

**THIRD ANNUAL CONFERENCE OF THE PARTIES TO
THE CONVENTION ON THE CONSERVATION AND
MANAGEMENT OF POLLOCK RESOURCES IN THE
CENTRAL BERING SEA**

**Report of the Meeting of the
Scientific and Technical Committee**

**November 30-December 2, 1998
Tokyo, Japan**

Final, 3 December 1998, 0900

Delegations from the People's Republic of China, Japan, the Republic of Korea, the Republic of Poland, the Russian Federation, and the United States participated in a meeting of the Scientific and Technical (S&T) Committee in Tokyo, Japan.

1.0 Opening Remarks.

1.1. Dr. Richard Marasco (United States), Chair of the Science and Technical (S&T) Committee, opened the meeting at 1415, Monday, 30 November 1998. As per the Plenary Meeting, Ms. Hiroko Omori, the Deputy Director, North Pacific Anadromous Fish Commission and Mr. Steven Kihara, Second Secretary (Economic), Canadian Embassy in Tokyo, were admitted as observers. The meeting agenda and a list of the participants are provided in Attachments 1 and 2.

1.2. China is very concerned with the work of the S&T Committee and hopes that this year's pollock stock assessment will be favorable and result in a lifting of the fishing moratorium that has been in effect for the last several years. China has received much pressure from its fishermen who want to resume fishing in the Bering Sea. China is looking forward to a productive meeting.

1.3. Korea expressed that its fishermen were very interested in reopening the Bering Sea fishing ground. This area has not been used by Korean fishermen for 6 or 7 years and they are receiving domestic pressure to reopen the fishery. Korea commented they would like to continue these discussions at this meeting and are interested in the current estimate of the biomass.

1.4. Poland reiterated its view that both the Polish Government and Polish Fishing Industry see the necessity for progress in this meeting. We think determination of AHL is the most important, as well as trial fishing, observers, catch rate, which are all included in the agenda. Poland hopes to have fruitful discussions on these items.

1.5. Russia commented that since the second conference a number of countries, including Russia have received reports on Bering Sea resources of Pollock. This year Russia did surveys in the CBS. Considerable progress was made at the age determination working group in Seattle. Summing up the data of several nations, we have made advances in understanding Pollock resources in the CBS. We realize that there are still several pending matters that need to be resolved concerning the pollock resources. The population of pollock is one of those items. This

is a good time for us to exchange views on the structural pattern of pollock stocks and other items related to that.

1.6. The United States remarked that it had similar concerns as other Parties re the status of pollock resources. Pollock is a central resource of the Alaska groundfish fishery, so it is of great importance to the U.S. The U.S. is convinced that the proper management of these resources should be based on sound scientific principles and data supported by an effective management system. The U.S. looks forward to a productive meeting.

1.7. Japan commented that they were happy to host this extremely important meeting to establish an AHL. As the other delegates pointed out, the pollock resources in the Convention Area and the whole Bering Sea must be considered altogether and in relation to the environmental conditions. Since data have been limited, we need to continue to press for continued scientific research. Issues, such as the setting of an AHL and the moratorium that has been in place the last several years are very sensitive, especially for our fishermen. We need to make responsible decisions based on scientific data, since these decisions will affect the economies of all the Parties.

2.0. Appointment of Rapporteur.

LCDR Dwight Mathers (United States) was appointed as rapporteur to assist the host country's Dr. Akira Nishimura, Chief, Groundfish Biology Section, Hokkaido National Fisheries Research Institute, with the preparation of the S&T Report..

3.0. Adoption of Agenda.

The Parties adopted the Provisional Agenda (Attachment 1), as modified.

4.0. Report of the Science Group.

4.1. Dr. Loh-Lee Low (United States), Chair of the Science Group, reported on that Group's intersessional meeting in Seattle, Washington, on 2-4 September, 1998. All Parties participated in the intersessional meeting. The Report of the Science Group (distributed separately) covers the following important points:

- a. The table of pollock catches will be updated at this meeting.
- b. Only Poland conducted trial fishing in the central Bering Sea in 1998.
- c. Japan conducted a mid-water trawl survey in the central Bering Sea in January 1998.
- d. The United States conducted a hydroacoustic-trawl survey in the Bogoslof area in March 1998.
- e. The participants of the Science Group agreed at the intersessional meeting that there is insufficient information to directly estimate the absolute biomass of the pollock resource in the Aleutian Basin directly.
- f. Only one estimate of the absolute abundance of pollock in the Annex Part 1(b) Specific Area was made in 1998. It was made by the United States *R/V Miller Freeman* survey.
- g. The participants of the Science Group agreed at the intersessional meeting that, based on the available information, the pollock stocks in the central Bering Sea are at a low level.
- h. The Parties participated in a second workshop on aging methodology of walleye pollock in Seattle in March 1998.
- i. The United States informed the Parties that the NOAA *R/V Miller Freeman* will not be able to conduct its usual hydroacoustic-trawl survey in the Bogoslof area in March 1999.
- j. Japan informed the Parties that the *R/V Kaiyo Maru* will conduct an echo-integration and midwater trawl survey in the central Bering Sea and in the Bogoslof area from late January to

mid-March, 1998. This survey is expected to replace the loss of the *R/V Miller Freeman* data.

k. Russia and the United States reported that they will be conducting surveys on pollock stocks in their respective exclusive economic zones.

l. The participants explored ways to increase research discussions and data exchanges among the scientists.

m. Poland indicated that it has tentative plans to conduct trial fishing in 1999. China indicated that it may also do so.

n. There was no discussion of an observer plan other than the Chair summarizing that there should be an orderly process of placing observers on fishing vessels to collect scientific information according to a previously adopted Observer Manual.

4.2. Japan clarified that the *R/V Kaiyo Maru* was not going to be conducting a survey in the central Bering Sea as outlined in their research plan.

