ISSN-0704-4798

Northwest Atlantic Fisheries Organization (NAFO)

Annual Report 1995

Printed and Distributed by:
Northwest Atlantic Fisheries Organization
P. O. Box 638, Dartmouth, Nova Scotia
Canada B2Y 3Y9

Preface

This Annual Report for the year 1995 is submitted to the Contracting Parties of NAFO in accordance with the provisions of Article V.4 of the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries. The Report consists of four major Parts that reflect the annual activities of NAFO's constituent bodies -the General Council, the Fisheries Commission, the Scientific Council, and the Secretariat as the summary proceedings and decisions through 1995. Full reports of the General Council and Fisheries Commission meetings held during the year are published in a separate edition - "Meeting Proceedings of the General Council and Fisheries Commission for 1995", and the proceedings of the Scientific Council are published in the "Scientific Council Reports, 1995". The Annual Report includes a summary of meetings, scientific, statistical, financial and other appropriate information pertaining to the activities of the Organization and fisheries in the Regulatory Area.

L. I. Chepel
Executive Secretary

Contents

Introduction

The Northwest Atlantic Fisheries Organization (NAFO)* operates under provisions of the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries signed in Ottawa, Canada, on 24 October 1978 and entered into force on 1 January 1979. Canada is the country-depositary for the Convention.

The principal objectives of NAFO set forth by the Convention are to contribute through consultation and cooperation to the optimum utilization, rational management and conservation of the fishery resources of the Convention Area. To carry out its mission, NAFO was structured into the following four constituent bodies: the General Council, the Scientific Council, the Fisheries Commission, and the Secretariat. The first three constituent bodies meet at least once annually, while business of NAFO between meetings is coordinated through the Secretariat.

During 1995 NAFO held eight (9) meetings as follows in chronological order: (1) Fisheries Commission in February, Brussels, Belgium; (2) Standing Committee on International Control in May, NAFO Headquarters, Dartmouth, Canada; (3) Fisheries Commission (including its subsidiary body STACTIC) in June, Toronto, Canada; (4) ICES/NAFO Working Group on Harp and Hooded Seals in June, Keddy's Dartmouth Inn, Dartmouth, Canada; (5) Regular Scientific Council Meeting in June, Keddy's Dartmouth Inn, Dartmouth, Canada; (6) 17th Annual Meeting of the Organization including meetings of all constituent bodies, Holiday Inn, Dartmouth, Nova Scotia, Canada on 11-15 September 1995; (7) NAFO/ICES Symposium on Role of Marine Mammals in the Ecosystem in September, Holiday Inn, Dartmouth; (8) STACTIC Working Group Meeting on Pilot Satellite Project (9) Scientific Council Meeting, November, NAFO Headquarters, Dartmouth, Canada.

During this year, the Scientific Council considered scientific data and provided the scientific assessment and recommendations to the Contracting Parties for twenty-five (25) fish stocks (including shrimp) in the Convention Area. The scientific findings were reported to the Fisheries Commission for the purpose of the management and conservation of fish resources within the Regulatory Area. In particular, the Scientific Council advised that major groundfish stocks in the Regulatory Area are at a low level, which would require considerable managerial effort by the Fisheries Commission to restore the resources.

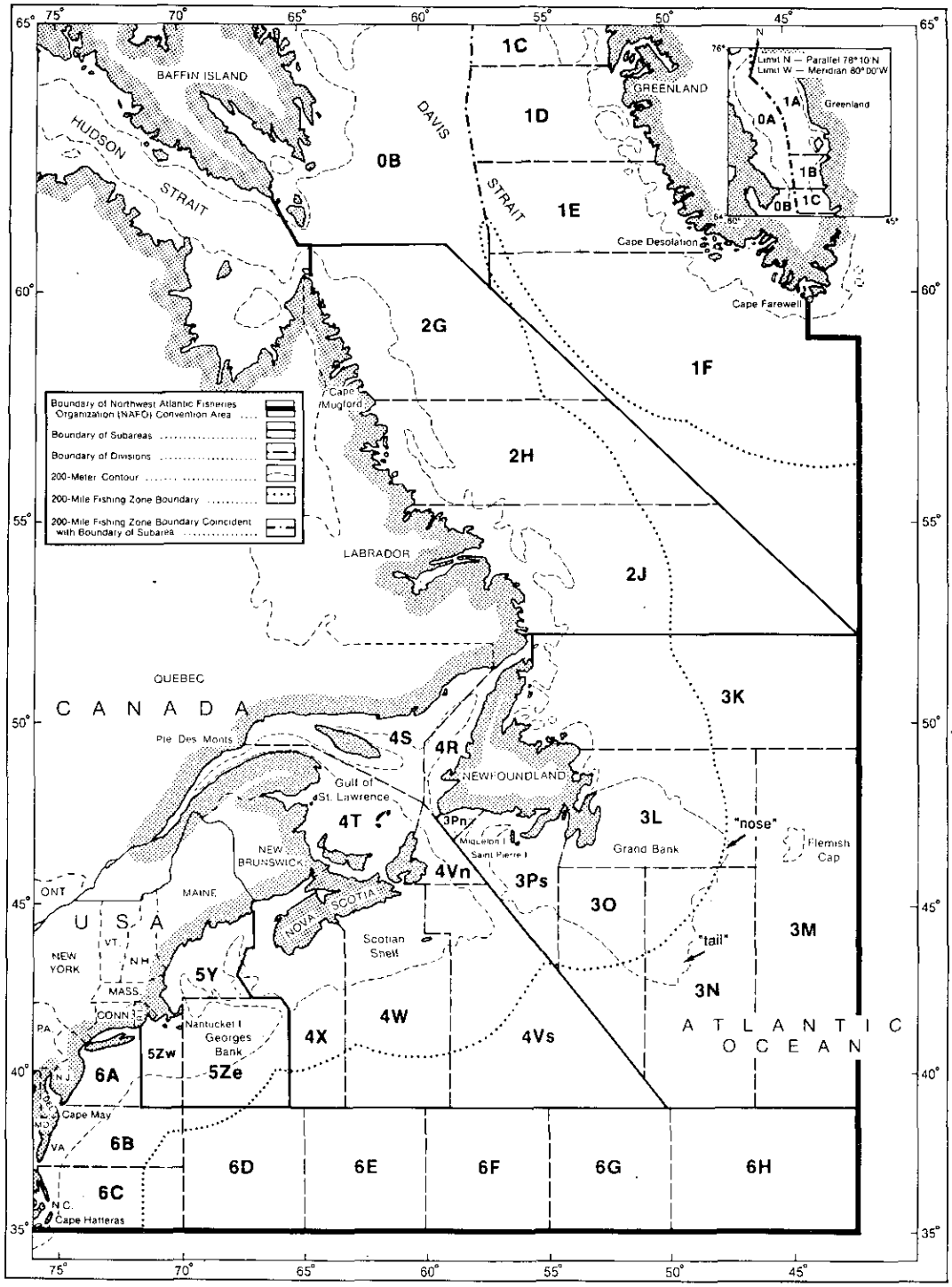
At the Annual Meeting in September, the Fisheries Commission considered the Scientific Council recommendations and agreed to maintain the ban on fishing (imposed in 1994) for six (6) fish stocks out of eleven (11) managed by NAFO: Cod in Div. 3NO, American plaice in Div. 3M and 3LNO, Yellowtail flounder in Div. 3LNO, Witch flounder in Div. 3NO and Capelin in Div. 3NO.

*Note: The predecessor of NAFO was ICNAF through the years 1950-1978 based on the International Convention for the Northwest Atlantic Fisheries.

The following major conservation measures have been agreed and introduced into the NAFO Regulations: improvements to inspection procedures and to dispositions of apparent infringements; a modification of the hail system by incorporation of catch reports and other practical features; a minimum retention size for Greenland halibut of 30 cm; fishing plans for vessels fishing Greenland halibut in the Regulatory Area; to implement during the period of 01 January 1996 to 31 December 1997 a Pilot Observer Project for 100% observer coverage of all vessels fishing in the Regulatory Area and satellite tracking devices on 35% of all vessels; to continue a moratorium on shrimp fishery in Div. 3LNO and Div. 3M fishery will be regulated by mesh size 40mm and sorting grates, as well as a system of fishing effort control.

The General Council and its Standing Committee - STACFAC pursued several outstanding issues with regard to undermining activities by non-Contracting Parties in the Regulatory Area. It was noted that the number of Non-Contracting Parties' vessels, outside of the NAFO regime, has substantially decreased, and the support of NAFO diplomatic demarches from one non-Contracting Party - the United States of America, has been very positive providing full curtailment of the USA vessels activity in the NAFO Area. The following countries (non-Contracting Parties) still fishing in the Regulatory Area - Belize, Honduras, New Zealand, Sierra Leone have been addressed through the NAFO diplomatic demarches asking them to withdraw their vessels from the NAFO Regulatory Area.

The Convention Area to which the Convention on Future Multilateral Cooperation in the Northwest Atlantic applies



Structure of the Northwest Atlantic Fisheries Organization (NAFO) in 1995 (at 17th Annual Meeting, September 1995)

Contracting Parties

Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union (EU), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, Romania, and Russia.

President

E. Lemche (Denmark in respect of the Faroe Islands and Greenland)

Constituent Bodies

General Council	Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, EU, Iceland, Japan, Korea, Latvia, Lithuania, Norway, Poland, Romania, and Russia.	*Chairman* - E. Lemche (Denmark in respect of the Faroe Islands and Greenland) *Vice-Chairman* - A. Rodin (Russia)
Scientific Council	Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, EU, Iceland, Japan, Korea, Latvia, Lithuania, Norway, Poland, Romania, and Russia.	*Chairman* - H. Lassen (EU) *Vice-Chairman* - W. R. Bowering (Canada)
Fisheries Commission	Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, EU, Iceland, Japan, Korea, Latvia, Lithuania, Norway, Poland, and Russia.	*Chairman* - H. Koster (EU) *Vice-Chairman* - P. Gullestad (Norway)

Standing Committees

General Council	Standing Committee on Finance and Administration (STACFAD)	*Chairperson* - J. Quintal-McGrath (Canada) *Vice-Chairman* - E. Penas (EU)
	Standing Committee on Fishing Activities of non-Contracting Parties in the Regulatory Area (STACFAC)	*Chairman* - C. C. Southgate (EU) *Vice-Chairman* - H. Fischer (Denmark in respect of the Faroe Islands and Greenland)

Scientific Council	Standing Committee on Fishery Science (STACFIS)	*Chairman* - W. B. Brodie (Canada)
	Standing Committee on Research Coordination (STACREC)	*Chairman* - C. A. Bishop (Canada)
	Standing Committee on Publications (STACPUB)	*Chairman* - W. R. Bowering (Canada)
	Standing Committee on Fisheries Environment (STACFEN)	Chairman - M. Stein (EU)
	Executive Committee	*Chairman* - H. Lassen (EU)
Fisheries Commission	Standing Committee on International Control (STACTIC)	*Chairman* - D. Brock (Canada)

Secretariat

Executive Secretary	L. I. Chepel
Assistant Executive Secretary	T. Amaratunga
Administrative Assistant	F. D. Keating
Senior Secretary	B. J. Cruikshank
Accounting Officer	S. M. Goodick
Desktop Publishing/Documents Clerk	F. E. Perry
Statistical Officer	G. M. Moulton
Graphic Arts/Printing Technician	R. A. Myers
Graphic Arts/Printing Technician	B. T. Crawford
Clerk-Typist	D. C. A. Auby
Statistical Clerk	B. L. Marshall
Statistical Clerk	C. L. Kerr

Headquarters Location

192 Wyse Road, Dartmouth, Nova Scotia, Canada

PART I

(pages 13-39)

Activities of the General Council in 1995

List of Meetings

The following meetings were held under the authority of the General Council in 1995:

- The General Council and it subsidiary bodies (STACFAD and STACFAC) at the 17th Annual Meeting; 11-15 September, Holiday Inn, Dartmouth, Nova Scotia, Canada.

Major Documents of the General Council in 1995

Serial No.	GC Doc. No.	Title
N2602	95/1	Administrative Report and Financial Statements for the fiscal year ending 31 December 1995 (as of 31 July 1995)
N2603	95/2	Correspondence Between NAFO Secretariat and Non-Contracting Parties
N2623	95/3	Report of the Fifth Meeting of the North Atlantic Marine Mammal Commission (NAMMCO)
N2631	95/4	Report on the Sixth and Final Session of the UN Conference on Straddling Stocks and Highly Migratory Fish Stocks
N2658	95/5	Report of the General Council, 17th Annual Meeting, 11-15 September 1995, Dartmouth, N. S., Canada

General Council Meeting

The General Council Meeting including meetings of its subsidiary bodies - Standing Committee on Finance and Administration (STACFAD) and Standing Committee on Fishing Activities of non-Contracting Parties in the Regulatory Area (STACFAC) - was held during the 17th Annual NAFO Meeting on 11-15 September 1995 at the Holiday Inn, Dartmouth, Nova Scotia, Canada. Complete proceedings of this Meeting are presented in GC Doc. 95/5 and in a separate edition of Meeting Proceedings of the General Council and Fisheries Commission for 1995.

Opening Procedures (Agenda items 1-5)

The meeting was opened by the Chairman of the General Council, E. Lemche (Denmark in respect of the Faroe Islands and Greenland) at 1020 hours on 12 September 1995.

Representatives of the following thirteen (13) Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union (EU), Iceland, Japan, Republic of Korea (Korea), Latvia, Lithuania, Norway, Poland and Russia (Annex 1), which constitutes the quorum for decision making. Two Contracting Parties, Bulgaria and Romania, were absent. The total number of registered delegates was 140 (Annex 1). The observers from the United States of America and North Atlantic Marine Mammal Commission (NAMMCO) were admitted to the Meeting.

In the opening address the Chairman welcomed the participants emphasizing on substantial issues facing NAFO as an international body and recalled his address from the first NAFO News stating that "NAFO's greatest problem as an organization (I'm not talking about the lack of fish) is the vessels from non-Members, who are not respecting the NAFO regulatory regime. NAFO's greatest challenge is to find appropriate ways and means - legal and/or economical - which will effectively reduce this undermining of NAFO". The Chairman underlined that the current NAFO Annual Meeting was destined to set a new milestone in the development of NAFO for the multilateral cooperation in international waters.

The meeting appointed the Executive Secretary as Rapporteur.

The Provisional Agenda was adopted as presented in Annex 2.

Supervision and Coordination of the Organizational, Administrative and Other Internal Affairs (Agenda items 6-11)

The Meeting noted that the membership of the General Council and the number of Contracting Parties are the same as last year - fifteen (15) members of NAFO and asked for clarification on future participation and contributions of Bulgaria and Romania in NAFO business considering that there has not been any participation of those members for a number of years (Romania - 10 years and Bulgaria - 4 years).

A proposal for amendment of the Rules of Procedure regarding a quorum was adopted as follows: Rule 2 Voting - New Rule 2.2 - "The quorum shall not include the Contracting Parties which have no right of casting votes under the provisions of Article XVI.9 of the Convention", with reservations from the European Union and Japan on a possible legal implication of this amend-

ment to the Rules of Procedure. Therefore, the Meeting adopted the proposal based on the following interpretation: "The proposal be adopted subject to those with legal reservations returning within any year with any objections they might have, and the issue will be revisited at that time. If any objection presented to this proceeding during the mail vote, this would be registered at the next Annual Meeting."

The General Council reviewed the voting procedures at NAFO and agreed that provisions of the NAFO Convention, Article V for the General Council and Article XIV for the Fisheries Commission, as well, Rule 4 of the Rules of Procedure provide legal guidelines based on which a proposal could be adopted by majority of Contracting Parties/or members of Fisheries Commission present and casting affirmative or negative votes. Consequently, the decisions taken would be legally valid as expression of the will of majority and therefore, it would not require any special modification or amendment of the Rules of Procedure.

On clarification of the use of "proxy voting" at NAFO Meetings, the General Council agreed that any proxy voting would not be consistent with Articles V and XIV of the NAFO Convention, which require that "...Contracting Parties present and casting votes...".

Under Item 11, Election of Officers, the Representative of Russia, A. Rodin, was elected Chairman and the delegate from Cuba, R. Dominguez, was elected Vice-Chairman for the term of 1996-1997.

Coordination of External Relations (Agenda items 12-13)

The meeting noted the letter (GF/95-379 of 26 June 1995) dispatched by the NAFO Secretariat to the UN Headquarters regarding the large-scale pelagic driftnet issue. The letter reaffirmed the NAFO position that large-scale pelagic driftnet fishing is not presently practiced in the NAFO Convention Area.

The meeting noted the two papers presented to the Meeting - NAFO/GC Doc. 95/3, Report by Norway at the Fifth North Atlantic Marine Mammal Commission (NAMMCO) Meeting and NAFO/GC Doc. 95/4, Report by Denmark at the UN Conference on Straddling Stocks and Highly Migratory Fish Stocks. The Representative of Norway reconfirmed its commitment to continue as NAFO Observer at NAMMCO meetings.

The meeting agreed with the Chairman's proposal to continue and extend relations with ICES through the NAFO Scientific Council.

Fishing Activity in the Regulatory Area Adverse to the Objectives of the NAFO Convention (Agenda items 14-15)

The STACFAC report was presented to the Meeting by Mr. C. C. Southgate (EU), Chairman of STACFAC including the following basic information and recommendations:

- During 1995, there has been a withdrawal of vessels registered in Panama, Caymen Islands, St. Vincent and Grenadines, Venezuela and the USA, and continued presence of vessels from Honduras, Belize and Sierra Leone in the Regulatory Area. The USA Government discourages its vessels from fishing in the Regulatory Area.

- The diplomatic contacts and demarches to NCPs dispatched at the 16th Annual Meeting have had some positive effects (demarches to: Belize, Caymen Islands, Honduras, Panama, Sierra Leone, St. Vincent and the Grenadines, USA, Venezuela).

  Therefore, this method of discouraging NCP activity should be continued in combination with other actions discussed at the meeting.

- STACFAC recommended the following measures to the General Council:

  to adopt the texts of diplomatic demarches formulated by STACFAC to Belize, Honduras, Sierra Leone and New Zealand (new entry to the NCP vessels in 1995);

  Note (from Executive Secretary):

  The demarches were signed by the President of NAFO, Mr. E. Lemche, on 15 September and delivered to the Canadian delegation, which agreed to communicate the diplomatic demarches to the NCP's.

  to call in Spring 1996 an intersessional STACFAC Meeting to discuss outstanding issues as per terms of reference attached in Annex 3;

  to establish contacts with other international organizations, probably like NASCO, which faces a similar problem of NCP activity.

The General Council adopted the STACFAC Report and recommendations agreeing on a proposal by the Representative of the EU that the place of the intersessional meeting will be in Brussels and the time of the meeting will be figured out through consultations among Contracting Parties and Chairman of STACFAC.

Finance (Agenda items 16-18)

The items 16 through 18 were referred to STACFAD for discussion in the Committee and presentation of the Report to the General Council.

The Chairperson of STACFAD, J. Quintal-McGrath (Canada) presented the Report and highlighted the following issues:

Suggestions from Denmark for New Sharing of Contributions Among Contracting Parties was considered without any decision or recommendation to the General Council;

Auditors Report transmitted to the Contracting Parties in March 1995 was recommended for formal adoption;

The activity and participation of the NAFO Secretariat in the Pension Society (Pension plan for NAFO employees) were approved by STACFAD and this was recommended for adoption by the General Council;

The estimated total cost of the Hail System reports would be $7000 in 1995, which amount is $2000 less than in 1994. This was due to less activity in the Regulatory Area and more efficient management of the Hail System. The delegates expressed their concern with costs and hoped to introduce more effective automatic computer system.

The major budgetary items of the Report were agreed as follows: the budget for 1996 to be adopted in the amount of $996,000 Cdn.; the Accumulated Surplus Account be maintained at the level of $75,000 Cdn.; the outstanding contributions owing from Romania (1995) and Bulgaria (1995) be deducted from Accumulated Surplus Account in the amount of $33,229.56 Cdn.

The General Council reviewed the STACFAD Report and adopted the recommendations as noted in this Report and the STACFAD Report was adopted as a whole.

Closing of the Meeting (Agenda items 19-22)

The General Council agreed to hold the next Annual Meeting at Dartmouth, N.S., Canada, through 9-13 September 1996, if no other invitation from the Contracting Parties are presented and accepted by the Council.

Note by Executive Secretary:

In February 1996, the Representative of the Russian Federation, A. Rodin, proposed to call the Annual Meeting for St. Petersburg, Russia. This proposal has been unanimously adopted by all Contracting Parties through the mail vote.

The Press Release was adopted by the Meeting (Annex 4).

Acknowledgement by the General Council:

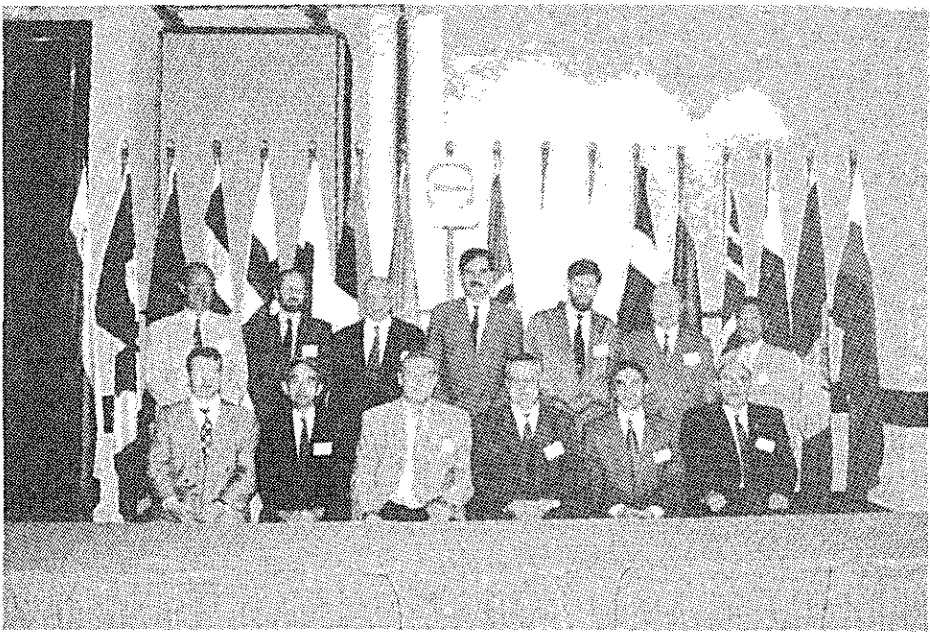
The representative of Japan, Mr. K. Yonezawa, took the floor with announcement that he realized that the member of the Canadian Delegation, Mr. B. Applebaum, the Director General of the International Directorate of DFO in Ottawa will be retiring from his position this year. Mr. Yonezawa recalled many years of distinguished participation by Mr. Applebaum in the events of ICNAF and NAFO. He praised Mr. Applebaum for his contributions and diligent work at NAFO.

The General Council acknowledged this presentation by acclamation and wished Mr. Applebaum further success in the future.

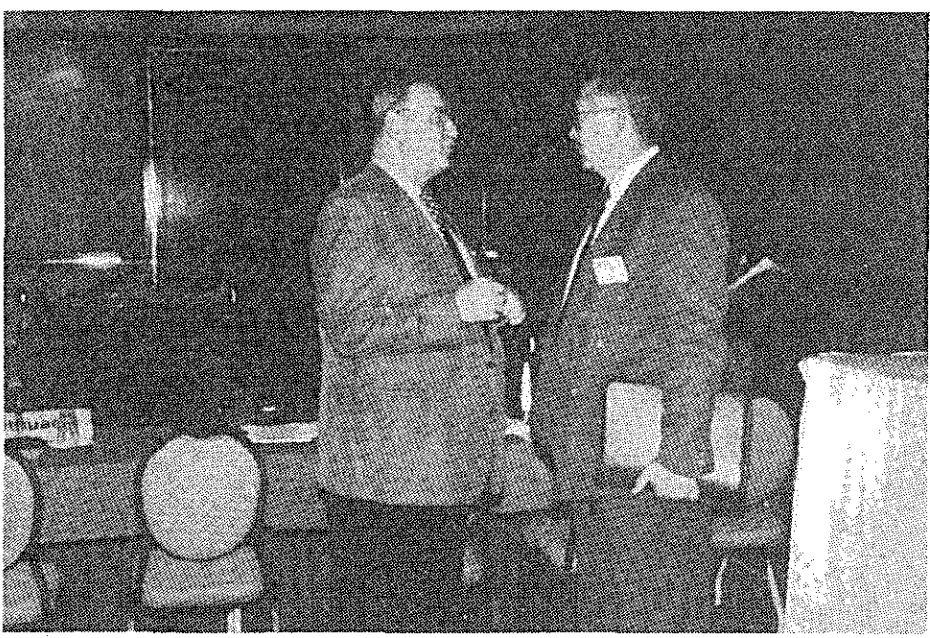
The Chairman thanked all participants, the NAFO Secretariat and organizers of the Meeting for fruitful work and adjourned the 17th Annual Meeting of NAFO at 1300 hrs on 15 September 1995.

The List of Actions and Decisions by the General Council at the 17th Annual Meeting is presented in Annex 5.

17th Annual Meeting of NAFO, September 1995



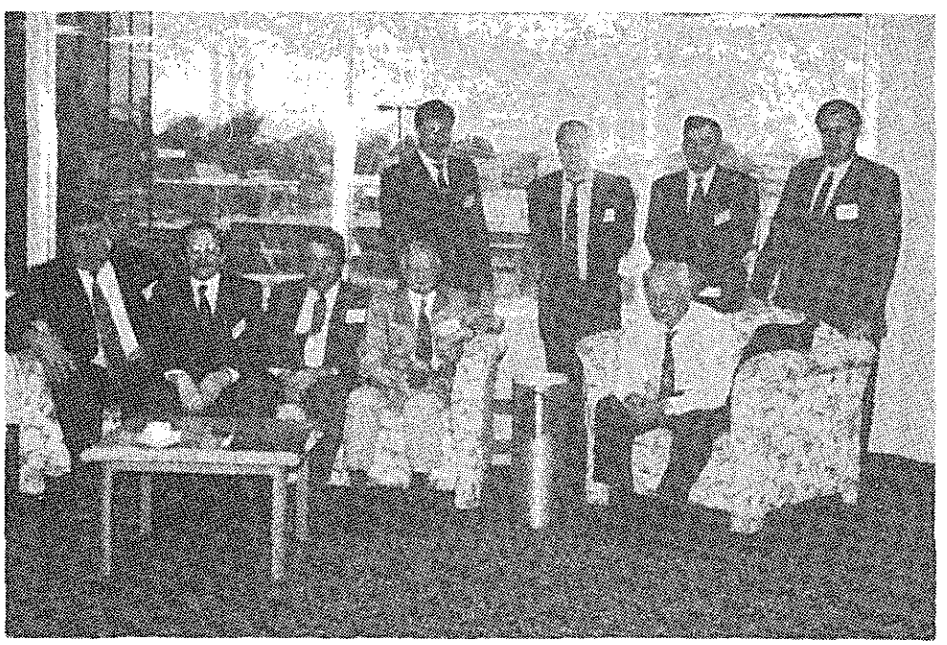
Heads of Delegations (L to R): (Front Row) A. Halldorsson (Iceland), K. Yonezawa (Japan), E. Lemche (Denmark), A. Rodin (Russia), L. Chepel-Exec. Sec., J. Benjamin (Cuba); (Back Row) O. Tougaard (EU), P. Gullestad (Norway), L. Vaarja (Estonia), W. A. Rowat (Canada), N. Riekstins (Latvia), A. Rusakevicius (Lithuania), D. B. Park (Korea)



(L to R): E. Lemche (Outgoing President) and A. Rodin (Incoming President)

17th Annual Meeting of NAFO, September 1995

(L to R): T. Harada (Japan), H. Yamada (Japan), T. Murai (Japan), K. Yokawa (Japan), M. Yoshida (Japan), D. P. Park (Korea), Y. Aoki (Japan)



Russian Delegation: (Seated L to R) Yu. Videneev, V. N. Shibanov, F. M. Troyanovsky, V. N. Solodovnik, V. P. Torokhov (Standing L to R) A. Okhanov, G. V. Goussev, V. K. Ofitserov, V. Kolesnikov

17th Annual Meeting of NAFO, September 1995

(L to R) L. Dybiec (Poland), J. Fota (Poland), A. Rusakevicius (Lithuania), M. Lacis (Latvia)

USA observers: (L to R) L. Tobey, H. S. Tinkham, K. Blankenbeker, W J. Quigley, A. Peterson

Annex 1. List of Participants

CANADA

Head of Delegation

W. A. Rowat, Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6

Representative

W. A. Rowat (see address above)

Advisers

M. Allard, Seaku Fisheries, 650-32nd Ave, 6th Floor, Lachine, Quebec H8T 3K5
C. J. Allen, Resource Management, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
J. Angel, Canadian Association of Prawn Producers, 15 Dartmouth Rd., Suite 310, Bedford, N.S. B4A 3X6
B. Applebaum, Director-General, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. B. Atkinson, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
J. S. Beckett, Fisheries Research Br., Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
D. Bevan, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
W. R. Bowering, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
W. B. Brodie, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
B. Bursey, P. O. Box 8700, St. John's, Newfoundland
A. W. Chester, Marlant HQ, FMO Halifax, Halifax, N. S. B3K 2X0
H. Copestake, Government of the Northwest Territories, 219 Argyle St., Suite 510, Ottawa, Ontario K2P 2H4
L. J. Dean, Government of Newfoundland-Labrador, P. O. Box 8700, St. John's, Newfoundland A1B 4J6
A. Donohue, Dept. of External Affairs (DFAIT/NEX), Tower A, 8th Floor, Lester B. Pearson Bldg., 125 Sussex Drive, Ottawa, Ontario K1A 0G2
S. Dutton, Intergovernmental Affairs Secretariat, Government of Newfoundland and Labrador, P. O. Box 8700, St. John's, Newfoundland A1B 4J6
V. Edgar, Office of the Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. Elie, Office of the Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. L. Gill, International Directorate, Fisheries and Oceans, 200 Kent St., Stn. 1452, Ottawa, Ontario K1A 0E6
N. Greig, P. O. Box 1058, Kuujjuaq, Quebec J0M 1C0
R. G. Halliday, Marine Fish Div., DFO, BIO, P. O. Box 1006, Dartmouth, N. S. B2Y 4A2
P. A. LaPointe, Ministry of Foreign Affairs, 125 Sussex Drive, Ottawa, Ontario K1A 0G2
C. F. MacKinnon, Marine Advisor, Nova Scotia Dept. of Fisheries, P. O. Box 2223, Halifax, N. S. B3J 3C4
E. McCurdy, c/o FFAW/CAW, P. O. Box 10, St. John's, Newfoundland A1C 5H5
P. McGuinness, Vice-President, Fisheries Council of Canada, #806-141 Laurier Ave. West, Ottawa, Ontario K1P 5J3
N. Melanson, Office of Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
E. Mundell, Mission of Canada to the European Communities, Avenue de Tervuren, 2, B-1040 Brussels, Belgium
W. M. Murphy, Mersey Sea Foods, P. O. Box 1290, Liverpool, Nova Scotia B0T 1K0
D. Parsons, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
D. Power, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
J. Quintal-McGrath, International Directorate, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. J. Rochon, Director General, Legal Affairs Bureau, Lester B. Pearson Bldg., 125 Sussex Dr., Ottawa, Ontario K1A 0G2
M. Rowe, Dept of Fisheries and Oceans, c/o Office of the Deputy Minister, 200 Kent St., 15th Floor, Ottawa, Ontario K1A 0E6
R. Sciocchetti, Fisheries and Oceans, P. O. Box 550, Halifax, N. S.
Max Short, 15 Riverside Dr., Goulds, Newfoundland
B. Sjare, Northwest Atlantiac Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
U. S. Snarby, P. O. Box 339, Liverpool, Nova Scotia B0T 1K0
R. Steinbock, International Directorate, Dept of Fisheries and Oceans, 200 Kent Street, Stn. 1452, Ottawa, Ontario K1A 0E6
G. B. Stenson, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
L. Stewart, Communications Directorate, Dept. of Fisheries & Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6

R. Stirling, SPANS, P. O. Box 991, Dartmouth, N. S. B2Y 3Z6
L. Strowbridge, Offshore Surveillance, Nfld. Region, Dept. of Fisheries and Oceans, P.O. Box 5667, St. John's, Newfoundland A1C 5X1
G. C. Vernon, 180 Iona Street, Ottawa, Ontario K1Z 7B4
W. E. Wells, P. O. Box 550, St. John's, Newfoundland A1C 5L1
B. Whelan, Dept. of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
E. Wiseman, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Stn. 1452, Ottawa, Ontario K1A 0E6

CUBA

Head of Delegation

J. M. Benjamin, Deputy Minister of Fisheries, Ministerio de la Industria Pesquera, Barlovento, Jaimanitas, Municipio Playa, Ciudad de la Havana

Representative

J. M. Benjamin (see address above)

Advisers

R. Dominguez, Cuban Fishing Fleet Representative, 1881 Brunswick St., Apt. 911, Halifax, Nova Scotia, Canada B3J 3L8
J. Lopez Piedra, Ministerio de la Industria Pesquera, Barlovento, Sta Fe, Playa, La Habana

DENMARK (in respect of Faroes and Greenland)

Head of Delegation

E. Lemche, Director, Gronlands Hjemmestyre, Pilestraede 52, Box 2151, Copenhagen, Denmark

Alternate

K. P. Mortensen, Foroya Landsstyri, P. O. Box 87, FR-110 Torshavn, Faroe Islands

Representatives

E. Lemche (see address above)
K. P. Mortensen (see address above)

Advisers

F. O. Kapel, Greenland Institute of Natural Resources, Tagensvej 135, 1 DK-2200 Kobenhavn N
S. Lage, Greenland Home Rule, Fiskeridirektoratet, Box 269, DK-3900 Nuuk, Greenland
O. Loewe, Minister Counsellor, Royal Danish Ministry of Foreign Affairs, 2, Asiatisk Plads, DK-1448 Copenhagen K, Denmark
A. Nicolaisen, Fiskorannsoknarstovan, Fish. Lab. Noatun, P. O. Box 3051, FR-110 Torshavn, Faroe Islands
P. M. Pedersen, P. O. Box 310, 3900 Nuuk, Greenland
H. Siegstad, Greenland Institute of Natural Resources, Box 570, 3900 Nuuk, Greenland

ESTONIA

Head of Delegation

L. Vaarja, General Director, National Estonian Board of Fisheries, Lai Street 39/41, EE 0100 Tallinn

Representative

L. Vaarja (see address above)

Advisers

T. Lukk, Ravala 9, Tallinn EE-0100
T. Roose, National Estonian Board of Fisheries, Lai Street 39/41, EE-0100 Tallinn
V. Ruul, Vaike-Posti 11, EE-3600 Parnu

EUROPEAN UNION (EU)

Head of Delegation

O. Tougaard, Commission of the European Union, 200 Rue de Loi, B-1049 Brussels, Belgium

Representative

O. Tougaard (see address above)

Advisers

J. Beck, Ambassador and Head of Delegation of the Commission of the EU, 330-111 Albert Street, Ottawa, Ontario K1P 1A5
J. R. Borrell, Commission of the European Union, 200, Rue de la Loi, B-1049 Brussels, Belgium
H. B. Baggendorff, Eurostat, Commission of the EU, Batiment Jean Monnet, BP 1907, L-2920 Luxembourg
H. Koster, Commission of the European Union, Rue Joseph II, 99, B-1049 Brussels, Belgium
F. Wieland, Rue de la Loi 200, B-1040 Brussels, Belgium
A. Astudillo, Commission of the European Union, DG XIV, Rue Joseph II, 99, 1049 Brussels, Belgium, Brussels
P. Curran, Directorate General for Fisheries, Commission of the European Union, Rue Joseph II, 99 B-1049 Brussels, Belgium
P. Heller, Commission of the European Union, Rue de la Loi 200, B-1049 Brussels, Belgium
D. Cross, Eurostat, Commission of the EU, Batiment Jean Monnet, BP 1907, L-2920 Luxembourg
G. F. Kingston, Senior Adviser (Economic and Commercial Affairs), Delegation of the Commission of the EU, 330-111 Albert Street, Ottawa, Ontario K1P 1A5
V. Cody, Council of the European Union, Batiment Justus Lipsius, Rue de la Loi, (90.GH.41) B-1040 Brussels, Belgium
R. Conde, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
M. I. Aragon, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
C. Dominguez, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. T. Santos, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. Consarnau, Ministerio de Asuntos Exteriores, Plaza de la Provincia, 1, Madrid, Spain
G. T. Conrad, Bundesministerium fur Ernahrung Landwirtschaft und Forsten, Rochusstr. 1, 53123 Bonn, Germany
H. P. Cornus, Institut fur Seefischerei, Palmaille 9, D-22767 Hamburg, Germany
M. Stein, Institut fur Seefischerei, Palmaille 9, D-22767 Hamburg, Germany
J. F. Gilon, Direction de Peche Maritimes, 3 Place de Fontenoy, 75007, Paris, France
D. Briand, IFREMER, B. P. 4240, 97500 St. Pierre et Miquelon, France
J. B. Nielsen, Slotsholmsgade 10, DK-1216 Copenhagen, Denmark
H. Lassen, Danish Institute for Fisheries Research, Charlottenlund Slot, DK-2920 Charlottenlund, Denmark
M. Rouine, First Secretary, Permanent Representation of Ireland to the EU, Avenue Galilee 5, 1030 Brussels, Belgium
V. Fernandes, Embassy of Portugal, 645 Island Park Drive, Ottawa, Ontario
M. H. Figueiredo, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
J. Rainha, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
C. Gomes, Direccao-Geral dos Assuntos Europeus, Rua da Cova da Moura No. 1, 1100 Lisbon, Portugal
A. Avila de Melo, Instituto Portugues de Investigacao Maritima (IPIMAR), Av. de Brasilia, Lisbon, Portugal
M. L. Godinho, Instituto Portugues de Investigacao Maritima (IPIMAR), Av. de Brasilia, Lisbon, Portugal
P. Franca, S. P. Miradouro, Av. Pedro Alvares Cabral, 3830 Ilhavo, Portugal
A. Paiao, Apartado 12, Gafanha da Nazare, 3830 Ilhavo, Portugal
J. R. Fuertes Gamundi, 'ANAVAR, 'ANAMER, 'AGARBA', Puerto Pesquero, Vigo, Spain
R. Gordejuela, ANAVAR, Puerto Pesquero, Vigo, Spain

A. Hermida, Direccion Xeral de Pesca e Industrias Pesqueiras, Xunta de Galicia, C/Sar-N. 75, Santiago, A Coruna, Spain
M. Iriondo, Avda. Ategorrieta, 11, San Sebastian, Spain
J. M. Liria, ANAMER, Puerto Pesquero, Vigo, Spain
J. L. Meseguer, Asociacion de Empresas de Pesca de Bacalao, Especies Afinesy Asociadas (ARBAC), Enrique Larreta 10, Madrid, Spain
F. J. Rodriguez, Cno. Jolastokieta 5, 20.017 Herrera-San Sebastian, Spain
E. deCardenas, Instituto Espanol de Oceanografia, Aptdo 240, Santander, Spain
L. Motos, AZTI, Instituto para la Ciencia y Tecnologia Pesquera, Av. Satrustegi 8, 20008 San Sebastian, Spain
A. Vazquez, Instituto de Investigaciones Marinas, Muelle de Bouzas, 36208 Vigo, Spain
C. C. Southgate, Room 428, Nobel House, Ministry of Agriculture, Fisheries and Food, Smith Square, London SW1P 3HX
J. Casey, Fisheries Laboratory, Pakefield Rd., Lowestoft, Suffolk NR33 OHT, United Kingdom

ICELAND

Head of Delegation

A. Halldorsson, Ministry of Fisheries, Skulagata 4, 150 Reykjavik

Representative

A. Halldorsson (see address above)

Adviser

J. Sigurjonsson, Marine Research Institute, Skulagara 4, P. O. Box 1390, 121-Reykjavik

JAPAN

Head of Delegation

K. Yonezawa, c/o Fishery Division, Economic Affairs Bureau, Ministry of Foreign Affairs, 2-2-1 Kasumigaseki, Chiyoda-ku, Tokyo

Representative

K. Yonezawa (see address above)

Advisers

Y. Aoki, Embassy of Japan, 255 Sussex Drive, Ottawa, Ontario, Canada K1N 9E6
T. Harada, Far Seas Fisheries Div., Oceanic Fisheries Dept., Fisheries Agency Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
O. Hiroko, Fisheries Agency of Japan, Kasumigaseki 1-2-1, Chiyoda-ku, Tokyo
Y. Kashio, Japan Fisheries Association, Suite 1408, Duke Tower, 5251 Duke Street, Halifax, Nova Scotia, Canada B3J 1P6
A. Mae, International Affairs Div., Fisheries Agency, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
T. Murai, Deputy Director, Development Dept., Japan Marine Fishery Resources Research Center, Godo Kaikan Bldg. 3-27 Kioi-Cho, Chiyoda-ku, Tokyo 102
H. Ohmori, International Affairs Div., Fisheries Agency, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
H. Yamada, Resources Management Div., Seikai National Fisheries Research Institute, 49 Kokubu-Machi, Nagasaki 850
K. Yokawa, National Research Institute of Far Seas Fisheries, 5-7-1 Orido, Shimizu 424
M. Yoshida, Executive Managing Director, Japan Deep Sea Trawlers Association, 601 Ogawamachi Yasuda Bldg., 3-6 Kanda, Ogawa-Cho, Chiyoda-ku, Tokyo

REPUBLIC OF KOREA

Head of Delegation

D. B. Park, Fisheries Attache, Embassy of the Republic of Korea, 2450 Massachusetts Ave. N.W., Washington, D.C. 20008 USA

Representative

D. B. Park (see address above)

LATVIA

Head of Delegation

N. Riekstins, Director, Ministry of Agriculture of the Republic of Latvia, National Board of Fisheries, 63, Kr. Valdemara Str, Riga, LV-1142

Representative

N. Riekstins (see address above)

Advisers

M. Lacis, Embassy of Latvia, 112 Kent Street, Tower B, Suite 208, Ottawa, Ontario K1P 5P2
A. Ugainis, Joint Stock Company "Brivais Vilnis", Pernavas Street, Salacgriva, Riga, LV-4033
A. Ukis, Fisheries Consulting Company, 63 Kr. Valdemara str., Riga, LV-1142

LITHUANIA

Head of Delegation

A. Rusakevicius, Deputy Minister, Director of Fisheries Dept. Ministry of Agriculture, 9, Juozapavichiaus str., Vilnius 2600

Representative

A. Rusakevicius (see address above)

NORWAY

Head of Delegation

P. Gullestad, Directorate of Fisheries, P. O. Box 185, 5002 Bergen

Representative

P. Gullestad (see address above)

Advisers

T. Konow, Directorate of Fisheries, P. O. Box 185, 5002 Bergen
A. Maraak, Fiskebatredernes Forbund, P. O. Box 94, 6001 Aalesund

POLAND

Head of Delegation

J. Fota, Consul, Polish Trade Commissioner's Office, 3501 Avenue du Musee, Montreal, Quebec, Canada H3G 2C8

Representative

J. Fota (see address above)

Adviser

L. Dybiec, Ministry of Transport and Maritime Economy, Sea Fishery Dept. Chałubinskeigo Str. 4/6, 00-958 Warsaw

RUSSIA

Head of Delegation

A. Rodin, First Deputy Chairman, Fisheries Committee of the Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031

Representative

A. Rodin (see address above)

Advisers

G. V. Goussev, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
V. Kolesnikov, Kaliningrad Regional Administration, Dm Donskoy Str. 1, Kaliningrad 236007
V. K. Ofitserov, Dm. Donskoy Str. 5, 23600 Kaliningrad
A. Okhanov, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
V. N. Shibanov, PINRO, 6 Knopovich St., Murmansk 183763
T. Shmelkin, Dm. Donskoy Str. 5, 23600 Kaliningrad
V. N. Solodovnik, Embassy of the Russian Federation, 1609 Decatur St. N.W., Washington, D.C. 20011
V. P. Torokhov, Sevryba Co., Murmansk, 183000
F. M. Troyanovsky, Director, Knipovich Polar Research Institute of Marine Fisheries and Oceanography (PINRO), 6 Knipovich St. 183763, Murmansk
Y. Videneev, Representative of the Russian Federation in Canada on Fisheries, 2074 Robie St., Halifax, Nova Scotia, Canada B3K 5L3

OBSERVERS

UNITED STATES OF AMERICA

K. Blankenbeker, National Marine Fisheries Service/NOAA, 1315 East-West Highway, Silver Spring, MD 20910
H. Foster, U.S. Embassy, 100 Wellington St., Ottawa, Ontario K1P 5T1
A. Peterson, National Marine Fisheries Service, Box 166, Woods Hole, MA 02534
H. S. Tinkham, Office of Marine Conservation, OES/OMC Room 7820, U.S. Department of State, Washington, D.C. 20520-7818
W. J. Quigley, Coast Guard Liaison, Dept. of State, Office of Marine Conservation, 2201 C. St., NW, Room 7820, Washington, D.C. 20520
F. Serchuk, NMFS, Northeast Fisheries Science Center, 166 Water St., Woods Hole, MA 02543-1097
L. Tobey, U.S. Consulate General, Cogswell Tower #910, Scotia Square, Halifax, N.S., Canada B3J 3K1

SECRETARIAT

Dr. L. I. Chepel, Executive Secretary
T. Amaratunga, Assistant Executive Secretary
F. D. Keating, Administrative Assistant
B. J. Cruikshank, Senior Secretary
S. Goodick, Accounting Officer
F. E. Perry, Desktop Publishing/Documents Clerk
D. C. A. Auby, Clerk-Typist
G. Moulton, Statistical Officer
R. A. Myers, Graphic Arts/Printing Technician
B. T. Crawford, Graphic Arts/Printing Technician
B. L. Marshall, Statistical Clerk

Annex 2. Agenda

I. Opening Procedure

1. Opening by Chairman, E. Lemche (Denmark in respect of the Faroe Islands and Greenland)

2. Appointment of Rapporteur

3. Adoption of Agenda

4. Admission of Observers

5. Publicity

II. Supervision and Coordination of the Organizational, Administrative and Other Internal Affairs

6. Review of Membership

   a) General Council
   b) Fisheries Commission

7. Administrative Report

8. Interpretation of the Provisions for "Quorum" in the NAFO Convention and Rules of Procedure

9. Modification of the Rules of Procedure:

   a) "Dead"lines for voting
   b) Waiving of the Rules of Procedure
   c) Presentation of Proposals for discussion

10. Clarification of the use of "proxy voting" at NAFO meetings

11. Election of Officers: Chairman and Vice-Chairman

III. Coordination of External Relations

12. Communication with the United Nations re large-scale pelagic driftnet fishing

13. NAFO Observership at other International Bodies

    a) NAFO Observer at NAMMCO
    b) NAFO Observer at the UN Conference on Straddling and Highly Migratory Fish Stocks

IV. Fishing Activities in the Regulatory Area Adverse to the Objectives of the NAFO Convention

14. Consideration of Non-Contracting Parties activities in the NAFO Regulatory Area and agreement on the task of STACFAC at the current meeting

15. Report of STACFAC at the Annual Meeting and decisions on actions

V. Finance

16. New Sharing of Contributions Among Contracting Parties

17. Report of STACFAD at the Annual Meeting

18. Adoption of the Budget for 1996

VI. Closing Procedure

19. Time and Place of Next Annual Meeting

20. Other Business

21. Press Release

22. Adjournment

Annex 3. Terms of Reference for STACFAC Intersessional Meeting, Spring 1996

a) To consider measures to discourage non-Contracting Party vessels from fishing activities which undermine NAFO's conservation and management measures for the Regulatory Area;

b) In particular to draw up a scheme to prevent landings of fish caught in the Regulatory Area by identified non-Contracting Party vessels;

Such prohibited landings should include species regulated by NAFO but could also include other species caught in contravention of NAFO conservation measures;

c) To consider the implications of a NAFO system of denial of port facilities to fishing vessels from Non-Contracting Parties which fail to cooperate.

d) Other issues.

