



REPORT OF THE MANAGEMENT COMMITTEE

Asker, Norway 5 - 6 March 2003

1. - 3. OPENING PROCEDURES

The Chair of the Management Committee, Kaj P. Mortensen, welcomed delegations and observers to the meeting. Participants to the meeting are listed in Appendix 1 of the Report of the Council. The agenda, as contained in Appendix 1, was adopted. Documents available to the meeting are listed in Appendix 2. Daniel Pike was appointed as rapporteur for the meeting.

4. NATIONAL PROGRESS REPORTS

National Progress Reports for the year 2001 were available from the Faroe Islands, Greenland, Iceland and Norway. The Secretary noted that Canada and the Russian Federation had been invited to forward summaries of relevant marine mammal research to NAMMCO in conjunction with their invitations to attend the 10th Meeting of the Scientific Committee as observers. No progress reports had been forthcoming as a result of these requests. The Secretariat will in the future also forward separate invitations to Canada and the Russian Federation to present such data to NAMMCO, as was decided by the Management Committee in 1998.

The Observer for Canada presented information on a multi-year management plan for the Atlantic seal hunt, which was announced in February 2003. For harp seals total allowable catch is set at 975,000 over a 3-year period. If the full quota were taken and Greenlandic harvests were as forecast, the total take should result in a slight population reduction over the period, while still maintaining the population well above the conservation reference points adopted. For hooded seals the TAC will remain at 10,000 per year, with no take of bluebacks permitted.

Greenland noted that the stocks of harp and hooded seals were harvested in both Canada and Greenland. However the new management measures had not been discussed bilaterally between Canada and Greenland before they were adopted. Greenland found this unsatisfactory and asked the Observer for Canada to convey this message to the Canadian Government.

Norway emphasised its continued interest in obtaining genetic samples from minke whales from all areas of the North Atlantic, in order to improve the information on the stock delineation of this species, and urged that such samples be collected both on an opportunistic basis and by directed programs.

5. STATUS OF PAST PROPOSALS FOR CONSERVATION AND MANAGEMENT

The Committee considered document NAMMCO/12/MC/3 (Appendix 3) which was a record of past proposals for conservation and management put forward by the Management Committee. The Chair

asked the Committee to comment on any regulatory or other measures that had been taken in response to these proposals.

5.1 Atlantic walrus

In 1995 the Management Committee recommended that Greenland take appropriate steps to arrest the decline of walrus along its west coast, and encouraged Canada to consider working co-operatively with Greenland to assist in achieving this objective. Greenland informed the Committee that the regulatory initiative to introduce quotas and other hunting regulations for this species had been delayed, and comprehensive public hearings have been conducted. The draft regulations have now been submitted to the Council of Hunters. It is expected that a final decision on the initiative will be taken later this year.

5.2 Ringed seal

Greenland noted the past conclusion of the Management Committee that the harvest of ringed seals in West Greenland waters is sustainable. The Greenland government is instituting a regulatory system whereby quotas could be introduced if required, but they are not considered necessary at this time.

Greenland provided further information on the increased incidence of hairless and partially hairless seals in Greenlandic waters. This has been observed by hunters both in ringed and harp seals. The lack of hair has no apparent effect on the health of the seals, but the skin is of course of no value to hunters. The reasons for this phenomenon are not known. The Committee urged that further research be conducted to determine the origin and ramifications of this condition in seals.

5.3 Harp seal

5.3.1 Northwest Atlantic

The Management Committee took note of the information tabled by the Observer for Canada on the new 3-year management plan for Atlantic seals (see 4). If the full quotas are taken, the total harvest by Canada and Greenland will exceed replacement yield and result in a stock decline over this period. However, given the recent rapid growth and very high current abundance of this stock, the projected harvests should pose no threat to long-term sustainability.

5.3.2 White/Barents Sea and Greenland Sea

The Management Committee noted that new information on abundance, movements and genetics will become available later this year and will be considered by the ICES/NAFO Working Group, after which it will be reviewed by the Scientific Committee.

5.4 Hooded seal

5.4.1 Northwest Atlantic

Canada noted that recent harvests from this stock had been in the low hundreds.

5.5 Northern bottlenose whales

The Scientific Committee at their next meeting will consider new abundance estimates from NASS 1995 and 2001. The Faroe Islands informed the Committee that 6 bottlenose whales had stranded and been utilised in September 2002.

5.6 Long-finned pilot whales

The Scientific Committee at their next meeting will consider a new abundance estimate from NASS-2001. The Faroe Islands informed the Committee that efforts to tag pilot whales with satellite-linked radio transmitters would continue.

5.7 Minke whales – Central North Atlantic

Víkingsson reminded the Committee that the Scientific Committee will be undertaking a new assessment of this stock in 2003. New abundance estimates will then be available from the NASS-2001 and a revised estimate will be available from NASS-1987. He noted that methodological problems would preclude getting an unbiased estimate from the 1995 NASS aerial survey, on which

the advice already given for this stock was based. However the advice given is likely still within sustainable limits as it was derived using very conservative assumptions.

Norway requested information from Iceland on any planned scientific catch of minke whales. Iceland responded that a scientific catch was under consideration, but that the issue had not been decided and no details were available.

5.8 Beluga - West Greenland

The Management Committee noted its previous conclusion that a reduction in harvesting will be required to reverse the decline of the West Greenland beluga. Greenland informed the Committee that the regulatory initiative to introduce quotas and other hunting regulations for this species had been delayed, and comprehensive public hearings have been conducted. The draft regulations have now been submitted to the Council of Hunters. It is expected that a final decision on the initiative will be taken later this year. The Management Committee welcomed this information and noted that the response of Greenland in this matter could have ramifications for the credibility of NAMMCO as an organisation.

5.9 Narwhal - West Greenland

The Management Committee noted its previous concern about the sustainability of harvests in some areas. New information on abundance in Canada and Greenland and movements from tagging experiments will soon become available, and a joint assessment meeting between the NAMMCO Scientific Committee and the Scientific Working Group of the JCNB is scheduled for 2004. Greenland informed the Committee that the regulatory initiative described for beluga and walrus would also apply to narwhal.

5.10 Fin whales - East Greenland - Iceland stock area

The Management Committee noted that a new assessment for this stock as well as the Northeast Atlantic stock was planned for 2003, using new abundance estimates from NASS-2001 and recent Norwegian surveys. The Committee discussed what emphasis should be placed on these assessments, given that Iceland had now re-joined the IWC and the issue would eventually be taken up in that forum. Iceland stated that it expected to obtain scientific and management advice from NAMMCO for the foreseeable future. The Faroe Islands noted that they give priority to NAMMCO for advice on this and other species, and would find it regrettable if these assessment efforts were duplicated in another forum. The Scientific Committee should therefore continue to place high emphasis on the assessment of fin whales, and NAMMCO as a whole must continue to provide management advice. The Committee concluded that the Scientific Committee should continue the fin whale assessment as a high priority for 2003. The Committee also noted that these comments applied to the planned minke whale assessment (see 5.7).

5.11 Incorporation of users' knowledge in the deliberations of the Scientific Committee

The Management Committee had previously asked the Secretariat to proceed with a proposal by the Scientific Committee to use stock status reports as a starting point for discussions with resource users to incorporate their knowledge in advice to Council, and to use the stock status report on minke whales as a pilot project. However, in 2002 this process was put in abeyance pending the outcome of the NAMMCO International Conference on User Knowledge and Scientific Knowledge in Management Decision Making, held in Reykjavik in January 2003.

The Management Committee considered the Report from the Conference presented to the Council and the discussion of the Report by the Council. It was obvious from the recommendations and conclusions from the Conference that significant work remains to take this work forward. The Management Committee therefore agreed to form a Working Group to deal with this task. The general terms of reference of the Working Group will be to use the recommendations and conclusions from the Report of the Conference as guidance to further the work of integrating user knowledge into the management decision making process. One of the tasks of the Working Group will be to re-visit the proposal already developed by the Scientific Committee and accepted by the Council, and recommend

if it should proceed or be modified in some way in light of the recommendations from the Conference. More specific terms of reference may be developed at a later time. The Working Group will be composed of a small number of resource users, managers and scientists, as well as the NAMMCO Secretariat. It is anticipated that it will be formed and meet by correspondence and will report to the Management Committee at their next meeting.

6. STATUS OF PAST REQUESTS TO THE SCIENTIFIC COMMITTEE

The Chair drew the attention of the Committee to the updated summary of requests by the NAMMCO Council to the Scientific Committee, and responses by the Scientific Committee (Appendix 4).

The Vice-Chairman of the Scientific Committee reiterated the conclusion of the Scientific Committee that little progress on the items pertaining to multi-species management and marine mammal - fishery interactions can be expected unless significant new resources are directed to multispecies modelling efforts, and to the collection of data on marine mammal diet and consumption in some areas.

Greenland, while appreciating the simple format of the summary, requested that future versions state explicitly whether a particular request had been fulfilled or whether more work was required.

7. NEW PROPOSALS FOR CONSERVATION AND MANAGEMENT, REQUESTS FOR ADVICE FROM THE SCIENTIFIC COMMITTEE AND RECOMMENDATIONS FOR SCIENTIFIC RESEARCH.

7.1 Economic aspects of marine mammal - fisheries interactions

7.1.1 *New requests for advice*

The Management Committee agreed that the Scientific Committee should monitor progress made in multispecies modelling and in the collection of input data and decide when enough progress has been made to warrant further efforts in this area. Future meetings should focus on assessing modelling results from the Scenario Barents Sea model and possibly the GADGET-based template models for other areas, if they are developed. The Scientific Committee should also consider the feasibility of connecting the multi-species models with simple economic models at that time.

7.1.2 *Recommendations for scientific research*

The Management Committee again noted the deficiencies in research efforts in this area identified by the Scientific Committee (see 6). The Committee emphasised the importance of research in the area of marine mammal - fishery interactions if multi-species management of marine resources was to become a realistic option. The Committee therefore reiterated the recommendations for research on the consumption by marine mammals given in 2002 (NAMMCO 2002). In addition the following research items pertaining to multispecies modelling should be given a high priority by National Governments:

- The functional nature of prey selection by marine mammals under varying levels of prey abundance and from mixtures of available prey. To derive these functions diet data must be collected in conjunction with resource surveys at appropriate temporal and spatial scales.
- theoretical and practical work on prey selection models
- development of aggregated consumption functions
- migratory and spatial aspects of consumption models
- further work on the Scenario Barents Sea model
- use GADGET as a framework to generate template models for candidate areas in the North Atlantic

7.2 Harp and hooded seals

7.2.2 *New requests for advice*

The Management Committee noted that new information recently had become available on the abundance of harp seals in the Greenland Sea and the Northwest Atlantic. In addition new information is available on movements and stock delineation of harp seals in the Greenland, Barents and White

seas. The Management Committee therefore reiterated its previous request to the Scientific Committee to regularly update the stock status of North Atlantic harp and hooded seals as new information becomes available. The Management Committee noted the likely impact of increasing abundance of these species on fish stocks. For harp seals in the Northwest Atlantic, the immediate management objective is to maintain the stocks at their present levels of abundance.

7.3 Harbour porpoise

There were no new proposals under this item.

7.4 Beluga - West Greenland

7.4.1 *New requests for advice*

The Management Committee noted that a new survey of West Greenland beluga will be conducted in 2004. The Scientific Committee was therefore requested to update the assessment of West Greenland Beluga in light of the new survey results and any other new information. The main management objective is to halt the decline of this stock.

7.5 Narwhal - West Greenland

There were no new proposals under this item.

7.6 Fin whales

There were no new proposals under this item. It was emphasised that the scheduled assessments for the East Greenland-Iceland and Northeast Atlantic stocks should proceed as a high priority for the Scientific Committee. The Committee supported the efforts of the Scientific Committee to assess the technical aspects of satellite tagging of large whales and recommend ways to increase the success of this activity in NAMMCO member countries.

7.7 White-beaked, white-sided and bottlenose dolphins

The Management Committee noted that new abundance data from the NASS-2001 and earlier surveys is now becoming available for these species. In addition, information on diet, life history and stock delineation is being collected from sampling programs conducted in the Faroe Islands and Iceland. A new sampling program for white-sided and white-beaked dolphins is being initiated in Norway. The Management Committee stressed the importance of its previous request to the Scientific Committee to continue its assessment efforts for these species once sufficient information becomes available, given the level of direct harvest in the Faroe Islands and the known interactions with fisheries in NAMMCO member countries.

