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Interactive comment on "Tomographic Imaging of a Large Scale TID during the Halloween Storm of 2003" *by* Karl Bolmgren et al.

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We would like to thank you for your careful reading of the manuscript and valuable comments and suggestions. Please find our replies to individual comments below.

Line 22: ". . .a series of large Coronal Mass Ejections. . .". The word "large" should be removed, since it brings a comparative feature, that is not needed in the context.

The word has been removed.

Line 92: The word in bold "...(same)..." should be explained, since it is not clear what is meant.

This was left in the text by oversight, and has been removed.

Figure 3: The sTEC curves corresponding to PRNs 27 and 28 have the same brown colour that makes it difficult for a reader to distinguish them. The authors mentioned about the TIDs signatures in PRN 28 (Line 53). So, it is better to change the colour.

This is an important observation. The colours have been changed.

Figure 6: There are two plots showing foF2 and hmF2. The data were taken from the Dyess ionosonde observations and obtained with the MIDAS algorithm. Although, the MIDAS' tracks of foF2 and hmF2 demonstrate similar behavior to those Dyess' corresponding tracks, there are noticeable deviations. In this connection, what is the accuracy of determining foF2, hmF2 and Ne in the MIDAS algorithm with that set of GPS receivers? If the accuracy as a quantitative value can be obtained from the modeling presented in Section 4? The authors may consider mentioning about the algorithm's accuracy in the text.

Some text and a reference regarding this accuracy has been added: "In Table 4 of Bruno et al. (2020), MIDAS results were compared against ionosonde data, and for a setup close to what is used here Bruno et al. (2020) found errors of 0.55 MHz in foF2 and 40 km in hmF2. The discrepancies in Figure 6 are on the same order."

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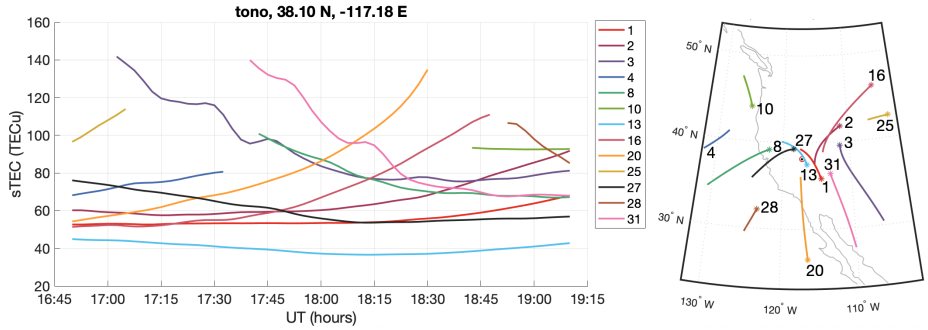
tono, 38.10 N, -117.18 E
sTEC (TECu)
UT (hours)
160
140
120
100
80
60
40
20
16:45
17:00
17:15
17:30
17:45
18:00
18:15
18:30
18:45
19:00
19:15
1
2
3
4
8
10
13
16
20
25
27
28
31
50° N
40° N
30° N
130° W
120° W
110° W

Fig. 1.