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Against all odds: the birth of the Commonwealth Trans-Antarctic Expedition, 1955–1958

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ABSTRACT. When the Commonwealth Trans-Antarctic Expedition 1955–1958 advance party sailed from the Millwall Docks in November 1955, bound for the Weddell Sea, their departure was the product of five years of intensive effort on the part of Vivian Fuchs to achieve the first overland crossing of the Antarctic continent. This paper investigates the many obstacles that had to be overcome leading up to *Theron* sailing and explains the manner in which they were overcome by the Fuchs-Wordie-Clifford triumvirate. The British Foreign Office was particularly opposed to the expedition with the office's focus on sovereignty rather than science while an alternative proposal from Duncan Carse raised a unique set of difficulties. The withdrawal from involvement by the Scott Polar Research Institute Director, Colin Bertram, indicated further disaffection. Most important, if political and financial goals were to be met, was the need for participation by several Commonwealth countries of which New Zealand was the essential partner. Fortunately, the vigorous efforts of a few Antarctic enthusiasts in New Zealand were successful in moving their government to assert its long dormant position in the Ross Dependency. New Zealand's commitment turned the tide of commonwealth apathy towards the TAE. Although the TAE preceded the IGY, events, including the dominating IGY presence of the United States, caused the two projects to become tightly interwoven. For these reasons the years leading up to the departure of *Theron* were as intriguing as the crossing journey itself.

Introduction

The Commonwealth Trans-Antarctic Expedition 1955-58 (TAE) was a success all the more remarkable in that it actually occurred at all. The obstacles that faced its proponents were every bit as daunting as those encountered by 'heroic age' explorers including Shackleton and Amundsen. They ranged from opposition by the British Foreign Office (FO) and the Scott Polar Research Institute (SPRI) to the curious ambivalence of the Royal Geographic Society (RGS). An unexpected hurdle was posed by the determined polar enthusiast Duncan Carse who contested for leadership of the expedition with an alternative plan of his own. Of particular concern was the apathy to the expedition shown by the Commonwealth Dominions, an attitude which, had it prevailed, would have put an end to the project. In addition, there was the complicating coincidence of the International Geophysical Year (IGY), both a fortuitous as well as a competitive element for the expedition. All of these factors, to which must be added the funding requirements of such a private undertaking, collectively presented geologist Vivian Fuchs with a formidable challenge as he pursued his desire to cross Antarctica overland. In 1945 Great Britain created a new Antarctic organisation, the Falkland Islands Dependencies Survey (FIDS), based at Stanley, in order to maintain its presence in Antarctica following WWII. Britain's first Antarctic bases had been established during the 1943–1944 season at Deception Island and Port Lockroy under the secretive guise of *Operation Tabarin* (Robertson 1993). On the retirement in 1947 of its first leader in the field, Surgeon Commander E. W. Bingham RN, FIDS required a new leader and an ideal candidate, a 38 year old expedition hardened geologist who had just been discharged from wartime service, was seeking gainful employment. Dr. Vivian 'Bunny' Fuchs, at the suggestion of an old friend and fellow geologist, the Revd. Launcelot Fleming, applied for a role with the newly formed FIDS organisation. Fleming was actually returning a favour as it was Fuchs who, in 1932, had given him a hint about an expedition to Iceland, one that would eventually result in Fleming joining the British Graham Land Expedition (BGLE) led by Australian John Rymill (Hunt 2003). Much to Fuchs' surprise he was offered the position of field commander with responsibility for all seven UK Antarctic bases that by then existed. In December 1947, aboard the former American net layer *USS Pretext,* now ice strengthened and renamed the *John Biscoe,* he sailed south to the Antarctic for the first time (Fuchs 1982, 1990)

The vision emerges

Six months after arriving in Antarctica the idea of an overland crossing of the continent, first conceived during the heroic era of polar exploration, was rekindled in Fuchs mind. During a July winter's night in Base'E' on Stonington Island, discussion ensued into the early morning hours with John Huckle, Bernard Stonehouse, Ken Blaiklock, and other base members mostly involved in sledging and survey. Earlier in the day they had been making preparations for a lengthy depot laying journey to

Alexander Land. Fuchs' idea met with some initial scepticism. Several present questioned the journey's utility except as a foil to Argentine, Chilean and even US political aims in the region. Ever the scientist, Fuchs argued for the expedition as a means to determine the 'structural trends of the continent' and of 'providing training in cold conditions'. He foresaw that the involvement of the forces would be very desirable (Fuchs 1948a; B. Stonehouse, personal communication, 11 January 2010). A month later, Fuchs drafted in pencil the first outline of an expedition plan (Fuchs 1948b). The topic was pursued further in November 1949 while trapped by a blizzard on Eklund Island with his sledging colleague and fellow geologist Ray Adie (Fuchs 1990).

The idea is poached

In early 1950 after three Antarctic seasons, two of which were continuous due to being icebound on Stonington Island, Fuchs returned to England via the Falkland Islands. It was here, even before reaching England, that he encountered the first threat to his nascent project. During the short stop in Stanley, Fuchs talked over his ideas about a trans-Antarctic crossing with Sir Miles Clifford, Governor of the Falkland Islands. This chat aroused Clifford's fertile imagination to the extent that he decided to pre-empt Fuchs and propose his own expedition, one that would be under the auspices of FIDS. Clifford had differing ideas about staffing such a venture. These included the appointment of Lt. Col. Ken Pierce–Butler, FIDS secretary, as expedition leader with, ironically, Fuchs' good friend Ray Adie as deputy leader. Pierce-Butler asked Fuchs for his plans for the journey. Understandably smarting from this affront, Fuchs was 'flabbergasted' and adamantly refused. Clifford, undeterred, proceeded to promote his plan with the Colonial Office (CO) in London. However, the reception was not enthusiastic and, as Clifford later admitted 'no positive scientific results would accrue from the expedition' (Clifford 1953a). His proposal lost any momentum it might have had and by year-end had been quietly abandoned. A deciding factor was a suspicion among his superiors in the CO that the project was beyond both the capabilities and the mandate of FIDS (Fuchs 1990).

Back in London, and with guidance from his old friend and mentor from St. John's College, Cambridge, James Wordie, Fuchs took up a position as director of a newly defined entity, the FID Scientific Bureau. His responsibilities included staffing the agency, setting its objectives and building it into an active force for the advancement of Antarctic science. During the next three years he continued to quietly develop plans for an expedition, meeting frequently with Wordie at the latter's Cambridge home (Smith 2004). Undoubtedly, Wordie must have harboured lingering interests in a successful Antarctic crossing having been chief scientist on Shackleton's failed attempt of 1914. In addition to his role as chairman of SPRI, the ubiquitous Wordie had served as chairman of the British Executive Committee for the Norwegian- British-Swedish Antarctic Expedition of 1949–1952 (NBSAE). This expedition had been a great success and had again proved the advantages of international co-operation in such projects. The British North Greenland Expedition (BNGE), also largely driven by Wordie, was now entering its final year and was proceeding well under the leadership of Cdr. C.J.W.'Jim' Simpson (Cameron 1980). As well as his polar activities, Wordie had acted as chairman of the Himalayan Committee overseeing the Everest Expedition led by Col. John Hunt, one which would soon reach its climax on 29 May 1953 with the successful ascent by Hillary and Tenzing. With these various projects either completed or well underway Wordie was ready to take on another assignment.

