

Interactive comment on “CFSv2-based sub-seasonal precipitation and temperature forecast skill over the contiguous United States” by Di Tian et al.

Anonymous Referee #1

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General comment: I think this paper has merit for publication but needs a little more work before acceptance. Most notable is the grammar and syntax which makes the paper difficult to read. Moreover, there are lots of different combinations of forecast times and forecast skill evaluations for different models. I found that following the different periods was confusing. Perhaps add a table with the appropriate information or structure the workflow differently. I think that the results and discussion are in line with what the paper aims to show. I did not find any methodological fault, although I must admit that the subject matter is not my main expertise.

Other comments and suggestions:

Abstract: I think the first sentence is either too vague or too direct. Perhaps start with

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something like: “This paper explores the possibility of exploiting forecasts from global seasonal climate forecast models for sub-seasonal forecasts of precipitation and 2-m temperature”. The current wording seems like a statement: “... forecast models can be...”, but it is a vague statement because of the word “potentially”.

Page2, line 12: References are not ordered properly; please revise (all text).

Page 2, line 12-15: This sentence is not clear, please revise.

Page 2, line 20: “... there have has been”

Page 2, line 23-25: Please explain how GCM outputs can be used for daily or short-term forecasts seeing as they are uncorrelated to current meteorological conditions.

Page 2, line28: The link between GCMs and the CFSv2 is not clear. Is the CFSv2 a GCM? Please indicate that it is a reforecast product based on reanalysis (If i understood correctly).

Page 3, line 2: “... demonstrated the high performance...”: delete “the”.

Page 3 lines 18-19: This sentence is not clear and does not add much to the paper. I suggest modifying it by giving it more substance. “Leverage forecasting efforts” and “contribute to sectorial management decision making” are both very vague objectives.

Page 3, line 22: “... forecast model components of the climate system... “.not clear what this means. Of all existing models?

Page 3, lines 29-33 : Check grammar here (everywhere, but particularly here). It is difficult to read.

Page 4, line 14: Replace the sentence with something like: “Comparing those two forecasts will help understand...”

Page 4, line 30-31: This should refer to a figure or a table somehow. We cannot follow the given example because of the lack of a reference.

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Page 5, line 15: Merge to make a more fluid sentence? (e.g. All forecasts... and all observations...)

Page 6, lines 14-19: This section is suspiciously similar to the text in L'heureux and Higgins. Please reword or cite directly.

Figure 6-7: It is not clear to me why the score is higher for the 14-day (week 1-2) than for weeks 1 and 2 taken individually.

Page 10, line 25: Reference to nonexistent figure 13.

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