ANTARCTICA:
View from a Gateway

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Abstract

Antarctica is a unique and precious Continent. Effective stewardship and wise management of Antarctica and its dependent and associated ecosystems through the Antarctic Treaty System are in the global interest. Geography and history have made New Zealand a leading Antarctic nation. The end of the Cold War does not diminish New Zealand's strategic interest in ensuring that Antarctica does not become a source of tension or conflict. Antarctica constitutes a national asset for a small country with limited sinew and leverage in the world. The challenge for New Zealand in the twenty-first century is to ensure that it remains a gateway to something of enduring intrinsic worth.

About the Writer

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World in Transition: The Antarctic Treaty

Antarctica matters. A remarkable Continent, 30% larger than Europe, 50% larger than Australia, its remarkable significance on the global scale is now recognised. A regulator of the world's climate, it offers a window into the world's climatic history. It is a natural scientific laboratory, providing keys to global environmental processes, and insights into extraterrestrial processes. It contains 90% of the world's ice, and locks up a great proportion of the world's freshwater. Its surrounding ocean teems with life. Effective stewardship and wise management of Antarctica and its dependent and associated ecosystems are in the global interest. The Antarctic Treaty regime establishes that this is too important a region to be an area of international contention.

The Antarctic Treaty is nearly 40 years old. The world, on the threshold of the twenty-first century, is very different from that when the Antarctic Treaty was concluded in 1959. The old world order has disappeared; a new one remains to be put in its place. Global interdependence is more deeply, and widely, understood. Transnational problems affect nations large and small, stemming as many do, from mankind's environmental stewardship of the planet. The position of Antarctica is central to that issue and is reviewed in this study, against the larger backdrop.

The end of the Cold War in 1991 had an impact on Antarctica. The geo-strategic rivalry of the US and the Soviet Union was removed as a key underpinning of the Antarctic Treaty regime. The change in world order meant the US was unchallenged as the largest physical presence in Antarctica. It had direct effect, too, upon the activities of both countries in respect to Antarctica. Russian presence and activities were dramatically reduced. American activities were subject to tighter financial constraint.

In the wider context, the end of Cold War posed several questions with relevance to Antarctica. Issues of national sovereignty became more prominent in the world. Major states were perhaps less likely to indulge the wishes or aspirations of smaller states. In a resource-aware world the most remarkable assumption behind the Antarctic Treaty – namely that a small group of countries could unilaterally set in place a system of governance for such a vast Continent – was more prone to potential challenge. There was too a possibility that some of the basic assumptions of the Antarctic Treaty would be challenged by major states, even those currently bound within the Treaty System, if opportunities for large-scale commercial resource exploitation were to emerge, that are not foreseen or covered in the Antarctic Treaty and its Environmental Protocol. The rule of international law post-Cold War was not assured. Smaller states with involvement in Antarctica were likely therefore to have to work harder to form coalitions of interest, to defend and promote their perceived interests.

Questions of ownership and jurisdiction will probably grow more prominent in a changing world order. The immediate issues of national sovereignty engage policy makers, more readily than universal concerns such as further enhancing the environmental regime globally, or in Antarctica. Clearly as a general proposition for the century ahead, policies of restraint will be essential if the fabric of the Treaty System is not to be damaged, and the political and legal accommodations over sovereignty in the Antarctic Treaty, are to be upheld.

In the aftermath of the Cold War, the policy makers in the **Northern Hemisphere**, who make up the bulk of the Antarctic Treaty membership, diverted attention away from Antarctica to polar matters closer to home. The management of the politically sensitive **Arctic Region**, and in particular the range of post-Soviet consequences, proved to be of greater moment than the Continent on the other side of the globe. The huge environmental damage throughout the Arctic caused by Soviet waste disposal, not least nuclear waste disposal, captured attention and compelled urgent remedy. At the same time new enterprise in the form of Arctic tourism, was conceived and initial programmes launched. One question was how far might developments in relation to the Arctic shape perceptions and options in regard to Antarctica on the part of the northern hemisphere majority amongst the Antarctic Treaty parties.

The changed circumstances in which the Antarctic Treaty now operated (and in particular the obligations explicit in its 1991 Environment Protocol) raised the need, or desirability, of closer coordination and interaction between the five **Southern Hemisphere Gateway** countries to Antarctica – New Zealand, Australia, Chile, Argentina, South Africa. This subject is covered in succeeding sections.

United States and Antarctica

Whilst America's place in Antarctica was pre-eminent, the post-Cold War contraction in US defence budget spending produced direct impact in Antarctica. The announced withdrawal of US Navy involvement from activities in the Southern polar region (and its support base in New Zealand) by the end of the century, represented a major change in the way the US had maintained its presence.[1]

A re-examination of the geo-strategic rationale for US science in Antarctica by the US National Science Foundation (NSF) followed the budgetary cut backs. The question of competing priorities as between the Arctic and Antarctica, the need to replace ageing facilities at the South Pole Station focussed a direct spotlight on the purpose and merits of American Antarctic activities by both scientists and Congress.

The outlook is for continuing pressure on US expenditure in Antarctica, although the reaffirmation of strategic interest in the Continent and, therefore, of ongoing US engagement, will likely be accepted as an ingredient of the US global leadership task. The NSF concentration is more likely to lie in the direction of reducing heavy Antarctic expenditure on operational and logistic support, whilst seeking to get more science for its (smaller) investment. The international dimension of Antarctic science should provide some leverage effect for NSF to get better return on Antarctic science spending.

Budgetary retrenchment in regard to Antarctica was not confined solely to the US. Changing political circumstances, pressure on expenditure and new environmental obligations compelled reconsideration in several quarters. New approaches involving cost sharing or cost recovery programmes amongst Antarctica Treaty parties were clearly in prospect.

Antarctic Science

In the forty years of collective scientific effort on Antarctica,[2] answers have been supplied to many of the major questions formerly asked about the Continent. Significant scientific discoveries have still to be made, but the context, notably the global context, in which they are made is now better understood. The increased knowledge of Antarctica enabled Antarctic studies now to be linked closely to global processes – especially in regard to environment and climate change.

