Review:

Atmospheric QBO and ENSO indices with high vertical resolution from GNSS radio occultation temperature measurements
by Wilhelmsen et al.

This paper utilizes GNSS RO temperature measurements to build a new atmospheric QBO and ENSO indices by applying two different kinds of EOF analysis. Those indices, independent from the conventional ones, will be useful in climate variability study. I suggest a couple minor suggestions.

1. The paper describes the EOF method in detail, however, does not provide enough justification of using this method and what is the benefits of this method, compared to the conventional anomaly analysis. For example, normalized temperature anomaly time series at each level also can represent the relative strength of the temperature variation at a given level, similar to that shown with EOFs. A few reasons can be included:

   1) The EOF analysis can extract the major modes from small scale spacial and temporal variations. This is an important aspect of the EOF method, which can screen out sampling errors from irregular sampled data, i.e., GNSS RO observations.
   2) The EOF analysis can be used to explore the structure of the variability within a data set in an objective way, and to analyze relationships within a set of variables. In this study, EOF2 method account the temperature at each level as independent set of variables and connect their modes to analyze the vertical structures of the temperature variation.
2. The meaning of eigenvectors can be explained to further use them in the reconstruction of the anomaly field.
3. The paper shows the linear correlations between PCs and ENSO, QBO, and F10.7 indices, respectively. I recommend to show those conventional indices along with newly suggested PCs from M2 at given levels (e.g., surface, 50hPa) in the your PC plots. It will be an effective way to demonstrate the similarities and differences of new indices.