README document for the Himawari-8/AHI Land Surface Temperature (LST) Gridded Data

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File name

AHILST.v0.YYYYMMDDHHMN.dat.gz

- YYYY: Year, MM: Month, DD: Day, HH: Hour (UTC), MN: Minute

- gz: gz compressed file

Data format

Covered area : 85°E – 155°W and 60°N – 60°S

Column x Line: 6000 (West to East) x 6000 (North to South)

Grid size   : 0.02°

Data type   : 4-byte float binary data with little endian byte order

Unit   : degree Celsius (℃)

Missing code : -999.

About citation

Algorithm;

1. Yamamoto, Y., Ishikawa, H., Oku, Y., Hu, Z., 2018. An algorithm for land surface temperature retrieval using three thermal infrared bands of Himawari-8. *J. Meteorol. Soc. Japan* 96B, 59-76. https://doi.org/10.2151/jmsj.2018-005

2. Yamamoto, Y., Ishikawa, H., 2018. Thermal land surface emissivity for retrieving land surface temperature from Himawari-8. *J. Meteorol. Soc. Japan* 96B, 43 – 58. https://doi.org/10.2151/jmsj.2018-004

Validation;

3. Yamamoto, Y., Ichii, K., Ryu, Y., Kang, M., Murayama, S., 2022. Uncertainty quantification in land surface temperature retrieved from Himawari-8/AHI data by operational algorithms. *ISPRS J. Photogramm. Remote Sens.*, 191, 171-187. https://doi.org/10.1016/j.isprsjprs.2022.07.008

- Please describe below sentence in Acknowledgements: "Himawari-8/AHI LST gridded data are distributed by the Center for Environmental Remote Sensing (CEReS), Chiba University, Japan."

- Regarding the use of our LST data, in principle, Commercial uses are prohibited in accordance with the data policies of the Japan Meteorological Agency of the Himawari standard data provider.

Acknowledgments