

INTER-AMERICAN TROPICAL TUNA COMMISSION

SUMMARY MINUTES OF THE THIRTY-THIRD MEETING

October 11-14, 1976

Managua, Nicaragua

Chairman: Mr. José B. Godoy M., Nicaragua

Secretary: Mr. E. Blyth Young, Canada

AGENDA - Thirty-Third Meeting of the IATTC

1. Opening of the Meeting
2. Consideration and Adoption of the Agenda
3. Review of Current Research
4. The 1976 Fishing Year (Background Paper No. 1)
5. Condition of the Yellowfin Stock and the Quota for 1977
(Background Paper No. 2)
6. A Discussion of the Present System of Closing the Fishery
7. The Tuna-Porpoise Relationship and Associated Problems
(Background Paper: The Tuna-Porpoise Relationship and the Inter-American Tropical Tuna Commission)
8. Recommended Research Program and Budget for FY 1978/1979
(Background Paper No. 3)
9. Place and Date of Next Meeting
10. Election of Officers
11. Other Business
12. Adjournment

SUMMARY MINUTES OF THE THIRTY-THIRD MEETING

AGENDA ITEM 1 - OPENING OF THE MEETING

The thirty-third meeting of the Inter-American Tropical Tuna Commission opened at the Inter-Continental Hotel in Managua, Nicaragua, on Monday, October 11, 1976, with an inaugural session beginning at 10:10 A.M. Mr. José Godoy, Commissioner from Nicaragua, and Dr. James Joseph, Director of Investigations, each addressed the meeting briefly. They were followed by the President of Nicaragua, His Excellency Anastasio Somoza, who delivered the inaugural address. The inaugural session concluded at 10.40 A.M.

Following the inauguration, Dr. Joseph opened the plenary session at 11:30 A.M. serving as Chairman Pro-Tem. He explained that since the last meeting of the Commission the elected Chairman, Mr. Antonio Flores of Nicaragua, had resigned his position to assume other duties. Therefore it was necessary to elect a new Chairman, and Dr. Joseph opened the floor to nominations. Mr. Juan Obarrio of Panama nominated Mr. Godoy of Nicaragua. There being no further nominations, Mr. Godoy was elected by acclamation. Taking the chair, Mr. Godoy welcomed all delegates and observers to the thirty-third meeting of the IATTC.

The Chairman then called for introduction of the delegations. The heads of the delegations of Canada, Costa Rica, Japan, Mexico, Nicaragua, Panama and the U.S.A. introduced themselves, their fellow Commissioners, and their advisors. This was followed by introductions of observers from Ecuador, El Salvador, Peru, the Republic of China, the Republic of Korea, Spain, and the International Commission for the Conservation of Atlantic Tunas (ICCAT). The delegate from France and observers from Chile, Colombia, Guatemala and Venezuela joined the meeting in later sessions. Those in attendance are listed in Appendix I.

AGENDA ITEM 2- CONSIDERATION AND ADOPTION OF THE AGENDA

The Chairman called on Dr. Joseph, who noted that a provisional agenda had been distributed to Commissioners several weeks earlier, as is normal, and that it followed the usual format. Dr. Joseph then noted that a special document entitled "Alternatives for Management of World Tuna Resources" had been prepared for this year's meeting by himself and Mr. Joseph W. Greenough as a result of a special request made at the nineteenth Inter-Governmental Meeting. He raised the question of where on the agenda this document should be considered and suggested that it be taken up along with agenda items 4, 5, and 6, which are normally considered together. This procedure was agreed upon, and the provisional agenda was adopted.

AGENDA ITEM 3 - REVIEW OF CURRENT RESEARCH

The Chairman asked Dr. Joseph to review the current research program of the IATTC. As he did last year, he stated that he would highlight certain aspects of the research program and cover other phases only very briefly. This year the Commission's yellowfin and skipjack tagging program was emphasized.

Before his discussion of the tagging program, Dr. Joseph noted that the most important responsibility of the staff is the collection and analysis of statistical data on catch, effort, and size composition of the fish in the catch. These data are obtained in various ports and from vessels at sea. For long-term studies these data can be obtained several months after the fish are caught, but for management purposes they must be collected, tabulated, and analyzed on a current basis.

