

Interactive comment on “Seiche excitation in a highly stratified fjord of southern Chile: the Reloncaví fjord” by Manuel I. Castillo et al.

Manuel I. Castillo et al.

manuel.castillo@uv.cl

Received and published: 8 December 2016

Reviewer 3 The manuscript “Seiche excitation in a highly stratified fjord of southern Chile: the Reloncaví fjord” describe a project where harmonic oscillations in a semi-enclosed system is analyzed using observational data and an analytical model. I agree with the earlier reviewers. Both that the work is well done and worth publishing, and the suggestions for improvement. To that I would add two more:

1. It would be useful is the principles around fjord seiches is described in more detail, preferable with a conceptual cartoon. It would also be good if the theoretical calculation of expected oscillations were coupled to the cartoon.

Answer: Thanks for the comment but the seiche (external and internal) are well known mechanism. We will work on a scheme of the dynamics but the manuscripts already

C1

have several figures and we still don't be sure whether or not the scheme will be helpful to understand the dynamics involve.

2. Present the resulting harmonic frequencies better and discuss the relative contribution of different sources more clearly. You discuss the effect of tides etc but it's not easy to contrast them to seiches. A table would be preferable.

Answer: This is related with the observation 1 of the reviewer 2, we expect to show the different contribution of tides and internal seiche using the kinetic energy estimations. Those results will be inserts on the new Figure 7.

Interactive comment on Ocean Sci. Discuss., doi:10.5194/os-2016-42, 2016.