7.8 North Atlantic Sightings Surveys

7.8.1 *Recommendations for scientific research*

The Management Committee took note of the Welcome Address given by the Scientific Secretary on this topic. The Committee considered that the information on abundance, trends in abundance and distribution provided by the series of NASS is crucially important in the management of cetacean stocks throughout the North Atlantic. It is also important in the assessment of the potential interactions between these species and fisheries, in that information on distribution and abundance is essential for estimating consumption by whales. Such information can only be provided by synoptic surveys that cover a very broad area, and that are conducted at time intervals suitable for detecting trends in abundance. The co-ordination of survey methodologies among participating parties is also required. The Committee therefore recommended that member countries continue to co-ordinate cetacean surveys across the North Atlantic, and attempt to broaden the coverage of these surveys through the inclusion of other participants, particularly in the Northwest Atlantic.

7.9 Others

7.9.1 *Minke whales*

The Management Committee recalled its recommendation from 2002 that the Scientific Committee should complete an assessment of Central Atlantic minke whales once new abundance estimates from NASS-2001 become available, and noted that this assessment will be carried out in 2003.

The Management Committee considered a suggestion made by the observer from the High North Alliance to broaden the request for advice to include the Northeast Atlantic stock of minke whales. The suggested request would include an assessment of the effects of various annual catch levels on the stock over various time periods, and an estimation of replacement yield after catches at these levels and time periods. Other points included an estimation of the catch levels required to reduce the stock to 70 - 80 thousand animals over various time periods, and recommendations for the type of monitoring required to determine the effects of these management measures.

The Management Committee noted this suggestion. It was not decided to put this forward as a request for advice to the Scientific Committee.

7.9.2 Grey Seals

The Management Committee noted that the Scientific Committee would be responding to its request from 2002 to conduct an assessment of grey seal populations throughout the North Atlantic in the next year.

7.9.3 Humpback whales

The Management Committee recalled its request from 2002 to complete abundance estimates for this species as a high priority, and to consider the results of the "Years of the North Atlantic Humpback" (YoNAH) project as they pertain to member countries. The Committee noted with satisfaction that new abundance estimates from the NASS-1995 and 2001 would be completed and considered by the Scientific Committee within the coming year.

8. REPORT OF THE WORKING GROUP ON BYCATCH

Kim Mathiasen, Chairman of the Working Group on Bycatch, presented the report of the teleconference held 17 February 2003 (Appendix 5).

The Working Group reviewed the progress of member countries in establishing systems to effectively monitor bycatch. No new initiatives have been taken in the Faroe Islands or Greenland. An effort to improve reporting of bycatch through fishery logbooks was initiated in 2002 for gillnet fisheries in Iceland. Results to date indicate that the rate of reporting is still low and improvements to the system are required. In 2003 the reporting system will be expanded to include all Icelandic fisheries. In Norway the mandatory reporting of bycatch through fishery logbooks is being supplemented through other measures including independent observers in a sub-sample of the offshore fleet and the establishment of a "reference fleet" from which more detailed information will be collected. Methods for collecting bycatch data from small coastal vessels (*sjark*) are still under development. It is expected that the new system will begin to return useable data within the next few months. The Working Group considered that procedures for the monitoring of bycatch in NAMMCO member countries had not yet reached a stage of implementation where an evaluation could be conducted. At least another year would be required before the systems in Norway and perhaps Iceland were at a stage where a useful evaluation could be conducted.

Some modifications to the format of the National Progress Reports were made to improve the reporting of bycatch by member countries to NAMMCO. The Working Group noted that reporting by some countries was still inadequate and that the new format was not being used consistently.

There had been an increase in the number of large cetaceans entangled in fishing gear in West Greenland in recent years. In some cases these animals are still alive when found and are killed by the fishermen after receiving permission from the Greenlandic authorities. The Management Committee agreed to refer the matter of the killing methods employed in large whale entanglements to the Committee on Hunting Methods to obtain advice on the procedures that could be employed in such situations.

The Management Committee supported the following recommendations of the Working Group:

- i. As recommended in 2002, member countries should report their bycatch to NAMMCO through the new National Progress Report format.
- ii. As soon as one member country has a functioning bycatch monitoring system in place, the Working Group should meet to conduct a full evaluation of the system and make recommendations on bycatch monitoring to all member countries. The evaluation should focus on the practical and logistical aspects of the reporting system. It was anticipated that this could be done within the next 12 to 24 months.

The Management Committee noted that the Scientific Committee would be required to evaluate the accuracy and precision of bycatch data in their assessments of any stocks that are subject to bycatch.

9. REPORT OF THE COMMITTEE ON INSPECTION AND OBSERVATION

The Chair of the Management Committee on Inspection and Observation, Egil Ole Øen, presented the report from the first meeting held on 31 January 2003 (Appendix 6).

The Committee reviewed the experiences with the implementation of the Scheme and pointed out some areas for improvements. In general the Committee saw no serious obstacles as to upgrading the routines and making the implementation process run more smoothly. The Committee emphasised that the Inspection and Observation Scheme is working according to the intentions laid down in the provisions of the Scheme and underlined that NAMMCO is the only organisation that has a well functioning international Inspection and Observation Scheme for whaling and sealing.

The Management Committee noted the recommendations for improving the implementation of the Scheme. It was decided that the budget for the Scheme would not be increased at this time. The Committee endorsed the recommendation that observations should be focussed on particular hunting activities and/or regions in some years. Furthermore the recommendation that the member countries nominate more than one observer candidate to facilitate the implementation of the Scheme was supported.

10. IMPLEMENTATION OF THE JOINT NAMMCO CONTROL SCHEME

10.1 NAMMCO International Observation Scheme 2002

The Chair referred to the Report of the NAMMCO International Observation Scheme under the Joint Control Scheme for the Hunting of Marine Mammals, prepared by the Secretariat. Administrative Co-ordinator Charlotte Winsnes presented the report to the Management Committee.

In 2002 land-based observations of whaling and sealing activities were conducted in the Faroe Islands, Greenland and Norway. In addition, shipboard observations of whaling were conducted in Greenland and Norway. No observations of Norwegian sealing activities were conducted. Reporting was complete in all cases and no violations were observed. Observations conducted onboard vessels were found to be less expensive than land-based observations due to the low accommodation costs. However the opportunities to accommodate an observer on Norwegian vessels are limited. There is a continued lack of awareness about NAMMCO and the Scheme among marine mammal hunters in some areas.

The Management Committee noted that for the first time on-board observation with a duration of more than one day had been conducted, and encouraged further expansion in this direction.

10.2 NAMMCO International Observation Scheme 2003

The Management Committee agreed to that the observations for 2003 would focus on shipboard and land based whaling activities in Norway.

11. ANY OTHER BUSINESS

11.1 Ecosystem approach to management

The Management Committee noted that the Agreement establishing NAMMCO identified an ecosystem approach to the management of living marine resources as a desired objective. NAMMCO has been in the forefront of work in this area, particularly with regard to the activities of the Scientific Committee in the assessment of marine mammal - fisheries interactions. However the Management Committee considered that a more broad-based approach was also needed, to consider the changes in management systems that might be required when using a multispecies, ecosystem-based approach to management. It was therefore decided to establish an *ad hoc* Working Group on Enhancing Ecosystem-based Management, mainly composed of managers. The general objective of the Working Group will be to investigate the progress that has been made in other fora in implementing ecosystem-based management, and recommending what sorts of principles and measures can be applied to the situations faced by NAMMCO member and neighbouring countries. As the work of the Working Group involves ecosystems that include jurisdictions of non-member countries, it was considered important that those countries, in particular Canada and the Russian Federation, participate in the Working Group to the extent possible. Given the holistic nature of the issue it was agreed that those non-members be invited to participate fully in the Working Group, as specially invited participants rather than as observers. The Working Group will forward a report to the Management Committee prior to its next meeting in 2004.

12. ADOPTION OF REPORT

The report was adopted on March 6, 2003. The Management Committee thanked the rapporteur for his efforts. The Management Committee agreed to Faroe Islands' recommendation that NAMMCO member countries appoint members to a drafting group to assist the rapporteur in writing the reports at future meetings.



NORTH ATLANTIC MARINE MAMMAL COMMISSION

Meeting of the Management Committee
 5 March 2003, Leangkollen, Asker, Norway

NAMMCO/12/MC/2: DRAFT AGENDA

Agenda Items	Document reference
1. CHAIRMAN'S OPENING REMARKS	
2. ADOPTION OF AGENDA	
3. APPOINTMENT OF RAPPORTEUR	
4. NATIONAL PROGRESS REPORTS	NAMMCO/SC/10/NPR-F, NAMMCO/SC/10/NPR-G, NAMMCO/SC/10/NPR-I and NAMMCO/SC/10/NPR-N
5. STATUS OF PAST PROPOSALS FOR CONSERVATION AND MANAGEMENT <ul style="list-style-type: none"> 5.1 Atlantic walrus 5.2 Ringed seal 5.3 Harp seal <ul style="list-style-type: none"> 5.3.1 Northwest Atlantic 5.3.2 White/Barents Sea 5.3.3 Greenland Sea 5.4 Hooded seal <ul style="list-style-type: none"> 5.4.1 Northwest Atlantic 5.4.2 Greenland Sea 5.5 Northern bottlenose whales 5.6 Long-finned pilot whales 5.7 Minke whales – Central North Atlantic 5.8 Beluga - West Greenland 5.9 Narwhal - West Greenland 5.10 Fin whales - East Greenland - Iceland stock area 5.11 Incorporation of users' knowledge in the deliberations of the Scientific Committee 	NAMMCO/12/MC/3
6. STATUS OF PAST REQUESTS TO THE SCIENTIFIC COMMITTEE	NAMMCO/12/MC/4
7. NEW PROPOSALS FOR CONSERVATION AND MANAGEMENT, REQUESTS FOR ADVICE FROM THE SCIENTIFIC COMMITTEE AND RECOMMENDATIONS FOR SCIENTIFIC RESEARCH. <ul style="list-style-type: none"> 7.1 Economic aspects of marine mammal - fisheries interactions <ul style="list-style-type: none"> 7.1.1 Proposals for conservation and management 7.1.2 New requests for advice 7.1.3 Recommendations for scientific research 	

Agenda Items	Document reference
<p>Item 7 Continued:</p> <p>7.2 Harp and hooded seals</p> <p style="padding-left: 40px;">7.2.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.2.2 New requests for advice</p> <p style="padding-left: 40px;">7.2.3 Recommendations for scientific research</p> <p>7.3 Harbour porpoise</p> <p style="padding-left: 40px;">7.3.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.3.2 New requests for advice</p> <p style="padding-left: 40px;">7.3.3 Recommendations for scientific research</p> <p>7.4 Beluga - West Greenland</p> <p style="padding-left: 40px;">7.4.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.4.2 New requests for advice</p> <p style="padding-left: 40px;">7.4.3 Recommendations for scientific research</p> <p>7.5 Narwhal - West Greenland</p> <p style="padding-left: 40px;">7.5.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.5.2 New requests for advice</p> <p style="padding-left: 40px;">7.5.3 Recommendations for scientific research</p> <p>7.6 Fin whales</p> <p style="padding-left: 40px;">7.6.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.6.2 New requests for advice</p> <p style="padding-left: 40px;">7.6.3 Recommendations for scientific research</p> <p>7.7 White-beaked, white-sided and bottlenose dolphins</p> <p style="padding-left: 40px;">7.7.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.7.2 New requests for advice</p> <p style="padding-left: 40px;">7.7.3 Recommendations for scientific research</p> <p>7.8 North Atlantic Sightings Surveys</p> <p style="padding-left: 40px;">7.8.1 Proposals for conservation and management</p> <p style="padding-left: 40px;">7.8.2 New requests for advice</p> <p style="padding-left: 40px;">7.8.3 Recommendations for scientific research</p> <p>7.9 Others</p>	
8. REPORT OF THE WORKING GROUP ON BYCATCH	NAMMCO/12/MC/5
9. REPORT OF THE COMMITTEE ON INSPECTION AND OBSERVATION	NAMMCO/12/MC/6
<p>10. IMPLEMENTATION OF THE JOINT NAMMCO CONTROL SCHEME</p> <p style="padding-left: 20px;">10.1 NAMMCO International Observation Scheme 2002</p> <p style="padding-left: 20px;">10.2 NAMMCO International Observation Scheme 2003</p> <p style="padding-left: 20px;">10.3 Other matters</p>	NAMMCO/12/MC/7
11. ANY OTHER BUSINESS	
12. ADOPTION OF REPORT	

ANNOTATIONS TO MANAGEMENT COMMITTEE DRAFT AGENDA

4. National Progress Reports

National Progress are available as documents NAMMCO/SC/10/NPR-F, NAMMCO/SC/10/NPR-G, NAMMCO/SC/10/NPR-I and NAMMCO/SC/10/NPR-N. Member countries should be prepared to answer questions related to information presented in their National Progress Reports.

