

Report of the 2001 Norwegian Antarctic inspection under Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection to the Antarctic Treaty

Introduction

1. The Norwegian government undertook an inspection in Dronning Maud Land, Antarctica in the period 6-8 January 2001. The inspection was conducted in accordance with Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection to the Antarctic Treaty. The names of the Norwegian observers were communicated to all Contracting Parties to the Treaty by diplomatic note of 13 December 2000.
2. The following stations were inspected: Maitri (India), Novolazarevskaya (Russia), SANAE IV (South Africa) and Troll (Norway). Troll was inspected for the first time and SANAE IV for the first time since construction had been completed. The team also visited the site of the former Georg Forster station (East Germany/Germany). One member of the team visited the EPICA ice core drilling station at the site DML 05 and conducted a limited inspection of the site. Unfortunately, due to weather conditions and difficulties of transportation, it was not possible to inspect the Japanese station Syowa on East Ongul Island as planned.
3. The Antarctic Treaty and the Madrid Protocol was used as basis for the inspection, together with Inspection Checklist A (for permanent Antarctic stations and associated installations) adopted by the Antarctic Treaty Consultative Meeting in 1994 (ATCM XVIII). The inspection had a strong focus on environmental conditions.
4. The inspection team was given free access to all areas of the stations. The personnel at the stations visited were frank and open in discussion of the operations carried out at the stations.
5. A full report of the inspection has been prepared, in which the findings of the team are summarized. A paper copy of the report will be made available to each delegation at the meeting¹. Article 14 of the Madrid Protocol stipulates that Parties whose stations were inspected shall have an opportunity to comment on the report before it is circulated to all Antarctic Treaty Parties and the Committee for

¹ The document is electronically available with the meeting documents on the CEP website and the ATCM XXIV website in the CEP website.

Environmental Protection and before it is considered at the Antarctic Treaty Consultative Meeting. The full report has been submitted for comments to the Governments of Germany, India, Norway, Russia and South Africa. The Parties were asked to provide comments within one month. No comments were received within this time frame or by the time the report was printed.

Report and findings

6. A summarized overview of some general observations is given in the following. In the view of the inspection team these observations could be of general interest to the entire Antarctic community. The observations are not listed in any particular order of priority.

- **Antarctic Treaty provisions:** No military activities, armaments, or prohibited nuclear activities were observed, and all scientific programmes were in accordance with previously published plans. The observed activities at each station were in compliance with the provisions and spirit of the Antarctic Treaty.
- **Environmental Protocol provisions:** There was a general high awareness of the provisions relating to the Madrid Protocol. It seems clear that most of the stations visited have already significantly altered their practises as a result of the Protocol entering into force in 1998.
- **Tourism:** The stations visited had not been significantly affected by tourism. However, the inspection team noted that the establishment of the seasonal blue ice runway at Henriksenskjæra introduces new opportunities for tourism and non-governmental activities in Dronning Maud Land. An increased level of activity as a result of better accessibility could have a significant bearing on national programmes and station operations in this area with respect to issues such as transport and storage, accommodation, communications, search and rescue, etc.
- **Fuel storage and handling:** The inspection team noted that fuel facilities and fuel transfer routines seemed to be the station activities with the greatest potential for causing significant environmental impacts. Basic fuel containment was lacking at some of the stations, and efforts should be made to rectify this as soon as possible. Although no major spills were reported to have occurred since the 1996 inspection, the inspection team noted that contaminated ground from earlier spills still remained visible at most of the stations.
- **Oil spill contingency plans:** Only one of the all-year stations visited (SANAE IV) had developed contingency plans for fuel spills. The inspection team notes that it is important for those stations in Antarctica that have not developed such plans to give priority to this, in accordance with ATCM Resolution 1 (1997) and ATCM Resolution 6 (1998). The inspection team also notes that Article 17 of the Madrid Protocol stipulates that Parties should report about such contingency plans in their annual report.

