

COUNCIL OF MANAGERS OF NATIONAL ANTARCTIC PROGRAMS

COMNAP XIII Meeting

21-24 August 2001
Amsterdam The Netherlands

Minutes of Meeting

1. Opening

1. COMNAP Chairperson, Gillian Wratt, welcomed members and invited the COMNAP host member, Jan Stel, to formally open the meeting. Jan welcomed everyone to the meeting and the historic City of Amsterdam. He referred to the venue that was a famous old building, called the Trippenhuis, and which today accommodates The Netherlands Academy of Science. Jan wished members a very pleasant stay and hoped that there would be time for people to experience this very lively and attractive town.

2. Jan briefed members on the facilities and services available at the meeting venue and described plans for some of the events that would take place during the week.

2. Apologies

3. Gillian advised that apologies had been received from the Argentine COMNAP, Ernesto Molanari, on behalf of their representatives. The staff of the Argentine Institute is currently involved in a major re-structure of the program.

4. Gillian welcomed new COMNAP representatives from China, Zhan-Hai Zhang, and Japan, Okitsugu Watanabe. She also welcomed the attendance of observers from Estonia and Romania. Gillian also advised that Ms Ute Hon Bohnen would be attending a few of the working group meetings as an observer from IAATO. A list of participants is given in the Attachment to these minutes.

3. COMNAP Chairperson's Address

5. The COMNAP Chairperson, Gillian Wratt, warmly welcomed everyone to the thirteenth meeting of COMNAP. She thanked the Executive Secretary, Jack Sayers, for his effective support to the organisation during the last year including representation at the recent ATCM XXIV in St Petersburg. Gillian noted that Jack is to retire from the position in late 2003 and that a paper seeking expressions of interest for a replacement Executive Secretary and Secretariat would be discussed later.

6. Gillian reviewed the discussions that had taken place at the Executive Committee's inter-sessional meeting that took place in Singapore during late November 2000. The principal matters considered were:

- review of work undertaken at the COMNAP meeting in Tokyo;
- operation of the Secretariat;
- financial status of COMNAP;
- papers required for the ATCM XXIV/CEP IV;
- review of working group and network activities;
- COMNAP's role in facilitating cooperation in Sub-glacial Lakes exploration;
- draft policy on the use of COMNAP funds;
- options for archiving COMNAP records;
- process for selecting a new COMNAP Secretariat and Executive Secretary; and
- planning for the Amsterdam meeting.

Gillian noted the work carried out since the last COMNAP meeting for the two ATCMs; the SATCM XII/CEP III in The Hague during September 2000, and ATCM XXIV/CEP IV in St Petersburg during July 2001.

7. The role of COMNAP regarding subglacial lakes exploration was one of the matters for discussion at the Joint COMNAP/SCAR Executives Meeting later in the week, Gillian advised. She also noted that the current meeting would be required to elect a new chairperson, a new EXCOM member and a new SCALOP chair. Gillian referred to the TRAINET Workshop that had taken place during the previous two days and also a sub-group of MOLIBA, which met on Monday to develop a response to the ATCM on environmental accident scenarios.

New COMNAP Secretariat

8. Gillian returned to the matter of finding a replacement Executive Secretary and a new Secretariat and referred the meeting to Paper No. 5-2001. John Dudeney (UK) advised that the UK may be interested in putting forward a proposal on the basis of an ex-British Antarctic Survey person as Executive Secretary. However, while BAS would be interested in hosting the Secretariat, they noted that under “Institutional Support” there is a requirement that “the hosting agency must be independent of the national Antarctic program.” John asked the meeting whether there was any flexibility in this requirement.

9. Olav Orheim (Norway) said that they did not have a strong view on this matter but independence of the national program was just one factor and a good candidate should not be excluded from consideration by this requirement. Heinz Miller (Germany) supported Olav’s views. Swedish COMNAP (Anders Karlqvist) considered that the physical location of the Secretariat was not the main issue; rather, the Executive Secretary should not be working at the national program. Italian COMNAP, Mario Zucchelli, said he believed that it was preferable that the Secretariat be independent of the national program and should be . Karl Erb (USA) proposed that the EXCOM members look towards developing some words that would take into account the thrust of the discussion.

10. In the final plenary session Gillian tabled a revised “Expressions of Interest” document (Paper No. 5/2001-2) that included a number of suggested additions to the qualifications of the Executive Secretary and a revised section under “Institutional Support” that took into account the views expressed earlier in the meeting. The Council indicated unanimous support for the proposed amendments.

Action 1: Secretariat to post revised document on calls for expressions of interest to host the Secretariat and to circulate the endorsed paper to all members.

4. Executive Secretary’s Report

Web Site

11. Jack Sayers reported briefly on key matters noted in his annual report (Paper No. 29-2001). He referred to the two major revisions of the COMNAP web site during the past year, which were aimed at improving navigation for members and providing additional information on Antarctic operations for the benefit of the general public. It is planned to continue developing the site during the next twelve months with a view to providing a facility for members to add information on environmental incidents (as this information is now being regularly requested by the CEP) and the ability to edit AFIM information on line.

12. Gillian noted the value of the web site to the organisation and asked if there were any comments from the floor. Olav Orheim (Norway) said that he found that there were still too many steps to download papers from the “Discussion Site” and that the addition of graphics increased the download time. He also felt that the password requirements were over-complicated. Anders Karlqvist (Sweden) supported the need to simplify access. Jack responded by advising that the additional step of downloading the paper after accessing the paper “page” was a feature of the software that the web site used. The Secretariat was obliged to use that particular software as the state government department that hosts the Secretariat supports it.

13. For the year that the Secretariat moves to a new location, provision will be made in the COMNAP budget to convert the site to the software used by the new host country and that may permit some streamlining. However the delay is very slight in going through the two steps except if a low capacity connection is used and then everything slows down. Nevertheless Jack agreed to review the “Discussion Site” again to see what improvements could be made especially regarding password entry. It should be noted, however, that the COMNAP web site now contains a vast amount of diverse information and incorporates many unique features including edit functions for various categories of information.

Action 2: Secretariat to review the operation of the web site “Discussion Site” with the aim of further streamlining access.

Updating National Information on Web Site

14. Jack said that during the last ten years COMNAP had developed into a strong and professional organisation that was now respected by the ATCM and other elements of the Antarctic Treaty System. It was therefore disappointing to note that in an inspection report tabled by the USA at the St Petersburg ATCM XXIV it was stated that *“The team found INMARSAT numbers shown in the COMNAP listings were not always current and notification of our intention to inspect in most cases was conducted by radio. The ever improving state of electronic communications should allow telephone numbers, radio frequencies and e-mail addresses to be kept more current in the COMNAP directory.”* This reflected badly on the professionalism of COMNAP and its members.