Annex 4. Press Release

1. The Seventeenth Annual Meeting of the Northwest Atlantic Fisheries Organization (NAFO) was held in Dartmouth, Nova Scotia, Canada through 11-15 September 1995, under the chairmanship of E. Lemche, Denmark (in respect of the Faroe Islands and Greenland), President of NAFO. All sessions of the NAFO bodies - General Council, Fisheries Commission, Scientific Council convened at the Holiday Inn.

2. There were 140 participants from thirteen (13) Contracting Parties - Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union (EU), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, and Russian Federation (Russia). Observers were admitted from the United States of America, the North Atlantic Marine Mammal Commission, and the International Council for the Exploration of the Sea (ICES).

3. The following NAFO meetings have been organized through the year discussing major substantial issues in preparation for the Annual Meeting: Special Scientific Council Meeting (NAFO Headquarters, November 1994); Special Fisheries Commission Meeting (Brussels, February 1995); STACTIC Meeting (NAFO Headquarters, May 1995); Special Fisheries Commission (Toronto, Canada, June 1995); Regular Scientific Council Meeting (Keddy's Inn, Dartmouth, Canada, June 1995); Symposium "The Role of Marine Mammals in the Ecosystem" (Holiday Inn, Dartmouth, Canada, September 1995).

   The Marine Mammal Symposium gathered a prominent audience of leading scientists from around the world and best industry experts in this field. The results of discussions and its publication by NAFO will undoubtedly greatly enrich the knowledge about marine mammals and their interaction with fisheries.

4. The Scientific Council, under the chairmanship of H. Lassen (European Union), reviewed and assessed the state of stocks in the NAFO Convention Area. The scientific advice for the management and conservation of fishery resources in the NAFO Convention Area was reported to the Fisheries Commission. In summary, the Scientific Council recommended: there has been a continual decline in the mean estimates of biomass of cod stock in the Labrador-Newfoundland Area Divisions (Div.) 2J+3KL. Therefore, the scientific advice has been to continue the fishing moratorium to let stock rebuild; similar advice was recommended on cod stock in Div. 3NO.

   Due to the uncertain status of the redfish stock in Div. 3L and 3N, the advice was that catches should not be higher than in previous years. The Flemish Cap redfish stock (3M) was prognosed as increased probably due to the reduced fishing mortality in the previous years. All stocks of flatfishes (American plaice, witch flounder, and yellowtail flounder) were forecast at very low levels: no directed fishery should be allowed for those stocks in 1996.

5. The Fisheries Commission, under the chairmanship of H. Koster (European Union), considered the Scientific Council recommendations and took decisions on a number of substantial issues intended to improve the conservation and management of the fishery resources in the Regulatory Area.

The Fisheries Commission unanimously agreed to the advice by the Scientific Council to maintain the ban on fisheries for depleted stocks of Cod in Div. 3NO and 3L in the Regulatory Area, American Plaice in Div. 3M and 3LNO, Yellowtail in Div. 3LNO, Witch in Div. 3NO and Capelin in Div. 3NO. (Quota Table is attached) With regards to Greenland halibut, it was decided to set the TAC for 3LMNO at 20,000 tons consistent with the scientific advice.

The following major conservation measures have been agreed and introduced into the NAFO Regulations:

- improvements to inspection procedures and to dispositions of apparent infringements;
- a modification of the hail system by incorporation of catch reports and other practical features;
- a minimum retention size for Greenland halibut of 30 cm;
- fishing plans for vessels fishing Greenland halibut in the Regulatory Area;
- to implement during the period of 01 January 1996 to 31 December 1997 a Pilot Observer Project for 100% observer coverage of all vessels fishing in the Regulatory Area and satellite tracking devices on 35% of all vessels.

The Fisheries Commission agreed to continue a moratorium on shrimp fishery in Div. 3LNO. The shrimp fishery in Div. 3M will be regulated by mesh size 40mm and sorting grates, as well as a system of fishing effort control.

6. The General Council discussed several outstanding issues with regard to undermining activities by non-Contracting Parties in the Regulatory Area and adopted the recommendations of the Standing Committee on Fishing Activities of Non-Contracting Parties in the Regulatory Area (STACFAC, Chairman C. C. Southgate, EU).

On this issue, it was noted with satisfaction that the number of Non-Contracting Parties' vessels, outside of the NAFO regime, has substantially decreased. However, non-Contracting Parties fishing activity continues to threaten stocks in the Regulatory Area.

The support of NAFO diplomatic demarches from one non-Contracting Party - the United States of America, was very strong and resolute indicating full curtailment of the USA vessels activity in the NAFO Area and unequivocal support of the NAFO objectives.

The vessels of the following countries still fishing in the Regulatory Area - Belize, Honduras, New Zealand, Sierra Leone have been addressed through the NAFO diplomatic demarches asking them to withdraw their vessels from the NAFO Regulatory Area.

The General Council strongly emphasized that any such fishing activity would be contrary to the letter and spirit of the recent draft United Nations Agreement on straddling stocks and highly migratory stocks and the objectives of NAFO.

7. Major elections took place for the constituent and subsidiary bodies of NAFO for the next term of two (2) years, 1996-1997:

President of the Organization and Chairman of the General Council	- A. V. Rodin (Russian Federation)
Vice-Chairman of the General Council	- R. Dominguez (Cuba)
Chairman of the Fisheries Commission	- H. Koster (EU)
Vice-Chairman of the Fisheries Commission	- P. Gullestad (Norway)
Chairman of the Scientific Council	- W. R. Bowering (Canada)
Vice-Chairman of the Scientific Council	- H. P. Cornus (EU)
Chairman of the Standing Committee on Research Coordination (STACREC)	- D. Power (Canada)
Chairman of the Standing Committee on Finance and Administration (STACFAD)	- J. Quintal-McGrath (Canada)
Vice-Chairman of STACFAD	- (EU)
Chairman of the Standing Committee on International Control (STACTIC)	- D. Bevan (Canada)

8. Decisions taken at this NAFO Annual Meeting signify a new era of enhanced cooperation to conserve and manage the fish stocks of the Northwest Atlantic.

General Council
NAFO
Canada
15 September 1995

NAFO Secretariat
Dartmouth, N.S.,

QUOTA TABLE. Total allowable catches (TACs) and quotas (metric tons) for 1996 of particular stocks in Subareas 3 and 4 of the NAFO Convention Area. The values listed include quantities to be taken both inside and outside the 200-mile fishing zone, where applicable.

	Cod		Redfish		Amercian plaice		Yellowtail	Witch	Capelin	Greenland halibut	Squid (*Illex*)[2,3]
Contracting Party	Div. 3M	Div. 3NO*	Div. 3M	Div. 3LN	Div. 3M*	Div. 3LNO*	Div. 3LNO*	Div. 3NO*	Div. 3NO*	Div. 3LMNO	Subareas 3+4
1. Bulgaria	-	-	390	-	-	-	-	-	-	-	500
2. Canada	85	0	650	4 686	0	0	0	0	0	3 000	N.S.[4]
3. Cuba	407	-	2 275	1 078	-	-	-	-	0	-	2 250
4. Denmark (Faroe Islands and Greenland)	2461	-	-	-	-	-	-	-	-	-	-
5. European Union	5485	0	4 030	374	0	0	0	-	0	11 070	N.S.[4]
6. Iceland	-	-	-	-	-	-	-	-	-	-	-
7. Japan	-	-	520	-	-	-	-	-	0	2 050	2 250
8. Korea	-	-	-	-	-	-	-	-	-	-	2 000
9. Norway	1 018	-	-	-	-	-	-	-	0	-	-
10. Poland	424	-	-	-	-	-	-	-	0	-	1 000
11. Estonia 12. Latvia 13. Lithuania	1 078[1]	0	18 005[1]	4 796[1]	0	-	-	0	0	-	5 000[1]
14. Russia										2 550	
15. Others	42	0	130	66	0	0	0	0	-	1 330[6]	3 000
Total Allowable Catch	11 000	*	26 000	11 000	*	*	*	*	*	20 000	150,000[5]

[1] Quotas to be fished by vessels from Estonia, Latvia, Lithuania and the Russian Federation. The provisions of Part I, Section A.3 of the NAFO Conservation and Enforcement Measures shall apply.

[2] The opening date for the Squid (*Illex*) fishery is 1 July.

[3] Any quota listed for squid may be increased by a transfer from any "coastal state" as defined in Article 1, paragraph 3 of the NAFO Convention, provided that the TAC for squid is not exceeded. Transfers made to Contracting Parties conducting fisheries for squid in the Regulatory Area shall be reported to the Executive Secretary, and the report shall be made as promptly as possible.

[4] Not specified because the allocation to these Contracting Parties are as yet undetermined, although their sum shall not exceed the difference between the total of allocations to other Contracting Parties and the TAC.

[5] The TAC would remain at 150 000 tonnes subject to adjustment where warranted by scientific advice.

[6] Of which no more than 40% (532 t) may be fished before 1 May 1996 and no more than 80% (1064 t) may be fished before 1 October 1996.

* No directed fishing - The provisions of Part I, Section A.4b) of NAFO Conservation and Enforcement Measures shall apply.

Annex 5. List of Decisions and Actions by the General Council (17th Annual Meeting; 11-15 September 1995)

Substantive issue (propositions/motions)	Decision/Action (GC Doc. 95/5; item)
1. Participation in NAFO by two Contracting Parties - Bulgaria & Romania	The President of NAFO will contact the authorities of those countries. The Depositary, Canada, will communicate to the countries; item 2.1.
2. Membership of the Fisheries Commission	All Contracting Parties, except Bulgaria and Romania; item 2.2.
3. Participation in the Second World Fisheries Congress in Brisbane, Australia, in 1996	NAFO will be represented by one of the Contracting Parties participating in the Congress; item 2.3.
4. Rules of Procedure, New Rule 2.2	Adopted: "The quorum shall not include the Contracting Parties which have no right of casting votes under the provisions of Article XVI.9 of the Convention"; item 2.4.
5. Clarification of the use of "proxy voting" at NAFO Meetings	Agreed on the interpretation by Canada; item 2.6.
6. Representation of NAFO in other International bodies	
- NAMMCO by Norway	Agreed; item 3.2.
- ICES by the NAFO Scientific Council	Agreed; item 3.3.
7. Report of STACFAC at the Meeting:	Adopted; item 4.3.
- New diplomatic demarches to Belize, Honduras, Sierra Leone, New Zealand	Agreed - signed by the President; item 4.2c).
- Intersessional Meeting of STACFAC, in Brussels, in spring 1996	Agreed.
8. Report of STACFAD at the Meeting:	Adopted; item 5.
- Auditors Report	Adopted
- Accumulated Surplus Account	$75,000 Cdn.
- Bulgaria's and Romania's uncollectible debt for 1995	$33,229.56 Cdn to write-off
9. Budget for 1996	$996,000 Cdn.; item 5.2e)

Substantive issue (propositions/motions)	Decision/Action (GC Doc. 95/5; item)
10. Election of officers:	
- Chairman and President of NAFO	A. V. Rodin (Russia)
- Vice-Chairman	R. Dominguez (Cuba); item 2.7.
11. Meeting dates in 1996-1998	Agreed; item 5.2f)

PART II

(pages 41-119)

Activities of the Fisheries Commission in 1995

List of Meetings

The following meetings were held under the authority of the Fisheries Commission:

- Fisheries Commission (Special Meeting); 30 January - 01 February, Brussels, Belgium.
- STACTIC (Special Meeting); 10-12 May, NAFO Headquarters, Dartmouth, N.S., Canada.
- Fisheries Commission (Special Meeting); 7-9 June, Holiday Inn-on-King, Toronto, Canada.
- Fisheries Commission and STACTIC Meetings at the 17th Annual Meeting; 11-15 September, Holiday Inn, Dartmouth, N.S., Canada.
- STACTIC Working Group on Pilot Satellite Project; 24-26 October, EU Commission Building, Brussels, Belgium.

Major Documents of the Fisheries Commission in 1995

Serial No.	FC Doc. No.	Title
N2494	95/1	Proposed Allocations re Greenland Halibut in SA 2+3
N2495	95/2	Report of the Fisheries Commission, Special Meeting, 30 January-01 February 1995, Brussels, Belgium
N2512	95/3 (+Corr.)	Report of the Special Meeting of the Standing Committee on International Control (STACTIC), 10-12 May 1995, Dartmouth, N.S., Canada
N2573	95/4	Fisheries Commission's Request for Scientific Advice
N2566	95/5	Resolution (re Greenland halibut)
N2567	95/6 (Rev.)	Fisheries Commission's Request for STACTIC Advice - Terms of Reference
N2600	95/7(+Corr.)	Report of the Fisheries Commission, Special Meeting, 7-9 June 1995, Toronto, Canada
N2601	95/8	Summary of Proposals and Resolutions of NAFO (as of July 1995)
N2633	95/9	Minimum Fish Size
N2634	95/10	Processed Length Equivalents
N2635	95/11	Transmission of Information From Inspections
N2636	95/12	Inspections
N2637	95/13 (Rev.)	Reporting of Catch on Board Fishing Vessels Entering and Exiting the Regulatory Area
N2638	95/14	Mesh Size
N2639	95/15	Port Inspections
N2640	95/16	Follow-up on Apparent Infringements

N2641	95/17	Pilot Project for Observers and Satellite Tracking
N2642	95/18	Effort Plans and Catch Reporting
N2643	95/19	Infringements
N2644	95/20 (Rev.)	Decision of the Fisheries Commission on Items Referred to the Annual Meeting from the Special Fisheries Commission Meeting in June 1995
N2645	95/21 (Rev.)	Management of Shrimp Fishery
N2656	95/22	Fisheries Commission's Request for Scientific Advice on Management in 1997 of Certain Stocks in Subareas 3 and 4
N2657	95/23	Report of the Fisheries Commission, 17th Annual Meeting, 11-15 September 1995, Dartmouth, N.S., Canada
N2660	95/24	Report of the STACTIC Working Group Meeting on Pilot Satellite Project, 24-26 October 1995, Brussels, Belgium
N2661	95/25	Summary of Inspection Information for 1994

Fisheries Commission Special Meeting

A Special Meeting of the Fisheries Commission was held at the Albert Borschette Conference Centre, Brussels, Belgium during 30 January - 01 February 1995 (FC Doc. 95/2).

Opening Procedures (Agenda items 1-5)

The meeting was called to order by the Chairman, H. Koster (EU), on 30 January 1995 at 0915 hours. Representatives of the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, the European Union (EU), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland and the Russian Federation. (Annex 1)

Mr. R. Steinbock (Canada) was appointed Rapporteur.

The provisional agenda was adopted as circulated to the Contracting Parties in advance of the Meeting. (Annex 2)

Allocation of quotas (metric tons) for 1995 of Greenland halibut in Subareas 2+3 of the NAFO Convention Area to Contracting Parties (Agenda item 6)

The Meeting discussed in great detail the issue of Greenland halibut allocation for 1995. There were many different opinions exchanged at the negotiation table. As the final result, three (3) proposals were presented to the meeting.

The Representative of Canada suggested for discussion purposes a proposal with the following results: Canada - 16 800 tons or 62.22%, the EU - 3 400 tons or 12.59%, Russia - 3 200 tons, Japan - 2 600 tons or 9.63% and others - 1 000 tons or 3.70%.

The Representative of the EU proposed a vote for the allocation key in FC Working Paper 95/11 which provides the following distribution: Canada - 13.2%, the EU - 69%, Japan - 7.3%, Norway - 2.4%, Denmark - 1.3%, and others - 6.8%.

The Representative of Cuba submitted a proposal for an allocation key for the following distribution: Canada - 16 300 tons or 60.37%, the EU - 3 400 tons or 12.59%, Russia - 3 200 tons or 11.85%, Japan 2 600 tons or 9.63%, Others - 1 500 tons or 5.56%.

The Representative of Canada stated that they withdraw the Canadian proposal in favour of the latest Cuban one and proposed to vote for the proposal.

The Meeting agreed to vote for the most recent proposal. The allocation key as presented by the Cuban Representative was adopted. The vote was carried by six Parties in favour (Canada, Cuba, Iceland, Japan, Norway, Russia). Two Parties abstained (Denmark on behalf of the Faroe Islands and the Republic of Korea), and five Parties opposed (Estonia, the EU, Latvia, Lithuania and Poland).

The Meeting agreed that in the Greenland halibut fishery the provisions of Part I.A.3 of the Conservation and Enforcement Measures will apply, which require 48-hour reporting intervals of the catches.

Allocation of Quotas to Estonia, Latvia, Lithuania and Russia of the Quotas Fished by Vessels from these Contracting Parties
(Agenda item 7)

The Representatives of interested Contracting Parties exchanged their ideas and thoughts on this item.

The Representative of Denmark (on behalf of the Faroe Islands) noted that NAFO has tried to resolve the matter with concrete proposals on the table however the efforts were stopped due to lack of interest. He could not envisage progress unless the four Parties resolve this among themselves.

The Chairman noted that the block quota could continue on the condition that it is respected. However with a possible competitive fishery for the stocks under block quota, he forecasted possible problems. He invited all NAFO Parties to discuss ways leading to an allocation key for these stocks and encouraged further discussion by the four Parties concerned.

Closing Procedures (Agenda items 8-10)

The next Fisheries Commission meeting would be during the Annual NAFO Meeting, September 11-15, 1995 in Dartmouth, Nova Scotia.

No other matters were considered under Other Business.

The Special Meeting was adjourned at 1910 hrs on 1 February 1995.

Annex 1. List of Participants

CANADA

Head of Delegation

W. A. Rowat, Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6

Representative

W. A. Rowat (see address above)

Advisers

M. Allard, c/o Makiuik Corp., 650-32nd Avenue, 6th Floor, LaChine, Quebec H8T 3K5
C. J. Allen, Resource Allocation Br., Fisheries Operations, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
B. Applebaum, Director-General, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Ottawa, Ontario K1A 0E6
J. W. Baird, Resource Allocation & Licensing, Dept of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
J. S. Beckett, Director, Fisheries Research Br., Dept of Fisheries and Oceans, 200 Kent St., 12th Floor, Ottawa, Ontario K1A 0E6
W. R. Bowering, Science Div., Dept. of Fisheries and Oceans, Box 5667, St. John's, Newfoundland A1C 5X1
B. Chapman, Fisheries Association of Nfld. and Labrador, P. O. Box 8900, St. John's, Newfoundland, A1B 3R9
D. Elie, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. Gelinas, International Directorate, Dept of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. L. Gill, International Directorate, Dept of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. Glass, Dept of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
N. Greig, Unaaq Fisheries, 431 Gilmour Street, Ottawa, Ontario
C. F. MacKinnon, Marine Advisor, Groundfish and Seaplants, Nova Scotia Dept. of Fisheries, P. O. Box 2223, Halifax, N. S. B3J 3C4
E. McCurdy, c/o FFAW/CAW, P. O. Box 10, St. John's, Newfoundland A1C 5H5
E. Mandell, Mission of Canada to the European Communities, Avenue de Tervuren, 2, B-1040 Brussels, Belgium
W. M. Murphy, Mersey Sea Foods, P. O. Box 1290, Liverpool, Nova Scotia B0T 1K0
M. Rowe, Dept. of Fisheries and Oceans, 200 Kent St., 15th Floor, Ottawa, Ontario K1A 0E6
J. Roy, Ambassador, Mission of Canada to the European Communities, Avenue de Tervuren, 2, B-1040 Brussels, Belgium
M. Short, 15 Riverside Drive, Goulds, St. John's, Newfoundland
U. Snarby, M. V. Osprey Ltd., 10 Waterloos St., Liverpool, Nova Scotia B0T 1K0
R. Steinbock, International Directorate, Dept of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
K. Sullivan, Seafreez Foods Inc., 3 Dublin Rd., St. John's, Newfoundland A1B 2E5
F. Way, Government of Newfoundland & Labrador, Confederation Bldg., Box 8700, St. John's, Newfoundland A1B 4J6
E. Wiseman, Director, International Fisheries, Atlantic, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E2

CUBA

Head of Delegation

R. Dominguez, Cuban Fishing Fleet Representative, 1881 Brunswick St., Apt. 911, Halifax, Nova Scotia, Canada

Representative

R. Dominguez (see address above)

DENMARK (in respect of the Faroe Islands and Greenland)

Head of Delegation

K. Hoydal, Foroya Landsstyri, P. O. Box 87, FR-110 Torshavn, Faroe Islands

Alternate

K. P. Mortensen, Foroya Landsstyri, P. O. Box 87, FR-110 Torshavn, Faroe Islands

Representatives

K. Hoydal (see address above)
K. P. Mortensen (see address above)

Advisers

M. H. Pedersen, Ministry of Foreign Affairs, 2 Asiatisk Plads, 1448 Copenhagen, Denmark

ESTONIA

Head of Delegation

L. Vaarja, General Director, National Estonian Board of Fisheries, Lai Street 39/41, EE 0100 Tallinn

Representative

L. Vaarja (see address above)

Advisers

T. Lukk, Ravala Str. 9, EE-0100 Tallinn
T. Roose, National Estonian Board of Fisheries, Lai Street 39/41, EE 0100 Tallinn

EUROPEAN UNION (EU)

Head of Delegation

M. Arnal, Commission of the European Union, 200 Rue de Loi, B-1049 Brussels, Belgium

Alternate

O. Tougaard, Commission of the European Union, 200 Rue de Loi, B-1049 Brussels, Belgium

Representative

M. Arnal (see address above)

Advisers

H. Koster, Commission of the European Union, Rue Joseph II, 99, B-1049 Brussels, Belgium
P. A. Curran, Directorate General for Fisheries, Commission of the European Union, Rue Joseph II 99, 7/20, B-1049 Brussels, Belgium
E. Penas, Commission of the European Union, DG XIV-B.1, 200, Rue de la Loi, 1049 Brussels
P. Heller, Commission of the European Union, Rue de la Loi 200, B-1049 Brussels, Belgium

D. Dunkley, Directorate General for Fisheries, Commission of the European Union, Rue Joseph II 99, B-1049 Brussels, Belgium
H. B. Baggendorff, Eurostat, Commission of the EU, Batiment Jean Monnet, BP 1907, L-2920 Luxembourg
D. Cross, Eurostat, Commission of the EU, Batiment Jean Monnet, BP 1907, Luxembourg
G. F. Kingston, Senior Assistant (Economic and Commercial Affairs), Delegation of the Commission of the EU, 1110-350 Sparks St., Ottawa, Ontario K1R 7S8
G. Conrad, Federal Ministry of Agriculture, Rochusstr. 1, 53107 Bonn, Germany
V. Cody, Council of the European Union, Rue de la Loi 170, B-1048 Brussels
P. Frame, Council of the European Union, Rue de la Loi 170, B-1048 Brussels
B. Buch, Repr. Permanente du Danemark, Rue D'Arlon 73, 1040 Brussels, Belgium
J. F. Gilon, Ministere de l'Agriculture et de la Peche, Direction de Peche Maritimes, 3 Place Fontenoy, 75007 Paris, France
N. Filippousis, Permanent Representationof Greece in the EU, Av. de Cortenberg 71, 1040 Brussels, Belgium
A. McDaid, Permanent Representation of Ireland, Ave de Galilee 5 (Ste 22), Brussels 1030, Belgium
R. Conde, Director General of Fisheries, Jose Ortega y Gasset 57, Madrid-18006, Spain
I. Minguez Tudela, Permanent Representation of Spain to the EU, Brussels, Belgium
M. I. Aragon, Jefe de Seccion, Jose Ortega y Gasset 57, Madrid-28006, Spain
J. Herrero, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. R. Fuertes Gamundi, "ANAMER" y "ANAVAR", Puerto Pesquero S/N, Vigo, Spain
A. R. Gordejuela, "ANAVAR", Puerto Pesquera, Vigo, Spain
M. Iriondo, Avda. Ategorrieta, 11, San Sebastian, Spain
J. M. Liria, ANAMER, Puerto Pesquero S/N, Vigo, Spain
J. L. Meseguer, Asociacion de Empresas de Pesca de Bacalao, Especies Afinesy Asociadas (ARBAC), Enrique Larreta 10, Madrid 28036, Spain
E. deCardenas, Instituto Espanol de Oceanografia, P. O. Box 240, Santander, Spain
M. H. Figueiredo, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
C. C. Southgate, Room 428, Nobel House, Ministry of Agriculture, Fisheries and Food, Smith Square, London
C. Porro, UK Permanent Representation to the EU, Rond Point Robert Schumann 6, 1040 Brussels, Belgium

ICELAND

Head of Delegation

K. Skarphebinsson, Icelandic Mission to the EU, Rue Marie Therese 1, 1040 Brussels, Belgium

Representative

K. Skarphebinsson (see address above)

JAPAN

Head of Delegation

K. Yonezawa, c/o Fishery Division, Economic Affairs Bureau, Ministry of Foreign Affairs, 2-2-1 Kasumigaseki, Chiyoda-ku, Tokyo

Representative

K. Yonezawa (see address above)

Advisers

K. Hanafusa, Deputy Director, International Affairs Div., Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo
T. Harada, Far Seas Fisheries Div., Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo
K. Yokawa, Fishery Biologist, Distant-Water Groundfish Section, National Research Institute of Far Seas Fisheries, 5-7-1 Orido, Shimizu 424

M. Yoshida, Japan Deepsea Trawlers Association, 601 Yasuda Bldg., 3-6 Kanda, Ogawa-Cho, Chiyoda-ku, Tokyo
A. Karasawa, Mission of Japan to the EU, Av. des Arts 58, 1040 Brussels, Belgium

REPUBLIC OF KOREA

Head of Delegation

T. S. Lee, Korean Mission to the EU, 173 Chaussee de la Hulpe, 1170 Brussels, Belgium

Representative

T. S. Lee (see address above)

Advisers

C. J. Choi, Korean Mission to the EU, 173-175 Chaussee de la Hulpe, 1170 Brussels, Belgium
J. S. Heo, National Fisheries Administration, 19th Floor, Daewoo Bldg., 541, 5 Ga Namdaemoonro, Chung-Gu, Seoul

LATVIA

Head of Delegation

N. Riekstins, National Board of Fisheries, Ministry of Agriculture, 63, Kr. Valdemara Str., LV- 1142 Riga

Representative

N. Riekstins (see address above)

Adviser

D. Ozola, Embassy of Latvia, Sq. Nergote 1, Brussels 1200, Belgium

LITHUANIA

Head of Delegation

A. Rusakevicius, Deputy Minister-Director of Fisheries Dept, Ministry of Agriculture, 9, Juozapavichiaus str, Vilnius 2600

Representative

A. Rusakevicius (see address above)

NORWAY

Head of Delegation

S. Engesaeter, Directorate of Fisheries, P. O. Box 185, N-5002 Bergen

Representative

S. Engesaeter (see address above)

Adviser

L. Gronnevet, Norwegian Mission to the EU, Rue Archimede 17, 1040 Brussels

POLAND

Head of Delegation

J. L. Kleniewski, Director, Sea Fisheries Dept., Ministry of Transport and Maritime Economy, Chalubinski 4/6 Str., 00-928 Warsaw

Representative

J. L. Kleniewski (see address above)

Advisers

L. Dybiec, Ministry of Transport and Maritime Economy, Sea Fisheries Dept., Chalubninski 4/6 Str., 00-928 Warsaw
R. Gajerski, Polish Mission to the EU, 18 Av de l'Horizon, 1150 Brussels, Belgium

RUSSIA

Head of Delegation

V. Fedorenko, Chief, Department of International Cooperation, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031

Representative

V. Fedorenko (see address above)

Advisers

G. V. Goussev, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
E. Samoilova, Polar Research Institute of Marine Fisheries and Oceanography (PINRO), 6 Knipovich Street, Murmansk 183763
V. P. Torokhov, Sevryba Co., Murmansk, 183000
F. M. Troyanovsky, Director, Knipovich Polar Research Institute of Marine Fisheries and Oceanography (PINRO), 6 Knipovich St., Murmansk 183763

SECRETARIAT

Dr. L. I. Chepel, Executive Secretary
F. D. Keating, Administrative Assistant
B. J. Cruikshank, Senior Secretary

Annex 2. Agenda

1. Opening by the Chairman, H. Koster (EU)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Admission of Observers
5. Publicity
6. Allocation of quotas (metric tons) for 1995 of Greenland halibut in Subareas 2 + 3 of the NAFO Convention Area to Contracting Parties
7. Allocation of quotas to Estonia, Latvia, Lithuania and Russia of the quotas fished by vessels from these Contracting Parties
8. Time and Place of Next Meeting
9. Other Business
10. Adjournment

Special Meeting of the Standing Committee on International Control (STACTIC)

A Special Meeting of STACTIC was held 10-12 May 1995 at NAFO Headquarters, Dartmouth, Nova Scotia, Canada (FC Doc. 95/3).

Opening Procedures (Agenda items 1-3)

The Chairman, D. Bevan (Canada), opened the Special STACTIC Meeting on 10 May 1995 at 1015 hours. He welcomed all delegates to the Meeting which had been jointly requested by the European Union and Canada. Representatives from the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, the European Union (EU), Iceland, Japan, Republic of Korea, Norway, and Russia. (Annex 1)

Veronica Cody (EU) was appointed Rapporteur.

The Agenda was adopted following some minor modifications to the provisional presentation. (Annex 2)

Proposals to Amend the NAFO Conservation and Enforcement Measures
(Agenda item 4)

The Chairman pointed out that the European Union and Canada had prepared joint proposals for the amendment of the NAFO Conservation and Enforcement Measures and that these would form the basis for discussion at the Meeting.

The outcome of the discussions has been the approval of a package of proposals (Annex 3) to the Fisheries Commission for further deliberation and adoption. The proposals contain new wording(s) underlined or in brackets for further deliberation.

The meeting adjourned at 1730 hours on 12 May 1995.

Annex 1. List of Participants

CANADA

Head of Delegation

B. Applebaum, Director-General, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Ottawa, Ontario K1A 0E6

C. J. Allen, Resource Allocation Br., Fisheries Operations, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
D. Bevan, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
P. Fauteux, Deputy Director, Legal Operations Div. (JLO), External Affairs and International Trade Canada, Lester B. Pearson Bldg., 125 Sussex Dr., Ottawa, Ontario K1A 0G2
L. Strowbridge, Offshore Surveillance, Nfld. Region, Dept. of Fisheries and Oceans, P.O. Box 5667, St. John's, Newfoundland A1C 5X1
G. Traverse, Director, Resource Management Div., Dept. of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1

CUBA

Head of Delegation

R. Dominguez, Cuban Fishing Fleet Representative, 1881 Brunswick St., Apt. 911, Halifax, Nova Scotia, Canada

DENMARK (in respect of Faroes and Greenland)

Head of Delegation

E. Lemche, Director, Gronlands Hjemmestyre, Pilestraede 52, Box 2151, Copenhagen, Denmark

S. Lage, Greenland Home Rule, Fiskeridirektoratet, Box 269, DK-3900 Nuuk, Greenland
K. P. Mortensen, Foroya Landsstyri, P. O. Box 87, FR-110 Torshavn, Faroe Islands
T. Pedersen, Gronlands Hjemmestyre, Box 269, DK-3900 Nuuk, Greenland
P. Pedersen, P. O. Box 310, 3900 Nuuk, Greenland

ESTONIA

Head of Delegation

T. Roose, National Estonian Board of Fisheries, Lai Street 39/41, EE-0100 Tallinn

EUROPEAN UNION (EU)

Head of Delegation

O. Tougaard, Commission of the European Union, 200 Rue de Loi, B-1049 Brussels, Belgium

H. Koster, Commission of the European Union, Rue Joseph II, 99, B-1049 Brussels, Belgium
P. A. Curran, Directorate General for Fisheries (DGXIV-C-3), Commission of the European Union, Rue Joseph II 99, 7/07, B-1049 Brussels, Belgium
P. Heller, Commission of the European Union, Rue de la Loi 200, B-1049 Brussels, Belgium
G. F. Kingston, Senior Assistant (Economic and Commercial Affairs), Delegation of the Commission of the EU, 1110-350 Sparks St., Ottawa, Ontario K1R 7S8
P. Davy-Bouchene, (Presidency of the EU) Permanent Representation of France to the EU, 14, Place du Louvain, 1000 Brussels, Belgium

P. G. Peronne, (Presidency of the EU) Ministere Agriculture et Peche, Direction des Peches Maritimes, 3 Place de Fontenoy, 75700-Paris
V. Cody, Council of the European Union, Batiment Justus Lipsius, Rue de la Loi, (90.GH.41) B-1040 Brussels
G. Conrad, Federal Ministry of Agriculture, Rochusstr. 1, 53107 Bonn, Germany
A. McDaid, Permanent Representation of Ireland to the EU, Ave de Galilee 5 (Bte 22), Brussels 1030, Belgium
J. B. Nielsen, Ministry of Agriculture and Fisheries, Slotsholmsgade 12, DK-1216 Copenhagen, Denmark
M. I. Aragon, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. Herrero, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. T. Santos, Secretaria General de Pesca Maritime, (Inspeccion), Ortega y Gasset, 57, Madrid, Spain
M. H. Figueiredo, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
W. B. McCleary, British High Commission, 80 Elgin Street, Ottawa, Ontario K1P 5K7
C. C. Southgate, Room 428, Nobel House, Ministry of Agriculture, Fisheries and Food, Smith Square, London SW1P 3HX

ICELAND

Head of Delegation

A. Halldorsson, Ministry of Fisheries, Skulagata 4, 150 Reykjavik

JAPAN

Head of Delegation

M. Morimoto, Councillor, Oceanic Fisheries Dept., Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo

A. Mae, International Affairs Div., Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
N. Takagi, Japan Deep Sea Trawlers Association, Ogawacho-Yasuda Bldg., 6 Kanda-Ogawa Cho, 3 Chome, Chiyoda-ku Toyko 101
Y. Kashio, Halifax Office, Japan Fisheries Association, Suite 1408, Duke Tower, 5251 Duke Street, Halifax, Nova Scotia, Canada B3J 1P6

REPUBLIC OF KOREA

Head of Delegation

Y. J. Jung, Minister, Embassy of the Republic of Korea, 151 Slater Street, 5th Floor, Ottawa, Ontario, Canada

J. S. Doo, Deputy Director, Science and Resources Division, Ministry of Foreign Affairs, 77 Sejong-ro, Chongrogu, Seoul
D. B. Park, First Secretary (for Fisheries), 2450 Massachusetts Ave. N.W., Washington, D.C. 20008

NORWAY

Head of Delegation

P. Gullestad, Directorate of Fisheries, P. O. Box 185, 5002 Bergen

E. Ellingsen, Directorate of Fisheries, P. O. Box 185, 5002 Bergen
S. Johnsen, Directorate of Fisheries, P. O. Box 185, 5002 Bergen

RUSSIA

Head of Delegation

V. Fedorenko, Chief, Department of International Cooperation, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031

G. V. Goussev, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031

L. Skalova, Ministry of External Affairs, Moscow
Y. Videneev, Representative of the Russian Federation in Canada on Fisheries, 2074 Robie St., Halifax, Nova Scotia, Canada B3K 5L3

SECRETARIAT

Dr. L. I. Chepel, Executive Secretary
T. Amaratunga, Assistant Executive Secretary
B. Cruikshank, Senior Secretary

Annex 2. Agenda

1. Opening of the Meeting (D. Bevan, Canada)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Proposals to Amend the NAFO Conservation and Enforcement Measures
   - a) Inspections
   - b) Transmission of Information from Inspections
   - c) Increase in Inspection Presence
   - d) Improvements to Hail System
   - e) Additional Enforcement Measures
     - i) minimum fish size Greenland halibut
     - ii) applicability of discard rules in NRA
     - iii) special rules for fish products e.g. processed length equivalents
     - iv) on board production of fish meal and similar products
     - v) further measures to protect juvenile fish e.g. area/seasonal closures
   - f) Mesh Size
   - g) Dockside Inspections
   - h) Effort Plans and Catch Reporting
   - i) Major Infringements
   - j) Follow-up on Apparent Infringements
5. Pilot Project for Observers and Satellite Tracking
   - a) Observers
   - b) Satellite Tracking
   - c) Report on Pilot Projects
6. Adoption of Report
7. Other Business
8. Adjournment

Annex 3. Proposals for Discussion at the Fisheries Commission Meeting

Inspections

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Amend PART IV. 2. (ii) and insert a new point (iii):

(ii) To ensure objectivity in the realization and distribution of inspections between the Contracting Parties, the number of inspections carried out by the vessels of a Contracting Party on vessels of any other Contracting Party shall, as far as possible, reflect the ratio of the inspected Party's fishing activity to the total fishing activity in the Regulatory Area, per quarter , measured on the basis of, interalia, the level of catches and vessel days on ground and shall also take into account compliance records.

(iii) The Executive Secretary shall draw up an annual report on the objectivity in the realization and distribution of inspections between the Contracting Parties.

Amend PART IV. 4 - add as (iii) and (iv):

(iii) No boarding shall be conducted without prior notice by radio being sent to (whether or not received by) the vessel, including the identity of the inspection platform.

(iv) Each Contracting Party shall ensure that its inspection platforms are kept at a safe distance from fishing vessels and that its inspectors assigned to the Scheme respect the provisions thereof as well as any other applicable rules of international law.

Amend PART IV. 6. (i).

insert at the beginning of the first paragraph to read as follows:

Without limiting the capability of inspectors to carry out their mandate,

insert before the second paragraph:

When carrying out their inspection duties in conformity with Part IV of these Measures, NAFO inspectors shall take all appropriate precautions to avoid causing damage to packaging, wrapping, cartons or other containers and to the contents of same in order to ensure, to the extent practicable, that the quality of the catch on board is maintained.

Cartons and other containers shall be opened in such a way that will facilitate their prompt resealing, repacking and eventual restorage.

Transmission of Information From Inspections

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Amend PART IV. 6.(i) - to provide for advance notification of apparent infringements, replace the last paragraph insert with the following wording:

In the case of an apparent infringement or a difference between recorded catches and the inspector's estimates of the catches on board, a copy of the inspection report with supporting documentation, including second photographs taken, shall be transmitted ~~as soon as possible~~ within 10 days to the responsible authorities of the Contracting Party for the inspected vessel, after the inspection vessel returns to port. In the case of other inspection reports, the original shall be transmitted within 30 days whenever possible, to a designated authority of the Contracting Party for the inspected vessel. A copy of every inspection report shall also be forwarded to the Executive Secretary.