4.3. Russia did not conduct trial fishing in 1998, however, in September 1998, the *R/V Professor Kaganovsky* did conduct hydroacoustic surveys in the Convention Area (CA) and the adjacent southeastern Aleutian Basin. The 3 control tows conducted in the eastern part of the Donut Hole did not yield a single pollock. In catch depths of 400-500 meters, the predominant catch was myctophids, mostly *Stenobrachius leucopsarus* and a bycatch of smooth lump sucker was taken in the upper 100-150 meter layer. The invertebrates included squid and jellyfish. Based on this data, the amount of pollock migration to the Aleutian Basin in 1998 was very low. The trackline of the survey is shown in Attachment 3.

4.4. Korea commented that it has conducted research trawls in the CBS and Bogolsof Island area in the past, but did not in 1998 because the *R/V Pusan 851* was not available. This year Korea has a new *R/V* and intends to conduct surveys in 1999, but is not sure at this time exactly when they will conduct the survey due to testing required on the vessel. Korea will inform the Parties once this schedule is known.

4.5. Poland commented that one Polish vessel conducted trial fishing in September 1998, but the report had not yet been translated into English. During the three trawls a few specimens of pollock were caught. A full report will be submitted at the next S&T meeting.

5.0 Report of the Enforcement/Management Group.

5.1. Captain J.V. O'Shea (United States), Chair of the Enforcement/Management Group, reported on that Group's intersessional meeting in Seattle, Washington, on 2-4 September, 1998. All Parties participated in the intersessional meeting. He commented that this was a productive meeting, with frank discussions and a true spirit of cooperation among the delegates. The Report of the Enforcement/Management Group (distributed separately) covers the following important points:

a. The Group continued to develop measures and programs for the management of pollock fishing in the Convention Area, when the Allowable Harvest Level (AHL) is other than zero.

b. The Group agreed that each Party planning to conduct trial fishing in 1999 should be prepared to present Trial Fishing Proposals at the Third Annual Conference. Poland submitted a Cruise Plan for Trial Fishing in 1999.

c. The Group discussed the placement and number of observers required by Article XI. There was considerable discussion of Poland's proposal on this issue submitted at last year's S&T Committee Meeting, but the Group did not reach consensus on the issue. The Group agreed to study Poland's proposal for further discussions at the Third Annual Conference.

d. The Group discussed how the catch weight on board vessels fishing in the Convention

Area would be determined. It was agreed that this was a very complicated issue and each Party had its own preferred methods. The Group agreed that a workshop on this issue may be beneficial in the future, but prior to that, each Party agreed to prepare an issue paper describing the catch estimate methods it used and its preferred method. The United States asked that the reports be submitted to the United States via official channels prior to the Third Annual Conference and indicated that it would circulate the reports to the other Parties.

e. The Group discussed Transparency and received a proposal from the Russian Delegation. It was agreed that the Transparency issue be referred to the Procedures Group Meeting during the Third Annual Conference.

f. The Group discussed several components of a Management System that would apply when fishing for pollock resumes in the Convention Area. Japan's proposal addressed an Individual National Quota (INQ) system and the United States' proposal addressed a non-INQ management system. There was considerable discussion on establishing a fishing season. Some of the Parties favored a year round fishery and others supported a specific time frame for fishing. It was agreed to continue work for discussion at the Third Annual Conference.

g. Finally, the Group discussed whether data from the fishing vessel master or the observer aboard the vessel should be used to manage the fishery. The Group noted that this issue was closely related to the method used to estimate catch and did not reach consensus on which data set should be used.

5.2. Japan and Poland thanked Captain O'Shea for his chairmanship during the September meeting. Japan brought up two points 1) the number of vessels for trial fishing. There are currently two views on this. 2) Observer vs. master catch reporting. We have had this discussion before and the answer in the past has been to defer to the vessel master data. Of course this is an important question and if there are great differences then there should be meeting held to discuss this issue. Japan indicated it would defer any further discussion on these two topics until later in the meeting.

5.3. China stated that per the Convention, trial fishing can be conducted by any of the Parties and that it should be limited to two vessels from that country, at any particular time.

5.4. Korea recommended moving agenda item 6.1 (AHL) after agenda item 6.2.3 (Cooperative Research Plans) to allow more time for the delegations to discuss this issue. There was no objection from the Parties and the provisional agenda was annotated to reflect this change.

6.0. Discussion of Issues from the Science Group.

6.1. Work Plan for 1999.

The United States asked that the Parties continue work on standardization of aging methods. It also reminded the Parties that an observer sampling plan had been approved by the Parties and that when fishing is resumed, there should be an orderly plan to place observers.

6.1.1. Data Exchanges.

There are three tables in the September Science Group Report that need to be updated. The U.S. requested that the Parties provide 1998 data so that these tables could be updated, especially data on Asia/North Pacific catches in Table 2.

6.1.2. Trial Fishing Plans.

6.1.2.1. The United States stated it has no plan conduct trial fishing in the CBS and therefore did not need to submit a trial fishing plan.

6.1.2.2. Korea stated it was interested in trial fishing by commercial vessels, but does not intend to conduct trial fishing in 1999 since no commercial fisherman are interested.

6.1.2.3. Japan indicated it did not intend to conduct trial fishing in 1999 for the same reason.

6.1.2.4. Poland stated they had intended to conduct trial fishing at the September S&T meeting, but has no further information beyond the cruise plan submitted at that time.

6.1.2.5. Russia noted that no appearance of pollock was recorded in the deepwater basin of the Bering Sea. For this reason Russia has no plans to conduct trial fishing in the Convention Area in 1999.

6.1.2.6. China stated they intend to conduct trial fishing with two vessels in May-June 1999 and submitted a plan (Attachment 4). Once these vessels complete this trial fishing, it may send two additional vessels to conduct trial fishing at a later date. China will inform the Parties once these plans are completed.