All of this meant that the way in which Antarctica is viewed and used in terms of scientific endeavour and environmental management, was changed. Changes at the global level likewise added impetus to evolutionary change in Antarctica itself over the last decade of the present century. Technology, especially satellite technology, opened up new ways of researching Antarctica by using, for example, remote-sensing and unmanned equipment with real-time links to laboratories elsewhere in the world. The fixed bases on the Continent together with air transport allowed scientists to visit the Antarctic quickly and over reasonably short periods of time, to carry out experimentation without the need for lengthy expeditions of earlier times.

The relatively high cost of new Antarctic science, and the substantial operational and logistic support required, have militated increasingly in favour of international collaboration on the Continent. Such collaboration is promoted in particular by the 1991 Environmental Protocol of the Antarctic Treaty itself. It was acknowledged that avoidance of scientific duplication allied to effective collaboration reduced the human footprint on the Continent; and it is cost-effective.[3]

Non-governmental activities in Antarctica have grown, and account of them must be taken in the future governance of the Continent. As scientific programmes came under financial pressure and officially sponsored activities contracted, so commercial activities, including commercial science, have gathered momentum. Tourism is a chief example. Educational activities have developed. Technology can bring Antarctica into the classroom in real time. It was recognised there are some exciting and barely tapped possibilities.

The Antarctic Treaty System

The Antarctic Treaty System (ATS) is a whole complex of arrangements made for the purpose of regulating relations among states in the Antarctic. At its heart is the 1961 Antarctic Treaty itself, and its 1991 Environment Protocol together with recommendations adopted by the Treaty parties and two conventions.[4] The Treaty totally demilitarised the Continent. Nuclear explosion and radioactive waste disposal were outlawed. Security and science, thus comprised the core values of the Treaty founders, but as new members, from Asia, North and South America, and Europe joined the Treaty so interest including non-government interest, in the potential for mineral and marine resource exploitation grew. The Treaty envisaged Antarctic activities would be almost exclusively governmental, although non-government entities have influence. At the time of writing 43 countries are contracting parties to the Treaty of which 26 are Consultative parties (ATCP).[5] Since the end of the Cold War, in 1991, the issue of environment has emerged as the additional core value of the Treaty, as countries have grown to accept Antarctica provides uniquely important information for understanding the global environment. This lends dimension to its intrinsic strategic worth. At the same time the Continent itself is acknowledged to possess a fragile environment that warrants international protection.

The end of the Cold War in 1991 produced new challenges, too, for the Treaty System, in the sense that the geo-strategic perceptions of key power policy makers which had guided the foundation period of the Antarctic system, changed. Decreases in defence spending impacted in Antarctica since much of the science and related areas was, in many countries, funded from defence appropriations in national budgets. At the same time pressure widened, led by Malaysia in the UN, to have Antarctica designated as a global 'common' or heritage of mankind to be governed under the UN. The expanding Antarctic Treaty membership over the decade 1981-1991 did help to move it away from the appearance, or reality, of a small club of like-minded countries. But more was needed, and needs, to be achieved.

While the Treaty is open to signature by any state, the Treaty parties must acknowledge that the basis of the Treaty regime is still not wholly accepted internationally. The world is not indeed really familiar with the Treaty. Antarctica is not governed by an instrument that has been negotiated amongst the world's nations. The legal status of Antarctica is not resolved. Parties are still vulnerable to the charge that Antarctica is governed under a regime determined by a self-selected and unrepresentative group of countries. The Treaty partners opposed the Malaysian initiative first begun in the early 1980s, declining to participate in UN debates or votes on Antarctica; their views at the UN based on consensus, were traditionally expressed only through a coordinator.

Wider subscription to the Antarctic Treaty should add to its legitimacy. The Treaty has, in all truth, not confronted the sort of challenge that would ensue from the discovery of major, valuable and exploitable resources within the area over which the Treaty provides governance. Such a situation could involve billions of dollars and eager commercial interests. The Treaty regime requires to be robust enough for that challenge. The concerns raised, first by Malaysia have, however, not been allayed for all time. A sounder relationship between the Antarctic Treaty and the UN must be

established. It cannot be ignored that many countries inside the UN actually support the Malaysian call for Antarctica to come under UN jurisdiction.

To this point, the Antarctic Treaty System has been built upon pragmatic and often imaginative responses to issues, or problems, identified by the Treaty parties. At the heart of this has been a predisposition to find political and legal accommodations for pressing issues, not least the question of sovereignty. The Treaty provides the basis for the demilitarisation of the Continent, and the conduct of scientific research without prejudicing the political or legal position of any country on the question of sovereignty. It seeks to reconcile the differing interests of those states who claim and exercise sovereignty, and those who desire to be active in the region, but do not claim or recognise any sovereignty on the Continent.[6] In strict terms the Treaty does not 'freeze' or set aside the sovereignty issues, but preserves and protects the legal position of all parties.

The Treaty parties have displayed forward-looking approaches to potentially divisive issues – such as minerals exploitation. These have been approached flexibly and at an embryonic stage. Once it became clear, for example, that a convention for the regulation of Antarctic minerals resource activities was going to be rejected, the Treaty parties changed their line of approach, and negotiated instead an environmental protocol to the Treaty itself to govern all human activities on the Continent. The emphasis upon sound environmental stewardship has gone some way towards reconciliation of the differing viewpoints displayed inside the UN, about governance of the Continent. Indeed the closer involvement of relevant UN environmental agencies at the Antarctic Treaty Consultative Meetings which began in the 1990s has enhanced the relationship with the UN system to the benefit of the Treaty parties.

Of themselves such links may not however be sufficient in an increasingly environmentally aware and resource hungry world. Continued demonstration of the purpose and effectiveness of the Antarctic Treaty by encouraging greater awareness and involvement of non-signatories to the Treaty, is necessary to broaden its appeal; and deflect challenges to its integrity from within the UN system and elsewhere.

New Zealand has traditionally invested much time and effort in the development and promotion of the Antarctic Treaty System. As a result, it has been a major influence in shaping and guiding its direction and evolution. It must continue its engagement at the centre of the system's policy-making processes.

Policy Making and Consultative Status under the Treaty

The Antarctic Treaty cannot be the preserve of Antarctic specialists acting in isolation from world developments. Whilst the Treaty remains at the forefront of environmental protection and resource management, important progress on such issues at a global level, including in Law of the Sea, and the results of the 1992 Rio Environment Summit has meant that the world has caught up with, and in some cases moved on ahead of, the Antarctic Treaty. Resource exploitation issues like seabed and other mining as well as fisheries, are particular cases in point. There is the need, in a nutshell, to 'mainstream' the Antarctic Treaty and in the process, the Treaty parties require to identify what the partners should collectively and usefully undertake themselves; and what they leave to other bodies / institutions to take the lead on.