With regard to skipjack, this species is caught off of Baja California and off Central and South America. The skipjack catch can vary from 40 to over 100 thousand short tons annually. While there is no indication that fishing has affected the abundance of skipjack nevertheless it is desirable to be able to predict its future abundance. In past years a predictive model based on oceanographic and atmospheric conditions in the South Pacific (the Southern Oscillation index) has provided reasonably accurate predictions, but in 1976 the actual catch has been underestimated. The prediction was for a catch of 65-90 thousand tons, but the actual catch will be roughly 120 thousand tons.

Little research has been carried out on species of tuna other than yellowfin and skipjack, although in some years other species are fairly abundant in the catch. Bigeye tuna are taken mainly by longliners, but in recent years the surface fishery has been taking increasing amounts of bigeye. The 1976 bigeye catch in the surface fishery will be about 8-9 thousand tons. The bluefin catch has varied between 6 and 17 thousand tons, taken from southern Mexico to as far north as Canada. This species is also harvested off of Japan. The Commission monitors bluefin catches, and is trying to isolate effort directed specifically at bluefin in order to estimate its abundance. Bonito in the south is taken mostly off of Peru, and in the north off of Mexico and the U.S.A. The Commission monitors only bonito catches made north of the equator; 1975 was a particularly good year, with about 20 thousand tons being taken.

Tagging studies are basic to the Commission's research program in several important respects. The study of migrations is helpful in estimating the degree of mixing among fish of different areas, for example between fish inside and outside of the CYRA. Tuna growth and mortality are also studied using tagging. However, in contrast to the situation in many other fisheries, tuna tagging is of little value in estimating population size, due primarily to the high mortality associated with tagging, especially when carried out from aboard purse seiners.

The Commission tags tunas aboard both purse seiners and baitboats. Tagging aboard baitboats is far more efficient because the survival of the tagged fish is much higher than that of fish tagged aboard purse seiners. However, the baitfishery is largely restricted to inshore areas, so that geographic coverage is poor. Hence, baitboat tagging must be supplemented by tagging aboard purse seiners to get good area coverage. To partially alleviate these problems, there are tentative plans to tag from baitboats fishing near floating objects further out to sea than has been usual in the past.

Baitboat tagging charters are paid for directly by the Commission, but purse seine tagging charters are carried out at no direct cost to the Commission. Instead, chartered purse seiners are designated as research vessels and are compensated by being allowed to fish without restriction in the CYRA for a limited period during the closed season after the tagging portion of the cruise is completed. Vessels of all flags are eligible to participate in the Commission's tagging program.

Dr. Joseph then showed a series of slides illustrating tagging procedures aboard a recent baitboat charter cruise. These slides showed techniques for catching smaller one-pole fish (larger two - and three - pole fish are unsuitable for tagging), measuring fish, tagging fish (including double tagging to estimate tag loss rates), and recording the data.

The preliminary results of a baitboat tagging cruise conducted off of southern Baja California in 1975 were then shown. The primary purpose of this cruise was to determine whether smaller yellowfin taken in this area subsequently appeared in the area west of the CYRA as larger fish. For both yellowfin and skipjack, the great majority of captures in both 1975 and 1976 were made near the area of release off Baja California. However, a few captures of both yellowfin and skipjack were made further south in each year, and one skipjack was recaptured outside the CYRA. Although there were no recaptures of yellowfin west of the CYRA in 1975 or 1976, a definitive result must wait until 1977 when the tagged fish will have reached the size that is normally taken in the outside area. In some cases large numbers of captures were made shortly after release and near the release area. Such captures provide information on the integrity of tuna schools.

After completing his presentation on the research program, Dr. Joseph responded to questions. The U.S.A. asked if any captures of tagged skipjack had been made in the area of the Hawaii Islands. Dr. Joseph responded that there had been two such captures this year and eight during past years.