15. Jack advised that when any member country edits the site, the site automatically generates an e-mail to the Secretariat advising the area edited and which country undertook the editing. He said that he would, in future provide a summary report of all editing activity including the ATOM and MiniATOM information. During the last month, he advised, Japan and Spain had expended considerable effort updating their information on the site. In previous months many other member countries had also revised their site information. However there were still many countries that have done very little to maintain the currency of information on the site. Gill encouraged members to ensure that the information on the web site was up-to-date.

Action 3: All members to ensure that national information on the COMNAP web site, especially ATOM and MiniATOM is kept up-to-date.

Action 4: Secretariat to provide to members a report providing statistical data on editing activity on the COMNAP web site by 30 October 2001.

COMNAP Web Site Security

16. Mario Zucchelli (Italy) referred to the large amount of important information held on the COMNAP web site and the need to ensure its security and integrity. Jack outlined the steps that had been taken to maintain the security of all COMNAP electronic data including the web site, namely:

- The web site is held on three separate computers. One copy is held on the Executive Secretary’s COMNAP computer, which he uses to manage and maintain the web site on a day-by-day basis.
- The COMNAP computer is used to replicate changes to the active web site that is located on a server in the head office of the host department.
- The active copy then replicates to a back-up copy held on the server of the commercial consultants that have done the software development for COMNAP (no cost is levied for holding this back-up copy).
- The Secretariat is currently arranging for a CD copy of the web site to be provided by the commercial consultant twice each year so that we have an ongoing record of developments.

In addition the electronic files of COMNAP, including a complete record of all e-mail transactions over the past four years, are secured by:

- Weekly archiving on a ZIP 250MB disc.
- Quarterly archiving on a CD.

Mario Zuchelli indicated his satisfaction with the arrangements that had been put in place by the Secretariat.

Financial Reports

17. Jack referred to the audited report for year 2000 that was included as annex in his report. Total income was 99.8% of budget and expenditure 86.4% of budget largely because of under-expenditure on working groups and workshops. Annex B of the report gave the financial report for 2001 up to 15th August and this indicated that total expenditure for the year was likely to be within budget. An analysis of fees received since 1991 and the current status for 2001 was given in Annex C of the report. Finally, Jack referred to the draft budget at Annex D that would be discussed later under Agenda Item 13.

Archiving of COMNAP Records

18. Jack referred to Paper No. 9-2001 on the “Archiving of COMNAP” records. The paper points out that the former Executive Secretary of COMNAP, Al Fowler, retained a substantial volume of COMNAP records plus information relating to his time as a member of the SCAR Working Group on Logistics. Al has corresponded with the University of Ohio on a proposal for their Byrd Polar research Center (BPRC) to hold the archive of COMNAP records. The paper proposes that:

- The Council note and concur that the Antarctic-related documents held by the former Executive Secretary, Mr Al Fowler, are transferred to the Byrd Polar Research Center (BPRC) of Ohio State University of Colombia;
- The Council decides on whether to accept an offer of the BPRC to archive future records of COMNAP.
- In future, decisions to commit documents to an archive should be taken by the incoming Executive Secretary, in consultation with the outgoing, and
- The Council considers whether previous hard copies of meeting papers and other reference documents should be scanned and posted onto the web site at an estimated cost of A\$8,000 (US\$4,200).

19. Pentii Malkki (Finland) noted that there was a need to ensure that the archival arrangements guaranteed COMNAP access to the information and also pointed out the risks associated with electronic archival records because of changing technology and software systems. Jack agreed to provide Pentii with a copy of the archival arrangements proposed by BPRC. Italy (Mario Zucchelli) and the UK (John Dudeney) supported all the recommendations. Karl Erb (USA) referred to the need for proponents for the Secretariat to address the archiving of records and that Paper No. 5-2001 should be amended to reflect this requirement.

20. Gill concluded the discussion by asking all members if they were satisfied with the proposals. The membership indicated unanimous agreement.

5. Reports and Relevant Matters

5.1 RAPAL (meeting of Latin American National Antarctic Operators)

21. Patricio Eberhard (Chile) reported on behalf of RAPAL. He advised that main objective of RAPAL was to facilitate the exchange of logistics and scientific information between Latin-American countries. The last meeting was held in Peru in November 2000 and the next meeting will take place in Punta Arenas, Chile, in September 2001, which will include the Second RAPAL Science Seminar and a Workshop on Medical Activities in Antarctica.

5.2 FARO (Forum of Arctic Research Operators)

22. Bonni Hrycyk (Canada) advised that the annual meeting of the Forum of Arctic Research Operators (FARO) was held during Arctic Science Summit Week at the end of April 2001 in Iqaluit in the new eastern Arctic territory of Nunavut in Canada. The minutes of the meeting are available on the FARO web site, which is hot linked to the COMNAP web site. More than a dozen countries participated in this year’s meeting of FARO; a number of them are also members of COMNAP. Among the projects under discussion among FARO members is a Circumpolar Environmental Observation Network; this network would link existing Canadian US and European networks using common parameters for a terrestrial observation system.

23. During the meeting, national programs provided presentations of recent developments with a view to identifying possible future opportunities for collaborations, and to ensure open information sharing among members. Gérard Jugie (French COMNAP) gave a brief presentation to FARO on COMNAP’s behalf, and suggested that clean energy systems could be one area where COMNAP and FARO can work in collaboration in terms of identifying common needs and best practices.

24. Plans are proceeding to hold a technical seminar on alternative energy systems at the 2003 Arctic Science Summit, to be held in Kiruna, Sweden. This would provide the opportunity for a joint Arctic and Antarctic initiative. The Chair of ENMAN has approached FARO about other possible collaborations between COMNAP and FARO and these will be discussed in detail at the next FARO Meeting in Groningen, The Netherlands, in April 2002.

5.3 IHO Meeting on Antarctic Hydrography

25. Henry Valentine (South Africa) attended the IHO Antarctic Meeting in Cape Town on behalf of COMNAP. He advised there appeared to be a communications gap between the national Antarctic operator and the hydrographic agency in many countries. He noted that COMNAP members can provide input to their national hydrographic programs and IAATO is able to contribute valuable data to the IHO. China advised that it had a representative at the meeting although he was not listed in the meeting report. COMNAP chairperson, Gillian, thanked Henry Valentine for attending the meeting on behalf of COMNAP and encouraged members to make contact with their national hydrographic agency.

Action 5: COMNAP members to initiate liaison with their national hydrographic agencies if arrangements are not already in place.

6. Proposed Policy of Funding COMNAP Activities

26. Gillian referred the meeting to Paper No. 6-2001 on the “Operation of Working Groups” and, in particular, Attachment D on “The Use of COMNAP Funds to Support Activities”. She advised that the proposed procedure had been developed at the inter-sessional EXCOM meeting in Singapore last November. John Dudeney (UK) and Sweden (Anders Karlqvist) support adoption of the policy and this was endorsed by all members of the Council.

