of bergs without mishap; guided and protected by a Higher Power...

While much of this detail is found in the rare twovolume account by Mawson (Mawson 1915), or to a lesser extent later abridged versions, as well as Davis' published diaries (Crossley 1997), this unbroken, detailed narrative most effectively conveys the extreme circumstances and conditions.

Davis dramatically extracted the Western Base members from the Antarctic, but without sufficient resources to then relieve the Main Base a second time that season. Once back in Australia, he had to face the responsibility of raising the funds for a relief voyage the next summer. As was typical in this period, he does not delve into his feelings in such matters. The only hint is to be found in the preface, where he wrote he had difficulty in expressing what the assistance of Professors T.W. Edgeworth David, and Orme Masson had meant to him. Raising the necessary funds involved travel back to England, where it may have been made more difficult in the aftermath of the death of Robert Falcon Scott's sledging party. That Davis succeeded, and then discharged his remaining duties to conclude the expedition, makes it all the more impressive.

It is hard to fully explain why there is not greater British familiarity with the Australasian Antarctic Expedition, particularly given the strong connections, including no less a person than Davis himself, although he later resided in Australia. Scott's demise, as well as the later Shackleton endeavours (for which Davis declined being appointed) are only partly an explanation. Hopefully this superb facsimile will help to rectify this. (Mark Pharaoh, Mawson Centre, South Australian Museum, North Terrace, Adelaide, South Australia 5000, Australia.)

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UNKNOWN WATERS: A FIRST-HAND ACCOUNT OF THE HISTORIC UNDER-ICE SURVEY OF THE SIBERIAN CONTINENTAL SHELF BY USS *QUEENFISH* (SSN-651). Alfred S. McLaren. 2008. Tuscaloosa: University of Alabama Press. xxiv + 243 p, illustrated, hard cover. ISBN 978-0-8173-1602-0. doi:10.1017/S0032247408008115

This book deals with the under-ice Arctic voyage of the submarine USS *Queenfish*, the first of the *Sturgeon* 

class nuclear attack submarines, designed specifically to operate beneath the ice of the Arctic Ocean, and with a total complement of 105 men. Her captain, Alfred McLaren, was mandated to retrace the route of the submarine *Nautilus* from Bering Strait north to the North Pole, to compare ice conditions in 1970 with those reported by *Nautilus* in 1958. Thereafter he was to carry out an under-ice survey of the Siberian continental shelf in the Laptev, East Siberian, and Chukchi seas.

Queenfish had been commissioned in December 1966, and McLaren took command of her in August 1969. She put to sea from Pearl Harbor on 6 July 1970, and after calling at Seattle, passed through Bering Strait on 30 July. Having negotiated the hazards of deep-drafted floes in the shallow waters of the Chukchi Sea, which on one occasion gave her a clearance of only 30 feet above and below, having narrowly missed an unexpected iceberg, and having surfaced several times in polynyas, she reached the North Pole, where she surfaced, on 5 August. By then McLaren had perfected the techniques of locating polynyas and surfacing vertically in them. Before heading for the Laptev Sea, McLaren started south along the meridian of 25°E to investigate the Gakkel Ridge, where the configuration of the ridge suggested possible volcanic activity.

On 10 August, Mys Arktichesky, the northern tip of Severnaya Zemlya, was sighted through the periscope and then the survey of the Siberian continental shelf began. Staying out beyond the Russian 12-mile limit, *Queenfish* looped southeast, east, and northeast across the Laptev Sea. The seabed was found to be extremely irregular with numerous sea-mounts or possibly submarine pingos; these combined with deep-drafted floes made for a very tense experience for all concerned.

On 16 August, a Soviet convoy consisting of an icebreaker, a tanker, and four freighters was spotted through the periscope, and on the 18th a mother bear with two cubs was sighted and photographed through the periscope. Swinging around the north side of the Novosibirskie Ostrova, *Queenfish* entered the East Siberian Sea on 21 August. Here, too, conditions were found to be very challenging, with an irregular sea-bed and deepdrafted ice floes. Late on 22 August the submarine found herself in an impasse: deep-drafted floes ahead and close on either side, only 10 feet of water beneath her keel and only 10–15 feet between the top of the sail and the ice above. The difficult manoeuvre of reversing out of this situation lasted about an hour.

Passing north of Ostrov Vrangelya on the night of 24/25 August, the submarine reached open water in the Chukchi Sea on 27 August. During her under-ice voyage she had attempted surfacing through the ice 30 times, 22 times successfully. She emerged through Bering Strait on 29 August, and, after receiving an initially unfriendly welcome at Nome, Alaska, where she was at first mistaken for a Soviet submarine, she was back at Pearl Harbor by 11 September.

Throughout his account, for security reasons McLaren is somewhat vague as to his exact course; thus the somewhat cryptic phrase 'the contour of interest' recurs quite frequently. For those interested in such things, the technical details of the submarine are covered in considerable detail. However this reviewer found the excessive use of abbreviations somewhat tedious and confusing; some 31 abbreviations are listed in a glossary. Many of then seem superfluous, for example, it is not necessary to refer to an iceberg detector as an IBD.

