Sufficient has been written in this review to indicate the interest and usefulness of this book. It comprises large sections of prose from the author based upon Goldsmith's diary together with shorter direct quotations from that document. The problem with this approach is that in the former part of the text it is not at all clear how much of the writing, and most importantly, what proportion of the opinions expressed, are those of the author and how much derives directly from the diary. This is unsatisfactory and in this reviewer's opinion it would have been much better if the diary had been printed *in toto* with the author inserting such editorial apparatus as she considered necessary. In particular, this comment is of importance in considering the question of the privations suffered by the party. The author stresses this several times and quotes Fuchs that 'apart from Scott's marooned northern party theirs was the most severe ordeal in the history of Antarctic exploration.' This reviewer is second to none in his admiration of the work of the advance party, as revealed in this book, but surely that is overstating the case more than somewhat.

The presentation of the book is attractive. There are some excellent photographs and interesting plans, of, for example, the interior of the crate itself. Everyone with interests in the twentieth century history of the Antarctic should read this book. (Ian R. Stone, Scott Polar Research Institute, University of Cambridge, Lensfield Rd., Cambridge CB2 1ER.)

DRIFT STATION: ARCTIC OUTPOSTS OF SUPER-POWER SCIENCE. William F. Althoff. 2007. Dulles, VA: Potomac Books. xiv + 355 p, illustrated, hard cover. ISBN 1-57488-771-8. $US39.95.
doi:10.1017/S0032247408007602

In the summer of 2006, on the helicopter deck of the Russian icebreaker *Yamal*, I took a picture of two Russians. The nuclear vessel had just ploughed its way to the North Pole, and the expressions on the faces of the Russians revealed the emotional intensity of their pride in the power and skill of Russian engineering, navigation, and ice-piloting. This is our realm, their expressions said, because we can gain the top of the world at will.

Russia has been reaching the North Pole more or less at will since 1937 — almost as long now as the whole history of the Soviet period — so a feeling of competence in high Arctic operations is well-justified. In recent months, as during the Stalin era, Russian claims to the north are again rattling the west. So this history of scientific drift stations — with its central focus on Russian polar operations and published at a moment in world history that feels more and more like cold war II — would seem destined to command a wide audience in academic, military, and political circles. Unfortunately, what could have been a valuable introduction to an important chapter in the history of Arctic exploration and a primer on Russian–U.S. scientific competition in the Arctic, is undone by a writing style so obtuse as to create a work of near-insensibility.

The history follows the tracks of drift stations across the polar basin from the Soviet *Severnyy Polyus 1* (SP-1, or North Pole 1) station in 1937 to recent millennial Russian attempts to regenerate their Arctic research programme after the long bad decade of the 1990s. The obligatory introduction to polar exploration history is written as classic heroic materialism, understandable since the bibliography does not reveal any secondary sources on the subject published in the last 40 years. Expeditions are 'brilliantly executed,' engineers like Andrei N. Tupolev are invariably 'geniuses,' and the *SP-1* hut at St Petersburg's Russian State Museum of the Arctic and Antarctic is a 'holy relic.' The author categorises the press releases issued from Moscow during the *SP-1* mission as 'Stalinist-style prose, a mélange of bombast, information, and rhetorical excess' (page 47). It is as good a description as any of the book itself.

The historical background largely begins and ends with Nansen and the *Fram* expedition, and even this abbreviated chronology stumbles. One would believe that no oceanographic research had been done in the north prior to the arrival of Nansen. *Fram* is 'the first vessel designed for scientific sailing' (page 8), although any number of legitimate claimants preceded *Fram*, including USS *Albatross* (1882) and Leigh Smith's *Eira* (1880). *Eira* was also 25 years ahead of *Fram* in sounding the Arctic Ocean and discovering temperature inversion layers in the deep ocean there.

The author delineates the Russian Arctic sector as a triangle formed by the extreme northeastern and northwestern points of the country with the North Pole at the top, then asserts that the 'seasonal Norwegian settlements on Franz Josef Land [Zemlya Frantsa-Iosifa] lay beyond this claim' (page 16). Franz Josef Land, of course, lies nearly smack in the middle of the Russian Arctic sector and, in any case, Norway was not able to plant a settlement there before the Soviet Union raised their flag on Hooker Island in the summer of 1929 (not 1928, as written here).

The text is sprinkled with general observations followed by simplistic aphorisms. For example: 'Storms are frequent in the Franz Josef group; man has to abide his chances' (page 40). Well, yes, of course he does, and not just because there are a lot of storms in Franz Josef Land. Synonyms are given a hard workout throughout, while the antique vocabulary ('moil,' 'proffered,' 'drear'), passive writing, and purple sentences ('Theirs proved a trail to break the heart,' or 'Thus was parted the curtain of mystery for that far sea') is more appropriate to 1907 than 2007.

