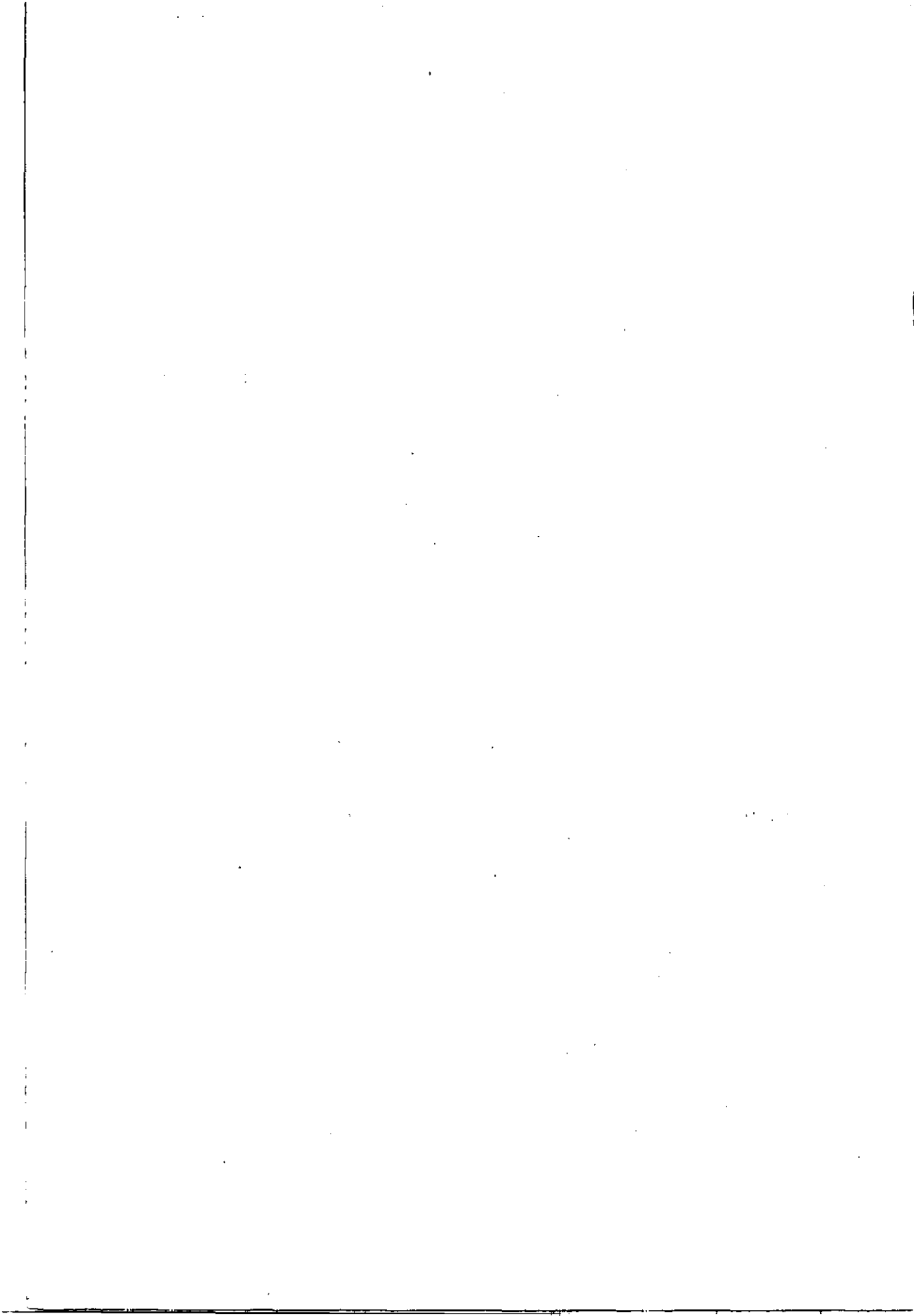


Northwest Atlantic
Fisheries Organization
(NAFO)



Meeting Proceedings
of the
General Council and Fisheries Commission
for 2000

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Foreword

This is an annual publication of the Proceedings which contains the reports of all meetings of the General Council and Fisheries Commission including their subsidiary bodies through 2000. The objective of this publication is to provide the Contracting Parties with a detailed consolidated text of all discussions initiated during the year. The proceedings of the Scientific Council are published separately in an annual issue of *NAFO Scientific Council Reports*.

SECTION I contains the Report of the Joint Scientific Council and Fisheries Commission Working Group on Precautionary Approach, 29 February-2 March 2000, Brussels, Belgium.

SECTION II contains the Report of the Meeting on Shrimp Stocks in the Regulatory Area, 27-30 March 2000, Washington, D.C., USA.

SECTION III contains the Report of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO, 28-30 March 2000, Washington, D.C., USA.

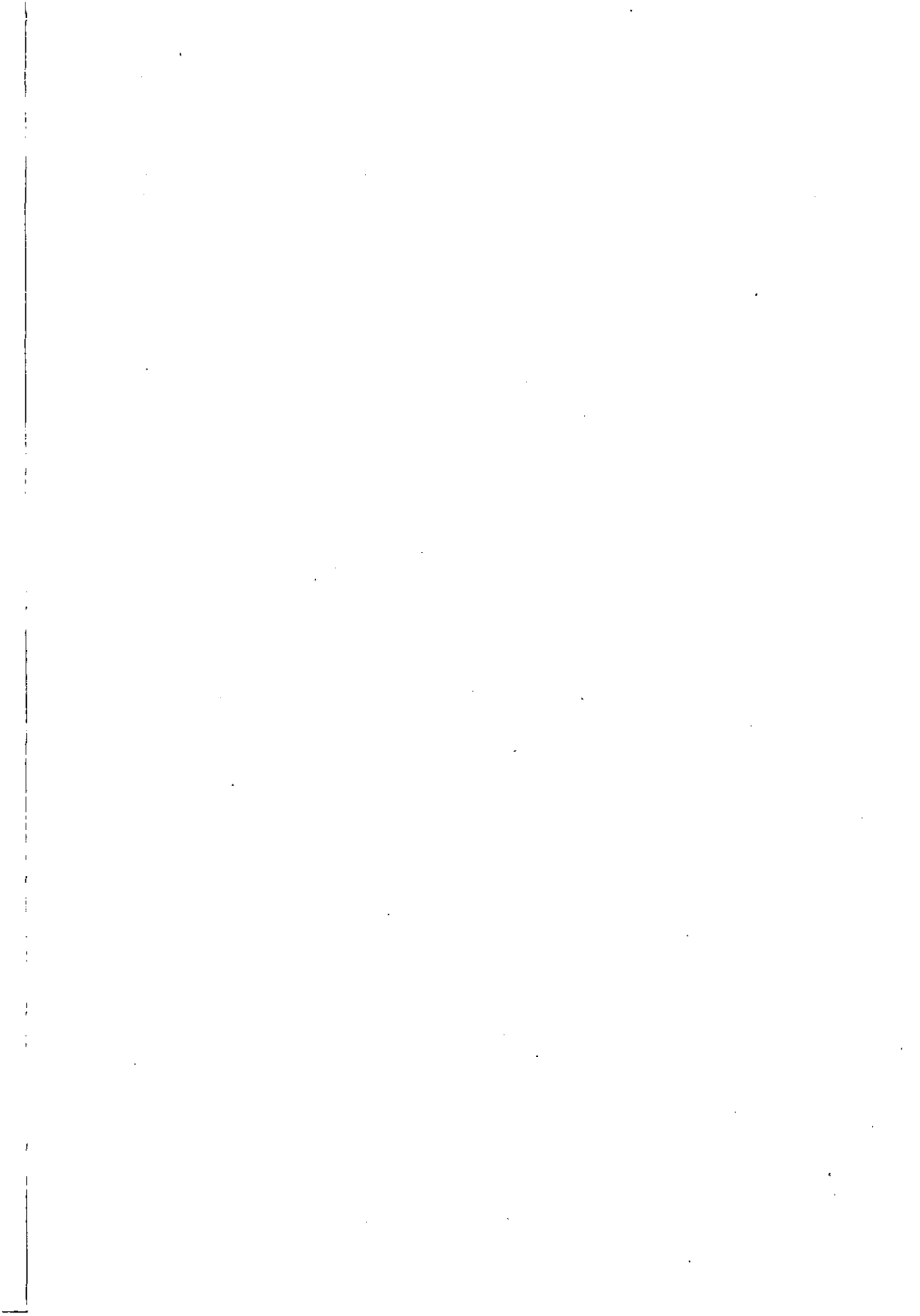
SECTION IV contains the Report of the Working Group on Dispute Settlement Procedures (DSP), 29-31 May 2000, Copenhagen, Denmark.

SECTION V contains the Report of the Standing Committee on International Control (STACTIC), 27-29 June 2000, Dartmouth, N. S., Canada.

SECTION VI contains the Report of the STACTIC Technical Working Group on Communications, 30 June 2000, Dartmouth, N. S., Canada.

SECTION VII contains the Report of the General Council including subsidiary bodies reports (STACFAD and STACFAC), 22nd Annual Meeting, 18-22 September 2000, Boston, Massachusetts, USA.

SECTION VIII contains the Report of the Fisheries Commission including subsidiary body (STACTIC), 22nd Annual Meeting, 18-22 September 2000, Boston, Massachusetts, USA.



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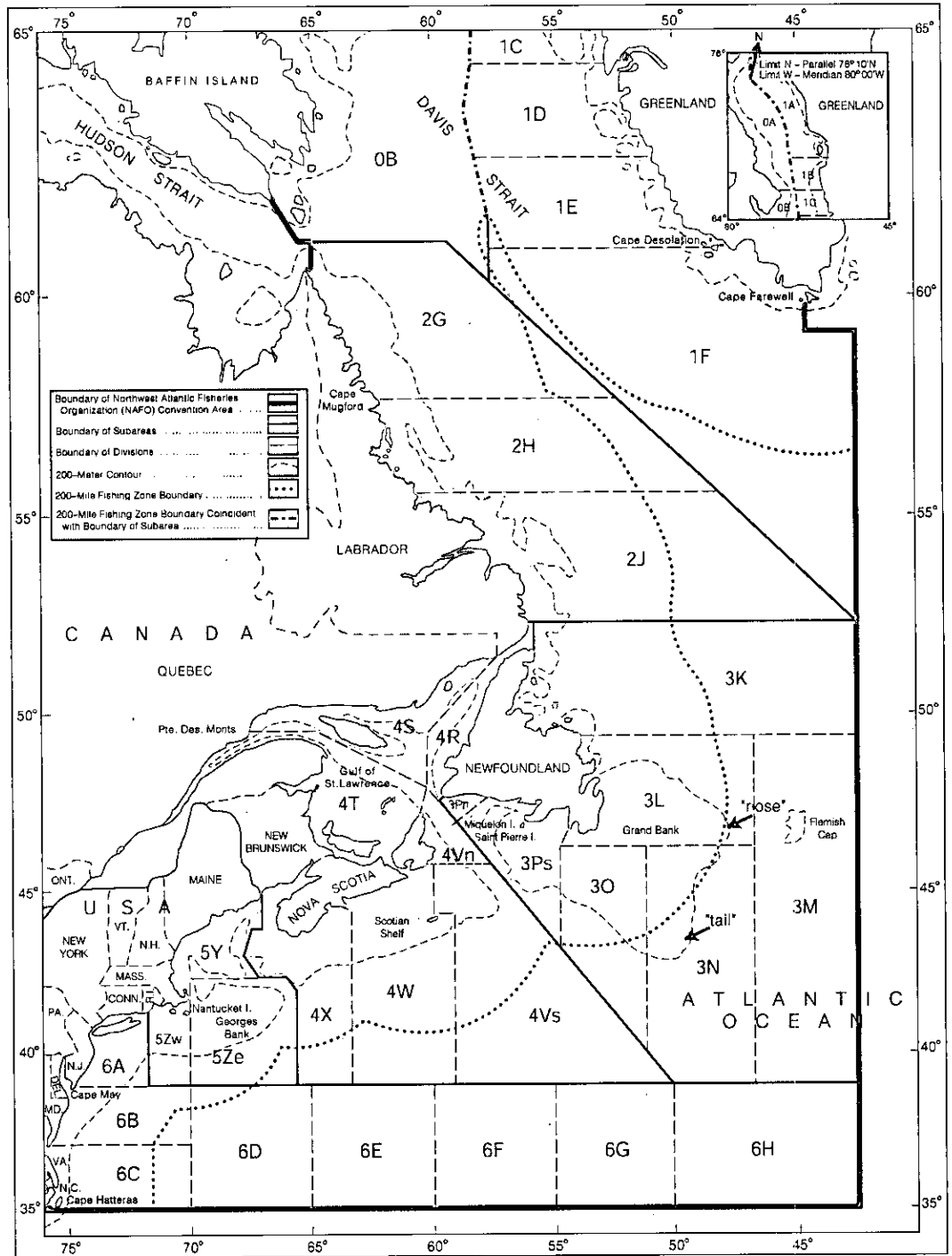
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The Convention Area to which the Convention on Future Multilateral Cooperation in the Northwest Atlantic applies



**Structure of the Northwest Atlantic Fisheries Organization (NAFO) in 2000
(as at 22nd Annual Meeting, September 2000)**

Contracting Parties

Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union (EU), France (in respect of St. Pierre et Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, Romania, Russia, Ukraine and United States of America (USA).

President

E. Oltuski (Cuba)

Constituent Bodies

General Council	Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, EU, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Korea, Latvia, Lithuania, Norway, Poland, Romania, Russia, Ukraine and USA.	<i>Chairman</i> – E. Oltuski (Cuba) <i>Vice-Chairman</i> – P. Chamut (Canada)
Scientific Council	Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, EU, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Korea, Latvia, Lithuania, Norway, Poland, Romania, Russia, Ukraine and USA.	<i>Chairman</i> – W. B. Brodie (Canada) <i>Vice-Chairman</i> – R. Mayo (USA)
Fisheries Commission	Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, EU, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Korea, Latvia, Lithuania, Norway, Poland, Poland, Russia, Ukraine and USA.	<i>Chairman</i> – P. Gullestad (Norway) <i>Vice-Chairman</i> – D. Swanson (USA)

Standing Committees

General Council	Standing Committee on Finance and Administration (STACFAD)	<i>Chairman</i> – G. F. Kingston (EU) <i>Vice-Chairman</i> – J.-P. Plé (USA)
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General Council (cont'd)	Standing Committee on Fishing Activity of Non-Contracting Parties in the Regulatory Area (STACFAC)	<i>Chairman</i> – J.-P. Plé (USA) <i>Vice-Chairman</i> – D. Silvestre (France in in respect of St. Pierre et Miquelon)
Scientific Council	Standing Committee on Fishery Science (STACFIS)	<i>Chairman</i> – H. J. Rätz (EU)
	Standing Committee on Research and Coordination (STACREC)	<i>Chairman</i> – R. Mayo (USA)
	Standing Committee on Publications (STACPUB)	<i>Chairman</i> – O.A. Jørgensen (Denmark- Greenland)
	Standing Committee on Fisheries Environment (STACFEN)	<i>Chairman</i> – M. Stein (EU)
Fisheries Commission	Standing Committee on International Control (STACTIC)	<i>Chairman</i> – D. Bevan (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/Conservation Measures Officer	G. M. Moulton
Graphic Arts/Printing Technician	R. A. Myers
Graphic Arts/Printing Technician	B. T. Crawford
Word Processing Secretary	D.C.A. Auby
Statistical Clerk	B. L. Marshall
Statistical Clerk	C. L. Kerr

Headquarters Location

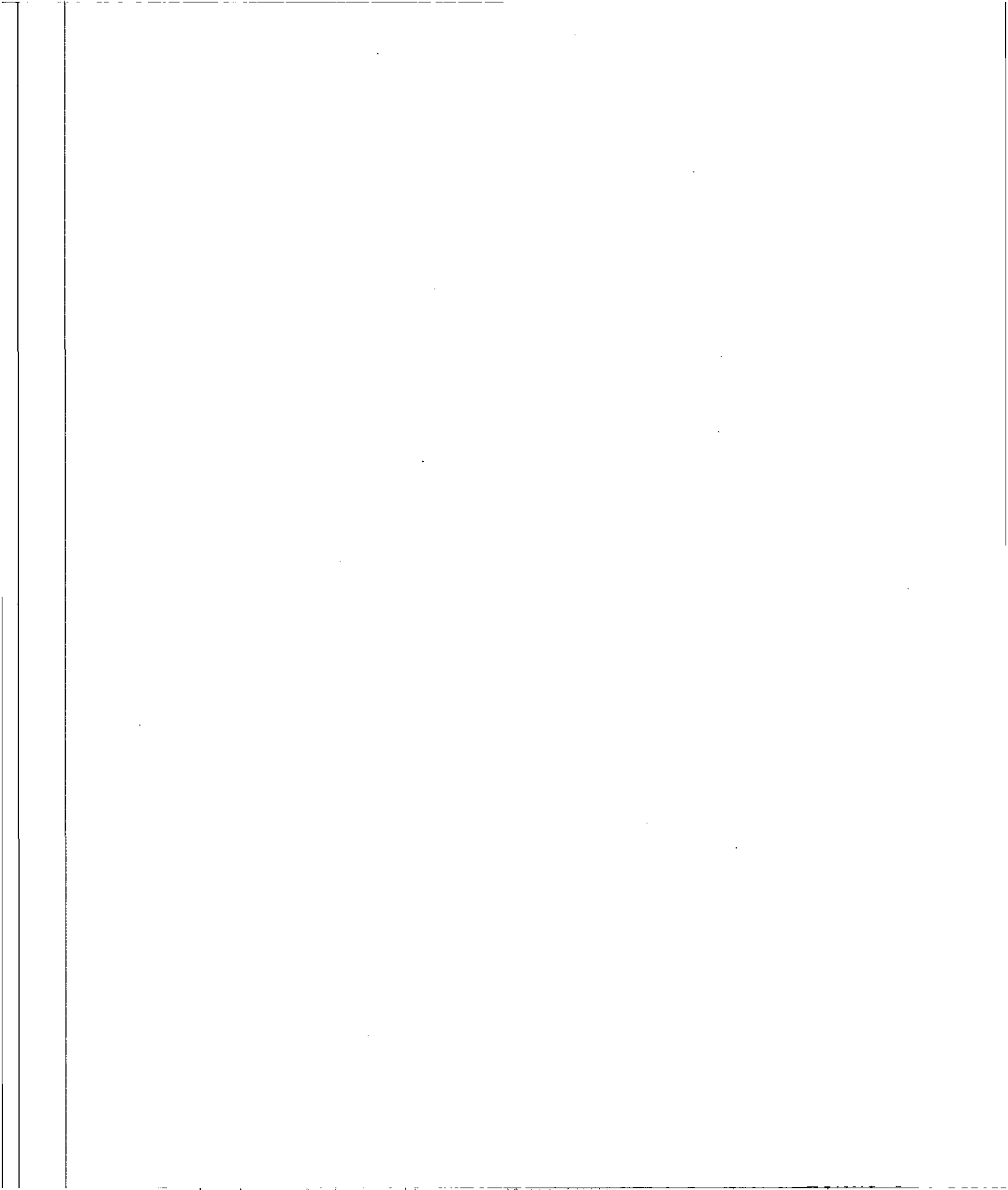
2 Morris Drive, Dartmouth, Nova Scotia, Canada

SECTION I

(pages 13 to 50)

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Report of the Joint Scientific Council and Fisheries Commission
Working Group on Precautionary Approach
(FC Doc. 00/2)

29 February - 2 March 2000
Brussels, Belgium

The Working Group was organized in accordance with the decision by the Fisheries Commission at the 21st Annual Meeting, 13-17 September 1999 (item 3.21 of the Fisheries Commission Report, FC Doc. 99/15).

1. Opening

The Joint Scientific Council and Fisheries Commission Working Group on Precautionary Approach was called to order by Co-Chairmen W. B. Brodie and J. Baird (Canada) at 1015 hr, 29 February 2000, at Albert Borschette Conference Centre, Brussels, Belgium. Representatives from Canada, Denmark (in respect of the Faroe Islands and Greenland), European Union, Iceland, Japan, Norway, Russian Federation and the United States of America and observers from NEAFC were present (Annex 1). The Chairman welcomed participants and expressed gratitude to the host Contracting Party (EU) for the invitation to host the meeting and for the excellent facilities.

The Co-Chairmen first outlined the history of the development of the Precautionary Approach (PA) at NAFO. In particular, the Scientific Council began discussions on the PA during its June 1997 Meeting. This was followed by the Scientific Council Workshop in March 1998 and the first Joint Fisheries Commission and Scientific Council Working Group Meeting in May 1998. Subsequent to the Scientific Council Meeting of 27 April – 1 May 1999, and the Joint Scientific Council and Fisheries Commission Working Group Meeting of 3-5 May 1999, the Terms of Reference and Agenda for this meeting of the Working Group were developed by the Fisheries Commission during its Annual Meeting in 13-17 September 1999. The Co-Chairmen highlighted the NAFO FC Doc. 99/13 on the Resolution to Guide Implementation of the Precautionary Approach within NAFO.

2. Appointment of Rapporteur

The Co-Chairmen proposed that T. Amaratunga, Assistant Executive Secretary, should act as the rapporteur for the general preparation of the report of this meeting, while individual rapporteurs will be appointed when necessary to address certain specific agenda items (e.g. Agenda items 4, 5, 6, 7, 8, 9 and 10).

3. Adoption of Agenda

In considering the agenda, the Chairman noted the Provisional Agenda circulated by the Executive Secretary on 31 December 1999 in accordance with Rule 4.2 of the Rules of Procedure.

The Working Group (WG on PA) noted that the CWP Intersessional Meeting held during 14-16 February in Copenhagen, Denmark, had considered inter-agency (NAFO, ICES, ICCAT and FAO) concepts and terminology of PA. The WG on PA agreed to review the Draft report of that meeting. The agenda was accordingly modified to include Item 4a for consideration of the CWP Working Group report, and adopted (see Annex 2). List of papers considered is at Annex 3.

4. Harmonization of Concepts and Terminology

a. Report of CWP Intersessional meeting – February 2000

The Draft report of the CWP Intersessional Meeting of 14-16 February 2000 was presented by Co-Chairman, W. B. Brodie (it was noted W. B. Brodie was also the Chairman of the CWP Intersessional meeting). The Chairman's summary of that report is given at Annex 4. The WG on PA noted that this was work produced by scientists from FAO, ICCAT, NAFO and ICES.

b. Discussion of an EU Paper

The EU representative presented a paper entitled "The Precautionary Approach in Fisheries – The issue of harmonization of concepts and terminology" (Annex 5). Following his presentation, the EU representative emphasized that the Scientific Council has been developing a framework for the implementation of the PA but that this framework has not yet been endorsed by the Fisheries Commission.

During discussions, some delegations disagreed with the paper's interpretations of existing international agreements and its corresponding conclusions relating to the activities in several international fisheries organizations and by Contracting Parties to implement the precautionary approach to fisheries management. It was also pointed out that the paper addresses matters other than the harmonization of concepts and terminology. There was considerable debate on the paper presented by the EU delegation. It was proposed by the EU to include the paper as an annex during the review of the WG on PA report. There was no agreement by the WG on PA on this paper, including whether or not to include it in the WG on PA Report as an Annex. Some delegations expressed the need for guidance from the Fisheries Commission on the inclusion of working documents in working group reports.

Some Contracting Parties also expressed diverging views with respect to the absence of consideration of F_{msy} as a limit in the approach suggested by the EU paper. The EU representative invited those delegations which disagreed to give their reasons. Further he stressed that existing international instruments offered no support for using F_{lim} as F_{msy} as a rule. In response, it was pointed out that, in the NAFO area target reference points of $2/3 F_{msy}$ and $F_{0.1}$ have been used and that, despite this, nearly 2 dozen groundfish have gone under moratorium or by-catch only fisheries. A view was expressed that promoting fishing mortality levels greater than or equal to F_{msy} in the context of the Northwest Atlantic was not consistent with conservation.

It was also pointed out that there are no compelling reasons to establish targets in a PA framework that are less conservative than the targets already agreed in recent management practices. The importance of setting targets was also pointed out by some Contracting Parties.

c. Contracting Parties' Experience with the Application of the Precautionary Approach

Canada

The Canadian delegation summarized Canada's activities in relation to the Precautionary Approach. Canada has been active for many years in implementation of precautionary fisheries management. The domestic Conservation Harvest Plan development process includes a number of precautionary measures. Canadian scientists and managers have been actively involved in the NAFO process, and scientists have been significantly involved in ICES through its development of the Precautionary Approach. The Precautionary Approach is

embodied as an integral part of Oceans Act that came into force in January 1997. In addition, Canada ratified UNFA in August 1999. A Science Workshop was held in November 1999 during which Canadian scientists and managers explored application of the Precautionary Approach for 7 representative stocks that included finfish species, shellfish and marine mammals. The Fisheries Resource Conservation Council (FRCC), mandated to provide advice on Atlantic groundfish stocks, has prepared a discussion paper for domestic review and held a redfish workshop in January 2000 to explore, with industry, managers, and scientists, concepts of their discussion paper as they pertain to redfish. Canada has also been active for many years in conservation of Pacific Coho Salmon, culminating, in February 2000, with the adoption of a Wild Salmon Policy to conserve the resource that includes adherence to the Precautionary Approach. Canada has also been active in NASCO initiatives to adopt the Precautionary Approach for application to Atlantic salmon.

In summary, Canada strongly supports implementation of the Precautionary Approach as evidenced through: ongoing involvement in international fora dealing with Precautionary Approach, incorporation of Precautionary Approach into Oceans Act of 1997, ratification of UNFA in the summer of 1999 and ongoing activity on many domestic fronts.

USA

The U.S. delegation explained that the principal U.S. fisheries legislation mandated co-management with regional fisheries management councils and that, with its most recent amendments (1996), required the setting of limit and threshold reference points, pre-agreed management actions according to timelines, and the possibility of setting target reference points in addition to management for optimum yield, which can be no greater than MSY. The impact of fisheries conservation and management measures on habitat and affected coastal communities must also be considered. The U.S. delegation provided a paper on the U.S. fisheries management experience.

European Union

The EU explained that long-term management arrangements based on a Precautionary Approach were being agreed upon and implemented for an increasing number of fish stocks in the Northeast Atlantic. These arrangements consist of predetermined biomass levels to define the critical level of stocks, pre-agreed fishing mortality rates which offer high probability of the stock not falling below the critical level and provision for specified safety margins which, if approached, will trigger remedial action. Such arrangements started with North Sea herring in 1997 and they now cover the following stocks:

- Norwegian spring spawning/Atlanto Scandian herring (involving the EU, Faroe Islands, Iceland, Norway and Russia)
- North East Atlantic mackerel (involving the EU, Faroe Islands and Norway)
- EU-Norway joint stocks in the North Sea:
 - cod
 - saithe
 - haddock
 - plaice
- stocks under the purview of the International Baltic Sea Fisheries Commission (IBSFC):
 - Eastern cod stock and Western cod stock

Norway

Norway referred to the process of establishing a management plan for Norwegian spring spawning herring and underscored the following elements as important:

- simulation exercises to analyse the consequences of various exploitation rates on indicators as average yield, stability in yield and the risk of bringing the spawning stock below limit reference points.
- existence of a working group with both biologists and economists to evaluate the results of the simulation exercise
- decision made by the parties concerned.

Denmark (in respect of Faroe Islands and Greenland)

Denmark (in respect of Faroe Islands and Greenland) referred to the management practice with respect to the capelin stock off East Greenland, Iceland and Jan Mayen. Through many years the 3 Parties have used a limit of 400 000 tons as the minimum stock size required at the end of the fishing season for reproductive purposes.

Iceland

The history of the precautionary management strategy goes back to the early 1970s when the Icelandic summer spawning herring stock collapsed. At that time $F_{0.1}$ was introduced in the ICES/NAFO area. After a two year moratorium the Icelandic summer spawning herring has since then been managed according to $F_{0.1}$ concept. The SSB recovered in the 1970s from almost nothing to about 400-500 000 tons in the 1980s. At present the stock is at historical maximum of approximately 500 000 tons. The present TAC is 100 000 tons.

For capelin in the Iceland-Greenland-area a minimum target SSB of 400 000 tons was set in 1979. This management strategy of leaving 400 000 tons of mature capelin to spawn each season seems to work quite successfully and there has never been a reason to reconsider this target level of SSB.

Mainly due to overfishing the cod stock at Iceland declined from year to year until the mid-nineties. A risk analysis, originally three species model incorporating capelin, shrimp and economical aspects, was carried out in order to study different management strategies on the rebuilding of the stock. The model has been extended also to include marine mammals (whales). As a result from this modelling a harvest control rule was introduced in 1995 which restricts catches to 25% of the fishable stock (age groups 4+). The HCR has been enforced since then with excellent results, i.e. the fishable stock has almost doubled, the SSB has increased from 200 000 to about 500 000 tons and at the same time F has reduced by more than 50%.

In the early 1990s precautionary TACs were set for some groundfish species as dab, long rough dab, ling, blue ling and tusk according to the precautionary principle even though biological information in order to define the precautionary reference points was not available.

The saithe stock at Iceland, (also dealt with within ICES) is managed at present by using the PA reference point (F_{pa} and B_{pa}) for the first time in 1999. For plaice at Iceland (which is not dealt with within ICES) precautionary reference points were also implemented in 1999. This stock had shown a sharp decline in recent years and measurements to halt that decline failed. A TAC based on the PA reference points led to a decrease in the quota from 7 000 tons to 3 000 tons in one step. As plaice is also a by-catch in the other demersal fisheries such a

reduction in catches was technically hardly possible. The TAC was therefore revised to 4 000 tons.

The main aim of the fisheries management is to monitor the stocks and to keep a viable and sustainable fishery based on the precautionary principle. The goal can be achieved in different ways using different harvest control rules depending on the stock and fishery in view as can be seen in the examples given above.

Japan

Japan explained that the main method to manage its fisheries is fleet control system including reductions of fishing vessels for resource management. In addition to this, recently Japan has introduced the TAC system in its EEZ and manages its fisheries more cautiously.

Russia

Russian fishery management system is mainly based on Total Allowable Catches (TAC). Work on implementation of the Precautionary Approach (PA) into TAC assessments were started more than 3 years ago. Since then different options for the PA procedure of TAC estimation have been tested. As a result, a precautionary evaluation framework was designed which now is successfully used on a routine basis for 5 pollock stock units within Russian EEZ in the North Pacific. Besides, attempts are being conducted to apply the approach to some Pacific crab species and to several objects of Russian far-seas fishery in Atlantic.

Conclusion on Section 4

To this date, no formulations of the PA framework have been accepted by international fisheries organizations. However, several elements of the PA have been implemented by various management authorities (see item 4.c).

The WG on PA agreed that there are several broad similarities between the ICES and NAFO versions of the PA. The biomass limits (defined as B_{lim} in both frameworks), are virtually the same, although B_{lim} is also used in ICES as an indication of biomass below which recruitment is unknown. The biomass buffers (B_{pa} in ICES, B_{buf} in NAFO) generally correspond to a level of biomass at which there is a high probability of being above B_{lim} . However, the harvest control rules in the current formulations are different - the NAFO Scientific Council framework suggests no fishing below B_{buf} , whereas the ICES framework indicates a reduced fishing mortality below B_{pa} . The WG on PA concluded that determination of harvest control rules is the role of managers. In the NAFO context, it is the Fisheries Commission's responsibility to determine appropriate harvest strategies corresponding to reference biomass levels. The WG on PA preferred the B_{buf} term as opposed to B_{pa} .

The NAFO Scientific Council framework proposes that F_{lim} should be set no higher than F_{msy} , based on its interpretation of UNFSA. The ICES framework does not make specific reference to F_{msy} . The WG on PA did not reach agreement on which formulation was more appropriate. Differences of opinion may be related to experiences with fish stocks in the Northwest Atlantic as regards to their response to exploitation vs the Northeast Atlantic. Consequently seeking harmonization at this time may be premature.

5. Operationalizing the Precautionary Approach into the Management Plans for Three Model Stocks (Cod in Div. 3NO, Yellowtail flounder in Div. 3LNO, Shrimp in Div. 3M)

A paper entitled "Considerations for the implementation of the Precautionary Approach into the Management Plans of Stocks Managed by the Northwest Atlantic Fisheries Organization (NAFO) - a discussion paper prepared by Canada" was presented by the Canadian delegation (PA WG WP 00/01). This paper was prepared to focus the discussions on the implementation of the precautionary approach, taking into account the elements of the resolution adopted by the Fisheries Commission. It outlined the progress made on the two model stocks used to first explore ways of implementing the precautionary approach, namely cod in Div. 3NO, and yellowtail flounder in Div. 3LNO. The document proposed additional steps for implementation of the precautionary approach for these stocks. For these stocks, the document provided a history of the precautionary approach and proposed practical steps to consider in its implementation under the headings of "harvest strategies and reference points", "conservation and management measures", and "research and monitoring". The following is a summary of information presented in the Canadian paper:

Cod in Divisions 3NO

The Div. 3NO cod stock has remained at a low level since the initial cessation of directed fishing in the early 1990s. Because current stock size is so low, the discussion necessarily focused on the strategy to reach the first benchmark to rebuilding, i.e. B_{lim} .

The NAFO Scientific Council framework for implementation of the precautionary approach identifies the need to "initiate precautionary monitoring" when the biomass is below B_{buf} . The paper proposed that any directed fishing below B_{lim} may only be allowed for the purpose of collecting information that would permit further evaluation of resource abundance. To safeguard against possible abuse, it was suggested that a protocol/guidelines be established respecting this activity.

It was noted that to this point in time, neither the Scientific Council nor the Fisheries Commission has focused much attention on eventual targets for stock rebuilding (SSB) or exploitation rates. It was also suggested that at current levels of SSB, the main objective of fisheries managers should be to minimize the by-catch of cod when fishermen are directing for other species. Some measures that could be considered to achieve this objective were outlined.

The Southeast Shoal area has been clearly identified as a nursery area for not only Div. 3NO cod, but also for yellowtail flounder. Information from research surveys also indicates that juveniles are found in other areas of the stock distribution. In order to afford pre-recruits of these stocks the best possible chance to survive and enter the fisheries and mature portion of the populations, the paper suggested that consideration be given to closures or other management measures in areas where juveniles are concentrated.

The paper identified the importance of having reliable information on catches taken as by-catch in other fisheries, as well as information on spawning times and locations, on juvenile nursery areas, on weight-at-length and maturity-at-length. Information on current spatial distribution of the stock compared to historical patterns may also be useful in indicating resource health and should be presented in the assessments.

Yellowtail Flounder in Divisions 3LNO

The Div. 3LNO yellowtail flounder stock appears to have rebuilt and its biomass seems to be within its expected productivity range. The re-opening of the Div. 3LNO yellowtail fishery in 1998 was based on a target relative exploitation rate of 6% which was believed to be conservative while allowing a commercial operation. The fishery has been conducted so as not to jeopardize the recovery of other stocks still under moratoria.

Based on general production analysis, the Scientific Council has tentatively identified F_{buf} and this level of fishing corresponds closely to the exploitation rate of $2/3 F_{msy}$, a reference point used in the past for fisheries management. At this point in time, the Fisheries Commission has not focused much attention on eventual targets for stock rebuilding (SSB) or discussed whether the F_{buf} proposed by Scientific Council is an appropriate fishing mortality limit or target. This stock is considered to be in a data moderate situation and the paper suggested that scientists continue their work aimed at development of an age-structured model to estimate population size and, on that basis, recommend biological reference points as appropriate. In absence of progress in this area, the information from the production model should be further examined and the use of appropriate indices should be examined to determine the possible derivation of provisional biological reference points.

During 1998 and 1999, the fishery has been prosecuted with a suite of management measures aimed at protecting juvenile fish, minimizing the by-catch of American plaice, cod and witch flounder, and at allowing mature yellowtail flounder to spawn one more time. The paper suggested that such measures be continued to complement the PA. In particular, it suggested that it is important to conduct any fishery for yellowtail in a manner that will keep American plaice and cod by-catches at the lowest possible level. It noted that by-catches of Div. 3LNO yellowtail flounder have been increasing and suggested that a revision of conservation measures be undertaken so as to ensure that by-catch are truly incidental in nature.

The Southeast Shoal area has been clearly identified as a nursery area for Div. 3LNO yellowtail flounder as well as Div. 3NO cod. Information from research surveys also indicates that juveniles are found in other areas of the stock distribution. It was suggested that the Fisheries Commission should consider a resolution to close the Southeast Shoal area and other areas identified as having high concentrations of juveniles.

Prior to re-opening the yellowtail flounder fishery in Div. 3LNO, the scientific data collection programs were improved so as to obtain a better description of stock trends. In particular, joint Canadian industry-science surveys were introduced and undertaken seasonally. While the regular survey program was continued and was instrumental in the assessment of the stock, the additional information obtained from the industry surveys provided information on the expected performance of a commercial operation, on seasonal variations in the catch rates, and on probable levels of by-catch of other species. The information obtained during these surveys allowed the scientists to estimate stock abundance with some confidence, given the stability of the results from the various sources. The paper suggested that these research initiatives be continued and noted the June 1999 recommendation of the Scientific Council on the need "to restore the Council's ability to do age-structure analyses on this stock."

Discussion

It was noted that the proposed steps in the implementation of a PA did not include specific reference to harvest control rules. The need to address harvest control rules in an implementation plan was noted. The WG on PA agreed on the next steps in the implementation of the

Precautionary Approach for these two model stocks. These steps are outlined in Annexes 6 and 7 for Div. 3NO cod and Div. 3LNO yellowtail flounder, respectively.

The WG on PA did not consider the next steps for the implementation of the PA for shrimp in Div. 3M. It was noted that work by the Scientific Council related to a precautionary approach is ongoing and will be reviewed again in November 2000, prior to the 2001 fishing season.

6. Implementation Plan for the Precautionary Approach to Other NAFO Stocks

The template for an implementation plan developed for the model stocks was applied to one other stock managed by NAFO, namely American plaice in Div. 3LNO. The situation for this stock is similar to that of cod in Div. 3NO in the sense that the stock is at a very low level, much below the biomass limit reference point. The WG on PA agreed to the next steps in the implementation of the PA for Div. 3LNO American plaice as presented in Annex 8.

The implementation of the PA will, no doubt, take time but a detailed implementation plan including steps such as the ones agreed in Annexes 6, 7 and 8 for two of the model stocks, and for American plaice in Div. 3LNO, could help in channeling future efforts directed at the precautionary approach. It is suggested that similar detailed plans be developed for other stocks under the management of the NAFO Fisheries Commission.

For other stocks, the management objectives should be identified by the Fisheries Commission and should include, but not be limited to, the rebuilding and maintenance of stock biomass at a level that can support sustainable fisheries and produce stable yields.

As a general rule for all NAFO stocks, the Fisheries Commission should specify management strategies and ensure that data collection and analysis is carried out in support of the PA. If necessary, additional supportive management measures should be specified.

Management Strategy

The Fisheries Commission shall specify management objectives and strategies. Management actions include the selection of biomass and fishing mortality target reference points and setting corresponding limit and buffer reference points as calculated by the Scientific Council. Management strategies include specification of courses of action consistent with a Precautionary Approach Framework, specifically time horizons for stock rebuilding and fishing mortality adjustments to ensure stock recovery and/or avoid stock collapse. An evaluation of possible consequences of management actions shall include the specification of acceptable levels of risk.

Data Collection/Analysis

The Fisheries Commission, in consultation with the Scientific Council shall promote the collection and analysis of data to enhance the ability of the Scientific Council to evaluate the state of the resources. These shall include, but not be limited to the following:

- 1) conduct statistically sound, comprehensive research surveys,
- 2) obtain information on spawning times and locations as well as location of juvenile nursery areas,
- 3) collection of data on weight-at-length and maturity-at-length to be used to monitor SSB and for prediction of future trends,
- 4) develop information on the recent spatial distribution of the stocks with respect to historical distribution patterns,

- 5) stock assessment, modelling and forecasting using all appropriate data and up-to-date methods.

Supportive Management Measures/Good Practices

When the biomass of a stock is below B_{lim} , the main focus of the Fisheries Commission should be to minimize by-catch of adults and juveniles in fisheries directed at other species. As such, additional technical management measures may be specified, including but not limited to, the following:

- 1) Specification of technical conservation measures that permit only by-catch that is truly incidental in nature.
- 2) Closure of specific areas for specified time periods where by-catch has persisted, and where high concentrations of juveniles have been observed.

7. Consideration of Changes or Additions to the Fisheries Commission's Request to the Scientific Council to Reflect the Precautionary Approach

Proposals for modifications to the Fisheries Commission's Request for Advice to Scientific Council for 2001 were tabled by Canada and Norway. The WG on PA discussed the inclusion (or not) of references to various paragraphs, articles and annexes of the UN Fish Stock Agreement in the proposed modified request but there was no consensus reached. As such, the WG on PA decided not to draft revisions to the current Fisheries Commission's Request to Scientific Council for advice, i.e. the request agreed by Fisheries Commission in September 1999. Instead, it was agreed that the following items pertaining to advice under the PA would be submitted to Scientific Council for consideration.

It was agreed that the term 'Precautionary Approach Framework' would not be used as the Fisheries Commission has not yet formally adopted the PA Framework as proposed by the Scientific Council.

Additional Items for Consideration by the Scientific Council at its June 2000 Meeting include:

1. Many of the stocks in the NAFO Regulatory Area are well below any appreciable level of B_{lim} or B_{buf} . For these stocks, the most important task for the Scientific Council is to inform on how to rebuild the stocks. In this context and building on previous work of the Scientific Council in this area, the Scientific Council is requested to evaluate various scenarios corresponding to recovery plans with timeframes of 5 to 10 years, or longer as appropriate. This evaluation should provide the information necessary for the Fisheries Commission to consider the balance between risks and yield levels, including information on the consequences and risks of no action at all. Whenever possible, this evaluation should be cast in terms of risks analyses relating removals from various sources to B_{lim} (B_{buf}) and F_{lim} (F_{buf}).

References to "risk" and to "risk analyses" should refer to estimated probabilities of stock population parameters falling outside biological reference points.

2. Where reference points are proposed by the Scientific Council as indicators of biological risk, they should be accompanied by a description of the nature of the risk incurred if the reference point is crossed (e.g. short-term risk of recruitment overfishing, loss of long-term yield, etc.)
3. When a buffer reference point is proposed in order to maintain a low probability that a stock, measured to be at the buffer reference point may actually be at or beyond the limit reference point, the Scientific Council should explain the assumptions made about the uncertainty with

which the stock is measured, and also the level of 'low probability' that is used in the calculation.

4. Wherever possible, short and medium term consequences should be identified for various exploitation rates (including no fishing) in terms of yield, stability in yield from year to year, and the risk or probability of moving the stock beyond B_{lim} or B_{buf} . Whenever possible, this information should be cast in terms of risk assessments relating fishing mortality rates to the risks of falling below B_{lim} , the risks of stock collapse and recruitment overfishing, as well as the risks of growth overfishing and the consequences in terms of both short and long term yields.
5. When providing risk estimates, it is very important that the **time horizon** be clearly spelled out. By way of consequence, risks should be expressed in timeframes of 5, 10 and 15 years (or more), or in terms of other appropriate year ranges depending on stock specific dynamics. Furthermore, in order to provide the Fisheries Commission with the information necessary to consider the balance between risks and yield levels, each harvesting strategy or risk scenario should include, for the selected year ranges, the risks and yields associated with various harvesting options in relation to B_{lim} (B_{buf}) and B_{target} , and F_{lim} (F_{buf}) and F_{target} .

There was considerable debate on a paper presented by the EU delegation, entitled EU Summary - "A Way Forward" (Annex 9). This was proposed by EU as an explanatory memorandum, for Fisheries Commission consideration in future Fisheries Commission requests for advice. There was no agreement by the WG on PA on this paper, including whether or not to include it in the WG on PA report as an Annex. As was the case in Agenda item 4b), some delegations expressed the need for guidance from the Fisheries Commission on the inclusion of working documents in Working Group reports.

8. Consideration of Criteria for Reopening a Fishery in Light of the Precautionary Approach

Stocks under moratoria have been characterized by a very low spawning stock biomass and a reduced age-range. There is often a concern that the level of spawner biomass reached corresponds to a level where the chance of producing good year-classes is greatly reduced.

Once recovery has begun and spawner biomass has reached a level sufficient to allow consideration of reopening of the fishery, under a PA this reopening must be consistent with a strategy of continued stock rebuilding.

The discussion related to stocks under moratorium has necessarily focused on the strategy to reach the first benchmark to rebuilding, i.e. B_{lim} . In order to monitor the progress of stock rebuilding, milestones should be established so as to permit a review of the stock trajectory in relation to reference points within reasonable timeframes.

For the stock currently under moratorium, the other elements of a PA (i.e. other than B_{lim}), have not received detailed attention. Key considerations in the decision of re-opening include the determination of B_{lim} , the determination of the fishing mortality (F) at re-opening, the probability of continued growth in the stock, the trade-offs between yield/probability of growth in the stock and the risks that the stock could actually fall (again) below a pre-determined limit.

The other elements of a PA will need to be defined. Also, any reopening of commercial activity should only be contemplated under specific conditions. In particular, increased focus on additional conservation measures such as limitations on by-catch is required in order to afford the resource the best chance of recovery.

As such, additional technical management measures may be specified, including but not limited to, the following:

1. *Protection of Spawners:*

Management should incorporate controls to limit the catch during the main spawning periods in order to ensure the best possible spawning success. Information can be made available from scientists to guide managers in this regard. Scientists can also provide information regarding spawning areas for possible protection as well (see above).

An important conservation objective should be to allow development of a full age-range in the spawner population in order to promote the best possible stability in annual recruitment.

2. *Protection of Pre-recruits (Area Closures):*

Specific areas that have been clearly identified as significant nursery areas should be closed, as appropriate, for a specified time so as to minimize the mortality on small fish. In addition, other management measures to protect small fish should be considered.

3. *Concerns with By-catch:*

Fisheries for other species that might result in by-catch of the species under consideration must be conducted in such a manner so as to keep by-catch at the lowest possible level. This would necessitate careful review of possible management strategies including adequate monitoring.

4. *Concerns with By-catch of Other Species:*

Fisheries for the directed species that might result in bycatch of other species, especially those under moratorium, must be conducted in such a manner so as to keep bycatch at the lowest possible level. This would necessitate careful review of possible management strategies including adequate monitoring.

9. Consideration of Additional Supportive Management Measures to Complement the Application of the Precautionary Approach

The WG on PA noted a number of supportive management measures/good practices during discussion on the two model stocks (Div. 3NO cod, Div. 3LNO yellowtail flounder), as well as one additional stock (Div. 3LNO American plaice). The information on these three stocks is included in Annexes 6, 7 and 8.

10. Other Matters

The WG on PA considered some examples of supportive management measures as follows:

- The WG on PA noted that management of the NAFO stocks are based on single-species models. In the years to come, it will important to enhance our understanding of the ecosystem in order to base our management decision on models also taking into account of how fish stocks react to changes in the environment as well as the significance of stock interactions.
- The WG on PA noted that a primary cause of depleted fish stocks around the world is the existence of a too large fishing capacity relative to the fish resources. In order to achieve not only sustainable fish stocks, but sustainable fisheries, the Fisheries Commission should stimulate initiatives to curb overcapacity in the fishing fleet.

Some Contracting Parties considered the following measures as examples:

- TAC/Moratorium
- Limited Entry
- Vessel Replacement Restrictions
- Effort Control
- Conservation Harvesting Plans
- By-catch Protection Provisions
- Minimum Fish Size
- In-season Management
 - By-catch Protocols (In-season)
 - Small fish Protocols (In-season)
- Spawning Closures
- Juvenile Closures
- By-catch Closures
- Fishing Gear Restrictions – Minimum Mesh
- Fishing Gear Restrictions – Separator Grates
- Observers – Canadian Zone
- Observers – NRA - % Coverage
- Dockside Monitoring - % Coverage
- Vessel Monitoring Systems
- Air Patrols
- Ship Patrols
- On-board Inspections
- Basic Scientific Surveys
- Comprehensive Scientific Surveys

Some Contracting Parties considered these measures as example of already good management practices.

11. Adoption of Report

During the concluding session of the WG on PA on 2 March 2000, the draft report was reviewed and the report was adopted.

12. Adjournment

Noting the WG on PA work was brought to a successful completion, the Co-Chairmen, W. B. Brodie/J. Baird, thanked the participants, expressing hopes that the work done so far on the PA will continue to meet the Resolution on implementation of the PA outlined by the Fisheries Commission. Special thanks were extended to the NAFO Secretariat and the EU hosts for the arrangements and meeting facilities.

There being no further business, the Co-Chairmen adjourned the meeting at 1930 hrs.

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Annex 2. Agenda

1. Opening (Co-Chairmen Bill Brodie and Jim Baird, Canada)
2. Appointment of rapporteur
3. Adoption of Agenda
4. Harmonization of concepts and terminology
 - a) Report of CWP Intersessional Meeting – February 2000
 - b) Discussion of an EU paper
 - c) Contracting Parties' experience with the application of the Precautionary Approach
5. Operationalizing the Precautionary Approach into the Management Plans for Three Model Stocks
6. Implementation Plan for the Precautionary Approach to other NAFO Stocks
7. Consideration of changes or additions to the Fisheries Commission's Request to the Scientific Council to reflect the precautionary approach
8. Consideration of Criteria for reopening a fishery in light of the Precautionary Approach
9. Consideration of additional supportive management measures to complement the application of the Precautionary Approach
10. Other Matters
11. Adoption of report
12. Adjournment

Annex 3. List of Papers Considered

1. Resolution to Guide Implementation of the Precautionary Approach within NAFO. NAFO FC Doc. 99/13, Serial No. N4198, 1p.
2. Considerations for the Implementation of the Precautionary Approach into the Management Plans of Stocks Managed by the Northwest Atlantic Fisheries Commission (NAFO) – a discussion paper prepared by Canada. PA W.G. Working Paper 00/1, 18 p.
3. The Precautionary Approach in Fisheries – The issue of harmonization of concepts and terminology. EU Working Paper. PA W.G. Working Paper 00/2, 6 p.
4. Draft Report of the Working Group on Precautionary Approach Terminology. CWP Intersessional Meeting – February 2000, 19 p. (CWP-19 in July 2001 will review this report before finalization).
5. Chairman's Summary. CWP Intersessional Meeting of the Working Group on Precautionary Approach Terminology, 12 p. (Co-Chairman W. B. Brodie's summary presented at this meeting – see Annex 4.)
6. The Precautionary Approach: A New Paradigm, or Business as Usual? V. R. Restrepo, P. M. Mace, and F. M. Serchuk. 1999. Feature Article 1, p.61-70. *In: Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1999, NOAA Technical Memorandum NMFS-F/SPO-41, 301 p. (Submitted by the US Delegation, 6 p.)*

Annex 4. Chairman's Summary, CWP Intersessional Meeting 2000
Meeting of the Working Group on Precautionary Approach Terminology
[The complete report is submitted to CWP for finalization]

The CWP Intersessional was held during February 14-16, ICES HQ in Copenhagen. FAO, ICCAT, ICES and NAFO representatives attended the meeting.

TERMS OF REFERENCE FOR THE MEETING

- 1) Review the terminology and definitions of concepts in use by the different agencies.
- 2) Identify where concepts are identical and where these differ. Explore consequences of such differences in concepts to the reference points used for providing scientific advice within the Precautionary Approach.

PRESENTATION AND COMPARISON OF AGENCY PA FRAMEWORKS.

The CWP Intersessional noted NAFO and ICCAT both include science and management bodies, while ICES is strictly a scientific body.

Examination of PA work from other perspectives (EC, Canada, USA).

FAO

FAO presented a summary of main issues noted in the 5 years of PA implementation (1995-2000) eg. Marine Protected Areas Harvest Control Rules, role of science, operational management procedures, several others. The relevant papers were appended to the CWP Intersessional Draft Report.

ICCAT

The ICCAT presentation addressed the following:

- has not yet formalized an operational framework for implementing the PA.
- formed an ad hoc WG of the Standing Committee on Research and Statistics (SCRS) to examine the PA.
- proceeded along a slightly different track than either NAFO or ICES, noting that "*Annex II of the Straddling Stocks Agreement states that F_{MSY} should be a minimum standard for a limit reference point. This is potentially in conflict with the objectives of the ICCAT Convention, which imply that F_{MSY} is the target.*"
- SCRS decided that it needs to conduct stock-specific evaluations using simulation methods.
- ICCAT has not yet made a decision on what reference points would be treated as limits in providing PA advice.
- SCRS routinely provides estimates of stock status relative to MSY benchmarks for all stocks with quantitative assessments.
- SCRS provided working definitions of targets, limits, thresholds, and harvest control rules.

ICES

The ICES presentation addressed the following:

- In order for stocks and fisheries exploiting them to be within safe biological limits, there should be a high probability that :
 - 1) the spawning stock biomass is above the threshold where recruitment is impaired, and
 - 2) the fishing mortality is below that which will drive the spawning stock to the biomass threshold which must be avoided.
- To have a high probability to avoid the thresholds, ICES calculates a buffer that when applied to the limit reference points provide estimates of the precautionary reference points F_{pa} and B_{pa} (pa stands for precautionary approach).
- ICES proposed in 1998 and 1999 a number of "lim" and "pa" reference points as a provisional step to the implementation of a precautionary approach.
- F_{pa} and B_{pa} are thus the main devices in the ICES framework for providing advice. They are thresholds which constrain advice or trigger advice for implementation of management/recovery plans.
- If fishery management decisions lead to F_{pa} being exceeded, this would be regarded as overfishing and management would not be regarded as consistent with a precautionary approach.

NAFO

The NAFO presentation addressed the following:

- The PA framework was first defined within NAFO SC in 1997 - characterized by limit, buffer, and target reference points for spawning stock biomass and fishing mortality.
- F_{lim} can be no higher than the fishing mortality rate which generates MSY. The target recovery level for biomass (B_{tr}) for overfished stocks is the total stock biomass which would produce MSY.
- B_{lim} is defined as the level of spawning biomass that the stock should not be allowed to fall below.
- Buffers (B_{buf} and F_{buf}) are defined for B_{lim} and F_{lim} to ensure that there is a high probability that the limit reference points are not reached.
- Within each of the biomass/fishing mortality zones defined by the reference points (collapsed, danger zone, recovery zone, recovered zone), specific courses of action are indicated.
- A full suite of reference points has not yet been developed for any NAFO stocks, but substantial progress has been made on some stocks, particularly those with age-based analytical assessments.

INTER AGENCY COMPARISONS

The CWP Intersessional review of comparisons contained the following:

COMPARISON OF TERMINOLOGY

- Terminology for limit reference points is consistent. ICES, NAFO and ICCAT use B_{lim} and F_{lim} terms to refer to biomass and fishing mortality limit reference points.
- Terminology for threshold reference points differs between agencies. ICES names these points F_{pa} and B_{pa} , NAFO names them F_{buf} and B_{buf} , ICCAT proposes to name them F_{thresh} and B_{thresh} .
- Target reference points:
 Not presently proposed by ICES nor acknowledged in its precautionary framework.
 NAFO has a conceptual definition of targets for fishing mortality and biomass (F_{target} and B_{target}) but at present only proposes B_{target} reference points for rebuilding purposes.
 ICCAT notes that its Convention defines F_{msy} and B_{msy} as targets.

COMPARISON OF DEFINITIONS (LIMITS)

- For the biomass limit reference point, the operational definition is that it is a marker of the biomass below which low recruitment can be expected. However, in many cases ICES has also used this as a marker of the biomass below which recruitment is unknown. This alternative usage is not reflected in the nomenclature.
- For fishing mortality limit reference points, the operational definition varies:
 - ICES mostly uses F_{lim} to indicate a fishing mortality above which there is an unacceptable risk of the stock size declining below B_{lim} in some medium or long-term period. Hence it is a marker of the longer term risk of incurring recruitment overfishing.
 - In the NAFO framework F_{lim} is taken as corresponding to F_{msy} , which means that it is used as a marker of decreasing stock stability and the loss of long-term yield.
 - ICCAT has yet to develop a position on this, but notes that UNFSA guidelines for a fishing mortality limit are in potential conflict with the ICCAT Convention which implies using F_{msy} as a target.

COMPARISON OF DEFINITIONS (THRESHOLDS)

- Definition of biomass threshold levels tends to be more consistent across agencies.
 - Both ICES and NAFO use thresholds as markers of levels of probability, considered unacceptable, that a stock is measured (or forecast) to be at the threshold level, may actually be at or below the limit biomass, given some particular uncertainty assumptions.
 - ICES also in some cases defines a threshold level as a marker of a region of unknown dependence of recruitment on stock size. This definition has been applied for some stocks with a history of only moderate exploitation.
 - ICCAT's intended use of thresholds is as reference points that fall between limits and targets.

- Definition of F mortality threshold is less consistent.
 - ICES has defined F_{pa} in four different ways, as marker of:
 - (a) an unacceptable probability that stock is fished at F_{lim} when it is measured to be F_{pa} , (ie for ICES, unacceptable long-term risk of recruitment overfishing)
 - (b) a high probability of growth overfishing in short term
 - (c) an unacceptable probability that SSB may fall below B_{pa} in medium term
 - (d) an unacceptable probability that SSB may fall below B_{lim} in medium term
- The NAFO definition is similar to (b) above. The ICCAT definition is still not developed.

CONCEPTS AND USAGE

Significant differences in operational definitions of reference points in the ICES, NAFO, and ICCAT areas were identified:

- Such differences have quite normally been driven by differences in the institutional framework in which these scientific bodies operate, and by the different dynamics of the stocks for which they provide advice (eg. many stocks in NAFO area at very low level).
- One key difference is that the three organisations have made different interpretations of UNFSA.

NAFO: F_{msy} or a proxy should be adopted as the value for the limit reference point F_{lim} .

ICES: does not incorporate F_{msy} in its PA framework. ICES considered that F_{msy} is an extremely difficult parameter to estimate reliably and was therefore reluctant to use this value in the provision of management advice.

ICCAT: UNFSA guidelines for a fishing mortality limit are in potential conflict with the ICCAT Convention which implies using F_{msy} as a target.

- Other technical differences in calculation of reference points exist between the NAFO and ICES frameworks.

HARVEST CONTROL RULES

NAFO, ICES and ICCAT all consider that it is the responsibility of the management agencies concerned to pre-agree conservation and management action in the event that they consider such pre-agreements to be necessary.

If a stock falls outside the "safe" or "target" area of its precautionary framework, action should be taken to :

- decrease fishing mortality below the threshold value
- take action to allow biomass to increase towards a rebuilding target.

NAFO has in many instances illustrated a linear reduction in fishing mortality in its precautionary framework. However, as presently most NAFO stocks are below B_{lim} , and such a linear reduction is not particularly germane to present conditions.

In the ICES area, many stocks are presently between limit and threshold reference points, and a diversity of approaches has been taken to proposing recovery plans. These are usually stock-specific and to a greater or lesser extent are evolved in dialogue with management agencies.

DATA MODERATE/POOR ENVIRONMENTS

About half the stocks assessed by ICES, more than 80% of the stocks assessed by the NAFO Scientific Council, and all stocks assessed by ICCAT are considered to be data moderate or data poor - age based assessments are unable to be successfully applied or indirect aging methods are used.

- In such cases alternative methods for assigning reference points are gradually being explored.
- For some stocks, ICES has introduced proxies to represent reference points using indices of stock size and other data sources. In ICES there is continued development of reference points.

In the NAFO SC, surplus production models (ASPIC) have been explored in some data moderate situations, whereas under data poor conditions, the “traffic light” approach has been evaluated. It is anticipated that these and other available methods will be examined in the context of all NAFO stocks in the near future.

- ICCAT has a long tradition of using a wide variety of simple assessment methods and a suite of proxies to reference points that are tailored to fit specific situations.

POSSIBILITIES FOR COMMON USAGE OF CONCEPTS AND TERMINOLOGY

Although specific interpretations of the UNFSA guidelines differed, the objectives of the three scientific agencies of ICES, ICCAT(SCRS) and NAFO (SC) share these common elements:

- Reference points should be chosen in such a way as to allow managers to operate a fishery to take sustainable yields close to the estimated long-term maximum. Reference points should generally lead to stock dynamics which satisfy these conditions, in order of priority:
 - a) Low probability of recruitment overfishing.
 - b) The choice of thresholds should be made so as to avoid a recruitment collapse or to minimize risk when approaching an area where the stock dynamics are poorly known.
- The p_a reference points of ICES, the buf reference points of NAFO, and the $threshold$ concept of ICCAT all refer to the same idea, ie. to provide a buffer or safety margin to ensure that here is a high probability that the $limit$ reference points on biomass or fishing mortality will not be reached.
- There are a number of other initiatives on the PA underway in various organizations and national departments. Thus, even if it were possible, it may be premature to recommend a common approach to the PA. In many cases, work on the PA is very much in the exploratory stage.

Annex 5. EU Working Paper

THE PRECAUTIONARY APPROACH IN FISHERIES

The issue of harmonisation of concepts and terminology

1. Prologue

At the 1999 Annual Meeting of NAFO, the EU Delegation was requested to present a working paper on harmonisation of concepts and terminology of the Precautionary Approach. At that time, it was not clear that a CWP Inter-sessional Meeting 2000 would be held in Copenhagen from 14 to 16 February 2000 and bring together representatives from ICES, ICCAT, NAFO and FAO in order to review terminology and definitions of concepts of the Precautionary Approach. As the report of this meeting has not yet become available, the present paper can only be of a provisional nature.

2. The Precautionary Principle

Several international treaties relating to different subject matters such as marine pollution, climate change or biological diversity contain references to the Precautionary Principle. Definitions vary from instrument to instrument and writer to writer. A representative definition drawn from these treaties (e.g. the 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area) could be summarised as follows:

“States shall take preventive measures in respect of action, which may have deleterious effects, even when there is no conclusive evidence of a causal relationship between inputs and their alleged effects.”

This constitutes a departure from a former position which held that, *if it cannot be convincingly demonstrated that some action will have deleterious effects, that action may be undertaken*. The new principle brings with it a reversal of the burden of proof in that it stipulates that, *if it cannot be convincingly demonstrated that some action will not have deleterious effects, that action should not be undertaken*.

The formulation of the Precautionary Principle clearly gathered momentum at the UN Conference on the Environment and Development (UNCED). This led to the 1992 Rio Declaration, Principle 15 of which provides that

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

The preamble of the 1992 Convention on Biological Diversity draws upon this language as follows:

“Noting that it is vital to anticipate, prevent and attack the causes of significant reduction or loss of biological diversity at source,

Noting that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimise such a threat,”

3. The Precautionary Approach in the field of fisheries

- 3.1 The 1982 UN Convention on the Law of the Sea requires to rely on "the best scientific evidence available" when taking conservation and management measures (see Article 119 (1) (a) for high seas areas and Article 61 (2) for sea areas under national fisheries jurisdiction). This requirement is sometimes being misinterpreted in too strict if not perfectionist a sense as meaning that, in situations where scientific information offers no full certainty, no conservation measures could be taken. This misinterpretation ignores the inevitable imperfection of science and, therefore, can be seen as one of the motives for the emergence of the Precautionary Approach in the field of fisheries.

The shaping of the Precautionary Approach in the field of fisheries was very much influenced by UNCED and its follow-up processes. It has now been enshrined in both Article 6 of the 1995 UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks as well as Article 7.5 of the 1995 FAO Code of Conduct for Responsible Fisheries. Under these instruments, the Precautionary Approach is to be applied widely to conservation, management and exploitation of fisheries resources. It requires States to err on the side of caution "when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation measures." Furthermore, States are required to determine both stock-specific precautionary reference points as well as the action to be taken when these reference points are approached or exceeded.

This brings together two sets of rules which, at first sight, seem to be irreconcilable. On the one hand, there is acknowledgment that States will continue to work in a world of imperfect information. On the other hand, the technique of reference points requires risk management in a sophisticated decision-making process based on very detailed scientific risk analysis and other objective information. The latter shows that the Precautionary Approach is not only confined to cases where adequate scientific information is lacking.

- 3.2 The significance of Article 6 of the UN Agreement is that, for the first time in a multilateral fisheries treaty, it spells out the way in which the Precautionary Approach adopted at UNCED is to be applied. However, the UN Agreement *ratione materiae* only covers straddling fish stocks and highly migratory fish stocks. As treaty law, it will not be applicable to so-called 'discrete stocks', i.e. stocks which exclusively occur in high seas areas.

Another special feature of the UN Agreement is that it exemplifies in some detail the technique of precautionary reference points in the form of "Guidelines" set out in Annex II. Guidelines are indicative by their very nature. At the time of their drafting, they were intended to offer States Parties an example of how a system of precautionary reference points could work. They were, however, neither meant to be exhaustive nor were they intended to pre-empt future developments.

- 3.3 In actual fact, subsequent experience with the Precautionary Approach shows that recent developments have already started overtaking the system of reference points set out in Annex II. This system presupposes perfect knowledge of a given stock. On such a basis, the system would be limited to simply setting both a biomass related conservation (or limit) reference point which defines the critical level of the stock, below which the stock should never fall, and a pre-agreed (target) fishing mortality rate which offers a high probability of the stock not approaching or not falling below the defined critical level.

In view of uncertainties inherent to both the relevant scientific advice as well as the risk assessments needed when deciding upon management strategies, it was seen as a problem that one could never be sure about an entirely accurate selection of reference points. This has led to the concept "trigger points" to mark a security margin or a "buffer", whereby the distance between a conservation (limit) reference point and a "trigger point" is indicative of the risk which is considered to be acceptable in a given case. The more mechanistic system of Annex II does not provide for such security margins and, therefore, falls short of genuine risk management which, in order to judge and determine what is an "acceptable level of risk", presupposes meticulous assessment of potential consequences in terms of gains of lower risks set against losses in yield.

4. ICES/NAFO Frameworks for the implementation of the Precautionary Approach

4.1 Both ICES and the Scientific Council of NAFO have developed and, as this is a dynamic process, are in the course of refining Frameworks for the implementation of the Precautionary Approach. None of these Frameworks has yet been formally endorsed en bloc by competent management agencies.

4.2 Differences in nomenclature

ICES advises on conservation limits (limit reference points) which define the critical stock level, below which stock size should never fall, and precautionary reference points ("trigger points" or "buffers") which, if adhered to, offer a high probability of keeping the stock above the critical level and which, if approached or exceeded, should trigger remedial action to bring the stock within safe biological limits.

The former consist of **Blim** = absolute bottom line Spawning Stock Biomass (SSB) and **Flim** = absolute upper level of fishing mortality rate (F). The latter consist of **Bpa** = level of SSB higher than **Blim** and **Fpa** = level of F lower than **Flim**.

ICES regards **Blim** and **Flim** as incontrovertible values. However, the basis for some of the suggested values is debatable. The concept implies that if current F is estimated as greater than **Flim** or current SSB is estimated as less than **Blim**, the associated fisheries should be stopped.

NAFO uses three reference points for each SSB and F, namely **Blim** and **Flim**, **Bbuf** and **Fbuf** (buf = buffer) and **Btr** and **Ftr** (tr = target).

Blim and **Flim** seem to be consistent in both models. However, NAFO classifies **Flim** as equal to **Fmsy** (i.e. **Flim** can be no higher than the fishing mortality rate which generates maximum sustainable yield [msy]).

Bpa and **Fpa** should in principle correspond to NAFO's **Bbuf** and **Fbuf**. It has been suggested, however, that, if **Bbuf** and/or **Fbuf** were approached or transgressed, the associated fisheries should be stopped. If this were correct, the difference would not only be semantic. It would amount to using the same uncertainties twice and, thus, lead to defining absolute bottom line SSB at a higher level than really required. The establishment of **Blim** and **Flim** would then become a futile exercise.

In the ICES model, no attempt is made to define targets. If the aforementioned perception of **Bbuf** and **Fbuf** were the right one, NAFO's **Btr** and **Ftr** would in reality be "trigger

points". Furthermore, NAFO's Btr is being used as the target recovery level for biomass for overfished stocks and defined as the total stock biomass which would produce maximum sustainable yield. This seems to conflict with the use of Flim as Fmsy as an absolute upper level of fishing mortality rate.

4.3 Differences in interpretation – Flim as Fmsy

Paragraph 7 of Annex II of the UN Agreement states that "The fishing mortality rate which generates maximum sustainable yield should be regarded as a minimum standard for limit reference points".

In the NAFO model, it is contended that this clause would make it a requirement to use Fmsy as the absolute upper level of fishing mortality rate. This would imply an automatism which would force to choose a much lower (target) fishing mortality rate in order to stay away from critical stock levels. This might unnecessarily restrict yields.

There is nothing in the UN Agreement which could support such a strict interpretation. By using the term "should", the clause itself is not constructed as a compulsory one. Furthermore, the clause is embedded in guidelines, the indicative nature of which has already been mentioned above (see point 3.2).

Such a strict interpretation would also conflict with the 1982 UN Convention on the Law of the Sea. Articles 119 (1) [for high seas areas] and 61 (3) [for sea areas under national fisheries jurisdiction] provide that conservation measures shall be designed "to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield". This implies a stock-oriented finality such that the fishing mortality rate which generates maximum sustainable yield is constructed as a management objective (i.e. a target) which should be achieved with a high probability on average. This excludes the use of Fmsy as a conservation (limit) reference point in the sense of the UN Agreement. Pursuant to the provisions of Article 4 of the UN Agreement, the relevant provisions of the 1982 UN Convention on the Law of the Sea prevail in cases of doubt or conflict.

It should also be noted that the use of Fmsy is extremely difficult to implement for most stocks because of great problems in computing reliable values of Fmsy. For this very reason, ICES' interpretation has been largely to ignore the clause in question.

4.4 Differences in interpretation – pre-agreed remedial action

Paragraph 4 of Annex II of the UN Agreement states inter alia that previously agreed reference points "shall be used to trigger pre-agreed conservation and management action". The NAFO model uses this clause to suggest that remedial action should consist of a linear decrease in fishing mortality in all cases where stock size falls below the predetermined level.

However, the clause cannot be invoked in support of this suggestion. As shown above (see point 3.3), the Annex II system of reference points only contemplates situations where stock size approaches or falls below the critical level. In such a case, "pre-agreed conservation and management action" in the sense of the said clause will consist of a closure of the associated fisheries.

In contrast to that, experience with "trigger points" or "buffers" has shown that any attempt of pre-determining remedial action in the event that stock size should approach or fall

below the so defined safety margin would be too speculative in nature and, thus, fall short of the specific conditions prevailing at the time when remedial action becomes necessary. Indeed, if remedial action were to be pre-determined by a pre-agreed set of measures, the specificities encountered at the time when recourse to such action becomes necessary will almost certainly lead to divergence from the pre-agreed set of measures. In this sense, the pre-agreed set of measures might prejudice proper remedial action. It is clear, however, that the establishment of a precautionary "trigger point" or "buffer" carries with it an agreement of principle to take remedial action whenever the relevant pre-determined value is approached or transgressed.

4.5 **The need for harmonisation**

Differences in terminology are normally indicative of differing concepts. As a general rule, terminology should be used in a harmonised fashion in all cases where there are no conceptual differences. Difference in terminology should be reserved to cases where different concepts so warrant.

