

Supplementary Material I
to
“Surface seiches in Flathead Lake”

by
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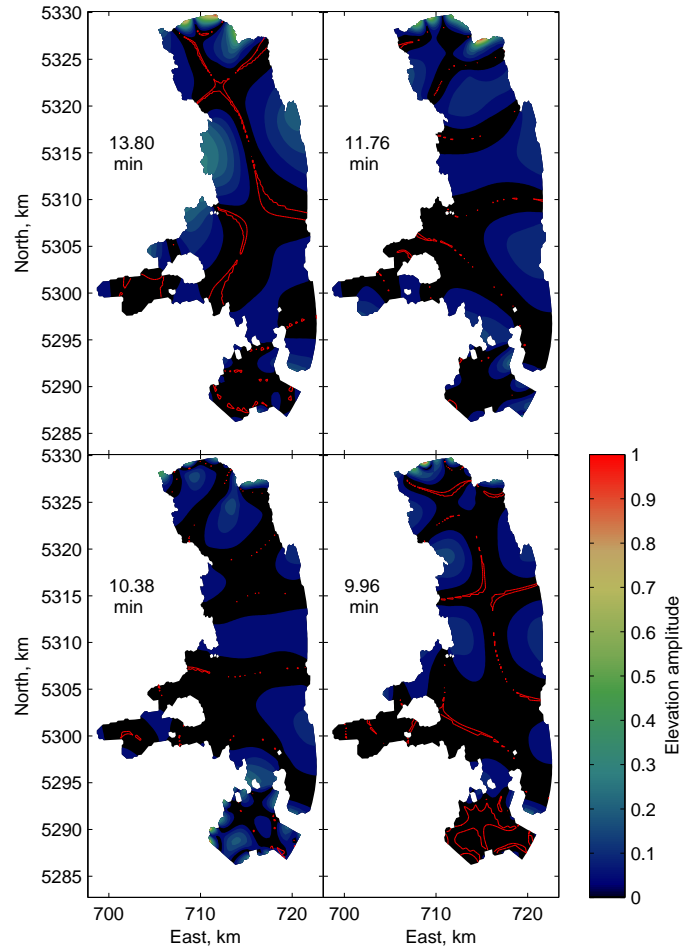


Figure S1: Relative amplitudes of the 4 high-frequency low-amplitude free oscillation modes. Zero-amplitude nodal lines are shown in red.