British government policy concerning its polar interests fell within the aegis of the Commonwealth Relations Office (CRO) and was represented by the Inter-Departmental Polar Committee. The Committee had been established in 1926 and although it did not set government policy in polar affairs it was responsible for implementation and provided considerable guidance to various government ministries (Quartermain 1971). Membership drew on several different groups under the chairmanship of a CRO designate. The RGS was represented as well as the FO and the CO which had responsibility for FIDS. The armed forces and the Crown Agents were also represented. Importantly, the Commonwealth Dominions of Australia, Canada, New Zealand, and South Africa, deemed to have polar interests, were active members. The committee met two to three times yearly or when matters of significant importance arose.

Polar Committee meeting: 24 March 1953

The topic of a trans-Antarctic expedition was first formally broached at the Polar Committee meeting of 24 March 1953. Item 3 on the agenda stated simply 'Proposals for a trans-Antarctic Expedition'. Sir Miles Clifford opened the discussion and spoke of the prestige value of such an expedition. He voiced a fear that 'some foreign expedition would do the journey first'. In Clifford's opinion the political advantages were paramount. An expedition start date of 1954 was viewed as possible. Every effort should be made to make the crossing party route pass through the South Pole as this would stimulate increased international interest. Wordie then led the discussion, and to allay concerns about possible expedition failure, highlighted the technological improvements since Shackleton's attempt of 40 years prior, emphasising the scientific value of ice sheet measurements as melting would impact on ocean levels. He identified four possible leaders for the expedition: Duncan Carse, Cdr. Simpson, Gordon Robin, a veteran of the NBSAE, and Fuchs. He dismissed three of these as being either deployed to other expeditions or otherwise unavailable, leaving Fuchs as the only remaining candidate. Wordie spoke highly of his

protégé's experience and suggested that Fuchs be asked to present a proposal to the committee observing that '. . .Commonwealth countries might wish to participate in the expedition'. The representatives of Canada, Australia, New Zealand, and South Africa, all present, were non-committal but expressed generally positive reactions to the idea of a continental crossing. The discussion ended with Clifford offering to ask Fuchs to prepare a proposal and to distribute it for assessment by the three bodies that would be most involved, namely the Polar Committee, the FID Scientific Committee and the RGS. This motion gained the agreement of those present (Polar Committee 1953a)

Duncan Carse and his competing proposal

There was one issue, however, that would not be so neatly resolved. An alternative expedition proposal was being prepared by a rival polar enthusiast, an 'outsider' to the inner circles of the British polar fraternity. Duncan Carse was 40 years old when the TAE idea came to the public eye. As a young man he had been bitten by the exploration bug and was determined to become an Antarctic explorer. While engaged on *Discovery II* which was carrying out oceanographic work in the Southern Ocean in late 1934, Carse reached Stanley where he met Rymill's Graham Land party. The BGLE mission was to establish an Antarctic base and their ship, *Penola,* had come into port alongside *Discovery II.* A few days later after a social night ashore with Rymill, Carse convinced the Australian that he would be an asset to the expedition. On 1 December 1934, with Captain Robert 'Red' Ryder's permission, Carse transferred from *Discovery II* to *Penola* as a member of the ship's crew. He thereby became the youngest member of the British Graham Land Expedition (Trendall, 2011). The BGLE provided Carse with the opportunity to develop his polar network. Over the next few years he formed key relationships with three scientists from Rymill's party each of whom would become members of the British polar establishment. These were biologist G.C.L. (Colin) Bertram, by now director of SPRI, geologist Launcelot Fleming, Bishop of Portsmouth, and a past director of SPRI, and Dr. Brian Roberts, ornithologist, who had joined the FO and would later play a lead role in formulating the Antarctic Treaty.

It was Roberts who most aided Carse and advised him that the project likely to gain support and succeed must be 'small, inexpensive and useful'. The survey of the island of South Georgia fitted that profile perfectly, and Carse, the 'freelance Antarctic explorer' (Carse 1959: 20) saw it as an ideal vehicle to promote his expedition credentials within the British polar hierarchy. Privately, Carse's driving motivation for the work in South Georgia was to prepare himself to lead an expedition across Antarctica (Trendall 2007).

In 1951–1952 Carse assembled and led a team of six to South Georgia. Through a series of mishaps, poor weather and bad luck this surveying attempt achieved only partial success. In early 1953, while working towards his second South Georgia Survey (SGS) attempt, he learned from Roberts that an Antarctic crossing expedition was being organised (Trendall 2011). He would have to work quickly to be included as a leadership candidate. He began drafting his preliminary plan *The crossing of the Antarctic continent by sledge* (Carse 1953). Wordie had meanwhile been trying to keep word of any expedition quiet so as not to arouse the possible competing interests of the United States. The US Navy's post-war Operation 'High Jump' led by Admiral Byrd and the subsequent Operation 'Windmill' as well as USN Capt. Finn Ronne's private expedition of 1947–1948 had aroused suspicions of an American claim to considerable parts of the continent. Wordie told Carse that 'it would be inadvisable to be active in any way'. Carse disagreed, and suspecting 'subterfuge and dishonesty', ignored this advice. He then circulated his 11 page preliminary expedition plan to key individuals, including Wordie, Roberts, Bertram, Laurence Kirwan (director and secretary of the RGS), Fleming, Gordon Robin, Sir Miles Clifford, and, ironically, Vivian Fuchs as director of the FID Scientific Bureau. In his covering letter Carse professed: 'There is here a principle – that it is better to pool ideas round the table than to develop them in unrelated *tête-à-têtes*.' Carse's open and consultative approach to the planning process differed markedly from the more discrete manner of the Polar Committee. In a letter of reply his old friend, Fleming, counselled him that 'the business of the Inter-departmental Polar Committee is confidential. . .This in itself is bound to create some obscurity. . .' and he needed to understand that aspect (Fleming 1953).

Foreign Office opposition

At this early stage neither Wordie nor Clifford appreciated the resistance that would be mounted by the FO and its two polar representatives, Roberts and Terence Garvey. Their interests were narrowly focused on assuring the legitimacy of Britain's claims to the Falkland Islands Dependencies including the Antarctic Peninsula. In post-war Britain budgets were tight and the FO was generally opposed to any project that did not promote its own interests. Fearing that an expedition would threaten their funding allocation and with the knowledge that Fuchs would present his plan at the next Polar Committee meeting, they began a campaign to undermine any crossing venture. During the ensuing weeks of 1953, representatives of the FO and the CRO met to discuss the proposed trans-polar expedition. At one meeting Garvey raised the broader issue of the UK Government's Antarctic policy which was being debated at that time (Garvey 1953a). The question was whether the UK should increase or decrease its commitment to Antarctic expenditure in its efforts to ensure British sovereignty in the region. In a note to Roberts, Garvey expressed his fear of the impacts of a policy shift towards a reduced level of activity in the

