

5. As a further illustration of the uncertainty, we calculated the balance flux by using the same mass balance models (1, 2) that Rignot *et al.* used to be 43 to 49 cubic kilometers per year depending on the resolution of the applied digital evaluation model. When compared with the findings of Rignot *et al.*, this result suggests that the uncertainty of the balance discharge is 5 to 10 cubic kilometers per year.
6. H. H. Thomsen *et al.*, *Geol. Greenland Surv. Bull.* **176**, 95 (1997).

Response: We agree with Reeh *et al.* that mass accumulation of the Greenland ice sheet is based on sparse data from a 5- to 10-year accumulation and that it may deviate as much as 10% from the long-term value. We also agree that the estimate of surface melt above the grounding line may have a 10% uncertainty. The uncertainty of the ice volume grounding line discharge was quoted as 10% in our report. Therefore, the mass budget for the north Greenland ice sheet reads as a net loss of 8 ± 7 cubic kilometers per year, a result that we believe is suggestive of a negative mass balance.

We measured the ice thickness of Nioghalvfjerdthord Gletscher with an airborne ice-sounding radar (ISR) that provided a continuous, smooth profile of measurement points, in good agreement with laser altimetry data over the floating portion of the glacier. As shown in our report, the ISR profile is located close to the glacier margin, where ice is presumably thinner than in the center of the glacier. We measured a thickness of 650 meters at the grounding line. Comparison of the ISR data collected at the Greenland summit with the Greenland ice core values showed that the ISR measurements were within ± 10 meters of the actual thickness. We are therefore confident that the ISR measurements are accurate.

Glacial ice thickness may vary significantly over space, especially near the grounding line, where basal melting is pronounced. On Petermann Gletscher, we measured a 250-meter decrease in ice thickness over 20 kilometers, with 200-meter peak-to-peak variations immediately past the grounding line. The ice core drilled by Reeh *et al.* to determine basal melt must have been done past the grounding line, at a point where ice thickness is decreasing rapidly.

To calculate surface melt, we used a high-resolution digital elevation model produced by our colleagues at the Kort and Matrikelstyrelsen institute. The result quoted by Reeh *et al.* in their reference (5) is consistent with our calculations. The 10% residual difference may result simply from the precision with which Reeh *et al.* located the glacier grounding line without using radar interferometry data.

As Reeh *et al.* state, field studies remain an essential component in our efforts to determine the mass balance of the Greenland ice sheet. Our study contains early results that are part of the larger Program for Arctic Regional

Climate Assessment (PARCA) funded by the U.S. National Aeronautics and Space Administration (NASA). The program includes shallow ice coring for snow accumulation, automated weather stations for surface melt and energy balance studies, airborne ice sounding radars for measuring ice thickness, and repeat-pass laser altimetry for noting changes in ice-sheet volume.

Eric Rignot

Jet Propulsion Laboratory,
Pasadena, CA 91109-8099, USA
E-mail: eric@adelie.jpl.nasa.gov

S. P. Gogineni

University of Kansas,
Lawrence, KS 66045-2969, USA

W. B. Krabill

NASA Goddard Space Flight Center,
Wallops Flight Facility,
Wallops Island, VA 23337, USA

S. Ekholm

Kort og Matrikelstyrelsen,
Geodetic Division
DK-2400 Copenhagen NV, Denmark



Squirming over "Grant Writing"

For years, I have squirmed when hearing my colleagues or students speak of "writing a grant" when they meant writing a grant proposal, or grant application. Now this misuse has been sanctified by *Science* in Marcia Barinaga's article "UCSF case raises questions about grant idea ownership" (5 Sept., p. 1430). Couldn't *Science* do something to stop me from having to squirm, for this reason at least?

Warren S. Wooster

School of Marine Affairs,
University of Washington,
3707 Brooklyn Ave. NE,
Seattle, WA 98105-6715, USA
E-mail: wooster@u.washington.edu

Wooster is correct. We will do our best to help him avoid squirming for this reason in the future. Eds.

Letters to the Editor

Letters may be submitted by e-mail (at science_letters@aaas.org), fax (202-789-4669), or regular mail (*Science*, 1200 New York Avenue, NW, Washington, DC 20005, USA). Letters are not routinely acknowledged. Full addresses, signatures, and daytime phone numbers should be included. Letters should be brief (300 words or less) and may be edited for reasons of clarity or space. They may appear in print and/or on the World Wide Web. Letter writers are not consulted before publication.



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