6.1.2.7. The United States noted that the issue of trial fishing plans has been discussed many times in the past and indicated that the Parties should have their plans ready for the Parties to review and discuss. The Chair indicated trial fishing would be discussed further under agenda item 7.

6.1.3. Cooperative Research Plans.

6.1.3.1. Korea stated that it would have a new R/V *Tamgu #1* available for 1999, but it is not certain when it will be available due to testing required on the vessel. Korea will provide a detailed plan at a latter date once they are confirmed.

6.1.3.2. Japan submitted a revised research plan for the R/V *Kaiyo Maru*. Japan had asked for the Parties interested in participating on this research cruise to notify Japan by the end of October. So far, only the U.S. has responded with the names of two researchers. Parties interested in participating in the research cruise should contact Japan by December 10, 1998. Japan has requested permission to conduct the cruise in U.S. waters, including within the 3-mile zone through diplomatic channels. The U.S. stated it would attempt to get a response to this request this week.

6.1.3.3. China stated it was very interested in the research proposals made by Korea and Japan, so it is trying to assign some of its scientists to participate in these research efforts. Japan reiterated that December 10 is a firm deadline to make the necessary arrangements.

6.1.3.4. The U.S. is planning to conduct a bottom trawl and hydro-acoustic trawl survey in the EBS between June-August 1999. The surveys will take place in the U.S. EEZ, but the U.S. would like to extend the hydro-acoustic survey into the Navarin area and will requesting permission to conduct the research in Russian waters. Further, the U.S. proposed to conduct an intership calibration of equipment with Russia and Korea if their vessels are doing their research at the same time as the U.S. research vessel.

6.1.3.5. Russia indicated that at this time it was unsure of its research plans for 1999 due to

funding concerns and does not believe these concerns will be resolved earlier than the end of January 1999. Russia will notify the Parties once its research plans are known.

6.1.3.6. Japan stated it is planning to conduct research in the CBS in the summer and fall of 1999 using a trawl vessel and echosounding gear.

6.2. Allowable Harvest Level (AHL).

6.2.1. The Chair reminded the Group that the S&T does not set the AHL, that it is done in the Plenary Session, but instead, the S&T provides recommendations to the Plenary.

6.2.2. The U.S. stated that it would be best if the AHL could be set by consensus and again reviewed the process outlined in the Convention for setting the AHL. At the intersessional meeting in September, the Science Group concluded there was insufficient information to directly estimate the Aleutian Basin pollock biomass. The Bogolsof Island survey by the *R/V Miller Freeman* in 1998 estimated the "Annex I (b) Specific Area" biomass at 432,000 metric tons, an increase from the 1997 estimate of 342,000 metric tons. The United States stated that if the Parties are not able to reach consensus on the Aleutian Basin pollock biomass, Part 1 (b) of the Annex to the Convention states that the Bogolsof Island biomass will represent 60 percent of the total Aleutian Basin biomass, which for 1998 would be 720,000 metric tons. This number is 950,000 metric tons below the 1.67 million metric tons threshold (Part 1(c) of the Annex) that would trigger a fishery

6.2.3. Korea understands the method used to determine the biomass, but as indicated in Korea's opening statement, Korean fishermen have been placing pressure on the Korean Government to reopen the fishery that has been under moratorium for the last several years. Korea would like to propose a token AHL to appease the fishermen and reward them for their conservation efforts over the past years of moratorium. Korea submitted and explained an AHL Proposal (Attachment 5) for 1999. Korea explained that the total Aleutian Basin biomass for 1998 was 720,000 metric tons represents 43.1 percent of the 1.67 million metric tons required to trigger a fishery. Korea proposes setting the AHL at 43.1 percent of the 130,000 metric ton AHL in Part 1 of the Annex, which would make the AHL 56,000 metric tons and result in an INQ of 9,333 metric tons for each Party.

6.2.4. The Korean proposal was fundamentally supported by Japan, Poland, and China

6.2.5. Russia stated that setting up a false allocation process, such as the one proposed by Korea it would not be consistent with the Convention and the scientific data. This is especially true considering that not a single pollock has been caught in trial fishing in 1998.

6.2.6. The United States reiterated the scientific opinion of the Science Group from the intersessional meeting that there is insufficient information available to directly estimate the Aleutian basin biomass. Then, per the Convention, the Aleutian Basin pollock biomass should be estimated using the Annex I (b) Specific Area biomass survey, which would be 720,000 metric tons, which is 950,000 metric tons less than the 1.67 million metric tons necessary to trigger a fishery. Based on this, the best scientific information available, coupled with the lack of pollock caught during trial fishing, the U.S. agrees with the Russian view and stated that AHL should be zero.

6.2.7. Korea stated that since 1993 we have used the best scientific information available to set the AHL, which has resulted in a fishing moratorium. Many of the Parties' fishermen cannot

understand this, therefore Korea stands by its proposal to set an AHL for 1999.

6.2.8. Several Parties pointed out that 6 years of moratorium did not contribute to the rebuilding of the pollock stocks and that a simple moratorium on fishing in the central Bering Sea would not bring restoration and recovery of the pollock stocks and cessation of fisheries in the Convention Area caused real economic damage to the fishing industry, which hoped to restart the fishery.

6.2.9. The Chair suggested we break this discussion down into two parts: (1) the scientific data for setting the AHL, and (2) developing a recommendation to the Plenary on setting an AHL. The Chair asked if the Group agreed with the Science Group statement that “there is insufficient information available to directly estimate the Aleutian Basin biomass”.

6.2.10. Poland stated they did not believe we should extrapolate the entire biomass from the Bogolsov Island survey, since that should only be done if an AHL cannot be agreed upon by the Annual Conference.