Antarctic and reiterated that '. . ..If HMG were to spend any more money at all, we felt very strongly that it should be expended on objects which were shown to contribute directly to the maintenance of our sovereignty in the Dependencies.' He flippantly dismissed the expedition idea as 'evanescent' considering it to have no permanent value. This discussion left the Polar Committee secretary, H.G.M. Bass of the CRO, somewhat doubtful as to the effectiveness of their next meeting. Garvey's cynical closing remark told all 'It is worth remembering that the Polar Committee is a body with no powers whatever'. In his remarks on Garvey's report, Roberts concurred adding 'I entirely agree with Mr. Garvey's comments about spending any available money on work of more value [than a trans-Polar expedition] in the Falkland Islands Dependencies'. Roberts acknowledged that Kirwan, of the RGS, was caught in a bind and observed that 'Mr. Kirwan. . .takes the same attitude as Mr Garvey. He does not want the RGS to sponsor this project, but can hardly oppose his President [Wordie]'. Roberts showed his frustration referring to the manner in which Wordie had dealt with Carse's plans commenting '. . . In short the whole business is rife with intrigues by Mr. Wordie and Sir Miles Clifford, which I do not profess to understand. . .' In a margin note Garvey simply quipped 'This is too Byzantine for me' (Roberts 1953a). Although Kirwan did not support the idea of a crossing expedition his opposition was more muted than that posed by the FO. A behind the scenes discussion between Air Vice-Marshall John Slessor, chairman of the TAE Committee of Management, and General Sir James Marshall-Cornwall, chairman of the RGS, discretely resolved the issues emanating from the RGS. In fact the RGS became the first major sponsor of the TAE committing £1000 in return for selection as repository of the official TAE photographs (Fuchs 1990).

Polar Committee meeting: 14 September 1953

The next meeting of the Polar Committee, a pivotal one for the TAE, was held during the afternoon of 15 September 1953 at the CRO offices in London. Garvey and Roberts again represented the FO. Frank Corner, the New Zealand Deputy High Commissioner, was present as was F. Cooper of Australia. Fuchs and Wordie were present for the first two items on the agenda, the British North Greenland Expedition (BNGE) and 'Proposals for a Trans-Antarctic Expedition'. At Sir Miles Clifford's request Fuchs had distributed a copy of his expedition plans prior to the meeting. Attendees were asked if there were any objections to the expedition 'in principle' to which there was no reply. They were then asked to express their support for the expedition as presented by Fuchs. The CO representative expressed strong support stating that 'the trip would reinforce our legal rights in Antarctica' (Garvey 1953b). Garvey continued to resist and argued against any intimation that the expedition would strengthen Britain's sovereignty claim. His report stated '. . . I intervened at this point and explained that such support for our title to the hinterland in our sector as a trans-Polar expedition of this kind might provide was evanescent; . . . I went on to say that if it were a question of Government financing, and if . . .it were a question of deciding whether money should be spent on this trans-Polar jaunt, or on less spectacular activities . . .it would be very difficult to give positive preference to the former. I think this hint has been well taken.' With remarkable prescience Garvey wryly concluded 'I imagine that the tactics of the gentlemen who are promoting the expedition will now be first to get a firm subscription from private enterprise, then to urge H.M. Government to come in, and then to bring in the Government of New Zealand, and Australia if possible.' Garvey also noticed the absence of comment by Cooper of Australia. Roberts revelled in the Australian representative's behaviour at the meeting explaining to Garvey that 'Mr Cooper . . . kept quiet because his instructions, which he showed me, were an unequivocal statement that Australia is not interested and does not wish to be involved in this project', to which, in a margin note, Garvey added an emphatic 'Good!' (Roberts 1953b). The Wordie-Clifford-Fuchs triumvirate were facing tenacious opposition from surprising directions.

New Zealand counters the resistance

In his original proposal Fuchs outlined seven arguments in favour of the expedition. Only two of these related to increased scientific knowledge, one being in the field of meteorology and the other relating to the biology of the Southern Ocean. A third was to provide 'good training for Service personnel in polar conditions'. Notably, neither geology nor glaciology was mentioned. The four remaining arguments appealed to a) the pride of the countries in attendance through 'enhanced prestige', b) political goals by helping to 'justify territorial claims', c) strategic aspirations should Antarctica 'ever be crossed by an established air route', and d) the spirit of adventure because of the expedition's 'considerable romantic appeal' (Polar Comittee 1953b). Fuchs well understood his audience and came prepared to tap into their specific interests. For New Zealand representative Corner the main issue was one of delivering value for funds invested that is '. . .whether there are sufficient good reasons to justify a trans-Antarctic journey with certain scientific objects'. Corner correctly observed 'If a trans-Antarctic journey is to eventuate a number of Departments must be so convinced of its desirability as to be willing to divert [a] portion of their vote to financing it . . .' He continued, 'In Britain's present straightened economic position Cabinet demands solid justification of every piece of expenditure, while Government Departments . . .first reaction to any new proposal for expenditure, and especially one not directly benefiting their Department, is negative. The old days have gone when £100,000 could easily be found

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for prestige spending or for marginally useful scientific work' (Corner 1953a).

Corner was surprised at the weak scientific argument put forward for an Antarctic crossing. He attributed this to the fact that the RGS and the FID Scientific Committee had yet to perform their review of Fuchs' proposal, but he incisively remarked that 'British Government Departments are administered and policy decisions are made by educated gentlemen not by narrow specialists such as scientists.' Corner believed that the expedition would be of considerable scientific value and expected that Fuchs would consult with the New Zealand Scientific Liaison Officer at Oxford University, Dr. Ernest Marsden. Corner realised how important the scientific aspects of the expedition would be for gaining the support of Commonwealth countries. He understood that government departments would want to be convinced of practical results and that the funds could not have been better spent elsewhere. At this point the IGY was still in its conceptual phase and many details had still to be worked out, including the location of specific stations. The IGY was the responsibility of the Royal Society and at this point there was little interaction between the two projects. That would come in a few years time. The Polar Committee was however aware of the possible implications for the TAE. They well appreciated that TAE bases on either side of the continent would likely benefit any future IGY efforts (Corner 1953a).

Corner could not help but notice Roberts' reticence and reported that 'The Foreign Office representative was the most unforthcoming. The chief interest of the Foreign Office is in British and Commonwealth territorial claims in the Antarctic....and their view is that a journey would not be sufficiently permanent to reinforce the British position; If money is to be spent the Foreign Office would prefer to see it all spent at the fringe of the continent where the competition is greater.' With some humour, Corner observed, '£20,000 given to this project for prestige reasons might be £20,000 less for home leave for Foreign Service Officers!' Fuchs himself then interjected that the expedition would include establishing a base in the Ross Dependency candidly noting '. . .where the Commonwealth position was steadily being eroded by a lack of New Zealand activity'. Other possible justifications were discussed and dismissed. The Ministry of Civil Aviation thought that perhaps in fifty years time there might be a need for air routes that traversed Antarctica. Nevertheless, and showing considerable foresight, there was some acceptance that meteorological investigations in Antarctica could well have value particularly as '. . .the interior of the Antarctic continent controls the southern hemisphere's climate.' For their part, the Admiralty saw no value in the expedition. However, the FO was forced to admit that the expedition would have prestige value and that it could be regarded as the next thing after the ascent of Everest. As had so often been the case with earlier polar expeditions, the critical issue, reflecting the stringent times in post- war Britain, was mainly a financial one (Corner 1953a).