7. ATCM XXIV Outcomes and Tasking

27. Gillian referred to the historic decision of the St Petersburg ATCM XXIV on the establishment of an Antarctic Treaty Secretariat in Buenos Aires. She advised that some progress had been made on the Liability Annex using emergency response action as the basis. It is probable that the Liability group will hold an inter-sessional meeting early next year to progress matters further. The CEP is to commence a rolling review of the annexes to the Madrid Protocol, beginning with Annex II at CEP V.. Inter-sessional contact groups were established on cumulative impacts research monitoring and SPA management plans. Gillian invited the chairman of the CEP, Olav Orheim (Norway), to address the Council on CEP matters.

28. Olav advised that the CEP had evolved over the last three years and developed its mode of conducting business. He stressed that COMNAP (and SCAR) need to keep abreast of developments within the ATCM and CEP and be aware of matters that impinge on operational activities and prepare for the meetings accordingly. The review of the Madrid Protocol annexes will be one of the most important activities to be undertaken by the CEP. In particular, COMNAP should designate a member to track each CEP activity, especially those involving inter-sessional working groups.

29. CEP V would discuss which Annex should be reviewed after Annex II. He noted in this connection that Annex III on “Waste Disposal and Waste Management” contains many issues that will be of interest to COMNAP. Olav stated that the Inspection Reports presented at CEP IV presented problems on this matter. He expected that seismic assessments would become an issue and that SCAR were planning a workshop on this matter.

30. With regard to the “Liability” discussions he advised that the approach now being taken is consistent with the views of many COMNAP members. The “Liability Group” has adopted a step-by-step approach to the annex but there is still a large amount of work to be done. Gillian emphasised that COMNAP did not, and could not, have a position on the Liability Annex as its member countries could hold somewhat differing views. Its attendance at the “Liability” discussions through Jack was therefore to provide operational advice and not to represent a COMNAP position. Karl Erb (USA) and Pentii Malkii (Finland) supported this view. John Dudeney (UK) noted that the presence of operators at the “Liability” discussion was a valuable influence to the delegations.

31. Heinz Miller (Germany) referred to the discussion that took place in the ATCM about the collection of meteorites by tourists and selling them on the market. It was clear from ATCM discussions that some Parties had differing views on how these activities might be regulated or controlled.

32. Gillian referred to Paper No. 8-2001/4 listing COMNAP tasks that had emerged from the ATCM XXIV as follows:

- A paper on best practice in relation to the discharge of wastewater from stations located on inland ice-free, sites (SCALOP).
- A paper on worst and less-than-worst case scenarios for land and sea based environmental emergencies for the liability discussions (allocated to MOLIBA).
- A revision of the Working Paper SATCM XII/WP 5 on “An Assessment of Environmental Emergencies” (allocated to MOLIBA).
- A paper on a review of IEEs being conducted by AEON under the guidance of the ECG.
- A possible working paper on tourism issues of concern to COMNAP members (allocated to TANGO).
- Provision of advice on matters relevant to the development of the “Antarctic Shipping Guidelines”.
- Provide a representative on the CEP inter-sessional contact group on research into cumulative impacts.

8. Working Group Terms of Reference and Tasking

8.1 Membership and Tasking

33. The Chairperson, Gillian Wratt, referred members to Paper No. 8-2001/4 entitled “Provisional Membership and Tasks of Committees, Working Groups and Networks” with a view to quickly reviewing any changes in membership and tasks. Gillian also referred to the policy of aiming to change chairpersons every three years with a view to broadening the involvement of members and sharing the workload.

SCALOP

A new chairperson is to be elected. SCALOP is to address the task from the ATCM on providing advice on best practice regarding the discharge of wastewater at ice-free areas inland stations.

ECG (including AEON)

John Dudeney (UK) has been nominated by EXCOM to join the ECG and Birgit Nystaad (Norway) has taken over as Coordinator of AEON from Emma Waterhouse (NZ).

CEDAT

Jan Stel (Netherlands) is to stand down as chairman and Magnus Augner is prepared to nominate as the new chair.

STADM

As previously noted, COMNAP is to nominate two members to this steering group once SCAR have decided on their nominees.

AIROPS

John Pye (UK) continues as chair of this group.

EMRAC

Kim Pitt (Australia) continues as chair of this group.

ENMAN

Julian Tangaere (NZ) continues as chair of this group.

MOLIBA

Gerard Jugie (France) continues as chair of this group. Need to change terms of reference to reflect new tasks.

SHIPOPS

Jan-Erling Haugland (Norway) has expressed a desire to stand down a chair after three years. Hartwig Gernandt (Germany) is prepared to assume chairman ship of the group.

SYMP

As the host of the next COMNAP/SCALOP meeting in Shanghai, China is to nominate a chair for the Symposium Working Group.

TANGO

Anders Karlqvist continues as chair of TANGO.

Operation of Working Groups and Networks

34. Gillian referred to the rule in the Paper 6-2001 on the “Operation of Working Groups” that limited the number of members of coordinating groups such as ECG and CEDAT although all members were welcome to attend the meeting.

35. Anders Karlqvist (Sweden) commented that he believed that COMNAP should have a clear view on how and when its various networks should meet. Pentti Malkki (Finland) supported Ander’s view and the need to have discussion on this issue. Mario Zuchelli (Italy) noted the demonstrated benefits of the network process. Jack (ExecSec) referred to discussions at previous meetings when it had been agreed that it could be useful for a new network to meet once to “kick-start” the process but work could continue by e-mail thereafter.

36. Olav Orhiem (Norway) noted that AEON has met informally at recent CEP meetings in conjunction with a number of AEON members’ in attendance. He added that the use of e-mail by contact/working groups is proving to be a very effective way of progressing tasks without meetings. Anders Karlqvist (Sweden) stressed the need for the Council to decide whether a network should meet rather than the network itself. Heinz Miller (Germany) noted that AEON had been particularly effective and there were benefits of meeting independent of the ATCM. Gillian suggested that the discussion be picked up again later in the week.

Medical Standards

37. Karl Erb (USA) suggested discussing what medical standards were used by various programs in view of the increasing mobility of expeditioners between national programs. He referred to the work carried out by the SCAR Working Group on Human Biology and Medicine in 1993 and the 1996 discussions between SCAR and COMNAP on this subject. Karl said that there is a lack of clarity on whether the medical standards of one country meet the requirements of another and there would be benefits in having a policy on the reciprocity of medical standards. Reference was made by Patricio Eberhard (Chile) to the use of telemedicine and it was agreed that developments in this field are changing health care delivery and may result in amendments to medical standards. Karl agreed and said the issue of concern seemed to be operational rather than scientific or research orientated.

38. Anders Karlqvist (Sweden) commented that it was very timely for COMNAP to take on this operational issue. John Dudeney (UK) added his agreement. Mario Zuchelli (Italy), supported by Pentti Malkki (Finland), said there was a need to update the earlier work but there were different views on how to approach the issue. For example, work could be started by listing each program’s requirements. Jorge Berguno (Chile) said it medical research should continue but there could be benefits from a clearer statement of standards. Jeronimo Lopez (Spain) supported the proposal but pointed out the need for medical standards to reflect particular circumstances such as wintering, summer-only, means of evacuation, etc. Karl Erb noted that a great deal could be learned by visiting other stations to see how health care is managed. John Pye (UK) suggested that an informal meeting be held later in the week to discuss this matter and offered to chair such a meeting. This course of action was agreed.

