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The Utility of Inspections

Belinda Harding 18952181

Kathryn Strachan 34415476

Rachel Innes 77791090

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Abstract:

The inspection process is a core component of the Antarctic Treaty 1959 and the Environmental Protocol to the Antarctic Treaty 1991. In the early days of the Antarctic Treaty, inspections conducted focussed on ensuring the demilitarisation of Antarctica and promotion and observance of the Treaty provisions. After adoption of the Environmental Protocol, inspections were then viewed as a systematic means of verifying that activities were conducted to minimise potential environmental impacts. Among the rights given to Treaty members is that of mutual inspection, whereby all sites and facilities including stations, vessels, protected areas and refuges are subject to inspection. Even with the challenges of operating in a highly political and complex jurisdictional environment 386 inspections have been conducted since 1962 involving 23 of the current 29 Treaty Parties. Significant practical and political achievements of the inspections include international collaboration to conduct joint inspections, an increased focus on environmental issues and improved information exchange between Treaty Parties, non-governmental operators and the international community. Recommendations for improving the inspection process are presented including adoption of an independent inspectorate, a formal schedule of inspections and mandatory reporting and follow-up through the Antarctic Treaty Consultative Meetings. The paper concludes that, despite significant challenges to the inspection regime, the process is a basic pillar of the Treaty system and inspections are a fundamental component of the Antarctic Treaty System.

Introduction

Under the Antarctic Treaty System (ATS), member States are empowered to make inspections of the bases, ships and facilities of other member States within the Antarctic Treaty Area. The powers afforded under the Antarctic Treaty 1959 (the Treaty) are reaffirmed in the Protocol on Environmental Protection to the Antarctic Treaty 1991 (the Madrid Protocol). The right to inspect is intended to act as a mechanism for ensuring compliance with the provisions of each of these instruments. It is a right which has long been exercised by the Treaty parties and is one of the only avenues through which States can monitor the activities of their fellow member States. However, within the highly political context of the ATS and the complex jurisdictional issues surrounding activities on the continent there are some significant challenges to this inspection regime's effectiveness. In order to address these challenges, this paper will examine the intentions of parties in incorporating an inspection regime into the Treaty instruments and how the role of inspections has changed over time. It will then look at what has been achieved through the exercise of the right to inspect, both practically and politically. Finally, it will look at the character of inspection recommendations and offer some suggestions for how the regime might be improved to give more weight to these recommendations.

The Role of Inspections

The right to inspect forms part of the members of the Treaty system's powers through both the Treaty itself and the Madrid Protocol. Both instruments include provisions which empower parties to inspect the bases of their cohort to ensure compliance with each document's respective provisions. However, during the life of the Treaty system the role played by the exercise of these inspections has changed and the focus of inspection parties has shifted.

Inspections under the Antarctic Treaty 1959

The Antarctic Treaty 1959 dedicates Antarctica to the pursuit of peace and science. Despite this seemingly esoteric and rhetorical aim, in reality it is an international agreement intended to diffuse mounting international tension in respect of sovereignty within the continent and growing concerns about its use as a military staging point (Hanevold, 1971). Firmly grounded in its Cold War context, the Treaty's opening article, perhaps unsurprisingly, deals not with the fostering of scientific cooperation but with a prohibition on the establishment of military bases and the use of the continent for military manoeuvres, though military support of scientific activities is still permitted (Antarctic Treaty 1959, Article I).

Within the context of the Cold War, it is perhaps unsurprising that there may have been misgivings amongst the parties, and to some extent a level of mistrust, where compliance with the Treaty's provisions is concerned. This concern seems to have been most centred on compliance with Article I's prohibitions (Hanevold, 1971). The inspection regime was proposed as a means to allow each of the Treaty parties the power to check up on their Antarctic neighbours and to encourage them to live up to their obligations. It was the United States of America which was the most vocal in their support of the inclusion of an inspection regime, to the extent that they would not accede to a Treaty which did not include this power (Hanevold, 1971).

After some negotiation in respect of the form these inspections would take, the Treaty parties agreed to include this regime under Article VII (fig. 1) which states:

ARTICLE VII

1. In order to promote the objectives and ensure the observance of the provisions of the present Treaty, each Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of observers shall be communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment.

Figure 1: Article VII of the Treaty

The role of inspections under this provision was intended to be twofold – firstly to ensure that none of the parties were breaching the Article I prohibitions and, secondly, to encourage parties to live up to their obligations in terms of information sharing (Jabour, 2013). It is also worth noting that this provision was seen by the government of the USA as a potential pilot scheme for a similar inspection programme between itself and the USSR outside of the Antarctic context, in order to relieve Cold War tensions (Hanevold, 1971). This is suggestive of the fact that the USA were less concerned, at least at the outset, with using inspections to foster scientific cooperation than they were with the preservation of Antarctica as a demilitarised zone.

Inspections carried out under Article VII of the Treaty have largely been focussed on ensuring that bases, stations and other facilities, even where they are supported by military personnel or equipment, have in fact been used for science rather than some ulterior purpose. For

instance, the USA conducted an inspection of a number of bases between 1966 and 1967 and concluded that:

“there was no evidence to indicate any violence of either the provisions or the spirit of the treaty. All the information obtained at the stations indicates that Antarctica is being used solely for peaceful purposes. Weapons found at some stations were used for scientific purposes only, for example for the purpose of killing animal specimens for biological studies” (United States of America, 1967, p.2).