Annex 6. Next steps in the implementation of the Precautionary Approach - Cod in Divisions 3NO

Objectives

The action plan for implementation of a Precautionary Approach should include the nine objectives discussed at the Joint Scientific Council/Fisheries Commission Working Group meeting in May 1999:

1. Restore and maintain stock at level that can support sustainable fisheries.
2. Rebuild SSB to a level that will increase the probability of good recruitment.
3. Keep directed fisheries closed in the short term.
4. Determine the spawning stock biomass at which the fishery will be re-opened.
5. Develop additional criteria to guide potential fishery re-openings.
6. Minimize the by-catch for cod in directed fisheries for other fisheries.
7. Identify and evaluate options for B_{lim} (60000 t SSB at high productivity level and 35000 t SSB at low productivity level). In doing so, use the following performance measures in the risk analysis:
 - ◆ The time (year) at which B_{lim} is reached at various probability levels
 - ◆ The yield potential at re-opening.
8. Evaluate risks of stocks being below B_{lim} .
9. Full review and analysis of 1) the stock recruitment data to determine the high and low productivity levels 2) options for B_{lim} and 3) the appropriate risk analysis.

Management Strategies

1. As an initial management objective, Fisheries Commission should rebuild SSB to a level that will increase the probability of good recruitment and restore and maintain the stock at a level that can support sustainable fisheries.
2. Fisheries Commission should set a provisional limit SSB reference point of 60,000 t, and should determine harvest strategies and management measures in the context of this reference.
3. No directed commercial fishing should occur while SSB is below B_{lim} .
4. As there are indications of a possible shift to a lower productivity regime wherein B_{lim} may about 35,000 t, Fisheries Commission should request that Scientific Council should continue to monitor this resource and conduct further reviews of the biomass limit reference.
5. Fisheries Commission shall, as appropriate, review and revise these management measures and strategies based on any new advice provided by Scientific Council.

Data Collection/Analyses

1. A Contracting Party may submit a proposal to the Fisheries Commission for monitoring activity on 3NO cod to permit further evaluation of resource abundance. The Fisheries Commission, with the prior concurrence of the Coastal State on the proposed monitoring activity, shall seek the advice of Scientific Council with respect to ensuring appropriate data collection related to the proposed monitoring activity.
2. It is important to continue to obtain information on spawning times and locations as well as on juvenile nursery areas.
3. Ongoing collections of weight-at-length and maturity-at-length data should continue and the data used in the context of the monitoring of SSB and prediction of future trends.
4. Information on current spatial distribution of the stock compared to historical should be presented in the assessments.

Supportive Management Measures/Good Practises

1. Below Blim, the main focus of Fisheries Commission should be to minimize the by-catch of cod, when fishers are directing for other species, and to minimize the catch of juveniles. Some measures that could be considered to achieve this objective are:
 - Review of current directed fisheries for the determination of specific cod by-catch problems so that remedies can be applied.
 - A revision of conservation and technical measures that only permit by-catch that is truly incidental in nature.
 - Closure of specific areas for specific periods of time identified as: a) areas where high levels of cod by-catch are persistent, b) nursery areas, and c) areas where high concentrations of juveniles are found.

Annex 7. Next steps in the implementation of the Precautionary Approach - Yellowtail flounder in Divisions 3LNO

Objectives

The action plan for implementation of a Precautionary Approach should include the eight objectives discussed at the Joint Scientific Council/Fisheries Commission Working Group meeting in May 1999:

1. Maintain harvest levels that will continue to rebuild and maintain the stock biomass above the rebuilt biomass level.
2. Continue with a comprehensive suite of management measures.
3. Ensure a conduct of the fishery in a manner that will not jeopardize recovery of other stocks in the area which are currently under moratorium, specifically 3NO cod and 3LNO American plaice.
4. Performance measures of interest to the managers could be expressed in terms of biomass and its trajectory and where it is with respect to the reference level and catch levels. With respect to catch, the performance measure was: cumulated yield, yield trajectories and trends (in particular, to identify declining trends).
5. It was noted that production models do not permit determination of all reference points. It should be ensured that data are available for scientists to move toward using age-structured modelling.
6. Despite these limitations, production modelling is a tool that could be used to start to evaluate real F limits and could be used to provide insight in what will happen if there are lower or higher fishing mortality levels.
7. There is a need to develop "target" biomass levels that could be higher than the biological limits so as to take into account management objectives including economic considerations.
8. Endorse the work of the Scientific Council in its attempts to develop a better understanding of the stock-recruit relationship.

Management Strategies

1. As a management objective, Fisheries Commission should maintain SSB at a level that will continue the probability of good recruitment and maintain the stock at a level that will support a sustainable fishery.
2. Given that the present estimate of F_{buf} is in the same range as the $2/3 F_{MSY}$ value used in past requests from Fisheries Commission, the value of 11% for exploitation rate could continue to be used by Fisheries Commission as a basis for establishing catch levels until such time as Scientific Council may recommend an alternative.
3. Fisheries Commission requests Scientific Council to give priority to work aimed at calculation of possible biological reference points as appropriate including age-based models and any other applicable stock evaluation methodologies.
4. Fisheries Commission shall, as appropriate, review and revise these management measures and strategies based on any new advice provided by Scientific Council.

Data Collection/Analyses

1. Scientific Council and Fisheries Commission should encourage continuation of multiple annual surveys in support of stock assessment.
2. Contracting Parties should ensure that appropriate data are collected and that scientists utilize stock evaluation techniques that allow for estimation of stock size and exploitation rates, risk assessment procedures, and a fuller evaluation of reference points.
3. Scientific Council continue efforts to develop a better understanding of the stock-recruit relationship.

4. Scientific Council and Contracting Parties continue to monitor expansion of the range into Div. 3L.
5. Scientific Council and Contracting Parties continue to monitor recruitment as well as trends in weight-at-age.
6. Scientific Council to review and update, as necessary, information on spawning locations and timing.
7. Scientific Council to provide updated information to the Fisheries Commission regarding the distribution of juvenile yellowtail flounder in relation to adult distribution.

Supportive Management Measures/Good Practises

1. Fisheries Commission should take steps to minimize the catch of juveniles, and ensure that the total catches of yellowtail flounder are in accordance with the target exploitation rate. Some measures that could be considered to achieve this objective are:
 - Review of current directed fisheries for the determination of specific yellowtail flounder by-catch problems so that remedies can be applied.
 - A revision of conservation and technical measures that only permit by-catch that is truly incidental in nature.
 - Closure of specific areas for specific periods of time identified as: a) nursery areas, and b) areas where high concentrations of juveniles are found.
2. Fisheries Commission to explore the utility of closure periods to protect spawners as well as the utility of closures of areas identified as spawning locations.

Annex 8. Next steps in the implementation of the Precautionary Approach - American plaice in Divisions 3LNO

Objectives

The action plan for implementation of a Precautionary Approach should include the following eight objectives that are similar to those developed during the 1999 meeting of the Working Group for the other 3 model stocks as follows:

1. Rebuild SSB to a level that will increase the probability of good recruitment.
2. Keep directed fisheries closed in the short term.
3. Determine the spawning stock biomass at which the fishery will be re-opened.
4. Develop additional criteria to guide potential fishery re-openings.
5. Minimize the by-catch for American plaice in directed fisheries for other fisheries.
6. Identify and evaluate options for B_{lim} . In doing so, use the following performance measures in the risk analysis:
 - The impacts of possible changes in natural mortality on estimates of B_{lim} .
 - The time (year) at which B_{lim} is reached at various probability levels
 - The yield potential at re-opening.
7. Evaluate risks of stock being below B_{lim} .
8. Full review and analysis of 1) the stock recruitment data to determine the high and low productivity levels 2) the data as they pertain to possible changes in natural mortality 3) options for B_{lim} and 4) the appropriate risk analyses.

Management Strategies

1. As an initial management objective, Fisheries Commission should rebuild SSB to a level that will increase the probability of good recruitment and restore and maintain the stock at a level that can support sustainable fisheries.
2. Fisheries Commission should adopt a conservation objective for 3LNO American plaice that ensures an ongoing full age range in the spawner population in order to promote the best possible stability in annual recruitment.
3. No directed commercial fishing should occur while SSB is below B_{lim} .
4. Fisheries Commission should request Scientific Council to continue monitoring of resource and conduct a full review of reference points.
5. Fisheries Commission shall, as appropriate, review and revise these management measures and strategies based on any new advice provided by Scientific Council.

Data Collection/Analyses

1. A Contracting Party may submit a proposal to the Fisheries Commission for monitoring activity on 3NO cod to permit further evaluation of resource abundance. The Fisheries Commission, with the prior concurrence of the Coastal State on the proposed monitoring activity, shall seek the advice of Scientific Council with respect to ensuring appropriate data collection related to the proposed monitoring activity.
2. It is important to continue to obtain information on spawning times and locations as well as on juvenile nursery areas.
3. Ongoing collections of weight-at-length and maturity-at-length data should continue and the data used in the context of the monitoring of SSB and prediction of future trends.
4. Information on current spatial distribution of the stock compared to historical should be presented in the assessments.
5. Scientific Council should continue its investigations on the impact of possible changes in natural mortality, in particular with respect to the determination of reference points for

American plaice in 3LNO. The assessment framework (analytical or otherwise) should be investigated and defined in that context.

Supportive Management Measures/Good Practises

1. Below B_{lim} , the main focus of Fisheries Commission should be to minimize the by-catch of American plaice, when fishers are directing for other species, and to minimize the catch of juveniles. Some measures that could be considered to achieve this objective are:
 - Review of current directed fisheries for the determination of specific American plaice by-catch problems so that remedies can be applied.
 - A revision of conservation and technical measures that only permit by-catch that is truly incidental in nature.
 - Closure of specific areas for specific periods of time identified as: a) areas where high levels of American plaice by-catch are persistent, b) nursery areas, and c) areas where high concentrations of juveniles are found.

Annex 9. EU Summary

“The way forward”

Suggested wording for an “Explanatory Memorandum” which could be attached to the Fisheries Commission’s future request for scientific advice

Stocks differ greatly in their inherent dynamics, in the amount of available information, and in the information content of the available data. The establishment of biological reference points, and the use of these points for management purposes, needs to be **highly stock specific**. Experience gained so far clearly shows that this is the most important prerequisite to obtain an acceptable result. With this in mind, the Precautionary Approach offers a suitable instrument to achieve the following goals (in order of implementation):

1. Ensure sustainability by maintaining a low risk of recruitment decline and stock collapse.
2. Where stocks are not overfished, threshold reference points (B_{pa} and B_{buf} , F_{pa} and F_{buf}) should be used in order to avoid entering an area of stock dynamics where either knowledge is poor or risk increases without any increase in yield.
3. Allow for sustainable fisheries with appropriate and stabilised yields in the long term.

In order to provide fisheries managers with the information needed to agree on management plans that fulfil these criteria, the Scientific Council should be requested to provide the following:

Risk assessment: whenever possible, estimates of the

- Risks of irreversible damage to the stock
- Risks of stock collapse and recruitment overfishing
- Risks in relation to long-term yield or growth overfishing

as associated with different fishing mortality rates.

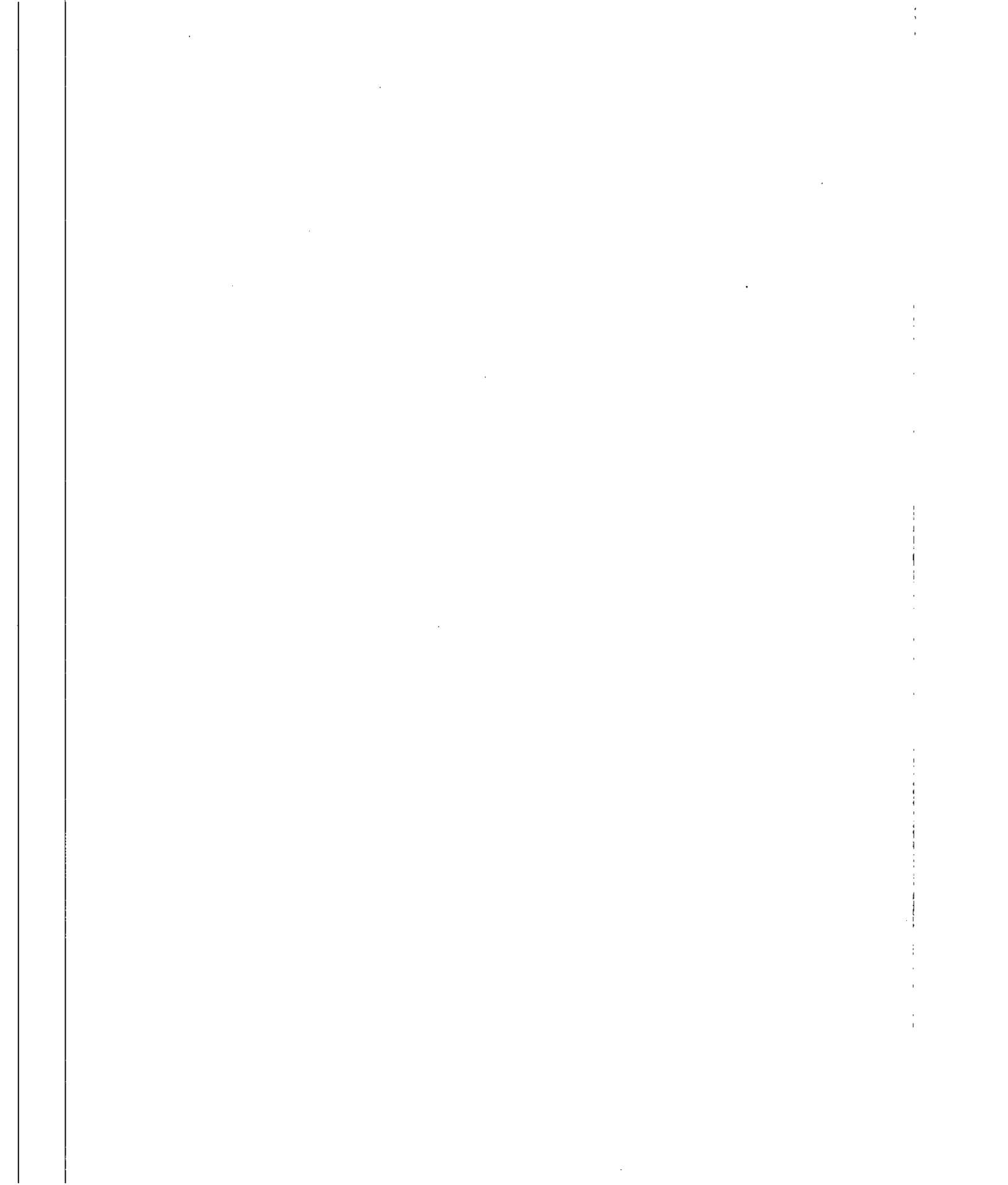
When providing risk estimates, it is very important that the **time horizon** is clearly spelt out. By way of consequence, risks should be expressed in time frames of 5, 10 >15 years or other appropriate year ranges depending on stock specific dynamics. Furthermore, fisheries managers also need to consider the balance between risks and yields. For each alternative harvesting strategy or risk scenario, the corresponding yield should be presented over the same time period as related to the risk.

Many of the stocks in the NAFO Regulatory Area are well below an appreciable level of B_{lim} or B_{buf} . For these stocks, the most important task for Scientific Council is to inform on how to rebuild the stocks. The Scientific Council has made clear progress on some of the stocks. It must be emphasised, however, that it is of utmost importance for fisheries managers to obtain the aforementioned type of information. In this context, the importance of alternative recovery plans with time frames of 2-5 years or longer, as appropriate, and the corresponding risk/yield balances must also be stressed. One alternative scenario should always pertain to the consequences and risks of no action at all.

SECTION II
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in the Regulatory Area
27-30 March 2000
Washington, D.C., USA**

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**Report of the Meeting on Shrimp Stocks
in the Regulatory Area**
(GC Doc. 00/3)

**27-30 March 2000
Washington, D.C., USA**

The Meeting was held in accordance with the decision taken by the General Council at the 21st Annual Meeting, September 1999 (GC Doc. 99/9, Part I, item 4.12).

1. Opening of the Meeting

The meeting was called to order by the Chair, Mr. H. Koster (EU), who welcomed delegates to the meeting. A list of participants is attached as Annex 1.

Several delegates made their brief opening statements. The delegates of USA, Canada, Denmark (in respect of Faroe Islands and Greenland), EU, Japan and Estonia provided their statements to the Rapporteur (Annexes 2-7).

2. Appointment of Rapporteur

P.E. Moran (USA) was elected as Rapporteur.

3. Adoption of Agenda

The agenda attached as Annex 8 was adopted.

4. Management systems for shrimp in the Regulatory Area

4.1 The Chair stated that the preceding opening comments seemed to indicate concern regarding the current effort allocation for 3M shrimp and its lack of success in controlling harvest to ensure levels of mortality below that advised by the Scientific Council. He noted general agreement among Parties that options should be examined regarding how to best achieve the goal of a 30,000 mt TAC and urged delegates to be open in their analyses. He thanked the delegates who had provided working papers on this subject in advance of the meeting and suggested that these papers be used, in conjunction with information from the Secretariat and the NAFO Conservation and Enforcement Measures, as the basis for initial discussions.

4.2 There followed a discussion on the current effort allocation system for 3M shrimp. Some Parties expressed the opinion that such a system of management could not succeed because it failed to take into account the ability of vessels to improve productivity and, thus, catch levels. It was noted that a TAC system provided concrete, scientifically based limits on catch that made such considerations unnecessary. Other delegates supported a continued use of the effort system, pointing out that it is premature to shift to TAC system, as any consideration on factors which caused the failure of current system including overfishing by Contracting Parties or one Party under the objection or "flag hopping" had not been conducted yet. The opinion was expressed that with proper regulation and reporting (e.g., through enhanced monitoring) the effort allocation system could be made effective.

Parties expressed a broad variety of opinions regarding possible future TAC-based allocation schemes for 3M shrimp. While it was generally agreed that any new TAC system should use as its basis elements of the current management scheme, there was a lack of consensus regarding which elements should be used and how they should be applied.

- 4.3 Particular concern was expressed regarding on how historical harvests (and opportunities for harvest) should be reflected in future TAC allocations, including the possible use of historic catch versus allocated fishing days. While there was broad support for the use of historical catch, there was no consensus on how such catches should be translated into TAC allocations. It was also pointed out that the current overall over harvest in the fishery would have to be taken into account in designing a new system and that any new scheme should not reward Parties that had undermined the efforts of the current effort scheme. Again, there was a lack of consensus regarding how such considerations should be reflected in a new scheme.
- 4.4 Delegates then entered into a discussion on the accuracy of the data table found in W.P. (Shrimp) 00/1 by Iceland (Annex 9). Iceland noted that this data was reflected in the paper based on information provided by the Secretariat. A large number of corrections and clarifications to this table were then provided by Parties to the Secretariat. The Executive Secretary stated that these figures were based on available data and that provided by Contracting Parties through hail reports. He also pointed out that the current effort scheme was based on the same data as provided by Parties for 1993 through August 1995. One delegate proposed that Parties submitting revised figures on catch, fishing days or number of vessels shall supplement such figures by stating catch per month (similar to Stalant 21A) and entry, exit and number of fishing days for each trip by the vessels flying the flag of the Contracting Party. After some consideration, it was generally agreed that Contracting Parties should provide data revisions to the Secretariat in time for the June 2000 STACTIC meeting. At this meeting, Parties would be expected to explain these revisions so that newly updated data could then be provided to the Fisheries Commission in time for the 2000 annual meeting. There was no consensus regarding acceptable sources for such data and how (if) they should be verified. However, the Secretariat agreed to make all raw data in its possession available to Parties.

Note (by the Secretariat): Following discussions at the STACTIC June meeting, the original and revised data on 3M shrimp catches were compiled in two Tables of Annex 10.

- 4.5 In addition, Parties expressed varying opinions regarding the use and appropriate length of a reference fishing period for determining future allocations. The Norwegian Delegation tabled its paper "Possible Allocation Key for a TAC-based Management System for 3M Shrimp" (Annex 11). Some Parties supported the use of relative catch levels at the time of initial allocation, while others proposed the use of a longer reference period. Such a longer period would take into account both the recent development of industries based on this fishery and the choices of Parties to refrain from fishing based on conservation concerns. Some Parties called the establishment of a date after which catches would not be considered when determining historical catch for future TAC allocations. However, there was no consensus on date.

It was pointed out that, regardless of the allocation system used, fishing opportunities should be maintained for all eligible Parties without a history in the fishery through the use of an "others" category. The need for (and amount of) such an allocation was not readily agreed. In addition, several Parties called for the establishment of a guaranteed minimum allocation for Parties with a history. One Party noted that Article XI (4) of the NAFO

Convention implies that the interests of coastal States should be taken into consideration for allocations on the Flemish Cap.

- 4.6 After considerable discussion, the Chair noted that Parties appeared to be considering four options regarding possible elements of a future TAC allocation scheme. These options were then summarized by the Chair in W.P (Shrimp) 00/8 and presented to the Parties for their consideration and comments. The Chair clarified that the data appearing in this paper were illustrative only and subject to revision. In addition, he noted that Parties should consider the four options presented as part of an on-going process. Following further discussion, this paper was reviewed based on the comments of Parties. The Chairman further advised that catch data and all calculations in the paper were still provisional and requested the delegations to provide their finalized data to the NAFO Secretariat. Such data would be incorporated in the Chairman's paper for further consideration. Note (by the Secretariat): All revised data from Annex 10 were incorporated in the Chairman's Paper. Although there was some support for each of the options found in the revised version of the Chair's working paper, considerable disagreement remained on a variety of elements. Thus, there was no consensus that this paper could be adopted by the group and passed on to the Fisheries Commission for consideration at the 2000 NAFO Annual Meeting. It was only agreed that W.P. (Shrimp) 00/8 as would be revised by modification of catch data *should remain* a document of the Chair and be retained for use in guiding future work on the issue (Annex 12). The Chair urged that Parties reflect on the options outlined in the paper and be prepared to continue discussions at the 2000 annual meeting.
- 4.7 Regarding possible quota allocations for 3L shrimp, the delegate from Denmark (in respect of the Faroe Islands and Greenland) expressed great dissatisfaction with the current 3L allocation scheme and noted that his country has a track record in this fishery, having caught 1789 mt of 3L shrimp in 1993. This claim is supported by NAFO statistics. He also recognized the legitimate claim of Canada in this fishery based on its coastal State status. The delegate from Denmark then proposed that future allocations in this fishery be made with 2/3 of the TAC in the NRA allocated based on catch history and contribution to scientific data collection and the remaining 1/3 allocated into an "others" quota. This proposal, W.P. (Shrimp) 00/11, is attached as Annex 13.

There was little support among those present for the Danish proposal, although there was recognition that the current allocations of 67 mt did not provide for adequate fishing opportunities for Contracting Parties. It was pointed out that these measures were set to remain in place until the 2001 NAFO Annual Meeting. One Party suggested that it might be beneficial to link the 3L and 3M shrimp fisheries in an effort to provide greater opportunities for shrimp harvests, while others called for status quo until some experience and data could be accumulated in the fishery. It was noted that NAFO needed to determine both the distribution of the stock between the Canadian zone and the NRA as well as how allocations should take place in the NRA. After some discussion, two possible approaches were identified in addition to the Denmark proposal: 1) remain at status quo until an alternative allocation scheme can be agreed; and 2) place all available TAC in an "others" category and allow the fishery to develop. At this time the delegate from Denmark (in respect of the Faroe Islands and Greenland) made a statement (attached as Annex 14). It was agreed that all three of the proposed options should be presented to the Fisheries Commission for consideration at the 2000 NAFO Annual Meeting.

5. Report to the Fisheries Commission

It was agreed that the Chair's Working Paper (Annex 12) relating to the 3M shrimp fishery would be further revised as appropriate and used as the basis for continued discussion at the 2000 NAFO Annual Meeting. It was also agreed that advice would be sought from the Fisheries Commission on what future actions (if any) should be taken by the group with regard to 3M shrimp allocations.

With regard to 3L shrimp, it was agreed that all three options for future TAC management should be presented to the Fisheries Commission at the 2000 NAFO Annual Meeting for further discussion and advice on how to proceed.

6. Other matters

No other matters were considered.

7. Adjournment of the Meeting

The Chair adjourned the Meeting on Shrimp Stocks in the Regulatory Area on 30 March 00 at 13.30 hrs.

Annex 1. List of Participants

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**Annex 2. Opening Statement by the Representative of the
United States of America (USA)**

Mr. Chairman,

I extend a warm welcome to you and all participants to the United States and Washington, D.C. We are happy to see you again and to host this meeting.

As many of you know, I work for the National Oceanic and Atmospheric Administration, which is also the parent organization of the National Weather Service. For those of you who arrived over the weekend and experienced some of the finest weather Washington has to offer, I arranged for those favorable conditions. I have additionally requested that the weather over the course of the week match the progress made here in this room. I have hope for sunny, bright days.

We welcome the pending discussions of shrimp management and the NAFO allocation practice. There should be many ways in which our primarily theoretical discussions of allocation approaches can be advanced by considering the practical cases of 3L and 3M shrimp management and alternatives to them. Conversely, our consideration of shrimp management should further inform our more general allocation discussions.

We are prepared to work with you, Mr. Chairman, and all delegations to carry out the terms of reference of these two meetings. I wish everyone two successful meetings and a pleasant stay in Washington.

Annex 3. Opening Statement by the Representative of Canada

Mr. Chairman, distinguished Representatives, it is a pleasure for Canada to participate at this meeting on shrimp management. We would like to thank the U.S. Government for hosting this meeting and providing the meeting facilities. We would also like to thank the NAFO Secretariat for providing the usual high level of logistical support.

This meeting on shrimp management is timely. For a number of years the Scientific Council has recommended that shrimp catches on the Flemish Cap should not exceed 30,000t; at its meeting in November 1999, it recommended that 3M shrimp catches in 2001 should not exceed 30,000t. It appears that this advice was significantly exceeded last year as 1999 catches of 3M shrimp were over 41,000t - based on the provisional catch reports submitted to NAFO.

Canada would like to thank Iceland for its paper and its proposal for a TAC and quota management regime. As noted in the paper, there are flaws with the current effort limitation scheme. These include the absence of a catch limit, the lack of control on advances in fishing efficiency and the potential for a fishery that can produce a significantly higher level of catch than to date.

Canada is open to any management solution that will ensure that an effective, conservation-based management regime is in place for 3M shrimp for 2001.

Mr. Chairman, Canada looks forward to discussing practical solutions to ensure the conservation of the Flemish Cap shrimp stock.

Annex 4. Opening Statement by the Representative of Denmark (in respect of the Faroe Islands and Greenland)

In order to prohibit an olympic fishery for 3M shrimp NAFO decided to implement an effort limitation system from 1996. For many Parties this was a new approach of managing fishery. For the Faroe Islands, however, this was a well-known system. Since 1984 Faroese shrimp trawlers have fished under such regulation system in the area with Svalbard in the North East Atlantic. Furthermore, the Faroese Parliament in 1994 decided to switch from a quota system for the demersal species in Faroese waters to an effort system. This step was taken due to problems getting the quota system to work properly.

After the implementation of the effort system for vessels fishing for 3M shrimp, some Contracting Parties have questioned this system. They have claimed that due to improvement in fishing technique and equipment the fishing will pass far beyond 30,000 metric tonnes per year. Our delegation does not regard it is of any use to try to prove whether this prophecy is right or wrong. However, we can agree that the catches have increased slightly in the years 1997 to 1999.

The statistics for catches and fishing days given in the attachment to NAFO document GF/00-164 clearly demonstrate that the problem is not the effort limitation system. Based on this information we have made some calculations concerning how the fishing would have been if all Contracting Parties had implemented the effort system. Furthermore, we have made calculations about the overfishing by some Parties who actually did adopt the effort limitation system.

The results of these calculations are very interesting. They show overfishing by especially 3 Parties, varying from 20% to 330% in the years 1996-1999. This overfishing amount from 6% to 72% of the total catches. If the total catches are adjusted for this overfishing, the catches in 1996-1998 would have been below 30,000 tonnes each year.

In other words, we can state that there is no proof for, that the effort limitation system has failed. On the contrary the problem discovered so far is that a number of Contracting Parties have failed to accept and implement the decisions made by NAFO. Furthermore they have fished much more than they have been entitled to.

Having said this we also would like to inform, that even Denmark (in respect of the Faroe Islands and Greenland) has not decided to leave the effort limitation system and adopt a quota system, we are fully prepared to participate in a constructive and creative approach in the discussions about a possible quota allocation system for shrimps in the NAFO Regulatory Area.

Annex 5. Opening Statement by the Representative of the European Union

Thank you Mr. Chairman,

I would first of all like to thank the Government of the United States for hosting this meeting in Washington, D.C., which is extremely pleasant to visit at this time of year with cherry blossoms and nice Spring weather.

Concerning the issues ahead, I would very much like to echo the opening remarks of other Contracting Parties that this is indeed an important exercise. We must most of all look at the system established for 1996 and try to evaluate advantages and disadvantages of both the current system as well as a possible total allowable catch (TAC) and quota system. We must also bear in mind that this is a new fishery since 1995.

I have also some sympathy for what has already been said by Norway. Contrary to the Icelandic suggestion, we believe that both the issues of a TAC and its allocation should be addressed at the same time.

Finally, I would like to stress that we are not meeting in a working group but, as expressed at last year's annual meeting, rather in an exploratory dialogue. Nevertheless, I am looking forward to today's discussions and I hope they will be constructive.

Thank you.

Annex 6. Opening Statement by the Representative of Japan

Thank you Mr. Chairman,

Our delegation also extends our special thanks to the Government of the United States for hosting the meeting.

The basic Japanese position on this fishery is to seek a sustainable use of resources through proper management mechanisms. We respect the NAFO regulations on shrimp in Division 3M.

Japan has allocation of shrimp in Divisions 3M and 3L, but has voluntarily refrained from exercising its rights with regard to these fisheries. It did not operate shrimp fisheries in these areas until last year. This is because Japan was concerned about the possibility of adverse effects of these shrimp fisheries on other fish stocks through by-catch.

However, from the year 2000, Japan is planning to exercise its shrimp fishing rights in 3M and 3L. We think that the by-catch concern regarding demersal fish would be alleviated by using sorting grates.

We hope the outcome of this meeting is successful to the proper management of these shrimp stocks and our delegation is willing to contribute to the discussion.

Thank you.

Annex 7. Opening Statement by the Representative of Estonia

It is always difficult to make rapid changes. The Estonian position is that the possibilities of the effort regulation system are not exhausted, and we suggest to continue the effort regulation of the 3M shrimp fishery using fishing days. To ensure stability and reduce the risk of overfishing, allocation of fishing days to Contracting Parties should take into account the actual number of fishing days used during the previous year.

Estonia is not against introducing the TAC system in the future. However, to achieve this, a transition period is needed before TAC regulation is applied. During the transition period, the state of the stock and the catches should be monitored and the TAC allocation system worked out.

Thank you.

Annex 8. Agenda

1. Opening by Chairman (H. Koster-EU)
2. Adoption of Agenda
3. Appointment of Rapporteur
4. Management system(s) for shrimps in the Regulatory Area
 - Current management system for 3M shrimp
 - Possible TAC-based quota allocation systems for 3M shrimp
 - Possible quota allocation systems for 3L shrimp
5. Report to the Fisheries Commission
6. Other matters
7. Adjournment of the Meeting

Annex 9. Working Paper by Iceland
(W.P. (Shrimp) 00/1)

In 1995, NAFO Contracting Parties agreed to initial management measures for 3M shrimp. Despite the management measures, catches have increased substantially, to an unsustainable level. In the year the measures were agreed upon, 1995, the catches were 28,235 mt but were over 42,000 mt in 1999 according to provisional statistics. This number will almost certainly become even higher when more accurate information becomes available. It is clear that these catches are not sustainable as they are significantly above the scientific recommendation of 30,000 mt. In addition, catches are likely to increase even further this year. In the light of the fact that less than 58% of the allocated fishing days were used in 1999 it is clear that this management system allows for a total catch of over 73,000 mt, based on all fishing days being used with catch per fishing day staying at the 1999 level.

In order to conserve the stock and ensure that the fishery is sustainable in the future it is necessary to change the current management as it is clearly not working as intended. Limiting the number of days used in the fishery has not been enough to keep catches at a sustainable level. The management must limit the actual catches of 3M shrimp. It is therefore necessary to set a TAC which will then be allocated to NAFO Contracting Parties. This would result in the management of 3M shrimp being in line with other NAFO management measures, including the 3L shrimp management measures agreed upon at NAFO's annual meeting last year. It would also bring the management in line with what is the norm in international fisheries management.

As in other cases where a TAC has been decided upon, the main criterion which should be looked at in deciding the national allocations is the relative catches of individual Contracting Parties. This is the case since the rights of coastal states do not apply to 3M shrimp.

Other criteria, such as dependence, should also be considered in deciding the allocation.

Iceland proposes that the NAFO Contracting Parties agree at this meeting on two separate issues regarding the management of 3M shrimp:

1. In order to ensure the conservation of the stock and the sustainability of the fishery it is necessary to set a TAC and national allocations thereof.
2. In deciding the national allocations, the main criterion to be looked at should be the relative catches of individual Parties.

It is further proposed that new management measures for 3M shrimp, based on a TAC and national allocations thereof, be agreed on at NAFO's annual meeting in September 2000.

Statistics of Shrimp Fishery in the NAFO Regulatory Area
(1993-1999)

Contracting Party	1993		1994		1995		1996		1997		1998		1999		
	Used	Catch	Used	Catch	Used	Catch	Allocated	Used	Catch	Allocated	Used	Catch	Allocated	Used	Catch
Canada	507	3191	333	1042	319	968	445	311	908	443	156	784	443	82	435
Cuba							100			100			100		
Den.-Faroes		7076		4998			1785		8685	1606	1241	7387	1607	1271	7741
Den.-Gri.		3788		2275		2400	572		1107	515	104	865	515	108	865
Estonia				1051		2380	1852	993	1973	1217	692	3239	1217	916	5694
EU	139	754	97	432	44	487	408		198	457	63	593	457	105	1553
France (SF)							N/A			100	22		N/A	22	
Iceland	279	2195	638	2355	1842	7481	N/A	5256	20680	N/A	1362	7197	N/A	968	6572
Japan							N/A			N/A			N/A		
Korea							N/A			N/A			N/A		
Latvia			190	324	545	679	421	504	1253	400	369	997	400	313	1191
Lithuania			453	863	638	980	638	918	1585	579	611	1785	579	866	3107
Norway	1354	7075	2130	8625	2113	9534	2206	1482	5805	1985	334	1831	1985	214	1339
Poland							N/A			N/A	100		N/A	40	148
Russia	76	54	41	350	1533	3327	N/A	2458	4444	2600	807	1090	2600	100	707
USA							N/A			N/A			100		1126

Notes:

1. Shrimp effort limitation scheme was introduced from 1996.
2. Days used for 1993-96 taken from STATLANT 21B.
3. Days used for 1997-99 taken from hauls.
4. Catches for 1993-1998 taken from STATLANT 21A & B.
5. Catches for 1999 (also 1998 Faroes) taken from provisional monthly catches.

Annex 10. 3M Shrimp Catch Statistics

Table 1. Shrimp 3M allocated/used days and catches 1993-1999 (data as discussed at the Washington meeting in March 2000)

Contracting Party	1993		1994		1995		1996		1997		1998		1999					
	Used	Catch	Used	Catch	Used	Catch	Alloc.	Used	Catch	Alloc.	Used	Catch	Alloc.	Used	Catch			
Canada	507	3191	333	1042	319	968	445	311	908	443	156	784	443	456	79	385		
Cuba	-	-	-	-	-	-	100	-	-	100	-	-	100	100	33	119		
Den.-Faroes	-	7076	-	4998	-	5993	1785	-	8885	1606	1241	7387	1607	1608	1111	9119		
Den.-Greenland	-	3788	-	2275	-	2400	572	-	1107	515	-	104	515	515	56	576		
Estonia	-	-	-	1051	-	2380	1852	983	1973	1217	692	3239	1217	1667	1645	10846		
European Union.	139	754	97	432	44	487	508	-	198	457	63	593	457	457	268	1265		
France (SP)	-	-	-	-	-	-	N/A	-	-	100	22	-	N/A	100	-	-		
Iceland	279	2195	638	2355	1842	7481	N/A	5256	20680	N/A	1362	7197	N/A	N/A	1312	7643		
Japan	-	-	-	-	-	-	N/A	-	-	N/A	-	-	N/A	100	-	-		
Korea	-	-	-	-	-	-	N/A	-	-	N/A	-	-	N/A	100	-	-		
Latvia	-	-	190	324	545	679	421	504	1253	400	369	997	400	416	598	2765		
Lithuania	-	-	453	863	638	980	638	918	1585	579	611	1785	579	709	3370	3370		
Norway	1354	7075	2130	8625	2113	9534	2206	1482	5805	1985	334	1831	1985	1985	428	2976		
Poland	-	-	-	-	-	-	N/A	-	-	N/A	100	-	400	100	104	707		
Russia	76	54	41	350	1533	3327	N/A	2458	4444	2600	807	1090	2600	2100	417	1126		
USA	-	-	-	-	-	-	N/A	-	-	N/A	-	-	100	100	-	-		
Total	2355	24133	3882	22315	7034	34229	8527	11922	46638	10002	5757	25007	10403	4883	28645	10381	6760	40897

Table 2. Revised Shrimp 3M catches and allocated/used days 1993-1999 (as received at the Secretariat up to June 27 2000)
(Revised data received from Estonia, Faroes, Greenland, Iceland, Latvia, Lithuania, Norway and Poland); Data for Russia 1993-95 are noted as provisional.

Contracting Party	1993		1994		1995		1996		1997		1998		1999 (P)					
	Used	Catch	Used	Catch	Used	Catch	Alloc.	Used	Catch	Alloc.	Used	Catch	Alloc.	Used	Catch			
Canada	507	3191	333	1042	319	968	492	311	908	443	156	784	443	456	79	385		
Cuba	-	-	-	-	-	-	100	-	-	100	-	-	100	100	33	119		
Den.-Faroes	1324	7333	1785	6791	1093	5993	1785	1831	8688	1606	1250	7410	1606	1806	1051	9199		
Den.-Greenland	572	3780	482	2272	265	2316	572	202	1098	515	31	105	515	515	65	537		
Estonia	149	268	609	1051	2153	2379	1852	990	1898	1217	1254	3240	1217	1454	1651	10834		
European Union	139	754	97	432	44	487	508	-	198	457	63	593	457	457	268	1265		
France (SP)	-	-	-	-	-	-	100	-	-	100	22	-	100	100	-	-		
Iceland	279	2195	638	2355	1842	7481	N/A	5256	20682	N/A	1327	6473	N/A	N/A	1222	9286		
Japan	-	-	-	-	-	-	100	-	-	100	-	-	100	100	-	-		
Korea	-	-	-	-	-	-	100	-	-	100	-	-	100	100	-	-		
Latvia	-	-	190	324	649	679	544	504	1253	490	439	997	490	490	438	3080		
Lithuania	-	-	453	863	638	980	638	918	1585	579	611	1785	579	579	620	3371		
Norway	1403	7074	2206	8625	2162	9391	2206	1549	5848	1985	329	1886	1985	1985	394	2975		
Poland	-	-	-	-	-	-	100	-	-	100	100	817	100	100	104	859		
Russia	76	54	41	350	1533	3327	N/A	2458	4444	2600	807	1090	2600	2100	417	1126		
USA	-	-	-	-	-	-	100	-	-	100	-	-	100	100	-	-		
Total	4449	24649	6834	24105	10638	34001	9197	14019	46402	10492	6389	25180	10492	5545	30116	10455	6342	43036

**Annex 11. Possible Allocation Key for a TAC-based Management
System for 3M Shrimp - Paper presented by Norway
(W.P. (Shrimp) 00/4)**

The allocation key for fishing days for the current effort-regulation system of 3M shrimp is based on the reference period 1993, 1994, and first 8 months of 1995. By applying the same reference period when establishing an allocation key for a TAC-based management system, the shares, and the quotas, for the various Parties will be as illustrated in the table below. In the table a TAC of 30,000 tonnes has been used.

Contracting Parties with no track record in the reference period could be entitled to fish under an others-quota of approx. 3% of the TAC (1,000 t).

Shrimps in 3M

Contracting Parties (FC Members)	1993 Catch	1994 Catch	1995 first 8 months Catch 1)	Sum of catch	Share of Catch quota	Quota According to 30000 t 29,000
Canada	3,191	1,042	645	4,878	7.0%	2,042
Cuba	0	0	0	0	0.0%	0
Denmark:						
Faroes	7,076	4,998	3,995	16,069	23.2%	6,727
Greenland	3,788	2,275	1,600	7,663	11.1%	3,208
Estonia	0	1,051	1,587	2,638	3.8%	1,104
EU	754	432	325	1,511	2.2%	632
France (SPM)	0	0	0	0	0.0%	0
Iceland	2,195	2,355	4,987	9,537	13.8%	3,993
Japan	0	0	0	0	0.0%	0
Korea	0	0	0	0	0.0%	0
Latvia	0	324	453	777	1.1%	325
Lithuania	0	863	653	1,516	2.2%	635
Norway	7,075	8,625	6,356	22,056	31.8%	9,234
Poland	0	0	0	0	0.0%	0
Russia	54	350	2,218	2,622	3.8%	1,098
Ukraine	0	0	0	0	0.0%	0
USA	0	0	0	0	0.0%	0
TOTAL	24,133	22,315	22,819	69,267	100.0%	29,000

1) The catch figure for each Contracting Party for the first 8 months of 1995 is found as 8/12 of the total catch in 1995 respectively.

Annex 12. Working Paper by the Chairman
(W.P. (Shrimp) 00/8, Revision 3)

DRAFT (all data to be scrutinized)

Identification of some options for the purpose of guiding the process initiated by the Fisheries Commission at its 21st Annual Meeting in September 1999

Noting the advice provided by the Scientific Council on 3M shrimp (catches should not exceed 30,000 tonnes in 2000 and 2001);

Noting that the catches of 3M shrimp exceeded in 1996 and 1999 30,000 tonnes and are likely to exceed this level in 2000;

A reinforcement of the current management measures needs, therefore, to be considered by the Fisheries Commission.

The options for doing so are the setting of a catch limit e.g. in the form of a total allowable catch (30,000 tons or less) or a maximum number of fishing days (less than 4762 days which corresponds to a reduction of the current number of days allocated to Contracting Parties by approximately 60%)¹.

In the event that a catch limit is set in the form of a total allowable catch, the following options are identified as a basis for allocation of quota to Contracting Parties.

Acknowledging that options presented in this Working Paper do not reflect considerations pursuant to Article XI (4) of the NAFO Convention nor possible other relevant criteria. The options are identified in no order of priority.

-
- ¹ - The current total number of fishing days allocated is 11,704 days
- The total number of days used is 6670 days
- The total catch in 1999 is 42,554 tonnes
- The average catch per day can therefore be calculated at 6.3 tonnes per day
- The maximum number of fishing days compatible with the scientific advice can be calculated by dividing 30,000 tonnes by 6.3 tonnes.

OPTION A

This option takes as point of departure the allocation of fishing days under the current management scheme which includes the following elements:

- a). Limitation of the number of vessels fishing for shrimp to the number that have participated in the 3M shrimp fishery from 1 January 1993 to 31 August 1995.
- b). Limitation to the maximum number of fishing days observed for their vessels in one of the years 1993, 1994 or 1995 (until 31 August 1995).
- c). For Contracting Parties with a track record in the period from 1 January 1993 to 31 August 1995 a level of 400 days is permitted.
- d). For Contracting Parties with no track record in this period a level of 100 days with one vessel is permitted.

A basis for quota allocation can be derived as follows:

- 1) allocation will be based on the highest catch in one of the years 1993, 1994 or 1995 (until August 1995)
- 2) or alternatively
 - For Contracting Parties with a track record in the period 1 January 1993 to 31 August 1995 the catch figure will be at least 1600 (400 x average catch per day (mt?))
 - For Contracting Parties with no track record in the period 1 January 1993 to 31 August 1995, the basis will be at least 400 (100 x average catch per day (mt?))

Basis for allocation (1993, 1994, 1995/1 Jan-31 Aug)

Contracting Party	Highest Catch	Minimum Level	Basis	%
Canada	3191	-	3191	7.38
Cuba	-	400	400	0.93
Denmark:				
Faroes	8545	-	8545	19.76
Greenland	3780	-	3780	8.74
Estonia	2379	-	2379	5.50
European Union	754	1600	1600	3.70
France (SPM)	-	400	400	0.93
Iceland	5422 ¹⁾	-	5422	12.54
Japan	-	400	400	0.93
Korea	-	400	400	0.93
Latvia	679	1600	1600	3.70
Lithuania	980	1600	1600	3.70
Norway	9391	-	9391	21.72
Poland	-	400	400	0.93
Russia	3327	-	3327	7.70
USA	-	400	400	0.93
TOTAL			43235	100%

- 1) corrected on the basis of average catch rate per day for period 1 January – 31 August 1995

OPTION B

This option takes as point of departure the period of application of the current management scheme for 3M shrimp.

As allocation basis, it will be taken the catches in each of the years from 1996-1999 subject to certain corrections of the figures.

Two sub-options are identified:

B₁ - Catches for the period 1996-1999 with the adjusting of the catch figures of the Contracting Parties which are inconsistent with the fishing pattern (e.g. the catches of Contracting Parties which exceeded their allocated fishing days those catches were adjusted to the allocated fishing effort).

B₂ - Catches for the period 1997-1998 with elimination of the years 1996 and 1999 with "extreme" catches.

It should be further clarified that in this table Contracting Parties with no "track record" allocated with a "constant-nominal" 400 mt through the whole period, which most probably should not change principal proportional values of the whole mathematical estimates and basic "shares" but in full fairness, reflect a presence and interest of all Contracting Parties as stakeholders of this resource.

Contracting Party	1996	1997	1998	1999	96-99 Catch	Sub-Option B 1		97-98 Catch	Sub-Option B 2	
						%-1	%-2		%-1	%-2
Canada	908	784	435	385	2512	1.9%	1.6%	1219	2.1%	2.1%
Cuba	400	400	400	119	1319	1.0%	0.9%	800	1.4%	1.3%
Denmark:						0.0%	0.0%		0.0%	0.0%
Faroes	8688	7410	9368	9199	34665	25.7%	22.7%	16778	28.4%	28.3%
Greenland	1098	105	862	537	2602	1.9%	1.7%	967	1.6%	1.6%
Estonia	1898	3240	5533	10834	21505	16.0%	14.1%	8773	14.8%	14.8%
European Union	198	593	1553	1265	3609	2.7%	2.4%	2146	3.6%	3.6%
France (SPM)	400	400	400	400	1600	1.2%	1.0%	800	1.4%	1.3%
Iceland-1	5205	6293	6580	6938	25016	18.6%		12873	21.8%	
Iceland-2	20682	6473	6580	9286	43021		28.2%	13053		22.0%
Japan	400	400	400	400	1600	1.2%	1.0%	800	1.4%	1.3%
Korea	400	400	400	400	1600	1.2%	1.0%	800	1.4%	1.3%
Latvia	1253	997	1191	3080	6521	4.8%	4.3%	2188	3.7%	3.7%
Lithuania	1585	1785	3107	3371	9848	7.3%	6.4%	4892	8.3%	8.3%
Norway	5648	1886	1339	2975	11848	8.8%	7.8%	3225	5.5%	5.4%
Poland	400	817	148	859	2224	1.7%	1.5%	965	1.6%	1.6%
Russia	4444	1090	-	1126	6660	4.9%	4.4%	1090	1.8%	1.8%
USA	400	400	400	400	1600	1.2%	1.0%	800	1.4%	1.3%
Total-1	33325	27000	32116	42288	134729	100.0%		59116	100.0%	
Total-2	48802	27180	32116	44636	152734		100.0%	59296		100.0%

NOTES:

- Iceland 1- data adjusted for reference number of fishing days i.e. 1323 days calculated on the basis of the average catch per day
Iceland 2 - actual catch data as reported by Iceland
- %-1 - this is a ratio from Total - 1
%-2 - this is a ratio from Total - 2
- All catch data should be verified by Contracting Parties and reported back to the NAFO Secretariat.
- The data notified by Poland for 1997 are also included in the Icelandic figures.

A further adjustment may be considered for the maximum number of vessels fishing for shrimp which shall not exceed the number that participated in the reference period (total number of named vessels during the reference period).

OPTION C

This option takes as point of departure catch history.

As allocation basis will be taken the catches in each of the years from 1993-1999.

Two sub-options are presented:

C₁ - the sum of the catches for the whole observation period, 1993-1999. In future probable scenario, if decided, the relative share of each Contracting Party would be applied on 90% of the TAC, and the remaining 10% would be set aside as OTHERS quota.

C₂ - the sum of the catches for a short reference period (1997,1999). As in C₁, the relative share of each Contracting Party would be applied on 90% of the TAC and, remaining 10% would be set aside as OTHERS quota.

Contracting Party	1993	1994	1995	1996	1997	1998	1999	93-99 Catch	Sub-Option C 1		97-99 Catch	Sub-Option C 2	
									%-1	%-2		%-1	%-2
Canada	3191	1042	968	908	784	435	385	7713	3.7%	3.4%	1604	1.7%	1.6%
Cuba	-	-	-	-	-	-	119	119	0.1%	0.1%	119	0.1%	0.1%
Denmark:													
Faroes	7333	6791	5993	8688	7410	9368	9199	54782	26.2%	24.1%	25977	27.1%	26.4%
Greenland	3780	2272	2316	1098	105	862	537	10970	5.2%	4.8%	1504	1.6%	1.5%
Estonia	268	1051	2379	1898	3240	5533	10834	25203	12.0%	11.1%	19607	20.5%	19.9%
European Union	754	432	487	198	593	1553	1265	5282	2.5%	2.3%	3411	3.6%	3.5%
France (SPM)	-	-	-	-	-	-	-	0	0.0%	0.0%	0	0.0%	0.0%
Iceland-1	2195	2355	7481	5205	6293	6580	6938	37047	17.7%		19811	20.7%	
Iceland-2	2195	2355	7481	20682	6473	6580	9286	55052		24.2%	22339		22.7%
Japan	-	-	-	-	-	-	-	0	0.0%	0.0%	0	0.0%	0.0%
Korea	-	-	-	-	-	-	-	0	0.0%	0.0%	0	0.0%	0.0%
Latvia	-	324	679	1253	997	1191	3080	7524	3.6%	3.3%	5268	5.5%	5.4%
Lithuania	-	863	980	1585	1785	3107	3371	11691	5.6%	5.1%	8263	8.6%	8.4%
Norway	7074	8625	9391	5648	1886	1339	2975	36938	17.6%	16.2%	6200	6.5%	6.3%
Poland	-	-	-	-	817	148	859	1824	0.9%	0.8%	1824	1.9%	1.9%
Russia	54	350	3327	4444	1090	-	1126	10391	5.0%	4.6%	2216	2.3%	2.3%
USA	-	-	-	-	-	-	-	0	0.0%	0.0%	0	0.0%	0.0%
Total-1	24649	24105	34001	30925	25000	30116	40688	209484	100.0%		95804	100.0%	
Total-2	24649	24105	34001	46402	25180	30116	43036	227489		100.0%	98332		100.0%

NOTES:

- Iceland 1 - data adjusted for reference number of fishing days i.e. 1323 days calculated on the basis of the average catch per day
Iceland 2 - actual catch data as reported by Iceland
- %-1 - this is a ratio from Total - 1
%-2 - this is a ratio from Total - 2
- All catch data should be verified by Contracting Parties and reported back to the NAFO Secretariat.
- The data notified by Poland for 1997 are also included in the Icelandic figures.

OPTION D

This option takes as point of departure the conversion of allocated fishing days in an allocation basis.

Contracting Party	Allocated fishing days	%
Canada	456	3.9
Cuba	100	0.9
Denmark:		
Faroes	1606	13.8
Greenland	515	4.4
Estonia	1667	14.3
European Union	457	3.9
France (SPM)	100	0.9
Iceland	1191 ¹⁾	10.2
Japan	100	0.9
Korea	100	0.9
Latvia	490	4.2
Lithuania	579	5.0
Norway	1985	17.0
Poland	100	0.9
Russia	2100	17.9
USA	100	0.9
TOTAL	11646	100% ...

¹⁾ corresponding to allocated fishing days reference level minus 10%

% Annex raw data.

**Annex 13. Proposal by Denmark (in respect
of the Faroe Island and Greenland)**
(W.P. (Shrimp) 00/11)

Allocation of 3L Shrimps

Taking into account the criteria for quota allocation discussed at the meeting of the Quota Allocation Working Group in March 2000, which most Parties can agree upon – that is fishing track records and contribution to scientific data collection, Denmark, in respect of Faroe Islands and Greenland propose, that:

1. 2/3 of the quota in NRA shall be allocated according to catch statistics and contribution to scientific data collection,
2. and taking into account the large number of Parties entitled to participate in utilization of the “others” quota, that 1/3 of the quota in NRA is allocated as “others” quota.

**Annex 14. Statement by the Delegate of Denmark (in respect
of the Faroe Islands and Greenland)**

On several occasions Denmark (in respect of Faroe Islands & Greenland-DFG) has flagged its view on the 3L shrimp fishery. Based on research fishery and exploratory fishery we have argued for a reopening for a commercial fishery for shrimp in 3L. To the very last end the Fisheries Commission at the last annual meeting adopted management measures which allow Contracting Parties to undertake commercial fishery in 2000 and 2001. The solution was that each Contracting Party is allocated a quota of 67 tonnes in the Regulatory Area.

However, DFG made it clear at the Fisheries Commission meeting, that this is not a satisfactory solution for DFG. Faroe Islands and Canada have track record for shrimp in 3L. And it is at least our definite view that this track record should be taken into account in the allocation of the available quota.

Therefore we only accepted the equal sharing as a preliminary solution. We have been looking forward for this process to come up with a recommendation to Fisheries Commission which takes into account the interests of those Contracting Parties with a track record as well other relevant criteria such as data collection and scientific surveys.

In this regard I would like to point to the fact that the Faroe Islands have contributed to data collection and scientific research with regard to this stock. In 1994 and from 1996-1999 the Faroe Islands conducted a row of 9 surveys in Div. 3L in order to provide NAFO with data on the shrimp in this area and the potential opportunities for commercial fishery.

The reopening of the 3L shrimp fishery was mainly based on information from this work.

Based on the track record and the contribution to data collection and scientific surveys DFG during the first session of this meeting proposed that two-thirds of the quota for the Regulatory Area be allocated to Contracting Parties with a fishing track record in the area and one-third be set aside as an others quota.

Unfortunately, Contracting Parties do not show any substantial support for this proposal.

Our delegation has listened carefully to the opinions expressed by other Parties regarding the allocation of the 3L shrimp quota. We have noted a general view by a number of Parties, that track record for one year is not considered as enough for allocation purposes. Some CP (USA) indicated 3 years to be more appropriate and referred to Working Paper 00/2 for the W.G. on Allocation Fishing Rights. This is the same time period as was used as basis for the allocation of the 3M shrimp fishery.

However, it has to be borne in mind, that not only the Faroe Islands had the opportunity to fish in 3L in 1993. Vessels from other Contracting Parties could as well have participated in this fishery, but they did not use the opportunity. The result is that DFG has to suffer from the lack of interest by vessels from other Contracting Parties to participate in the 3L shrimp fishery prior to the closing of it effective from 1994.

Taking the fishing track record as indication of "real interests" the DFG was the only Contracting Party showing a "real interest" in this fishery.

DFG has presented its proposal for a future allocation of the 3L shrimp for the Regulatory Area. The proposal is based on criteria we have been discussing during the meeting of the Quota

Allocation W.G. and to which most Contracting Parties can agree upon - fishing track record and contribution to data collection and scientific research.

Although DFG seems to stand alone in this topic I can assure all Contracting Parties that DFG will not accept that the track record from 1993 and the contribution to data collection and scientific research be set aside in the allocation of the quota for 3L shrimp.

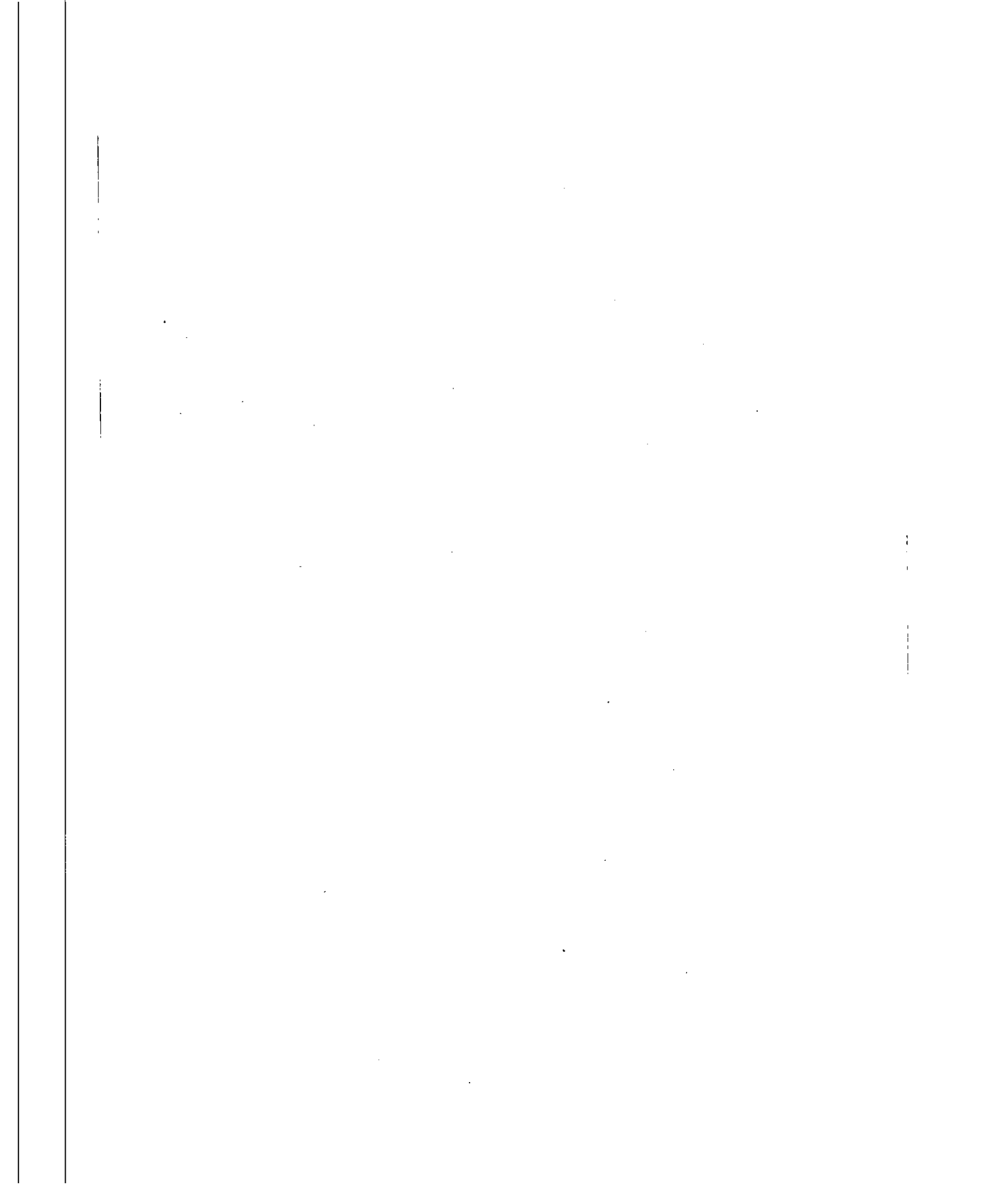
At relevant up-coming meetings of NAFO, DFG will revert to this issue.

SECTION III

(pages 81 to 102)

**Report of the Working Group on Allocation of Fishing
Rights to Contracting Parties of NAFO
28-30 March 2000
Washington, D.C., USA**

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**Report of the Working Group on Allocation of Fishing Rights
to Contracting Parties of NAFO**
(GC Doc. 00/2)

**28-30 March 2000
Washington, D.C., USA**

The Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO met in accordance with the decision taken by the General Council at the 21st Annual Meeting, September 1999 (GC Doc. 99/9, Part I, item 4.12).

1. Opening of the Meeting

The meeting was called to order by the Chairman, Mr. H. Koster (EU), who welcomed delegates and made some comments regarding organizational aspects of the meeting. A list of participants is attached (Annex 1).

The delegations of the EU, USA, Canada and Japan made brief opening statements.

The Representative of the EU stated that this meeting was part of an important on-going process and that all relevant elements must be considered in this process. He noted that these elements included questions dealing with equity and balance (among others) and that the real issues associated with quotas and utilization must be addressed. The EU Representative expressed concern that the stability of the organizations should not be negatively effected and urged the Working Group to be realistic in its examination of the available alternatives. The EU Statement was provided to the Rapporteur (Annex 2).

The Representative of the United States pointed out that NAFO had already seen some instances in which there was a clear need for procedures relating to allocation and noted that the work of Denmark (in respect of the Faroe Islands and Greenland) and others should provide a strong basis for continued progress. The US Representative supported the EU statement that equity and stability are key points to bear in mind during the up-coming discussions. Finally, he expressed the US hope that this meeting would result in concrete recommendations to the Fisheries Commission regarding the NAFO allocation process.

The Representative of Canada stated that the issues faced by NAFO with regard to allocation are challenging. He noted that the Working Group thus far has explored some broad international legal issues and stated that the NAFO Convention is the legal basis for allocations within the Organization. After briefly reviewing the progress of the Working Group thus far, he called on Parties to be sensitive to issues relating to stability and conservation in its efforts to achieve consensus on this complex topic. The Canadian Statement was provided to the Rapporteur (Annex 3).

The Representative of Japan noted that his government values the work accomplished thus far by the Working Group. He expressed his hope that the Working Group might contribute to sustainable fisheries and stability within NAFO. He also clarified that the Japanese position on this issue (as outlined in Working Group Working Paper 99/4^{*}) remains unchanged. He called for a positive review of unutilized and underutilized allocations within NAFO.

^{*} Note: During this meeting, the Working Group referred a number of working papers from its proceedings, 1999 (April, Halifax).

2. Adoption of Agenda

The agenda was adopted with revisions (Annex 4). It was agreed that the Representatives of Estonia, Latvia, Lithuania, and Russia would meet privately with the Chair to discuss the issue of the bloc quota and that the results of this meeting would be reported to the Working Group at the appropriate time during this meeting.

3. Appointment of Rapporteur

Mr. P.E. Moran (United States) was elected as Rapporteur.

4. Development of a broad strategy of allocation of future fishing opportunities for stocks not currently allocated

4.1 The Chair noted that several working papers regarding allocation had been submitted for the consideration of the Working Group in 1999 and he suggested that these papers could provide the basis for discussions over the next few days. In advance of the meeting, two working papers were distributed. The first paper (Allocation Fishing Rights W.G. W.P. 00/1) provided further interpretive notes by the Chair on the progress of the Working Group. This paper was based on the Chair's notes from the 13-15 April 1999 Working Group meeting (W.P. 99/8 Revised) and sought to further clarify the issues before the Working Group. The second paper distributed in advance of the meeting (Allocation Fishing Rights W.G. W.P. 00/2) was a redistribution of the 1999 working paper by Denmark (in respect of the Faroe Islands and Greenland). Both of these working papers are attached as Annexes 5 and 6, respectively.

The Chair then requested that the Working Group examine the qualifying and allocation criteria outlined in W.P. 99/8 Revised and comment on the current "shopping lists" as found in this paper. The goal of this examination was to further clarify and update W.G. W.P. 00/1.

4.2 Initial discussion on this topic focused on the sources and nature of both types of criteria. While it was generally agreed that Article XI of the NAFO Convention provided the primary basis for both qualification and allocation criteria within the Organization, some Parties also expressed support for the consideration of relevant provisions of the 1995 UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks to guide NAFO's allocation process. A view was expressed that the UN Agreement was not addressing the issue of allocation criteria in the strict sense. There was general agreement among those present that any lists of qualifying and allocation criteria should not be prioritized in any way or considered exhaustive. It was also agreed that qualification should not be considered the right for an allocation.

Regarding qualifying criteria, it was generally agreed that Contracting Parties wishing to be eligible for allocations should be in "good standing" and "interested" (as found W.P. 99/8 Revised), although there was some question as to how such standing should be established. It was also agreed that references in the Working Paper to "Other Contracting Parties" and "Future new members" were not applicable and that they should be dropped from the list. After a brief discussion regarding how the status of "good standing" might be established, it was agreed that text should be inserted to indicate that Contracting Parties who are members of the Fisheries Commission and may exercise the right to vote (based on NAFO rules) would be considered eligible for allocations.

4.3 The Working Group then examined qualifying criteria relating to "interest". Discussion touched on each of the qualifying criteria listed in W.P. 99/8 Revised under "Interested

Contracting Parties" and there was general support for the inclusion of these items in an updated list. Some debate followed regarding the issue of Contracting Parties whose economies are overwhelmingly dependent on fisheries. A number of those present spoke in favor of the inclusion of a criterion relating to overwhelming economic dependence, although there was some concern how such dependence might be substantiated. The view was expressed that, even if it were possible to quantify dependency, it remained doubtful whether this was a suitable criterion in a situation where all Contracting Parties were in principle entitled to be treated on an equal footing. In addition, one Party suggested that special geographic considerations should be taken into account. It was also clarified that Contracting Parties who are members of the Fisheries Commission and may exercise the right to vote must only fulfill one of the various criteria relating to "interest" in order to be considered eligible for allocations.

- 4.4 Regarding allocation criteria, the Chair noted that the items on this list would be used to determine the amount of allocations to eligible Contracting Parties. It was also agreed that there should be no attempt to weight these criteria at this point. There was general support for the view that allocation criteria should reflect the principle of equity. Although there was general acceptance of the allocation criteria listed in W.P. 98/8 Revised, discussion touched on each of the items in the paper. One Party suggested that all of the qualifying criteria should also be included in the list of allocation criteria, although it was also recognized that too many allocation criteria could complicate the allocation process.
- 4.5 There was general support for the inclusion of an allocation criterion relating to reference fishing patterns during a representative reference period. It was pointed out that such a criterion is, comparatively, easier to quantify. However, concern was expressed that Parties should not be awarded for reference patterns established in a way that undermined NAFO conservation and management. It was noted that, although the allocation criteria did not currently include a compliance element, reference patterns should be chosen that were representative of generally responsible fishing practices. It was agreed that some flexibility would be necessary with regard to this element.

Some concern was also expressed regarding the W.P. 99/8 Revised allocation criterion dealing with Coastal State considerations. In particular, some Parties questioned the inclusion of a consideration relating to "zonal attachment" in criteria designed to provide allocations in the Regulatory Area. After some debate on the issue, it was agreed that the principle of zonal attachment would be addressed by the Fisheries Commission (based on Scientific Council advice) when it determined what proportion of a relevant stock in the NAFO Convention Area would be allocated to the Regulatory Area for eligible and interested Contracting Parties.

- 4.6 Regarding the creation of an "Others" category containing a lump sum allocation, much of the debate on this issue took place during discussion of the next agenda item. This issue was also discussed in the concurrent Meeting on Shrimp Stocks in the Regulatory Area.

A number of other considerations were discussed with regard to allocation criteria. There was strong support for the inclusion of a reference to Article XI(4) of the NAFO Convention, which relates to allocation within the Organization. It was also generally agreed that considerations from the qualifying criteria relating to contributions to research and data collection and overwhelming dependence on fisheries should be included in the allocation criteria as well. One Party suggested that other contributions to NAFO should also be considered. In addition, arguments were made by some Parties that there should be a specific reference to the needs of small coastal communities.

- 4.7 There was also some discussion relating to the possibility of setting aside fishing opportunities for vessels of non-Contracting Parties that have demonstrated a high degree of cooperation with NAFO. It was generally agreed that, given the basic qualifying criterion of Contracting Party status, such opportunities could not be considered to be a formal part of the allocation procedure. Instead, it was suggested that such opportunities could be considered by the Fisheries Commission on an ad hoc basis. Parties stressed the need for some type of written agreement (e.g., a protocol) demonstrating a commitment between the non-Contracting Party and NAFO if such an allocation were to be considered. It was pointed out that such a system is currently under consideration by the International Commission for the Conservation of Atlantic Tunas. Although reaction to this idea was somewhat mixed, it was agreed that it should be considered and included in the revised Chair's paper.

5. Exploration of possible margins to accommodate requests for fishing opportunities in connection with stocks under TAC

- 5.1 Some Parties stated that the current status of most stocks within NAFO made consideration of reallocations particularly difficult. Others generally supported the idea that repeated underutilization of allocations should result in reallocation, although concern was expressed that there might be valid reasons that such underutilization might take place. For example, it was noted that Parties might opt not to harvest an allocation on the basis of conservation, economic, or domestic concerns and that reallocation under such circumstances would be unfair. It was suggested that a time period might be considered in order to firmly establish a pattern of underutilization and that some minimum percentage could be identified below which an allocation might be considered underutilized. However, it was also pointed out that it might not be desirable to obligate Contracting Parties to fully utilize allocated quota and that such a requirement could lead to false catch reporting.

It was also suggested that if all NAFO allocations were reviewed on a regular basis, reallocations would not be necessary. One Party noted that when fisheries are active, the transfer procedure takes care of reallocation as appropriate. The Chair noted that constant reviews of allocations could threaten stability within the Organizations, but agreed that a reasonable review process in conjunction with the use of transfers (in the short term) could be useful.

- 5.2 Regarding possible allocations of or to the "Others" quotas, there was general agreement that an "Others" quota is desirable, but concern was expressed regarding how changes to the amount of such allocations would effect country-specific allocations. Parties again noted that the current status of NAFO stocks made such discussions difficult. One Party stated that fishing from "Others" quotas was difficult due to practical issues relating to planning and preparation. There was some support for the idea that NAFO might regulate allocations within the "Others" category to ensure a minimum level of allocation available to all eligible Parties.

With regard to the acceptable level of "Others" quotas, some Parties called for a standardized amount for all fisheries. Other representatives expressed the opinion that flexibility was necessary and that the proportions of this quota should be dealt with on a fishery-by-fishery basis. There was some support for the establishment of a range of TAC percentages (e.g., 2%-15%) representing benchmarks within which "Others" quotas might be set on a fishery-by-fishery basis. It was pointed out that this quota should be high enough to allow a Contracting Party with no allocation to participate. Some representatives cautioned against the establishment of "mini quotas" which would not allow for a viable fishery. It was also suggested that this quota should allow such a Party to build a fishing history and, possibly, establish an eventual permanent quota allocation.

Discussion also touched on the issue of who should have access to such an allocation. Some Parties suggested that it might be beneficial to allow access by holders of country-specific quotas to fish in the "Others" category at some point in the fishing season. It was noted that a system could be put into place in which Parties signified an intent to fish within an "Others" quota. If no interest was expressed by a certain deadline, Contracting Parties with country-specific quotas would be allowed to fish this quota.

