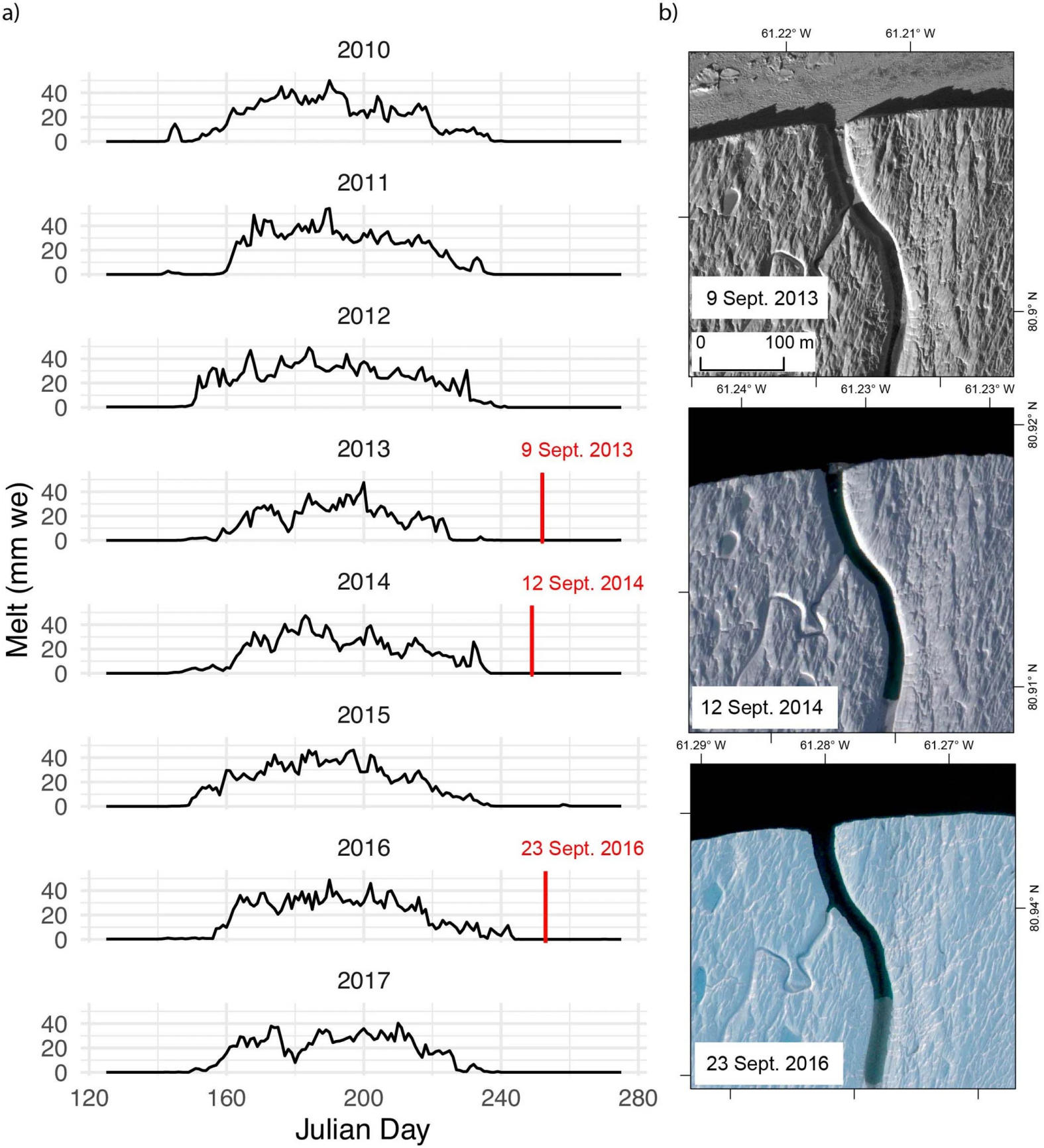
Extended Data Fig. 1: Ocean water atop the Petermann Ice Shelf after the melt season.

From: Development of ice-shelf estuaries promotes fractures and calving



a Modèle Atmosphérique Regional v. 3.9 (MAR) average daily ice-surface melt averaged across the Petermann Ice Shelf from 2010 to 2017. The red dotted lines show earliest indication of seawater in the channel after the melt season as identified in high resolution WorldView-1 and WorldView-2 satellite imagery (Extended Data Table 2). **b** The first evidence of water atop the ice shelf was collected by WorldView-1 in 2013 (top). Note that break in the shadow cast by the ice-shelf

terminus at the Petermann river channel confirms a direct connection between the ice shelf and the ocean. Multispectral WorldView-2 images collected in 2014 (middle) and 2016 (bottom) show water in the channel directly connected to the ocean and an absence of surface meltwater elsewhere on the ice shelf. Credit: b, (2013, 2014, 2016) DigitalGlobe, Inc.

Back to article page ›

Nature Geoscience (*Nat. Geosci.*) | ISSN 1752-0908 (online) | ISSN 1752-0894 (print)