

Interactive comment on “Combining fire radiative power observations with the fire weather index improves the estimation of fire emissions” by Francesca Di Giuseppe et al.

Anonymous Referee #1

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Overall, the manuscript was well written and concise. The figures and equations were explained well within the manuscript. The importance of the study was also adequately addressed. In general, the results support the conclusions; however, further information is needed (see specific comments) specifically related to the use of this model over various land cover types and in regions impacted by cloud cover.

Specific Comments:

* There is no mention of testing the model over different land cover/use types. Have the authors run any comparative tests? There was a brief mention of results over Africa that were not included. Could you include some additional results in the appendix - if

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the manuscript length is an issue?

* Page 2 Lines 11 – 20: Please include the nadir pixel resolutions for the SEVIRI and MODIS products for comparison. The authors mention the advantage of increasing the temporal frequency of observations using SEVIRI; however, this will lead to much coarser spatial resolutions, which will have implications on small fire mapping.

* Page 2 line 21 – The authors should state that they are using MODIS FRP observations - for clarity after the SEVIRI paragraph.

* Page 7 line 6 – Define extreme fire.

* Page 7 Line 12 – “Using FWI. . . .up to 80%....” – could you include the average and std values too?

* Page 9 line 13 – Have the authors tested their model during months when cloud cover is an issue?

Technical Comments

* Page 2 line 28 – Change (Di Giuseppe et al., 2016) to Di Giuseppe et al. (2016).

* Page 5 line 1 – Should “. . .is still large” read “. . .is still larger”?

* Page 7 line 9 – Should 4 June read 4 July?

* Page 7 line 8 – Change “on 2-6 July” to “between 2-6 July”.

* Page 7 line 14 – Change “i.e.” to i.e.

* Page 9 line 4 – Change “. . .”from Quebec on reached Europe the. . .” to “. . .from Quebec reached Europe on the. . .”

* Page 9 line 24 – “Holben et al., 1998” should read (Holben et al., 1998)

* Page 10 line 6 – change “. . .in case. . .” to in cases

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