Context for the Recent Massive Petermann Glacier Calving Event

On 4 August 2010, about one fifth of the floating ice tongue of Petermann Glacier (also known as “Petermann Gletscher”) in northwestern Greenland calved (Figure 1). The resulting “ice island” had an area approximately 4 times that of Manhattan Island (about 253±17 square kilometers). The ice island garnered much attention from the media, politicians, and the public, who raised concerns about downstream implications for shipping, offshore oil and gas operations, and possible connections to Arctic and global warming. Does this event signal a change in the glacier’s dynamics? Or can it be characterized as part of the glacier’s natural variability? Understanding the known historical context of this event allows scientists and the public to judge its significance.