Reviewer: Anaïs Fabregas Paper: Alexandre L'Her

Summarize the main results of the article in a few sentences:

Kamchatka eddies travel mostly SWward. Seasonality of the EKC creates more or less eddies and changes the particle transport. Seeded particles remain trapped in the KE eddy.

Answer the following questions about the structure of the paper:

Overall content:

1. Is the overall purpose of the study and /or central question clear?

The goal is stated clearly in both abstract and intro. However, they are stated differently in the two different places, so we're not sure what the real goal is. Is it to find if the eddies formed at the capes of Kamchatcka are the same ones that merge in the KE later, or is it to find the direction of the water masses inside the eddies formed at the capes of Kamchatka?

Also a little confusing in the intro, when it says that the eddies are advected SW while the abstract said those were the findings of the study. We are maybe talking about the flow of different things but difference is unclear.

2. Does the interpretation of the findings answer the overall question of the paper?

It answers the direction of the water masses formed at the capes (very good figures 3.1 and 3.2).

3. Is every paragraph and sentence in the paper relevant to the overall question?

If no, point to some examples: (conclu) "Seasonal lagrangian study of eddies produced at the capes of Kamchatka" doesn't say much. This sentence is not necessary there

4. Are there portions of the text that could be omitted?

If yes, point to some examples:

The part about velocity of the particles doesn't really answer the question of trajectory of the particles. It is useful and gives us new findings about the seasonal variation but seasonal variation were not in the initial questions at the beginning of the study. The question of the seasonality of the EKC, KE etc should be better explained at the beginning: what question does the velocity part try to answer? Not clear.

5. Is the overall organization of the paper clear and effective?

Suggestions for improvement:

yes, except there is no discussion part. The discussion clearly starts in the results section, but it also continues in the conclusion with comparisons with the litterature, which should have been done earlier in the results/discussion part I think

Individual sections:

1. Does the title adequately represent the content of the paper?

Yes, accurately represents content. I think formed would be better than produced.

Suggestions for improvement: Seasonal lagrangian study of eddies *formed at the capes of Kamchatka

2. Does the abstract clearly and concisely summarize the paper and state the main results? Does is contain all needed information (context, need, task, object, findings and conclusion)?

Yes, consisely summarises paper and results. Clearly states the main purpose and results. Could add to the sentence about "the northernmost cape" + "of the Kamchatka peninsula (because the reader does not yet know that the peninsula has capes).

Context and need are not present. Task, object, findings and conclusion are present

3. Does the introduction provide enough context to the readers? Does it state the need for the work? Does it state clearly what has been done to address it?

Very good intro. Need: importance in understanding eddies' contribution. Context: Presents study area and main currents. It does state clearly the work done in this study to answer the questions (seed particles and integrate their position)

4. Does this paper put the progress it reports in the context of existing published work? Is there adequate referencing and introductory discussion?

Mostly refers to study [4] which studied the area and lagrangian studies of buoy drifters. Some parts could use more referencing, especially the part that talk about the EKC current being stronger in some seasons.

5. Are the material and methods used in the study clearly explained? Can you point out what is special, unexpected, or different in the approach compared to existing published work? Does it contain too many technical details?

Yes, very clear. Not too many technical details. Short and concise. I could not say what is specail about the work though.

6. Is the results sections(s) clearly and concisely written? Are there logical and smooth transitions between sections, subsections and between paragraphs?

Yes, clear section. Very clear figures. Sometimes, too much emphasis on the difference between figures, while what is meant is the seasonal difference. The figures just represent the seasons and should be secondary. Ex at the top of page 4, rephrase to say "The summer trajectories (fig 3.2) differ significantly from their counterparts in winter (fib 3.1)".

It would also be good to be a bit more clear about where it is we are looking (northernmost cape is fig 3.1a, middle is 3.1b). Also say where the "looping trajectory" is: around 51°N? Lower? we're not always sure where it is you are talking about when you say "the trajectories are coherent at first" (starting from where and in which direction) in section 3.1 for ex.