Ice, ships, and aircraft are personified (vessels become 'reckless' and 'purchase sure destruction'), while people and places are introduced with little regard for their identity (Valeriy Chkalov appears first only as 'Chkalov' (page 26)), or biography (Nansen appears to have won his

Nobel Peace Prize before he ever heard of a *Jeannette* relic), or history (Christiania becomes Oslo 10 years ahead of time and the appendices list the *Fram* expedition as occurring from 1883–1886). Commenting on the Soviet aviator Mikhail Vodopyanov's participation in the *Chelyuskin* rescue, we find this: '"Certainly the brightest page in his biography," Leningrad told the author' (page 36). What on Earth does that mean? Did the city of Leningrad tell him something? Did he glean this feeling while walking around Leningrad? Is there a reason the Soviet name is used rather than St. Petersburg? This is personification personified.

It is disappointing that the sections dealing with the history of Soviet aviation do not go deeper than their Soviet-era secondary sources, particularly given the author's previous work in aviation history and his visits to Russia. This is especially true with regard to the momentous events on Rudolf Island in 1937–1938, when a series of Soviet aeronautical triumphs was almost immediately followed by an equivalent number of catastrophes. Without the base at Teplitz Bay and the airfield on Rudolf Island's ice dome — the northernmost point of land in the European Arctic — Soviet polar operations and the drift stations they supported, would have been impossible. The author could have benefited from a study of recent and well-written examinations of Soviet Arctic bureaucracy, such as McCannon's *Red Arctic,* as he sought to explain the machinations of the Central Agency for the Northern Passage (*Glavnij severnij morskij put*, or Glavsemorput).

Drift station is a missed opportunity to describe, in straightforward terms, the power of the Arctic in the Russian imagination. With a resurgent Russia laying new claims to a warming polar ocean, understanding this imaginative power as it affects the real decisions of the Russian bureaucracy has assumed new importance. Such understanding cannot be found here, because in the end the author could not decide where to place his emphasis: history of science? exploration? technology? climate change? international relations? In the end, it doesn't matter. The unyielding prose takes what should have been a helpful narrative and breaks it as quickly as *Yamal* carves up pack ice in mid-summer. (P.J. Capelotti, Division of Social and Behavioral Sciences, 103 Rydal Building, Penn State University Abington College, Abington, PA 19001, USA.)

Reference

McCannon, J. 1998. *Red Arctic: polar exploration and the myth of the north in the Soviet Union, 1932–1939*. New York: Oxford University Press.

SOUTH BY NORTHWEST: THE MAGNETIC CRUSADE AND THE CONTEST FOR ANTARCTICA. Granville Allen Mawer. 2006. Edinburgh: Birlinn. 320 p, illustrated, hardcover. ISBN 1-84158-501-7. UK£25.00; US$39.95.
doi:10.1017/S0032247408007614

It is the morning of 1 June 1831. James Clark Ross unpacks his dip circle and after a moment of delay its needle swings to the vertical. Later that day, confident of his measurements, he piles rocks to form a cairn and plants his silk flag at the North Magnetic Pole. Ross knew that he could not fix a precise place for this wandering mark and, indeed, that such precision might be beyond the capability of his instruments, but the attainment of that spot, barren and empty, would quickly become the expedition's most celebrated achievement. Unlike his uncle John, who took much credit for the discovery and promoted himself vigorously upon their return to England in 1833, James was more reticent about their 'prize.' 'If popular conversation gives to this voyage the credit of having raised its flag on the very point,' he would later write, 'on the summit of that mysterious pole which it perhaps views as a visible and tangible reality, it can now correct itself as it may please; but in such a case. . .the very nonsense of the belief gives an interest to the subject which the sober truth cold not have done.'

The history of exploration is full of symbolic, perhaps futile, moments and gestures of performance such as this: conquests in the absence of any obvious features, the ambition to replace blank spaces on the chart with a few lines and yet another blankness. In this sense the study of terrestrial magnetism, and its extension as an observational field science, suffers from a similar aesthetic: invisible, intangible, difficult to grasp. In the course of Granville Allen Mawer's entertaining study, the reader is given glimpses of these elaborate acts of discovery through which explorers attempted to capture the interest of their supporters and the public at large, whilst sometimes exposing themselves to undue criticism within the scientific community in the process. As rituals of possession and territorial control — exercises both of symbolic and intellectual sovereignty — exploration was the ideal partner for the 'crusade' to discover the secrets of the magnetic Earth, and Mawer's book provides us with a very helpful point of entry into this subject. At its simplest, *South by northwest* is an account of the search for the South Magnetic Pole, a 'quest' that eluded the rival French, American, and British expeditions sent to find it in the late 1830s and early 1840s. It was a challenge that also defeated their successors — Ernest Shackleton and Douglas Mawson — at the turn of the century, before it became a target of increasing relevance (or irrelevance, you might say) to the progressive unveiling and claiming of the continent. The desire to be the first to attain the Magnetic Pole attracted disputes over priority, rival claims, scientific ridicule, and contrasting newspaper accounts; all of which provide the colourful background to Mawer's narrative of events.

The reader is also introduced to activities far from the field. Mawer pays due attention to the role of the British