Antarctica – A Continent for Peace and Science

David Walton
British Antarctic Survey

There are only seven continents and most of them have been wracked by war, border disputes, environmental damage and other difficulties to which the human condition is prone. How refreshing and different then to celebrate a continent where national claims have been set aside, where environmental controls are second to none and where peace and science are the objectives for all of the countries involved. Antarctica is indeed a special place on this overcrowded Earth, providing us with the baselines against which we can measure not only our continuing pollution of the world but also how realistically we can work together for the common good. The Antarctic Treaty, signed in 1959 and ratified in 1961, is the legal instrument upon which the management of this continent rests and it has shown itself to be one of the best and most lasting examples of international co-operation for the general good.

Each year the Treaty Parties meet in a host country, moving alphabetically through the 28 members that constitute the Consultative Parties – those with an active and continuing presence in the Antarctic. These Consultative Parties comprise a very wide range of cultures, languages and governance and together with the 17 Acceding Parties account for around 80% of the global population. Although not representative in terms of the 192 member countries of the United Nations the Parties are clearly representative in terms of the world's population with virtually all of the most populous countries – for example China, Japan, India, Russia and the USA – as active members. This year the annual meeting is the responsibility of the United Kingdom to organise and host and the Foreign & Commonwealth Office is busy planning for it to take place in Edinburgh in June. The FCO have also decided that it will be an opportunity to provide greater public engagement and with assistance from British Antarctic Survey and the Royal Navy they have laid on a wide range of public events.

The main platform at Halley where staff live and work for up to two years at a time measuring and monitoring changes in the earth's atmosphere. Photo Chris Gilbert.

For those interested in science and policy the Antarctic is a fascinating example of what can be achieved by consensus, despite widely differing national agendas. Over the past 40 years the Parties have grappled with resource management (both biological and geological), pollution, habitat and species damage, the value of historical heritage, the management of and access to scientific data, the development and control of tourism, conservation at the habitat and species levels and the contribution of Antarctic science to our global understanding amongst many other topics. Since it was established the Treaty has taken independent scientific advice from the Scientific Committee on Antarctic Research (SCAR) and more recently has had advice from the Council of Managers of National Antarctic Programmes (COMNAP). In addition there are a host of experts from, for example, the UN Environment Programme, World Meteorological Office, International Hydrographic Organisation, the International Association of Antarctic Tour Operators etc who attend the annual meetings to give specialist advice.

What will the Treaty Parties be discussing this time round? There are several developing topics, some of which have been under extended discussion for years. Top of the list this year is certain to be the International Polar Year (IPY) which begins on 1 March 2007. The Treaty Meeting will devote a whole day to discussing how the planning for this focus on the polar regions by over 40 countries is progressing, what we will learn from it and what sort of legacy it will leave for future generations. The last IPY in 1956/57 not only marked the first crossing of Antarctica (led by the UK) but also provided the impetus for the negotiation of the Antarctic Treaty itself.

A second major topic will be management of tourism in the Antarctic. With numbers growing year on year and with concerns over long-term environmental damage the Parties have been searching for a way to agree on the usage of particular sites, in collaboration with IAATO. Whilst as yet there is little unequivocal scientific evidence of

irreparable damage, human impacts can be observed in the Antarctic Peninsula sites, including the erosion of footpaths. Common sense indicates that such impacts are only likely to intensify unless the numbers of visitors to some sites are controlled. Last year the Treaty adopted the UK-proposed concept of Site Guidelines, which are essentially mini-management plans and this year the Parties will be looking at such proposals for eleven sites on the Antarctic Peninsula.

Another topic of continuing interest is the investigation of the subglacial lakes that lie under the ice sheet. Over 140 have now been identified. The largest of these, Lake Vostok, may well have been sealed off from the atmosphere for over half a million years and nobody knows what might be found in the water and the sediment. However, sampling these without contaminating the lake is technically very difficult and several countries have been working on the right equipment to do this. Russia expects to take the first samples during IPY and the latest reports on progress towards this are likely to excite considerable discussion.

Having agreed at the last meeting in Stockholm on a new legal instrument establishing the principle of liability for environmental damage the Consultative Parties now need to develop this into a usable process. Agreement on definitions for damage have been difficult to achieve but so has agreement on what is adequate repair and remediation, when and if this is possible.

Whilst the Treaty has developed a range of conservation measures for the area south of 60ºS these need to be better connected with conservation practices in the rest of the world. The birds and animals do not of course respect the arbitrary lines we draw on maps and migratory or wide-ranging species find themselves subject to differing treatments inside and outside the Antarctic. For those species under threat this is clearly not helpful and the Edinburgh meeting will be considering which of these species need to be afforded special protection within the Treaty area and for which Parties need to agree specific management responsibilities. In addition there is a growing interest in designating Marine Protected Areas in the Southern Ocean to protect both areas of high marine biodiversity and those locations where large numbers of birds and whales go to feed. The responsibility for progressing this is under discussion between the Antarctic Treaty Parties and the Commission for the Conservation of Antarctic Marine Living Resources to ensure that the Antarctic and its surrounding sea is managed sustainably for the public good.

In an age when anthropogenically enhanced climate change is a concern of almost all governments, monitoring the health of the Earth from the polar regions has never been more important. The scientific data obtained from Antarctica is proving crucial to our attempts to model and predict the future state of the world. Antarctic ice cores now provide data on the last one million years of climatic cycles, whilst measuring the changing balance of snowfall and ice loss is critical to understanding changes in world sea level. The levels of pollutants in the snow provide the baseline against which to measure changes in the rest of the world, whilst the South Pole measurements of greenhouse gas concentrations show clearly the ever upward trend from human activities. There is now a growing interest in the biotechnology potential of the cold adapted species that live in these ice infested waters, and the fisheries around the Southern Ocean provide an example of how to manage such a resources on a scientific and sustainable basis. Antarctic science really does make a difference.

The UK has been continuously active in the Antarctic since 1944 and a major player in the drafting and implementation of the Antarctic Treaty. Its success in setting the agenda and ensuring good governance has been due to the continuity of experience in Antarctic affairs provided by the Polar Regions Unit at FCO. With only three leaders over 50 years this Unit has unrivalled experience in this international forum, ensuring that the UK has always exerted influence much greater than its resource investment would justify, often enabling it to set the agenda.

As more countries accede to the Treaty the importance increases of co-ordinating the research undertaken whilst minimising the environmental impacts . Sharing both the costs of undertaking the studies and the results of research has been a feature of the Treaty from the start. With its research on global problems for the common good and its consensus international government the Antarctic is indeed an example of how nation states can work together despite their cultural and political differences.

Antarctic Treaty Consultative Parties and Acceding Parties

Consultative Parties			
Argentina	Ecuador	Korea, Republic of	South Africa
Australia	Finland	Netherlands	Spain
Belgium	France	New Zealand	Sweden
Brazil	Germany	Norway	Ukraine
Bulgaria	India	Peru	United Kingdom
Chile	Italy	Poland	United States of America
China	Japan	Russia	Uruguay
Acceding Parties			
Austria	Denmark	Korea, Democratic People's Republic of	Turkey
Canada	Estonia	Papua New Guinea	Venezuela
Colombia	Greece	Romania	
Cuba	Guatemala	Slovak Republic	
Czech Republic	Hungary	Switzerland	