6.2.11. China stated it understood the domestic pressure Korea was receiving from its fishermen to resume fishing in the Convention Area and that the decision to resume fishing should be based on a consensus of the Parties. China agrees with and supports the AHL proposal of Korea and concept of an equal INQ dispersion among the six Parties. China does not think that this proposal will conflict with the scientific data and is not harmful to the pollock resources.

6.2.12. Russia stated it supported the U.S. statement that the scientific data were insufficient to support the resumption of fishing in the Convention Area. Russia reminded that unfavorable environmental conditions in 1998 have reduced the strength of the 1997 year class. It is hard to understand the changes that have occurred in the Central Bering Sea pollock fishery in the 1990s. Even with strong year classes in 1989 and 1990, we have not observed an increase in the Aleutian Basin biomass.

6.2.13. Poland referred to Article 7, paragraph 1, that the scientific information is insufficient to directly estimate the Aleutian Basin biomass, but in accordance with Article 9, Poland supports the Korean proposal. Poland asserted that in 1995, the biomass was estimated to exceed the 1.67 million metric tons and the AHL was still set at zero.

6.2.14. China stated we should estimate the AHL in the CBS based on the scientific data. We have all been waiting for the resource to recover so it can be utilized. The U.S. and Russian experts expended considerable effort to determine the biomass, but until now there has not been enough data for the Parties to determine when fishing can be resumed in the near future. China believes that pressure by fishermen on the Chinese Government will only build as long as there is no fishing while we wait for sufficient scientific data. We must consider the practical needs of the fishermen. China therefore agrees with the Korean proposal and would ask all the Parties to consider it and arrive at consensus on a fishing plan that will appease the fishermen.

6.2.15. All Parties agreed that that “there is insufficient information available to directly estimate the Aleutian basin biomass”.

6.2.16. The Chair clarified that even if we all agree that there is insufficient scientific data available to directly estimate the Aleutian Basin biomass, the S&T can still make a recommendation on setting an AHL to the Plenary.

6.2.17. The Chair proposed the S&T provide the following statement to the Plenary:

The Scientific and Technical Committee notes that Article VII of the Convention states that, "The Annual Conference shall establish by consensus the AHL for the succeeding year, based upon an assessment of the Aleutian Basin pollock biomass by the Scientific and Technical Committee." It is the opinion of the Committee that information is not currently available to directly determine the size of the Basin pollock biomass. As prescribed by Article IX, paragraph 4, the Committee indicates that the pollock biomass for the Specific Area as determined by the United States institution designated pursuant to paragraph (a) of the Annex shall be deemed to represent 60% of the Aleutian Biomass. For 1998, the Alaska Fisheries Science Center determined that the biomass of the Specific Area was 432,000 mt. Expanding this estimate to the entire Basin yields a biomass estimate of 720,000 mt. This is the best estimate of the 1998 Aleutian Basin pollock biomass. It is 950,000 mt below the required 1,670,000 mt minimum established by the Annex in order for a fishery to occur. During discussions, it was revealed that the status of the pollock could improve due to increased recruitment. However, the exact strength of incoming years classes will not be known for several years.

*Article IX, paragraph 4 states that, "The Scientific and Technical Committee shall make recommendations to the Annual Conference with respect to the conservation and management of pollock, including the AHL for the succeeding year." During these discussions the Korean delegation surfaced a proposal for setting AHL when criteria specified in the Annex indicate a zero AHL. The Scientific and Technical Committee believes that this is one approach that the Parties may wish to consider in determining AHL for the coming year. **The Parties agreed to this statement.***

6.2.18. Korea stated it understood what the Chair is trying to convey, but based on its earlier statements it is at a loss to explain to its fisherman why the AHL continues to be set at zero for the last several years. Korea's proposes to set the AHL and INQ so that two vessels could harvest the fish, similar to what is allowed for trial fishing. This AHL would be symbolic to the fishermen. Of course all data collected by these commercial vessels would be submitted to the Science Group. Korea asked if it was possible to predict how long the fishermen must wait before an AHL could be set. Korea stated it cannot understand why the pollock stocks have not recovered, despite the fact there has been a moratorium on fishing for the past several years.

6.2.19. The U.S. stated it was in favor of the S&T providing the Plenary the scientific information the Chair provided and will provide its comments on setting the AHL in the Plenary session.

6.2.20. Japan reaffirmed what the Chair stated earlier that this body does not set the AHL, but stated it would support Korea's proposal to set an AHL for 1999, in the interest of the fishermen. Japan stated that we have not reached consensus on setting an AHL. The S&T is not required to make an AHL proposal, but agreed that we should just note the proposal that was made by Korea in the statement to the Plenary.

6.2.21. Russia stated that the Parties have endured several years of fishing moratorium in the Convention Area to allow the pollock stocks to recover. In 1998 we have seen some positive effects in the stocks and an increase in the Bogolsof biomass. Additionally, in 1995-97, strong year classes have emerged and although there are other factors to bear in mind, there are indications that the stock might continue to grow in the future, although there is no way to predict for sure exactly what the biomass will be. All our fishermen need to understand that the moratorium has been effective in encouraging the recovery of the pollock stocks.

6.3. Other Issues.

6.3.1. Japan asked for information on pollock stock assessment in the U.S. EEZ. The U.S. stated they would be happy to provide information now. The U.S. has always been interested in providing pollock data to all interested Parties and would be happy to share data with other Parties. The stock assessment is divided into 3 parts: the Eastern Bering Sea (EBS), the Aleutian Islands Region (AI), and Bogoslof area.