39. Olav Orheim (Norway) took the opportunity of expressing gratitude to the South African, German, UK, USA and NZ programs for assisting with the evacuation of an injured Norwegian ship’s crewman last season

9. Working Group Reports

40. Gillian requested that each working group chair, in turn, report on the outcome of their meetings and refer to any requests for funding that would need to be considered by the Council

9.1 ECG (including AEON)

41. The ECG chair, Heinz Miller (Germany), advised that following the earlier discussion on network meetings, AEON now planned to hold a workshop on environmental education and training in Warsaw just prior to the ATCM meeting in September 2001. Heinz referred to the ECG report, Paper No. 44-2001, and noted the main points of discussion, namely:

- AEON was progressing work on the review of IEEs and the development of guidelines for station environmental monitoring.
- With regard to the CEP work on the coordination of research on cumulative impacts it is recommended that AEON members Joyce Jatko and Birgit Njastaad contribute input where necessary, and provide advice to COMNAP on any issues likely to be of importance to its members.
- Funds were being sought to pay the expenses of an expert speaker for the proposed AEON workshop on environmental education to be held in Warsaw.
- A proposal from the University of Tasmania for financial support for an environmental management course was rejected because the use of funds for this purpose is not consistent with COMNAP rules.

The Council strongly endorsed the view of the ECG that AEON continues to perform well and especially acknowledged the efforts of Emma Waterhouse and Birgit Njastaad.

9.2 CEDAT (including TRAINET and INFONET)

42. Chairman Jan Stel (Netherlands) advised that he wished to stand down as chair after three years in that role and that Magnus Augner (Sweden) had offered to become the next chair. Jan briefed the meeting on the discussions of CEDAT and referred to the report at Paper 42-2001. The main points of discussion.

- A report by INFONET Coordinator Guy Guthridge (USA) had indicated that only eight countries had responded to a questionnaire about the future of the network, largely because most programs don't have an information officer. It was proposed that an INFONET workshop on "How to Present COMNAP and SCAR Internationally" should be held next year in conjunction with the Shanghai COMNAP meeting. The output of the workshop would be the proposed content of a brochure covering cooperation, support activities and the overall value of Antarctic scientific research.
- The TRAINET group had conducted a workshop prior to this COMNAP meeting during which each participating program described its training activities. A list of common activities was established and it is intended to produce a common checklist for training and a reference document with common terminology on the different national program's training requirements and procedures.

43. John Dudeney (UK) expressed caution about holding the proposed INFONET workshop unless it was properly focussed with some clearly identified deliverables. There was a need to know, John said, the intended audience for a brochure. Anders Karlqvist (Sweden) referred to aims of the workshop as "getting to know one another" and producing a leaflet. Mario Zucchelli (Italy) said he supported INFONET and that the network could provide the COMNAP Secretariat with information for its newsletters. It was suggested that EXCOM give further consideration to "presentational" targets of COMNAP.

44. Jack (ExecSec) advised that INFONET had defined a number of tasks several years ago (including a brochure) but had so far yet to deliver. It also was evident that a number of the larger programs with information officers are lukewarm to supporting INFONET because of their internal workload. Olav Orheim (Norway) expressed concern at the current ad hoc approach to holding workshops and suggested a need to have well-structured proposals two years in advance of a proposed event. Kim Pitt (Australia) said that their priority would be to use funds to support the attendance of technical staff to the Shanghai SCALOP Symposium, rather than supporting attendance at an INFONET workshop.

45. Gillian suggested that INFONET could be charged with the task of developing an information strategy. She also referred to discussions at the meeting of the SCAR and COMNAP Executives which touched on the proposal to develop a joint brochure however SCAR was not yet in a position to proceed because it is in the process of restructuring. It was agreed that more work is needed to scope the level of interest and defined the intended outcomes of the proposed workshop before agreeing to support it.

46. Gillian asked if the meeting wished to endorse the appointment of Magnus Augner as new CEDAT chairman and this was agreed. Jan Stel was thanked by Gillian for his efforts during the last few years in guiding both TRAINET and INFONET.

Action 6: CEDAT to further consider the proposal for an INFONET workshop at Shanghai and provide a recommendation to EXCOM for consideration at its meeting in November 2001. EXCOM to consider the presentational targets for COMNAP.

9.3 STADM

47. Gillian advised that the SCAR and COMNAP Executives had discussed progress on the project that is being jointly funded for two years (2000-02). SCAR has yet to nominate their two representatives and once these are known, COMNAP will nominate two members, ensuring that they are from different countries to the SCAR representatives. John Dudeney (UK) noted that there had been no report available on the work to date. Karl Erb (USA) advised that SCAR had reviewed the reports however they focussed on the technical rather than the user objectives. Gillian said that there are concerns about the project and the new STADM would have the task of providing guidance to ensure that the goals are achieved.

48. Mario Zucchelli (Italy) stressed the importance of ensuring the success of the project and Jorge Berguno noted that there was no doubt regarding the usefulness of the AMD as a tool but there needed to be guidance from the institutions to push the program in the right direction. Gerard Jugie (France) expressed concern that the product is not adapted or well-fitted to the needs of the scientific community. A product was being pushed that would always be too late and would only satisfy the needs of part of the scientific community. Gillian noted that it had been agreed at the last COMNAP meeting in Tokyo to provide financial support in conjunction with SCAR for two years and then review the situation. It is clear, she said, that the Council will need to have a thorough discussion at the Shanghai meeting to consider the future of the project.

Action 7: EXCOM to appoint two members to STADM once the SCAR nominees are known. [Membership of STADM subsequently agreed with between the SCAR and COMNAP executives as Steven Chown (South Africa, SCAR), Dean Peterson (New Zealand, SCAR), Anders Karlqvist (Sweden, COMNAP) and Erick Chiang (USA, COMNAP)]

Action 8: AMD Project to be thoroughly reviewed by Council at the Shanghai COMNAP meeting.

9.4 AIROPS

49. The AIROPS chairman, John Pye (UK), summarised the key points of discussion of the meeting (which are given in Paper No. 53-2001) as follows:

- Following the introduction of fees for AFIM the number of commercial “users” prepared to pay had dropped from around forty to fourteen.
- The meeting was briefed on current developments with the proposed air transport links to East Antarctica from South Africa and Australia.
- The Russian Antarctic Expedition presented a paper on the proposed reinstatement of an air link between Cape Town and Novolazarevskaya Station in Dronning Maud Land.
- Papers were presented on incidents and accidents including the South Pole Station medical evacuation by Twin Otter and damage to a BAS Twin Otter on landing at Moutonee Lake.
- Papers by the UK and USA on the evaluation trials of a Bassler Turbo DC3 last season.