5. Status of past proposals for conservation and management

An updated list of past proposals for conservation and management made by the Management Committee is available as NAMMCO/12/MC/3. Member Countries should be prepared to report on progress in implementing these proposals.

6. Status of past requests to the Scientific Committee

An updated overview of past requests for advice from the Scientific Committee, and the Committee's response to each, is available as NAMMCO/12/MC/4. The Management Committee may wish to reiterate or refine earlier requests.

7. New proposals for conservation and management, requests for advice from the Scientific Committee and recommendations for scientific research

The report of the Scientific Committee will be available as NAMMCO/12/5. Items 7, 8 and 9 of the Scientific Committee report deal in detail with progress in addressing outstanding requests for advice on species/stocks and other issues. Item 10 deals with NASS 2001. The Management Committee may make proposals for conservation and management, new proposals for requests for advice from the Scientific Committee and new recommendations for scientific research on these and other items.

8. Report of the Working Group on Bycatch

The Management Committee decided in 1997 to establish a Working Group on Bycatch to “consider how the issue of by-catches of marine mammals could be addressed at its next meeting, noting the duties of States under article 61.4 of UNCLOS in this respect.” At its meeting in 2002 the Management Committee supported the Working Group’s recommendations to change the format in which by-catch is reported, including reporting through the new format of the National Progress reports with an explanation of how by-catch information is collected (*NAMMCO Annual Report 2002: 103*). The Working Group met by telephone, on February 14 2003. The report is available as document NAMMCO/12/MC/5.

9. Report of the Committee on Inspection and Observation

At its last meeting (Ilulissat, February 2002) the Management Committee adopted the terms of reference, and formally constituted the Committee on Inspection and Observation. -The Committee shall function as a standing review body to monitor the implementation of the Observation Scheme and provide recommendations for improvement. -The Committee shall upon request from the Secretariat provide advice on the Observation Scheme. -The Committee shall report annually to the Management Committee. (*NAMMCO Annual Report 2001: 104*). The Committee met 31 January 2003. The report of the Committee is available as document NAMMCO/12/MC/6.

10. Implementation of Joint NAMMCO Control Scheme

10.1 NAMMCO International Observation Scheme 2002

The report from the Secretariat on the implementation of the International Observation Scheme in 2002 is available as document NAMMCO/12/MC/7.

10.2 NAMMCO International Observation Scheme 2003

Article 14 of the Guidelines to Section B (International Observation Scheme) of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals states: “By October each year the Secretariat develops a proposal for the Management Committee for the scope and range of activities during the following year in accordance with budgeted funds for these activities. The Secretariat will present the proposed plans for the Observation Scheme for 2003.



NORTH ATLANTIC MARINE MAMMAL COMMISSION

Meeting of the Management Committee
5 March 2003, Leangkollen, Asker, Norway

NAMMCO/12/MC/1 **LIST OF DOCUMENTS**

NAMMCO/12/MC/1	List of documents
NAMMCO/12/MC/2	Agenda
NAMMCO/12/MC/3	Status of proposals for conservation and management (up to and including NAMMCO/11)
NAMMCO/12/MC/4	Summary of requests by NAMMCO Council to the Scientific Committee, and responses by the Scientific Committee
NAMMCO/12/MC/5	Report of the Management Working Group on By-catch
NAMMCO/12/MC/6	Report of the Committee on Inspection and Observation
NAMMCO/12/MC/7	Report of the NAMMCO International Observation Scheme 2002
<u>National Progress Reports</u>	
NAMMCO/SC/10/NPR-F	Faroe Islands - Progress Report on Marine Mammal Research in 2001
NAMMCO/SC/10/NPR-G	Greenland - Progress Report on Marine Mammal Research in 2001
NAMMCO/SC/10/NPR-I	Iceland - Progress Report on Marine Mammal Research in 2001
NAMMCO/SC/10/NPR-N	Norway - Progress Report on Marine Mammal Research in 2001
<u>Council documents</u>	
NAMMCO/12/5	Report of the Scientific Committee, 17-19 September 2002



NORTH ATLANTIC MARINE MAMMAL COMMISSION

Meeting of the Management Committee

5 March 2003, Leangkollen, Asker, Norway

**STATUS OF PAST PROPOSALS FOR CONSERVATION AND
MANAGEMENT**

(Up to and including NAMMCO/11 - 2002)

NAMMCO/12/MC/3

STATUS OF PAST PROPOSALS FOR CONSERVATION AND MANAGEMENT

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>5.1 Atlantic walrus</p>	
<p>The Management Committee examined the advice of the Scientific Committee on Atlantic Walrus and noted the apparent decline which the Scientific Committee identified in respect to "functional" stocks of walrus of Central West Greenland and Baffin Bay.</p> <p>While recognising the over all priority of further work to clarify and confirm the delineation and abundance of walrus stocks in the North Atlantic area, the Management Committee <u>recommends</u> that Greenland take appropriate steps to arrest the decline of walrus along its west coast.</p> <p>Taking into account the views of the Scientific Committee that the Baffin Bay walrus stock is jointly shared with Canada and that the West Greenland stock might be shared, the Management Committee encourages Canada to consider working co-operatively with Greenland to assist in the achievement of these objectives (<i>NAMMCO Annual Report 1995: 49</i>).</p>	<p>Greenland provided the Management Committee with information on further measures recently implemented through legislation by the Greenland authorities for the conservation of the West Greenland stock. These regulations include: the restriction of walrus hunting to people with valid professional hunting licences only; a year-round ban on walrus hunting south of 66° N; limitations on the means of transport used in connection with walrus hunting to dog sleds and vessels of 19.99 GRT/31.99 GT or less; and the sale of walrus products limited to direct sales at open markets or for personal use only. Municipal authorities now also have the possibility of implementing further restrictions if circumstances require. (NAMMCO/8)</p> <p>Greenland noted that in addition to the regulatory measures that were taken in 1999, it had been decided to introduce quotas on walrus. A new regulatory proposal has been drafted and public hearings will be held in the near future. The final regulatory proposal will take these hearings into account. (NAMMCO/11)</p>
<p>5.2 Ringed seals</p>	
<p>5.2.1 The Management Committee noted the conclusions of the Scientific Committee on the assessment of ringed seals in the North Atlantic, which had been carried out through the Scientific Committee Working Group on Ringed Seals. In particular, the Management Committee</p>	

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
noted that three geographical areas had been identified for assessing the status of ringed seals, and that abundance estimates were only available for Area 1 (defined by Baffin Bay, Davis Strait, eastern Hudson Strait, Labrador Sea, Lancaster, Jones and Smith sounds (NAMMCO/6).	
<p>5.2.2</p> <p>While recognising the necessity for further monitoring of ringed seal removals in Area 1, the Management Committee <u>endorsed</u> the Scientific Committee's conclusions that present removals of ringed seals in Area 1 can be considered sustainable (NAMMCO/6).</p>	<p>The Greenland government is presently undertaking a regulatory initiative which will deal with hunting of all seals in Greenland, rather than just harbour seals as at present (NAMMCO/11).</p>
<p>5.3 Harp seals in the Northwest Atlantic</p>	
<p>5.3.1 Northwest Atlantic</p> <p>5.3.1.1</p> <p>The Management Committee noted that a new abundance estimate for Northwest Atlantic harp seals of 4.8 million was available, based on a pup production estimate for 1994 of 702,900. The Management Committee also noted the conclusion that the Northwest Atlantic population of harp seals has been growing at a rate of 5% per year since 1990, and that the 1996 population was estimated to be 5.1 million, with a calculated replacement yield of 287,000.</p> <p>The Management Committee <u>concluded</u> that catch levels of harp seals in Greenland and Canada from 1990 to 1995 were well below the calculated replacement yields in this period (NAMMCO/6).</p>	
5.3.1.2	

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>The Management Committee <u>noted</u> that combined estimated catches of harp seals in Canada and Greenland are in the order of 300,000 and that these catches are near, or at, the established replacement yields (NAMMCO/8).</p>	<p>Canada brought to the attention of the Committee the recently completed Report of the Eminent Panel on Seal Management, which contains a full review of research and management of seals in Canada, with a primary focus on Northwest Atlantic harp and hooded seals. The Report is available at the following web site: http://www.dfo-mpo.gc.ca/seal-phoque/reports/index.htm. Canada also noted that an abundance survey of the Northwest Atlantic harp seals had been completed in 1999, and that published results were now available. (NAMMCO/11)</p> <p>Greenland commented that sustainable catches may be obtained at other catch levels than those that provide replacement yields. (NAMMCO/11)</p>
<p>5.3.2 White/Barents Sea The Management Committee noted the stock status and catch options presented by the Scientific Committee, and concluded that the catch level in 1998 was well below the calculated replacement yield. Catches at the same level in the future may result in population increase. From a resource management point of view, future quota levels approaching the replacement yield are advised. (NAMMCO/9)</p>	
<p>5.3.3 Greenland Sea The Management Committee noted the stock status and catch options presented by the Scientific Committee, and concluded that the catch level in 1998 was well below the calculated replacement yield. Catches at the same level in the future may result in population increase. From a resource management point of view, future quota levels approaching the replacement yield are advised. (NAMMCO/6)</p>	

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
5.4 Hooded seals	
<p>5.4.1 Northwest Atlantic</p> <p>5.4.1.1 Noting the Scientific Committee's review of available analyses of hooded seal pup production, which recognised that calculations are dependent on the particular rate of pup mortality used, as well as the harvest regimes, the Management Committee <u>concluded</u> that present catches of hooded seals in the Northwest Atlantic (1990-1995) were below the estimated replacement yields of 22,900 calculated for a harvest of pups only, and 11,800 calculated for a harvest of 1-year and older animals only (NAMMCO/6).</p>	
<p>5.4.1.2</p> <p>The Management Committee <u>noted</u> that the total catch of hooded seals in the Northwest Atlantic in 1996 slightly exceeded the replacement yield while in 1997 the total number of seals taken was much lower (NAMMCO/8).</p>	<p>Greenland noted that this stock was shared with Canada and that the two countries hold regular bilateral discussions on management of this stock, including an exchange of information on harvest statistics, utilisation and stock assessment. (NAMMCO/11)</p>
<p>5.4.2 Greenland Sea</p> <p>The Management Committee noted the stock status and catch options presented by the Scientific Committee, and concluded that the catch level in 1998 was well below the calculated replacement yield. Catches at the same level in the future may result in population increase. From a resource management point of view, future quota levels approaching the replacement yield are advised (NAMMCO/9).</p>	<p>While supporting the past conclusion of the Management Committee that catch levels for this stock are below replacement yield, Norway noted that the abundance estimate for this stock is dated and that it hoped that new information should soon be available from surveys planned for 2002. (NAMMCO/11)</p>
5.5 Northern bottlenose whales	
<p>The Management Committee discussed the advice of the Scientific Committee on the status of the northern bottlenose whale and noted that</p>	

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>this was the first conclusive analysis on which management of the northern bottlenose whale could be based.</p> <p>The Management Committee <u>accepted</u> that the population trajectories indicated that the traditional coastal drive hunt in the Faroe Islands did not have any noticeable effect on the stock and that removals of fewer than 300 whales a year were not likely to lead to a decline in the stock (NAMMCO/5)</p>	
<p>5.6 Long-finned pilot whales</p>	
<p>The Management Committee noted the findings and conclusions of the Scientific Committee, through its review of the ICES Study Group Report and the analysis of data from NASS-95 with respect to the status of long-finned pilot whales in the North Atlantic (Section 3.1, item 3.1), which also confirmed that the best available abundance estimate of pilot whales in the Central and Northeast Atlantic is 778,000. With respect to stock identity it was noted that there is more than one stock throughout the entire North Atlantic, while the two extreme hypotheses of i) a single stock across the entire North Atlantic stock, and ii) a discrete, localised stock restricted to Faroese waters, had been ruled out.</p> <p>The Management Committee further noted the conclusions of the Scientific Committee that the effects of the drive hunt of pilot whales in the Faroe Islands have had a negligible effect on the population, and that an annual catch of 2,000 individuals in the eastern Atlantic corresponds to an exploitation rate of 0.26%.</p> <p>Based on the comprehensive advice which had now been provided by the Scientific Committee to requests forwarded from the Council, the</p>	<p>In 1997 the Management Committee concluded that the Faroese drive hunt of pilot whales is sustainable. There have been no changes in annual take, new abundance estimates or other information that warrant any change in this conclusion. (NAMMCO/11)</p>

