



The Rationalisation of Information Exchanged Through the Antarctic Treaty System

BACKGROUND

1. The last two decades has seen considerable growth in the scope and complexity of the Antarctic Treaty system. The tasks of collecting data, preparing reports and exchanging information have increased in line with the growth of ATCM Recommendations and Resolutions, and the implementation of the Environmental Protocol. During the same period the scope and sophistication of science and operations has accelerated in keeping with rapid advances in technology. Many national Antarctic Programs are today conducting substantially more science over vast areas of the Antarctic continent and the Southern Ocean. International cooperation in both science and logistics has increased and, during the last ten years, there has been major growth in Antarctic tourism.

2. The parallel development of international science programs through SCAR, science and operational support through COMNAP, and the Antarctic Treaty and associated international conventions through the ATCM process has resulted in the development of separate, and sometimes duplicated, information reporting requirements. In the case of COMNAP, the need to introduce an information exchange process on operational activities was brought about by the requirement to have such information available to national operators before the Antarctic summer season commenced. Operational information provided through the formal Antarctic Treaty exchange of information process arrives too late in the season to be of value.

3. At ATCM XXII the United States tabled an Information Paper on “Improving Annual Exchange of Antarctic Information” (XXII ATCM/IP28) noting that the current processes generally:

- results in overlapping and duplicated data;
- uses outdated methods for the preparation and distribution of information; and
- causes delays in the timely availability information.

4. ATCM XXII noted the need to rationalise the information exchange systems and consider what information is exchanged, and why, and how the processes could be improved. The Meeting acknowledged that the World Wide Web presents a valuable tool which can facilitate the rapid and efficient exchange of Antarctic information that is currently circulated by traditional means. SCAR and COMNAP advised that they were intending to review their

information formats. The Meeting agreed that “exchange of information” would be a priority agenda item ATCM XXIII.

5. This paper discusses:

- the duplication that occurs between the formal exchange of information under the Antarctic Treaty and the information exchanged by national Antarctic operators through COMNAP;
- the reasons why such duplication has arisen;
- recent changes to the way COMNAP exchanges operational information; and
- current and future developments that can reduce duplication and improve the timely availability of information.

DISCUSSION

Formal Exchange of Information under the Antarctic Treaty

6. Article VII (5) of the Antarctic Treaty requires Contracting Parties to provide information on its expeditions and nominate all stations occupied by their respective nationals. Subsequent ATCM Recommendations have expanded the information required and called for it to be made available by 30 November each year. Until recently, all Parties have circulated the information in printed reports through diplomatic channels. During the last year a number of Parties have begun to provide this information through the INTERNET on the home page of their national Antarctic agencies (e.g. Australia, Belgium and USA). Annex A outlines the fields of information exchanged under the formal Antarctic Treaty information exchange process.

COMNAP Exchange of Information

7. While the Antarctic Treaty exchange of information process provides data that is valuable to Antarctic operators (e.g. shipping and aircraft schedules, facilities for rendering assistance, communications frequencies, etc) these reports do not reach the national programs until December (which is typically half way through the operating season) or later. Because of this delay, in June 1996, COMNAP issued *Guidelines for Advance Exchange of Operational Information on Antarctic Activities* which requires specific operational information to be exchanged between national operators by 1 September each year (that is two or more months earlier than information provided through the formal exchange process). Annex B gives a list of the information required under the COMNAP advance exchange of information process.

8. Prior to 1998, each COMNAP member agency forwarded its “COMNAP Advance Exchange of Operational Information” by airmail to the COMNAP Secretariat. Duplicate copies were distributed to each COMNAP member by airmail during early September. However, by 1998, virtually all COMNAP member countries (28 out of 29) had access to electronic mail through the INTERNET. As a result, at the COMNAP X meeting held in Concepcion, Chile in July 1998, it was agreed to begin using COMNAP’s “Antarctic Manager’s Electronic Network (AMEN¹) system for the advance exchange of operational of information for the 1998/99 season and until further notice”. National operators now therefore provide the information as an attachment to an e-mail.

9. Under the COMNAP information exchange process, National operators were encouraged to provide URLs (that is, “Uniform Resource Locators” or Home Page addresses) for fields of operational information that are available on their national INTERNET Home Pages (e.g. shipping schedules, etc). This has the benefit that other national operators are able to access up-to-date information rather than relying on information provided at the beginning of the season that is frequently superceded. While none of the national operators provided URLs

COMNAP Home Page

10. During the last six months COMNAP has been redeveloping its Home Page to provide information that will provide a valuable reference resource for national operators and others. Much of the information on the Home page will be accessible to the general public although some data will be “password protected” for COMNAP members and related agencies (e.g. communication frequencies).