Fuchs' paper made three crucial points. First, the expedition should be a 'Commonwealth' effort. He rightly considered that it was too big a project for a single nation (or at least for the UK) to attempt. Sir Douglas Mawson's BANZARE of 1929–1931 and the more recent success of the NBSAE had shown that multi-national projects in the Antarctic could be successful. In addition, this approach spread the risk and cost of the expedition. Importantly, it also played to the interests of the CRO. As Corner noted 'The Commonwealth Relations Office . . . are probably prepared to spend some money on it. They would have to base their case on . . . reasons of an emotional or romantic kind - the value to the cohesion and sense of common purpose of the Commonwealth of dramatic joint endeavours, an example being the Everest adventure' (Corner 1953a). Corner then remarked, as Garvey had foreseen, that CRO support for an expedition would be more likely if substantive support was forthcoming from Commonwealth governments. Gathering this vital support would demand significant effort from the Polar Committee over the next twelve months.

In Corner, Britain's polar ambitions including a possible crossing of Antarctica had a staunch ally. In a memorandum following the March 1953 meeting of the Polar Committee, he anticipated Fuchs stating 'But it would seem desirable, in view of the paucity of our recent contribution to Antarctic work, the need to take some action to preserve our title and claim to interest in the region, our inability to undertake independent expeditions and the effect of such an enterprise if successful, on Commonwealth prestige – quite apart from the scientific and other reasons – that we should take a positive attitude towards any request for co-operation that may be forthcoming' (Corner 1953b; also cited in Templeton 2000: 106). Despite having some reservations as to the collective will of the British government departments to back the expedition, Corner nevertheless hopefully surmised that 'If one or more Commonwealth Governments showed interest, and were prepared to make a solid contribution, the balance might well be turned.' He added a plea for guidance from his New Zealand colleagues, arguing that a supportive note from Wellington, even though non-committal, would give him something positive to bring to the Polar Committee (Corner 1953c).

A leader is chosen

By presenting a rival proposal, Duncan Carse had posed a special and unexpected problem for the Fuchs–Wordie–Clifford team. Even though there was little support for Carse's proposal among Polar Committee members it was important that the choice be made with a semblance of equitable consideration. By the end of August 1953 Carse was still putting final edits to his trans-Antarctic expedition plans even as he sailed south aboard the steamer *Polar Maid* with a separate scientific team from

Cambridge. He finally sent his plans to Wordie and Roberts from the ship in early September. The Polar Committee meeting of 14 September 1953 resolved that Clifford should review both plans and submit an assessment to the committee. He completed this task on 26 November and circulated his report for discussion at the next meeting set for May 1954. Clifford was unequivocal in his support for Fuchs and his criticism of Carse. Fuchs' plan was 'well-considered, straightforward' while Carse's plan was 'far too ambitious' with 'too little time allowed' (Clifford 1953b). Carse's plan consisted of several major sorties. They included explorations of Queen Maud Land, two expeditions to the Pole along separate routes and a major 'Home Journey' back from Vahsel Bay to Stonington Island for the 12 people who would not be part of the crossing parties. These interesting, yet secondary, exploratory ventures drained expedition resources and increased the complexity and cost for the expedition. Notably, they put at risk its main objective which was to cross the continent. Clifford pointed out other weaknesses in Carse's plan. Firstly, it did not allow for support at McMurdo Sound, the final destination point of the traverse. Thus no route of descent from the polar plateau would have been determined, no reception base established and the means of transport to New Zealand would be left indeterminate. It must be noted that in 1953, pre-IGY, the South Pole was expected to be a vacant plain of snow and ice, much as Scott had left it in 1912. Nor did Carse appreciate the need for air support other than for reconnaissance during the few months after arrival at Vahsel Bay and his plan identified dog sledges, not tractors, as the main mode of transport. This would mean that Carse's crossing party had to carry sufficient supplies to cross the entire continent without the benefit of previously laid depots on the opposite side of the Pole exactly as Filchner, but not Shackleton, had envisaged in his plan (Stephenson, 2009). The competing proposals were subjected to further scrutiny for their scientific merit by the FID Scientific Committee and the RGS. The society met on 14 January 1954 and concluded that Fuchs' plan was '... a reasonable one prepared by an Antarctic explorer of considerable experience and one well worth attempting' and recommended '... that the project should be warmly encouraged by the Royal Geographic Society on the grounds of geographical exploration apart from other considerations.' At this same meeting Wordie then closed the issue stating 'It appears now that Mr. Carse's plans are now in suspense. They were not mentioned at the Royal Geographical Society's meetings. They had, however, been discussed earlier by the Falkland Islands Dependencies Scientific Committee where Roberts did not press them, and I think they can now be regarded as adjourned forthwith' (Wordie 1954). The fate of Carse's proposal was sealed at the Polar Committee meeting of 13 May 1954. The minutes of the meeting recorded that '... as a result of the advice tendered by experts the Committee no longer wished to consider Mr. Carse's plan... it was now only necessary to decide whether Dr. Fuchs' plan met the bill.' Clifford made an additional comment, probably based on feedback from Carse's SGS project of 1951–1952, questioning Carse's ability to lead successfully a large complex expedition. He extended his critique of Carse's plan with the comment that '... the leader of such an expedition should be a specialist in some branch of the work to be undertaken, and an experienced Antarctic traveller; Mr. Carse is neither' (Clifford 1953c). With this indictment Carse's desperate efforts were dismissed and Fuchs was promoted to TAE leadership (Trendall 2011). Following on from his submission to the September 1953 Polar Committee meeting, Fuchs provided a subsequent paper outlining his progress to date on organisation. The paper explained modifications to his original proposal and outlined a financial plan. Surprisingly, one change was to propose that, based on 'political advantages' and an assumption of 'large scale air support' the departure point should now be Stonington Island. At this point Roberts offered the support of the FO to Fuchs' plan. This represented a major turnaround for Roberts and was eased by Fuchs' inclusion in his plan of aerial photography of the Falkland Islands Dependencies. An aerial survey was a major goal for the FO which believed that it would strengthen the case for British sovereignty. Based on this change of heart the Committee recommended that '... the proposal should now be pursued by the Foreign Office and the Colonial Office ... so that it might be considered in the context ... of the general question of Antarctic activities which ... was already under consideration' (Polar Committee 1954). On 28 June 1954 Basil Greenhill, the CRO secretary of the Polar Committee, informed Fuchs of the committee's recommendation. The TAE had taken a major step forward.

