

We thank the Editor and Anonymous Referee#1 for their positive evaluation of our revised manuscript. Please find below our replies (in blue) to the Referee comments (in black). Changes to the text are provided in italic font.

### **Editor Comments to the author:**

Thank you for your fast responses throughout the review process. I have one minor edit/comment. In the CATS data description, the authors note that ice clouds are included in the CATS vertical feature mask. I suggest noting that water clouds are flagged in the CATS dataset, although I realize the authors use special screening criteria similar to CALIPSO as a proxy for altocumulus. Given this information, I recommend the authors rewrite line 224 in the conclusions:

"In contrast to the CALIPSO data set, the CATS data set includes a cloud flag that states whether or not cloud is present but does not provide more detailed information on cloud type".

to something that notes CATS flags ice and water clouds, but additional screening was used to indicate altocumulus.

Thank you for this clarifying suggestion. We have changed the marked sentence to:

*"While the CATS data set flags water and ice clouds, additional screening is needed to identify cloud types such as altocumulus and cirrus as provided in the CALIPSO data set."*

### **Second review by Anonymous Referee #1**

#### **Evaluation of overall quality**

The authors have clearly made good use of the time offered to revise this manuscript to thoughtfully address all my concerns following the initial review. The expansion of the CALIPSO dataset from 6 to 15 years, the inclusion of a much more expansive seasonal analysis, and additional effort to compare CATS and CALIPSO data for the same 2015-2017 time period build upon an already relevant manuscript and enhance its applicability to its target audience: long-term ground sites and shorter term field campaigns.

Additionally, the authors took great pains to address the grammatical, consistency, and legibility issues that plagues the original manuscript. The revised manuscript as presented provides a complete and thorough study that is of interest to not only myself, but also toward those to whom their study is aimed and AMT's readers. Therefore, I recommend this revised manuscript for publication in AMT.

Thank you for the positive evaluation of our revised manuscript. We are pleased that we could address the identified issues to the Referee's satisfaction. Thank you again for your assistance in improving the quality of our work.

#### **Specific Comments/Questions**

Major:

1) None.

Minor:

1) None.

#### **Technical Corrections**

General comments:

1) I found several instances where the first line of a new paragraph was not indented (noted below), please briefly recheck the manuscript for these typos.

2) As compared to my first review, the authors have clearly gone through great lengths to address my grammatical, spelling, legibility, and consistency concerns from the first review. This second manuscript was much easier to read and digest and I greatly appreciate their efforts. Thank you!

Specific comments:

- 1) Page 1, line 15: grammar error, please indent new paragraph.
- 2) Page 3, line 56: grammar error, please indent new paragraph.
- 3) Page 3, line 76: grammar error, please indent new paragraph.
- 4) Page 4, line 97: grammar error, please indent new paragraph.
- 5) Page 5, line 120: grammar error, please indent new paragraph.
- 6) Page 6, line 180: grammar error, please indent new paragraph.
- 7) Page 7, line 214: grammar error, please indent new paragraph.
- 8) Page 9, line 258: grammar error, please indent new paragraph.
- 9) Page 9, line 265: grammar error, please indent new paragraph.

We thank the Referee for the continued thoroughness in also assessing grammar and layout of our manuscript. We are confident that indentation issues will be addressed by the Copernicus typesetting team during copy editing.