11. The Home page will provide a complete list of summer and winter stations/bases with information on the geographic location, station infrastructure, science activities, and medical facilities etcetera. In the “password protected” areas members will be able to access (and edit) the Antarctic Telecommunications Operators Manual (ATOM) and MINIATOM (which is a reduced version of ATOM that also includes communications information on tourist vessels and yachts). Both the ATOM and MINIATOM documents will be available on the COMNAP Home Page in “PDF format²” that will enable pages to be printed which are identical to the original format of the manuals/documents.

Comparison of Information Exchanged

12. Annex C presents a comparison between the information provided under the formal Antarctic Treaty Exchange of Information, operational information that is circulated by national operators through COMNAP prior to the commencement of an Antarctic summer season, and information that will be available on the COMNAP Home Page by 30 June 1999. As would be expected, all of the data exchanged through COMNAP is operationally significant and especially valuable in the event of an emergency. As previously noted, while the COMNAP exchange of information provides a forecast of what is expected to happen, the information can rapidly become redundant as a result of unforeseen events (e.g. ship besetment, equipment failure, accidents, etc).

13. The INTERNET has provided the technology to enable correct information to be available to national operators throughout the Antarctic season. Paragraph 9 (above) describes the use of e-mails to circulate COMNAP exchange of information commencing this last season (1998/99). It was also pointed out that a few Antarctic operating agencies are moving to place key operating information on their Home Page (such as shipping and aircraft schedules) which will allow the URLs to be provided within the COMNAP exchange of information document. If all national Antarctic operating agencies were able to provide this information through the INTERNET there would no longer be a need for the COMNAP advance exchange of information process. Hopefully this will be achieved within the next five to ten years.

14. The redeveloped COMNAP Home Page is being designed to allow national operators to access specific types of operational data that are best centralised and are not generally available in a consolidated form on any national Antarctic Home Page. The Antarctic Telecommunications Manual (ATOM) and MINIATOM will be the first examples of this approach. National operators will be able to directly edit data on ATOM and MINIATOM, which relates to their own ships and stations. This will vastly improve the accuracy and currency of the information and eliminate the time and cost of distributing hard copies.

¹AMEN is a List server maintained by the COMNAP Secretariat that enables any COMNAP/SCALOP member to distribute electronic mail messages to all COMNAP/SCALOP members.

² “PDF” or “Portable Document Format” is produced using Adobe Acrobat software and enables the layout of documents to be maintained and viewed on any type of computer.

CONCLUSIONS

15. It is concluded that:

- there is some duplication between the information circulated under the formal Antarctic Treaty process and that provided through the COMNAP advance exchange of operational information procedure;
- this duplication arose because of the need by national operators to obtain operational information at, or preferably prior to, the commencement of the Antarctic summer season;
- the use by COMNAP of e-mails to circulate the advance exchange of information (commencing in the 1998/99 season) has vastly improved the efficiency of the process;
- the introduction, by a few national Antarctic agencies, of operational information on their Home Pages has enabled up to date operational information to be accessed at any time and, if this method was implemented by all national operators, has the potential to entirely eliminate the need for the COMNAP advance exchange of information; and
- the new COMNAP Home Page will provide a central resource of information on wintering and summer stations and will also provide reference data that is best held at a central location.

RECOMMENDATIONS

16. It is recommended that the ATCM:

- note the development of COMNAP's exchange of information process through the use of electronic mail and its redeveloped Home Page;
- consider the potential of using the facilities of the COMNAP Home Page to store operational information that is best held in a central location (e.g. communications information, location of refuges, etcetera) thereby eliminating the need to provide this information through the formal Antarctic Treaty information exchange process;
- encourage national agencies to make available up-to-date operational information on the home pages of their national Antarctic agencies; and
- encourage Contracting Parties to use the INTERNET for the formal exchange of information under the Antarctic Treaty.