50. Karl Erb (USA) said he had reviewed the reports on the proposed air-links to Dronning Maud Land asked whether there was any tourist involvement in these operations. The chairman of TANGO, Anders Karlqvist (Sweden), advised that it was his understanding that tourism was not intended to be a part of the network.

9.5 EMRAC

51. The EMRAC chairman, Kim Pitt (Australia), referred to the meeting report Paper No. 54-2001 and highlighted the following points:

- A document on Contingency Planning Guidelines for General Incidents and Disasters has been prepared and comments are required from the working group members by 29th March 2002.
- The importance and value of the AINMR page on the web site was acknowledged and future meetings will review posted reports.
- Limited progress has been made on the development of regional oil spill contingency plans although Chile has done a considerable amount of work in this area. It was noted that the UK and Germany had conducted a joint spill response exercise that had proved valuable.
- A survey is to be undertaken on what action member programs had taken to implement the COMNAP guidelines on oil storage, transfer and oil spill contingency planning.

52. Kim noted that in some cases there was little motivation for developing a multi-operator response plan because individual national programs had developed response plans adequate to the task. However, exercises like that undertaken jointly by the UK and Germany were very useful in identifying problems that may develop with a multi operator response. He noted that the working group questioned the rationale for the boundaries set to see if they should be changed. Jack (ExecSec) advised that the three regions for multi operator plans were identified by the Sub-group on Oils Spill Response and Contingency planning some ten years on the basis of the geographic proximity of stations that would facilitate the transfer of spill response assets. It may be worth reviewing whether those regions are still applicable for multi-operator plans and if others have emerged.

9.6 ENMAN

53. Julian Tangaere (NZ), the ENMAN chairman, advised that the work of the group relies on input from the engineering or technical sections of the various programs. As a consequence, it is difficult to make progress without these people being directly involved in the working group discussions. It was therefore proposed that a network be established comprising the engineering personnel responsible for energy management in the various national programs (ENMANET). An Energy Management Coordinating Group (ENMAN) with three members: Julian Tangaere (NZ), Davis Blake (UK) and Patrice Godon (France). The Coordinating Group would guide the network and report on its activities to COMNAP. Other matters discussed by the working group included:

- A proposal to hold an Energy Management Workshop in conjunction with the Shanghai COMNAP meeting.
- Eleven responses have been received to the Energy Management Survey and input will be sought from the remaining programs.
- Consideration of a proposal for COMNAP to support an international design competition for university students on an energy efficient infrastructure in Antarctica. This is to be re-considered next year after an evaluation of the results of such a competition to be held in Chile.

54. This approach involving the creation of a Network and associated Coordinating Group was endorsed by Council. Jack (ExecSec) suggested that it could eventually be worthwhile expanding Network's scope to cover other technical areas that would enable views to be exchanged on other matters that challenge operators, such as sewage treatment. Jack asked if the new Coordinating Group would forward proposed terms of reference to the Secretariat for consideration by EXCOM at its November in late November. The ENMAN chair said he would prepare a formal proposal for a workshop in Shanghai for consideration by EXCOM.

Action 9: ENMAN Coordinating Group to develop terms of reference for the new Group and network and forward them to the Secretariat for consideration by EXCOM at its meeting in late November 2001.

9.7 MOLIBA

55. MOLIBA chairman, Gerard Jugie (France), advised the meeting that a special sub group met in Brest last September to develop a response to ATCM Resolution 5 (1999). This paper was tabled at the St Petersburg ATCM and well received. The St Petersburg ATCM tasked COMNAP to provide further advice on "worst case and less than worst cases scenarios" resulting in environmental harm. The sub group met immediately prior to the Amsterdam COMNAP meeting for one day to develop this response. Further work is to be done so that a draft will be available for consideration by EXCOM in late November 2001.

9.8 SHIPOPS

56. The SHIPOPS chairman, Hartwig Gernandt (Germany), referred to the meeting report (Paper No. 45-2001) and noted the key points as follows:

- Hartwig advised that he had agreed to a request by EXCOM to chair SHIPOPS following the resignation of Jan-Erling Haugland (Norway) who had completed his term. Hartwig advised that the meeting had carried a vote of thanks to Jan for his work over the last three years.
- The terms of reference were amended to reflect an additional task given to the group on the Antarctic Shipping Guidelines.
- It was noted that the web-based, Ship Position Reporting System (SPRS) would be implemented on a voluntary basis this coming season and the Secretariat would be issuing instructions on its operation. The performance of the system would be evaluated at the Shanghai COMNAP meeting.
- A sub-group was established to work on the further development of the Antarctic Shipping Guidelines as proposed by the UK at the St Petersburg ATCM. The sub-group membership would be Australia, Italy, Norway, USA and UK.

57. Jorge Berguno (Chile) thanked Hartwig for his report and clarified that the question posed by the ATCM was not how to modify the Arctic Shipping Code but rather to identify additions to the IMO document that are specifically relevant to Antarctic shipping. Karl Erb (USA) asked whether this Coordinating group would work directly with the UK FCO or through COMNAP. John Pye (UK) advised that the SHIPOPS sub-group should develop its views on the Guidelines (in accordance with the UK brief) and bring those views for consideration to the Shanghai COMNAP meeting.

58. John Pye (UK) said that the UK FCO was not looking for an inter-active input but for views from COMNAP before the next ATCM. Gillian agreed that this would be the appropriate way to proceed. Jack (ExecSec) quoted the relevant part of the ATCM report and noted that there was no intention for the UK to establish an inter-sessional coordinating or contact group on the Guidelines and therefore there was no requirement for the SHIPOPS sub-group to contact the UK Foreign Office. Olav Orheim (Norway) suggested that the Al Sutherland (USA) chair the group. It was agreed that the USA (Al Sutherland) and UK (John Pye) would jointly chair the group. Gillian concluded by saying that the coordinating committee is to develop a response to the UK questions for consideration by COMNAP, producing a written paper for discussion by SHIPOPS at the Shanghai meeting.

Action 10: The SHIPOPS sub-group on the Antarctic Shipping Guidelines is to develop a response to the questions raised by the UK Foreign Office and present a paper for consideration at the Shanghai COMNAP Meeting.

9.9 SYMP

59. Symposium Working Group chairman, Zhanhai Zhang (China), advised that the meeting had been co-chaired by Kazuyuki Shiraishi (Japan) who had led the committee for the 1998 Tokyo Symposium. Zhanhai advised that the meeting agreed that the Symposium should be held over one and a half days (plus a half day option, if necessary). External speakers will be welcome with funds to be sought for at least one keynote speaker. It was also planned to have a poster display similar to that at the Tokyo meeting. The chair of SYMP for the next two years will be Mr Yilin Wu from the Chinese Arctic and Antarctic Administration (CAA). The next Symposium will focus on the following topics:

- Antarctic medical support and standards.
- Selection and recruitment procedures.
- Proven technologies and equipment for field camps and intra-continental air networks.
- Recent advances in solid and liquid waste management.
- Alternative/sustainable energy.
- Shipping in Antarctic waters.