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>Management Committee <u>concluded</u> that the drive hunt of pilot whales in the Faroe Islands is sustainable (NAMMCO/7).</p>	
<p>5.7 Minke Whales - Central North Atlantic</p>	
<p>The Management Committee <u>accepted</u> that for the Central Stock Area the minke whales are close to their carrying capacity and that removals and catches of 292 animals per year (corresponding to a mean of the catches between 1980-1984) are sustainable. The Management Committee noted the conservative nature of the advice from the Scientific Committee (NAMMCO/8)</p>	
<p>5.8 Beluga - West Greenland</p>	
<p>5.8.1 Maniitsoq – Disko The Management Committee noted that a series of surveys conducted since 1981 indicate a decline of more than 60% in abundance in the area Maniitsoq to Disko. It further noted that with the present harvest levels (estimated at 400/yr) the aggregation of belugas in this area is likely declining due to overexploitation.</p> <p>Avanersuaq – Upernavik The present harvest in the area Avanersuaq - Upernavik is estimated to be more than 100/yr. The Management Committee noted that since this beluga occurrence must be considered part of those wintering in the area from Maniitsoq to Disko, it is considered to be declining due to overexploitation.</p> <p>Finally the Management Committee noted the conclusion by the</p>	<p>Greenland stated that this issue again will be thoroughly discussed with the hunters, and that the Greenland Government does share the concerns expressed. (NAMMCO/10)</p> <p>Greenland informed the Committee that in November 2000 the government made a decision to introduce harvest quotas for beluga and narwhal. Public hearings on a draft regulatory proposal were held in spring 2001. The results of these hearings are being taken into account in the drafting of a revised regulatory proposal, and a final set of regulations is expected to be introduced sometime in 2002 (NAMMCO/11).</p>

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
Scientific Committee that with the observed decline a reduction in harvesting in both areas seems necessary to halt or reverse the trend (NAMMCO/9)	
<p>5.8.2 It was accepted that the Canada/Greenland Joint Commission on Conservation and Management of Narwhal and Beluga (JCNB) would provide management advice for this stock, which is shared by Canada and Greenland. The Management Committee therefore <u>recommended</u> that closer links be developed between NAMMCO and the JCNB on this and other issues of mutual concern. (NAMMCO/10).</p>	
<p>In 2000 the Management Committee accepted that the JCNB would provide management advice for this stock, which is shared by Canada and Greenland. The Management Committee noted with pleasure that a joint meeting of the NAMMCO Scientific Working Group on the Population Status of North Atlantic Narwhal and Beluga and the JCNB Scientific Working Group had been held in May 2001, and recommended that this co-operation at the scientific level should continue. The Management Committee also reiterated its recommendation that closer links be developed between NAMMCO and the JCNB on this and other issues of mutual concern. (NAMMCO/11).</p>	
5.9 Narwhal - West Greenland	
<p>5.9.1 Avanersuaq The Management Committee noted that the present exploitation level in Avanersuaq of 150/yr seems to be sustainable, assuming that the same</p>	<p>As for beluga, harvest quotas will be introduced for West Greenland narwhal in the near future (NAMMCO/11).</p>

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>whales are not harvested in other areas</p> <p>Melville Bay – Upernavik The Management Committee noted that the Scientific Committee could give no status for the Melville Bay – Upernavik summering stock.</p> <p>Uummannaq The Management Committee noted that the substantial catches (several hundreds) in some years do cause concern for the status of this aggregation. The Management Committee further noted that the abundance of narwhal in this area should be estimated.</p> <p>Disko Bay The Management Committee noted that present catches in this area are probably sustainable.</p> <p>Catch Statistics The Management Committee noted that for both narwhal and beluga it is mandatory for future management that more reliable catch statistics (including loss rates) are collected from Canada and Greenland (NAMMCO/9)</p>	
<p>5.9.2 The Management Committee accepted that the JCNB would provide management advice for this stock, which is shared by Canada and Greenland. The Management Committee therefore recommended that closer links be developed with the JCNB on this and other issues of mutual concern. (NAMMCO/10)</p>	
<p>5.10 North Atlantic fin whales</p>	

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>The Management Committee accepted that for fin whales in the East Greenland – Iceland (EGI) stock area, removals of 200 animals per year would be unlikely to bring the population down below 70% of its pre-exploitation level in the next 10 years, even under the least optimistic scenarios. However, catches at this level should be spread throughout the EGI stock area, roughly in proportion to the abundance of fin whales observed in the NASS surveys. Furthermore, the Management Committee stressed that the utilization of this stock should be followed by regular monitoring of the trend in the stock size.</p> <p>The Management Committee also noted the conservative nature of the advice from the Scientific Committee on which the conclusion of the Management Committee was <i>based</i> (NAMMCO/9)</p>	
<p>5.11 Incorporation of the users’ knowledge in the deliberations of the Scientific Committee</p>	
<p>The Management Committee endorsed the proposals and viewpoints contained in section 6 in the Scientific Committee report, and suggested that the “Draft Minke Whale Stock Status Report” (NAMMCO/9/7) could usefully serve as a pilot project for cooperation with the hunters. (NAMMCO/9)</p>	<p>Status Reports under development.</p>
<p>The Management Committee had previously asked the Secretariat to proceed with a proposal by the Scientific Committee to use stock status reports as a starting point for discussions with resource users to incorporate their knowledge in advice to Council, and to use the stock status report on minke whales as a pilot project. However, in 2000 the Management Committee recommended that a proposal for a conference on incorporating user knowledge and scientific knowledge into</p>	<p>Greenland informed the Committee that a person had been hired at the Greenland Institute of Natural Resources to deal with these issues, and that this employee is also on the Advisory Board of the Conference. (NAMMCO/11)</p>

PROPOSAL FOR CONSERVATION AND MANAGEMENT	MANAGEMENT MEASURES/RESPONSE BY MEMBER COUNTRIES
<p>management advice should proceed, and asked the Conference Advisory Group to plan this conference to evaluate whether and how the previous proposal for incorporating user knowledge into the Scientific Committee's deliberations could be incorporated into the Conference (NAMMCO/11).</p>	

List of References

NAMMCO/1

NAMMCO 1992. (MS) Report of the inaugural meeting of the Council of the North Atlantic Marine Mammal Commission. NAMMCO, University of Tromsø, Tromsø, 35 pp.

NAMMCO/2

NAMMCO. 1993. (MS) Report of the second meeting of the Council. NAMMCO, University of Tromsø, Tromsø, 65 pp.

NAMMCO/3

NAMMCO. 1993. (MS) Report of the third meeting of the Council. NAMMCO, University of Tromsø, Tromsø, 51 pp.

NAMMCO/4

NAMMCO. 1994. (MS) Fourth meeting of the Council. NAMMCO, University of Tromsø, Tromsø, 142 pp.

NAMMCO/5

NAMMCO. 1995. Fifth meeting of the Council. In: NAMMCO, *Annual Report 1995*. NAMMCO, Tromsø, 11-44.

NAMMCO/6

NAMMCO. 1997. Report of the sixth meeting of the Council. In: NAMMCO, *Annual Report 1996*. NAMMCO, Tromsø, 11-58.

NAMMCO/7

NAMMCO. 1998. Report of the seventh meeting of the Council. In: NAMMCO, *Annual Report 1997*. NAMMCO, Tromsø, 9-60.

NAMMCO/8

NAMMCO. 1999. Report of the eighth meeting of the Council. In: NAMMCO, *Annual Report 1998*. NAMMCO, Tromsø, 9-55.

NAMMCO/9

NAMMCO. 2000. Report of the ninth meeting of the Council. In: NAMMCO, *Annual Report 1999*. NAMMCO, Tromsø, 11-49.

NAMMCO/10

NAMMCO. 2001. Report of the tenth meeting of the Council. In: NAMMCO, *Annual Report 2000*. NAMMCO, Tromsø, , 11-69.

NAMMCO/11

NAMMCO. 2002. Report of the eleventh meeting of the Council. In: NAMMCO, *Annual Report 2001*. NAMMCO, Tromsø, 11-93.



NORTH ATLANTIC MARINE MAMMAL COMMISSION

Meeting of the Management Committee

5 March 2003, Leangkollen, Asker, Norway

NAMMCO/12/MC/4

**SUMMARY OF REQUESTS BY NAMMCO COUNCIL TO THE SCIENTIFIC
COMMITTEE, AND RESPONSES BY THE SCIENTIFIC COMMITTEE**

SUMMARY OF REQUESTS BY NAMMCO COUNCIL TO THE SCIENTIFIC COMMITTEE, AND RESPONSES BY THE SCIENTIFIC COMMITTEE

This table provides a summary of all requests by NAMMCO Council to the Scientific Committee, and notes the response of the Scientific Committee to these requests. Requests forwarded from NAC (North Atlantic Committee for Cooperation on Research on Marine Mammals) to ICES (International Council for the Exploration of the Sea) prior to NAMMCO's establishment, and which were carried over to NAMMCO in 1992, are included. This document will be continually updated to serve as a resource for both the Council and the Scientific Committee. See List of References for sources of meeting documents.

Code	Meeting	Request	Response of the Scientific Committee (SC)
1. ROLE OF MARINE MAMMALS IN THE ECOSYSTEM			
<i>Marine mammal – fish interactions:</i>			
1.1	NAMMCO/1	To provide an overview of the current state of knowledge of the dependence of marine mammals on the fish and shrimp stocks and the interrelations between these compartments.	See 1.2, 1.4, 1.7, 1.9, 1.10.
1.2	NAMMCO/1	In the multispecies context ... to address specific questions related to the Davis Strait ecosystem such as: <ul style="list-style-type: none"> - the apparent increase in harp seal stocks; - its influence on the economically important shrimp and cod stocks; - the impact of the fisheries on marine mammals, particularly harp seals; - the southward shift of minke whale distribution in recent years, and - observed changes in oceanographical conditions after the 1970s; - and to the East Greenland-Iceland-Jan Mayen area interactions between capelin stocks, fishery and marine mammals 	Questions related to harp and hooded seals were forwarded to the ICES/NAFO Joint Working Group on Harp and Hooded Seals (SC/2) Specific questions related to the Davis Strait ecosystem were not addressed. See also 1.4, 1.7, 1.9, 1.10.
1.3	NAMMCO/2	To assess the impact of marine mammals on the marine ecosystem, with special emphasis on the availability of economically important fish species.	See 1.2, 1.4, 1.7, 1.9, 1.10.
1.4	NAMMCO/6	The Scientific Committee was requested to focus its attention on the food consumption of three predators in the North Atlantic: the minke whale, the harp seal and the hooded seal, with a particular emphasis on the study of the potential implications for commercially important fish stocks.	The Scientific Committee established a Working Group on the Role of Minke Whales, Harp Seals and Hooded Seals in the North Atlantic. The Scientific Committee used to report of this Working Group to provide advice to Council, and to recommend further research. (SC/5) Many of the papers presented will be published in Volume 2 of

Code	Meeting	Request	Response of the Scientific Committee (SC)
			NAMMCO Scientific Publications. (SC/7)
1.5	NAMMCO/7	The Council encourages scientific work that leads to a better understanding of interactions between marine mammals and commercially exploited marine resources, and requested the Scientific Committee to periodically review and update available knowledge in this field.	See 1.9, 1.10.
<i>Multispecies approaches to management:</i>			
1.6	NAMMCO/1	To consider whether multispecies models for management purposes can be established for the North Atlantic ecosystems and whether such models could include the marine mammals compartment. If such models and the required data are not available then identify the knowledge lacking for such an enterprise to be beneficial to proper scientific management and suggest scientific projects which would be required for obtaining this knowledge.	See 1.4, 1.7, 1.9, 1.10.
1.7	NAMMCO/5	In relation to the importance of the further development of multispecies approaches to the management of marine resources, the Scientific Committee was requested to monitor stock levels and trends in stocks of all marine mammals in the North Atlantic.	It was clarified that the purpose of this request was to ensure that data on marine mammals was available for input into multi-species models for management. The Committee agreed that updated information on abundance and indications of trends in abundance of stocks of marine mammals in the North Atlantic should be clearly described in a new document for the internal reference of the Council, to replace the List of Priority Species. This document would be entitled Status of Marine Mammals in the North Atlantic and should include those cetacean and pinniped species already contained in the List of Priority Species, as well as other common cetacean species in the NAMMCO area for which distribution and abundance data is also available (fin, sei, humpback, blue, and sperm whales). (SC/5)
<i>Sealworm infestation:</i>			
1.8	NAMMCO/6	Aware that the population dynamics of the sealworm (<i>Pseudoterranova decipiens</i>) may be influenced by sea temperature, bathymetry, invertebrate and fish fauna, the Scientific Committee was requested to review the current state of knowledge with respect to sealworm infestation and to consider the need for comparative studies	The Scientific Committee established a Working Group on Sealworm Infection to address this question. The Scientific Committee used their report as the basis for providing advice to Council, and developing recommendations for further research. (SC/5) Many of the papers considered by the Working Group are published in <i>NAMMCO</i>