Scott Polar Research Institute opposition

The difficulties with SPRI were not resolved as satisfactorily as had those with the RGS. Although SPRI initially supported the idea of an Antarctic crossing, its director, Dr. Colin Bertram, found it impossible to align himself with the decisions of the TAE Committee of Management. Bertram's resignation well illustrates the complex tangle of agendas that Fuchs had to unravel. It was unthinkable that SPRI would not be involved with British endeavours in Antarctica. Bertram, along with Roberts and Launcelot Fleming, had been a member of John Rymill's BGLE of 1934–1937. He was an *alumnus* of St John's College, as were both Wordie and Fuchs. He had also been to east Greenland with Roberts in 1933 (Rymill 1939). Bertram's opposition to the TAE did not emerge explicitly until 1955 when the expedition had overcome its major obstacles and resistance points, that is, when the game was lost. The Committee of Management had been formed in June 1954 under the chairmanship of retired Air Vice-Marshall Sir John Slessor, and Bertram, as director of SPRI, had been a founding member. In March 1955, shortly after the UK government announced its

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support for the TAE with a grant of £100,000, Bertram's disenchantment with certain aspects of the expedition drove him to decline a role as one of the directors of the TAE Co. Ltd. (London). The minutes of the committee's meeting of 10 March 1955 recorded their disappointment at his decision as '. . .unfortunate that the Director of the Scott Polar Research Institute should take this attitude. . . (TAE Committee of Management 1955). Bertram's objections to the project were deemed to be 'largely political' and Clifford was asked to follow up with the CO. Bertram's disaffection with the expedition reached a head in August 1955. In a letter to Slessor he confided '. . .I do not feel that it would be to the ultimate good of this Institute, nor indeed honest for me, the paid executive, to accept a share in the formal responsibility for the running of the Trans-Antarctic venture by the private company. The venture is based on decisions in which I have not full confidence' (Bertram 1955). Bertram disagreed with two aspects of the plan, first, the decision to delay the schedule by one year, and second, the use of Vahsel Bay as base site which entailed navigation through the risky Weddell Sea. More importantly, he felt that SPRI should have had a bigger say in the planning of the expedition. In a letter of reply, Slessor sharply pointed out to Bertram that by declining a director role in the TAE Company he had squandered any opportunity to influence the shape of the expedition (Slessor 1955). Wordie, who was chairman of SPRI, continued to act as its representative on the TAE company executive. Bertram resigned his directorship of SPRI in late 1956.

Bertram later explained his difficulty in reconciling the interests of the TAE, the IGY and the FO. He wrote 'These three aspects of Antarctic Affairs became comingled, with resultant difficulties as between the Polar Institute [SPRI]. . . which had the greatest knowledge, the backers of the trans-Antarctic Crossing, the Royal Society which was concerned with the IGY, and the Foreign Office which was concerned with matters of sovereignty . . . In the Polar Institute, as individuals, we wished to see a success for the Fuchs expedition if it came about, but we could not feel it suitable that it should compete (through the ignorance of many) with the F.O. view that the national effort needed superior shipping under the British flag (for example an ice-worthy ship) to uphold the British presence politically in Antarctica. . .' Bertram dismissed the political importance of the expedition as being merely a follow-on to the conquest of Mt Everest which '. . . whetted the appetite for further adventure, in Antarctica, the realisation of the almost traditional (in Britain) desire for the first crossing of the Antarctic continent.' He then belittled the expedition commenting that '. . . the trans-Antarctic venture would be flawed in the original sense, in the presence of the new great [American] depot at the South Pole itself . . .' In the end Bertram finally admitted to the breakdown in his relationship with Wordie stating 'James Wordie was the difficulty. The Institute staff (with me as Director and Brian Roberts wearing his F.O. hat) and Wordie came into opposition over these matters' (Bertram 1987: 62–65). As often happens strong personalities had proved incompatible with the unfortunate result that SPRI effectively absented itself from the TAE.

Commonwealth apathy overcome

From the outset Fuchs envisaged that his expedition would be a Commonwealth initiative, crossing only territory claimed by members of the Commonwealth. He also expected active participation and support from these countries. However, his enthusiasm was not matched by their governments. In December 1953 the UK High Commissioner in Wellington reported to the CRO that 'In spite of Corner's assurance . . . that the co-operation of New Zealand could certainly be counted upon . . . if the project once got underway, I should be very much inclined to doubt whether, in the present economic climate, there is any prospect whatsoever of New Zealand's underwriting any significant share in the cost of the venture' (Larmour 1953). Australia exhibited even less enthusiasm. The UK High Commissioner in Canberra wrote to the CRO that '. . . the Antarctic Division . . . does not seem to be very favourably disposed towards the plan . . . for a trans-Antarctic journey prepared by Dr. Fuchs' noting '. . .the proposed starting point (Vahsel Bay) is too dangerous and . . . the only alternative (starting from Stonington Island) would be very much more costly.' Australia also doubted the expedition's scientific merits commenting that 'While . . . the proposed trans-Antarctic journey might have some prestige value it would not have any great scientific interest' (Whitehead 1954). Little progress was made during the next few months before the Polar Committee held its meeting of May 1954 and, although an expedition leader had been decided, the Commonwealth countries remained reluctant to provide any tangible support. Canada backed away claiming remoteness and pre-occupation with her Arctic territories. Australia joined with the Admiralty in requesting more detail. The Air Ministry dismissed the benefits to them that Fuchs had outlined and simply and surprisingly, '. . .saw no great advantages per se in the proposal to use air support. . ..' A glimmer of hope emerged from J.J. Becker, representing South Africa, who expressed the view that Union authorities considered daily meteorological observations recorded simultaneously at several points on the continent would be '. . .of the greatest importance'. He then made two more key points, first opining that 'From a meteorological point of view . . . a base at Vahsel Bay would appear to be preferable [over Stonington Island].' Then secondly, he announced that South Africa would support an expedition '. . . especially if it is undertaken during the geophysical year of 1957-58 when special observations will be made all over the world' (Becker 1954). This suggestion, later echoed by New Zealand meteorologist Dr. Richie Simmers, would ultimately push the TAE toward entanglement within the larger net of the IGY.

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By mid-1954 Fuchs had assembled the expedition's General Committee even though no funding support for the TAE had yet been obtained. The inaugural meeting was held in a room at the CO on 24 June. Fuchs here again repeated that, with 'large scale RAF support', Stonington Island would be a feasible departure point for the crossing party. In an increasingly recurring theme, Gordon Robin suggested that '... it might be advantageous to the expedition to take the field during the International Geophysical Year.' Kirwan raised the spectre of an American expedition to west Antarctica to be led by Cdr. Finn Ronne. An anxious TAE Committee hoped that Her Majesty's Government would announce its support within a month, a wish that would not be realised for another eight months. At this meeting the term 'Commonwealth' was introduced into the name of the expedition since it was agreed that the Dominions '...would be asked for material assistance.' Nevertheless, it began to dawn on certain members of the Polar Committee and TAE Committee that an explicit UK government commitment was a pre-requisite to any approach to Commonwealth governments for support (TAE General Committee 1954). Such a formal approach was made by secret letter on 1 September 1954 at a time when the United Kingdom was reviewing its broader Antarctic policy. The letter shows clearly that sovereignty was the primary concern for Britain in Antarctica, and that the TAE was viewed as part of an overarching political strategy. Britain's request to its Dominions was based on the premise that it wished to: '...concentrate on making secure its claim to selected areas of the Falkland Islands Dependencies' and not to '...disperse its activities in an attempt to maintain its claim to the whole area.' The letter asked for comment on three linked proposals. First was the plan to intensify its activity in the FID over the short term (five years) with the goal of determining which parts it was prepared to abandon allowing it to reduce its activity level (and level of expenditure) over the longer term. Second was a proposal for 'a combined Commonwealth Trans-Antarctic Expedition from the Falkland Islands Dependencies by way of the South Pole to the Ross Dependency'. Third was a proposal that the UK should apply to the International Court of Justice in The Hague to resolve the sovereignty issues with Argentina and Chile (McKintosh 1954).