- 5.3 The Chair summarized the issues relating to reallocation and the use of an "Others" quota, noting that there was no consensus that fishing opportunities for those without country-specific allocations should come from already allocated fish. Thus, such a system could currently only be recommended for new fisheries on a case-by-case basis. He stated that as stocks increase biologically the Fisheries Commission must decide if it is possible to look at increases to "Others" quotas. The Chair urged the Working Group to consider the needs of all Contracting Parties with regard to fishing opportunities in NAFO.

6. Allocation of the bloc quota

The Representative of Latvia presented the result of an informal meeting between those NAFO Parties that share the bloc quota (Estonia, Latvia, Lithuania, and Russia). The Chairman of the Working Group, H. Koster, was present at that meeting. It was tentatively agreed that all involved Parties would meet before the 2000 NAFO Annual Meeting with the goal reporting to the Commission presenting a proposal for allocations of the current bloc quotas. The Parties further considered that three issues should be reviewed during the up-coming meeting: 1) all relevant stocks to be discussed for further allocation of the block quota; 2) the appropriate reference period to be used in determining block quota percentage shares; and 3) principles to be used for determining percentage share allocations.

7. Report to the Fisheries Commission

One representative noted the difficult nature of the tasks facing the Working Group and suggested that the Fisheries Commission should consider a timetable with benchmarks for addressing the allocation issues facing the organization. It also was suggested that the issue of allocation of new stocks should be a high priority in such considerations. After a brief discussion, it was agreed that the Working Group should recommend that the Fisheries Commission reflect in view of the work done thus far by the Working Group and suggest when it might be appropriate to meet again.

8. Other matters

The Representative from the EU presented information and expressed grave concern regarding the practice of "flag hopping". He clarified that preliminary information indicated that vessels of one Contracting Party appeared to be seeking permission from their government to arrange for double flagging with another Contracting Party. This permission was then being used in conjunction with chartering or other similar arrangements to allow these vessels to operate (apparently at their convenience) under two flags. He stated that such a practice endangers the NAFO quota system by weakening the link between NAFO quota beneficiaries and harvesting vessels. This raises the question if NAFO is an organization of fishing States or an organization of quota sellers. The EU representative pointed out that vessels that engage in flag hopping could be considered Stateless and, thus, should be subject to the new rules adopted by NAFO regarding Stateless vessels.

There was general agreement that the practice of flag hopping could have a negative effect on the NAFO allocation system and many Parties called for an examination of the current NAFO rules regarding bareboat charters. The Chair noted that Contracting Parties are required under the

NAFO Conservation and Enforcement Measures to notify NAFO of all bareboat charters. It was agreed that this issue should be discussed at greater length during the 2000 NAFO Annual Meeting in Boston, USA, in September.

9. Adjournment

The Chair adjourned the meeting at 11:55 am on 30 March 2000.

Annex 1. List of Participants

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Annex 2. Opening Statement by the Representative of the European Union

The European Community would first like to thank the United States for their hospitality in hosting this important meeting in Washington, D.C. We would also like to commend you, Mr. Chairman, for the skill with which you have guided us through the earlier sessions of this Working Group.

We see this meeting as yet another step in an extremely important process. The topics at issue are as challenging as they are complex. All relevant elements must be carefully examined. It is somehow in the nature of things that the more topics are touched upon, the more questions come up. These questions pertain to substantive issues such as of equity but also to factual elements, e.g. the real reasons for quota under-utilization.

The European Community is prepared to discuss with an open mind possible allocation criteria for stocks not currently allocated and any other topic of principle which might be relevant in the given context. We should, however, recall the elements of balance and stability enshrined in the established allocation practice and we, therefore, share the concerns expressed by others that requests put forth in the course of this process might have implications for the stability of NAFO. We trust that participants will give due regard to these concerns and that a constructive dialogue will help to address all the questions at issue in a realistic manner.

This process may be difficult and may take some time to conclude with solutions which are agreeable to all Contracting Parties. We should not be discouraged by those difficulties as we proceed in a process, the ultimate aim of which is to achieve lasting and sustainable results.

The delegation of the European Community is looking forward to working with you, Mr. Chairman, and with all our partners from the other Contracting Parties to meet the challenges ahead.

Annex 3. Opening Statement by the Representative of Canada

Mr. Chairman, distinguished Representatives, it is a pleasure for Canada to participate in the Working Group on Allocation of Fishing Rights. We would like to again thank the U.S. Government for hosting this meeting and the NAFO Secretariat for providing the usual high level of logistical support.

There is no doubt that the issues before us are challenging. The March 1998 and the April 1999 meetings of the Working Group have highlighted the complexity and sensitivity of these issues. We have explored some of the broad principles of international fisheries law - all delegations have concurred that a variety of established or emerging international law as well as recent international declarations gave guidance on participatory rights within organizations such as NAFO. We have also agreed that the NAFO Convention is the legal framework within which quota allocations must be decided.

During 1999 some of these issues were advanced. Based on the recommendations of the April 1999 meeting of the Working Group, General Council at the 1999 Annual Meeting endorsed the resolution to guide the expectations of future new members with regard to fishing opportunities in the NAFO Regulatory Area. It was important not to raise expectations of potential new members on the fishing opportunities in the NAFO area. Also based on the recommendations of the Working Group, NAFO adopted rules on a pilot basis during the year 2000 for non-flag state vessel charters as well as for notification procedures for "bare-boat" charters. We will need to assess these rules in the near future.

Canada would like to thank the Chairman of the Working Group for his deft handling of the meeting last year and we look forward to his guidance at this meeting. Last year he developed an inclusive "shopping list" of criteria for Contracting Parties to qualify for fishing rights and secondly considerations for the allocation of fishing rights. The Working Group also advanced a number of ideas for possible further consideration on possible margins for allocation in regard to stocks currently under TAC.

Developing a consensus on these questions raises several questions. Is there a set of universal allocation criteria or will each situation require its own criteria? What relative weight should be assigned to the various allocation criteria? The agenda item on possible margins in the current quota table to accommodating requests for fishing opportunities will be complex and sensitive. There are various proposals for reallocation of existing quotas based on some concept of "use it or lose it". These proposals raise substantive issues of equity as well as questions as to the real reason for quota underutilization. These questions need to be looked at carefully.

Canada continues to share the concerns expressed by others that these discussions could have the potential to adversely affect the conservation of the stocks and the stability of the Organization. Based on our discussions to date and the progress made last year, I am confident that the Parties will continue to be sensitive to these concerns and find ways to develop solutions through open, constructive dialogue.

Mr. Chairman, Canada looks forward to examining these questions and making further progress on these issues.

Annex 4. Agenda

1. Opening by Chairman (H. Koster-EU)
2. Adoption of Agenda
3. Appointment of Rapporteur
4. Development of a broad strategy of allocation of future fishing opportunities for stocks not currently Allocated (see Annex 11 of NAFO/GC Doc. 99/4, "Interpretive notes by the Chair attempting to clarify discussions on Agenda points 6 and 7," and Annex 2 of NAFO/GC Doc. 99/4, "Terms of Reference")
 - Qualifying criteria
 - Allocation criteria
5. Exploration of possible margins to accommodate requests for fishing opportunities in connection with the stocks under TAC (see Annexes 2 and 11 of NAFO/GC Doc. 99/4)
 - Re-utilization, re-allocation
 - Allocation of or to the "Others" quota
6. Allocation of block quota
7. Report to the Fisheries Commission
8. Other Matters
9. Adjournment

**Annex 5. Further interpretative notes by the Chair attempting
to clarify discussion on Agenda point 4
(W. P. 00/1 by the Chairman)**

Agenda point 4:

Development of a broad strategy of allocation of future fishing opportunities for stocks not currently allocated (see Annex 11 of NAFO/GC Doc. 99/4" interpretative notes by the chair attempting to clarify discussions on Agenda points 6 and 7", and Annex 2 of NAFO/GC Doc. 99/4, "Terms of Reference").

- Qualifying criteria
- Allocation criteria

When allocating fishing opportunities, the Fisheries Commission will proceed in accordance with the following points:

- A. The Commission will identify the Contracting Parties which are eligible for and interested in the allocation of the relevant fishing opportunities. Contracting Parties who are members of the Fisheries Commission and may exercise the right to vote, will be considered eligible for allocation. The Fisheries Commission will consider Contracting Parties which fulfill one or more of the following criteria as interested in the allocation:
- Where appropriate (straddling stocks) the relevant coastal state.
 - Contracting Parties whose vessels have traditionally fished the relevant resources.
 - Contracting Parties who have undertaken extensive efforts to ensure the conservation of such stocks in particular by providing surveillance and inspection of international fisheries under the international scheme of joint enforcement.
 - Contracting Parties who have undertaken significant substantial contribution to research and data collection for the relevant resources.
 - Contracting Parties whose economy is overwhelmingly dependent on fisheries.
 - Contracting Parties hosting small coastal communities which are dependent mainly on fishing for the stocks regulated by NAFO.
- B. The Commission will determine, in taking into account any relevant information or advice provided to it by the Scientific Council, the fishable stock(s) or, where appropriate, the portion of the fishable stock(s) in the Regulatory Area to be allocated to Contracting Parties who are eligible and interested in the allocation.
- C. The Commission may take into account the following criteria for the determination of the size of the fishing opportunities to be allocated to Contracting Parties who are eligible and interested in the allocation.

Allocation Criteria

- Reference fishing pattern converted in the relative share of the Contracting Parties concerned.
- The setting aside of a lump sum as others quota intended for Contracting Parties who have no record of fishing on the stock concerned.
- Fixing a minimum size for quota to be allocated to Contracting Parties
- Considerations

- pursuant to Article XI (4) of the NAFO Convention

- relating to the contribution to research and data collection
 - relating to the needs of small coastal communities
 - relating to the dependency on fisheries
- D. The criteria listed under points A and C are indicative, apply simultaneously and do not represent an order of importance or priority.
- E. Notwithstanding points A and C, the Fisheries Commission may set aside and regulate certain fishing opportunities available to vessels of parties which are not a Contracting Party to the NAFO Convention, who have signed a protocol on the integral acceptance of the NAFO Conservation and Enforcement Measures, enabling such Party to cooperate with NAFO.

Annex 6. Working Paper by Denmark
(in respect of Faroe Islands and Greenland)
(W.P. 00/2)

The Working Paper is inspired by the U.S.A. paper "Proposal by the U.S.A. for a Northwest Atlantic Fisheries Organization Policy on Allocation of Quotas" (Working Group W.P. 98/6).

The attachment to this Working Paper is divided into 3 sections: "Questions to be Addressed", "Suggested Solutions" and "Remarks". We consider that such a division will facilitate discussion. Delegations might agree with the "Questions to be Addressed" while not agreeing with the "Suggested Solutions".

Denmark (in respect of Faroe Islands and Greenland) considers that any quota mechanism should contain an element of stability. However, stability should not be interpreted as unchangeability. Hence, the proposal in the Attachment should not have a duration of more than 5-10 years.

We also are aware of the risk that any new mechanism for setting TAC's or quotas might be applied so strictly that the role of the Fisheries Commission would evaporate. Therefore the proposal in the Attachment should be regarded as "Principal Guidelines", from which exemptions can be made if concrete circumstances so warrant.

The proposal in the Attachment seeks to reflect – to a reasonable extent – existing NAFO principles, whilst also taking into account appropriate changes caused by developments since the existing quota sharing system was taken over by NAFO twenty years ago.

QUESTIONS TO BE ADDRESSED	SUGGESTED SOLUTIONS	REMARKS
<p>A: ALLOCATION BETWEEN PRESENT NAFO MEMBERS</p>		
1. Should the receiver of allocations be "in good standing"?	Yes	Same as U.S.A. proposal.
2. Should preference be given to Coastal States?	Yes, with respect to straddling stocks.	The weight of the preference should vary from stock to stock, and reflect the different zonal attachments.
3. Should allocation only take place when the allocation has a certain minimum size?	Yes, but the minimum size may vary from stock to stock.	An allocation should, as a minimum, enable the Contracting Party to conduct an economically meaningful fishery (e.g. one full hold for one vessel).
4a. Current fisheries with TAC's.	<p>If an amount to be allocated under 4a-d falls short of the minimum size, the amount should be transferred to the "others" quota.</p>	<p>Minimum sizes should be fixed for each stock, and may vary from year to year.</p>
	TAC's up to traditional levels: should be allocated corresponding to NAFO's present allocation key.	<p>In 1999 only four NAFO TAC's are bigger than 0: 3M redfish, 3LNO yellowtail, 3LMNO Greenland halibut and 3+4 squid.</p> <p>"Traditional levels" = highest TAC's within the period [1980-1990].</p>

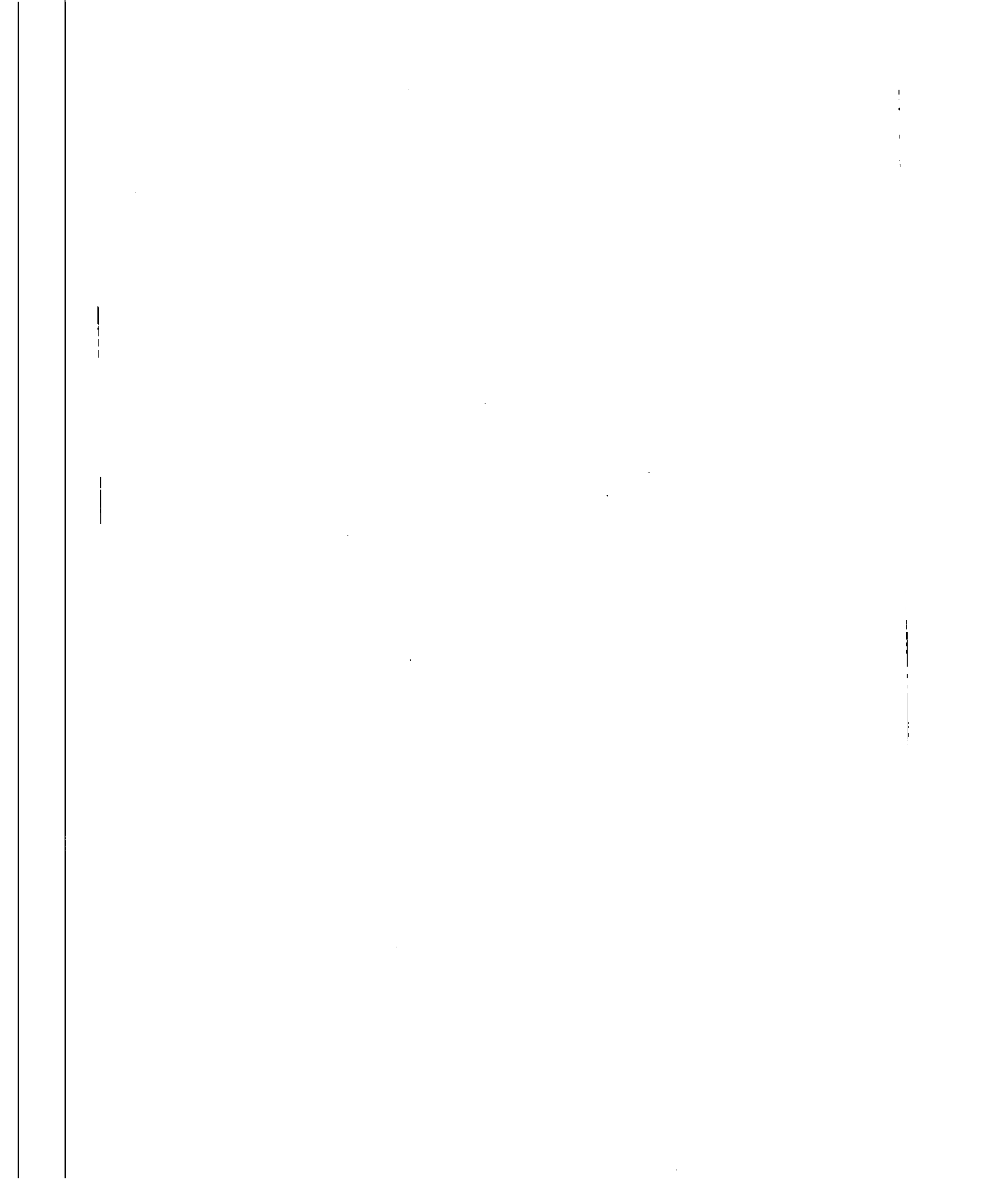
QUESTIONS TO BE ADDRESSED	SUGGESTED SOLUTIONS	REMARKS
4b. Fisheries previously regulated by effort limitation.	<p>Increases of TAC's beyond traditional levels should be split in three parts: one should be allocated corresponding to NAFO's present allocation key; one should be allocated to present Contracting Parties whose economies are overwhelmingly dependent on the exploitation of living marine resources; one should be transferred to the "others" quota.</p> <p>[70] percent of the TAC should be allocated proportional to catches in a relevant period. [20] percent of the TAC should be allocated proportional to the present allocation of fishing days. [10] percent should be set aside for the "others" quota.</p>	The suggested solution should not be considered as a proposal to establish a TAC/quota system for 3M shrimps.
4c. New fisheries	[90] percent of the TAC should be allocated proportional to fisheries in the latest [3] years. [10] percent of the TAC should be set aside for the "others" quota.	
4d. Closed fisheries	<p>Upon reopening: TAC's up to traditional levels: [90] percent of the TAC should be allocated to previous quota receivers, corresponding to the latest NAFO allocation key before the fishery was closed. [10] percent should be set aside for the "others" quota.</p> <p>Increases of TAC's beyond traditional levels should be allocated as in 4a.</p>	The suggested solution should not apply if the fishery has been closed for less than [5] years or more than [15] years.

QUESTIONS TO BE ADDRESSED	SUGGESTED SOLUTIONS	REMARKS
<p>5. Should transfers be allowed?</p> <p>6. Should underutilization of quotas imply consequences for future allocations?</p> <p>B: PARTICULARS WITH RESPECT TO FUTURE NEW MEMBERS.</p> <p>1. From which TACs may future new members receive allocations?</p> <p>2. How much may future new members fish?</p>	<p>Yes, on the same conditions as today.</p> <p>Yes. Repeated underutilization of a Contracting Party's quota should imply that [part of] the unutilized quota is transferred to the "others" quota.</p> <p>TAC's mentioned under A 4c, not TAC's mentioned under A 4a, b and d.</p> <p>Future new members participate on equal footing with present Contracting Parties in allocations mentioned in A 4c.</p> <p>In addition, future new members may fish under the "others" quotas mentioned in A 4a-d.</p>	<p>Transfers should be regarded as underutilization by the original quota receiver.</p> <p>This proposal takes no stand on the question of eventual future conditions for NAFO's approval of applications from new members ("real interest").</p>

SECTION IV
(pages 103 to 130)

**Report of the Working Group on
Dispute Settlement Procedures (DSP)
29-31 May 2000
Copenhagen, Denmark**

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**Report of the Working Group on Dispute Settlement
Procedures (DSP)**
(GC Doc. 00/4)

**29-31 May 2000
Copenhagen, Denmark**

The Working Group met in accordance with the decision taken by the General Council at the 21st Annual Meeting, September 1999 (item 4.8 of the General Council Report, GC Doc. 99/9).

1. Opening by the Chairman

The meeting was opened by the Chairman, Mr. Stein Owe (Norway) at 10.15 on 29 May 2000. He welcomed all delegates and thanked the delegation of Denmark (in respect of the Faroe Islands and Greenland) for hosting the meeting. The following Contracting Parties were represented at the meeting: Canada, Denmark (in respect of Faroe Islands and Greenland), Estonia, European Union, France (in respect of St. Pierre and Miquelon), Iceland, Japan, Latvia, Lithuania, Norway and the United States of America (Annex 1).

In his welcoming remarks, the Chairman anticipated a constructive debate and expressed a wish to finalise the work of the Working Group as soon as possible.

2. Appointment of Rapporteur

Mr. Staffan Ekwall (EU) was appointed Rapporteur.

3. Adoption of Agenda

The Provisional Agenda was adopted (Annex 2).

4. Examination of the desirability and, as appropriate, the development of procedures for the settlement of disputes between NAFO Contracting Parties
a) by implementing in a NAFO context the 1995 UN Agreement and UNCLOS dispute settlement procedures, and b) by including additional measures if needed.

- 4.1 The Chairman presented DSP W.G. W.P. 00/1 (Annex 3), which was meant as an attempt to move the discussion forward. He explained that the best way to make progress and to move closer to a quick solution would in his opinion be to abandon the idea of an *ad hoc* Panel Procedure discussed at earlier Working Group meetings. This procedure, in the Chairman's opinion, has created many questions of its own, and considerable work to establish procedural rules would be needed. One objective of a NAFO DSP would be to settle a dispute expeditiously. However, it is not likely that the Panel Procedure would speed up the process since the losing Party, especially in case of serious disputes, will probably not accept the outcome of such proceedings. It would, therefore, be better to stick with the procedures stipulated in the UN Convention on the Law of the Sea (UNCLOS) and the 1995 UN Agreement on straddling stocks with some modifications, if necessary.
- 4.2 There was a wide-ranging debate on this paper. Some delegations welcomed the paper and expressed a wish to have simple dispute settlement rules or guidelines and to avoid a complex and time consuming negotiation exercise on a completely new DSP applicable only in NAFO. Other delegations appreciated the initiative by the Chairman but stressed

that the task of the Working Group was to establish a NAFO DSP in the proper sense in light of recent international developments. Other Regional Fishing Organisations are presently discussing this issue, and in the view of some delegations it would be odd if NAFO remains the only Regional Fishing Organisation without a special DSP. In this context reference was made to the recent "Blue Fin Tuna case", which to some delegations shows the importance of having a NAFO DSP.

Many delegations emphasised a need to have 1) a speedy procedure 2) a binding procedure and 3) a mandatory obligation for an objecting Contracting Party to indicate its post-objection behaviour. Some delegations underlined that a NAFO DSP based on the relevant provisions of UNCLOS and the 1995 UN Agreement could, and should, apply to all Contracting Parties, whether or not they have ratified UNCLOS and the 1995 UN Agreement or only one of these instruments. A view was expressed that the provisions of the 1995 UN Agreement should also apply to disputes on discrete stocks, and that both the declaration of intentions following an objection or notice not to be bound as well as the actual post-objection behavior could be the subject of DSP. Some delegations either had misgivings about an extended application of the 1995 UN Agreement or queried how this could be achieved in practice. The delegate of Japan felt that most disputes will derive from scientific and political decisions and that such disputes can not be resolved by judicial arguments.

4.3 The delegation of Denmark (in respect of Faroe Islands and Greenland) introduced Working Paper DSP W.G. W.P. 00/3 (Annex 4) and explained that the paper was an attempt to show some goals that could be achieved by a DSP. Most delegations considered this paper as contributing considerably to a clarification of the questions at hand and thanked the Danish delegation for its effort.

4.4 Following the discussions, the Chairman concluded that he did not have sufficient support for his idea of a simplified scheme.

4.5 *EU Revised Paper*

The Chairman therefore suggested to take as a point of departure for the further discussions the revised EU paper presented at the last Working Group meeting in Bergen, Norway, 1999 (Annex 5).

The EU delegation presented DSP W.G. W.P. 00/2 (Annex 6) as an attempt to clarify the different procedural options available under the procedures laid down in the aforementioned revised EU paper. The main idea was to provide for a voluntary *ad hoc* Panel which would offer a much more swift and cost effective process for disputes over conservation measures and which would help to resolve these very disputes within NAFO. In the event that a dispute should not be resolved at this stage and one of the parties to the dispute should have recourse to the general binding procedures, the recommendation of the panel should nevertheless apply as a provisional measure pending the definitive and binding settlement of the dispute. The parties to the dispute would remain the 'masters of the game' at this stage as well because it would be in their hands to either agree otherwise or request the competent court or tribunal to prescribe other provisional measures. Many delegations welcomed the Working Paper as a clarification of the procedures proposed by the EU.

i) On the first point in the revised EU Paper, many delegations felt that a Contracting Party must fulfil three obligations when making an objection or notice of intention

not to be bound by a measure, namely 1) state the reasons for the objection or notice, 2) state its intentions following the objection or notice and 3) give a description of the possible autonomous measures to be taken. Some delegations underlined that this description should include relevant control and enforcement measures.

One delegation stated that it should be possible to initiate a DSP as well on the basis of the stated intentions as on the actual post-objection behaviour. A new text (DSP W.G. W.P. 00/4 - Annex 7) was presented to capture these possibilities. Some delegations expressed concern that a possibility to initiate a DSP already on the basis of the declaration of intentions might lead to a limitation of the right to object. It was emphasised that an objection itself cannot form the matter of a dispute. It was added that the objecting Party might not always be able to give the requested information at such an early stage.

- ii) On the second point in the revised EU Paper, some delegations pointed out that some Contracting Parties have not ratified UNCLOS and/or the 1995 UN Agreement. A reference to these instruments might be seen as implying an indirect acceptance by these Parties of the relevant instruments. Other delegations pointed out that the intention was never to make a Contracting Party bound to international instruments outside the NAFO context. The intention was only to 'import' the procedures laid down in these instruments and, thus, take advantage of a legal technique which has been used frequently and which would make already existing rules available for the purposes of settling disputes within NAFO. A view was also expressed that there should be a level playing field: all Contracting Parties should be bound by the same rules and those rules should reflect the most modern standards (i.e. UNCLOS and the 1995 UN Agreement) and apply equally to NAFO straddling and discrete stocks. Annex 9 was based on that approach.
- iii) On the third point in the revised EU paper, most delegations preferred to focus the discussion on the concept of having an *ad hoc* Panel and, if this would be the case, adopt procedural rules at a later stage. Some delegations stressed that the Panel Procedure must in any case be voluntary. Parties should not be constrained from resorting directly to the binding procedures. Other delegations stressed the need to have an established NAFO dispute settlement mechanism that the Parties to the dispute are encouraged to use. This would in their view speed up the process, since the Parties to the dispute otherwise must first agree on all procedural matters. One delegation asked for a mechanism that would avoid repeated disputes on exactly the same issue and inquired, if such a mechanism was not possible to foresee, who should pay the cost for such repetitious exercises.
- iv) On the fourth point in the revised EU Paper, the EU delegation explained that the Parties to the dispute, when agreeing to choose the Panel Procedure, also agree to apply the recommendation from the Panel provisionally. The main aim was to bridge the gap of time between the delivery of the recommendation and the final binding settlement of the dispute. Some delegations supported this approach. Other delegations, however, disagreed with a provisional application of the panel recommendation. They stressed that the Parties to the dispute must have the right to choose, at the time when the recommendation is given, if it should apply provisionally or not.

One delegation indicated that the Parties to a dispute should take such a decision already when they agree on a Panel Procedure. As a compromise, this delegation

suggested that two different Panel Procedures could be established, one where the Parties to the dispute agree to the provisional application of the recommendation when they agree on a panel procedure, and another where no such automatic application will occur.

- v) On the fifth point in the revised EU paper, the Latvian and the Japanese delegations once again expressed their concerns that a reference to UNCLOS and the 1995 UN Agreement could constitute an indirect "ratification" by those Contracting Parties who have not ratified these instruments. Those delegations requested their reservations on this subject be recorded in the minutes of the Meeting. The Lithuanian and Estonian delegations shared the view of Latvia and Japan. More neutral wordings were proposed by some delegations.
- 4.6 The Japanese delegation presented DSP W.G. W.P. 00/8 (Annex 8) containing an alternative DSP specially designed for NAFO. The main idea was to have a compulsory but non-binding *ad hoc* Panel Procedure with a final resolving of the dispute by the Fisheries Commission if the Parties to the dispute do not accept the *ad hoc* Panel recommendation. This proposal was welcomed for giving new ideas. However, the proposal was not discussed in detail since it was already clear from the earlier debate that the Working Group could not agree on a binding DSP in this form.
- 4.7 As an attempt to summarise the outcome of the first round of discussions, the Chairman presented DSP W.G. W.P. 00/09 (Annex 11). This paper was later revised following the discussions in the Working Group. DSP W.G. W.P. 00/10-Revised (Annex 12) which contains text and alternatives in brackets, reflects the current level of agreement and views expressed to-date in the Working Group.

5. Report to the General Council

Following the extensive discussion which took place during the meeting, the Working Group agreed to submit the Consolidated Text (Annex 12) to the General Council together with its report.

The Group discussed the possibility to meet again on Monday, 18 September 2000 in connection with the Annual Meeting.

6. Other matters

No other matters were discussed.

7. Adjournment

The meeting was adjourned at 17.30 on 31 May 2000.

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Annex 2. Agenda

1. Opening by Chairman, S. Owe (Norway)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Examination of the desirability and, as appropriate, the development of procedures for the settlement of disputes between NAFO Contracting Parties:
 - a) by implementing in a NAFO context the 1995 UN Agreement and UNCLOS dispute settlement procedures, and
 - b) by including additional measures if needed.
5. Report to the General Council
6. Other Matters
7. Adjournment

Annex 3. NAFO Dispute Settlement Procedures - A Possible Way Forward

(Paper presented by the Chairman - DSP W.G. W.P. 00/1)

In our deliberations in the DSP Working Group we seem to have run into considerable difficulties in reaching consensus and even in moving ahead with our work. I have tried to think of ways to break this situation and hopefully conclude our endeavours in the near future. In this paper I would like to present some suggestions in this regard to the Working Group.

The main idea would be to simplify our scheme, even if this means settling for something that would not be regarded as ideal by all (and may be not by any) of the Contracting Parties. As I see it, the simplification is probably necessary to avoid some complicated issues that as such generate disagreement and to arrive at a speedy finalisation of our work.

A certain simplification also seems to be supported by the changes that were made to our terms of reference at the last annual meeting. The relevant parts now read:

“Examine the desirability and, as appropriate, the development of procedures for the settlement of disputes between NAFO Contracting Parties

- by implementing in a NAFO context the 1995 UN Agreement and UNCLOS dispute settlement procedures, and
- by including additional measures if needed;”

My understanding of the changes that were made is that we are to focus to a larger degree on the thoroughly developed system for dispute settlement which is found in the UN Agreement and UNCLOS.

We have in our discussions identified four main reasons for establishing separate NAFO DSP:

1. The UN Agreement, and thus its provisions on dispute settlement, has not yet entered into force.
2. Even when it enters into force it is not certain that all NAFO Contracting Parties will become parties to the agreement and thus bound by its provisions. The same applies to UNCLOS.
3. A NAFO DSP gives the possibility to include disputes regarding discrete stocks, which is also found in the NAFO Regulatory Area.
4. Finally, it makes it possible to create more expeditious procedures.

Many Contracting Parties have regarded this last element as rather important. Much effort has gone into designing rules that could lead to settlement of disputes as quickly as possible within the given fishing season. However, this is an area where we have encountered considerable problems as well. The dispute settlement process should be compulsory and lead to binding results. It does not seem feasible to have such dispute settlement by a specially designed body such as the ad hoc panel we have discussed. This being the case, we have entered into rather complex deliberations on the possible role and use of such a panel, including the option of keeping it out of a concrete dispute all together. It has been argued that since it is not likely that both parties to a dispute will accept the recommendation of the panel, this procedure is actually just delaying the final settlement of the dispute that will have to be brought before the bodies in the UN Agreement/UNCLOS system anyway.

It would greatly simplify our work if we leave the idea of establishing a specific body like the ad hoc panel in a NAFO scheme. The procedure itself will be much more straightforward and many of the questions we have dwelt on in our last meetings will lose their relevance. Furthermore, we

would not have to deal with the issues contained in the annex on establishment of an ad hoc panel or the rules of procedure for panel proceedings.

It might be said that we would lose the opportunity of having the disputes settled expeditiously and within the fishing season. However, as has been mentioned it does not seem likely that the parties to a dispute both (or all) will accept the recommendation of the panel. One or more of the parties will probably exercise the right to take the dispute to binding settlement. At least in cases that are regarded as important this presumption seems reasonable. The reality might thus be that such disputes would not in any case be solved expeditiously. In less important cases the attitude might be different. But if the parties so wish, they would still have at their disposal the general possibility to try non-binding solution of the dispute through any peaceful means of their own choice.

Another aspect of leaving the idea of a specific NAFO body would be that there would be no recommendation by such a body that can be used as an immediate provisional measure if the dispute is pursued. However, as has been pointed out both the UN Agreement and UNCLOS contain provisions on provisional measures. It may take some time to have these measures established. Nevertheless, provisional measures may take effect earlier in the handling of a dispute than if an ad hoc panel process is the first stage. This is due to difficulties in finding anything that could be suitable and acceptable as provisional measures during a panel process. In general it does not seem possible to avoid any risk of a dispute leading to some damage to NAFO stocks.

We should be able to establish rules that comprise the other main reasons for having separate NAFO DSP. The goal of having DSP that is binding on all NAFO Contracting Parties whether or not they are also parties to the UN Agreement or UNCLOS seems to favour aiming for incorporation of these new rules in the NAFO Convention. As part of the amendments we should include an obligation to give reasons for an objection or notice of intention not to be bound by a management measure in force, as well as information on the relevant Commission member's intentions following the objection or such a notice. This information should include a description of the conservation and management measures that are planned or already taken. It seems to be agreed that such a provision would be important, not at least to assess whether there is reason to initiate DSP.

As a point of departure it seems natural that NAFO DSP cover all possible disputes within the organisation. Thus disputes concerning discrete stocks will be included. (What rules shall be applicable to such disputes is a different question.)

**Annex 4. Working Paper Presented by Denmark
(in respect of Faroe Islands and Greenland)
(DSP W.G. W.P. 00/3)**

In the attached Scheme we try to illustrate how possible goals could be achieved through different dispute settlement measures.

	UNCLOS DSP	UN Agreement DSP	NAFO DSP only referring to UNCLOS & UN Agreement DSP	FULL NAFO DSP	Other Means
All NAFO Parties may participate	Only when ratified	Only when ratified	yes	yes	yes
Straddling stocks and discrete stocks	yes	no	yes	yes	Maybe
Speed (dispute settled within the fishing season)	no	no	no	yes	Maybe
Decision by people who are familiar with NAFO	no	no	no	yes	Maybe
Decision binding (at least provisionally)	yes	yes	yes	yes	Maybe

Annex 5. Working Paper Presented by the European Union
(DSP W.G. W.P. 99/4)

[obligation to cooperate]

1. Contracting Parties shall cooperate in order to prevent disputes.

In particular, any Contracting Party may invite a Commission Member that has objected to a proposal of the Commission or has given notice of its intention not to be bound by a measure of the Commission to state the reasons for its objection or its notice of intention, as well as to describe the conservation and management measures it has taken or intends to take for the fishery resource in question.

[1st sentence from Chairman's paper; voluntary declaration of intent added]

[binding dispute settlement procedure]

2. Without prejudice to para. 3 a Contracting Party may refer any dispute concerning the interpretation or application of the Convention to DSP.

Such procedures shall be governed mutatis mutandis by the provisions relating to the settlement of disputes set out in Part XV of UNCLOS or, where the dispute concerns one or more straddling stocks, by the provisions set out in Part VIII of the UN Agreement.

The relevant parts of UNCLOS and the UN Agreement shall apply whether or not the Parties to the dispute are also State Parties to these instruments.

[rephrase of No. 2 of Chairman's paper to make text simpler.]

[ad hoc panel procedure]

3. Where the dispute concerns the interpretation or application of a proposal adopted by the Commission pursuant to Article XI or matters related thereto Parties to the dispute shall within x days after the notification of the dispute to the Executive Secretary proceed to an exchange of views regarding its settlement through an *ad hoc* panel procedure. When the Parties do not agree to such a procedure or to any other peaceful means to resolve the dispute, the dispute shall be referred, if one of the Parties concerned so requests, to a binding DSP as provided in para. 2.

Where a dispute has been submitted to the *ad hoc* panel procedure, the panel constituted as provided in Annex ... to this Convention shall at the earliest possible opportunity confer with the Parties concerned and shall endeavour to resolve the dispute expeditiously. Within x weeks after being constituted the panel shall present a report to the Parties concerned. The report shall as far as possible include any recommendations which the panel considers appropriate to resolve the dispute.

Where a dispute has not been resolved through agreement between the Parties following an *ad hoc* panel procedure it shall be referred, if one of the Parties concerned so requests, to a binding DSP as provided in para. 2.

[text of yesterday's paper slightly modified to take into account comments from delegations]

[provisional application during and after ad hoc panel procedure]

4. Where the Parties to a dispute have agreed to submit the dispute to the *ad hoc* panel procedure, they may agree at the same time to apply provisionally the relevant proposal adopted by the Commission until the report of the panel or the dispute is resolved, whichever occurs first.

Pending the settlement of disputes according to para. 2 the Parties to the dispute shall apply provisionally any recommendation made by a panel where the Parties had agreed an *ad hoc* panel procedure. That provisional application shall cease when the Parties agree on arrangements of equivalent effect, when a court or tribunal to which the dispute has been submitted in accordance with para 2 has taken a provisional or definitive decision or, in any case, at the end of the calendar year in which the report of the panel has been presented.

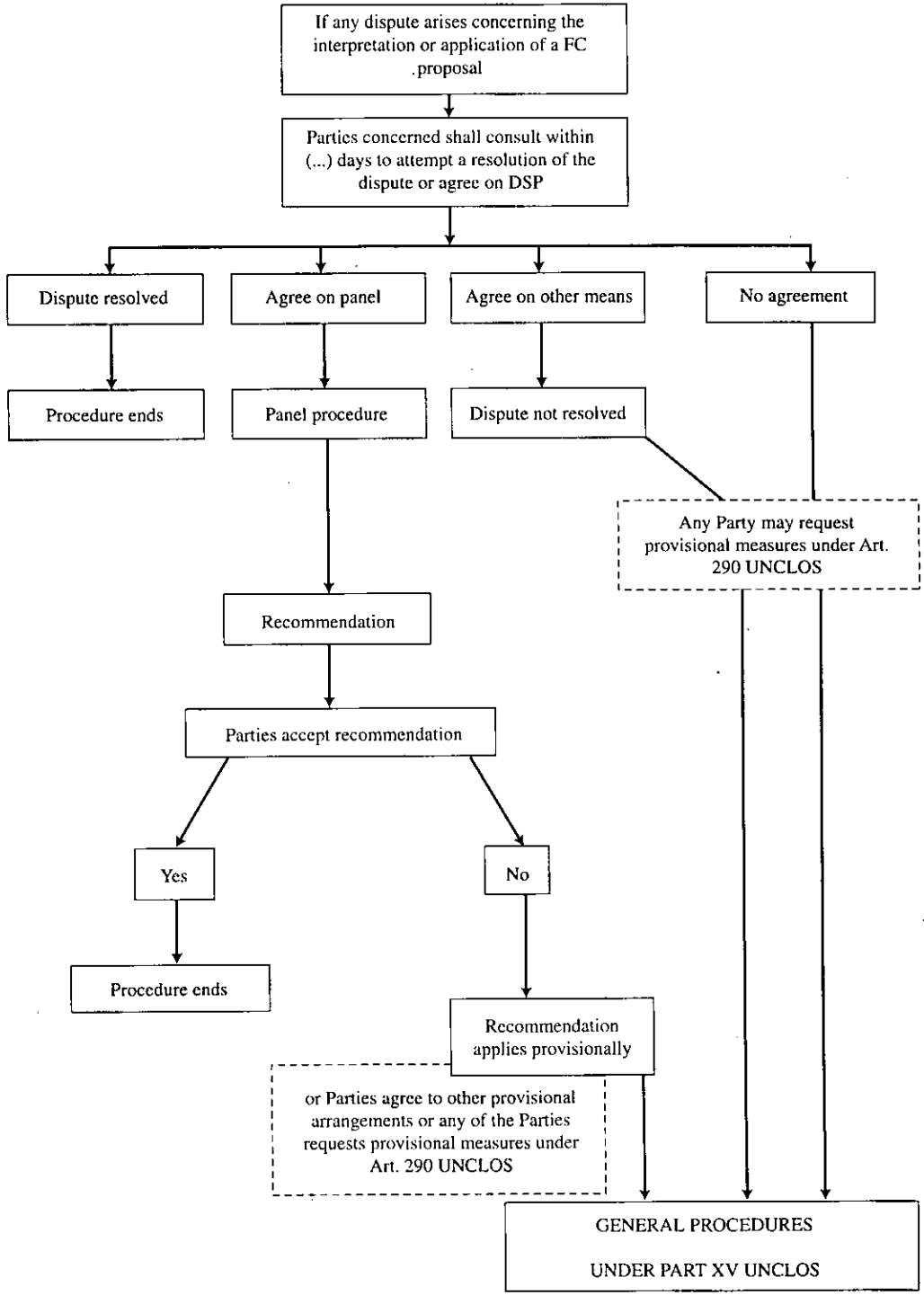
[text of the Chairman's paper adapted to the new subpara. 3]

[law to be applied by court, tribunal or panel]

5. A court, tribunal or panel to which any dispute has been submitted under this Article shall apply the relevant provisions of this Convention, of the 1982 UN Convention, of the 1995 UN Agreement, as well as generally accepted standards for the conservation and management of living marine resources and other rules of international law not incompatible with the 1982 UN Convention and the 1995 UN Agreement, with a view to ensuring the conservation of the fish stocks concerned.

[same text as the Chairman's paper]

Annex 6. Working Paper Presented by the European Union
(DSP W.G. W.P. 00/2)



Annex 7. Working Paper Presented by Canada
(DSP W.G. W.P. 00/4)

An objection according to paragraph 1 and a notice of objection not to be bound by a measure according to paragraph 3 shall be accompanied by a declaration setting out the autonomous conservation and management measures (including control and enforcement measures) to be established and the rationale for the objection and the autonomous measure. The declaration and post-objection behaviour may be challenged through dispute settlement procedures.

Annex 8. Working Paper Presented by Japan
(DSP W.G. W.P. 00/8)

1. Contracting Parties should cooperate in order to prevent disputes.
2. Where the dispute concerns the interpretation or application of a proposal adopted by the Fisheries Commission pursuant to Article XI or matters related thereto, any Party may request the other Parties concerned in the dispute to have consultations to resolve the dispute with a written notice. Parties to the dispute should, with X days from the receipt of the notice, proceed to an exchange of views with a view to resolving the dispute as soon as possible.
3. If the dispute is not resolved within X weeks after the written notice mentioned in paragraph 2 is given, any Party to the dispute may request the dispute to be submitted to an *ad hoc* panel of experts. The *ad hoc* panel is established by the General Council in accordance with Article IV paragraph 6, and constituted in accordance with the Annex to this proposal.
4. The Panel should at the earliest possible opportunity confer with the Parties concerned and should endeavour to resolve the dispute expeditiously. The Panel should issue recommendations for resolving the dispute as necessary. The Parties should cooperate with the members of the Panel and should endeavour to resolve the dispute as faithfully as possible.
5. If the dispute is not resolved with the involvement of the Panel after X weeks from the request referred to in paragraph 3, any Party to the dispute may request the Panel to submit the recommendation to the Fisheries Commission. The Fisheries Commission may consider such recommendations as proposals prescribed in Article XI paragraph 2 and adopt them. Article XII applies to the adoption of such recommendations by the Fisheries Commission.

Annex
(to proposal by Japan)

1. The Executive Secretary will prepare a list of experts on fisheries matters whose competence in scientific or technical aspects of fisheries matters is established and generally recognized and who enjoy the highest reputation for fairness and integrity. Each Party may nominate, at any time, two experts for this list and the persons so nominated will constitute this list of experts.
2. The *ad hoc* panel of experts will be constituted from three experts which should be chosen from the list of experts prepared by the Executive Secretary referred to in paragraph 1.
3. Each Party to the dispute should choose one expert to be a member of the panel. The third member should be appointed jointly by the Parties to the dispute. If the Parties to the dispute cannot agree on the third expert, any Party to the dispute may request the Chairman of the General Council to make the appointment from the list of experts referred to in paragraph 1.

Annex 9. Working Paper Presented by Canada
(DSP W.G. W.P. 00/6)

2. A Contracting Party may refer any dispute concerning the interpretation or application of the Convention to DSP.

The Contracting Parties agree to apply the 1995 UN Agreement provisionally both to straddling stocks and discrete stocks that occur in the NAFO Regulatory Area, whether or not the Contracting Parties are party to the Agreement.

Annex 10. Working Paper Presented by Canada
(DSP W.G. W.P. 00/7)

3. Where the dispute concerns the interpretation or application of a proposal adopted by the Commission pursuant to Article XI or matters related thereto, a party to the dispute may invite the other party to submit the dispute to a panel. The panel shall confer with the States concerned and shall endeavour to resolve the dispute expeditiously without recourse to binding procedures for the settlement of disputes.

Annex 11. Settlement of Disputes within NAFO

COMPILATION OF PROPOSALS

(DSP W.G. W.P. 00/9)

New Paragraph 4 of Article XII (If NAFO Dispute Settlement Procedures are not incorporated as amendments to the NAFO Convention this provision may possibly be adopted in another form.)

An objection according to paragraph 1 and a notice of intention not to be bound by a measure according to paragraph 3, shall be accompanied by a statement of the relevant Commission member's reasons for the objection or notice of intention as well as a declaration of its intentions following the objection or such notice, including a description of any conservation and management measures[, including control and enforcement measures,] it has taken or intends to take. [The declaration and post-objection behaviour may be challenged through dispute settlement procedures.]

(New) Article...

1. Contracting Parties shall cooperate in order to prevent disputes.
2. If any dispute arises between two or more Contracting Parties concerning the interpretation or application of this Convention, those Contracting Parties shall consult among themselves with a view to resolving the dispute, or to having the dispute resolved by negotiation, inquiry, mediation, conciliation, *ad hoc* panel procedures, arbitration, judicial settlement or other peaceful means of their own choice.
- [3. A Contracting Party may refer any dispute concerning the interpretation or application of the Convention to DSP.

The Contracting Parties agree to apply the 1995 UN Agreement provisionally both to straddling stocks and discrete stocks that occur in the NAFO Regulatory Area, whether or not the Contracting Parties are party to the Agreement.]

[3. Where a dispute concerns the interpretation or application of a proposal adopted by the Commission pursuant to Article XI or matters related thereto parties to the dispute shall within x days after the notification of the dispute to the Executive Secretary proceed to an exchange of views regarding its settlement through *ad hoc* panel procedures.

Where a dispute has been submitted to *ad hoc* panel procedures, the panel constituted in accordance with provisions adopted by the General Council shall at the earliest possible opportunity confer with the Contracting Parties concerned and shall endeavour to resolve the dispute expeditiously. Within x weeks after being constituted the panel shall present a report to the Contracting Parties concerned and through the Executive Secretary to the other Contracting Parties. The report shall as far as possible include any recommendations which the panel considers appropriate to resolve the dispute.

Where a dispute has not been resolved through agreement between the Contracting Parties following the recommendations of the *ad hoc* panel it may be referred, on request of one of the Contracting Parties, to a binding DSP as provided in para. 5.]

[4. Where a dispute concerns the interpretation or application of a proposal adopted by the Commission pursuant to Article XI or matters related thereto, a party to the dispute may invite the

other party to submit the dispute to a panel. The panel shall confer with the States concerned and shall endeavour to resolve the dispute expeditiously without recourse to binding procedures for the settlement of disputes.]

4(or 5). Where the parties to a dispute have agreed to submit the dispute to *ad hoc* panel procedures, they [may agree at the same time to] [shall] apply provisionally the relevant proposal adopted by the Commission until the report of the panel is presented or the dispute is resolved, whichever occurs first.

[Pending the settlement of a dispute according to para. 5 the parties to the dispute shall, if one of these Contracting Parties so desire, apply provisionally any recommendation made by a panel where the Contracting Parties had agreed an *ad hoc* panel procedure.] [The parties to a dispute may agree to apply provisionally any recommendation made by a panel pending the settlement of the dispute according to para 5.] That provisional application shall cease when the Contracting Parties agree on arrangements of equivalent effect, when a court or tribunal to which the dispute has been submitted in accordance with para 5 has taken a provisional or definitive decision or, in any case, at the date of expiration, if applicable, of the proposal of the Fisheries Commission.

[5. If the Contracting Parties do not agree to any other peaceful means to resolve a dispute, or no settlement has been reached by recourse to these means, the dispute shall be referred, if one of the Contracting Parties concerned so requests, to binding dispute settlement procedures. Such procedures concerning the interpretation and application of this Convention shall be governed mutatis mutandis by the provisions relating to the settlement of disputes set out in Part XV of United Nations Convention on the Law of the Sea of 10 December 1982 (1982 UN Convention) or[, where the dispute concerns one or more straddling stocks,] by the provisions set out in Part VIII of the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 (1995 UN Agreement)[, whether or not the parties to the dispute are also State parties to these instruments].]

[6. A court, tribunal or panel to which any dispute has been submitted under this Article shall apply the relevant provisions of this Convention, of the instruments referred to in para. 2, as well as generally accepted standards for the conservation and management of living marine resources and other rules of international law not incompatible with the said instruments, with a view to ensuring the conservation [and optimum utilization] of the fish stocks concerned.]

Annex 12. Settlement of Disputes within NAFO

CONSOLIDATED TEXT (DSP W.G. W.P. 00/10-Revised)

New Paragraph 4 of Article XII (If NAFO Dispute Settlement Procedures are not incorporated as amendments to the NAFO Convention this provision may possibly be adopted in another form.)

On request of any Contracting Party, a Member of the Fisheries Commission, which has presented an objection to a proposal in accordance with Article XII (1) or given notice of its intention not to be bound by a measure in accordance with Article XII (3), shall within [...] days give a statement of the reasons for its objection or notice and a declaration of its intentions following the objection or notice, including a description of any measures it intends to take or has already taken for the conservation and management [, including control and enforcement measures,] of the fish stock or stocks concerned. [The declaration and post-objection behaviour may be challenged through dispute settlement procedures.]

(New) Article...

1. Contracting Parties shall cooperate in order to prevent disputes.
2. If any dispute arises between two or more Contracting Parties concerning the interpretation or application of this Convention, those Contracting Parties shall consult among themselves with a view to resolving the dispute, or to having the dispute resolved by negotiation, inquiry, mediation, conciliation, *ad hoc* panel procedures, arbitration, judicial settlement or other peaceful means of their own choice.
3. Where a dispute concerns the interpretation or application of a proposal adopted by the Fisheries Commission pursuant to Article XI or matters related thereto, the parties to the dispute may submit the dispute to an *ad hoc* panel constituted in accordance with procedures adopted by the General Council. The Contracting Parties that so agree shall within [...] days of the notification of the dispute to the Executive Secretary proceed to an exchange of views concerning the constitution of the panel and the resolution of the dispute through the panel.

Where a dispute has been submitted to *ad hoc* panel procedures, the panel constituted in accordance with provisions adopted by the General Council shall at the earliest possible opportunity confer with the Contracting Parties concerned and shall endeavour to resolve the dispute expeditiously. Within x weeks after being constituted the panel shall present a report to the Contracting Parties concerned and through the Executive Secretary to the other Contracting Parties. The report shall as far as possible include any recommendations which the panel considers appropriate to resolve the dispute.

Where a dispute has not been resolved through agreement between the Contracting Parties following the recommendations of the *ad hoc* panel it may be referred, on request of one of the Contracting Parties, to a binding DSP as provided in para. 5.

4. Where the parties to a dispute have agreed to submit the dispute to *ad hoc* panel procedures, they may agree at the same time to apply provisionally the relevant proposal adopted by the Commission until the report of the panel is presented or the dispute is resolved, whichever occurs first.

[Pending the settlement of a dispute according to para. 5 the parties to the dispute shall, if one of these Contracting Parties so desire, apply provisionally any recommendation made by a panel where the Contracting Parties had agreed an *ad hoc* panel procedure.] *or* [The parties to a dispute may agree to apply provisionally any recommendation made by a panel pending the settlement of the dispute according to para 5.] That provisional application shall cease when the Contracting Parties agree on arrangements of equivalent effect, when a court or tribunal to which the dispute has been submitted in accordance with para 5 has taken a provisional or definitive decision or, in any case, at the date of expiration, if applicable, of the proposal of the Fisheries Commission.

[5. If the Contracting Parties do not agree to any other peaceful means to resolve a dispute, or no settlement has been reached by recourse to these means, the dispute shall be referred, if one of the Contracting Parties concerned so requests, to binding dispute settlement procedures. Such procedures concerning the interpretation and application of this Convention shall be governed mutatis mutandis by the provisions relating to the settlement of disputes set out in Part XV of United Nations Convention on the Law of the Sea of 10 December 1982 (1982 UN Convention) or[, where the dispute concerns one or more straddling stocks,] by the provisions set out in Part VIII of the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 (1995 UN Agreement)[, whether or not the parties to the dispute are also State parties to these instruments].]

[6. A court, tribunal or panel to which any dispute has been submitted under this Article shall apply the relevant provisions of this Convention, of the instruments referred to in para. 5, as well as generally accepted standards for the conservation and management of living marine resources and other rules of international law not incompatible with the said instruments, with a view to ensuring the conservation [and optimum utilization] of the fish stocks concerned.]

OR (instead of 5 and 6)

[A Contracting Party may refer any dispute concerning the interpretation or application of the Convention to DSP.

The Contracting Parties agree to apply the 1995 UN Agreement provisionally both to straddling stocks and discrete stocks that occur in the NAFO Regulatory Area, whether or not the Contracting Parties are party to the Agreement.]

SECTION V
(pages 131 to 192)

**Report of the Standing Committee on
International Control (STACTIC)
27-29 June 2000
Dartmouth, N.S., Canada**

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Report of the Standing Committee on International Control

(FC Doc. 00/4)

**27-29 June 2000
Dartmouth, N.S., Canada**

At the 1999 Annual Meeting of the Fisheries Commission, STACTIC's recommendation was accepted that an inter-sessional meeting of the Committee should take place to begin work on the scientific requirements for the observer program, the existing program and the observer manual. Furthermore, an examination was required to ensure that observers are independent and impartial.

The Fisheries Commission also requested STACTIC to review management options to reduce catches of juvenile fish with a view to incorporating measures into the NAFO Conservation and Enforcement Measures.

Contracting Parties also considered it useful to begin discussions on a number of other issues, in particular on the follow up to the March joint working group on the Precautionary Approach, and on the issues of charters and "flag hopping". Furthermore, the meeting on shrimp stocks held in Washington D.C. in March 2000 requested that STACTIC examine possible new information on shrimp fishing activity in the NAFO Regulatory Area, in order that newly updated data could be provided to the Fisheries Commission before the 2000 Annual Meeting. Other items for discussion are covered in the report below.

1. Opening of the Meeting

The Chairman, Mr. David Bevan (Canada), opened the meeting at 10.10 on 27 June 2000. Representatives from the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of Faroe Islands and Greenland), Estonia, the European Union, Iceland, Japan, Norway, Russian Federation and the United States. A list of participants is given at Annex 1.

2. Appointment of Rapporteur

Mr. Andrew Thomson (European Union) was appointed rapporteur.

3. Adoption of the Agenda

Following some protracted discussion between the Contracting Parties, it was agreed to adopt the agenda as amended (Annex 2).

The representative from the European Union initially felt that it would be relevant to discuss all issues concerning the Program for Observers and Satellite Tracking under the same agenda item. However, it was pointed out that at its meeting in September 1999, the Fisheries Commission had not given STACTIC a mandate to discuss the review and possible revision of the Program. The three sub-points under point 4 had in fact been carried over from the September 1999 STACTIC meeting. It was therefore agreed that the heading of this item should be amended so that the discussion under point 4 could reflect the full contents of the said Program. However, discussion under point 6 e) would remain separate.

4. Program for Observers and Satellite Tracking

a. Scientific requirements

The representative of Denmark (in respect of Faroe Islands and Greenland) introduced their suggestion for an amendment to the existing Program (Annex 3). From their experience and from research carried out, it appeared that the actual amounts of by-catch and discards were much higher than the estimates, which were usually made on a visual basis. He suggested that it would be necessary and compulsory to collect by-catches in boxes or containers (say 20kg capacity) in order to allow for a proper assessment of the quantities involved. He particularly noted the potential dangers in respect of a possible quota of shrimp in area 3M.

Support for the suggestion by Denmark (in respect of Faroe Islands and Greenland) came from the representative of the United States, as he felt it would help to alleviate ambiguities and improve the stock assessment. The representative of Japan also supported the proposal, as did the representative of the Russian Federation, although the Canadian representative supported the proposal in principal but felt that further review of the practical implications is required. The representative of Iceland went along with this approach.

The representative of the European Union was not convinced by the Danish paper of the actual value of the suggestion. He felt that it was necessary to have further detailed examination of the underlying problem and the implications of the proposed measures, given that they would involve changes to the processing lines onboard the ships. The representatives of both Canada and Iceland understood this latter concern.

The Chairman asked delegations to gather the needed information on the potential impacts of the Danish suggestion to facilitate a return to this issue at the Annual Meeting in September 2000 and examine possible improvements to data gathering. The representative of Canada suggested that Denmark (in respect of Faroe Islands and Greenland) return at the time of the Annual Meeting with a firm proposal for amendment to the Conservation and Enforcement Measures.

Dave Kulka (Canada) made a presentation of a Scientific Council proposal for a harmonised NAFO Observer Data System (NAFO SCS Doc. 00/23). An ad hoc working group of NAFO Scientists had worked inter-sessionally and prepared a series of four draft collection forms and associated documentation designed to capture the basic information required for assessing removals from stocks in the Regulatory Area and presented to STACTIC in September 1999. STACTIC in turn requested that the Scientific Council produce a data description for these forms.

The Scientific Council Observer Working Group reviewed the progress of this work in June 2000. At this time, two separate initiatives were reported, namely a Canadian initiative for a database, which has been capturing observer data since 1998, and a European Union form set, which was a catch-tracking system designed by the European Union NAFO inspectors. There was a high degree of overlap in the European Union system with the one formulated by the Scientific Council working group. However, there were also additional elements in the European Union system not required by NAFO. In essence, the only item not in the European Union system was the length frequency catch data retrieval.

The representative of the European Union noted that observer coverage in its current version made it impossible to place scientific observers on board vessels. Furthermore, he noted that it was necessary to distinguish the idea of using the information already gathered by the control observers for scientific purposes from the idea of requiring observers to carry out additional scientific work. The latter should be done without putting undue additional burdens on the

observers. Furthermore, the future of the whole Program was still in question. He also stressed that it was necessary to highlight those tasks of the observers, which could be of specific use to the scientists.

The representative from Denmark (in respect of Faroe Islands and Greenland) was also concerned at giving observers too many tasks. He noted that in Greenland, it would be necessary to have two observers on board to carry out the duties adequately.

The Canadian representative, supported by Mr. Kulka, also noted that in Canada, observers had been carrying out scientific tasks along with control functions since the late 1970s. Furthermore, with 100% observer coverage, control observers would only be required to take two or three samples per week occupying six to nine hours of their time. This could easily be achieved with adequate efficiency. The Japanese representative was able to support this proposal.

In view of the overall discussion, the Parties agreed that it was the element of length-frequency catch data retrieval, which should be considered as the only additional scientific element for the observers. Evaluation of this point should also take place in full co-ordination with the general evaluation requested of the Contracting Parties under item 4 (c) below.

b. Amendments to existing Program

The representative of Norway introduced a proposal to amend Part VI.A.1 (a) of the Conservation and Enforcement Measures with regard to independent and impartial observers (Annex 4). He explained that his proposal was to ensure that anyone working as an observer had that sole responsibility. The Russian representative was able to concur with this approach. The representative of Japan queried whether an observer could work for the company owning the fishing vessel.

The feeling of the representative of the European Union was that the Norwegian approach was incomplete. He questioned whether there really was a problem. If so, what was it? He also pointed out that it might be necessary to clarify what was independent and impartial, as well as to define what was a crewmember.

The Parties recognised that there was a need to ensure that observers were able to perform the duties, which had been established for them, in an independent and impartial manner. After considerable further deliberation, the Parties agreed that a new amendment proposed by the Chairman could replace that proposed by Norway and would be inserted at the end of point A.1 (a) of the existing Program for Observers and Satellite Tracking. The amendment would read as follows:

"Observers are not to perform duties, other than those described in Sections 3, 4 and 5 below."

It was agreed that it would be helpful if Contracting Parties could demonstrate at the Annual Meeting how they themselves ensure impartiality and independence for their own observers. The representative of Denmark (in respect of Faroe Islands and Greenland) pointed out that this exercise had already been carried out in 1998 (Ref. to STACTIC Working Paper 98/12). It was agreed, therefore, that all Contracting Parties would provide the next Annual Meeting with updated information on this matter.

c. Observer Manual

The representative of Canada reminded Parties that at the September 1999 STACTIC meeting, it was agreed that there was a need to develop a consistent approach with regard to the duties of observers in NAFO. In order to help expand the discussion in STACTIC, they provided the heads of each delegation with a copy of the existing manual used by Canadian observers in the NAFO Regulatory Area. It was felt that this could provide a useful guideline for the eventual development of a NAFO-specific observer manual. The Canadian manual, whilst in need of updating, was developed in 1996 as a reference for observers and not as a training tool and covers all the duties required of an observer. Using the basis of an existing manual was thought to be easier than starting from scratch.

It was pointed out by the representative of Denmark (in respect of Faroe Islands and Greenland) that whilst the Canadian manual was comprehensive, we were seeking a checklist which allowed our observers to operate appropriately.

It was noted that this was a good but ambitious document consisting of three parts, namely training, tasks for observers and working methodology. The representatives of the European Union suggested that discussion should focus on the latter. In line with that, he presented a "NAFO Observer Manual" as proposed by the EU (STACTIC Working Paper 00/10) suggesting a working methodology, which would ensure enhanced transparency. The other aspects covered in the Canadian document were not felt to be relevant in this context. The paper consisted of two parts. Part I covered the tasks to be performed by the observers, Part II of the proposed NAFO Observer Report Form. The United States representative noted that Part I would be very useful, whilst there were similarities of Part II to document SCS 00/23 from the Scientific Council.

The Parties took full account of the paper presented from the Scientific Council meeting of June 2000 (NAFO SCS Doc. 00/23 as referred to under item 4(a) above). They noted that the information contained in the EU proposal encompassed the information set out in the Scientific Council document. The representative of the European Union explained that the codes used in the European Union paper were the standard ISO and FAO international codes, with the primary methodology taken from the North Atlantic format. This enabled the Contracting Parties to avoid being locked into a single system. The representative of the United States was able to endorse document SCS 00/23 meeting the scientific requirements of the observer manual. The representative of Japan supported the use of document SCS 00/23 as an observer manual.

However after some protracted discussion, it was concluded that Contracting Parties should examine and evaluate both the paper from the European Union and document SCS 00/23 prior to the Annual Meeting. This would enable a finalised discussion to take place at the Annual Meeting.

5. Possible Amendments to Conservation and Enforcement Measures Regarding Juvenile Fish

The representative of Canada introduced two proposals to amend the existing Conservation and Enforcement Measures in respect of juvenile fish (Annex 5). He also referred to an information note (Annex 6) which went into further detail on the issue of Greenland halibut. The Chairman noted that no other delegation had a proposal at this stage. In particular the Canadian representative noted that at the Fisheries Commission meeting of September 1999, STACTIC had been directed as follows:

"In light of the advice of the Scientific Council, STACTIC shall review all management options by which catches of juvenile fish can be reduced taking into account the various NAFO fisheries and elaborate and recommend feasible measures to be incorporated in the NAFO Conservation and Enforcement Measures."

The measures proposed by Canada were:

1. Increase in the mesh size from 130mm to 145mm for all principal groundfish in the Regulatory Area (with redfish and capelin being excluded).
2. Restriction on the directed fishing for Greenland halibut in Divisions 3LNO to be prohibited at depths of less than 400 metres. The 400-metre contour would be delineated by a number of fixed co-ordinates to be determined.

The Canadian representative explained that the measures currently in operation in the Regulatory Area were inadequate for the protection of the juvenile fish. This was hindering the rebuilding of the groundfish stocks. The Canadian mesh size was already 145mm and sometimes 155mm irrespective of the fishing grounds.

With respect to the Greenland halibut, adequate protection must be given to the juveniles. With a depth restriction of 400 metres, great benefit could be accorded to the stock. It was suggested that the 400-metre depth was only an example and perhaps the restriction may need to be at a lower depth. In particular, it was noted that the current Greenland halibut fishery is a juvenile-based fishery. With a depth restriction, far less of the juvenile part of the stock would be targeted since the juveniles do not swim at the greater depths.

The representative of the European Union questioned the reasoning behind the retention of the mesh size for redfish and for restricting the proposed depth restriction measure to Divisions 3LNO.

The Canadian representative explained that while the depth restriction was aimed at protecting juvenile Greenland halibut, reductions in by-catch of other groundfish, including yellowtail flounder and American plaice could also be realised. This, he believed, was an added benefit to such a depth restriction. For redfish, it was not felt appropriate to increase the mesh size; some have even expressed the view in the past that it could be reduced. The omission of area 3M was an oversight on the part of Canada.

The representative of the United States gave full support to the Canadian proposal, although he acknowledged that there could be difficulties in enforcement for the depth restriction measure pending final geographic co-ordinates of such a depth restriction.

The Japanese representative was not at all convinced of the need to take measures to protect the juvenile groundfish using an increased mesh size, or of the need to impose depth restrictions for Greenland halibut. He did, however, acknowledge that excessive incidental by-catch of juveniles was undesirable. The Russian representative concurred with this view.

Once again, the representative of Canada explained the background to the Canadian proposals and in particular, the fact that the Scientific Council had brought the attention of the Fisheries Commission to their concern about the need for the Parties to take measures to reduce catches of juvenile Greenland halibut. It was felt that we could not return to the Fisheries Commission without a suitable result. The Precautionary Approach indicates that when in doubt, managers should err on the side of caution.

It appeared, from the point of view of the representative of Norway, that there was little to back the demand for an increased mesh size to 145mm, which appeared to do little to protect the juveniles. However, they could go along with the proposal based on the fact that the coastal State has a mesh size of 145mm. He noted that in any case, Norway employed sorting grids. Regarding the depth restriction, Norway was positive to closures to protect juvenile fish, but more evidence was required to support the proposed measure.

The representative of Canada explained the depth surveys, which had been carried out from 1995 to 1999 and which clearly demonstrated the potential positive effect of depth restrictions for the juveniles. For example, Greenland halibut juveniles generally prefer to remain in waters shallower than 500 metres. He also explained for the benefit of Japan that while the mesh size required for avoiding juveniles would in fact be 205mm, the 145 mm mesh size proposed was a compromise to minimise the impact on commercial fishing while reducing juvenile catches. The Japanese representative considered that this would make any commercial fishery very difficult.

In conclusion, the representative of the European Union noted that the mesh size had been discussed on numerous occasions but that no new arguments had been put forward. Any new measures should be appropriate and suitable. With respect to the depth restrictions, the European Union was of an open mind. The matter should be examined carefully and the Scientific Council should make an assessment and report back accordingly. Acknowledging that something needed to be done, the representative of the United States agreed with the need for such an assessment. The representative from Canada, whilst continuing to be frustrated at the lack of real progress, presented a paper as the basis of a request to the Scientific Council on possible depth restrictions in the Greenland halibut fishery. In order to seek advice from the Scientific Council on the costs and benefits of various closure options and fishing mortality rates, the European Union representative formulated a more detailed request to the Scientific Council (Annex 7). The Japanese representative did, however, note that any restrictions additional to those already in place should still enable there to be commercial fisheries. Existing restrictions were considered by Japan to be already sufficient to protect and increase the Greenland halibut stock. The Japanese representative formulated a request to the Scientific Council (Annex 8).

In order to reflect the urgency of the need for scientific information on the Greenland halibut fishery, it was agreed to reformulate the requests of the European Union and Japan into a single request concentrating on Greenland halibut. The request to the Scientific Council will read as follows:

“The Scientific Council is requested to evaluate:

- “1. Whether the current measures, with minimum size, mesh size and requiring vessels to move from areas where high percentages of undersized fish (less than 30cm in length) are caught, allow for the continued rebuilding of the stock in the presence of the current fishery.**
- “2. The bio-mass of Greenland halibut available to the commercial fishery over the whole distribution area of this species, in depth strata of 0 - 99 metres, 100 - 199 metres, 200 - 299 metres, 300 - 399 metres, 400 - 599 metres, 600 - 799 metres and 800 - 1,000 metres.**

“Separate values should be provided for:

- “a. Fish above and below the length of 50% maturity.**
- “b. Fish above and below the current minimum landing size.”**

Other elements in the European Union proposal will be retained for discussion at a later date.

The Canadian representative read a statement, which is attached to this report (Annex 9). He was particularly insistent on the relationship of NAFO to the United Nations Fish Stocks Agreement of 1995 and the consistency of NAFO to the coastal States. The Parties agreed that there would be further discussion of this matter at the Annual Meeting in September 2000 following a reply from the Scientific Council.

6. Other Matters

a. Review of submissions on shrimp catches and effort days

The meeting on shrimp stocks held in Washington D.C. in March 2000 requested that STACTIC examine possible new information on shrimp fishing activity in the NAFO Regulatory Area. This would allow for any newly updated data to be provided to the Fisheries Commission before the 2000 Annual Meeting.

The Executive Secretary introduced a paper on the allocations of days, used days and catches as discussed at the Washington D.C. meeting and as revised for the STACTIC meeting (Annex 10). Any data received since the shrimp meeting had been incorporated. However, it was noted that the data contained in this paper was still open to modification.

The Norwegian representative introduced a working paper (STACTIC Working Paper 00/1), which referred to the meeting in Washington D.C. In particular, he referred to Working Paper (Shrimp) 00/12, which specified the level of detail to be presented by Contracting Parties. It was felt that the current Norwegian working paper enhanced the transparency of Norway's shrimp fishery in area 3M. Furthermore, they would like to see other Contracting Parties providing similar details in their submissions to NAFO.

The representative of Denmark (in respect of Faroe Islands and Greenland) introduced a paper covering the revision of data from Greenland on shrimp (Annex 11). In his submission, he agreed with the Norwegian approach, in particular, as this would help the ongoing discussion in the meeting on shrimp and improve the transparency. Furthermore, Denmark (in respect of Faroe Islands and Greenland) cautioned the use of data from the STATLANT reports as data in these reports may have been statistically processed by other authorities outside the fisheries management. Data in the STATLANT reports is based on information from fishing logbooks which reflects the actual fishing days and not the fishing days as calculated according to the entry- and exit- haul reports.

The Canadian representative was able to support the Norwegian approach, but had some doubts on where the data should actually be revised. He also felt that it would be necessary for any changes submitted to be clearly explained. Whilst the United States was able to agree with Canada, there was general agreement by all Parties on the need for clear explanation. The Japanese representative noted the doubts raised as a result of the uncertain data.

The representative of the European Union questioned whether it was wise to use figures as far back as 1993. The measure for shrimp was established in 1995. Subsequently, figures had been constantly changing and as is normal for fisheries, would continue to change. Prior to 1995, the fishery had been entirely unregulated with consequences and uncertainty for any figures from that time. Questioned by Norway about the high number of days used by the European Union for the reference period, the representative of the European Union felt that the emphasis being laid upon this issue by Norway was entirely due to their own high catches in the earlier years.

The representative of Estonia explained, that his Country had difficulties in being able to provide suitable statistics for the earlier years in question.

The Chairman referred to the compilation of shrimp catches in area 3M prepared by the Executive Secretary (Annex 12). This was the best available data and was to be read in conjunction with Annex 10 (Working Paper 00/2). It was therefore suggested that this data be forwarded to the Fisheries Commission.