Code	Meeting	Request	Response of the Scientific Committee (SC)
		in the western, central and eastern North Atlantic coastal areas, taking into account the priority topics recommended by the Scientific Committee and its <i>ad hoc</i> Working Group on grey seals.	<i>Scientific Publications</i> Vol. 3, <i>Sealworms in the North Atlantic: Ecology and population dynamics</i> (SC/7).
<i>Economic aspects of marine mammal-fisheries interactions:</i>			
1.9	NAMMCO/7	The Council requested that special attention be paid to studies related to competition and the economic aspects of marine mammal-fisheries interactions	The Scientific Committee established a Working Group on Economic Aspects of Marine Mammal-Fisheries Interactions. The Scientific Committee concluded that inclusion of economic considerations is a valuable addition to multispecies models of interactions between marine mammals and fisheries. The work presented at the Working Group was considered the first step towards more complete analyses of these interactions and it was recommended, in light of the economic impacts, that more complete models should be developed and presented. The Scientific Committee showed a continued interest in the development of the models and it was decided to maintain the Working Group and seek further guidance from the Council on matters of particular interest. (SC/6)
1.10	NAMMCO/8	The Scientific Committee is requested to investigate the following economic aspects of marine mammal – fisheries interactions: <ul style="list-style-type: none"> – to identify the most important sources of uncertainty and gaps in knowledge with respect to the economic evaluation of harvesting marine mammals in the different areas; – to advise on research required to fill such gaps both in terms of refinement of ecological and economical models and collection of basic biological and economical data required as input parameters for the models; – to discuss specific cases where the state of knowledge may allow quantification of the economic aspects of marine mammal – fisheries interactions: <ol style="list-style-type: none"> a) what could be the economic consequences of a total stop in harp seal exploitation versus different levels of continued sustainable harvest? b) what could be the economic consequences of different levels of sustainable harvest vs. no exploitation of minke whales? 	The Working Group On The Economic Aspects Of Marine Mammal - Fisheries Interactions was reactivated to meet this request. It was agreed to separate the request into two sections. At the first Working Group meeting the first two items in the request were addressed. The Working Group used available information to derive estimates of consumption of cod, herring, capelin and shrimp by harp seals, minke whales and <i>Lagenorhynchus</i> spp. and bottlenose dolphins in some areas. Multispecies models presently in use or under development in Norway and Iceland offer a means of assessing the impact of marine mammal predation on fish stocks The Scientific Committee therefore recommended that the next logical step in addressing the request should be for NAMMCO to lead or assist in the development of a multispecies-economic model for a candidate area. However, the Scientific Committee reiterated that the estimation and model uncertainties are such that definitive quantification of the economic aspects of marine mammal-fisheries interactions in candidate areas cannot be expected in the near term. (SC/8)
1.11	NAMMCO/10	Noting the requests for advice from the Council at its Eighth	The Scientific Committee convened a workshop, under the theme

Code	Meeting	Request	Response of the Scientific Committee (SC)
		meeting in Oslo 1998 (see Annual Report 1998 page 23), the Management Committee <u>recommended</u> that the Scientific Committee continue the assessment of the economic aspects of fishery - marine mammal interactions in the two areas (Barents Sea and Iceland) and with the two species (minke whales and harp seals) that have been identified as feasible for this assessment.	"Marine mammals: From feeding behaviour or stomach contents to annual consumption – what are the main uncertainties?", to further investigate the methodological and analytical problems in estimating consumption by marine mammals. (SC/9)
1.12	NAMMCO/11	The Management Committee noted the conclusion of the Scientific Committee that the estimation and model uncertainties are such that the economic aspects of marine mammal-fishery interactions in candidate areas cannot be quantified without further work. The Management Committee therefore recommended that the Scientific Committee should hold a workshop on ecosystem models aiming for a better understanding of the ecological role of minke whales and harp and hooded seals in the North Atlantic, as proposed in the Scientific Committee report.	The Scientific Committee convened a workshop, under the theme "Modelling Marine Mammal – Fisheries Interactions in the North Atlantic", to investigate how presently available ecosystem models can be adapted for quantifying marine mammal - fishery interactions. (SC/10)
2. ENVIRONMENTAL ISSUES			
2.1	NAMMCO/1	To describe the possible pathways of radioactive material from blowouts and leakage in existing nuclear power plants, leakage from dumped material and possible accidents in planned recycling plants in the northern part of Scotland into the food web of the North Atlantic and hence into the top predators like marine mammals.	No response.
2.2	NAMMCO/1	To review the contaminant burden (especially organochlorines) in marine mammals in the North Atlantic and evaluate the possible sources of these contaminants.	No response from the Scientific Committee. In 1995, NAMMCO hosted the International Conference on Marine Mammals and the Marine Environment. The Conference covered the following themes: Marine mammals and the marine environment-impacts and management approaches; Contaminants in marine mammals – sources, levels and effects; Coastal communities and marine pollution – social, economic and health considerations; Addressing the questions – problems and future needs. The proceedings were published as a special issue of <i>The Science of the Total Environment</i> (186, 1,2).
3. MANAGEMENT PROCEDURES			

Code	Meeting	Request	Response of the Scientific Committee (SC)
3.1	NAMMCO/2	To review the basis for, and develop assessments necessary to provide the scientific foundation for conservation and management of the stocks relevant for management under NAMMCO.	A Working Group on Management Procedures was established to consider this matter. The Scientific Committee noted that there were many different management needs requiring different management procedures. It was agreed that there was need for more guidance on management objectives before any concrete work can be started on developing appropriate management procedures, and in turn this was likely to be case- (species and/or area) specific. Related to this it was also noted that NAMMCO may prefer to assume an advisory and evaluative role in developing its management. (SC/2)
3.2	NAMMCO/4	Further development of RMP-like procedures.	The Scientific Committee decided to develop management procedures on a case-by-case basis: “a more pragmatic approach on an area and species/case-specific basis would be desirable for the development of specific management procedures. It was therefore decided to suggest that requests for advice from the Council be accompanied by specific objectives defined for the case in question” (SC/3)
<p>4. STOCKS/SPECIES</p> <p><i>Monitoring marine mammal stock levels and trends in stocks /North Atlantic Sightings Surveys (NASS):</i></p>			
4.1	NAMMCO/3	To plan joint cetacean sighting surveys in the North Atlantic by co-ordinating national research programmes.	<p>The Scientific Committee agreed to establish a Working Group to plan the sighting survey for the summer of 1995. (SC/2)</p> <p>The Scientific Committee was pleased to note the good progress that had been made in planning this important joint research, in which the Faroes (1 vessel), Iceland (3 vessels and 1 aircraft) and Norway (11 vessels) had decided to participate. It was noted that Greenland had decided not to conduct surveys as part of these joint efforts. (SC/3)</p> <p>The Scientific Committee agreed to recommend that a special fund of NOK 800,000 be established from the NAMMCO budget for use in financing various aspects of NASS-95, where required. (SC/3)</p>
4.2	NAMMCO/5	The 1995 North Atlantic Sightings Survey (NASS-95) would provide updated abundance estimates for a number of whale species in the	The Scientific Committee agreed to establish a Working Group on Abundance Estimates. The task of the Working Group would be to

Code	Meeting	Request	Response of the Scientific Committee (SC)
		North Atlantic, and the Scientific Committee was requested to review results in the light of recent assessments of North Atlantic whale stocks.	review analyses and where relevant also analyse data from NASS-95 to ensure its compatibility, both between NASS-95 survey areas, as well as with data from other sightings surveys, in order to provide a basis for calculating abundance estimates for the relevant cetacean stocks in the North Atlantic. (SC/4)
4.3	NAMMCO/6	<p>The Management Committee noted the successful completion of the North Atlantic Sightings Survey in 1995, and commended the process initiated by the Scientific Committee to conclude the analysis of NASS-95 data. It was expected that the results on abundance will be dealt with by the newly established Scientific Committee Working Group on Abundance Estimates and will be presented at the next annual meeting. It was noted that the Working Group would at least to some extent address last year's request from the Council regarding monitoring of stock levels and trends in stocks. However, it was also noted that one outstanding matter from last year is the request to the Scientific Committee to review results of NASS-95 in the light of recent assessments of North Atlantic whale stocks.</p> <p>The Council agreed to the suggestion from the Management Committee that this be drawn to the attention of the Scientific Committee to secure a follow-up to last year's request.</p>	To address this request, a Working Group on Abundance Estimates had been established with the task of reviewing the analyses, and where relevant, also to analyse data from NASS-95 to provide a basis for calculating abundance estimates for the relevant cetacean stocks in the North Atlantic. The Working Group had focused on describing synoptic distributions of the cetacean species encountered during NASS-95, and abundance estimates for minke, fin, sei and pilot whales, which were the target species of the survey. The Scientific Committee concluded that the updated abundance estimates for the target species as reviewed by the Working Group on Abundance Estimates represented the best available estimates for the stocks concerned, and used them as a basis to provide advice to Council. The Scientific Committee also recommended that the results of NASS-95 be compiled to a future volume of <i>NAMMCO Scientific Publications</i> . (SC/5)
4.4	NAMMCO/7	The Scientific Committee was requested to continue its work to monitor stock levels and trends in all stocks of marine mammals in the North Atlantic in accordance with previous recommendations (see <i>NAMMCO Annual Report 1996:131-132</i>). In this context the Scientific Committee was encouraged to prioritise calculation of the abundance of species covered by NASS-95, in particular those species presently harvested and species considered to be important with respect to interactions with fisheries.	See 4.3.
4.5	NAMMCO/9	The Management Committee noted particularly that abundance estimates from NASS-95 have not been completed for some species. The Management Committee therefore recommended that the Scientific Committee complete abundance estimates for all species, as part of its efforts to monitor the abundance of all species in the North Atlantic.	The Scientific Committee noted that abundance estimates for the main target species of NASS-95 (minke whale, fin whale, sei whale, pilot whale) had been completed and accepted by them, however most had not yet been published in the primary scientific literature. The Scientific Committee agreed that further analyses of the abundance of non-target species from the NASS-95 survey should be conducted if they are warranted. However, as the survey was not optimised for these

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			<p>species, it was recognised that the design and conduct of the survey would make this possible to a varying degree, depending on both the species and area in question. In some cases, a general description of the spatial distribution of sightings may be the only analysis warranted. The Scientific Committee agreed to pursue these analyses in the coming year. (SC/8)</p> <p>The Scientific Committee considered new information on the NASS-95 Icelandic aerial and shipboard surveys for minke whales, and a new abundance estimate for humpback whales from the NASS-95 Icelandic shipboard survey. (SC/9)</p>
4.6	NAMMCO/9	The Management Committee recommended that the Scientific Committee continue its efforts to coordinate future sightings surveys and analyses of the results from such surveys in the North Atlantic. Priority species should be minke whales and fin whales, and the Management Committee recommended that the survey design be optimized for these species. The survey should also be optimized to cover those areas where abundance estimates are most urgently required.	The Working Group on Abundance Estimates met in November 2000 to plan for NASS-2001. The survey was conducted in June/July 2001. (SC/9)
4.7	NAMMCO/11	The Management Committee recommended that remaining abundance estimates from the NASS-95 and new estimates from the NASS-2001 surveys should be developed as soon as feasible, with the target species of the surveys being of highest priority. The Management Committee emphasised that this work should be published in a timely manner.	The Working Group on Abundance Estimates met in March 2002 and developed preliminary abundance estimates for fin whales, minke whales, humpback whales, sperm whales and dolphins. In addition a full evaluation of the 2001 survey was conducted, and recommendations for future surveys were made. (SC/10)
<i>Central North Atlantic minke whales:</i>			
4.7	NAMMCO/7	In the light of the new survey abundance results the Scientific Committee is requested to undertake an assessment of the status of the Central North Atlantic minke whale stock, including to evaluate the long term effects of past and present removal levels on the stock.	The Scientific Committee agreed to assign the task of assessing the status of the stock to the Working Group on Management Procedures. The Council had requested the Scientific Committee to provide its advice on this matter prior to the next meeting of the Council, however it was the general view of the Committee that it was unlikely that this