This approach carries implications across a range of Antarctic Treaty System practice. Chief amongst these are:-

Criteria for Consultative Status: As governmental input is reduced and as the commercial sector plays an increasingly significant role in supporting national activities, it is necessary that the Treaty parties revisit the criteria for Consultative status. (Article IX confines Consultative status to **countries** that demonstrate scientific interest in Antarctica through "substantial" research activity there, including the establishment of a station on the ice). As internationally collaborative science develops, so the need for individual national presences that characterised the first four decades of the Treaty, may diminish. Such modification in the rules would be of relevance to nations interested in Antarctica but unable to afford the high entry cost of the individualistic national approach implicit in the present rules. Countries which are signatories to the Treaty do not necessarily have to have **substantial** Antarctic involvement to be engaged in useful Antarctic work, to offer sound counsel, or to assist the Treaty System to realise its aims. In a word, therefore, Treaty parties need to consider whether the existing tiered membership structure of the Treaty, which distinguishes, indeed privileges, Consultative Parties from Treaty Signatories, is the most appropriate and productive.

Policy Making: Effective and creative policy making in the framework of the Treaty System is a key responsibility. But it is also a matter of considerable complexity. It cannot rely solely, or simply, on an annual burst of activity through, or at, the ATCM. The Treaty has no secretariat, permanent headquarters nor administrative machinery. Planning and preparation for the annual event is frequently indifferent. The long-mooted creation of a secretariat might not change this.[7] Thought may need to be given to creating a legal personality for the ATCM. (See below).

There is an ongoing need for Treaty parties to invigorate **bilateral relationships** with other parties on the basis of common and practical interest as well as experience in and with Antarctica. European members of the Treaty display readiness to consider common policy approaches on such matters as marine living resource conservation under the Treaty; and they demonstrate the same disposition on other issues in other multilateral fora. But the southern hemisphere **Antarctic 'gateway'** countries have been less predisposed on past evidence. From a New Zealand perspective they require to identify and discuss amongst themselves issues of particular relevance to their ongoing interactions with Antarctica; and to strengthen bilateral contacts about Antarctica more generally to increase collaboration under the Treaty System, (this is discussed further below).

Marine Living Resources: Experience with implementation of the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) negotiated under the Treaty, illustrates the timeliness and relevance of a differentiated approach under the Treaty System. The CCAMLR adopts an eco-system approach to marine living resources and when first introduced marked an important new development in the management of ocean resources. Scientific work has included innovative study of, for example, incidental mortality and biomass yields. Key problems of fish stock management in conditions of uncertainty have been translated into policy recommendations. But CCAMLR has been less successful in ensuring effective implementation in practice of its policy recommendations. There is more than one reason. The jurisdictional regime applying in Antarctic matters is complex. Enforcement relies solely upon member states. And, at the bottom line, developments within CCAMLR cannot simply be divorced from those elsewhere. As suggested earlier, the Convention members like the Antarctic Treaty System overall, have to determine where they can, and should, provide a lead and where they should wait for others to do so. They need also to commit themselves to collective, rather than national, solutions to problems for the common goal: *The continuing legitimacy and effectiveness of the Convention*.

Sovereignty: The Antarctic Treaty System represents an accommodation over sovereignty on the Continent. It must be made to work for all Consultative Parties and all Treaty Signatories. And

its implementation requires sensitivity, too, about the positions of claimants and non-claimant states alike. New Zealand is one of only seven states claiming sovereignty in Antarctica. Aggressive assertion of claimant rights, while legal under the Treaty, could colour or compromise the integrity of the ATS in the eyes of non-claimants and more important, of the world at large. The basis of the Treaty could thereby be threatened; and outside challenge more likely to the legitimacy of its environmental protection regime. The situation in respect to marine living resources, sketched above, provides as well, clear evidence of the need to exercise restraint on the issue of sovereignty, and to employ bilateral opportunities to advance the overall interests of the Treaty System.

Future Policy Challenges and Environment: Although it cannot be the last word on the question of protection and management of Antarctica, the 1991 Environmental Protocol to the Antarctic Treaty lays out a far-sighted, complex and ambitious programme. It grew out of the rejection of the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) that would have secured agreement that no mineral activity could take place in Antarctica, unless all parties accepted there would be no risk to the environment. Basically the ambitious programme envisaged under the Environment Protocol extends far wider than just minerals activity (which it bans outright) and requires Treaty parties, as well as private individuals, to minimise their environmental impact upon Antarctica. No activity should proceed unless sufficient information is available to determine that its environmental impact is acceptable.

Securing such an objective will not be easy when the Antarctic budgets of Treaty parties are under strain and when political focus may be directed elsewhere. Collaboration amongst the parties must be enhanced to develop the understandings and procedures required to make the Protocol a reality in practice. Existing Treaty mechanisms require to be employed effectively by Treaty parties so that information about the discharge of Environmental Protocol undertakings is promptly circulated. And serious attention to the development of a workable ***Liability Annex*** is essential if the Protocol overall is to have teeth. This is a central policy priority just as ratification of the Protocol represents the acid test of Antarctic Treaty Parties' political will. Entry into force of the Protocol itself will not occur until all Consultative Parties have signed and ratified it. The new ***Committee for Environmental Protection (CEP)*** will meet once all ratification procedures are complete in signatory countries.

It is important that the CEP receives effective executive support notwithstanding whatever decision may be adopted in respect to secretariat support for the Antarctic Treaty System overall (see below). These are procedural and mechanistic questions which will, hopefully, be readily resolved; the need to facilitate and coordinate effective information exchange remains nonetheless an unending one, just as is the development and support of intersessional work to complement effective annual review of the Protocol's progress. It is important always that CEP executive support does not however duplicate resources and systems available elsewhere. Existing international information resource bases and data banks should be employed via electronic linkage.

Institutions and Process of the Treaty System

The Antarctic Treaty System needs to become, and to remain, more transparent and, hence, more understandable to Treaty signatories and non-signatories alike. To prepare the Treaty for the challenges of the 21st century requires that change be made, and be sustained, in the way business is conducted and presented to the world at large. Greater intelligibility should contribute to the appeal of the system for those countries that remain outside. Refinement of the decision-making process can contribute to transparency, efficiency and accessibility of the Consultative meetings. There are

inherent strengths which have grown as the Treaty System has evolved – flexibility, pragmatism, innovation, informality, consensual decision-taking – which provide foundations for the future.

