

## ***Interactive comment on “Early Portuguese meteorological records (18th century)” by M. J. Alcoforado et al.***

**Anonymous Referee #3**

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General comments: Although early instrumental meteorological records suffer by various problems, they are an important data source for historical climatology as well as climatology of the instrumental period. Being provided with different motivation, they are available in many countries over the world. Their importance is given by the fact that such observations started often much earlier than observations in the national meteorological networks. Many of such papers dealing with this type of evidence are published in local languages and journals. Their proper use depends on the fact how they can be compared with recent climatic patterns, i.e. how much they are reasonable from the point of view of recent requests given to meteorological observations. The paper reviewed presents information about early Portuguese measurements and is worthwhile to be published. The following review concentrates only on some points while many other comments related to this topic (technical corrections, typing errors)

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were included for consideration of authors separately directly in the manuscript. It would be useful to include some broader considerations what is general potential of such data for their use in a broader scale. Are they utilisable e.g. for ACRE or would be useful any international activity for database of such records? May they be used for creation of long-term regional or global series? How to overcome in this case their fragmentary character and uncertainties in this data? They may be used, for example, together with other documentary evidence in creation of temperature or precipitation indices series used for reconstruction in historical climatology. Other possibilities?

Specific comments: 1) Several other papers related to the topic have to be taken in account and quoted in the paper (they are mentioned directly in the manuscript). 2) Please do not use abbreviation of BSD for Bencho Santes Dorta. 3) Page 3418, line 19: better to speak about Lakagígar instead of Laki. 4) Table 1: please add quotations of Camuffo and Bertolin (CC, on-line) and Lüdecke (2010) Lüdecke C (2010) Von der Kanoldsammlung (1717–1726) zu den Ephemeriden der Societas Meteorologica Palatina (1781–1792). Meteorologische Quellen zur Umweltgeschichte des 18. Jahrhunderts. In: Poplow M (ed) Landschaften agrarisch-ökonomischen Wissens. Strategien innovativer Ressourcennutzung in Zeitschriften und Sozietäten des 18. Jahrhunderts. Cottbuser Studien zur Geschichte von Technik, Arbeit und Umwelt 30. Waxmann Verlag, Münster u. a., pp 97–119. 5) How important are data in Table 2 – to cancel this table? 6) Page 3439, caption to Fig. 3: description of (d) is not clear 7) Page 3440, caption to Fig. 4: please use the same word in graph and its caption (Rainfall – Precipitation), it concerns of annual totals? precipitation totals should be expressed by columns, not by line (the same concerns also of several other figures) 8) Page 3442, caption to Fig. 6: it would be better to use rainfall or precipitation totals (complete totals also in the caption of Fig. 7) 9) Page 3447, caption to Fig. 11: please use another expression instead of “monthly climatology”; yellow seems to be not well visible 10) Page 3448, Fig. 12: I would prefer opposite variables on axes (i.e. NAOI on the x-axis and Rainfall on the y-axis); arrows in the figure are not clear

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