

### **Reply to Second Reviewer's Comments:**

This manuscript successfully explores the role of eddy diffusion in controlling the degree of ionospheric response delay to solar activity driving by undertaking a simple, but reasonably rigorous, set of simulations with CTIPe. The results fit well within the context of existing work and I believe these results to provide new insight into the behaviour of this ionospheric time delay.

It is quite rare for me to do this (perhaps my first time doing this), but I see no significant issues with this manuscript. While this may seem like somewhat of a cop-out of a review, the previous reviewer has already covered any concerns I might have had for this manuscript and I believe that the manuscript is now sufficiently clear and conclusive enough to warrant publication after they complete the modifications requested by the previous reviewer.

Response: We are thankful to the reviewer for reviewing our manuscript and providing a very positive opinion. We will address all the raised points suggested by both the referees in the revised version of the manuscript.