	16.2	2.5	18.0	15.5

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.