

Interactive comment on “Improving the usability of the MISR L1B2 Georectified Radiance Product (2000–present) in land surface applications” by Michel M. Verstraete et al.

Anonymous Referee #2

Received and published: 15 March 2020

This is a helpful paper for "power users" of MISR Global Mode products who are able to work with L1B2 products as an input to subsequent processing to higher-level products.

It is not clear if this algorithm is going to be incorporated into the operational MISR level-1 re-processing system which is due to take place at some point in 2020.

It is also not clear how much of the MISR data is affected as a function of time as there are no statistics on the number of Local Mode sites, other than the surprising statement that there is only one LM site per orbit with 14 orbits per day.

There is also no assessment of what impact a Local Mode site would have depending on where in the MISR Block it is located. For example, if this LM site were located near

C1

one of the boundaries of a MISR Block, would the method still work?

Finally, have the authors considered that the reason why the RED channel shows the largest spread is because there are 4 times as many pixels for the Red than the other 3 channels.

Annotation summary of uploaded file: — Page 2 —

Caret, Anonymous: sea ice

Note (yellow), Anonymous: Is it possible to provide an estimate of what percentage of data is local mode?

Strikeout (red), Anonymous: the

Caret, Anonymous: a

Strikeout (red), Anonymous: atmospheric and

Note (yellow), Anonymous: atmospheric products are revived from ellipsoid-correct not terrain-corrected products

Strikeout (red), Anonymous: e

Caret, Anonymous: is product

Strikeout (red), Anonymous: latter

Note (yellow), Anonymous: Why is there no outline of what the following sections discuss?

— Page 3 —

Caret, Anonymous: nd corrected for terrain relief effects using

Strikeout (red), Anonymous: on

Note (yellow), Anonymous: Are the authors sure about this?

C2

Note (yellow), Anonymous: Is this the same as a so-called block? If so, say so.

Caret, Anonymous: or over urban areas of pollution

Highlight (color #FF4FE8), Anonymous: swath. Repl

— Page 7 —

Note (yellow), Anonymous: Given that this is predictable why is a tag not added to the data for these?

— Page 8 —

Note (yellow), Anonymous: But why is the cloud cover at 17.6km? I thought that RCCM and ASCM was at 275m?

Note (yellow), Anonymous: Please indicate the location and also explain why most of the area is black?

— Page 9 —

Note (yellow), Anonymous: I thought that NASA removed this after the end of February 2020?

— Page 10 —

Caret, Anonymous: and over clouds

Caret, Anonymous: other

Strikeout (red), Anonymous: others

— Page 11 —

Caret, Anonymous: to

— Page 12 —

Note (yellow), Anonymous: These would be much more useful if they employed a

C3

colour-density lookup table to show the relative importance of the off-achromatic pixels.

— Page 14 —

Note (yellow), Anonymous: How is this software operational? Does it run at the DAAC?

— Page 15 —

Caret, Anonymous: ,

Strikeout (red), Anonymous: Brf

Caret, Anonymous: BRF

— Page 16 —

Note (yellow), Anonymous: It would be helpful to add some performance figures here. Also, will this be taken up by NASA in the planned level-1 re-processing?

— Page 19 —

Caret, Anonymous: than

— Page 24 —

Note (yellow), Anonymous: Why not use MODIS BRFs from MOD09 or Landsat-7 taken at the same time as MISR??

— Page 26 —

Strikeout (red), Anonymous: a

(report generated by GoodReader)

Please also note the supplement to this comment:

<https://www.earth-syst-sci-data-discuss.net/essd-2019-210/essd-2019-210-RC2-supplement.pdf>

C4