Notwithstanding the notification of the inspection report, the duly assigned NAFO inspectors conducting the inspection shall prepare and transmit within 24 hours to the Contracting Party of the vessel a statement which shall constitute advance notification of the apparent infringement. A copy of this statement shall be transmitted

a) to the NAFO Executive Secretary and

b) i) to an inspector of the Contracting Party of the inspected vessel present in the Convention Area or in a [State] [port] bordering this Area or

ii) an inspector duly authorized by that Contracting Party present in the Convention Area or in a [State] [port] bordering this Area.

This statement shall quote the information entered under points 16 and 18 of the inspection report, cite the relevant NAFO Measures and describe in detail the basis for issuing the citation for an apparent infringement and the evidence to support the said citation.

Amend PART IV 6(i) - to provide information on suspected illegal practices add new paragraphs:

In the case where, in the course of an inspection, NAFO Inspectors make comments and observations in the inspection report, in particular under point 20 thereof, the said inspectors shall promptly prepare a written statement citing the relevant NAFO Measures, ~~and~~ describing the practices observed and substantiating the grounds for their suspicions. This statement shall be sent within 24 hours

a) to the Contracting Party of the inspected vessel,

b) i) to an inspector of that Contracting Party present in the Convention Area or in a [State] [port] bordering this Area or

ii) to an inspector duly authorized by that Contracting Party present in the Convention Area or in a [State] [port] bordering this Area and

c) to the NAFO Executive Secretary.

The NAFO Executive Secretary and the designated authorities shall treat this information with the confidentiality required for the protection of individual data.

Increase of the Inspection Presence

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Amend PART IV. 3 - replace the second subsection to read:

Each Contracting Party having at any time [10] [20] or more vessels operating in the Regulatory Area shall deploy at least during that time one inspection vessel to this Area. Contracting Parties with less than [10] [20] vessels at any time shall cooperate in the deployment of inspection vessels.

Each Contracting Party shall have at least one inspector present in the Convention Area or in a [State] [port] bordering this Area during the time that its vessels are operating in the Regulatory Area, to receive and respond, without delay, to any notice of apparent infringements.

A Contracting Party may authorize inspectors from another Contracting Party to carry out their functions on its behalf.

Reporting of Catch on Board Fishing Vessels Entering and Exiting the Regulatory Area

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Amend PART III E. 1. - to read as follows:

(a) each entry into the Regulatory Area. This report shall be made at least six (6) hours in advance of the vessel's entry and shall include the date, the time, ~~and~~ geographical position of the vessel and total round weight by species (3 alpha codes) on board in kilograms (rounded to the nearest 100 kilograms).

The total quantity of species for which the total round weight by species is less than one tonne may be reported under the 3 alpha code "MZZ" (marine fish not specified);

(b) each exit from the Regulatory Area ~~and except as provided in (c), each movement from one NAFO division to another NAFO division.~~ This report shall be made ~~prior to~~ six (6) hours in advance of the vessel's exit from the Regulatory Area ~~or entry into a NAFO division~~ and shall include the date, time, ~~and~~ geographical position of the vessel and catch in round weight taken and retained in the Regulatory Area by species (3 alpha codes) in kilograms (rounded to the nearest 100 kilograms);

The total quantity of species for which the total round weight by species is less than one tonne may be reported under the 3 alpha code "MZZ" (marine fish not specified);

(c) except as provided in (d), each movement from one NAFO division to another NAFO division. This report shall be made prior to the vessel's entry into a NAFO division and shall include the date, time and geographical position of the vessel;

(d) EXISTING LETTER (c) BECOMES NEW LETTER (d)

(e) each offloading for transhipment of fish while the vessel is operating in the Regulatory Area. This report shall be made at least 6 hours in advance and shall include the date, the time, ~~and~~ the geographical position of the vessel and total round weight by species (3 alpha codes) to be transhipped in kilograms (rounded to the nearest 100 kilograms).

4. Vessels equipped with devices which enable the automatic transmission of their position are exempt from the hail requirements set out in (c) and (d) above.
Each Contracting Party whose vessels are so equipped shall notify the Executive Secretary of the names of those vessels in accordance with Part III.D. of the Measures. In addition, each Contracting Party shall transmit, to the NAFO Executive Secretary, on a real time basis, messages indicating movements within the Regulatory Area for its vessels equipped with satellite devices. The Executive Secretary shall transmit as quickly as possible such information to Contracting Parties with an inspection vessel in the NAFO Convention Area.

The Executive Secretary shall draw up lists of such vessels and circulate these to Contracting Parties with an inspection presence in the Regulatory Area.

Amend PART III - Annex I - HAIL SYSTEM MESSAGE FORMAT

Insert a new line G in paragraph 1.1 as follows:

G. The total round weight of fish by species (3 alpha codes) on board in kilograms rounded to the nearest 100 kilograms.

Existing line G in paragraph 1.1 becomes new line H

Replace paragraph 1.4 to read as follows:

1.4 Each exit from the Regulatory Area. These reports shall be made at least six (6) hours in advance of the vessel's exit from the Regulatory Area and shall contain the following particulars in the following order:

A. Name of vessel,
B. Call sign,
C. External identification letters and numbers,
D. The date, the time and geographical position,
E. Indication of the message code: "EXIT",
F. The NAFO division from which the vessel is about to leave,
G. The catch in round weight taken in the Regulatory Area by species (3 alpha codes) in kilograms (rounded to the nearest 100 kilograms).
H. The name of the master.

Add new paragraph 1.5 to read:

1.5 Transhipment in the Regulatory Area. This report shall be made at least six hours in advance and shall contain the following particulars in the following order:

A. Name of vessel,
B. Call sign,
C. External identification letters and numbers,
D. The date, the time and geographical position,
E. Indication of the message code: "TRANSFER",
F. The total round weight by species (3 alpha codes) to be transhipped in kilograms (rounded to the nearest 100 kilograms),
G. The name of the master

Additional Enforcement Measures

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Amend PART I, A Quotas

Delete in point 2 (lines 7 and 8) the wording which reads:

and the likely incidental catch for the remainder of the period referred to in paragraph 1,

Delete in point 3 paragraph (b) (lines 5 and 6) the wording which reads:

and the likely incidental catch for the remainder of the period

Delete the last part of point 3 paragraph (c) which reads:

except for incidental catches in directed fisheries for other stocks

Replace point 4 paragraph (b) by the following:

Unless otherwise provided in these Measures, in cases where a ban on fishing is in force ~~or an "others" quota has been fully utilized~~ or where no directed fishing is allowed, incidental catches of the species concerned may not exceed 1,250 kg or 5%, whichever is the greater.

Amend in point 4 insert new paragraph (d) to read as follows:

d) In cases where

(i) a quota allocated to a Contracting Party from a stock listed in Schedule I is exhausted;

(ii) an "Others" quota has been fully utilized; or

(iii) a directed fishery is prohibited and the Fisheries Commission so decides;

incidental catches of the species concerned shall not be ground, processed to fishmeal, transshipped, landed, transported, stored, displayed or offered for sale, but must be returned immediately to the sea.

Amend Part V, Schedule I, Appendix II (Quota table)

Insert new footnote 7 (the Fisheries Commission will decide, on a case by case basis to which stocks this footnote will apply.):

7. Part I Section A.4. paragraph d (iii) of the NAFO Conservation and Enforcement Measures shall apply.

Amend PART I.D.2 Minimum fish size to read as follows:

2. Undersized fish shall not be ground, processed to fishmeal, transshipped, landed, transported, stored, displayed or offered for sale, but shall be returned immediately to the sea.

[* Note: Notwithstanding the provisions of Part I.A.4 and D.2 of these Measures, Canadian [and ...] vessels fishing for principal groundfish, flatfishes, other groundfish and other fish with exception of capelin, as listed in part V, Schedule II, Attachment II, will abide (until further decision by the Fisheries Commission) by their equivalent national regulation which requires landing of all catches.]

Amend PART V - SCHEDULE VII Minimum Fish Size as follows:

Species	Minimum Size
Atlantic cod, *Gadus morhua* L.	41 cm
American plaice, *Hippoglossoides platessoides* (Fab)	25 cm
Yellowtail flounder, *Limanda ferruginea* (Storer)	25 cm
Greenland Halibut, *Reinhardtius Hippoglossoides*	[ ]

Note : Fish size for Atlantic cod refers to fork length and for other species it is total length.

Amend PART II Gear Section B. Mesh Size

Amend paragraph 2 (c) to read as follows:

c) ~~Except as provided in paragraph 3,~~ A Contracting Party shall prohibit vessels of that Party from taking in the Regulatory Area species listed in Part V, Schedule IV with nets having in any part of the net meshes of a size less than that specified in that Schedule, as measured wet after use by inserting into the meshes the appropriate gauge as described in Part V, Schedule V.

Delete point 3.

Point 4 becomes new point 3.

Mesh Size

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Part II - Gear

New B - Meshes

A Contracting Party shall permit only the use of meshes which have 4 sides, equally long, of the same material, and 4 knots.

Re-number B,C,D into C,D,E.

Amend PART V - SCHEDULE IV as follows:

Authorized Mesh Size of Nets

Species		Mesh Size
a)	All principal groundfish, flatfishes, ~~and~~ other groundfish and other fish with the exception of capelin as listed in part V, Schedule II, Attachment II.	130 mm
b)	~~Short-finned~~ Squid, ~~illex illecebrosus (LeSueur)~~	60 mm
c)	Shrimps and prawns	40 mm
d)	Capelin	[ ] mm

delete note 1

Note ~~2~~: Until 1 January 1997, for nets made of polyamide fibres of the following tradenames:

caprolan
dederon
kapron

the equivalent minimum mesh size shall be 120 mm. Vessels using these materials shall have aboard certificates, which establish that the fibres in the net used correspond to the tradenames mentioned above.

Port Inspections

NAFO CONSERVATION AND ENFORCEMENT MEASURES

New PART VII - Port Inspections

1. (i) When, in the port of a Contracting Party, a port call is made by a vessel that has been engaged in fishing for stocks subject to these Measures, the Contracting Party whose port is being used shall ensure that an inspector is present and that, on each occasion when catch is offloaded, an inspection takes place to verify the species and quantities caught.

   (ii) The quantities landed by species and the quantities retained on board, if any, shall be cross-checked with the quantities recorded in logbooks, catch reports on exit from the Regulatory Area, and reports of any inspections carried out under this Scheme.

   (iii) Any information from inspections under Part IV of these Measures shall be verified.

   (iv) Inspections shall include verification of mesh size of nets on board and size of fish retained on board.

   (v) Results of port inspections shall be provided to other Contracting Parties on request and communicated to the Executive Secretary on an annual basis.

2. Contracting Parties shall, every two years, check each of their vessels, notified in accordance with Part III.D. of these Measures, to certify the correctness of the vessel's plans for fish rooms and other fish storage places. The master shall ensure that a copy of such certification remains on board to be shown to a NAFO inspector if requested.

Effort Plans and Catch Reporting

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Amend PART III. D. Notification of Fishing and Processing Vessel - add new paragraph:

4. Each Contracting Party shall, for the first time by 15 June 1995 and thereafter annually before the vessels of that Contracting Party commence fishing for Greenland halibut, notify the Executive Secretary of the fishing plan for their vessels fishing for Greenland halibut in the Regulatory Area.

   This fishing plan shall identify, inter alia, the vessels which are notified in accordance with Part III D of these Measures and which will engage in the Greenland halibut fishery. The fishing plan shall represent the total fishing effort to be deployed with respect to this fishery in relation to the extent of the fishing opportunities available to the Contracting Party making the notification.

By January 30 following each year for which a fishing plan has been notified, each Contracting Party shall transmit to the Executive Secretary a report on the implementation of this plan, including the number of vessels actually engaged in this fishery and the total number of days fished.

Amend PART V, Schedule I, Appendix II, (Quota Table for 1995) - replace footnote 6 by the following:

6. Each Contracting Party shall report catches by its vessels of Greenland halibut to the Executive Secretary every Tuesday for the week ending at 2400 hours on the previous Sunday.

Infringements

NAFO CONSERVATION AND ENFORCEMENT MEASURES

AMEND PART IV - Scheme of Joint International Inspection and Surveillance

Insert new paragraphs 9 and 10 to read as follows:

9. The following apparent infringements shall be subject to paragraph 10:

   i) misreporting of catches;

   ii) mesh size violations;

   iii) hail system violations;

   iv) *interference with the satellite tracking system;*

   [v)] [Conducting a directed fishery on a stock for which fishing is prohibited.]

   vi) preventing an inspector or an observer from carrying out his or her duties.

10. Notwithstanding paragraphs 7 and 8 above:

   i) If a NAFO inspector cites a vessel for having committed, to a serious extent, an apparent infringement as listed in paragraph 9 above, the Contracting Party of the vessel shall ensure that the vessel concerned is inspected within 72 hours by an inspector duly authorized by that Contracting Party. In order to preserve the evidence, the NAFO inspector shall take all necessary measures to ensure security and continuity of the evidence, and may remain on board the vessel until the duly authorized inspector arrives;

ii) Where justified, the inspector authorized by the Contracting Party of the vessel concerned shall, where duly authorized to do so, require the vessel to proceed immediately to a nearby port, chosen by the Master, which should be either St. Pierre, St. John's, the Azores [,Halifax, Las Palmas] or [,if a master does not choose one of these ports, to a port chosen by the Contracting Party of the vessel] [the home port of the vessel], for a thorough inspection [under the authority of the flag State] and in the presence of a NAFO inspector from any other Contracting Party that wishes to participate. If the vessel is not called to port, the Contracting Party must provide due justification in a timely manner to the Executive Secretary who shall make it available on request to any Contracting Party;

iii) Where a NAFO inspector cites a vessel for having committed an apparent infringement as listed in paragraph 9 above, the inspector shall immediately report this to the Executive Secretary, who shall in turn immediately report, for information purposes, to the other Contracting Parties with an inspection vessel in the Convention Area;

iv) Where a vessel is required to proceed to port for a thorough inspection pursuant to paragraph ii) above, a NAFO inspector from another Contracting Party may, subject to the consent of the Contracting Party of the vessel, board the vessel as it is proceeding to port, may remain on board the vessel as it proceeds to port and may be present during the inspection of the vessel in port;

v) If an apparent infringement of the Conservation and Enforcement Measures has been detected which in the view of the duly authorized inspector is sufficiently serious, the inspector shall take all necessary measures to ensure security and continuity of the evidence including, as appropriate, sealing the vessel's hold for eventual dockside inspection.

Existing paragraph 9 of the NAFO Conservation and Enforcement Measures to be renumbered as paragraph 11.

Follow-up on Apparent Infringements

NAFO CONSERVATION AND ENFORCEMENT MEASURES

Part IV - Scheme of Joint International Inspection and Surveillance

Insert new second sentence in paragraph 12 as follows:

12. Appropriate authorities of a Contracting Party shall consider and act on reports from inspectors of other Contracting Parties under the scheme on the same basis as reports from its own inspectors. Contracting Parties shall cooperate to follow up apparent infringements using all necessary evidence available from all sources, including evidence from other Contracting Parties as required for effective prosecution or administrative proceedings, subject to the rules governing the admissibility of evidence in domestic courts.

    The provisions of this paragraph shall not impose any obligation on the appropriate authorities of a Contracting Party to give the report from a foreign inspector a higher evidentiary value than it would possess in the inspector's own country. Appropriate authorities of Contracting Parties shall collaborate in order to facilitate judicial or other proceedings arising from a report submitted by the inspector under the scheme.

Existing paragraph 14.(ii) and 14.(iii) to be deleted and incorporated in new paragraph 15.

15. a) Appropriate authorities of each Contracting Party shall report to the Executive Secretary by February 1 (for the period July 1-December 31 of the previous year) and September 1 (for the period January 1-June 30 of the current year) each year:

    i) the disposition of apparent infringements notified to it by a Contracting Party. The apparent infringements shall continue to be listed on each subsequent report until the action is concluded under the laws of the Flag State;

    ii) differences that they consider significant between records of catches in the logbooks of vessels flying the flag of the Contracting Party and inspectors' estimates of catches on board the vessels.

    b) The report required in (a) above shall indicate the current status of the case (i.e. case pending, under appeal, still under investigation, etc) and any penalties imposed shall be described in specific terms (i.e. level of fines, value of forfeited fish and/or gear, written warning given, etc) and shall include an explanation if no action has been taken.

Existing paragraph 15 will be renumbered as paragraph 16.

Pilot Project for Observers and Satellite Tracking

NAFO CONSERVATION AND ENFORCEMENT MEASURES

The existing Part VI - "Pilot Project for a NAFO Observer Scheme" of the Conservation and Enforcement Measures will be replaced with the following:

Part VI - Pilot Project for Observers and Satellite Tracking

In order to improve compliance with the Conservation and Enforcement Measures for their vessels fishing in the Regulatory Area, Contracting Parties agree to implement a Pilot Project to provide for properly trained and qualified observers on [all] vessels fishing in the NAFO Regulatory Area and satellite tracking devices on [35%] of their respective vessels fishing in the Regulatory Area.

A. Observers

1. Each Contracting Party shall require [all] its vessels fishing in the Regulatory Area to accept observers on the basis of the following:

   a) each Contracting Party shall have the primary responsibility to obtain, for placement on its vessels, independent and impartial observers;

   b) in cases where a Contracting Party has not placed an observer on a vessel, any other Contracting Party may, subject to the consent of the Contracting Party of the vessel, place an observer on board until that Contracting Party provides a replacement in accordance with paragraph a);

   c) no vessel shall be required to carry more than one observer pursuant to this Pilot Project at any time.

2. Each Contracting Party shall provide to the Executive Secretary a list of the observers they will be placing on vessels in the Regulatory Area.

3. Observers shall:

   a) monitor a vessel's compliance with the relevant Conservation and Enforcement Measures. In particular they shall:

      i) record and report upon the fishing activities of the vessel and verify the position of the vessel when engaged in fishing;

      ii) observe and estimate catches with a view to identifying catch composition and monitoring discards, by-catches and the taking of undersized fish;

      iii) record the gear type, mesh size and attachments employed by the master;

iv) verify entries made to the logbooks (species composition and quantities, round and processed weight and hail reports).

b) collect catch and effort data on a set-by-set basis. This data shall include location (latitude/longitude), depth, time of net on the bottom, catch composition and discards;

c) carry out such scientific work (for example, collecting samples) as requested by the Fisheries Commission based on the advice of the Scientific Council;

d) within 30 days following completion of an assignment on a vessel, provide a report to the Contracting Party of the vessel and to the Executive Secretary, who shall make the report, available to any Contracting Party that requests it. [Copies of reports sent to other Contracting Parties shall not include location of catch in latitude and longitude as required under 3 b), but will include daily totals of catch by species and division.]

4.. In the case where an observer is deployed on a vessel equipped with devices for satellite-based automatic remote position recording facilities, the observer shall monitor the functioning of, and report upon any interference with, the satellite system. In order to better distinguish fishing operations from steaming and to contribute to an *a posteriori* calibration of the signals registered by the receiving station, the observer shall maintain detailed reports on the daily activity of the vessel.

5. When an apparent infringement of the Conservation and Enforcement Measures is identified by an observer, the observer shall, within 24 hours, report it to a NAFO inspection vessel using an established code, which shall report it to the Executive Secretary.

6. Contracting Parties shall take all necessary measures to ensure that observers are able to carry out their duties. Subject to any other arrangements between the relevant Contracting Parties, the salary of an observer shall be covered by the sending Contracting Party.

7. The vessel on which an observer is placed shall provide suitable food and lodging during the observer's deployment. Vessel masters shall ensure that all necessary cooperation is extended to observers in order for them to carry out their duties.

B. Satellite Tracking

1. Each Contracting Party whose vessels fish, or plan to fish, a minimum of 300 days per year in the Regulatory Area, [shall] [may]:

a) require 35% of its vessels fishing in the Regulatory Area to be equipped with an autonomous system able to transmit automatically satellite signals to a land-based receiving station permitting a continuous tracking of the position of the vessel by the Contracting Party of the vessel;

b) endeavour to test several systems of satellite tracking;

c) install at least one receiving station associated with their satellite tracking system;

d) transmit to the Executive Secretary, on a real time basis, messages of movement between NAFO divisions (as per the requirements of the Hail System outlined in Part III. E of these Measures) for its vessels equipped with satellite devices. The Executive Secretary shall, in turn, transmit such information to Contracting Parties with an inspection vessel or aircraft in the Convention Area;

e) cooperate with other Contracting Parties which have a NAFO inspection vessel or aircraft in the Convention Area,in order to exchange information on a real-time basis on the geographical distribution of fishing vessels equipped with satellite devices and, on specific request, information related to the identification of a vessel.

2. Subject to any other arrangements between Contracting Parties, each Contracting Party shall pay all costs associated with the satellite tracking system.

C. Analysis

1. Each Contracting Party shall prepare a report on the results of the Pilot Project from the perspective of efficiency and effectiveness, including:

a) overall effectiveness of the Project in improving compliance with the Conservation and Enforcement Measures;

b) the effectiveness of the different components of the Project;

c) costs associated with observers and satellite tracking;

d) a summary of observers' reports, specifying type and number of observed infractions and important events;

e) estimations of fishing effort from observers as compared to initial estimation by satellite monitoring;

f) analysis of the efficiency in terms of cost/benefit, the latter being expressed in terms of compliance with the Conservation and Enforcement Measures and volume of data received for fisheries management.

2. The reports shall be submitted to the Executive Secretary in time for their consideration at the September 1997 Annual Meeting of NAFO and, based on these reports, the Parties agree to establish a permanent scheme that will ensure that the degree of control and enforcement in the Regulatory Area provided by the Project, as indicated above, is maintained.

Fisheries Commission Special Meeting

A Special Meeting of the Fisheries Commission and its subsidiary body STACTIC was held 7-9 June 1995 in Toronto, Canada (FC Doc. 95/7).

Opening Procedures (Agenda items 1-5)

The meeting was called to order by the Chairman, Mr. H. Koster (EU) on 7 June 1995 at 1030 hours. Representatives of the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, the European Union (EU), Iceland, Japan, Republic of Korea, Latvia, Norway, Poland, and the Russian Federation. (Annex 1) Observers from the United States of America were admitted to the Meeting.

Mr. R. Steinbock (Canada) was appointed Rapporteur.

The agenda was adopted following some minor modifications to the provisional presentation. (Annex 2)

Conservation and Enforcement Measures (Agenda items 6-17)

The Chairman introduced the Report of the Special Meeting of STACTIC (FC Doc. 95/3) called by the Fisheries Commission at NAFO Headquarters on 10-12 May 1995 to consider proposals for the amendment of the Conservation and Enforcement Measures. The Acting Chairman of STACTIC, D. Bevan (Canada) presented the Report to the Meeting. The Chairman reiterated that the recommendations of STACTIC were based on the understanding that adoption of individual proposals would be considered in the framework of an overall package. Against this background, this meeting of the Fisheries Commission should be used to finalize discussions on as many elements as possible. In such a way all Contracting Parties should be clear on the content of the package to be agreed in September.

Following all discussions and negotiations at the Meeting, the Chairman summarized the proposals in one package and presented it as the Chairman's Compromise emerged through consensus of Heads of Delegation meetings. The package was accepted by the Meeting for a final review at the Annual Meeting in September 1995. (Annex 3)

In addition to the Chairman's Compromise, there has been a number of other proposals received: Japanese proposal "Increase in Inspection Presence (STACTIC W.P. 95/26), Pilot Project for Observers and Satellite Tracking (FC W.P. 95/13), Dockside Inspections (FC W.P. 95/15), and Additional Enforcement Measures (STACTIC W.P. 95/16).

Conservation of Fish Stocks in the Regulatory Area (Agenda items 18-19)

The Representative of Canada described a joint Canada-EU proposal to divide for 1995 the 2+3 Greenland halibut portion of the stock into a northern zone (2+3K - 7 000 tons) and a southern zone (3LMNO - 20 000 tons). A draft Resolution to this subject was circulated and adopted by the Meeting. (Annex 4)

It was agreed to send a number of requests to the Scientific Council for scientific advice. (Annex 5)

STACTIC was requested to meet and provide advice prior to the 1995 Annual Meeting on a number of questions. (Annex 6)

Closing Procedures (Agenda items 20-23)

The Chairman noted that the next meeting would be held during the Annual NAFO Meeting, September 11-15, 1995 in Dartmouth, Nova Scotia.

Under Item 22, Other Business, the Representative of Denmark proposed that Contracting Parties would do their best to provide updated catch statistics in accordance with the NAFO regulation in advance of the Annual Meeting. The Executive Secretary was instructed to write an appropriate memorandum to Contracting Parties after this Special Meeting.

The Chairman adjourned the meeting at 1215 hours on June 9, 1995.

Annex 1. List of Participants

CANADA

Head of Delegation

W. A. Rowat, Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6

Representative

W. A. Rowat (see address above)

Advisers

M. Allard, Seaku Fisheries, 650-32nd Ave., 6th Floor, Lachine, Quebec H8T 3K9
C. J. Allen, Resource Management, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
J. R. Angel, Canadian Assoc. of Prawn Producers, 15 Dartmouth Road, Bedford, Nova Scotia B4A 3L9
B. Applebaum, Director-General, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. Bevan, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. W. Bulmer, President, Fisheries Council of Canada, #806-141 Laurier Ave. West, Ottawa, Ontario K1P 5J3
B. Bursey, Dept. of Fisheries, Food & Agriculture, P. O. Box 8700, St. John's, Newfoundland A1B 4J6
H. Copestake, Government of the Northwest Territories, 219 Argyle St., Suite 510, Ottawa, Ontario K2P 2H4
W. G. Doubleday, Director General, Fisheries and Oceans Science, 1256-200 Kent Street, Ottawa, Ontario K1A 0E6
V. Edgar, Office of the Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. Elie, Office of the Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. L. Gill, International Directorate, Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. Glass, Assistant Deputy Minister, Policy, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A OE6
C. Goodwin, Dept. of Fisheries and Oceans, P. O. Box 550, Halifax, Nova Scotia B3J 2S7
P. A. LaPointe, Ambassador for Fisheries Conservation, Department of Foreign Affairs and International Trade, 125 Sussex Drive, Ottawa, Ontario K1A 0G2
G. W. Linstead, Labrador Fishermen's Union Shrimp Co., P. O. Box 44, Lause au Loup, Labrador A0K 3LO
C. F. MacKinnon, Nova Scotia Dept. of Fisheries, P. O. Box 2223, Halifax, N. S. B3J 3C4
E. McCurdy, c/o FFAW/CAW, P. O. Box 10, Cormack Bldg., 2 Steers Cove, St. John's, Newfoundland A1C 5H5
E. J. Maher, Department of Fisheries and Oceans, P. O. Box 550, Halifax, Nova Scotia B3J 2S7
N. Melanson, Office of Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
E. Mundell, Mission of Canada to the European Communities, Avenue de Tervuren, 2, B-1040 Brussels, Belgium
W. M. Murphy, Mersey Sea Foods, P. O. Box 1290, Liverpool, Nova Scotia B0T 1K0
P. G. Quinlan, Labrador Fishermen's Union Shrimp Co., 53 Bond St., St. John's, Newfoundland
T. Rideout, International Directorate, Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. J. Rochon, Director General, Legal Affairs Bureau, Lester B. Pearson Bldg., 125 Sussex Dr., Ottawa, Ontario K1A 0G2
M. Rowe, Dept of Fisheries and Oceans, 200 Kent St., 15th Floor, Ottawa, Ontario K1A 0E6
R. Steinbock, International Directorate, Dept of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
L. Stewart, Communications Directorate, Dept. of Fisheries & Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
L. Strowbridge, Offshore Surveillance, Nfld. Region, Dept. of Fisheries and Oceans, P.O. Box 5667, St. John's, Newfoundland A1C 5X1
G. Traverse, Director, Resource Management Div., Dept. of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
F. Way, Government of Newfoundland and Labrador, P. O. Box 8700, St. John's, Newfoundland
E. Wiseman, Director, International Fisheries, Atlantic, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E2

CUBA

Head of Delegation

J. M. Benjamin, *Deputy Minister* of Fisheries, Ministerio de la Industria Pesquera, Barlovento, Jaimanitas, Municipio Playa, Ciudad de la Havana

Representative

J. M. Benjamin (see address above)

Advisers

J. Lopez Piedra, Ministerio de la Industria Pesquera, Barlovento, Sta Fe, Playa, La Habana
R. Dominguez, Cuban Fishing Fleet Representative, 1881 Brunswick St., Apt. 911, Halifax, Nova Scotia, Canada B3J 3L8

DENMARK (in respect of Faroes and Greenland)

Head of Delegation

E. Lemche, Director, Gronlands Hjemmestyre, Pilestraede 52, Box 2151, Copenhagen, Denmark

Alternate

K. P. Mortensen, Foroya Landsstyri, P. O. Box 87, FR-110 Torshavn, Faroe Islands

Representatives

E. Lemche (see address above)
K. P. Mortensen (see address above)

Advisers

S. Lage, Greenland Home Rule, Fiskeridirektoratet, Box 269, DK-3900 Nuuk, Greenland
O. Loewe, Minister Counsellor, Royal Danish Ministry of Foreign Affairs, 2, Asiatisk Plads, DK-1448 Copenhagen K, Denmark
P. M. Pedersen, P. O. Box 310, 3900 Nuuk, Greenland

ESTONIA

Head of Delegation

L. Vaarja, General Director, National Estonian Board of Fisheries, Lai Street 39/41, EE 0100 Tallinn

Representative

L. Vaarja (see address above)

Adviser

T. Roose, National Estonian Board of Fisheries, Lai Street 39/41, EE-0100 Tallinn

EUROPEAN UNION (EU)

Head of Delegation

O. Tougaard, Commission of the European Union, 200 Rue de Loi, B-1049 Brussels, Belgium

Representative

O. Tougaard (see address above)

Advisers

J. R. Borrell, Commission of the European Union, 200, Rue de la Loi, B-1049 Brussels, Belgium
H. Koster, Commission of the European Union, Rue Joseph II, 99, B-1049 Brussels, Belgium
P. Heller, Commission of the European Union, Rue de la Loi 200, B-1049 Brussels, Belgium
E. Penas, Commission of the European Union, DG XIV-B.1, 200, Rue de la Loi, 1049 Brussels
G. F. Kingston, Senior Adviser (Economic and Commercial Affairs), Delegation of the Commission of the EU, 330-111 Albert Street, Ottawa, Ontario K1P 1A5
V. Cody, Council of the European Union, Batiment Justus Lipsius, Rue de la Loi, (90.GH.41) B-1040 Brussels
D. F. Silvestre, Ministere des Affairs Etrangere, Direction des Affairs Susidiques, 37 quou d'Orsay, 75007-Paris, France
P. Davy-Bouchene, Permanent Representation of France to the EU, 14, Place du Louvain, 1000 Brussels, Belgium
B. Buch, Repr. Permanente du Danemark, Rue D'Arlon 73, 1040 Brussels, Belgium
H. Storck, Bundesministerium fur Ernahrung Landwirtschaft und Forsten, Rochusstr. 1, 53123 Bonn, Germany
L. Canniffe, Department of Foreign Affairs, 76 Harcourt Street, Dublin 2, Ireland
V. Fernandes, Embassy of Portugal, 645 Island Park Drive, Ottawa, Ontario
M. H. Figueiredo, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
J. Rainha, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
M. I. Aragon, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. Herrero, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. T. Santos, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
M. Iriondo, Avda. Ategorrieta, 11, San Sebastian, Spain
J. L. Meseguer, Asociacion de Empresas de Pesca de Bacalao, Especies Afinesy Asociadas (ARBAC), Enrique Larreta 10, Madrid, Spain
R. Pombo, Transpesca S.A., Muelle de Linares Rivas 41, 15006 La Coruna, Spain
F. J. Rodriguez, Cno. Jolsstokieta 5, 20.017 Herrera-San Sebastian, Spain
C. C. Southgate, Room 428, Nobel House, Ministry of Agriculture, Fisheries and Food, Smith Square, London SW1P 3HX
C. Bowles, Ministry of Agriculture, Fisheries and Food, Nobel House, 17 Smith Square, Room 427, London SW1P 3JR

ICELAND

Head of Delegation

A. Halldorsson, Ministry of Fisheries, Skulagata 4, 150 Reykjavik

Representative

A. Halldorsson (see address above)

JAPAN

Head of Delegation

K. Yonezawa, c/o Fishery Division, Economic Affairs Bureau, Ministry of Foreign Affairs, 2-2-1 Kasumigaseki, Chiyoda-ku, Tokyo

Representative

K. Yonezawa (see address above)

Advisers

A. Mae, Assistant Director, International Affairs Div., Fisheries Agency, *Ministry of Agriculture*, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo
Y. Ito, 2-2-1 Kasumigaseki, Chiyoda-ku, Tokyo
M. Yoshida, Executive Managing Director, Japan Deep Sea Trawlers Association, 601 Ogawamachi Yasuda Bldg., 3-6 Kanda, Ogawa-Cho, Chiyoda-ku, Tokyo

REPUBLIC OF KOREA

Head of Delegation

Y. J. Jung, Minister, Embassy of the Republic of Korea, 151 Slater Street, 5th Floor, Ottawa, Ontario, Canada

Representative

Y. J. Jung (see address above)

Advisers

J. S. Doo, Science and Resources Div., Ministry of Foreign Affairs, 77 Sejong-ro, Chongro-gu, Seoul, Korea
D. B. Park, 1924 Rhode Island Ave., McLean, Virginia 22101 USA

LATVIA

Head of Delegation

N. Riekstins, Deputy Director, Ministry of Agriculture of the Republic of Latvia, National Board of Fisheries, 63, Kr. Valdemara Str, Riga, LV-1142

Representative

N. Riekstins (see address above)

NORWAY

Head of Delegation

P. Gullestad, Directorate of Fisheries, P. O. Box 185, 5002 Bergen

Representative

P. Gullestad (see address above)

Adviser

E. Ellingsen, Directorate of Fisheries, P. O. Box 185, 5002 Bergen

POLAND

Head of Delegation

M. Kucharski, Consulate General of the Republic of Poland, 233 Madison Ave., New York, NY 10016

Representative

M. Kurcharski (see address above)

Advisers

J. Fota, Consul, Polish Trade Commissioner's Office, 3501 Avenue du Musee, Montreal, Quebec, Canada H3G 2C8
W. Wieckowski, Consulate General of the Republic of Poland, 2603 Lakeshore Blvd. W., Toronto, Ontario M8V 1G5

RUSSIA

Head of Delegation

A. Rodin, First Deputy Chairman, Fisheries Committee of the Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031

Representative

A. Rodin (see address above)

Advisers

G. V. Goussev, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
A. Okhanov, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
L. Skalova, Ministry of External Affairs, Moscow
V. N. Solodovnik, Embassy of the Russian Federation, 1609 Decatur St. N.W., Washington, D.C. 20011
V. P. Torokhov, Sevryba Co., Murmansk, 183000
F. M. Troyanovsky, Director, Knipovich Polar Research Institute of Marine Fisheries and Oceanography (PINRO), 6 Knipovich St. 183763, Murmansk
Y. Videneev, Representative of the Russian Federation in Canada on Fisheries, 2074 Robie St., Halifax, Nova Scotia, Canada B3K 5L3

OBSERVERS

UNITED STATES OF AMERICA

K. H. Miller U.S. Dept. of State (OES/OMC), 2201 C Street, Washington, D.C. 20520
H. S. Tinkham, Office of Marine Conservation, OES/OMC Room 7820, U.S. Department of State, Washington, D.C. 20520-7818

SECRETARIAT

Dr. L. I. Chepel, Executive Secretary
F. D. Keating, Administrative Assistant
B. J. Cruikshank, Senior Secretary
F. E. Perry, Desktop Publishing/Documents Clerk

SECRETARIAT ASSISTANCE

M. Jackman, International Directorate, Fisheries and Oceans, 200 Kent St., Ottawa, Ontario

Annex 2. Agenda

I. Opening Procedure

1. Opening by the Chairman, H. Koster (EU)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Admission of Observers
5. Publicity

II. Conservation and Enforcement Measures

6. STACTIC Report, FC Doc. 95/3 (Special Meeting, 10-12 May 1995)
7. Inspections
8. Transmission of Information from Inspections
9. Increase in Inspection Presence
10. Improvements to Hail System
11. Additional Enforcement Measures

    (i) Minimum fish size for Greenland halibut
    (ii) Applicability of discard rules in the NRA
    (iii) Special rules for fish products, e.g. processed length equivalents
    (iv) On board production of fish meal and similar products
    (v) Further measures to protect juvenile fish, e.g. area/seasonal closures

12. Mesh Size
13. Dockside Inspections
14. Effort Plans and Catch Reporting
15. Major Infringements
16. Follow-up to Major Infringements
17. Pilot Project for Observers and Satellite Tracking

    (i) Observers
    (ii) Satellite Tracking
    (iii) Report on Pilot Project

III. Conservation of Fish Stocks in the Regulatory Area

18. Management and Technical Measures for Fish Stocks Straddling National Fishing Limits

    (i) Greenland halibut in Area 2+3[1]

19. Request to the Scientific Council for Scientific Advice

IV. Closing Procedure

20. Adoption of Report

21. Time and Place of the Next Meeting

22. Other Business

23. Adjournment

[1] Canada and the European Union will jointly propose for 1995:

(a) 2+3K (within Canadian 200 miles)	7,000 tons
(b) 3LMNO	20,000 tons

Annex 3. Chairman's Compromise for Adoption in September

(FC Working Paper 95/16
Revision 1)

The Fisheries Commission

Having considered the STACTIC Reports of the Special Meeting, 10-12 May 1995 and the Meeting of 08 June 1995; and

Noting its decisions for 1995 with respect to Greenland halibut in Subareas 2+3.

AGREED AT ITS JUNE 1995 MEETING

A. on the following proposals for international measures of control and enforcement:

- Inspections (FC Working Paper 95/17)
- Transmission of Information from Inspections (FC Working Paper 95/18)
- Reporting of Catch on Board Fishing Vessels Entering and Exiting the Regulatory Area (FC Working Paper 95/19)
- Mesh Size (FC Working Paper 95/20)
- Port Inspections (FC Working Paper 95/21)
- Effort Plans and Catch Reporting (FC Working Paper 95/22)
- Infringements (FC Working Paper 95/28, Revision 1)
- Follow-Up on Apparent Infringements (FC Working Paper 95/24)
- Pilot Project for Observers and Satellite Tracking (FC Working Paper 95/25)

B. to adopt at the September 1995 Annual NAFO Meeting the measures in A together with the following proposal for the total allowable catch (TAC) and quotas (metric tons) for Greenland halibut for 1996, taking into account the advice of the NAFO Scientific Council (figures to be agreed at the September 1995 Annual NAFO Meeting)

1. Bulgaria
2. Canada
3. Cuba
4. Denmark (Faroe Islands and Greenland)
5. European Union
6. Iceland
7. Japan
8. Korea
9. Norway
10. Poland
11. Estonia
12. Latvia
13. Lithuania
14. Russia
15. Others

Total Allowable Catch	3LMNO	tonnes

C. to come back to the question of an increase of the inspection presence (STACTIC Working Paper 95/14, revision 4) at the September 1997 Annual NAFO Meeting.

D. to adopt at the September 1995 Annual NAFO Meeting a minimum fish size for Greenland halibut of ----cm, taking into account the advice of the NAFO Scientific Council.

E. to consider for adoption at the earliest occasion:

- any further measures to protect juvenile fish of regulated species, e.g. area/seasonal closures, taking into account the advice of the NAFO Scientific Council (Fisheries Commission's request for scientific advice-FC Working Paper 95/27); and

- any special rules for fish products, e.g. processed length equivalents as well as additional enforcement measures (STACTIC Working Paper 95/16, Revision 5), taking into account the advice of STACTIC.

F. to convene a STACTIC working group sufficiently in advance of the implementation of the Pilot Project with a view to examine the different satellite systems and their compatibility.

G. to convene a Workshop for scientists and fishery managers in connection with the September 1996 Annual NAFO Meeting with a view to address the question of the applicability of discard rules/retention rules in the NRA in accordance with the following terms of reference (to be elaborated).

Annex 4. Resolution

THE FISHERIES COMMISSION

Having considered the joint proposal by Canada and the European Community to NAFO for 1995 that:

(a) The 27,000t TAC for 2+3 Greenland halibut be divided as follows:

-	2+3K (Canadian 200 mile zone)	7,000 tonnes
-	3LMNO	20,000 tonnes

(b) The 7,000t allocation for 2+3K (within Canadian 200 mile zone) for Greenland halibut be allocated to Canada;

Recalling Scientific Council reports which have cautioned about concentrating fishing effort on one part of the stock;

Noting that the catches of Greenland halibut in the NAFO Regulatory Area will take place entirely in 3LMNO;

Noting that Canada will limit its catch in 2+3K to 7,000t and in 3LMNO to 3,000t;

HAS AGREED to implement its decisions for 1995 with respect to 2+3 Greenland halibut by specifying that:

(a) Sub-area 2+3 shall, as regards the management of Greenland halibut, be geographically divided as follows:

- 2+3K
- 3LMNO

(b) The TAC for 3LMNO shall be 20,000t.

Annex 5. Fisheries Commission's Request for Scientific Advice

The Fisheries Commission, with the concurrence of the Coastal State, requests that the Scientific Council, as regards points 1 and 2 at a meeting in advance of the 1995 Annual Meeting, provide scientific advice in response to the following issues:

1. A minimum fish size for Greenland halibut

   Provide advice on the minimum fish size for Greenland halibut in SA 2+3, in terms of round (total) length, corresponding to 25% retention by the existing legal minimum mesh size for trawls.

2. TAC's for Greenland halibut in SA 2+ Div. 3K and Div. 3LMNO

   The Fisheries Commission has subdivided the 1995 TAC for Greenland halibut in SA 2+3 into two TAC's for SA 2 + Div. 3K and Div. 3LMNO. In responding to the Commission's request for advice for the management of Greenland halibut in SA 2+3 for 1996, the Scientific Council should recommend an overall TAC for SA 2+3 and provide advice on dividing the overall TAC into two TAC's for SA 2 + Div. 3K and for Div. 3LMNO.

3. Further measures to protect juvenile fish of regulated species, e.g. area/seasonal closures

   Taking into account available information on the geographical and seasonal distribution of regulated species of various sizes, identify, where practical and sufficient information is available, seasonal and area fishery closures which would reduce the proportion of juveniles of regulated species in commercial catches.

4. Optimal minimum fish sizes

   Taking into account the implications on conservation of the stocks and long-term harvest of alternative sizes at first entry into the fishery, recommend optimal (in terms of maximum yield per recruit) minimum fish sizes for regulated species in the NRA, and advise on the corresponding minimum mesh sizes for trawls and other gear.

5. Minimum mesh size in the Capelin fishery

   Provide advice on the usefulness of a minimum mesh size in the trawl fishery for Capelin.

Annex 6. Fisheries Commission's Request for STACTIC Advice

The Fisheries Commission requests that the STACTIC, prior to the Annual NAFO Fisheries Commission Meeting in September 1995:

1. Propose sampling plans for use in estimating catch composition and quantities by species if any cartons or other containers are to be opened.

2. Provide advice on FC Working Paper 95/15 Dockside Inspections, Japanese Proposal.

3. Provide advice on STACTIC Working Paper 95/16, Revision 5 on special rules for fish products, e.g. processed length equivalents and other enforcement measures.