Canada's response to the request was consistent with its position at the May Polar Committee meeting. The UK High Commissioner in Ottawa reported by telegram that 'Existing commitments in Canadian Arctic will definitely debar Canadian participation in proposed expedition...They would no doubt be co-operative if asked for technical advice ... e.g. on care of huskies but they do not intend to be associated formally or informally with [the] expedition.' This stance of non-involvement was driven as much by Canada's demands in the Arctic as by a more political rationale. Canada as part of the Americas, was nurturing budding relations with both Chile and Argentina. She was not willing to put those strategic goals at risk by actively participating in Britain's nationalistic show in the Antarctic (UKHC Canada 1954).

Australia's reply, which came from the Prime Minister's office and was relayed five days later to the CRO by the UKHC in Canberra, was somewhat ambiguous: "Australia is heavily committed to its own territory and present expenditure ...amounts to £250,000 a year... Australian participation in proposed journey cannot be finally considered until more details about the project become available." Pointedly, it re-asserted concern about the scientific value of the project. The report's covering letter was slightly more positive stating: '...if it can be shown that the Australian financial commitment ... would be comparatively small the Prime Minister's Department might be prepared to suggest favourable consideration of the question of Australian participation notwithstanding the doubts expressed by the Department of External Affairs about the scientific value of the proposed journey' (UKHC Australia 1954). A disappointing response came from South Africa in a 6 November telegram to the CRO declaring 'Union authorities state that while keenly interested in events in the region they regret inability to participate in proposed expedition' (UKHC South Africa 1954). The fate of the TAE now rested with New Zealand. Time was running short and the next six months would prove crucial.

The three UK proposals were discussed at a meeting in Wellington on 21 September 1954 by New Zealand's Department of External Affairs and included members of the scientific community and the Royal New Zealand Navy. It was agreed that New Zealand should support the first and third proposals. Regarding the second, for a trans-Antarctic expedition, the Department of Scientific and Industrial Research (DSIR) representative commented that Australia would be prepared to participate '...only if they were convinced that New Zealand had decided to take some positive action in New Zealand Antarctic territory'. Dr. Ritchie Simmers, a veteran of BANZARE, suggested that TAE support might be combined with New Zealand participation in the IGY. Even though Simmers believed the scientific merits of a base in McMurdo Sound were significant, he acknowledged that '... the determining factor is political and not scientific' (Simmers 1954). The IGY was again brought into the conversation with the suggestion that the TAE be delayed so that any New Zealand base might be established before the IGY now scheduled for 1957–1958. By late 1954 it was evident that the IGY was becoming a major factor in planning for future Antarctic activity. However, by late October 1954 London still had to accept that a primary goal for the project, to demonstrate Commonwealth solidarity in the Antarctic, had not yet been achieved. The stumbling block was the situation that had developed with the UK government's reticence to formally declare its commitment to the project. It was now essential that the UK government break the stalemate and announce its intentions regarding the proposed expedition. D.M.

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Cleary of the CRO was not surprised at the hesitancy shown by the Dominions remarking '. . .Commonwealth governments would naturally expect a more detailed exposition of United Kingdom plans before deciding whether or not they could participate' (Cleary 1954). The sensitive subject of cost sharing now came to the fore with W.A. Morris of the CO asking '. . .what elements in it [the total cost] are subject to variation, for example if the New Zealand Government were to agree to bear the cost of the Ross Island base' (Morris 1954). In order for Fuchs to progress his project he would have to satisfy the Treasury on the expedition budget.

New Zealand makes her decision

Since 1923, when New Zealand formally accepted administrative responsibility for the Ross Dependency, the government had exhibited extraordinary lethargy regarding its southern territory. During the next thirty years no New Zealand expedition to Antarctica was launched. In fact, no New Zealand official had ever trodden on the continent. In the late 1940's New Zealand had an opportunity to participate in the NBSAE but had declined (Quartermain 1971). This negligence would soon be altered more by the efforts of a group of avid 'Antarcticans' stirring grass-roots public opinion than by leadership from New Zealand's politicians. As early as September 1953 a significant step had been taken by the New Zealand Antarctic Society then celebrating its twentieth anniversary. Before the TAE became public knowledge, the society, under the leadership of Dr. Robert Falla (President) and Arthur Helm (Secretary), wrote a letter to Prime Minister Sidney Holland recommending that the government establish a permanent scientific station in the Ross Dependency. Falla, an ornithologist, had with Simmers been a member of the BANZARE expedition and was now director of the Dominion Museum. Their letter stressed that New Zealand must take urgent action in the Antarctic. Apart from scientific benefits the letter identified the insecure nature of New Zealand's claim to sovereignty and the vital role of a permanently manned station. The letter confidently suggested 'The Society believes that such a proposal would receive sympathetic consideration from the Polar bodies in the United Kingdom. . .', a virtual certainty in that the society proposed that New Zealand perform this task at its own expense. Holland sent a tepid response that he would 'confer with his colleagues in regards to the suggestions put forward' (Helm and Miller 1964: 42–46).

It was a remarkable series of events that ultimately led to New Zealand's announcement that it would participate in the TAE. The first of these was Fuchs' decision to approach Sir Edmund Hillary and pique his interest in the project. At an RGS meeting in August 1953 Fuchs discussed the expedition with Hillary's friend George Lowe and asked him to arrange a meeting while Hillary visited London to lecture on his Mt Everest triumph (Lowe 1997). Fuchs and Hillary first met informally in London on 12 November at an RGS hosted display of Australian Antarctic photographs. They soon became engrossed in the topic of an Antarctic crossing and the three men followed up with a detailed discussion at Fuchs' Victoria Street office on 18 November 1953 (Corner 1953d). Hillary and Lowe were already planning their next foray into the Himalayas but Fuchs had successfully planted the seed for a different adventure and one year later, by the end of 1954, Hillary had developed a keen interest. By approaching Hillary, the hero of Everest, Fuchs had engaged the best talent that New Zealand had to offer, a talent that went beyond the ability to scale mountain peaks.

New Zealand's response to the UK government letter of September 1954 was encouraging and reflected possible acceptance of the NZ Antarctic Society plea for active involvement. On 7 October a secret telegram from the UKHC in Wellington reported the New Zealand position as follows: 'They view with favour [the] proposal for trans-Antarctic expedition and are agreeable to establishment of [a] reception-base at Ross Island in Ross Dependency.' But his report also noted 'They have not yet decided whether they will be able to participate in [the] project' adding . . .McIntosh [Secretary of External Affairs] has commented that Government wanted to participate but did not want to spend the money. As project was of great public interest in New Zealand he thought it possible public opinion might eventually influence Government to participate' (UKHC New Zealand 1954). By this time Frank Corner's efforts to stimulate public opinion had begun to bear fruit. Two newspapers, *The Dominion* and *The New Zealand Herald,* were particularly vocal. On 6 October 1954 *The New Zealand Herald* ran an article stating that ". . .the political and strategic importance of Antarctica grows every year." It surmised that New Zealand would be keen to participate in an Antarctic Expedition ". . .since the Government seems unwilling to face the cost of a separate expedition on its own." (*The New Zealand Herald* (Auckland) 6 October 1954; H.J.Harrington, personal communication, 13 April 2011). On 8 October 1954 *The Dominion* ran a short piece headed "*Urge for N.Z. Claim on Ross Dependency*". The New Zealand Antarctic Society was concerned about the increasing amount of activity in New Zealand territory, particularly by the United States, urging that "there should not be too long a delay in ensuring New Zealand's participation in the British expedition." (*The Dominion* (Wellington) 8 October 1954). The growing pressure from the New Zealand electorate would soon be felt by the government. The pro-involvement editorials in the New Zealand press presaged a shift of momentum in Fuchs' favour.

