CONCISE CHRONOLOGY OF APPROACH TO THE POLES

The following Antarctic and Arctic lists give explorations, in chronological order, of expeditions which reached positions progressively closer towards the South Pole and North Pole, their attainment (air and surface, and by sea in the Arctic), and the first crossings of the regions. They include claims that are unverified and extremely doubtful, although some of these pretensions have been well publicized.

R. K. Headland
Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge, United Kingdom, CB2 1ER.

ANTARCTIC

1603 Gabriel de Castilla (Spain), with company aboard Nuestra Señora de la Merced, probably penetrated to 64°S in the Southern Ocean south of Drake Passage

Subsequently several merchant vessels reported being blown south of 60°S rounding Cabo de Hornos in severe weather

1773 James Cook (Britain), with companies aboard HMS Resolution and HMS Adventure, crossed the Antarctic Circle (66-53°S) off Enderby Land, 17 January

1774 James Cook (Britain) on the same expedition reached 71-17°S off Marie Byrd Land, 30 January

[1820 Fabian von Bellinghausen (Russia), with companies aboard Vostok and Mirnyy, sighted the Antarctic continent at about 69-35°S off Dronning Maud Land, 27 January. This was the first sighting of Antarctica.]

1823 James Weddell (Britain), with company aboard Jane, reached 74-25°S in the Weddell Sea, 20 February

1842 James Ross (Britain), with companies aboard HMS Erebus and HMS Terror, reached 78-17°S in the Ross Sea, 23 February

1900 Hugh Evans (Britain) and 3 others sledged to 78-83°S on the Ross Ice Shelf, 23 February

1902 Robert Scott (Britain) and 2 others sledged to 82-28°S on the Ross Ice Shelf, 30 December

1909 Ernest Shackleton (Britain) and 3 others sledged to 88-38°S, 9 January

1911 Roald Amundsen (Norway) and 4 others dog-sledged to 90°S, 14 December.

1912 Robert Scott (Britain) and 4 others sledged to 90°S, 17 January (all perished during the return journey)

1929 Richard Byrd (United States), with an aircraft crew, claimed to have flown over the vicinity of the South Pole from the Ross Ice Shelf, 29 November

1947 Richard Byrd (United States), with crew aboard two aircraft, flew over the South Pole from the Ross Ice Shelf, 15 February

1956 John Torbert (United States) and 6 others flew across Antarctica over the South Pole (Ross Island to Weddell Sea and returned without landing), 13 January

1956 Conrad Shinn (United States), with crew of an aircraft, landed at the South Pole, 31 October, a permanent station was then established sustained by aircraft

Subsequently many aircraft have landed at the South Pole

1956 Richard Patton (United States), landed at the South Pole by parachute, 25 November

1958 Vivian Fuchs (British Commonwealth) and an expeditionary party reached the South Pole with motor vehicles and sledge dogs, 20 January and continued to cross Antarctica (Weddell Sea to Ross Sea)

Subsequently several expeditions have crossed the Antarctic through the South Pole by surface and many have made one-way surface journeys returning aboard aircraft

1961 Albert Paddock Crary (United States) led a surface traverse to the South Pole, 12 February. He had reached the North Pole on 3 March 1952 and thus became the first person to have stood on both geographic poles.
1553 Sir Hugh Willoughby (England), with companies aboard *Bona Esperanza* and *Bona Confidentia*, reached 72°N on the Novaya Zemlya coast, 14 August
1587 John Davis (England), with companies aboard *Elizabeth, Ellen*, and *Sunneshine*, reached 72-20°N off west Greenland, July
1594 Willem Barents. (Netherlands), with a ship's company, reached 77°N rounding Novaya Zemlya, July
1598 Jacob van Heemskerck (Netherlands), with companies aboard 2 vessels, reached 80-18°N off Svalbard, 17 June
1607 Henry Hudson (Britain), with company aboard *Hopewell*, reached 80-38°N off Svalbard, 16 July
1610 Robert Peary (United States), with a sledge party, purported to have reached 90°N, 6 April
1625 Roald Amundsen (Norway), Lincoln Ellsworth (United States), and 4 others, crash landed and drifted to 87-83°N, 21 May
1626 Richard Byrd (United States), with an aircraft crew, purported to have reached 90°N by air from Svalbard, 9 May
1637 Ivan Papanin (Russia), with a sledge party, purported to have reached 86-22°N from *Fram* in the Arctic Ocean, 3 August
1689 Fridtjof Nansen and Hjalmar Johansen (Norway) dog-sledged to 86-22°N from *Fram* in the Arctic Ocean, 8 April
1700 Umberto Cagni (Italy) and 3 others claimed to have dog-sledged to 86-57°N from Zemlya Frantsa-Iosefa, 24 April
1708 Frederick Cook (United States), with a sledge party, purported to have reached 90°N, 21 April
1709 Robert Peary (United States) and an expeditionary party, dog-sledged to 87-75°N from Ellesmere Island, 31 March, Peary and 5 others continued north and possibly passed 88°N
1709 Robert Peary (United States), with a sledge party, purported to have reached 90°N, 6 April
1725 Roald Amundsen (Norway), Lincoln Ellsworth (United States) and 4 others flew north from Svalbard in 2 aircraft, crashed and drifted to 87-83°N, 21 May
1726 Richard Byrd (United States), with an aircraft crew, purported to have reached 90°N by air from Svalbard, 9 May
1726 Roald Amundsen (Norway), Lincoln Ellsworth (United States), Umberto Nobile (Italy) and 11 others, crossed 90°N by airship *Norge* (flying Svalbard to Alaska), 12 May
1731 Subsequently one other airship (1928), a tethered hot-air balloon (2012), helicopters and many other aircraft have flown over the North Pole
1737 Ivan Papanin (Soviet Union) and party landed at 89-43°N by aircraft from Zemlya Frantsa-Iosefa, established the first Arctic Ocean drift station, 21 May
1748 Aleksandr Kuznetsov (Soviet Union) and 23 others, landed from aircraft near, and traversed to, 90°N, 23 April
1749 Vitaliy Volovich (Soviet Union), landed at the North Pole by parachute, 9 May
1758 William Anderson (United States), with crew aboard nuclear powered submarine *USS Nautilus*, reached the North Pole while submerged, 3 August, on voyage from the Pacific Ocean to the Atlantic Ocean
1759 James Calvert (United States), with crew aboard nuclear powered submarine *USS Skate*, surfaced at the North Pole, 17 March
Subsequently many submarines reached the North Pole and some surfaced there
1768 Ralph Plaisted (United States) and 3 others reached the North Pole by surface (snow scooter) with aircraft assistance, Canada, and returned by air, 19 April
1769 Wally Herbert (Britain) and 3 others reached the North Pole by dog-sledge, while crossing the Arctic Ocean (Alaska to Svalbard), 6 April
Subsequently several expeditions have crossed the Arctic on the pack-ice through the North Pole and many have made one-way surface journeys leaving aboard aircraft
1777 Yuriy Kuchiyev (Soviet Union), with crew aboard nuclear powered icebreaker *Arktika*, reached the North Pole by sea from near the Novosibirskiy Ostrova, 17 August
Subsequently many surface vessels have reached the North Pole
1791 Anatoly Gorshkovskiy (Soviet Union), with crew and passengers aboard the nuclear powered icebreaker *Sovetskiy Soyuz*, reached the North Pole by sea while crossing the Arctic Ocean (Murmansk to Provideniya), 4 August
2007 Artur Chilingarov (Russia) and Mike McDowell (Australia) led two submersible craft, each with a complement of 3, to the sea bed at the North Pole, 3 August