Document containing comments on the corrections requested by Co-Editor Dr. Pardyjak on paper acp-2015-1051.

First of all, in behalf of all co-authors, I would like to acknowledge the generous effort of Dr. Pardyjak in reading very carefully our manuscript and suggesting countless improvements on the English language, which have all been incorporated in the corrected version.

Changes concerning the text:

This version is not highlighting the differences in respect to the previous one because most of them were mainly on details. Let me comment here those that have some more scientific contents:

1) In page 4, comment 8 asked for a better writing of a sentence refering to the distribution of soil moisture in the small square. The new sentence, shorter, writes: "A gentle slope towards SW favors accumulation of water at this part of the small square after rainy events.".

2) In page 5, comment number 10, asks also for rewriting and we have adopted the Co-Editor's suggestion: " but it provides a reasonable starting point.".

3) In page 7, comment number 24 asks to explain what a "This" in the beginning of a sentence means. It is now converted to "This selection".

4) In page 7, comment number 44, asks for a clearer explanation on the different values of sigma(LST) between domains D1 and D2. The modified sentence reads: "While the values of the 1.5-m air temperatures are very close in both model domains, the standard deviation is larger in the domain at lower resolution. This is probably indicating that higher horizontal resolution is able to transport more efficiently heat differences originated at the surface level."

5) In page 8, comment number 3, there was a mistake, and temperatures were not a 2m but at 1.5m

6) In two places a reference for the "runaway cooling effect" is requested. Now the paper of Viterbo et al is cited in the first appearence and included in the reference list.

7) In page 14, comment number 10, a sentence on the effect of the Soil Moisture in the surface albedo has been added and a new reference listed: "Albedo may also change significantly with the changes of SM, decreasing as SM increases (Sugathan et al., 2014)."

8) In page 4 a new reference has been added concerning the multicopter, since there has been recently a paper published including some results using the same system (Jiménez et al, 2016)

9) In the discussion, the paragraph on uncertainties has been revised and made more compact. Now it reads: "An important issue to mention is that the uncertainties inherent to each method should be considered in Table 1, even if they are already conceptually taken into account in the term Ot of equation 2. The model, as seen in Figure 3, has an error for our case not larger than 1 K, as it is also the case for most remote sensing determinations of the surface temperature (see, e.g., Coll et al. (1995) for MODIS). Thermal cameras report uncertainties of the order of 0.1 K. "

Changes concerning the figures:

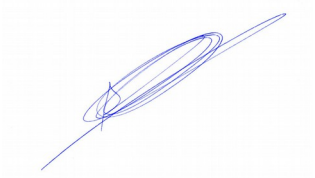
a) In figures 5, 6, 7 and 9-up-left, titles have been removed and labels modified as requested.

b) Figures having a colorbar: the units of the colorbar have been included in the caption.

c) we have not included the points of the vertical multicopter profiles because they correspond to a different day of the figures shown in the lower panel, fearing that it may induce confusion. Instead we have indicated that the profiles correspond to a sunny afternoon in the figure caption.

d) We have capitalized the first letter of the month in Figure 8, and compacted the figure titles.

At Palma (Majorca), on July 14, 2016



J. Cuxart, corresponding author