Previous exploration of these Arctic waters is covered adequately. However, McLaren has relied on only two sources, namely Holland (1994) and McCannon (1998). While these are excellent secondary sources, it would be useful to have reference to some primary sources, all of which would have been easily accessible to McLaren while working on his MPhil degree at the Scott Polar Research Institute. The total absence of Russian-language sources is particularly noticeable.

The title of the book, and the recurring comment that these waters were unexplored, are also troubling and misleading. While the detailed bathymetry of the Laptev, East Siberian, and Chukchi seas was undoubtedly unknown to the United States Navy in 1970, the characterisation of these waters and of their ice-cover as 'unknown' does a great disservice to the scientists and men of the USS Jeannette (1879–1881), of Fridtjof Nansen's Fram (1893–1896), of Baron Toll's Zarya (1900–1902), of the Tsarist Russian icebreakers Taymyr and Vaygach (1910–1915), and of the Soviet research vessel Sadko, which along with Georgiy Sedov and Malygin drifted around the Laptev Sea, beset in the ice for the winter of 1937–1938. Soundings, water sampling, and ice-observations were carried out in these waters on a regular basis by all of these vessels.

The number of mistakes in the spelling of place-names is rather unexpected. Thus, 'More Lateryka' (page 132) should be 'More Laptevykh'; 'Lotel'ny Island' should be 'Kotel'ny Island'; and 'Maly Lyakhov Stolbovoy Island' is in fact two islands, 'Maly Lyakhov' and 'Stolbovoy'. And the description of the trans-polar drift as having an 'easterly set' (page 165) is not one to be expected in a book dealing primarily with navigation. (William Barr, Arctic Institute of North America, University of Calgary, 2500 University Drive NW, Calgary AB T2N 1N4, Canada.)

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ICE CAPTAIN: THE LIFE OF J.R. STENHOUSE. Stephen Haddelsey. 2008. Stroud: The History Press. xviii + 238 p, illustrated, hard cover. ISBN 978-0-7509-4348-2. £20.00.

In recent years, much attention has been drawn to the long-neglected Ross Sea party of Sir Ernest Shackleton's Imperial Trans-Antarctic Expedition (ITAE) (McElrea and Harrowfield 2004; Tyler-Lewis 2006). As most readers of this journal know, this part of the expedition was tasked with laying supply depots across the Great Ice Barrier to the base of the Beardmore Glacier, so that food and fuel could be picked up en route by Shackleton's transcontinental party. But just as events failed to go according to plan on Weddell Sea side of Antarctica, they went awry in the Ross Sea as well. On 6 May 1915, while 10 members of the expedition, including Æneas Mackintosh, the commander of the Ross Sea operation, were ashore, the expedition ship Aurora, ice-bound off Cape Evans, was caught in an intense blizzard. The wires and chains mooring her to the shore snapped with the sound of gunshots, and Aurora, still helplessly enclosed in a vast slab of ice, was blown out to sea.

Previous accounts of the Ross Sea part of the expedition have concentrated on the grim conditions and backbreaking labour that faced the 10 marooned men, three of whom, including Mackintosh, died before they could be rescued in 1917. But in *Ice captain*, the focus is rather on the dramatic story of what happened to those still aboard the ship as it drifted aimlessly north and west for the next 312 days. The figure who truly stood out in the midst of that drama was the man who had been hired as chief officer of Aurora, but who, with Mackintosh ashore, became her de facto captain: J.R. Stenhouse. It was Stenhouse who held the crew together during their long imprisonment in the pack ice, and who then guided the broken ship, with no anchors, a jury rudder replacing the original damaged one, and running out of fuel, across some of the most terrible seas in the world to Port Chalmers, New Zealand. And it was Stenhouse who then immediately began preparations for a relief expedition for his abandoned comrades, an effort that would involve almost unprecedented political wrangling with three different governments and numerous individuals before it could finally get under way. When it did, Stenhouse somehow had been left behind.

Remarkably, this series of events was only one of many dangerous and thrilling episodes in the life of Stenhouse, a man who, despite a raft of rare seafaring accomplishments, has remained relatively unknown. Now his story comes to light in the sure hands of Stephen Haddelsey, who only three years ago gave us a biography of Frank Bickerton, another little-known Antarctic personality who went on to live a life of high adventure (Haddelsey 2005). And like Bickerton, Stenhouse seemed to experience one exhilarating job or incident after another, leaving the reader to wonder if anyone else could have been exposed to so many, and such a variety of, encounters with history.

Born in 1887, Stenhouse went to sea at the age of 16, and like so many of his generation fell in love with the great sailing ships even as their era came to a close. He reached manhood in the tough, physical environment aboard ships, having loaded nitrates in Chile, coconuts and corals in the South Pacific, and timber in Vancouver,

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