- **Discharge of effluent/grey water:** Effluent/grey water was discharged onto ice-free ground at all four stations visited, even though the provisions of Annex III of the Madrid Protocol state that such disposal should be avoided. The inspection team notes the need to give further consideration as to how inland operations best can be conducted without being in conflict with the Madrid Protocol.
- **Monitoring programmes:** Most of the stations visited carried out analyses of some selected parameters (e.g. waste water quality, drinking water quality, etc.), although comprehensive monitoring programmes seemed to be generally lacking. The inspection team notes the importance of developing comprehensive monitoring programmes for assessing long-term impacts of operations at Antarctic stations, ensuring that environmental monitoring data are collected systematically over time, thus making trend analyses possible.
- **Alternative energy:** Experience so far shows that alternative technologies must be better adapted to the Antarctic conditions before they can make a significant contribution to energy production. Nevertheless, the inspection team notes the importance of continuing to focus on alternative energy technologies and energy conservation measures with the aim to reduce fossil fuel consumption at the Antarctic stations.
- **Non-indigenous plants:** At two of the stations (Maitri and Novolazarevskaya) the inspection team noted the presence of a wide variety of houseplants. Most of these may in the first instance have been brought in for research purposes, but the plants did not seem to serve such purpose any longer. The inspection team noted that there might be a need to further consider issues related to permits for non-indigenous species in Antarctica.
- **Antarctic Specially Managed Areas:** Two stations (Maitri and Novolazarevskaya) are located in a sensitive ice-free area limited in size. It could be useful for the involved Parties and the Treaty system to consider whether the area should be designated as an Antarctic Specially Managed Area (ASMA). This could facilitate the planning and coordination of activities to avoid possible conflicts, improve cooperation and minimize environmental impacts in the area.
- **Waste management:** Proper waste management and disposal were given high priority at most of the stations. Only at one station (Novolazarevskaya) was waste disposed of into the environment, while the remaining stations had comprehensive schemes for separating, storing and back-loading waste. The inspection team noted that two national programmes had coordinated the waste management systems at their stations with respect to e.g. colour coding and categories (SANAE IV and Troll). The inspection team saw that this could be useful for the purpose of comparison and evaluation, in addition to being practical with respect to logistic cooperation, and suggests further coordination between other programmes and stations, where appropriate.

- **Scientific cooperation:** The inspection team observed that scientific co-operation at two neighbouring stations (Maitri and Novolazarevskaya) was rather limited. The inspection team notes the importance of scientific co-operation at stations located near each other in order to avoid redundancy and ensure efficient use of resources.
- **Station operations:** The inspection team observed that the level of resources available for station operations varied significantly. If basic resources are lacking to run and maintain scientific programmes and to operate a station in accordance with the provisions of the Madrid Protocol, then it might be better to close down a station completely rather than prolong the station's existence without any improvements.
- **Station information:** At one station (SANAE IV) the inspection team was presented with detailed written documentation on the station operations. This included detailed information on issues raised in the ATCM inspection check list, which was found to facilitate the inspection significantly. The inspection team notes the value of having available this kind of documentation at the stations in Antarctica.

Conclusion

1. The inspection team observed no violations of the basic provisions of the Antarctic Treaty during the inspection. As far as the team could discern all equipment at the stations was used for purposes consistent with the provisions of the Treaty.
2. There was a general high awareness of the provisions relating to the Madrid Protocol and no one was of the opinion that the provisions in the Madrid Protocol created undue obstacles for the scientific activities. Most of the stations visited have already significantly altered their practices since the Protocol entered into force in 1998. In the inspection report the observers have pointed to some issues related to environmental aspects of the operations at the stations. These are intended as suggestions and guidance to the programmes rather than criticism. It is also hoped that pointing to some of these issues may induce further international cooperation in finding solutions suitable for the Antarctic conditions.
3. Overall, the observers were highly impressed by the spirit of commitment and dedication encountered at all the stations that were visited, and by the openness and friendliness shown by everyone at the bases inspected. Antarctica remains a special place and the scientists and support personnel working there treated it as such. The observers see this as a clear evidence of the spirit of cooperation that prevails within the Antarctic Treaty System and of the transparency of that System.