6.3.2. Eastern Bering Sea (EBS): The 1998 survey of the EBS estimated the on-bottom portion of the pollock biomass at 2.2 million tons down from 3.03 million tons in 1997. There is also an off-bottom stock that can be estimated via hydroacoustic methods, but that survey is only conducted every three years and was not done in 1998. The 1996 year class looks strong. Next year the U.S. believes that the biomass for age-3+ fish will be 1.2 million tons higher than in 1998. This is a result of the predicted recruitment of the 1996 year class. The exploitable biomass in 1999 will actually decrease because the age-3 fish will only be partially recruited into the fishery. The estimate of the acceptable biological catch (ABC) has been estimated at 992,000 metric tons for 1999, down from 1.11 million metric tons in 1998.

6.3.3. Aleutian Islands: The U.S. conducts a survey of this region every 3 years with the last being in 1997. The estimated biomass in 1997 was 105,600 metric tons, from that estimate an ABC of 23,800 thousand metric tons was estimated. This was a bottom trawl biomass estimate. The U.S. has attempted to use age-structured models for these estimates, but so far they have not proven to be reliable.

6.3.4. Bogoslof: This survey was conducted by the *R/V Miller Freeman* which has conducted this survey since 1988. This survey has showed a decline for several years, but it did increase from 1997 (390,000 metric tons) to 1998 (492,000 metric tons). From that survey, an ABC of 15,300 metric tons was estimated. The U.S. North Pacific Fishery Management Council (NPFMC) recommended that no directed fishing for pollock be conducted in the Bogoslof Island area and the bycatch level (to support other groundfish fisheries) be set at 1,000 metric tons. The 1997 bycatch of pollock was 168 metric tons.

6.3.5. The U.S. believes it has a very transparent system of estimating status of stocks and a public management process which it has consistently shared with the Parties. It is a conservative process that is subjected to a very rigorous review within the NPFMC system of management. We have also attempted to take the entire ecosystem into account. For instance, this year the National Marine Fisheries Service (NMFS) is developing mitigation procedures to account for sea lion and fishery interactions. The North Pacific Council process also considers environmental factors in its management plans. The U.S. report was distributed separately.

6.3.6. Korea stated the report by the U.S. was very useful since it has a direct bearing on the pollock biomass in the convention area. Japan thanked the U.S. for the update

6.3.7. Russia stated that it assessed fish aged 1-3 years in 1997 via bottom trawl survey and acoustic data in the Navarin Basin to be of a high level for year class 1997. They initially expected that year class to be strong, however, the August-September 1998 survey, showed the 1997 year class to be closer to the average. 1997 was less strong than 1995 and 1996. Age 1 fish of the 1996 year class was estimated at 0.36 billion individuals in 1997, but age 1 fish of the 1997 year-class was estimated at 0.19 billion individuals in 1998. Russia believes there was high mortality of the 1997 year class in the spring and winter of 1998. Russia knows very little about the mortality of pollock under ice, but it believes the rate is very high. The abundance of the 1996 year class is close to that of the 1989 year-class, which was high. So good recruitment is expected

in the next few years based on entry of the strong 1996 year-class, the average-strength 1995 year-class, and below-average 1997 year-class. These are preliminary data. Preliminary data for the winter of 1998-99 also suggest that it will be a colder than average winter, but Russia will have to wait until it conducts its survey next year to confirm this.

6.3.8 The United States stated that year class strengths are the key to stock assessments. For 35 years, the average was 21 billion age-1 recruits. For the last ten years, there were two year classes above average, two at average, and six below average. Looking forward, the 1996 year class looks strong, but 1995 and 1997 are below average based on a composite of the stock assessment model.

6.3.9. Japan added information of its research in the Hokkaido area. The Hokkaido National Research Institute is now responsible for all pollock studies in the North Pacific. In the past, the recruitment of the various year groups was related to climatic conditions. When there were strong disturbances in the ocean environment among juvenile fish, then mortality was negatively affected.

6.3.10. The United States stated that its oceanographers and fisheries biologists are working together to determine how environmental conditions affect the pollock.

6.3.11. The Chair asked what progress the Parties have made concerning ecosystem management that they could share with the rest of the Parties. Japan stated that it has been trying to estimate the amount of fish that are consumed by marine mammals. For cetaceans they made bold steps in the amount of fish consumed, but how to use that data is not clear. How do we conserve the fish, for the marine mammals or for human consumption? There are two kinds of value systems, one for marine mammals and one for humans. Our task is to determine how to balance these needs.

6.3.12. Japan stated that despite the moratorium on fishing, the pollock biomass has not recovered as quickly as expected. We need to continue our efforts to conduct studies to determine why the stocks have been slow to recover. Japan is prepared to cooperate with the other Parties to study this problem.

7.0. Discussion of Issues from the Enforcement/Management Group.

7.1. Trial Fishing Terms and Conditions for 1999.

The U.S. stated that before trial fishing can be discussed, the Annual Conference must establish that trial fishing will take place in 1999. The Parties agreed to delay discussion on this item until the Plenary session.

7.2. Number and priority placement of observers required by Article XI.

7.2.1. The U.S. outlined this issue as it was discussed at the September intersessional. The concern about placing observers on vessels is to ensure that the Parties have an equal or fair opportunity to place their observers. There was concern during the intersessional meeting that it would be conceivable that one Party might accept an observer from one Party and in turn request its observer go on that Parties vessel precluding other Parties from placing their observer. The Convention does not detail what to do when there are more are more requests to place observers than there are vessels available. The Polish delegation proposed a solution to this problem at the 1997 intersessional meeting..

7.2.2. Korea stated they have a different view of Article XI, paragraph 5 (a). Korea believes this

means only one observer is required per vessel. The activities of the observer are to monitor the conservation and management measures of the vessel and having more than one observer could cause an undue financial burden on the fishing vessel.

7.2.3. Poland explained that it was its view that one observer from a non-flag state satisfied the observer requirements of Article XI, paragraph 5 (a). Poland proposal is that, "If the number of requests for observers is greater than the number of vessels available, the observers should be placed in the order in which the requests were received."

