Dear referees A. De Santis and M. Contadakis,

Thank you very much for your comments and suggestions. We have read each of them carefully and we think that all the corrections already done are improved the manuscript. We also add new typos corrections and a new section related with the localization or origin of anomalies. This response is almost the same that it had been uploaded in the discussion.

On the other hand, we enlist the previous corrections as below. All the manuscript's changes are highlighted in green.

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1.-
- We will explain the volume V in the paragraph.
- SR is a factor defined by (1 – (l_min/ l_max)^(3-D)) where l_min and l_max are at the length of the smallest and largest microcracks respectively. D is the fractal dimension. We assume that the ratio between large and small microcracks is zero case, which implies that SR is approximately 1. If you think it is needed, we can add an appendix explaining the fractal volume.
- A is a constant that appears to integrate fractal surface of microcracks. That is why it depends on an area S.
- Area S is implicit in constant A. We improve the wording of those paragraphs on page 4 and 5.

2.- Unfortunately, the errors of many other authors parameters were not made explicit in their investigations. However, you are right in the amount of figures, we must reduce them.

3.- Excuse me, apparently the page changed link. This is the correct one now: https://www.nasa.gov/mission_pages/sunearth/science/atmosphere-layers2.html.
The issue of the exact altitude of the ionosphere is not a problem for us. The latest research (e.g. 10.1002/2016JA023601) shows that it is possible to propagate a disturbance in the ionosphere (~0.5 mili Volt/meter or at 100 km above earth's surface) from the earth's surface (~0.2 V/m). In magnetic terms (assuming E = cB with E , B and c electric, magnetic field and light velocity), a disturbance of the order of ~0.5 nT is required at eath's surface to reach this condition. As shown in Figure 5, all earthquakes have amplitudes greater than 0.2 nT to about 10 km of the rupture, which also means that it is the magnetic amplitude at the earth's surface (or close to it). Using this model and magnetic magnitude order, it is also possible explain the magnetic perturbations shown in Nepal 2015 and Mexico 2017 as lithospheric origin (in principle).

4.- This point is interesting because equation 14 shows a dependence on larger microcracks l_max and polarization P_0 of the lithosphere (more clear in text as w = J/P_0). The rest is constant at a given distance. If P_0 is also constant in the lithosphere, the frequency emitted in a zone will only depend on the larger microcracks created by stress changes. And since the microcracks will always be smaller than the earthquake size itself, added to the fractal nature of the cracks, it is natural that the frequency also takes several orders of magnitude greater. Even higher frequencies can be reached if the polarization is lower. Exactly this analysis also allows to explain some results of fractality in the magnetic frequencies found by other researchers (e.g. 10.1007/s11069-016-2558-8). That is why equation 14 represents a lower limit for a given constant P_0 inside the lithosphere.

The rest are minor modifications that we will correct when the journal allows us to edit our manuscript.

Thank you very much for your comments and suggestions. We believe that it has helped us to improve our manuscript.

Best regards

Patricio Venegas-Aravena on behalf of the authors