The process remains a product of the early times when the Treaty was run by a small number of like-minded countries and a peer group of long-serving individuals with deep knowledge of the Treaty and its origins. Membership has grown more diverse. The informal approach has an old-fashioned quality. The process is neither transparent nor inclusive. And the Treaty must compete for governments' attention as the international conference agenda, and the body of international law, has swelled.

Enhancement of the Consultative Meeting procedures must encourage order and predicability and best use of available time. Appointment of working group office-holders (Chairpersons) has been concentrated in too few hands. Fixed term office-holding should become a feature. Documents should, as a matter of course, be circulated well before the Treaty System Meetings at which they are due for consideration.

Intersessional consultation by Chairpersons is indispensable if the complex and technical work of the ATCM Committees and perhaps, its working groups is to be effectively discharged. If the CEP is to evolve as a genuine centre-piece of the environmental management regime, then intersessional contact is vital, including with other bodies and agencies with interests in Antarctica.[8] Effective communications with and between such organisations are essential to inform the policy deliberations of the Consultative Meetings.

These are among the reasons why it may be timely to consider the appropriateness of the ATCM as the Treaty System's policy-making organ. Giving the ATCM legal personality – in the same way as the commission of CCAMLR – perhaps in the form of an "Antarctic Treaty Commission" – might simplify and clarify organisation of the System's business.

Permanent Secretariat: The Antarctic Treaty System has functioned without a permanent secretariat or headquarters. The question, which is likely to remain open, (and, even, contentious), animates the old balance of arguments; on the one hand a modest secretariat will address systemic improvements, provide collective institutional memory, facilitate contact with disparate parts of the Treaty System as well as outside agencies, and help prepare and manage ATCM and intersessional work; on the other hand, the system could become less flexible, it would focus on the details not the big picture policy settings, it could discourage bilateral efforts by Treaty parties, and the secretariat in the very nature of things, would take on a life of its own. And where should it be permanently sited? Discussions to date among Treaty Parties give no comfort that any early resolution of these questions is in sight.

NEW ZEALAND AND ANTARCTICA

New Zealand has exercised jurisdiction in the Ross Dependency in Antarctica since 1923.[9] It is a unique and extraordinary region, half as big again as New Zealand, on a unique and extraordinary Continent. It includes fauna and geographical features (including the Dry Valleys) which are intrinsic values of global importance. Geography bestows upon New Zealand significant competitive advantage. Its proximity and the McMurdo Sound area provide scientists with ready access to the Continent and the South Pole. Facilities on Ross Island form an operational and logistics hub for air access to and from the Continent.

Following signature of the Antarctic Treaty in December 1959, New Zealand assumed the wide range of obligations in that Treaty and embarked upon a substantial and continuing programme of scientific research in the Ross Dependency. Active involvement had commenced in 1957 during the International Geophysical Year and with the Trans-Antarctic Expedition. For forty years New Zealand endeavoured to pursue consistent scientific, operational and support activity around Scott Base. This clearly demonstrated its interest in the Ross Dependency.

The end of the Cold War and the ensuing change in global circumstances, the negotiation of the Environmental Protocol to the Antarctic Treaty (see above) and the effects of public sector restructuring inside New Zealand itself all combined, in 1994, to induce a **Review of New Zealand Strategic Objectives in Antarctica**, and the institutional arrangements best suited to support them. It was clear that scientific oversight together with strategic planning in a new New Zealand environment of contestable funding and professional management, plus the need for core expertise for direction of the scientific, operational and logistic aspects of the New Zealand Antarctic programme, required a fresh approach.

Although the US does not itself recognise sovereignty claims in Antarctica there was, as well, a lingering question mark about whether New Zealand could withstand a counter claim from the US to jurisdiction over parts, or all, of the Ross Dependency. Although the New Zealand claim dates from 1923, it was not until after 1957 that it commenced activity in the Dependency that substantiated the claim; whereas in that intervening period the US had been substantially active in the Ross Dependency. This could provide a base for a sovereignty claim should the US ever elect to make one.

The Review was far from the first. There had in fact been several earlier reviews of the New Zealand Antarctic effort (in the 1970s and 1980s) which, while restating the benefits to New Zealand of active and continuing scientific involvement in Antarctica, had not resulted in any modification of consequence to the institutional structure or other substantial change. The reviews generally accepted that something needed to be done if New Zealand's Antarctic activities were to develop and flourish. They could not agree what. The 1994 Review had to examine whether New Zealand could afford to remain committed to Antarctic activities; were its national interests sufficient to justify ongoing implication in Antarctica? Was New Zealand involvement with Antarctica driven, primarily, by foreign and security policy interests or science? How could science make better use of the New Zealand foothold in Antarctica and the experience derived since 1957?

There were concerns that New Zealand activity over the years had produced a programme of Antarctic work which was not especially strong in science; it was largely land-based, mechanical and lacked vision, innovation and flexibility for the twenty-first century. In a certain sense access to the ice was overabundant and tended to condition what New Zealand actually did. The Antarctic programme provided capabilities and facilities, virtually cost-free, and invited scientists to make use of them. Did this reflect the preferences of the scientists, and did it meet the requirements of a new market-driven public sector? How was it to cope with demands for more, and more coherent, science in non-traditional Antarctic areas – such as marine science?

The 1994 Review: Considerations of Science

It is sufficient here to pick out the key considerations of the 1994 Review, since they will continue in the future to be critical factors in shaping New Zealand attitudes and policy.

Science is recognised as the major activity undertaken in Antarctica, a Continent devoted to peace and science. New Zealand needs to do top-notch science there in order to retain its international credibility as an Antarctic player.