Code	Meeting	Request	Response of the Scientific Committee (SC)
			work could be completed within this time frame. (SC/5) The Scientific Committee used the report of the Working Group on Management Procedures as the basis for providing advice and research recommendations to Council. The Committee agreed that catches of 292 per year (the mean of the catch between 1980-84) are sustainable for the Central stock, and that catches of 185 whales per year are sustainable for the Coastal Icelandic Area. (SC/6)
4.8	NAMMCO/8	In order to ascertain the stock structure of minke whales in the North Atlantic, the Scientific Committee is requested to investigate the possibility of supplementing present sampling with existing older material from NAMMCO countries and other countries in joint genetic analyses. If possible, such analyses should be undertaken.	It was noted that such exchanges of samples are ongoing between Norway and Greenland. Samples collected in the past from Iceland and Norway have already been analyzed concurrently, and there are no recent samples from Iceland. The Scientific Committee concluded that available samples are being utilized effectively. (SC/7)
4.9	NAMMCO/11	The Management Committee recommended that the Scientific Committee should complete an assessment of Central Atlantic minke whales once new abundance estimates from NASS-2001 become available.	Response pending.
<i>Northern bottlenose whales:</i>			
4.9	NAMMCO/2	To undertake an assessment of the status of the northern bottlenose whale (<i>Hyperoodon ampullatus</i>) stock in the North Atlantic.	A Working Group on Northern Bottlenose and Killer Whales established, and provided a preliminary assessment which was used as the basis of advice and recommendations for further research given by the Scientific Committee. (SC/2)
4.10	NAMMCO/4	To undertake the necessary modelling of the species as suggested under ... items 9.2. and 10.2.2 of ...[the Report of the Third Meeting of the Scientific Committee, 1993].	A joint session was held of the Working Group on Northern Bottlenose Whales and the Working Group on Management Procedures in order to consider the request from the Council to undertake the necessary modelling of the population using catch series and abundance estimates. Their report was used as the basis for advice and research recommendations conveyed by the Scientific Committee. (SC/3)
<i>Killer whales:</i>			
4.11	NAMMCO/2	To advise on stock identity for management purposes; to assess abundance in each stock area; to assess effects of recent	A Working Group on Northern Bottlenose and Killer Whales established by the Scientific Committee, and provided a preliminary

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		environmental changes, changes in the food supply and interactions with other marine living resources in each stock area.	assessment . This provided the basis for advice and research recommendations given by the Scientific Committee. (SC/2) The Chairman noted that it had not yet been possible to complete a full assessment of the killer whale as requested by the Council. Few new data were available, other than recent sightings data from NASS-95 which had not been analysed. (SC/5)
<i>Long-finned pilot whales:</i>			
4.12	NAMMCO/1	To provide an assessment of the state of the pilot whale stock in the north eastern Atlantic, based on the information sampled from the Faroese drive fishery and the NASS sighting surveys.	The Scientific Committee decided to base its advice on the report of the ICES Study Group on Long-Finned Pilot whales. They concluded that an evaluation of status could not be provided without further work.(SC/2)
4.13	NAMMCO/2	To analyse the effects of the pilot whale drive hunt in the Faroe Islands on North Atlantic pilot whales (<i>Globicephala melas</i>), especially whether the numbers taken are consistent with sustainable utilisation.	This matter was addressed by the Scientific Committee, based on the findings of the ICES Study Group and the review of the results of NASS-95. The Scientific Committee agreed to endorse the list of future research requirements listed by the ICES Study Group in its report, and provided advice on the sustainability of the Faroese catch. (SC/5)
<i>Narwhal and beluga:</i>			
4.14	NAMMCO/7	The Scientific Committee was requested to examine the population status of narwhal and beluga (white whales) throughout the North Atlantic.	The Scientific Committee established a Working Group on the Population Status of Narwhal and Beluga in the North Atlantic, which met in March 1999. The Scientific Committee used the report of the Working Group to evaluate the stock status of the various narwhal and beluga aggregations, and provided recommendations to Council. (SC/7)
4.15	NAMMCO/8	The Management Committee requested advice from the Scientific Committee on the level of sustainable utilization of West Greenland beluga in different areas and under different management objectives. For narwhal, the Management Committee requested that the Scientific Committee identify the information which is lacking in order to answer the same question proposed in respect to beluga.	The Scientific Committee reactivated the Working Group on the Population Status of Narwhal and Beluga and used its report as the basis of its recommendations to the Council. The Scientific Committee concluded that the stock is substantially depleted and that present harvests are several times the sustainable yield, and, if continued, will likely lead to stock extinction within 20 years. The Committee assessed a range of harvest options with the overall objective of

Code	Meeting	Request	Response of the Scientific Committee (SC)
			<p>arresting the decline of West Greenland Beluga, and provided prioritized research recommendations. (SC/8)</p> <p>The Scientific Committee noted that developing recommendations on the sustainable harvest of narwhal in Greenland will require significant additional research and cannot be done at present. To this end, the Scientific Committee provided research recommendations to answer questions about catch statistics, stock identity and abundance. (SC/8)</p>
4.16	NAMMCO/10	The Management Committee <u>recommended</u> that the Scientific Committee continue its assessment of West Greenland beluga with reference to the short-term research goals identified. It is anticipated that a joint meeting of the Scientific Working Group of the JCNB and the NAMMCO Scientific Working Group on the Population Status of Narwhal and Beluga in the North Atlantic can be held in spring 2001.	The Scientific Committee Working Group on the Population Status of Narwhal and Beluga in the North Atlantic met jointly with the Scientific Working Group of the Joint Commission on the Conservation and Management of Narwhal and Beluga (JCNB) to deal with these requests. The Scientific Committee used their report to provide catch options for West Greenland Beluga and research recommendations for West Greenland beluga and narwhal. (SC/9)
4.17	NAMMCO/10	The Management Committee <u>recommended</u> that the Scientific Committee complete an assessment of narwhal in West Greenland when the necessary data are available. Specifically, the Scientific Committee is requested to evaluate the extent of movements of narwhal between Canada and Greenland.	See 4.16. The Scientific Committee used evidence from genetic and contaminant analysis, satellite tagging and hunter knowledge to evaluate the extent of movement between Greenland and Canada. (SC/9).
4.18	NAMMCO/11	The Management Committee recommended that the Scientific Committee should concentrate its assessment efforts on the West Greenland narwhal in the near term.	Response pending.
<i>Harbour porpoises:</i>			
4.18	NAMMCO/7	The Council noted that the harbour porpoise is common to all NAMMCO member countries, and that the extent of current research activities and expertise in member countries and elsewhere across the North Atlantic would provide an excellent basis for undertaking a comprehensive assessment of the species throughout its range. The Council therefore requested the Scientific Committee to perform such an assessment, which might include distribution and abundance, stock identity, biological parameters, ecological interaction, pollutants,	The Scientific Committee decided that the matter could best be dealt with by convening an international workshop/symposium on harbour porpoises, which would involve experts working on this species throughout its North Atlantic range. The agenda would include the following themes: distribution, abundance and stock identity; biological parameters; ecological interactions; pollutants; removals and sustainability of removals. (SC/6)

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		removals and sustainability of removals.	The Scientific Committee utilised the report of the Symposium to develop its own assessment advice to the Council. Recent abundance estimates are available for only a few places in the North Atlantic. Directed harvesting occurs in some areas, but most removals are through bycatch. In some areas, present removals are not sustainable. The Scientific Committee developed research recommendations to address some of the information needs for management of this species. (SC/8)
<i>Atlantic walrus:</i>			
4.19	NAMMCO/2	To advise on stock identity for management purposes; to assess abundance in each stock area; to assess long-term effects on stocks by present removals in each stock area; to assess effects of recent environmental changes (i.e. disturbance, pollution) and changes in the food supply.	The assessment was postponed pending report of Walrus International Technical and Scientific Committee (WITS). (SC/2) It was decided in late 1994 to request Erik Born of the Greenland Fisheries Research Institute in Copenhagen to coordinate the compilation of a status report on the Atlantic walrus in time for the Scientific Committee meeting. The result of this collaboration was the report, E.W. Born, I. Gjertz and R.R. Reeves, "Population assessment of Atlantic walrus (<i>Odobenus rosmarus rosmarus</i>)" This report was used by the Scientific Committee as the basis of its management and research recommendations to Council. (SC/3)
<i>Harp and hooded seals:</i>			
4.20	NAMMCO/2	<ul style="list-style-type: none"> - to assess the stock size, distribution and pup production of harp seals in the Barents Sea and White Sea, and of harp and hooded seals in the Greenland Sea and the Northwest Atlantic; - to assess sustainable yields at present stock sizes and in the long term under varying options of age composition in the catch; - to provide advice on catch options in the White Sea/Barents Sea/Greenland Sea and NAFO areas; - to assess effects of recent environmental changes or changes in the food supply and possible interaction with other living marine resources in the areas. 	These requests forwarded to Joint ICES/NAFO Working Group on Harp and Hooded Seals. A partial assessment was completed, but more work was required. (SC/2) The Scientific Committee considered the report of the Joint ICES/NAFO Working Group on Harp and Hooded Seals which had met in Dartmouth, Canada, 5-9 June 1995. The Scientific Committee endorsed the recommendations in the report and identified further research needs. However the required assessments had not yet been completed. (SC/4).

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			<p>The Scientific Committee considered the report of the Joint ICES/NAFO Working Group on Harp and Hooded Seals which had met in Copenhagen in 1997. The Scientific Committee used this report as the basis for its advice to Council, while noting that catch options had not been completed for Greenland Sea harp and hooded seals, and White Sea and Barents Sea harp seals. (SC/6)</p> <p>The Joint ICES/NAFO Working Group on Harp and Hooded Seals met in 1998 to complete the assessments for Greenland Sea harp and hooded seals, and White Sea and Barents Sea harp seals. The Scientific Committee used their report as the basis of its advice to Council, and noted that the required assessments had now been completed. Assessment of the effects of recent environmental changes or changes in the food supply and possible interaction with other living marine resources in the areas is ongoing. (SC/7)</p>
4.21	NAMMCO/8	The Scientific Committee is requested to co-ordinate joint feeding studies of harp and hooded seals in the Nordic Seas (Iceland, Greenland and Norwegian Seas) and off West Greenland.	The Scientific Committee noted that preparations to coordinate such studies between member countries were already under way, outside of the NAMMCO Scientific Committee. The Scientific Committee therefore emphasized its support for such joint studies and urged member countries to participate. (SC/7)
4.22	NAMMCO/11	The Management Committee recommended that the Scientific Committee regularly update the stock status of North Atlantic harp and hooded seal stocks as new information becomes available.	Ongoing as new information becomes available.
Ringed seals:			
4.22	NAMMCO/5	To advise on stock identity of ringed seals (<i>Phoca hispida</i>) for management purposes and to assess abundance in each stock area, long-term effects on stocks by present removals in each stock area, effects of recent environmental changes (i.e. disturbance, pollution) and changes in the food supply, and interactions with other marine living resources.	<p>The Scientific Committee established a Working Group on Ringed Seals. The Scientific Committee considered the report of the Working Group and provided advice to Council. They also provided recommendations for future research. (SC/5)</p> <p>Papers considered by the Working Group as well as other papers were published in the first volume of NAMMCO Scientific Publications, <i>Ringed Seals in the North Atlantic</i>.</p>
4.23	NAMMCO/7	The Scientific Committee was requested to advise on what scientific	It was noted that the exploitation level of ringed seals in Greenland has

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		studies need to be completed to evaluate the effects of changed levels of removals of ringed seals in West and East Greenland.	shown considerable variability over decades in this century. The Scientific Committee chose to focus on scenarios where exploitation is raised by more than twice the level reported in recent years. The Scientific Committee then identified the main gaps in knowledge, and recommended research required to address them. (SC/6)
Grey seals:			
4.24	NAMMCO/5	To review and assess abundance and stock levels of grey seals (<i>Halichoerus grypus</i>) in the North Atlantic, with an emphasis on their role in the marine ecosystem in general, and their significance as a source of nematodal infestations in fish in particular.	The Scientific Committee established a Working Group on Grey Seals. The Scientific Committee considered the report of the Working Group and provided advice to Council, including recommendations for further research. (SC/4)
4.25	NAMMCO/11	The Management Committee noted that there has been a decline in the numbers of grey seals around Iceland, possibly due to harvesting at rates that are not sustainable. The Scientific Committee had previously provided advice in response to a request to review and assess abundance and stock levels of grey seals in the North Atlantic, with an emphasis on their role in the marine ecosystem in general, and their significance as a source of nematodal infestations in fish in particular (NAMMCO 1995). Given the apparent stock decline in Iceland, an apparent increase in Southwest Norway and in the United Kingdom, and the fact that this species interact with fisheries in three NAMMCO member countries, the Management Committee recommended that the Scientific Committee provide a new assessment of grey seal stocks throughout the North Atlantic.	Response pending. The Working Group on Grey Seals will meet in April 2003.
Dolphin species (<i>Tursiops</i> and <i>Lagenorhynchus</i> spp.):			
4.25	NAMMCO/7	The Council recommended that NAMMCO member countries study the ecological interaction between dolphin species (e.g., <i>Lagenorhynchus</i> spp.) and fisheries, with the view to future assessments of such interactions.	Not addressed due to insufficient information.
4.26	NAMMCO/8	Noting that ecological interactions between dolphin species of the <i>Lagenorhynchus</i> genus and fisheries have caused concern in	The Scientific Committee noted that the IWC Scientific Committee had dealt with these species in 1996. Generally, it was considered that