The ICCAT representative, Dr. Rodríguez Martín, inquired about incentives to encourage tag returns. Dr. Joseph explained the importance of receiving information on as many tag recoveries as possible and described the substantial increase in the prizes offered in the annual lottery of recovered tag numbers. The prizes now total \$8,600, with first prize being \$3,000.

This has heightened interest in the tagging program, and there has been an increase in the reporting of recoveries.

Canada inquired about use of innovative tagging techniques, such as tagging in the water as is done with herring in Norway. Dr. Joseph replied that his staff makes considerable effort to keep abreast of developments in tagging techniques for possible application to tuna.

AGENDA ITEMS 4, 5 AND 6 - THE 1976 FISHING YEAR, CONDITION OF THE YELLOWFIN STOCK AND THE QUOTA FOR 1977, AND DISCUSSION OF THE PRESENT SYSTEM OF CLOSING THE FISHERY

The Chairman recalled Dr. Joseph's suggestion that the material for Agenda Items 4, 5, and 6 be presented together, and asked if there was any objection to this. There being none, Dr. Joseph proceeded with his presentation, noting that the pertinent information concerning Items 4 and 5 was contained in Background Papers 1 and 2 and that he would summarize the more important points.

The 1976 catch of yellowfin tuna in the CYRA had reached about 170,000 short tons at the time of the meeting and was expected to reach about 190-195 thousand tons by the end of 1976. This catch is consistent with the Commission's experimental program of setting maximum quotas above the current estimate of maximum sustainable yield, which has been in effect for several years. Stock assessment studies which form the basis for the program of experimental quotas were discussed, and results to date evaluated. It was pointed out that the catch per unit of effort, as well as other measures used to index stock abundance, had increased during 1976. Using this information and updating yield estimates from general production modelling, it has been estimated that the yellowfin stock in the CYRA could sustain maximum catches of about 170-175 thousand tons. However, by altering some of the assumptions, maximum yield estimates can vary between 150 and 200 thousand tons.

An analysis of the large catches of age-1 fish made in 1973 and 1974 was then presented. Based on the catches from these two year classes taken in subsequent years, it was concluded that the 1973 cohort, which has now moved through the fishery, was of about average abundance, while the 1974 cohort, which continues to contribute heavily to the catch, is considered to be larger than average. The age distribution in the catch during 1976 has returned to near normal, indicating that the large catches of young fish in 1973 and 1974 had no adverse effects on the present age structure of the stock.

Considering that during the last three years the catch of yellowfin has averaged near 190,000 tons, that the catch rate has remained nearly stable during this period, and that the 1976 age structure is near normal, the staff recommendation was to continue the experimental program by allowing for an increase in the catch during 1977. Specifically, it recommended that an initial overall quota of 160,000 tons be established with options to increase the quota by two increments of 25,000 tons each to a

maximum of 210,000 tons, provided the apparent condition of the stock suggests that such increases are warranted.

Dr. Joseph next discussed the fishery west of the CYRA and east of 150°W longitude. In this area the catch has been increasing linearly with effort, and the catch per effort has shown no trends, either up or down, since 1970. The stock in this offshore area is not totally independent of the stock inside the CYRA, as evidenced by tagging, but the rate of mixing appears to be low between the two areas. On the basis of this information the staff does not yet recommend management measures in the outside area.

Dr. Joseph next explained that with a growing fleet an increasing proportion of the catch must be reserved for the "last open trip" and for special allocations. Hence, it is becoming increasingly difficult to determine a closure date that will ensure that the catch at the end of the year will approximately equal the quota set by the Commission. He noted that the problem will become even more complicated in 1977 if prohibitions on porpoise fishing are instituted, as is contemplated by some nations. He therefore recommended, as he has for the past two years, that the present regulation scheme be modified so as to correct for these difficulties.

Upon completion of Dr. Joseph's presentation, the Chairman opened the floor for questions concerning the material presented. Noting that the hour for adjournment was near, Mexico suggested that questions be deferred until the following morning. All delegations agreed with this suggestion, and the meeting was recessed at 5:05 P.M., until the following day.

