**Name:** Davies Dome glacier

**Study sites codes:** WG

**Coordinates**: 63°52’–638°54’ S, 58°01–58°06’W

**Altitude:** 0 – 514 m a.s.l.

**Site description:**

Davies Dome is an ice dome that originates on flat volcanic mesa at > 400 m a.s.l. and terminates as a single 700 m wide outlet in Whisky Bay. The glacier is situated in the Ulu Peninsula, James Ross Island. The glacier has area of ca. 6.5 km2.

**Measured parameters**

* Ablation stakes’ height
* XYZ coordinates of glacier’s surface at ablation stakes
* Glacier’ s thickness

**Device information**

* XYZ coordinates: dGPS transiever Trimble XXXX
* Glacier thickness: georadar with unshielded 50MHz Rough Terrain Antenna and RAMAC CU-II control unit. The signal acquisition time was set to 2040ns, and scan spacing ranged from 0.2 to 0.3m.

**Period**

* *ablation stakes’ height and XYZ coordinates:* 2008 - 2016

**Interval of measurement**

* *Ablation stakes’ height:* annually (beginning of February)
* *XYZ coordinates of glacier surface at ablation stakes:* annually (beginning of February)
* *Glacier’ s thickness:* single measurement in summer, 2010

**Notes**

* *Number of ablation stakes:*
	+ *2008*
	+ *2009*
	+ *2010*
	+ *2011*
	+ *2012*
	+ *2013*
	+ *2014*
	+ *2015*
	+ *2016*
* Ablation stakes’ height was recorded with common scale and rounded to the nearest centimeter. If the stake was tiled, vertical distance to glacier’ s surface was measured as well as length of the stake that is emerged above the glacier.
* XYZ coordinates were recorded with dGPS transiever that was placed at each stake for 180s. Data were further post-processed with use of reference station at XY. Precision of gathered XY coordinates was XX and Z coordinates was XX.

**Published data**

Engel, Z., Nyvlt, D., & Laska, K. (2012). Ice thickness, areal and volumetric changes of Davies Dome and Whisky Glacier (James Ross Island, Antarctic Peninsula) in 1979 – 2006. *Journal of Glaciology*, *58*(211), 904–914.

**Contact Person**

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* Zbyněk Engel (engel@natur.cuni.cz) for glacier’s thickness data