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		<p>NAMMCO countries, the Scientific Committee is requested to perform an assessment of distribution, stock identity, abundance and ecological interactions of white-beaked and white-sided dolphins in the North Atlantic area.</p>	<p>there is insufficient information on stock structure, abundance and feeding ecology to carry out a meaningful assessment of these species at this time. Some new information on abundance may become available from the NASS-95 survey, but these data have not yet been analyzed. The Scientific Committee agreed to begin compiling available information on these species in member countries, with the objective of identifying knowledge gaps and creating a basis for assessment in the longer term. (SC/7)</p>
4.27	NAMMCO/9	<p>At its Eighth Meeting in 1998, the Council agreed to the recommendation of the Management Committee to request the Scientific Committee to perform an assessment of distribution, stock identity, abundance and ecological interactions of white-beaked and white-sided dolphins in the North Atlantic area.</p> <p>The Management Committee noted the conclusion of the Scientific Committee that there is insufficient information on stock structure, abundance and feeding ecology to carry out a meaningful assessment of these species at this time.</p> <p>The Management Committee further noted that, in addition to the focus of the Management Committee's former request for advice on these species in relation to their ecological interactions with fisheries, these dolphin species are harvested in significant numbers in the Faroe Islands.</p> <p>The Management Committee therefore agreed to recommend that the Scientific Committee be requested to facilitate the requested assessment of these species, with an emphasis on the following:</p> <ul style="list-style-type: none"> - to analyse results from NASS 95 and other sightings surveys as a basis for establishing abundance estimates for the stocks; - to coordinate the efforts of member countries to conduct research to fill the noted information gaps, taking advantage in particular of the sampling opportunities provided by the Faroese catch, as well as dedicated samples in other areas. 	<p>The Scientific Committee noted that the NASS surveys were optimised for species other than dolphins, and that in some cases, it was not possible to identify dolphins to species. In these cases, mapping of sightings may be the only analysis warranted. Further analyses may be feasible from the Faroese and Icelandic survey areas, and the Scientific Committee made preparations to begin these analyses. (SC/8)</p> <p>These species are harvested sporadically in drive hunts in the Faroe Islands, and there is some bycatch in Iceland. They are rarely taken in Norway or Greenland. Scientific papers on feeding ecology and life history in Icelandic waters are expected to be published soon. The Scientific Committee recommended that a sampling program be initiated in the Faroe Islands for white-sided, white-beaked and bottlenose dolphins, primarily to collect information on feeding ecology, life history and stock delineation. They also recommended that sampling should continue in Iceland and Norway on an opportunistic basis. (SC/8)</p>

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4.28	NAMMCO/9	<p>The Management Committee noted that bottlenosed dolphins, like white-sided and white-beaked dolphins, are also harvested in the coastal drive fishery in the Faroe Islands.</p> <p>The Management Committee agreed to recommend that, in connection with the updated request for advice from the Scientific Committee on white-sided and white-beaked dolphins, that bottlenosed dolphins also be included in this assessment</p>	See 4.25.
4.29	NAMMCO/10	The Management Committee noted that the requested assessments for these species could not at present be completed because of a lack of information on stock identity, distribution, abundance and biology. The Management Committee therefore <u>recommended</u> that the Scientific Committee monitors developments in this area and continues its assessments, as new data become available.	To be completed as new information becomes available.
<i>Fin whale:</i>			
4.30	NAMMCO/8	<p>The Scientific Committee is requested to undertake an assessment of the status of fin whales in the North Atlantic based on all available data. (This request was later elaborated as follows: “Acknowledging the large amount of work involved in such a comprehensive assessment of all possible fin whale stocks in the North Atlantic, the Council requests the Scientific Committee, when conducting such comprehensive assessment, particularly to</p> <ol style="list-style-type: none"> i. assess the stock structure of fin whales in the whole North Atlantic. ii. assess the long-term effects of annual removal of 50, 100 and 200 fin whales in the stock area traditionally assumed to have a main concentration off East Greenland and Iceland (EGI stock area), iii. identify MSY exploitation levels for that stock area.”) 	The Scientific Committee established a Working Group on Fin Whales to deal with this request. The Working Group met in April 1999. Their report dealt with the stock structure of fin whales throughout the North Atlantic, and with assessment of the EGI stock. The Scientific Committee used the report of the Working Group to formulate advice and research recommendations to NAMMCO Council. Detailed assessment of other fin whale stocks was not carried out, but will be if further requests from Council are forthcoming.
4.31	NAMMCO/9	The Management Committee noted that the Scientific Committee has completed its assessment of the stock structure of fin whales in North Atlantic, and that more research on stock structure is required before firm conclusions can be drawn. The Management Committee	The Scientific Committee reactivated the Working Group on North Atlantic Fin Whales and used their report as the basis for their advice to the Council. The results of the assessments indicated that fin whales in the area have likely been substantially depleted by past harvests, but

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		<p>therefore recommended that member countries initiate the research required to elucidate the stock structure of fin whales.</p> <p>The Management Committee recommended that the Scientific Committee continue its assessment of fin whale stocks in the North Atlantic, focussing in the near term on the status of fin whales in Faroese territorial waters. The Scientific Committee should focus particularly on the following issues:</p> <ul style="list-style-type: none"> i. Assess the long-term effects of annual removals of 5, 10 and 20 fin whales in Faroese waters; ii. Information gaps that may need to be filled in order to complete a full assessment in this area. 	<p>there was great uncertainty in the results. The Scientific Committee noted that in attempting to respond to the Council's request for advice on the long-term effect of various catch levels in the Faroese area, it had immediately become apparent that there is insufficient information on stock identity to carry out a reliable assessment of the status of fin whales in Faroese waters, and thus provide reliable advice on the effects of various catches. The Scientific Committee therefore recommended a research program primarily geared to understanding the stock relationships of fin whales around the Faroes.</p>
4.32	NAMMCO/10	<p>The Management Committee noted that the requested assessment (4.31) had not been fully completed and awaited in particular the provision of more information on stock delineation. The Management Committee therefore <u>recommended</u> that the Scientific Committee continue its assessment, as new data become available.</p>	<p>To be addressed as new information becomes available.</p>
4.33	NAMMCO/11	<p>The Management Committee clarified its previous request for advice on fin whales, asking that the Scientific Committee continue with its assessments of fin whale stocks in the areas of interest to NAMMCO countries with existing and new information on abundance and stock delineation as it becomes available.</p>	<p>Response ongoing as information becomes available. The Working Group on Fin Whales will meet in September 2003.</p>
<i>Humpback whale:</i>			
4.34	NAMMCO/11	<p>The Management Committee noted the conclusions of the Scientific Committee that there was evidence of a rapidly increasing abundance of humpback whales around Iceland, and recommended that the Scientific Committee complete abundance estimates for this species as a high priority. The Scientific Committee should also consider the results of the "Years of the North Atlantic Humpback" (YoNAH) project as it pertains to member countries in providing advice for this species.</p>	<p>Response pending. Abundance estimates will be finalised in 2003. Information from the YoNAH project, pertaining to stock delineation, migration, biological parameters, and abundance both North Atlantic-wide and in feeding areas has been published. The Scientific Committee has noted previously (SC/9) that abundance estimates from the NASS-95 survey appear to conflict with the results of the YoNAH project, and comparison with the estimates from NASS-2001 should be of great interest. (SC/10)</p>

Code	Meeting	Request	Response of the Scientific Committee (SC)
5. OTHER			
5.1	NAMMCO/8	<p>Greenland noted the need for greater input from hunters and users in the work of the Scientific Committee. While noting the need for scientists to be able to conduct their work on their own scientific terms in the context of their Committee meetings, it was suggested that scientists and users of marine mammal resources which are the subject of examination by the Scientific Committee could, for example, meet prior to meetings of the Scientific Committee in order to exchange information relevant to the work planned by the Scientific Committee. With these ideas in mind, Greenland recommended that concrete steps should be taken to provide for a more active dialogue between scientists and resource users. This recommendation was endorsed by Council.</p>	<p>The Scientific Committee agreed to a proposal put forward by the Secretariat, to use the “Status of Marine Mammals in the North Atlantic” stock status reports as a means of incorporating the knowledge of marine mammal users. This proposal was presented to NAMMCO Council for approval. (SC/7)</p> <p>The Scientific Committee Working Group on the Population Status of Narwhal and Beluga in the North Atlantic met jointly with the Scientific Working Group of the Joint Commission on the Conservation and Management of Narwhal and Beluga (JCNB) in May 2001. Prior to the main meeting, the Joint Working Group met with hunters from Greenland and Canada, and Canadian hunters participated throughout the meeting. (SC/9)</p>
5.3	NAMMCO/9	<p>With respect to the language used in the Report of the Scientific Committee, Greenland suggested that it must be kept precise and simple. The Management Committee agreed to convey this as a suggestion to the Scientific Committee.</p>	<p>No response.</p>

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NORTH ATLANTIC MARINE MAMMAL COMMISSION

Twelfth Meeting of the Council
4 - 6 March 2003, Leangkollen, Asker, Norway

NAMMCO/12/MC/5

**Management Committee Working Group on
Bycatch**

Teleconference 17 February 2003

MANAGEMENT COMMITTEE WORKING GROUP ON BYCATCH

Teleconference 17 February 2003

DRAFT REPORT

Chairman Kim Mathiasen welcomed the participants to the meeting (Appendix 1).

1. Adoption of agenda

The draft agenda (Appendix 2) was adopted without change.

2. Appointment of rapporteur

Daniel Pike, Scientific Secretary of NAMMCO, was appointed as rapporteur for the meeting.

3. Information regarding ongoing monitoring and management of marine mammal bycatches outside the NAMMCO Area**3.1 *European Union Initiative***

Last year the Working Group recommended that Norway continue to report on the "European Initiative" in bycatch monitoring and reduction to NAMMCO through this Working Group. Bjørge informed the Working Group that a Nordic Coordination meeting will be held in advance of the ASCOBANS meeting in April, at which time progress in bycatch monitoring and reduction within the European Union will be discussed. Until that meeting takes place, little new information will be available. Bjørge agreed to send a written report to the Working Group immediately after the Nordic Coordination meeting, sometime in March 2003.

4. Review progress in monitoring and management of marine mammal bycatches within the NAMMCO Area**4.1 *Progress in monitoring marine mammal bycatches by NAMMCO Member Countries***

Mathiasen reported that **Greenland** had taken no new initiatives with regard to bycatch in 2002. There is a system of mandatory reporting of marine mammal bycatch through logbooks kept by all fishing vessel operators. National inspectors observe on larger vessels operating offshore. In addition a Wildlife Officer must be informed of any incident involving the entanglement of a marine mammal in fishing gear. In 2001 no bycatch was reported through the logbooks, and it is not known if this represents an absence of bycatch or a lack of reporting. The incidents of humpback whale entanglement (see 5.2) were reported to a Wildlife Officer.

Bjørge reported that the reporting of marine mammal bycatch through fishery logbooks was now mandatory in **Norway**. However, the logbook information is also being supplemented through other measures. Independent fishery observers are used on a sub-sample of the offshore fishing fleet, and their observations will be scaled up to estimate total bycatch in the respective fisheries. Further, a "reference fleet" is being established, which will be a sub-sample of vessels from which very detailed effort and bycatch data will be collected. Methods for collecting bycatch data from small coastal vessels (Sjark) are still under development. It is expected that the new system will begin to return useable data within the next few months. The emphasis is now directed towards the entire Norwegian fishing fleet, and not only focused on the fisheries of anticipated bycatches of marine mammals. The reason for this is that documentation of "clean fisheries" is anticipated to be prerequisite for "environmental labelling" of fish products.