The Norwegian representative still insisted on getting further clarification from other Contracting Parties at this stage from both Iceland and the Russian Federation, in particular for the period 1993 to 1995. He noted the enormous difference in levels of detail contained in the compilation. Enhanced transparency was essential for the discussion at the Annual Meeting. The representative of the European Union felt that we were drowning in data and that there was still enormous uncertainty, suggesting that there should be some form of cut off date and that explanations should only be necessary from those Contracting Parties with revised figures. The representative of the European Union also expressed misgivings about an increased use of STACTIC to address topics other than issues of international control. The Canadian representative suggested that it should be for the Fisheries Commission to establish any cut off date.

In conclusion, the Chairman suggested that the data, being the best available, be forwarded to the Fisheries Commission as soon as possible and in any case, no later than 3 July. In so doing, the different quality of information available would be noted, particularly for the period from 1993 to 1995. The Fisheries Commission should also consider a cut off date for the input of data.

The representative of Norway requested that a statement be attached to this report (Annex 13).

The Japanese delegation suggested that, due to the uncertainty in the data and the ongoing changes, the original data be used.

b. Possible follow-up to the Working Group on the Precautionary Approach

The Chairman referred to the report of the Joint Scientific Council and Fisheries Commission Working Group on the Precautionary Approach held in Brussels from 29 February to 2 March 2000 (FC Doc. 00/2). In particular, he noted that STACTIC needs to examine the report and decide on what steps should be taken next. The report is as yet not adopted by the Fisheries Commission and will be examined by them at the meeting in September 2000.

The Canadian representative noted that the next steps were already set out for three stocks (cod 3NO, yellowtail flounder 3LNO and American plaice in 3LNO) in Annexes 6 to 8 of the report. Their motive for adding this point to the agenda was to deal with supportive management measures and good practices for the three stocks in question and hence, to discuss how to deal with these points. It follows on from the Canadian proposal at the 1999 Annual Meeting for a revision of part I.A.5 of the Conservation and Enforcement Measures.

The representative of the European Union felt that at this stage, it was necessary to get further guidance from the Fisheries Commission and that STACTIC should not be addressing questions of a general nature.

The Chairman noted that the proposal had endeavoured to pre-empt the discussion at the forthcoming Annual Meeting and acknowledged the need at this stage to have further guidance from the Fisheries Commission.

c. Charters / "Flag hopping"

The Canadian representative noted that at the last Annual Meeting, new rules on **chartering** had been adopted under Part I.B of the Conservation and Enforcement Measures. This had led to a

pilot project on chartering for 2000 and resulted in a charter between Poland and the Russian Federation. Clarification of this project was requested. Did it comply with the Conservation and Enforcement Measures? Were catch statistics available from the charter? The Executive Secretary indicated that information on this charter had been received from the authorities of both Contracting Parties. The question now arose from the Canadian side as to whether the charter itself had been properly notified to the other Contracting Parties. Both Canada and the European Union had doubts as to whether the Fisheries Commission had given approval in the prescribed manner. The Executive Secretary believed that in his interpretation of the rules, the charter had been properly authorised under Article XI (2) of the Convention. The Parties agreed that the issue of the pilot project should be raised for discussion in the Fisheries Commission at the Annual Meeting in September 2000. It was agreed that Canada would prepare a proposal to the Fisheries Commission to this effect. The representative of the European Union recalled that the currently applicable measures were limited in time to 2000 only. The representative of Japan also noted that his country could only accept chartering if it was in full compliance with the full conservation and enforcement measures.

On the separate subject of **flag hopping**, the representative of the European Union wanted to flag this issue, which, he felt, needs to be addressed in detail at a later stage. The European Union wanted to restate its concerns about the practice of vessel owners from one Contracting Party seeking double registry agreements with other Contracting Parties. It was noted that double-flag vessels are flagless and that this was of concern to both the European Union and Iceland. Material was still being compiled on the magnitude of this problem. The question arises as to whether NAFO wants to be an organisation of fishing States or become an organisation of quota buyers and sellers. This issue will need to be discussed again at the next meeting of the Fisheries Commission in September 2000. There was general support from other Contracting Parties, in particular Canada, Denmark (in respect of Faroe Islands and Greenland), Japan and Iceland. In particular, the Japanese representative noted his country's firm opposition to re-flagging as a means to avoid enforcement in regional fisheries organisations.

d. Possible harmonisation of port inspection reports

The representative of the European Union introduced a paper (Annex 14), which would lead to possible harmonisation of port inspection reports by the Contracting Parties under Part VII of the Conservation and Enforcement Measures. He explained the existing disparities in terms of delay experienced by the European Union, the increased practice of vessels landing in ports of other Contracting Parties and thus the difficulties in obtaining port inspection reports in good time. Harmonised port inspection would ensure a better exchange of information as well as improved data flow. It is felt that port inspection under Part VII of the Conservation and Enforcement Measures is one of the pillars of the existing scheme and an important source of information. The proposal of the European Union utilises the North Atlantic format and furthermore, will allow for any subsequent computerisation of data if so required.

It was agreed by the Parties, in particular Denmark (in respect of Faroe Islands and Greenland) and Canada, that this was a good starting point for discussion. The representative of Denmark (in respect of Faroe Islands and Greenland) suggested that there should be greater consistency and harmony between the systems operating on both sides of the Atlantic with regard to the North Atlantic format. The Parties agreed that they would review this proposal in greater depth before the Annual Meeting in September 2000. A two-stage approach would be taken which would examine the manual report and also the relevant codes. It was agreed that the Contracting Parties would prepare for these discussions.

e. Preparation of the review and, as appropriate, the revision of the “Program for Observers and Satellite Tracking”

The representative of the European Union referred to Part VI of the Conservation and Enforcement Measures (Program for Observers and Satellite Tracking). He noted that it was agreed in 1998 that the provisions of the Program are subject to review during 2000 and, as appropriate, revision. If there is a lack of agreement on what to do with this Program, the measures will terminate on 31 December 2000. The measures originally formed part of a package negotiated in 1995. The last evaluation of them was carried out in 1998, but only on the observer component. Satellite tracking is to be on a 100% basis by 1 January 2001 and thereafter, the appropriateness of 100% observer coverage will be questioned. Subsequently, there will be a need to see how the two components of the Program can be properly balanced. At this stage, it is important to flag this issue. The representative of the United States disagreed and indicated that if no changes were necessary to the Program, it should be retained as it is.

Both the representatives of Iceland and Japan agreed with the European Union on the importance of this issue. The representative of Iceland stated that he did not consider 100% observer coverage necessary. However, the representatives of both Canada and the United States did not agree on the interpretation that the measures would drop if there were no agreement of the result of a review. They felt the need to seek further guidance from his authorities and from the Fisheries Commission in September 2000 before proceeding any further. The representative of Denmark (in respect of Faroe Islands and Greenland) felt that it was too early to review the Program as there was still too little experience of Contracting Parties with satellite tracking.

f. New developments / possible overhaul of the Conservation and Enforcement Measures

The representative of the European Union explained that in the opinion of his delegation, it was necessary for all Contracting Parties to be aware that there may need to be a complete overhaul of the Conservation and Enforcement Measures. These measures had evolved over a number of years and clearly needed to be consolidated. Furthermore, there were newer and more recent developments in international fisheries, such as the 1995 UN Agreement on Straddling Fish Stocks and the FAO Compliance Agreement, which should be examined with a view to reviewing the NAFO measures.

The European Union would suggest at the 2000 Annual Meeting that a working group be established to assist NAFO in this respect. A similar exercise was being carried out in other regional fisheries organisations such as NEAFC in the Northeast Atlantic. It was inappropriate to await the entry into force of or adherence to the UN Agreement. NAFO needs to prepare already considering the practical effects of the current changes. Furthermore, NAFO will need to address the issue of the relationship between the special NAFO control rules and the general enforcement provisions of the UN Agreement. The aim of all this would be to strengthen NAFO rules and keep NAFO at the forefront of developments.

The Parties recognised the enormous task ahead of NAFO and agreed to address this issue at the Annual Meeting.

7. Adoption of the Report

The report was adopted by STACTIC on 29 June 2000.

8. Adjournment

The meeting adjourned at 15.05 on 29 June 2000.

Annex 1. List of Participants

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Annex 2. Agenda

1. Opening by the Chairman (D. Bevan - Canada)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Program for Observers and Satellite Tracking
 - (a) scientific requirements
 - (b) amendments to existing program
 - (c) observer manual
5. Possible amendments to Conservation and Enforcement Measures regarding juvenile fish
6. Other matters
 - a) Review of Submissions on shrimp catches and effort days
 - b) Possible follow-up to the Working Group on the Precautionary Approach
 - c) Charters: "Flag hopping"
 - d) Possible harmonization of port inspection reports
 - e) Preparation of the review and, as appropriate, the revision of the "Program for Observers and Satellite Tracking"
 - f) New developments/possible overhaul of the Conservation and Enforcement Measures
7. Adjournment

**Annex 3. Working Paper by Denmark (in respect of Faroe
Islands and Greenland)**
(STACTIC Working Paper 00/5)

During the discussion of the scientific requirements for the observer program in September 1999 the accuracy of the by-catch estimations and discards were questioned.

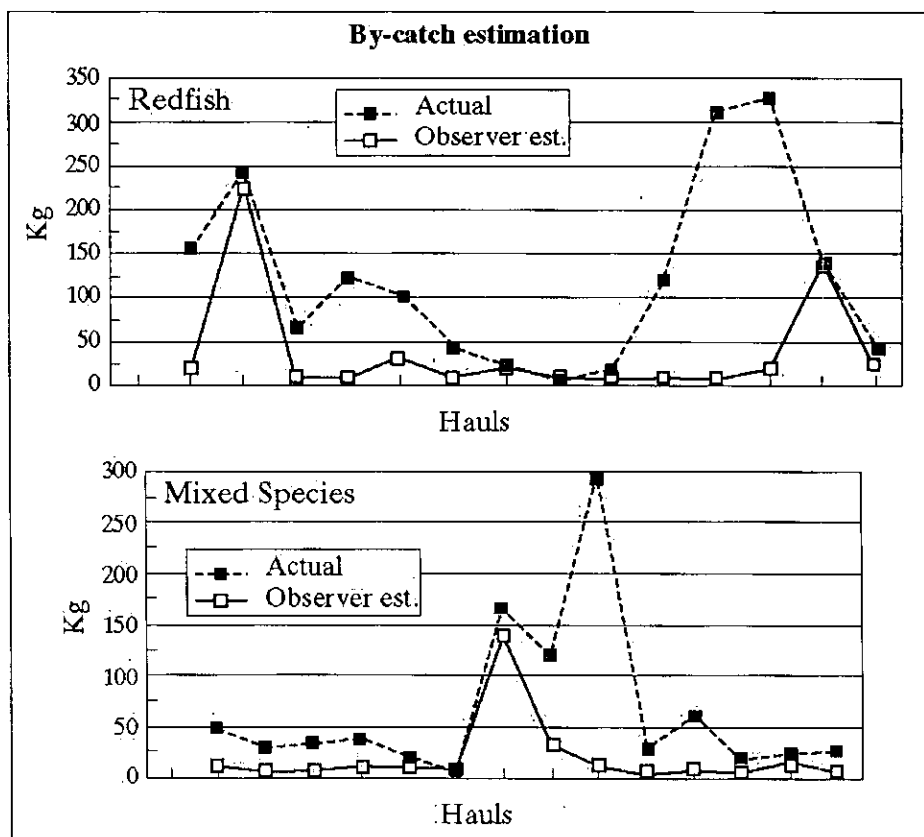
As quantities of by-catches and discards normally are based on a visual estimation made by the masters of the fishing vessels and the observers, Greenland biologists and the Greenland observers carried out a number of tests in order to evaluate the accuracy of by-catch estimations on board shrimp trawlers.

The results of the research, carried out in Greenland waters is displayed in the graphs below.

The estimate is based on a visual judgement of the catch in the codend and when it is emptied into the bin as well as during the processing/sorting of the catch.

The difference is striking, bearing in mind that the estimates are made by experienced observers.

In order to improve the quality of the by-catch- and discard data Denmark (in respect of Greenland and Faroe Islands) suggests that it becomes compulsory to collect by-catches in boxes or containers in order to make a proper estimate before any quantity is discarded.



Annex 4. Proposal (by Norway) to amend the NAFO Conservation and Enforcement Measures, Part VI.A.1(a) regarding independent and impartial observers
(STACTIC Working Paper 00/7)

At the STACTIC Meeting during the NAFO Annual Meeting in September 1999, it was agreed that it was needed to look at an amendment to the Conservation and Enforcement Measures, Part VI.A.1(a), to ensure that observers are independent and impartial.

We propose the following amendment:

These Observers are not to perform other duties e.g. working as crew members onboard the fishing vessel.

Annex 5. Proposals (by Canada) to amend the NAFO Conservation and Enforcement Measures Regarding Protection of Juvenile Groundfish
(STACTIC Working Paper 00/3)

General Background

At the September 1999 annual NAFO meeting, the Fisheries Commission directed that "In light of the advice of the Scientific Council, STACTIC shall review all management options by which catches of juvenile fish can be reduced taking into account the various NAFO fisheries and elaborate and recommend feasible measures to be incorporated in the NAFO Conservation and Enforcement Measures."

The Fisheries Commission made this statement in the context of discussions surrounding the setting of a TAC for 2+3KLMNO Greenland halibut. The subsequent TAC set by the Fisheries Commission was considerably higher than Canada and some other Contracting Parties had favoured, particularly in light of the continuing concern expressed by the Scientific Council over excessive catches of juvenile Greenland halibut.

The Scientific Council has, on a number of occasions, expressed similar concern regarding catches of juveniles in other groundfish stocks as well. The Scientific Council has also raised concerns regarding the need to keep bycatches of stocks, particularly those subject to NAFO moratoria, to the lowest possible level and reducing and controlling the amount of discards in the Regulatory Area.

The February 29-March 2, 2000 report of the Joint Scientific Council and Fisheries Commission Working Group on Precautionary Approach proposes 'next steps' in the implementation of the Precautionary Approach for the three stocks being considered on a pilot basis (3NO cod, 3LNO American plaice and 3LNO yellowtail). In all cases, under the 'Supportive Management Measures/Good Practices' section, the Working Group recommends that the Fisheries Commission take steps to minimize the catch of juveniles. While the Working Group's overall report has not yet been adopted by the Fisheries Commission, it would seem to be only common sense that measures, or good practices, be adopted to protect juveniles.

Adequate measures must be put in place to preserve young, immature fish, giving them a chance to develop and survive in sufficient numbers to spawning age so as to allow stocks to recover. Secondly, discarding of undersized fish at sea must be reduced. The inadequate measures currently in place have hindered the rebuilding of a number of NAFO-managed groundfish stocks. As in other areas of the world the size of fish being taken is too small.

(1) Increase in Mesh Size

Background

The current mesh size for all groundfish in the Regulatory Area is 130 mm. Canada began increasing its minimum mesh size a number of years ago from this level, in consultation with fish managers, scientists and fishermen, because of concerns with the capture of too many juvenile fish.

The minimum mesh size for Canadian fishermen fishing NAFO-managed stocks in both Sub-Areas 2+3 (except redfish and skate) is 145 mm both inside Canadian waters and within the NAFO Regulatory Area and many believe that this is still too small to adequately protect juveniles. This mesh size was increased a number of years ago as a precautionary measure to

enable some greater escapement of small fish without preempting the economics of a trawler fishery. In the context of 75-81 % of the 2+3KLMNO Greenland halibut biomass, for instance, being distributed within coastal state waters but 74 % of the total allocation and 80 % of the catch taking place in the NRA, it would be appropriate for NAFO to adopt the same minimum mesh size as the coastal state. Any benefit that might accrue to the resource as a result of this conservation measure by the coastal state will be effectively undermined if the minimum mesh size stays at 130 mm in the NRA.

Proposal #1

Proposed Amendment to Part V, Schedule IV of the Conservation and Enforcement Measures

Authorized Mesh Size of Nets

	<u>Species</u>	<u>Mesh Size</u>
a)	All principal groundfish, flatfishes and other groundfish and other fish with the exception of capelin and <u>redfish</u> as listed in Part V, Schedule II, Attachment II.	<u>145 mm</u>
b)	<u>redfish</u>	130 mm

Existing (b) and (c) be re-lettered (c) and (d).

(2) Depth Restriction for Greenland halibut

Background

Continued rebuilding of the Greenland halibut resource will depend on the ability of recruiting juvenile fish to reach spawning age. The probability of good recruitment will also be enhanced through the establishment of a rebuilt and stable spawning stock biomass. However, virtually 100% of the fishing mortality in the NAFO Regulatory Area, and much of the fishing mortality in coastal state waters, consists of juvenile fish. Unlike other groundfish fisheries in the NRA, where fishing mortality cuts across a broader age structure consisting primarily of adult fish, the Greenland Halibut fishery is essentially a 'recruitment fishery'.

Previously, the Scientific Council noted that recovery of 2+3KLMNO Greenland Halibut has commenced for the fishable population (>35 cm) which currently was about 40% of levels of the late 1970s through early 1980s. The population of the female spawning stock biomass (>60 cm) remains at or near record lows (less than 10% of historic levels). In its June 2000 meeting, the Scientific Council noted that the high exploitation of immature fish and the low abundance of sexually mature fish (>60 cm) is indicative of a situation of significant biological risk, although this risk cannot be quantified at present. The Council again recommended that measures be considered to reduce, as much as possible, the exploitation of juvenile Greenland halibut in all fisheries.

The Council, in its June 2000 report also notes that it is concerned that increased catches of Greenland halibut will result in increased catches of other species, some of which are currently under moratorium. They strongly recommend that the Fisheries Commission take steps to ensure

that any bycatches of other species during the Greenland halibut fishery are true and unavoidable bycatches.

While the fishable biomass appears to be recovering, the same cannot be said for the female spawning biomass (i.e. >60 cm) which remains at or near record low levels. The initial recovery trends of this stock is primarily a result of the emergence of several good year classes. Its continued recovery and future viability will depend in part on the rebuilding of a broad age structure within the spawning stock biomass.

The precautionary approach, and simple common sense, suggests that greater caution is required when managing a recruitment or juvenile-based fishery. If the reality of the commercial trawler fishery results in a greater mortality on juveniles than would otherwise be the case, then specific measures should be undertaken to mitigate any associated impact on the long-term health on the resource, particularly when viewed in the context of a re-building objective. It is not prudent management to rely on recent high recruitment trends from a low spawning stock biomass.

It is also important to note that a natural separation between juvenile and older Greenland halibut appears to follow the 500-fathom contour, as younger halibut prefer depths less than 500 fathoms.

Significant quantities of cod, yellowtail, and American plaice have been caught as by-catch in the NRA. There are higher relative abundance of these species and of juvenile fish (including Greenland halibut) in shallower waters. While permitted under the current by-catch regime, it is apparent that these fish are not being caught as a true incidental catch, at least during the directed Greenland halibut fishery, as the distribution of this fishable biomass occurs in deeper waters. It would be effective and feasible for directed Greenland halibut fisheries to be restricted from geographic coordinates that involve depths less than 400 meters (or perhaps even deeper).

There is virtually no overlap in the 'commercial-size' distribution of Greenland halibut and yellowtail. Similarly, overlap in distribution of Greenland halibut and American plaice/cod generally occurs at depths greater than 200 meters for all sizes and greater than 400-750 meters for commercially fished sizes. Based on this information, it would be effective and feasible for directed Greenland halibut fisheries to be restricted from geographic coordinates that involved depths less than 400-750 meters. Such a restriction would be effective in minimizing by-catch of cod, yellowtail and American plaice, in mitigating the catch of witch, and in mitigating the catch of 'pre-recruit' Greenland halibut. Such a restriction would be enforceable, yet would not place undue hardship on the economic viability of the directed Greenland halibut fishery conducted by the trawler fleet.

Proposal #2

Proposed Amendment to Part I, Management of the Conservation and Enforcement Measures

Addition of new section L as follows:

L. Other Measures – Management Measures for Greenland halibut in Divisions 3LNO

1. Directing for Greenland halibut in Divisions 3LNO will be prohibited in waters of depths less than 400 meters.
2. For the purpose of paragraph (1), the 400 meter contour will be delineated by the following coordinates:

Annex 6. Additional Information (by Canada) - Depth Proposal for Greenland halibut

(STACTIC Working Paper 00/3, Addendum)

A total of 1803 successful Campelen sets were examined from fall surveys in 3LNO from 1995-99. The following table shows the percentage of catch numbers, by depth zone, for Greenland halibut, yellowtail, American plaice, cod, witch, and skate. **It is important to note** that while representative in a general sense, these percentage figures are overstated in relation to the depth distribution of the respective species that would be available to commercial gear. To illustrate, the percentage of fishable biomass of Greenland halibut (>35 cm) that are at depths less than 400 meters would be significantly lower than the 50.5 % that relates to the small mesh Campelen trawl. **It is also important to note** that a natural separation between juvenile and older Greenland halibut appears to follow the 500 meters contour; as younger halibut prefer depths less than 500 meters.

Depth	Gr. Halibut	Yellowtail	A. Plaice	Cod	Witch	T. Skate
<100 m	2.1 %	99.9 %	36.2 %	53.1 %	20.8 %	67.5 %
<200 m	5.8 %	100 %	74.7 %	73.8 %	39.6 %	73.8 %
<400 m	50.5 %	100 %	89.9 %	98.2 %	51.5 %	95.4 %
<750 m	78.7 %	100 %	96.7 %	100 %	88.9 %	99.7 %
<1000 m	91.4 %	100 %	99.9 %	100 %	98.9 %	99.9 %

There is virtually no overlap in the 'commercial-size' distribution of Greenland halibut and yellowtail. Similarly, overlap in distribution of Greenland halibut and American plaice/cod generally occurs at depths greater than 200 meters for all sizes and greater than 400-750 meters for commercially fished sizes. Based on this information, **it would be effective and feasible for directed Greenland halibut fisheries to be restricted from geographic coordinates that involved depths less than 400-750 meters.** Such a restriction would be effective in minimizing by-catch of cod, yellowtail and American plaice, in mitigating the catch of witch, and in mitigating the catch of 'pre-recruit' Greenland halibut. Such a restriction would be enforceable, yet would not place undue hardship on the economic viability of the directed Greenland halibut fishery conducted by the trawler fleet.

Annex 7. Working Paper by European Union
(STACTIC W.P. 00/11)

Draft of Request to Scientific Council on Greenland Halibut Depth-Distribution and Protection of Juveniles

Scientific Council is requested to evaluate:

1. The fishable biomass of the main commercial species of fish in depth strata of 0-99m, 100-199m, 200-299m, 300-399m.

For all species, separate values should be provided for

- a. Fish above and below the length of 50% maturity.
 - b. Fish above and below the current minimum landing size.
2. The likely future medium-term development for Greenland Halibut, Yellowtail Flounder, cod in 3NO and as many other stocks as possible, under the following assumed constraints:
 - a. Closure of targeted Greenland Halibut fishery in depths less than 100, 200, 300, or 400 metres, and redirection of effort so removed onto the remaining depth strata according to recent fishing practices. These cases should be compared with evaluation of current fishing practices.
 - b. Subject to the above, likely future medium-term consequences (5 to 10years) for the yield, spawning biomass, exploitable biomass and recruitment, stating the relevant biological assumptions.
 - c. The scenarios should be explored for a range of fishing effort assumptions corresponding to:
 - i) Maintaining overall fishing effort at the same levels as estimated in the last year for which good information is available.
 - ii) Increase or decreases of +/- 30% in fishing effort from this value.
 - iii) Additional scenarios as considered appropriate by Scientific Council

In the above scenarios, Scientific Council should evaluate whether these fishing strategies provide adequate long-term protection to juvenile fish to allow maintenance of the spawning biomass at an appropriate level.

Annex 8. Working Paper by Japan
(STACTIC W.P. 00/12)

Draft of Request to Scientific Council to evaluate Greenland Halibut

Whether the current restriction is enough to protect Juveniles

1. Do the current measures with minimum size, mesh size and requiring vessels to move from areas where high percentages of juveniles are caught, allow for the continued rebuilding of the stock in the presence of the current fishery?
2. How much catch of juvenile fish will result in risks to the stock rebuilding?
3. If the fishing mortality is largely concentrated on adult fish what is the potential impact on spawning stock biomass?
4. Is a mesh size requirement sufficient to achieve the same conservation goals as a combination of minimum depth and small fish size restrictions?

Annex 9. Statement from the Representative of Canada

Agenda Item 5 - Possible amendments to Conservation and Enforcement Measures regarding juvenile fish

Mr. Chairman,

Canada is getting a little frustrated at lack of any progress on this issue. As I said this morning, the Fisheries Commission gave STACTIC, what we thought, were very clear instructions – I'll read them again:

"In light of the advice of the Scientific Council, STACTIC shall review all management options by which catches of juvenile fish can be reduced taking into account the various NAFO fisheries and elaborate and recommend feasible measures to be incorporated in the NAFO Conservation and Enforcement Measures."

We do not understand what is unclear about this sentence. It makes no mention as to whether anything should be appropriate or not. (I'm referring here to our earlier discussion on possible revisions to the Program for Observers and Satellite Tracking, if appropriate.) It clearly states that STACTIC should be recommending measures or amendments to existing measures to reduce catches of juvenile fish. It is talking about all fish stocks – not just Greenland halibut.

Once again, I would like to remind delegates why we got these instructions – they were linked to the agreement on a TAC for Greenland halibut for 2000. They came out of the Heads of Delegation meeting. Canada, and others, finally accepted a higher TAC for Greenland halibut but only if STACTIC was instructed to come up with measures to protect juveniles.

So – what ideas have we come up with? Canada has made 2 proposals, neither of which appear to be acceptable to the majority of participants here. But no one else has come up with any other proposals.

A number of statements were made this morning by delegations that had difficulty with accepting our proposals – yet they have not offered any alternatives.

Some have questioned whether or not the Scientific Council has presented any views to back up our proposals. This has always been the excuse in STACTIC for not moving forward on unfavourable proposals. I can understand why some may wish to query the Scientific Council on our proposal for depth restrictions – this is an issue that has never before been contemplated by STACTIC or NAFO. But on mesh size – STACTIC has had plenty of discussions on increasing mesh sizes before – this is not a new concept.

Whatever happened to the concepts embodied in UNFA. Now, we know that not all Contracting Parties around this table have ratified UNFA, but surely to goodness fisheries management around the world has at least bought into the idea embodied in Article 6 of UNFA that "states shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures."

I would just like to remind delegates that Canada's interpretation of the NAFO Convention is that NAFO is supposed to be consistent with the coastal states when it comes to managing straddling stocks – not the other way around.

Canada has put in place a whole suite of management measures that are much more restrictive than what is in place within the NRA. Just like within the NRA, no-one measure by itself will necessarily make a difference – but taken as a whole, yes they can make a difference.

In Canada we reacted a number of years ago to continuing concern about catches of juvenile groundfish. One of the measures we adopted was to increase mesh size. We also implemented what we call a small fish protocol. We have explained these measures and all of our other measures to STACTIC before and to other NAFO Working Groups.

I for one, do not want us to go back to the Fisheries Commission saying that we discussed a couple of ideas but need more input from the Scientific Council before we act.

Annex 10. Shrimp 3M Fishery Statistics, 1993-1999
(STACTIC Working Paper 00/2)

- Allocated/used days and catches (data as discussed at the Washington Meeting, March 2000) - Table 1
- Revised catches and allocated/used days (as received at the Secretariat by June 26, 2000) - Table 2

Table 1. Shrimp 3M allocated/used days and catches 1993-1999 (data as discussed at the Washington meeting in March 2000)

Contracting Party	1993		1994		1995		1996		1997		1998		1999				
	Used	Catch	Used	Catch	Used	Catch	Alloc.	Used	Alloc.	Used	Alloc.	Used	Alloc.	Used	Catch		
Canada	507	3191	333	1042	319	968	445	311	443	156	784	443	82	435	456	79	385
Cuba	-	-	-	-	-	-	100	-	100	-	-	100	-	-	100	33	119
Den.-Faroes	-	7076	-	4998	-	5993	1785	-	1606	1241	7387	1607	1271	7741	1606	1111	9119
Den.-Greenland	-	3788	-	2275	-	2400	572	-	1107	515	104	515	108	865	515	56	576
Estonia	-	-	-	1051	-	2380	1852	993	1217	692	3239	1217	916	5694	1667	1645	10846
European Union	139	754	97	432	44	487	508	-	198	457	63	457	105	1553	457	268	1265
France (SP)	-	-	-	-	-	-	N/A	-	-	100	22	N/A	-	-	100	-	-
Iceland	279	2195	638	2355	1842	7481	N/A	5256	20680	N/A	1362	7197	N/A	968	6572	N/A	7643
Japan	-	-	-	-	-	-	N/A	-	-	N/A	-	-	-	-	100	-	-
Korea	-	-	-	-	-	-	N/A	-	-	N/A	-	-	-	-	100	-	-
Latvia	-	-	190	324	545	679	421	504	1253	400	369	997	400	313	1191	416	598
Lithuania	-	-	453	863	638	980	638	918	1585	579	611	1785	579	866	3107	579	3370
Norway	1354	7075	2130	8625	2113	9534	2206	1482	5805	1985	334	1831	1985	214	1339	1985	428
Poland	-	-	-	-	-	-	N/A	-	-	N/A	100	400	400	40	148	100	104
Russia	76	54	41	350	1533	3327	N/A	2458	4444	2600	807	1090	-	-	2100	417	1126
USA	-	-	-	-	-	-	N/A	-	-	N/A	-	-	-	-	100	-	-
Total	2355	24133	3882	22315	7034	34229	8527	11922	46638	19002	5757	25007	10403	4883	28645	10381	6760

Table 2. Revised Shrimp 3M catches and allocated/used days 1993-1999 (as received at the Secretariat up to June 27 2000).
(Revised data received from Estonia, Faroes, Greenland, Iceland, Latvia, Lithuania, Norway and Poland); Data for Russia 1993-95 are noted as provisional.

Contracting Party	1993		1994		1995		1996		1997		1998		1999				
	Used	Catch	Used	Catch	Used	Catch	Alloc.	Used	Alloc.	Used	Alloc.	Used	Alloc.	Used	Catch		
Canada	507	3191	333	1042	319	968	492	311	443	156	784	443	82	435	456	79	385
Cuba	-	-	-	-	-	-	100	-	100	-	-	100	-	-	100	33	119
Den.-Faroes	1324	7333	1785	6791	1093	5993	1785	1831	1606	1250	7410	1606	1292	9368	1606	1051	9199
Den.-Greenland	572	3780	482	2272	265	2316	572	202	1098	515	31	515	113	862	515	65	537
Estonia	149	268	609	1051	2153	2379	1852	990	1898	1217	1254	1217	1454	5533	1667	1651	10834
European Union	139	754	97	432	44	487	508	-	198	457	63	457	105	1553	457	268	1265
France (SP)	-	-	-	-	-	-	100	-	-	100	22	100	-	-	100	-	-
Iceland	279	2195	638	2355	1842	7481	N/A	5256	20682	N/A	1327	6473	N/A	980	6580	N/A	9296
Japan	-	-	-	-	-	-	100	-	-	100	-	-	-	-	100	-	-
Korea	-	-	-	-	-	-	100	-	-	100	-	-	-	-	100	-	-
Latvia	-	-	190	324	549	679	544	504	1253	490	439	997	490	402	1191	490	438
Lithuania	-	-	453	863	638	980	638	918	1585	579	611	1785	579	866	3107	579	3371
Norway	1403	7074	2206	8625	2162	9391	2206	1549	5648	1985	329	1886	1985	211	1339	1985	394
Poland	-	-	-	-	-	-	100	-	-	100	100	100	40	148	100	104	859
Russia	76	54	41	350	1533	3327	N/A	2458	4444	2600	807	1090	-	-	2100	417	1126
USA	-	-	-	-	-	-	100	-	-	100	-	-	-	-	100	-	-
Total	4449	24649	6834	24105	10698	34001	9197	14019	46402	10492	6389	25180	10492	5545	30116	10455	6342

Annex 11. Submission on shrimp catches and effort days - Working Paper by Denmark (in respect of Faroe Islands & Greenland)
(STACTIC Working Paper 00/4, Rev. - submitted by Greenland)

With regards to the STACTIC agenda p. 6a and with reference to the Working Group meeting on Shrimp in 3M in Washington, D.C., 27 March 2000 it was agreed that Contracting Parties should provide data revisions to the Secretariat in time for the June 2000 STACTIC meeting.

Greenland hereby forwards information on vessels, catches and effort days for the period 1993-1999.

Entry and Exit dates are according to the hail reports of the vessels and catches are accumulated catches based on logbook entries and landing documentation.

Furthermore a specification on shrimp catches by year and months is also attached.

Greenland											
1993											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Tinniamut	OUKV	4-Jun-93	16-Jul-93	43			0			0	43
Jesper Balinda	OUQJ	28-May-93	13-Jun-93	17	16-Jun-93	26-Jul-93	41	7-Aug-93	15-Aug-93	9	67
Tasermiut	OUQU	31-May-93	4-Jul-93	35	7-Jul-93	20-Jul-93	14			0	49
Polar Princess II	OWFI	26-Jun-93	4-Sep-93	71	7-Sep-93	14-Sep-93	8			0	79
Killit	OWMM	30-Aug-93	4-Sep-93	6	8-Sep-93	3-Oct-93	23			0	29
Tumulik	OYCK	29-May-93	15-Jun-93	18	24-Jun-93	7-Jul-93	14			0	32
Tasilaq	OYHO	31-May-93	1-Aug-93	63			0			0	63
Cipocpen	OYKK	8-Jun-93	9-Jul-93	32			0			0	32
Betty Balinda	OYRT	8-Jun-93	7-Jul-93	30			0			0	30
Nanoq Trawl	OYXT	1-Jun-93	22-Jul-93	52			0			0	52
Anso Mblgard	OYZL	7-Jun-93	7-Jul-93	31	10-Jul-93	1-Aug-93	23			0	54
Keassasuk	OZKQ	8-Jun-93	16-Jul-93	39			0			0	39
Total				437			128			9	572
1994											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Tinniamut	OUKV	29-May-94	9-Jul-94	42			0			0	42
Tasermiut	OUQU	23-May-94	4-Jul-94	43			0			0	43
Polar Princess II	OWFI	7-Jul-94	27-Sep-94	83			0			0	83
Pegina C	OYEZ	26-Jun-94	8-Jul-94	13			0			0	13
Tasilaq	OYHO	30-May-94	14-Jul-94	46			0			0	46
Betty Balinda	OYRT	29-Jun-94	20-Jul-94	22			0			0	22
Anso Mblgard	OYZL	7-Apr-94	15-May-94	39	19-May-94	3-Jul-94	46	7-Jul-94	13-Aug-94	38	123
Nuk	OZDH	1-May-94	2-Jun-94	33	6-Jun-94	19-Jul-94	44			0	77
Keassasuk	OZKQ	12-Jun-94	14-Jul-94	33			0			0	33
Total				364			90			38	482
1995											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Killit	OUQG	22-May-95	23-Jun-95	33	27-Jun-95	4-Aug-95	39			0	72
Tasermiut	OUQU	30-May-95	2-Jul-95	34			0			0	34
Tasilaq	OYHO	23-Jun-95	20-Jul-95	28			0			0	28
Betty Balinda	OYRT	25-Jun-95	30-Jun-95	6			0			0	6
Nanoq Trawl	OYXT	14-Jun-95	27-Jul-95	44			0			0	44
Nuk	OZDH	15-May-95	22-Jun-95	39	26-Jun-95	6-Aug-95	42			0	81
Total				184			81			0	265
1996											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Tasilaq	OYHO	27-May-96	4-Jul-96	39			0			0	39
Nanoq Trawl	OYXT	8-Jun-96	17-Jul-96	40			0			0	40
Pegina C	OYEZ	18-Jun-96	20-Jul-96	33			0			0	33
Nordine C	OYCZ	17-Jun-96	23-Jul-96	37			0			0	37
Keassasuk	OZKQ	9-May-96	2-Jun-96	25			0			0	25
Polar Pasja	OURJ	3-Sep-96	30-Sep-96	28			0			0	28
Total				202			0			0	202
1997											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Tasilaq	OYHO	17-May-97	5-Jun-97	20			0			0	20
Nanoq Trawl	OYXT	13-Jul-97	23-Jul-97	11			0			0	11
Total				31			0			0	31
1998											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Polar Arrarq	OZMA	16-May-98	25-Jun-98	41	29-Jun-98	2-Aug-98	35			0	76
Pegina C	OYEZ	25-Jun-98	31-Jul-98	37			0			0	37
Total				78			35			0	113
1999											
Vessel Name	FIC	Trip1			Trip2			Trip3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Polar Arrarq	OZMA	18-May-99	26-Jun-99	40	29-Jun-99	23-Jul-99	25			0	65
Total				40			25			0	65

Greenland - Summary 1993-1999

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1993					47.85	1859.02	1460.54	242.03	160.81	9.75			
1994				80.39	375.71	854.36	689.49	165.68	106.37				
1995					279.07	933.04	1003.72	100.17					
1996					191.29	466.85	392.86	47					
1997					44.25	14.75	46						
1998					133.89	262.60	448.77	16.74					
1999					115.66	231.32	190.02						

Annex 12. Compilation of Shrimp 3M Catches and Effort Days for 1993-1999
(STACTIC Working Paper 00/8 - NAFO Secretariat)

NOTE: This is confidential information from Contracting Parties and not for public release.

Submissions as received from Contracting Parties up to June 27, 2000 indicating revised catches and efforts days for the shrimp fishery in 3M.

Denmark (Faroe Islands)

3M Shrimp Catch and Effort, 1993-1999

Year	No. Vessels*	Fishing Days	Catch, tonnes
1993	9	1.324	7.333
1994	10	1.785	6.791
1/1-31/8 1995	7	705	4.228
1995	7	1.093	5.993
1996	10	1.831	8.688
1997	6	1.250	7.410
1998	7	1.292	9.368
1999	6	1.051	9.199

* The number of different vessels 1/1-1993 to 31/8-1995 was 11.

3L shrimp catch, 1993-1999

Year	Catch, tonnes ¹⁾
1993	1.789
1994	356
1995	
1996	79
1997	485
1998	515
1999	700

¹⁾ Catches in 1994 and following years are in connection with research fishery.

Denmark (Greenland)
3M Shrimp Catch and Effort, 1993-1999

3M Shrimp Catch/Effort 1993-1999											
1993											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Timmiarmiut	OQKV	4-Jun-93	16-Jul-93	43			0			0	43
Jesper Belinda	OQOO	28-May-93	13-Jun-93	17	16-Jun-93	26-Jul-93	41	7-Aug-93	15-Aug-93	9	67
Tasermiut	OWQU	31-May-93	4-Jul-93	35	7-Jul-93	20-Jul-93	14			0	49
Polar Princess II	OWTI	26-Jun-93	4-Sep-93	71	7-Sep-93	14-Sep-93	8			0	79
Killit	OWVM	30-Aug-93	4-Sep-93	6	8-Sep-93	3-Oct-93	26			0	32
Tunnulk	OYCK	29-May-93	15-Jun-93	18	24-Jun-93	7-Jul-93	14			0	32
Tasiliq	OYHO	31-May-93	1-Aug-93	63			0			0	63
Qipooqag	OYKK	8-Jun-93	9-Jul-93	32			0			0	32
Betty Belinda	OYRT	8-Jun-93	7-Jul-93	30			0			0	30
Nanoq Trawl	OYXT	1-Jun-93	22-Jul-93	52			0			0	52
Anso Mølgård	OYZL	7-Jun-93	7-Jul-93	31	10-Jul-93	1-Aug-93	23			0	54
Kaassassuk	OZKQ	8-Jun-93	16-Jul-93	39			0			0	39
Total				437			126			9	572
1994											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Timmiarmiut	OQKV	29-May-94	9-Jul-94	42			0			0	42
Tasermiut	OWQU	23-May-94	4-Jul-94	43			0			0	43
Polar Princess II	OWTI	7-Jul-94	27-Sep-94	83			0			0	83
Regina C	OYBZ	26-Jun-94	8-Jul-94	13			0			0	13
Tasiliq	OYHO	30-May-94	14-Jul-94	46			0			0	46
Betty Belinda	OYRT	29-Jun-94	20-Jul-94	22			0			0	22
Anso Mølgård	OYZL	7-Apr-94	15-May-94	39	19-May-94	3-Jul-94	46	7-Jul-94	13-Aug-94	38	123
Nuuk	OZDH	1-May-94	2-Jun-94	33	6-Jun-94	19-Jul-94	44			0	77
Kaassassuk	OZKQ	12-Jun-94	14-Jul-94	33			0			0	33
Total				354			90			38	482
1995											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Killituaq	OWGG	22-May-95	23-Jun-95	33	27-Jun-95	4-Aug-95	39			0	72
Tasermiut	OWQU	30-May-95	2-Jul-95	34			0			0	34
Tasiliq	OYHO	23-Jun-95	20-Jul-95	28			0			0	28
Betty Belinda	OYRT	25-Jun-95	30-Jun-95	6			0			0	6
Nanoq Trawl	OYXT	14-Jun-95	27-Jul-95	44			0			0	44
Nuuk	OZDH	15-May-95	22-Jun-95	39	26-Jun-95	6-Aug-95	42			0	81
Total				184			81			0	265
1996											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Tasiliq	OYHO	27-May-96	4-Jul-96	39			0			0	39
Nanoq Trawl	OYXT	8-Jun-96	17-Jul-96	40			0			0	40
Regina C	OYBZ	18-Jun-96	20-Jul-96	33			0			0	33
Nicotine C	OYBZ	17-Jun-96	23-Jul-96	37			0			0	37
Kaassassuk	OZKQ	9-May-96	2-Jun-96	25			0			0	25
Polar Raasia	OUPJ	3-Sep-96	30-Sep-96	28			0			0	28
Total				202			0			0	202
1997											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Tasiliq	OYHO	17-May-97	5-Jun-97	20			0			0	20
Nanoq Trawl	OYXT	13-Jul-97	23-Jul-97	11			0			0	11
Total				31			0			0	31
1998											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Polar Amaroq	OZMA	16-May-98	25-Jun-98	41	29-Jun-98	2-Aug-98	35			0	76
Regina C	OYBZ	25-Jun-98	31-Jul-98	37			0			0	37
Total				78			35			0	113
1999											
Vessel Name	R/C	Trip 1			Trip 2			Trip 3			Total Days
		In	Out	Days	In	Out	Days	In	Out	Days	
Polar Amaroq	OZMA	18-May-99	26-Jun-99	40	29-Jun-99	23-Jul-99	25			0	65
Total				40			25			0	65

Greenland - Summary 1993-1999

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1993					47.85	1859.02	1460.54	242.03	160.81	9.75			
1994				80.39	375.71	854.36	689.49	165.68	106.37				
1995					279.07	933.04	1003.72	100.17					
1996					191.29	466.85	392.86	47					
1997					44.25	14.75	46						
1998					133.89	262.60	448.77	16.74					
1999					115.66	231.32	190.02						

Estonia

3M Shrimp Catch and Effort, 1993-1999

1993			1994			1995			1996			
Days Used	No. of Vessels	Catch	Days Used	No. of Vessels	Catch	Days Used	No. of Vessels	Catch	Days Allocated	Days Used	No. of Vessels	Catch
149	1	268	609	4	1051	2153	9	2379	1852	990	5	1898
						Up to 31 August						
						Days Used	No. of Vessels	Catch				
						1852	9	1654				

1997				1998				1999			
Days Allocated	Days Used	No. of Vessels	Catch	Days Allocated	Days Used	No. of Vessels	Catch	Days Allocated	Days Used	No. of Vessels	Catch
1217	1254	6	3240	1217	1454	7	5533	1667	1651	9	10834

1997

Regn.no.	Vessels name	In	Out	Days	Port of unloading	Catch(kg)	Total Catch	Catch pr. day	
2288	Petur Jónss. RE-69	20-May	18-Jun	30	Argentina	201,370		6,719	
2288	Petur Jónss. RE-69	23-Jun	26-Jul	34	Hafnarfjörður	313,770		9,229	
				64		515,340	515,340	8,052	
1352	Svalbarði SI-302	27-Jul	24-May	28	Harbour Grace	114,100		4,075	
1352	Svalbarði SI-302	1-Jun	28-Jun	28	Argentina	123,789		4,421	
1352	Svalbarði SI-302	6-Jul	10-Aug	36	Harbour Grace	193,037		5,362	
1352	Svalbarði SI-302	19-Aug	14-Sep	30	Argentina	146,051		4,868	
1352	Svalbarði SI-302	21-Sep	19-Oct	29	Harbour Grace	138,634		4,780	
1352	Svalbarði SI-302	24-Oct	10-Nov	18	Harbour Grace	66,470		3,693	
1352	Svalbarði SI-302	17-Nov	14-Dec	28	Siglufjörður	101,421		3,622	
				197		883,502	883,502	4,485	
2258	Erik BA-101	12-Jan	27-Jan	16	Argentina	0			
2258	Erik BA-101	30-Jan	22-Feb	27	Argentina	125,498		4,648	
				43		125,498	125,498	2,919	
2013	Bessi IS-410	18-Jun	22-Jul	35	Argentina	185,761		5,307	
2013	Bessi IS-410	27-Jul	26-Aug	31	Argentina	149,041		4,808	
2013	Bessi IS-410	2-Sep	30-Sep	29	Ísafjörður	155,624		5,366	
				95		490,426	490,426	5,162	
2061	Sunna SI-67	28-Apr	29-May	32	Argentina	174,792		5,462	
2061	Sunna SI-67	5-Jun	2-Jul	28	Argentina	207,270		7,403	
2061	Sunna SI-67	9-Jul	4-Aug	27	Siglufjörður	173,806		6,437	
				87		555,868	555,868	6,389	
1383	Skutull IS-180	19-Jul	20-Aug	33	Ísafjörður	149,110		4,518	
				33		149,110	149,110	4,518	
2218	Snæfell SH-740	8-May	11-Jun	35	Harbour Grace	160,906		4,597	
2218	Snæfell SH-740	15-Jun	15-Jul	31	Harbour Grace	186,410		6,013	
2218	Snæfell SH-740	21-Jul	23-Aug	34	Harbour Grace	181,355		5,334	
2218	Snæfell SH-740	9-Sep	15-Oct	37	Harbour Grace	80,940		2,188	
2218	Snæfell SH-740	20-Oct	21-Nov	32	Ólafsvík	337,857		10,538	
				169		947,468	947,468	5,606	
2286	Bliki EA-12	28-May	15-Jun	24		0			
2286	Bliki EA-12	20-Jun	28-Jun	9	Argentina	86,400			
2286	Bliki EA-12	4-Jul	5-Aug	33	Argentina	161,300			
2286	Bliki EA-12	7-Aug	14-Sep	35	Dalvík	155,600			
				101		403,300	403,300	3,993	
2197	Blængur NK-117	8-Jun	12-Jul	35	Argentina	201,668		5,762	
2197	Blængur NK-117	18-Jul	19-Aug	33	Neskaupsstaður	183,719		5,567	
				68		385,387	385,387	5,667	
1628	Slettanes IS-808	15-Jul	31-Jul	17		0		0	
1628	Slettanes IS-808	7-Aug	24-Aug	18	Ísafjörður	153,425		8,524	
				35		153,425	153,425	4,384	
1216	Húsvíkingur PH-1	22-Aug	22-Sep	32	Argentina	123,143		3,848	
1216	Húsvíkingur PH-1	28-Sep	25-Oct	28	Akureyri	296,260		10,581	
				60		419,403	419,403	6,990	
2206	Hvannaberg OF-72	28-Apr	5-Jun	39	Ólafsfjörður	123,919		3,177	
				39		123,919	123,919	3,177	
2211	Andvari VE-100	21-Apr	10-May	20	Argentina	103,058		5,153	
2211	Andvari VE-100	17-May	8-Jun	23	Argentina	102,017		4,436	
2211	Andvari VE-100	15-Jun	5-Jul	21	Argentina	113,261		5,393	
2211	Andvari VE-100	12-Jul	1-Aug	21	Argentina	116,514		5,548	
2211	Andvari VE-100	9-Aug	29-Aug	21	Argentina	115,227		5,487	
2211	Andvari VE-100	5-Sep	26-Sep	22	Argentina	101,186		4,599	
2211	Andvari VE-100	2-Oct	24-Oct	23	Argentina	99,575		4,329	
				151		750,838	750,838	4,972	
2259	Kan BA-101	15-Jan	27-Jan	0	0	0		0	
2259	Kan BA-101	30-Jan	13-Feb	0	0	0		0	
2259	Kan BA-101	15-Feb	25-Feb	38	Argentina	81,440		2,143	
2259	Kan BA-101	20-Apr	28-May	39	Argentina	113,000		2,897	
2259	Kan BA-101	3-Jun	25-Jun	23	0	0		0	
2259	Kan BA-101	28-Jun	12-Jul	15	Harbour Grace	100,705		6,714	
2259	Kan BA-101	29-Jul	1-Sep	35	Harbour Grace	132,100		3,774	
2259	Kan BA-101	17-Sep	7-Oct	21	0	0		0	
2259	Kan BA-101	9-Oct	22-Oct	14	Argentina	142,500		10,179	
				185		569,745	569,745	3,080	
				Effort days	1327	Total Catch:		6,473,229	4,878

1998

Regn.no	Vessels name	In	Out	Days	Port of unloading	Catch(kg)	Total Catch	Catch pr. day
2288	Pétur Jónss. RE-69	11-May	6-Jun	27	Argentina	306,431		11,349
2288	Pétur Jónss. RE-69	11-Jun	8-Jul	28	Argentina	377,177		13,471
2288	Pétur Jónss. RE-69	12-Jul	8-Aug	28	Argentina	267,714		9,561
2288	Pétur Jónss. RE-69	13-Aug	7-Sep	26	Argentina	235,159		9,045
2288	Pétur Jónss. RE-69	12-Sep	16-Oct	35	Argentina	217,771		6,222
				144		1,404,252	1,404,252	9,752
1352	Svalbarði SI-302	19-Feb	16-Mar	26	Harbour Grace	177,216		6,816
1352	Svalbarði SI-302	23-Mar	20-Apr	29	Harbour Grace	221,771		7,647
1352	Svalbarði SI-302	25-Apr	25-May	31	Harbour Grace	224,748		7,250
1352	Svalbarði SI-302	31-May	13-Jun	14	Harbour Grace	102,139		7,296
1352	Svalbarði SI-302	22-Jun	19-Jul	28	Harbour Grace	231,208		8,257
1352	Svalbarði SI-302	26-Jul	24-Aug	30	Harbour Grace	179,951		5,998
1352	Svalbarði SI-302	30-Aug	1-Sep	3	Harbour Grace	0		0
1352	Svalbarði SI-302	7-Sep	5-Oct	29	Harbour Grace	155,451		5,360
				190		1,292,484	1,292,484	6,803
2190	Eyberg EA-59	16-May	8-Jun	24	Argentina	89,483		3,728
2190	Eyberg EA-59	18-Jun	12-Jul	25	Argentina	100,821		4,033
2190	Eyberg EA-59	18-Jul	25-Jul	8	St. Johns	0		
2190	Eyberg EA-59	28-Jul	18-Aug	22	Akureyri	134,913		6,132
				79		325,217	325,217	4,117
2216	Húsvíkingur ÞH-1	12-May	13-Jun	33	Argentina	364,165		11,035
2216	Húsvíkingur ÞH-1	20-Jun	19-Jul	30	Bay Roberts	386,463		12,882
2216	Húsvíkingur ÞH-1	24-Jul	26-Aug	34	Hafnarfjörður	303,566		8,928
				97		1,054,194	1,054,194	10,868
2061	Sunna SI-67	7-Sep	5-Oct	29	Argentina	188,157		6,488
2061	Sunna SI-67	10-Oct	16-Nov	38	Siglufjörður	255,290		6,718
				67		443,447	443,447	6,619
1609	Stakfell ÞH-360	22-May	24-Jun	34	Ísafjörður	181,033		5,325
				34		181,033	181,033	5,325
2218	Snæfell SH-740	7-Sep	11-Oct	35	Harbour Grace	174,939		4,998
2218	Snæfell SH-740	18-Oct	17-Nov	31	Harbour Grace	95,964		3,096
2218	Snæfell SH-740	21-Nov	15-Dec	25	Reykjavík	189,102		7,564
				91		460,005	460,005	5,055
2242	Orrí IS	7-Sep	6-Oct	30	Argentina	0		
2242	Orrí IS	10-Oct	8-Nov	30	Argentina	209,402		6,980
2242	Orrí IS	14-Nov	16-Dec	33	Ísafjörður	298,858		9,056
				93		508,260	508,260	5,465
2279	Lómur HF-177	25-May	24-Jun	24	Harbour Grace	143,786		5,991
2279	Lómur HF-177	1-Jul	28-Jul	28	Hafnarfjörður	147,766		5,277
				52		291,552	291,552	5,607
2212	Guðbjörg IS-46	9-Sep	29-Sep	21	Argentina	49,930		2,379
2212	Guðbjörg IS-46	4-Oct	26-Oct	23	Akureyri	187,790		8,165
				44		237,740	237,740	5,403
2286	Bliki EA-12	25-Jun	22-Jul	28	Harbour Grace	137,700		4,918
2286	Bliki EA-12	27-Jul	23-Aug	28	Bay Roberts	124,200		4,436
2286	Bliki EA-12	31-Aug	2-Oct	33	Dalvík	119,500		3,621
				89		381,400	381,400	4,285
				980			6,579,584	6,714

1999

Regn.no.	Vessels name	In	Out	Days	Port of unloading	Catch(kg)	Total Catch	Catch pr. day
2288	Pétur Jónss. RE-69	16. febr.	16. mars.	29	Bay Roberts	272,678		9,403
2288	Pétur Jónss. RE-69	20. mars.	20. apríl.	32	Bay Roberts	364,633		11,395
2288	Pétur Jónss. RE-69	24. apríl.	25. maí	32	Bay Roberts	315,597		9,862
2288	Pétur Jónss. RE-69	29. maí.	29. Júní.	32	Bay Roberts	331,580		10,362
2288	Pétur Jónss. RE-69	3. Júlí	3. Ágúst.	32	Bay Roberts	318,953		9,967
2288	Pétur Jónss. RE-69	7. ágúst.	7. Sept.	32	Bay Roberts	306,585		9,581
2288	Pétur Jónss. RE-69	11. Sept.	12. okt.	32	Bay Roberts	289,213		9,038
2288	Pétur Jónss. RE-69	16. okt.	16. nóv.	32	Bay Roberts	225,865		7,058
2288	Pétur Jónss. RE-69	20. nóv.	16. des.	27	Hafnarfjörður	285,663		
				280		2,710,767	2,710,767	9,681
1768	Nökkvi HU-15	2. mars.	22. mars.	21	Argentina	81,367		3,875
1768	Nökkvi HU-15	28. mars.	11. apríl.	15	Argentina	81,253		5,417
1768	Nökkvi HU-15	17. apríl.	4. maí.	18	Argentina	82,144		4,564
1768	Nökkvi HU-15	11. maí.	28. maí	18	Blónhuós	80,479		
				72		325,243	325,243	4,517
2286	Bliki EA-12	7. mars.	30. mars.	24	Bay Roberts	154,500		6,438
2286	Bliki EA-12	4. apríl.	26. apríl.	23	Bay Roberts	136,500		5,935
2286	Bliki EA-12	2. maí.	30. maí.	29	Bay Roberts	144,500		4,983
2286	Bliki EA-12	4. júní.	1. Júlí.	28	Dalvík.	167,400		5,979
				104		602,900	602,900	5,797
1352	Svalbarði SI-302	5. apríl.	4. maí.	30	Harbour Grace	210,529		7,018
1352	Svalbarði SI-302	9. maí.	7. júní.	30	Bay Roberts	238,716		7,957
1352	Svalbarði SI-302	15. Júní.	12. Júlí.	31	Siglu fjörður.	244,125		7,875
				91		693,370	693,370	7,619
2190	Eyborg EA-59	21. apríl.	19. maí.	29	Argentina	134,470		4,637
2190	Eyborg EA-59	27. maí.	22. Júní.	27	Argentina	103,063		3,817
2190	Eyborg EA-59	28. Júní.	22. júlí.	25	Dalvík.	104,908		
				81		342,441	342,441	4,228
1634	Hólmadrangur ST-70	20. apríl.	20. maí.	31	Hólmavík	127,193		4,103
1634	Hólmadrangur ST-70	15. Júní.	15. júlí.	31	Hólmavík	168,776		
				62		295,969	295,969	4,774
2061	Sunna SI-67	25. apríl.	17. maí	23	Argentina	207,211		9,009
2061	Sunna SI-67	22. maí.	31. Maí.	10	Ekki landað.			
2061	Sunna SI-67	2. Júní.	20. júní.	21	Argentina	238,285		11,347
2061	Sunna SI-67	24. Júní.	21. júlí.	28	Argentina	247,689		8,846
2061	Sunna SI-67	26. Júlí.	17. sept.	23	Argentina	195,028		8,479
2061	Sunna SI-67	22. ágúst.	28. Aug.	7	Ekki landað.			
2061	Sunna SI-67	31. ágúst.	17. sept.	18	Bay Roberts **	198,602		7,944
2061	Sunna SI-67	22. Sept.	19. okt.	28	Bay Roberts **	251,286		8,975
2061	Sunna SI-67	24. okt.	23. nóv.	31	Siglu fjörður **	273,956		8,837
				189		1,612,057	1,612,057	8,529
1383	Skurull IS-180	13. nóv.	13. des.	31	Hafnarfjörður.	151,886		
				31		151,886	151,886	
2249	Helga RE-49.	4. maí.	1. júní.	29	Bay Roberts	279,176		9,627
2249	Helga RE-49.	5. júní.	4. júlí.	30	Bay Roberts	327,973		10,932
2249	Helga RE-49.	8. júlí.	9. Ágúst.	33	Bay Roberts	331,654		10,050
2249	Helga RE-49.	13. ágúst.	12. sept.	31	Bay Roberts	298,574		9,631
2249	Helga RE-49.	16. sept.	19. okt.		Reykjavík.	295,665		
				123		1,533,042	1,533,042	
2242	Orri IS	22. maí.	5. júní.	15	??????			
2242	Orri IS	9. júní.	10. júlí.	32	Argentina	331,027		7,043
2242	Orri IS	16. júlí.	9. ágúst.	25	Bay Roberts	194,739		7,790
2242	Orri IS	13. ágúst.	7. Sept.	26	Ísafjarðar.	167,289		6,434
				98		693,055	693,055	
2332	Askur AR	24. maí	7. júní.	15				
2332	Askur AR	12. júní.	4. júlí.	23	Bay Roberts	196,238		5,164
2332	Askur AR	9. júlí.	30. júlí.	22	Reykjavík.	128,539		5,843
				60		324,777	324,777	5,413
				Effort days	1222	Total Catch:	9,285,507	7,599

Latvia**3M Shrimp Catch and Effort
1993-1999**

	1993	1994	1995/ 8 months	1996	1997	1998	1999
Number of vessels	-	2	4	4	4	2	3
Fishing days allocated*	-	-	-	544	490	490	490
Fishing days used	-	190	649/544	504	439	402	438
Catches of shrimp (mt)	-	324	679/605	1253	997	1191	3080

NOTE: Concerning the way Latvia accounted fishing days and how they were shown in the Statlant 21B form, we have concluded, that during 1993-1995 the number of days was previously fixed only for the days spent directly for fishing, but not for the total number off days on the fishing ground. In subsequent years 1996-1999 all the days spent in shrimp fishery were counted in a different way, taking into account the total number of the days which vessels were represented in the NAFO area. Furthermore, it should be mentioned, that the NAFO Conservation and Enforcement Measures did not lay down the principles or rules for the accounting of fishing days as in hail reports.

On that background we have made a correction for the year 1995 taking as a basis the days of entry and exit from the fishing area. Accordingly it is necessary to update the number of fishing days allocated for Latvia from 1996 to 2000.

Lithuania**3M Shrimp Catch and Effort
1993-1999**

Year:	1994	1995	1996	1997	1998	1999
Catch, MT	863	980	1585	1785	3107	3371
Used days	453	638	918	611	866	620

NOTE: The data as presented to the NAFO Secretariat in Statlant 21A and B forms.

Norway

3M Shrimp Catch and Effort, 1993-1999

Year	Month												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
1993			41	30	384	1,695	1,026	1,669	187	829	1,213		7,074
1994			1,072	443	169	134	2,138	2,174	597	1,009	339	550	8,625
1995		1	145	140	217	1,413	2,031	1,886	2,482	372	426	277	9,391
1996					141	171	779	771	760	559	474	1,993	5,648
1997	0			172.6	392	156.4	217.4	456.2		256	130.5	104.8	1,886
1998						280		622.2	194.9	242.1			1,339
1999					737.8	616.8	249.7	388	4.2	324.4	198.2	455.7	2,975
Total	0	1	1,258	785	2,041	4,466	6,441	7,966	4,226	3,592	2,781	3,380	36,937

1993		Trip 1			Trip 2			Trip 3			Trip 4			Trip 5			Trip 6			Total days
Vesselname	Radosgn	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	
Arctic	LHIY	11-Jun	18-Jul	38	11-Aug	4-Sep	25	8-Sep	8-Sep	1										64
Bjergvin Senior	JXCK	17-Sep	28-Oct	42																42
Gisund	LHCL	30-May	22-Jun	24																24
Ingar Iversen	JXXJ	18-Jun	11-Aug	55	23-Aug	19-Oct	58	1-Nov	22-Dec	52										165
John Longva	LGSO	8-Sep	4-Oct	27	7-Oct	27-Oct	21	13-Nov	13-Nov	1										49
Kap Farvel	LCKT	9-Jun	6-Jul	28	24-Jul	31-Aug	39	13-Sep	13-Sep	1										68
Lyshaug	LMEM	24-May	16-Jun	24																24
Ocean Trawler	LNBR	11-Jun	9-Aug	60																60
Ole Nordgård	LNQA	27-Jun	31-Jul	35	11-Aug	17-Sep	38													73
Olympic Prawn	LMJF	13-Jun	4-Jul	22	8-Jul	21-Jul	14	23-Jul	7-Aug	16	15-Sep	3-Nov	50							102
Polar Prawns	LDVP	9-Sep	29-Oct	51																51
Polarfangst	LGpz	3-Nov	6-Dec	34																34
Remy	JWYW	2-Jun	4-Jul	33	19-Jul	14-Sep	58	30-Sep	5-Dec	67										158
Remytrål	JXOK	14-Jun	14-Jul	31	28-Jul	1-Sep	36	13-Sep	13-Sep	1										68
Rossvik	LNJV	24-May	8-Jun	16																16
Ståkind I	LKON	17-Jul	31-Aug	46	24-Sep	10-Oct	17	14-Oct	10-Nov	28										91
Ståtor	LARD	23-May	11-Jun	20	23-Jun	23-Jul	31													51
Syrteljord	LNyg	13-Jul	13-Aug	32	3-Sep	10-Oct	38													70
Tromsø	LFMR	20-Jun	24-Jul	35																35
Valderey	JWVC	22-Jul	5-Aug	15	10-Aug	31-Aug	22													37
Vikatrål	JXLV	11-Nov	10-Dec	30																30
Voistad Viking	LAIR	14-Jun	24-Jul	41	5-Aug	23-Sep	50													91
Total				739			447			167			50			0				1403

1994	Veske/kode	Radiosign	Trip 1			Trip 2			Trip 3			Trip 4			Trip 5			Trip 6			Total days
			IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	
	Arctic	LHIY	28-Jan	22-Mar	54	26-May	7-Jul	43													97
	Bjergvin Senior	JXCK	11-Jun	23-Jul	43	29-Jul	20-Aug	23													66
	Gisund	LHOL	25-May	6-Jul	43	11-Jul	21-Aug	42													85
	Hektind	LAVJ	19-Mar	14-May	57	21-May	5-Jul	46	11-Jul	28-Aug	49	1-Sep	15-Oct	45							197
	Ingar Iversen	JXXJ	5-Jan	18-Mar	71	20-Mar	3-Apr	15	10-May	15-Jun	37	25-Jul	10-Oct	76	17-Oct	22-Oct	6	16-Dec	26-Dec	11	218
	John Longva	LGSO	5-Jan	26-Feb	53	2-Jun	24-Jul	53	30-Jul	26-Aug	28										134
	Kap Farvel	LCKT	11-Jan	20-Feb	41	12-Jun	28-Jul	45													86
	Nyhorizon	LGAT	13-Jun	15-Jun	3	18-Jun	6-Jul	19	16-Jul	9-Aug	25	14-Aug	24-Aug	11							58
	Ocean Trawler	LNBR	26-May	30-Jun	36	26-Jun	3-Oct	70													106
	Ole Nordgard	LNOA	28-Jan	25-Mar	57	19-May	20-Jun	33	6-Aug	23-Aug	18										108
	Olympic Prawn	LMJF	11-Jan	15-Mar	64	6-Jun	8-Aug	64	9-Sep	29-Oct	51										179
	Polar Prawns	LDVP	1-Mar	4-May	65	27-May	17-Jul	52	7-Aug	19-Sep	44										161
	Remey	JWYW	3-Jun	23-Jul	51	19-Sep	26-Oct	38													89
	Remeyträt	JXOK	18-May	3-Jul	47	7-Jul	18-Aug	43													90
	Stätind I	LKON	19-Mar	17-May	60	22-May	10-Jul	50	17-Jul	28-Aug	43	1-Sep	11-Oct	41							194
	Stator	LARD	5-May	1-Jun	28	6-Jun	20-Jul	45													73
	Tromsbas	LFMR	6-Jun	15-Jul	40																40
	Tromsland	JXDH	27-Jun	29-Aug	34	2-Sep	5-Oct	34													68
	Vollstad Viking	LAIR	12-Jan	6-Mar	54	25-May	19-Jul	56	22-Jul	6-Sep	47										157
	Total				901			771			342			175			6			11	2206

1995	Veske/kode	Radiosign	Trip 1			Trip 2			Trip 3			Trip 4			Trip 5			Trip 6			Total days
			IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	
	Andenesfisk I	LLOW	2-Aug	6-Sep	26																36
	Arctic	LHIY	12-May	11-Jun	31	12-Jul	14-Aug	34													65
	Bjergvin Senior	JXCK	13-Jul	8-Sep	58																58
	Gisund	LHOL	20-Apr	1-Jun	43	6-Jun	18-Jul	43													86
	Hektind	LAVJ	8-Apr	21-May	44	25-May	6-Jul	43	10-Jul	21-Aug	43	24-Aug	9-Sep	17							147
	Ingar Iversen	JXXJ	1-Jan	9-Jan	9	11-Jan	11-Jan	1	23-Feb	17-Mar	23	14-May	12-Jun	30	15-Jun	13-Aug	60	18-Aug	8-Sep	22	145
	John Longva	LGSO	26-May	25-Jun	31	28-Jun	28-Jul	29													60
	Kap Farvel	LCKT	18-May	1-Jul	45																45
	Myrefisk II	LGBZ	15-May	27-Jun	44	1-Jul	12-Aug	43	16-Aug	4-Sep	20										107
	Ocean Trawler	LNBR	26-May	2-Aug	69																69
	Odd Erik	JXAX	21-Jun	18-Jul	28	23-Jul	22-Aug	31	29-Aug	10-Oct	43	16-Oct	14-Nov	30							132
	Ole Nordgard	LNOA	29-May	12-Jul	45																45
	Olympic Prawn	LMJF	7-Apr	6-Jun	61	24-Jun	7-Aug	45													106
	Orion	JWOP	4-Jul	12-Aug	40	17-Aug	17-Aug	1													41
	Remey	JWYW	26-Jan	10-Mar	44	4-Jun	28-Jul	55													99
	Remeyträt	JXOK	4-Feb	4-Feb	1	9-Feb	15-Feb	7	23-May	2-Jul	41										49
	Sletnes	LHVR	1-Jun	4-Jul	34	10-Jul	7-Aug	29	19-Aug	19-Aug	1										64
	Stätind I	LKON	30-Jun	11-Jul	12	22-Jul	23-Aug	33	26-Aug	9-Oct	45										90
	Stator	LARD	8-Apr	6-May	29	15-May	17-Jun	34	21-Jun	1-Aug	42	5-Aug	9-Aug	5							110
	Sydfjord	LNYS	20-Jul	26-Aug	38	31-Aug	16-Sep	17	20-Sep	26-Sep	7										62
	Søviking	LHSK	12-Dec	18-Dec	7																7
	Tromsbas	LFMR	21-Apr	8-May	18	13-May	14-Jun	33	22-Jun	13-Jul	22	17-Jul	19-Aug	34							107
	Tromsland	JXDH	13-Jul	7-Aug	26	10-Aug	4-Sep	26													52
	Tensnes	LAPJ	17-May	11-Jun	26	16-Jun	3-Jul	18													44
	Vestind	LHLU	11-May	24-Jun	45	30-Jun	21-Aug	53	2-Sep	22-Oct	51										149
	Vkeirål	JXLV	18-Jul	23-Aug	36	30-Aug	6-Nov	69													105
	Vollstad Viking	LAIR	21-May	20-Jun	31	23-Jun	4-Jul	12	7-Jul	14-Aug	39										82
	TOTAL				931			856			377			116			60			22	2162

1996		Trip 1			Trip 2			Trip 3			Trip 4			Trip 5			Trip 6			
Veesename	Radioagn	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	IN	OUT	Days	Total days
Helikind	LAVJ	16-Apr	19-May	34	23-May	8-Jul	47	14-Jul	4-Sep	53										134
Ingar Iversen	JXXJ	23-May	30-Jun	39	4-Jul	26-Aug	54	29-Aug	27-Oct	60	2-Nov	21-Dec	50							203
John Longva	LGSO	31-May	27-Jun	28	30-Jun	31-Jul	32													60
Myreflek II	LGBZ	24-May	6-Jul	44	11-Jul	23-Aug	44													88
Ole Nordgard	LNGA	30-May	6-Jul	38																38
Olympic Prawn	LMJF	3-Jun	14-Jul	42	19-Jul	30-Aug	43													85
Remey	JWYW	7-Jun	10-Jul	34																34
Remeytrål	JXCK	15-Jun	21-Jul	37	26-Jul	24-Aug	30													67
Spitzbergen	LHZR	29-Jun	4-Jul	6	7-Jul	21-Aug	46	25-Aug	6-Sep	13	10-Sep	11-Oct	32	14-Oct	5-Nov	23	10-Nov	1-Dec	22	142
Stålkind I	LKONLHWY	6-Apr	20-May	45	25-May	1-Jul	38	8-Jul	31-Aug	55										138
Ståtor	LAPD	15-Apr	26-May	42	30-May	15-Jul	47	20-Jul	21-Aug	33										122
Sævikeng	LHSK	1-Jul	25-Aug	56	31-Aug	12-Oct	43													99
Tromsland	JXDH	7-Apr	11-May	35	15-May	4-Jun	21	9-Jun	8-Jul	30	12-Jul	18-Aug	38							124
Vesetund	LHLU	21-Apr	9-Jun	50	15-Jun	27-Jul	43	1-Aug	21-Sep	52	26-Sep	1-Nov	37							182
Vima	LFMR	29-May	30-May	2	4-Jun	4-Jul	31													33
TOTAL				532			519			296			157			23			22	1,549

Russia

3M Shrimp Catch and Effort, 1993, 1999

In accordance with the Working Group on Allocation and Shrimp meeting (Washington, D.C., USA, March 27-30, 2000) recommendation and further to the STACTIC (Dartmouth, N.S., Canada, June 27-29, 2000) meeting discussion, this is to note that the Russian Federation could not completely verify its data on shrimp fishery at present stage. As the Russian delegation had explained during previous annual NAFO meetings, the catches/effort statistics of Russian vessels in NAFO Regulatory Area during 1993-1995 have not been accurately monitored properly by many newly individual companies in Russia and State Committee of the Russian Federation for fisheries did not have complete reports of all vessels catching in this period in NRA. Also, there were a large number of Russian vessels conduction all time mixed - redfish & shrimp fishery in 3M during 1995. For preparing the 1995 divide total fishing days between redfish and shrimp fishery. We have not official statistics about the effort of Russian vessels during 1995 on 3M shrimp fishery are 2800 fishing days. Considering above, the Russian Federation have established limitation of number of fishing vessels - 17 for 1996, and 1997-1998 number of fishing days 3M shrimp fishery - 2600, 1999-2000 number of fishing days 2100.