The fundamental rationale for New Zealand scientific research interest in Antarctica springs from recognition that events and processes there have a profound influence on the environment and evolution of the entire globe, (eg. climate, biological production, ocean circulation). More directly, research has direct relevance to New Zealand itself at a regional level including the issues of ozone layer depletion, fisheries resources, and the fact that geological research in Antarctica provides insight into likely resources in the New Zealand region.[10]

The 1994 Review recognised that major gaps remained however in New Zealand's knowledge and understanding of the intrinsic value, features and potential resources of the Ross Sea Region. Informed policy making would require deeper understanding and assessment of the Antarctic ecosystem in our area. New Zealand needed to be aware of the potential for future resource exploitation on the Continent not envisaged in the Environmental Protocol to the Treaty. The rapid development of biotechnology has for instance, increased the potential for important discoveries in Antarctic fauna. Additionally, the pelagic fisheries resources of the Southern Ocean south of New Zealand are largely unknown. Judging by developments elsewhere in Antarctic waters, they could become significant.

The basic question remained "is science still the driver of the New Zealand national presence in Antarctica?" The level of science activity had in fact fallen off following restructuring of the government involvement in science.[11] What science could be done only in Antarctica? Was New Zealand justified in keeping open its Scott Base the year round?[12] Could the scope of Antarctic science be broadened in New Zealand? Marine science was, for instance, relatively weak. Better knowledge of the waters of Antarctica between New Zealand and the Continent, would obviously improve understanding of climatic conditions and resources in New Zealand's own EEZ. Another issue was how increasingly significant non-scientific activities in Antarctica – such as eco-tourism, recreational tourism and educational uses – can be effectively managed to ensure protection of Antarctic's intrinsic values. New Zealand's commitment to environmental stewardship in the Ross Dependency was a particularly significant factor. Would improving Scott Base attract more high quality Antarctic science? There was evidence that New Zealand's Antarctic science faced danger of marginalisation in a new era of contestable funding. The question for Government then was, and remains, whether state subsidised science in Antarctica could be justified.

The 1994 Review: Consideration of Environment

At the root of many of these questions was, and is, the likely impact of the Environmental Protocol to the Antarctic Treaty. One issue here is whether the Protocol will constrain scientific activity on the Continent by making it more difficult and more expensive. That issue was central to an assessment of whether further capital investment was warranted in Antarctica by New Zealand.

The 1994 Review: Considerations of New Zealand Assets

The assets built-up over the years of New Zealand involvement with Antarctica formed another part of the balance of assessment for the 1994 Review. These assets included a strong popular identification with Antarctica, based on pioneering exploits, and a commitment to protection of the Antarctica environment. It also included the physical assets of Scott Base and other national facilities. In direct terms the Review had to decide whether the New Zealand investment in Antarctica be dismissed as a sunk cost, or treated as an investment to be built on in the future. Institutionally

within the New Zealand government system experience, and knowledge, of Antarctica has been spread, throughout the forty years of Treaty involvement, quite widely. But intellectual capital is limited. Only the Ministry of Foreign Affairs and Trade has a dedicated policy capability. Other parts of the system treat Antarctica on a part-time basis.

Although there are no dedicated full-time Antarctic scientists in New Zealand, the country enjoys a worthwhile reputation for scientific, and operational, expertise in regard to Antarctica. Interestingly, some of our strongest Antarctic science is, in fact, carried out in New Zealand. The New Zealand Antarctic Programme, (NZAP) now "Antarctica New Zealand" (see below) is a repository of valuable information and practical advice about operations in the testing Antarctic environment. In scientific terms, centres of knowledge and excellence reside in the universities, Crown Research Institutes (CRI) and other related agencies. The fixed infrastructure on the ice allows safe housing of personnel and safe conduct of activities in one of the world's harshest environments. Search and rescue (SAR) capabilities are developed to an important degree. New Zealand has long experience of surveying, mapping and charting in the Ross Dependency. In environmental impact assessment reporting, along with amelioration and mitigation reporting, New Zealand is at the leading edge. New Zealand was the first Antarctic Treaty member to submit itself to an independent environmental audit report of its national Antarctic programme.

The contribution of the non-governmental community to Antarctica is a real component of the New Zealand national asset. The Royal Society of New Zealand has a National Committee for Antarctic Science.[13] It also operates the International Centre for Antarctic Information and Research (ICAIR) which is a data collection and research centre with a particular focus and expertise in environmental management and tourism in the region. This year's hook-up with the United Nation Environment Program's Global Resource and Information Database (GRID) system of world environmental information, will add substantially to ICAIR's standing. Popular awareness of human activity and environmental protection is heightened by the activities of the Antarctic and Southern Ocean Coalition (ASOC), the Forest and Bird Society and by Greenpeace New Zealand. Specialist Antarctic tourism, and eco-tourism interests offer as well worthwhile perspectives about the Continent. New Zealand has a substantial Antarctic literature, historical record and collection, including preservation work on monuments and artefacts on the Continent by the Antarctic Heritage Trust (AHT).

Antarctica represents substantial business for Christchurch City, estimated to be worth $40-$50 million annually to the local economy.

Commercial ventures include the International Antarctic Centre (IAC) established at Christchurch which houses offices of the New Zealand, the US and Italian Antarctic programmes as well as ICAIR. It promotes **Christchurch as an Antarctic Gateway**. Advanced cargo handling and tracking capacity for Antarctic logistic support has been established, and commercial aviation engineers handle maintenance of the US Antarctic Program's air transport capacity. Visits of expeditionary vessels to Lyttelton generate worthwhile supply business.

New Zealand-owned, or based, companies have entered the specialist Antarctic tourism market, with sea tours taking in the Ross Dependency as well as sub-Antarctic islands under New Zealand jurisdiction. Tourist attractions inside New Zealand have served to focus visitor attention on Antarctica by developing, amongst other things, educational programmes and information tools about the Continent. Young scientists are attracted by the offer of Antarctic scholarships to support research projects on the ice.[14]

The 1994 Review: Considerations of New Zealand Foreign Policy

In recognising New Zealand's wide interests in the Antarctic region, the 1994 Review concluded that nothing should be done to prejudice or damage the New Zealand claim to **sovereignty** over the Ross Dependency. There were moreover compelling reasons for New Zealand's continuing engagement in Antarctica including the historical links, the uniqueness and scientific importance of the Ross Sea region, its role as principal access point to the Continent, and the absolute need to ensure that the highest standards of environmental management continue to be practised in the region. Because the New Zealand claim is accepted by only a minority of Antarctic Treaty parties, and amongst those who do not recognise the claim figures the US, the world's leading Antarctic player, circumspection is needed on New Zealand's part. Yet the claim is not irrelevant because it cannot be discounted that the Antarctic Treaty itself will diminish in relevance as a sufficient piece of international law.