7. Does the conclusion clearly state the most important outcome of the work? Does it address the questions stated in the Introduction? Does the conclusion just summarize the results or does it interpret the findings and explain what they mean?

Conclu states the main outcomes in terms of seasonal variation, SW direction, and it confirms that the eddies formed at the capes of kamchtka are the ones that merge with the KE. Some questions are answered in conclu that weren't asked in the intro (seasonal variation for ex). Also gives a direction for future works, good. Just shouldn't contain this much comparison with the litterature, I think this should mostly be in discussion/results above. Interprets the findings, good.

8. Are the interpretations and conclusions adequately supported by the evidence presented? That is, are the assumptions valid, is the methodology sound, is the evidence adequate, and do the conclusions logically follow?

Yes: test velocity to find seasonal variations, and integrate position to find trajectories.

9. Are all parts of the text, references, graphics and tables necessary for the new results and main points to be understood?

Maybe the details of tab 1 and 2 on the current speeds weren't necessary, but simply stating in the text the range that we calculate, how it's coherent with other studies, and saying that we have a coarser velocity resulution (which is done in the text) would have been enough. It's hard to take in all these numbers that are in the table. I'm also not sure we needed both mean and max speeds.

10. Are the graphics and tables clear and their captions self-explanatory?

Yes, clear graphs and tables. Somewhat misleading that the figures 3.1 and 3.2 are labelled "fall and "spring" while the sections are called "winter" and "summer". It makes sense that they were released in fall to me followed throughout winter, but maybe could have been phrased differently. Also you could call the capes "northern, middle, and southern" rather than "first, second and third". For tables 1 and 2, you could add (cm/s) in the legend "mean velocity (cm/s) over the 200 days" and only write numbers in the table, could be easier to read.

Sentences and Wording

1. Can you find grammatical mistakes?

(p.1 intro §2) Its eastern coast, *whose main features Typically (top page 2)

- 2. Can you point to sentences that loose you (too long/complex) and do you have suggestions for improvement?
- 3.1 "They are also looping trajectories offshore the southern cape, which was already seen from the particles in figure 3.1b."

I dont understand this sentence "the particles also follow looping trajectories offshore from the southern cape (around 52N), similarly to the trajectories of the particles seeded at the middle cape (figure 3.1b)"

3. Are generally the action in verbs, characters in subjects and subjects near verbs? Can you find counter-examples? Can you point out misused nominalizations?

I couldnt spot any misused nominalizations. And I found the sentences pretty clear soI guess

4. Is the writing cohesive? Does it flow well? Is the part of the sentence that links to the previous sentence at the beginning or the end?

Yeah it's pretty good. The sentences are short so that the end isn't too far from the beginning and we know what's going on.

The two last sentences of 3. results could be linked a little more fluidly.

5. Are the paragraphs coherent? Do the first and last sentences of paragraphs match? Can you find counter-examples?

The paragraphs are pretty short and yes they remain on a same topic overall.

6. Is there an abusive use of passive voice?

No.

7. Can you find a lot of useless words/phrases?

Intro "has been observed for a long time".

Also sentences could sometimes be a bit more fluid, things like in the conclusion:

"We further observed that there is a difference between" could just be "we further observed a difference between...". useless words.

8. Can you find complex words that could be replaced by simpler ones?

No.

9. Can you find too complex subjects?

No, fairly clear.

10. Can you find inadequately used adverbs/ repetition/ excessive hedging?

"In particular" used twice in two sentences at the top of p.4.

excessive hedging : "The mean velocity \underline{may} give us an information about the presence of eddies. Indeed,"

The fact that you start the next sentence with "indeed" means you think it is the case that velocity informs us on eddies, so not useful to say "may"

11. Is the use of tenses (past/present/future) adequate?

Yes.

Other comments?

I liked it, short and clearly written. I really liked the figures you used. I put some comments on things to rephrase in the pdf version of your article (to be opened with "document viewer", the adobe equivalent for linux).