In November 1954 a fortuitous event further prodded the New Zealand government to take action. The US icebreaker *Atka* arrived in Wellington and was berthed at the wharf in the heart of the city. The sight of the huge ship dramatically foretold of a major United States initiative in New Zealand's Ross Dependency, one that

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would stretch over a three year period as part of the United States IGY effort. J.A. Molyneaux, of the CRO, noted in a letter from Wellington to the FO that the ship highlighted all that was deficient in New Zealand's attitude to the Antarctic adding that the visit has '. . .stimulated comment on 1) the validity of New Zealand's claim 2) the failure of New Zealand in the past, in contrast to other 'Polar' countries, to support its claim 3) US strategic interest in Antarctica' (Molyneaux 1954). Another voice was *The New York Times* correspondent Walter Sullivan who observed 'The visit of the *Atka* to New Zealand . . . has prompted many persons there to exclaim that their government is about to lose 175,000 square miles of the territory by default' (Harrowfield 2007: 22).

New Zealand finally responded with two separate initiatives. On 1 February 1955, Holland announced from London that New Zealand approved in principle its participation in an Antarctic expedition. A few days later on 5 February at the Commonwealth Prime Minister's Conference, Fuchs addressed the meeting and gained Commonwealth approval at a general level for his crossing plan. Then, on 17 February, came the confirmation of what had been so long sought with Winston Churchill's announcement that the UK government would back the expedition with a grant of £100,000. (Fuchs 1990). Six months later, the New Zealand government formally committed itself to the IGY. As its first scientific endeavour in Antarctica New Zealand joined with the Americans in a plan to establish an IGY base at Cape Adare, where H. J. Bull and Carsten Borchgrevink first landed in 1894. The base had to be re-located to Cape Hallett on discovering that the proposed site on Ridley Beach in Robertson Bay was not suitable for helicopter landings and offered poor anchorage (Quartermain 1971). Named 'Hallett Station', the base, which was jointly managed with base leaders being chosen from New Zealand or the United States in alternate years, was built during the 1956–1957 summer season. The location served as an emergency aircraft landing strip and was selected partially on political grounds since there was a fear that Japan or Russia would establish one of their IGY stations in that region. The arrangement was ideal for New Zealand in that logistics and base construction would be carried out by the US Navy while New Zealand provided three of the four scientists who would winter over (Harrowfield 2007: 36).

The motives of the New Zealand government were clarified in a 1 April 1955 cabinet paper from New Zealand's Department of External Affairs. Minister T.L. MacDonald argued for participation in the TAE based on the premise that building a permanent base would make secure New Zealand's claim to sovereignty over the Ross Dependency and argued that explicit New Zealand action would make the United States less inclined to lodge a competing claim (MacDonald 1955a). In addition to MacDonald, another ally joined Corner in his desire to see New Zealand stand up for its territorial claim. On 16 April Sir Edmund Hillary wrote a letter to the New Zealand Prime Minister outlining the TAE schedule that Fuchs had shared with him. In this letter Hillary described the responsibilities that would be expected of New Zealand and presented an outline of his plan for the proposed New Zealand support party. In closing, he pressed Holland stating 'The time for planning and training is very short and I would respectfully suggest that an early decision by the government is essential.' Events were now moving very quickly. On 13 May MacDonald advised the UK High Commissioner that New Zealand would participate in the TAE and would make a contribution of £50,000 '. . . towards the cost of its organisation' (MacDonald 1955b). The announcement to an expectant public was made the next day. Three months later, after a visit to Wellington and Canberra by Sir Miles Clifford, the Australian government announced they would contribute £20,000 towards the expedition. This amount was later increased to £25,000. Australia was soon joined with the South African government deciding to contribute £10,000 in the form of an open cash grant and £8,000 specifically for radio-sonde equipment. Since Fuchs had already procured the equipment these funds were permitted to be used for general TAE purposes. Initial funding had now been secured while contributions both in cash and kind from the private sector would be sought to make up a significant portion of the remainder. With anchoring at each end of the planned route the TAE as envisaged by Fuchs, with Hillary leading the New Zealand Support Party had finally reached the starting line.

Conclusion

Apart from patience and perseverance, the Wordie–Fuchs–Clifford triumvirate showed great skill in disarming the active obstruction presented by Roberts and the FO. This being said, the FO did not oppose the TAE on philosophical grounds. Their concern was primarily that of funding for their own project, an aerial survey of the Falkland Islands Dependencies. As it turned out both projects went ahead. Wordie's choice of timing for the initiative, together with the choice of TAE Committee members and the decision of Fuchs to engage Hillary, were particularly astute. Although the TAE was conceived by Fuchs as a scientific undertaking, ultimately, the prime motivation for governments backing the TAE, particularly Britain and New Zealand, was a political one, driven by their desire to strengthen respective sovereignty claims. Australia was rowing its own boat in this regard with its ANARE expeditions which explained their initial reluctance to participate. South Africa, the only one of the group not a claimant to Antarctic territory, had perhaps the purest scientific objectives with its interest in meteorological observation. New Zealand's participation can largely be attributed to a few individuals who persisted in advancing the expedition's cause, namely Frank Corner, the officials of the New Zealand Antarctic Society and Hillary. They recognised the opportunity presented by the

TAE for New Zealand to assert its tenuous position with respect to the Ross Dependency. Their case was favourably augmented by the visibility of the American fleet passing through Wellington on its way to McMurdo Sound. It can be argued that without New Zealand participation the TAE would not have come to fruition. New Zealand already had an Antarctic base at Cape Hallett which it shared with the Americans and which would have amply served the scientific purposes of the IGY, while the Royal Society was planning to establish a separate IGY base in the vicinity of Vahsel Bay. Any additional base required to receive a TAE crossing party in McMurdo Sound would have had to be built, staffed and funded by the United Kingdom at a cost that they were ill prepared to bear. In addition to allaying a considerable portion of the costs through the building of a Ross Island reception base, New Zealand's involvement moved Australia and South Africa to join in, thus validating the expedition's 'Commonwealth' status. With combined Commonwealth support the TAE was thus able to launch its successful efforts to complete Shackleton's 'last great journey'.

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References

The letters 'ATL' refer to the Alexander Turnbull Library, Wellington, New Zealand, while the letters 'TNA' refer to the UK National Archives, Kew, London.

Becker, J.J. 1954. Note entitled '*Polar Committee – The Proposed Trans-Antarctic Expedition'* stating the views of the South African Government regarding the proposed expedition. London: TNA FO 371/108768.

Bertram, G.C.L. 1955. Letter to Sir John Slessor, Chair of TAE Committee (London). Wellington: ATL 72-132-6/08.

Bertram, C.C.L., 1987. *Antarctica, Cambridge, conservation and population – a biologist's story*. Somerset: Hillman Printers.

Cameron, I. 1980, *To the farthest ends of the Earth - the history of the Royal Geographic Society1830–1980, 150 years of world exploration.* London: MacDonald Futura Publishers.

Carse, V.D. 1953.*The crossing of Antarctica by sledge*, 3 April 1953. Cambridge: British Antarctic Survey, Carse Papers, DC BAS 64.