The Russian Federation will be trying to verify these data further, if possible, and any new information available will be advised to the NAFO Secretariat.

(original signed by A. Okhanov, Representative of the Russian Federation in Canada on Fisheries)

Annex 13. Statement from the Representative of Norway**Agenda Item 6 (a) - Review of submissions on shrimp catches and effort days**

Prior to this meeting in STACTIC, Norway circulated the Working Paper, which we introduced earlier. In that paper we urged the other Contracting Parties to forward similar information regarding the activity of vessels flying their flag fishing for shrimp in 3M. Our intention is of course to increase transparency regarding all figures on catch and effort in order to have a fruitful discussion at the annual meeting of NAFO, when the Fisheries Commission shall decide upon the future management measures for this stock.

At this meeting, Norway would like to stress the importance of this point. As a follow up to our Working Paper, we have asked the various Contracting Parties to disseminate information about catch and effort in the fishery. We must conclude, however, that for some Contracting Parties, this information is still not available. We would therefore, once again, urge these Contracting Parties to forward such information to the Executive Secretary of NAFO, Dr. Chepel, in due time before the Annual Meeting. We would also propose that the Executive Secretary of NAFO distribute these data to all Contracting Parties two weeks prior to the annual meeting.

**Annex 14. Proposal (by European Union) to amend the NAFO Conservation
and Enforcement Measures regarding "Part VII-Port Inspections"**
(STACTIC W.P. 00/9+Corr.)

Background

Part VII of the NAFO Conservation and Enforcement Measures requires Contracting Parties to ensure that port inspection take place on any occasion a fishing vessel having been fishing subject to NAFO Conservation and Enforcement Measures is discharging catch. According to the current measures, the results from port inspection shall be provided to the NAFO secretariat and shall be communicated to any other Contracting Party on request.

The content of port inspection should include verification of catches, of logbook records, mesh size and of inspection at sea. Sea inspection reports are sent to the Contracting Party without delay.

Communication of port inspection are sometimes delayed when vessels land in ports outside the Flag Contracting Party. In order to contribute to enhanced transparency and a better efficiency of the implementation of the NAFO Conservation and Enforcement Measures, it is proposed that the results of port inspection are communicated to the Flag Contracting Party without delay.

Furthermore, a standard report form would help to harmonise record of results of port inspection.

Proposal

1. Amend Part VII-1 of NAFO Conservation and Enforcement Measures to read :

Part VII-1

- "(v) Results of port inspection shall be given in the "NAFO port inspection report", as defined in Part VII -Schedule I.
 - (vi) The authorities of the Contracting Party of the port State shall, within 7 working days as from the date on which the inspection has been completed, transmit the "NAFO port inspection report" form to the Contracting Party of the flag State.
 - (vii) Copy of the "NAFO port inspection report" shall be transmitted to the NAFO Executive Secretary within 30 days as from the date on which the landing has been completed and shall be provided to other Contracting Party on request."
2. Insert Part VII-Schedule I : "NAFO port inspection report" (see annex)

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**Part VII-Schedule I:
"NAFO port inspection report"**

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1. INSPECTION INFORMATION

Inspection authority

Date of the report

Port and Country of inspection

Port Code:	Country Code:
------------	---------------

1.1 Format of the data

Data Element	Code	M / O	Type	Content	Category ; Definition
Inspection authority	IA	M	Char*99	Text	Inspection detail : Name of the inspection authority
Date	DR	M	Num*8	YYYYM MDD	Inspection detail : Date the report is compiled
Country		M	FAO Code	Country Code	Vessel activity detail : Country where the vessel is discharging,
Port of inspection	LP	M	Char*99	Text/ ISO 3 alpha country code	Vessel activity detail : Place where the vessel is inspected : port followed by ISO -3 code of the country as "Boulogne-sur-mer / FRA"

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2. TRIP INFORMATION

To be filled in by the inspection authority as soon as the vessel land to port, based on logbook records.

Vessel name

Trip number

Date trip started

Activity in the NAFO RA :

Date Entry in the RA

Date Exit from the RA

Other areas visited

Date trip ended

2.1 Format of the data

Data Element	Code	M/O	Type	Content	Category ; Definition
Vessel Name	NA	M	Char*30	ISO 8859.1	Vessel registration detail; name of the vessel
Vessel trip number	TN	M	Num*3	001-999	Vessel activity details : Number of the fishing trip in current year
Date trip started	TS	M	Num*8	YYYYMM DD	Vessel activity details : date started the current fishing trip
Date Entry in the RA	NE	M	Num*8	YYYYMM DD	Vessel activity details : Date the vessel entered the NRA for the current fishing trip
Date Exit from the RA	NX	M	Num*8	YYYYMM DD	Vessel activity details : Date the vessel exited from the NRA for the current fishing trip
Other areas visited	RF	O	Char*255	Text	Vessel activity detail : other area where vessel have been fishing during the current trip
Date trip Ended	TE	M	num*8	YYYYMM DD	Vessel activity details : date ended the current fishing trip

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3. VESSEL IDENTIFICATION*To be filled in based on the licence information.*

External Identification

International Radio Call Sign

Flag State

NAFO Contracting Party

Home port

Vessel owner

Vessel operator

Master name

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3.1 Format of the data

Data Element	Code	M /O	Type	Content	Category ; Definition
External Identification Number	XR	M	Char*14	ISO 8859.1	Vessel registration details : Side Number of the vessel
International Radio Call Sign	RC	M	Char*7	IRCS Code	Vessel registration details : International Radio Call Sign of the vessel
Flag State	FS	M	Char*3	ISO-3166	Vessel registration detail; State where the vessel is registered, 3-ISO country code
NAFO Contracting Party	CP	O (1)	Char*3	ISO-3166	Vessel registration detail :NAFO contracting party of the vessel, as ISO code of the country, EUR for European Community, NCP for Non Contracting Party
Home port	PO	O	Char*20	ISO 8859.1	Vessel registration details : Port of registration of the vessel or homeport
Vessel owner	VO	M	Char*60	ISO 8859.1	Vessel registration details : name and address of the vessel owner
Vessel operator	VC	M (2)	Char*60	ISO 8859.1	Vessel registration details : responsible for using the vessel
Master name	MA	O	Char*30	ISO 8859.1	Vessel activity details : name of the master

(1) mandatory when use as single identification in other messages .

(2) if different from vessel owner

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4. RESULT OF PORT INSPECTION*To be filled in after completion of landing***4.1 General information**

Start of landing:

Date

Time

End of landing :

Date

Time

Has vessel landed all catches on board ?

YES

If YES, fill in table 4.2

NO

IF NO, fill table 4.3

Comments

4.1.1 Format of the data

Data Element	Code	M /O	Type	Content	Category ; Definition
Start date of landing	LS	M	num*8	YYYYM MDD	Landing detail : date the vessel started landing
End date of landing	LE	M	Char*1	T, S, P	Landing detail : date the vessel finished landing
Has vessel landed all catches on board ?	QQ	M	Char*1	Y, N	Landing detail : Has vessel landed all catches on board ?, answer Y if yes, N if not
Comments	CO	O	Char*25 5	Text	Landing detail : comments as necessary. If landing has not been completed, please give an estimation on catch still on board

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4.2. Quantity landed

Species (FAO Code)	Presentation	Live Weight (Log Book, Kg)	Conversion factor	Landing Processed Wt (kg)	Equivalent live weight (kg)	Diff (Kg)	Diff (%)

Comments	
----------	--

4.2.1 Format of the data

Note : Quantities should be mention in regard to the species concerned and with reference to the nature of the information, e.g. : COD/OB350/PW320/D150/BC8,2.

Data Element	Code	M/O	Type	Content	Category ; Definition
Species	FI	M	Char*3	FAO species code	Landing detail : FAO 3-alpha code (Part V, Schedule II, Attachment II)
Presentation	FP	M	Char*5	Product form code	Landing detail : Product form code, as mention in attachment Z, codes being associated were necessary, i.e : gutted (G) head off (H) skin off (P)-frozen (F) : GHPF
Live Weight		M	Num*5	0-99999	Quantities determined from the log-book.
Conversion factor	CF	O	Num*3	0,00-9,99	Product detail : Conversion factor as define by the master for the corresponding species, size and presentation, optional if already mention in table B
Process weight	PW	M	Num*5	0-99999	Landing detail : Quantities landed by species and presentation, in kilograms of product, rounded to the nearest 10 kg
Equivalent live weight	LW	M	Num*5	0-99999	Landing detail : Quantities landed in equivalent live weight, as "product weight x conversion factor", in kilograms, rounded to the nearest 10 kg
Comments	MS		Char*25 5	ISO 8859.1	Landing Details : free text area

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4.3 Quantity staying on board the vessel*To be filled where part of the catches stay on board after completion of landing*

Species	Presentation	Conversion factor	Process weight (kg)	Equivalent live weight (kg)

Comments	
----------	--

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4.3.1 Format of the data

Note : Quantities should be mentioned in regard to the species concerned and with reference to the nature of the information, e.g. : COD/OB350/PW320/DI50/BC8,2.

Data Element	Code	M /O	Type	Content	Category ; Definition
Species	FI	M	Char*3	FAO species code	Landing detail : FAO 3-alpha code (Part V, Schedule II, Attachment II)
Presentation	FP	M	Char*5	Product form code	Landing detail : Product form code, as mention in attachment Z, codes being associated were necessary, i.e : gutted (G) head off (H) skin off (P)-frozen (F) : GHPF
Conversion factor	CF	O	Num*3	0,00-9,99	Product detail : Conversion factor as define by the master for the corresponding species, size and presentation, optional if already mention in table B
Process weight	PW	M	Num*5	0-99999	Landing detail : Quantities landed by species and presentation, in kilograms of product, rounded to the nearest 10 kg
Equivalent live weight	LW	M	Num*5	0-99999	Landing detail : Quantities landed in equivalent live weight, as "product weight x conversion factor", in kilograms, rounded to the nearest 10 kg
Comments	MS		Char*25 5	ISO 8859.1	Landing Details : free text area

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5. GEAR INSPECTION IN PORT

Verification shall be done when non compliance have been cited / observed during inspection at sea.

To be filled in when port inspection will also concerned inspection of gears on board. A detail form shall be filled in for every gear having been subject to port inspection

5.1 General data

Number of gear inspected

Date gear inspection

Has the vessel been cited ?

If Yes, complete the full "verification of inspection in port" form.

If No, complete the form with the exception of the NAFO Seal Details.

<input type="checkbox"/> Yes <input type="checkbox"/> No

5.1.1 Format of the data

Data Element	Code	M / O	Type	Content	Category ; Definition
Date of inspection	DR	M	Num*8	YYYYM MDD	Inspection detail : Date of current gear inspection
Inspected gear	IG	M	Num*2	00-99	Inspection detail : number of gear checked during port inspection

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5.2 Otter Trawl details

NAFO Seal number

Is seal undamaged ?

Yes

No

Gear Type:

Attachments:

Grate Bar Spacing (mm)

Mesh Type:

Average mesh sizes (mm)

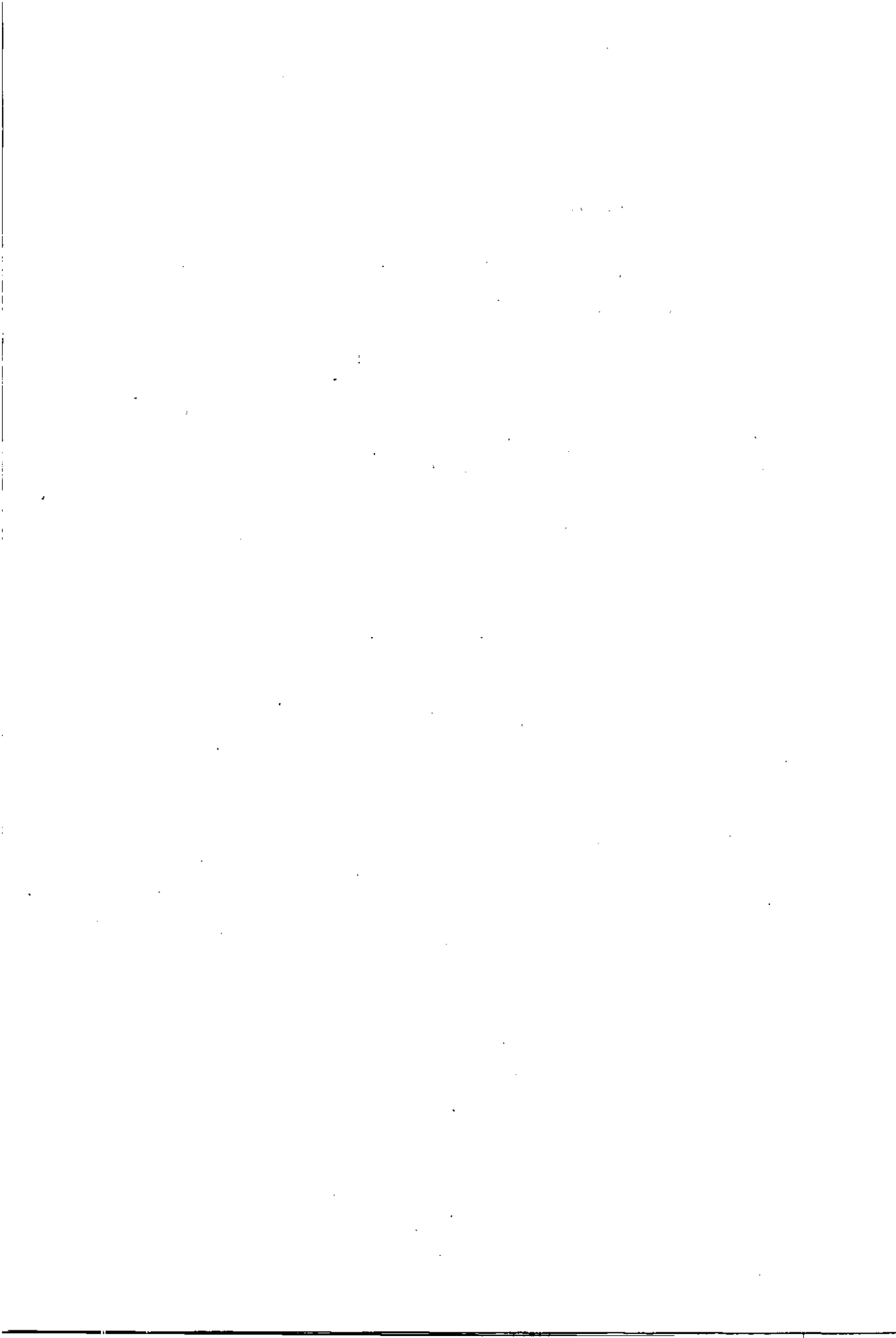
TRAWL PART	
Wings:	
Body:	
Lengthening Piece:	
Codend:	

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5.2.1. *Format of the data*

Data Element	Code	M /O	Type	Content	Category ; Definition
NAFO seal number	NS	M (1)	Num*8		Inspection detail (If required) : Number of the NAFO seal attached to the gear after inspection at sea
Is Seal Undamaged ?			Char*1	'Y' or 'N'	Whether NAFO inspection seal is intact.
Gear type	GE	M	Char*3	FAO Code	International Standard Statistical Classification of the Fishing Gear , OTB for otter trawl
Attachments					Otter trawl detail : attachment to footrope
Grade bar spacing	GB	M	Num*2	01-99	Otter trawl detail : grade bar spacing in millimetres
Mesh type	GT	M	Char*30	SQ, DI,	Otter trawl detail : respectively mesh type: SQ for square mesh , DI for diamant mesh
Mesh size average	GS	M			Otter trawl detail : average mesh size in the trawl part, by pair
Trawl part		M	Char*3	Wng, bod, lep, cod	Trawl part measured
Mesh size		M	Num*3	001-999	Mesh size in millimetres



SECTION VI
(pages 193 to 214)

**Report of the STACTIC Technical
Working Group on Communications
30 June 2000
Dartmouth, N.S., Canada**

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Report of the STACTIC Technical Working Group on Communications

(FC Doc. 00/5)

30 June 2000

Dartmouth, N.S., Canada

1. Opening of the Meeting

The meeting was opened by the Executive Secretary at 1010 on 30 June. The Contracting Parties represented were Canada, Denmark (In respect of Greenland and the Faroe Islands), Estonia, the European Union (EU), Iceland, Japan and Russia. (Annex 1)

2. Election of Chairman

Mr. F. Wieland (EU) was elected by consensus as Chairman

3. Appointment of Rapporteur

Dr. K. Patterson (EU) was appointed Rapporteur

4. Adoption of the Agenda

After discussion the Agenda at Annex 2 was adopted.

5. Consideration of a More Effective Hail System

5.1 Background

The Executive Secretary briefly reviewed the history of the NAFO hail system noting that after an extended consultation process, the existing hail report format had been agreed on in 1991 and incorporated in the Conservation and Enforcement Measures. In 1998 standardized formats for the electronic transmission of hails and satellite tracking reports for reporting from satellite systems were agreed for implementation in the NAFO Regulatory Area. At present, however, few Contracting Parties provide information in this latter format: principally Iceland and Norway. Other Contracting Parties still use previous hail system format.

The hail system was reported to be working effectively, but is a manual system based on old-fashioned technology which is causing an excessive workload for the NAFO Secretariat. An automated, internet-based system would be preferred, and a proposal was prepared (Annex 3). The Secretariat was aware that other projects and proposals from European users exist. Overall however, the Secretariat stresses its desire to move to a modern automated system to ensure accuracy of transmission, appropriate data storage and good handling of the data.

Responding to this review, the Chair asked for comments as to whether the Working Group could make a decision on this issue. The Danish representative was of the opinion that it could only prepare a proposal for the NAFO annual meeting. The EU representative thought that there was sufficient technical expertise present at the Working Group to make firm, well-founded proposals, and pointed out that an appropriate technology and associated systems already exist and thought that there was no need to develop new systems.

5.2. Presentation of Working Documents

Following a procedural discussion it was concluded that issues of communication, security, and compliance could be presented together and then discussed together, as the issues were so interdependent. The Working Group proceeded to presentations of working papers.

Working Paper 00/1 (Annex 3) was presented by a representative of the company "Software Kinetics" This proposal involves communication of encrypted data (using a Pretty Good Privacy (PGP) protocol) over the internet, protecting the content and origin of hail messages. A firewall would also be used for the Secretariat site. An MS-Access database would be designed to store and access the data.

The claimed advantages of this system were :

- The general availability of Internet access
- The low cost of communication
- The minimal dependence upon particular technologies as no proprietary protocols are used.

The representative from Denmark asked whether X25 and X400 communication protocols were considered. The representative answered that X25 was not in common use in North America and has higher costs, and SMTP was thought to provide all the necessary facilities for the proposal.

The EU representative asked whether the analysis of requirements was based on user requirements or on current practices. The representative answered that the starting point for the proposal was the existing system at the NAFO Secretariat, although it was understood that a variety of systems are in current use. None of the systems proposed required more than a properly-configured PC. The PGP programme is freely available. The generation of originating messages is possible from any modern hardware platform.

The EU representative further asked whether existing fishing fleet has many vessels using systems based on X25 and North Atlantic Format, questioned the need to use an internet based system, and asked how control of information into and out of the Secretariat would be managed.

A response was made by Canada to the effect that the internet is now a very common, widely used communication medium which is still suitable for secure communications (and is currently used by banks).

The Chair also questioned whether security considerations were adequately addressed, considering that the internet is a public communications medium. The Software Kinetics representative considered that PGP systems based on public and private keys provides sufficient and appropriate security. The concept of secure protocols based on public and private keys was explained, which affords:

- Privacy of transmission
- Security of origin
- Security of access (message originators cannot read each others' messages, whilst the authorised message recipients alone can read messages).

Denmark accepted that secure communications are possible in the internet environment. However, it was stressed that that a Vessel Monitoring System (VMS) already exists, based on X25 and X400 protocols, and that the system works already. There was no wish to introduce a third protocol, and the X25 could be retained for NAFO use. VMS provides close monitoring of

fishermen, and so confidentiality is an extremely sensitive issue. Denmark stressed its preference for a system based on already-existing protocols on secured lines. The Icelandic and EU representatives concurred.

Canada also expressed concern about asking vessels to provide messages in different formats. It was noted that the NAFO/Software Kinetics proposal involves separation of formatting issues from the issues of communication. One possibility was that flexibility of transmission methods between fishing vessel and Contracting Party could be maintained, while maintaining standardisation of transmission of reports between Contracting Parties and the NAFO Secretariat, based on internet protocols. This proposal would not affect the transmission of data from vessels to Contracting Parties. The format of the records of data transmitted to NAFO would be standardised in text format, regardless of mode of transmission between the vessels and the Contracting Parties' administrations. This would require no change to current vessel procedures.

The Executive Secretary briefly presented a general overview of the current NAFO procedures of receiving reports (by facs., e-mail, and new file transfer protocol from EU) at the NAFO Secretariat. Incoming reports are processed manually. Once daily, the NAFO secretariat compiles and circulates reports to parties with inspection presence (by e-mail to Canada, by CUTE FTP to EU (lately, temporary arrangements due to Y2K problems with X25)). Most vessels in NAFO area are EU vessels and so most data is presently sent by internet. It was stressed that was an important decision that the hail system (used for enforcement purposes) should be managed by an impartial party: the NAFO Secretariat. NAFO system is however old fashioned, too labour intensive and should be updated to use modern systems.

The EU presented Working Paper 00/3 (Annex 4). The EU paper indicates changes necessary to update regulations once the Vessel Management System becomes fully operational, and includes a list of changes to part III.E of NAFO Conservation and Enforcement Measures which will be required on replacing the present hail system with a satellite-based system. The system proposed is based on the existing North Atlantic VMS. A 6hr reporting frequency is proposed, as used in East Atlantic, and includes conditions for the security and storage of data. The transition would be simple, as is based on introducing technology now already used by the fleets. Fisheries Monitoring Centres (FMCs) of Contracting Parties are already established to use this system. This format is also being introduced in the South Atlantic, and the EU is very keen to have a unified system for the whole Atlantic for simplicity. EU stated its intention that Working Paper 00/3 will form the basis of a formal proposal at the Annual Meeting.

The representative of Denmark (in respect of Faroe Islands and Greenland) thought the EU paper was a very good starting point for discussions as it reflects Denmark's position. The NAFO system should be identical to the NEAFC system.

For the record, the Norwegian Representative noted (in comments to the draft report) that the Norwegian position concurs with the views expressed by EU and also by Denmark (on behalf of Greenland and the Faroe Islands), i.e. as EU points out according to the last paragraph on page 3 "... that an appropriate technology and associated systems already exist and thought there was no need to develop new systems".

Canada considered that the EU paper was comprehensive and had no substantive objections; however concerns were raised about some requirements. It was thought that the EU paper is not consistent with present hail system. Item 1c presently required hails to be transmitted prior to movement. Canada was concerned at the proposed change to real-time reporting to anticipatory reporting (where an intention to move is reported) in the present hail systems. Canada requires time (to clarify its position on this topic). Further concerns were:

- a) The length of time during which the vessel may fish without the satellite tracking operating
- b) The extension to "not later than 24-hr" in reporting requirement.
- c) Referring to vessels fishing in 3L, it is asked whether the specific hail requirement (Part I.K.10 of Conservation and Enforcement Measures) would be maintained.

The Japanese representative questioned why the EU proposal was to delete the whole of paragraph 4 of Part III E from the Conservation and Enforcement Measures. The EU representative responded that when VMS is in operation, certain hail messages and parts of hail messages will become redundant, however, there will still remain a need for the hail system in the context of entry and exit messages.

The Japanese representative asked for clarification of the "real-time" concept, in the context of the 24hr maximum reporting requirement. Also, the difficulty of providing data within 24hrs over a weekend was pointed out. The EU representative responded that under normal circumstances a vessel would provide its location automatically every 6hrs. If a breakdown occurred, a manual response would be required by the Fisheries Monitoring Centre (FMC) of the Contracting Party. The 24hr limit should be viewed in that context and not in the context of normal operations. The Icelandic representative stated that in the NEAFC automated VMS system, position reports are transmitted immediately (within about 2 mins.). However, a longer (e.g. 24hr) period is allowed in *the event of mechanical failure and the case that data need to be sent manually*. "Real-time" reports are reports sent with delay incurred only due to the communications link (ie no significant delay).

Canada agreed with EU focus on automating data transmission, but urged care in defining minimum delays to avoid deterioration of the timeliness of the hail reports. Excessive delays in reporting rendered the hail information nearly useless for control purposes. The Icelandic representative stressed that the NEAFC fully automatic system was already operative and asked NAFO to review this system attentively. A brief presentation of the protocols used in the system was made.

The EU representative noted that the Secretariat could develop a facility to receive reports in several different protocol. Denmark concurred, and urged the Secretariat to explore more widely the availability of commercial communications software. It was questioned whether the Secretariat has appropriate finances. The Chair noted that about CAN \$ 35 000 has been allocated to this topic. Denmark considered a much higher budget would be required, possibly up to CAN \$150 000. A trained computer expert such as a database administrator working part time for the Secretariat could be required to maintain the system at the NAFO Secretariat.

5.3. Conclusions

A consensus was reached that an automation of the hail system would be required. A distinction was made between data flows:

- from vessel to Contracting Party
- from Contracting Party to NAFO Secretariat
- from NAFO Secretariat to Contracting Parties with inspection presence:

It remained open whether all three data streams required automating.

There were different views, focussing on the relative desirability of X-25 based systems or of internet SMTP. The group concluded that further reflection on the issues was needed, but it was agreed that:

- Confidential treatment of data is an issue of main importance. In particular, Japan noted that 6hr reporting is more detailed than existing requirements and may involve greater confidentiality requirements. Japan also required further discussion of the issue of confidentiality of fishing positions, both with respect of fishing vessels and of the NAFO Secretariat. Denmark noted further concern about security and confidentiality and will make a proposal on this topic in due course.
- The NAFO Secretariat is to be asked to review the existing NEAFC communications and data distribution system with a view to its possible applicability in the NAFO regulatory area. This could be aided by a visit by the NAFO Secretariat to the NEAFC Secretariat to review the operation of the existing NEAFC system.
- A cost-benefit evaluation of the various systems might be necessary and should be raised in STACTIC at the 2000 NAFO Annual Meeting, where operational recommendations could be made to the Fisheries Commission.

Further proposals and contributions on this issue could be made at the Annual meeting.

6. Other Matters

No other matters were raised.

7. Adjournment of the Meeting

The Meeting was adjourned at 1255 on 30 June 2000.

Annex 1. List of Participants

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B. Cruikshank, Senior Secretary
F. E. Perry, Desktop Publishing/Documents Clerk

Annex 2. Agenda

1. Opening of Meeting
2. Election of Chairman
3. Appointment of Rapporteur
4. Adoption of Agenda
5. Consideration of a more effective hail system or a satellite-based vessel monitoring system
 - (a) Background Summary
 - (b) appropriate means on communication of reports
 - (c) security and confidentiality of reports
 - (d) means to ensure compliance with applicable measures
6. Other matters
7. Adjournment

**Annex 3. Presentation for an automated NAFO hail message processing
system as proposed by Software Kinetics for use in providing a
fully automated hail system**
(Technical W.G. Working Paper 00/1)

1. OVERVIEW

The Northwest Atlantic Fisheries Organization (NAFO) Secretariat receives reports (Hail Messages) on fishing vessel activities within the NAFO Convention Area from the NAFO Member Nations. The Hail Messages follow a well-defined and documented standard. The received Hail Messages are checked and collated by the NAFO Secretariat and entered into a database. Newly received Hail Messages are passed onto third party organizations that are contracted to perform inspection duties following the NAFO Convention.

1.1 Current practice

The current practice for handling the Hail Messages is largely manual. The Hail Messages are received primarily by FAX, with some sent in the clear by e-mail, or file transfer over X.25. The Hail Messages are processed and entered into a Hail Message database manually. Once the messages are processed and saved the new position data is transmitted to the contracted inspection organizations. Periodically reports are generated by the database based upon the saved data.

2. DESIRED FUTURE PRACTICE

The intent is to automate the entire Hail message handling process in order to remove operator intervention and to provide the required level of security for the data. In order to meet this intent and achieve the desired goals the following processing steps would need to be performed by the Automated NAFO Hail message Processing System:

1. The NAFO Member Nations would send their Hail Messages to the NAFO Secretariat using e-mail with the Hail Message e-mails being digitally signed and encrypted for security reasons.
2. A computer system located at the NAFO Secretariat in Dartmouth, Nova Scotia, would receive the Hail Message e-mail and automatically verify the digital signature and decrypt accepted messages.
3. Verified Hail Message e-mails would then be checked for validity and completeness as per the defined Hail Message standard.
4. Hail Messages that are complete and free of errors would then be stored in the Hail Message database.
5. Once a Hail Message is saved in the database, a Forward Hail Message e-mail will be generated (based on the original hail message, but with the fields put in a normalized order), digitally signed, encrypted and made available to the third party inspection organizations.
6. A Return Hail Message would automatically be generated and sent to the original hail message e-mail sender when an error in format or content is detected (including an appropriate error code as applicable).

3. AUTOMATED PROCESSING SYSTEM CAPABILITIES

In order to address automated hail Message processing, a system is required with the capability to:

- provide appropriate security protection,
- receive Hail messages via e-mail,
- parse the received e-mail to verify Hail message validity and completeness,
- store the Hail message in a database,
- forward necessary details to inspection agencies, and
- generate error notifications for Hail Messages that do not meet format and content standards.

The following figure provides a graphical representation of the system.

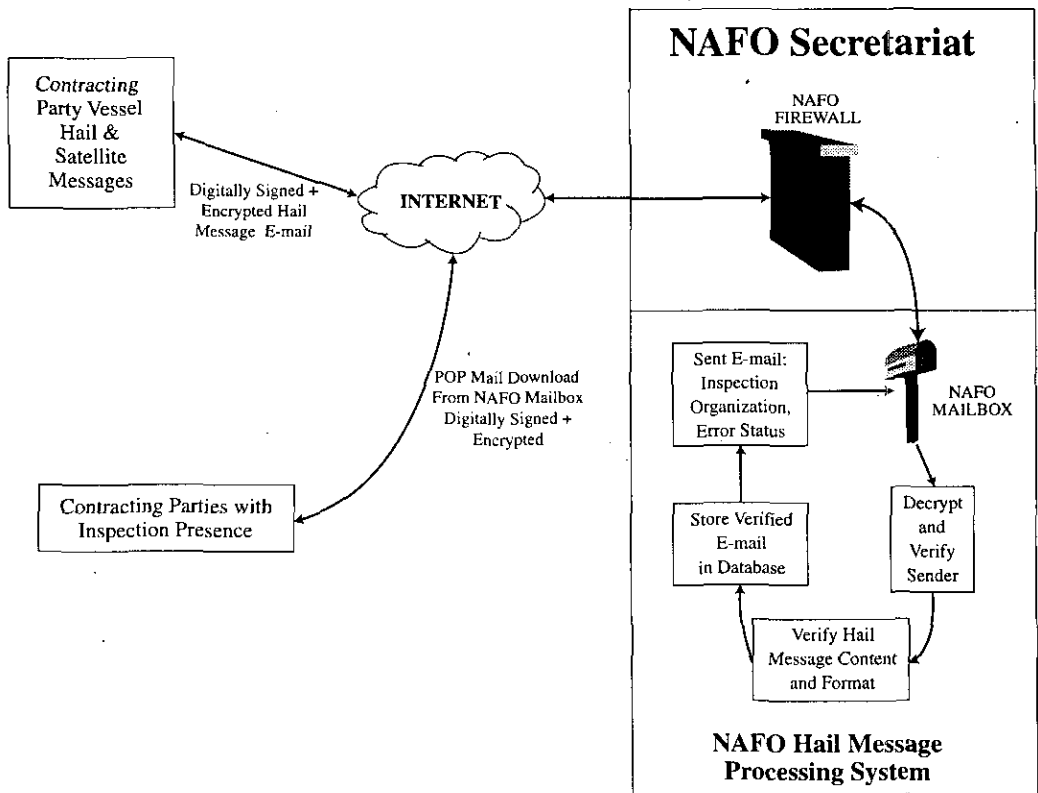


Figure 3-1. Graphical Representation of the Proposed System

In addition to the capabilities noted above, the automated system would also have to satisfy the following requirements:

1. All Hail Message e-mails shall be protected against unauthorized modification or access.
2. Hail Messages transmitted via a public medium (e.g. the Internet) shall be encrypted to ensure confidentiality and authenticity.
3. Only Hail Messages that are complete and have validated data shall be entered into the Hail Message database.
4. Only Hail Messages that are complete and have validated data shall be transmitted to the appropriate inspection organizations.
5. Hail message sending parties shall be notified via e-mail regarding invalid Hail Messages.
6. The system hosting the database and processing the Hail messages shall aim to meet the criteria of a C-2-level trusted system.
7. The Hail message database shall be capable of producing reports from the collected data (the three reports currently being produced by the NAFO Secretariat shall be continued).
8. Hail Messages electronically received shall be processed automatically by the system.
9. Forward Hail Messages generated for the third party inspection organizations shall be accumulated on the system for later retrieval by those third party inspection organizations.
10. Return Hail Messages for electronically received Hail Messages shall be sent to the appropriate return address.

3.1 C2-Level Trusted System

C2 refers to a set of security policies that define how a secure system operates. The C2 evaluation process is separate from the C2 certification process. Certification applies to a particular installation, including hardware, software, and the environment that the system is in. It is up to an individual site to become C2 certified.

The security policy in C2 is known as Discretionary Access Control (DAC). C2 classification does not define a substantive security system in the sense of classified or unclassified data. In a C2 (DAC) system, owners have absolute discretion about whether or not others have access to their objects. In the Windows NT implementation, the basic idea is that users of the system own objects, have control over the protection of the objects they own, and are accountable for all their access-related actions. For example, in Windows NT, every object (file, Clipboard, window, and so on) has an owner; any owner can give or not give other users access to its objects. The system tracks (audits) your actions for the administrators (that is, the system administrator can track the objects you accessed, both successes and failures).

The requirements for A-, B-, C- and D-level secure products are outlined in the Trusted Computer System Evaluation Criteria (TCSEC) published by the National Computer Security Center (NCSC). This publication is commonly referred to as the "Orange Book", and is part of NSA's security "rainbow series". Security level requirements are open to interpretations that change over time. When undergoing evaluation, each vendor negotiates with the NSA about whether or not the details of its particular system implementation conform with the abstract security policy concepts in the NSA's books. The vendor must provide evidence that the requirements are being met.

4. PROPOSED SOLUTION

4.1. Hail Message Processing System

A PC workstation/server is the proposed hardware platform. This hardware platform would be a typical name brand Pentium PC (including 17" monitor, keyboard, mouse, graphics card, and 200W power supply, CD-ROM) with a 3 year warranty and include:

- 2 hard drives (at least 2 Gb each) to allow mirroring of data,
- Tape backup device
- Uninterruptable Power Supply (UPS), and
- Appropriate hardware for Internet connectivity (this may be supplied by the ISP depending upon the type of Internet access selected).
 - A permanent Internet connection is preferred to allow real-time handling of Hail Messages and to ensure the availability of Forward Hail Messages to the inspection organizations. A high speed Internet connection is not required, as the actual amounts of data being transferred are very small.

The software needed to run on the proposed hardware platform would include:

- Microsoft NT Server
- Microsoft Office Pro (includes Microsoft Word, PowerPoint, Excel, Access)
- InterMail Post Office (mail server software)
- PGP (e-mail encryption and digital signature software)

Custom application software would be developed for the following processing tasks:

- Decrypting and verifying digital signatures using PGP
- Validating received Hail Messages
- Generating Forward and Return Hail Messages
- Entering validated Hail Message information into the database
- Encrypting and digitally signing outgoing e-mail messages
- Porting existing Access database to new Access database

4.2 Security Recommendation – Firewall

Additionally, the use of a firewall would improve security. Software Kinetics recommends that the NAFO Secretariat consider including a firewall as part of the solution. The firewall would be a commercially available software application that would run on a dedicated PC host running Unix or NT. The advantages of using a commercially available firewall are that the product is technically supported and easy to set-up and maintain.

A packet filtering firewall should be sufficient for the NAFO Secretariat's needs. The packet filtering firewall is the easiest and least expensive implementation of a commercially available firewall. The amount and type of traffic to be checked is minimal and thus the packet filtering firewall is preferred over a proxy filter firewall.

4.2.1 Additional Firewall Considerations

A low-end solution would be to use a router and implement a router control list. The Internet Service Provider typically controls the routers. This most likely mean that the NAFO Secretariat would have little or no control of or access to the router configuration. In addition, routers provide little or no customization capabilities.

A medium-end solution would be to procure a PC running Linux with a free-ware packet filter software application. This would allow the NAFO Secretariat to implement a cost effective method to implement a firewall but this solution adds additional manual maintenance support requirements over the long term.

5. COST ESTIMATES

All prices noted in this section are estimates and are not to be considered as a quote. These cost estimates are provided for discussion purposes only. A firm fixed price will be quoted at a later date following discussions with the NAFO Directorate regarding their preferences. These cost estimates do not include applicable taxes.

The following table provides cost estimates for the hardware and software components of the system.

ITEM	ESTIMATED COST
Basic Pentium PC (including Windows NT Server OS and 3 year warranty)	\$4000
UPS	\$500
Printer	\$500
Microsoft Office Professional	\$800
InterMail Post Office	\$1500 (see NOTE 1)
PGP software (encryption, digital signatures)	\$200
Internet conection (on-demand 28.8 communication line)	\$1000 (See NOTE 2)
Firewall Hardware (basic Pentium PC)	\$2500
Firewall Software (Linux – Red Hat)	\$80 (see NOTE 3)
TOTAL:	\$11,080.00

NOTE 1: This includes a license for > 10 mail accounts and software support and maintenance.

NOTE 2: Unlimited on-demand access to the Internet through an Internet Service Provider (ISP) requires the use of a normal business phone line (supplied by the phone company) and a router (supplied by the ISP). The cost of the router and its setup are included in the estimated cost noted in the table. The business phone line charges are not included in the cost estimate noted in the table. There is an ongoing service charge paid on a monthly basis for the unlimited access connection. Other communication options exist including ISDN and ASDL. This solution assumes that e-mail sent to the Inspection Organizations does not need to be stored locally on the NAFO mail server for pickup – the e-mail will be immediately delivered to the Inspection Organizations mailbox (wherever they chose to host their mail server). **Refer to section 6 of this document for additional connectivity discussions details.**

NOTE 3: Linux is a Unix like operating system that includes firewall software suitable for this application.

On-going charges will apply for such items as the business phone line (approximately \$60/month) and ISP unlimited on-demand service charges (approximately \$200/month). These on-going charges have not been included in the cost estimates noted in the table above. These on-going costs must be considered for future expenditure considerations.

Software Kinetics has assumed that the proposed system hardware and operating system software will be ordered by the NAFO Directorate and delivered to Software Kinetics. The installation, development and configuration of application software will occur at Software Kinetics using the procured system as a development platform. Once the complete system has been built and fully tested (i.e., a Factory Acceptance Test), it will then be installed and configured for use at the NAFO Directorate.

The following tasks will be performed:

- System configuration (system assembled at Software Kinetics site for testing and development purposes),
- Security Implementation (NT, mail accounts, user accounts, etc.)
- Design, develop and test the Hail Message handling application software,
- Perform Factory Acceptance Test, Site Acceptance Test (including development of test procedures),
- Port existing Access database to new platform,
- Create System User Manual,
- System installation at NAFO Directorate,
- Project management,
- Firewall configuration, set up and installation, and
- User training.

Software Kinetics estimates that these tasks will involve a Project Manager, up to 2 Software Specialists and a Systems Management specialist. The Project Manager would be responsible for managing the entire effort and ensuring Customer satisfaction. The Software Specialists would design, develop and test the application, port the existing Access database to the new platform, and create the user documentation. The Systems Management Specialist would setup and configure the computer hardware, the operating systems and the firewall. One of the Software Specialists would provide the user training.

User training will be a day in duration and will be performed on the NAFO site.

The estimated labour cost to perform the work noted above is **\$35,000.00**.

The estimated schedule to complete this work would be 3 months after receipt of order.

6. SUPPORTING INFORMATION AND COMMENTS

6.1 Internet Connectivity Issues

Software Kinetics believes that the NAFO Directorate needs to consider the use of a dedicated Internet connection to provide a complete and fully secure service (i.e., a permanent ISDN connection, an ASDL connection, or cable access). The on-demand approach included in the cost estimates can provide appropriate Internet connectivity but:

- requires software intervention to automatically connect to the ISP for sending and receiving e-mail, and
- potentially poses some e-mail security concerns (e-mail residing on ISP mail servers).

Alternative methods do exist based upon the service provided by Dartmouth/Halifax area ISP's, MT&T and Shaw Cablevision. The Internet services provided by these organizations have advantages and disadvantages given the NAFO Secretariat requirements. These possibilities require further investigation and discussion. Costs for the various alternatives have not been fully determined.

For on-demand service comparison purposes, a 64Kbps on-demand ISDN connection would cost approximately \$1300 to setup and configure with a monthly charge of \$300. A 128 Kbps on-demand ISDN connection would cost approximately \$1200 to setup and configure with a monthly charge of \$450.

The ISP provides complete access to Internet services including e-mail accounts, newsgroups, file transfer and the WWW as part of their basic service. The ISP will also register your unique domain name, supply both primary and secondary domain name resolution, and unlimited telephone and e-mail customer support.

ISP's recommend that a firewall be used to provide increased security.

Should additional PC's within the NAFO Secretariat need to be connected to Internet communications line then a hub would need to be purchased and configured. The hub would reside behind the firewall (on the NAFO side) and allow for multiple LAN's or PC's to be connected to it.

In addition, some ISP's will provide and support Firewalls. This aspect of their service provision capabilities is still under investigation.

6.2 Microsoft Access

The current database is implemented using Microsoft Access. Continuing to use Access allows the NAFO Secretariat staff to make use of their existing skills.

The reports currently required by the NAFO Directorate are already implemented using Access. The effort required to re-implement these reports on the new system is minimal.

6.3 Operating Systems and Security

Microsoft NT is not C2 rated but still is a logical choice for the operating system even though the aim is to be C2 rated. Currently there are no interactive operating systems that are C2 rated while connected to a network.

6.4 Mail Server Software

InterMail Post.Office allows incoming mail to be sent to a running application and allows for the creation of e-mail accounts that are independent of NT login accounts. This e-mail package includes a POP server and an integrated mail list manager. Consideration needs to be given to purchasing a 100 user license in order to receive software maintenance and support privileges.

6.5 Encryption Software

PGP is a logical choice for the encryption application since it is well tested, readily available on a variety of platforms, and compatible versions are available from sources not subject to US encryption software export restrictions.

6.6 UPS

The UPS, the multiple disk drives (for database replication) and the backup tape drive are included to increase system reliability and data integrity. A mid-range UPS allowing for the graceful shutdown of the Computer system was used for cost estimation purposes. A variety of UPS models are available with varying costs and features.

**Annex 4. Draft amendment to the Conservation and
Enforcement Measures (NAFO/FC Doc. OO/1)**
(Technical W.G. Working Paper 00/3 presented by the European Union)

Introduction

Contracting Parties have agreed to require all vessels fishing in the Regulatory Area to be equipped with satellite tracking devices not later than January 1, 2001. The purpose of the amendment is to adopt detailed rules for satellite tracking and to adjust the Hail System requirements since certain report types become superfluous with satellite tracking. The proposed detailed measures for satellite tracking are identical to the ones contained in the Scheme of control and enforcement applicable in the NEAFC regulatory area. The amendment should be applicable as from January 1, 2001.

Draft amendment (enters into force as from January 1, 2001)

– **In Part III.E (- Vessel requirements / Hail System):**

- sub-paragraph 1(c) is deleted
- sub-paragraph 1(d) is deleted
- sub-paragraph 1(e) becomes sub-paragraph 1(c)
- sub-paragraph 4 is deleted

– **In Part III – Annex I – Hail System message format**

- sub-paragraph 1.2 is deleted
- sub-paragraph 1.3 is deleted
- sub-paragraph 1.4 becomes sub-paragraph 1.2
- sub-paragraph 1.5 becomes sub-paragraph 1.3
- in Example 1 point 1.2 is deleted
- in Example 1 point 1.3 is deleted
- in Example 1 point 1.4 becomes point 1.2
- in Example 1 point 1.5 becomes point 1.3
- Example 2 is deleted

– **At the end of Part III - Vessel requirements, a new section F. is added:**

F. Vessel monitoring system (VMS)

1. Each Contracting party shall ensure that each of its vessels operating in the Regulatory Area is equipped with a satellite tracking device allowing the continuous tracking of its position by the Contracting party.

To that end the satellite tracking device shall ensure the automatic communication at least once every six hours when operating in the Regulatory Area to a land-based fisheries monitoring centre (hereafter referred to as FMC) of data relating to:

- the vessel identification;
- the most recent geographical position of the vessel (longitude, latitude) with a position error which shall be less than 500 metres, with a confidence interval of 99%;
- the date and time of the fixing of the said position of the vessel.

Each Contracting Party shall take the necessary measures to ensure that its FMC receives these data.

2. The FMC of each Contracting Party shall be equipped with computer hardware and software enabling automatic data processing and electronic data transmission. Each Contracting Party shall provide for back-up and recovery procedures in case of system failures.

3. Each Contracting Party shall take the necessary measures to ensure that the VMS data received from its fishing vessels are recorded in computer readable form for a period of three years.

4. The masters of fishing vessels shall ensure that the satellite tracking devices are at all times fully operational and that the information in paragraph 1. is transmitted. In the event of a technical failure or non-operation of the satellite tracking device fitted on board a fishing vessel, the device shall be repaired or replaced within one month. After this period, the master of a fishing vessel shall not be authorised to commence a fishing trip with a defective satellite tracking device. Where a device stops functioning and a fishing trip lasts more than one month, the repair or the replacement has to take place as soon as the vessel enters a port, the fishing vessel shall not be authorised to continue or commence a fishing trip without the satellite tracking device having been repaired or replaced.

5. Each Contracting Party shall ensure that a fishing vessel with a defective satellite tracking device shall communicate, at least daily, reports containing the information in paragraph 1. to the FMC, by other means of communication (radio, facsimile or telex).

6. Each Contracting Party shall communicate reports and messages pursuant to paragraph 1. and paragraph 5. to the Secretary as soon as possible, but not later than 24 hours after receipt of those reports and messages. If the Contracting Party so desires, it shall ensure that each of its fishing vessels shall communicate reports (by satellite, radio, facsimile or telex) to the Secretary.

7. Each Contracting Party shall ensure that the reports and messages transmitted between the Contracting Party and the Secretary or if the Contracting Party so desires, between its fishing vessels and the Secretary, shall be in accordance with the data exchange format set out in Annex II.

8. The Secretary shall make available as soon as possible the information received under paragraph 7. to other Contracting Parties with an active inspection presence in the Regulatory Area. All reports and messages shall be treated in a confidential manner.

9. Each Contracting Party shall notify the name, address, telephone, telex and facsimile numbers as well as the addresses for electronic communication of their relevant authorities to the Secretary before 1 January 2001 and thereafter any changes without delay.

**After Part III Annex I Hail System Message Format, a new annex is added:
Part III Annex II VMS position report format**

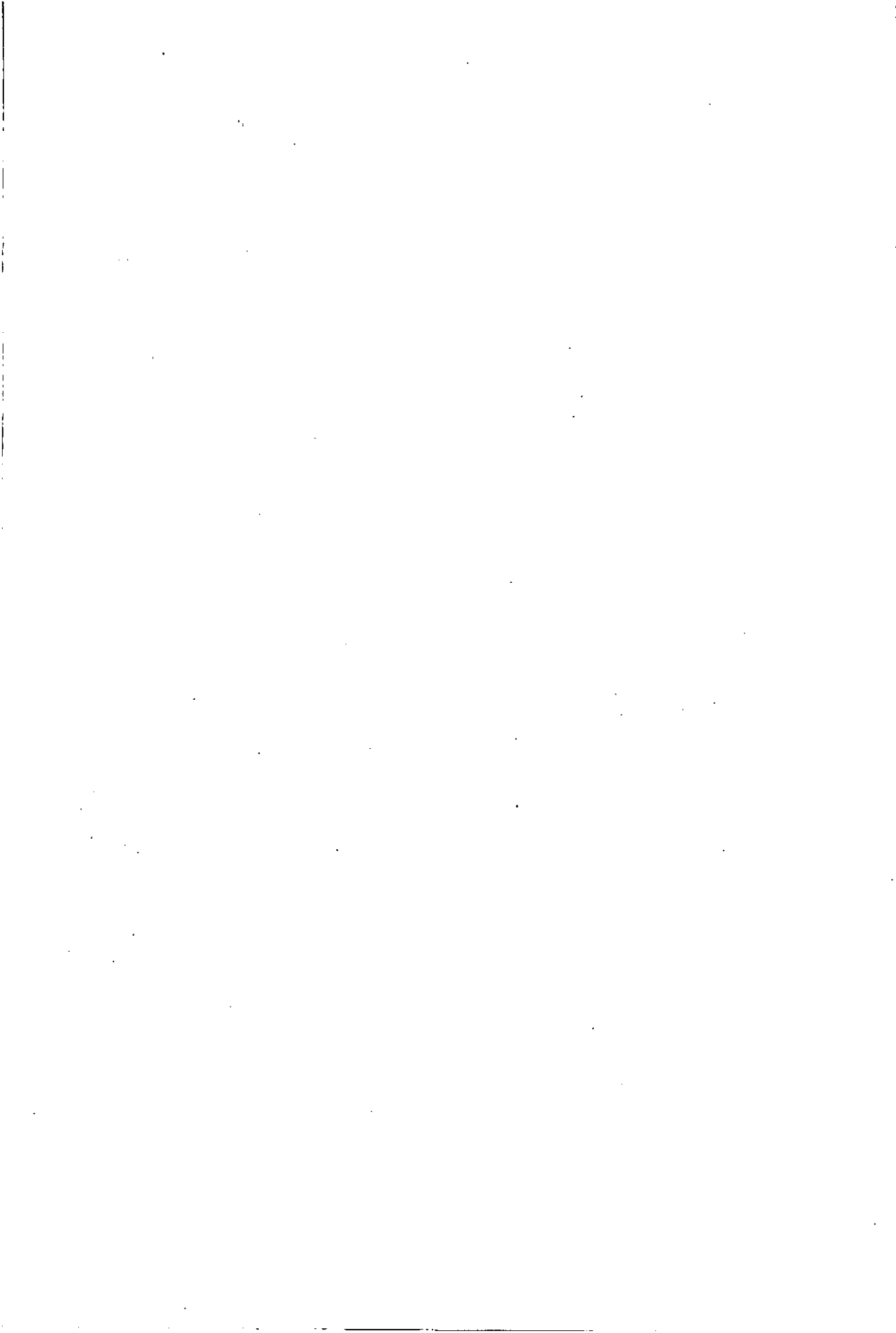
Data Element:	Code:	Mandatory / Optional	Remarks:
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination; XNS" for NAFO Secretariat
Sequence Number	SQ	O	Message detail; message serial number in current year
Type of Message	TM	M	Message detail; message type, "POS" as Position report/message to be communicated by VMS or other means by vessels with a defective satellite tracking device
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Contracting Party Internal Reference Number	IR	O	Vessel registration detail. Unique Contracting Party vessel number as ISO-3 flag state code followed by number
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Latitude	LA	M	Activity detail; position at time of transmission
Longitude	LO	M	Activity detail; position at time of transmission
Date	DA	M	Message detail; date of transmission
Time	TI	M	Message detail; time of transmission
Record Date	RD	M	Year, month and date
Record Time	RT	M	Hours and minutes in UTC
Record Number	RN	M	Serial number of the record in the relevant year
From	FR	M	Address of the transmitting party (Contracting Party)
End of record	ER	M	System detail; indicates end of the record

Each data transmission is structured as follows:

- double slash ("/") and the characters "SR" indicate the start of a message;
- a double slash ("/") and field code indicate the start of a data element;
- a single slash ("/") separates the field code and the data;
- pairs of data are separated by space;
- the characters "ER" and a double slash ("/") indicate the end of a record

- In Part VI.B (Satellite tracking)

- Sub-paragraph 1c is deleted
- Sub-paragraph 1d is deleted.



SECTION VII
(pages 215 to 276)

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(STACFAD and STACFAC), 22nd Annual Meeting
18-22 September 2000
Boston, Massachusetts, USA**

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PART I

Report of the General Council Meeting

(GC Doc. 00/7)

22nd Annual Meeting, 18-22 September 2000

Boston, Massachusetts, USA

1. Opening of the Meeting (items 1-5 of the Agenda)

- 1.1 The meeting was opened by the Chairman of the General Council, Enrique Oltuski (Cuba).
- 1.2 The Representatives of sixteen (16) Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland-DFG), Estonia, European Union, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, Russia, Ukraine and the United States of America (Annex 1). Two (2) Contracting Parties - Bulgaria and Romania were absent.
- 1.3 The Chairman welcomed the delegates to the 22nd Annual Meeting taking place in the historical city of Boston. He encouraged the delegates to work in the constructive spirit of cooperation (Annex 2).
- 1.4 The Honorable Rolland A. Schmitt, Deputy Assistant Secretary of International Affairs of the United States Department of Commerce, welcomed the NAFO delegates to Boston and the United States of America on behalf of his Government (Annex 3). Mr. Schmitt emphasized that the United States attaches great importance to NAFO as a successful regional fisheries management organization, both in its present conservation and management activities and its future ones.
- 1.5 The Heads of Delegations from (in order of presentation): Canada, European Union, United States and France (in respect of St. Pierre et Miquelon) addressed the Meeting (Annexes 4-7).
- 1.6 The meeting appointed the Executive Secretary as Rapporteur.
- 1.7 The Provisional Agenda was adopted as attached (Annex 8). The two items regarding Reports on Allocation of Fishing Rights and Shrimp Stocks were transferred to the Fisheries Commission agenda with the consent of Peter Gullestad (Norway), the Fisheries Commission Chairman, and two new sub-items e) and f) were added to Item 10 of the Agenda.
- 1.8 Admission of Observers was addressed by the Executive Secretary reporting on his invitations to FAO, ICCAT, ICES, NAMMCO, NASCO, NEAFC and NPAFC in accordance with new Rules of Procedure (9 and 10). These organizations acknowledged NAFO's invitations and all, except NAMMCO, advised that they would not be sending their observers to this NAFO meeting. NAMMCO was represented by Mr. K. Arnason (Iceland).

With regards to non-Contracting Parties harvesting fishery resources in the Regulatory Area, invitations have been sent to Belize, Honduras, Sao Tome e Principe and Sierra Leone. No attendance was noted.

- 1.9 On the item "Publicity", the meeting agreed to the normal procedure that no statements should be made to the media until after the conclusion of the meeting, when the NAFO Secretariat would issue a Press Release.

2. Supervision and Coordination of the Organizational, Administrative and other Internal Affairs (items 6-7)

- 2.1 The membership and Contracting Parties' credentials were reported by the Executive Secretary. The total membership of 18 Contracting Parties and 16 members of the Fisheries Commission were noted. The credentials of 220 NAFO delegates were notified to the NAFO Secretariat before 18 September 2000.
- 2.2 With regards to Bulgaria and Romania participation in NAFO business, it was noted that two Contracting Parties, Canada and Ukraine, held communication with those members. There was indication from Bulgaria to start their process of reinstatement in NAFO, and Romania advised on its disinterest in NAFO participation and intention of eventual withdrawal.
- 2.3 Item 7, "Administrative Report", was referred to STACFAD. At the closing session, the STACFAD Chairman reported its recommendation of adoption of the Report, which was accepted by the General Council.

3. Coordination of External Relations (items 8-10)

- 3.1 Under item 8, "Communication with the United Nations", the Chairman noted the NAFO paper (GF/00-344 of 11 June 00) presented to the UN Secretariat regarding "Large-scale pelagic drift-net fishing, unauthorized fishing in zones of national jurisdiction and on high seas, fisheries by-catch and discards, and other developments". The NAFO paper was developed through consultations and approval by NAFO members.
- 3.2 Under item 9, "FAO International Plans of Action on the Management of Fishing Capacity, Shark Fishery and Incidental Catch of Seabirds in Longline Fisheries", the European Union Representative and several delegations questioned the procedures for adoption of the USA proposal on this item by a mail vote intersessionally. The vote was conducted in accordance with NAFO Convention and Rules of Procedure. The European Union Representative thought that such voting decision to deliver copies of national FAO Reports to the NAFO Secretariat was in contradiction with the previous decision by the General Council to discuss this matter at the 22nd Annual Meeting (and then take a decision). In principle, the EU delegation was not objecting against cooperation with NAFO regarding FAO reports on this item.

The Representative of the United States and Estonia supported the decision to deliver copies of FAO reports to the NAFO Secretariat.

The heads of delegations decided at a separate meeting to recommend to Contracting Parties that their reports to FAO on this subject should be copied to the NAFO Secretariat, and the NAFO Secretariat, in turn, would circulate those reports to all Contracting Parties.

- 3.3 Item 10, "NAFO participation at other International Organizations", was presented by the Executive Secretary informing that Canadian observers represented NAFO at the FAO Consultations on CITES (1975 Convention on International Trade in Endangered Species of Flora and Fauna) and NASCO (North Atlantic Salmon Conservation Organization). The observer reports were circulated to the meeting.

Assistant Executive Secretary, T. Amaratunga, took part in FAO Working Party on Status and Trends of Fisheries (November 1999). His report was delivered to the Scientific Council June Meeting (SCS Doc. 00/15).

The NAMMCO Annual Meeting, 26-29 September 2000, will be attended by a delegate from Norway, and its report will be circulated to Contracting Parties.

The meeting decided to delegate NAFO observers to two additional meetings in 2000-2001. The Technical Consultations on Illegal, Unregulated, and Unreported Fishery (2-6 October 2000) will be covered by a Canadian delegate. The FAO Fisheries Committee Meeting (26 February - 02 March 2001) will be attended by observer from Iceland. Their reports will be circulated to Contracting Parties intersessionally.

4. Fishing Activities in the Regulatory Area Adverse to the Objectives of the NAFO Convention (items 11-13)

- 4.1 Under item 11, "Consideration of non-Contracting Parties activities in the NAFO Regulatory Area and agreement on the task of STACFAC at the current meeting", the Chairman of STACFAC, J-Pierre Plé (USA) briefed the Meeting on the status of STACFAC activity and actions. He was optimistic on the latest non-activity by former non-Contracting Parties (NCPs) in the NAFO Regulatory Area, but urged the meeting to maintain NAFO's steady actions against illegal fishing by NCPs. He noted a new trend of re-flagging/double flagging that posed danger of revival of NCP fishing in the Regulatory Area. The meeting agreed that STACFAC should continue its work and then report to the General Council.
- 4.2 Item 12, "STACFAC Report", was presented to the meeting by Mr. J-Pierre Plé, STACFAC Chairman, underlining the following major issues and recommendations:
- a) There were no sightings of NCP vessels in the NAFO Regulatory Area in 2000 (and only two vessels in 1999); the Committee thought that "no sightings" does not necessarily imply an absence of such NCP activity;
 - b) There were no reports of landings or imports of species regulated by NAFO from NCPs in 2000;
 - c) During 1999-2000, NAFO diplomatic démarches were delivered to Honduras (by Canada); Sao Tome e Principe (by European Union); Belize and Sierra Leone (by USA). The results of those actions and communications with NCP authorities are presented in STACFAC Report (Part III). New diplomatic démarches were developed by STACFAC to Belize, Honduras, Panama and Sierra Leone.
 - d) The issue of Illegal, Unregulated and Unreported (IUU) Fishing should be under review of STACFAC pending on-going discussions at FAO;
 - e) The matter of possible double flagging arrangements to carry out fishing activities under two flags was a great concern of the Committee. Reference was made to Article 92 of UNCLOS, 1982.
- 4.3 STACFAC recommended the following actions and measures to the General Council.
- Démarches, in the form of letters signed by the President of NAFO be made to Belize, Honduras, Panama, and Sierra Leone.

- The Executive Secretary circulate, as soon as possible to the secretariats of ICCAT, NEAFC, and CCAMLR reports of non-Contracting Party fishing activity in the NAFO Regulatory Area, and request such organizations to share reports of non-Contracting Party fishing activity in their respective areas with NAFO.
 - The Executive Secretary circulate NAFO/GC Doc. 00/1 to ICCAT, NEAFC, and CCAMLR.
 - The Contracting Parties submit a report at the next Annual Meeting on what legal, administrative and practical action they have taken to implement the Scheme.
 - STACFAC undertake to study the impact of the proposed International Plan of Action on Illegal, Unregulated and Unreported (IUU) Fishing on NAFO at its next Annual Meeting.
- 4.4 The General Council adopted the STACFAC Report and its recommendations. The Chairman of the General Council signed the diplomatic démarches. The diplomatic démarches to Belize and Sierra Leone will be delivered by the USA delegation, and démarches to Honduras and Panama will be delivered by Canada.
- 4.5 The General Council was informed on new officers elected by STACFAC: Chairman, Mr. Daniel Silvestre (France-SPM), and Vice-Chairperson, Nadia Bouffard (Canada).
- 4.6 The General Council Representatives thanked Mr. J-Pierre Plé for his effective work as the STACFAC Chairman and attributed STACFAC progress to Mr. Plé's able chairmanship, hard work and vision. The Chairman wished him well on his new assignment.
- 4.7 Item 13, "Report of Working Group on Dispute Settlement Procedures (GC Doc. 00/4)", was presented to the meeting by the W.G. Chairman, Mr. Stein Owe (Norway). He summarized the discussions in a consolidated text of a proposal for a future DSP. The proposal contains text and alternatives in brackets reflecting the current level of views expressed to-date in the Working Group. He thought that progress was made to move further discussions. The European Union Representative noting the priority of this issue for the EU delegation, supported the DSP Report and thought that Contracting Parties should continue discussions to resolve this subject.

The Representative of Canada briefly reviewed the five (5) year history of DSP Working Group discussions noting that not much progress has been made as opposing views remained on significant issues concerning implementation of DSP within NAFO.

The Representative of Denmark (DFG) noted that the DSP Working Group moved far ahead and had good progress as there were not so many "square brackets" in the W.G. Report. He proposed to develop further guidelines to the Working Group by Heads of Delegations.

The Chairman summarized the discussions and proposed that the DSP W.G. Chair should undertake unofficial consultations with all interested parties and then report back to the General Council. The DSP Chair briefed the Heads of Delegations and then reported to the General Council. To his opinion, there was a high degree of support for the work of the DSP Working Group. However, it was recognized that there are still outstanding issues as witnessed by the brackets in the consolidated text of the proposal for a future DSP. The DSP Working Group Report (GC Doc. 00/4) was formally adopted by the General Council.

At the closing session, the General Council resolved to continue DSP discussions and call an intersessional Working Group in Dartmouth, N.S., Canada, 24-26 April 2001 (Annex 9). The Working Group will have to elect a new Chairman.

5. Finance (items 14-15)

5.1 Items 14-15 were referred to the Standing Committee on Finance and Administration (STACFAD). The STACFAD proceedings are attached in Part II of this General Council Report.

5.2 The Chairman of STACFAD, F. Kingston (EU) delivered its report to the General Council on 22 September and noted the following:

- a) The Auditors Report 1999 was circulated to Heads of Delegations on 15 April 2000, and this report was recommended by STACFAD for adoption;
- b) The NAFO Secretariat was represented at the Pension Society Meeting (the International Fisheries Commissions Society, IFCPS, of North America) by two staff members, and its report was reviewed at STACFAD. It was noted with satisfaction that a new set of investment guidelines for an improved asset unit of the Canadian Pension Plan Funds has been introduced during 1999/2000. These guidelines see a switch from 100% Guaranteed Investment Certificates (GIC's) to an asset unit of 50% equities and 50% bonds providing for a more stable investment base and return on investments.
- c) The Executive Secretary was instructed to provide to the General Council a proposal not later than 31 December 2000 regarding the financing of the Automated Hail and Satellite Tracking System. A full report on the status of the spending under this budget item and implementation of the Automated Hail and Satellite Tracking System should be delivered at the 23rd Annual Meeting 2001.
- d) The basic budgetary items of the NAFO Secretariat were agreed as follows:
 - the budget for 2001 to be adopted in the amount of \$1,389,000 Cdn.;
 - the Accumulated Surplus Account be maintained at a level not less than \$75,000 Cdn in order to fulfil NAFO's financial obligations in early 2001 until contributions are received;
 - the contributions from Bulgaria and Romania be deemed uncollectible and these amounts be applied against the Accumulated Surplus;
 - \$200,000 Cdn be allocated for the proposed Automated hail and Satellite Tracking System with a note that STACFAD was extremely concerned with the lack of information (from STACTIC and Fisheries Commission) upon which the Committee could properly evaluate this amount.
- e) STACFAD recommended that Contracting Parties continue attempts to contact Bulgaria and Romania in order to ascertain whether they intend to participate in NAFO and to inform them of their outstanding contributions. Such information should be exchanged to all Contracting Parties through the NAFO Secretariat.
- f) The Committee recommended to the General Council that Contracting Parties be urged to submit their fishery statistics (STATLANT 21A and 21B) to the NAFO Secretariat on time to ensure the ongoing integrity of the NAFO statistical database and scientific recommendations on fish stocks.

g) The dates of next Annual Meetings were recommended as follows:

2001	-	Scientific Council	-	12-21 September
	-	General Council	-	17-21 September
	-	Fisheries Commission	-	17-21 September
2002	-	Scientific Council	-	11-20 September
	-	General Council	-	16-20 September
	-	Fisheries Commission	-	16-20 September
2003	-	Scientific Council	-	10-19 September
	-	General Council	-	15-19 September
	-	Fisheries Commission	-	15-19 September

5.3 The venue of the 23rd Annual Meeting 2001 will be in Cuba.

5.4 The venue of the 24th Annual Meeting 2002 was proposed by the European Union Delegation in concurrence with Spanish delegates to be held in Spain. The meeting accepted this proposal and the Chairman thanked the European Union and the Government of Spain for this invitation.

5.5 The General Council reviewed the STACFAD recommendations and adopted the 2001 budget and report as a whole.

The Representative of the United States noted their reservation regarding the allocation of \$200,000 Cdn to the Automated Hail and Satellite Tracking System without proper evaluation and justification of the amount of funds.

6. Closing Procedures (items 16-19)

6.1 Item 16, "Time and Place of Next Annual Meeting", was reported by STACFAD (above).

6.2 Under item 17, "Other Business", the Chairman introduced a "Schedule of NAFO Meetings 2001", which was adopted by the General Council (Annex 9).

6.3 The draft Press Release was circulated to the Heads of Delegations and then finalized by the Secretariat incorporating the comments from Contracting Parties (Annex 10).

6.4 The meeting adjourned at 1330 on 22 September 2000.

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Annex 2. Opening Statement by the NAFO President – E. Oltuski (Cuba)

Dear NAFO representatives, distinguished observers and guests.

I have the honor of addressing you for the first time since my election as President of the Northwest Atlantic Fisheries Organization. I wish to thank you for the trust you have deposited on my country and myself.

The coming millennium requires urgently that we think more about the future and not only about today. To protect the resources of the sea is not just a duty but an obligation. Seventy percent of the commercial marine species are overfished or at maximum exploitation levels. NAFO statistics show that the catches have dropped considerably in the last 20 years.

The welfare of the future generations demand that we make mutual concessions for the benefit of all. Sustainable fishing is only possible through a compromise between necessity and possibility in the exploitation of the resources based on scientific evidence.

In the conservation and best utilization of those resources lie the objectives of our work at this annual meeting. I am sure that we will all work in that direction.

In the names of Vice President - Patrick Chamut, Executive Secretary – Leonard Chepel and myself, I wish to thank the authorities of the United States for the organization and warm welcome we have all received in this beautiful and historical city of Boston.

In the hope that our meetings will take place in an atmosphere of frank cooperation and understanding, I declare officially inaugurated the Twenty-second Annual Meeting of the Northwest Atlantic Fisheries Organization.

Annex 3. Speech of the Honorable Rolland A. Schmitten
Deputy Assistant Secretary for International Affairs
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Good afternoon, Mr. President, Distinguished Delegates, Ladies and Gentlemen, and a special hello to the many friends and colleagues that I recognize at this NAFO meeting.

As you continue your tour of the world's great seaports of the North Atlantic at annual meetings of NAFO, it is my honor and sincere privilege to welcome you to Boston and the United States of America. I am delighted that we are able to host the Twenty-second Annual Meeting in city with a 400 year history and tradition of seafaring and fishing. Legend has it that long ago one could nearly walk across the bay on the backs of cod, a condition that today is but a memory as we work toward rebuilding stocks and achieving sustainable fisheries. But Boston is not only a feature in America's seafaring and fishing history, it is the cultural center that was home to Ralph Waldo Emerson, Henry Wadsworth Longfellow, James Russell Lowell, and Henry David Thoreau. It is presently home to more than forty colleges and universities, including Harvard, Boston University, Tufts, and MIT—in fact, it has the largest concentration of institutions of higher learning in the United States. With cobblestones underfoot and skyscrapers overhead, Boston welcomes the world as the gateway to New England and the United States. It is, in the words of Charles Dickens, "what the whole United States should be."

A second reason it gives me such pleasure to welcome you here is the great importance we attach to NAFO as a successful regional fisheries management organization, both in its present conservation and management activities and its future ones. It is true that we have encountered our share of problems and challenges, but the more important point is that we are addressing them responsibly. It is with some degree of pride that the United States has joined NAFO. It is often too easy to stay outside a regional fisheries management body and criticize its efforts without taking the responsible step to join and support the organization from within and seek improvements as a member.

NAFO's Convention Area extends south to Cape Hatteras, North Carolina, and its Regulatory Area to the same point seaward of the U.S. exclusive economic zone. With its fishing history, the United States has a real interest in the stocks presently managed by NAFO as well as those NAFO may decide to manage in the future. This interest is manifested in the human and financial resources we invest in NAFO's activities and the commitment I give you today that we will continue making these investments.