There is a clear indication in this passage that whether or not a base or facility is being used for military purposes was the focus of the inspection. The reports on the individual stations are brief and consist of only a short summary of the nature of scientific research taking place before stating whether or not weaponry or nuclear materials were found on site. While this report was convened by the Department of State, it is interesting to note that subsequent USA inspections, such as the 1975 multi-base inspection, were published on behalf of the US Arms Control and Disarmament Committee (United States of America, 1975). This indicates again the strong emphasis being placed on preserving the demilitarisation of the continent through the inspection regime under Article VII of the Treaty.

Inspections under the Madrid Protocol 1991

The power of states to inspect has been incorporated into the provisions of the Madrid Protocol in Article XIV, which states:

In order to promote the protection of the Antarctic environment and dependent and associated ecosystems, and to ensure compliance with this Protocol, the Antarctic Treaty Consultative Parties shall arrange, individually or collectively, for inspections by observers to be made in accordance with Article VII of the Antarctic Treaty.

The parties now have the right to inspect to ensure they are not only cooperating and operating in a peaceful manner, but to ensure they are living up to their environmental protection obligations under the Protocol. It is here that we see the biggest shift in the role played by inspections. Article XIV reinvigorates the inspection regime of the Treaty proper but with a more specific focus. It signifies that the parties are moving away from an era where concerns about militarisation of Antarctica took precedence and towards a period in history where environmental concerns are predominant. This Article is more prescriptive than its parent Article in that it requires

positive action by all treaty states in both arranging and facilitating inspections (Jabour, 2013). Rather than simply being a provision to ensure the Madrid Protocol's provisions are not being breached, this Article goes further in that it empowers inspectors to look at the impact of a state's activities on the environment more generally.

In exercising their right of inspection since the passing of the Madrid Protocol, States are empowered to investigate for breaches of either instrument. However, the focus of States has shifted away from concerns about the military use of bases and towards the more environmental focus encompassed in the Protocol (Walton, 2015). Where an inspection report does address matters of military presence on base, it is included as something of a matter of course rather than as the primary focus of the investigation.

An example of this is in the report of the recent joint inspection by British and Czech national programmes carried over the 2014/15 season. Several bases and facilities on the Antarctic Peninsula were visited and a detailed inspection report published. The report notes very briefly under each of the stations that no ammunition or weaponry et cetera was found on base, but does not go so far as to include in the report's overall conclusions a statement that the bases are being used for peaceful purposes only (United Kingdom and Czech Republic, 2015). This is in stark contrast to the 1967 USA report discussed above, where the only overall conclusion was heavily focussed on this finding. The conclusions are divided into the subcategories:

- Personnel and Training
- Quality and Quantity of Scientific research
- Logistics and Infrastructure
- Transport and Communications
- Safety, Training and Emergency Procedures
- Environmental Management
- Medical Facilities
- Tourism

Notably absent from this list is a specific subcategory concluding the absence of military activities and/or the use of bases for peaceful purposes. This suggests that the fact that bases are used for peaceful purposes is taken as somewhat of a given, not worthy of raising where there is no specific cause for concern. It may be that this shows a growing level of trust amongst the Antarctic nations but is more likely simply a matter of political politeness with States being reluctant to openly suggest that militarisation of Antarctica is still an active concern in need of monitoring. Despite this, it is worth noting that this report does still include some queries as regards the use of military

personnel rather than civilian staff or scientists (United Kingdom and Czech Republic, 2015, p.58). The primary concern of this observation was that there was no clear science direction justifying the existence, and to some extent the associated environmental impact of the station, rather than suggesting it had an ulterior purpose. There is one sole recommendation suggesting that the data collected by German O'Higgins Receiving Station may be for military purposes (United Kingdom and Czech Republic, 2015, p.56). In its feedback to the inspection team (annexed to the report) the German government refuted this suggestion, asserting that their operations were civilian and scientific in nature.

Summary

The role of inspections has shifted since the early days of the Antarctic Treaty System. Where once concerns about the military use of bases, facilities and vessels were at the forefront of the minds of inspectors and formed the primary focus of inspection reports, since the coming into force of the Madrid Protocol this focus has changed. Now inspectors are more concerned with ensuring that environmental standards are being maintained, that bases are properly staffed and are being run safely and sustainably, and that their continued presence is justified by high quantity and quality science outputs. While breaches of the Treaty itself are still investigated by inspectors, at least outwardly the role of inspections has become about trying to encourage best environmental practice by States operating in the Antarctic where once that role was discouraging States from attempting to use Antarctica as a military outpost.

Practical and Political Achievements of the Inspection Regime

Introduction

"Inspections should be undertaken in the spirit of mutual cooperation and ... work like an audit, looking for 'opportunities for change', rather than 'errors...'" (Tin et al 2013, p.303).

An integrated approach to the conservation of the Antarctic environment and management of human activities requires anticipation of upcoming risks and challenges and adoption of proactive management strategies (Convey et al., 2012). The inspection process is such a strategy and is a core component of the Antarctic Treaty and the Madrid Protocol, providing a systematic means of demonstrating the effectiveness of the Antarctic management system (Hushen, 1985). The right to inspect is also important in maintaining the confidence of parties to the Antarctic Treaty and the international community, ensuring the principles and purposes of the Treaty and its provisions and

recommendations are being fully realised. By the very nature of international Antarctic operations, differences in administration and application of the regulatory framework exist. Despite these differences, the inspection process has facilitated a number of key practical and political achievements. These include the frequency of inspections, international collaboration, an increased focus on environmental issues, compliance with the Madrid Protocol and improved exchange of information.