The end of the Cold War does not diminish New Zealand's strategic interest in ensuring that Antarctica remains demilitarised and does not become a source of tension or conflict. The nature and values of the Continent, its proximity to New Zealand, the claim to national territory in the Ross Sea and the importance therefore of a stable regime of governance for the Continent, guarantee that the region remains one of key interest to New Zealand into the 21st century. The collective security principle implicit in the Antarctic Treaty offers the best means of preserving peace/stability on the Continent and of restraining destabilising interests or adventurism.

The foreign policy factors have another dimension. Membership of the Antarctic Treaty System, and involvement in collective endeavours under the auspices of the system, have created for New Zealand measurable assets in the form of bilateral and international connections that benefit New Zealand science. There are traditional connections, dating from the time of Treaty signature, and there are more recent connections, with nations whose involvement with Antarctica under the Treaty, or otherwise, is of more recent origin. New Zealand has a number of Antarctic cooperation agreements[15] and understandings of varying extent and content which are intended, in broadest terms, to facilitate cooperation between New Zealand scientists and their foreign counterparts, (these are touched upon below).

United States

First and foremost has been the relationship with the US, formalised in 1958-59, under which Christchurch has constituted the main jump-off point for American access to Antarctica; and from which the US developed its station on Ross Island in McMurdo Sound as a vital supply link to the South Pole.

The American Antarctic connection has been valuable to New Zealand from both a political and scientific standpoint. In Antarctic terms, the partnership is unique. Numerous policy makers in the US have become aware of New Zealand through their contacts with the US Antarctic Program. The robustness of the political connection through Antarctica was demonstrated throughout the decade of stand-off between the US and New Zealand, following New Zealand adoption of its non-nuclear legislation. Antarctic cooperation was unaffected by US retributive action in the defence and security areas.

High level contacts with the US National Science Foundation (NSF) are particularly valued by the New Zealand scientific community. Mutual benefit, in the form of internationally collaborative science, is the result. But New Zealand gains more by way of exposure to a wide range

of US science in disciplines of interest to this country.[16] New Zealand science benefited from association with the stream of US scientists and researchers who either pass through en route to and from Antarctica, or undertake global research from US Government facilities established in New Zealand for Antarctic support. Such benefits spread across the national science community. The umbrella Science and Technological Cooperation Agreement signed between the US and New Zealand in 1974 owes its success in large part to cooperation in Antarctica. It has proven to be one of New Zealand's most worthwhile science agreements.

Through access to the extensive US logistics capabilities, New Zealand scientists have enjoyed readiness of access to Antarctica, and use of resources that New Zealand itself is in no position to supply. Increased scientific collaboration flows from cooperation in operations and logistics. As discussed earlier, for budgetary and other reasons, the US Navy planned to withdraw from Antarctic operations, with effect from 1998. The US Airforce assumes the main flying duties for the National Science Foundation but it will maintain a different operation. The US Operation Deepfreeze as a consequence, terminates; and the US Antarctic programme will be increasingly 'civilianised'.

The US decision created possibilities for New Zealand service-providers to broaden the range of services they could offer to the US and potential international clients. The significance of New Zealand science links with the US, should thereby be strengthened. But the US profile in New Zealand will be reduced. The American effort and interest would no longer be able to be taken for granted. New Zealand will have to continue to make the case for the benefits to both countries of the partnership approach which underpins their Antarctic collaboration.

Antarctica and New Zealand Defence

There is both opportunity and challenge. The New Zealand Antarctic programme had become markedly dependent upon the US for logistical and operational support in both accessing Antarctica and for mobility within the Continent. There was, and is, a genuine question about how desirable this state of affairs really is. Participation in an operational and logistic pool with the US (and which included Italy) whilst beneficial in a real sense, imposed constraints on national flexibility and forward planning. It also tended to obscure the major and on-going contributions by the New Zealand Defence Forces (NZDF) to the national Antarctic effort. This created a potential difficulty of prioritisation since Antarctica had not been identified as a core mission for the NZDF, while in value terms it absorbed $18 million of resources a year, three times the Government's investment in the support services provided to scientists by the NZAP.

Undoubtedly opportunities for private sector provision of services currently provided by the military will increase. Such developments are to be encouraged. But they will not replace the need for continuing engagement by the NZDF given the broader national interests at stake.

In the face of significant changes by the US in logistic and operational capacity, the ability of the NZDF to maintain operational and logistic support for New Zealand's Antarctic science was, and is, a key question. Innovation, flexibility and adaptation of the Defence support effort are desirable in the national interest to meet the needs of Antarctic activities and interests in the 21st century. If the net result of the change in the US commitment to Antarctica were to be a decline in the level of New Zealand participation in the Antarctic Treaty System (because the NZDF did not have capacity to offer sufficient logistics support) the extent of the damage to New Zealand's Ross Dependency interests and, indeed to the claim of sovereignty in Antarctica, require to be carefully reassessed. It could not be ignored that the claim to the Ross Dependency is New Zealand's only disputed territorial

claim internationally. This makes it an issue of on-going foreign policy importance. The extent to which Antarctic interests were then regarded as a defence capability determinant for New Zealand defence forces, should therefore be a significant consideration in defence re-equipment strategy. Support of New Zealand foreign policy, as distinct from defence of the homeland, is a cardinal principle of established New Zealand defence philosophy.

Other Cooperation Agreements

Amongst government-to-government cooperation agreements with European states (Sweden, Switzerland, Germany, France and Italy), that with Italy has proved, for New Zealand, to be most useful collaboration. Italy supports the International Antarctic Centre (IAC) at Christchurch and has established a seasonal office there. It has supported the ICAIR project. Italian scientists collaborate with New Zealand in the Ross Sea region, and are part of the Cape Roberts project, on climate change study.

The other European agreements are useful but the extent of activities remains limited, relying on the initiative of individual scientists and projects. The agreements add modest extra dimension to New Zealand's external connections with key European states. They vary in type between actual cooperation agreement (with France) to statements of cooperation (with Switzerland).

Gateway Connections

A dedicated effort is directed to expand scientific and other links with fellow Southern Hemisphere countries which, because of geographical proximity, may be counted as Gateway countries to Antarctica – Argentina, Australia, Chile and South Africa. The burgeoning of the Antarctic relationship with South Africa is an excellent example of mutual benefits accruing from such an effort. Sharing of perceptions and understandings of problems are, as discussed earlier, needed to enhance governance of the Antarctic Treaty System particularly in relation to the Environmental Protocol. The role and responsibility of Southern Hemisphere Treaty Parties is here particularly relevant. The ability of ICAIR to network electronically has opened up rapid, effective, low cost communication with Southern Hemisphere institutions and agencies (eg. in Argentina). This adds sinew to diplomatic channels.

