Reviewer #2: As in past years, the submitted manuscript for the oceans chapter of the BAMS State of the Climate report represents a thoughtful and well-organized assessment of 2019 climate trends relative to previous years, and it will once again be an invaluable resource for everyone seeking to understand our changing climate system. I support publication. Thanks for another excellent contribution! My comments are minor. Here I identify a few points that might merit further scrutiny prior to publication:

*We thank you very much for this assessment, and for your review. Our responses to your suggestions and questions are noted below.*

line 303, line 572, line 615, line 736, and elsewhere in the text: The word "tendency" is a bit confusing here. I usually think of a tendency as representing a time derivative, and when I google the term for meteorological applications, I find tendency equations showing terms with time derivatives. In the discussion of Figure 3.4, panels b-c represent time derivatives (W rather than J). Elsewhere in the text, the tendencies discussed and plotted are differences between 2018 and 2019, with units of the plotted variable, so I would have referred to these are differences (e.g. difference in heat flux). Strictly speaking these aren't tendencies but rather differences. The word tendency should to be used inconsistently to mean either a time derivative or a difference, and my preference would be to use it strictly for time derivatives.

*We agree, and note that our lead editor does as well. Except for references to Fig. 3.4b, c, which as you note are derivatives, and in places where “tendency” is used colloquially, we have replaced “tendency” with “2018/19 change” throughout the manuscript.*

lines 555 and following: Readers might appreciate some comment on the choice of OAFlux and the other fluxes shown here (rather than other flux products). Would the results be similar for any other choice of flux product?

line 756: Typo: "contrbuted" --> "contributed"
*Fixed*

line 1072 and following: Were hyphens or spaces lost from Chl-a and MODIS-A? "MODISA" is particularly challenging, since anyone who googled this would likely not find the satellite instrumentation.

*Chla without a hyphen is commonly used in the literature; we agree that MODIS-A is clearer, and have changed all accordingly.*
Figures 3.4a-b and 3.7: I really like these maps, but it would be great to know where trends are statistically different from zero. Is there a version with cross-hatching to distinguish statistically significant and non-significant differences? The stippling in Figure 3.4c is helpful, and perhaps this is sufficient to address most reader curiosity about statistical significance, though I admit that when I look at the anomalies in 3.4a and the 2019-2018 differences in 3.4b, I can't help wondering which differences could be explained statistically as a result of random sampling issues.

Figure 3.9a,b,d,e,g,h led to similar questions about statistical significance of anomalies. The white stippling in 3.9c,f,i is helpful, but the white stippling is harder to see than the black stippling in other figures, such as 3.14c.

Figure 3.15: The figure titles (e.g. for Figures 3.4 and 3.7) are immensely helpful and would be a good addition to Figures 3.14 and 3.15

Figure 3.23: As with Figure 3.15, the figure titles (e.g. for Figures 3.4 and 3.7) are immensely helpful and would be a good addition here.

Figure 3.1 vs 3.23: Are 3.1a and 3.23c supposed to be similar. It would be great if they were mapped on the same projection with similar color scales.

*They are indeed similar, although not defined over the exact same time span as more data are available for SST than for chlorophyll; also, 3.23 is from the MODIS-A satellite alone (for consistency with the rest of this section). Thank you for the recommendation on projection/color scale consistency; this will be suggested to the authors of those sections.*