Zhanhai extended a warm welcome to everyone to the meeting in Shanghai next year.

60. Mario Zucchelli (Italy) expressed concern at the amount of work involved in producing a new poster every two years. Kim Pitt (Australia) supported this view and suggested that the proposed display be deferred. Gerard Jugie (France) advised that providing a poster was not a problem as far as they were concerned, as they

needed to prepare one for display nationally. Zhanhai Zhang (China) said that the national poster display would be beneficial in promoting the international efforts of the various countries in Antarctica. Gillian concluded the discussion saying that members should support the poster display, where possible, as it exposed Antarctic activities to the larger audience that is attracted to the joint SCAR/COMNAP meetings.

9.9 TANGO

61. The TANGO chairman, Anders Karlqvist (Sweden), summarised the main points of discussion of the meeting (Paper No. 55-2001) as follows:

- An IAATO observer gave an introductory overview of tourism, predicting that over 14,000 tourists are expected to travel to Antarctica next year.
- Jack Sayers (ExecSec) presented a non-paper proposing a tourism management committee be established under the ATCM/CEP to develop regulations and plan infrastructure at specific landing sites to protect the aesthetic and wilderness values of Antarctica in addition to the biological resources. TANGO took note of the paper and concluded that it was outside the remits of TANGO to act on.
- A US paper was presented on adventure tourism. It was noted that it would be useful to have input from other managers on the interaction between national operators and tourist activity companies with a view to submitting a paper on this subject to the 2001 ATCM in Warsaw, if sufficient information of interest was collected. It was suggested that members be surveyed for possible input to such a paper.
- It was noted that there is insufficient data available on cumulative impacts and that SCAR is the appropriate body to identify current research and future scientific needs.

Action 11: TANGO to survey members to gather statistics and other information by 29th March 2002 and, subject to useful material being collected, develop a paper for ATCM XXV on the interaction between national operators and tourist activities.

9.10 Informal Meeting on Medical Standards

62. John Pye (UK) reported on the informal meeting that he chaired which approximately fifteen members attended. He summarised the outcomes (given in Paper No. 49-2001) as follows:

- Gerard Jugie (France) agreed to develop a questionnaire and conduct a survey of national programs on medical standards.
- It was noted that the Shanghai SCALOP Symposium would include oral presentations and posters on “Antarctic Medical Support and Standards.”
- Once the survey results are available, EXCOM should decide how best the work be further progressed with perhaps the establishment of a medical standards network directed by a COMNAP coordinating group.
- The focus should be on operational issues.

Action 12: France to develop a questionnaire on medical standards for circulation to members which will be made available to EXCOM to consider the next steps.

10. SCALOP Chairman’s Report

63. SCALOP chairman, Patricio Eberhard (Chile), referred to the meeting report (Paper No. 47-2001) and briefed members on the key points as follows:

- A presentation on the SCAR Working Group on Geodesy and Geographical Information (GGI) project on a large scale GIS of King George Island.
- A second presentation on a BAS initiative to implement a comprehensive instruction database on logistics operations, which will be accessible on the web site to all bases.
- A third presentation by a Russian representative on the establishment of a logistics support centre in Cape Town to help rationalise costs through greater collaboration between national programs using this gateway.

- A report of an ad hoc working group, chaired by Erick Chiang (USA) to provide advice on how best practice might meet the requirements of the Waste Management Annex of the Protocol with regard to avoiding the discharge of wastewater onto ice-free ground at inland stations.
- A briefing by Zhanhai Zhang on arrangements and infrastructure available to support the COMNAP and SCAR meetings in Shanghai next year.

64. Patricio advised that following completion of his three-year term as chairman of SCALOP, Kim Pitt (Australia) was unanimously elected to assume the chair for the next three years. Gillian thanked Patricio for his report and especially for his work in chairing SCALOP during the last three years and contributing to the work of COMNAP through his membership of EXCOM. Kim was congratulated by Gill on his election as chair and was welcomed to the position and as a new member of EXCOM for the next three years. The meeting expressed its appreciation to both Patricio and Kim by acclamation.

11. Sub-glacial Lakes Exploration

65. Gillian invited Italy, USA, Canada and the UK to present their papers to the meeting (Papers Nos. 7-2001, 14-2001, 17-2001 and 19-2001). Following these informative and interesting presentations, Olav Orheim (Norway) noted that at the recent St Petersburg ATCM Russia had advised its intention of submitting a CEE on the lake Vostok project to the next meeting of the CEP. He suggested that SCAR should make a comprehensive presentation to the ATCM on sub-glacial lakes exploration. Olav advised that NASA is conducting experiments on Svalbard associated with the proposed drilling project.

66. Karl Erb (USA) noted that exposing the science discussion to the public would create greater awareness of the environmental issues. He considered that it could be quite a number of years before the research community would have a fully developed plan to achieve the scientific goals in an environmentally acceptable way. John Dudeney (UK) noted that learning more about related technologies in other fields would assist in the development of the science capabilities. Heinz Miller (Germany) commented that the two major science spheres of interest were geoscience and biology.

67. Mario Zucchelli (Italy) stressed the need for the interested countries to cooperate on examining the scientific and technological challenges, which no country could tackle alone. He proposed that a group be established to further their interests in technological and logistics cooperation. Heinz Miller (Germany) suggested that the way forward might be to wait until the science plan is finalised. Karl Erb (USA) noted that there are a large number of workshops being held on this subject and a considerable amount of information being collected. Jack (ExecSec) advised that the SCAR Group of Specialists on Sub-Glacial Exploration (SALE) had established a web site at the University of Montana, which was accumulating information, and there was little point in COMNAP attempting to duplicate this effort.

68. Karl Erb advised that the USA had embarked on a course of action to collect information on the capabilities of other US agencies, in addition to NSF, which could assist with the project. Anders Karlqvist agreed that there was a need to work on the technologies in parallel with the scientific effort and John Dudeney supported the view that members should wait for SCAR to take the lead, Karl Erb agreed that there is not a clear view on how to proceed and it is a very complicated issue with still a lot to learn. Gillian, in summary, said it would clearly be a gradual process of developing the science plan and evaluating the technologies that will facilitate research. COMNAP should continue to keep a watching brief and would welcome recommendations from members on any specific initiatives COMNAP should undertake.

12. Consideration of Requests for Funds

69. Gillian noted that four requests for funds had been put forward although some of these were yet to be developed into a firm proposal for EXCOM consideration. The items are listed in the following table.

WG/Network	Funding Requirement	A\$ (2000)	US\$ (2001)
ECG/AEON	Expert speaker for Workshop on Environmental Education	5,000	2,650
INFONET	Workshop in conjunction with the COMNAP meeting in Shanghai	10,000	5,300

SYMP	Expenses for a Keynote Speaker to attend the SCALOP Symposium in Shanghai	5,000	2,650
Secretariat	Scanning pre-1997 COMNAP documents for archiving on the web site	8,000	4,240
Total		28,000	14,840

70. Gillian noted that in addition to the proposed funds for an INFONET workshop at the Shanghai meeting, ENMAN were also working up a proposal for a workshop at this meeting. She added that EXCOM recommended that only one workshop be held in conjunction with any COMNAP meeting in order to limit the load and cost to the host country and reduce the travel costs of national programs through multiple attendances at meetings. Anders Karlqvist (Sweden) strongly supported this policy.

