

ARCTIC OCEAN SCIENCES BOARD

**Minutes of Third Meeting
June 12-13, 1985 (DRAFT)
National Academy of Sciences
2101 Constitution Avenue, N.W.
Washington, D.C. 20418**

Introduction

The Third Meeting of the Arctic Ocean Sciences Board was held at the National Academy of Sciences, Washington, D.C. in conjunction with a scientific session on "Remote Sensing Applications to the Greenland Sea Project". Mr. G.N. Ewing presided as Chairman for Board sessions with Dr. W.F. Weeks (USA) acting as Chairman for the remote sensing sessions. Executive sessions of the Board were held both prior to and following the scientific sessions on June 12, 1985 with a full meeting of the Board being held on June 13, 1985. Modified Agenda for the various sessions are attached as Annex 1. Highlights of the first day's remote sensing sessions are included in these minutes together with the proceedings of the executive sessions of the Board.

Remote Sensing Applications to the Greenland Sea Project

1. Participants were informed of a new U.S. federal initiative with respect to Arctic Science Policy. With the passing of legislation in July 1984 federal science agencies are being asked to bring forward their five-year science plans for work in Arctic regions. An independent Commission will hold public meetings in Arctic regions for the further development of policies for the region.
2. A series of presentations organized by Dr. W.F. Weeks highlighted the various polar orbiting satellites planned for the coming decade or so. The advantages and disadvantages of satellite sensors for different activities were discussed. Complementary activities viz., buoy programs and ship-borne experiments emphasized the desirability for extensive ground-truth studies to validate the data emerging from remote sensing experiments. A film, prepared by Danish scientists from Nimbus-7 data was shown. It exhibited in graphic form the value of remote sensing applications to ice studies.
3. NASA officials described in some detail their plans for polar oceans studies and solicited the cooperation of the oceanographic community in further advancing "the state of the art" - particularly in the conduct of expanded ground truthing experiments.
4. In its consideration of the various presentations the Board generally concluded that -
 - (a) Remote sensing studies were not only of value to Arctic studies but should be taken more fully into account in the next stage of planning of the Greenland Sea Project.
 - (b) Consideration should be given as to how far biological endeavours in Arctic regions can be met by remote sensing activities.
 - (c) It wished to indicate forcefully to NASA the importance of the Sir B reflight to the Board's plans and the value of the ground truth studies planned by the U.S. Navy in this respect.

**Executive Sessions of the Arctic Ocean Sciences Board
June 12-13, 1985**

1. Opening Remarks

The Chairman acknowledged the hospitality of the National Academy of Sciences and its willingness to host the Third Meeting of the Arctic Ocean Sciences Board in Washington, D.C. New members of the Board from Finland and Sweden were welcomed together with the observer from the United Kingdom. Encouraging responses from France and Japan in reply to requests for indication of their interest in the Board's activities were noted. The Board indicated its hope that the USSR would respond positively in the near future. Apologies for absence were received from Denmark and Iceland.

2. Adoption of Agenda

The Board adopted a modified Agenda as shown in the attached Annex 1.

3. Minutes of the Second Meeting of the Board

The Board approved the draft minutes of the Second Meeting of the Board as previously circulated.

4. Composition of the Board

- (a) At the present time the Board consists of memberships from Canada, Denmark, Federal Republic of Germany, Finland, Iceland, Norway, Sweden, and the United States of America.
- (b) At its First Meeting the Board unanimously elected Mr. G.N. Ewing (Canada) as its Chairman and Professor G. Hempel (FRG) as Vice-Chairman - both to serve for a period of two years. The Chairman indicated that he expects to change his responsibilities within the coming months and that it would be appropriate that his duties be assumed by the Vice-Chairman. It was unanimously agreed that pending the selection of a continuing Chairman some interim arrangements should be made. The Vice-Chairman agreed to act as Chairman at the Fourth Meeting and the Board agreed that all correspondence for the Chairman continue to be routed through the Office of the Assistant Deputy Minister, Ocean Science and Surveys, 200 Kent Street, Ottawa, Canada. Dr. A. Walton would continue to act as Secretary to the Board from this address.
- (c) Members were requested to supply the names of members and their alternates. This list is shown as Annex 2.
- (d) With respect to attendance at Board meetings, members are free to invite others as they deem appropriate for specific Agenda items. Board members (alternates) would continue to be responsible for their national interests and serve as the focal point for all matters relating to Board activities.
- (e) It was noted that the Netherlands had expressed an interest in the work of the Arctic Ocean Sciences Board. Professor M. Mork (Norway) agreed to contact the appropriate authorities and inform the Secretary.