4. Consider and provide advice on FC Working Paper 95/13, the Japanese proposal for the report to be completed by observers.

5. Advise on FC Working Paper 95/28, Revision 1, Infringements, 9.v.

6. Advise on FC Working Paper 95/19, Reporting of Catch on Board Fishing Vessels Entering and Exiting the Regulatory Area, with respect to the issue of transshipping fish.

Prior to December 31, 1995 and sufficiently in advance of the implementation of the Pilot Project, STACTIC is requested to convene a STACTIC working group and provide advice on the different satellite systems and their compatibility.

Fisheries Commission Annual Meeting

The Fisheries Commission including meetings of its subsidiary body - Standing Committee on International Control (STACTIC) - was held during the 17th Annual Meeting on 11-15 September 1995 at the Holiday Inn, Dartmouth, Nova Scotia, Canada. Full proceedings of the meeting are presented in FC Doc. 95/23 and in a separate edition of Meeting Proceedings of the General Council and Fisheries Commission. This Annual Report presents a brief summary of the most substantial decisions at the Fisheries Commission and STACTIC.

Opening Procedures (Agenda items 1-5)

The meeting was called to order by the Chairman, Mr. H. Koster (EU) on 11 September 1995 at 1140 hours. Representatives of the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, the European Union (EU), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, and the Russian Federation (Annex 1). Representatives of the United States of America and the North Atlantic Marine Mammal Commission (NAMMCO) were welcomed to the Meeting as observers.

Mr. R. Steinbock (Canada) was appointed Rapporteur.

The provisional agenda was adopted (Annex 2).

Administrative (Agenda items 6-7)

The review of Commission membership was referred to the General Council authority (under provisions of Article XIII of the Convention), and the General Council decided that all thirteen (13) Contracting Parties present at the current meeting will be members of the Fisheries Commission in 1996.

Election of Officers: Mr. H. Koster (EU) was re-elected as Chairman of the Fisheries Commission and Mr. P. Gullestad (Norway) was re-elected as Vice-Chairman for a term of two years (1996-1997).

Conservation and Enforcement Measures (Agenda items 8-11)

Item 9 of the FC Agenda, specific issues regarding the items referred to the Annual Meeting from the Special Fisheries Commission Meeting in June 1995 (Toronto, Canada), have been referred to STACTIC. At the closing session, the Fisheries Commission adopted FC Doc. 95/20-"Items Referred to the Annual Meeting from the Special Fisheries Commission Meeting in June 1995" which includes the Chairman's proposal from the Special June Meeting for the control and enforcement measures as amended as well as the proposal for the total allowable catch and quotas for Greenland halibut for 1996 and a minimum size of 30 cm for Greenland halibut (Annex 3).

Issues concerning discards were referred to a Working Group, the terms of reference for which are outlined in Annex 4 "Workshop on the compatibility and applicability of discard/retention rules for the conservation and utilization of fishery resources in the Northwest Atlantic". Following a proposal by the Representative of Norway, supported by the Representative of Denmark (in respect of the Faroe Islands and Greenland), it was agreed to hold this Working Group meeting two days prior to the 1996 NAFO Annual Meeting, on 7-8 September 1996.

The Representative of the EU offered to host the Working Group Meeting on implementation of the Pilot Project regarding the compatibility of different satellite systems during the second half of October 1995.

Item 10 of the FC Agenda, Minimum Fish Size (witch, redfish, Greenland halibut) and Minimum size of Processed Fish (witch, redfish, Greenland halibut, cod, A. plaice, yellowtail flounder), was referred to STACTIC and then translated in FC Doc. 95/10 adopted by the Fisheries Commission.

Item 11 of the FC Agenda, Report of STACTIC at the Annual Meeting, the Chairman of STACTIC (D. Bevan-Canada) reported the recommendations of STACTIC which then were adopted by the Commission.

For review of annual returns of infringements it was agreed that these reports should be forwarded to the NAFO Secretariat as soon as possible.

For review of NAFO Observer Scheme Pilot Project, the Fisheries Commission was in agreement with the use by Japan of its proposed form.

In order to reduce discard of unavoidable by-catch, Japan proposed a minimum fish size of 30 cm for Greenland halibut. The Fisheries Commission agreed with this proposal.

The Fisheries Commission requested STACTIC to continue its work with a view to developing a sampling protocol.

STACTIC elected David Bevan (Canada) to serve as Chairman for the two-year period 1996-1997.

STACTIC recommended to convene a Working Group on Pilot Satellite Project, sufficiently in advance of the implementation of the Pilot Project, to discuss implementation of the provisions requiring satellite transponders, as per the modified conservation and enforcement measures (contained in FC Doc. 95/7, item 17), with a view to examining the different satellite systems and their compatibility.

The Fisheries Commission considered the STACTIC report and adopted its recommendations as noted in the Fisheries Commission report, and the STACTIC report was adopted as a whole.

In addition, the following issues were considered by the Meeting:

Following a proposal by the Representative of Russia, the Fisheries Commission requested that the 1996 STACTIC meeting consider an addition to the NAFO Conservation and Enforcement Measures, Part I.D. Minimum Fish Size with regard to the derogation from the rules regarding discards for the Russian Federation similar to that of Canada (STACTIC W.P. 95/40) to recognize the fact that under the Russian national regulation all fish caught by Russian vessels must be retained on board. Following a proposal by the Representative of Russia, the Fisheries Commission also requested that the next STACTIC meeting consider the use of 90mm mesh size for pelagic trawls for the redfish fishery in the NAFO Regulatory Area (FC Working Paper 95/42 - "Proposal of the Russian Delegation" (Conservation and Enforcement Measures, Part V-Schedule IV. Authorized Mesh Size of Nets).

The Fisheries Commission agreed with FC Working Paper 95/41 - "Proposal of Iceland" for a request to STACTIC to review Part V. Schedule II - Attachment (Type of Fishing Gear) in order to have new gear categories included, to establish criteria for gear and net size and to make proposals for subsequent changes in Part II of the NAFO Conservation and Enforcement Measures.

Conservation of Fish Stocks in the Regulatory Area (Agenda items 12-16)

The Chairman of the Scientific Council (Mr. H. Lassen - EU) gave a summary of SCS Doc. 95/19 - "Report of the Scientific Council - June 1995" which provided management advice for 1996 for fish stocks in the NAFO Regulatory Area as set out below.

- Cod 3M	catch should be limited to vicinity of current TAC (11 000 tons)
- Cod 3NO	no directed fishery
- Redfish 3M	20 000 tons
- Redfish 3LN	not exceeding 14 000 tons
- American plaice 3M	no directed fishery
- American plaice 3LNO	no directed fishery
- Yellowtail flounder 3LNO	no directed fishery
- Witch flounder 3NO	no directed fishery
- Capelin 3NO	no directed fishery
- Squid (SA 3 and 4)	no advice
- Greenland halibut 3LMNO	TAC should be set well below the catches achieved in 1990-94 until it is clear that the fishable stock is increasing
- Shrimp 3M	no directed fishery
- Shrimp 3LNO	no directed fishery
- Cod 2J3KL in NRA	no directed fishery

The presentation was followed by detailed stock-by-stock discussions.

The following responses to the special requests for management advice by the Fisheries Commission were presented to the meeting:

Cod in Divisions 2J, 3K and 3L (SCR Doc. 95/46)

The results from the survey series used were as follows:

Season RV survey conducted	Years RV survey conducted	Range of proportions of Div. 3L biomass occurring in the Regulatory Area (1994 value in brackets)	Average proportion (%)
Winter	1985-86	23.8-28.8	25.3
Spring	1977-94	0.4-63.1 (63.1)	10.3
Autumn	1981-94	0.5-9.7 (9.7)	3.5

The proportions observed are estimates for the months in which the surveys were conducted and may not represent distributions in non-surveyed months. Although only two winter surveys have been conducted, the proportion of biomass in the Regulatory Area at that time appeared to be substantially higher than at other times.

Implications of mesh size in mid-water trawls for redfish in Div. 3LN

The Scientific Council reviewed selectivity data on redfish from Russian experiments carried out in Div. 3N and Canadian experiments with bottom trawl in Subdiv. 3Ps. In Div. 3N in 1994 the use of 130 mm mesh size codends allowed the escapement of 90%, by weight, of the catch of redfish. Scientific Council noted that this would be specific to the stock situation. However, that under these conditions the use of codend mesh size greater than 90 mm in the redfish fishery in Div. 3N may not result in the significant long term gains in yield if assumptions of high mortality during haul back are correct. Fishing on individuals of a stock many years before they have reached sexual maturity puts the stock at risk of biological collapse, even at relatively low levels of fishing mortality. Any redfish fishery in this area using 90 mm mesh codends needs to be controlled carefully. Scientific Council was encouraged by the success of using lastridge rope rigged codends of bottom trawls (90 mm) which allow the meshes to remain open during towing and improves the escapement of more small fish, while retaining more commercial size redfish.

Interrelation between seals and commercial fish stocks

This subject was addressed during the meeting of the Joint ICES/NAFO Working Group on Harp and Hooded Seals, 5-9 June 1995. The Scientific Council will hold a Symposium 6-8 September 1995, which is expected to add to the available database relevant to the request by the Fisheries Commission. The Scientific Council therefore decided to wait until September 1995 to complete its report on this item for presentation to the Fisheries Commission.

Coordinated research on Greenland halibut

The issue of coordinated research relative to Greenland halibut was considered by Scientific Council with respect to the need for a synoptic survey for Greenland halibut. It was suggested that such a survey would require one or two years planning time and it was recommended that parties interested in a synoptic survey meet and formulate a plan. A group should be formed from these parties to set dates and specify vessel and scientific staff requirements. The plan would describe the Scientific Council's requirements with respect to the question.

More information on the Scientific Council's advice to the Fisheries Commission can be found in Part III of this Annual Report.

Under item 13 of the FC Agenda, Management and Technical Measures for Fish Stocks in the Regulatory Area and Straddling national fishing limits (agenda items 13.1 to 13.4 and 14), a consensus emerged in Heads of Delegations meetings around the following proposals:

- Cod 3M	11 000 tons (with reservations by several Contracting Parties)
- Redfish 3M	26 000 tons
- American plaice 3M	no directed fishery

- Shrimp 3M	effort limitation (FC Working Paper 95/38 with reservations by several Contracting Parties; became FC Doc. 95/21)
- Shrimp 3LNO	no directed fishery
- Redfish 3LN	11 000 tons
- G. halibut 3LMNO	20 000 tons

Under item 14 of the FC Agenda, Management and Technical Measures for Fish Stocks Straddling National Fishing Limits (agenda items 14.1 to 14.10), the following was adopted:

- Cod 3NO	no directed fishery
- American plaice 3LNO	no directed fishery
- Yellowtail flounder 3LNO	no directed fishery
- Witch flounder 3NO	no directed fishery
- Capelin 3NO	no directed fishery
- Squid (*Illex*) (SA 3 and 4)	150 000 tons
- Cod 2J3KL in NRA	no directed fishery

This being the case, the Chairman concluded that the Fisheries Commission adopted these proposals.

In addition, for management of shrimp in Div. 3M, the following was agreed:

The Executive Secretary would compile the details specified in the effort allocation scheme and distribute them to Contracting Parties before December 31, 1995 on the basis of information the Parties provided to NAFO as to which vessels had fished 3M shrimp and the maximum number of fishing days observed for their vessels in one of the years 1993, 1994, or 1995 (until August 31, 1995).

The Fisheries Commission adopted the Quota Table (Annex 5) in accordance with Schedule I of the NAFO Conservation and Enforcement Measures with the exception of four Parties - Estonia, Latvia, Lithuania and Russia, for which a "block quota" was allocated on the same conditions as last year as is noted in footnote 1 thereto. It was agreed that the "Others" quota for 3LMNO Greenland halibut (1 330 tons) would be allocated seasonally - no more than 40% (532 tons) may be fished before May 1, 1996 and nor more than 80% (1 064 tons) may be fished before October 1, 1996.

Under item 15 of the FC Agenda, Formulation of Request to the Scientific Council for Scientific Advice on the Management of Fish Stocks in 1997, following a proposal by the Representative of Canada, it was agreed to submit a request to the Scientific Council for scientific advice on management in 1997 of certain fish stocks in Subareas 3 and 4 (Annex 6).

Under item 16 of the FC Agenda, Transfer of Quotas between Contracting Parties, the Representative of Denmark (in respect of the Faroe Islands and Greenland) referred to previous NAFO proceedings. He felt that the cumulative impact of three management criteria on small quota allocations were extremely severe. These criteria were:

- a low "others" quota
- a rigid distribution key
- the practice of quota transfers

He added that it was unfair to operate swaps of underutilized quotas between Contracting Parties without taking into account the interests of other Contracting Parties who are in real need of fishing opportunities and have nothing to offer in return. He would be particularly concerned if the allocation of quota for Greenland halibut would be transferred. A short-term remedy would be an increase in the "Others" quota for transfer to such Parties.

Closing Procedures (Agenda items 17-19)

The next Meeting, the 18th Annual Meeting, will be held on September 9-13, 1996 in the Halifax-Dartmouth area subject to the decision of the General Council.

There was no other business to discuss at the Meeting.

The Annual Meeting of the Fisheries Commission was adjourned at noon on 15 September 1995.

The List of Decisions and Actions by the Fisheries Commission at the 17th Annual Meeting is presented in Annex 7.

Annex 1. List of Participants

CANADA

Head of Delegation

W. A. Rowat, Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6

Representative

W. A. Rowat (see address above)

Advisers

M. Allard, Seaku Fisheries, 650-32nd Ave, 6th Floor, Lachine, Quebec H8T 3K5
C. J. Allen, Resource Management, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
J. Angel, Canadian Association of Prawn Producers, 15 Dartmouth Rd., Suite 310, Bedford, N.S. B4A 3X6
B. Applebaum, Director-General, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. B. Atkinson, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
J. S. Beckett, Fisheries Research Br., Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
D. Bevan, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
W. R. Bowering, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
W. B. Brodie, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
B. Bursey, P. O. Box 8700, St. John's, Newfoundland
A. W. Chester, Marlant HQ, FMO Halifax, Halifax, N. S. B3K 2X0
H. Copestake, Government of the Northwest Territories, 219 Argyle St., Suite 510, Ottawa, Ontario K2P 2H4
L. J. Dean, Government of Newfoundland-Labrador, P. O. Box 8700, St. John's, Newfoundland A1B 4J6
A. Donohue, Dept. of External Affairs (DFAIT/NEX), Tower A, 8th Floor, Lester B. Pearson Bldg., 125 Sussex Drive, Ottawa, Ontario K1A 0G2
S. Dutton, Intergovernmental Affairs Secretariat, Government of Newfoundland and Labrador, P. O. Box 8700, St. John's, Newfoundland A1B 4J6
V. Edgar, Office of the Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. Elie, Office of the Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
D. L. Gill, International Directorate, Fisheries and Oceans, 200 Kent St., Stn. 1452, Ottawa, Ontario K1A 0E6
N. Greig, P. O. Box 1058, Kuujjuaq, Quebec J0M 1C0
R. G. Halliday, Marine Fish Div., DFO, BIO, P. O. Box 1006, Dartmouth, N. S. B2Y 4A2
P. A. LaPointe, Ministry of Foreign Affairs, 125 Sussex Drive, Ottawa, Ontario K1A 0G2
C. F. MacKinnon, Marine Advisor, Nova Scotia Dept. of Fisheries, P. O. Box 2223, Halifax, N. S. B3J 3C4
E. McCurdy, c/o FFAW/CAW, P. O. Box 10, St. John's, Newfoundland A1C 5H5
P. McGuinness, Vice-President, Fisheries Council of Canada, #806-141 Laurier Ave. West, Ottawa, Ontario K1P 5J3
N. Melanson, Office of Deputy Minister, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6
E. Mundell, Mission of Canada to the European Communities, Avenue de Tervuren, 2, B-1040 Brussels, Belgium
W. M. Murphy, Mersey Sea Foods, P. O. Box 1290, Liverpool, Nova Scotia B0T 1K0
D. Parsons, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
D. Power, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
J. Quintal-McGrath, International Directorate, Dept. of Fisheries and Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6
R. J. Rochon, Director General, Legal Affairs Bureau, Lester B. Pearson Bldg., 125 Sussex Dr., Ottawa, Ontario K1A 0G2
M. Rowe, Dept of Fisheries and Oceans, c/o Office of the Deputy Minister, 200 Kent St., 15th Floor, Ottawa, Ontario K1A 0E6
R. Sciocchetti, Fisheries and Oceans, P. O. Box 550, Halifax, N. S.
M. Short, 15 Riverside Dr., Goulds, Newfoundland
B. Sjare, Northwest Atlantiac Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
U. S. Snarby, P. O. Box 339, Liverpool, Nova Scotia B0T 1K0
R. Steinbock, International Directorate, Dept of Fisheries and Oceans, 200 Kent Street, Stn. 1452, Ottawa, Ontario K1A 0E6
G. B. Stenson, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
L. Stewart, Communications Directorate, Dept. of Fisheries & Oceans, 200 Kent St., Ottawa, Ontario K1A 0E6

R. Stirling, SPANS, P. O. Box 991, Dartmouth, N. S. B2Y 3Z6
L. Strowbridge, Offshore Surveillance, Nfld. Region, Dept. of Fisheries and Oceans, P.O. Box 5667, St. John's, Newfoundland A1C 5X1
G. C. Vernon, 180 Iona Street, Ottawa, Ontario K1Z 7B4
W. E. Wells, P. O. Box 550, St. John's, Newfoundland A1C 5L1
B. Whelan, Dept. of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
E. Wiseman, Dept. of Fisheries and Oceans, International Directorate, 200 Kent Street, Stn. 1452, Ottawa, Ontario K1A 0E6

CUBA

Head of Delegation

J. M. Benjamin, Deputy Minister of Fisheries, Ministerio de la Industria Pesquera, Barlovento, Jaimanitas, Municipio Playa, Ciudad de la Havana

Representative

J. M. Benjamin (see address above)

Advisers

R. Dominguez, Cuban Fishing Fleet Representative, 1881 Brunswick St., Apt. 911, Halifax, Nova Scotia, Canada B3J 3L8
J. Lopez Piedra, Ministerio de la Industria Pesquera, Barlovento, Sta Fe, Playa, La Habana

DENMARK (*in respect of Faroes and Greenland*)

Head of Delegation

E. Lemche, Director, Gronlands Hjemmestyre, Pilestraede 52, Box 2151, Copenhagen, Denmark

Alternate

K. P. Mortensen, Foroya Landsstyri, P. O. Box 87, FR-110 Torshavn, Faroe Islands

Representatives

E. Lemche (see address above)
K. P. Mortensen (see address above)

Advisers

F. O. Kapel, Greenland Institute of Natural Resources, Tagensvej 135, 1 DK-2200 Kobenhavn N
S. Lage, Greenland Home Rule, *Fiskeridirektoratet*, Box 269, DK-3900 Nuuk, Greenland
O. Loewe, Minister Counsellor, Royal Danish Ministry of Foreign Affairs, 2, Asiatisk Plads, DK-1448 Copenhagen K, Denmark
A. Nicolaisen, Fiskorannsoknarstovan, Fish. Lab. Noatun, P. O. Box 3051, FR-110 Torshavn, Faroe Islands
P. M. Pedersen, P. O. Box 310, 3900 Nuuk, Greenland
H. Siegstad, Greenland Institute of Natural Resources, Box 570, 3900 Nuuk, Greenland

ESTONIA

Head of Delegation

L. Vaarja, General Director, National Estonian Board of Fisheries, Lai Street 39/41, EE 0100 Tallinn

Representative

L. Vaarja (see address above)

Advisers

T. Lukk, Ravala 9, Tallinn EE-0100
T. Roose, National Estonian Board of Fisheries, Lai Street 39/41, EE-0100 Tallinn
V. Ruul, Vaike-Posti 11, EE-3600 Parnu

EUROPEAN UNION (EU)

Head of Delegation

O. Tougaard, Commission of the European Union, 200 Rue de Loi, B-1049 Brussels, Belgium

Representative

O. Tougaard (see address above)

Advisers

J. Beck, Ambassador and Head of Delegation of the Commission of the EU, 330-111 Albert Street, Ottawa, Ontario K1P 1A5
J. R. Borrell, Commission of the European Union, 200, Rue de la Loi, B-1049 Brussels, Belgium
H. B. Baggendorff, Eurostat, Commission of the EU, Batiment Jean Monnet, BP 1907, L-2920 Luxembourg
H. Koster, Commission of the European Union, Rue Joseph II, 99, B-1049 Brussels, Belgium
F. Wieland, Rue de la Loi 200, B-1040 Brussels, Belgium
A. Astudillo, Commission of the European Union, DG XIV, Rue Joseph II, 99, 1049 Brussels, Belgium, Brussels
P. Curran, Directorate General for Fisheries, Commission of the European Union, Rue Joseph II, 99 B-1049 Brussels, Belgium
P. Heller, Commission of the European Union, Rue de la Loi 200, B-1049 Brussels, Belgium
D. Cross, Eurostat, Commission of the EU, Batiment Jean Monnet, BP 1907, L-2920 Luxembourg
G. F. Kingston, Senior Adviser (Economic and Commercial Affairs), Delegation of the Commission of the EU, 330-111 Albert Street, Ottawa, Ontario K1P 1A5
V. Cody, Council of the European Union, Batiment Justus Lipsius, Rue de la Loi, (90.GH.41) B-1040 Brussels, Belgium
R. Conde, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
M. I. Aragon, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
C. Dominguez, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. T. Santos, Secretaria General de Pesca Maritima, Jose Ortega y Gasset, 57, 28006 Madrid, Spain
J. Consarnau, Ministerio de Asuntos Exteriores, Plaza de la Provincia, 1, Madrid, Spain
G. T. Conrad, Bundesministerium fur Ernahrung Landwirtschaft und Forsten, Rochusstr. 1, 53123 Bonn, Germany
H. P. Cornus, Institut fur Seefischerei, Palmaille 9, D-22767 Hamburg, Germany
M. Stein, Institut fur Seefischerei, Palmaille 9, D-22767 Hamburg, Germany
J. F. Gilon, Direction de Peche Maritimes, 3 Place de Fontenoy, 75007, Paris, France
D. Briand, IFREMER, B. P. 4240, 97500 St. Pierre et Miquelon, France
J. B. Nielsen, Slotsholmsgade 10, DK-1216 Copenhagen, Denmark
H. Lassen, Danish Institute for Fisheries Research, Charlottenlund Slot, DK-2920 Charlottenlund, Denmark
M. Rouine, First Secretary, Permanent Representation of Ireland to the EU, Avenue Galilee 5, 1030 Brussels, Belgium
V. Fernandes, Embassy of Portugal, 645 Island Park Drive, Ottawa, Ontario
M. H. Figueiredo, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
J. Rainha, Direccao Geral das Pescas, Edificio Vasco da Gama, Alcantara, 1300 Lisbon, Portugal
C. Gomes, Direccao-Geral dos Assuntos Europeus, Rua da Cova da Moura No. 1, 1100 Lisbon, Portugal
A. Avila de Melo, Instituto Portugues de Investigacao Maritima (IPIMAR), Av. de Brasilia, Lisbon, Portugal
M. L. Godinho, Instituto Portugues de Investigacao Maritima (IPIMAR), Av. de Brasilia, Lisbon, Portugal
P. Franca, S. P. Miradouro, Av. Pedro Alvares Cabral, 3830 Ilhavo, Portugal
A. Paiao, Apartado 12, Gafanha da Nazare, 3830 Ilhavo, Portugal
J. R. Fuertes Gamundi, 'ANAVAR, 'ANAMER, 'AGARBA', Puerto Pesquero, Vigo, Spain
R. Gordejuela, ANAVAR, Puerto Pesquero, Vigo, Spain

A. Hermida, Direccion Xeral de Pesca e Industrias Pesqueiras, Xunta de Galicia, C/Sar-N. 75, Santiago, A Coruna, Spain
M. Iriondo, Avda. Ategorrieta, 11, San Sebastian, Spain
J. M. Liria, ANAMER, Puerto Pesquero, Vigo, Spain
J. L. Meseguer, Asociacion de Empresas de Pesca de Bacalao, Especies Afinesy Asociadas (ARBAC), Enrique Larreta 10, Madrid, Spain
F. J. Rodriguez, Cno. Jolastokieta 5, 20.017 Herrera-San Sebastian, Spain
E. deCardenas, Instituto Espanol de Oceanografia, Aptdo 240, Santander, Spain
L. Motos, AZTI, Instituto para la Ciencia y Tecnologia Pesquera, Av. Satrustegi 8, 20008 San Sebastian, Spain
A. Vazquez, Instituto de Investigaciones Marinas, Muelle de Bouzas, 36208 Vigo, Spain
C. C. Southgate, Room 428, Nobel House, Ministry of Agriculture, Fisheries and Food, Smith Square, London SW1P 3HX
J. Casey, Fisheries Laboratory, Pakefield Rd., Lowestoft, Suffolk NR33 OHT, United Kingdom

ICELAND

Head of Delegation

A. Halldorsson, Ministry of Fisheries, Skulagata 4, 150 Reykjavik

Representative

A. Halldorsson (see address above)

Adviser

J. Sigurjonsson, Marine Research Institute, Skulagata 4, P. O. Box 1390, 121-Reykjavik

JAPAN

Head of Delegation

K. Yonezawa, c/o Fishery Division, Economic Affairs Bureau, Ministry of Foreign Affairs, 2-2-1 Kasumigaseki, Chiyoda-ku, Tokyo

Representative

K. Yonezawa (see address above)

Advisers

Y. Aoki, Embassy of Japan, 255 Sussex Drive, Ottawa, Ontario, Canada K1N 9E6
T. Harada, Far Seas Fisheries Div., Oceanic Fisheries Dept., Fisheries Agency Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
O. Hiroko, Fisheries Agency of Japan, Kasumigaseki 1-2-1, Chiyoda-ku, Tokyo
Y. Kashio, Japan Fisheries Association, Suite 1408, Duke Tower, 5251 Duke Street, Halifax, Nova Scotia, Canada B3J 1P6
A. Mae, International Affairs Div., Fisheries Agency, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
T. Murai, Deputy Director, Development Dept., Japan Marine Fishery Resources Research Center, Godo Kaikan Bldg. 3-27 Kioi-Cho, Chiyoda-ku, Tokyo 102
H. Ohmori, International Affairs Div., Fisheries Agency, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100
H. Yamada, Resources Management Div., Seikai National Fisheries Research Institute, 49 Kokubu-Machi, Nagasaki 850
K. Yokawa, National Research Institute of Far Seas Fisheries, 5-7-1 Orido, Shimizu 424
M. Yoshida, Executive Managing Director, Japan Deep Sea Trawlers Association, 601 Ogawamachi Yasuda Bldg., 3-6 Kanda, Ogawa-Cho, Chiyoda-ku, Tokyo

REPUBLIC OF KOREA

Head of Delegation

D. B. Park, Fisheries Attache, Embassy of the Republic of Korea, 2450 Massachusetts Ave. N.W., Washington, D.C. 20008 USA

Representative

D. B. Park (see address above)

LATVIA

Head of Delegation

N. Riekstins, Director, Ministry of Agriculture of the Republic of Latvia, National Board of Fisheries, 63, Kr. Valdemara Str, Riga, LV-1142

Representative

N. Riekstins (see address above)

Advisers

M. Lacis, Embassy of Latvia, 112 Kent Street, Tower B, Suite 208, Ottawa, Ontario K1P 5P2
A. Ugainis, Joint Stock Company "Brivais Vilnis", Pernavas Street, Salacgriva, Riga, LV-4033
A. Ukis, Fisheries Consulting Company, 63 Kr. Valdemara str., Riga, LV-1142

LITHUANIA

Head of Delegation

A. Rusakevicius, Deputy Minister, Director of Fisheries Dept. Ministry of Agriculture, 9, Juozapavichiaus str., Vilnius 2600

Representative

A. Rusakevicius (see address above)

NORWAY

Head of Delegation

P. Gullestad, Directorate of Fisheries, P. O. Box 185, 5002 Bergen

Representative

P. Gullestad (see address above)

Advisers

T. Konow, Directorate of Fisheries, P. O. Box 185, 5002 Bergen
A. Maraak, Fiskebatredernes Forbund, P. O. Box 94, 6001 Aalesund

POLAND

Head of Delegation

J. Fota, Consul, Polish Trade Commissioner's Office, 3501 Avenue du Musee, Montreal, Quebec, Canada H3G 2C8

Representative

J. Fota (see address above)

Adviser

L. Dybiec, Ministry of Transport and Maritime Economy, Sea Fishery Dept. Chalubinskeigo Str. 4/6, 00-958 Warsaw

RUSSIA

Head of Delegation

A. Rodin, First Deputy Chairman, Fisheries Committee of the Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031

Representative

A. Rodin (see address above)

Advisers

G. V. Goussev, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
V. Kolesnikov, Kaliningrad Regional Administration, Dm Donskoy Str. 1, Kaliningrad 236007
V. K. Ofitserov, Dm. Donskoy Str. 5, 23600 Kaliningrad
A. Okhanov, Fisheries Committee of Russian Federation, 12 Rozhdestvensky Boul., Moscow 103031
V. N. Shibanov, PINRO, 6 Knopovich St., Murmansk 183763
T. Shmelkin, Dm. Donskoy Str. 5, 23600 Kaliningrad
V. N. Solodovnik, Embassy of the Russian Federation, 1609 Decatur St. N.W., Washington, D.C. 20011
V. P. Torokhov, Sevryba Co., Murmansk, 183000
F. M. Troyanovsky, Director, Knipovich Polar Research Institute of Marine Fisheries and Oceanography (PINRO), 6 Knipovich St. 183763, Murmansk
Y. Videneev, Representative of the Russian Federation in Canada on Fisheries, 2074 Robie St., Halifax, Nova Scotia, Canada B3K 5L3

OBSERVERS

UNITED STATES OF AMERICA

K. Blankenbeker, National Marine Fisheries Service/NOAA, 1315 East-West Highway, Silver Spring, MD 20910
H. Foster, U.S. Embassy, 100 Wellington St., Ottawa, Ontario K1P 5T1
A. Peterson, National Marine Fisheries Service, Box 166, Woods Hole, MA 02534
H. S. Tinkham, Office of Marine Conservation, OES/OMC Room 7820, U.S. Department of State, Washington, D.C. 20520-7818
W. J. Quigley, Coast Guard Liaison, Dept. of State, Office of Marine Conservation, 2201 C. St., NW, Room 7820, Washington, D.C. 20520
F. Serchuk, NMFS, Northeast Fisheries Science Center, 166 Water St., Woods Hole, MA 02543-1097
L. Tobey, U.S. Consulate General, Cogswell Tower #910, Scotia Square, Halifax, N.S., Canada B3J 3K1

SECRETARIAT

Dr. L. I. Chepel, Executive Secretary
T. Amaratunga, Assistant Executive Secretary
F. D. Keating, Administrative Assistant
B. J. Cruikshank, Senior Secretary
S. Goodick, Accounting Officer
F. E. Perry, Desktop Publishing/Documents Clerk
D. C. A. Auby, Clerk-Typist
G. Moulton, Statistical Officer
R. A. Myers, Graphic Arts/Printing Technician
B. T. Crawford, Graphic Arts/Printing Technician
B. L. Marshall, Statistical Clerk

Annex 2. Agenda

I. Opening Procedure

1. Opening by the Chairman, H. Koster (EU)

2. Appointment of Rapporteur

3. Adoption of Agenda

4. Admission of Observers

5. Publicity

II. Administrative

6. Review of Commission Membership

7. Election of Officers: Chairman and Vice-Chairman

III. Conservation and Enforcement Measures

8. Annual Return of Infringement, Surveillance, Inspection Reports

9. Items referred to the Annual Meeting from the Special Fisheries Commission Meeting in June 1995 (Toronto, Canada)

10. Minimum Fish Size (witch, redfish, Greenland halibut) and Minimum Size of Processed Fish (witch, redfish, G. halibut, cod, A. plaice, yellowtail flounder)

11. Report of STACTIC at the Annual Meeting

IV. Conservation of Fish Stocks in the Regulatory Area

12. Summary of Scientific Advice by the Scientific Council

13. Management and Technical Measures for Fish Stocks in the Regulatory Area

    13.1 Cod in Div. 3M
    13.2 Redfish in Div. 3M
    13.3 American plaice in Div. 3M
    13.4 Shrimp in Div. 3M

14. Management and Technical Measures for Fish Stocks Straddling National Fishing Limits

    14.1 Cod in Div. 3NO
    14.2 Redfish in Div. 3LN
    14.3 American plaice in Div. 3LNO
    14.4 Yellowtail flounder in Div. 3LNO

14.5 Witch flounder in Div. 3NO
14.6 Capelin in Div. 3NO
14.7 Squid (*Illex*) in Subareas 3 and 4
14.8 Shrimp in Div. 3LNO
14.9 If available in the Regulatory Area in 1996:
i) Cod in Div. 2J3KL
14.10 Greenland halibut in Div. 3LMNO.

15. Formulation of Request to the Scientific Council for Scientific Advice on the Management of Fish Stocks in 1997

16. Transfer of Quotas Between Contracting Parties

V. Closing Procedure

17. Time and Place of the Next Meeting

18. Other Business

19. Adjournment

Annex 3. Decision of the Fisheries Commission on Items Referred to the Annual Meeting from the Special Fisheries Commission Meeting in June 1995

The Fisheries Commission

Having considered the STACTIC Reports of the Special Meeting, 10-12 May 1995 and the Meeting of 08 June 1995; and

Noting its decisions for 1995 with respect to Greenland halibut in Subareas 2+3.

Noting FC Working Paper 95/16, Revision 1, agreed at its June 1995 Meeting

A. Adopts the following proposals for international measures of control and enforcement:

- Inspections (FC Doc. 95/12))
- Transmission of Information from Inspections (FC Doc. 95/11)
- Reporting of Catch on Board Fishing Vessels Entering and Exiting the Regulatory Area (FC Doc. 95/13)
- Mesh Size (FC Doc. 95/14)
- Port Inspections (FC Doc. 95/15)
- Effort Plans and Catch Reporting (FC Doc. 95/18)
- Infringements (FC Doc. 95/19)
- Follow-Up on Apparent Infringements (FC Doc. 95/16)
- Pilot Project for Observers and Satellite Tracking (FC Doc. 95/17)
- Minimum Fish Size (FC Doc. 95/9)
- Processed Length Equivalents (FC Doc. 95/10)

B. Adopts the following proposal for the total allowable catch (TAC) and quotas (metric tons) for Greenland halibut for 1996, taking into account the advice of the NAFO Scientific Council

1.	Bulgaria	-
2.	Canada	3000
3.	Cuba	-
4.	Denmark (Faroe Islands and Greenland)	-
5.	European Union	11070
6.	Iceland	-
7.	Japan	2050
8.	Korea	-
9.	Norway	-
10.	Poland	-
11.	Estonia	-
12.	Latvia	-
13.	Lithuania	-
14.	Russia	2550
15.	Others	1330*

Total Allowable Catch	3LMNO	20000 tonnes

* of which no more than 40% (532 t) may be fished before 1 May 1996 and no more than 80% (1064 t) may be fished before 1 October 1996.

C. agrees to come back to the question of an increase of the inspection presence (STACTIC Working Paper 95/14, revision 4) at the September 1997 Annual NAFO Meeting.

D. adopts a minimum fish size for Greenland halibut of 30cm, taking into account the advice of the NAFO Scientific Council.

E. agrees to consider for adoption at the earliest occasion:

- any further measures to protect juvenile fish of regulated species, e.g. area/seasonal closures, taking into account the advice of the NAFO Scientific Council (Fisheries Commission's request for scientific advice-FC Working Paper 95/27); and

- any special rules for fish products, as well as additional enforcement measures (STACTIC Working Paper 95/16, Revision 5), taking into account the advice of STACTIC.

F. decides to convene a STACTIC working group sufficiently in advance of the implementation of the Pilot Project with a view to examine the different satellite systems and their compatibility.

G. decides to convene a Workshop for scientists and fishery managers in connection with the September 1996 Annual NAFO Meeting with a view to address the question of the applicability of discard rules/retention rules in the NRA in accordance with the attached terms of reference (FC Working Paper 95/37).

Annex 4. Terms of Reference

Workshop on the compatibility and applicability of discard/retention rules for conservation and utilization of fishery resources in the Northwest Atlantic.

A workshop addressing the question of the compatibility and the applicability of discard/retention rules for conservation and utilization of fishery resources in the NCA will be convened immediately before the September 1996 Annual NAFO meeting. The purpose of this Workshop will be discussion among fishery biologists, economists, managers and enforcement specialists of the merits in the medium term of different approaches to discard/retention issues. Furthermore, discussion between biologists, managers and enforcement specialists will encourage dialogue on and increase the understanding of the impact of these different approaches on the conservation and utilization of fishery resources.

TERMS OF REFERENCE

I. Review of current by-catch/juvenile rules in the Northwest Atlantic.

II. Scope of the problem of by-catches of juveniles, high grading and non-targeted species

- by-catches of juvenile fish:
  - occurrence of unavoidable catches of undersized fish in different fisheries (target species, area, season);
  - evaluation of potential catches of undersized fish and the impact thereof under different management systems.
- by-catches of non-targeted fish:
  - existence of unregulated species justifying directed fisheries and impact thereof on regulated species (species, area, season);
  - evaluation of potential catches of non-targeted fish and impact thereof under different management systems.

III. Applicability and enforceability of discard/retention rules

- efficiency of different management and enforcement strategies used in the Northwest Atlantic in preventing the catch of juvenile fish and fish in excess of quota;
- cost/benefit analysis of these strategies.

IV. Compatibility of different management systems and corresponding enforcement strategies in the Northwest Atlantic.

QUOTA TABLE. Total allowable catches (TACs) and quotas (metric tons) for 1996 of particular stocks in Subareas 3 and 4 of the NAFO Convention Area. The values listed include quantities to be taken both inside and outside the 200-mile fishing zone, where applicable.

	Cod		Redfish		Amercian plaice		Yellowtail	Witch	Capelin	Greenland halibut	Squid (*Illex*)[2,3]
Contracting Party	Div. 3M	Div. 3NO*	Div. 3M	Div. 3LN	Div. 3M*	Div. 3LNO*	Div. 3LNO*	Div. 3NO*	Div. 3NO*	Div. 3LMNO	Subareas 3+4
1. Bulgaria	-	-	390	-	-	-	-	-	-	-	500
2. Canada	85	0	650	4 686	0	0	0	0	0	3 000	N.S.[4]
3. Cuba	407	-	2 275	1 078	-	-	-	-	0	-	2 250
4. Denmark (Faroe Islands and Greenland)	2461	-	-	-	-	-	-	-	-	-	-
5. European Union	5485	0	4 030	374	0	0	0	-	0	11 070	N.S.[4]
6. Iceland	-	-	-	-	-	-	-	-	-	-	-
7. Japan	-	-	520	-	-	-	-	-	0	2 050	2 250
8. Korea	-	-	-	-	-	-	-	-	-	-	2 000
9. Norway	1 018	-	-	-	-	-	-	-	0	-	-
10. Poland	424	-	-	-	-	-	-	-	0	-	1 000
11. Estonia 12. Latvia 13. Lithuania 14. Russia	1 078[1]	0	18 005[1]	4 796[1]	0	-	-	0	0	-	5 000[1]
15. Others	42	0	130	66	0	0	0	0	-	2 550 1 330[6]	3 000
Total Allowable Catch	11 000	*	26 000	11 000	*	*	*	*	*	20 000	150,000[5]

[1] Quotas to be fished by vessels from Estonia, Latvia, Lithuania and the Russian Federation. The provisions of Part I, Section A.3 of the NAFO Conservation and Enforcement Measures shall apply.

[2] The opening date for the Squid (*Illex*) fishery is 1 July.

[3] Any quota listed for squid may be increased by a transfer from any "coastal state" as defined in Article 1, paragraph 3 of the NAFO Convention, provided that the TAC for squid is not exceeded. Transfers made to Contracting Parties conducting fisheries for squid in the Regulatory Area shall be reported to the Executive Secretary, and the report shall be made as promptly as possible.

[4] Not specified because the allocation to these Contracting Parties are as yet undetermined, although their sum shall not exceed the difference between the total of allocations to other Contracting Parties and the TAC.

[5] The TAC would remain at 150 000 tonnes subject to adjustment where warranted by scientific advice.

[6] Of which no more than 40% (532 t) may be fished before 1 May 1996 and no more than 80% (1064 t) may be fished before 1 October 1996.

* No directed fishing - The provisions of Part I, Section A.4b) of NAFO Conservation and Enforcement Measures shall apply.

Annex 6. Fisheries Commission's Request for Scientific Advice on Management in 1997 of Certain Stocks in Subareas 3 and 4

1. The Fisheries Commission with the concurrence of the Coastal State as regards the stocks below which occur within its jurisdiction, requests that the Scientific Council, at a meeting in advance of the 1996 Annual Meeting, provide advice on the scientific basis for the management of the following fish and invertebrate stocks or groups of stocks in 1997:

Cod (Div. 3NO; Div. 3M)
Redfish (Div. 3LN; Div. 3M)
American plaice (Div. 3LNO; Div. 3M)
Witch flounder (Div. 3NO)
Yellowtail flounder (Div. 3LNO)
Capelin (Div. 3NO)
Squid (Subareas 3 and 4)
Shrimp (Div. 3M)
Greenland halibut (Subareas 2 and 3)

2. The Commission and the Coastal State request the Scientific Council to consider the following options in assessing and projecting future stock levels for those stocks listed above:

a) For those stocks subject to analytical dynamic-pool type assessments, the status of the stock should be reviewed and management options evaluated in terms of their implications for fishable stock size in both the short and long term. As general reference points the implications of fishing at $F_{0.1}$, F_{1995} and F_{max} in 1997 and subsequent years should be evaluated. The present stock size and spawning stock size should be described in relation to those observed historically and those expected in the longer term under this range of options.

Opinions of the Scientific Council should be expressed in regard to stock size, spawning stock sizes, recruitment prospects, catch rates and TACs implied by these management strategies for 1997 and the long term. Values of F corresponding to the reference points should be given and their accuracy assessed.

b) For those stocks subject to general production-type assessments, the time series of data should be updated, the status of the stock should be reviewed and management options evaluated in the way described above to the extent possible. In this case, the general reference points should be the level of fishing effort or fishing mortality (F) which is calculated to be required to take the MSY catch in the long term and two-thirds of that effort level.

c) For those resources of which only general biological and/or catch data are available, no standard criteria on which to base advice can be established. The evidence of stock status should, however, be weighed against a strategy of optimum yield management and maintenance of stock biomass at levels of about two-thirds of the virgin stock.

d) Spawning stock biomass levels that might be considered necessary for maintenance of sustained recruitment should be recommended for each stock. In those cases where present spawning stock size is a matter of scientific concern in relation to the continuing productive potential of the stock, management options should be offered that specifically respond to such concerns.

e) Presentation of the result should include the following:

i) for stocks for which analytical dynamic-pool type assessments are possible:

- a graph of yield and fishing mortality for at least the past 10 years.
- a graph of spawning stock biomass and recruitment levels for at least the past 10 years.
- a graph of catch options for the year 1997 over a range of fishing mortality rates (F) at least from $F_{0.1}$ to F_{max}.
- a graph showing spawning stock biomass at 1.1.1998 corresponding to each catch option.
- graphs showing the yield-per-recruit and spawning stock per-recruit values for a range of fishing mortality.

ii) for stocks for which advice is based on general production models, the relevant graph of production on fishing mortality rate or fishing effort.