My third reason for welcoming you is that NAFO is stepping up to meeting the challenges posed by an unprecedented suite of global fisheries agreements reached in the last decade that collectively prescribe a new ethic for fisheries management. Starting with the imperatives articulated in 1992 by Agenda 21 of the United Nations Conference on Environment and Development, we have collectively responded with: the Food and Agriculture Organization of the United Nations (FAO) Compliance Agreement of 1993; the Code of Conduct for Responsible Fisheries of 1995; the United Nations Fish Stocks Agreement of 1995; the FAO's international plans of action implementing its Code of Conduct in respect of sharks, seabirds, and fishing capacity in 1999; the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean in 2000; and the emerging Convention on the Conservation and Management of Fishery Resources in the South East Atlantic Ocean. Yes, fisheries managers throughout the world have been active in the quest for improved fishing conditions and sustainability of our fisheries resources.

NAFO has taken up a number of the principles contained in these agreements and given them, or is in the process of giving them, expression in a manner consistent with its mission, including: the duty to cooperate to achieve effective conservation and management, standard requirements for the collection and sharing of data, the precautionary approach, measures taken by port states, dispute settlement, and transparency.

Finally, I welcome you because this meeting will grapple with issues in a manner that will again advance NAFO's reputation as an organization that meets challenges and succeeds. Here we will continue making decisions that take serious account of future as well as present generations in charting a course toward achieving and maintaining sustainable and responsible fisheries. In a time when the world focuses on measures to address illegal, unregulated, and unreported (IUU) fishing, NAFO will point to its innovative and successful efforts to address this problem. I hope I will see many of you in Rome next month as we bring our collective focus and wisdom to bear at the FAO's meeting on IUU fishing. Concerning IUU fishing, I envision that, in a context in which the international community is taking steps to ensure that all fishing vessels, from whatever home port, are bound to abide by the same rules, NAFO will continue striving to make its rules equitable, predictable, transparent, and responsive to the interests of all relevant partners.

On a personal note, for those who do not know, we have bid our farewells to Andy Rosenberg. It was my pleasure to have Andy as my deputy when I headed the National Marine Fisheries Service, and no one could ask for a more talented and competent partner. Even though Andy has returned to the halls of the academy, he will nevertheless join the U.S. delegation later this week. I am equally proud of our new head of delegation Patricia Kurkul, who I had the privilege to recommend for her current position as Regional Administrator of our Northeast Region, for the National Marine Fisheries Service. Yes, the United States is in good hands and committed to the challenges of NAFO.

And finally, to you, Mr. Chairman, we compliment you in your new position and we wish you good luck in your term. I again welcome all of you to Boston and the United States, wishing you fair weather and winds, and extending every good wish for a successful and productive meeting. Welcome.

Thank you, Mr. Chairman.

Annex 4. Opening Statement by the Representative of Canada
(P. Chamut)

Mr. Chairman, distinguished Representatives, it is a pleasure for Canada to participate at this year's NAFO Annual Meeting in the historic and beautiful city of Boston.

On behalf of the Canadian delegation, I wish to thank the United States for their hospitality and the opportunity to visit the historic sites in Boston.

Against the backdrop of this area, with its maritime heritage, we are here again, as members of NAFO, to give effect to our obligations to conserve fish stocks, and ensure their effective management. The importance of individually and collectively meeting our obligations has never been so high.

Many of the stocks of fish under NAFO stewardship continue to be at historically low levels. The work we do here to protect and rebuild those stocks has very real consequence for the hundreds of Canadian communities, and thousands of families which have relied upon these stocks for generations. These families, and communities, have nowhere else to go, and few economic alternatives.

Their present outlook is bleak, and their future outlook will be more promising only if this Organization maintains and strengthens its commitment to conservation, and stock rebuilding. Canada's objective at this meeting will be to ensure that we build on our achievements and we continue to build towards a brighter future.

Five years ago NAFO adopted strengthened Conservation and Enforcement Measures and two years ago NAFO adopted on a permanent basis the program for 100% observer coverage and satellite tracking on NAFO member vessels. These new strengthened measures were rightly hailed as a milestone towards enhanced international cooperation to achieve a common purpose. That purpose is to ensure that high seas fishing activities are conducted in a rational, sustainable and responsible manner.

We need to build on the achievements of recent years to sustain the progress which has been made in the establishment of sound conservation measures and in controlling overfishing and deterring unsustainable fishing practices. The implementation of these measures has laid the groundwork for the recovery and rebuilding of stocks in the Northwest Atlantic. This is of fundamental importance and benefit to all NAFO Parties who wish to see renewed fishing possibilities in the NAFO Regulatory Area.

The collapse of important groundfish stocks has demonstrated the need for enhanced conservation and disciplined management. The past abundance is a reminder of the challenge which faces us - the conservation and rebuilding of the once plentiful stocks of the Northwest Atlantic.

This 22nd annual meeting of NAFO will be an especially critical one for the Organization, as we are facing a number of important issues which will have significant implications for the future.

The recommendations of the Scientific Council underline the need for continuing restraint and vigilance in surveillance and enforcement of the NAFO conservation measures in order to ensure that the path to rebuilding of stocks is not compromised.

The Scientific Council recommends continuing in 2001 most of the moratoria on fishing for groundfish stocks. However, there are some positive signs. It is heartening to see continued rebuilding of 3LNO yellowtail flounder and Greenland halibut.

While enjoying the benefits of these encouraging signs, we must also be vigilant to the danger signals reported by the Scientific Council, in particular the high proportion of catches of young, immature fish. More effective bycatch and discard rules, increased minimum fish and mesh sizes as well as area and seasonal closures must be considered to protect juvenile fish and non-target species that are at low abundance and require protection if they are to rebuild.

Canada's objective is that all Parties can once again enjoy the bounty of sustainable fisheries in the Northwest Atlantic. I am sure this objective is shared by all. However with most of the NAFO stocks currently under moratoria, it is clearly too early to benefit from the restraint we have practised over the past several years nor consider that the challenges we face have been overcome. In fact, continued progress will depend upon our willingness to modify or extend some conservation measures or to introduce new ones if we are to achieve our goal.

As Contracting Parties to the NAFO Convention, we all share the responsibility to conserve the resources in the NAFO Regulatory Area. We must ensure that achievement of that responsibility remains our primary objective, rather than accommodating short term economic interests.

I am looking forward to a constructive and positive dialogue at this session which will help advance the interests of this Organization and all its members, and provide for a brighter future for all those who are dependant on resources under our stewardship. Thank you.

**Annex 5. Opening Statement by the Representative of the
European Union (E. Mastracchio)**

Mr. Chairman, distinguished delegates, ladies and gentlemen,

It is once again a great pleasure for my delegation and I to be here at a NAFO Annual Meeting, this time in the United States in this beautiful city of Boston for the very first time. We know the significance of fisheries for this part of the Northwest Atlantic and particularly for one of our recent members, the USA.

We cannot but state our continued belief in the future of fisheries, in the Northwest Atlantic, in that it lies with the sound conservation and management of fishery resources based on the best possible scientific advice available. It is our common interest that NAFO remains at the forefront of good management in international fisheries.

There are many issues to be discussed this week and the commitment of the Community to the principles I mentioned above will be very evident throughout. We insist that there is consistency and compatibility between action taken both within areas of national jurisdiction and beyond. I am therefore deeply concerned that once again, Canada has taken regulatory measures for 2000 for cod in area 2J3KL despite the action taken in the 1999 Annual Meeting in the context of NAFO. Our whole basis for decision this week must remain sound conservation and management of fish stocks throughout their entire area of distribution.

Of particular interest to the Community this week will be a number of issues, not least of which are the future of Dispute Settlement Procedures in NAFO and the next steps to take on the Program for observers and satellite tracking.

On Dispute Settlement Procedures, the Community would like to see some real progress. I reiterate what I said last year. We strongly support compulsory and binding dispute settlement procedures, the prevention of disputes and, where necessary, the existence of mechanisms that entail binding decisions with due regard to the peculiarities of the NAFO Convention. Progress must be made on this issue, preferably in the NAFO context.

With regard to observers and satellite tracking, there is clearly a need for us to re-examine the relevance of observer coverage before any permanent scheme can be contemplated. Furthermore, it is the preference of the Community that 100% satellite tracking should become the cornerstone of any future permanent scheme within NAFO waters.

Mr. Chairman, there are of course other issues to discuss this week, but they are very many and they have great importance for us all. At this point, I must wish all delegates present today the very best towards achieving a successful meeting. We, in the Community Delegation, look forward to working with you and all those who participate in a constructive manner so that our common objectives can be reached and our challenges fulfilled in the interest of this Organization. This will enable NAFO to remain at its prominent position in the lead for international fisheries.

Finally, Mr. Chairman, may I welcome you here in your new capacity. You will have a daunting but, nevertheless, I feel a satisfying week's work ahead. Thank you.

**Annex 6. Opening Statement by the Representative of the
United States of America (P. Kurkul)**

Mr. Chairman, Distinguished Delegates, Ladies and Gentlemen,

The United States Delegation adds a warm welcome to all participants in this 22nd Annual Meeting of NAFO. Our delegation is very excited to be hosting the first of NAFO's annual meeting to be held in the US. We hope you will enjoy your stay in Boston, and we intend to work with you and all delegations to make this meeting a success.

NAFO has taken up a number of exciting challenges in recent years, including: the precautionary approach, quota allocation, improved data collection and management systems, transparency, and dispute settlement. All of these issues spring from the FAO Code of Conduct for Responsible Fisheries and the UN Fish Stocks Agreement, the latter of which should enter into force in the very near future. We have more work to do on many of these issues, but no regional fisheries management organization can take more pride than NAFO for having tackled them and made progress. I hope that this meeting continues this progress. I also wish to note that NAFO may also have important contributions to make in the implementation of the FAO's international plans of action, particularly those concerning the conservation and management of sharks and the management of fishing capacity.

Although NAFO may not currently be setting TACs for a large amount of fish, we are the stewards for managing a very important and productive area of the world's oceans. We must therefore adhere conservatively to the best scientific advice available for all stocks, and we must continue to improve our management practices by, among other things, being precautionary in our management of new, existing, and recovering fisheries.

Again, the U.S. Delegation welcomes the opportunity at this meeting to work with friends and colleagues to continue making NAFO a model regional fisheries management organization for the world.

Thank you very much.

**Annex 7. Opening Statement by the Representative of France
on behalf of St. Pierre et Miquelon (G. Grignon)**

Mr. Chairman, Dear Colleagues,

May we, first of all, express our thanks to the U.S. government and to the U.S. delegation for their hospitality and warm welcome in this beautiful city of Boston.

France in respect of Saint-Pierre and Miquelon is now an old new Contracting Party since we have been a member of the organization for five years.

Of course, Saint-Pierre and Miquelon has been in the Convention Area for a much longer period, since the first French settlements in the island of Saint Pierre and Miquelon go back to the seventeenth century.

As a coastal state in the area under Article I.3 of the Convention, Saint Pierre and Miquelon is highly dependent on sea resources; the last figure of catch records used to set up the draft budget shows that more than 5000 tonnes were caught by the French fishermen of Saint Pierre and Miquelon in the convention area in 1998 for a population of 6000. Such a figure illustrates the fact that France on behalf of Saint-Pierre and Miquelon is a Contracting Party whose economy is overwhelmingly dependent on the fishery, with a small coastal community dependant on stocks present in the convention area.

For these reasons, we are fully aware of the necessity of ensuring appropriate sustainable management of the stocks, and stringent rules concerning the fishing activity. As you know, Mr Chairman, fishing vessels can always leave for others fishing grounds, but coastal communities like ours do not have that option.

We know that the organization has done a lot already and is working hard to set up and improve the rules of management and cooperation taking into account the interests of all Contracting Parties.

We are looking forward to fully participate in this work in order to reach this goal, which is th cornerstone of international cooperation.

Annex 8. Agenda

I. Opening Procedure

1. Opening by Chairman, E. Oltuski (Cuba)
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
 - c) Reports from Contracting Parties on their communication with Bulgaria and Romania
7. Administrative Report

III. Coordination of External Relations

8. Communication with the United Nations (Resolution 53/33 - 24 November 1998)
9. FAO International Plans of Action on the Management of Fishing Capacity, Shark Fisheries and Incidental Catch of Seabirds in Longline Fisheries
10. NAFO Participation at other International Organizations
 - a) FAO Consultation on the Suitability of the CITES Criteria for Listing Commercially Exploited Aquatic Species (28-30 June 2000).
 - b) FAO ACFR (Committee on Fisheries Research) Working Party on Status and Trends of Fisheries (29 November 1999)
 - c) NASCO Meeting, 2000
 - d) NAMMCO Annual Meeting, 2000
 - e) The Technical Consultation on Illegal, Unregulated, and Unreported Fishing, 2-6 October 2000, Rome, Italy
 - f) FAO Committee on Fisheries Meeting, 26 February to 2 March 2001, Rome, Italy

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

11. Consideration of non-Contracting Party activity in the NAFO Regulatory Area and agreement on the task of STACFAC at the current meeting
12. Report of STACFAC at the Annual Meeting and decisions on actions
13. Report of the Working Group on Dispute Settlement Procedures (DSP)

14. Report of the Working Group on the Allocation of Fishing Rights

15. Report of the Meeting on Shrimp Stocks

V. Finance

16. Report of STACFAD at the Annual Meeting

17. Adoption of the Budget and STACFAD recommendations for 2001

VI. Closing Procedure

18. Time and Place of Next Annual Meeting

19. Other Business

20. Press Release

21. Adjournment

Annex 9. Schedule of NAFO Meetings, 2001

<u>Meetings</u>	<u>Date (full days)</u>	<u>Place</u>
Working Group of Fisheries Commission on oceanic Redfish (in co-operation with NEAFC)	20-21 February	Reykjavik, Iceland
Working Group of the Fisheries Commission on Shrimp Data (catch and effort statistics) Special Fisheries Commission Meeting (Shrimps)	27-29 March	Copenhagen, Denmark
Working Group of the General Council on Dispute Settlement	24-26 April Canada	Dartmouth, N.S.,
STACTIC Meeting (VMS/confidentiality Juveniles/by-catch)	26-28 June (at NEAFC)	London, U.K.
Working Group (small) of STACTIC to overhaul Conservation and Enforcement Measures (FC Doc 00/1 and Supplement 2001)	Canada to arrange/ advise dates (Spring 2001)	Ottawa or St. John's, Canada
Working Group (small) of the Fisheries Commission on Precautionary Approach	EU to arrange/advise dates (Spring 2001)	Brussels, Belgium

Annex 10. Press Release

1. The 22nd Annual Meeting of the Northwest Atlantic Fisheries Organization (NAFO) was held in Boston, Massachusetts, USA, during 18-22 September 2000, under the chairmanship of Enrique Oltuski (Cuba), President of NAFO. The NAFO constituent bodies - General Council, Fisheries Commission and Scientific Council convened their sessions at the Boston Back Bay Hilton.
2. The meeting was attended by 220 participants from sixteen Contracting Parties - Canada, Cuba, Denmark (in respect of Faroe Islands and Greenland), Estonia, European Union, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, Russia, Ukraine and United States of America.
3. Prior to the 22nd Annual Meeting, the following NAFO meetings were held during 2000: (1) Joint Scientific Council and Fisheries Commission Working Group on Precautionary Approach (Brussels, Belgium, 29 February-02 March); (2) Working Group on Allocation of Fishing Rights (Washington, D.C., USA, 28-30 March); (3) Meeting on Shrimp Stocks in the Regulatory Area (Washington, D.C., USA, 27 March); (4) Working Group on Dispute Settlement Procedures (DSP) (Copenhagen, Denmark, 29-31 May); (5) Standing Committee on International Control (Dartmouth, Canada, 27-29 June); (6) STACTIC Technical Working Group on Communications (Dartmouth, Canada, 30 June); (7) Scientific Council Meeting (Dartmouth, Canada, 1-15 June); (8) Workshop on Assessment Methods (Boston, Mass., USA, 13-15 September).
4. The Scientific Council, under the chairmanship of Bill Brodie (Canada), reviewed and assessed the status of 19 fish stocks in the NAFO Regulatory and Convention Areas. The scientific advice and recommendations from the Scientific Council were presented to the Fisheries Commission with recommendation that major groundfish stocks are continuing to be at low abundance and there should not be a direct fishery for those stocks in 2001. The Scientific Council reported biomass increases for Greenland halibut in Divisions 2J+3KLMNO and Yellowtail flounder in Div. 3LNO. The Joint Scientific Council/Fisheries Commission Working Group on Precautionary Approach evaluated and discussed a *precautionary approach (PA)* to NAFO-managed stocks and proposed PA steps in the fields of "harvest strategies", "conservation and enforcement measures" and "research/monitoring" for two model stocks - Cod in Div. 3NO, Yellowtail flounder in Div. 3LNO.
5. The Fisheries Commission, under the chairmanship of P. Gullestad (Norway), considered the Scientific Council recommendations and agreed on joint international measures and actions for the conservation and utilization of the fishery resources in the Regulatory Area. For all stocks scientific advice on levels of harvest was adopted.

The Commission agreed to impose "no direct fishery" in 2001 on the following stocks: Cod in Divisions 3M and 3L (that portion within the Regulatory Area) and 3NO, Redfish in Div. 3LN, American plaice in Divisions 3M and 3LNO, Witch flounder in Div. 3NO and 3L (that portion within the Regulatory Area) and Capelin in 3NO. The Quota Table for 2001 was adopted (Attachment 1).

With respect to management measures for cod in 2J3KL, Contracting Parties other than Canada expressed their serious concern that management measures for this stock may not be consistent throughout its range in the Convention Area in the year 2000.

New conservation and enforcement measures were agreed:

- To avoid excessive incidental catch a new fishing strategy will apply by changing fishing areas, etc.
 - Concerning the shrimp fishery on the Flemish Cap in Division 3M, it was decided that the existing effort allocation Scheme in the shrimp fishery and all other regulatory measures should continue, and that the fishing days should be 90% of maximum number of those observed by Contracting Parties for their vessels in one of the years during 1993-1995.
 - The Program for Observers and Satellite Tracking was modified to integrate the hail system with the satellite tracking and vessel monitoring systems (VMS), which will be in force as of January 1, 2001.
 - Regulatory measures for chartering vessels between Contracting Parties were modified, including more precise guidelines for notification and charter arrangements, and a provision that the catch of the chartered vessel be added to the catch statistics of the Contracting Party to whom fishing possibilities have been allocated.
6. The General Council, under the chairmanship of E. Oltuski (Cuba), deliberated several outstanding issues regarding internal and external NAFO policy on the following terms:
- Standing Committee on non-Contracting Party Fishing Activity in the Regulatory Area (STACFAC) shall undertake the study of the impact of the FAO International Plans of Action on Illegal, Unregulated and Unreported (IUU) Fishing on NAFO at its next Annual Meeting.
 - The issue of Dispute Settlement Procedures will be deliberated at the General Council in the near future.
 - Although there were no sightings of non-Contracting Party (NCP) fishing in the NAFO Regulatory Area in 2000, the consensus was to continue appropriate actions to deter NCP activity in the NAFO Area.
 - The President of NAFO signed diplomatic démarches to the Non-Contracting Party flag-States whose vessels have fished in the NAFO Regulatory Area in recent years, namely Belize, Honduras, Panama and Sierra Leone.
7. The following elections of NAFO officers took place:
- | | |
|---|--|
| Chairman of Standing Committee on Fishing Activities of non-Contracting Parties in the Regulatory Area (STACFAC) | - Daniel Silvestre (France in respect of St. Pierre et Miquelon) |
| Vice-Chairman of Standing Committee on Fishing Activities of non-Contracting Parties in the Regulatory Area (STACFAC) | - Nadia Bouffard (Canada) |
| Chairman of the Standing Committee on Fisheries Environment (STACFEN) | - Manfred Stein (EU) |

QUOTA TABLE. Total allowable catches (TACs) and quotas (metric tons) for 2001 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.

Contracting Party	Cod		Redfish		American plaice		Yellowtail	Witch	Capelin	G. halibut	Squid (Illex) ³	Shrimp
	Div. 3M	Div. 3NO*	Div. 3M	Div. 3LN*	Div. 3M*	Div. 3LNO*						
1. Canada	0	0	500	0	0	0	12675 ⁷	0	0	4 446	N.S. ⁴	5 000
2. Cuba	0	-	1750	0	-	-	-	-	0	-	510	67
3. Denmark (Faroe Islands and Greenland)	0	-	69	-	-	-	-	-	-	-	-	67
4. European Union	0	0	3100	0	0	0	260 ⁷	-	0	16 406	N.S. ⁴	67
5. France (St. Pierre et Miquelon)	-	-	69	-	-	-	-	-	-	-	453	67
6. Iceland	-	-	400	-	-	-	-	-	0	3 038	510	67
7. Japan	-	-	69	-	-	-	-	-	-	-	453	67
8. Korea	0	-	-	-	-	-	-	-	0	-	-	67
9. Norway	0	-	-	-	-	-	-	-	0	-	227	67
10. Poland	0	-	-	-	-	-	-	-	0	-	-	67
11. Estonia	0	0	13 850 ¹	0	0	0	-	0	0	-	1 133 ¹	67
12. Latvia	-	-	-	-	-	-	-	-	-	-	-	67
13. Lithuania	-	-	-	-	-	-	-	-	-	-	-	67
14. Russia	-	-	-	-	-	-	-	-	-	3 779	-	67
15. Ukraine	-	-	-	-	-	-	-	-	-	-	-	67
16. United States of America	-	-	69	-	-	-	-	-	-	-	453	67
17. Others	0	0	124	0	0	0	65 ⁷	0	-	1 971 ⁵	794	0
Total Allowable Catch	*	*	5 000 ⁶	*	*	*	13 000 ⁸	*	*	29 640	34 000	6 000

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 Of which no more than 40% (788 t) may be fished before 1 May 2001 and no more than 80% (1577 t) may be fished before 1 October 2001.

⁶ Each Contracting Party shall notify the Executive Secretary bi-weekly of catches taken by its vessels from this stock. Not more than 2500 tons may be fished before July 1, 2001. The Executive Secretary shall notify without delay all Contracting Parties of the date on which, for this stock, accumulated reported catch taken by vessels of the Contracting Parties is estimated to equal 50 and then 100 percent of the TAC for that stock.

⁷ Contracting Parties shall inform the NAFO Executive Secretary before 1 December 2000 of the measures to be taken to meet the advice of the NAFO Scientific Council.

⁸ The provisions of Part I, Section A.5c) of NAFO Conservation and Enforcement Measures shall apply.

* No directed fishing - The provisions of Part I, Section A.5a and c of NAFO Conservation and Enforcement Measures shall apply.

**Annex 11. Decisions and Actions by the General Council
(22nd Annual Meeting, 18-22 September 2000)**

Substantive Issue	Decision/Action (GC Doc. 00/7, Part I: item)
1. FAO International Plans of Action on the Management of Fishing Capacity, Shark Fishery and Incidental Catch of Seabirds in Longline Fisheries	Agreed: Contracting Parties report to FAO shall be sent in copy to the NAFO Secretariat, which in turn would circulate the reports to other Contracting Parties; item 3.2
2. NAFO observers at international meetings. FAO, Rome: - Technical Consultation on Illegal, Unregulated and Unreported Fishing - FAO Fisheries Committee Meeting	Represented by: - Delegate of Canada, October 2000 - Delegate of Iceland, Feb-March, 2001; item 3.3.
3. Report of STACFAC - New diplomatic demarches to Belize, Honduras, Panama and Sierra Leone	Discussed: items 4.1-4.6 Agreed/signed; item 4.4.
4. Working Group on Dispute Settlement Procedures (DSP) - Intersessional meeting of the Working Group	Discussed: item 4.7. Decided to meet in Dartmouth, N.S., Canada, 24-26 April 2001; item 4.7.
5. Election of Officers - Chairman of STACFAC - Vice-Chairperson of STACFAC	Daniel Silvestre (France-SPM) Nadia Bouffard (Canada)
6. Budget for 2001 - Hail and VMS Automated System	Adopted \$1,389,000 Cdn; item 5.2d, 5.5 - \$200,000 Cdn
7. Venue of 24th Annual Meeting, 2002	Agreed: Spain, 11-20 September 2002; item 5.4

PART II

Report of the Standing Committee on Finance and Administration (STACFAD)

1. Opening by the Chairman

The first session of the Standing Committee on Finance and Administration (STACFAD) was opened by Mr. Fred Kingston (European Union) at 1015 hrs on 18 September 2000.

The Chairman welcomed all delegates and in his opening remarks noted that the agenda had a number of additional issues that would result in further costs for the Organization. Delegates from the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of Faroe Islands and Greenland), European Union, Japan, Latvia, Norway, Russian Federation, Ukraine and United States of America. (Annex 1)

2. Appointment of Rapporteur

Deirdre Warner-Kramer (USA), Nikki Brajevich (USA), and Stan Goodick (NAFO Secretariat) were appointed Rapporteurs.

3. Adoption of Agenda

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

4. Auditors' Report for 1999

The Executive Secretary presented the Auditors' Report and Financial Statements of the Northwest Atlantic Fisheries Organization for the Year Ended 31 December 1999. The Executive Secretary indicated that the Auditors' Report, signed by Deloitte & Touche, was circulated to the Heads of Delegation on 25 April 2000 and no comments had been received on the report.

As stated in Note 4 of the Auditors' Report entitled "Provision for Employee Termination Benefits", the Committee noted the Organization's practice of funding this liability at the rate of \$10,000 per annum as approved by the General Council at the 20th Annual Meeting in 1998.

The EU inquired about the existence of a headquarters agreement. In response to the question, the Executive Secretary stated that there was no headquarters agreement as such and provided copies of Order in Council P.C. 1980-132 dated January 1980 as referred to in the Auditors Report, and also copies of the NAFO Staff Rules dated March 1999.

STACFAD recommended to the General Council that the 1999 Auditors' Report be adopted.

5. Meeting of the Pension Society

The International Fisheries Commissions Pension Society (IFCPS) administers the pension plans and benefits for employees of NAFO and other international fisheries commissions based in North America. The annual meeting was held during 26-28 April 2000 in Seattle, Washington, USA. The next annual meeting of the IFCPS is scheduled to take place in Vancouver, British Columbia, Canada during 25-27 April 2001.

The Executive Secretary presented STACFAD Working Paper 00/4 summarizing the annual meeting, which was attended by the NAFO Secretariat staff Forbes Keating and Stan Goodick. The following items were noted:

- a) The IFCPS renewed its contract with Eckler Partners Limited for a two year period to provide pension consulting, actuarial and administrative services. The Society and representatives from the Commissions have been pleased with the services provided by Eckler Partners Limited and NAFO's annual share of the contract is approximately \$1,700.
- b) A new set of investment guidelines for an improved asset mix of the Canadian Pension Plan Funds was established during 1999. The new guidelines see a switch from 100% Guaranteed Investment Certificates (GIC's) to an asset mix of 50% equities and 50% bonds providing for a more stable investment base and return on investment. As GIC's are maturing, the proceeds are being reinvested into the new asset mix.

6. Review of Cost Implications of the Hail and Satellite Tracking Systems at the NAFO Secretariat

STACFAD Working Paper 00/3 was presented by the Executive Secretary. He noted that research for the development of an automated system at the NAFO Secretariat for handling all hail and satellite tracking reports and their transmission to Contracting Parties with inspection presence in the NAFO Regulatory Area was ongoing. A STACTIC Working Group on Technical Communications met to discuss this issue on 30 June 2000.

The General Council, at the 21st Annual Meeting of NAFO, allocated \$35,000 to the 2000 budget for the automation of the hail system. Of this amount, only \$330 was used to finance a computer consultant at the STACTIC Working Group in June 2000. Unless a resolution on this issue is made for the current year, the remaining 2000 budgetary amount of \$34,670 will be returned to the Accumulated Surplus.

The Chair presented STACTIC Working Paper 00/14 - Overview of NEAFC Scheme re Automated Communications – which amplified the request from STACTIC for funding in the amount of \$200,000 for the Automated Hail and Satellite Tracking System. In response to a request from STACFAD, a representative from STACTIC came and answered technical and cost questions. The representative from the United States noted that while the Committee supported the Automated Hail and Satellite Tracking System in principle, there were concerns about how the requested funds would be spent and what safeguards were in place to ensure transparency in the bidding process. The representative from Canada concurred, further noting that the Committee also required a detailed workplan. STACFAD members noted that the lack of adequate and specific information greatly hampered their ability to ensure transparency, accountability and the presence of safeguards.

After a lengthy discussion, STACFAD recommended to the General Council that it authorize and approve a budget including an expense not to exceed \$200,000 for the proposed Automated Hail and Satellite Tracking System. However, STACFAD was extremely concerned with the lack of information upon which the Committee could properly evaluate this requested amount. STACFAD recommended that the General Council instruct the Executive Secretary to provide on or before October 31, 2000 a more detailed report regarding the NEAFC System. STACFAD further recommended to the General Council that it instruct the Executive Secretary, in conjunction with the Fisheries Commission, to provide to the General Council a proposal not later than December 31, 2000 regarding the financing of the

Automated Hail and Satellite Tracking System. This proposal should, at a minimum, consist of the following:

- Clearly defined procedures for selecting consultants/experts (with proven experience with similar type projects) to prepare a Call for Tender and to advise on the most suitable tender,
- An implementation workplan for the Automated Hail and Satellite Tracking System,
- Procedures guaranteeing transparency to the Contracting Parties in expenditures, decision-making and the selection process,
- An evaluation process, including periodic progress reports.

The representative from the European Union noted that the Fisheries Commission might find it necessary to appoint an Ad Hoc Working Group that would meet from time to time to advise the Executive Secretary on this matter.

STACFAD further recommended that the General Council instruct the Executive Secretary, in conjunction with the Fisheries Commission, to provide a full report on the status of the spending under this budget item and the implementation of the Automated Hail and Satellite Tracking System at the next Annual Meeting.

7. Administrative and Financial Statements for 2000 (July)

The Committee reviewed the Administrative Report and Financial Statements (NAFO GC Doc. 00/5) for 2000.

The representative of the Scientific Council noted that the term of Manfred Stein (European Union), Chair of STACFEN, had been extended until September 2001.

The Secretariat reviewed the financial statements for 2000 contained in Statement I of the Administrative and Financial Statements.

- the total 2000 projected expense obligations are \$1,160,500, which is \$3,500 over the approved budget of \$1,157,000.
- salaries are projected to be \$5,000 over budget. According to Rule 6.1 of the Financial Regulations, NAFO follows the salary scale of the Public Service of Canada. Salary levels were updated pursuant to contracts ratified by the Treasury Board of Canada and the Public Service Alliance of Canada. The contracts were for the period June 1999 to June 2000 and salary increases were retroactive to June 1999.
- The costs of the Annual General Meeting and Scientific Council Meetings are projected to be \$9,000 over budget. The Committee noted that due to the practice of establishing budgetary amounts prior to receiving the final list of meetings, this budget item had been consistently underestimated for several years.
- Computer Services is projected to be \$34,000 under budget. From the \$35,000 allocated for the automation of the hail system, \$330 was expended and from the \$15,000 allocated to computer services, \$15,670 was expended, \$670 over-budget.

STACFAD recommended to the General Council that in accordance with Rule 6.1 of the Financial Regulations it approve the 2% salary increase for Secretariat employees, in line with contracts negotiated between the Public Service Alliance of Canada and the Treasury Board of Canada. This increase will be applied retroactively from June 1999. This salary increase is independent from the recent pay equity settlement granted to the Public Service Alliance of Canada.

The representative of the European Union noted that expenditures for intersessional meetings were significantly over budget for a number of years running. For information purposes the Executive Secretary provided STACFAD W/P 00/8 (Annex 3) outlining certain travel and meeting cost estimates for the NAFO Secretariat. The Committee requested the Executive Secretary to provide such reports on annual basis. The Committee agreed to address this issue in more detail under Agenda item 9, Preliminary Budget Estimate for 2001. The representative of the Scientific Council requested that the costs of the November Scientific Council shrimp meeting be moved from under the intersessional line item to the Scientific Council/Annual Meeting line item, as this was a regular meeting occurring each year. The Committee agreed to this request.

Contributions Receivable from Contracting Parties for 2000 fiscal year are \$71,489. These outstanding contributions are due from Cuba (\$17,459.98), France (in respect of St. Pierre et Miquelon) (\$19,171.13), Republic of Korea (\$16,842.79) and the Russian Federation (\$18,015.45). The representative from France (in respect of St. Pierre et Miquelon) noted that its payment was in the process of being issued. It was also noted that contributions were not received from Bulgaria and Romania.

The representative from the Russian Federation informed participants that a change in the approval process of payments to international organizations within his government has delayed its payment. Efforts are however being made to make the contribution in the near future.

Canada informed the Committee that their communications with Romania have indicated that Romania has put in motion procedures to withdraw from NAFO. The withdrawal process within the Romanian Government is a lengthy process, although, indications are that most of the approvals have gone forward. Any estimates on the completion of this process would be premature at this time.

USA noted that it had in previous years forwarded démarches to the Governments of Bulgaria and Romania with no positive information on their intentions. This however, was the first year that the USA had not attempted such contacts.

The Executive Secretary noted that Bulgaria had contacted the NAFO Secretariat (GC W/P 00/2) with intentions to confirm its participation to NAFO and continue its membership as well as to negotiate future quotas and other conditions of this participation, including payment of outstanding contributions.

The Committee discussed how the payment of any outstanding contributions would be applied. The Committee instructed the Executive Secretary to look into this matter and report to STACFAD at the next Annual Meeting.

As in prior years, STACFAD recommended to the General Council that contributions from Bulgaria and Romania be deemed uncollectible and recommended that these amounts be applied against the Accumulated Surplus.

A schedule of outstanding contributions detailing the total amounts due from Bulgaria and Romania is attached. (Annex 4).

The Committee recommended that Contracting Parties continue attempts to contact Bulgaria and Romania in order to ascertain whether they intend to participate in NAFO and to inform them of their outstanding contributions. The Committee further recommended that Contracting Parties exchange information about such contacts through the NAFO Secretariat.

The Committee noted that fishery statistics (STATLANT 21A & 21B) were outstanding from a number of Contracting Parties. The Committee also wished to note the recommendation made by Scientific Council at its June 2000 Meeting that *'the Scientific Council should prepare a document for submission to the General Council and the Fisheries Commission on the adverse effect the absence of the STATLANT 21A and 21B data was having on the work of the Scientific Council'*.

STACFAD recommended to the General Council that Contracting Parties be urged to submit their fishery statistics (STATLANT 21A & 21B) to the NAFO Secretariat on time to ensure the ongoing integrity of the NAFO Statistical database.

8. Review of the Accumulated Surplus Account

The accumulated surplus account was reviewed and it was noted that the year-end balance is estimated to be \$234,814, provided that all outstanding member contributions (excluding Bulgaria/Romania) are received.

As in past years, STACFAD recommended that \$75,000 be maintained as a minimum balance in this account in order to fulfill NAFO's financial obligations in early 2001 until contributions are received.

The question was raised whether the \$75,000 balance maintained in the accumulated surplus in order to finance appropriations pending receipt of annual payments by Contracting Parties is adequate. The Committee requested that the Executive Secretary ask the Auditors to review this issue and report on what would be the minimum/maximum level at the next Annual Meeting.

The remaining estimated accumulated surplus balance (\$159,814) at the end of 2000 would be used to reduce contributions due from Contracting Parties in 2001.

9. Budget Estimate for 2001

The Executive Secretary presented the budget estimate for 2001 (Annex 5).

The Committee reviewed the preliminary budget estimate of \$1,389,000 that noted the following:

- salary levels include a 2% economic increase. This is independent from the recent pay equity settlement granted to the Public Service Alliance of Canada.
- the meeting account has been itemized to reflect the reclassification of the November Scientific Council Shrimp Meeting from the inter-sessional meetings line item to the Annual/Scientific Meetings line item, as well as an increase in the inter-sessional meeting line item, to reflect a more realistic estimate.

- a new line item for the development of an automated system at the NAFO Secretariat for handling all hail and satellite tracking reports and their transmission to Contracting Parties with inspection presence in the NAFO Regulatory Area.

The Committee discussed in length the proposal to apply the pay equity settlement granted Canadian public service employees by the Treasury Board of Canada, following a 1998 ruling by the Canadian Human Rights Tribunal to certain clerical employees on the basis of Rule 6.1 of the Financial Regulations. As reflected in STACFAD WP 00/1, this would result in

- signing bonuses in the amount of \$6,000,
- clerical pay scale increases of approximately \$17, 933 paid to four clerical staff, and
- pay equity adjustment dating back to 1985 in the amount of \$190,651.

The representative from Canada questioned the applicability of these pay equity increases proposed for certain Secretariat clerical employees. Canada informed the Committee that the pay equity settlement only applies to specific federal government employees in specific job categories. It does not apply to agencies, contractors and the like. For information purposes Canada distributed STACFAD W/P 00/5 concerning Information on Pay Equity Agreement between the Treasury Board of Canada (TB) and the Public Service Alliance of Canada (PSAC) and STACFAD W/P 00/6 concerning information on Implementation of signing bonus re: Program and Administrative Services between TB and PSAC. The representative of Canada mentioned that the issue of pay equity also raises questions with respect to the classification of NAFO employees. Canada suggested that a review of the job descriptions be undertaken to determine fairness of remuneration. The representatives from the United States and the European Community concurred that, although the Committee acknowledged the Secretariat's discretion to grade and remunerate its employees as it saw fit, given the large amount of money involved in the settlement, the Committee would prefer as much transparency as possible.

Canada will undertake to review the job descriptions that will be provided by the NAFO Secretariat. The review will apply to those positions identified as being in the CR Category in STACFAD Working Paper 00/1. Canada will prepare a report outlining the review of its findings for the 2001 Annual Meeting and will circulate that report in advance of the Meeting, if possible.

The Committee remains committed to providing priority to resolving this issue at the next Annual Meeting.

Included in the budget estimate for 2001 are requests from Scientific Council for financial support (STACFAD W/P 00/2) which were discussed and the Committee amended as follows:

- a) Joint ICES/NAFO Symposium, August 2001 (\$8,000).
- b) NAFO Symposium on Deep-sea Fisheries, September 2001 (\$8,000).
- c) Assistant Executive Secretary at FAO & non-FAO Regional Bodies February 2001 (\$3,500).
- d) Assistant Executive Secretary and STACREC Chairman, CWP Session, New Caledonia, July 2001 (\$10,000).
- e) Website work and scanning of Scientific Council Journals (21 Volumes) and Scientific Council Studies (21 Volumes) (\$8,000).

The Committee in reviewing the requests emphasized that the funding for the attendance of the STACREC Chairman at the CWP Session is of an exceptional nature. STACFAD notes that this is

not a precedent for future funding and that Contracting Parties should ensure that appropriate funding is made available for such attendance.

Regarding the funding of Symposia in general, the Committee was concerned that proper procedures be put in place to ensure that i) funding could be recovered in the event that a Symposium was cancelled, after payment was made and that ii) an accounting be submitted by the recipient. The Committee requested that NAFO Secretariat develop such procedures and report back to STACFAD at the next Annual Meeting.

The Committee requested that any future requests for funding be supported by adequate documentation for STACFAD to make an informed decision.

The preliminary calculation of the 2001 billing is \$1,229,186 (Annex 6).

STACFAD recommended to the General Council that the budget of \$1,389,000 be adopted for 2001.

10. Preliminary Budget Forecast for 2002

STACFAD reviewed the preliminary budget forecast for 2002 of \$1,190,000 (Annex 7) and approved the forecast in principle. It was noted that the preliminary budget forecast for 2002 would be reviewed in detail during the 23rd Annual Meeting.

11. Time and Place of 2002 and 2003 Annual Meetings

The location of the Annual Meeting for 2001 is Cuba. The 2002 and 2003 Annual Meetings will be held in Halifax, Nova Scotia, Canada, unless an invitation to host the Annual Meeting is extended by a Contracting Party and accepted by the Organization.

The dates of the next Annual Meetings are as follows:

2001	-	Scientific Council	-	12-21 September
	-	General Council	-	17-21 September
	-	Fisheries Commission	-	17-21 September
2002	-	Scientific Council	-	11-20 September
	-	General Council	-	16-20 September
	-	Fisheries Commission	-	16-20 September

STACFAD recommended that the dates of the 2003 Annual Meeting be as follows:

2003	-	Scientific Council	-	10-19 September
	-	General Council	-	15-19 September
	-	Fisheries Commission	-	15-19 September

12. Other issues including any questions referred from the General Council during the current Annual Meeting

There were no items referred over from the General Council for the consideration of STACFAD.

13. Adjournment

The final session of the STACFAD meeting adjourned at 1600 hrs on 21 September 2000.

Annex 1. List of Participants

<u>Name</u>	<u>Contracting Party</u>
Edith Dussault	Canada
Victor Sarda Espinosa	Cuba
Lise Lind	Denmark (in respect of Faroe Islands and Greenland)
Fred Kingston	European Union
Serge Segura	European Union
Manfred Stein	European Union
Andrew Thomson	European Union
Yousuke Ochi	Japan
Yoshiharu Kashio	Japan
Richard Derkacs	Latvia
Halvard P. Johansen	Norway
M.G. Botvinko	Russian Federation
Gennady Gusev	Russian Federation
Vasyl Chernik	Ukraine
Nikki Brajevich	United States of America
Jean-Pierre Plé	United States of America
Deirdre Warner-Kramer	United States of America
Leonard I. Chepel	NAFO Secretariat
Stan M. Goodick	NAFO Secretariat
Forbes D. Keating	NAFO Secretariat

Annex 2. Agenda

1. Opening by the Chairman, G.F. Kingston (EU)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Auditor's Report
5. Meeting of the Pension Society
6. Review of Cost Implications of the Hail and Satellite Tracking Systems in the Regulatory Area
7. Administrative and Financial Statements for 2000 (July)
8. Review of Accumulated Surplus Account
9. Preliminary Budget Estimate for 2001
10. Preliminary Budget Forecast for 2002
11. Time and Place of 2002-2003 Annual Meeting
12. Other issues including any questions referred from the General Council during the current Annual Meeting
13. Adjournment

Annex 3. Travel and Meeting Costs Estimate for the NAFO Secretariat
(for information purposes only)
(STACFAD Working Paper 00/8)

(Canadian \$)

Travel Costs Estimate for NAFO Secretariat

<u>Meeting of FAO and Non-FAO Regional Fishery Bodies FAO Headquarters, Rome</u>	<u>Costs</u>	<u># of Staff</u>	<u>Total Cost</u>
Airfare	\$1,500		
Hotel	\$ 900		
Per Diem & Misc	<u>\$ 900</u>		
Total Travel Costs Estimate	<u>\$3,300</u>	x 1	= <u>\$3,300</u>
 <u>Inter-sessional Meeting – Brussels</u>			
Airfare	\$1,500		
Hotel	\$1,000		
Per Diem & Misc	<u>\$ 900</u>		
Total Travel Costs Estimate	<u>\$3,400</u>	x 2	= <u>\$6,800</u>
 <u>Inter-sessional Meeting – Copenhagen</u>			
Airfare	\$1,500		
Hotel	\$1,200		
Per Diem & Misc	<u>\$ 900</u>		
Total Travel Costs Estimate	<u>\$3,600</u>	x 2	= <u>\$7,200</u>
 <u>Inter-sessional Meeting – Washington</u>			
Airfare	\$ 600		
Hotel	\$1,300		
Per Diem & Misc	<u>\$ 700</u>		
Total Travel Estimate	<u>\$2,600</u>	x 2	= <u>\$5,200</u>
 <u>Inter-sessional Meeting – Spain</u>			
Airfare	\$1,500		
Hotel	\$1,200		
Per Diem & Misc	<u>\$ 900</u>		
Total Travel Estimate	<u>\$3,600</u>	x 2	= <u>\$7,200</u>

Meeting Costs Estimate for NAFO SecretariatIntersessional Meeting – NAFO Headquarters

Airfare	\$ 0		
Hotel	\$ 0		
Per Diem & Misc	<u>\$ 0</u>		
Total Meeting Costs Estimate	<u>\$ 0</u>	=	<u>\$ 0</u>

Intersessional Meeting – Dartmouth Holiday Inn

Hotel Rental	\$4,000		
Equipment Rental	\$ 500		
Phones/Fax Lines	<u>\$ 500</u>		
Total Meeting Costs Estimate	<u>\$5,000</u>	=	<u>\$5,000</u>

Annex 4. Schedule of Outstanding Contributions from Bulgaria and Romania

The following is a summary of outstanding contributions from Bulgaria and Romania:

	<u>Bulgaria</u>	<u>Romania</u>
1 January – 31 December 1982		\$2,700.75
1 January – 31 December 1983		11,000.00
1 January – 31 December 1984		11,483.06
1 January – 31 December 1985		12,688.81
1 January – 31 December 1986		11,784.09
1 January – 31 December 1987		15,273.97
1 January – 31 December 1988		14,189.50
1 January – 31 December 1989		16,618.05
1 January – 31 December 1990		17,875.65
1 January – 31 December 1991		20,060.56
1 January – 31 December 1992		18,702.14
1 January – 31 December 1993	18,109.12	17,473.10
1 January – 31 December 1994	14,893.10	14,893.10
1 January – 31 December 1995	16,614.28	16,614.28
1 January – 31 December 1996	15,944.93	15,944.93
1 January – 31 December 1997	15,002.75	15,002.76
1 January – 31 December 1998	16,121.90	16,121.89
1 January – 31 December 1999	16,267.88	16,267.87
1 January – 31 December 2000	16,842.79	16,842.79
	\$129,796.75	\$281,537.30

Annex 5. Budget Estimate for 2001

NORTHWEST ATLANTIC FISHERIES ORGANIZATION

Budget Estimate for 2000

(Canadian Dollars)

	Approved Budget for 2000	Projected Expenditures for 2000	Preliminary Budget Forecast for 2001	Budget Estimate for 2001
1. Personal Services				
a) Salaries	\$ 677,500	\$ 682,500	\$691,000	\$699,500 ^a
b) Superannuation and Annuities	73,500	73,500	74,000	76,000
c) Additional Help	1,000	1,000	1,000	1,000
d) Group Medical and Insurance Plans	52,000	57,000	52,000	57,500
e) Termination Benefits	23,000	34,000	21,500	23,000 ^b
f) Accrued Vacation Pay	1,000	1,000	1,000	1,000
g) Termination Benefits Liability	10,000	10,000	10,000	10,000
2. Travel	20,000	20,000	10,000	19,000 ^c
3. Transportation	1,000	1,000	1,000	1,000
4. Communications	60,000	57,000	60,000	60,000
5. Publications	28,000	29,000	37,000	37,000
6. Other Contractual Services	43,000	45,000	43,000	44,000
7. Materials and Supplies	30,000	30,000	30,000	30,000
8. Equipment	5,000	5,000	5,000	5,000
9. Meetings				
Annual General Meeting and Scientific Council Meetings	62,000	71,000	61,000	64,000 ^d
Inter-sessional Meetings	20,000	27,500	20,000	30,000 ^e
Symposium	50,000	16,000	15,000	15,000 ^f
10. Computer Services	50,000	16,000	15,000	15,000 ^g
11. Automated Hail System	-	-	-	200,000
	\$1,157,000	\$1,160,500	\$1,132,500	\$1,389,000

^a Contracts between the Treasury Board of Canada and the Public Service Alliance of Canada negotiated during the year included retro-active salary increases to June 1999. 1999. If approved by General Council, NAFO's projected salaries for the year 2000 will be 682,500. NAFO's salaries budget estimate for 2001 includes a 2% economic increase.

^b This figure is for 2001 credits and conforms with NAFO Staff Rule 10.4(a).

^c Travel costs for 2001 include i) the Assistant Executive Secretary to the February 2001 meeting of the Food and Agriculture Organization of the United Nations (FAO) and Non-FAO Regional Fishery Bodies or Arrangements and the associated Co-ordinating Working Party on Fishery Statistics (CWP) Intersessional Meeting at FAO Headquarters, Rome, Italy, ii) the Assistant Executive Secretary and the STACREC Chairman to the CWP 19th Session in Noumea, New Caledonia (9-13 July 2001) and iii) two staff members to the meeting of Directors and Executive Secretaries of the International Fisheries Commissions Pension Society re: pension scheme, April 2001, Vancouver, Canada.

^d This figure includes the cost for Annual Meeting, September 2001, Havana, Cuba and the Scientific Council Meeting, June 2001, Halifax, Canada, and the Scientific Council Shrimp Meeting, November 2001, venue to be determined.

^e General provision for inter-sessional meetings during 2001.

^f Contribution to the Joint ICES/NAFO Symposium, August 2001 and NAFO Symposium on Deep-sea Fisheries, September 2001.

^g The 2000 budget included \$35,000 for the automation of the hail system at NAFO Headquarters.

Annex 6. Preliminary Calculation of Billing for 2001

Preliminary calculation of billing for Contracting Parties against the proposed estimate of \$1,389,000 for the 2001 financial year (based on 18 Contracting Parties to NAFO).
(Canadian Dollars)

Budget Estimate.....\$1,389,000.00
Deduct: Amount from Accumulated Surplus Account..... 159,814.00
Funds required to meet 2001 Administrative Budget..... \$1,229,186.00

60% of funds required = \$737,511.66
30% of funds required = 368,755.74
10% of funds required = 122,918.60

Contracting Parties	Nominal Catches for 1998	% of Total Catch in the Convention Area	% of Funds Required			Amount Billed
			10%	30%	60%	
Bulgaria	-	-	-	\$ 20,486.43	-	\$ 20,486.43
Canada ¹	493,576	59.28	\$77,195.83	20,486.43	\$437,196.88	534,879.14
Cuba	-	-	-	20,486.43	-	20,486.43
Denmark (in respect of Faroes and Greenland) ^{1,2}	97,555	11.72	15,257.71	20,486.43	86,436.36	122,180.50
Estonia	5,533	0.66	-	20,486.43	4,867.58	25,354.01
European Union	23,209	2.79	-	20,486.43	20,576.57	41,063.00
France (in respect of St. Pierre et Miquelon)	5,394	0.65	843.63	20,486.43	4,793.83	26,123.89
Iceland	6,572	0.79	-	20,486.43	5,826.34	26,312.77
Japan	3,000	0.36	-	20,486.43	2,655.04	23,141.47
Republic of Korea	-	-	-	20,486.43	-	20,486.43
Latvia	1,191	0.14	-	20,486.43	1,032.52	21,518.95
Lithuania	3,107	0.37	-	20,486.43	2,728.80	23,215.23
Norway ¹	1,340	0.16	-	20,486.43	1,180.03	21,666.46
Poland	148	0.02	-	20,486.43	147.51	20,633.94
Romania	-	-	-	20,486.43	-	20,486.43
Russian Federation	2,601	0.31	-	20,486.43	2,286.30	22,772.73
Ukraine	-	-	-	20,486.43	-	20,486.43
United States of America ¹	189,394	22.75	29,621.43	20,486.43	167,783.90	217,891.76
	832,620	100.00	\$122,918.60	\$368,755.74	\$737,511.66	<u>\$1,229,186.00</u>
Funds required to meet 1 January - 31 December 2001 Administrative Budget						<u>\$1,229,186.00</u>

¹ Provisional Statistics used when calculating 1998 nominal catches which have not been reported from some Contracting Parties.

² Faroe Islands = 8,345 metric tons
Greenland = 89,210 metric tons

Annex 7. Preliminary Budget Forecast for 2002
(Canadian Dollars)

NORTHWEST ATLANTIC FISHERIES ORGANIZATION

1.	Personal Services	
	a) Salaries	\$ 707,000
	b) Superannuation and Annuities	80,000
	c) Additional Help	1,000
	d) Group Medical and Insurance Plans	59,000
	e) Termination Benefits	20,000 ^a
	f) Accrued Vacation Pay	1,000
	g) Termination Benefits Liability	10,000
2.	Travel	20,000 ^b
3.	Transportation	1,000
4.	Communications	60,000
5.	Publications	29,000
6.	Other Contractual Services	45,000
7.	Materials and Supplies	30,000
8.	Equipment	5,000
9.	Meetings	
	Annual General Meeting and Scientific Council Meetings	65,000 ^c
	Inter-sessional Meetings	30,000
10.	Computer Services	15,000
11.	Automated Hail System	<u>12,000^d</u>
		\$1,190,000

^a This figure is for 2002 credits and conforms with NAFO Staff Rule 10.4(a).

^b Travel costs for 2002 include i) two persons to meeting of Directors and Executive Secretaries of the International Commissions Pension Society re discussion of pension scheme for employees, April 2002 ii) the Assistant Executive Secretary's attendance at a sessional meeting of CWP and iii) the Executive Secretary's home leave to the Ukraine.

^c This figure includes the cost for Annual Meeting, September 2002 and the Scientific Council Meeting, June 2002, in Halifax, N.S., Canada and for Scientific Council Shrimp Meeting, November 2002.

^d Annual communication charge for X.25 line.

PART III

Report of the Standing Committee on the Fishing Activities of non-Contracting Parties in the Regulatory Area (STACFAC)

1. Opening by the Chairman

The meeting was called to order by the Chairman, Dr Jean-Pierre Plé (USA) at 10.15 on 18 September 2000. The following Contracting Parties were present: Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Community (EC), France (in respect of St. Pierre and Miquelon), Iceland, Japan, Korea, Norway, and the United States of America (USA) (Annex 1). The Chairman warmly welcomed all delegates to the meeting.

2. Appointment of Rapporteur

Mr. Alan Gray (EC) was appointed rapporteur.

3. Adoption of Agenda

The Provisional Agenda was presented for adoption by delegates. Denmark (in respect of the Faroe Islands and Greenland) proposed to add discussion on the potential effect of the outcome of the discussions on Illegal, Unregulated and Unreported (IUU) Fishing, being held in the FAO, would have on NAFO. France (in respect of St. Pierre and Miquelon) proposed that relations between NAFO and other regional fisheries management organisations (RFMOs) should also be discussed. The EU wanted to raise the issue of double flagging of vessels. With the agreement to the inclusion of these items, the agenda was adopted (Annex 2).

4. Review of 2000 information on activities of non-Contracting Party vessels in the Regulatory Area

The Contracting Parties reported no sightings of non-Contracting Party vessels in the Regulatory Area thus far in 2000. In reply to a question from the Chairman on the overall level of surveillance, the EU and Canadian representatives noted that their respective surveillance efforts had not diminished.

The Committee agreed that the fact that there had been no sightings of non-Contracting Party fishing vessels in the Regulatory Area does not necessarily imply an absence of such activity. The EU representative noted that there was reason to believe that such activities were being undertaken and being reported as catches taken inside the Regulatory Area of other regional organizations. This could be addressed by the strengthening of co-operation and information exchange between regional organizations.

The Chairman concluded that although there were no reported sightings of non-Contracting Party vessels fishing in the Regulatory Area, the Contracting Parties must remain vigilant and continue efforts to deter non-Contracting Party fishing in the Regulatory Area.

5. Review of 2000 information on landings and transshipments of fish caught by non-Contracting Party vessels in the Regulatory Area

No Contracting Party reported any landings or transshipments by non-Contracting Party vessels in the Regulatory Area. However, the EU representative noted that there had been indications of

landings where there were doubts on the veracity of the origin of the fish landed. This could be due to misreporting of where the fish were caught. The Chairman again complimented Denmark (in respect of the Faroe Islands and Greenland) for the action that it had taken in 1999 to deny the attempted landing of fish from non-Contracting Party vessels. This action sent a strong message to these vessels of the measures they now faced.

6. Review of 2000 information on imports of species regulated by NAFO from non-Contracting Parties whose vessels have fished in the Regulatory Area

No Contracting Party reported any information on imports of species regulated by NAFO from non-Contracting Parties whose vessels fished in the Regulatory Area. The EU representative reported that although there had been no imports from non-Contracting Party vessels that fished in the NAFO area, investigations were underway in the EU regarding imports of uncertain origin, possibly from or via African states.

7. Reports by Contracting Parties on diplomatic contacts with non-Contracting Party Governments concerning fishing in the Regulatory Area

In accordance with the decisions taken by the General Council, diplomatic démarches were made to the non-Contracting Party governments whose vessels were sighted fishing in the Regulatory Area in 1999. Such démarches were made to Honduras, Belize, Sierra Leone, and Sao Tomé and Principe.

Canada reported on the contacts it had with Honduras regarding two vessels that were identified as being registered in that country. Honduras replied to this démarche, which was forwarded to the NAFO Secretariat (STACFAC Working Paper 00/1). In its reply, Honduras confirmed that the two vessels concerned, the "High Sierra" and the "Albri II" are not registered in Honduras.

The U.S. representative reported that the United States made the NAFO démarches to Belize and Sierra Leone. The reply from Belize confirmed that the "High Sierra" and the "Albri II" are not registered in Belize. No reply has been received from Sierra Leone.

The EU representative reported that a démarche was made to Sao Tomé and Principe regarding the vessels "Austral" or "Australia" in July, following the completion of the legislative process concerning the EU regulation implementing the NAFO Scheme. No reply has been received. However, inspection reports indicate that the registration of this vessel in Sao Tomé and Principe was of a temporary nature and has not been renewed. Nonetheless, this should not stop further contacts with Sao Tomé and Principe requesting that all vessels registered there should comply with the conservation measures applied in various RFMOs. The EU representative undertook to follow-up on the démarche made to Sao Tomé and Principe.

The Chairman noted that there are reasons to believe that Belize and Honduras fully understand the seriousness of the matter. The Chairman added there seemed to be improved co-operation with Belize, Honduras, Sierra Leone, and Panama and this seemed to indicate that the démarches made to these countries had been successful. France noted that although these countries may now be cooperating with NAFO, there is still concern regarding similar cooperation with other RFMOs, in particular with respect to non-Contracting Party fishing vessels flying the flag of Panama in the Convention Area of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

France (in respect of St. Pierre and Miquelon) raised a question about the flag status of the non-Contracting Party vessel, the "Austral", that was sighted in the North-East Atlantic Fisheries

Commission (NEAFC) area in 1999. The Chairman stated that at the 1999 Annual Meeting, STACFAC concluded that there were reasonable grounds to suspect that this vessel was without nationality. The Chairman then explained U.S. national measures regarding the treatment of stateless vessels engaged in large-scale driftnet fishing. He noted that under U.S. law such vessels could be assimilated and considered to be subject to U.S. jurisdiction. After boarding and inspection, such vessels may be arrested if it is determined that the vessel violated U.S. law. Current U.S. law does not extend to dealing with stateless fishing vessels that undermine NAFO conservation and management measures, but the need for such legislation was raised with Congress. Canada informed the Committee that it had national legislation that permitted it to board, inspect and arrest stateless non-Contracting Party vessels operating in the Regulatory Area. Norway reported that it was developing legislation to deal with stateless fishing vessels.

The Chairman prepared letters for signature by the NAFO President, to be sent to Belize, Honduras, Panama, and Sierra Leone. The letters note that there have been no sightings of non-Contracting Party vessels from any country. The letters go on to express satisfaction for their co-operation in this matter and urges them to co-operate in similar fashion with other organizations. The letters also bring to the attention of these countries the current information available on vessels previously sighted in the NAFO Regulatory Area. The letters are attached in Annex 3.

Regarding the request from France (in respect of St. Pierre and Miquelon) concerning contact and information exchange between NAFO and other RFMOs, the Chairman referred the Committee to STACFAC Working Paper 00/2, Information on non-Contracting Party Fishing Activities (by other International Organizations), which contained letters from the International Commission for the Conservation of Atlantic Tunas (ICCAT) and NEAFC. The Chairman noted that co-operation between NAFO and other RFMOs, and in particular with NEAFC, is a problem faced by RFMOs and highlighted the need to continue and improve information exchange and co-operation among RFMOs. ICCAT and NEAFC have requested that NAFO maintain an open exchange of information. The Chairman noted that such exchanges will benefit all three organizations.

Denmark (in respect of the Faroe Islands and Greenland) welcomed this action by other RFMOs and noted the problem of reconciling reported sightings in one RFMO and the reporting of catches from another regulated area. Such information exchange should be carried out when sightings are made and not left until the annual meeting of the respective organizations. This point was supported by Canada. The Committee agreed that the NAFO Secretariat should communicate with ICCAT, NEAFC, and CCAMLR and request that they share with NAFO information on sightings of non-Contracting Party vessels in their respective areas as soon as possible. The Committee also agreed that the NAFO Secretariat should share with these organizations such sightings in the NAFO Regulatory Area as soon as possible. The Chairman asked that members of NAFO that are also members of NEAFC to support better communication between these two organizations.

8. Review of the performance of the NAFO Scheme to deal with non-Contracting Parties fishing in the NAFO Regulatory Area

The Chairman noted that NAFO/GC Doc. 00/1, the 1999 Report to the General Council, presented a positive picture regarding the actions of Contracting Parties in the implementation of NAFO Scheme. It was also noted that the performance of the Scheme was aided by improvements in the information exchange with non-Contracting Party governments and other RFMOs.

The representative of the EU agreed that this gave a fair description of the situation and that NAFO should take pride in the Scheme as it set the precedent for other organizations.

The Chairman noted that point 4 from last year's recommendation had not been carried out and should be resubmitted to the General Council.

The Chairman also reminded the Committee that in 1999 the Committee recommended to the General Council that Contracting Parties should submit annual reports under paragraph 13 of the Scheme, including negative reports if appropriate.

9. Report and Recommendations to the General Council

STACFAC recommends to the General Council that:

- Démarches, in the form of letters signed by the President of NAFO be made to Belize, Honduras, Panama, and Sierra Leone.
- The Executive Secretary circulate, as soon as possible to the secretariats of ICCAT, NEAFC, and CCAMLR reports of non-Contracting Party fishing activity in the NAFO Regulatory Area, and request such organizations to share reports of non-Contracting Party fishing activity in their respective areas with NAFO.
- The Executive Secretary circulate NAFO/GC Doc. 00/1 to ICCAT, NEAFC, and CCAMLR.
- The Contracting Parties submit a report at the next Annual Meeting on what legal, administrative and practical action they have taken to implement the Scheme.
- STACFAC undertake to study the impact of the proposed International Plan of Action on Illegal, Unregulated and Unreported (IUU) Fishing on NAFO at its next Annual Meeting. (See discussion under Section 11.)

10. Election of Chairman and Vice-Chairman

The Chairman brought to Committee's attention that the terms of service of both the Chairman and the Vice-Chairman would soon expire. Mr Daniel Silvestre (France) (in respect of St. Pierre and Miquelon) was elected Chairman for the next two years. Ms Nadia Bouffard (Canada) was elected Vice-Chairman for the next two years. The Committee thanked the current Chairman for his work during the past five years and wished him well on his new assignment.

11. Other matters

1) Illegal, Unregulated and Unreported (IUU) Fishing - effect of work in FAO on NAFO

It was agreed that STACFAC should review the outcome of the FAO meetings concerning the development of a proposed International Plan of Action on IUU Fishing with a view to determining whether follow-up action within NAFO is appropriate. The Committee is confident that the FAO is well aware of developments in NAFO on this subject.

2) Double flagging agreements

The EU representative informed the Committee of information that his delegation had received regarding commercial operators within a Contracting Party actively seeking approval to operate under a double flagging arrangement. This would permit the operators to carry out fishing activities under two flags in order to make the most possible use of quotas of different Contracting Parties. The EU representative expressed concern about any such practice, which, if it were to

emerge, would lead to these vessels being considered stateless under international law. In such cases, these vessels may be subject to the NAFO Scheme, as amended in 1999.

All other members of the Committee shared this concern and shared the view that greater vigilance and clarity of the facts are required. The Chairman concluded that the double flagging issue, if confirmed, would violate international law. This practice raised the possibility of undermining NAFO Conservation and Enforcement Measures. It was also noted that this is an issue that might go beyond the remit of STACFAC. The Committee notes that all Contracting Parties should respect the provisions of Article 92 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS).

12. Adjournment

The Committee adjourned at 13.45 on Wednesday, 20 September 2000.

Annex 1. List of Participants

Name of Participant

Contracting Party

Nadia Bouffard
Allison Saunders

Canada

"

Einar Lemche

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

Emanuel Rosing
Andras Kristiansen

"

"

Friedrich Wieland
Alan Gray
Isabel Aragon
Sonja Feldthaus

European Community

"

"

"

Daniel Silvestre

France (in respect of
St. Pierre and Miquelon)

"

Valérie Sinquin

Kolbeinn Árnason

Iceland

Kengo Tanaka
Saori Nagase

Japan

"

You-Sub Jung
Sang-Jung Yoo

Korea

"

Stein Owe

Norway

Gene Martin
Jean-Pierre Plé

United States of America

"

Annex 2. Agenda

1. Opening by the Chairman, Dr J-P Plé (USA)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Review of 2000 information on activities of non-Contracting Party vessels in the Regulatory Area
5. Review of 2000 information on landings and transshipments of fish caught by non-Contracting Party vessels in the Regulatory Area
6. Review of information on imports of species regulated by NAFO from non-Contracting Party whose vessels have fished in the NAFO Regulatory Area
7. Reports by Contracting Parties on diplomatic contacts with non-Contracting Party Governments concerning fishing the Regulatory Area
8. Review of the performance of the NAFO Scheme to deal with non-Contracting Parties fishing in the NAFO Regulatory Area
9. Report and Recommendations to the General Council
10. Election of Chairman and Vice-Chairman
11. Other matters
 - 1) Illegal, Unregulated and Unreported (IUU) Fishing – effect of work in FAO on NAFO
 - 2) Double flagging agreements
12. Adjournment

Annex 3. NAFO Letters

Address
Foreign Minister of Belize

Dear Mr. Minister:

I have been instructed by all members of the Northwest Atlantic Fisheries Organization (NAFO) present at its 22nd Annual Meeting to note that NAFO is encouraged that no new vessels registered in Belize, or any other Non-Contracting Party, have thus far been observed fishing in the NAFO Regulatory Area during 2000.

I wish also to express the satisfaction of all NAFO members for the cooperation of your government to counter Non-Contracting Party fishing activities in the NAFO Regulatory Area. NAFO would appreciate your continued cooperation to deter any such fishing activity in the future by vessels flying the flag of Belize, and urges you to cooperate in similar fashion with other regional fisheries management organizations. In particular, NAFO asks that Belize remain vigilant concerning any attempt to misuse the flag of Belize in order to undermine NAFO conservation and management measures.

In this regard, NAFO draws your particular attention to the vessels "Austral" (also known as the "Australia"), the "High Sierra" (also known as the "Albri II"), "Porto Santo", and "Santa Princesa", all of which had previously been identified by NAFO as flying the flag of a Non-Contracting Party while fishing in the NAFO Regulatory Area. In addition, as a result of conflicting information regarding their nationality, NAFO determined at its 21st Annual Meeting that there are reasonable grounds for suspecting that the vessels "Austral"/"Australia" and the "Albri II"/"High Sierra" are vessels without nationality. NAFO would be grateful that you notify the organization if any of the above mentioned vessels attempt to register in Belize.

On behalf of the Contracting Parties to NAFO present at its 22nd Annual Meeting, September 18-22, 2000: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union, France (in respect of St. Pierre and Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, the Russian Federation, Ukraine and the United States of America.

(DATE)

E. Oltuski
President and
Chairman of the General Council

Address

Foreign Minister of Honduras

Dear Mr. Minister:

I have been instructed by all members of the Northwest Atlantic Fisheries Organization (NAFO) present at its 22nd Annual Meeting to note that NAFO is encouraged that no new vessels registered in Honduras, or any other Non-Contracting Party, have thus far been observed fishing in the NAFO Regulatory Area during 2000.

I wish also to express the satisfaction of all NAFO members for the cooperation of your government to counter Non-Contracting Party fishing activities in the NAFO Regulatory Area. NAFO would appreciate your continued cooperation to deter any such fishing activity in the future by vessels flying the flag of Honduras, and urges you to cooperate in similar fashion with other regional fisheries management organizations. In particular, NAFO asks that Honduras remain vigilant concerning any attempt to misuse the flag of Honduras in order to undermine NAFO conservation and management measures.

In this regard, NAFO draws your particular attention to the vessels "Austral" (also known as the "Australia"), the "High Sierra" (also known as the "Albri II"), "Porto Santo", and "Santa Princesa", all of which had previously been identified by NAFO as flying the flag of a Non-Contracting Party while fishing in the NAFO Regulatory Area. In addition, as a result of conflicting information regarding their nationality, NAFO determined at its 21st Annual Meeting that there are reasonable grounds for suspecting that the vessels "Austral"/"Australia" and the "Albri II"/"High Sierra" are vessels without nationality. NAFO would be grateful that you notify the organization if any of the above mentioned vessels attempt to register in Honduras.

On behalf of the Contracting Parties to NAFO present at its 22nd Annual Meeting, September 18-22, 2000: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union, France (in respect of St. Pierre and Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, the Russian Federation, Ukraine and the United States of America.

(DATE)

E. Oltuski
President and
Chairman of the General Council

Address
Foreign Minister of Panama

Dear Mr. Minister:

I have been instructed by all members of the Northwest Atlantic Fisheries Organization (NAFO) present at its 22nd Annual Meeting to note that NAFO is encouraged that no new vessels registered in Panama, or any other Non-Contracting Party, have thus far been observed fishing in the NAFO Regulatory Area during 2000.

I wish also to express the satisfaction of all NAFO members for the cooperation of your government to counter Non-Contracting Party fishing activities in the NAFO Regulatory Area. NAFO would appreciate your continued cooperation to deter any such fishing activity in the future by vessels flying the flag of Panama, and urges you to cooperate in similar fashion with other regional fisheries management organizations. In particular, NAFO asks that Panama remain vigilant concerning any attempt to misuse the flag of Panama in order to undermine NAFO conservation and management measures.

In this regard, NAFO draws your particular attention to the vessels "Austral" (also known as the "Australia"), the "High Sierra" (also known as the "Albri II"), "Porto Santo", and "Santa Princesa", all of which had previously been identified by NAFO as flying the flag of a Non-Contracting Party while fishing in the NAFO Regulatory Area. In addition, as a result of conflicting information regarding their nationality, NAFO determined at its 21st Annual Meeting that there are reasonable grounds for suspecting that the vessels "Austral"/"Australia" and the "Albri II"/"High Sierra" are vessels without nationality. NAFO would be grateful that you notify the organization if any of the above mentioned vessels attempt to register in Panama.

On behalf of the Contracting Parties to NAFO present at its 22nd Annual Meeting, September 18-22, 2000: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union, France (in respect of St. Pierre and Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, the Russian Federation, Ukraine and the United States of America.

(DATE)

E. Oltuski
President and
Chairman of the General Council

Address
Foreign Minister of Sierra Leone

Dear Mr. Minister:

I have been instructed by all members of the Northwest Atlantic Fisheries Organization (NAFO) present at its 22nd Annual Meeting to note that NAFO is encouraged that no new vessels registered in Sierra Leone, or any other Non-Contracting Party, have thus far been observed fishing in the NAFO Regulatory Area during 2000.

I wish also to express the satisfaction of all NAFO members for the cooperation of your government to counter Non-Contracting Party fishing activities in the NAFO Regulatory Area. NAFO would appreciate your continued cooperation to deter any such fishing activity in the future by vessels flying the flag of Sierra Leone, and urges you to cooperate in similar fashion with other regional fisheries management organizations. In particular, NAFO asks that Sierra Leone remain vigilant concerning any attempt to misuse the flag of Sierra Leone in order to undermine NAFO conservation and management measures.