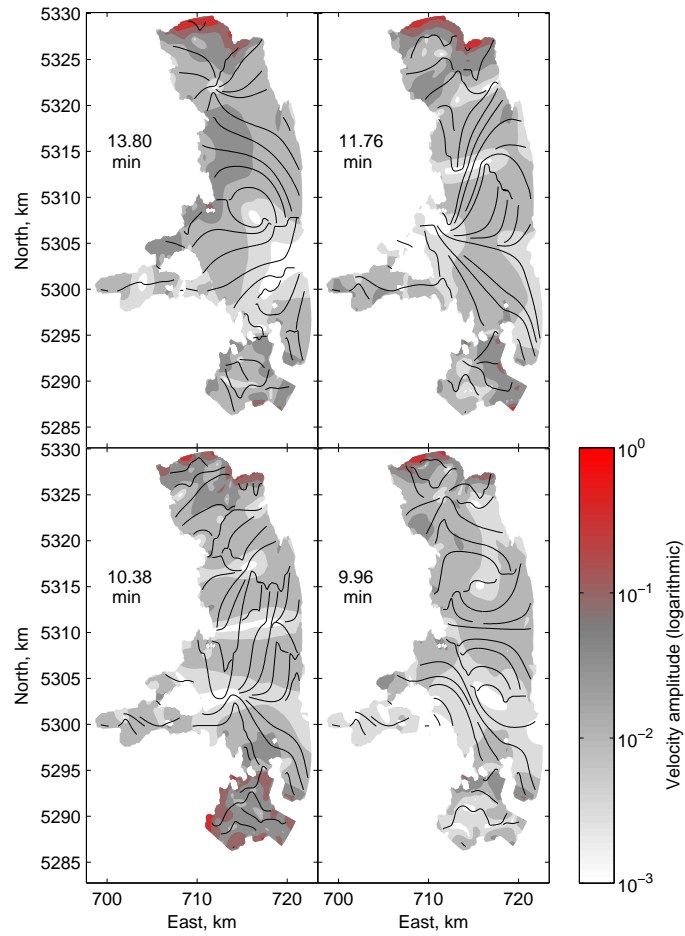


Figure S2: Normalized amplitudes of the velocity oscillations for the 4 high-frequency low-amplitude modes. Note the logarithmic color scale.

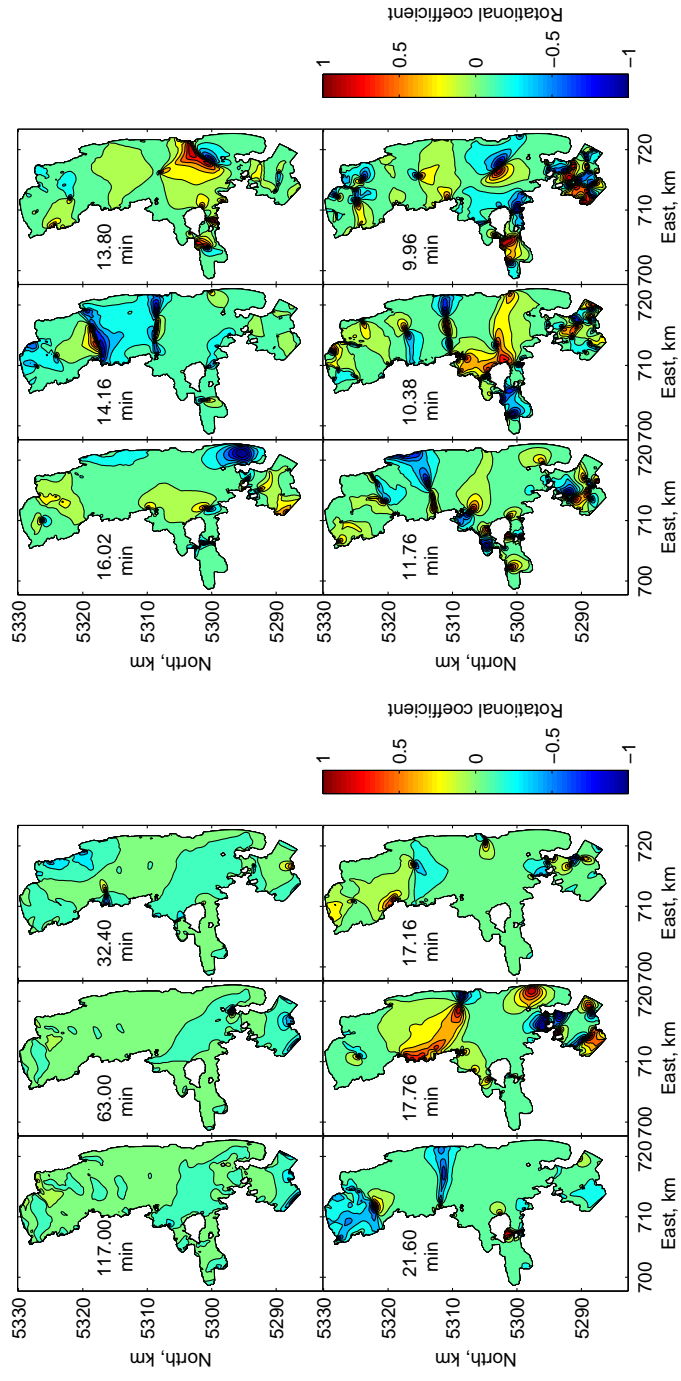


Figure S3: Rotary coefficients for all free oscillation modes except those discussed in the main text (see Fig. 8)

