

## Letter to the editor

### Changes at Peter I Øy

Peter I Øy, a remote Norwegian territory, is one of the most rarely visited of the peri-Antarctic islands. Since the last Norwegian research visit, in 1987, approximately 10 tourist ships have been to the island, and about half of these have made landings. Where practical, reports have been sent to the Norwegian Polar Institute and other interested parties. I have made five visits, landing during four of them, while employed by Quark Expeditions to lecture on Antarctic history and geography aboard *Kapitan Khlebnikov*. My most recent visit, on 21 November 2006, demonstrated the continual geological erosion of the coast. In 2004 at Pingvinholet there was a splendid triple natural arch: the outer arch was formed by black basaltic deposits, and the inner one was capped by a stratum of red oxidized larva. The third arch was the result of a basalt flake slipping and propping itself against the middle column. The sea penetrated through all three arches so that it would have been possible, although reckless, to take a small boat through the largest of them. In late 2006, while sailing from South America to New Zealand near the Antarctic coast, I noted the entire inner section had collapsed. Only one large arch now remains and this no longer admits the sea. The collapse of both the cap of red larva and supporting pillar has formed a pile of rubble several metres above the sea.

In the vicinity is Framnæsodden, where the island was claimed for King Haakon VII on 2 February 1929 and a hut was deployed. Another was placed there on 10 February 1948. It was possible to examine the flatter portion of the hexagonal basaltic cape where the huts had stood, but no trace of either of the structures remains. Landings



What remains of Pingvinholet, photographed on 21 November 2006 (Robert K. Headland).

were made on the steep beach just to the south of Pingvinholet, where about 90 people went ashore for brief periods. The upper reaches of the site, which is the outer part of the Pingvinholet arch, were occupied, as usual, by several chinstrap penguins (*Pygoscelis antarctica*), and above that Antarctic fulmars (*Fulmaris glacialisoides*) were abundant. During the visit several large boulders dropped from the vertical cliffs, and several large, freshly fallen, ones lay on the beach. The visitors kept well away from these cliffs. The natural arch, perhaps better described as a natural tunnel, owing to its length, at Tsarsporten has remained unchanged since previous visits. The small beach immediately to its north is usually a haul-out for elephant seals (*Mirounga leonina*). Remains of the automatic meteorological station may still be seen on the sea stack Tvistein.

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