

## Reply to the review of the Anonymous Referee #1:

The Authors are grateful to the editor and would like to thank the Referee #1 very much for his important comments that helped us to improve the original manuscript. We have responded to all comments. Details of our responses to each comment are shown below:-

NO.	Referee's Comments	Authors Responses
1	<p>1. the DCB results can be improved by using weight function according elevation;                      2. more stations used in DCB estimation can improve the results precision;                      3. it is better using multi station network than single station.</p> <p>However, the conclusions above are widely known across the community and thus not new.</p>	<p>The main objective of our paper is to introduce our new code for estimating satellites and receivers DCB values and check its validity to produce precise DCBs in different cases. So, when we say that DCB results can be improved by using weight function according elevation or more stations, we want to conclude that our code gives more precise results compared with other codes of other researchers. It can be clearly appearing in the first two lines of the Conclusion section (line number 221 and 222).</p>
2	<p>- The experiment data should be more in spatial and temporal resolution, which means the span of the data should be longer and the number of stations should be more.</p>	<p>The validation of the code was made by comparing with other researchers' code. To compare our results with other researchers (Jin et al, GPS Solution 16:541–548, 2012) and (Sedeek te al., Arab J Geosci, DOI 10.1007/s12517-017-2835-1, 2017) results we should use the same receivers number at the same days.</p>
3	<p>Many abbreviations should be specified at the beginning of the manuscript where they first appear.</p>	<p>The manuscript was revised and we note the following abbreviations were missed:  <b>CODE</b> Center for Orbit Determination in Europe  <b>IGS</b> International GNSS Service  <b>UHF</b> Ultra High Frequency  <b>STEC</b> Slant Total Electron Content</p>
4	<p>The author should clearly point out the form of weighted function in the manuscript.</p>	<p>The form of the weight function introduced in lines number 138, 139 and 140, but it was really missed the values of c and d which are equal to 5 and 2 cm. In addition, z in equation (15) is the satellite elevation angle that was defined in line number (111).</p>