Frequency of Inspections

Under the provisions of the Antarctic Treaty and the Madrid Protocol all sites and facilities are subject to inspection. The inspection process is complicated in the first instance by the lack of an official list of all sites and facilities and, although main stations are listed, additional facilities such as substantial field camps are not (ASOC & UNEP, 2003). The Council of Managers of National Antarctic Programs (COMNAP) provide the most comprehensive collation of facility data and note that as at February 2012 there were 82 stations (73 of which are in the Antarctic Treaty area), 19 camps and 2 refuges (COMNAP, 2016). Given the remoteness of the Antarctic, difficulties with site accessibility, logistical costs, governance issues and the political motivations of 29 Consultative Parties, 24 non-Consultative Parties and non-governmental operators, the operational requirements involved in planning and then mobilising an observation team is a significant achievement in itself.

The first inspection of three stations of the United States was undertaken by New Zealand in 1962. Since this time 386 inspections of stations (314), vessels (32), historic sites and monuments (HSM) /protected areas (27) and refuges (13) have been conducted noting some are repeated sites (Secretariat of the Antarctic Treaty, 2016). These inspections have involved 23 of the current 29 Antarctic Treaty Consultative Parties (ATCPs) in 52 inspection programs. Figure 2 details the number of inspections conducted since the Madrid Protocol came into effect in 1998 (Secretariat of the Antarctic Treaty, 2016). During the last 18 years 187 formal inspections have been completed including 130 stations, 25 vessels, 26 HSM/protected areas and 6 refuges. It is evident that there are significant fluctuations in the number of inspections conducted each season. This can partly be attributed to the lack of an inspection schedule and priority list (ASOC, 2004), high costs and logistical constraints (Giuliani, 1996; United Kingdom, 1994) and some governments attaching a low priority to inspections (Beck, 2014). Global issues such as the 2008 financial crisis and the 9/11 terrorist bombings also impact on the conduct of inspections in Antarctica when resources are diverted away from Antarctic science programs (Jabour, 2013). However, inspection provisions will

continue to increase in significance as there is growth in the level and types of activity in Antarctica (United Kingdom 1994) and this is reflected in figure 2. It is also widely recognised that Parties conduct informal inspections that are not reported through the formal Antarctic Treaty System (Rory Bryan HMS Protector, pers comm, 24.01.2016).

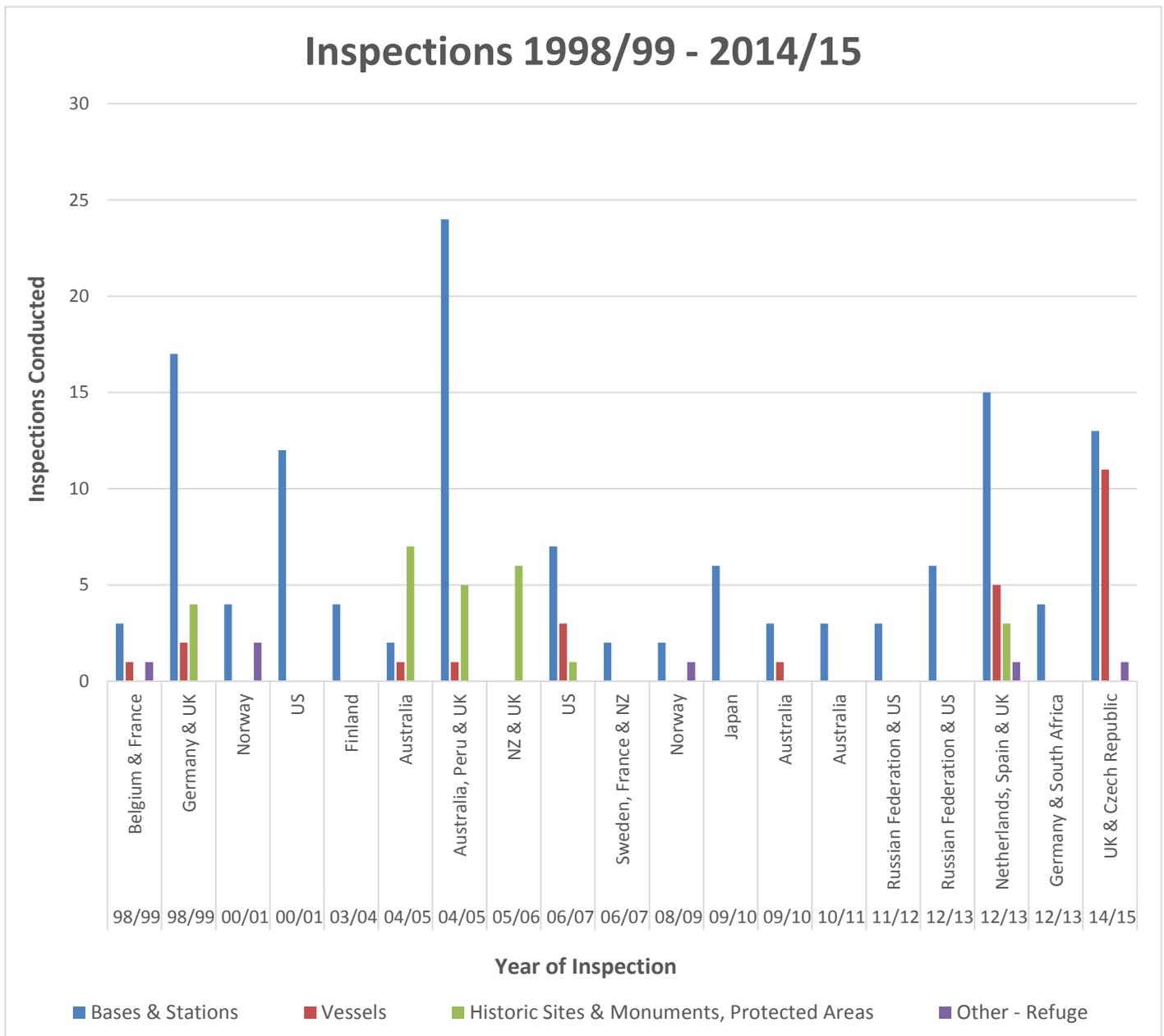


Figure 2. Inspections conducted 1998/99 -2014/15 (Secretariat of the Antarctic Treaty, 2016)