7.2.4. China stated they only wanted an observer from the flag State or from non-flag State Parties. Additionally, in order for observers to be exchanged among the Parties, there needs to be an agreement between those Parties.

7.2.5. Japan stated that according to Article XI paragraph 5(a), if a non-flag-State observer is not available, then the vessel should have a flag-State observer on board. This same Article also states that the conditions shall be established bilaterally.

7.2.6. The U.S. stated it was concerned if one Party went to another Party very early. For instance if another Party were to ask the U.S. today, that once fishing resumed, that Party wanted to put its observers on U.S. vessels. Such an arrangement would prevent other Parties from having the opportunity to put an observer on a U.S. vessel. The U.S. believes we need a mechanism to respond to this situation. While the Convention mentions bilateral arrangements, those arrangements are not binding under this Convention. The U.S. believes there needs to be a way to allow the equitable distribution of observers. This is a complicated issue.

7.2.7. Korea stated that its view was similar to the Polish proposal, but Korea thinks that the flag-State should have the priority to select which other Party the observer should come from if there are more observer requests than vessels available.

7.2.8. Japan stated we should be able to strike a balance for the placement of observers from year to year by rotating observers among all the Parties' vessels.

7.2.9. The U.S. stated we needed to balance the needs of priority placement of observers and being mindful of the provisions of the Convention to place non-flag-State observers on fishing vessels.

7.2.10. China agreed that the placement of observers should be based on the requirements of the Convention, but they are concerned about the conditions of acceptance of these observers and the smooth operation and the fair enforcement of the observer program. What happens if the observer violates the rules? We need to ensure there are agreements on observer conduct prior to observers being deployed on other vessels. The quantity and quality of observers are a very important factors to the success of fishing operations under this Convention.

7.2.11. The U.S. reminded the Parties that observer conduct was discussed at length at one of the earlier intersessional meetings, possibly the 1996 meeting. This was a sensitive issue. Some were concerned about the observer impeding the fishing operations and others were concerned with the fishing vessel impeding the observer from completing his duties. The U.S. believes that the consensus of the Parties at that time, on a fishing vessel with 80 crew, that protection was needed for the observer vice the vessel. Bilateral agreements between the Parties might be the vehicle to address observer misconduct. There does exist a 1996 Observer Manual that addresses some of these concerns.

7.2.12. China stated they have very high expectations for observers and believes that 90 percent of the observers would be able to fulfill the duties. Their concern is for the 10 percent that do not adequately fulfill their duties. China agrees that there should be some regulations regarding observer misconduct; properly constructed regulations would avoid uncomfortable situations for the observers and the fishing vessels.

7.2.13. Japan stated the Group still needed to clarify the difference between the Article X (scientific observer) and Article XI (enforcement observer). The way the Convention is written, there should be no way the enforcement observer could be interfered with. However, with the scientific observer, it is possible that his actions could be construed as hampering the fishing effort, i.e., the fishing crew wanting to freeze the fish and the observer needing to take samples.

7.2.14. The U.S. drafted the following statement that the Parties agreed to present to the Plenary:

The Parties discussed the number and priority for the placement of Article XI observers. Most of the Parties held the view that the Convention provides that only one non-flag State observer per vessel need be accepted by the flag-State, if so requested.

Some Parties expressed concern that procedures should be developed to ensure and equitable opportunity for all Parties to place their observers on other Party vessels to meet the objective of Article XI, paragraph 5 (c), "The Program shall have as its objective a significant level of coverage by observers sent by non-flag-State Parties."

7.3. Methods to determine catch weight.

7.3.1. The Chair noted that Poland had submitted a description of the product recovery rate method it uses to determine catch weight (Attachment 6) in response to a U.S. questionnaire (distributed separately as Attachment 3 to the Intersessional Meeting of the S&T Committee Report) distributed at the September intersessional meeting.

7.3.2. The U.S. thanked Poland for its written response, however, it is the U.S. position that the product recovery rate (PRR) method is the least accurate method when compared to volumetric methods of measuring the codend or with calibrated bins or by weighing with scales. The U.S. asked that the other delegations submit responses to the U.S. questionnaire so this topic can be discussed more in the future.

7.3.3. Japan stated it had responded informally to the U.S. questionnaire and will prepare a more formal written response as soon as possible. Japan indicated that at the September intersessional a workshop was discussed to further discuss this issue. Japan asked if a date had been set for that workshop.

7.3.4. The U.S. stated that a workshop had been discussed, but that the Group had agreed to submit answers to the questionnaires before scheduling the working group so that all the Parties' views would be known.

7.3.5. Korea stated it was difficult to select one catch estimation method. Korea believes that the Parties do need to agree on a common catch weight determination method and believes that volumetrics and scales are the most accurate methods to conserve and manage the pollock.

7.3.6. The Chair suggested our report state that, "The S&T briefly discussed catch weight determination methods and the S&T supported the use of volumetrics and scales for catch

estimation.”

7.3.7. Japan stated that volumetrics with calibrated bins is the method that Japanese vessels use, however, it understands that the other Parties may use other methods that are also accurate.

7.3.8. Russia stated it believes it would be sufficient for the S&T to report that the Group recommends two methods for catch estimation, volumetric and scales.

7.3.9. Poland questioned whether we needed to restrict the Parties to using only one method. Poland believes the flag State should be able to use whatever method it chooses.

7.3.10. The Chair stated that it seemed that most Parties were trying to narrow down the catch estimation choices available for the Parties to volumetrics and scales, instead of allowing any method a Party wanted to use. The Chair asked if that was indeed the case.

7.3.11. China stated that it does not matter what method is used as long as all the Parties agree on one universal method to be used by all Parties. This will make it easier on the flag-State and the observers.