In this regard, NAFO draws your particular attention to the vessels "Austral" (also known as the "Australia"), the "High Sierra" (also known as the "Albri II"), "Porto Santo", and "Santa Princesa", all of which had previously been identified by NAFO as flying the flag of a Non-Contracting Party while fishing in the NAFO Regulatory Area. In addition, as a result of conflicting information regarding their nationality, NAFO determined at its 21st Annual Meeting that there are reasonable grounds for suspecting that the vessels "Austral"/"Australia" and the "Albri II"/"High Sierra" are vessels without nationality. NAFO would be grateful that you notify the organization if any of the above mentioned vessels attempt to register in Sierra Leone.

On behalf of the Contracting Parties to NAFO present at its 22nd Annual Meeting, September 18-22, 2000: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, European Union, France (in respect of St. Pierre and Miquelon), Iceland, Japan, Republic of Korea, Latvia, Lithuania, Norway, Poland, the Russian Federation, Ukraine and the United States of America.

(DATE)

E. Oltuski
President and
Chairman of the General Council

SECTION VIII
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(STACTIC), 22nd Annual Meeting
18-22 September 2000
Boston, Massachusetts, USA**

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PART I

Report of the Fisheries Commission Meeting

(FC Doc. 00/21)

22nd Annual Meeting, 18-22 September 2000

Boston, Massachusetts, USA

1. Opening Procedures (items 1-5 of the Agenda)

- 1.1 The meeting was called to order by the Chairman, Mr. P. Gullestad (Norway) at 0915 hrs. on 19 September 2000. Representatives from the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, the European Union (EU), France (in respect of St. Pierre et Miquelon), Iceland, Japan, the Republic of Korea, Latvia, Lithuania, Norway, Poland, Russia, Ukraine and the United States of America (Annex 1).
- 1.2 Mr. Patrick E. Moran (United States) was appointed Rapporteur.
- 1.3 The Provisional Agenda was reviewed and two changes were agreed. At the request of the General Council, the Report of the Meeting on Shrimp Stocks was inserted as Agenda item 10a. It was also agreed that the Representative of Latvia would present the results of the meeting on the bloc quota following this item. Additionally, an item was proposed by Norway with respect to pelagic redfish in Division 1F of the Regulatory Area. This item was identified as a new Agenda item 17.11. The Agenda was **adopted** as amended (Annex 2).
- 1.4 Admission of observers was discussed in the meeting of the General Council.
- 1.5 Publicity was discussed in the meeting of the General Council.

2. Administrative (item 6)

- 2.1 Review of Membership was discussed at the opening session of the General Council (under provisions of Article XIII.1 of the NAFO Convention).

3. Conservation and Enforcement Measures (items 7-14)

- 3.1 With respect to Agenda item 7, Scientific Council Chair W.B. Brodie (Canada) presented the Report of the Joint Fisheries Commission/Scientific Council Working Group Meeting on the Precautionary Approach (PA). This meeting took place 29 February - 2 March 2000, in Brussels, Belgium (NAFO/FC Doc 00/2).
- 3.2 Regarding the issue of harmonization of concepts and terminology, the Working Group examined the results of the February 2000 ICES CWP meeting (SCS Doc. 00/7) and a paper on harmonization submitted by the EU. The Working Group concluded that no formulations of the precautionary approach have been accepted by international fisheries organizations, although some elements of the approach have been implemented by various management authorities. It was agreed that broad similarities exist between the ICES and NAFO versions of the precautionary approach (i.e., biomass limits and biomass buffers), but noted that harvest control rules differ. It was generally agreed that

determination of harvest control rules should be the responsibility of the Fisheries Commission. There was no agreement on the recommendations found in the EU paper, and there was considerable debate regarding the potential relationship (if any) between Flim and Fmsy.

- 3.3 Regarding operationalizing the precautionary approach into management plans for three model stocks, the Working Group reviewed a discussion paper submitted by Canada. This document outlined progress made on cod in Div. 3NO and yellowtail flounder in Div. 3LNO, and proposed additional steps for implementation of the precautionary approach with regard to these stocks. It was noted that there was a need to address harvest control rules in an implementation plan. The Working Group agreed on the next steps in implementation of the precautionary approach for two of the two model stocks. It was noted that work by the Scientific Council relating 3M shrimp is ongoing and will be reviewed again in November 2000, prior to the 2001 fishing season.
- 3.4 The Joint Working Group also agreed on the next steps for implementing the precautionary approach for American Plaice in Div. 3LNO. It was suggested similar detailed implementations plans (such as those outlined for the two model stocks and American Plaice in Div. 3LNO) might be developed for other NAFO stocks. It was also agreed that, for other stocks, management objectives should include rebuilding and maintenance of stock biomass at a level that can support sustainable fisheries and produce stable yields. Additionally, it was agreed that the Fisheries Commission should specify management strategies, ensure that data collection and analysis is carried out, and supply additional technical management measures (such as to address bycatch issues) when necessary.
- 3.5 At the Joint Working Group meeting, two Contracting Parties tabled proposals for modification to the Fisheries Commission's Request for Advice from the Scientific Council for 2001. After no agreement could be reached regarding the inclusion of references to the UN Fish Stocks Agreement in such revised requests, it was agreed that no revisions should take place to the current request for advice. Instead, it was agreed that five items pertaining to advice under the precautionary approach would be submitted to the Scientific Council for consideration.
- 3.6 Regarding the consideration of criteria for re-opening a fishery in light of the precautionary approach, four technical measures were identified by the working group and recommended for consideration by the Fisheries Commission. These measures seek to address: protection of spawners; protection of pre-recruits; concerns with bycatch; and concerns with bycatch of other species. The Joint Working Group also noted a number of additional supporting management measures to complement the application of the precautionary approach during discussions on the model stocks. These additional measures are included in Annexes 6-8 of the Joint Working Group Report, dealing with two of the model stocks (Div. 3NO cod and Div. 3LNO yellowtail flounder) and one additional stock (Div. 3LNO American plaice). Additionally, the Working Group considered a great many other possible supportive management measures.
- 3.7 The report of the Joint Working Group was **adopted**. Discussion followed on whether the working group should continue its work. The Representative of Canada, supported by the United States, strongly supported continued work and adoption of the recommendations of the working group. Canada proposed that NAFO adopt a three-year pilot project (beginning in 2001) during which the work already done relevant to the three model stocks would be operationalized and more stocks would be considered for future

implementation. The Representative of the European Union (EU) and others, however, stated that much more work needed to be done before decisions could be taken regarding implementation of the precautionary approach. He noted inconsistencies between the NAFO model and that of NEAFC, and the lack of agreement among Contracting Parties regarding fundamental elements of the precautionary approach. It was suggested that the Working Group should not meet in 2001, so that some of these issues might be addressed by the Fisheries Commission and bilaterally.

- 3.8 With a view to making further progress on the implementation of the Precautionary Approach, **it was agreed** that a small group of technical experts will meet in the first half of 2001 to advance future work in the Fisheries Commission Working Group. The small meeting will be organized by the European Community. A report from this meeting will be circulated to all Contracting Parties, with a recommendation whether the Working Group should meet prior to the 23rd Annual Meeting, and if so, provide an agenda for the meeting. Any recommendation that the Working Group meet **shall be the subject of a mail vote**.
- 3.9 With respect to Agenda item 8, Report of the STACTIC June Meeting, Mr. C. Allen (Canada) reported the results of the 27-29 June STACTIC Meeting in Dartmouth, Nova Scotia, Canada (see NAFO/FC Doc. 00/4). This meeting was held to begin work on the scientific requirements for the observer program, amendments to the existing program, and the observer manual. STACTIC also considered possible amendments to the Conservation and Enforcement Measures regarding juvenile fish. Other matters addressed by STACTIC at this meeting included: a review of submissions on shrimp catches and effort days; possible follow-up to the Working Group on the Precautionary Approach; consideration of rule for chartering and the issue of flag hopping; possible harmonization of port inspection reports; preparation of the review and, as appropriate, the revision of the Program for Observers and Satellite Tracking; and new development and/or possible overhaul of the Conservation and Enforcement Measures.
- 3.10 In discussions following the STACTIC intersessional report, the STACTIC recommendation regarding the objectivity of observers (FC Doc. 00/8) was **adopted** (Annex 3). Although there was general support for a review and clarification of the Conservation and Enforcement Measures, it was agreed that decision on this issue, and others addressed at the STACTIC intersessional meeting, should be deferred pending further discussion during the annual meeting. The report of the June 2000 STACTIC Intersessional Meeting was **adopted**. However, several delegates expressed reservations regarding Div. 3M shrimp catch and effort data attached as Annex 10 to the STACTIC Report.
- 3.11 With respect to Agenda item 9, Inspection and Control Measures in the NAFO Regulatory Area, Contracting Parties generally supported continued use and enhancement of the NAFO vessel monitoring system (VMS). The EU tabled a proposal in STACTIC that amended the current program for VMS and observers, outlined detailed rules for satellite tracking, and adjusted hail system requirements. While the EU proposal was **adopted** after brief discussion (NAFO FC Doc. 00/13 - see Annex 4), the Representative from Iceland (supported in principle by Denmark and Norway) expressed dissatisfaction with the 100% level of observer requirement that remained in the program. Iceland noted that such requirements are expensive and unnecessary in fisheries such as that for 3M shrimp. Thus, Iceland stated its intention to formally object to the revised text of the

program. Denmark and Norway clarified that they would not formally object to this revision.

- 3.12 Additionally, the Fisheries Commission **agreed** that provisions on secure and confidential treatment of the electronic reports and messages transmitted in accordance with the NAFO Conservation and Enforcement Measures should be addressed at the STACTIC intersessional meeting and that these provisions as described in STACTIC Working Paper 00/19 are taken into account in the NAFO Secretariat's Call for Tender, the acquisition and implementation of the Automated Hail and Satellite Tracking System.
- 3.13 With Respect to Agenda item 10, Mr. F. Wieland (EU) provided the report of the March 2000 meeting of the Working Group on the Allocation of Fishing Rights in Washington, D.C. (NAFO GC Doc. 00/2). He noted that discussions at this meeting were both challenging and complicated. In discussions relating to the qualifying criteria for stocks not currently allocated, Mr. Wieland stated that there was some agreement that such criteria should be listed in no order of priority and that such a list should not be limiting. Additionally, there was agreement that qualifying Parties must be Fisheries Commission members in good standing. However, there was less consensus regarding the issue of allocation criteria for stocks not allocated. Although there was support for the use of reference fishing patterns in establishing allocations, questions relating to coastal State status/zonal attachment and the use of "others" and "cooperating Party" quotas were not resolved. Additionally, discussions regarding reallocation of already allocated quotas (including stocks currently under moratoria) produced no consensus. The Working Group agreed that guidance should be sought from the Fisheries Commission regarding steps to be taken in the future.
- 3.14 Discussions following the report of the March 2000 allocation intersessional focused on the utility of continued work by the Working Group. The Representative of Denmark (in respect of the Faroe Islands and Greenland) noted that his delegation was among those who have pressed for an early review of the present allocation key. While discussions in the Working Group have been fruitful thus far, there is a lack of political will among Contracting Parties to move the issue forward. He therefore suggested that once stocks begin to recover, allocative issues should be addressed in due time. Thus, he suggested that the Working Group should not meet in 2001. This view was supported by the Representatives of Iceland, the EU, Latvia, Russia, and Norway. The Representatives of the United States, Canada, France (in respect of St. Pierre and Miquelon), and Korea, on the other hand, expressed strong support for continued work. Particular concern was noted that allocation issues pertaining to new stocks must be dealt with in a timely manner. Following further discussion, the Report of the March 2000 Allocation Working Group meeting was **adopted** and it was **decided** that the Working Group would not meet in 2001, recognizing the understandings identified in paragraph 3.18 below.
- 3.15 During his presentation of the report on the March 2000 intersessional on allocation, Mr. Wieland also noted that those Contracting Parties included in the "bloc quota" met to discuss possible scenarios for resolving this difficult issue. At the Working Group meeting, this group set a future meeting date and location and considered possible terms of reference for this future meeting. Mr. N. Riekstins (Latvia) reported on the outcome of this subsequent meeting (report at GF/00-566), noting that relevant Parties had agreed on a reference period beginning in 1992 and stocks to which this reference period should be applied. He then listed (in no particular order) some of the agreed criteria and principles of allocations, noting that relevant application and weighting had not yet been decided. Additionally, the Representative of Latvia stated that the group considered some criteria

- for allocation of stocks not fished during the reference period. Mr. Riekstins stated that the time and location of the next meeting of the bloc Parties would be announced in the future.
- 3.16 Regarding Agenda item 10(a), Mr. Wieland (EU) then provided the report of the March 2000 Meeting on Shrimp Stocks in Washington, D.C. (NAFO GC Doc. 00/3), noting that there was general agreement among Contracting Parties that the current effort allocation system for Div. 3M shrimp is not achieving the conservation goals as outlined in the Scientific Council advice for this stock. However, there was not consensus regarding how the current situation might be improved. Mr. Wieland noted that some Parties continued to call for a move to TAC-based management of this stock, while others preferred to simply address relevant problems within the existing effort-based scheme. Additionally, discussions touched on possible new approaches to management of the Div. 3L shrimp stock. With regard to NAFO shrimp stocks, the Working Group agreed that guidance should be sought from the Fisheries Commission regarding steps to be taken in the future.
- 3.17 Following the report on the meeting on NAFO shrimp stocks, Contracting Parties expressed a variety of views regarding possible scenarios for future management of NAFO shrimp stocks. Some Parties supported a switch to TAC-based management, while others called for continuation of an effort-based management scheme. The Representative of Denmark (in respect of the Faroe Islands and Greenland) emphasized the importance of this issue to his country and called for a special meeting of the Fisheries Commission early next year so that decisions could be taken on 3L and 3M shrimp management in time for the 2001 shrimp fishing season. Canada, the United States, and others supported this proposal, citing strong conservation concerns relating to the 3M shrimp stock. However, other Parties supported the view that management issues relating to these stocks should be dealt with at this annual meeting, in order to ensure that measures are in place for the upcoming season. A great deal of dissatisfaction was also expressed by the Representatives of Iceland, Latvia, Norway, and the EU regarding the confusion surrounding the historical data for the 3M shrimp fishery. The Representative from the Ukraine noted that, under no circumstances, should any NAFO members be forced to accept zero TACs in this fishery. The report of the March 2000 meeting on NAFO shrimp stocks was **adopted**.
- 3.18 After further discussion, it was agreed that the current measures in place for 3M shrimp should be updated for use during the 2001 fishing season. Thus, the measures as outlined in FC Doc. 00/11 were **adopted** (Annex 5). Additionally, it was **agreed** that a working group should meet, possibly on 27 March 2001, in Copenhagen, Denmark, to review shrimp catch statistics according to the guidance provided in FC Doc. 00/19. It was also **agreed** that a special meeting of the Fisheries Commission should be called during 28-29 March 2001 in Copenhagen, Denmark, to examine alternatives for future management and allocation of NAFO shrimp stocks. Following a request for clarification by the Representative of the United States, it was generally agreed that the special fisheries commission meeting is to be part of the on-going broader allocation discussions. In addition, there was general agreement that further discussions on the broader allocation issue should take place during the 23rd Annual Meeting. The Fisheries Commission agreed on provisional agendas for these two meetings (attached as Annexes 6 and 7).
- 3.19 With respect to Agenda item 11, Review of the provisions on chartering operations in the NAFO Regulatory Area, there was general agreement that there was a need to clarify the rules relating to chartering operations in the NAFO Regulatory Area. Concern was

expressed regarding the confusion during 2000 over the use of allocated 3M shrimp fishing days through chartering operations (transfers of fishing days) and, in response to a question by the Representative of the EU, the NAFO Executive Secretary attempted to clarify the steps taken in approving requests for transfers of fishing days for use in chartering operations during 2000. There was general agreement that, in future cases where there is doubt regarding appropriate steps to be taken, the Executive Secretary should consult with the appropriate Chairman.

- 3.20 Concern was also expressed regarding the possible use of non-Contracting Party vessels reflagged through bareboat chartering operations. A number of Contracting Parties noted that effort in the 3M shrimp fishery continues to increase, creating levels of mortality beyond that recommended by the Scientific Council. After some discussion, the Fisheries Commission requested that STACTIC attempt to clarify the rules regarding chartering operations and report back at this meeting. The resulting document (FC Doc.00/12) was **adopted** for 2001 (Annex 8).
- 3.21 Regarding Agenda item 12, Increase in inspection presence in the NAFO Regulatory Area, the Representatives of Canada and the EU expressed concern regarding the lack of inspection presence of other Contracting Parties in the NAFO Regulatory Area. Although the EU (supported by Canada) tabled a proposal to introduce rules concerning obligatory inspection presence, no action was taken in this regard. It was requested that this issue be addressed more fully at the 2001 NAFO Annual Meeting. It was **agreed** that the current measures in place for inspection presence should be continued for 2001.
- 3.22 With respect to Agenda item 13, the acting Chairman of STACTIC, J.W. Baird (Canada), provided the report of STACTIC at the Annual Meeting. Regarding the STACTIC review of the annual returns of infringements, it was noted that there had been an overall improvement on the level of Contracting Party reporting on the disposition of apparent infringements. With regard to the STACTIC review of surveillance and inspection reports, Canada and the EU presented information on surveillance activities during 1999.
- 3.23 Discussions in STACTIC relating to the review of the operation of the hail system examined papers relating to: the NEAFC scheme for automated communications (STACTIC Working Paper 00/14); the current NAFO hail system (STACTIC Working Paper 00/18); confidentiality of information collected through automated hail reports and satellite tracking (STACTIC Working Paper 00/19). Topics addressed during this discussion related to modes of transmission of data, costs, and security. Additionally, an ad hoc STACTIC working group presented the results of a comparison between the NAFO and NEAFC systems. STACTIC agreed to pass on proposed format changes to the current NAFO hail system (found in STACTIC Working Paper 00/32) to the Fisheries Commission for consideration. This proposal was subsequently **adopted** by the Fisheries Commission as FC Doc. 00/14 (Annex 9).
- 3.24 Regarding the NAFO Observer and Satellite Tracking Programs, STACTIC examined the scientific requirements of the programs (as reflected in SCS Doc. 00/23 - Harmonized NAFO Observer Program Data System Proposal). The Committee also considered an EU proposal for an observer manual (STACTIC Working Paper 00/10), and discussed possible amendments to the existing observer program (STACTIC Working Papers 98/03, 00/20 and 00/27). After considerable discussion, STACTIC recommended, and the Fisheries Commission **adopted**, the proposal put forth in SCS Doc. 00/23.

- 3.25 In STACTIC discussions relating to possible improvements in the procedures for gathering discard information, the Representatives of Canada and the EU reported some improvement in recording of discards in logbooks during 2000. STACTIC also considered fishing strategies to be employed to avoid excessive incidental catches and, after some discussion and revisions, agreed to forward a proposal by Canada on this subject (STACTIC Working Paper 00/23) to the Fisheries Commission for consideration. This paper was subsequently **adopted** by the Fisheries Commission as FC Doc. 00/15 (Annex 10). Additionally, STACTIC considered possible amendments to the Conservation and Enforcement Measures regarding juvenile fish proposed by Canada (STACTIC Working Papers 00/22 and 00/24). Although there was some support for these working papers, no action on these proposals was recommended due to concerns expressed by some Contracting Parties (such as Japan and the EU).
- 3.26 Regarding possible harmonization of port inspection reports, the EU presented a proposal to amend the Conservation and Enforcement Measures Regarding Part VII - Port Inspections (STACTIC Working Paper 00/31). There was general support for the proposal although some concern was expressed regarding the requirements relating to transmission of reports. The paper was revised a number of times based on the comments of Contracting Parties and it was agreed that STACTIC would forward it to the Fisheries Commission for consideration. The revised working paper was subsequently **adopted** by the Fisheries Commission as FC Doc. 00/16 (Annex 11).
- 3.27 With respect to possible amendments to the Conservation and Enforcement Measures, there was agreement in STACTIC that an overhaul of the NAFO measures was necessary in order to ensure a cohesive document, clarify roles and responsibilities of those that would use the document, and reflect advancements in international fisheries agreements. No course of action was recommended by STACTIC regarding this issue. However, regarding the review of NAFO's Conservation and Enforcement Measures, Denmark (in respect of Faroe Islands and Greenland) suggested that a working paper be developed in which the present rules were split in four columns (rules for vessels, inspectors/observers, Contracting Parties and NAFO Secretariat). All present text and sequence should be retained. Canada and the European Community offered to make a preliminary review of these measures to identify redundancies and inconsistencies in the measures. The review shall be circulated to Contracting Parties by **June 30, 2001**. This activity will be organized by Canada. This course of action was **adopted** by the Fisheries Commission.
- 3.28 STACTIC also considered issues relating to chartering arrangements, reviewing Fisheries Commission Working Papers from the United States and Poland and a STACTIC Working Paper from Ukraine on the subject. The language recommended by STACTIC was subsequently adopted by the Fisheries Commission as noted in the section of this report concerning Chartering Operations. Additionally, STACTIC considered STACTIC Working Paper 00/29 regarding an increase of inspection presence in the NAFO Regulatory Area and STACTIC Working Paper 00/30 regarding satellite based vessel monitoring and related measures. These issues were both passed back to the Fisheries Commission for further consideration. The Fisheries Commission **adopted** the Report of STACTIC at the Annual Meeting.
- 3.29 With respect to Agenda item 14, Canadian Management Measures for 2J3KL Cod in 2000, the Representative of the EU strongly objected to the 7000 mt inshore fishery that took place in Canada in 2000. He noted his concern that, given the Canadian fishery, the management measures in place are not consistent throughout the range of this stock. The concerns of the EU were echoed by a number of the Contracting Parties present.

- 3.30 The Representative of Canada stated that Canada has the right to set TACs for the 2J3KL cod stock within Canadian waters and clarified that this was a small scale, highly regulated fishery. He noted the domestic process in place to recommend TACs and regulate this fishery, and pointed out that the data provided through this fishery is an important contribution to the conservation of this stock. Additionally, the Canadian delegate emphasized the current and historical importance of this fishery to the Canadian people and insisted that Canada would never do anything to endanger the stock. The EU Representative responded by making a statement on the management of this stock (Annex 12).

4. Conservation of Fish Stocks in the Regulatory Area (items 15-19)

- 4.1 With respect to item 15 of the Agenda, Summary of Scientific Advice, the Chairman of the Scientific Council, Dr. W.B. Brodie (Canada) presented a summary of NAFO SCS Doc 00/24 "Report of the Scientific Council, 1-15 June 2000" which provides the scientific advice for the management of stocks in the NAFO Regulatory Area for 2001 and 2002 and addresses special requests to the Scientific Council. He summarized this advice in the table below.

ADVICE FOR 2001

Shrimp 3M	Not to exceed 30,000mt
Redfish 3M	3,000-5,000mt
Cod 3M	No directed fishery, lowest possible by-catch
American plaice 3M	No directed fishery, lowest possible by-catch
Witch flounder 3NO	No directed fishery, lowest possible by-catch
Cod 3NO	No directed fishery, lowest possible by-catch
American plaice 3LNO	No directed fishery, lowest possible by-catch
Redfish 3LN	No directed fishery, lowest possible by-catch
Witch Flounder 2J3KL	No directed fishery, lowest possible by-catch
Yellowtail flounder 3LNO	13,000mt
Squid (<i>Illex</i>) 3+4	19,000-34,000mt
Greenland halibut 2+3KLMNO	Not to exceed 40,000mt

ADVICE FOR 2002

Cod 3M	No directed fishery, lowest possible by-catch
American plaice 3M	No directed fishery, lowest possible by-catch
Witch flounder 3NO	No directed fishery, lowest possible by-catch

- 4.2 Special requests for advice were submitted for: **3NO Capelin**; **precautionary measures** for NAFO stocks; **Squid** in Subareas 3&4; information on **catches and/or discards of juvenile fish** in various NAFO fisheries; **elasmobranchs** in SubAreas 0-6; and **3LN shrimp**. With respect to **3M shrimp**, Dr Brodie noted that some uncertainty exists with regard to the status of this stock and the Scientific Council would review its advice in November 2000.

Inquiries were made to the Chairman of the Scientific Council to clarify several questions regarding the scientific advice.

- 4.3 With respect to **3M redfish**, the Representative of Canada noted that the June 2000 Scientific Council Report stated that bycatch of age 1 fish is at about 20% of the total

number. He asked for clarification on the consequences of this level of mortality with regard to rebuilding of the stock, given the significance of this increase. Dr. Brodie noted that, although the Scientific Council previously did some analyses on potential losses of yield due to bycatch, since the introduction of new grates that reduce bycatch, no new examination has taken place. He noted that a new examination would have to be made in order to provide a comparison.

- 4.4 In reference to the question from Canada regarding bycatches of **3M redfish**, the Representative of the United States asked if recommended TACs for NAFO fisheries cover all sources of mortality and, if not, what were the consequences of not including these data. In response, the Scientific Council Chair noted that all removals are considered in recommending NAFO TACs.
- 4.5 Regarding the NEAFC-managed **redfish** stock that is now being found in NAFO Div. **1F**, the Representative of Norway asked if the Scientific Council had any information on the distribution of this stock or advice on technical management measures given the deep, pelagic nature of this stock. The Scientific Council Chair noted that, although there is some knowledge among members of the Scientific Council regarding this stock, no formal discussion had yet taken place. Thus, no advice was possible at this time.
- 4.6 Regarding **3M shrimp**, the Representative of Norway noted that actual catches of this stock are estimated to be in the 40,000t range, while the Scientific advice for 2000 is based on estimates of 30,000mt. He asked for comments from the Scientific Council Chair regarding how the actual catches in 2000 might affect the scientific advice for this stock in 2001. In response, the Scientific Council Chair noted the large degree of uncertainty associated with the status of this stock due to a lack of information. Although all available information was taken into account by the Scientific Council in recommending the TAC for 2001, certain assumptions had to be made. He noted that the Scientific Council would be considering this stock again in November 2000.
- 4.7 Regarding **3M shrimp**, the Representative of Iceland noted his country's intention to contribute to the Scientific Council evaluation regarding the effects of closed areas on this stock. He noted Iceland's particular concern regarding the effects of bycatch of very small shrimp in this fishery and expressed the desire to be part of the discussions on this issue at the November 2000 meeting of the Scientific Council.
- 4.8 With regard to **3M shrimp**, the Representative of the United States noted that, given the estimated catches in this fishery, it is clear that effort management has not been successful. She asked if the Scientific Council will be able to provide any additional advice on this stock without a direct survey. The Chair stated that, given the higher than estimated catches and the lack of appropriate recruitment indices, it is unlikely that things will improve for this stock. However, he noted that there may be some additional, initial data available this year from surveys conducted by Denmark.
- 4.9 With respect to **Greenland halibut**, the Representative of Canada expressed concern that current catches of juveniles might lead to a forgoing of future potential yield. He asked if the presence of these fish is a consequence of the mesh size used in the Greenland halibut fishery. The Scientific Council Chair noted that current estimates for maturity differs between males and females in the Greenland halibut fishery and that these differences present a problem for recommending appropriate mesh size. The Chair stated that the Council had looked at a number of different models and average retention rates resulting from the simulations, but that results were quite variable depending on assumptions used

in a given model. He noted that if the goal were to only catch fully mature Greenland halibut, the mesh size would have to be increased considerably.

- 4.10 Regarding **Greenland halibut**, the Representative of Canada noted the recommended increased TAC based on biomass increases and asked the Scientific Council Chair if there were any preliminary data from the survey series this summer that would confirm this biomass increase. The Chair responded that there was no information yet available from the EU survey series, although some preliminary indications are that there may be a slight reduction between 1999 and 2000. He noted that the information from the Canadian survey will be considered soon.
- 4.11 In response to a question from the Representative of the EU, the Scientific Council Chair noted that exploitable biomass and spawning stock biomass should increase if **2+3KLMNO Greenland halibut** mortality remains at the current level of 40,000t. Regarding a second question from the EU on the implications to the yield of this stock of an increase to a 145mm mesh size, the Chair noted that a study on this could be done. He noted that a new analysis would be required, and he could not indicate how long such a study might take.
- 4.12 In response to a question from the United States regarding the availability of data gathered in sentinel and index fisheries for **Greenland halibut** from fishery independent sources, the Scientific Council Chair noted that he was not aware of any fishery independent sources for such data.
- 4.13 Regarding **yellowtail flounder**, the Representative of the EU asked if the recommended 13,000mt TAC is consistent with NAFO's goal of keeping bycatches of stocks under moratoria at the lowest possible level. The Scientific Council Chair stated that there would be some implications associated with this TAC, but clarified that bycatch in this fishery is not currently detrimental.
- 4.14 With respect to **2J+3KL cod**, the Representative of the EU asked for clarification regarding the use made of information from the inshore index, sentinel, and food/recreational fisheries for this stock. The Scientific Chair noted the value of inshore data, stating that such data (including catch rate, distribution, age composition, size, etc.) have been gathered from the index fishery in 1998, the commercial fishery in 1999, and sentinel surveys taken from varying sites around Newfoundland during 1995-2000. The Representative of the EU then requested information regarding the status of this stock and the impact of a fishery at the 7000mt level (for 2000) with respect to precautionary criteria as proposed by the Scientific Council and reference points previously used for management of this stock. The Chair of the Scientific Council responded that this issue had not yet been considered by the Council and that it would not be possible to do so at this meeting.
- 4.15 Regarding possible evaluation of this stock in the future relative to the precautionary approach, he noted that it is clear that the stock is well below the levels of the 1980s. However, he pointed out that early estimates of this stock were based on assessments of both the inshore and offshore components, while the remaining stock is primarily inshore. In response to requests from the Representative of the EU regarding evaluation of the effects of a 7000mt to 9000mt fishery on rebuilding of the inshore/offshore fisheries in the future, and estimating the proportion of juvenile fish taken in the inshore fishery, the Scientific Council Chair noted that these issues could be discussed at this meeting, but results would not be available since the necessary database and personnel were not

present. The Scientific Council Chair then asked that the EU provide clarification regarding its final question on this stock, which dealt with the implications to the genetic diversity of this stock of concentrated fishing on local aggregations.

- 4.16 The Representative of Canada noted that the bycatch for **American plaice** was high given its status as a stock under moratorium, noting that some bycatch was in the yellowtail flounder fishery but much more was in the Greenland halibut fishery. Noting that if the TAC for Greenland halibut is increased, bycatches of American plaice will also increase, he asked if this advice is consistent with recommendations in place for American plaice. The Scientific Council Chair agreed that increased bycatch would likely result, and cited the Scientific Council estimates of these bycatches in the Scientific Council Report.
- 4.17 In response to a question from the Representative of Iceland relating to the effects of **harp seal predation on cod stocks**, the Scientific Council Chair provided a brief summary of the Scientific Council discussions on this issue. This information can be found on page 158 of the Scientific Council Report.
- 4.18 The Chairman of the Fisheries Commission then summarized the outstanding questions to the Scientific Council and requested that these questions be put into writing for further consideration by the Council at this meeting as appropriate.
- 4.19 With respect to Agenda item 16, management and technical measures for fish stocks in the Regulatory Area in 2001, it was **agreed that moratoria** should remain in place for **3M cod** and **3M American plaice**. It was also agreed that a TAC of 5000mt should be set for **3M redfish**. The representative of Latvia noted his country's intention to formally object to the block quota allocation for 3M redfish and also to further agenda items for Squid in Subareas 3+4 (block quota) and Greenland halibut in 3LMNO (others quota). With regard to **3M shrimp**, it was **decided** that the effort scheme currently in place for 2000 should be rolled over for 2001 as indicated in FC Doc. 00/11. The Representative of Iceland noted his country's well established concern regarding effort-based management of this stock and stated that Iceland would once again formally object to this scheme. He also noted Iceland's support for a closed area for the protection of juvenile 3M shrimp.
- 4.20 Regarding Agenda item 17, management and technical measures for fish stocks straddling national fishing limits in 2001, it was generally **agreed that moratoria** should remain in place for **3NO cod, 3LN redfish, 3LNO American plaice, 3NO witch flounder, and 3NO capelin**. Regarding **3LNO yellowtail flounder**, the Representatives of Canada supported the proposed increase to 13,000mt, calling for a continuation of precautionary approach considerations and bycatch controls. While initially expressing concern regarding a possible TAC increase for this stock, following further discussion the United States removed its objection to this proposal. Additionally, the Representative of the United States expressed the desire to address appropriate allocation of this stock. The Representative of the EU expressed concern about the possible TAC increase.
- 4.21 Regarding **Sub-Areas 3+4 squid**, there was general support for a TAC of 34,000t with the protocol as expressed in FC Working Paper 00/10 for mid-season adjustment based on productivity indicators. However, the Representative of the United States noted that, given the imprecise advice on this stock, it should be discussed whether setting the TAC

at the top of the suggested range is appropriately precautionary. FC Doc.17, prohibiting any directed **shrimp fishery in Div. 3NO** was **adopted** (Annex13).

- 4.22 With respect to **3LMNO Greenland halibut**, the Representative of the EU expressed support, in principle, for an increase to 40,000mt. However, he noted that caution was advisable given the uncertainty surrounding year classes in the mid-1990s and the fact that much of the current catch is juvenile. The Representative of Canada noted that the good news concerning this stock should be tempered by the high level of juvenile catch. He also urged caution and noted that any TAC above 30,000t should include measures to address juvenile and bycatch concerns. The Representatives of Japan, Latvia, and Lithuania supported a TAC increase to 40,000t. Following further discussion, it was decided that the 40,000mt TAC for Greenland halibut stock in Subarea 2+3 be **adopted** for 2001. According to the decision (Resolution, FC Doc. 95/7) of the Special Fisheries Commission Meeting (Toronto, 1995), 25.9% (or 10,360 mt) of this amount is allocated to Canada, inside 200-mile zone, and other portion - 29,640 mt will be distributed to Contracting Parties (Quota Table). With regard to the issues of juveniles and bycatch, FC Doc. 00/15 was **adopted** (see Annex 10) and a statement was adopted as follows:

All NAFO Contracting Parties strongly support the establishment and full implementation of measures to protect juveniles and reduce bycatch.

Having agreed at its 22nd Annual Meeting to adopt a proposal to amend NAFO Conservation and Enforcement Measures regarding incidental catch limits, NAFO Contracting Parties hereby agree to consider the following measures to further protect juveniles and reduce bycatch at the June 2001 meeting of the Scientific Council and a 2001 intersessional meeting of STACTIC:

such as:

- a) mesh size increases;*
- b) depth restrictions;*
- c) area closures; or*
- d) other effective measures.*

In the light of the outcome of the 2001 meeting of the Scientific Council and any other relevant scientific evidence, suitable measures will be examined and, as appropriate, designed and implemented in 2002 with due consideration of conservation requirements and the particularities of various NAFO fisheries.

- 4.23 The Representative of Canada noted that he agreed to the insertion of the above statement. However, he expressed strong disappointment with regard to the measures taken thus far for the protection of juveniles and reduction of bycatch for this fishery. This statement was fully supported by the Representative of the United States.
- 4.24 Regarding **2J3KL cod**, it was **agreed** that the measures in place for this fishery for 2000 should be extended for 2001 (as indicated in FC Doc. 00/10 - see Annex 14). It was agreed that the moratorium in place for **3L cod** should continue. The European Union reiterated his Party's dissatisfaction regarding Canadian activities with regard to the inshore component of this fishery.
- 4.25 With respect to **2J3KL witch flounder**, the Representative of Canada noted that there is a moratorium on this stock in the Canadian 200-mile zone and asked that NAFO continue this moratorium in the Regulatory Area. It was **agreed** that this moratorium should be

continued and that the measures in place in the Regulatory Area for this stock should be updated to reflect this decision (FC Doc. 00/9 - Annex 15).

- 4.26 Regarding **Div. 1F redfish**, the Representative of Denmark (in respect of the Faroe Islands and Greenland) noted that this pelagic spillover stock is managed by the NEAFC and also falls within the national jurisdiction of some NAFO Contracting Parties. He stated that there was a need to discuss possible scenarios for management and suggested that NAFO might agree to implement management measures adopted by NEAFC for this stock in the NAFO Regulatory Area. At the very least, NAFO should adopt a 100mm mesh size for this fishery. The Representatives of Norway, Russia, Iceland, and the EU supported this proposal, but the Representative of Canada pointed out that there is a need to clarify all measures that might apply to this stock before this proposal could be considered properly. The United States clarified that, since this could be considered a new fishery, it must be understood that any agreements pertaining to this stock should not prejudice on-going discussions relating to allocation of new fisheries.
- 4.27 Since it was brought to the attention of Contracting Parties that recently oceanic redfish (*Sebastes mentella*) from the NEAFC Regulatory Area had crossed into Division 1F of the NAFO Regulatory Area, it was **agreed** to invite NEAFC to participate in a Joint NEAFC/NAFO Working Group to discuss various issues pertaining to this situation with a view to developing a compatible management approach to the pelagic *Sebastes mentella* stock. This Joint Working Group should meet during 13-14 February 2001 in Reykjavik, Iceland.
- 4.28 After a brief discussion regarding footnoting, the quota table for 2001 was **adopted** (Annex 16).
- 4.29 With respect to Agenda item 18, formulation of request to the Scientific Council, the Representative of the United States (supported by Canada and the EU) suggested that text be added to the request to address the issue of the implications of mesh size changes with regard to the 2+3KLMNO Greenland halibut fishery. A number of Contracting Parties suggested slight revisions to the initial draft. Additionally, the Representative of Russia called for the inclusion of text requesting advice regarding the methodology for scientific research on fish stocks under moratoria. The Representative of Iceland also asked that language from last year's request be included dealing with an evaluation of the possible results of closed areas on the 3M shrimp fishery. All three of these proposed additions were **adopted**.
- 4.30 In response to a call from the EU for the Scientific Council to provide advice on 2J3KL cod throughout its entire range, the Representative of Canada noted that they are responsible for this stock and this issue will be addressed in the Canadian request for advice from the Scientific Council. The (amended) request for advice from the Scientific Council for 2001 was **adopted** (Annex 17).
- 4.31 There was no discussion relating to Agenda item 19, transfers of quotas between Contracting Parties.

5. Closing Procedures (items 20-22)

- 5.1 Regarding Agenda item 20, Time and Place of Next Meeting, the Fisheries Commission's Annual Meeting in the year 2001 will be held in Cuba (location and date to be

determined). It was noted that the list of intersessional meetings would be forwarded to the General Council for consideration.

- 5.2 With respect to Agenda item 21, Other Business, the Chairman of the Fisheries Commission noted that a proposal had been circulated by the Ukraine for a chartering operation for 3M shrimp. The Representative of the Ukraine spoke to this proposal, noting that its text was based on the newly negotiated language guiding this process. He asked that, given the time constraints involved, Contracting Parties consider this proposal at this meeting and vote accordingly. However, following comments by Contracting Parties, it was decided that the proposal of the Ukraine should be considered according to established procedures.
- 5.3 Agenda item 22, Adjournment, the Annual Meeting of the Fisheries Commission was adjourned at 1250 hours on Friday, 22 September 2000.

Annex 1. List of Participants

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Annex 2. Agenda

I. Opening Procedure

1. Opening by the Chairman, P. Gullestad (Norway)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Admission of Observers
5. Publicity

II. Administrative

6. Review of Commission Membership

III. Conservation and Enforcement Measures

7. Report of the Brussels Working Group on Precautionary Approach (PA)
8. Report of STACTIC June Meeting
9. Inspection and Control Measures in the NAFO Regulatory Area
10. Report of the Working Group on the Allocation of Fishing Rights
 - a) Report of the Meeting on Shrimp Stocks
11. Review of the provisions on chartering operations in the NAFO Regulatory Area
12. Increase of inspection presence in the NAFO Regulatory Area
13. Report of STACTIC at the Annual Meeting
14. Canadian Management Measures for 2J3KL Cod in 2000

IV. Conservation of Fish Stocks in the Regulatory Area

15. Summary of Scientific Advice by the Scientific Council
16. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2001
 - 16.1 Cod in Div. 3M
 - 16.2 Redfish in Div. 3M
 - 16.3 American plaice in Div. 3M
 - 16.4 Shrimp in Div. 3M
17. Management and Technical Measures for Fish Stocks Straddling National Fishing Limits, 2000
 - 17.1 Cod in Div. 3NO
 - 17.2 Redfish in Div. 3LN

- 17.3 American plaice in Div. 3LNO
 - 17.4 Yellowtail flounder in Div. 3LNO
 - 17.5 Witch flounder in Div. 3NO
 - 17.6 Capelin in Div. 3NO
 - 17.7 Squid (*Illex*) in Subareas 3 and 4
 - 17.8 Shrimp in Div. 3LNO
 - 17.9 Greenland halibut in Div. 3LMNO
 - 17.10 If available in the Regulatory Area:
 - i) Cod in Div. 2J3KL
 - ii) Witch flounder in Div. 2J3KL
 - 17.11 Redfish in Division 1F
18. Formulation of Request to the Scientific Council for:
- a) Scientific advice on the management of fish stocks in 2002
19. Transfer of Quotas Between Contracting Parties

V. Closing Procedure

- 20. Time and Place of the Next Meeting
- 21. Other Business
- 22. Adjournment

**Annex 3. Amendment to the Conservation and Enforcement
Measures regarding Observers
(FC Doc. 00/8)**

This proposal was discussed by STACTIC during June 2000 Meeting and formalized/adopted during current 22nd Annual Meeting, September 19/00 with recommendation to the Fisheries Commission to amend Part VI.A.1(a) to read (in brackets and bold):

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. (Observers are not to perform duties, other than those described in Sections 3, 4 and 5 below.)

**Annex 4. Proposal to amend the NAFO Conservation and Enforcement Measures
with a view to introducing satellite based vessel monitoring and related measures
(FC Doc. 00/13)**

Introduction

Contracting Parties have agreed to require all vessels fishing in the Regulatory Area to be equipped with satellite tracking devices not later than January 1, 2001. The purpose of the amendment is to adopt detailed rules for satellite tracking and to adjust the Hail System requirements since certain report types become superfluous with satellite tracking. The proposed detailed measures for satellite tracking are identical to the ones contained in the Scheme of control and enforcement applicable in the NEAFC Regulatory Area. The amendment should be applicable no later than July 1st, 2001.

Proposal

Draft amendment (to enter into force no later than July 1, 2001)

– Part VI – Programme for Observers and Satellite tracking

- Chapeau : the terms “for application in 2001” are replaced by the terms “for application in 2003”
- Section B :
- The title is replaced by : “Satellite tracking/ Vessel monitoring System “VMS” ”
- The current text is replaced by the following text :

“1. Each Contracting Party shall ensure that each of its vessels operating in the Regulatory Area is equipped with a satellite tracking device allowing the continuous tracking of its position by the Contracting Party.

To that end the satellite tracking device shall ensure the automatic communication at least once every six hours when operating in the Regulatory Area to a land-based fisheries monitoring centre (hereafter referred to as FMC) of data relating to:

- the vessel identification;
- the most recent geographical position of the vessel (longitude, latitude) with a position error which shall be less than 500 metres, with a confidence interval of 99%;
- the date and time of the fixing of the said position of the vessel.

Each Contracting Party shall take the necessary measures to ensure that its FMC receives these data.

2. The FMC of each Contracting Party shall be equipped with computer hardware and software enabling automatic data processing and electronic data transmission. Each Contracting Party shall provide for back-up and recovery procedures in case of system failures.

3. Each Contracting Party shall take the necessary measures to ensure that the VMS data received from its fishing vessels are recorded in computer readable form for a period of three years.
4. The masters of fishing vessels shall ensure that the satellite tracking devices are at all times fully operational and that the information in paragraph 1. is transmitted. In the event of a technical failure or non-operation of the satellite tracking device fitted on board a fishing vessel, the device shall be repaired or replaced within one month. After this period, the master of a fishing vessel shall not be authorised to commence a fishing trip with a defective satellite tracking device. Where a device stops functioning and a fishing trip lasts more than one month, the repair or the replacement has to take place as soon as the vessel enters a port, the fishing vessel shall not be authorised to continue or commence a fishing trip without the satellite tracking device having been repaired or replaced.
5. Each Contracting Party shall ensure that a fishing vessel with a defective satellite tracking device shall communicate, at least daily, reports containing the information in paragraph 1. to the FMC, by other means of communication (radio, facsimile or telex).
6. Each Contracting Party shall communicate reports and messages pursuant to paragraph 1. and paragraph 5. to the Executive Secretary as soon as possible, but not later than 24 hours after receipt of those reports and messages. If the Contracting Party so desires, it shall ensure that each of its fishing vessels shall communicate reports (by satellite, radio, facsimile or telex) to the Executive Secretary.
7. Each Contracting Party shall ensure that the reports and messages transmitted between the Contracting Party and the Executive Secretary or if the Contracting Party so desires, between its fishing vessels and the Executive Secretary, shall be in accordance with the data exchange format set out in Annex II. (Part III "VMS position report format")
8. The Executive Secretary shall make available as soon as possible the information received under paragraph 7. to other Contracting Parties with an active inspection presence in the Regulatory Area. All reports and messages shall be treated in a confidential manner.
9. Each Contracting Party shall notify the name, address, telephone, telex and facsimile numbers as well as the addresses for electronic communication of their relevant authorities to the Executive Secretary before 1 July 2001 and thereafter any changes without delay.
10. Subject to any other arrangements between Contracting Parties, each Contracting Party shall pay all costs associated with this system."

VMS position report format
(Annex II of Part III)

Data Element:	Code:	Mandatory / Optional	Remarks:
Start record	SR	M	System detail; indicates start of record
From	FR	M	Address of the transmitting party (Contracting Party)
Address	AD	M	Message detail; destination; XNS" for NAFO Secretariat
Sequence Number	SQ	O	Message detail; message serial number in current year
Type of Message	TM	M	Message detail; message type, "POS" as Position report/message to be communicated by VMS or other means by vessels with a defective satellite tracking device
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	M	Vessel registration detail; name of the vessel
External Registration Number	XR	M	Vessel registration detail; the side number of the vessel
Latitude	LA	M	Activity detail; position at time of transmission
Longitude	LO	M	Activity detail; position at time of transmission
Date	DA	M	Message detail; date of transmission
Time	TI	M	Message detail; time of transmission
Record Date	RD	M	Year, month and date
Record Time	RT	M	Hours and minutes in UTC
Record Number	RN	M	Serial number of the record in the relevant year
End of record	ER	M	System detail; indicates end of the record

Each data transmission is structured as follows:

- double slash ("/") and the characters "SR" indicate the start of a message;
- a double slash ("/") and field code indicate the start of a data element;
- a single slash ("/") separates the field code and the data;
- pairs of data are separated by space;
- the characters "ER" and a double slash ("/") indicate the end of a record.

**Annex 5. Amendment to NAFO Conservation and Enforcement Measures
regarding Shrimp in Division 3M
(FC Doc. 00/11)**

Part I.G. to read (amendment in bold):

G. Other Measures - Management Measures for Shrimp in Div. 3M

1. Vessels fishing for shrimps in Division 3M in 2001 shall use nets with a minimum mesh size of 40 mm.
2. Vessels fishing for shrimp in Division 3M in 2001 shall use sorting grids or grates maximum spacing between the bars of 22 mm.
3. In the event that total by-catches of all regulated groundfish species in any haul exceed 5 percent by weight, vessel shall immediately change fishing area (minimum of 5 nautical miles) in order to seek to avoid further by-catches of regulated groundfish.
4. a) Each Contracting Party shall limit in 2001 the number of vessels fishing for shrimp in Div. 3M to the number that have participated in this fishery in the period from 1 January 1993 to 31 August 1995.
- b) Each Contracting Party shall, in 2001, limit the number of fishing days by its vessels fishing for shrimp in Div. 3M to 90% of the maximum number of fishing days observed for their vessels in one of the years 1993, 1994 or 1995 (until 31 August 1995). However, for Contracting Parties with a track record in the period from 1 January 1993 to 31 August 1995, a minimum level of 400 fishing days is permitted.
- c) Contracting Parties with no track record in the shrimp fishery in the period from 1 January 1993 to 31 August 1995 may, in 2001, fish for shrimp with one vessel in 100 fishing days.
- d) Each Contracting Party shall communicate the number of fishing days to the Executive Secretary before 1 November **2000**, that are available to that Contracting Party for 2001. The number of days shall be counted from the haul reports of vessels fishing for shrimp in Div. 3M and shall include the days of entry and exit from the Regulatory Area. In the case where vessels fishing for shrimp and other species on the same trip the number of days shall be counted from the day the vessel entered the shrimp fishery to the day the vessel ceased that fishery.

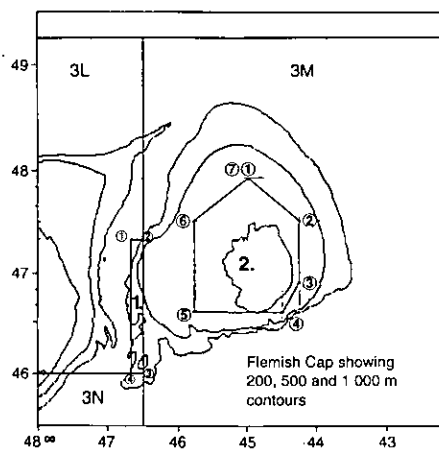
The Executive Secretary shall scrutinize the communications from the Contracting Parties, work with the relevant Contracting Parties if discrepancies are revealed, and by 1 December **2000** notify the number of vessels and fishing days applicable to all Contracting Parties.

- e) Vessels fishing for 3M shrimp may fish this stock in 2001 in Division 3M and in the area defined by the coordinates in footnote 1¹. However, in the period from June 1, 2001 (00.01 GMT) to September 30, 2001 (24.00 GMT), fishing for shrimp in the area defined by the coordinates in footnote 2² is prohibited.
- f) Each Contracting Party shall, within 30 days following the calendar month in which the catches were made, report provisional monthly fishing days in Div. 3M and the

area defined in footnote 1 to the Executive Secretary. The Executive Secretary shall, within 10 days following the monthly deadlines for receipt of the provisional fishing days statistics, collate the information received and circulate it to Contracting Parties.

- g) For vessels conducting trans-zonal fishery for shrimps between Div. 3M and the area defined in footnote 1, the same regulations as in NAFO Conservation and Enforcement Measures, Part III – Annex I – Hail System Message Format, no. 1.3., shall apply.
- h) Each Contracting Party shall in 2001 closely monitor its vessels fishing for shrimp and close the fishery when the number of fishing days available to that Party is exhausted. The number of fishing days shall be counted from the hail reports of vessel fishing for shrimp and shall include the days of entry or moves into Div. 3M and the area defined in footnote 1 and the days of moves or exit from Div. 3M and the area defined in footnote 1.
- i) In the case where a vessel is fishing for shrimp and other species on the same trip, the change of fishery shall be hailed and the number of fishing days counted accordingly.
- j) **Fishing days of a Contracting Party may only be utilized by a vessel flying the flag of another Contracting Party under the conditions provided in I.B.**
- k) Fishing days are not transferable between Contracting Parties.
- l) **This management plan for 2001 will be reviewed at the Special Meeting of the Fisheries Commission on Shrimp in light of the most recent advice from the Scientific Council and the outcome of the Special Meeting.**

1			2 (see the map below)		
Point No.	Latitude	Longitude	Point No.	Latitude	Longitude
1	47°20'0	46°40'0	1 (same as no. 7)	47°55'0	45°00'0
2	47°20'0	46°30'0	2	47°30'0	44°15'0
3	46°00'0	46°30'0	3	46°55'0	44°15'0
4	46°00'0	46°40'0	4	46°35'0	44°30'0
			5	46°35'0	45°40'0
			6	47°30'0	45°40'0
			7 (same as no. 1)	47°55'0	45°00'0



**Annex 6. Working Group on 3M Shrimp Fishery Data
27 March 2001, Copenhagen, Denmark**

Provisional Agenda

1. Opening by the Chair, H. Koster (EU)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Review and validation of catch and effort data for 3M shrimp
5. Adjournment

**Annex 7. Special Fisheries Commission Meeting on Shrimp Allocation
and Management in the NAFO Regulatory Area
28-29 March 2001, Copenhagen, Denmark**

Provisional Agenda

1. Opening by the Chairman, P. Gullestad (Norway)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Evaluation of existing effort management system in Division 3M
5. Possible establishment of a TAC in Division 3M
6. Allocation of fishing opportunities among Contracting Parties in the NAFO Regulatory Area
7. Other business
8. Adjournment

Annex 8. Paper on Chartering
(FC Doc. 00/12)

Proposal to Modify Part I.B. and I.G. of NAFO Conservation and Enforcement Measures
(amendments underlined)

Amend Part I.B. as follows:

B. Chartering Arrangements

1. Replace the wording by:

“Each Contracting Party may utilize partly or wholly quota and shrimp fishing days allocated to that Party under Schedule I and Part I.G by way of charter arrangement with a fishing vessel flying the flag of another Contracting Party notified in accordance with Part III.D, subject to:

- the consent of the flag Contracting Party;
- a favourable proposal adopted through a mail vote in accordance with Article XI.2 of the Convention.

2. Contracting Parties shall limit such charter arrangements to one fishing vessel per year and for a limited duration not exceeding 6 months.

3. Contracting Parties intending to have recourse to such charter arrangements shall together with a request for a mail vote notify the following information to the NAFO Executive Secretary:

- the name and registration of the chartered vessel and the relevant flag Contracting Party
- a copy of the charter
- the fishing possibilities concerned
- the date as from which the vessel is authorized to commence fishing on these fishing possibilities
- the duration of the charter

4. The relevant flag Contracting Party shall notify in writing its consent to the NAFO Executive Secretary.

5. The NAFO Executive Secretary shall circulate the above information and the consent of the flag Contracting Party without delay to Contracting Parties.

6. The relevant flag Contracting Party is responsible for ensuring that the vessel complies with the requirements of the NAFO Conservation and Enforcement Measures. This does not nullify the obligations of the Contracting Party to which the quota and shrimp fishing days have been allocated under Part I of the Conservation and Enforcement Measures, as appropriate.

7. All catches and incidental catches from such chartering arrangements shall be recorded by the relevant flag Contracting Party separate from other national catch data recorded according to Part I.D., and shall be reported to the Contracting Party to which the fishing possibilities have been allocated and to the Executive Secretary separate from other national catch data according to Part I.D. The Executive Secretary shall add these catches to the catch statistics of the Contracting Party to which the fishing possibilities have originally been allocated.

8. As a pilot project, these provisions shall apply only to the year 2001.

Amend Part I.G. as follows:

- Insert a new point I.G.4.j) which would read:

“j) Fishing days of a Contracting Party may only be utilized by a vessel flying the flag of another Contracting Party under the conditions provided in I.B (chartering arrangements).”

- Renumber point I.G.4.j) as point I.G.4.k) which would read:

k) “Fishing days are not transferable between Contracting Parties” (deletion of the last part of the sentence)

**Annex 9. Formats for the Electronic Transmission of NAFO Hails
from Contracting Parties to the NAFO Secretariat**
(FC Doc. 00/14)

EXPLANATORY NOTES

- a) The formats herein conform with the requirements for the NAFO Hails System as set out in FC Document 00/1, the NAFO Conservation and Enforcement Measures Part III and Part III Annex I Hail System Message Format.
- b) The formats consist of variable length delimited records, and are based on systems currently in use in NEAFC.
- c) The variable length record is preferred over a fixed length record as some Contracting Parties collect more information from their vessels than is required by NAFO, and are forwarding the entire record to NAFO. The format is conducive to extraction of the required data fields by the receiving parties.
- d) The following convention is used in this paper: //FIELD NAME/field value//, where the field name is shown in uppercase, followed by the character “/”, followed by the field value in lowercase. Fields are separated by “//”.
- e) Each record begins with the string //SR// to indicate the Start of the Record.
- f) Each record ends with the string //ER// to indicate the End of the Record.
- g) Character fields (CHAR) shall conform with the ISO 8859.1 character set standard.
- h) Country codes used for addressee (AD) and sender (FR) shall conform with the ISO 3166 (1993) standard. E/F 7.3 states that user-assigned country codes shall start with the character “X”, therefore it is proposed that the code XNS be used to designate the NAFO Secretariat, the addressee for hail messages.

NAFO HAILS SYSTEM - Part III Annex I Hail System Message Format

1.1 ENTRY HAIL

//SR

//FR/Name of transmitting party//AD/Destination "XNS" for NAFO

//SQ/sequence number

//NA/name of vessel

//RC/International radio call sign

//XR/external identification letters and numbers

//DA/date of transmission//TI/time of transmission//LA/latitude at time of transmission//LO/longitude at time of transmission//TM/indication of type of message "ENT"

//DI/NAFO Division into which the vessel is about to enter.

//OB/total round weight of fish by species (3 alpha codes) on board upon entry into the Regulatory Area, in kilograms rounded to the nearest 100 kilograms. Allow several pairs of fields, consisting of species + weight, with each field separated by a space. e.g. //OB/species weight species weight species weight//

//MA/name of the Master

//TS/target species

Allow several species to be entered, with the values separated by spaces,
e.g. //TS/species species species//

//ER//

Example 1
(continued)

NAFO HAILS SYSTEM - Part III Annex I Hail System Message Format

1.2 MOVE HAIL

//SR

//FR/Name of transmitting party//AD/Destination "XNS" for NAFO

//SQ/sequence number

//NA/name of vessel

//RC/International radio call sign

//XR/external identification letters and numbers

//DA/date of transmission//TI/time of transmission//LA/latitude at time of transmission//LO/longitude at time of transmission//TM/indication of type of message "MOV"

//DI/NAFO Division into which the vessel is about to enter.

//MA/name of the Master

//TS/target species

Allow several species to be entered, with the values separated by spaces,
e.g. //TS/species species species//

//ER//

Example 1
(continued)

NAFO HAILS SYSTEM - Part III Annex I Hail System Message Format

1.3 TRANSZONAL HAIL (between NAFO Divisions)

//SR

//FR/Name of transmitting party//AD/Destination "XNS" for NAFO//SQ/sequence number//NA/name of vessel//RC/International radio call sign//XR/external identification letters and numbers//DA/date of transmission//TI/time of transmission//LA/latitude at time of transmission//LO/longitude at time of transmission//TM/indication of type of message "ZON"//MA/name of the Master//TS/target species

Allow several species to be entered, with the values separated by spaces,
e.g. //TS/species species species//

//ER//

Example 1
(continued)

NAFO HAILS SYSTEM - Part III Annex I Hail System Message Format

1.4 EXIT HAIL

//SR

//FR/Name of transmitting party//AD/Destination "XNS" for NAFO//SQ/sequence number//NA/name of vessel//RC/International radio call sign//XR/external identification letters and numbers//DA/date of transmission//TI/time of transmission//LA/latitude at time of transmission//LO/longitude at time of transmission//TM/indication of type of message "EXI"//DI/NAFO Division into which the vessel is about to enter.

//CA/catch in round weight taken in the Regulatory Area by species (3 alpha codes) in kilograms (rounded to the nearest 100 kilograms). Allow several pairs of fields, consisting of species + weight, with each field separated by a space. e.g. //CA/species weight species weight species weight//

//MA/name of the Master

//ER//

Example 1
(continued)

NAFO HAILS SYSTEM - Part III Annex I Hail System Message Format

1.5 TRANSHIPMENT HAIL

//SR

//FR/Name of transmitting party//AD/Destination "XNS" for NAFO

//SQ/sequence number

//NA/name of vessel

//RC/International radio call sign

//XR/external identification letters and numbers

//DA/date of transmission//TI/time of transmission//LA/latitude at time of transmission//LO/longitude at time of transmission//TM/indication of type of message "TRA"

//KG/total round weight by species (3 alpha codes) to be transhipped in kilograms (rounded to the nearest 100 kilograms). Allow several pairs of fields, consisting of species + weight, with each field separated by a space. e.g. //KG/species weight species weight species weight//

//MA/name of the Master

//ER//

Definition of data elements

Data Element	Field Code	Type	Mandatory/Optional	Definition/Remarks
Start of Record	SR		M	<u>Indicates start of the record</u>
From	FR	Char*3	M	<u>ISO-3166 Address. Address of the transmitting Contracting Party</u>
Addressee	AD	Char*4	M	<u>ISO-3166 Address. Address of the party receiving the message. "XNS" for NAFO</u>
Sequence Number	SQ	Num*6	<u>Q</u>	<u>Message serial number</u>
Name	NA	Char*30	M	<u>ISO 8859.1. Name of vessel</u>
International radio call sign	RC	Char*7	M	<u>IRCS Code. International Radio Call sign of the vessel</u>
External identification	XR	Char*14	M	<u>ISO 8859.1. Side number of the vessel</u>
Date	DA	Num*8	M	<u>YYYYMMDD. Year, month and day</u>
Time	TI	Num*4	M	<u>HHMM. Hours and minutes in UTC</u>
Latitude	LA	Char*5	M	<u>S/NDDMM (WGS-84) e.g. //LA/N4600 = 46°00' North</u>
Longitude	LO	Char*6	M	<u>E/WDDMM (WGS-84) e.g. //LO/W04631 = 46°31' West</u>
Type of Message	TM	Char*3	M	<u>Indication of type of message ENT/MOV/ZON/TRAV/EXI</u>
NAFO Division	DI	Char*2	M	<u>NAFO Division</u>
Name of Master	MA	Char*30	M	<u>Name of the master of the fishing vessel</u>
Quantity	OB	Char*3 Num*7	M	<u>FAO Code. Total round weight of fish by species (3 alpha codes) on board upon entry into the Regulatory Area, in kilograms rounded to the nearest 100 kilograms. Allow several pairs of fields, consisting of species + weight, with each field separated by a space.</u>
Catch	CA	Char*3 Num*7	M	<u>FAO Code. Total catch in round weight taken in the Regulatory Area by species (3 alpha codes) in kilograms (rounded to the nearest 100 kilograms). Allow several pairs of fields, consisting of species + weight, with each field separated by a space.</u>
Transhipped	KG	Char*3 Num*7	M	<u>FAO Code. Total round weight by species (3 alpha codes) to be transhipped in kilograms (rounded to the nearest 100 kilograms). Allow several pairs of fields, consisting of species + weight, with each field separated by a space</u>
Target Species	TS	Char*3	M	<u>FAO Code; allowance for multiple main species</u>
End Record	ER		M	<u>End of record</u>

**Annex 10. Proposal to amend the NAFO Conservation and Enforcement
Measures Regarding Incidental Catch Limits**
(FC Doc. 00/15)

Proposal:

Amend the NAFO Conservation and Enforcement Measures to add the following paragraph (f) to Part I A 5 Incidental Catch Limits

- (f) To avoid excessive incidental catch the following fishing strategy shall be implemented;
- (i) If the amount of incidental catch of any one species listed in Schedule I for which no quota has been allocated in that division to that Contracting Party, in any one haul exceeds 10% of the total catch of the other species in that haul, the vessel shall immediately change fishing area to reduce the incidental catch. The vessel must move a minimum 5 nautical miles from any position of the previous haul.
 - (ii) In cases where a ban on fishing is in force for any particular species or an "Others" quota for any species has been fully utilized, and the amount of incidental catch of this species in any one haul exceeds 5% of the total catch of other species in that haul, the vessel shall immediately change fishing area to reduce the incidental catch. The vessel must move a minimum 5 nautical miles from any position of the previous haul.
 - (iii) If any future haul exceeds the permitted incidental catch limit outlined in (i) or (ii) above, whichever is applicable, the vessel shall again immediately change fishing area to reduce the incidental catch. The vessel must move a minimum 5 nautical miles from any position of the previous hauls and shall not return to the area for at least 48 hours.

**Annex 11. Proposal to Amend the NAFO Conservation and Enforcement
Measures Regarding Part VII - Port Inspections**
(FC Doc. 00/16)

Background

Part VII of the NAFO Conservation and Enforcement Measures requires Contracting Parties to ensure that port inspection take place on any occasion a fishing vessel having been fishing subject to NAFO Conservation and Enforcement Measures is discharging catch. According to the current measures, the results from port inspection shall be provided to the NAFO secretariat and shall be communicated to any other Contracting Party on request.

The content of port inspection should include verification of catches, of logbook records, mesh size and of inspection at sea. Sea inspection reports are sent to the Contracting Party without delay.

Communication of port inspection is sometimes delayed when vessels land in ports outside the Flag Contracting Party. In order to contribute to enhanced transparency and a better efficiency of the implementation of the NAFO Conservation and Enforcement Measures, it is proposed that the results of port inspection are communicated to the Flag Contracting Party without delay.

Furthermore, a standard report form would help to harmonise record of results of port inspection.

Proposal

1. Amend Part VII-1 of NAFO Conservation and Enforcement Measures to read :
Part VII-1

“(v) Results of port inspection shall include at least the information listed in Part VII – Schedule I -B.

(vi) The authorities of the port State shall, on request, transmit the results of the port inspection to the flag State of the vessel, within 14 working days from the date on which the inspection has been completed.

(vii) The copy of the results of the port inspection shall be transmitted to the NAFO Executive Secretary within 30 days as from the date on which the landing has been completed and shall be provided to other Contracting Party on request.”

(viii) Where possible, Contracting Parties should transmit the results of the port inspection as required in (v) to (vii) in the format defined in Part VII-Schedule I-Part A.

2. Insert Part VII-Schedule I : “port inspection report” (see annex)

Part VII-Schedule I

B. Information to be inserted in the report

1. INSPECTION REFERENCES

Data Element	M/O	Category ; Definition
Inspection authority	M	Inspection detail : Name of the inspection authority or of the alternate body nominated by the authority
Date	M	Inspection detail : Date the report is compiled
Port of inspection	M	Vessel activity detail : Place where the vessel is inspected : port followed by ISO -3 code of the country as "St Johns / CAN"
Vessel Name	M	Vessel registration detail; name of the vessel

2. TRIP INFORMATION

Data Element	M/O	Category ; Definition
Date trip started	M	Vessel activity details : date started the current fishing trip
Vessel trip number	O	Vessel activity details : Number of the fishing trip in current year
Date Entry in the RA	M	Vessel activity details : Date the vessel entered the NRA for the current fishing trip
Date Exit from the RA	M	Vessel activity details : Date the vessel exited from the NRA for the current fishing trip
Other areas visited	O	Vessel activity detail : other area where vessel have been fishing during the current trip
Date trip Ended	M	Vessel activity details : date ended the current fishing trip

3. VESSEL IDENTIFICATION

Data Element	M /O	Category ; Definition
External Identification Number	M	Vessel registration details : Side Number of the vessel
International Radio Call Sign	M	Vessel registration details : International Radio Call Sign of the vessel
Flag State	M	Vessel registration detail; State where the vessel is registered, 3-ISO country code
NAFO Contracting Party	O (1)	Vessel registration detail :NAFO contracting party of the vessel, as ISO code of the country, EUR for European Community, NCP for Non Contracting Party
Home port	O	Vessel registration details : Port of registration of the vessel or homeport
Vessel owner	M	Vessel registration details : name and address of the vessel owner
Vessel operator	M (2)	Vessel registration details : responsible for using the vessel
Master name	O	Vessel activity details : name of the master

(1) if different from the flag state

(2) if different from the vessel owner

4. RESULT OF INSPECTION ON DISCHARGE

4.1 General information

Data Element	M /O	Category ; Definition
Start date of discharge	M	Discharge detail : date the vessel started discharge
End date of discharge	M	Discharge detail : date the vessel finished discharge
Has vessel landed all catches on board ?	M	Discharge detail : Has vessel landed all catches on board ?, answer Y if yes, N if not
Comments	O	Discharge detail : comments as necessary. If discharge as not been completed, please give an estimation on catch still on board

4.2 Quantity discharged

Data Element	M/O	Category ; Definition
Species	M	Discharge detail : FAO 3-alpha code (part V, schedule II, attachment II)
Presentation	M	Discharge detail : Product form
Live Weight	M	Quantities determined from the logbook.
Conversion factor	O	Product detail : Conversion factor as define by the master for the corresponding species, size and presentation, optional if already mention in table B
Process weight	M	Discharge detail : Quantities landed by species and presentation, in kilograms of product, rounded to the nearest 10 kg
Equivalent live weight	M	Discharge detail : Quantities landed in equivalent live weight, as "product weight x conversion factor", in kilograms, rounded to the nearest 10 kg
Comments	O	Discharge Details : free text area

4.3 Quantities staying on board the vessel

Data Element	M/O	Category ; Definition
Species	M	Discharge detail : FAO 3-alpha code (part V, schedule II, attachment II)
Presentation	M	Discharge detail : Product form
Conversion factor	O	Product detail : Conversion factor as define by the master for the corresponding species, size and presentation, optional if already mention in table B
Process weight	M	Discharge detail : Quantities landed by species and presentation, in kilograms of product, rounded to the nearest 10 kg
Equivalent live weight	M	Discharge detail : Quantities landed in equivalent live weight, as "product weight x conversion factor", in kilograms, rounded to the nearest 10 kg
Comments	O	Discharge Details : free text area

5. RESULT OF GEAR INSPECTION¹

5.1 General information

Data Element	M/O	Category ; Definition
Date of inspection	M	Inspection detail : Date of current gear inspection
Inspected gear	M	Inspection detail : number of gear checked during port inspection

5.2 Otter trawl details

Data Element	M/O	Category ; Definition
NAFO seal number	M	Inspection detail (if required) : Number of the NAFO seal attached to the gear after inspection at sea
Is Seal Undamaged ?	M	Whether NAFO inspection seal is intact. – “yes” or “no”
Gear type	M	International Standard Statistical Classification of the Fishing Gear , OTB for otter trawl
Attachments		Otter trawl detail : attachment to footrope
Grade bar spacing	M	Otter trawl detail : grade bar spacing in millimetres
Mesh type	M	Otter trawl detail : respectively mesh type: SQ for square mesh , DI for diamant mesh
Mesh size average	M	Otter trawl detail : average mesh size in the trawl part, by pair
Trawl part	M	Trawl part measured
Mesh size	M	Mesh size in millimetres

¹ Verification shall be done when non-compliance have been cited / observed during inspection at sea.

To be filled in when port inspection also concerns inspection of gears on board. A detail form shall be filled in for every gear having been subject to port inspection

A. "Port inspection report" form

"Port inspection report"

Page n°

Of

1. INSPECTION REFERENCE

Inspection authority

Date of the report

Port of inspection

*Vessel name***2. TRIP INFORMATION¹**

Date trip started

Trip number²

Activity in the NAFO RA :

Date Entry in the RA

Date Exit from the RA

Other areas visited

Date trip ended

¹ To be filled in by the inspection authority or any alternate body nominated by the authorities as soon as the vessel land to port, based on logbook records.

