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Earth System Discussions

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Data

Interactive comment on "A database of multi-year (2004–2010) quality-assured surface solar hourly irradiation measurements for the Egyptian territory" *by* M. Korany et al.

Anonymous Referee #2

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Data accessible and load easily, very orderly.

Good geographic coverage. Good site descriptions.

Heavy reliance on WMO technical documents. One hopes these remain available.

The data output, 88 to 98%, seems very good!

The authors have missed a step to summarize relative uncertainties of the actual data?

Page 3, line 19 (abstract) - I think the authors here mean to indicate that they will continue to archive future data to keep the data sets up to date?

Page 5, line 1 - reference map (Figure 1) here?

Page 8, line 13 - sea level

Page 9, line 17 - "experienced observers screen the records". Does this occur on site? What kinds of errors represent "logistical" errors? Clock / time errors? Power failures? In this section we read that the observers "correct" the data? But in the next section (page 10, line 2) we read that visual inspection serves to "detect and remove periods of obviously erroneous measurements". Please can we have more clarification of what gets corrected or removed by observers?

Page 13, line 13 - Flag 4, here again we read about visual inspections and suspicious data. At least here the the data get flagged, not corrected? How does this differ from previous visual inspections? What kind of errors does this step confront or identify?

Page 17 - Noting that the stations all have standard WMO ID numbers, the surface met data provided here will also pass through WMO QC processes and reside in WMO and downstream archives (e.g. CRUTemp4)? Should we expect any differences in the end products due to different processing?

Page 21 - The data QC outcome seems to depend solely on successful hours of operation relative to total potential hours of operation. But the reader doesn't get any sense of precision or accuracy. For example, how do the calibration drifts, of 5 to 10% over many months from Table 2, impact the measurement accuracies? On page 7 we read about achievable relative uncertainties of 3, 8 and 20% for high, good and moderate hourly values. Can the authors provide the readers with any sense of relative uncertainty for these data? Do they qualify, or might they qualify, as high vs. moderate quality?

Final comment - Although I could easily inspect the data files, the authors might have provided at least one data figure that they find interesting, to encourage users to explore interesting features or take advantage of exceptional reliability, etc.

Interactive comment on Earth Syst. Sci. Data Discuss., 8, 737, 2015.

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