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Captain Scott's last camp, Ross Ice Shelf

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On 19 March 1912, Captain R.F. Scott, Dr E.A. Wilson, and Lt H.R Bowers reached a latitude of 79° 40′S during their return journey from the South Pole. There they camped and were fatally delayed by a blizzard. The date of Scott's last diary entry is 29 March 1912 and he died on, or shortly after, that date, with his two companions, of starvation and cold. They had left their base at Cape Evans in stages from 24 October 1911 with a party of 16. Relay parties returned on 11 and 21 December 1911, and on 4 January 1912. Five men attained the South Pole on 17 January 1912 where they found that an expedition, led by R.E.G. Amundsen from Norway, has preceded them on 14 December 1911. 33 days had elapsed between the departure of the Norwegian party from the pole and Scott's arrival there. During the return journey over the Ross Ice Shelf, roughly along the 169°E meridian, two of the party of five died: E. Evans on 17 February 1912 and L.E.G. Oates on, or shortly after, 16 March 1912.

The last camp was found by a search party on 12 November 1912. Inside the tent were the three frozen explorers, their diaries and last letters, other records, exposed photographic film, geological specimens, and equipment. The site was carefully examined. Scientific and geographical items (including navigation calculations, film, and sketch books), personal papers and letters, a letter to King Haakon of Norway from Amundsen, and a few artefacts (including some left by Amundsen), were gathered. The bodies in their sleeping bags, with the tent, which was collapsed over them, their sledge, and other equipment were left. A large cairn of snow blocks, surmounted by a cross made from ski, was erected over the site. The last camp was only 11 nautical miles (20 km) from One Ton Depôt, which had been placed at 79° 28′ 53″S, 169° 22′ 04″E for the returning polar party. It was approximately 220 km from the safety of the shelter at Hut Point on Ross Island and a further 26 km across sea ice to the base at Cape Evans.

A century later there is much interest in the whereabouts of the last camp. Near its position in 1912 the Ross Ice Shelf is approximately 110 m thick and afloat on the southernmost part of the Ross Sea where it experiences tidal movement. The last camp is moving slowly towards the ice front while being buried deeper in the ice shelf as snow accumulates and consolidates. Flow lines indicate that the trajectory of the camp will be around Ross Island and will reach the Ross Sea to the east of Cape Crozier (77° 31′S, 169° 24′E) in a journey of about 240 km finishing at or near the 175°E meridian (Thomas and others 1984). Measurements made during two years from 1960 indicate that the ice 170 km north of the camp is moving at 556 m annually in a direction of 003° (Swithinbank 1970). In the vicinity of 78° 50′S Scott's expedition reported the ice moving at 'one mile in three years' [approximately 620 m annually] (Debenham 1923). The ice movement increases towards the ice front to about 690 m annually (Swithinbank 1970). The snow fall and subsequent consolidation are difficult to measure due to drift and blizzards, but an ice accumulation of 15 cm annually near the last camp and increasing to 20 cm near the ice front has been determined (Thomas and others 1984). Thus, in a century, the last camp may be estimated to have moved approximately 60 km horizontally and have become buried by 16 m of ice.

These data suggest that the last camp may reach the position of the current ice front in around the year 2,250; some 340 years after the journey began. It will then be about 100 m deep in the ice shelf, and well below sea level. Owing to a balance of surface accumulation and bottom melting the ice front is about 140 m thick near the end of the trajectory. These calculations are subject to several uncertainties. The largest of these, when the last camp might reach the Ross Sea, involves the calving of the ice front. The normal course of events at the ice front is for a long period (on the order of half a century) of advance followed by a calving of an iceberg that displaces the ice front southward (by as much as 50 km, such as happened in 2001 when the massive iceberg 'B-15' calved from the shelf). That means that it is extremely unlikely that the bodies will emerge from a submerged part of the ice shelf, but instead, will be carried off within an iceberg when they get close enough to the ice front. Their final resting place will then be dependent on the ocean currents, the size of the iceberg, how it melts and breaks, whether the piece that holds the bodies ever capsizes, and other imponderables. In forthcoming centuries there may be major perturbations in the dynamics of the Ross Ice Shelf responding to climatic variations. In any event it seems certain that the bodies of Scott, Wilson, and Bowers, followed in due course by those of Oates and Evans, will ultimately be committed to the deep.

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