In all cases the three reference points, actual F, F_{max} and $F_{0.1}$ should be shown.

3. The Fisheries Commission with the concurrence of the Coastal State requests that the Scientific Council continue to provide information, if available, on the stock separation in Div. 2J+3KL and the proportion of the biomass of the cod stock in Div. 3L in the Regulatory Area and a projection if possible of the proportion likely to be available in the Regulatory Area in future years. Information is also requested on the age composition of that portion of the stock occurring in the Regulatory Area.

4. Noting that the Scientific Council held a Symposium on Seals in the Ecosystem, the Fisheries Commission requests that studies are continued on the impact of marine mammals on fish populations, together with recommendations on research needed to quantify further interactions.

5. Noting the Scientific Council's recommendations for coordinated research on Greenland halibut in particular the implementation of a large-scale research survey, the Fisheries Commission and the two Coastal States emphasize the urgency of acquiring basic information to study on the distribution and stock status. The Scientific Council is requested to pursue its coordinated efforts and member countries are urged to commit the necessary resources to the research.

6. It is noted that the Scientific Council has provided some advice on the 3 following questions but the Council is requested to keep these questions under review:

a) TAC's for Greenland halibut in SA 2+ Div. 3K and Div. 3LMNO

The Fisheries Commission has subdivided the 1995 TAC for Greenland halibut in SA 2+3 into two TAC's for SA 2 + Div. 3K and Div. 3LMNO. In responding to the Commission's request for advice for the management of Greenland halibut in SA 2+3 for 1996, the Scientific Council should recommend an overall TAC for SA 2+3 and provide advice on dividing the overall TAC into two TAC's for SA 2 + Div. 3K and for Div. 3LMNO.

b) Further measures to protect juvenile fish of regulated species, e.g. area/seasonal closures

Taking into account available information on the geographical and seasonal distribution of regulated species of various sizes, identify, where practical and sufficient information is available, seasonal and area fishery closures which would reduce the proportion of juveniles of regulated species in commercial catches.

c) Optimal minimum fish sizes

Taking into account the implications on conservation of the stocks and long-term harvest of alternative sizes at first entry into the fishery, recommend optimal (in terms of maximum yield per recruit) minimum fish sizes for regulated species in the NRA, and advise on the corresponding minimum mesh sizes for trawls and other gear.

Annex 7. List of Decisions and Actions by the Fisheries Commission (17th Annual Meeting; 11-15 September 1995)

Substantive issue (propositions/motions)	Decision/Action (FC Doc. 95/23; item)
1. Amendments to the Conservation and Enforcement Measures (FC Doc. 95/20)	Adopted; item 3.2
- Minimum fish size for Greenland halibut, 30 cm; FC Doc. 95/9	Adopted; item 3.2
- Processed length equivalent for Atlantic Cod, American plaice, Yellowtail flounder; FC Doc. 95/10	Adopted; item 3.2
- Transmission of information from inspections (to provide advance notification of apparent infringements; FC Doc. 95/11	Adopted; item 3.2
- Inspection (objectivity in the distribution of inspections); FC Doc. 95/12	Adopted; item 3.2
- Reporting of catch on board fishing vessels entering and exiting the Regulatory Area; FC Doc. 95/13	Adopted; item 3.2
- Mesh size; FC Doc. 95/14	Adopted; item 3.2
- Port Inspections; FC Doc. 95/15	Adopted; item 3.2
- Follow-up of Apparent Infringements; FC Doc. 95/16	Adopted; item 3.2
- Pilot Project for Observer and Satellite Tracking; FC Doc. 95/17	Adopted; item 3.2
- Effort Plans and Catch Reporting; FC Doc. 95/18	Adopted; item 3.2
- Infringements; FC Doc. 95/19	Adopted; item 3.2
2. Workshop on the compatibility and applicability of discard/retention rules; Dartmouth, Canada, 7-8 September 1996	Agreed; item 3.2
3. STACTIC Working Group on Satellite Tracking Systems; Madrid, Spain, October 1995	Agreed; item 3.2
4. The reporting form used by Japanese observers to report to NAFO	In agreement; item 3.4c)
5. Requests from Russia to STACTIC (FC W.P. 95/42) to consider 90 mm mesh size for pelagic trawls for the redfish fishery in the Regulatory Area and derogation from rules re discards	Agreed; item 3.5d)

Substantive issue (propositions/motions)	Decision/Action (FC Doc. 95/23; item)
6. Request from Iceland to STACTIC (FC W.P. 95/41) to review Part V, Schedule II (Type of Fishing Gear)	Agreed; item 3.5e)
7. Report of STACTIC at the Meeting	Adopted; item 3.5
8. TACs, Regulatory Measures for major species for 1996 in the Regulatory Area	Adopted; items 4.8-4.9
Cod 2J3KL in NRA	No directed fishery
Cod in Div. 3M	11 000 tons (with reservation by several Contracting Parties)
Redfish in Div. 3M	26 000 tons
American plaice in Div. 3M	No directed fishery
Cod in Div. 3NO	No directed fishery
Redfish in Div. 3LN	11 000 tons
American plaice in Div. 3LNO	No directed fishery
Yellowtail flounder in Div. 3LNO	No directed fishery
Witch flounder in Div. 3NO	No directed fishery
Capelin in Div. 3NO	No directed fishery
G. halibut in Div. 3LMNO	20 000 tons
Squid (Illex) in SA 3+4	150 000 tons
9. Management of shrimp fishery (FC Doc. 95/21)	Adopted; item 4.10
- Shrimp in Div. 3LNO	No directed fishery
- Shrimp in Div. 3M	Effort limitation (with reservations by several Contracting Parties)
10. Schedule I - Quota Table for 1996 of NAFO Conservation and Enforcement Measures for international regulation of the fisheries	Adopted; item 4.11
11. Request to the Scientific Council for scientific advice on management of fish stocks in 1997; FC Doc. 95/22	Adopted; item 4.20
12. Election of Officers	
- Chairman	H. Koster (EU)
- Vice-Chairman	P. Gullestad (Norway)

STACTIC Working Group Meeting on Pilot Satellite Project

A STACTIC Working Group meeting was held in Brussels, Belgium during 24-26 October 1995. (FC Doc. 95/24)

Opening Procedures (Agenda items 1-3)

The Chairman of the Fisheries Commission (Mr. H. Koster, EU) called the meeting to order at 1030 hrs on 24 October 1995. He stated that unfortunately the STACTIC Chairman (Mr. D. Bevan, Canada) was unable to attend this meeting. Delegates were present from the following Contracting Parties: Canada, Denmark (in respect of the Faroes and Greenland), Estonia, European Union, Iceland, Japan, Latvia and Norway. Also ARGOS, EUTELSAT and INMARSAT representatives attended the meeting. (Annex 1)

Mr. M. Nedergaard (EU) was appointed Rapporteur.

The provisional agenda was adopted without modifications. (Annex 2)

Presentation by system providers on satellite tracking system which can be used in the NAFO Regulatory Area
(Agenda item 4)

Each system provider from ARGOS, EUTELSAT and INMARSAT made an extensive presentation on its satellite tracking system and the capabilities to track fishing vessels particular in the NAFO Regulatory Area. Since not all Contracting Parties were present at the meeting, the Chairman requested these system providers to circulate in writing their presentations to all Contracting Parties.

The following basic features were outlined by the providers:

ARGOS

By using polar-orbiting satellites, global coverage is provided. At present, 2-3 NOAA satellites are used and it is expected that a fourth satellite will enter into service in 1996.

The number of position reports increases with the latitude. At 50° typically 20 reports are obtained. In the NAFO area- normally 20-24 fixes/day. If the GPS module in the ARGOS fails, the land station will still be able to determine the vessel position.

EUTELSAT

Does not provide global coverage - only regional. However, the coverage will be expanded by moving the stationary satellites (East/West). Provides real time communication and guarantee of privacy. Positions are determined by the land station.

INMARSAT-C

Provides in best cases coverage from approx. 80°N to 80°S. The Inmarsat-C system will develop into smaller units and offer higher data-transmission speed. If the integrated GPS system fails in the Satcom-C terminal no position will be reported, unless an external GPS navigator is connected. Hardware prices and communication costs may also decrease.

The Chairman thanked the service providers for attending the meeting and their constructive and open contribution to the discussions on this point of the agenda.

Cost estimation (Agenda item 5)

The system providers presented the following price estimates:

INMARSAT

1.	On board equipment (single unit)	5000 US $
	More than 100 units	3000 US $
	(excl. message terminal)	
2.	Transmissions	
	Data-report "single" (position only)	0.05 US $
	Data-report (incl. course and speed)	0.07-0.09 US $
3.	LES-station data report fee	
	(depends on location)	0.04-0.06 US $
	Subject to competition between the LES in the areas.	
4.	Base station	
	PC + software	20,000 US $

In addition national telecommunication authorities will add their own service charge, which can be quite considerable. This can, however, often be negotiated (National RTT and Fisheries Enforcement Service).

- Vessel "polling" will add 5 to 7 cents to the message price (typical 15-20%)
  Group polling 2.00 $

- Data message which include catch data, if within the size of 1KB cost approx. 0.90-1.10 $

- Fleet net messages (2-256 vessels) 2.00-2.65 $

2/3 of the service providers do not charge subscription fee.

EUTELSAT

As a primary service provider for the purpose of the NAFO pilot project:

1. Ship borne equipment
   One unit/part (incl. installation) — 5000-6000 ECU

2. Land based station
   (PC + software + adaptation) — 10,000 ECU

3. Service
   No land lines (public telephone lines) a pure Euteltrac communication via Eutelsat satellites.

   Fixed terminal — 5,000 ECU
   Communication - Position-reports — 3,000 ECU/mobile terminal/24 months

   One position/hour (typically 15-20 msg/day) as standard, which can be increased to "fast" position report.

   For a "European" vessel/Contracting Party the communication configuration will be with two networks. (N-America and Europe). For a Canadian vessel only one network is needed.

4. Training (2 days) base station — 5000 ECU
   Training for shipborne equipment — 200 ECU

   (1 ECU approx. 1.32 US $ (Oct 1995))

ARGOS

1. On board equipment
   Beacon (transmitter) and a "Psion"-terminal — 2000-2500 US $

2. Software
   "Elsa"-software and certain maps — 4000 US $

3. Service charges for the NAFO Pilot Project
   Lump sum — 2500 $/year/boat

   13-14 fixes/day incl. catch data position, course speed activity catch data using a standard design.

   No local charges automatic communication by X.25 to the flag state and NAFO Secretariat.

Reports by delegates of Contracting Parties on national programmes on satellite tracking (Agenda item 6)

All delegations at the meeting reported on their experience with fishing vessel tracking systems.

Although Greenland, Estonia and Latvia had experience with satellite position and communication systems, they had no experience with an automatic tracking system. These Contracting Parties considered the NAFO pilot project as a useful means with a view to obtain experience in this field.

The Chairman summarized on the reports that whilst in the framework of the NAFO pilot project some Contracting Parties hoped to obtain some experience with satellite tracking of fishing vessels for enforcement purposes, others used already satellite tracking or carried out extensive testing. Therefore, he hesitated to draw conclusions which could preclude at this stage Contracting Parties from testing to the full extent any system considered appropriate.

Consideration of criteria which can be used by different systems (Agenda item 7)

The meeting discussed to some extent criteria which should be met by satellite tracking systems. In the pilot phase it was, however, not considered opportune to fix specific criteria. None of the systems should be excluded beforehand, since it is likely that their performance will advance if tested in the NAFO Regulatory Area. It was identified that Contracting Parties may endeavour to test satellite tracking systems allowing an accuracy of the position of fishing vessels by 500 meters with 99% certainty and allowing 24 position reports on 24 hours.

Compatibility between different systems when used within the NAFO Scheme of Joint International Inspection and Surveillance (hardware-software) (Agenda item 8)

Although the systems as such are not compatible, the information obtained by the different satellite systems can be made compatible. The system providers are able to provide the information in a form modulated to the customer. In most cases each system provider will supply its own software. As a provisional solution software has been developed which can process simultaneously information from ARGOS, EUTELSAT and INMARSAT.

The representative of INMARSAT stated that the compatibility question can be resolved when fishing nations agree on a common format in which the information should be supplied. He considered that such question should be resolved in the FAO rather than in the NAFO.

The representatives of Denmark (on behalf of Greenland) and Norway noted that in NEAFC standardization work is underway. The EU mentioned similar attempts in other parts of the world (USA, Australia).

The representatives of the Contracting Parties present at the meeting considered the format for exchange of satellite tracking information as well as the exchange protocol as issues to be reflected on during the pilot phase. Some standardization such as the use of UTC (Universal time count) and WGS 84 (World Grid System, raster longitude latitude) was considered a possibility for being able to use exchanged information. All Contracting Parties would examine in the framework of the procedures and rules applicable within Contracting Parties which standards could be usefully applied.

It was agreed that when transmitting information obtained by satellite tracking, Contracting Parties will identify the standard used.

As an example of an exchange format, a model developed within the EU by Denmark, including an extension developed by Spain, was circulated in the meeting (Annex 8).

As regards the NAFO Secretariat, the Chairman concluded that no provision was made by NAFO for investment in soft and hardware. With the experience obtained in the framework of the NAFO pilot project consideration should be given to this question. In conformity with the decision taken by the Fisheries Commission, each Contracting Party shall provide the NAFO Secretariat with information in the form as pointed out in the NAFO Conservation and Enforcement rules and as it can be received (fax, telex, etc.).

Consideration of the most acceptable system or systems to be used in the NAFO Regulatory Area (Agenda item 9)

It was obvious from the presentation by the above system providers that several systems seem available. It was not considered opportune during the pilot phase to close the door for any system.

Recommendations/Report to the Fisheries Commission (Agenda item 10)

A first draft of the report has been discussed in the meeting. The Chairman suggested that a provisional report of the meeting would be transmitted to the participants by Dr. Chepel with a request for observations. Dr. Chepel would finalize the report in the light of these observations.

The following recommendations to the Fisheries Commission were agreed:

- As regards standardization of information and protocols for exchanging information
- it is suggested that the results of the work underway in NEAFC on this issue be circulated by the NAFO Secretariat to all NAFO Contracting Parties.
- the Fisheries Commission will reflect on the liaison between NAFO and NEAFC regarding further standardization work.
- In accordance with the NAFO Pilot Project for Observers and Satellite Tracking
- Contracting Parties be encouraged to test to the full extent several systems of satellite tracking

- Contracting Parties be encouraged to make the results of their testing available to other Contracting Parties

- Consideration be given to question of the installation of the necessary communication and data processing equipment in the NAFO Secretariat comparable with the equipment used by Contracting Parties.

Closing Procedures (Agenda items 11-12)

No points were raised under agenda item "Other business".

The Chairman thanked the participants for attending the meeting and their contributions. The meeting was adjourned at 1200 hrs on 27 October 1995.

Annex 1. List of Participants

CANADA

K. Penny, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario K1A 0E6

M. Knight, Dept. of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
E. Mundell, Mission of Canada to the European Communities, Avenue de Tervuren, 2, B-1040 Brussels, Belgium

DENMARK (in respect of Faroes and Greenland)

S. Lage, Greenland Home Rule, Fiskeridirektoratet, Box 269, DK-3900 Nuuk, Greenland

ESTONIA

L. Vaarja, General Director, National Estonian Board of Fisheries, Lai Street 39/41, EE 0100 Tallinn

T. Roose, National Estonian Board of Fisheries, Lai Street 39/41, EE-0100 Tallinn

EUROPEAN UNION (EU)

H. Koster, Commission of the European Union, Directorate General for Fisheries, Rue Joseph II, 99, 6/57, B-1049 Brussels

F. Wieland, Commmission of the European Union, Rue de la Loi 200, B-1040 Brussels
P. Curran, Commission of the European Union, Directorate General for Fisheries, C-3, Rue Joseph II, 99, 7/07, B-1049 Brussels
J. P. Verborgh, Commission of the European Union, Directorate General for Fisheries, Rue Joseph II, 99, 6/78, Westraat 200, B-1049 Brusels, Belgium
M. T. Nedergaard, Commission of the European Union, Directorate General for Fisheries, C-3, Rue Joseph II, 99, B-1049 Brussels, Belgium
A. M. Lemahieu, Commission of the European Union, Rue Joseph II, 99, 6/84, B-1049 Brussels, Belgium
M. Speltens, Commission of the European Union, Directorate General for Fisheries, Rue Joseph II, 99, 6/78, Westraat 200, B-1049 Brussels, Belgium
I. Minguez, Permanent Representation of Spain, 52 Boulevard du Regent, 1000 Brussels, Belgium
J. Navarro, Secretaria General de Pesca Maritima, Corazon de Maria, 8, 28002 Madrid, Spain
U. Link, Bundesanstalt fur Landwirtschaft und Ernahrung, Refrat 522, Palmaille 9, 22767 Hamburg, Germany
J. F. Gilon, Direction de Peche Maritimes, 3 Place de Fontenoy, 75007, Paris, France

ICELAND

H. Aspelund, First Secretary, Icelandic Mission to the EU, Embassy of Iceland, 74 Rue de Treves, B-1040 Brussels, Belgium

G. Geirsson, Icelandic Coast Guard, P. O. Box 7120, 127 Reykjavik

JAPAN

M. Mino, Fisheries Agency of Japan, Kasumigaseki 1-2-1, Chiyoda-ku, Tokyo

A. Karasawa, Mission of Japan to the EU, Ave. des Arts 58, B-1040 Brussels, Belgium

LATVIA

J. Zlidnis, Chief Commmunications Engineer, Maritime Administration of Latvia, 5 Trijadibas, Riga, LV-1048

NORWAY

O. A. Davidsen, Directorate of Fisheries, P. O. Box 185, 5002, Bergen

OBSERVERS

CLS ARGOS

J. P. Cauzac, CLS Argos, 18 Avenue Edouard-Belin, 31055 Toulouse Cedex, France
A. Monsaingeon, CLS Argos, 18 Avenue Edouard-Belin, 31055 Toulouse Cedex, France

EUTELSAT

G. deBalbine, IDL Tech, 18590 Ventura #201, Tarzana, CA 91356 USA
L. Paul, Eutelsat, Tour Maine-Montparnasse-33, Ave du Maine, BP 19, 75755 Paris Cedex 15, France

INMARSAT

R. Gallagher, Inmarsat, 99 City Road, London, EC1Y 1AX United Kingdom

SECRETARIAT

G. Moulton, Statistical Officer
B. Cruikshank, Senior Secretary

Annex 2. Agenda

1. Opening of the Meeting by the Chairman, Mr. H. Koster (EU)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Presentation by system providers on satellite tracking systems which can be used in the NAFO Regulatory Area
5. Estimates of costs of the system for Contracting Parties
6. Reports by delegates of Contracting Parties on national programmes on satellite tracking
7. Consideration of criteria which can be used by different systems
8. Compatibility between different systems when used within the NAFO Scheme of Joint International Inspection and Surveillance (hardware-software)
9. Consideration of the most acceptable system or systems to be used in the NAFO Regulatory Area
10. Recommendations/Report to the Fisheries Commission
11. Other business
12. Adjournment

PART III

(pages 121-202)

Activities of the Scientific Council in 1995

List of Meetings

The following meetings were held under the authority of the Scientific Council in 1995:

- Scientific Council Meeting; 7-21 June, Keddy's Dartmouth Inn, Dartmouth, Nova Scotia, Canada.
- Symposium "The Role of Marine Mammals in the Ecosystem"; 6-8 September, Holiday Inn, Dartmouth, Nova Scotia, Canada.
- Scientific Council Annual Meeting; 9-15 September, Holiday Inn, Dartmouth, Nova Scotia, Canada.
- Scientific Council Meeting; 17-20 November, NAFO Headquarters, Dartmouth, Nova Scotia, Canada.

Scientific Council Meeting

The Scientific Council met at the Keddy's Dartmouth Inn, 9 Braemar Drive, Dartmouth, Nova Scotia, Canada during 7-21 June 1995, to consider the various matters listed in its Agenda (SCS Doc. 95/19).

Representatives attended from Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), European Union (Denmark, France, Germany, Portugal, Spain and United Kingdom), Japan and Russian Federation, and an observer from United States of America. The Executive Secretary and Assistant Executive Secretary were in attendance. (Annex 1)

The Chairman of the Scientific Council was H. Lassen (EU) and the Rapporteur, T. Amaratunga.

The Agenda was adopted as presented in Annex 2.

The Chairman introduced the plan of work and described the approach being taken by the Council at this meeting, in accordance with the decision made in 1994 on the reorganization of the Scientific Council. He outlined that STACFIS will fulfil its role as the body which will conduct the assessments, while the Council will address the tasks of developing prognoses on those assessments, and providing advice and recommendations. Accordingly, the STACFIS report will contain the assessment results and that report will be presented for consideration by the Council. The Chairman encouraged members to keep on track with discussions limited to scientific issues in order to fulfil the Council's task and provide objective scientific advice. This new approach by the Council to follow the plan of work was proven to be very effective through the current meeting.

FISHERIES AND ENVIRONMENT

Starting from this report, there would be a new theme of presentation from the Scientific Council by a new Standing Committee on Fisheries Environment - STACFEN (Chairman-M. Stein, Germany) established from 01 January 1995.

The Council welcomed the first report of STACFEN, and extended full support to the Standing Committee to continue to improve in the knowledge pertaining to the effects of the environment on fish stocks and fisheries. Partly as a vehicle for integrating environmental studies with the fish stock assessments, the Scientific Council planned a workshop for September 1996.

The Council noted that STACFEN was provided with a general overview of the marine remote sensing by A. Thomas from the Atlantic Centre for Remote Sensing of the Oceans (ACRSO), Bedford, Nova Scotia. Numerous applications of remote sensing using satellite imagery, primarily from the NAFO area were discussed. These included examples of atmospheric and oceanic variables. Remote sensing is also used to detect biological information: e.g. measurement of chlorophyll concentration and phytoplankton production.

An update was given by the Chairman on the joint study by German and Russian scientists to evaluate and retrieve hydrographic data from the Russian central archives. The Chairman reported that the 3-year program that was funded in 1994 was now underway. He reported on data from the Labrador Sea that have been extracted from the German Oceanographic Data Centre. It showed strong cooling and freshening of the deep waters during the early-1970s with maximum changes on the western side of the Labrador Sea. These data will soon be compared with Russian data from the same area. A report on the results will be published upon completion of the project.

Environmental Conditions in 1994

The Council noted the presentation of the annual overview paper based on several long-term oceanographic and meteorological data sets, as well as summarized results from available research documents. The overview presentation reported that extremely cold air temperatures were again observed over southern Labrador and Newfoundland in winter, due to intensification of the atmospheric circulation pattern as indicated by a strongly positive North Atlantic Oscillation (NAO) index. Air temperatures warmed to above normal values during the summer and autumn although the annual means remained slightly below normal.

Below normal temperatures were observed throughout most of the water column at Station 27 in winter and in the deep waters during the entire year. The latter continued a trend that has lasted over ten years. By the summer, however, temperature of the surface waters had increased upwards of 2°C above normal.

Cold waters continued in the 50-100 m depth range over the Scotian Shelf and in the deep waters of the northeastern Scotian Shelf. The negative anomalies in some regions were near to those recorded in the 1960s. The decline in temperature had begun in the mid- to late-1980s but the 1995 temperatures again appeared to be on the increase.

Warm conditions were observed throughout most of the Gulf of Maine during 1994. Increases in salinities at the mouth of the Bay of Fundy provided evidence that this warming was due to an increased influence of offshore slope waters.

FISHERY SCIENCE

General Review and Fishery Trends

The Council reviewed the accepted catches for consideration in the assessments, and noted that the estimates of national catches for 1994 from various sources showed discrepancies.

The Council was again concerned that STATLANT 21A data were not available from all Contracting Parties to allow a general review of fishery trends. The Council agreed that this analysis would not be done during this meeting, expressing concerns that the unavailability of these data hampers satisfactory progress in the stock assessment work.

Various estimates of national catches in 1994 in the NAFO Regulatory Area in Subarea 3 were examined. These included figures from Canadian Surveillance authorities, from scientists of particular countries, and from the STATLANT 21A forms submitted to the Secretariat. The following decisions were made concerning these catches, for use in the STACFIS June 1995 assessments:

- Use the Canadian surveillance estimates when it was the only one available, i.e. for non-Contracting Parties, including those yet to report their catches, such as USA, Faroes, and Lithuania. There may be a tendency of Canadian surveillance to slightly underestimate the cumulative catch, due to the estimate used for vessel down-time.

- Use STATLANT 21A catches for Japan, Estonia, Latvia, and Russia, as there were no indications of problems with these data.

- Use other sources of information for some Contracting Parties, as it was concluded that these data were the most appropriate.

There was little or fishing activity by Canada in the NAFO Regulatory Area for all groundfish stocks considered.

There were considerable discrepancies in some estimates of catch by species and Division, but there was reasonable agreement on the overall level of the groundfish catch in the NAFO Regulatory Area in 1994 in SA 3, around 125 000±5 000 tons. In the discussion of catches in each assessment affected by these estimates, the range of possible catches is to be pointed out.

Assessment of Finfish and Invertebrate Stocks

The Council agreed on the assessments of 18 stocks in Subareas 0-4 as requested by the Fisheries Commission, and the Coastal States Canada and Denmark (in respect of the Faroe Islands and Greenland), and had advised on catch levels corresponding to reference levels according to the different requests. Management advice, based on the reference levels, could not be provided for several stocks due to insufficient data. Detailed assessments are given in the following summary sheets.

Cod in Divisions 2J, 3K and 3L

Background: Cod in these Divisions are considered a stock complex which may include stock components. Research is ongoing, particularly with regard to genetic differences, to clarify the issue. Migrations have been to inshore in summer and offshore in winter.

Fishery and Catches: The rapid decline in the resource in the 1990s led to reduced TACs and eventually to a moratorium on commercial fishing in 1992. Some non-commercial fishing was permitted but this was also closed in 1994.

Recent catches and TACs ('000 tons) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Fixed gear catch	80	72	79	101	103	113	60	12[1]	9[1]	1.3[1]	
Offshore catch	151	179	156	168	151	106	90[2]	32[1,3]	2[1]	0.5[1]	
Total Catch	231	252	235	269	253	219	150	44[1]	11[1]	1.8[1]	
TAC	266	266	256	266	235	199	190	120[4]	[4]	[4]	[4]

[1] Provisional.
[2] Canadian surveillance estimate was 111.
[3] Fishery closed by EU in June 1992.
[4] Moratorium on Canadian fishing became effective in July 1992.

Assessment: No analytical assessment was prerformed. Stock status was estimated based on survey abundance indices and biological data.

Fishing Mortality: Analysis of tagging data concluded, as did previous assessments that fishing mortality in the late-1980s and early-1990s was high. The high fishing mortalities in the late-1980s estimated by other methods (VPA, tagging) were not evident in an examination of catch to survey ratios.

Recruitment: The 1991 year-class was weakest and the 1994 strongest although absolute values could not be determined. It will be at least 4 years before the relative strengths can be verified from offshore surveys.

State of the Stock: The stock remains at a very low level, probably in the order of 1% of that in the early-1980s. There has been a continued decline in the mean estimates of biomass. The stock also consists mainly of young fish.

Recommendation: Stock rebuilding will only be possible if the moratorium is maintained.

Special Comments: Some factors relative to the biology and ecology of cod from this stock are notable;

- The declining trend in condition of factors of cod which began in the late-1980s appears to have been reversed in 1993 and 1994 although this was not reflected in the feeding data.
- Since about 1990 average age at first maturity has declined, probably a response to population declines.
- Growth rates generally increased in 1993 and 1994.
- Ocean conditions in 1994 were closer to the long-term average than in recent years. This may be beneficial to biotic factors such as growth rates.

Cod in Division 3M

Background: The cod stock on Flemish Cap is considered to be a discrete population.

Nominal catches and TACs ('000 tons) for the recent period are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	13	13	13	0	0	0	13	13	13	11	11
Catch	14	15	11	29[1]	48[1]	41[1]	16[1]	25[1,2]	16[1,2]	30[1,2]	

[1] Includes estimates of misreported catches and catches of non-Contracting Parties.
[2] Provisional.

Assessment:

Fishing Mortality: Has been very high in recent years.

Recruitment: The 1985 and 1991 were the more abundant year-classes in recent years. The 1993 and 1994 year-classes seem to be weak.

State of the Stock: The fishable biomass is mainly young fish exposed to high fishing mortalities. Age 5+ biomass, assumed equal to the spawning stock biomass, is at a low level which in 1994 however is uncertain due to a reduction in age-at-first-maturity to 4 years. This reduction in age-at-first-maturity is interpreted as a reaction to the decline of the adult stock.

Recommendations: A rational exploited cod fishery on Flemish Cap requires both a reduction of catches on young fish, and a reduction of the fishing effort level from its current high level. For 1996 the catch should be limited to the vicinity of the current TAC.

Special Comments: The cod fishery will remain an opportunistic fishery, where the catches will follow recruitment fluctuations if the above two management objectives cannot be achieved. As a consequence, the overall yield of the fishery will under the current exploitation pattern remain well below its potential level.

Cod in Divisions 3N and 3O

Background: This stock occupies the southern part of the Grand Bank of Newfoundland. Cod are found over the shallower parts of the Bank in summer, particularly in the Southeast Shoal area (Div. 3N) and on the slopes of the Bank in winter as cooling occurs.

Recent TACs and catches ('000 tons) are as follows:

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Recommended TAC					Same as agreed.					
Agreed TAC	33	33	40	25	18.6	13.6	13.6	10.2	6	0
Reported Catches	51	42	43	33	18	17	10.1[1]	9[1]	1.9[1]	
Non-reported Catches	-	-	-	-	11	12	2.5	0.7	0.8	
Total Landings	51	42	43	33	29	29	12.6[1]	9.7[1]	2.7[1]	

[1] Provisional.

Assessment: An analytical assessment was adopted for this stock.

Fishing Mortality: Has been reduced on the fully recruited ages (7-10), however, there has been an increase on younger immature fish (ages 3-4).

Recruitment: Year-classes since 1990 appear to be weak. The current estimates of the 1989 and 1990 year-classes are much lower than previously estimated.

Biomass: The 1994 total (age 3+) and spawning stock biomass estimates are the lowest in the time series.

State of the Stock: The stock was at an all time low in 1994 and was represented mainly by 2 year-classes (1989 and 1990).

Recommendation: There should be no direct fishing for cod in Div. 3N and 3O in 1996. By-catches in fisheries targeting other species should be kept at the lowest possible level.

Redfish in Subarea 1

Background: There are two species of commercial importance in Subarea 1: golden redfish (*Sebastes marinus* L.) and beaked redfish (*Sebastes mentella* Travin). These two species are mixed in the catch statistics. Relations to other north Atlantic redfish stocks are unclear.

Recent catches ('000 tons) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Catch	4	5	1	1	1	0.4	0.3	0.3[1]	0.8[1]	1[1]

[1] Provisional.

Assessment: Between 1962 and 1978 the mean fish size in the landings decreased by about 4 cm, the biggest reductions occurred in the late-1970s.

No analytical assessment was possible.

Recruitment: The origin of the very abundant pre-recruits (<17 cm), as indicated by the surveys, and their recruitment potential to the stocks under consideration is unclear.

Forecast: Short-term recovery is very unlikely. Catches of commercial sized redfish will remain very low in the near future.

State of the Stock: Both stocks are considered severely depleted.

Recommendation: No directed fishery should occur until the stocks have recovered substantially.

Redfish in Division 3M

Background: There are three species of redfish which are commercially fished on Flemish Cap: deepsea redfish (*Sebastes mentella*), golden redfish (*Sebastes marinus*) and Acadian redfish (*Sebastes fasciatus*). The term beaked redfish is used for S. *mentella* and S. *fasciatus* combined. They are all reported combined in the commercial fishery.

Recent catches ('000 tons) and TACs are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	20	20	20	20	20	50	50	43	30	26	26
Catch	20	29	44	23	58[1]	81[1]	48[1]	43[1,2]	29[1,2]	11[1,2]	

[1] Includes estimates of non-reported catches from various sources.
[2] Provisional.

Assessment: Due to insufficient data no analytical assessment could be done.

Fishing Mortality: Assumed to have declined due to reduced effort.

Recruitment: Survey results indicate increase in juvenile redfish biomass

State of the Stock: The overall trawlable biomass seems to be back to levels seen in 1989 and 1990. This increase was mainly related to golden redfish and juveniles.

Recommendation: Catches higher than 20 000 tons in the period 1986 to 1992 were observed simultaneously with a decline in trawlable biomass. It would not be prudent to allow total catches to rise above a level of 20 000 tons, unless strong recruitment to the exploitable stock is confirmed. This is the level of catches in the period 1975 to 1985 when stable conditions were observed. Total catches of redfish in Div. 3M should therefore not be allowed to exceed 20 000 tons in 1996.

Redfish in Divisions 3L and 3N

Background: There are two species of redfish, *Sebastes mentella* and *Sebastes fasciatus* which occur in Div. 3LN and are managed together. These are very similar in appearance and are reported collectively as redfish in statistics. The relationship to adjacent NAFO Divisions is unclear and further investigations are necessary to clarify the integrity of the Div. 3LN management unit.

Recent nominal catches and TACs ('000) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	25	25	25	25	25	25	14	14	14	14	14
Catch	21	43	79[1]	53[1]	34[1]	29[1]	26[1]	27[1,2]	23[1,2,3]	7[1,2,3]	

[1] Includes catch estimated by STACFIS.
[2] Provisional.
[3] STACFIS could not precisely estimate the catch.

Assessment: Not possible to provide an estimate of the absolute size of stock.

Fishing Mortality: Assumed to have declined in 1994 due to reduced effort. In late-1980s large catches likely generated high fishing mortalities.

Recruitment: Poor recruitment in Div. 3L since early-1980s. In Div. 3N no sign of any good year-classes, since those of 1986/87 which may already be recruiting to the fishery.

State of the Stock: Appears to be very low in Div. 3L with no sign of good recruitment. Has declined in Div. 3N from 1984 to 1991 but the status since then is uncertain.

Recommendation: The Council was pleased to note that 1994 was the first time since 1985 that the catch was below the agreed TAC. The Council can only evaluate the appropriateness of a TAC of 14 000 tons if catches are maintained at or below this level for a number of years. Total catches of redfish in Div. 3LN should not exceed 14 000 tons in 1996.

Special Comment: Catches by non-Contracting Parties in recent years have ranged from 1 000 tons in 1994 to 10 000 tons in 1992.

Silver Hake in Divisions 4V, 4W and 4X

Background: Silver hake in these Divisions are found in deep, warmer waters of the Scotian Shelf, generally off the continental shelf and in deep basins. This stock is considered to be separate from those of the Georges Bank and Gulf of Maine areas.

Recent catches and TACs ('000) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	100	100	100	120	135	135	100	105	86[1]	30	60
Catch	75	83	62	74	91	69	68	32[2]	29[2]	8[2]	

[1] Projected catch at $F_{0.1}$ was 75 000 tons; 11 000 additional tons were allocated by Canada in the knowledge that not all allocations would be fully harvested.
[2] Provisional.

Assessment: Catch-at-age from 1979 to 1994 were included in a bias correcting formulation of ADAPT using research vessel surveys (0-group and 1+) and age disaggregated CPUE as tuning indices.

Fishing Mortality: Fully recruited F for ages 3-5 was estimated to be 0.1 in 1994.

Recruitment: The 1993 and 1994 year-classes, both estimated at approximately 0.8 billion fish from survey data, are slightly below the 10 year geometric mean of 1.0 billion.

Forecast:

Option Basis	Predicted catch (1996)	Predicted SSB (1.1.1997)
$F_{0.1}$ = 0.70	64,000	94,000

State of the Stock: Estimates of fishing mortality in 1994 were well below the $F_{0.1}$ level. Strength of incoming year-classes is estimated to be only slightly below average, while the spawning biomass showed a modest increase in 1994. Based on these factors, the stock appears to be rebuilding.

Recommendation: For silver hake in Div. 4VWX, the catch at a target fishing level of $F_{0.1}$ in 1996 is projected to be 64 000 tons.

American Plaice in Division 3M

Background: The stock mainly occurs on Flemish Cap at depths shallower than 600 m. It is mainly taken as by-catch in the cod and Greenland halibut trawl fisheries.

Recent catches and TACs ('000) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	2	2	2	2	2	2	2	2	2[1]	1[1]	0
Catch	1.7	3.8	5.6	2.8	3.5	0.8	1.6	0.8[2]	0.3[2]	0.7[2]	

[1] No directed fishing.
[2] Provisional.

Assessment:

Fishing Mortality: In 1993-94 the fishing mortality was the lowest estimated for the period 1988-94. It is believed that F is now at the level of M (approximately 0.2).

Recruitment: 1991 and 1992 year-classes appear to be weak.

State of the Stock: The stock appears to have remained at low level, no good recruitments are expected since the 1990 year-class.

Recommendation: There should be no directed fishery on this stock in 1996. By-catches should be reduced to the lowest possible level.

American Plaice in Divisions 3L, 3N and 3O

Background: Historically, American plaice in Div. 3LNO has comprised the largest flatfish fishery in the Northwest Atlantic.

Recent nominal catches and TACs ('000) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	49	55	48	40[1]	30.3	24.9	25.8	25.8	10.5	4.8[2]	0
Catch	54[3,4]	65[3,4]	55[3]	41[3,4]	44[3,4]	32[3,4]	34[4]	13[4,5]	17[5,6]	7[5]	

[1] Although the TAC was set at 40 000 tons, Canada reduced its domestic quota to 33 000 tons, therefore the effective TAC was 33,585 tons.
[2] No directed fisheries allowed.
[3] Includes a percentage of the "flounder non-specified" catch reported to NAFO by South Korea.
[4] Includes estimates of misreported catches.
[5] Provisional.
[6] Catch may be high as 19 400 tons.

Assessment: No analytical assessment was possible due mainly to uncertainties with catch and catch-at-age data.

Recruitment: The 1988 and 1989 year-classes show some promise but there has been no evidence of large year-classes since then.

Forecast: Recovery of this stock in the short term is very unlikely.

State of the Stock: The stock is at a record low level.

Recommendation: No fishing on American plaice in Div. 3LNO in 1996. By-catches should be reduced to the lowest possible level.

Witch Flounder in Divisions 3N and 3O

Background: The stock mainly occurs in Div. 3O along the deeper slopes of the Grand Bank. It has been fished mainly in winter- and spring-time on spawning concentrations.

Recent nominal catches and TACs ('000) are as follows:

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	5	5	5	5	5	5	5	5	3[1]	0
Catch	9	8	7	4	4	5	5[2]	4[2]	1[2]	

[1] No directed catch.
[2] Provisional.

Assessment: No analytical assessment was possible.

State of the Stock: Stock appears to be at a very low level.

Recommendation: No fishing on witch flounder in 1996 in Div. 3N and 3O to allow for stock rebuilding to former levels. By-catches be reduced to the lowest possible level.

Yellowtail Flounder in Div. 3L, 3N, and 3O

Background: The stock is mainly concentrated on the southern Grand Bank and is recruited from the Southeast Shoal area nursery ground, where the juvenile and adult components overlap in their distribution.

Recent TACs and catches ('000 tons) are as follows:

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	15	15	15	5	5	7	7	7	7[1]	0[1]
Catch	30[2]	16	16[2]	10[2]	14[2]	16[2]	11[3]	14[2,3]	2[1,3]	

[1] No directed fisheries permitted.
[2] Includes estimates of misreported catches.
[3] Provisional.

Assessment: No analytical assessment possible due mainly to uncertainties with catch and catch-at-age data.

Fishing Mortality: Total mortality is high on older ages.

Recruitment: The 1990-93 year-classes, in the spring and autumn surveys, appeared to be below average and weaker than their immediate predecessors. The 1994 estimate of these year-classes from the juvenile survey was the highest. This, however, is assumed to reflect changes in catchability, and must be treated with caution.

State of Stock: The stock is at a low level. Potential growth of the stock from the relatively large 1984-86 year-classes has not occurred, likely because of large catches of these cohorts as juveniles by fisheries in the Regulatory Area, and because the TAC has been exceeded each year from 1984 to 1993.

Recommendation: There should be no directed fishing of yellowtail flounder in 1996. By-catches should be reduced to the lowest possible level.

Greenland Halibut in Subarea 0 + Divisions 1B-1F

Background: Greenland halibut in Subarea 0 + Div. 1B-1F is part of a common stock distributed in Davis Strait and south to Flemish Cap in Subareas 0-3.

Recent TACs and catches ('000 tons) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Recommended TAC[2]	25	25	25	25	25	25	25	25	25	25	11
SA 0	1	+	+	1	1	15	8	12	7	5	
Div. 1BCDEF	+	+	1	2	1	1	2	5	5	6[3]	
Total	1	+	1	3	2	16	10	18	13	11[3]	

[1] Provisional.
[2] In the period 1985-94 the TAC included Div. 1A.
[3] Including 780 tons non-reported.

Assessment: No analytical assessment could be performed.

CPUE: Indices have declined about 30% from 1991 to 1993 in SA 0. Between 1992 and 1994 a 30% decrease was also seen in Div. 1CD. A shift towards younger fish in the catches was observed.

State of the Stock: The stock appears to be declining. However, recruitment appears to be stable at present.

Recommendation: No precise estimate of the appropriate catch level could be given.

TAC in 1996 should be set below 11 000 tons for Subarea 0 + Div. 1BCDEF in an attempt to halt the decline in the stock.

Special Comments: The possibility of the existence of an isolated inshore population in Cumberland Sound (Div. 0B) is under investigation (annual catch ca. 400 tons).

Greenland Halibut in Division 1A

Background: The population occurs inshore in Div. 1A, and is considered to be recruited from the nursery grounds south-southwest of Disko Island and in the Disko Bay. Mature individuals do not contribute back to the spawning grounds. No TACs have been established for these populations.

Recent landings ('000 tons) in Div. 1A are as follows:

Year	1987	1988	1989	1990	1991	1992[1]	1993[1]	1994[1]
Illulissat	2.3	2.7	2.8	3.8	5.4	6.6	5.4	5.2
Uummannaq	2.8	2.9	2.9	2.8	3.0	3.1	3.9	4.0
Upernavik	0.5	0.8	1.1	0.9	1.5	1.8	2.6	4.8
Collector vessel	1.2	-	0.1	0.4	-	0.4	1.2	1.0[2]
Offshore	-	-	-	-	-	-	+	+
Unknown[3]	0.4	0.6	0.6	0.6	+	-	-	-
Total	7.2	7.0	7.5	8.5	9.9	11.9	13.1	14.0
Officially reported	8.4	7.0	7.5	7.5	9.2	-	-	-

[1] Provisional.
[2] Already included in the Upernavik landings.
[3] Landings from unknown areas within Div. 1A.

Fishery and Catches: The fishery is mainly conducted with longlines, and to a varying degree gillnets. Effort has increased in all areas.

Assessment: Catch curves and yield-per-recruit analysis were provided based on 1994 data, but were used only as an indicator due to age determination problems. However, indications of overfishing were suggested by longline survey data.

State of the Stock: The stock appears overexploited, however, recruitment appears to be stable. The 1991 year-class seems above average.

