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While I am a core satellite believer, I do understand and appreciate the importance of in-situ measurements, especially in anchoring space based observations. And there is perhaps no other region in the world where we desperately need more in-situ observations than in the Arctic. Combining these two (space based and in-situ) observing systems is even better. So I really appreciate the work done by the authors in this regard. I have few issues mentioned below that I regard minor in nature, but need to be explained/elaborated. I also had an opportunity to go through the comments posted by the other reviewer and I broadly agree with her/him and I hope the authors will address them as well.

1) The authors discuss a great deal about how they compute vertical cloud fraction, but very little (or almost nothing if I haven't missed anything obvious) about the spatial (and temporal) collocation of space based and in-situ measurements. The impact of uncertainties arising from these issues is not be underestimated, especially when you compare and combined products with different spatial resolutions (even at monthly mean scale). Let's say that you (or CALIPSO team) use 15 CALIOP single shots (1/3 km each, 5x3) to generate 5 km product. What happens when this 5 km product is not centered over Barrow or Eureka and you are inconsistently selecting single shots? Have the authors evaluated few individual cases manually to check what to expect when they merge 1/3, 1 and 5 km data with reference to the station in question?
2) It would be helpful if the authors also provide some physical explanation of the seasonal highs and lows in cloud fractions seen in the results. For example, in the case of Barrow, why is cloud fraction peaking in Feb, Apr and Oct months? Why is there a minimum in Jun and Jul? This is different from Eureka. Why? Perhaps Shupe et al (2011; 2015) already discuss this, but I think the reader still needs at least a brief description of it to make full sense of the differences you observe from these two observing systems.
3) In the case of Barrow station, I am bit surprised at the differences in CF between 2B-GEORPFO and 2B-GEORPOF-Lidar in Aug (Fig. 2). When you add CALIOP there seems to be increase in clouds in the free troposphere from 1 to 5 km. Instinctively, I would have thought that, in the free troposphere, CALIOP would add those subvisual or super thin clouds that are missed by CPR, located in the upper troposphere lower stratosphere. Nearly 30-40% more clouds are added by GEOPROF-Lidar compared to GEOPROF in the lower and middle troposphere and it seems that even surface measurements missed these clouds. Even more confusing is the fact that CALIPSO 5 km doesn't show these clouds in Aug. So what is happening here? Part of this discrepancy can be due to the attenuation of CALIOP signal and part of it due to high amount thin clouds in the middle and lower troposphere (Devasthale et al. 2011). But it is difficult to say without further investigations.
4) The authors say that the blended cloud vertical distribution provides a complete picture. But how do we quantitatively know this? After all, we need a third independent reference to make that conclusion.

Reference:

http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0889.2010.00516.x/pdf