The extent to which a sense of 'corporate' interest amongst the Gateway countries is capable of cultivation, remains conjectural. But there have been some promising developments in other areas (linked to Antarctica). For example, the 'Valdivia Group' has established useful dialogue on major environmental issues – such as ozone depletion – from the Southern Hemisphere perspective. Additionally, in nuclear disarmament policy, efforts have been directed, including by New Zealand, towards the establishment of a Southern Hemisphere Nuclear Free Zone. In this sense the development of the Gateway group in relation to Antarctica has the advantage of coherence with such initiatives. The range of challenges ahead for Antarctica as discussed throughout this study, does suggest that extra responsibility will, (must), devolve on the Gateway countries working together in a collective spirit to enhance the ATS. Antarctica could therefore provide a catalyst for this extra dimension to New Zealand foreign policy, but its development will likely proceed prudently.

In the meantime at the level of local authority, the "twinning" of Christchurch with Gateway Cities in Chile (Punta Arenas), South Africa (Cape Town), Australia (Hobart), Argentina (Ushuaia) and Stanley (Malvinas-Falklands) would add an extra important strand to the Gateway concept with some modest diplomatic potential. It supports the objective of common environmental understandings to underpin the goals of the Environmental Protocol, as well as sharing perceptions of the views and approaches of others at the sub-national government level.

Asia-Pacific

The extent to which New Zealand's Antarctic policy contributes, or could contribute to her broader foreign policy objectives in the Asia-Pacific region generally has not been extensively canvassed. Amongst the ATCP's, there are three key East Asian members, China, the Republic of Korea and Japan. The onus was, and will remain, upon New Zealand to take the initiative with these governments to explore scientific collaboration and practical interaction possibilities under the Antarctic Treaty rubric. It is in New Zealand's broader long-term interest to do so.

Inside South-East Asia, Malaysia's persistent leadership of a move within the UN to assert UN interest and responsibility for Antarctic (in other words to have the Continent declared a global 'commons') imparted a certain defensive caution to New Zealand's dealings with that government on this issue in the past. As however suggested earlier in this study, New Zealand must appreciate that the Malaysian view has enjoyed support, or at least understanding, from many others in the UN. The image of Antarctic Treaty members as a self-selected and secretive cabal monopolising the fate of Antarctica, needs to be emphatically dispelled in the 21st century. New Zealand interests, and indeed those of Antarctica itself, demand this be done.

Moves by New Zealand to open up dialogue about Antarctica with Malaysia (and with Thailand) deserve commendation even if they will not be easy. They can be fitted readily into the broad and expanding bilateral relationship we have with one of our leading partners in Asia. Collaborative Antarctic scientific research projects would provide the platform when required for ongoing political dialogue with Malaysia – and more widely in South-East Asia – about the government and management of Antarctica.

NEW ZEALAND STRATEGIC OBJECTIVE FOR ANTARCTICA

The strategic objectives for New Zealand policy in Antarctica for the 21st century, as reconfirmed in 1995, are grounded in a sovereign interest which is defined as ".... the conservation of the intrinsic values of Antarctica and the Southern Ocean for the benefit of the world community, and for present and future generations of New Zealanders". Active and responsible stewardship should promote New Zealand interest by:-

- maintaining New Zealand's long term interest in, and commitment to, the Ross Dependency:
- keeping Antarctica as a neutral and non-aligned neighbour:
- enhancing New Zealand's economic opportunities in Antarctica within the parameters of the Antarctic Treaty System:
- enhancing New Zealand's leadership in the governance of Antarctica:
- promoting Antarctica as a natural reserve devoted to peace and science:

These broad principles are unexceptional. They encapsulate succinctly New Zealand's interest. The "stewardship" concept is, however, a very significant definition of New Zealand's relationship with the Continent. The institutional and managerial apparatus needed to support the principles however proved much harder to decide and agree in the 1994-95 Review.

Institutional and Policy Factors

The status and functions of the Government machinery required to give effect to the Strategic Objective for Antarctica was the occasion for prolonged and intensive debate within New Zealand at both the political and bureaucratic levels. The structure and accountabilities had to reflect the reforms introduced (indeed pioneered) in the restructuring overall of the New Zealand government sector since the mid 1980s. It is not the place of a study of this kind to detail the debate nor indeed the entrails of the agreed structure. But it would be a surprise if some of the differing perceptions that surfaced in earlier debate, did not re-surface to affect the business of giving practical effect to the Strategic Objective.

New Zealand's Antarctic policies are the responsibility of a structure with two key components – an **Officials Antarctic Committee** (OAC) and the **New Zealand Antarctic Institute** (NZAI) known as "Antarctica New Zealand". As a separate Crown entity established under statute the NZAI is the focal point for activities, responsible for developing, managing and executing high quality New Zealand scientific and other activities in the Ross Dependency, Antarctica and the Southern Ocean. Its success in stimulating innovative, excellent and forward-looking New Zealand scientific activities will be a key determinant of a continued Government funding commitment.

The NZAI does not have a policy role (although it is represented on the OAC and can contribute to policy formulation). That remains with the Government, which will purchase services from NZAI in pursuit of the strategic objective. The NZAI will not be driven by the commercial imperative to seek outside funding to sustain core activities, but it is required to identify costs of various services so that the full extent of Government subsidy is transparent. This is intended to target the Government investment to priority users including by factoring in costs so as to expose the preferences of scientists, and encourage the best return on subsidised Government investment in Antarctic support. NZAI is tasked with working with other Antarctic bodies and agencies to enhance the development of Christchurch as a Gateway City, and with forging partnerships with New Zealand service providers with Antarctic interests. It is able to generate non-government revenues to enhance the opportunities for New Zealand scientific activities.

The Officials Antarctic Committee (OAC) coordinates policy advice to the Government. A key feature of OAC is that no one single government department bears principal responsibility for New Zealand's Antarctic presence. Each department allocates budgetary resources in terms of its mission objectives, coordinates its own Antarctic policies with others through OAC, and is then responsible collectively, with others, for the defining and maintenance of New Zealand national interests in the Ross Dependency and Antarctica. The OAC interfaces, of course, with the NZAI, and is responsible for policy advice to underpin New Zealand involvement in the Antarctic Treaty System. The OAC advises the Government on output purchases from the Antarctic Institute.