7.3.12. The U.S. agreed with China’s statement and suggested that with volumetrics there might be some leeway for the Party to use different volumetric methods, i.e., codend or calibrated bins. Regardless of what method is used, the U.S. stated the vessel and observer must use the same method to decrease the chance for disagreement between the vessel and observer. The PRR method in particular is not usually used by observers.

7.3.13. The Chair stated that this item has been on the agenda for several years without much progress. Ideally, it would be best for us to agree on one method. Since the Group has been unable to reach consensus on one method, the Chair suggested that until we can agree on one method, that agree in the interim, to use volumetrics (codend or calibrated bins) or scales for catch estimation.

7.3.14. China had no objection to the Chair’s statement.

7.3.15. Japan stated it did not believe that all Parties should be confined to one “ideal” universal method, but that two or three methods can be used accurately and should be available. Japan does not think we should limit ourselves to one ideal universal method for catch estimation. Japan believes we should strive for the best system, which may result in more than one method to accurately measure catch.

7.3.16. The Chair stated that Japan’s view was in keeping with the S&T’s desire to develop an accurate method of catch estimation to be used by the Parties and unless there were any objections **the S&T would report that since the Group had been unable to reach consensus on one method, the Chair suggested that until the issue of the best method or methods is resolved, that we agree in the interim, to use volumetrics (codend or calibrated bins) or scales for catch estimation. The Group agreed with this statement.**

7.4. Several components of a management system (Management plan, fishing season, etc.).

7.4.1. The U.S. stated that it originally submitted a management proposal which addressed an Olympic style fishery, in lieu of an INQ fishery, although it now believes an INQ is the better way to proceed. Japan has submitted an INQ proposal, that the U.S. has responded to via official

channels. At this meeting Poland and Korea have submitted management remarks and a proposal, respectively as Attachments 6 and 7.

7.4.2. Korea stated that it believes there should be an equal distribution of AHL among member Parties as per the Convention. Korea supports the proposal by Japan regarding the redistribution of unused INQ. This is important for the proper conservation and management of the pollock resources. Korea further believes that an INQ fishery is best to prevent overcapacity in the fishing fleet and that the flag-State should monitor its vessels. Korea submitted a Proposal for a Management System in the Central Bering Sea, which includes a discussion of INQs, a fishing season, catch estimate methods, catch data to be used, the number of observers, and the reporting of data (Attachment 7)

7.4.3. China stated it supports an equal distribution of AHL among the Parties and that an Olympic style fishery would not be good for the pollock resources and goes against our efforts to conserve and manage this resource. With an INQ fishery some Parties might not be able to fully harvest its quota, but that would just add to the sustainability of the resources.

7.4.4. Japan stated there are some drawbacks to an Olympic style fishery as noted by Korea and China which is why Japan supports an INQ fishery. As for Japan's proposal to reallocate INQ that is not used over a three year period, this would allow for the most effective sustainable use of the pollock resource since the harvest would still be less than the AHL.

7.4.5. Poland stated it had submitted remarks on the U.S. management proposal and its opposition remains towards an Olympic style fishery. Poland agrees with Japan, Korea, and China that there should be an equal distribution of AHL as INQ among the Parties. Poland also submitted comments on and supports the Japanese management proposal (Attachment 8), however, by that proposal the January 1 date might need to be adjusted to allow the time required to prepare observers if an AHL is set. Poland also supports the Korean management proposal submitted during this meeting.

7.4.6. The U.S. stated that it seemed possible for the Parties to reach consensus that an INQ fishery is the best management method. The U.S. does not agree that if a Party chooses not to fully harvest its quota, then it should not be penalized by losing quota (by it being redistributed) as described in the Japanese proposal.

7.4.7. Japan stated that it would clarify its proposal in response to Poland's and the other Parties' comments.

7.4.8. The U.S. asked if the Group had agreed that an INQ management plan is what should be used. The Chair stated it appeared this was the case, however it did not appear that the Group had reached consensus on what to do with unharvested quota.

7.4.9. Korea reaffirmed that it supported an INQ fishery. Korea would like to focus on an appropriate level of fishing, not overcapacity or undercapacity.

7.4.10. China approves of dividing quota equally among the Parties as INQ.

7.4.11. Russia stated it agreed with INQs and an equal annual distribution of quota among the Parties.

7.4.12. The Chair suggested that additional discussion on the allocation or reallocation of unused

quota was still necessary, but it appeared that **the Group could report to the Plenary that there was consensus on an INQ Management System. The Parties agreed with this statement.**

7.4.13. The Chair asked if there were any comments on establishing a fishing season.

7.4.13.1. Japan stated that is supported a year-round season from January 1 - December 31 season and that a more specific time frame would not be necessary with an INQ fishery and that it would be better to have the season spread out over the whole year. Further, if it was desired to protect spawning, there could be closed areas.

7.4.13.2. Korea stated the season should be open all year. A specific season can have a negative effect on the pollock resource since several vessels would all be fishing at once. With an INQ system, the flag-State and observers would be able to monitor the fishery.

7.4.13.3. China supports the position of Japan and Korea for two reasons. First, this will allow the Parties to arrange fishing operations according to its own needs. Second, this would prevent the concentration of fishing resources that would cause undue pressure on the resource and lead to a crowded fishing area.

7.4.13.4. Poland stated fishing seasons are normally set to protect spawning areas and there are no such areas in the high seas of the Convention Area.

7.4.13.5. The United States stated that Korea had a good point concerning overcapacity. The U.S. supports a specified season or time-frame for the fishery, to prevent which could lead to overcapacity and degradation of the pollock stocks.

7.4.13.6. Russia stated the fishery should be closed from January-April to protect the spawning time. Three-quarters of the year should be sufficient. Of course, this proposal would require discussion and approval of the Parties.

7.4.13.7. The Chair stated that it appeared this item needed more discussion.

7.4.13.8. The U.S. stated that our goal is to conserve and manage pollock; at the same time there also other species important to the U.S. that would cause us to desire a less-than year round season.

