

Interactive comment on “Rainfall intensity bursts and the erosion of soils: an analysis highlighting the need for high temporal resolution rainfall data for research under current and future climates” by David L. Dunkerley

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I sincerely thank both anonymous referees for undertaking reviews of my manuscript and for their insightful comments. I hope that I have been able to improve the paper in light of these comments. In the following, I have attempted to identify the principal comments in order, and provide a response to each.

Referee 1

C: Discussion could be more smoothly connected to the topic of the paper. R: I have

C1

been through these sections, and added some linking text that I hope will maintain the line of argument more clearly. A few new references have been added in the course of these revisions.

C: There are a lot of tables presented and I think the results would be more interpretable in Figures instead. R: To reduce the amount of data presented in Table form, I have eliminated Tables 2, 3, 4, and 5, and replaced these with Figures containing the relevant data. The new Figures are Fig. 2 and Fig. 5 in the revised numbering.

C: Paragraph starting line 6 of page 6 is very technical. MIT needs a definition. R: Some of the technical detail of data processing, including the SOFA subroutines used, has been deleted in order to simplify this presentation. I have added a definition of minimum inter-event time (MIT) and added an earlier paper (Dunkerley 2008) on this subject.

C: Does N refer to the total number of events during the study period? (and related comments). R: Yes. I have added an additional clarification of this point, and likewise in reference to the differing bucket size in the rain gauges at the two field sites.

C: The reader could use reminders of the acronyms used. R: I have added these as suggested.

C: regarding elimination of Tables 4 and 5. R: these Tables have been removed, and replaced by a new Figure.

C: error in caption referring to squares and diamonds. R: this caption has been corrected.

C: reference to missing Table 7. R: this reference has been replaced with the correct reference to what is now Table 2 in the revised numbering.

C: typographical and other errors. R: all minor errors have been corrected.

C: need for some additional focus on soil erosion in Discussion or Conclusions. R:

C2

Some additional discussion on this point has been incorporated into revised Conclusions, highlighting the focus on soil erosion.

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