

Interactive comment on “Area-averaged evapotranspiration over a heterogeneous land surface: Aggregation of multi-point EC flux measurements with high-resolution land-cover map and footprint analysis” by F. Xu et al.

Anonymous Referee #2

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This paper describes aggregation of multi-point EC flux measurements using an excellent set of EC measurement data and airborne remote-sensing data. The work presented in this paper is valuable, as the foot-print of ground measurement is always the issue on validating satellite remote-sensing ET estimations. By reviewing the results presented in the paper, it seems that the authors have derived the results using appropriately quality-controlled EC measurement data.

Major Comments: While the authors' works are valuable, the size of paper is too large, with containing less-important information. I recommend authors to drop entire section

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4.4 and the related descriptions available in other sections (section 3.3 etc.). I could not find a purpose of Fig 8, and comparisons with “remotely sensed ET data” (Table 5 and 6). Also, including the comparison with remotely-sensed ET data in this paper might derive another problem on reviewing process because the procedure adopted in the paper is not well described in the paper, and the applied method may not be appropriate.

Minor Comments: (1) Page 8 Line 10; Authors manually revised land cover map using high-resolution CCD images and Google Earth imagery. Do those images applicable for year 2012? (2) By reviewing the results, the EC data used in the paper seems to be reliable. However, it is better to describe in the paper some more about the measurement accuracy of their EC data, for example, about the energy closure error. (3) It is authors' preference and authors do not need to change, but I might recommend changing Fig 2-b (ET) from bar-graph with mm/d, to line graph with W/m² like Fig 2-a, so readers can understand the energy balance condition of the sites by directly comparing Fig 2-a and 2-b. (4) It is authors' preference and authors do not need to change, but Fig.4 can be expressed not as figure but as table. (5) In Fig 6, I recommend authors to show the character “a” “b” “c” and “d” in the figure, because authors are referring the figure such as “fig 6c” in the text.

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