7.4.13.9. Japan stated we needed to further study the significance of closed times on spawning and enforcement efforts.

7.4.13.10. Russia stated in February and March the pollock spawned in the Bogolsov Island area. During this time and for a time after, the fish are was soft, not feasible for harvesting. Russia's position does not differ from that of Japan or Korea, in that the closure of a fishery should take into account the spawning period.

7.4.13.11. Poland stated that according to Article IV of the Convention the Parties may develop management methods for pollock based on scientific data. Poland supports the view that there should be closed seasons and areas to protect spawning stock, but it does not believe there is sufficient scientific data that spawning occurs in the donut hole.

7.4.13.12. **The Chair proposed suggested we report that the Group discussed a fishing season, but there was no consensus and that some Parties believed the fishery should be year**

round and others Parties indicated the season should be closed at times to protect spawning areas and other species. Before we can proceed with a recommendation, this item will need to be studied more fully with the Parties providing applicable information. The Group agreed with this proposal.

7.5. Source of data for management.

7.5.1. The Chair stated that the issue here was whether the vessel data or the observer data should be used to manage the fishery and asked for comments/discussion from the Group.

7.5.2. Korea stated that priority should be given to data from the fishing master, rather than the observer. If there are significant differences between the two data sets, then the flag-State should investigate. The fish master's data should be used, with the observer's data used as back-up.

7.5.3. Japan agreed with Korea's proposal that the fish master's data should be used and the observer's data used if the vessel data is not available.

7.5.4. Poland stated that during the Seattle intersessional this issue was closely related to the method used to estimate catch. The U.S. has stated that it does not believe the PRR method is an accurate catch estimation method, but Poland uses the PRR method in a current pollock fishery and there are no objections from the coastal State in relation to the size of discrepancies between observer's data and vessel log. Poland believes the master's data should be used and if it differs from the observer's data then the flag-State should investigate.

7.5.5. Korea stated that it has experience with using observers in other fisheries. In those cases, the observers just took sampling data and did not measure all the fish taken. Korea suggests that the master's data should be used since they work 24 hours and the observer's data used as backup.

7.5.6. China stated that the Convention requires a fishing log and that the vessel master's data should be used. If there is a difference between the master's and observer's data, they should try to resolve the difference (in case it is a result of a misunderstanding). The master's data should have priority. The first year fishing is resumed should be considered a trial year, but that the master's data should be what is used to monitor the fishery.

7.5.7. The U.S. agreed with China that the fishing master's data should be used, but the observer's data should not be discounted. Any differences between the master's and observer's data should be investigated and the results reported to the S&T.

7.5.8. Russia supported China's and the United States' view.

7.5.9. The Chair summarized, that the group agreed that the master's data would be used and if there was a discrepancy between the master's data and the observer's data, then the flag-State should investigate and provide an explanation for the discrepancy at the next S&T meeting.

7.5.10. Japan agreed in principle and stated the explanation should be provided as soon as possible to the S&T. For example a discrepancies that occurred in 1999 should be reported at the 2000 S&T meeting.

7.5.11. The U.S. stated that discrepancies should be addressed each year before quota is allocated.

7.5.12. **The Chair proposed that when a discrepancy is found, the Party involved should**

investigate to determine the cause immediately and report the results of the investigation at the next S&T. Of course there may be cases when time would not permit the discrepancy to be investigated prior to the S&T meeting, in those cases, the Party should report at the soonest S&T that it is investigating the discrepancy and report the results of the investigation at the following S&T meeting. The goal being to report on the results of the investigation as soon as practical.

7.5.13. Russia stated it would add that when there are discrepancies in the data, they should be investigated immediately and reported at the next S&T meeting.

7.5.14. The U.S. stated that from a compliance standpoint, discrepancies need to be investigated and reported as soon as possible.

8.0. Discussion of Issues from the Procedure Group.

8.1. Transparency issues.

8.1.1. The U.S. stated that at the Seattle intersessional meeting the U.S. and Russia agreed to submit a joint transparency proposal and that document is available at this meeting (Attachment 9). The U.S. would like to circulate a transparency resolution agreed to within the last two weeks at the recent ICCAT Annual Meeting (Attachment 10).

8.1.2. Russia read the joint statement (Attachment 9).

8.1.3. Korea concurred that the admission of observers is important and requests additional time to examine this joint transparency proposal.

8.1.4. The Group agreed to table the joint Russian-U.S. transparency proposal for this meeting and resume discussions at the next session.

8.1.5. Japan agreed that more time was needed and legal experts would need to examine this proposal.

9.0. Other Matters and Recommendations.

9.1. Meeting Schedule.

The Chair stated that during the past few years we have met intersessionally some months before the Annual Meeting. **In the interest of saving money, the Chair suggested the S&T meet intersessional immediately prior to the Annual Plenary Meeting, thereby. The Parties concurred with this recommendation.**

9.2. Other Matters. None.

10.0. Report to the Annual Conference.

The Parties **adopted** the report and **recommend** the Annual Conference accept its recommendations.

11.0. Closing Remarks.

The Chair closed the meeting at 1815 on Wednesday, 2 December 1998.

List of Attachments

1. S&T Agenda.
2. List of S&T participants.
3. Russian September 1998 Hydroacoustic Donut Hole Survey.
4. Trial Fishing Plan by China in Central Bering Sea in 1999.
5. Korean Proposal for AHL and INQ in 1999.
6. Poland Description of Product Recovery Rate Catch Estimation.
7. Korean Proposal for a Management System in the Central Bering Sea.
8. Polish Remarks to the Establishment of the AHL for 1999.
9. Draft Joint Russia-USA Transparency Proposal.
10. Guidelines and Criteria for Granting Observer Status at ICCAT Meetings.