



Thule subsidence from GNSS and DORIS

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Making use of the GNET GNSS receiver in Thule and the co-located DORIS station, we analyze the vertical displacement of that site over the past 15 years from the coordinate time series as output of the CNES/CLS IDS (International DORIS Service) and IGS (International GNSS Service) analyse centers based on the same processing tool 5GINS software).

The first objective of this study is to compare the trends and signal content of the GNSS and DORIS coordinate time series. The second purpose is to evaluate the vertical velocities with respect to the ITRF2014 estimations as well as to Global Isostatic Adjustment models such as ICE-6G_C. Then, the vertical displacement will be also analyzed with regards to the local mass balance as observed by the GRACE mission. Three periods will be of special concern: until mid-2006, from mid-2006 to early 2013 and after early 2013.