

**RESPONSE FOR ANONYMOUS REFEREE #2:**

**COMMENT #1 (PAGE 2):**

*"...The abstract can be extended with the results of block geometry..."*

**Response:**

According to this comment, following statement added to the abstract:

*"Also, aseismic creep behavior is limited to some depths and decays linearly to the bottom of seismogenic layer at both segments."*

**COMMENT #2 (PAGE 2):**

*"...There are many fault names mentioned in the paper. The fault name should be provided in Figure 4..."*

**Response:**

Profile at Destek segment established on the creeping fault trace. Faults on the south are secondary faults and no aseismic creep reported at those locations. To clarify the situation, following statement added to the explanation of Figure 4:

*"Fault traces on the south of profile 006 are secondary faults."*

**COMMENT #3 (PAGE 2):**

*"...The previous results of the studies conducted to determine creep rate in the Ismetpasa segment between 1970 and 2016 can be given as figure..."*

**Response:**

Table 1 and Figure 6 includes those information. A figure would be more complex to demonstrate all the studies because they would interlace each other.

**COMMENT #4 (PAGE 2):**

*"...Some of content is repeated. For example 'Page 7 last paragraph (line 143-147) same as 'GPS Data Evaluation' section line 158-160. Suggest revising or deleting..."*

**Response:**

That repeated text deleted.

**COMMENT #5 (PAGE 2):**

*"...There are Turkish sentences or word in 'Figure 7 and in the manuscript. These sentences should be deleted in the paper..."*

**Response:**

Figure 7 and Turkish sentences fixed according to the comment.

**COMMENT #6 (PAGE 2):**

*"...The citation publications and references should be checked, eg; Poyraz vd. 2011 ' instead of Poyraz et al. 2011..."*

**Response:**

Citations fixed in the text.

**COMMENT #7 (PAGE 2):**

*"...Some figures are not enough resolution. So, these figures should be rearranged. For example, Figure 5,6 and 11..."*

**Response:**

Figure 5 replaced with the high resolution copy.

Figure 6 has the highest resolution and prepared with another software. It is the best output of the that.

Figure 11 includes 5 different profiles. They are rearranged according to the comment.

**COMMENT #8 (PAGE 2):**

*“...The parameter values used in block modeling (such as locking depth, Euler poles) should be explained in a few sentences in the paper...”*

**Response:**

That information added in the text as follows:

*“During TDEFNODE process, one of the tectonic blocks should be chosen as fixed to estimate the fault parameters. Therefore, Euler pole defined as (0, 0, 0) for Eurasian plate and (30.7, 32.6, 1.2) for Anatolian plate. Values represent latitude, longitude and angular velocity, respectively (McClusky et al. 2000).”*

**COMMENT #9 (PAGE 2):**

*“...The chi-square value can be given in text (between lines 254-263 in the page 16)...”*

**Response:**

Chi-square results are (1.00) and (1.01) for Ismetpasa and Destek segments, respectively. These results added in the text before the figures of modeled area.