Responses to the Reviewers of manuscript essd-2019-77

- The comment of Catherine Moroney during the public discussion phase was a matter of clarification that was addressed in our response to that comment.

- The comment of the first Reviewer concerned the evaluation of the results which was addressed by inserting an entirely new section (5: Algorithm performance, pages 14 to 21 of the most current version of the manuscript).

- The comment of Editor Birgit Heim has been formally answered on the ESSD web site. As discussed extensively by email, 5 external resources have been made available to GFZ and are awaiting their DOIs, as follows:

1 A stand-alone, self-contained, executable version of the software to process MISR RCCM data and replace missing values, using the IDL Virtual Machine technology.

2 A User Manual (in PDF format) explaining how to acquire, install and use this software package on a PC running under Microsoft Windows operating system.

3 A ZIP archive of MISR L1B2 GRP and RCCM files for Path 168 and Orbit 68050 to serve as an example of input data: this allows users to explore how this software works on actual data, without having to acquire data from the NASA ASDC.

4 A ZIP archive containing all intermediary, final and ancillary results obtained while generating the Figures of this manuscript has been assembled to document every step taken in this process.

5 A User Manual (in PDF format) to explain how to acquire, install and use this second archive.

- When all DOIs will have been assigned, all relevant files (as well as the software source codes) will be updated to synchronize the cross-references and update the PDF documents. The final versions will then be made available to GFZ and ESSD as appropriate.

Please let us know if anything else should be provided at this point.

Best regards, Michel Verstraete on behalf of all co-authors.