

GridSat-B1 F.A.Q.

The following are some Frequently Asked Questions about Gridsat-B1 data

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1. How often are data updated?

The goal is to update GridSat data quarterly, about one month after the quarter ends.

Quarter	Target update date
January-March	May 15
April-June	August 15
July-September	November 15
October-December	February 15

However, since this dataset is still in the CDR Initial Operating Capability, it is performed by one person, so the update schedule may be delayed due if that person is out of the office for an extended time.

2. The brightness temperatures are integers and are the wrong value. Why?

Data are stored more efficiently as short (2-byte integers) than floats (4-bytes). The real value of the brightness temperatures is computed using the variable attributes according to the CF convention. [See here for more info.](#)

3. Can I remove the View Zenith Angle (VZA) correction?

Yes. [See here for more info.](#)

4. How do I make maps of 1-dimensional data? How do I process sparse data?

When the number of points with valid satellite data are few, it is more efficient to store the data as sparse arrays, also called compression by gathering. Information on that is provided in the [CF conventions](#).

5. There are seams in the data where the satellite images meet.

Does that mean data are wrong?

No. These seams are there for a few reasons, depending on the channel.

IRWIN - The data have been corrected for view zenith angle, but this correction is not perfect. It also treats all satellites the same way, whereas the view zenith angle dependence will vary by satellite. Hence, some VZA residual will be apparent.

IRWVP - No view zenith angle correction was performed for water vapor channels.

Visible data - No view zenith correction was performed. Also, the surface reflectance will be angular dependent. This is natural (like looking at the ocean near sunset).

6. How are data remapped to the equirectangular projection?

The projection uses an equal angle distribution of points: 0.07 degrees. The satellite pixel nearest the value of lat/lon for each grid is selected. To this end, the netCDF CF convention is `cell_method="point"`. The data are not averaged or modified in any way. In short, the satellite projection is merely resampled into the equirectangular grid.

Also, the representative point for each pixel is the exact lat/lon value, thus the point: -70. South, -180. East is the center of the cell, not a corner.

7. What does B1 stand for?

The ISCCP Project describes data using letters and numbers. A means full resolution, B means subsampled data, while C (and later D) means products. The B1 is the first subsampling (to about 10 km) while B2 data were the second subsampling (to about 32 km). ISCCP D data use B2 data and are limited to 2.5 degree gridcells. A processing of ISCCP is planned that will use ISCCP B1, which will have a gridded product at 1 degree.

8. Why a 0.07 degree grid?

Well, the raw ISCCP B1 data is about 8-10 km resolution. This resolution varies between satellite and also decreases as you move away from the sub-satellite point. So 0.07 deg is about 7.7 km, thus it approximates the best ISCCP B1 spatial resolution.