Recommendations: Separate TACs should be established for each of the three inshore areas.

Greenland Halibut in Subarea 2 and Divisions 3KLMNO

Background: The Greenland halibut stock in Subarea 2 and Div. 3KLMNO is considered to be part of a biological stock complex which includes Subareas 0 and 1.

Recent catches and TACs ('000) are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC[1]	55	75	100	100	100	50	50	50	50	25	27
Catch[2]	19	16	31	19	19	47	55-75	63[3]	42-62[3]	48[3]	

[1] Set autonomously by Canada 1985-94 and by NAFO Fisheries Commission in 1995.
[2] Includes estimated unreported catches in 1990-94.
[3] Provisional.

Assessment: Analytical assessments considered unacceptable until migratory patterns and stock structure are more fully understood.

Fishing Mortality: Not precisely known but believed to be above sustainable levels with the current exploitation pattern.

Recruitment: The 1991 year-class estimated to be better than average in both the 1994 assessment and the current assessment. The 1990 year-class was also believed to be above average in the 1994 assessment, however, the size of this year-class is less clear in the current assessment but is at least average and may be better than average.

State of the Stock: In its 1994 assessment, the Council concluded that the fishery has been, in recent years, exploiting this stock well above levels which may be considered sustainable. In the 1994 assessment, all available stock indicators (survey results and catch rates in commercial fisheries) suggested a significant decline in stock size since the late-1980s up to 1994, particularly among the older age groups (10+). Most data from the current assessment confirm this view although there is some indication of improved recruitment.

Recommendation: The Council is unable to advise on a specific level of TAC for 1996. However, this TAC should continue to be set at levels well below the catches achieved in the period 1990-94 until it is clear that the fishable stock is increasing.

The Council is also very concerned that the catches taken from this stock consist mainly of young, immature fish of ages several years less than that at which sexual maturity is achieved, thereby increasing the risk of overexploitation. It is noted also that such exploitation results in foregoing much potential yield. The Council therefore recommends that measures be considered to reduce, as much as possible, the exploitation of juvenile Greenland halibut.

Roundnose Grenadier in Subareas 0 and 1

Background: The roundnose grenadier stock in Davis Strait is probably connected to other stocks in the North Atlantic. The stock component found in Subareas 0+1 is at the margin of the distribution area. A Canadian survey in 1986 that covered both SA 0 and 1 showed that 90% of the biomass was found in SA 1.

Recent catches and TACs ('000) are as follows:

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Catch	0.1	0.4	0.5	0.08	0.29	0.19	0.12[1]	0.20[1]	0.03[1]	

[1] Provisional.

Assessment: No analytical assessment could be performed.

State of the Stock: There are no recent estimates of biomass for the entire stock area. The stock seems to be at a very low level. The reason for the changes in the stock is not known.

Recommendation: There should be no direct fishing for roundnose grenadier in 1996 based on the distribution in the Canadian survey in 1986 and the development of the biomass index for Div. 1CD in recent years. Catches should be restricted to by-catches in fisheries targeting other species.

Roundnose Grenadier in Subareas 2 and 3

Background: It is believed that only one stock occupies the entire area including the Regulatory Area, although there are different areas of concentration.

Nominal catches, revised catches, and TACs ('000) for roundnose grenadier in the recent period are as follows:

Year	1985	1986	1987	1988	1989	1990	1991	1992[1]	1993[1]	1994[1]	1995
TAC	11	11	11	11	11	11	11	11	11	3[2]	3[2]
Catch[3]	5	7	7	5	5	1	1-10[4]	3	4		
Catch[5]	5	7	8	6	5	4	9-14[4]	8	11	3	

[1] Provisional data.
[2] Inside Canadian zone only.
[3] Includes adjustments reported in SCS Doc. 94/13, and SCR Doc. 94/29.
[4] Includes estimates of misreported catches which could not be determined precisely.
[5] Original as reported to NAFO.

State of the Stock: Not possible to fully evaluate. If decline between 1994 and 1995 in Div. 3K (70%) is real, it cannot be explained by the low catches.

Recommendation: The current TAC for all of Subareas 2+3 inside the Canadian zone (3 000 tons) is about 15% of the estimated biomass for Div. 3K in 1991 and 1994, where the traditional fishery was primarily prosecuted, and previously did not appear to be excessive (NAFO Sci. Coun. Rep., 1994, p. 113). This current TAC is about 50% of the 1995 estimated biomass in Div. 3K, and if the observed biomass decline between 1994 and 1995 is real, may be excessive.

Capelin in Divisions 3N and 3O

Background: Spawns on the south part offshore of the area of the southeast shoal.

Nominal catches and TACs ('000) for the recent period are as follows:

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Advised TAC	0	10	10	28	30	30	30	0	0	0
TAC	0	10	15	28	30	30	30	0	0	0
Catch	0	1	7	9	25	+	+[1]	+[1]	0[1]	

[1] Provisional.

Assessment:

Recruitment: The age 2 recruitment was 36% of the total biomass estimate from the 1994 survey but this could not be compared with results of previous surveys.

State of the Stock: The stock is at very low levels relative to those from the 1980s.

Recommendation: No directed fishery to be allowed in Div. 3N and 3O in 1996.

Squid in Subareas 3 and 4

Background: The major portion of the stock resides in Subarea 6 and further south.

Nominal catches and TACs ('000) in the recent period are as follows:

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TAC[1]	150	150	150	150	150	150	150	150	150	150
Catch (3+4)	1	+	1	7	11	4	2[2]	3[2]	6[2]	
Catch (5+6)				7	12	12	18[2]	18[2]		

[1] For Subareas 3 and 4 only.
[2] Provisional.

Data: No recent data available.

Assessment: No assessment was possible without up-to-date information particularly on recruitment.

Recommendation: No advice possible.

Other Finfish in Subarea 1

Background: The resource of other finfish in Subarea 1 are mainly Greenland cod, American plaice, Atlantic and spotted wolffishes, starry skate, lumpsucker, Atlantic halibut and sharks.

Fishery and Catches: Total combined annual catches of these species varied around 2 000 tons in recent years. They were taken by offshore trawl fisheries directed to shrimp, cod, redfish and Greenland halibut, by longliners operating both inshore and offshore and by pound net and gillnet fisheries in inshore areas only. The statistics of these by-catches seem to be poorly reported in general.

Data: There are no commercial data available on length and age structure for the stocks of Greenland cod, American plaice, Atlantic and spotted wolffishes, starry skate, lumpsucker, Atlantic halibut and sharks. Research survey data are available for American plaice, Atlantic and spotted wolffishes and starry skate.

Assessment: No analytical assessment was possible for any of these stocks.

Recruitment: There are presently no indications for strong recruitment in the stocks of American plaice, Atlantic and spotted wolffishes and starry skate.

State of the Stock: The demersal stocks of American plaice, Atlantic and spotted wolffish and starry skates are severely depleted. Catches of commercial sized fish will be very low in the near future.

Recommendation: No fishery should be directed towards the stocks of American plaice, Atlantic and spotted wolffishes and starry skate in Subarea 1 until these stocks have recovered substantially. No information can be provided for lumpsucker, Atlantic halibut and sharks.

Special Comments: Recovery of the stocks of American plaice, Atlantic and spotted wolffishes and starry skate in Subarea 1 from their severely depleted status depends on future recruitment. Any catches will reduce the probability of this event. Data on quantity and size composition of the by-catches including discards in the shrimp fishery in Subarea 1 should be collected.

Cod in Divisions 2J, 3K and 3L. (SCR Doc. 95/46)

The stock separation issue has been reviewed previously (NAFO Sci. Coun. Rep., 1986) and it was then concluded that it was appropriate to assess cod in Div. 2J, 3K and 3L as a single stock complex. There is currently no additional information to change this conclusion. The general issue of stock definition is being addressed by research using a suite of genetic techniques (nuclear DNA gene probes). It is hoped these studies will lead to a better understanding of the Div. 2J+3KL stock complex.

Estimates of the proportion of the cod biomass in Div. 3L in the Regulatory area were updated to include the 1994 research vessel survey data. The results from autumn surveys showed biomass in the Regulatory Area (9.7%) to be the highest in the time series. The spring survey series continued to show the increasing trend in the percentage of biomass in the Regulatory Area, with the 1994 point of 63% being the highest in the time series, although it was noted that these percentages represent a very low trawlable biomass. The results from the survey series used are as follows:

Season RV survey conducted	Years RV survey conducted	Range of proportions of Div. 3L biomass occurring in the Regulatory Area (1994 value in brackets)	Average proportion (%)
Winter	1985-86	23.8-26.8	25.3
Spring	1977-94	0.4-63.1 (63.1)	10.3
Autumn	1981-94	0.5-9.7 (9.7)	3.5

Results of the autumn surveys conducted in all three Divisions (2J, 3K and 3L) by Canada from 1981 to 1994, showed that the proportion of the cod in the Regulatory Area at that time of year was less than 1%, on average, of the total Div. 2J+3KL biomass. In the past, year-specific percentages ranged from 0.10% to a high of 1.52% but has increased in recent years to 5.17% in 1993 and was 4.4% in 1994. In 1994, the stock was still at an extremely low level. The average breakdown of biomass by Division was as follows:

Division	Mean relative proportion of Div. 2J and 3KL biomass (%) 1981-1994	1994 Autumn (%)
2J	30	20
3K	34	40
3L	36	40

Implications of mesh size in mid-water trawls for redfish in Div. 3LN

The Scientific Council reviewed selectivity data on redfish from Russian experiments carried out in Div. 3N and Canadian experiments with bottom trawl in Subdiv. 3Ps. In Div. 3N in 1994 the use of 130 mm mesh size codends allowed the escapement of 90%, by weight, of the catch of redfish. Scientific Council noted that this would be specific to the stock situation. However, that under these conditions the use of codend mesh size greater than 90 mm in the redfish fishery in Div. 3N may not result in the significant long term gains in yield if assumptions of high mortality during haul back are correct. Fishing on individuals of a stock many years before they have reached sexual maturity puts the stock at risk of biological collapse, even at relatively low levels of fishing mortality. Any redfish fishery in this area using 90 mm mesh codends needs to be controlled carefully. Scientific Council was encouraged by the success of using lastridge rope rigged codends of bottom trawls (90 mm) which allow the meshes to remain open during towing and improving the escapement of more small fish, while retaining more commercial size redfish.

Interrelation between seals and commercial fish stocks

This subject was addressed during the meeting of the Joint ICES/NAFO Working Group on Harp and Hooded Seals, 5-9 June 1995. The Scientific Council will hold a Symposium 6-8 September 1995, which is expected to add to the available database relevant to the request by the Fisheries Commission. The Scientific Council therefore decided to wait until its September 1995 Meeting to complete its report on this item for presentation to the Fisheries Commission.

Coordinated research on Greenland halibut

The issue of coordinated research relative to Greenland halibut was considered by STACREC with respect to the need for a synoptic survey for Greenland halibut. It was suggested that such a survey would require one or two years planning time and it was recommended that parties interested in a synoptic survey meet and formulate a plan. A group should be formed from these parties to set dates and specify vessel and scientific staff requirements. The plan would describe the Scientific Council's requirements with respect to the question.

Responses to Special Requests by Coastal States for Management Advice on Fish and Invertebrate Stocks

Overall assessment of status and trends in the total stock throughout its range

To provide an overall assessment, a comprehensive and coordinated survey covering the entire area of distribution is required. Furthermore, the survey requires to be conducted for a number of years to establish a time series on the basis of which the status of and trends within the stock can be assessed. The present coverage requires better coordination - a task which has already been discussed within the Scientific Council. There is, however, no survey at present which covers Div. 0B and 2GH. These Divisions historically contained a very significant part of the Greenland halibut population and most of the recent Canadian fisheries occurred in these areas.

Comment on its management including any expansion of the responses to the questions asked in June 1993

"STACFIS maintains that a single TAC for the entire stock area without consideration of effort distribution could lead to excessive effort being concentrated in different areas of distribution and this could lead to the collapse of important fisheries. STACFIS therefore advised that separate TACs be maintained for different areas of the distribution of Greenland halibut."

Advise on appropriate TAC levels separately for SA 0+1, for SA 2 + Div. 3K and for Div. 3LMNO

This split could be based on the distribution of the stock biomass and abundance, and fishing conditions such as catch rates could also be taken into account. Distribution maps for some surveys were available to the Council but for other surveys, which were concluded only a few days before this June 1995 Meeting of the Council began, only preliminary reports were available. The Council therefore decided to postpone this discussion to its meeting of 9-15 September 1995, and noted that the Council had allocated two extra meeting days to deal with this question and the Fisheries Commission requests from its 7-9 June 1995 Meeting.

The distribution of fishing effort within each of these three geographic areas

The Council has previously noted that effort should be distributed throughout the range of distribution of Greenland halibut. The extent to which Greenland halibut exhibit a patchy distribution on a small geographical scale has not been established. If, however, this is the case, there is the danger that high fishing effort may be concentrated on localised concentrations of the species. Such concentrations would then be rapidly depleted and would not quickly recover. The overall effect would be to severely deplete the stock as a whole. The Scientific Council will take a more detailed look at the distribution of the biomass and abundance during its meeting in September 1995. This study may enable further commentary on the matters discussed on this question.

Information in terms of yield-per-recruit and spawning biomass-per-recruit on:

- **the present harvest pattern particularly the current NAFO regulated mesh size**
- **harvesting practices that delayed significant recruitment until 60 cm fish length**
- **harvesting practices that permitted significant recruitment at 30 cm.**

Substantial improvement of the exploitation pattern would be achieved by adoption of alternative fishing methods such as, long lining with appropriate hook sizes, and gill netting with mesh size around 200 mm. Such fisheries would exploit Greenland halibut larger than 60 cm. Because of the sexual difference in growth, with males only reaching a maximum length of 65-70 cm while females reach lengths in excess of 90 cm, the recruitment to such a fishery would be less than suggested by the calculations and the increase in yield indicated is an overestimate. The gain to the spawning stock biomass would be approximately correct.

Restricting the Greenland halibut fishery to deeper than 1 200 m should decrease the proportion of small Greenland halibut in the catch, since the larger individuals are found in deeper water.

Studies presented at this meeting suggested that L_{25} for a 130 mm mesh in the codend is in the range of 30-35 cm. The current harvesting practice apparently permits significant catches of Greenland halibut in this range.

Information on the distributional variation of the resource in recent years

The Council will not be able to answer this question in the foreseeable future, since a sufficiently comprehensive survey has not yet been established. However, as noted in the response to request iii) the Scientific Council may be in a position to provide further information based on a study to be presented at the September 1995 meeting.

Appropriate changes in management of the fishery in 1995 and future years that would minimize catches of the 1990 year-class while it is young and allow it to make 25%, 50% or 75% of the contribution to future spawning biomass that it would if none of it was caught at immature ages

If it is assumed that management of the stock will be conducted under some system, such as TAC and quota, which regulates fishing effort over all age groups, TACs consistent with the following effort reductions would be required to achieve the objectives indicated in the request.

Relative Biomass age 10	Relative Effort
0.25	0.88
0.50	0.44
0.75	0.18

Thus, to ensure that the 1990 year-class at age 10 provides 75% of the spawning stock biomass, it will be necessary to impose TACs during the period 1995-99 which will bring about a reduction of 82% in fishing effort on Greenland halibut. To ensure that the 1990 year-class provides 25% or 50% of the spawning stock biomass at age 10 requires reductions in fishing effort of 12% and 56%, respectively.

Strategy options to rebuild the trawlable biomass in SA 2+3 and the percent mature in the population within 5 and 10 years to the approximate level of the mid-1980s

Until a better understanding is available of the stock structure and the mechanisms behind the changes in distribution, the Council is unable to provide a satisfactory answer to this question.

Advise on ways to eliminate or minimize by-catch of American plaice in Div. 3LNO

Given their current distribution, one method of reducing the by-catch of American plaice in the Greenland halibut fishery would be to limit the amount of fishing shallower than 1 000 m in Div. 3LNO, particularly in the first half of the year. Restricting the Greenland halibut fishery to these deeper areas should also decrease the proportion of small Greenland halibut in the catch, since large individuals are found in deeper water.

Denmark (on behalf of Greenland) made a special request with respect to Greenland halibut as follows:

a) **Allocation of TACs to appropriate Subareas (within Subareas 0 and 1)**
b) **Allocation of TAC for Subarea 1 inshore areas**
c) **Reproductive status of the inshore stock component in Subareas 0 and 1, and the influence of recruitment variability to these areas**
d) **The impact from the ongoing fisheries in Subareas 2 and 3, on the stock component in Subarea 1**

Concerning a), no new data were available since Subarea 0B was not surveyed in 1994.

Concerning b), 99% of the inshore catches in Subarea 1 are taken in Div 1A inshore areas. The Council recommended that separate TACs be established for each inshore area (Ilulissat, Uummannaq and Upernavik) but could not calculate appropriate levels. The stocks in Ilulissat and Uummannaq are overexploited. There are no biological data available pertaining to the inshore fisheries in Div. 1B-1F.

Concerning c), the Scientific Council noted that little or no spawning seems to take place in inshore areas in Div. 0B. Data presented in 1994 indicated that this also applies to the inshore stocks in Div. 1A for which no new information was available this year. No recent information was available for the inshore stock component in Div. 1B-1F. The recruitment levels seemed to be stable but no information was available on the relation between the offshore recruitment and the recruitment to the inshore areas.

Concerning d), Greenland halibut in the Northwest Atlantic are considered to belong to a single stock. The ongoing fishery in Subareas 2 and 3 probably affects the stock component in Subarea 1, but no data were available that could quantify this effect.

Denmark (Greenland) with the Concurrence of Canada Requested Advice on Harp and Hooded Seals as follows:

Harp and Hooded Seals

- **assessment of stock sizes, distribution and pup production of harp and hooded seals in the Northwest Atlantic;**
- **assessment of sustainable yields at present stock sizes and in the long term under varying options of age composition in the catch;**
- **advise on catch options in the NAFO area;**
- ***assessment of effects of recent environmental changes or changes in the food supply and possible interaction with other living marine resources in the area.**

* Discussion of this agenda item was postponed to the September 1995 Scientific Council Meeting when material presented at the 6-8 September 1995 Symposium would be reviewed.

The Scientific Council called a meeting of the Joint ICES/NAFO Working Group on Harp and Hooded Seals. This Group met at the Keddy's Dartmouth Inn, Dartmouth, 5-9 June 1995 and the report (SCS Doc. 95/16, Serial No. 2969) was presented by the Chairman, G. B. Stenson (Canada) to the Scientific Council on 9 June 1995.

Harp Seal (*Phoca groenlandica*) in the Northwest Atlantic

Stock Structure

Three different stocks have been identified in the North Atlantic: the Northwest Atlantic Stock (NAFO Subareas 0-4, mainly SA 0-3), the Greenland Sea Stock, and the White and Barents Seas Stock.

The stock structure was reviewed and it was agreed that this separation reflected the available scientific information and this would be a satisfactory basis for the advice on catch options. The Northwest Atlantic stock overlap with the other stocks to some extent during summer in Subarea 1 and in ICES Div. XIV, but there was no evidence of overlapping during the breeding period. Satellite tagging data are currently providing new details on distribution and migration.

Catches

The catches (in numbers of seals) in southern Canadian waters in 1994 (61 184) were at the same level as in the period 1989-92 (53 000-68 000), following a low catch in 1993 (26 884). There were no recent estimates of catches in the Canadian Arctic.

The recent catches of harp seals in Greenland were estimated to be about 45 000-55 000 annually, which is an increase from the reported catches of the mid-1980s. However, the Greenlandic reporting system has changed appreciably since the mid-1980s and the estimates were judged to be not comparable.

The total estimate of the 1994 catches was around 115 000 individuals.

The estimated 1996 population is 4.6 million under the assumption of natural mortality of 0.1 per year based on an estimate of 4.5 million in 1994.The model assumes that no density dependent changes in the population are occurring; if natural mortality or vital parameters change, the estimates provided here will be invalidated. Since changes in reproductive rates have been shown to occur historically in harp seals, it is important that vital parameters continue to be monitored and new estimates made on a periodic basis.

Hooded Seals (*Cystophora cristata*) in the Northwest Atlantic

Stock Structure

Two stocks of hooded seals in the North Atlantic have been identified: the Northwest Atlantic Stock (Subareas 0-3 and ICES XIVb) and the Greenland Sea Stock.

Northwest Atlantic hooded seals whelp on the ice in 3 areas; off Newfoundland ('Front'), in the Gulf of St. Lawrence ('Gulf') and in the Davis Strait. The extent to which seals whelping in the three areas mix is unknown.

Catches

Catches of hooded seals in southeastern Canada (Gulf and Front) remained at a very low level in 1993 and 1994: 38 and 221, respectively, part of which were research catches (19 and 72, respectively).

Catches in Greenland remained at about 6 000 individuals annually during the period 1976-85. For the years 1986-92 information on the catch of hooded seals in Greenland was insufficient or lacking. Under the new data collection system (see section on harp seals above) the catch of hooded seals in Greenland was 6 906 in 1993 and 6 772 during the first nine months of 1994, which indicated that the present catches of hooded seals in Greenland are at the same level observed in the late-1970s and early-1980s.

Population Estimates

The total pup production for the northwest Atlantic stock is unknown because the three whelping areas have not been surveyed in the same year and estimates obtained in different years cannot be combined without information on the degree of mixing. In the absence of such information, a minimum estimate of pup production of 84 000 was obtained by combining estimates obtained from the Front and Gulf in 1990 recognizing that this does not account for whelping in Davis Strait in 1990. This estimate pertaining to 1990 was used for the calculation of replacement yield for 1996 and ignores any changes in the total pup production since then.

AGEING TECHNIQUES AND VALIDATION STUDIES

Canadian scientists reported that, in accordance with the recommendations of 1994, work on the silver hake ageing manual was progressing but the report could not be completed in time for the present meeting.

An exchange of American plaice otoliths from various areas in the Northwest Atlantic had been completed some time ago by age readers of several countries. As well, an exchange of otoliths and scales from Greenland halibut had taken place. Scale reading of Greenland halibut was difficult and sometimes impossible for many of the participants, due to the condition of the scales and lack of proper equipment. Thus, full comparison of readings between scales and otoliths was not possible.

GEAR AND SELECTIVITY STUDIES

A Russian selectivity study on redfish in Div. 3N was conducted in 1994 with mid-water trawls using mesh-sizes ranging from 88 mm to 132 mm, based on the covered codend technique. Even with 88 mm mesh, some fish as large as 34 cm escaped from the trawl. Redfish above 34 cm in length were a minor component of the catch, comprising only 0.9-2.2% of the catch. A trawl with 88 mm mesh allowed escapement of 31% of fish, that with 118 mm mesh - 65%, and that with 132 mm mesh - 90% of fish (by weight).

Investigations conducted in the Barents Sea showed that from 18 to 30% of the total escapement occurred during trawl retrieval and these fish were assumed to die due to the hydrostatic change and other injuries. Computation of the long-term advantage due to increasing mesh sizes in trawls, and hence increased escapement of small fish, indicated that during a transition (intermediate) period of 10 years these long-term advantages will not compensate for losses due to escapement mortality related to increasing mesh size up to 120 mm and 130 mm.

Redfish mesh selectivity experiments were carried out by Canada in Subdiv. 3Ps to derive selectivity parameters for nominal mesh sizes of 90 mm, 105 mm and 115 mm in bottom trawls using the trouser trawl method. With respect to 23 cm redfish, currently accepted as the commercial minimum fish size by the Newfoundland fleet, optimal selectivity was obtained using the 90 mm nominal mesh size with lastridge ropes.

STACFIS considered that the redfish fishery in Div. 3LN with trawls with mesh over 90 mm may not result in significant long-term gains in yield if assumptions of high escapement mortality during haulback for this species are correct.

For Greenland halibut selectivity experiments, papers were presented at the meeting by Norway and the EU and earlier, by Russia.

The selectivity was estimated using a covered codend technique with only the top panel covered. The experiments showed that 127 mm mesh permits escapement of Greenland halibut up to 55 cm long and that some fish up to 67 cm long fish escaped from 133 mm mesh. Mean length of Greenland halibut retained by the codend with 117 mm mesh in Div. 2J was 41.6 cm, with a 127 mm mesh was 44 cm. Fish retention by the codend was 92.3 and 89.9%, respectively (by weight).

Derivation of selection parameters from the analysis of the data and the selectivity curves in the paper point to an obvious masking effect of the codend cover, thus parameter estimates of L_{50} for 127 mm (38.5 cm) and L_{50} for 133 mm (42.5 cm) should be treated with caution. The authors also noted that differences in size composition in the various areas seriously affected selectivity. Greenland halibut fishery should not exceed 35 cm, whereas minimal mesh size should not be over 120 mm.

OTHER MATTERS

Review of Arrangements for Conducting Stock Assessments and Documentation of Assessments

A number of issues were raised in the discussion of this agenda item. There was general agreement that there was some merit in separating the processes of determining stock status (STACFIS) and formulation of advice for the stocks (Scientific Council), as has been done this year. However, it was thought that Designated Experts would probably benefit from some guidance in preparing drafts of prognoses for review in Scientific Council.

There were continuing problems with getting correct data to the Designated Experts prior to the meeting which, as was the case in recent years, delayed completion of many assessments until the latter part of the meeting. This also impacted negatively on the peer review process, as many of the Designated Experts were unable to participate fully in the assessments of all stocks until their own work had been completed. There were no obvious solutions to this problem, but the situation may improve once the reporting of catches improves.

RESEARCH COORDINATION

Fisheries Statistics

Acquisition of STATLANT 21A and 21B reports for recent years

STACREC remained concerned about ongoing delays in receipt of national statistics reports although some improvements were observed since the June 1994 Meeting.

The 1994 STATLANT 21A reports have not been received for many nations and this meant that the update of fisheries trends could not be produced for the June Meeting. While most submissions had been received, the USA data were reported to be delayed as a result of a change in the reporting system commenced in 1994.

STACREC noted that some information in Reports and Working Papers of other Standing Committees was being used by Designated Experts in the stock assessment process . It was felt the use of this information could be better facilitated if Designated Experts were kept informed of the available Working Papers and Reports. It was agreed that the Secretariat should forward lists of such documents to the Designated Experts.

Scientific Council noted that the absence of some STATLANT 21A data had in recent years delayed the compilation of provisional catches in time for the assessment of stock during the June Meetings of the Scientific Council. The SCS Doc. 94/24 containing provisional catches for 1993 was not distributed until November 1994, well after the June Meeting requirements. The SCS Document containing the 1994 data could not be prepared for this meeting as submissions had not been made by a number of major fishing nations.

STACREC noted that most of the discrepancies between the NAFO and FAO databases have been resolved but the review process was ongoing. Many discrepancies were created because FAO was using STATLANT 21A, whereas the finalized data at NAFO were the STATLANT 21B data.

Biological Sampling

The Provisional List of Biological sampling for 1992 was tabled (SCS Doc. 95/11).

National representatives reported on their sampling programs of commercial fisheries for 1994/95.

An inventory of biological surveys conducted in 1994, as submitted by National Representatives and Designated Experts was presented by the Secretariat. Designated Experts also provided a more detailed account of the survey data available for 1994 relative to their stocks.

STACREC noted that the revised stratification scheme presented by Canada in June 1994 was being used by Contracting Parties conducting surveys in the Regulatory Area. It was agreed that further copies of the charts as needed would be supplied to the Secretariat.

The issue of coordinating research surveys was raised and discussion focused on the need for a synoptic survey for Greenland halibut. It was pointed out such a survey would need input from many Contracting Parties and require one to two years lead time to plan and secure vessel time. In the current environment there is a tendency to get funding at the last minute and this hampers coordination and narrows the scope of survey objectives. STACREC recommended that parties interested in a synoptic survey for Greenland halibut meet and formulate such a plan. It was suggested a group be formed from these parties, and that the group should set dates and specify vessel and scientific staff requirements. This plan could then be put forward as Scientific Council requirements for answering Commission questions on this stock.

Non-traditional Fishery Resources in the NAFO Area

STACREC reiterated the importance of maintaining adequate statistical records and sampling, where possible, for non-traditional species such as skate and wolffish.

It was recommended at the September 1994 Meeting of STACREC that efforts be made to analyse data on distribution and abundance of non-traditional species for presentation at the June 1995 Meeting. The only reported analysis being conducted was that by Canadian scientists, but documentation was not available at present. STACREC again recommended that analyses of distribution and abundance of non-traditional species be conducted for the extensive survey databases and the results presented at the June 1996 Scientific Meeting.

On Population Structure of Beaked Redfish (*Sebastes mentella* Travin) in the Irminger Sea as Related to the Hypothesis of the Latter Larvae Drift into the North-Western Atlantic (SCR Doc. 95/1)

The biological features of adult beaked redfish of the Irminger Sea distributed within pelagic depths (outside 200-mile zone) and on the slopes off Iceland and Eastern Greenland Shelves were considered, as well as data on the latter larvae and 0-group distribution. The results of the comparison suggested there was a lack of close relation between adult redfish of the above areas.

Concerning the early stages the redfish larvae, a drifting towards Western Greenland seemed to originate from the spawning area located at the shelf edge southwest of Iceland, while the larvae which hatch in the central sea area developed within the closed eddy generated by surface currents. Young redfish originating from the spawning area within pelagic depths also did not seem to recruit to the stock of the Iceland and Eastern Greenland shelf slopes. In general all information available suggested the existence of two beaked redfish populations in the Irminger Sea. The first one inhabiting the slopes off Iceland and Eastern Greenland shelves, and the second one distributed within the pelagic depths and its life cycle mainly restricted by the above-mentioned eddy.

PUBLICATIONS

Review of Scientific Publications

STACPUB noted Volume 16, containing 7 miscellaneous papers and 3 notices (99 pages) was published with the publication date of July 1994. Volume 17 containing an Introduction, 5 papers presented at the November 1990 Canada-USSR Meeting on Capelin and 2 notices (77 pages) was published with a publication date of October 1994. There was presently 1 paper in hand at the Secretariat which was in the process of being prepared for publication.

NAFO Scientific Council Studies Numbers 20, 21, 22, 23 were published through 1994-1995.

The production costs and the revenues for the various publications related to the activities of the Scientific Council were reviewed by STACPUB. No significant departures from those of previous years were observed, however, the new billing procedure had resulted in a decrease in copies sent out.

STACPUB noted that much has been accomplished in regard to avoiding double printing of documents, as no second print was now made from the majority of SCR and SCS Documents. As participants at the meetings no longer receive a second copy by mail, there has been a further decrease in the costs of publications.

COLLABORATION WITH OTHER ORGANIZATIONS

The Report of the 16th Session of the Coordinating Working Party on Statistics (CWP) was tabled (SCS Doc. 95/9) and some key points were reviewed. STACREC noted the role of CWP was changing in that there were more organizations participating and the focus was becoming more global as had been agreed to by NAFO and other international bodies that formed the CWP. The new CWP Statutes as approved by General Council and Scientific Council in 1994, which included the removal of the word 'Atlantic' from the title and Terms of Reference, were adopted by CWP. STACREC was informed on 14 June 1995, by the CWP Secretariat that FAO had approved the new statutes on 12 June. Since NAFO and ICES (the other founding members) had already adopted them in 1994, the new Statutes now come into force for the CWP.

STACREC noted that most of the discrepancies between the NAFO and FAO databases have been resolved but the review process was ongoing. Many discrepancies were created because FAO was using STATLANT 21A, whereas the finalized data at NAFO were the STATLANT 21B data.

Some discrepancies still remaining were mainly the result of Contracting Parties changing status. The breakup of the former Soviet Union and the reunification of Germany are two examples. The data discrepancies are being continually worked on and are becoming fewer.

In preparation for the 17th Session of CWP, *Ad Hoc* Consultation is planned for July 1996 in Rome. It has been a practice of the Scientific Council to send representation to these meetings and STACREC recommended that the Assistant Executive Secretary attend the Ad hoc Consultation in July 1996.

The Council noted that a Special Symposium on Marine Mammals sponsored by NAFO and ICES will be organized by the NAFO Scientific Council at the upcoming Annual Meeting in September 1995.

The 2nd World Fisheries Congress will be held 28 July-2 August, 1996, in Brisbane, Australia. STACREC saw the significant value of presenting the long and relatively unique experiences of NAFO (and ICNAF) to that meeting. It was felt that the NAFO experiences would be valued globally, particularly, in the management of high seas fisheries, and also enhance NAFO's image. STACREC accordingly, recommended that Scientific Council bring the 2nd World Fisheries Congress to the attention of the General Council and Fisheries Commission and propose that there be attendance as well as a presentation describing NAFO's experiences.

FUTURE SCIENTIFIC COUNCIL SESSIONS AND MEETINGS

a) The following Sessions were scheduled to be held in 1995-1997:

- Joint NAFO/ICES Symposium on "The Role of Marine Mammals in the Ecosystem" (September 1995). There were 20-25 abstracts submitted to date, and a number of others requesting further information.

- Workshop on "Assessment of Groundfish based on Bottom Trawl Survey Results" (September 1996). This workshop would include integration of catch and environmental data.

- Symposium on "What Future for Capture Fisheries" to aim at a general worldwide audience, will be held during Annual Meeting in September 1997.

b) The Scientific Council regular meetings will be held in June, September and November through 1995-1997.

NOMINATION AND ELECTION OF OFFICERS

Noting that the appointments were for two-year terms beginning at the end of the September 1995 Annual Meeting of the Scientific Council, the Chairman called for nominations and election.

For the office of Chairman of Scientific Council, the current Vice-Chairman W. R. Bowering (Canada) was elected by unanimous consent.

For the office of Vice-Chairman of Scientific Council and *ex officio* Chairman of STACPUB, H. -P. Cornus (EU-Germany), was elected by unanimous consent.

OTHER MATTERS

List of Fishing Vessels for 1992

The Council reiterated the STACREC request that National Representatives should ensure that their reports for the triennial publication of List of Fishing Vessels for 1992 were forwarded to the Secretariat.

List of Tagging Activities

The Secretariat compiled a list of tagging activities in 1995 (SCS Doc. 95/7). Representatives were requested to check the list and report errors and omissions.

Update of Information on Conversion Factors

The Council noted that conversion factors compiled by FAO (FAO Circular Letter 847) were tabled. The factors were derived for conversion from product weight to equivalent whole fresh weight. New product development would require special studies to establish conversion factors. These conversion factors would not be appropriate to convert product weight through a weight-length relation to fish length.

Pilot Observer Program

The Council noted concerns raised by STACREC as to the implications of 100 % observer coverage on national sampling programs. The importance of maintaining national sampling programs was reiterated noting that the observers in the Pilot Observer Program were trained for enforcement purposes and may lack the expertise required to collect biological samples. The Council noted that these data would potentially be valuable for assessment of fish stocks and urged national representatives through their national offices to get access to these data.

Other Issues

Some flounder catches taken by Korea and Canada (Scotia Fundy Region) have been reported as "flounder unspecified". STACREC requested the Secretariat to determine from Korea and Canada if information was available to break down these catches into species items.

The Council noted that the use of E-mail is commonplace for most of the scientists involved with work on the Scientific Council. The Council recommended that the Secretariat obtain access to this INTERNET communication facility. The cost of this form of communication competes well with other forms and the method is much faster.

Scientific Council Meeting (June 1995)

Front Row: (L to R) E. De Cárdenas, A. Vazquez, M. J. Morgan, V. Shibanov, S. Lisovski, B. Morin, K. F. Drinkwater, O. Leiva Padilla, S. Junquera, S. Wigley, G. F. Glenn, T. Amaratunga

Back Row: (L to R) A. Avila de Melo, O. Jørgensen, M. Stein, E. F. Murphy, V. A. Rikhter, L. Moros, H-J. Räz, A. Volochine, W. B. Brodie, H. P. Cornus, J. Casey, W. R. Bowering, D. B. Atkinson, S. J. Walsh, J-C. Mahé, D. Power, H. Lassen, D. E. Stansbury, K. H. Nygaard, J. S. Beckett, K. Yokawa, M. L. Godinho, G. Bech

Annex 1. List of Participants

CANADA

Representatives:

Beckett, J.S.	Fisheries Research Branch, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario
Bishop, C.A.	Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland
Bowering, W.R.	" " " " " " "

Advisers/Experts:

Atkinson, D.B.	Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland
Brodie, W.B.	" " " " " " "
Mertz, G.J.	" " " " " " "
Morgan, M.J.	" " " " " " "
Murphy, E.F.	" " " " " " "
Myers, R.A	" " " " " " "
Power, D.	" " " " " " "
Stansbury, D.E.	" " " " " " "
Walsh, S.J.	" " " " " " "
Winters, G.H.	" " " " " " "
Blackwood, G.	Fisheries Resource Conservation Council of Canada, P. O. Box 8700, St. John's, Nfld.
Drinkwater, K.F.	Coastal Oceanography, DFO, BIO, P. O. Box 1006, Dartmouth, Nova Scotia
Branton, R.	Marine Fish Division, DFO, BIO, P. O. Box 1006, Dartmouth, Nova Scotia
Halliday, R.G.	" " " " " "
Showell, M.A.	" " " " " "
Hunt, J.J.	Marine Fish Division, DFO, Biological Station, St. Andrews, New Brunswick
Glenn, G.F.	Marine Environmental Data Service (MEDS), 200 Kent St., Ottawa, Ontario
Morin, B.	Dept. of Fisheries & Oceans, Maurice Lamontagne Inst., P. O. Box 1000, Mont-Joli, Quebec

CUBA

Representative:

O. Leiva Padilla	Cuban Fishing Fleet, Avenida Desamparado, S/N, Puerto Pesquero de la Habana

DENMARK

GREENLAND

Representative:

Nygaard, K.H.	Greenland Institute of Natural Resources, Box 570, 3900 Nuuk, Greenland

Advisers/Experts:

Jørgensen, O.A.	Greenland Institute of Natural Resources, Tagensvej 135, 1, DK-2200, Copenhagen N.
Bech, G.	Greenland Institute of Natural Resources, Box 570, 3900 Nuuk, Greenland

EUROPEAN UNION (EU)

Representatives:

Armstrong, D.W.	Commission of the European Union, Directorate General for Fisheries, 200 Rue de la Loi, 1049 Brussels, Belgium
Lassen, H.	Danish Institute for Fisheries Research, Charlottenlund Slot, DK-2920 Charlottenlund, Denmark

Advisers/Experts:

Avila de Melo, A.	Instituto Nacional de Investigacao das Pescas, Av. Brasilia, Lisbon, Portugal
Godinho, M.L.	" " " " " "
Mahe, J.-C.	IFREMER, Station de Lorient, 8, Rue Francois Toullec, 56100 Lorient, France
Cross, D.	Commission of the European Union, Statistical Office, Batiment Jean Monet, Rue Alcide De Gasperi, 2920 Luxembourg (Grand Duchy)
Comus, H.P.	Institut für Seefischerei, M. Palmaille 9, D-22767, Hamburg, Federal Republic of Germany
Stein, M.	" " " " " " "
Rätz, H-J.	Institut for Sea Fisheries, Fischkai 35, 27572 Bremerhaven, Federal Republic of Germany
Motos, L.	AZTI, Instituto para la Ciencia y Tecnologia Pesquera, Av. Satrustegi 8, 20008 - San Sebastian, Spain
De Cárdenas, E.	Institutol Español de Oceanografia, Aptdo. 240, Santander, Spain
Junquera, S.	Instituto Español de Oceanografia, Cabo Estay-Canido, Apdo 1552, Vigo, Spain
Vazquez, A.	Instituto de Investigaciones Marinas, Muelle de Bouzas, Vigo, Spain
Casey, J.	MAFF, Directorate of Fisheries Research, Fisheries Laboratory, Pakefield Rd., Lowestoft (Suffolk), England NR33 OHT, United Kingdom

JAPAN

Representative:

Yokawa, K.	Distant-Water Groundfish Section, National Research Institute of Far Sea Fisheries, Fishery 7-1, Orido 5 chome, Shimizu-shi, Sizuoka, 424

RUSSIAN FEDERATION

Representative:

Rikhter, V.A.	AtlantNIRO, 5 Dmitry Donskoy Street, Kaliningrad, 23600

Advisers/Experts:

Lisovski, S.F.	PINRO, 6 Knipovich Street, Murmansk, 183763
Shibanov, V.N.	" " " "
Volochine, A.	" " " "
Goussev, G.V.	Fisheries Committee of the Russian Federation, 12 Rozhdestvensky Boul., Moscow K-31
Videneev, Yu.	Welsford Place, Ste. 2202, 2074 Robie Street, Halifax, Nova Scotia, Canada B3K 5L3

OBSERVERS

Wigley, S.E.	NMFS, Northeast Fisheries Science Center, 166 Water St., Woods Hole, MA 02543-1097, USA

PARTICIPANTS OF WORKING GROUP ON HARP AND HOODED SEALS

CANADA

Stenson, G.B.	Dept. of Fisheries and Oceans, P. O. Box 5667, St. John's, Newfoundland A1C 5X1
Sjare, B.L.	" " " " " " "
Chabot, D.	Institut Maurice Lamontagne, DFO, C.P. 1000, Mont-Joli, Quebec G5H 3Z4

DENMARK (GREENLAND)

Kapel, F.O.	Greenland Institute of Natural Resources, Tagensvej 135, 1, DK-2200 Copenhagen N, Denmark
Rosing-Asvid, A.	Greenland Institute of Natural Resources, P. O. Box 570, DK-3900 Nuuk, Greenland

NORWAY

Nilssen, K.T.	Norwegian Institute of Fisheries and Aquaculture, Breivika, P. O. Box 2511, N-9002 Tromsø
Øien, N.	Inst. of Marine Research, Dept. Marine Resources, P. O. Box 1870 Nordnes, N-5024 Bergen
Øritsland, T.	" " " " " " "

USA

Waring, G.T.	Northeast Fisheries Science Center, NMFS/NOAA, 166 Water St., Woods Hole, MA 02543

Annex 2. Agenda

I. Opening (Chairman: H. Lassen)

1. Appointment of rapporteur
2. Adoption of agenda
3. Attendance of observers
4. Plan of work
5. Report of proxy votes (by Executive Secretary)
6. Establish Nominating Committee for officers of Scientific Council, STACREC and STACPUB.