In 2003 the Antarctic and Southern Ocean Coalition (ASOC) and the United Nations Environment Programme (UNEP) recommended that, to further improve the program, inspections could focus on stations that have never or seldom been inspected, inland stations, decommissioned and abandoned sites, stations that have not addressed recommendations made during previous inspections and sites where tourism operators frequent.

International Collaboration and Joint Inspections

Article XIV of the Madrid Protocol suggests the possibility of collective inspections to promote protection of the Antarctic environment. The first joint inspection of 11 stations was undertaken by New Zealand and the United States during the 1988/89 season. During the 1991 Treaty meeting the ATCPs agreed that joint inspections between two or more Contracting Parties should be encouraged (ATCM 1991). Since 1962, 13 joint inspection programs have been undertaken with 121 stations, 24 vessels, 19 Historic Sites and Monuments/Protected Areas and two refuges having been inspected, involving 17 of the current ATCPs (figure 3). Of the 166 inspections in total, 128 have been conducted since the Madrid Protocol came into force in 1998.

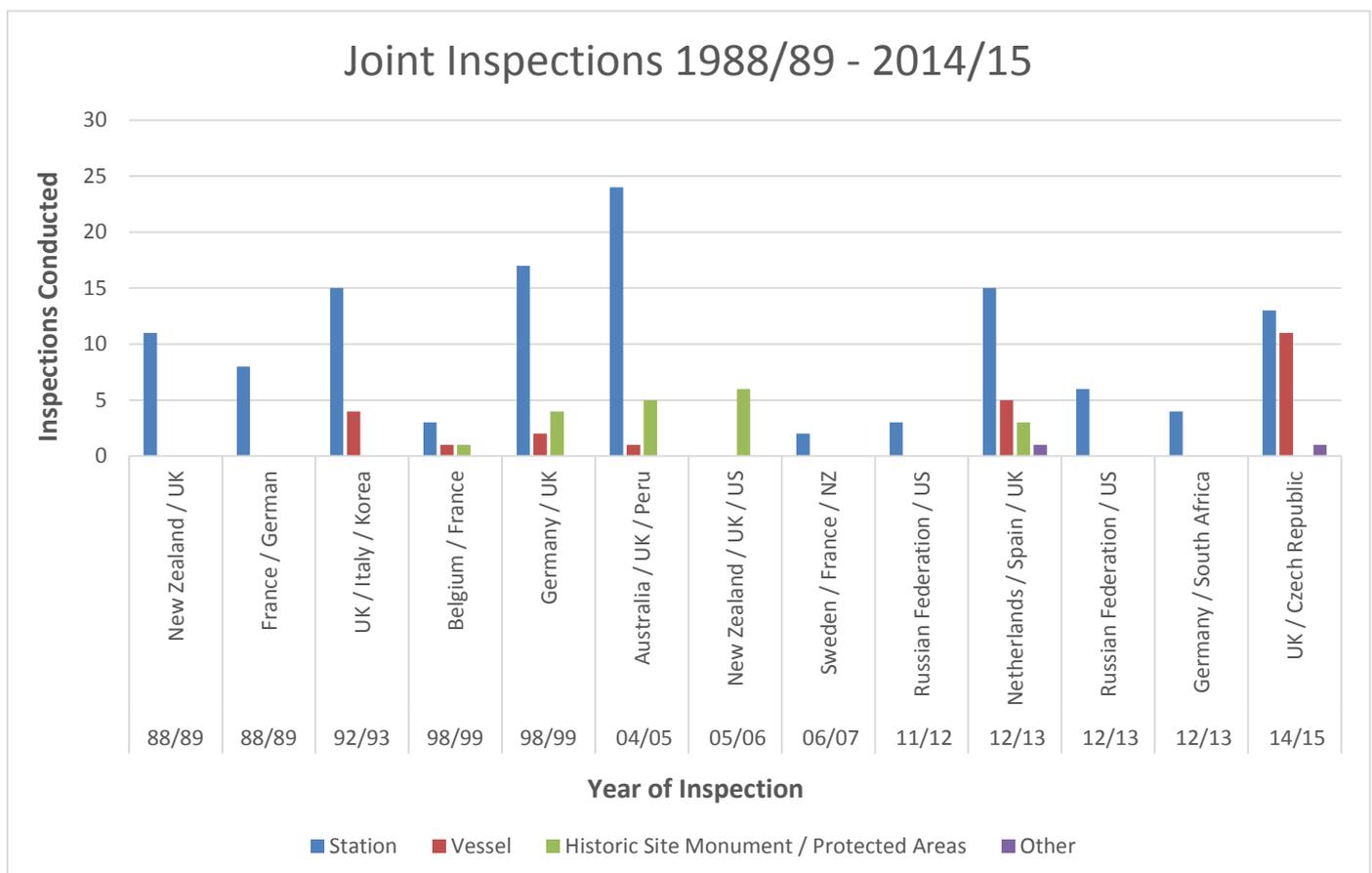


Figure 3. Joint inspections conducted by Antarctic Treaty Parties (Antarctic Treaty Secretariat 2015)

There are notable benefits when Parties work in unison when planning and undertaking inspection programs. The management and coordination of a joint inspection is both a practical and political achievement in the effort to improve the efficiency of operations and the value of cooperative efforts in Antarctica. Joint inspections are also likely to increase their frequency. Also, joint inspections allow more countries to be involved in the process by reducing individual expenditure on logistics (United Kingdom, 1994; Sweden 1991). During the 2014/15 season, the United Kingdom and the Czech Republic undertook a joint inspection program of 13 stations, 11 vessels and one refuge (United Kingdom and Czech Republic, 2015). Such a comprehensive inspection program would be difficult to achieve in one season by a single State party. Another notable benefit of this joint inspection process was the ability of the ten member observation team to fluently communicate in seven languages, thereby maximising potential opportunities to openly communicate and address issues during the inspection program.