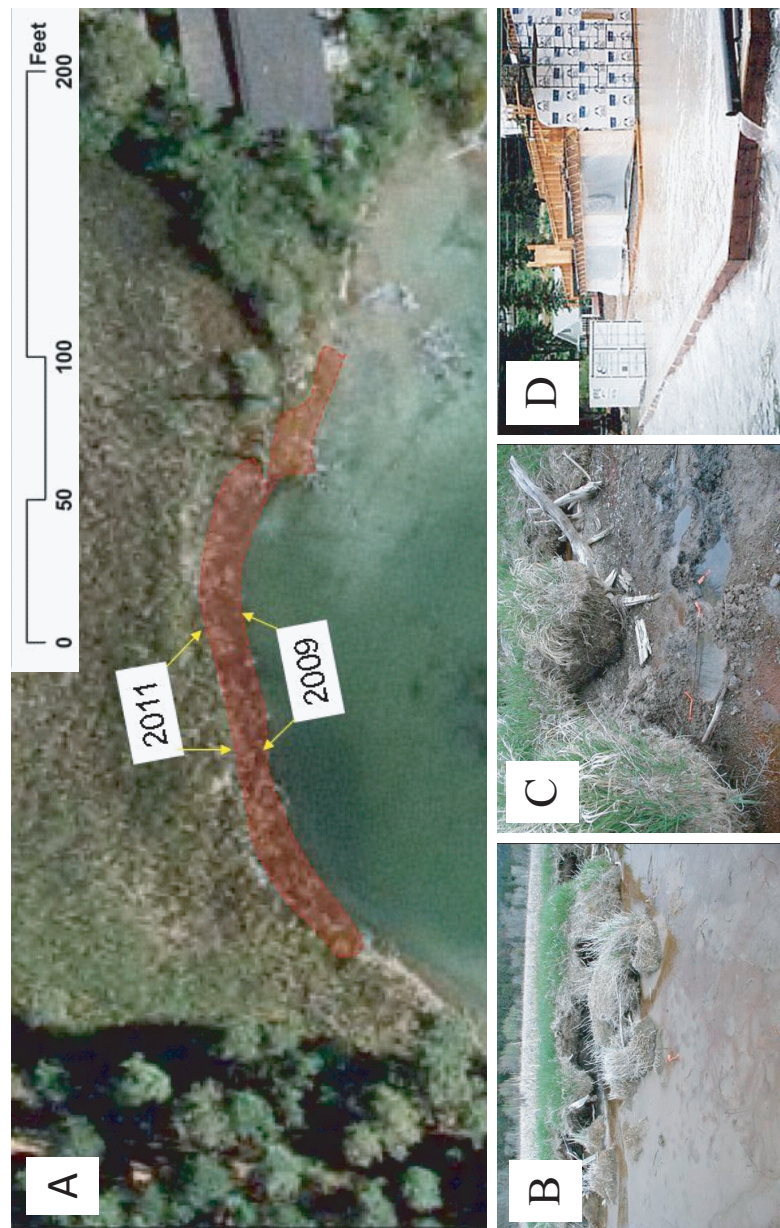


Figure S4: Seiche effects on the lake shoreline: (A) Shaded area shows a zone of shoreline positions ranging from 2005 to 2014 bounded by years 2011 and 2009 reflecting storm induce shoreline retreat due to wave-water level processes and shoreline advance due to emergent aquatic plant growth, (B) and (C) several meters of bank collapse in Polson Bay in 2002 due to wave-water level processes that cause erosion over 1 full pool season (2001). (D) A photograph of a condominium in Sommers Bay flooded by water from the lake which is located immediately left in the photograph. Flooding occurred during a sudden rise in local water level which is attributed to a seiche motion.