71. John Dudeney (UK) advocated supporting the ENMAN workshop ahead of INFONET. Patrice Godon (France) also spoke in favour of ENMAN ahead of INFONET. Erick Chiang (USA) said he supported the concept having an “engineering” network as previously suggested (refer para 50). Gillian said that CEDAT should review the INFONET proposal and, if supported, come up with a well-developed proposal. In summary, Gill advised that:

- AEON requires funds for an expert speaker at a workshop prior to the Warsaw ATCM. A proposal for the workshop needs to be developed and submitted through the ECG for consideration at the EXCOM meeting in late November 2001.
- INFONET workshop proposed to be held in conjunction with the Shanghai meeting. CEDAT needs to review the case for an INFONET workshop and, if necessary, develop a proposal for EXCOM/COMNAP consideration.
- ENMAN workshop proposed in conjunction with the Shanghai meeting. Gill noted the strong support for this workshop but it may be best to hold this workshop in conjunction with a proposed FARO workshop in 2003. It was also noted that Energy Management is a topic for the Shanghai SCALOP Symposium.
- Scanning of pre-1997 COMNAP documents for posting on web site. Agreed that the funds be approved but that the secretariat process one year initially to help determine the likely cost of completing the task.

72. Olav Orheim (Norway) repeated his earlier concerns on the need for the forward planning and approval of workshops. He suggested that no workshops need to be held in conjunction with the Shanghai meeting.

Action 13: AEON to prepare a submission on the proposed workshop in Warsaw, through ECG (in accordance COMNAP Guidelines Paper No. 6-2001), for consideration by EXCOM at its meeting in late November.

Action 14: CEDAT is to review the case for an INFONET workshop and, if necessary, for EXCOM/COMNAP consideration.

Action 15: ENMAN to consider whether to hold a workshop and, if so, develop a proposal (in accordance with paper No. 6-2001) for EXCOM/COMNAP consideration.

Action 16: EXCOM to develop a policy on the process and rules for proposing and approving the conduct of workshops by working groups and networks, and to consider a forward plan for workshops and how they fit in with future COMNAP meetings and other appropriate forums (eg. ATCM/CEP meetings).

13. Confirmation of the 2002 Budget

73. Gillian advised that the total expenditure requested for new activities was A\$28,000 and that the proposed budget included a provision \$30,000 for Projects and Workshops. Hence the budget did make provision for all potential expenditure in 2002. However, it was noted that the proposals for the AEON and

INFONET workshops were subject to the receipt of well-developed proposals that would need to satisfy EXCOM. Gillian sought agreement of the budget as presented in the Executive Secretary's Report (Paper No. 29-2001, Annex D). The Council approved the proposed budget for 2002.

14. Presentation by Romanian Observer

74. Gillian noted that Romania had expressed a wish to become a member of COMNAP over eighteen months ago and at the 2000 COMNAP meeting in Tokyo, members agreed that a Romanian representative should be invited as an observer to the Amsterdam meeting and make a presentation on its work in Antarctica. She introduced the Romanian observer, Dr Teodor Negotia, and advised that after his presentation he would be requested to leave the meeting so that members could discuss the proposed application for membership.

75. Dr Negotia referred to Paper No. 38-2001 outlining Romanian Antarctic Activities. The key points presented were:

- The Romanian Polar program commenced in 1987 and has undertaken eight research expeditions to the Arctic.
- A cooperative agreement has been negotiated with the Uruguayan Government on Antarctic research activities.
- Romanian scientists have also participated in expeditions conducted by Argentina, Australia and Russia as well as the historic "Belgica" expedition.
- The Romanian Antarctic scientific research activities are structured around the topics of Environmental Pollution, Biology, Biochemistry, Pedobiology, Climatic Change and Nutrition under Extreme Conditions.

Dr Negotia said that should Romania be granted membership of COMNAP they accepted an obligation to apply greater effort towards international activities in the Antarctic.

76. Following the presentation Dr Negotia absented himself from the meeting to facilitate open discussion of the application by members. General support was indicated leading to a proposal by Karl Erb to accept Romania as a member. Stanislaw Rakusa-Suszczewski (Poland) queried the membership requirements of COMNAP as some member countries did not conduct Antarctic operations (eg. Have their own bases or logistics activities) and others were not Consultative Parties to the Antarctic Treaty. Gillian advised that she believed that COMNAP should permit countries to join that had expressed a desire to become part of the international scientific effort and this would also help facilitate compliance with the various regulatory and operational requirements applicable to Antarctica. It was proposed that Romania's application to join COMNAP should be accepted on the basis that they would move promptly to ratify the Madrid Protocol and would be able to pay their annual membership fees. The meeting accepted this proposal.

77. Dr Negotia was recalled to the meeting. Gillian welcomed Romania to the membership of COMNAP subject to their moving promptly to ratify the Madrid Protocol and being in a position to pay their annual fees. Dr Negotia thanked the Council for its decision and said that he looked forward to Romania's active participation in the work of COMNAP.

Action 17: COMNAP Chairman to write to Mr Teodore Negotia confirming the decision to admit Romania as a member of COMNAP subject to the conditions agreed by Council.

15. IGY 50th Anniversary

78. Gillian recalled the discussion at the Tokyo COMNAP meeting on the possibility of COMNAP commemorating the 50th Anniversary of the International Geophysical Year in 2007/2008. She noted that during discussions at the joint SCAR/COMNAP Executive Meeting, SCAR was enthusiastic but did not have any plan at this stage. Heinz Miller (Germany) raised the possibility of celebrating the anniversary by undertaking a major traverse in East Antarctica following the ice divide. The traverse could also visit some of the major ice domes and Vostok Station. Following a brief discussion it was proposed and agreed that interested members should meet with Heinz immediately after the close of the plenary session.

16. Election of Officers

79. Gillian advised that there was a need to elect a new COMNAP chairperson, as she would be standing down at the close of this meeting. Jeronimo Lopez (Spain) proposed Karl Erb and this nomination was supported by France and others. There being no further nominations, Karl was unanimously elected to the chair. Karl advised that he was honoured to be elected to the position and looked forward to serving COMNAP in the role over the next three years. As a result of Karl's election from within EXCOM to the chair it was necessary to seek nominations for an additional Executive Committee member. Heinz Miller (Germany) nominated Okitsugu Watanabe (Japan) as a new member of EXCOM and this received unanimous approval by Council. Members approved the new appointments by acclamation.