Inspections also promote openness, facilitate cooperation (Norway, 2001) and collaboration on scientific research and ideas on Antarctic operations (United Kingdom and Czech Republic, 2015; AOT, 2005). During the 2014 joint inspection of the Chilean and German stations personnel were commended for their sharing of logistics to transport German scientists and support staff. Juan Carlos, a joint glaciological program between Spain and Japan was also highlighted as a key achievement in international collaboration. The sharing of logistics and renewable energy from wind turbines by New Zealand and the United States has been recognised in the Scott Base and McMurdo station inspections by Australia (AOT, 2005). Furthermore, with the move towards increasing the number of joint inspections, those Parties who currently drive Antarctic environmental policy will be able to engage and encourage other less active Parties to participate (Convey et al., 2012).

Focus on Environmental Issues

The Antarctic Treaty System perhaps did not recognise the potential of inspections for improving environmental protection until the United States used an Environmental Checklist as part of a base inspection in the Ross Sea in 1989 (United States, 1989). Since that inspection, and the adoption of the Madrid Protocol in 1991, the ATCP deliberations have increasingly focused on the protection of the Antarctic environment (UNEP & ASOC, 2012). ASOC, a staunch supporter of the inspection process, state that inspections are a fundamental element of the Antarctic Treaty System as a means of monitoring human activities in Antarctica (ASOC, 2004).

Prior to the Madrid Protocol entering into force in 1998 inspections of Antarctic stations and vessels were undertaken primarily to ensure compliance with Article I of the Antarctic Treaty in prohibiting military activities, disposal of radioactive waste and nuclear explosions (Walton, 2015). Article XIV of the Madrid Protocol restates the Antarctic Treaty's right of inspection. Issues of environmental compliance became more significant when the Protocol was enforced and became legally binding on all governmental and non-governmental operators. Nowadays, in addition to verifying adherence to the fundamental principles and objectives of the Antarctic Treaty there is more emphasis on environmental matters (Jabour, 2013; United Kingdom and Czech, 2015). Environmental practices are now the focus of inspections undertaken as evidenced by the content of inspection reports (AOT, 2005; United Kingdom and Czech Republic, 2015). The practicality of the inspection program provides checks to help ensure that protected areas are being managed and waste disposal and environmental impact assessment measures are being implemented (Hushen, 1985). The report of the XIV ATCM notes the potential for inspections to also address cumulative effects of human activities (ATCM 1991).

Maitri Station in Queen Maud Land, managed by the Indian Antarctic Program, demonstrates the improvements in environmental practices achieved due to undertaking an inspection program (India, 2015). Maitri was inspected by Japan in 2010, Russia and the United States in 2012 and South Africa and Germany in 2013. Environmental conservation measures were one of the key inspection criteria. Issues identified included leakage from the wastewater pond into a nearby lake, discarded vehicles and metal waste, inadequate fuel spill infrastructure and a general lack of awareness among expedition members of environmental protection. In May 2015 India presented a Background Paper to the CEP noting significant improvements to environmental practices including installation of a new wastewater treatment system, back-loading of 1000 old fuel barrels, construction of new fuel tanks and bunded areas and the introduction of mandatory environmental briefings for all expeditioners (India, 2015). This provides strong evidence that environmental issues were brought to the attention of the ATCPs because of the inspection program and issues were addressed due to reporting through the CEP and follow-up inspections.

Compliance with the Environmental Protocol 1991

The inspection regime is essential to the implementation of the Antarctic Treaty and the Madrid Protocol (ASOC & UNEP, 2003). As the purpose of inspection is to verify through observation (Saul & Stephens, 2015), inspection reports can provide on-ground critical, unbiased and objective information on the conduct of environmental practices and the level of compliance. Realistically, the conduct of inspections should encourage compliance with the Madrid Protocol as it is not in the best

interest of Parties to be identified at the ATCMs as having breached environmental provisions. The example of Maitri station, which has been inspected on three occasions, demonstrates the value of repeated inspections in encouraging compliance with the Protocol (India, 2015).

Jabour (2013) reviewed inspection reports over 13 seasons between 1998 and 2011 and found no infringements of the Antarctic Treaty and only minor infringements of the Madrid Protocol were noted. This outcome could be interpreted as a system working seamlessly, although it is also proposed that the inspection process is somewhat symbolic due to the lack of infringements identified (Jabour 2013). However, this also illustrates the complexities around enforcement and compliance under the Antarctic Treaty System where sanctions and penalties are not applied to Parties breaching the regulatory provisions. There is evidence in the UK and Czech inspection of the Bulgarian St Kliment Ohridski Station of compliance being encouraged as a result of the inspection program (United Kingdom and Czech Republic, 2015). The joint inspection team noted an Environmental Impact Assessment (EIA) had not been completed for construction of a storage facility that was due to commence. The recommendation was made that an EIA was required and this in turn halted construction and avoided a significant breach of the EIA provisions under the Madrid Protocol and a likely improvement in environmental practices.