² Where applicable

3. VESSEL IDENTIFICATION³

External Identification	<input type="text"/>
International Radio Call Sign	<input type="text"/>
Flag State	<input type="text"/>
NAFO Contracting Party	<input type="text"/>
Home port	<input type="text"/>
Vessel owner	<input type="text"/>
Vessel operator	<input type="text"/>
Master name	<input type="text"/>

4. RESULT OF INSPECTION OF DISCHARGE⁴**4.1 General information**

Starting of discharge :	Date	<input type="text"/>	Time	<input type="text"/>
Ending of discharge :	Date	<input type="text"/>	Time	<input type="text"/>
Has vessel discharged all catches on board ?	YES	<input type="text"/>	<i>If YES, fill in table 4.2</i>	
	NO	<input type="text"/>	<i>If NO, fill table 4.3</i>	
Comments	<input type="text"/>			

4.2 Quantity discharged

Species (FAO Code)	Presentation	Live Weight (Log Book, Kg)	Conversion factor	Landing Processed Wt (kg)	Equivalent live weight (kg)	Diff (Kg)	Diff (%)

³ To be filled in based on the license information.⁴ To be filled in after completion of discharge

Species (FAO Code)	Presentation	Live Weight (Log Book, Kg)	Conversion factor	Landing Processed Wt (kg)	Equivalent live weight (kg)	Diff (Kg)	Diff (%)

Comments	
----------	--

4.3 Quantity staying on board the vessel

To be filled where part of the catches stay on board after completion of discharge

Species	Presentation	Conversion factor	Process weight (kg)	Equivalent live weight (kg)

Comments	
----------	--

5. GEAR INSPECTION IN PORT ⁵

5.1 General data

Number of gear inspected

Date gear inspection

Has the vessel been cited ?

If Yes, complete the full "verification of inspection in port" form.

If No, complete the form with the exception of the NAFO Seal Details.

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

⁵ Verification shall be done when non-compliance have been cited / observed during inspection at sea.

To be filled in when port inspection also concerns inspection of gears on board. A detail form shall be filled in for every gear having been subject to port inspection

5.2 Otter Trawl details

NAFO Seal number

Is seal undamaged ?

Yes

No

Gear Type:

Attachments:

Grate Bar Spacing (mm)

Mesh Type:

Average mesh sizes (mm)

TRAWL PART	
Wings:	
Body:	
Lengthening Piece:	
Codend:	

**Annex 12. Statement by the Representative of the European Union
on 2J3KL Cod**

2J3KL cod has been and continues to be one of the key fish stocks in the Northwest Atlantic. The stock has been close to collapse and consequently has been kept under moratoria for many years to protect the stock in its entirety. The EU must therefore reiterate its grave concern at Canada's action in repeating its irresponsible behaviour as seen in 1999, whereby it has taken a decision to allocate to itself a so-called "index" TAC of 7,000 tonnes for a commercial fishery for 2000. The stock has thus become subject once again to conflicting and inconsistent conservation and management measures. As in 1999, there is neither scientific justification for the decision in question nor are there any indications to allow one to distinguish between different stock components for the inshore and offshore fisheries.

This situation is, therefore, contrary to both the consistency requirements laid down in Article XI(3) of the NAFO Convention and the Precautionary Approach. It also falls short of the conservation and compatibility standards reflected in the 1995 UN Agreement on Straddling Fish Stocks. Due to the biological unity of the stock, there is a danger that efforts which aim at ensuring the long-term sustainability of the stock are being seriously undermined and that the recovery of the stock itself is in jeopardy. The EU, therefore, strongly urges Canada to adopt consistent conservation and management measures for the year 2001 for this stock.

**Annex 13. Proposal to amend the Conservation and Enforcement Measures
Part I.H – Other Measures – Management Measures for Shrimp in Div. 3LNO
(FC Doc. 00/17)**

Background

During the 1999 meeting, the Fisheries Commission adopted a proposal for a 3L shrimp fishery (Part I.K). However, when doing so, Part I.H should also have been amended as it prohibited any directed shrimp fishery in Divisions 3LNO.

Proposal

Amend the title of Part I.H and the text of the prohibition to refer to Divisions 3NO only.

**Annex 14. Amendment to NAFO Conservation and Enforcement
Measures regarding 3L Cod
(FC Doc. 00/10)**

Part I.

F. Other Measures - No Directed Fishery for Cod in Div. 3L in the Regulatory Area

Noting differences that have been expressed on the subject of 2J3KL cod by Contracting Parties,

Noting the need to avoid prejudice to the legal position of any Contracting Party on this subject,

Noting the provisions of Article XI(3) of the NAFO Convention, which aim at ensuring consistency between the measures established for the Regulatory Area and the measures adopted by the relevant coastal State;

Noting that the advice from the Scientific Council strongly suggests a continuation of the moratorium for the entire stock;

Directed fisheries for cod in Division 3L in the Regulatory Area shall not be permitted in **2001**.

Contracting Parties other than Canada expressed their serious concern that management measures for this stock may not be consistent throughout its range in the Convention Area in the year **2001**.

**Annex 15. Amendment to NAFO Conservation and Enforcement
Measures regarding Witch Flounder in Div. 3L
(FC Doc. 00/9)**

Part I.

I. Other Measures - No Directed Fishery for Witch flounder in Division 3L in the Regulatory Area

Noting the available scientific advice, and

Noting the current moratorium that is being applied by Canada to the directed fishing of this stock inside the Canadian 200 mile zone,

Directed fisheries for witch in Division 3L in the Regulatory Area shall not be permitted in **2001**.

Annex 16. Quota Table for 2001

QUOTA TABLE. Total allowable catches (TACs) and quotas (metric tons) for 2001 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.

Contracting Party	Cod		Redfish		American plaice		Yellowtail		Witch		Capelin		G. halibut		Squid (<i>Illex</i>) ^{3,3}		Shrimp
	Div. 3M	Div. 3NO*	Div. 3M	Div. 3LN*	Div. 3M*	Div. 3LNO*	Div. 3LNO	Div. 3NO*	Div. 3NO*	Div. 3LMNO	Div. 3NO*	Div. 3NO*	Subareas 3+4	Subareas 3+4	Div. 3L		
1. Canada	0	0	500	0	0	0	12675 ²	0	0	4 446	0	0	N.S. ⁴	5 000	67		
2. Cuba	0	-	1750	0	-	-	-	-	-	-	-	-	510	-	-		
3. Denmark (Faroe Islands and Greenland)	0	-	69	-	-	-	-	-	-	-	-	-	-	67	67		
4. European Union	0	0	3100	0	0	0	260 ⁷	-	0	16 406	0	0	N.S. ⁴	67	67		
5. France (St. Pierre et Miquelon)	-	-	69	-	-	-	-	-	-	-	-	-	453	67	67		
6. Iceland	-	-	400	-	-	-	-	-	-	-	-	-	510	67	67		
7. Japan	-	-	69	-	-	-	-	-	-	3 038	0	0	453	67	67		
8. Korea	-	-	-	-	-	-	-	-	-	-	0	0	-	67	67		
9. Norway	0	0	-	-	-	-	-	-	-	-	0	0	227	67	67		
10. Poland	0	0	-	-	-	-	-	-	-	-	0	0	-	67	67		
11. Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-	67	67		
12. Latvia	0	0	13 850 ¹	0	0	0	-	0	0	-	0	0	1 133 ¹	67	67		
13. Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	-	67	67		
14. Russia	-	-	-	-	-	-	-	-	-	3 779	-	-	-	67	67		
15. Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-	67	67		
16. United States of America	-	-	69	-	-	-	-	-	-	-	-	-	453	67	67		
17. Others	0	0	124	0	0	0	65 ⁷	0	0	1 971 ⁵	0	0	794	0	0		
Total Allowable Catch	*	*	5 000 ⁶	*	*	*	13 000 ⁸	*	*	29 640	*	*	34 000	6 000	6 000		

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 Of which no more than 40% (788 t) may be fished before 1 May 2001 and no more than 80% (1577 t) may be fished before 1 October 2001.

⁶ Each Contracting Party shall notify the Executive Secretary bi-weekly of catches taken by its vessels from this stock. Not more than 2 500 tons may be fished before July 1, 2001. The Executive Secretary shall notify without delay all Contracting Parties of the date on which, for this stock, accumulated reported catch taken by vessels of the Contracting Parties is estimated to equal 50 and then 100 percent of the TAC for that stock.

⁷ Contracting Parties shall inform the NAFO Executive Secretary before 1 December 2000 of the measures to be taken to meet the advice of the NAFO Scientific Council.

⁸ The provisions of Part I, Section A.5c) of NAFO Conservation and Enforcement Measures shall apply.

*No directed fishing - The provisions of Part I, Section A.5a and c of NAFO Conservation and Enforcement Measures shall apply.

**Annex 17. Fisheries Commission's Request for Scientific Advice
on Management in 2002 of Certain Stocks in Subareas 3 and 4,
including supplementary questions on Division 3M Shrimp for 2001
(FC Doc. 00/20)**

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 2001 Annual Meeting, provide advice on the scientific basis for the management of the following fish and invertebrate stocks or groups of stocks in 2002:

Redfish (Div. 3M)
Yellowtail flounder (Div. 3LNO)
Squid (Sub-areas 3 and 4)
Shrimp (Div. 3M, 3LNO)
Greenland halibut (Sub-areas 2 and 3KLMNO)
Capelin (Div. 3NO)

2. 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 2001 Annual Meeting, provide advice on the scientific basis for the management of the following fish stocks on an alternating year basis:

Cod (Div. 3NO; Div. 3M)
Redfish (Div. 3LN)
American plaice (Div. 3LNO; Div. 3M)
Witch flounder (Div. 3NO)

To implement this system of assessments in alternating years, all stocks were assessed in 1999 but advice pertained to different time periods to allow the introduction of the new scheme over time. Consequently:

- In 2000, advice was provided for 2001 and 2002 for cod in 3M, American plaice in 3M and witch flounder in 3NO. These stocks will then next be assessed in 2002.
- In 2001, advice will be provided for 2002 and 2003 for American plaice in 3LNO, cod in 3NO and redfish in 3LN. The next assessment of these stocks will thus be conducted in 2003.

The Fisheries Commission requests the Scientific Council to continue to monitor the status of these stocks annually and, should a significant change be observed in stock status (e.g. from surveys) or in by-catches in other fisheries, provide updated advice as appropriate.

3. The Commission and the Coastal State request the Scientific Council to consider the following in assessing and projecting future stock levels for those stocks listed above:
 - a) The preferred tool for the presentation of a synthetic view of the past dynamics of an exploited stock and its future development is a stock assessment model, whether age-based or age-aggregated.
 - b) For those stocks subject to analytical-type assessments, the status of the stocks 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 $F_{0.1}$ and F_{2000} in 2002 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.

- c) 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.
- d) For those resources for which only general biological and/or catch data are available, few standard criteria exist on which to base advice. The stock status should be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with the precautionary approach.
- e) Spawning stock biomass levels 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 reproductive potential of the stock, management options should be offered that specifically respond to such concerns.
- f) Information should be provided on stock size, spawning stock sizes, recruitment prospects, fishing mortality, catch rates and TACs implied by these management strategies for the short and the long term in the following format:
 - I. For stocks for which analytical-type assessments are possible, graphs of all of the following for the longest time-period possible:
 - historical yield and fishing mortality;
 - spawning stock biomass and recruitment levels;
 - catch options for the year 2002 and subsequent years over a range of fishing mortality rates (F) at least from $F_{0.1}$ to F_{max} ;
 - spawning stock biomass corresponding to each catch option;
 - yield-per-recruit and spawning stock per recruit values for a range of fishing mortalities.
 - II. For stocks for which advice is based on general production models, the relevant graph of production as a function of fishing mortality rate or fishing effort. Age-aggregated assessments should also provide graphs of all of the following for the longest time-period possible:
 - exploitable biomass (both absolute and relative to B_{MSY})
 - yield/biomass ratio as proxy for fishing mortality (both absolute and relative to F_{MSY})
 - estimates of recruitment from surveys, if available.
 - III. Where analytical methods are not attempted, the following graphs should be presented, for one or several surveys, for the longest time-period possible:
 - time trends of survey abundance estimates, over:
 - an age or size range chosen to represent the spawning population
 - an age or size-range chosen to represent the exploited population
 - recruitment proxy or index for an age or size-range chosen to represent the recruiting population.

- fishing mortality proxy, such as the ratio of reported commercial catches to a measure of the exploited population.

For age-structured assessments, yield-per-recruit graphs and associated estimates of yield-per-recruit based reference points should be provided. In particular, the three reference points, actual F , $F_{0.1}$ and F_{max} should be shown.

- g) For squid (*Illex*) in Sub-areas 3 and 4, the Scientific Council is requested to advise on the level of TAC in high abundance years and on the criteria which could be reliably used to forecast changes in productivity under an annual management regime. Scientists are encouraged to further analyze available data toward developing other possible indicators that could be used under an in-season management regime for squid, recognizing that the practical use of such indicators would require that they be available as early in the season as possible.
- h) For shrimp in 3M, the Fisheries Commission notes that information to date from the commercial fishery in 2000 is showing relatively high catch rates. In light of this apparent change in stock status, the Scientific Council is requested to review information from the 2000 fishery at its November 2000 meeting and to evaluate the impact on this resource of removals in year 2001 and 2002 corresponding to 25,000 t, 30,000 t, 35,000 t and 40,000 t respectively. Furthermore, the Scientific Council is requested at its November 2000 meeting to evaluate, on the basis of the best data available, whether the provision for a Div. 3M shrimp closure in FC Working Paper 99/16 (Rev.) would be a precautionary approach-based measure and, if so, whether proposed area and timing of the closure are appropriate.
4. The results described in Section 3 should include information about the reliability of the results. To this end, the following information should be included in a synoptic form:
- Parameter uncertainty in assessments, possibly as confidence intervals
 - Robustness of assessments to alternative assumptions or data series
 - Illustration of conflicts in data series
- This information may be accompanied by quality statements giving the opinion of the Scientific Council about the reliability of the various data series for particular purposes.
5. Noting the progress made by the Scientific Council on the development of a framework for implementation of the Precautionary Approach, the Fisheries Commission requests that the Scientific Council provide the following information for the 2001 Annual Meeting of the Fisheries Commission for stocks under its responsibility requiring advice for 2002, or 2002 and 2003:
- a) the limit and target precautionary reference points described in Annex II of the UN Fisheries Agreement indicating areas of uncertainty (when precautionary reference points cannot be determined directly, proxies should be provided);
 - b) information including medium term considerations and associated risk or probabilities which will assist the Commission to develop the management strategies described in paragraphs 4 and 5 of Annex II in the Agreement;
 - c) information on the research and monitoring required to evaluate and refine the reference points described in paragraphs 1 and 3 of Annex II of the Agreement; these research requirements should be set out in the order of priority considered appropriate by the Scientific Council;
 - d) any other aspect of Article 6 and Annex II of the Agreement which the Scientific Council considers useful for implementation of the Agreement's provisions regarding the precautionary approach to capture fisheries;

- e) propose criteria and harvest strategies for re-opening of fisheries and for new and developing fisheries; and
 - f) to work toward the harmonization of the terminology and application of the precautionary approach within relevant advisory bodies.
6. In addition, the following elements should be taken into account by the Scientific Council when considering the precautionary approach:

- a) Many of the stocks in the NAFO Regulatory Area are well below any appreciable level of B_{lim} or B_{buf} . For these stocks, the most important task for the Scientific Council is to inform on how to rebuild the stocks. In this context and building on previous work of the Scientific Council in this area, the Scientific Council is requested to evaluate various scenarios corresponding to recovery plans with timeframes of 5 to 10 years, or longer as appropriate. This evaluation should provide the information necessary for the Fisheries Commission to consider the balance between risks and yield levels, including information on the consequences and risks of no action at all.

References to "risk" and to "risk analyses" should refer to estimated probabilities of stock population parameters falling outside biological reference points.

- b) Where reference points are proposed by the Scientific Council as indicators of biological risk, they should be accompanied by a description of the nature of the risk incurred if the reference point is crossed (e.g. short-term risk of recruitment overfishing, loss of long-term yield, etc.)
 - c) When a buffer reference point is proposed in order to maintain a low probability that a stock, measured to be at the buffer reference point may actually be at or beyond the limit reference point, the Scientific Council should explain the assumptions made about the uncertainty with which the stock is measured, and also the level of 'low probability' that is used in the calculation.
 - d) Wherever possible, short and medium term consequences should be identified for various exploitation rates (including no fishing) in terms of yield, stability in yield from year to year, and the risk or probability of moving the stock beyond B_{lim} or B_{buf} . Whenever possible, this information should be cast in terms of risk assessments relating fishing mortality rates to the risks of falling below B_{lim} and B_{buf} , as well as of being above F_{lim} and F_{buf} , the risks of stock collapse and recruitment overfishing, as well as the risks of growth overfishing and the consequences in terms of both short and long term yields.
 - e) When providing risk estimates, it is very important that the **time horizon** be clearly spelled out. By way of consequence, risks should be expressed in timeframes of 5, 10 and 15 years (or more), or in terms of other appropriate year ranges depending on stock specific dynamics. Furthermore, in order to provide the Fisheries Commission with the information necessary to consider the balance between risks and yield levels, each harvesting strategy or risk scenario should include, for the selected year ranges, the risks and yields associated with various harvesting options in relation to B_{lim} (B_{buf}) and B_{target} , and F_{lim} (F_{buf}) and F_{target} .
7. The Fisheries Commission, with the concurrence of the Coastal State, requests that the Scientific Council review available information, including any Canadian assessment

documentation on the stock status, and provide advice on catch levels for the 2J3KL witch flounder resource for 2002 and 2003. Any information pertaining to the relative distribution of the resource within the stock area, as well as changes in this distribution over time should also be provided.

8. The Scientific Council is requested to review all available information from both research vessel surveys and commercial catches on the relative biomass and geographic distribution of the following unregulated species/stocks occurring within the NAFO Regulatory Area: monkfish (*Lophius americanus*), wolffishes (*Anarhichas lupus*, *A. minor*, *A. denticulatus*), thorny skate (*Amblyraja radiata*), black dogfish (*Centroscyllium fabricii*), eelpouts (*Lycodes spp.*), longfin hake (*Urophycis chesteri*), and orange roughy (*Hoplostethus atlanticus*).
9. The Scientific Council is requested to evaluate the distribution of the fishable biomass of the main commercial species of fish in relation to depth (in 100-m intervals). Separate values should be provided a) for fish above and below the length of 50% maturity and b) for fish above and below the current minimum landing size.
10. The Fisheries Commission also requests, with the concurrence of the Coastal State, that the Scientific Council evaluate the likely future medium-term development for Greenland halibut in 2+3KLMNO, Yellowtail flounder in 3LNO, American plaice in 3LNO (if possible) and cod in 3NO, under the following assumed constraints:
 - a) Closure of targeted Greenland halibut fishery in depths less than 200, 500 and 800 meters or any other depths considered appropriate. These cases, which will have to make a reasonable assumption on the redirection of effort so removed onto the remaining depth strata, should be compared with evaluation of current fishing practices.
 - b) Subject to the above, likely future medium-term consequences (5 to 10 years) for the yield, spawning biomass, exploitable biomass and recruitment, stating the relevant biological assumptions.
 - c) The scenarios should be explored for a range of fishing effort assumptions corresponding to:
 - i) Maintaining overall fishing effort at the same levels as estimated in the last year for which good information is available.
 - ii) Increases or decreases of +/- 30% in fishing effort from this value.
 - iii) Additional scenarios as considered appropriate by the scientific Council.In these scenarios, the Scientific Council should evaluate whether these fishing strategies provide adequate long-term protection to juvenile fish to allow maintenance of the spawning biomass at an appropriate level.
11. The Scientific Council is requested to review the distribution of juvenile American plaice and update the distribution of yellowtail flounder based on results from comprehensive research surveys. The Scientific Council is also requested to delineate further the areas of juvenile concentration in the Southeast Shoal area and its surroundings.
12. Regarding redfish in NAFO Division 1F, the Scientific Council is requested to review all available information on the distribution of this resource over time, as well as on the affinity of this stock to the pelagic redfish resource found in the ICES Sub-area XII, parts of SA Va and XIV or to the redfish found in NAFO Sub-areas 1-3.
13. With regard to shrimp in Divisions 3LNO, the Fisheries Commission, with the concurrence of the Coastal State, requests that the Scientific Council provide information on the geographical

distribution of this resource, as well as describe the relative and seasonal distribution inside and outside the NAFO Regulatory Area.

14. The Fisheries Commission requests the Scientific Council to provide information on the long-term effects of increasing mesh size from 130 mm to 145 mm in yield-per-recruit and stock spawning biomass-per recruit for Greenland halibut in 2+3KLMNO and in reducing by-catch of other species in that fishery. The Scientific Council is also requested to evaluate the medium term consequences in terms of yield and stock size of any such changes in mesh size.
15. The Fisheries Commission requests the Scientific Council to provide advice regarding the methodology for scientific research on fish stocks under moratoria.

**Annex 18. List of Decisions and Actions by the Fisheries Commission
(22nd Annual Meeting, 18-22 September 2000)**

Substantive Issue	Decision/Action (FC Doc. 00/21, Part I: item)
1. Precautionary Approach (management NAFO stocks)	Discussed: items 3.1-3.8 Decided to convene a group of technical experts in 2001, which will consider new recommendations to the Fisheries Commission.
2. Allocation of Fishing Rights	Discussed: items 3.13-3.14 No further decision/action was taken.
3. Management of NAFO shrimp stocks	Discussed: items 3.16-3.18 Decided to convene a special meeting of the Fisheries Commission 28-29 March 2001 in Copenhagen.
4. Chartering Operations	Adopted: amendment to regulations, item 3.20 and Annex 8 (FC Doc. 00/12)
5. Conservation and Enforcement Measures: (STACTIC Report) - Formats for hail/VMS system - Scientific requirements for observers - Incidental catch - Harmonization of port inspection reports - Overhaul of NAFO Conservation and Enforcement Measures	Discussed: items 3.22-3.28 Adopted: item 3.23 Adopted: item 3.24 Adopted: item 3.25 Adopted: item 3.26 Agreed: item 3.27
6. TAC's and Regulatory Measures for major stocks in the Regulatory Area: - Cod 2J3KL in the Regulatory Area - Cod 3M - Cod 3NO - Redfish 3M - Redfish 3LN - American plaice 3M - American plaice 3LNO - Yellowtail 3LNO - Witch 3NO - Witch 2J3KL (in the Reg. Area) - Capelin 3NO - Greenland halibut - Squid (<i>Illex</i>) - Shrimp in Div. 3L - Shrimp in Div. 3NO	Discussed/Adopted: items 4.1-4.30 no directed fishery no directed fishery no directed fishery 5,000 mt no directed fishery no directed fishery no directed fishery 13,000 mt no directed fishery no directed fishery no directed fishery 29,640 mt 34,000 mt 6,000 mt no directed fishery
7. Schedule I – Quota Table 2001	Adopted: item 4.28
8. Request to the Scientific Council for Scientific Advice on Management of Fish stocks in 2002	Adopted: item 4.29

PART II

Report of the Standing Committee on International Control (STACTIC)

**22nd Annual Meeting, 18-22 September 2000
Boston, Massachusetts, USA**

1. Opening of the Meeting

The Chairman, Jim Baird (Canada) opened the meeting at 1000 on 18 September 2000. Representatives from the following Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), Estonia, the European Union (EU), France (St. Pierre & Miquelon), Iceland, Japan, Latvia, Lithuania, Norway, Russia, Ukraine and the United States.

2. Appointment of Rapporteur

Jennifer Anderson (United States) was appointed Rapporteur.

3. Adoption of Agenda

The provisional agenda, as circulated, was adopted with additional items referred from the Fisheries Commission (Annex 1).

4. Review of Annual Returns of Infringements

The Chairman commented that overall, improvements in reporting of the disposition of apparent infringements, that was noted for 1998 has continued in 1999. The representative from Canada agreed but pointed out that there were still several Contracting Parties that had not provided reports as noted in NAFO/FC Doc. 00/6. The representative from Canada asked that those Contracting Parties try to provide reports prior to the adjournment of the NAFO meetings on September 22. The representative from the European Union advised that for instances where its data were missing the cases were still pending, moreover, the European Union indicated that as data becomes available the reports will be provided to NAFO.

The representative from Canada pointed out that according to the Executive Secretary's report the outstanding reports on apparent infringements are from 1999 only. This is an improvement as in the past reports were outstanding for several years. The Contracting Parties were congratulated for addressing this long outstanding issue.

5. Review of Surveillance and Inspection Reports

The representatives from the European Union and Canada presented information (STACTIC Working Papers 00/25 and 00/26) on surveillance activities conducted during 1999.

6. Review of the Operation of the Hail System

The Chairman referred the Contracting Parties to STACTIC Working Paper 00/14 (Overview of the NEAFC Scheme re Automated Communications, 2000), STACTIC Working Paper 00/18 (Review of Operation of the Hail System, 2000) and STACTIC Working Paper 00/19 (Working Paper presented by Denmark (in respect of the Faroe Islands and Greenland) concerning

confidentiality towards information collected through automated hail reports and satellite tracking system.

The representative from Japan asked the Secretariat if NAFO would accept file transfers over X.25 connection. The Secretariat explained that the X.25 connection is being phased out in Canada and replaced by the Internet system. The Internet system can accept data from all mediums (e-mail, fax, etc.).

The representative from Denmark presented STACTIC Working Paper 00/19. He noted that Contracting Parties must have satellite tracking systems in place by January 1, 2001. When Vessel Monitoring Systems (VMS) are implemented, confidentiality and security issues must be addressed.

The representative from Denmark noted that suitable software is available for a fully functional VMS system and could be operational at NAFO at a cost of C\$200,000. The representative from Canada noted that the cost of implementing data transmission from the requirements of 100% satellite tracking is considerably less than that of a VMS system.

It was agreed at the June 2000 STACTIC Technical Working Group on Communications that an automated hail system was necessary. There were different views on the mode of data transmission.

The Chairman asked the Contracting Parties to form an ad-hoc Working Group to review and compare the NAFO and NEAFC systems and present a report to STACTIC. This report was adopted and is included in Annex 2. Additionally, proposed format changes to the current NAFO hail system found in Working Paper 00/32 were tabled.

7(a). Observer Program and Satellite Tracking; Scientific Requirements/Observer Manual

The Contracting Parties reviewed STACTIC Working Paper 00/13 (Provisional Account of Observer Reports received at the NAFO Secretariat). Contracting Parties with outstanding 1999 observer reports agreed to provide them as soon as possible. Contracting Parties should ensure that observer reports are transmitted to the Secretariat as required as the absence of such reports is a breach of the observer program. This could be interpreted as a failure of some Contracting Parties to deploy observers.

STACTIC agreed that SCS Doc. 00/23 (Harmonized NAFO Observer Program Data System Proposal), that was presented at the June 2000 STACTIC Intersessional, was the most appropriate listing of scientific requirements for observers. This paper was prepared after extensive discussion at the Scientific Council, in response to a request from STACTIC to define the scientific requirements for the observer program in a harmonized format. The Scientific Council, represented by Ralph Mayo (US) and Dave Kulka (Canada), explained that the SCS Document 00/23 included information found in the Working Paper 00/10 (EU-observer manual).

The European Union clarified that its Observer Manual proposal (STACTIC WP 00/10) was actually a set of forms to be used by the observer to complete their functions.

There was a discussion of previous versions of a potential Observer Manual. It was agreed that the Canadian Observer Manual, submitted to STACTIC at the June 2000 Intersessional, would be a good starting point for development of a NAFO Observer Manual.

7(b). Amendments to Existing Programs

At the STACTIC June 2000 Intersessional meeting, it was agreed that Contracting Parties would provide updated information on how they ensure impartiality and independence for observers. The representatives from Denmark and Japan summarized STACTIC Working Papers 00/20 and 00/27, respectively on this topic. The Chairman noted that the information provided was in addition to information previously tabled at STACTIC (STACTIC W.P. 98/03).

8(a). Discussion of Other Conservation and Enforcement Measures; Examination of Possible Improvements in the Procedures for Gathering Discard Information

Canada and the European Union reported marginal improvement in the recording of discards in logbooks during 2000. It was agreed by STACTIC that further improvements on the recording of discards are required.

8(b). Review of the Fishing Strategies to be Employed to Avoid Excessive Incidental Catches

The representative of Canada summarized STACTIC Working Paper 00/23 (Proposal to Amend Conservation and Enforcement Measures Regarding Incidental Catch Limits).

After some discussion a revised proposal was accepted by all but one Contracting Party and is included as Annex 3. The representative from Japan could not support a haul by haul assessment and suggested a longer fishing period was more appropriate (Example 48 hours).

8(c). Possible Amendments to the Conservation and Enforcement Measures Regarding Juvenile Fish

The representative from Canada summarized STACTIC Working Paper 00/24 Revision 2 (Protection of Pre-recruits in Nursery Areas).

After some discussion, Canada's proposal was tabled with some support. However, dissenting views were expressed by the representatives from Japan and the European Union. The representative from Japan suggested that the current minimum mesh size requirements offer sufficient protection for juvenile fish. The representative from the European Union voiced concern that by closing an area, there would be no collection of data inside the area, that the closure could be difficult to enforce and questioned if there were alternate measures that would produce the same result. The representative from Canada responded that scientific cruises could take place inside the closed area and that 100% observer coverage and 100% satellite tracking would ensure enforceability of the closure. He also pointed out that STACTIC had been explicitly tasked with developing recommendations for protection of juveniles. He noted that Canada had tabled this proposal as well as two other proposals, and that no other Contracting Party had made any proposals.

No final agreement between the Contracting Parties was reached on this proposal.

The representative from Canada summarized STACTIC Working Paper 00/22 (Proposal to amend the NAFO Conservation and Enforcement Measures Regarding the Protection of Juvenile Groundfish). The Canadian proposal recommended an increase in minimum mesh size for groundfish and an implementation of a depth restriction for fishing Greenland halibut.

It was noted that the mesh size increase proposal was also tabled at the June Intersessional Meeting. There was no additional information provided from the Scientific Council on this issue during the course of the annual meeting. Several Contracting Parties indicated that they could not support this proposal.

There appeared to be some support for the proposal on depth restriction for Greenland halibut. However, one Contracting Party felt that further data from the Scientific Council was necessary in order to make a decision. Another Contracting Party indicated that additional consultation within their delegation was required.

8(d). Possible Harmonization of Port Inspection Reports

The representative from the European Union summarized STACTIC Working Paper 00/31 (Proposal to Amend the NAFO Conservation and Enforcement Measures Regarding Part VII – Port Inspections) and noted that it was the same working paper presented at the STACTIC June 2000 Intersessional meeting. Several Contracting Parties supported the proposal in principle but raised concerns regarding the requirement to transmit the report to the flag state within 7 working days. The representative from Canada also noted that due to the large volume of port inspections Canada performs and their inspection procedures, it would be difficult for Canada to complete the proposed NAFO port inspection report.

Based on comments from the Contracting Parties, the representative from the European Union presented a revision of Working Paper 00/31. The revised proposal would permit Contracting Parties to transmit the results of the port inspection to the flag state within 14 days, provided the flag state requested the report. It was noted that standing requests would be accepted. The revision also defined a list of mandatory information required for port inspection and also indicated that attached forms were optional.

The Contracting Parties agreed that the revised wording in the proposal was acceptable. However, the representative from Canada noted that it would support providing all the information requested by part 1 of the proposal, but could not use the data format suggested by the European Union. The representative from Denmark noted that it could not accept part C of the proposal before formal agreement of coding specifications in the North Atlantic format.

In conclusion the proposal was accepted and is included in Annex 4. STACTIC recommends the adoption of this proposal by the Fisheries Commission.

9. Discussion of Possible Amendments to the Conservation and Enforcement Measures

The Fisheries Commission asked STACTIC to consider if it was necessary to overhaul the Conservation and Enforcement Measures and if so, what process would be necessary for the overhaul.

The Contracting Parties agreed that an overhaul of the Conservation and Enforcement Measures was necessary in order to: develop a cohesive document to reflect changes that have occurred since the measure were originally drafted; to identify roles and responsibilities of vessel masters, contracting parties, inspectors and the Secretariat; to take account of advancements in other international fisheries agreements. However, the Contracting Parties were reluctant to recommend a specific structure and course of action and should seek guidance from the Fisheries Commission.

10. Time and Place of Next Meeting

The next meeting of STACTIC (VMS/confidentiality, Juveniles/by-catch) will be held in London (at NEAFC) from 26-28 June 2001.

11(a). Other Matters, Chartering Arrangements

FC Working Papers 00/6 (United States Draft Working Paper on Charters) and 00/7 (Polish Position on Charters) and STACTIC Working Paper 00/28 (Proposal to Amend Conservation and Enforcement Measures by the Ukraine) were reviewed.

Several Contracting Parties commented that the Conservation and Enforcement Measures require further clarification of charter arrangements. The Chairman suggested that STACTIC should only consider clarifying the Conservation and Enforcement Measures regarding charter arrangements and it was agreed by the Contracting Parties that the proposal by the United States to extend the pilot project and drop the mail vote provision should be considered by the Fisheries Commission.

The representative from France (in respect of St. Pierre and Miquelon) tabled STACTIC Working Paper 00/33 to provide clarification of the wording in the Conservation and Enforcement Measures respecting chartering. There was general support from the Contracting Parties for the proposal, however several Contracting Parties suggested revisions to the document's wording. The Contracting Parties agreed on the revised Working Paper 00/33.

If the Fisheries Commission decides to extend the pilot project on charters STACTIC recommends the proposal outlined in Annex 5 be adopted by the Fisheries Commission.

11(b). Increase of Inspection Presence in the NAFO Regulatory Area

The representative from the European Union summarized STACTIC Working Paper 00/29 (Proposal to Amend Conservation and Enforcement Measures with a view to Introducing New Rules Concerning Obligatory Inspection Presence in the Regulatory Area). The European Union's paper sought to share the burden connected with providing an adequate inspection presence in the NAFO Regulatory Area.

With the exception of Iceland, the Chairman noted there was general support for the proposal by the Contracting Parties. The representative from the United States suggested language to help clarify some points in the European Union's proposal. The European Union presented Working Paper 00/29 Revised. There was support for the amended proposal (Annex 6) by all but one Contracting Party. Iceland did not support this proposal and indicated in their opinion there was sufficient inspection presence in the NAFO Regulatory Area.

11(c). Integration of Vessel Monitoring System

The representative from the European Union presented STACTIC Working Paper 00/30 (Proposal to Amend the NAFO Conservation and Enforcement Measures with a view to Introducing Satellite Based Vessel Monitoring and Related Measures).

Some Contracting Parties noted that although they support enhancements to satellite tracking, they believe the current hail system must remain in place for a transition period.

The European Union presented a revised Working Paper 00/30 and proposed a 2-year transition period. The revision also proposed an implementation date of July 1, 2001 for VMS. It must be re-iterated that 100% satellite tracking is still required by January 1, 2001.

The representatives from Denmark (in respect of Faroe Islands and Greenland) and Japan stressed concern over the confidentiality of vessel reports. The representative from Canada noted several concerns including their desire to see polling increased every 4 hours instead of the European Union's proposed 6 hour polling intervals. Canada also noted concern that there was no provision in the proposal making it an apparent infringement for a master to interfere with the VMS.

The Chairman noted that there was agreement on this proposal in principle however, there was no conclusion by STACTIC. The issues of confidentiality and the use of regulatory or convention area were not resolved. The Chairman also noted that the Contracting Parties proposed an allocation of C\$200,000 for the automatic hail and satellite tracking system.

12. Adoption of Report

The report was adopted by STACTIC with the following recommendations:

STACTIC recommends to the Fisheries Commission that:

1. A proposal to amend the NAFO Conservation and Enforcement Measures Regarding Part VII - Port Inspections (STACTIC W.P. 00/31-Revision 2) be adopted.
2. Formats for the Electronic Transmission of NAFO Hails from Contracting Parties to the NAFO Secretariat be adopted. (STACTIC W.P. 00/32)

13. Adjournment

STACTIC adjourned on 22 September 2000 at 1030 hrs.

Annex 1. Agenda

1. Opening by the Acting Chairman, J. Baird (Canada)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Review of Annual Returns of Infringements
 - a) review of disposition of outstanding infringements by Contracting Parties
5. Review of Surveillance and Inspection Reports
6. Review of Operation of the Hail System
7. Observer Program and Satellite Tracking
 - a) Scientific Requirements/Observer Manual
 - b) Amendments to existing Programs
8. Discussion of Other Conservation and Enforcement Measures:
 - a) examination of possible improvements in the procedures for gathering discards information;
 - b) review of the fishing strategies to be employed to avoid excessive incidental catches;
 - c) possible amendments to the Conservation and Enforcement Measures regarding juvenile fish;
 - d) possible harmonization of port inspection reports.
9. Discussion of possible amendments to the Conservation and Enforcement Measures (request from the Fisheries Commission)
10. Time and Place of the Next Meeting
11. Other Matters
 - a) Chartering Arrangements
 - b) Increase of Inspection Presence in the NAFO Regulatory Area
 - c) Integration of Vessel Monitoring System
12. Adoption of Report
13. Adjournment

Annex 2. Report of STACTIC *Ad Hoc* Working Group on Comparison of the NAFO Hail System with the NEAFC Communication System

1. Opening of the Meeting

The Chairman, Mr. M. T. Nedergaard (Denmark in respect of Faroe Islands and Greenland), opened the meeting on 18 September 2000. The following Contracting Parties were present: Canada, Denmark (in respect of Faroe Islands and Greenland), European Union, Iceland, Russia and United States.

2. Comparisons of NAFO Hails and NEAFC Scheme

The differences and similarities as found between the NAFO Hail Reports and the NEAFC Scheme are presented in Appendix 1. Amendments to the NEAFC and NAFO scheme are considered necessary in order to create the necessary compatibility between the two systems. Main discrepancies identified between NAFO and NEAFC message formats were as follows. When transposing the NEAFC message format with the NAFO hail system the following amendments should be addressed:

1. "FR" Contracting Party sending the message, to be added
2. "DJ" NAFO Division, to be added
3. "MA" Name of Master to be added
4. "TS" Target species (was previously DS directed species)
5. Making sequence number optional
6. Vessel Name should be mandatory
7. External Registration number should be mandatory
8. Days fished should be added as optional
9. Transhipped To should be added as optional
10. Transhipped From should be added as optional

3. Hail-VMS Connectivity

Pursuant to the introduction of VMS system 1 Jan 2001 the group foresaw that the automatic hail system should take account of the VMS requirement because both elements are technically interconnected. To this end it was noted that the cost of the hail system may have to be increased to take account of the VMS requirements.

4. Aspects relating to Inspection and Surveillance

Both the Hail and VMS systems aim at providing fishery patrol vessels with information regarding the location of fishing vessels operating in the area. NAFO and NEAFC handle this information in different ways.

Under the current NAFO hail system, the NAFO secretariat forward the hail messages to the Contracting Parties having notified inspection presence in the area, throughout the year, irrespective of whether the patrol vessel is active or not.

Under the NEAFC system, information on active fishing vessels is sent only to inspection vessels operating in the RA. Communication of the list of active vessels based on reception of the surveillance entry (SEN) and exit (SEX) messages which are sent by inspection craft (vessels, airplane...) when they enter or exit the RA. Lists of fishing vessels operating in the RA are elaborated by the Secretariat, based on position messages received from fishing vessels. These lists are sent daily only to the active patrol vessels i.e. having sent SEN message.

NAFO

NEAFC

Information regarding inspection activity

Start/end of surveillance	Notification of date and time to the Secretary. No format required. No message required for air surveillance	SEN and SEX message are sent to the Secretary. Messages include codified information on date, time, name, position, inspectors etc.
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Information regarding activity of fishing vessels

Nature of the information	Copy of the hail messages	List of active fishing vessels (i.e. having sent ENT message) and list of last POS report sent by those vessels.
Preparation of list of active vessels	Handled by the CP's inspection services, not handled by the secretariat	Handled by the Secretariat. Automated procedure has been set up.
Distribution	Sent to CP (inspection department) with a notified inspection presence.	Sent to the fishery patrol vessels which have notified their SEN message.
Frequency	Throughout the year	Daily
Security and confidentiality	Kept by inspection services (no specific confidentiality requirements)	Subject to confidentiality requirements, data to be destroyed after specified delay

It should be stressed that information on position of fishing vessels must be regarded as confidential under the NEAFC system and thus is subject to specific data security and confidentiality requirements. A VMS system presupposes the existence of such data security and confidentiality requirements.

Appendix 1**"ENTRY" report**

NAFO (data element)	NEAFC (data element)	Code	Mandatory/ Optional NAFO	Mandatory/ Optional NEAFC	Remarks:
Start record	Start record	SR	M	M	System detail; indicates start of record
FROM		FR	M	M	Address of transmitting Party
Address	Address	AD	M	M	Message detail; destination "XNS" for NAFO
Sequence Number	Sequence Number	SQ	M	M	Message detail; serial number in current year
Type of Message	Type of Message	TM	M	M	Message detail; message type, "ENT" as Entry report
Radio call sign	Radio call sign	RC	M	M	Vessel registration detail; international radio call sign of the vessel
	Trip Number	TN	O	O	Activity detail; fishing trip serial number in current year
Vessel Name	Vessel Name	NA	M	O	Vessel registration detail; name of the vessel
	Contracting Party Internal Reference Number	IR	O	O	Vessel registration detail. Unique Contracting Party vessel number as ISO-3 flag state code followed by number
External Registration Number	External Registration Number	XR	M	O	Vessel registration detail; the side number of the vessel.
Latitude	Latitude	LA	M	M	Activity detail; position at time of transmission
Longitude	Longitude	LO	M	M	Activity detail; position at time of transmission

DIVISION		DI	M		Division into which the vessel is about to enter
Quantity on board	Quantity on board	HO (Code used by NEAFC - OB			Activity detail; quantity by species on board, in pairs as needed.
Species live weight	Species live weight		M M	M M	FAO species code Live weight in kilograms, rounded to the nearest 100 kilograms
TARGET SPECIES		DS ¹ Proposed TS	M		FAO species code
MASTERS NAME		MA	M		Name of the master
Date	Date	DA	M	M	Message detail; date of transmission
Time	Time	TI	M	M	Message detail; time of transmission
End of record	End of record	ER	M	M	System detail; indicates end of the record

¹ Under NEAFC Scheme DS means prohibited species

"EXIT" report

NAFO (Data Element)	NEAFC (Data Element)	Code	Mandatory/ Optional NAFO	Mandatory/ Optional NEAFC	Remarks:
Start record	Start record	SR	M	M	System detail; indicates start of record
FROM		FR	M	M	Address of transmitting Party
Address	Address	AD	M	M	Message detail; destination "XNS" for NAFO
Sequence Number	Sequence Number	SQ	M	M	Message detail; message serial number in current year
Type of Message	Type of Message	TM	M	M	Message detail; "EXI" as Exit report
Radio call sign	Radio call sign	RC	M	M	Vessel registration detail; international radio call sign of the vessel
	Trip Number	TN	O	O	Activity detail; fishing trip serial number in current year
Vessel Name	Vessel Name	NA	M	O	Vessel registration detail; name of the vessel
Contracting Party Internal Reference Number	Contracting Party Internal Reference Number	IR	O	O	Vessel registration detail. Unique Contracting Party vessel number as ISO-3 flag state code followed by number
External Registration Number	External Registration Number	XR	M	O	Vessel registration detail; the side number of the vessel
Latitude	Latitude	LA	M	M	Activity detail; position at time of transmission

Longitude	Longitude	LO	M	M	Activity detail; position at time of transmission
DIVISION		DI	M		Division from which the vessel is about to leave
CATCH	Weekly Catch	CA			Activity detail; Cumulative catch retained on board by species, since commencement of fishing in the R.A
Species live weight	Species live weight		M M	M M	FAO species code Live weight in kilograms, rounded to the nearest 100 kilograms
	Days Fished	DF	O	M	Activity detail; number of fishing days in the Regulatory Area either since commencement of fishing or last "Catch" report
MASTERS NAME		MA	M		Name of the master
Date	Date	DA	M	M	Message detail; date of transmission
Time	Time	TI	M	M	Message detail; time of transmission
End of record	End of record	ER	M	M	System detail; indicates end of the record

"TRANSHIPMENT" report

NAFO (Data Element)	NEAFC (Data Element)	Code	Mandatory/ Optional NAFO	Mandatory/ Optional NEAFC	Remarks
Start record	Start record	SR	M	M	System detail; indicates start of record
FROM		FR	M	M	Address of transmitting Party
Address	Address	AD	M	M	Message detail; destination "XNS" for NAFO
Sequence Number	Sequence Number	SQ	M	M	Message detail; message serial number in current year
Type of Message	Type of Message	TM	M	M	Message detail; message type, "TRA" as Transshipment report
Radio call sign	Radio call sign	RC	M	M	Vessel registration detail; international radio call sign of the vessel
	Trip Number	TN	O	O	Activity detail; fishing trip serial number in current year
Vessel Name	Vessel Name	NA	M	O	Vessel registration detail; name of the vessel
	Contracting Party Internal Reference Number	IR	O	O	Vessel registration detail. Unique Contracting Party vessel number as ISO-3 flag state code followed by number
External Registration Number	External Registration Number	XR	M	O	Vessel registration detail; the side number of the vessel
Latitude	Latitude	LA	M	M	Activity detail; position at time of transshipment
Longitude	Longitude	LO	M	M	Activity detail; position at time of transshipment
Quantity on-loaded or off-loaded	Quantity on-loaded or off-loaded	KG			Quantity by species on-loaded or off-loaded in the R.A., in pairs as needed.
Species	Species		M	M	FAO species code

live weight	live weight		M	M	Live weight in kilograms, rounded to the nearest 100 kilograms
	Transshipped To	TT	<i>O</i>	M ¹	Vessel registration detail; International radio call sign of the receiving vessel
	Transshipped From	TF	<i>O</i>	M ¹	Vessel registration detail; International radio call sign of the donor vessel
MASTERS NAME		<i>MA</i>	<i>M</i>		Name of the master
Date	Date	DA	M	M	Message detail; date of transmission
Time	Time	TI	M	M	Message detail; time of transmission
End of record	End of record	ER	M	M	System detail; indicates end of the record

¹ Whichever is appropriate.

"POSITION" "MOVE" "TRANSZONAL" report

NAFO (Data Element)	NEAFC (Data Element)	Code	Mandatory/ Optional NAFO	Mandatory/ Optional NEAFC	Remarks:
Start record	Start record	SR	M	M	System detail; indicates start of record
FROM		FR	M	M	Address of transmitting Party
Address	Address	AD	M	M	Message detail; destination "XNS" for NAFO
Sequence Number	Sequence Number	SQ	M	M	Message detail; message serial number in current year
Type of Message	Type of Message	TM	M	M	Message detail; message type, "POS" as Position report/message, "MOV" (as prescribed in Part II-Annex I, Para 1.2 Hail System message format), "ZON" (as prescribed in Part II-Annex I, Para 1.3 Hail System message format), to be communicated by VMS, or other means by vessels with a defective satellite tracking device
Radio call sign	Radio call sign	RC	M	M	Vessel registration detail; international radio call sign of the vessel
	Trip Number	TN	O	O	Activity detail; fishing trip serial number in current year
Vessel Name	Vessel Name	NA	M	O	Vessel registration detail; name of the vessel
	Contracting Party Internal Reference Number	IR	O	O	Vessel registration detail. Unique Contracting Party vessel number as ISO-3 flag state

					code followed by number
External Registration Number	External Registration Number	XR	M	O	Vessel registration detail; the side number of the vessel
Latitude	Latitude	LA	M	M	Activity detail; position at time of transmission
Longitude	Longitude	LO	M	M	Activity detail; position at time of transmission
DIVISION		DI	M		Division into which the vessel is about to enter
MASTERS NAME		MA	M		Name of the master
TARGET SPECIES		DS ¹ Proposed TS	M		FAO species code
Date	Date	DA	M	M	Message detail; date of transmission
Time	Time	TI	M	M	Message detail; time of transmission
End of record	End of record	ER	M	M	System detail; indicates end of the record

¹ Under NEAFC Scheme DS means prohibited species

DATA EXCHANGE FORMAT AND PROTOCOLS

A. Data transmission format

Each data transmission is structured as follows:

- double slash (“//”) and the characters “SR” indicate the start of a message;
- a double slash (“//”) and field code indicate the start of a data element;
- a single slash (“/”) separates the field code and the data;
- pairs of data are separated by space;
- the characters “ER” and a double slash (“//”) indicate the end of a record.

B. Data exchange protocols NEAFC

Authorised data exchange protocols for electronic transmission of reports and messages between Contracting Parties and the Secretariat is X25 or X400

C. Data exchange protocols NAFO

Data exchange protocols for electronic transmission of reports and messages between Contracting Parties and the Secretariat is focusing on the relative desirability of X-25 based system or of internet SMTP.

D. Format for electronic exchange of fisheries monitoring, inspection and surveillance information
(The North Atlantic Format)

Category	Data Element	Field code	Type	Contents	Definitions
System Details	Start Record	SR			Indicates start of the record
	End Record	ER			Indicates end of the record
	Return Status	RS	Char*3	Codes	ACK / NAC = Acknowledged / Not Acknowledged
	Return Error Number	RE	Num*3	001 - 999	Codes indicating errors as received at operation center
Message Details	Address destination	AD	Char*3	ISO-3166 Address	Address of the party receiving the message, "XNE" for NEAFC, "XNS" for NAFO
	From	FR	Char*3	ISO-3166 Address	Address of the transmitting party
	Type of Message	TM	Char*3	Code	First three letters of the message type
	Sequence Number	SQ	Num*6	NNNNNN	Message serial number
	Record Number	RN	Num*6	NNNNNN	Serial number of the record in the relevant year
	Record Date	RD	Num*8	YYYYMMDD	Year, month and date
	Record Time	RT	Num*4	HHMM	Hours and minutes in UTC
	Date	DA	Num*8	YYYYMMDD	Year, month and date
	Time	TI	Num*4	HHMM	Hours and minutes in UTC

Category	Data Element	Field code	Type	Contents	Definitions
Vessel Registration Details	Radio Call Sign	RC	Char*7	IRCS Code	International Radio Call Sign of the vessel
	Vessel name	NA	Char*30	ISO 8859.1	Name of the vessel
	Ext. registration	XR	Char*14	ISO 8859.1	Side Number of the vessel
	Flag State	FS	Char*3	ISO-3166	State of registration
	Contracting Party internal reference number	IR	Char*3 Num*9	ISO-3166 +max. 9N	Unique vessel number attributed by the flag State pursuant to registration
	Port Name	PO	Char*20	ISO 8859.1	Port of registration of the vessel/homeport
	Vessel Owner	VO	Char*60	ISO 8859.1	Name and address of the vessel owner
	Vessel Charterer	VC	Char*60	ISO 8859.1	Name and address of the vessel charterer
	Vessel capacity unit	VT	Char*2 Num*4	"OC"/"LC" Tonnage	According to: "OC" OSLO 1947 convention /"LC" LONDON ICTM-69 Capacity of the vessel in metric tons
Vessel Characteristics Details	Vessel Power unit	VP	Char*2 Num*5	ISO 8859.1 0-99999	Indication of which measurement unit applies "HP" or "KW" Total main engine power
	Vessel Length	VL	Char*2 Num*3	"OA"/"PP" Length in meters	unit "OA" length overall, "PP" length between perpendiculars Total length of the vessel in meters, rounded to the nearest whole meter
	Vessel Type	TP	Char*3	Code	As listed in Annex XII.C
	Fishing Gear	GE	Char*3	FAO Code	International Standard Statistical Classification of the Fishing Gear as (Annex XIII.A)

Category	Data Element	Field code	Type	Contents	Definitions	
Licence Details	Date of issuing	IS	Num*8	YYYYMMDD	Date of Authorisation to fish for one or more regulated species	
	Regulated Resources	RR	Char*3	FAO Species Code	FAO Species Code for the regulated resource	
	Start Date	SD	Num*8	YYYYMMDD	Date on which the validity of the authorisation/suspension commences	
	End Date	ED	Num*8	YYYYMMDD	Expiry date of the validity of the authorisation to fish for the regulated resource	
	Limited Authorisation	LU	Char*1	ISO 8859.1	"Y" or "N" to indicate whether a limited authorisation is valid or not	
	Relevant Area	RA	Char*6	ICES Code	Area(s) prohibited	
Activity Details	Directed Species	DS	Char*3	FAO Species Code	Prohibited species	
	Latitude	LA	Char*5	S/ND/DM (WGS-84)	e.g. //LA/N6235 = 62°35' North	
	Longitude	LO	Char*6	E/W/DD/DM (WGS-84)	e.g. //LO/W02134 = 21°34' West	
	Trip Number	TN	Num*3	001-999	Number of the fishing trip in current year	
	Days Fished	DF	Num*3	1 - 365	Number of days the vessel spent in the Regulatory Area during the trip	
	Weekly catch	CA			the cumulative catch retained on board by species, in kilograms live weight rounded to the nearest 100 kg since the vessel entered the R.A. or, in the event a previous has been transmitted during the same trip, since the last "Catch" report, in pairs as needed.	
	Species		Char*3	FAO species code		
	Quantity		Num*7	0-9999999		
	Quantity onboard	OB				Quantity onboard the vessel by species in kilograms live weight rounded to the nearest 100 kg, in pairs as needed
		Species		Char*3	FAO Codes	
	Quantity		Num*7	0-9999999		

Category	Data Element	Field code	Type	Contents	Definitions
Reporting Details	Transferred species	KG			Information concerning the quantities transferred between vessels by species in kilograms live weight rounded to the nearest 100 kg, whilst operating in the R.A.
	Species Quantity		Char*3 Num*7	FAO Codes in pairs 0-9999999	
	Transhipped From	TF	Char*7	IRCS Code	International Radio Call Sign of the donor vessel
	Transhipped To	TT	Char*7	IRCS Code	International Radio Call Sign of the receiving vessel
	Catch	CA			Aggregate catch, landed or transhipped, taken by fishing vessels of the Contracting Party, by species as listed in tonnes live weight, rounded to tonnes, in pairs as needed
	Species Quantity		Char*3 Num*7	FAO species code 0-9999999	
	Cumulative catch	CC			Cumulative aggregate catch, landed or transhipped, taken by fishing vessels of the Contracting Party, by species as listed in tonnes live weight, rounded to tonnes, in pairs as needed
	Species Quantity		Char*3 Num*7	FAO species code 0-9999999	
	Relevant Area	RA	Char*6	ICES/NAFO Codes	Code for the relevant fishing area
	Zone	ZO	Char*3	ISO-3166	The code for a Contracting Party's zone
Year and month	YM	Num*6	YYYYMM	The relevant year and month of reporting	

Category	Data Element	Field code	Type	Contents	Definitions
Surveillance/Observer Details	Latitude	LA	Char*5	S/NDDMM (WGS-84)	e.g. //LA/N6235 = 62°35' North
	Longitude	LO	Char*6	E/WDDDDMM (WGS-84)	e.g. //LO/W02134 = 21°34' West
	Speed	SP	Num*3	Knots * 10	e.g. //SP/105 = 10,5 knots
	Course	CO	Num*3	360° degree scale	e.g. //CO/270 = 270°
	Activity	AC	Char*3	Activity code	First 3 characters of the activity (see Annex XII.C.2)
	Means of Surveillance	MI	Char*3	NEAFC Code	"VES" = surface vessel, "AIR" = fixed wing aircraft, "HEL" = helicopter
	Assigned Inspector CP ID	AI	Char*7	NEAFC Code	ISO-3160 code for the Contracting Party followed by 4 digit number repeated as needed
	Observation Serial. No.	OS	Num*3	0 - 999	Serial number of the observation during relevant patrol in the Regulatory Area
	Date of sighting	DA	Num*8	YYYYMMDD	Date when the vessel is sighted
	Time of sighting	TI	Num*4	HHMM	Time in UTC when the vessel is sighted
	Object Identification	OI	Char*7	IRCS Code	International Radio Call Sign of the sighted vessel
	Photograph	PH	Char*1	ISO 8859.1	Was there a photograph taken, "Y" or "N"
	Free Text string	MS	Char*255	ISO 8859.1	Free text area

E. Additional Codes to be included in "The North Atlantic Format"

Data Element	Field code	Type	Contents	Definitions
Directed Species	TS	Char*3	FAO Codes	Directed species (target species)
Masters Name	MA	Char*30		Name of master of fishing vessel
Type of Message	TM	Char*3		Indication of message code: MOV, ZON
DIVISION	DI	Char*2		Division into which the vessel is about to enter
FROM	FR	Char*3	ISO - 3	The code for a Contracting Party

F. Structure of reports and messages required by NEAFC

Where appropriate, each Contracting Party retransmits to the NEAFC Secretariat data received from its vessels, in accordance with Articles 4, 6 and 10; subject to the following amendments:

- the address (AD) shall be replaced by the address of the Secretariat (XNE)
- the data elements "record date" (RD), "record time" (RT), "record number" (RN) and "from" (FR) shall be inserted

Return messages

Return message format as defined by NEAFC is:

Data Element	Field Code	Mandatory / Optional	Remarks
Start Record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination Contracting Party sending the report
From	FR	M	Message detail; "XNE" for NEAFC
Type of message	TM	M	Message detail; message type "RET" for return message
Return Status	RS	M	Reporting detail; code showing whether the message is acknowledged or not (ACK or NAK)
Return error number	RE	O	Reporting detail; number showing the type of error: message unreadable (101), inconsistent data (102), sequence error (103)
Record number	RN	M	Reporting detail; record number of the message which is received
Date	DA	M	Message detail; date of transmission
Time	TI	M	Message detail; time of transmission
End of Record	ER	M	System detail; indicates end of the record

**Annex 3. Proposal to amend the NAFO Conservation and Enforcement Measures
Regarding Incidental Catch Limits
(STACTIC Working Paper 00/23 - Rev. 3)**

Proposal:

Amend the NAFO Conservation and Enforcement Measures to add the following paragraph (f) to Part I A 5 Incidental Catch Limits

- (f) To avoid excessive incidental catch the following fishing strategy shall be implemented;
- (i) If the amount of incidental catch of any one species listed in Schedule I for which no quota has been allocated in that division to that Contracting Party, in any one haul exceeds 10% of the total catch of the other species in that haul, the vessel shall immediately change fishing area to reduce the incidental catch. The vessel must move a minimum 5 nautical miles from any position of the previous haul.
 - (ii) In cases where a ban on fishing is in force for any particular species or an "Others" quota for any species has been fully utilized, and the amount of incidental catch of this species in any one haul exceeds 5% of the total catch of other species in that haul, the vessel shall immediately change fishing area to reduce the incidental catch. The vessel must move a minimum 5 nautical miles from any position of the previous haul.
 - (iii) If any future haul exceeds the permitted incidental catch limit outlined in (i) or (ii) above, whichever is applicable, the vessel shall again immediately change fishing area to reduce the incidental catch. The vessel must move a minimum 5 nautical miles from any position of the previous hauls and shall not return to the area for at least 48 hours.

**Annex 4. Proposal to Amend the NAFO Conservation and Enforcement
Measures regarding Part VII - Port Inspections**
(STACTIC W.P. 00/31 - Rev. 2)

Background

Part VII of the NAFO Conservation and Enforcement Measures requires Contracting Parties to ensure that port inspection take place on any occasion a fishing vessel having been fishing subject to NAFO Conservation and Enforcement Measures is discharging catch. According to the current measures, the results from port inspection shall be provided to the NAFO secretariat and shall be communicated to any other Contracting Party on request.

The content of port inspection should include verification of catches, of logbook records, mesh size and of inspection at sea. Sea inspection reports are sent to the Contracting Party without delay.

Communication of port inspection is sometimes delayed when vessels land in ports outside the Flag Contracting Party. In order to contribute to enhanced transparency and a better efficiency of the implementation of the NAFO Conservation and Enforcement Measures, it is proposed that the results of port inspection are communicated to the Flag Contracting Party without delay.

Furthermore, a standard report form would help to harmonise record of results of port inspection.

Proposal

1. Amend Part VII-I of NAFO Conservation and Enforcement Measures to read :

Part VII-I

- “(v) Results of port inspection shall include at least the information listed in Part VII – Schedule I -B.
 - (vi) The authorities of the port State shall, on request, transmit the results of the port inspection to the flag State of the vessel, within 14 working days from the date on which the inspection has been completed.
 - (vii) The copy of the results of the port inspection shall be transmitted to the NAFO Executive Secretary within 30 days as from the date on which the landing has been completed and shall be provided to other Contracting Party on request.”
 - (viii) Where possible, Contracting Parties should transmit the results of the port inspection as required in (v) to (vii) in the format defined in Part VII-Schedule I-Part A.
2. Insert Part VII-Schedule I : “port inspection report” (see annex)

Part VII-Schedule I

B. Information to be inserted in the report

1. INSPECTION REFERENCES

Data Element	M /O	Category ; Definition
Inspection authority	M	Inspection detail : Name of the inspection authority or of the alternate body nominated by the authority
Date	M	Inspection detail : Date the report is compiled
Port of inspection	M	Vessel activity detail : Place where the vessel is inspected : port followed by ISO -3 code of the country as "St Johns / CAN"
Vessel Name	M	Vessel registration detail; name of the vessel

2. TRIP INFORMATION

Data Element	M /O	Category ; Definition
Date trip started	M	Vessel activity details : date started the current fishing trip
Vessel trip number	O	Vessel activity details : Number of the fishing trip in current year
Date Entry in the RA	M	Vessel activity details : Date the vessel entered the NRA for the current fishing trip
Date Exit from the RA	M	Vessel activity details : Date the vessel exited from the NRA for the current fishing trip
Other areas visited	O	Vessel activity detail : other area where vessel have been fishing during the current trip
Date trip Ended	M	Vessel activity details : date ended the current fishing trip

3. VESSEL IDENTIFICATION

Data Element	M /O	Category ; Definition
External Identification Number	M	Vessel registration details : Side Number of the vessel
International Radio Call Sign	M	Vessel registration details : International Radio Call Sign of the vessel
Flag State	M	Vessel registration detail; State where the vessel is registered, 3-ISO country code

Data Element	M/O	Category ; Definition
NAFO Contracting Party	O (1)	Vessel registration detail :NAFO contracting party of the vessel, as ISO code of the country, EUR for European Community, NCP for Non Contracting Party
Home port	O	Vessel registration details : Port of registration of the vessel or homeport
Vessel owner	M	Vessel registration details : name and address of the vessel owner
Vessel operator	M (2)	Vessel registration details : responsible for using the vessel
Master name	O	Vessel activity details : name of the master

(1) if different from the flag state

(2) if different from the vessel owner

4. RESULT OF INSPECTION ON DISCHARGE

4.1 General information

Data Element	M/O	Category ; Definition
Start date of discharge	M	Discharge detail : date the vessel started discharge
End date of discharge	M	Discharge detail : date the vessel finished discharge
Has vessel landed all catches on board ?	M	Discharge detail : Has vessel landed all catches on board ?, answer Y if yes, N if not
Comments	O	Discharge detail : comments as necessary. If discharge as not been completed, please give an estimation on catch still on board

4.2 Quantity discharged

Data Element	M/O	Category ; Definition
Species	M	Discharge detail : FAO 3-alpha code (part V, schedule II, attachment II)
Presentation	M	Discharge detail : Product form
Live Weight	M	Quantities determined from the logbook.
Conversion factor	O	Product detail : Conversion factor as define by the master for the corresponding species, size and presentation, optional if already mention in table B

Process weight	M	Discharge detail : Quantities landed by species and presentation, in kilograms of product, rounded to the nearest 10 kg
Equivalent live weight	M	Discharge detail : Quantities landed in equivalent live weight, as "product weight x conversion factor", in kilograms, rounded to the nearest 10 kg
Comments	O	Discharge Details : free text area

4.3 Quantities staying on board the vessel

Data Element	M/O	Category ; Definition
Species	M	Discharge detail : FAO 3-alpha code (part V, schedule II, attachment II)
Presentation	M	Discharge detail : Product form
Conversion factor	O	Product detail : Conversion factor as define by the master for the corresponding species, size and presentation, optional if already mention in table B
Process weight	M	Discharge detail : Quantities landed by species and presentation, in kilograms of product, rounded to the nearest 10 kg
Equivalent live weight	M	Discharge detail : Quantities landed in equivalent live weight, as "product weight x conversion factor", in kilograms, rounded to the nearest 10 kg
Comments	O	Discharge Details : free text area

5. RESULT OF GEAR INSPECTION¹

5.1 General information

Data Element	M/O	Category ; Definition
Date of inspection	M	Inspection detail : Date of current gear inspection
Inspected gear	M	Inspection detail : number of gear checked during port inspection

¹ Verification shall be done when non-compliance have been cited / observed during inspection at sea.

To be filled in when port inspection also concerns inspection of gears on board. A detail form shall be filled in for every gear having been subject to port inspection

5.2 Otter trawl details

Data Element	M/O	Category ; Definition
NAFO seal number	M	Inspection detail (if required) : Number of the NAFO seal attached to the gear after inspection at sea
Is Seal Undamaged ?	M	Whether NAFO inspection seal is intact. – “yes” or “no”
Gear type	M	International Standard Statistical Classification of the Fishing Gear , OTB for otter trawl
Attachments		Otter trawl detail : attachment to footrope
Grade bar spacing	M	Otter trawl detail : grade bar spacing in millimetres
Mesh type	M	Otter trawl detail : respectively mesh type: SQ for square mesh , DI for diamant mesh
Mesh size average	M	Otter trawl detail : average mesh size in the trawl part, by pair
Trawl part	M	Trawl part measured
Mesh size	M	Mesh size in millimetres

A. "Port inspection report" form

"Port inspection report"

Page n°

Of

1. INSPECTION REFERENCE

Inspection authority

Date of the report

Port of inspection

*Vessel name***2. TRIP INFORMATION²**

Date trip started

Trip number³

Activity in the NAFO RA :

Date Entry in the RA

Date Exit from the RA

Other areas visited

Date trip ended

² To be filled in by the inspection authority or any alternate body nominated by the authorities as soon as the vessel land to port, based on logbook records.

³ Where applicable

3. VESSEL IDENTIFICATION⁴

External Identification	<input type="text"/>
International Radio Call Sign	<input type="text"/>
Flag State	<input type="text"/>
NAFO Contracting Party	<input type="text"/>
Home port	<input type="text"/>
Vessel owner	<input type="text"/>
Vessel operator	<input type="text"/>
Master name	<input type="text"/>

4. RESULT OF INSPECTION OF DISCHARGE⁵**4.1 General information**

Starting of discharge :	Date	<input type="text"/>	Time	<input type="text"/>
Ending of discharge :	Date	<input type="text"/>	Time	<input type="text"/>
Has vessel discharged all catches on board ?	YES	<input type="text"/>	<i>If YES, fill in table 4.2</i>	
	NO	<input type="text"/>	<i>IF NO, fill table 4.3</i>	
Comments	<input type="text"/>			

4.2 Quantity discharged

Species (FAO Code)	Presentation	Live Weight (Log Book, Kg)	Conversion factor	Landing Processed Wt (kg)	Equivalent live weight (kg)	Diff (Kg)	Diff (%)

⁴ To be filled in based on the license information.⁵ To be filled in after completion of discharge

Species (FAO Code)	Presentation	Live Weight (Log Book, Kg)	Conversion factor	Landing Processed Wt (kg)	Equivalent live weight (kg)	Diff (Kg)	Diff (%)

Comments	
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4.3 Quantity staying on board the vessel

To be filled where part of the catches stay on board after completion of discharge

Species	Presentation	Conversion factor	Process weight (kg)	Equivalent live weight (kg)

Comments	
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5. GEAR INSPECTION IN PORT ⁶

5.1 General data

Number of gear inspected

Date gear inspection

Has the vessel been cited ?

If Yes, complete the full "verification of inspection in port" form.

If No, complete the form with the exception of the NAFO Seal Details.

<input type="checkbox"/> Yes <input type="checkbox"/> No	

5.2 Otter Trawl details

NAFO Seal number

Is seal undamaged ?

Yes

No

Gear Type:

Attachments:

Grate Bar Spacing (mm)

Mesh Type:

⁶ Verification shall be done when non-compliance have been cited / observed during inspection at sea.

To be filled in when port inspection also concerns inspection of gears on board. A detail form shall be filled in for every gear having been subject to port inspection.

Average mesh sizes (mm)

TRAWL PART	
Wings:	
Body:	
Lengthening Piece:	
Codend:	

Annex 5. Paper on Chartering
(STACTIC W.P. 00/33-Revised)

Proposal to Modify Part I.B. and I.G. of NAFO Conservation and Enforcement Measures
(amendments underlined)

Amend Part I.B. as follows:

B. Chartering Arrangements

1. Replace the wording by:

“Each Contracting Party may utilize partly or wholly quota and shrimp fishing days allocated to that Party under Schedule I and Part I.G by way of charter arrangement with a fishing vessel flying the flag of another Contracting Party notified in accordance with Part III.D, subject to:

- the consent of the flag Contracting Party;
- a favourable proposal adopted through a mail vote in accordance with Article XI.2 of the Convention.

2. Contracting Parties shall limit such charter arrangements to one fishing vessel per year and for a limited duration not exceeding 6 months.

3. Contracting Parties intending to have recourse to such charter arrangements shall [together with a request for a mail vote] notify the following information to the NAFO Executive Secretary:

- the name and registration of the chartered vessel and the relevant flag Contracting Party
- a copy of the charter
- the fishing possibilities concerned
- the date as from which the vessel is authorized to commence fishing on these fishing possibilities
- the duration of the charter

4. The relevant flag Contracting Party shall notify in writing its consent to the NAFO Executive Secretary.

5. The NAFO Executive Secretary shall circulate the above information and the consent of the flag Contracting Party without delay to Contracting Parties.

6. The relevant flag Contracting Party is responsible for ensuring that the vessel complies with the requirements of the NAFO Conservation and Enforcement Measures. This does not nullify the obligations of the Contracting Party to which the quota and shrimp fishing days have been allocated under Part I of the Conservation and Enforcement Measures, as appropriate.

7. As a pilot project, these provisions shall apply only to the year 2001.

Amend Part I.G. as follows:

- Insert a new point I.G.4.j) which would read:

“j) Fishing days of a Contracting Party may only be utilized by a vessel flying the flag of another Contracting Party under the conditions provided in I.B (chartering arrangements).”

- Renumber point I.G.4.j) as point I.G.4.k) which would read:

k) “Fishing days are not transferable between Contracting Parties” (deletion of the last part of the sentence)

**Annex 6. Proposal to Amend the NAFO Conservation and Enforcement
Measures with a view to introducing new rules concerning obligatory
inspection presence in the Regulatory Area**
(STACTIC W.P. 00/29-Revised)

Background

Presence of inspection vessels in the Regulatory Area is of paramount importance for the effectiveness of the operation of the Scheme of Joint International Inspection and Surveillance. It appears, however, that the relevant rules in their present version do not make it an obligation for Contracting Parties to provide for adequate inspection presence. Under these circumstances, new such rules should be introduced in order to both make the existing rules more effective and share out the burdens connected with this means of inspection in a more equitable fashion and commensurate with the fishing activities of the different Contracting Parties.

Proposal

Amend Part IV, Section 3, as follows :

Sub-paragraph 2 shall read as follows:

“Where at any one time, more than 10 vessels of any one Contracting Party are engaged in fishing operations or in the processing or transferring of fish in the Regulatory Area, that Contracting Party shall, during that time:

- (a) have an inspection vessel in the Regulatory Area, or shall co-operate with another Contracting Party to jointly operate an inspection vessel; and*
- (b) have an inspector or other designated authority present in the Regulatory Area, or other designated authority present in a country of a Contracting party adjacent to the Convention Area, to receive and respond, without delay, to notice of apparent infringements.”*