The meeting was reconvened at 10:40 A.M. on Tuesday, October 12, and the Chairman opened the floor for questions on Dr. Joseph's presentation. The U.S.A. asked Dr. Joseph if, as in other years, the staff had made a prediction of what the 1977 skipjack catch would be. He replied that because the 1976 catch had far exceeded the staff's prediction, it was re-evaluating its analysis and was not in a position to make an estimate for 1977.

Panama wanted to know how much yellowfin had been taken during 1976 in the two experimental areas opened by the Commission at its last meeting. Dr. Joseph replied that about 9,000 tons has been taken in these areas, but that most of this catch had been taken prior to the closure to unrestricted fishing. Hence, opening of the experimental areas contributed little to the catch made there, at least through October 1976.

Mexico sought further clarification concerning the effect of the large catches of small fish in 1973 and 1974 on subsequent cohort abundance, and how this affected the stock condition. Dr. Joseph reviewed the details concerning this matter which he had presented on the previous day, expanding upon certain parts.

The U.S.A. asked Dr. Joseph to explain how the catch of fish in one year affects abundance in the following years and how environmental factors

are involved. Dr. Joseph observed that a full answer to this important and fundamental question would require considerable time and effort. However, he noted that the ability of a fish population to replace itself was dependent upon the rates of growth, mortality, and recruitment. He explained the difference between density-dependent and density-independent influences and how they altered conclusions concerning the effect of removals by man. He also noted that the environment plays a substantial role, in that it can alter both the real and apparent abundance of fish.

The U.S. then proposed an overall yellowfin quota starting at 175,000 short tons and allowing for two incremental increases of 20,000 tons each, thereby permitting a possible maximum catch of 215,000 tons. It based this proposal on Dr. Joseph's favorable report on the condition of the stock, and noted that this base quota would be the same as in 1976. The U.S. also proposed retention of the last trip, noting that with a higher base quota the last trip would create less of a problem for the staff in determining a closure date.

In response to the U.S., Mexico stated that any increase this year in the yellowfin quota should be based on conservation considerations. It reasoned that because the staff recommendation for an upper limit of 210,000 tons differed only slightly from the upper limit of 215,000 tons proposed by the U.S., the Commission should adopt the staff recommendation.

There being no additional proposals or comments relating to agenda items 5 and 6, it was agreed that further consideration of these items be left pending until after the Inter-Governmental Meeting, scheduled to start the next day, had completed its business.

Dr. Joseph then asked for the floor to discuss the draft manuscript on alternatives for management of tuna resources which had been distributed to the Commissioners prior to the Meeting. He explained that the manuscript, which had been prepared at the request of the 19th Inter-Governmental Meeting, was to be used as a background document for a meeting of plenipotentiaries to be held in 1976 or 1977 to consider redrafting the treaty establishing the IATTC. The manuscript deals with the problems of tuna management on a world scale, with emphasis on the eastern Pacific. It is necessarily long and complex because the management and conservation of tuna resources is a very complex subject that cannot be adequately dealt with in a superficial or abbreviated manner. It makes no special recommendations, but rather deals with alternatives.

Dr. Joseph asked the Commissioners whether they wished to use the manuscript as a background document for the proposed meeting of plenipotentiaries and distribute it widely or to restrict its use for Commissioners only. A great deal of discussion ensued concerning this question. Some delegations believed that the manuscript should be given wide distribution immediately. Other delegations considered that it should first undergo scientific review, just as other scientific papers are subjected to review. Ultimately it was agreed that the authors would distribute the paper for review to scientific colleagues in all nations bordering the eastern Pacific or active in the eastern Pacific tuna fishery.

Any colleagues or Commissioners wishing to suggest modifications or corrections in the manuscript must submit their comments to the authors by January 1, 1977, to be considered. Based on the comments received, the authors will then make any revisions that they believe appropriate. The manuscript will then be widely distributed and will be available to all delegates to the meeting of plenipotentiaries. It was emphasized by several delegations that the document would not represent the views of the Commission, but merely those of the authors.