The inspection process can be an effective management tool for identifying environmental issues and ensuring follow-up recommendations are addressed. The inspection provisions should be regarded as an important means of ensuring transparent operations in Antarctica between Parties (United Kingdom, 1994). However, it is acknowledged that at times the effectiveness of the inspections in encouraging compliance largely depends on the will of the Parties (Pineschi, 1996). ASOC (1992) note that verifying compliance with the provisions of the Madrid Protocol, is compounded by the fact that criticising another Party requires that 'one's own house is in order' (ASOC, 1992). If breaches or potential breaches are treated with indifference by perpetrators (Auburn, 1982) or hidden within station walls (Jabour, 2013) then perhaps this is a failing by the ATCPs in ensuring recommendations are followed-up, not with the onsite inspection process itself.

Exchange of Information

A further achievement of the inspection process is the facilitation of information exchange between Treaty Parties and non-governmental organisations (NGOs) (ASOC, 2004). At ATCM XVI the ATCPs agreed that inspections could play a useful role, not only as an instrument of compliance, but also as a means of exchange of experience and knowledge between Contracting Parties (Sweden,

1991). In order for this to occur, annual inspection reports are circulated to the CEP and ATCM, which facilitates the sharing of knowledge and experience amongst the ATCPs. Inspectors are required to review all documents prior to conducting an inspection, including the Antarctic Treaty Exchange of Information, annual reports to the Scientific Committee on Antarctic Research (SCAR), COMNAP and the Standing Committee on Antarctic Logistics and Operations (SCALOP). The joint UK and Czech inspection team noted the benefit of reviewing past inspection checklists in determining if progress had been made addressing issues noted in previous inspections (United Kingdom and Czech Republic, 2015).

Inspection reports are also data-gathering tools for Parties (Jabour, 2013) in the context of compliance with military prohibitions and the requirement for Parties to provide information on their activities. Exchange of information, therefore, enables inspectors to compare facts reported by the State Party via Article III information channels with what is observed directly during the inspection program. The United States (1989) highlighted the advantages of the wide availability of inspection reports in ensuring accurate and complete information about the ATS and practices. Further benefits noted by the United States included maintaining the confidence of Parties to the Antarctic Treaty that the objectives, provisions and recommendations adopted under the Madrid Protocol are being fully implemented and enforced. Inspection reports that have been submitted by Parties are publicly available on the Antarctic Treaty website (Secretariat to the Antarctic Treaty, 2016).

Summary

By the very international nature of Antarctic operations, culture and politics will impact upon implementation of the regulatory framework, development of guidelines or checklists and the recommendations outlined in inspection reports (Jabour, 2013). However, Walton (2015) acknowledges that the success of the Treaty and the use of Antarctica for science and peace, has largely been due to the freedom to inspect. This same inspection process can be improved to further encourage (or mandate) that signatories to the Madrid Protocol meet their legal obligations to protect Antarctica.

The practical and political achievements, as discussed, which are associated with conducting inspections of Antarctic sites and facilities have provided evidence of an inspection regime that is valuable. However, as Antarctic operations continue to grow in both number and complexity it has become increasingly clear that the ATS should actively consider implementing a mandatory process for managing the scheduling, reporting and timely follow-up of inspection recommendations.

Character and Regulatory Weight of Inspection Recommendations

Once an inspection has been carried out, the inspecting party submits an inspection report, first to the State Party responsible, allowing the right of response. The report is then circulated to all ATCPs in addition to the CEP. It is then tabled at the following Antarctic Treaty Consultative Meeting (ATCM) and made public on the Antarctic Treaty Secretariat website (Jabour, 2013). The process is transparent with the responsibility to act on any suggestions arising from inspection reports remaining solely with the Party in question.

In 2014, in an attempt to address and build upon the present inspection regime, nine nations led by the United Kingdom, submitted a Working Paper at the ATCM in Brasilia entitled ‘Key Thematic Recommendations from ten years of Antarctic Treaty Inspection Reports.’ The paper outlines five key themes from the conclusions and recommendations of the inspection reports from the ten years prior. In addition, the report highlights recurrent general themes with a view that they would be explicitly discussed at the ATCM to improve current best practice and create positive environmental outcomes (United Kingdom et al., 2014).

The key themes identified were:

- Theme 1: Environmental Management
- Theme 2: Logistics & Infrastructure
- Theme 3: Scientific Collaboration
- Theme 4: Tourism
- Theme 5: Communications

The paper acknowledged that “while the recommendations directly relating to specific stations, vessel, installations, etc., have been generally welcomed and considered by the relevant Treaty Party, many of the recent Inspection Reports have also contained more general recurrent conclusions and recommendations” (United Kingdom et al., 2014, p.3), which ought to be revised and addressed at the ATCM. Many of these recurrent recommendations contained within the working paper were logical suggestions for setting minimum standards in order to achieve continent-wide best environmental practice. However, as Walton (2015) points out the only element of the working paper that was agreed upon at this ATCM, was for the Secretariat to “archive inspection reports and related papers in such a way that they could be searched for by station” (Walton, 2015, p.107). Legalistic views around sovereignty overwhelmed the discussions, making it impossible to reach a consensus on any of the issues brought to the table (Walton, 2015).

