



Interactive
Comment

Interactive comment on “Review of variations in $M_w < 7$ earthquake motions on position and tec ($M_w = 6.5$ aegean sea earthquake sample)” by O. Yildirim et al.

Anonymous Referee #1

Received and published: 27 October 2015

Page 5924 Line 3, “. . . Aegean Sea offshore on date 24 May 2014 at 12:25UTC and it lasted. . .” approximately 40 s”.

Reviewer_comment: Aegean Sea Earthquake occurred at 09:25UTC (12:25 Turkey Local Time).

Page 5924 Line18, “. . . were approximately 4 TECU above the upper limit TEC value. Reviewer_comment: Please give detailed information about the upper limit of the TEC value. Which method did you use to determine the upper limit?”

Page 5924 Line 20, “. . . were approximately 5 TECU below the lower limit TEC. . .”

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Reviewer_comment: Please give detailed information about the lower limit of the TEC value. Which method did you use to determine the lower limit?

Page 5924 Line 22-25, "...TEC values in the time portions of 08:00 and 10:00UTC were approximately 2 TECU above, one day before the earthquake at 06:00, 08:00 and 10:00UTC, 25 the TEC values were approximately 4 TECU below..."

Reviewer_comment: Please give detailed information about the boundaries of the upper and lower limits.

Page 5924 Line 26, "...by using the same fifteen numbers of stations..." Reviewer_comment: The authors mentioned 15 stations; however, their names are not included in the manuscript. Please incorporate this information.

Page 5925 Line 26, "...changes between 60–100 km and accommodates..." Reviewer_comment: Please check the boundaries of the ionospheric-free electrons. Is it 60-100km or 60-1000km?

Page 5926 Line 8-10, "...Eq. 1 and ...Eq. 2" Reviewer_comment: Please give information about the meaning of the acronyms in Eq. 1 and Eq. 2. What do they stand for?

Page 5928 Line 2, "...DCB^h, DCB_a: receiver and satellite code bias value." Reviewer_comment: Are the explanations of the upper and lower indices correct? Please check the information.

Page 5929 Line5, "For four days before the earthquake, on the earthquake day and seven after..." Reviewer_comment: Is four-day data enough for the investigation of the TEC changes before earthquake?

Page 5929 Line 8, "The RINEX data of IGS and EUREF..." Reviewer_comment: Which IGS and EUREF stations are used in this study? You have given just the number of stations. Are they close to the epicenter of the earthquake or away from the Earthquake preparation zone?

Page 5929 Line 27, "...positional resolution is 2.5deg X 5deg, timewise resolution is two hours." Reviewer_comment: Spatial resolution of the data is 2.5 degree X 5 degree. This means that the grid covers a large area. Which of the AYVL, CANA, IPSA, YENC stations are located in the same grid?

Page 5930 Line 4-10, "...as result of analysis and the (GIM-TEC) values published by the CODE center for CANA, AYVL, IPSA and YENC stations, respectively. ... is present before or after the earthquake, both, the TEC values generated as result of the analysis..."

Reviewer_comment: Which analysis method has been used to compute the earthquake anomalies?

Page 5930 Line26, "...taking into account the lower and upper limit TEC values..."

Reviewer_comment: Which analysis method has been used to calculate the lower and upper limits of the TEC values?

Page 5931 Line 8-10, "...the Kp, Dst indices giving information about ionospheric activity have been examined for these days analyzed and it has been observed that the ionosphere was quite silent on those days." Reviewer_comment: How did the authors analyze the Kp and Dst indices for the space weather conditions? A graph or table would be helpful to see the Kp and Dst indices. How did you conclude that the ionosphere was quiet on those days?

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