80. Anders Karlqvist (Sweden) proposed a vote of thanks to the retiring chairperson, Gillian Wratt (NZ) who had held the post for the last four years. Gillian said that it had been a privilege and honour to chair the Council. The Council warmly expressed its appreciation of Gillian's contribution by acclamation.

17. Venues of Future Meetings

81. The venue for COMNAP meetings over the next few years, Gillian advised, was as follows:

- COMNAP XIV (with SCAR) Shanghai, China (July 2002)
- COMNAP XV Brest, France (2003)
- COMNAP XVI (with SCAR) Bremen (2004)

Gillian advised that there was no need to seek proposals for 2005 at this stage but it should be discussed and nominations sought at the Shanghai meeting.

18. Any Other Business

18.1 SHIPOPS Sub-group

82. Following the discussions about the work to be undertaken by the SHIPOPS sub-group on the Antarctic Shipping Guidelines, Hartwig Gernandt (Germany) advised that there was a need to revise the second term of reference of the group. It was agreed that co-chairs of the sub-group should liaise with Hartwig to finalise the terms of reference.

Action 18: SHIPOPS sub-group co-chairs are to liaise with SHIPOPS chair to determine the revised term of reference for the work on the Antarctic Shipping Guidelines.

18.2 INFONET

83. Mario Zucchelli (Italy) requested that Italy has a representative on CEDAT.

19. Close

84. Gillian thanked members for their efforts during the week. She also expressed gratitude to Jan Stel, Arian Steenbruggen and staff, who had worked so hard to ensure that the meeting proceeded smoothly and successfully. The members demonstrated their appreciation in the usual manner. There being no further business the chairperson, Gillian Wratt (NZ), closed the meeting at 3.35 pm on Friday 24th August 2001.

Council of Managers of National Antarctic Programs

COMNAP XII

Tokyo Japan
10-14 July 2000

List of Participants

First Name	Family Name	Position	Organisation	Country
Kim	Pitt	Ag/COMNAP	Australian Antarctic Division	Australia
Richard	Mulligan	Ag/SCALOP	Australian Antarctic Division	Australia
Maikke	Vanauwenberfghe	COMNAP	Belgian Antarctic Program	Belgium
Luiz	Malafaia	COMNAP	Brazilian Antarctic Program	Brazil
Iran	Cardosa	SCALOP	Brazilian Antarctic Program	Brazil
Saulo V	Amaral de Legate	Delegate	Brazilian Antarctic Program	Brazil
Bonni	Hrycyk	COMNAP	Polar Continental Shelf Project	Canada
Jorge	Berguno	COMNAP	Chilean Antarctic Institute	Chile
Patricio	Eberhard	SCALOP	Chilean Antarctic Institute	Chile
Miguel J	Figueroa	Delegate	Chilean Air Force	Chile
G	Garcia	Delegate	Chilean Army	Chile
P	Rojas	Delegate	Ministry of Defence	Chile
S	Salgado	Delegate	Chilean Army	Chile
R	Berardi	Delegate	Chilean Navy	Chile
A	Baros	Delegate	Chilean Air Force	Chile
Zhanghai	Zhang	COMNAP	Chinese Arctic & Antarctic Adm'ion	China
Jia	Genzheng	SCALOP	Chinese Arctic & Antarctic Adm'ion	China
Wu	Jun	Delegate	Chinese Arctic & Antarctic Adm'ion	China
Xu	Shijie	Delegate	Chinese Arctic & Antarctic Adm'ion	China
Mart	Saarno	Observer	Ministry of Foreign Affairs	Estonia
Pentti	Malki	COMNAP	Finnish Inst of Marine Res'ch	Finland
Henrik	Sandler	SCALOP	Finnish Inst of Marine Res'ch	Finland
Gerard	Jugie	COMNAP	French Inst for Polar Res & Tech	France
Patrice	Godon	SCALOP	French Inst for Polar Res & Tech	France
Heinz	Miller	COMNAP	Alfred Wegener Institute	Germany
Hartwig	Gernandt	SCALOP	Alfred Wegener Institute	Germany
Prem	Pandey	COMNAP	Nat'l Cen for Ant & Ocean Res	India
Mario	Zucchelli	COMNAP	Italian Antarctic Program	Italy

Nino	Cucinotta	SCALOP	Italian Antarctic Program	Italy
Sandro	Torcini	Delegate	Italian Antarctic Program	Italy
Okitsugu	Watanabe	COMNAP	National Inst. of Polar Research	Japan
Kazuyuki	Shiraishi	SCALOP	National Inst. of Polar Research	Japan
Sang Hoon	Lee	COMNAP	Polar Res. Center, Kordi	Korea
Jan H.	Stel	COMNAP	NAAP	Netherlands
Arian	Steenbruggen	SCALOP	NAAP	Netherlands
Gillian	Wratt	COMNAP	Antarctica NZ	New Zealand
Julian	Tangere	SCALOP	Antarctica NZ	New Zealand
Fred	Smits	Manager	NIWA	New Zealand
Olav	Orheim	COMNAP	Norwegian Polar Institute	Norway
Jan Erling	Haugland	SCALOP	Norwegian Polar Institute	Norway
J E	Guldahl	Delegate	Norwegian Polar Institute	Norway
Stan	Rakusa-Suszewski	COMNAP	Dept of Antarctic Biology	Poland
Teadore	Negotia	Observer		Romania
Valery	Lukin	COMNAP	Russian Antarctic Expedition	Russia
Valery	Klokov	SCALOP	Russian Antarctic Expedition	Russia
Victor	Pomelov	Delegate	Russian Antarctic Expedition	Russia
Vasily	Kaliazin	Delegate	Russian Antarctic logistics	Russia
Aleksey	Turchin	Delagate	AARI	Russia
Henry	Valentine	COMNAP	SANAP	South Africa
Richard	Skinner	SCALOP	SANAP	South Africa
Jeronimo	Lopez	Secretary	Spanish Antarctic Program	Spain
Jose I	Diaz	SCALOP	Spanish Antarctic Program	Spain
Jordi	Sorribas	Delegate	Spanish Antarctic Program	Spain
Anders	Karlquist	COMNAP	Swedish Polar Research Org	Sweden
Magnus	Augner	SCALOP	Swedish Polar Research Org.	Sweden
John	Dudeny	COMNAP	British Antarctic Survey	UK
John	Pye	SCALOP	British Antarctic Survey	UK
John	Hall	Delegate	British Antarctic Survey	UK
David	Blake	Delegate	British Antarctic Survey	UK
Mike	Dinn	Delegate	British Antarctic Survey	UK
Simon	Gill	Delegate	British Antarctic Survey	UK
Carlos	Tenaglia	Delegate	Uruguayan Antarctic Inst.	Uruguay
Bernabe	Gadea	Delegate	Uruguayan Antarctic Inst.	Uruguay
Karl	Erb	COMNAP	US Antarctic Program	USA
Erick	Chiang	SCALOP	US Antarctic Program	USA
Brian	Stone	Delegate	US Antarctic Program	USA
Jack	Sayers	Executive Secretary	COMNAP Secretariat	