Critiques

The lack of standardisation across the regime in the form of mandatory inspection guidelines has left the provision to inspect open to interpretation. An inspection checklist was put together in 1995 and revised in 2010. Nonetheless, the checklist functions as a guideline rather than a minimum requirement or standard procedure. This becomes increasingly evident in the wide variation of the inspection reports produced during the process, with some inspectors producing 30 pages for one inspection and others one page covering three inspections. No mandatory follow up is required by inspected State parties, nor a right of response and, whilst there is a provision for response as outlined earlier, many do not respond to inspection reports (Walton, 2015; Jabour, 2013; United Kingdom et al., 2014). In addition, ownership of this process is not evenly distributed, as noted earlier, with an uneven financial burden of inspections as a result. Six of the Consultative Parties including Bulgaria, Ecuador, India, Poland, Ukraine and Uruguay, have never taken up the right to inspect (Secretariat of the Antarctic Treaty, 2016). The lack of interest in participating regularly in the inspection regime raises questions of levels of commitment to the Treaty and environmental conduct in the Antarctic; incidentally, incidents of low compliance coincide with ad-hoc inspection participation.

Presently there are no consequences for breaches to the Madrid Protocol and, therefore, it is a conscience incentive that influences best environmental practice, stirring debates about how countries value and place value on the Antarctic. Furthermore, no breaches of the Treaty have ever been officially reported and yet are clearly contained within many of the inspection reports (Jabour, 2013; figures 4-6). Therefore, it can be surmised that politics present a major hurdle within the inspections process with some commenting that, as a result, inspections are token and superficial (Jabour, 2013). The political will appears to be lacking to change current practices or to remediate bad practices of the past. This is despite State Parties having signed the Madrid Protocol and agreed upon their own set of standards; standards, which in many cases, simply are not being met today. Arguably this is a failure of the system in its inability to maintain a minimum set of environmental standards outlined in the Madrid Protocol. Slow progress with consensus decision making also plays a role with strategic interests distracting from continent-wide best environmental outcomes, as noted during the Brasilia ATCM in 2014 (Jabour, 2013). This begs the question; what would it take to bring confrontation on such issues and what would it serve?

The issue of military activity and presence in the Antarctic remains unclear with countries

not agreeing on an interpretation of the rules. For example, the 2014/15 joint UK and Czech inspection report highlighted this variation: “the Observers were struck by the very wide range of approaches taken to staffing and training, ranging from stations which were entirely operated by the military, to those which were completely civilian” (United Kingdom and Czech Republic, 2015, p. 10). The Argentine base ‘Camara’, for example, had 17 personnel present at the base during the time of inspection, all of whom were from the Argentine Navy. The report states “at the time of the visit there were no scientists working at Camara. There were no permanent scientific facilities or major scientific equipment at the station.” (United Kingdom and Czech Republic, 2015, p. 69) The inspection report goes on to provide the following recommendation: “That the [Argentinean National Antarctic Program] DNA develop a future science plan for Camara and consider whether the facilities available at Camara were able to support such plans.” (United Kingdom and Czech Republic, 2015, p. 71). The use of Antarctica for peaceful purposes, as addressed earlier evidently remains a valid concern despite the shift in focus to environmental considerations under the Madrid Protocol.



Figure 4. Current station buildings buried by snow at Vostok Station (Australia, 2011, p.30).



Figure 5. Fuel Storage, un-bunded and with no secondary containment, Vostok Station (Australia, 2011, p.30).

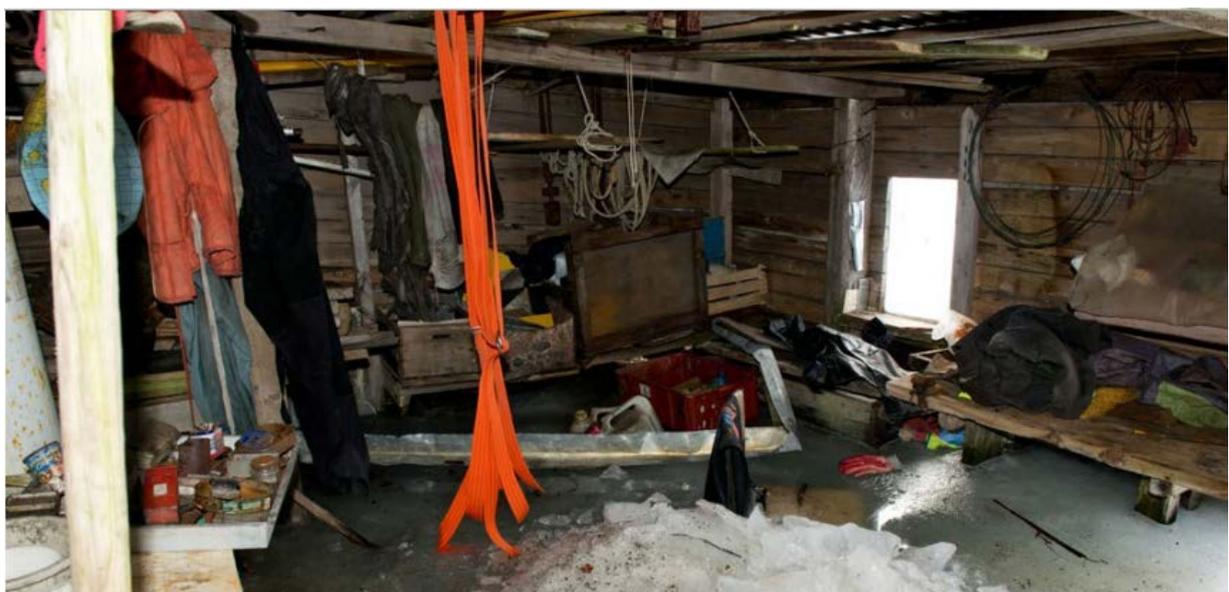


Figure 6. Eco-Nelson base. “The largest room in the main hut had at least 30cm of solid ice on the floor, indicating a lengthy period of neglect” (United Kingdom & Czech Republic, 2015, p. 87).