Environmental protection is accorded special attention through the establishment of the independent **Environmental Assessment and Review Panel** (EARP) to ensure <u>all</u> New Zealand activities in Antarctica are objectively scrutinised. The Minister of Foreign Affairs and Trade has Antarctic environmental protection responsibilities at Government level, and the Ministry is responsible for EARP.

Conclusion

The structures devised to support the New Zealand Strategic Objective for Antarctica bear the hallmark of the classical New Zealand public sector reform principles – accountability, transparency, contestability and management of risk, including financial exposure, of Government to open-ended demand on the public purse in regard to Antarctica. For that last particular reason the idea of a stand-

alone body with a budget plus policy and operational responsibilities for Antarctica as its core business, did not find favour.

The policy tests for the new structure as the world, and indeed the region, move swiftly into the new century, will be significant – as this study has tried to demonstrate. They will embrace the ongoing New Zealand role in the Antarctic Treaty System in ways that reinforce New Zealand science, do not diminish our position in respect to sovereignty over the Ross Dependency, enhance the further development of international Antarctic contacts especially the Gateway connections, foster the New Zealand relationship with the pre-eminent player in and on Antarctica – the United States – and provide imaginative and practical solutions to a host of issues relating to New Zealand activity in Antarctica such as environmental management, non-government science, recreational use and tourism.

The policy challenges the New Zealand scientific community to articulate, define and carry out an innovative strategy of excellent science in the Ross Sea region that is directed at meeting national scientific goals set by the Government. It challenges Antarctic science to compete successfully against science carried out in New Zealand. It challenges "Antarctica New Zealand" to develop Antarctic scientific activities of acknowledged excellence and world quality; whether on Antarctica or in the Southern Ocean. The policy challenges the many government departments with Antarctic interests and responsibilities to ensure that Ross Dependency interests are factored into their core responsibilities. The policy also challenges our Defence Forces to consider how best to factor an Antarctic capability and mission into their core business in order to be able to protect essential strategic interests to the south of New Zealand.

In a global situation where there is no overarching world order (as provided for forty years of the 20th century by the Cold War), smaller nations have to work harder and smarter to preserve and promote interests. New Zealand interests with respect to Antarctica are no exception. Antarctic policy-making remains complex. Sensitivity, subtlety and awareness of the bigger picture – attention to detail at the same time as focus on the longer term – are indispensable and will continue to provide real challenge for New Zealand's revised Antarctic structure. There are certainly no cast-iron guarantees about the future as changes in the availability of operational and logistic support in Antarctica amply illustrate. Antarctic policy and Antarctic science will have to compete for attention and resources with the whole host of other claims in New Zealand. Antarctica will have to make its own case.

For New Zealand, geography, experience and reputation are valid and compelling parts of the equation. Antarctica constitutes a national asset for a small country with limited sinew and leverage in the world. Our stewardship in the Ross Dependency needs to be of the highest order that reflects our own national values and aspirations while being developed in partnership with the United States, Italy and other nations active in the Ross Dependency and the Southern Ocean. New Zealand needs to work, as this study indicates, to broaden the appeal of the Antarctic Treaty. And if it perceives interest in development of the Gateway concept, then New Zealand needs to be a Gateway to something of enduring intrinsic worth – to New Zealand itself and more widely – and must apply resources and energies accordingly.

END NOTES

1 Beginning in 1929 five major USN expeditions under Admiral Byrd (including the largest ever in the region in 1946) established the foundations of US presence and for USN involvement in Antarctica. Phased withdrawal of USN involvement was announced in 1996, to be completed by 1998.

2 The International Geophysical Year (IGY) 1957-58 led to a proposal from the US which in its turn produced in 1959 the Antarctic Treaty.

3 The Cape Roberts project, a climate change study, led by New Zealand and involving the US, Italy, the UK, Germany and Australia, provides a good illustration.

4 On Antarctic Seals (1972), on Conservation of Marine Living Resources (1980). For a further more detailed explanation see Handbook of the Antarctic Treaty System: Scott Polar Research Institute: Cambridge: 1990.

5 Twenty six countries enjoy consultative status by demonstrating "interest in Antarctica by conducting substantial scientific research activity there" such as the establishments of a scientific station (Article IX). All parties participate in annual Antarctic Treaty Consultative Meetings (ATCM), the Treaty's policy-making forum.

6 At the time of adoption of the Treaty, there were seven states who claimed sovereignty (Australia, Argentina, Chile, France, New Zealand and the UK) and five which do not recognise sovereignty in Antarctica (Belgium, Japan, South Africa, Russia and the US).

7 At the XVII Antarctic Treaty Consultative Meeting in Venice in 1991 it was agreed that a secretariat should be established. Matters are stalled by a failure to reach consensus on location. See below.

8 Especially the special Committee on Antarctic Research (SCAR) founded 1957-58 comprising membership by national academies of science, which is extended significant responsibilities under the Treaty.

9 The Ross Dependency is defined as "all islands and territories in Antarctica between 160° of East longitude, and 150° of West longitude". It includes the Ross Ice Shelf, Balleny Islands, Scott Island and adjacent islands and the landmass within these longitudes to the point of their convergence at the South Pole.

10 Each year about 100 New Zealand scientists work in Antarctica covering a wide range of research.

11 The break-up of the old Department of Scientific and Industrial Research (DSIR) occurred in June 1992.

12 The Italian Antarctic Programme has developed high technology, purpose-built, summer-only scientific facilities on the ice. Scott Base seems redolent of the past rather than the future of Antarctic science activity.

13 The National Committee on Antarctic Science (NCAS) is a specialist committee of the Royal Society of New Zealand. It is affiliated to SCAR. (See footnote 9 above).

14 These are currently offered by "Antarctica New Zealand", New Zealand Post and the Kelly Tarlton organisation which runs an Antarctic display in Auckland.

15 Argentina, Chile, France, Germany, Italy, Switzerland, Sweden, South Africa, US.

16 NSF support moreover the International Antarctic Centre (IAC) and is a co-founder of ICAIR in Christchurch. It contributes to the New Zealand-led Cape Roberts project.