**Response to reviews of "Albedo susceptibility of Northeastern Pacific stratocumulus: the role of covarying meteorological conditions" by J. Zhang et al.**

The authors have addressed most of my comments from the first submission. However, I believe that the uncertainty analysis is still not entirely correct. For this reason, I recommend minor revision for the current manuscript, and I recommend that the manuscript be accepted for publication when this issue is addressed. Please see my comments on the uncertainty analysis below.

We thank the reviewer for the close read-through of the revised manuscript. Please see our response to the comments on the uncertainty analysis.

Comments on Uncertainty Analysis
If I understand the methods section correctly, the authors calculate spatial autocorrelation between CERES footprints within each 1°x1° lat-lon gridbox (line 196). If this is true, then the uncertainty quantification is not entirely correct because autocorrelation needs to be calculated for the variables that are used in the regressions (i.e. the 1°x1° gridbox-mean values, not the footprint values within gridboxes). The correct way to calculate spatial degrees of freedom is to first calculate gridbox-mean values of Ac. This will result in a three-dimensional array of Ac values with dimensions of lon, lat, and time. Then remove the climatological seasonal cycle from each lat-lon gridpoint and apply equation 5 of Bretherton et al. 1999 to the array to get the effective spatial degrees of freedom. I do not expect this to change the interpretation of the data that the authors have nicely presented, but I do think it is important that the uncertainty quantification is done properly so that the results can be compared to other studies.

We did calculate spatiotemporal autocorrelation between CERES footprints (20-km) within each 1°x1° lat-lon gridbox (line 196), and this is because the variables (Ac and Nd) used in the regressions are from CERES footprint-level (20-km), such that we use footprint-level Ac and Nd to obtain a regression slope for each 1°x1° lat-lon grid (we did not use 1°x1° lat-lon gridbox-mean values to perform the regression).

This was stated in lines between 161-165.

To clarify what spatial resolution of the variables actually go into the regression, we revised the sentence to read:
*"… we use slopes derived from least squares log-log regressions of 20-km footprint-level Nd and Ac, sampled by the MODIS and CERES sensors onboard the polar-orbiting Aqua satellite (1:30 local afternoon overpass)."*