II. Fisheries and Environment (STACFEN Chairman: M. Stein)

a) Chairman's introduction to this new Standing Committee on Fisheries and Environment
b) Discussion of terms of references; means to enhance cooperation in environmental research
c) Invited lecture (Dr. Andrew Thomas, Atlantic Centre for Remote-Sensing of the Oceans)
d) Special Session September 1996
e) Marine Environmental Data Service (MEDS) Report for 1994
f) Review of environmental studies in 1994
g) Overview of environmental conditions in 1994
h) Formation of advice based on environmental conditions in 1994
i) National representatives
j) Joint Russian/German data evaluation (ICNAF/NAFO data, status report)
k) Other matters

III. Fishery Science (STACFIS Chairman: W. B. Brodie)

1. Opening

2. General review of catches and fishing activity.

3. Review of recommendations from 1994 meetings

4. Stock assessments

a) Stocks within or partly within the Regulatory Area, as requested by the Fisheries Commission with the concurrence of the Coastal State (Attachment 1)(Shrimp in Div. 3M will be undertaken during the Annual Meeting in September 1995.):

- Cod (Div. 3NO; Div. 3M)
- Redfish (Div. 3LN; Div. 3M)
- American plaice (Div. 3LNO; Div. 3M)
- Witch flounder (Div. 3NO)
- Yellowtail flounder (Div. 3LNO)
- Capelin (Div. 3NO)
- Squid (Subareas 3 and 4)
- Greenland halibut (Subareas 2 and 3)

b) Stocks within the 200-mile fishery zone in Subareas 2, 3 and 4, as requested by Canada (Attachment 2 and Attachment 2A):

- Roundnose grenadier (Subareas 2 and 3)
- Silver hake (Div. 4VWX)
- [Note also Attachment 2, Item 3 concerning cod in Div. 2J+3KL]

c) Stocks within the 200-mile fishery zone in Subarea 1 and at East Greenland as requested by Denmark on behalf of Greenland (Attachment 3)(Northern shrimp in Denmark Strait and off East Greenland will be undertaken during a special meeting in November 1995.):

- Redfish (Subarea 1) (by species, if possible)
- Other finfish and invertebrates (Subarea 1)

d) Stocks overlapping the fishery zones in Subareas 0 and 1, as requested by Canada and by Denmark on behalf of Greenland (Attachments 2 and 3) (Northern shrimp in Subareas 0 and 1 will be undertaken during a special meeting in November 1995):

- Greenland halibut (Subareas 0 and 1)
- Roundnose grenadier (Subareas 0 and 1)

5. Ageing techniques and validation studies

a) Report on methods of ageing silver hake otoliths
b) Reports on the otolith exchanges of American plaice and Greenland halibut
c) Other ageing and validation studies reported

6. Gear and selectivity studies

7. Other matters

a) Review of arrangements for conducting stock assessments and documentation of assessments
b) Other items referred by the Scientific Council
c) Other business

IV. Research Coordination (STACREC Chairman: C. A. Bishop)

1. Opening

2. Fishery statistics

a) Progress report on Secretariat activities in 1994/95

i) Acquisition of STATLANT 21A and 21B reports for recent years
ii) Acquisition of statistical information from other NAFO Standing Committees
iii) Publication of statistical information
iv) Considerations on non-availability of data

b) The CWP and review of STATLANT 21 forms

i) Report of CWP 16th Session, Madrid, March 1995
ii) STATLANT data and discrepancies in databases

iii) Proposals for *Ad hoc* Consultation, July 1996
iv) Consideration of CWP 17th Session, 1997

3. Biological sampling

a) Report on activities in 1994/95
b) Report by National Representatives on surveys conducted
c) Report on data availability for stock assessments (by Designated Experts)

4. Biological surveys

a) Review of survey activities in 1994 (by National Representatives and Designated Experts)
b) Surveys planned for 1995 and early 1996
c) Review of stratification schemes (new stratifications and changes)
d) Coordination of survey (Greenland halibut or other surveys - see Attachment 1)

5. Non-traditional fishery resources in the NAFO Area

a) Statistics and sampling
b) Distribution data from surveys

6. Review of SCR and SCS Documents not related to assessments

7. Other matters

a) List of fishing vessels for 1992
b) Tagging activities
c) Update of information on conversion factors (see Fisheries Commission request of 1994)
d) Other business

V. Publications (STACPUB Chairman: W. R. Bowering)

1. Opening

2. Review of STACPUB membership

3. Review of scientific publications since June 1994

4 Production costs and revenues for Scientific Council publications

a) Publication costs and revenues

5. Promotion and distribution of scientific publications

a) Invitational papers for the Journal

6. Editorial matters regarding scientific publications

a) Review of Editorial Board
b) Progress report of publication on western Atlantic cod
c) Progress report of publication on West Greenland cod
d) Progress review of Journal issue of 1993 Symposium

e) Considerations for publishing Symposium proceedings
f) Progress review of publication of 1994 Special Session

7. Papers for possible publication

a) Procedures for STACPUB review
b) Review of proposals resulting from the 1994 meetings
c) Review of contributions to the 1995 meeting

8. Other matters

VI. Collaboration with Other Organizations

1. Seventeenth Session of CWP and proposed *Ad hoc* Consultation

VII. Arrangements for Special Sessions

1. Progress report on the Special Session in 1995: joint NAFO/ICES Symposium on "The Role of Marine Mammals in the Ecosystem" (co-conveners: J. Sigurjonsson (Iceland) and G. B. Stenson (Canada))
2. Progress report on the Special Session in 1996
3. Topic for Special Session in 1997.

VIII. Future Scientific Council Meetings, 1995 and 1996

1. Annual Meeting in September 1995 (including assessment of Flemish Cap shrimp)
2. Special Meeting in November 1995 (assessment of Northern Shrimp in Subareas 0+1 and off East Greenland)
3. Other Scientific Council Meetings, 1995 and 1996

IX. Nomination and Election of Officers

X. Management Advice and Responses to Special Requests (Note: subject to possible further requests from the Fisheries Commission pertaining to Greenland halibut in Subareas 2 and 3)

1. Fisheries Commission

a) Advice for TAC for 1996, and other appropriate management measures
b) Special requests for management advice on fish and invertebrate stocks (see Attachment 1 with specific reference to items 3, 4, 5 and 6)

i) Information of stock separation on cod in Div. 2J+3KL
ii) Implications of mesh size in mid-water trawls for redfish in Div. 3LN
iii) Interrelation between seals and commercial fish stocks
iv) Coordinated research on Greenland halibut
v) Other requests

2. Coastal States (Attachments 2 and 3)

a) Advice for TAC for 1996, and other appropriate management measures
b) Special requests for management advice on fish and invertebrate stocks
c) Management advice relevant to harp and hooded seals

XI. Other Matters

XII. Adoption of Reports and Recommendations

1. STACFIS
2. STACFEN
3. STACREC
4. STACPUB
5. Joint ICES/NAFO Working Group on Harp and Hooded Seals (see Attachment 4 for Agenda)

XIII. Adoption of Scientific Council Report

XIV. Adjournment

ATTACHMENT 1. FISHERIES COMMISSION'S REQUEST FOR SCIENTIFIC ADVICE ON MANAGEMENT IN 1996 OF CERTAIN STOCKS IN SUBAREAS 3 AND 4

1. The Fisheries Commission with the concurrence of the Coastal State as regards the stocks below which occur within its jurisdiction, requests that the Scientific Council, at a meeting in advance of the 1995 Annual Meeting, provide advice on the scientific basis for the management of the following fish and invertebrate stocks or groups of stocks in 1996:

Cod (Div. 3NO; Div. 3M)
Redfish (Div. 3LN; Div. 3M)
American plaice (Div. 3LNO; Div. 3M)
Witch flounder (Div. 3NO)
Yellowtail flounder (Div. 3LNO)
Capelin (Div. 3NO)
Squid (Subareas 3 and 4)
Shrimp (Div. 3M)
Greenland halibut (Subareas 2 and 3)

2. The Commission and the Coastal State request the Scientific Council to consider the following options in assessing and projecting future stock levels for those stocks listed above:

a) For those stocks subject to analytical dynamic-pool type assessments, the status of the stock should be reviewed and management options evaluated in terms of their implications for fishable stock size in both the short and long term. As general reference points the implications of fishing at $F_{0.1}$, F_{1994} and F_{max} in 1996 and subsequent years should be evaluated. The present stock size and spawning stock size should be described in relation to those observed historically and those expected in the longer term under this range of options.

Opinions of the Scientific council should be expressed in regard to stock size, spawning stock sizes, recruitment prospects, catch rates and TACs implied by these management strategies for 1996 and the long term. Values of F corresponding to the reference points should be given and their accuracy assessed.

b) For those stocks subject to general production-type assessments, the time series of data should be updated, the status of the stock should be reviewed and management options evaluated in the way described above to the extent possible. In this case, the general reference points should be the level of fishing effort or fishing mortality (F) which is calculated to be required to take the MSY catch in the long term and two-thirds of that effort level.

c) For those resources of which only general biological and/or catch data are available, no standard criteria on which to base advice can be established. The evidence of stock status should, however, be weighed against a strategy of optimum yield management and maintenance of stock biomass at levels of about two-thirds of the virgin stock.

d) Spawning stock biomass levels that might be considered necessary for maintenance of sustained recruitment should be recommended for each stock. In those cases where present spawning stock size is a matter of scientific concern in relation to the continuing productive potential of the stock, management options should be offered that specifically respond to such concerns.

e) Presentation of the result should include the following:

i) for stocks for which analytical dynamic-pool type assessments are possible:

- a graph of yield and fishing mortality for at least the past 10 years.
- a graph of spawning stock biomass and recruitment levels for at least the past 10 years.
- a graph of catch options for the year 1996 over a range of fishing mortality rates (F) at least from $F_{0.1}$ to F_{max}.
- a graph showing spawning stock biomass at 1.1.1997 corresponding to each catch option.
- graphs showing the yield-per-recruit and spawning stock per-recruit values for a range of fishing mortality.

ii) for stocks for which advice is based on general production models, the relevant graph of production on fishing mortality rate or fishing effort.

In all cases the three reference points, actual F, F_{max} and $F_{0.1}$ should be shown.

3. The Fisheries Commission with the concurrence of the Coastal State requests that the Scientific Council continue to provide information, if available, on the stock separation in Div. 2J+3KL and the proportion of the biomass of the cod stock in Div. 3L in the Regulatory Area and a projection if possible of the proportion likely to be available in the Regulatory Area in future years. Information is also requested on the age composition of that portion of the stock occurring in the Regulatory Area.

4. The Scientific Council is asked to review all data available on the implications of using 90 mm minimum mesh size in mid-water trawls when fishing for redfish in Div. 3LN, in comparison to 130 mm. This should include consideration of fish lost during haulbacks.

5. Noting that the Scientific Council held a Symposium on Seals in the Ecosystem, the Fisheries Commission requests a detailed report on the nature and extent of analyses that were tabled at the Symposium with respect to the interrelation between seals and commercial fish stocks, together with recommendations on research needed to quantify further interactions.

6. Noting the Scientific Council's recommendations for coordinated research on Greenland halibut, the Fisheries Commission and the two Coastal States emphasize the urgency of acquiring information on the distribution and stock status. The Scientific Council is requested to pursue its coordinated efforts and member countries are urged to commit the necessary resources to the research.

ATTACHMENT 2. CANADIAN REQUEST FOR SCIENTIFIC ADVICE ON MANAGEMENT IN 1996 OF CERTAIN STOCKS IN SUBAREAS 0 TO 4

1. Canada requests that the Scientific Council, at its meeting in advance of the 1995 Annual Meeting, provide advice on the scientific basis for the management of the following fish and invertebrate stocks in 1996:

Roundnose grenadier (Subareas 2 and 3)
Silver hake (Div. 4V, 4W and 4X)

It is also suggested that, subject to the concurrence of Denmark (Greenland), the Scientific Council, prior to the 1995 Annual Meeting of NAFO, provide advice on the scientific basis for management in 1996 of the following stocks:

Shrimp (Subareas 0 and 1)
Greenland halibut (Subareas 0 and 1)
Roundnose grenadier (Subareas 0 and 1)

The Scientific Council has noted previously there was no biological basis for making two separate assessments for the Greenland halibut throughout Subareas 0-3, but has advised that separate TACs be maintained for different areas of the distribution of Greenland halibut. The Council is asked therefore, subject to the concurrence of Denmark (Greenland) as regards Subarea 1, to provide an overall assessment of status and trends in the total stock throughout its range and comment on its management, including any expansion of the responses to the questions asked in June 1993. In particular, the Council is asked to advise on appropriate TAC levels separately for SA 0+1, for SA 2 + Division 3K and for Divisions 3LMNO, and to make recommendations on the distribution of fishing effort within each of these three geographic areas. The Council is asked also to provide information on present harvest patterns in terms of yield per recruit and on distributional variation of the resource in recent years.

With respect to shrimp, it is recognized that the Council may, at its discretion, delay providing advice until later in the year, taking into account data availability, predictive capability, and the logistics of additional meetings.

2. Canada requests the Scientific Council to consider the following options in assessing and projecting future stock levels for those stocks listed above:

   a) For those stocks subject to analytical dynamic-pool type assessments, the status of the stock should be reviewed and implications of fishing at $F_{0.1}$ in 1996 and subsequent years should be evaluated. The present stock size should be described in relation to those observed historically and those to be expected at the $F_{0.1}$ level in both the short and long term. In those cases where present spawning stock size is a matter of scientific concern in relation to the continuing productive potential of the stock, management options should be considered to rebuild the spawning stock. All results should be expressed in terms of stock sizes, catch rates and TACs implied for 1996 and the long term.

   b) For those stocks subject to general production-type assessments, the status of the stock should be reviewed and management options evaluated in the way described above to the extent possible. In this case, the general reference point should be the level of fishing effort (F) which is two-thirds that calculated to be required to take the MSY catch in the long term.

   c) For those resources on which only general biological and/or catch data are available, no standard criteria on which to base advice can be established. The evidence on stock status should, however, be weighed against a strategy of optimum yield management and maintenance of stock biomass at levels of about two-thirds that of the virgin stock.

3. The Scientific Council is requested to review the status of the cod stock in Divisions 2J+3KL and to provide estimates of the current size of the total and spawning biomass, together with a description of recent trends. The Council is asked further to provide estimates of the immediate and long-term outlook for the abundance of this stock, including both total and spawning biomass.

William A. Rowat
Deputy Minister
Department of Fisheries and Oceans
Ottawa, Canada

ATTACHMENT 2A. SPECIAL QUESTIONS FROM CANADA ON GREENLAND HALIBUT IN SA 2+3 FOR NAFO SCIENTIFIC COUNCIL, 7-21 JUNE 1995

1. Determine any trends in the size and age composition of Greenland halibut catches and provide advice on the conservation implications of the trends.

2. What are the implications for the conservation of the stock and long-term harvest in terms of yield-per-recruit and spawning biomass-per-recruit of fishing under three assumptions about the sizes of entry/full recruitment as:

   a) associated with current NAFO regulated mesh size;
   b) harvesting practices that delayed significant recruitment until 60 cm fish length;
   c) harvesting practices that permitted significant recruitment at 30 cm.

3. Determine any trends in the spawning stock biomass in SA 2+3 and in the proportion of mature fish in this area.

4. The 1990 year-class has appeared strong in research vessel catches and its strength is confirmed by large numbers found in commercial catches during the early part of 1995. At age five, it is many years away from contributing to the spawning stock. What changes in management of the fishery in 1995 and future years would be needed to minimize catches of this year-class while it is young and rapidly growing and allow it to make a) 25%, b) 50%, or c) 75% of the contribution to future spawning biomass that it would if none of it was caught at immature ages.

5. Research surveys of Greenland halibut in SA 2+3 declined from the late 1970s to the mid 1990s. The stock level in the mid 1980s is intermediate between the relatively high levels of the late 1970s and the current low abundance and could support a sustainable fishery in the long term. Provide strategy options to rebuild the trawlable biomass in SA 2+3 and the percent mature in the population within five and ten years to the approximate level of the mid 1980s.

6. By-catch of American plaice from Div. 3LNO in the Greenland halibut fishery has increased. This American plaice stock is under moratorium. Provide advice on ways to eliminate or minimize this by-catch.

W. A. Rowat
Deputy Minister
Department of Fisheries and Oceans
Ottawa, Canada

ATTACHMENT 3. DENMARK (GREENLAND) REQUEST FOR SCIENTIFIC ADVICE ON MANAGEMENT OF CERTAIN STOCKS IN 1996

1. Denmark, on behalf of Greenland, requests the Scientific Council of NAFO in advance of the 1995 Annual Meeting, provide advice on the scientific basis for management of the following stocks in Subarea 1 in 1996 and as many years forward as data allow:

   i) Redfish (by species, if possible)
   ii) Any other stock of invertebrates and finfish of commercial interest, for which data allow a status report

It is also suggested that, subject to the concurrence of Canada, advice be given for the following stocks overlapping Subareas 0 and 1:

i) Greenland halibut
ii) Roundnose grenadier

2. In the analyses on which management advice will be based, the following should be included:

In its 1993 report, the Scientific Council has noted that the offshore component of Greenland halibut, in Subareas 0 and 1 was distributed equally between these Subareas. Further in its 1994 report, the Scientific Council has noted that the biomass of the inshore component in Subarea 1 was unknown. The Council is therefore asked to provide further information on following topics.

a) Allocation of TACs to appropriate Subareas (within Subareas 0 and 1).
b) Allocation of TAC for Subarea 1 inshore areas.

The Greenland halibut stock in Subareas 0-3 is considered a single stock as noted in the Scientific Council Report, 1990. The Council is also asked to provide any new information on following topics:

a) Reproductive status of the inshore stock component in Subareas 0 and 1, and the influence of recruitment variability to these areas.

b) The impacts from the ongoing fisheries in Subareas 2 and 3, on the stock component in Subarea 1.

3. Denmark, on behalf of Greenland, further requests that the Scientific Council of NAFO before December 1995, provide advice on the scientific basis for management of the following stock in Subareas 0 and 1 (including Subarea 1 north of 71°N and Subarea 1 inshore) in 1996 and as many years forward as data allow:

i) Northern shrimp (*Pandalus borealis*)

Further, in cooperation with ICES, the Scientific Council is requested to advise on the scientific basis for management of the following stock in the Denmark Strait and off East Greenland:

i) Northern shrimp (*Pandalus borealis*)

4. The Scientific Council should feel free to report on such other invertebrates and finfish stocks in Subarea 1 and on such other scientifically based management options for the above-mentioned Subarea 1 stocks, as it feels applicable.

J. B. Olsen
On behalf of the
Ministry for Fisheries, Hunting & Agriculture
Aslisarnermut, Piniarnermut, Nunalerinermullu Pisortaqarfik
Direktoratet for Fangst, Fiskeri og Landbrug

ATTACHMENT 4. JOINT ICES/NAFO WORKING GROUP ON HARP AND HOODED SEALS[1], 5-9 June 1995

AGENDA

1. Opening Remarks

2. Meeting Arrangements
   - 2.1 Meeting schedule
   - 2.2 Appointment of rapporteur(s)
   - 2.3 Review of Terms of Reference
   - 2.4 Adoption of the Agenda
   - 2.5 Review of documentation

3. Harp Seals (*Phoca groenlandica*)
   - 3.1 Stock identity, distribution and migrations
   - 3.2 The Northwest Atlantic Stock
     - 3.2.1 Information on recent catches and regulatory measures
     - 3.2.2 Current research
     - 3.2.3 Biological parameters
     - 3.2.4 Population assessment
     - 3.2.5 Replacement yields
   - 3.3 The Greenland Sea Stock
     - 3.3.1 Information on recent catches and regulatory measures
     - 3.3.2 Current research
     - 3.3.3 Information on the state of the stock
   - 3.4 The White Sea and Barents Sea Stock
     - 3.4.1 Information on recent catches and regulatory measures
     - 3.4.2 Current research
     - 3.4.3 Information on the state of the stock

4. Hooded Seals (*Cystophora cristata*)
   - 4.1 Stock identity, distribution and migrations
   - 4.2 The Northwest Atlantic Stock
     - 4.2.1 Information on recent catches and regulatory measures
     - 4.2.2 Current research
     - 4.2.3 Biological parameters
     - 4.2.4 Population assessment
     - 4.2.5 Replacement yields
   - 4.3 The Greenland Sea Stock
     - 4.3.1 Information on recent catches and regulatory measures
     - 4.3.2 Current research
     - 4.3.3 Information on the state of the stock

5. Ecology of Seal Stocks
   - 5.1 Information on ecological changes
   - 5.2 Changes in biological parameters
   - 5.3 Ecological interactions

6. Future Research Needs
7. Future Activities of the Working Group
8. Recommendations
9. Other Business
10. Adoption of Report

[1] The complete Report of the Joint ICES/NAFO Working Group on harp and hooded seals was published in SCS Doc. 95/16, Serial No. N2569.

TERMS OF REFERENCE

The proposed Terms of Reference for this Working Group are as follows:

The joint ICES/NAFO Working Group on Harp and Hooded Seals shall meet 5-9 June 1995 at NAFO Headquarters, Dartmouth, Nova Scotia, Canada, with G. Stenson, St. John's, Newfoundland, Canada, as Chairman to:

- Assess stock sizes, distributions and pup production of harp and hooded seals in the Northwest Atlantic and estimate replacement and sustainable yields both at present stock sizes and in the long term under varying options of age compositions in the catch.

- Assess the effects on harp and hooded seal populations of recent environmental changes or changes in food supply and possible interactions with other living marine resources in the North Atlantic.

- Provide proposals for future research programs.

Based on the report of the above-mentioned meeting, the Scientific Council will then at its June 1995 Meeting:

- Advise on catch options for harp and hooded seals in the NAFO area.

Scientific Council Annual Meeting

The Scientific Council met at the Holiday Inn, Dartmouth, Nova Scotia, Canada during 9-15 September 1995 (SCS Doc. 95/21). Representatives attended from Canada, Denmark (in respect of Faroe Islands and Greenland), European Union (Denmark, Germany, Portugal, Spain and United Kingdom), Iceland, Japan, Russian Federation, and observers from the United States of America and ICES. The Executive Secretary and Assistant Executive Secretary were in attendance. (Annex 1)

The Scientific Council Meeting was preceded by the Symposium "The Role of Marine Mammals in the Ecosystem", the summary of which is presented at the end of this report.

The Chairman of the Council was H. Lassen (EU) and the Rapporteur, T. Amaratunga.

The provisional agenda was modified to take into account the request on research need for Greenland halibut and any other requests which could be forthcoming from the concurrent Fisheries Commission meeting. (Annex 2)

Brief summary of the Standing Committees' Reports and other matters considered by the Scientific Council are given below.

FISHERY SCIENCE

Stock Assessments

Shrimp in Division 3M

Background: The fishery for shrimp on Flemish Cap only began in April, 1993 although shrimp occurrence in the area has been known for many years.

Fishery and Catches: This multi-national fishery produced catches as follows:

Year	Catch
1993	27 000
1994	24 000
1995 (to 31 August)	23 000

The fishery was unregulated in 1993. Sorting grates were required in 1994.

Assessment: No analytical assessment was available. Evaluation of the status of the stock was based on the interpretation of commercial fishery data (catch, effort and catch rates), the time series of research biomass indices and biological data from both sources.

Fishing Mortality: Unknown.

Recruitment: The 1988 year-class was strong, dominating in the surveys of the early-1990s and yielding high catch rates in the first year of the fishery. Year-classes produced since 1988 have been much weaker. The 1993 year-class dominated in the catches in 1995 but not in the survey.

Biomass: Only indices of biomass were available from the EU surveys. It was believed that these indices reflect the general changes in stock over time.

State of the Stock: The 1988 year-class has now passed through the population and no longer contributes significantly to the fishery. The continuation of an intensive fishery which now targets male shrimp as young as age 2 is undesirable and represents growth overfishing and may result in recruitment overfishing. The spawning biomass is now lower than it was in the early-1990s and may remain below its potential if younger male shrimp continue to be targeted before they have the opportunity to change sex.

Recommendations: If the stock produces only occasional strong year-classes, as occurred in 1988, the current exploitation pattern is unsatisfactory and reduces the potential yield from such year-classes.

If there is a stock/recruitment relationship, then the current exploitation pattern will result in recruitment overfishing.

Under either scenario, the current exploitation pattern is imprudent. In order to improve the exploitation pattern, the fishing mortality on male shrimp must be minimized.

In practice, with regard to the male year-classes which were the main target of the 1995 fishery, this implies a closure in 1996.

Special Comments: Redfish by-catches were high in 1993 and in 1994. In 1994, sorting grates with 28 mm bar spacings were required. Bar spacings were reduced to 22 mm in 1995 and by-catch levels were much lower. It is not clear, however, if the reduction was due entirely to the change in bar spacings.

Fisheries Commission Requests

Minimum Fish Size for Greenland Halibut for 130 mm Trawl

The Scientific Council reviewed the data which were presented at its June 1995 and at its September 1995 meeting and concluded that a minimum landing size based on a L_{25} point on the selection curve would be between 30 and 35 cm dependent on, among other things, duration of the trawl haul.

Minimum Landing Size

The Scientific Council had in recent years on several occasions discussed minimum landing sizes corresponding to a specified minimum mesh size in trawls.

The calculated minimum landing sizes based on L_{25} corresponding to a 130 mm trawl mesh are:

Species	Minimum landing size (cm)
Yellowtail flounder	25
American plaice	25
Witch flounder	25[1]
Greenland halibut	35[2]
Cod	41
Redfish	

[1] By analogy to yellowtail flounder and American plaice
[2] Calculated at this meeting, see section above.

TAC for Greenland Halibut in SA 2 + Division 3K and Divisions 3LMNO

The Scientific Council reviewed the available survey information on the distribution of abundance of Greenland halibut and in particular the information available for Subarea 2 + Div. 3LMNO. No survey data were available for Div. 2GH since 1988 and data were very limited for depths beyond 1 000 m in Subarea 2 or beyond 732 m in Div. 3NO. Therefore no comprehensive abundance distribution map could be constructed. The fisheries data were incomplete, not covering all areas of distribution and indices of abundance, e.g. catch rates were not comparable between vessel groups and areas.

Research Coordination for Greenland Halibut

In June 1993, the Scientific Council of NAFO recommended that consideration be given to the implementation of a collaborative RV trawl survey for Greenland halibut from Davis Strait to the Grand Bank and Flemish Cap. Until such a survey was conducted, it was thought that an adequate assessment of stock size and relative distribution was unlikely. In June 1995, STACREC recommended that parties interested in such a synoptic survey meet and develop a plan.

At this meeting, the need for such a survey was considered in detail, recognizing that to undertake and complete a collaborative survey of this kind will require considerable commitment from Contracting Parties.

The proposed survey area would include the offshore stratified areas of Div. 0A and 0B, 1A to 1F, 2G to 2J, and 3K to 3O, a total of 16 NAFO Divisions encompassing some 260 000 square naut. miles, not including Div. 1EF. This does not include the areas inside the bays and fjords, as many of these areas are unstratified and/or untrawlable. Maximum depth in the stratification schemes used at present are 1 500 m for the areas north of Div. 3L, and about 1 460 m (800 fm) for Div. 3LMNO.

The main objective of this multi-disciplinary survey would be to collect information on the abundance and distribution of fish and invertebrate species throughout the area. The key species is Greenland halibut, although data on other important species such as cod and shrimp would also be gathered.

Measures to Protect Juvenile Fish of Regulated Species

The Scientific Council has in the past repeatedly discussed this question and identified some areas of the distribution of juvenile fish (e.g. nursery areas for American plaice and yellowtail flounder on the Grand Bank). There is recent work which has not yet been reviewed by the Council. Therefore the Council cannot at this time recommend precise areas or seasons which could be closed to protect juveniles specifically.

Optimum Minimum Fish Sizes for Regulated Species

The Council interpreted the reference to minimum fish size as minimum landing size.

The Scientific Council has no data available which allows it even in general terms to address the cost efficiency issue.

These definitions of optimal minimum sizes will in some cases give grossly different answers.

If for control purposes only one mesh size is allowed when bottom trawling in the NAFO area, then a 130 mm minimum mesh is a compromise corresponding to an optimum yield-per-recruit fishery for the traditional species - American plaice, yellowtail flounder, witch flounder and cod. The compromise takes into account the species mix in the fisheries.

Usefulness of a Minimum Mesh Size in the Capelin Fishery

Small pelagic fish are particularly susceptible to damage when passing through trawl meshes, to the point of not surviving. This may also be the case for capelin although it has not been demonstrated specifically for this species. Therefore any minimum mesh in the capelin fishery will reduce the catch without reducing the total mortality.

Interaction Between Seals and Commercial Fish Stocks (please see Symposium Report on Marine Mammals)

Interactions between seals and commercial fisheries can be broadly categorized as follows 1) transmission of parasites, 2) operational interactions, or 3) competitive (predator/prey) interactions.

Harp and hooded seals do not appear to be important hosts for any parasites that compromise the quality of the commercial fish catch in the Northwest Atlantic (Brattey and Stenson, 1993).

Operational interactions include, damage to fishing gear, damage to the catch and incidental by-catch of seals in fishing gear. Anecdotal reports of damage to fishing gear and catches by harp and hooded seals have increased during the last decade. However, there was no quantitative data available to adequately address either of these issues. In Newfoundland waters, a substantial number of seals have been caught in gill nets and offshore trawls. Similar data were not available for other regions.

Several contributions and discussions at the Symposium stressed the importance of using multispecies or ecosystem approaches for assessing effects of environmental changes, variation in food supply and possible competitive interactions between marine mammals and other living marine resources in a given area. Such models have been constructed to characterize the nature of seal/fisheries interactions in other regions (e.g. the Barents Sea and the Benguela Current system). However, multispecies models incorporating Northwest Atlantic harp or hooded seals have not been constructed, partly because the data for such a model were insufficient. Until such time as adequate data are available, the impact of seal predation on commercial fish species cannot be assessed.

Yield-per-recruit Calculations for Shrimp in Division 3M

The Council stressed that the analyses presented below were very preliminary and there was much uncertainty surrounding the inputs of natural mortality (M), weight-at-age, and the knife-edge recruitment pattern.

Yield-per-recruit calculations were performed using the following assumptions:

i) The age range used was 2 to 6+
ii) The spawning stock biomass (females) was represented by ages 5 and 6+
iii) Natural mortality (M) was set at two levels, 0.25 and 0.7 on all ages
iv) Fishing mortality (F) was fixed at 1.0 for both scenarios of M and for all ages.

Mean weights-at-age were approximated as:

Age	2	3	4	5	6+
Weight	2.6	5.0	7.6	9.8	12.4

Simulations were performed which progressively increased the age at first capture from age 2 to age 5 inclusive, to investigate the possible effects of such a management measure.

Amount of Data Used in the Assessment of the Shrimp in Division 3M

Data available from the 1995 (up to 31 August) shrimp fishery in Div. 3M by nation are as follows:

Nation	Minimum No. of vessels	Catch	Effort	CPUE	Fishing positions	No. Shrimp measured*	Shrimp discard	By-catch	Preliminary Total catch
CAN	7	X	X	X	X	26 381	X	X	939
EST	6	X	X	X					1 616
E/ESP	1								*158
E/PRT	1								*150
FRO	6	X	X	X					3 990
GRL	6	X	X	X	X	16 677	X	X	2 321
ISL	16	X	X	X					4 269
LVA	4								*350
LTU	4								*675
NOR	20					42 899			*6 100
RUS	15								*2 500
Total	86					85 957			23 068

* Approximately 500 shrimp per sample.
* Catch estimates from Canadian surveillance only.

Equilibrium Yield and Corresponding Spawning Stock Biomass for Division 3M Cod

The yield-per-recruit for Div. 3M cod was calculated for a 130 mm mesh size. The mean length and weight-at-age were taken from data from the EU survey series. The natural mortality was assumed to be 0.2. The result was Y/R = 0.888 kg per recruit for $F_{0.1}$. The $F_{0.1}$ was calculated at 0.12.

Assuming that recruitment followed the pattern seen in the period 1988-94, the yield would be around twice the current TAC but varying considerably between years. The spawning stock biomass could be 3 to 25 times greater than the level recently observed.

RESEARCH COORDINATION

Acquisition of STATLANT 21 Data

The Council noted that STATLANT data reports for 1994 had still not been received from several countries, and that data from USA were not likely to be available this year. The Council agreed with STACREC that the SCS document on provisional nominal catches for 1994 should not be compiled. The Council also agreed with the recommendation of STACREC, that NAFO Statistical Bulletin, Vol. 42 be completed as soon as possible when the STATLANT 21B data from EU-France and Norway for 1992 were clarified.

The Council noted the introduction of a new trawl gear into the shrimp fisheries in Div. 3M and the possible implications for the interpretation of fisheries data. The Council endorsed the recommendation of STACREC that the Secretariat take steps to modify the STATLANT 21B questionnaire to include this new twin trawl gear type used in the shrimp fishery, with a new gear code.

Research Coordination for Greenland Halibut, Formulation of Research Proposal for Synoptic Survey

The Council noted the STACREC research proposal and the potential benefits of such an exercise. The Council recommended that Contracting Parties adopt the proposal and make every possible effort to ensure that a coordinated synoptic survey in the Convention Area is undertaken at the earliest practical opportunity.

Review of Research Documents

The Council noted that three Research Documents not directly related to stock assessments and not considered by STACFIS, had been reviewed and reported on by STACREC.

Publication of List of Fishing Vessels

The Council noted the concerns of STACREC regarding the serious shortfalls in submission of the lists of fishing vessels in the NAFO area and agreed with the request of STACREC that the Secretariat investigate the background for the requirement for such a list and its usage in NAFO.

National Research Reports for 1994

The Council noted the receipt of the USA research report for 1994 and that until new auditing and allocation procedures currently being implemented in the USA are finalised, reported landings from the USA will not be available by NAFO Division. The Council agreed with STACREC on the importance of receiving catch statistics from the USA on a species/Divisional basis.

Biological Surveys in the Regulatory Area

The Council noted that while Contracting Parties are informed of proposed research activities in the Regulatory Area, the information was not always transmitted to the chairs of Scientific Council and its Committees on a timely basis. Such information is of significant value to the Scientific Council. The Council endorsed the recommendation of STACREC that Contracting Parties planning research activities in the Regulatory Area, submit a summary of their research proposals , outlining the objectives and methods, to the Scientific Council.

Redfish Ageing Workshop

The Council noted that an ICES-sponsored workshop on ageing of *Sebastes* sp. is to be held in Bremerhaven, Germany on 4-8 December, 1995, and endorsed the recommendation of STACREC that a summary of the report of the workshop on ageing of *Sebastes* sp. be presented to the June 1996 Meeting of the Scientific Council.

THE NAFO/ICES SYMPOSIUM ON THE ROLE OF MARINE MAMMALS IN THE ECOSYSTEM

The Joint NAFO/ICES Symposium on 'The Role of Marine Mammals in the Ecosystem' was held during 6-8 September 1995. The Symposium was hosted by the NAFO Scientific Council in conjunction with the NAFO 17th Annual Meeting at the Holiday Inn, Dartmouth, N.S., Canada.

The meeting was opened by W. B. Brodie (Canada), (STACFIS Chairman) who on behalf of the Scientific Council, gave a brief introduction to NAFO and its structure and activities, and commented on the importance of the scientific information from this Symposium to NAFO. J. Harwood (EU-United Kingdom), on behalf of ICES then welcomed the participants.

Introduction

The Symposium on the 'Role of Marine Mammals in the Ecosystem' was co-sponsored by the NAFO Scientific Council and the International Council for the Exploration of the Sea (ICES) with G. B. Stenson (Canada) and J. Sigurjónsson (Iceland) as co-convenors.

The aim of the Symposium was to attract scientists from relevant disciplines with expertise in different geographical areas to address the question of the role of mammals in the marine ecosystem. The three day Symposium was divided into four theme sessions: (1) Environmental, spatial and temporal influences on life histories (Chair: T. Haug, Norway), (2) Foraging strategies and energetic considerations in the diet (Chair: I. McLaren, Canada), (3) Marine mammal - fisheries interactions (Chair: W. D. Bowen, Canada), and (4) Theoretical considerations on the role of apex predators and multispecies models (Chair: G. A. Vikingsson, Iceland). Each session consisted of a keynote address, followed by contributed oral presentations and an extended general discussion. Poster presentations were displayed throughout the Symposium in addition to specific poster sessions.

The Symposium was attended by 113 participants from 16 countries (Argentina, Brazil, Canada, Denmark (Greenland), France, Germany, Iceland, Japan, Norway, Portugal, Russia, South Africa, Spain, The Netherlands, United Kingdom and United States of America). In total, 30 oral and 21 poster contributions were presented. A list of contributions and participants is included at the end of this report.

Papers presented at the Symposium will be considered for publication in the Journal of Northwest Atlantic Fisheries Science.

Environmental, Spatial and Temporal Influences on Life History

The general discussion focused on two main issues. The first was related to the correlation between marine mammals and the scale of observations. The scale at which a marine mammal and fisheries scientists operate may not be comparable and information about prey abundance are often collected for assessment purposes which may not always fulfil the requirements needed for evaluation of marine mammal ecology. Therefore, correlation must often be made to physical or oceanographic factors which do not vary within a short time frame.

The second major topic of the discussion was the question of density dependent changes in populations of marine mammals. Although changes in morphology and reproduction parameters have been demonstrated for a number of species, such as the Northwest Atlantic harp seals, it was not clear that they have been proven to be due to classical density dependent processes. The cause of these changes becomes important if we wish to predict future changes in the population.

Foraging Strategies and Energetic Consideration

Recent information on the energetic requirements of a variety of species indicate that assuming energy requirements based upon generalized mammalian relationships with body mass (the "Kleiber line") may not be appropriate for all marine mammals. New techniques of estimating diet, such as fatty acid signature analysis and stable isotope ratios, were presented and their applicability to answer different types of questions were discussed.

A number of presentations extended traditional dietary analysis beyond the usual mere enumeration of stomach contents. Using data from the stomachs contents of fin whales off Iceland, a diel rhythm in feeding was identified and the average daily intake estimated. Recent studies provide new insights into various aspects of the foraging behaviour of Northeast Atlantic minke whales; comparison of prey consumed to estimated prey abundance obtained from resource surveys using qualitative and quantitative statistics suggests that minke whales exhibit prey selection while examination of the stomach contents lead to the hypothesis that the meal size varies according to the spatial distribution of the prey. Also, large and small minke whales appear to exploit the same resources in given areas, although whale size and prey type influence meal size.

An example of the use of spatial and temporal patterns in the distribution of prey and predator to identify potential interactions was presented as well as a method of investigating prey selection in captive seals. Information on the diet of a number of species in areas which were previously unknown were presented along with comparisons of the diet of co-existing predators, or the same predator in different geographical areas.

The general discussion focused upon the usefulness of fatty acid signature analysis and stable isotope ratios for determining diets. It was noted that these methods are not intended to replace traditional techniques, but rather provide additional tools to answer specific questions. However, in order for these techniques to be useful, adequate baseline data from the potential prey species in the ecosystem must be obtained.

Marine Mammal-Fisheries Interactions

A total of 12 oral and 10 poster contributions addressing issues of marine mammal - fisheries interactions were presented. The keynote paper entitled "On modelling approaches for evaluating seal-fishery interactions: initiatives in South Africa and for the Antarctic" was presented by D. Butterworth (South Africa). It reviewed recent modelling studies of the Benguela Current and Southern Ocean ecosystems. Perhaps the most important results of these studies is the recognition that realistic models of the interactions between marine mammal populations and fisheries must account for the major interactions affecting the system, while at the same time simplifying the system to the point where analyses are tractable. Associated with this process is the need for the development of a risk assessment framework within which the probabilities and consequences of different outcomes may be evaluated.

Several presentations provided information that showed strong geographic and seasonal variation in the composition of the diets of pinnipeds and cetaceans. These data coupled with information on mammal abundance, individual energy requirements, and prey energy content were used to estimate the biomass of prey consumed by harp seals in the Northwest Atlantic, hooded seals in the Gulf of St. Lawrence, Cape fur seals in the Benguela ecosystem, cetaceans along the northeastern continental shelf of the United States, in waters around and adjacent to Iceland, and off the coast of Patagonia, Argentina. In all areas, marine mammals consumed large amounts of biomass, often equal to or greater than that taken by commercial fisheries, but the species consumed were a mixture of commercial and non-commercial prey. Estimates of consumption by harp seals in Atlantic Canada illustrate the importance of understanding how diet data are incorporated into the model since changes can result in substantially different estimates. A study of estimated consumption of Atlantic cod by grey seals on the Eastern Scotian Shelf, Canada, emphasized the need for a better understanding of the functional form of seal predation, the level of natural mortality on young cod, and the sources and relationships among other components of natural mortality before the impact of seals on prey populations could be assessed.

A significant change in the age distribution of cod in the diet of seals off Iceland and concurrent declines in the size of seal stocks was observed. To determine if there was evidence of increasing juvenile mortality consistent with predictions based upon predation by seals, mortality was estimated from research vessel surveys for several Northwest Atlantic cod stocks. Although no trends were detected, the ability of the tests to detect such changes given the variability of the survey data was debated.

The potential competition between marine mammals and fisheries for prey and primary productivity in the Pacific Ocean was examined using a steady state model. Although data for many species of the marine mammals included can only be approximated as order of magnitude, the study indicated that marine mammals likely consume three times as much food (commercial and non-commercial species) as that taken by fisheries. Another study suggested that comparison of different ecosystems, such as the Bering Sea and Barents Sea, might yield insights as to the nature of the ecological interactions between pinnipeds and fisheries.

Operational interactions between marine mammals and fisheries were discussed in six presentations. Mortalities or injuries to cetaceans due to interactions with fishing gear were documented for the US Atlantic coast and Gulf of Mexico, and the waters of the continental slope southwest of Ireland. A review of documented interactions between cetaceans and trawlers was presented along with a study of gear damage and depredation due to apex predators in eastern Florida, USA. Preliminary results of the use of acoustic devices to reduce the incidental catch of harbour porpoise in groundfish gillnets are encouraging. A study of surfacing patterns in captive and wild harbour porpoise may provide behaviourial data related to the incidental capture of porpoise in fishing gear.

Still another form of interaction was illustrated by two presentations describing the parasitic fauna of beluga in the Gulf of St. Lawrence, Canada and grey seals in Iceland. Parasites may be an important cause of mortality in beluga and a useful tool for identifying stock identity while parasitic loads in grey seals may have an impact on the parasitic burdens of commercially important fish species.

A framework developed by the Scientific Advisory Committee of the Marine Mammal Action Plan coordinated by UNEP for the scientific evaluation of programs to cull marine mammals to benefit fisheries was presented for discussion.

The general discussion focused on the fact that the results of models designed to determine impact of marine mammals on fisheries are imprecise in most situations. Therefore, we should consider developing robust models which provide us with information on the direction and the order of magnitude of the impact. The ability of the model to distinguish among alternative scenarios must be considered. It was also noted that several studies indicate that consumption of fish resources by other predators such as predatory fish or seabirds may be important in some ecosystems.

Theoretical Considerations on the Role of Apex Predators and Multispecies Models

Five oral contributions considered theoretical considerations on the role apex predators and the use of multispecies models. The keynote address entitled "Assessing the relationship between apex predators and fisheries: where do we go from here?" was delivered by J. Harwood (UK). Examples of marine mammal - fisheries interactions and methods for studying these were presented. Recent studies of grey seals off the coast of England (UK) show great "patchiness" in foraging behaviour. Therefore, it is necessary to study all of the interacting components, including the marine mammals, the prey species and the fisheries, at a finer scale than has been done previously. In order to develop dynamic models of interactions, information on the functional relationship between marine mammals and their prey, other predators, and fishermen are required.

An example of a method for quantifying sources of uncertainty for each of the components involved in estimating prey consumption of harp seals was presented indicating considerable uncertainty in the estimates of consumption due to variability in the diet samples. Such calculations are important in identifying research needs and for evaluating alternative management options.