5. Status of Planning of the Greenland Sea Project

Dr. J.D. Baker Jr. Co-Chairman of the Greenland Sea Project Science Planning Group presented the draft plan for the Project prepared during a two-day meeting of the Group held in Hamburg, FRG, April 29-30, 1985. The Board expressed its appreciation of the considerable efforts of the Co-Chairmen and their colleagues and offered the following comments and recommendations.

- (a) Specific experiments should be built into the Project to emphasize the relevance of data to be available from ongoing and planned remote sensing activities.
- (b) Attention should be given to expanding on the biological and biogeochemical studies to be conducted in the Project. Possible additional members of the Group to be supplied by Professors Goody and Hempel.
- (c) Studies planned under MIZEX and the Global Ocean Flux Study should be examined to determine possible linkages with the Greenland Sea Project.

The Board agreed with the Planning Group's suggestion that a Committee of Principal Scientific Investigators be established when Project Plans are finalized. It further agreed that Co-Chairmen be appointed in the persons of Dr. N. Untersteiner (USA) and Dr. J. Meincke. (FRG) - the latter subject to the outcome of discussions with the Vice-Chairman as to his availability.

The Draft Report of the Science Planning Group is to be circulated to interested scientists to obtain further comment prior to the next meeting of the Group in September 1985. A final plan is to be submitted to the Board before its next meeting in January 1986.

The role of the Coordinator (Mr. S. Peck - Canada) was discussed. Suggestion from the Science Planning Group were noted and it was agreed that one of the first important tasks of the Coordinator would be to establish the most appropriate mechanisms for the management of data arising from the Project. The advantage of having data files correspond in format to those in use in world centres for oceanographic data was stressed.

6. Arctic Ecology Program

The Vice-Chairman presented an outline document on needed ecological studies in Arctic regions. It was agreed that the paper should be expanded in scope to cover benthic studies and others beyond the present theme which was limited to planktonic studies. Professor Hempel agreed to circulate the document seeking wider input and also agreed to convene a small group just prior to the next Board meeting when the program will be considered further.

7. Related Arctic Activities

(a) Comite Arctique Meeting - Fairbanks, Alaska

Dr. E.F. Roots described briefly the work of the Comite and its meeting in Fairbanks devoted to living resource aspects in Arctic areas. The Comite Arctique is seeking to redefine its role and expects to have a report from a small task force on its perceived mandate within a few months.

(b) Arctic Ventilation Meeting - Miami, Florida

Dr. K. Aagaard reviewed the meeting and indicated that a final report was available to interested members. The group, through support from the U.S. National Science Foundation, will be

continuing its efforts seeking to define key studies required in support of the elucidation of Arctic ventilation mechanisms. No specific large scale program is envisaged from these meetings.

(c) Winter MIZEX - 1987 and 1988

Dr. D. Horn, MIZEX Project Coordinator reviewed proposed efforts in ground truthing that will be linked to the Sir B' overflight. A modest effort in 1987 will be succeeded in 1988 by an expanded operation involving several ships.

8. Relationships with Other Organizations

(i) SCOR and ICES

Since the Second meeting of the Board a formal relationship as a corresponding organization has been finalized with SCOR. It has been agreed that there will be a continuing exchange of information and projected program activities between the two organizations together with participation in each others executive sessions.

ICES has indicated its interest in Board activities although no formal relationship between the two organizations is envisaged at this time.

9. Other Business

The Board was pleased to note that Dr. Augstein (FRG alternate) has been asked to join the WCRP group devoted to Sea Ice questions (Chairman - Dr. N. Untersteiner). With these arrangements the Board will be in close touch with WCRP efforts in fields related to the Board's interests. Dr. E.L. Lewis (Canada) reviewed the developments with respect to the establishment of oceanographic studies on the most recent ice island - "Hobson's Choice". Interested participants should communicate with Dr. Lewis/Dr. Hobson; Polar Continental Shelf Project, Canada.

10. Next Meeting

At the invitation of Professor M. Mork the Board agreed to hold its next meeting in Oslo, January 14-15, 1986. Its fifth session will be held in Helsinki, June 10-11, 1986 at the invitation of Dr. A. Voipio.