

Interactive comment on “Active subglacial lakes beneath the stagnant trunk of Kamb Ice Stream: evidence of channelized subglacial flow” by B.-H. Kim et al.

Anonymous Referee #2

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This manuscript documents the discovery of two new subglacial lakes beneath the currently stagnant portion of Kamb Ice Stream, West Antarctica, from CryoSat-2 satellite radar altimetry and ICESat satellite laser altimetry. This is a novel observation and extends our knowledge of subglacial hydrology and ice dynamics in this region. Additionally, it provides context for understanding centennial-scale ice-stream stagnation and reactivation cycles, which are currently an important control on ice-sheet mass balance in this sector of West Antarctica. Finally, this work provides an example of using decades of observations of altimetry data – data which should be used more often – to understand subglacial hydrology and dynamics. This work has the potential to substantially add to our knowledge of subglacial hydrology and presents

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new techniques for analyzing long time series of satellite altimetry data. However, as currently written, there are organizational and scientific issues that must be addressed before publication

Please also note the supplement to this comment:

<http://www.the-cryosphere-discuss.net/tc-2016-96/tc-2016-96-RC2-supplement.pdf>

Interactive comment on The Cryosphere Discuss., doi:10.5194/tc-2016-96, 2016.

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