Carse, V.D. 1959, The survey of South Georgia 1951–7. *Geographical Journal* 125(1): 20–37.

Cleary, D.M. 1954, Memorandum to W.A. Morris of the Colonial Office, 2 November 1954. London: TNA DO 35/7111.

Clifford, M. 1953a, Notes of a meeting of the Polar Committee held at the Commonwealth Relations Office, 24 March, 1953. London: TNA DO 35/7141.

Clifford, M.1953b. Report by Sir Miles Clifford on his assessment of the two plans prepared by Dr. Vivian Fuchs and Duncan Carse, 26 November 1953. London: T NA DO 35/7111.

Clifford, M. 1953c, A second version of the report by Sir Miles Clifford on his assessment of the two plans prepared by Dr. Fuchs and Duncan Carse, 26 November 1953. London: TNA DO 35/7111.

Corner, F. 1953a. Memorandum headed '*Trans Antarctic Journey'* to the New Zealand Secretary of External Affairs, 16 September 1953. Wellington: Archives New Zealand ACC EA W2169 208/7/1.

Corner, F. 1953b. Memorandum to the New Zealand Secretary of External Affairs, 29 April 1953. Wellington: Archives New Zealand ACC EA W2619 208/7/1.

Corner, F. 1953c, Memorandum entitled '*Trans-Antarctic Journey'* to New Zealand Secretary of External Affairs, 25 August 1953, Wellington: Archives New Zealand ACC EA W2619 208/7/1.

Corner, F. 1953d, Memorandum to New Zealand Secretary of External Affairs, 13 November 1953. Wellington: Archives New Zealand ACC ACC W2619 P208/7/1.

Fleming, L. 1953. Letter to D. Carse, 20 April 1953. Cambridge: British Antarctic Survey, Carse Papers, DC BAS 64.

Fuchs, V. 1948a. FIDS Antarctic Journal (unpublished, by courtesy of Peter Fuchs).

Fuchs, V. 1948b. 'Trans-Polar', document dated 16 August 1948. Cambridge: British Antarctic Survey AD1/D1/5 (18).

Fuchs, V. 1982. *Of ice and men.* Shropshire: Anthony Nelson Ltd.

Fuchs, V. 1990. *Sir Vivian Fuchs- a time to speak, an autobiography*. Shropshire: Anthony Nelson Ltd.

Garvey, T. 1953a. Proposed trans-polar expedition', 17 August 1953. London: TNA FO 371/103140

Garvey, T. 1953b. 'Polar Committee', 15 September 1953. London: TNA FO 371/103140.

Harrowfield, D. 2007. *Call of the ice*. Auckland: David Bateman.

Helm, A., and J.H. Miller. 1964. *Antarctica: the story of the New Zealand party of the trans-Antarctic expedition*. Wellington NZ: R.E.Owen, Government Printer

Hunt, G. 2003, *Launcelot Fleming- a portrait*. Norwich: Canterbury Press.

Larmour, E.N. 1953, Letter to H.G.M. Bass of the Commonwealth Relations Office, 10 December 1953. London: TNA DO 35/7111.

Lowe, G. 1997. Oral history archive, New Zealand Antarctic Society. Christchurch: Canterbury Museum.

MacDonald, T.L. 1955a. New Zealand Cabinet Paper No. 55 271, 1 April 1955. Wellington: Archives New Zealand ACC EA W2619 P208/7/1.

MacDonald, T.L. 1955b. Letter to UK High Commissioner in Wellington, Sir Geoffery Scoones. Wellington: Archives New Zealand ACC EA W2619 P208/7/1.

McIntosh, A.D. 1954. Memorandum entitled 'United Kingdom policy in the Antarctic' to New Zealand Minister of External Affairs, 7 October 1954. Wellington: Archives New Zealand ACC EA 2619 208/7/1.

Molyneaux, J.A. 1954. Memorandum to M. Cahill (Foreign Office), 27 November 1954. London: TNA DO 35/7111.

Morris, W.A. 1954. Letter to A.E. Drake (Treasury), 19 October 1954. London: TNA DO 35/7111.

Polar Committee. 1953a. Minutes of meeting of 24 March 1953, item 3. '*Proposals for a trans-Antarctic Expedition'*. TNA DO 35/7111.

Polar Committee. 1953b. Minutes of meeting of 15 September 1953, item 2. '*Proposals for a trans-Antarctic Expedition'*. TNA FO 371/103140.

Polar Committee. 1954. Paper entitled 'Extract from record of Polar Committee of 13 May 1954.' London: TNA DO 35/7111.

Quartermain, L.B. 1971. *New Zealand and the Antarctic*. Wellington NZ: A.R. Shearer Government Printer.

Roberts, B.R. 1953a. Minutes of discussion with CRO on the question of financing the expedition, should it take place, 14 August 1953. London: TNA FO 371/103140

Roberts, B.R. 1953b, Note to Report on the Polar Committee meeting, 15 September 1953. London: TNA FO 371/103140.

Robertson, S. 1993, *Operation Tabarin*. British Antarctic Survey, Cambridge

Rymill, J. 1939, *Southern lights – the official account of the British Graham Land expedition 1934–1937*. London: Travel Book Club.

Simmers, R. 1954, Notes on a New Zealand government inter-departmental meeting entitled '*Meeting of Antarctic Policy and Proposal for a Commonwealth Trans-Antarctic Expedition'*, 21 September 1954. London: TNA DO 35/7111

Slessor, J. 1955. Letter (signed by C.R.L. Parry, TAE Secretary) to G.C.L. Bertram, 25 August 1955. Wellington: ATL 72-132-6/08.

Smith, M. 2004. *Sir James Wordie – polar crusader*. Edinburgh: Birlinn Ltd.

Stephenson, J. 2009, *Crevasse roulette – the first Trans-Antarctic crossing 1957–1958*. Australia: Rosenberg.

TAE Committee of Management. 1955. Minutes of meeting of TAE Committee of Management, 10 March 1955, Wellington: ATL 72-132-6/08,

TAE General Committee. 1954. Minutes of inaugural meeting of the TAE General Committee, 24 June 1954. Wellington: ATL 72-132-6/08, Wellington, New Zealand

Templeton, M. 2000. *A wise adventure – New Zealand and Antarctica 1920–1960*. Wellington NZ: Victoria University Press.

Trendall, A. 2007. Duncan Carse and his connection with South Georgia. *James Caird Society Journal* 3 (April 2007).

Trendall, A. 2011. *Putting South Georgia on the map*. Perth Australia: Quality.

UKHC Australia 1954. Letter from Australian Prime Minister's office to UKHC in Canberra and forwarded to CRO, 12 October 1954. London: TNA DO 35/7111

UKHC Canada. 1954. Telegram No. 603 to CRO, 4 September 1954. London: TNA DO 35/7111.

UKHC New Zealand. 1954. Telegram No. 376 to CRO, 7 October 1954. London: TNA DO 35/7111.

UKHC South Africa. 1954. Telegram No. 350 to CRO, 6 November 1954. London: TNA DO 35/7111.

Whitehead, G.S. 1954. Letter to H.G.M. Bass of the CRO, 12 January 1954. London: TNA DO 35/7111.

Wordie, J. 1954, Letter entitled 'Polar Committee' to N. Pritchard of the CRO, 2 February 1954. London: TNA DO 35/7111.

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