Jabour (2013) highlights that no official breaches to the Antarctic Treaty or Protocol have ever been reported, and yet as evidenced in figures 4-6, breaches under the provisions of the Madrid Protocol are clearly taking place. Significant legacy issues of activities prior to the entry into force of the Protocol exist across the Antarctic, especially in terms of waste management practices. For example, the current buildings at Vostok station (figs. 4 and 5) are all under snow to some degree, with the original station now completely covered (Australia, 2011). Figure 6 shows Eco-Nelson, a non-governmental Czech station which also faces significant legacy issues. The joint UK and Czech inspection team in the 2014/15 summer visited the base with the following comments made in the subsequent report: “Whatever the earlier rationale for the facility, the Observers were not convinced that such a justification existed for it now. In the view of the Observers it should be closed down and the huts cleaned up and removed from Antarctica...the facility should be removed as soon as possible and the surrounding area cleaned-up and remediated.” (United Kingdom and Czech Republic, 2015, p.89). Both of these examples highlight archaic poor environmental practices that are continuing to impact on the Antarctic environment, with issues of liability and responsibility becoming increasingly complex.

Future Recommendations

The environmental standards set in the late 1980s were left deliberately vague and as a result “great disparities exist between States parties regarding interpretation and operationalisation of the Madrid Protocol” (Jabour, 2013, p. 101). Nation states are not truly objective in the operations in the Antarctic, hence the tendency toward joint and multi-national inspection teams which have many benefits. ASOC (1992) have suggested a potential solution to issues of compliance could be the adoption of an independent inspectorate. Therefore, in addition to multi-national inspection teams, independent inspections or at least the presence of independent inspectors should be considered in the future. A major advantage that an inspectorate would have in reviewing

compliance would be its status as a non-political body within the Treaty System, which would result in presentation of unbiased information; perhaps more so than that of a national inspection team.

A more stratified approach to inspections with the establishment of a formal schedule of co-ordination between countries, would ensure bases, vessels and so on were inspected on a regular basis within, for example, a five year period and could “avoid the ‘over inspecting’ of areas which are visited more frequently” (Giuliani, 1996, p.470). In addition a priority list could be created with more frequent follow-up inspections to non-compliant bases and new bases. Inspected parties should also be required to provide feedback in the form of a follow up report within six months of the inspection acknowledging and responding to all the recommendations made by the inspectors. Furthermore, a list of all Antarctic facilities should be compiled by individual State parties to then be collated and held on the Antarctic Treaty Secretariat website as no such list currently exists (ASOC & UNEP, 2003). Rather than a guideline, the inspection checklist should become a mandatory tool used to create consistency and standardisation across the inspections process, making comparisons across years and between bases easier. Photographs in all inspection reports would also be a useful addition for future inspection parties.

Jabour’s paper ‘The Utility of Official Antarctic Inspections: Symbolism without sanction?’ noted that “preliminary research did not uncover compelling evidence of extensive changes in behaviour as a result of inspections” (Jabour, 2013, p.102). It can therefore be proposed that the inspections regime in its present format is largely a symbolic exercise. Jabour (2013) goes on to suggest that criticism illustrate that “problems stem... as much from systemic negligence and/or disinterest, as capacity” (Jabour, 2013, p.102). Where compliance in accordance with the Madrid Protocol is simply not being met in all instances across Antarctica, often due to the operational and geographical realities (Jabour, 2013). In their current capacity, inspections will fail to elicit unanimous positive environment outcomes across the Antarctic without the consequences for non-compliance with the protocol. However, any changes to the system will be slow and likely met with strong opposition with Consultative Parties to the treaty all possessing an effective power of veto and with decisions requiring consensus.

Conclusion

The 1959 Antarctic Treaty afforded the right to inspect to all member States with a focus on the use of Antarctica for peace and science and, although the original military reason for inspections

is still valid, the present focus has been on environmental considerations, especially since the agreement on the Madrid Protocol in 1991. The aim of these rights to inspect is to encourage compliance with the prohibitions contained within the Treaty and the Protocol. The inspections regime is a valuable tool with which Parties operating in Antarctica work to ensure positive environmental outcomes, boasting numerous practical and political achievements over the past decades. However, the effectiveness of the regime within the highly political context of the Antarctic Treaty System and the complex jurisdictional issues surrounding activities has been challenged. There is considerable variation in the operationalisation and interpretation of the Treaty and the Protocol between States, with Jabour arguing that; “it is likely that such disparities will continue to exist because capacity, culture and politics are practically and politically outside the control of the Committee for Environmental Protection and the Antarctic Treaty Consultative Meeting” (Jabour, 2013, p.102). In their current capacity, inspections will fail to elicit unanimous positive environment outcomes across the Antarctic without consequences for non-compliance with the Treaty or the Protocol. A more stratified approach to inspections, with the establishment of a formal schedule, mandatory checklists as well as increased ownership of the regime is required in order for the inspection regime to live up to its potential. However, any changes to the system will be slow and likely met with strong opposition, with Consultative Parties to the Treaty all possessing an effective power of veto and with decisions requiring consensus. Increased political will is required to achieve compliance with the environmental standards set within the Protocol in 1991, where issues of sovereignty need to be put aside in order to move forward and ensure the best outcomes for Antarctica.

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Belinda Harding 18952181
Kathryn Strachan 34415476
Rachel Innes 77791090