**Exchange of Information under Article VII (5) of the Antarctic Treaty and as required by related ATCM Recommendations and requirements under the Protocol on Environmental Protection
(Treaty Requirements)**

Item	Requirement
I	Logistics Support and Military Equipment The names, types, numbers and descriptions of ships, aircraft and other vehicles, introduced, or to be introduced, into the Antarctic Treaty Area, and information on military equipment, if any, and its location in the Area.
II	Expedition Schedules Dates of expeditions leaving for, and arriving in the Antarctic Treaty Area, duration of stay, itinerary to and from the Area and routes followed within the Area.
III	Summer and Winter Stations The names, locations and dates of opening of the Party's stations and subsidiary stations established or planned to be established in the Antarctic Treaty Area, listed according to whether they are for summer and/or winter operations.
IV	Names of Expedition Personnel The names of the officers-in-charge of each of the stations, subsidiary stations, ships and aircraft; the number, occupations and specialisations of personnel (including any designated by other Governments), who are or will be stationed at each of these stations including the number of personnel who are members of the military services, together with the rank of any officers and the names and professional affiliations of personnel engaged in scientific activities.
V	Armaments The number and types of armaments possessed by personnel.
VI	Science Projects Science projects including investigations underway and those planned for each station or on board ships and aircraft.
VII	Scientific Equipment Principal scientific equipment according to program or location.
VIII	Transportation and Communication Equipment Transportation facilities and communications equipment for use within the Antarctic treaty Area
IX	Facilities for rendering Assistance Details of facilities for rendering assistance for winter and summer operations.
X	Non-Government Expeditions Notice of any expedition to Antarctica not organised by the Party but organised in, calling at, or proceeding from the Party's territory (including tourism in accordance with Article VII (5)(a).
XI	Unoccupied Refuges Description of unoccupied refuges in accordance with Recommendation III-II, including

	name, position, description of location, date established, date last examined and estimate of available accommodation, facilities, food, fuel, and supplies of other kinds.
XII	Permits Issued Annual return of details of number and nature of permits issued, and the numbers or quantities of each species of native mammal, bird or plant taken annually in the Treaty Area in accordance with Article 6 of Annex II to the Protocol on Environmental Protection to the Antarctic Treaty and Article XII of the Agreed Measures for the Conservation of Antarctic fauna and flora.
XIII	Use of Radio-Isotopes Details of projects proposing to use radio-isotopes.
XIV	Use of Rockets Notice of intended use of scientific research rockets in the Antarctic Treaty Area in accordance with Recommendation VI-12 including, inter alia, geographical coordinates of the place of launching or, alternatively, the approximate period of time during which it is planned to carry out the launchings; the direction of launching; the planned maximum altitude; the planned impact area, the type and other specification of the rocket to be launched, including possible residual hazards; the purpose and research program of the rocket.
XV	Oceanographic Research Notice of ships which are carrying out substantial oceanography research programs in the Antarctic Treaty Area, in accordance with recommendations VI-13, including information required under categories I, II, VI and VII.
XVI	Tourist and NGO Expeditions Reports of tourist and non-governmental expedition groups visiting stations as referred to in paragraph 3 of Recommendation VIII-9.
XVII	Waste Disposal Practices Waste disposal practices, in partial fulfillment of paragraph 4 of Recommendation XV-3.
XVIII	Activities in Special Protected Areas Advice of activities authorised to be conducted in Specially Protected Areas, in fulfillment of Recommendation XV-9.
XIX	List of IEEs Annual list of any Initial Environmental Evaluations prepared, and procedures put in place in accordance with Articles (2)(2) and 5, in fulfillment of Article 6 of Annex 1 to the Protocol on Environmental Protection to the Antarctic Treaty.
XX	Implementation of Environmental Protocol Advice of steps taken to implement the Protocol, including notification made in accordance with Article 15, in fulfillment of Article 17 of the Protocol on environmental Protection to the Antarctic Treaty

COMNAP Guidelines for Advance Exchange of Operational Information on Antarctic Activities

Recommended Format

To be forwarded to the COMNAP Secretariat by 1 September annually.

