Interactive comment on "Temporal and spatial variations in three-dimensional seismic oceanography" *by* Zheguang Zou et al.

Anonymous Referee #2

In this paper, from a 3D multichannel seismic survey acquired for oil and gas exploration in the Gulf of Mexico over six months period, a 3D water-column seismic volume was derived. Furtherly the paper analyses the differences of information provided by inline sections and crossline sections. It is useful for promoting 2D seismic oceanography methods to 3D seismic oceanography ones. The problem is that example data used in the paper is not so meaningful. There are no obvious ocean features such as eddy, internal wave, front, staircases, etc observed in the seismic sections or slices. It is suggested to do further analyses or change the example data, such that we can get new information from cross-discipline studies. Physical oceanography implications are expected to be demonstrated after major revision.