Readme for Radiosonde Data obtained at BMKG Bengkulu Station during YMC-Sumatra 2017

Revised: January 13, 2022
July 2, 2018

<< Basic Information >>

Radiosonde Type	:	Meisei iMS-100
Processor	:	Meisei MGPS2 (software: ver. 3.1.0)
Data archive	:	ASCII files are archived every 1 second.
Balloon	:	TOTEX TA-600
Observation period	:	November 16, 2017, 0000Z - January 16, 2018, 0000Z

<< Processing Level >>

Level-0	Original
Level-1	Same as original except for their format
Level-2	Only apparent erroneous data have been removed.
Level-3	Additional corrections have been made. This information is provided in the header (Remarks).
Level-4	Same as Level-3 except for their format (5 hPa interval from 1000 hPa to 80 hPa in addition to the surface value, etc.).

<< Data Format >>

Level-2/3

Header	Line-01	Project ID
	Line-02	Launch site/ID
	Line-03	Location in deg-E, deg-N, height in meter
	Line-04	Actual Launch Time in UTC
	Line-05	Nominal Launch Time in UTC
	Line-06	Serial Number / Radiosonde Type
	Line-07	Ground station software
	Line-08-11	Remarks

Data

Following parameters are archived every 1 second as (f7.1, 2f8.2, 2x, 7f7.1, f8.0)

Time in second
Longitude in degree East
Latitude in degree North
Pressure in hPa
Temperature in degree C
Dewpoint temperature in degree C
Relative Humidity with respect to water in %
Zonal wind component in m/sec
Meridional wind component in m/sec
Mixing ratio in g/kg
Height in meters

Level-4

Data
Following parameters are stored every 5hPa from 1000hPa to 80hPa in addition to the surface as (2f8.2, 2x, 11f7.1, f8.0)

- Longitude in degree East
- Latitude in degree North
- Pressure in hPa
- Temperature in degree C
- Dewpoint temperature in degree C
- Relative Humidity with respect to water in %
- Zonal wind component in m/sec
- Meridional wind component in m/sec
- Mixing ratio in g/kg
- Specific Humidity ratio in g/kg
- Potential temperature in K
- Equivalent potential temperature in K
- Saturated equivalent potential temperature in K
- Height in meters

<< Remarks >>
As level-3 (and 4), additional correction was applied to reduce solar radiation-induced error. Its correction scheme was developed based on the intercomparison with Vaisala RS41, Cryogenic Frost-point Hygrometer, and GNSS-derived precipitable water vapor, which was done at the BMKG Bengkulu meteorological station during the campaign.

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