Country:

For the period: 1 September 19 to 31 August 19

SECTION 1

CONTACT INFORMATION (OF ORIGINATOR)

- (a) Name
- (b) Position
- (c) Address
- (d) Phone
- (e) Facsimile
- (f) Telex
- (g) E-mail

SECTION 2

SHIP OPERATIONS

- (a) Ships to be operating in the Antarctic
- (b) Brief details of proposed itineraries
Shipping schedule attached: YES/NO

SECTION 3

AIR OPERATIONS

- (a) Information on planned air operations (see attached sheets)
- (b) Antarctic Flight Information Manual (AFIM) updates
attached: YES/NO

SECTION 4

STATIONS

- (a) New stations or refuges not previously notified
- (b) Stations closed or refuges abandoned and not previously notified

SECTION 5

COMMUNICATIONS

- (a) Communications facilities not previously notified
- (b) Antarctic Telecommunications Operators Handbook (ATOM)
updates attached YES/NO

SECTION 6

LOGISTICS ACTIVITIES AFFECTING OTHER NATIONS

- (a) Logistics activities affecting other nations

SECTION 7

MAJOR FIELD ACTIVITIES

- (a) Major inland traverses and temporary field camps

SECTION 8

OTHER ANTARCTIC ACTIVITIES

- (a) Governmental
- (b) Non-governmental

SECTION 9

EMERGENCY CONTACTS

- (a) Emergency contacts telephone updates
attached: YES/NO

Attachments to be appended:

- Shipping itineraries (if applicable)
- Aircraft operations (Sheets 1 to 6 as applicable)
- AFIM updates (attach any amendments to the Antarctic Flight Information Manual that have not yet been advised to the COMNAP Secretariat)
- ATOM updates (attach any amendments to the Antarctic Telecommunications Operators Manual not yet advised to the COMNAP Secretariat)
- Emergency Contact Telephone Numbers (attach updated list of contacts)

ANNEX C

Comparison between Information Exchanged under the Antarctic Treaty, Exchanged through COMNAP and available on the COMNAP Home Page ³

Process of Information Exchange ...			Comments
...formally under the Treaty ¹	...through COMNAP ²	...via COMNAP's Home Page ³	
Item I Logistics Support and Military Equipment	<ul style="list-style-type: none"> • Shipping and aircraft schedules only 		<ul style="list-style-type: none"> • URL's to national Home Pages are to be provided with COMNAP Advance Exchange
Item II Expedition Schedules	<ul style="list-style-type: none"> • As above 		<ul style="list-style-type: none"> • URL's to national Home Pages are to be provided with COMNAP Advance Exchange
Item III Summer and Winter Stations		<ul style="list-style-type: none"> • List of summer and/or winter stations and subsidiary bases 	
Item IV Names of Expedition Personnel			
Item V Armaments			
Item VI Science Projects		<ul style="list-style-type: none"> • Types of science conducted at stations (in general) 	
Item VII Scientific Equipment			
Item VIII Transportation and Communication Equipment	<ul style="list-style-type: none"> • Revisions of ATOM entries • Revision of AFIM entries 	<ul style="list-style-type: none"> • List of surface transport equipment at stations • Copy of ATOM manual giving details of communications equipment and frequencies for all stations and ships 	

Process of information Exchange ...				Comments
...formally under the Treaty ¹	...through COMNAP ²	...via COMNAP's Home Page ³		
Item IX Facilities for rendering Assistance	<ul style="list-style-type: none"> New refuges established Refuges abandoned 	<ul style="list-style-type: none"> Medical facilities available at stations 	<ul style="list-style-type: none"> List of refuges to be included on COMNAP Home Page at next stage of development 	
Item X Non-Government Expeditions	<ul style="list-style-type: none"> Other government and non-government activities 			
Item XII Unoccupied Refuges	<ul style="list-style-type: none"> New refuges opened Refuges closed 		<ul style="list-style-type: none"> See comments against Item IX above 	
Item XII Permits Issued				
Item XIII Use of Radio-Isotopes				
Item XIV Use of Rockets				
Item XV Oceanographic Research				
Item XVI Tourist and NGO Expeditions	<ul style="list-style-type: none"> Non-governmental activities 			
Item XVII Waste Disposal Practices				

Notes:

- ¹ Information exchanged under Article VII (5) of the Antarctic Treaty, related ATCM Recommendations and the requirements of the Environmental Protocol
- ² Information exchanged in accordance with COMNAP's *Guidelines for Advance Exchange of Operational Information on Antarctic Activities (June 1995)*
- ³ Information that will be available on COMNAP's redeveloped Home Page by 30 June 1999. It should be noted that COMNAP's Home Page is being developed on an ongoing basis and will be expanded to include more information that is valuable located in a single reference resource (e.g. communications information, operating regions for vessels during specific periods, refuges, etcetera)