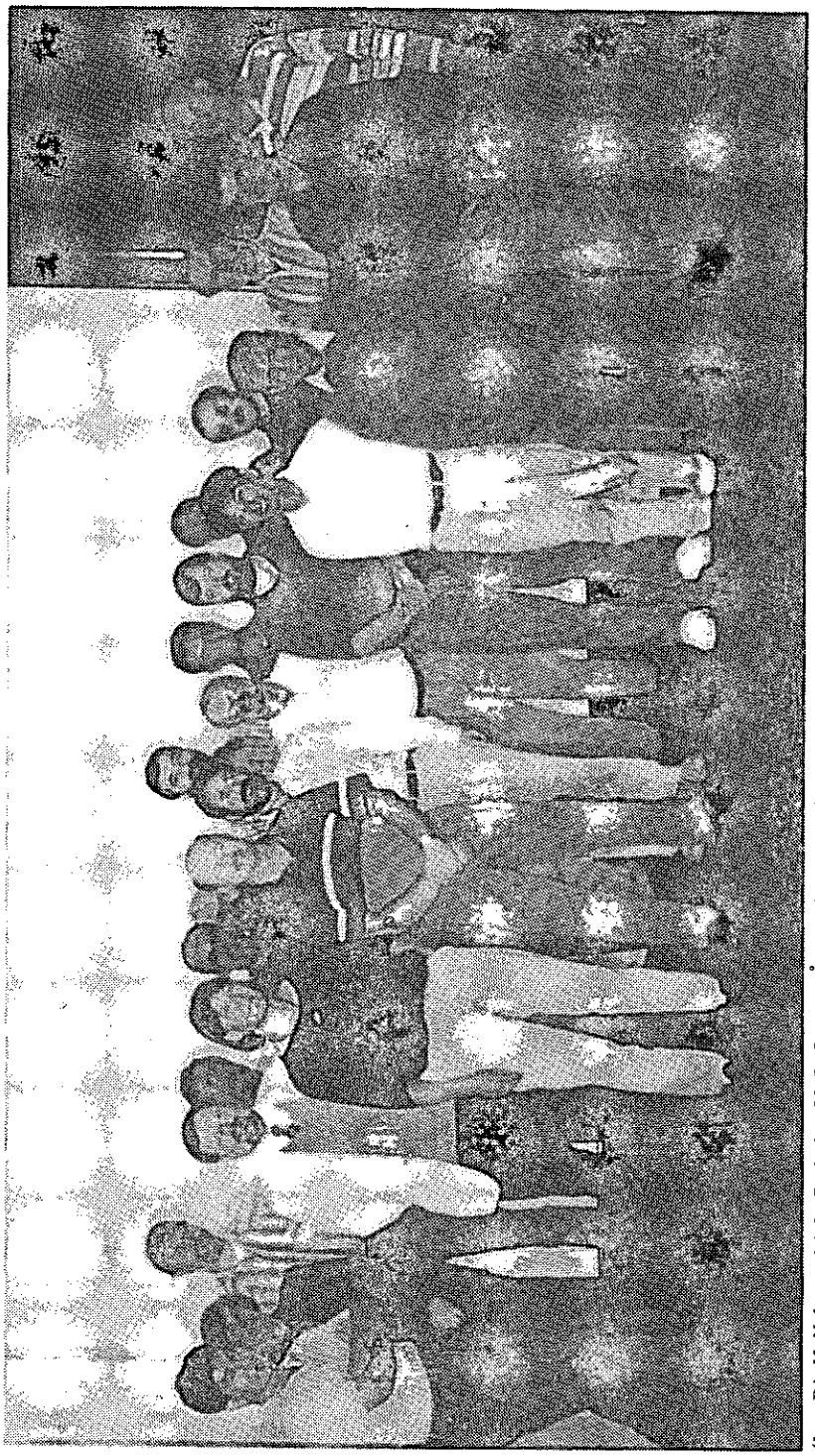
Alternative hypothesis proposed to explain declines in Stellar sea lions and seabirds, and increases in groundfish in the Bering Sea were described and evaluated. These changes could have been caused by changes in the environment, competition with commercial fisheries, or direct competition between sea lions and gadids for food.

Multispecies interactions in the Barents Sea were explored by using a simulation model. Sensitivity of the model to food preferences and stock sizes of harp seals and minke whales, and the relative importance of these two species to the main fish predator, cod, was described. Off Iceland, the potential interactions among three piscivorous baleen whales and their principal prey were explored using a multispecies simulation model. The results indicated that baleen whales may have significant direct and/or indirect long-term impacts on the prey species.

Summary

Throughout the Symposium, reoccurring themes became evident. The basic premise of the symposium that a variety of biological and physical components in the ecosystem must be considered in order to determine the role of marine mammals and the need to include scientists from various disciplines, was emphasized. It was also evident that marine mammals must be considered on a variety of spatial and temporal scales and that their role may vary among them. The scales at which marine mammals are studied are often not compatible with the information available from other disciplines and this can only be resolved through cooperative studies with other disciplines. With respect to marine mammal - fisheries interactions, studies should take into account potential secondary interactions such as other predators or prey, which may result in conclusions which are counter-intuitive. However, in many cases it may not be possible to quantify the interactions precisely and therefore, models incorporating uncertainties in the inputs must be robust and yet capable of identifying the magnitude and direction of competitive interactions within the system.

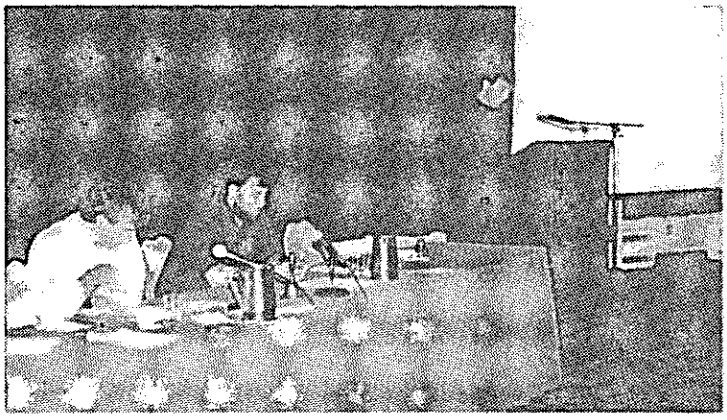
Scientific Council, 17th Annual Meeting of NAFO (September 1995)



(L to R): K. Yokawa, M. L. Godinho, H. P. Cornus, Å. Nicolajsen, M. Stein, H. Siegstad, A. Avila de Melo, E. De Cárdenas, D. Power, F. Serchuk, L. Motos, D. B. Atkinson, J. Casey, W. B. Brodie, W. R. Bowering, H. Yamada, V. N. Shibanov, T. Murai, D. G. Parsons, H. Lassen, A. Vazquez

Symposium on "The Role of Marine Mammals in the Ecosystem"

Symposium in progress



Closing Session: G. B. Stenson, W. B. Brodie, and J. Sigurjonsson (Speaker)

Symposium Co-Conveners: J. Sigurjonsson and G. B. Stenson

Annex 1. List of Participants

CANADA

Representatives:

Beckett, J.S.	Fisheries Research Branch, Dept. of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario
Bowering, W.R.	Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland
Atkinson, D.B.	" " " " " " "

Advisers/Experts:

Brodie, W.B.	Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland
Parsons, D.	" " " " " " "
Power, D.	" " " " " " "
Sjare, B.	" " " " " " "
Stenson, G.B.	" " " " " " "
Halliday, R.G.	Marine Fish Division, DFO, BIO, P. O. Box 1006, Dartmouth, Nova Scotia

DENMARK (IN RESPECT OF FAROE ISLANDS AND GREENLAND)

Advisers/Experts:

Kapel, F.O.	Greenland Institute of Natural Resources, Tagensvej 135, 1, DK-2200, Copenhagen N, Denmark
Nicolajsen, A.	Fiskorannsoknarstovan, Fish. Lab., Noatun, Box 3051, FR-110 Torshavn, Faroe Islands
Siegstad, H.	Greenland Institute of Natural Resources, Box 570, 3900 Nuuk, Greenland

EUROPEAN UNION (EU)

Representative:

Astudillo, A.	Commission of the European Union, Rue Joseph II, 99, 1049 Brussels, Belgium
Lassen, H.	Danish Institute for Fisheries Research, Charlottenlund Slot, DK-2920 Charlottenlund, Denmark

Advisers/Experts:

Cornus, H.P.	Institut für Seefischerei, M. Palmaille 9, D-22767, Hamburg, Germany
Stein, M.	" " " " " "
Cross, D.	EUROSTAT, Commission of the European Union, Batiment Jean Monet, Rue Alcide De Gasperi, 2920 Luxembourg (Grand Duchy)
Avila de Melo, A.	Instituto Nacional de Investigacao das Pescas, Av. Brasilia, Lisbon, Portugal
Godinho, M.L.	" " " " " "
De Cárdenas, E.	Institutol Español de Oceanografia, Aptdo. 240, Santander, Spain
Motos, L.	AZTI, Instituto para la Ciencia y Tecnologia Pesquera, Av. Satrustegi 8, 20008 - San Sebastian, Spain
Vazquez, A.	Instituto de Investigaciones Marinas, Muelle de Bouzas, 36208 Vigo, Spain
Casey, J.	MAFF, Directorate of Fisheries Research, Fisheries Laboratory, Pakefield Rd., Lowestoft (Suffolk), England NR33 OHT, United Kingdom

ICELAND

Representative:

Sigurjonsson, J.	Marine Research Institute, Skulagata 4, P. O. Box 1390, 121-Reykjavik

JAPAN

Advisers/Experts:

Murai, T.	Deputy Dir. Development Dept., Japan Marine Fishery Resources Research Center (JAMARC), Godo Kaikan Bldg., 3-27 Kioi-Cho, Chiyoda-ku, Tokyo 102
Yamada, H.	49 Kokubu-Machi, Nagasaki 850
Yokawa, K.	Distant-Water Groundfish Section, National Research Institute of Far Sea Fisheries, Fishery Agency, 7-1, Orido 5 chome, Shimizu-shi, Sizuoka, 424

RUSSIAN FEDERATION

Representative:

Troyanovsky, F.M.	Director, Polar Res. Instit. of Marine Fish. & Oceanogr. (PINRO), 6 Knipovich St., Murmansk 183763

Advisers/Experts:

Shibanov, V.N.	PINRO, 6 Knipovich Street, Murmansk, 183763

OBSERVERS

Serchuk, F.	NMFS, Northeast Fisheries Science Center, 166 Water St., Woods Hole, MA 02543-1097, USA
ICES Rep. (H.P. Cornus)	Institut für Seefischerei, M. Palmaille 9, D-22767, Hamburg, Germany

Annex 2. Agenda

I. Opening (Chairman: H. Lassen)

1. Appointment of rapporteur
2. Adoption of agenda
3. Plan of work

II. Fishery Science (STACFIS Chairman: W. B. Brodie)

1. Opening
2. Matters related to Stock assessments [see Attachment 1]
   a) Assessment of Shrimp in Division 3M [item outstanding from June 1995 Meeting]
   b) Greenland halibut
      - L_{25} (round total length) for 130 mm trawl
      - Area and seasonal distribution of immature and mature biomass between SA 2+3K and Div. 3LMNO.
   c) Area and seasonal distribution of juvenile fish of protected species (cod, redfish, witch flounder, American plaice, yellowtail flounder and Greenland halibut)
   d) Optimal minimum fish size for protected species in Subareas 2+3
3. Arrangements for conducting stock assessments in 1996
   a) Work plan for the June 1996 Meeting
   b) Update list of Designated Experts
4. Silver hake ageing methodology report
5. Other matters

III. *Ad hoc* Working Group on the Interrelation Between Harp and Hooded Seals and Commercial Fish Stocks (Chairman: G. Stenson) [items outstanding from June 1995 Meeting]

1. Presentation of Report from the Symposium on "The Role of Marine Mammals in the Ecosystem"
2. Review information of seal food consumption by species, area and season with special reference to recent changes in the food supply. Estimate the total food consumption by seals for commercial fish species.
3. Review the existing knowledge on interactions between seals and commercial fish stocks.
4. Identify research needed to better quantify interactions between seals and commercial fish stocks.
5. Assessment of effects on the seal stock of recent environmental changes or changes in food supply.
6. Review the existing knowledge on impact on the ecosystem from the recent increase in seal populations.

IV. Research Coordination (STACREC Chairman: C. A. Bishop)

1. Acquisition and publication of STATLANT data.
2. Research coordination for Greenland halibut, formulation of research proposal for synoptic survey
3. Review of research documents
4. Other matters

V. Publications (STACPUB Chairman: W. R. Bowering)

1. Review of scientific publications
2. Promotion and distribution of scientific publications
3. Editorial matters
   a) Editorial board
   b) Other matters
4. Review of papers for possible publication
   a) Consideration of publication of papers from September 1995 Symposium.
   b) Others papers presented at the September 1995 Meeting
   c) Status of papers on Shrimp in Div. 3M for a single publication
   d) Status of papers on West Greenland Cod
5. Other matters

VI. Management Advice and Responses to Special Requests [see Attachment 1]

1. Minimum fish size for Greenland halibut
2. Minimum landing size
3. TACs for Greenland halibut in SA 2 + Div. 3K and Div. 3LMNO
4. Research coordination of Greenland halibut
5. Measures to protect juvenile fish of regulated species
6. Optimum minimum fish sizes for regulated species
7. Usefulness of a minimum mesh size in the capelin fishery
8. a) Report on the nature and extent of analyses tabled at the Symposium with respect to the interaction between seals and commercial fish stocks
   b) Recommendations on research needed to further quantify the interaction between seals and commercial fish stocks [item outstanding from June 1995 Meeting]
9. Other requests

VII. Review of Future Meeting Arrangements

1. Scientific Council Meeting on northern shrimp 16-20 November 1995*
2. June 1996 Meeting of Scientific Council
3. Special Session and Annual Meeting, September 1996
4. June 1997 Meeting of Scientific Council

VIII. Future Special Sessions

1. Progress report on Workshop for September 1996
2. Progress report on Symposium for September 1997

IX. Other Business

X. Adoption of Reports

1. Committee Reports of present meeting (STACFIS, STACREC, STACPUB)
2. Report of Scientific Council, September 1995

XI. Adjournment

---

* These dates were revised to 17-20 November during this meeting.

ATTACHMENT 1. FISHERIES COMMISSION REQUEST FOR SCIENTIFIC ADVICE

Special Meeting of the Fisheries Commission - 7-9 June 1995

The Fisheries Commission, with the concurrence of the Coastal State, requests that the Scientific Council, as regards points 1 and 2 at a meeting in advance of the 1995 Annual Meeting, provide scientific advice in response to the following issues:

1. A minimum fish size for Greenland halibut

   Provide advice on the minimum fish size for Greenland halibut in SA 2+3, in terms of round (total) length, corresponding to 25% retention by the existing legal minimum mesh size for trawls.

2. TACs for Greenland halibut in SA 2+ Div. 3K and Div. 3LMNO

   The Fisheries Commission has subdivided the 1995 TAC for Greenland halibut in SA 2+3 into two TACs for SA 2 + Div. 3K and Div. 3LMNO. In responding to the Commission's request for advice for the management of Greenland halibut in SA 2+3 for 1996, the Scientific Council should recommend an overall TAC for SA 2+3 and provide advice on dividing the overall TAC into two TACs for SA 2 + Div. 3K and for Div. 3LMNO.

3. Further measures to protect juvenile fish of regulated species, e.g. area/seasonal closures

   Taking into account available information on the geographical and seasonal distribution of regulated species of various sizes, identify, where practical and sufficient information is available, seasonal and area fishery closures which would reduce the proportion of juveniles of regulated species in commercial catches.

4. Optimal minimum fish sizes

   Taking into account the implications on conservation of the stocks and long-term harvest of alternative sizes at first entry into the fishery, recommend optimal (in terms of maximum yield per recruit) minimum fish sizes for regulated species in the NRA, and advise on the corresponding minimum mesh sizes for trawls and other gear.

5. Minimum mesh size in the Capelin fishery

   Provide advice on the usefulness of a minimum mesh size in the trawl fishery for Capelin.

PREVIOUS FISHERIES COMMISSION REQUESTS

In September 1993 the Fisheries Commission forwarded i.a. the following request to the Scientific Council:

5. Noting that the Scientific Council has scheduled a Symposium on Seals in the Ecosystem for September 1995, the Fisheries Commission requests a report in 1994 on the nature and extent of analyses that are expected to be tabled at the Symposium with respect to the interrelation between seals and commercial fish stocks.

In September 1994, the Fisheries Commission forwarded the following requests:

5. Noting that the Scientific council held a Symposium on Seals in the Ecosystem, the Fisheries Commission requests a detailed report on the nature and extent of analyses that were tabled at the Symposium with respect to the interrelation between seals and commercial fish stocks, together with recommendations on research needed to quantify further interactions.

6. Noting the Scientific Council's recommendations for coordinated research on Greenland halibut, the Fisheries Commission and the two Coastal States emphasize the urgency of acquiring information on the distribution and stock status. The Scientific Council is requested to pursue its coordinated efforts and member countries are urged to commit the necessary resources to the research.

The following request for advice was received on 17 June 1994. This is presented to the Scientific Council with a view to developing terms of reference for a proposed meeting of the ICES/NAFO Working Group.

"Denmark (on behalf of Faroe Islands and Greenland) request advice from the NAFO Scientific Council (eventually via the Joint ICES/NAFO Working Group on Harp and Hooded Seals) on the following issues

Harp and hood seals

- assessment of stock sizes, distribution and pup production of harp and hooded seals in the Northwest Atlantic;

- assessment of sustainable yields at present stock sizes and in the long term under varying options of age composition in the catch;

- advise on catch options in the NAFO area;

- assessment of effects of recent environmental changes or changes in the food supply and possible interaction with other living marine resources in the area."

Scientific Council Meeting

The Scientific Council met at NAFO Headquarters, Dartmouth, Nova Scotia, Canada, during 17-20 November 1995 (SCS Doc. 95/22). Representatives attended from Canada, Denmark (in respect of Faroe Islands and Greenland), Iceland and the United States of America. The Executive Secretary and Assistant Executive Secretary were in attendance.

T. Amaratunga was appointed Rapporteur.

The Chairman noted that the USA was joining NAFO, and he was particularly pleased to welcome S. H. Clark, National Marine Fisheries Service, Woods Hole, Massachusetts, USA, to this meeting. The meeting welcomed U. Skúladóttir (Iceland), as the ICES observer to this meeting. (Annex 1)

The Provisional Agenda was adopted. (Annex 2)

FISHERY SCIENCE

The Council noted that matters referred to STACFIS relating to assessments of Shrimp in Subareas 0 and 1 and Shrimp in Denmark Strait were addressed. The reports are given below.

Shrimp in Subareas 0 and 1

Background: A small scale inshore fishery began in SA 1 during the 1930s. Since 1969 an offshore fishery has developed and the shrimp fishery is now the largest in Davis Strait.

Recent nominal catches and TAC (tons) for Shrimp in Div. 0A and Subarea 1 are as follows:

	1985	1986	1987	1988	1989	1990	1991	1992	1993[1]	1994[1]	1995[1,2]
Div. 0A Total	3 069	2 995	6 095	5 881	7 235	6 177	6 788	7 493	5 491	4 766	1 998
SA 1 Offshore	43 896	52 634	50 720	44 159	45 198	49 478	52 652	58 676	52 493	53 693	43 212
SA 1 Inshore	7 500	7 500	6 921	10 233	13 224	13 630	16 258	20 594	17 843	18 118	9 643
SA 1 Total	51 396	60 134	57 641	54 392	58 422	63 108	68 910	70 270	70 336	71 811	52 855
SA 0+1 Total	54 465	63 129	63 736	60 273	60 657	69 285	75 698	86 763	75 827	76 577	54 853
0+1 offshore catch	46 965	55 629	56 815	50 040	52 433	55 655	59 440	66 169	57 984	58 459	45 210
0+1 advised TAC[3]	36 000	36 000	36 000	36 000	44 000	50 000	50 000	50 000	50 000	50 000	60 000

[1] Provisional data.
[2] January-October.
[3] Until 1994 the advised TAC was only for offshore south of 71°N. After 1994, the advised TAC includes offshore north of 71°N and inshore.

Assessment: No analytical assessment is available and fishing mortality is unknown. Evaluation of the status of the stock is based on interpretation of commercial fishery data (catch, effort, unstandardized and standardized catch rates), time series of research biomass indices and stock composition data.

Recruitment: The 1985 year-class was strong and maintained catch rates in the early-1990s. Year-classes produced since have been weaker. The 1990 year-class dominated the 1995 catches in the survey and commercial fishery.

State of the Stock: There are indications that the stock size has declined and the strong 1985 year-class has now passed through the fishery. As well, the abundance of males (as estimated from the surveys), the source of recruitment to the fishery, decreased since 1993.

Recommendations: Due to uncertainties about recruitment and the overall decrease in the abundance indices, it is recommended that total catches not exceed 60 000 tons, as recommended for 1995.

Special Comments: Advice on the 1995 catch level was partly based on use of past inshore catches as an estimate of long-term production. In light of concerns on stock status, the upward revision of inshore catches done in 1995 was not considered sufficient to justify an increase in the advised catch level. The Council expressed concern that recent catches have substantially exceeded the advised TACs.

Shrimp in Denmark Strait

Background: The fishery for shrimp in limited areas of the Denmark Strait began in 1978. The fishery started exploiting new areas in 1993.

Recent catches and TACs (tons) are as follows:

	1985	1986	1987	1988	1989	1990	1991	1992	1993[1]	1994[1]	1995[1,2]
Catch north of 65°N											
eastern side	1 794	1 150	1 330	1 424	1 326	281	465	1 750	2 553	1 514	1 151
western side	6 316	9 814	10 848	11 125	9 416	9 994	8 192	5 764	3 950	3 358	4 052
Catch south of 65°N	-	-	-	-	-	-	-	-	1 191	4 950	1 704
Total	8 110	10 964	12 178	12 549	10 742	10 275	8 657	7 514	7 694	9 822	6 907
Advised TAC	5 000	-	-	-	10 000	10 000	10 000	8 000	5 000	5 000	5 000
Effective TAC western side	6 090	7 525[3]	7 725[3]	8 725[3]	9 025[3]	14 100	14 500	13 000	9 563	9 563	9 563

[1] Provisional catches.
[2] January-October.
[3] Not including Greenland fishery north of 66°30'N.

Assessment: No analytical assessment is available and fishing mortality is unknown. Evaluation of the status of the stock is based on interpretation of commercial fishery data, the time series of survey biomass indices and biological data from both sources.

Recruitment: There are no immediate concerns for recruitment since the number of males in the surveys has increased substantially in the last two years.

State of the Stock: The stock appears to be recovering from a low level.

Recommendations: For 1996, the catch should be limited to 5 000 tons to allow for continued improvement in stock size. This catch level should apply to the northern (traditional) and the southern (new) fishing areas combined.

OTHER BUSINESS

Northern Shrimp in the Gulf of Maine

A brief overview of the northern shrimp resource in the Gulf of Maine was presented. Catches were highest from 1969-72, then declined to very low levels in the late-1970s. Catches increased in recent years, but are still below the levels of the late-1960s.

Flemish Cap Shrimp Meeting

The Committee discussed the possibility of conducting the assessment of shrimp on Flemish Cap (Div. 3M) at the November Meeting rather than the Annual Meeting (September). It was agreed that rationale for a proposal be developed and tabled for discussion at the 1996 Annual Meeting of the Scientific Council.

Acknowledgements

There being no other business, the Chairman thanked the participants for their work, and the Secretariat for its assistance during this meeting. The meeting adjourned at 1130 hr on 20 November 1995.

Scientific Council Meeting, November 1995

Standing: (L to R) Ole Folmer, Helle Siegstad, Dan Carlsson, Unnur Skúladóttir, Don Parsons, Louise Savard, Dorothy Auby, Per Kanneworff

Kneeling: (L to R) Howard Powles, Steve Clark, Carsten Hvingel

Meeting in progress: (L to R) Don Parsons, Howard Powles, Ray Bowering, Bill Brodie

Annex 1. List of Participants

CANADA

Representatives:

Parsons, D.G.	Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland
Powles, H.	Sr. Policy Advisor, Invertebrates and Pacific Marine Fish, 200 Kent St., Ottawa, Ontario

Advisers/Experts:

Bowering, W.R.	Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland
Brodie, W.B.	" " " " " " "
Savard, L.	Inst. Maurice Lamontagne, DFO, 850 Roue de la Mer, C.P. 1000, Mont-Joli, Quebec

DENMARK (in respect of Faroe Islands and Greenland)

GREENLAND

Carlsson, D.M.	Greenland Inst. of Natural Resources, Tagensvej 135, 1, DK-2200 Copenhagen N, Denmark
Kanneworff, P.	" " " " " " "
Folmer, O.	Greenland Inst. of Natural Resources, P. O. Box 570, DE-3900 Nuuk, Greenland
Hvingel, C.	" " " " " " "
Siegstad, H.	" " " " " " "

ICELAND

Skúladóttir, U.	Marine Research Institute, Skulagata 4, P. O. Box 1390, Reykjavik

UNITED STATES OF AMERICA (USA)

Clark, S.H.	National Marine Fisheries Service, NEAFSC, 166 Water St., Woods Hole, Massachusetts 02543

OBSERVERS

ICES Rep. (Skúladóttir, U.)	Marine Research Institute, Skulagata 4, P. O. Box 1390, Reykjavik

Annex 2. Agenda

I. Opening (Chairman: W. R. Bowering)

1. Appointment of rapporteur
2. Adoption of agenda
3. Plan of work

II. Fishery Science (STACFIS Chairman: W. B. Brodie)

1. Stock assessments (see Attachments 1 and 2)

   - Northern shrimp (Subareas 0 and 1)

   - Northern shrimp (in Denmark Strait and off East Greenland)

   - [Note: For Northern shrimp in Subareas 0 and 1, the assessment and TAC advice should include, if possible, the areas north of 71°N in Subarea 1 as well as the inshore region of Subarea 1.]

2. Other business

III. Formulation of Advice

1. Northern shrimp (Subareas 0 and 1)

2. Northern shrimp (Denmark Strait and off East Greenland)

IV. Other Matters

V. Adoption of Reports

VI. Adjournment

Attachment 1. Extracted from : Canadian Request for Scientific Advice on Management in 1996 of Certain Stocks in Subareas 0 to 4

1. Canada requests that the Scientific Council, at its meeting in advance of the 1995 Annual Meeting, provide advice on the scientific basis for the management of the following fish and invertebrate stocks in 1996:

Roundnose grenadier (Subareas 2 and 3)
Silver hake (Div. 4V, 4W and 4X)

It is also suggested that, subject to the concurrence of Denmark (Greenland), the Scientific Council, prior to the 1995 Annual Meeting of NAFO, provide advice on the scientific basis for management in 1996 of the following stocks:

Shrimp (Subareas 0 and 1)
Greenland halibut (Subareas 0 and 1)
Roundnose grenadier (Subareas 0 and 1)

With respect to shrimp, it is recognized that the Council may, at its discretion, delay providing advice until later in the year, taking into account data availability, predictive capability, and the logistics of additional meetings.

2. Canada requests the Scientific Council to consider the following options in assessing and projecting future stock levels for those stocks listed above:

a) For those stocks subject to analytical dynamic-pool type assessments, the status of the stock should be reviewed and implications of fishing at $F_{0.1}$ in 1996 and subsequent years should be evaluated. The present stock size should be described in relation to those observed historically and those to be expected at the $F_{0.1}$ level in both the short and long term. In those cases where present spawning stock size is a matter of scientific concern in relation to the continuing productive potential of the stock, management options should be considered to rebuild the spawning stock. All results should be expressed in terms of stock sizes, catch rates and TACs implied for 1996 and the long term.

b) For those stocks subject to general production-type assessments, the status of the stock should be reviewed and management options evaluated in the way described above to the extent possible. In this case, the general reference point should be the level of fishing effort (F) which is two-thirds that calculated to be required to take the MSY catch in the long term.

c) For those resources on which only general biological and/or catch data are available, no standard criteria on which to base advice can be established. The evidence on stock status should, however, be weighed against a strategy of optimum yield management and maintenance of stock biomass at levels of about two-thirds that of the virgin stock.

William A. Rowat
Deputy Minister
Department of Fisheries and Oceans
Ottawa, Canada

Attachment 2. Extracted from : Denmark (Greenland) Request for Scientific Advice on Management of Certain Stocks in 1996

3. Denmark, on behalf of Greenland, further requests that the Scientific Council of NAFO before December 1995, provide advice on the scientific basis for management of the following stock in Subareas 0 and 1 (including Subarea 1 north of 71°N and Subarea 1 inshore) in 1996 and as many years forward as data allow:

i) Northern shrimp (*Pandalus borealis*)

Further, in cooperation with ICES, the Scientific Council is requested to advise on the scientific basis for management of the following stock in the Denmark Strait and off East Greenland:

i) Northern shrimp (*Pandalus borealis*)

J. B. Olsen
On behalf of the
Ministry for Fisheries, Hunting & Agriculture
Aslisarnermut, Piniarnermut, Nunalerinermullu Pisortaqarfik
Direktoratet for Fangst, Fiskeri og Landbrug

PART IV

(pages 203-219)

Administrative and Financial Report for the Year Ended 31 December 1995

Administrative Report for the Year Ended 31 December 1995

Meetings and NAFO Secretariat Activities

1. The Fisheries Commission, Brussels, Belgium, 30 January- 01 February 1995.

2. The Standing Committee on International Control (STACTIC), Dartmouth, N.S, Canada, 10-12 May 1995.

3. The International Fisheries Commission Pension Society Annual Meeting, Halifax, N.S., Canada, 24-26 May 1995. The NAFO Secretariat was represented by Dr. L. I. Chepel, Mr. T. Amaratunga, Mr. F. D. Keating and Mr. S. M. Goodick.

4. The Fisheries Commission and its subsidiary body STACTIC, Toronto, Canada, 7-9 June 1995.

5. The Joint ICES/NAFO Working Group on Harp and Hooded Seals, Keddy's Dartmouth Inn, 5-9 June 1995.

6. The Scientific Council and its Standing Committees, Keddy's Dartmouth Inn, 7-21 June 1995.

7. The Annual Meeting of the Organization including all constituent bodies - the General Council, the Fisheries Commission, the Scientific Council, Holiday Inn, Dartmouth, N. S., Canada, 11-15 September 1995.

8. The STACTIC Working Group on Pilot Satellite Project, Brussels, Belgium, 24-26 October 1995.

9. The Scientific Council, NAFO Headquarters, Dartmouth, N.S., Canada, 17-20 November 1995.

The NAFO Secretariat made all necessary arrangements for the above-mentioned meetings and prepared all documents in accordance with the provisions of the NAFO Convention and Rules of Procedure.

Publications

The publications listed below are prepared and printed in the NAFO Secretariat. It is estimated that 900,000 pages of printed material will be distributed in publications and an additional 600,000 pages of printed material distributed in documents/circular letters before the end of 1995.

a) *NAFO Annual Report* for the year 1994 (166 pages) was distributed in March 1995.

b) *NAFO Meeting Proceedings* for the year 1994 (165 pages) was distributed in February 1995.

c) *NAFO Scientific Council Reports* for 1994 (234 pages) was distributed in January 1995.

d) *NAFO Journal of Northwest Atlantic Fishery Science* Volume 17 (77 pages) was distributed in November 1994.

e) *NAFO Scientific Council Studies* Number 21 (165 pages) was distributed in February 1995.

f) *NAFO Scientific Council Studies* Number 22 (95 pages) was distributed in June 1995.

g) *NAFO Scientific Council Studies* Volume 23 (95 pages) was distributed in September 1995.

h) *NAFO Statistical Bulletin* 1991 Volume 41 (320 pages) was distributed in February 1995.

i) *NAFO Statistical Bulletin* (Supplementary - 1960-1990) (155 pages) was distributed in May 1995.

j) *NAFO Statistical Bulletin* 1992 Volume 42 (310 pages) was distributed in October 1995.

k) *NAFO Newsletter "NAFO News"* was published in two (2) editions: No. 1 for the year 1994 was issued in January 1995 and No. 2 for January-June 1995 was issued in July 1995.

Fishery Statistics

The statistical NAFO database is computerized at the NAFO Secretariat and available for the Contracting Parties.

STATLANT 21A reports (annual catches in the NAFO Convention Area by species and divisions), are outstanding from: 1990 - EU-Fra(M); 1994 - Cuba, Korea and Lithuania (reporting date 15 May).

STATLANT 21B reports (annual catches in the NAFO Convention Area by species, month, effort), are outstanding from: 1989 EU-Fra (M); 1990 - EU-Fra (M) and Fra-SP; 1991-1992 - Fra-SP; 1993 - Denmark (Faroes), Fra-SP and Norway. For 1994, STATLANT 21B reports are outstanding from: Canada-M, Cuba, Denmark (Faroes), Denmark (Greenland), EU-Denmark, EU-United Kingdom, Fra-SP, Korea, Lithuania, Norway, and USA.

Financial Report for the Year Ended 31 December 1995

An audit of the NAFO accounts for the fiscal year 1995 was completed by the firm of Deloitte and Touche, Chartered Accountants.

The auditor's report is as follows:

To the Chairman and Members of the General Council of
Northwest Atlantic Fisheries Organization

We have audited the balance sheet of the Northwest Atlantic Fisheries Organization as at December 31, 1995 and the statements of revenue and expenditures, accumulated surplus and changes in financial position for the year then ended. These financial statements are the responsibility of the Organization's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. These standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

As outlined in Note 4 to the financial statements, the Organization has not recorded a liability for enhanced employee termination benefits, as approved as part of the Staff Rules by General Council at its annual meeting in September, 1991. At December 31, 1995, these enhanced benefits amounted to approximately $100,300. Failure to record this amount as a liability in 1995 is not in accordance with the Organization's stated accounting principles. Had the liability been recorded $100,300 would have been reflected as a prior period adjustment. The accumulated surplus at the end of the year would have been reduced by $100,300.

In our opinion, except for the effects of the Organization's failure to record the liability referred to in the preceding paragraph, these financial statements present fairly, in all material respects, the financial position of the Organization as at December 31, 1995 and the results of its operations and the changes in its financial position for the year then ended in accordance with the accounting principles disclosed in the notes to the financial statements.

We further report as required by Rule 7.1 of the Financial Regulations of the Organization, that in our opinion, the financial statements are in accordance with the books and records of the Organization; the financial transactions reflected in the statements have, in all significant respects, been in accordance with the Financial Regulations and the budgetary provisions of the Northwest Atlantic Fisheries Organization; and the monies on deposit and on hand have been verified by certificate received directly from the Organization's depositories or by actual count.

Deloitte & Touche
Chartered Accountants

February 16, 1996

Statement of Revenue and Expenditures
(Year Ended 31 December 1995)

(Expressed in Canadian Dollars)

	Budget 1995	Actual 1995	Actual 1994
Revenue			
Contributions assessed Contracting Parties (Note 5)	$ 830,714	$ 830,714	$ 744,655
Allocation from surplus for operations	133,286	133,286	223,345
Personal income taxes			
Federal	-	97,634	98,894
Provincial	-	44,725	44,665
Interest	-	28,577	23,567
Sales of publications	-	6,966	5,691
	964,000	1,141,902	1,140,817
Expenditures			
Salaries	589,000	572,400	590,469
Vacation pay increase (decrease)	2,000	6,853	(11,022)
Superannuation (Note 6)	78,000	80,800	77,672
Additional help	1,000	200	-
Group medical and insurance plan	40,000	38,784	36,768
Termination benefits (Note 4)	28,000	24,105	41,548
Travel	6,000	3,087	13,295
Transportation	1,000	939	533
Communications	57,000	57,963	52,580
Publications	22,000	21,751	19,588
Contractual services	46,000	45,994	41,199
Materials and supplies	32,000	27,714	29,452
Equipment	5,000	3,267	4,995
Meetings	42,000	69,189	48,599
Computer services	15,000	14,811	13,961
	964,000	967,857	959,637
Excess of revenue over expenditures before provision for uncollectible accounts	-	174,045	181,180
Provision for uncollectible accounts and write-off of contributions	33,056	33,056	47,895
Excess of revenue over expenditures	$(33,056)	$ 140,989	$ 133,285

Statement of Accumulated Surplus
(Year Ended 31 December 1995)

(Expressed in Canadian Dollars)

	1995	1994
Balance, beginning of year	$ 208,286	$ 298,346
Allocations		
To operations	133,286	223,345
	75,000	75,001
Excess of revenue over expenditures	140,989	133,285
Balance, end of year	$ 215,989	$ 208,286

Balance Sheet as at 31 December 1995

(Expressed in Canadian Dollars)

	1995	1994
ASSETS		
Current		
Cash and short-term deposits	$ 373,243	$ 334,272
Contributions receivable (Note 3)	45,877	55,821
Accounts receivable	3,944	4,116
Accrued interest receivable	1,120	1,386
Prepaid expenses	25,159	20,726
	$ 449,343	$ 416,321
LIABILITIES		
Current		
Accounts payable and accrued liabilities	$ 8,900	$ 23,056
Accrued vacation pay payable	15,388	8,535
Overpayment of contributions by Contracting Parties	8,524	10
	32,812	31,601
Provision for employee termination benefits (Note 4)	200,542	176,434
	233,354	208,035
EQUITY		
Accumulated Surplus	215,989	208,286
	$ 449,343	$ 416,321

Statement of Changes in Financial Position
(Year Ended 31 December 1995

(Expressed in Canadian Dollars)

	1995	1994
Net inflow (outflow) of cash related to the following activities:		
Operating		
Excess of revenue over expenditures	$ 140,989	$ 133,285
Item not affecting cash		
Allocation from surplus	(133,286)	(223,345)
	7,703	(90,060)
Changes in non-cash operating working capital items (Note 9)	7,160	(1,920)
	14,863	(91,980)
Financing		
Increase (decrease) in provision for employee termination benefits	24,108	(12,531)
Net cash inflow (outflow)	38,971	(104,511)
Cash position, beginning of year	334,272	438,783
Cash position, end of year	$ 373,243	$ 334,272

Notes to the Financial Statements

(Year Ended 31 December 1995)

(Expressed in Canadian Dollars)

1. Authority and Objective

The Northwest Atlantic Fisheries Organization was established by the Convention on Future Cooperation in the Northwest Atlantic Fisheries which came into force on January 1, 1979.

The objective of the Organization is to contribute through cooperation and consultation to the conservation, rational management and efficient utilization of the fishery resources in the Convention. For that purpose, it compiles statistics, maintains research programs, establishes management goals, and promotes and co-ordinates international surveillance.

2. Accounting Policies

These financial statements have been prepared in accordance with Canadian generally accepted accounting principles and reflect the following significant accounting policies:

a) **Contributions Assessed Contracting Parties**

Contributions are assessed annually and are recorded as revenue in the year for which billings apply.

b) **Allowance for Uncollectible Accounts**

As approved by the General Council, an allowance for uncollectible accounts is recorded for contributions that are one payment in arrears.

c) **Accumulated Surplus**

The Chairman of the General Council, after consultations with representatives of all members of the General Council, may authorize expenditures from accumulated surplus for unforeseen and extraordinary expenses necessary to the good conduct of the business of the Organization. Such funds may not be in excess of 20% of the annual budget for the current financial year.

d) **Publications**

Costs of publications are charged to expense as incurred.

e) **Office Furniture and Equipment**

Costs of office furniture and equipment are charged to expense when purchased. Leases for equipment, which transfer substantially all of the benefits and risks of ownership to the Organization, are not treated as asset purchases (capital leases). Lease payments are charged in the year paid to the contractual services expenditure categories.

f) **Personal Income Taxes**

Federal

According to an Order in Council (P.C. 1980-132) issued by the Government of Canada, the Organization comes under the jurisdiction of the Convention on the Privileges and Immunities of the United Nations. Article V, Section 18(b) of this Convention exempts officials of the United Nations organizations from taxation on the salaries and emoluments paid to them. However, the Order in Council (Section 3.(3)) does not exempt a Canadian citizen, residing or ordinarily resident in Canada, from liability for any taxes or duties imposed by any law in Canada.

Accordingly, as is customary for international organizations, the Organization credits revenue with an amount equal to the Canadian federal income taxes that would be otherwise assessed on its employees.

Provincial

The Organization deducts provincial income taxes from the salaries of Canadian employees and remits amounts deducted on a regular basis to the Province of Nova Scotia. At the end of each year, the Organization applies to the provincial government for an *ex gratia* grant equal to the amount of provincial personal income taxes paid. Such grants are accrued when ultimate receipt is assured.

g) **Pension Plan**

The Organization has a defined benefit pension plan and current contributions plus the payments for the unfunded portion of the plan are expensed annually.

3. Contributions Receivable

This account reflects assessments due (Canadian Dollars) from Contracting Parties as follows:

	1995	1994
Bulgaria	$ 16,528	$ 14,893
Cuba	29,415	24,589
European Union	-	1,446
Lithuania	7,421	14,893
Poland	-	14,893
Romania	16,528	14,893
United States of America	9,041	-
	78,933	85,607
Less: Allowance for uncollectible assessments	33,056	29,786
	$ 45,877	$ 55,821

4. Provision for Employee Termination Benefits

The Organization provides its staff members with certain entitlements on termination of service based on the employee's position and years of service with the Organization.

At its annual meeting in September, 1991, the General Council approved in the Staff Rules an enhanced employee termination benefit package to be effective January 1, 1992. At December 31, 1995, the additional liability resulting from this enhancement amounted to approximately $100,300, which amount has not been recorded in the accounts of the Organization.

The Organization is funding this liability at the rate of $10,000 per annum as approved by the General Council (16th Annual Meeting, September, 1994).

5. Contributions Assessed Contracting Parties

(Expressed in Canadian Dollars)

	1995	1994
Bulgaria	$ 16,528	$ 14,893
Canada	459,033	418,727
Cuba	29,415	24,588
Denmark (in respect of the Faroe Islands and Greenland)	77,042	64,763
Estonia	16,528	14,893
European Union	60,307	51,038
Iceland	16,528	14,893
Japan	21,792	17,978
Republic of Korea	16,528	14,893
Latvia	17,903	14,893
Lithuania	16,528	14,893
Norway	17,758	17,663
Poland	16,528	14,893
Romania	16,528	14,893
Russian Federation	22,727	30,754
United States of America	9,041	-
	$ 830,714	$ 744,655

6. Superannuation

The Organization has a defined benefit pension plan which covers all employees. The last actuarial valuation was performed as at January 1, 1993. At that time, the accrued pension obligation was $1,078,693 while the assets were valued at $976,121, resulting in an unfunded pension liability of $102,572.

7. Operating Lease Obligations

The Organization is committed to lease payments for certain equipment, as follows:

1996	1997	1998	1999
$14,790	$4,310	$4,310	$4,310

8. Services Provided Without Charge

Accommodation for the Organization's secretariat in Dartmouth, Nova Scotia is provided without charge by the Canadian Department of Fisheries and Oceans. Accordingly, the related costs, which include, rent, grants-in-lieu of property taxes, heat, electricity and cleaning services, are not reflected in these financial statements.

9. Changes in Non-Cash Operating Working Capital Items

(Expressed in Canadian Dollars)

	1995	1994
Contributions receivable	$ 9,944	$ (8,760)
Accounts receivable	172	(984)
Accrued interest receivable	266	558
Prepaid expenses	(4,433)	12,087
Accounts payable and accrued liabilities	(14,156)	16,660
Accrued vacation pay	6,853	(11,023)
Overpayment of contributions by Contracting Parties	8,514	(10,458)
	$ 7,160	$ (1,920)

Index of Major Substantive Issues Discussed at the Meetings, 1995