Mikkelsen noted that there had been no recent changes in the bycatch reporting system for the **Faroe Islands**. Reporting of marine mammal bycatch in fishery logbooks is mandatory for mid- to large size vessels. At present there is no reporting system for small coastal vessels. Faroese observers are present on international exploratory fisheries (*e.g.* for tuna) and report any bycatch that occurs. Mikkelsen was unsure about the status of bycatch reporting on foreign vessels fishing in Faroese waters, and agreed to look into this matter for the Working Group.

Olafsdóttir noted that the reporting of marine mammal bycatch has been mandatory in **Iceland** for some years, but a systematic effort on reporting and compiling marine mammal by-catch was first initiated in the beginning of 2002. All fishermen using gill nets were sent a letter from the Directorate of Fisheries explaining the procedure of reporting the bycatch through fishery logbooks. Fisheries inspectors from the Directorate of Fisheries have furthermore explained the procedure during regular visits to the boats.

Preliminary results from 2002 indicate that about 5% of the vessels participating in the gillnet fishery returned reports in which bycatch information was recorded, and in these reports bycatch was recorded in about 8% of the nets that were set. However a small proportion of these vessels accounted for most of the reported bycatch. Eight species of marine mammals were caught, of which harbour porpoises and harbour seals were the most common species. The relatively low proportion of vessels that returned records indicates that the real bycatch may be much higher than that recorded. Even those that did report bycatch seemed to do so sporadically and furthermore, records from certain areas were completely missing.

From the beginning of 2003 the entire fishing fleet will receive instructions of reporting marine mammal by-catch with each fishery logbook the boats will receive from The Directorate of Fisheries, including all large vessels as well as the gill net boats. No further plans have been made to improving the progress of monitoring marine mammal by-catch in Iceland.

4.2 Evaluation of procedures developed and implemented by NAMMCO Member Countries

In 2002 the Working Group considered that procedures for the monitoring of bycatch in NAMMCO member countries had not yet reached a stage of implementation where an evaluation could be conducted. The Working Group concluded that this was still the case, and that at least another year would be required before the systems in Norway and perhaps Iceland were at a stage where a useful evaluation could be conducted. However it was recommended that such an evaluation should be conducted at the earliest possible opportunity.

5. Reporting of bycatch to NAMMCO

5.1 Use of National Progress Reports to report bycatch.

In 2002 the Working Group recommended that the format of the National Progress reports should be changed such that the reports discriminated between no bycatch, and an apparent lack of bycatch because of inadequate monitoring. It was also recommended that the Reports should include a brief explanation of how bycatch information was collected, including the methodology used (*e.g.* log book, observers, questionnaires), the fisheries covered and the extent of the coverage by fishery, and should be adequate for a future evaluation of bycatch monitoring procedures by the Scientific Committee and/or this Working Group.

Pike reported that the format had been modified, mainly through the addition of a narrative introduction to the bycatch section, in which the monitoring programs would be fully described. Member countries had been instructed to use the new format for the preparation of National Progress Reports for 2001. The Working Group reviewed the new format and found it acceptable.

5.2 Reporting in 2001

Pike reviewed the bycatch information in the National Progress Reports for 2001. Norway did not use the revised format and hence did not report bycatch. The Faroe Islands used the revised format and reported a bycatch of 1 bottlenose whale. Greenland reported a bycatch of 2 humpback whales in the year 2000. However the report was incomplete and no details about monitoring methodology and coverage, fishery or gear type were given. Iceland reported that no systematic reporting of bycaught marine mammals took place in 2001, but that information would be available for 2002 (see 4.1).

In the discussion the Working Group noted the continued lack of adequate reporting by some member countries and reiterated its recommendation from 2002 for member countries to report their bycatch to NAMMCO through the new National Progress Report format.

6. Other items

Mathiasen reported that there had been an increase in the number of large cetaceans entangled in fishing gear in West Greenland in recent years. In some cases these animals are still alive when found and are killed by the fishermen. He noted that this might be a matter of concern to NAMMCO, both in terms of total allowable catch and the methods by which these animals are killed.

The Working Group noted that similar incidents may occur with small cetaceans and pinnipeds in other areas as well as Greenland. The Working Group agreed to bring this matter to the attention of the Management Committee, particularly with regard to the killing methods employed in large whale entanglements.

7. Recommendations

- i. The Working Group, noting that the reporting of bycatch to NAMMCO was still not adequate, reiterated its recommendation from 2002, that NAMMCO member countries report their bycatch to NAMMCO through the new National Progress Report format.
- ii. As soon as one member country has a functioning bycatch monitoring system in place, the Working Group should meet to conduct a full evaluation of the system and make recommendations on bycatch monitoring to all member countries. The evaluation should focus on the practical and logistical aspects of the reporting system. It was anticipated that this could be done within the next 12 to 24 months.

8. Further meetings?

The Working Group considered that annual teleconferences should be adequate until the evaluation mentioned under 7.ii. can be conducted.

9. Adoption of report

The report was adopted by correspondence on 25 February, 2003.

Appendix 1 - **LIST OF PARTICIPANTS**

Mr Kim Mathiasen (Chairman, Greenland)
Dr Arne Bjørge (Norway)
Mr Elling Lorentsen (Norway)
Mr Bjarni Mikkelsen (Faroe Islands)
Mr Jens Dam (Faroe Islands)
Ms Droplaug Ólafsdóttir (Iceland)
Mr Daniel Pike (NAMMCO)

Appendix 2 – **AGENDA**

1. Adoption of Agenda
2. Appointment of Rapporteur
3. Information regarding ongoing monitoring and management of marine mammal bycatches outside the NAMMCO Area
 - 3.1 European Union Initiative
4. Review progress in monitoring and management of marine mammal bycatches within the NAMMCO Area
 - 4.1 Progress in monitoring marine mammal bycatches by NAMMCO Member Countries
 - 4.2 Evaluation of procedures developed and implemented by NAMMCO Member Countries
5. Reporting of bycatch to NAMMCO
 - 5.3 Use of National Progress Reports to report bycatch.
 - 5.4 Reporting in 2001.
6. Other items
7. Recommendations
8. Further meetings
9. Adoption of report.



NORTH ATLANTIC MARINE MAMMAL COMMISSION

Meeting of the Management Committee
5 March 2003, Leangkollen, Asker, Norway

NAMMCO/12/MC/6
REPORT OF THE MEETING OF THE MANAGEMENT COMMITTEE ON
INSPECTION AND OBSERVATION
Copenhagen, Denmark, 31 January 2003

The Management Committee on Inspection and Observation met in the Office of the Faroe Islands Government in Copenhagen, 31 January from 09:00 - 1300. Present were Egil Ole Øen, chair, (Norway), Jústines Olsen (Faroe Islands), Kristjan Loftsson (Iceland), Amalie Jessen and Kim Mathiasen (Greenland), Grete Hovelsrud-Broda and Charlotte Winsnes from the Secretariat.

1. Election of Chair

Egil Ole Øen was elected as chair of the Committee.

2. Adoption of the Agenda

The agenda was adopted with the following amendment: Item 4. Terms of Reference

3. Appointment of Rapporteur

Charlotte Winsnes was appointed as rapporteur.

4. Terms of Reference

This was the first meeting of the Committee since it was formally constituted at the Management Committee meeting in Ilulissat in February 2002.

Terms of Reference for the Committee:

- *The working group shall function as a standing review body to monitor the implementation of the Observation Scheme and provide recommendations for improvements.*
- *The working group shall upon request from the Secretariat provide advice on the Observation Scheme.*
- *The Working Group shall report annually to the Management Committee*

The Terms of Reference is open for future adjustments and additions.

The Committee reviewed the terms of reference and agreed on the following understanding:

The Committee is free to discuss and make recommendations for improvements /alterations to the Inspection and Observation Scheme whenever it sees a need for this. If more background information is needed in a given case, it is the responsibility of the Committee to ask the Secretariat to provide all necessary information.

The Committee will function as an advisory body for the Secretariat. If the Secretariat seeks the advice of the Committee it is the responsibility of the Secretariat to provide all necessary background information.

The Committee will not intervene in the daily operation of the Scheme.

5. Experiences with the Inspection and Observation Scheme

The Secretariat had prepared the document NAMMCO/IO-1/2003-4, outlining its experiences with the Observation Scheme. The document was two-folded, and part one gave statistical data such as where and for which period observations have taken place, observation targets, and land of origin of the observers.

The Scheme came into force in 1998 and has been in operation for five seasons. No violation of national or hunting related regulations has occurred during these five seasons. In 2001 there was a violation of the regulations laid down by the NAMMCO Inspection and Observations Scheme when the observer was denied access to one vessel in Norway. However, the national inspector reported no infringements or violations of the Norwegian laws and regulations on the same vessel.

Except for the seasons 1998 and 2002, observations have taken place in the three member countries engaged in hunting activities (the Faroe Islands - pilot whaling, Norway - sealing and minke whaling and Greenland - sealing and whaling). In 1998 observations did not take place in the Faroe Islands, and in 2002 there was no observation of sealing in Norway.

The Committee noted that as a rule the observation period referred to should be the active observation period excluded travelling time to and from the country in question.

Part two of the document NAMMCO/IO-1/2003-4, summarised earlier recommendations made by the Working Group on Inspection and Observation in 1999, in addition to some points made by the Secretariat. Most of the recommendations have for various reasons not been followed up, but it was the general consensus that given a relatively small effort most of the problems could be solved.

- The Committee noted that the procedures governing the nomination and appointment of observers might seem somewhat time-consuming and bureaucratic. It is however very important that these procedures are followed in order to secure the legitimacy of the process. The member countries have mainly been the "weak point" here, but this seems to have changed based on the experiences so far related to the upcoming season.
- The Committee recommended that the Secretariat produce a one- page information sheet describing the Inspection and Observation Scheme and NAMMCO in general. The information must be translated into all NAMMCO languages, and will be used both by the Secretariat, the member countries and the observers. It will mainly be aimed at the local authorities and hunters but also at the general public. It seems to be a general problem that the Scheme is not as well known as was anticipated. The Committee also recommended that information on the Scheme be placed on the NAMMCO web site.
- The Committee recommended that each member country provides the Secretariat with detailed information on hunting statistics, quotas and time frames and places for the most optimum areas of observation, and names of contact persons in each region. As a routine

the Secretariat will be responsible for reminding the member countries to provide this information.

- In the future the Secretariat will send the observers' report to the country in question for comments. This condition is outlined in provision B2.4 of the Scheme, but has not been followed up by the Secretariat.
- In connection with the 2002 season, one observer reported that based on his interpretation of the Scheme as to when observation can take place, he chose not to submit a report in two cases. After having consulted the guidelines and read the observers report the Committee concluded that the guidelines are not ambiguous on this point and the observer was in a situation where observations could have taken place. In the future, as part of the preparation process, observers should be instructed to seek advice from the Secretariat if they have questions about the provisions of the Scheme or its guidelines.

The remaining points in document NAMMCO/IO-1/2003-4 were dealt with under the next agenda item.

6. The future of the Inspection and Observation Scheme

The Committee agreed that the Inspection and Observation Scheme is working according to the intentions laid down in the provisions of the Scheme. It is important to realise that the Scheme is still "young" and it is therefore too early to fully evaluate the Scheme. The Secretariat's routines for implementation are in place. The problems encountered in the past with this part of the Scheme were mainly related to member countries failing ability to meet deadlines, but this seems to be functioning now. Furthermore, when the observers are out in the field, it is the Committee's impression that the Scheme is working well. In general after having discussed the experiences under item 5., the Committee sees no serious obstacles as to upgrading the routines and making the implementation process run more smoothly.

The Committee underlined that NAMMCO in fact is the only organisation that has a well functioning international Inspection and Observation Scheme on whaling and sealing. However, in order to further strengthen the Scheme the Committee asked the Management Committee to consider the following:

- To increase the budget. In order to fully accomplish the intentions laid down in the Scheme it is necessary with a larger budget. Today the active observation periods have been maximum three weeks, but usually between 8 to 14 days. This is a comparatively short period of time. It has also been the pattern to place one observer in Greenland and the Faroe Islands each and two observers in Norway.
- in some years, to focus the observations on one activity and/or one region. This is not intended to be the rule, but to help expand the experience in a field, given the present budget level.
- to recommend the member countries to nominate more than one observer candidate. The last years there has been a tendency for some member countries to nominate only one candidate. This makes the implementation difficult and very fragile, but also decreases the possible observation periods, places and focuses. It is therefore important to increase the pool of observers, and in that connection remind member countries that it is possible to nominate candidates coming from countries outside of NAMMCO.

7. Any other business

The Chair thanked the Committee members and secretariat for their efforts and especially thanked the Faroe Islands for their kind hosting of the meeting of the Committee.

8. Adoption of the Report

The final report of the meeting was approved by correspondence on 18 February 2003.