AGENDA ITEM 7 - THE TUNA-PORPOISE RELATIONSHIP AND ASSOCIATED PROBLEMS

The Chairman called on Dr. Joseph to comment on the tuna-porpoise agenda item. He noted that the U.S. delegation had in the past sought Commission cooperation in addressing the problem of porpoise mortality associated with tuna purse seining. As a result, at the second part of the 1975 Commission meeting in Washington, D.C., acting on a motion by Mexico, the Director of Investigations was instructed to prepare a report dealing with possible Commission involvement in porpoise research. A document entitled "The Tuna-Porpoise Relationship and the Inter-American Tropical Tuna Commission" was prepared in response to this request for consideration at this meeting.

Dr. Joseph briefly reviewed the document. It begins by describing how porpoise are sometimes killed when purse seiners make sets on associated schools of tuna and porpoise, and NMFS estimates of the kill by U.S. fishermen in recent years are noted. The consequences of unilateral action by nations to reduce the kill are then discussed. If a nation such as the U.S. were forced to sharply restrict its purse seining operations in offshore areas A2 and A3 to protect porpoise, effort directed at school fish in A1 would be increased. Despite this increased effort, the sustainable yield from this limited area would be much lower than at present, and the annual overall yellowfin quota would have to be reduced. It is also possible that coastal nations would deny or limit access to their coastal zones. Under these circumstances, it is conceivable that a unilateral approach to the porpoise conservation problem could jeopardize the existing tuna management program.

The document goes on to very briefly describe research needs and the current U.S. research program in the following areas: population structure, population assessment, porpoise-tuna interaction, porpoise behavior, general biology, environmental studies, and gear research. A rationale for possible Commission involvement is then developed. It is based on the fact that porpoise populations are highly migratory and interact with the international tuna resources. Therefore, anything affecting porpoise stocks might also affect the potential yield from tuna stocks. Because the charge of the Commission is to maintain tuna stocks at levels that are capable of producing maximum yields on a sustainable basis, involvement with porpoise is a legitimate area of Commission activity. Furthermore, the Commission is in a unique

position to organize an international program for collection of data on porpoise abundance and mortality from fishing vessels and research platforms, to facilitate tagging studies through designation of fishing vessels as research vessels, to minimize protocol problems associated with research carried out in national juridical zones, and to undertake a multiple species management program requiring current monitoring of tuna catches and porpoise kills.

The document goes on to outline alternative decisions regarding Commission involvement in porpoise research. They are as follows:

1. "The Commission could choose to do nothing, that is, make no changes in its programs as they are currently carried out. This would imply that from the Commission's point of view there is no problem or that if there is a problem, it can be resolved by the industry itself or through actions by individual nations or some other body."
2. "The Commission could attempt to protect all porpoise in the eastern Pacific from the possibility of death as a result of tuna fishing."
 - A. The immediate implementation of such a course would require "... an immediate and complete ban on purse seining for tuna associated with porpoise.
 - B. Alternatively, "...the Commission could phase out purse seining gradually by setting up a system of progressively decreasing quotas."
3. The Commission could choose "...to maintain tuna production at near current levels and at the same time maintain stocks of porpoise at or above levels that would insure their survival in perpetuity. At the same time every reasonable effort could be made to ensure that porpoise were not being needlessly or carelessly killed in fishing operations."
 - A. "The Commission could act primarily as a planning and coordinating body calling upon scientific inputs from both its member states and non-member states."
 - B. Alternatively, the Commission "...could choose a larger role for itself and both plan and execute research relating to porpoise."

If the Commission decides to become involved in porpoise research, the initial step, or Phase I, will be for the staff to undertake a comprehensive technical review of all existing information pertaining to the tuna-porpoise problem. A detailed proposal for Commission porpoise research would be prepared and submitted for approval or disapproval. If the Phase I proposal were approved, then Phase II would be to implement an on-going research program. Activities that could be incorporated into a Phase II program include: estimating the kill, estimating the stock size, estimating the effect of the kill on stock size, setting quotas, reducing the accidental kill, and gear

research. Costs for a research program in which the Commission plays a planning and coordinating role are very roughly estimated to be \$250,000 annually. For the Commission to execute all research itself would be much more expensive, in excess of \$2 million annually.

A rather lengthy discussion followed Dr. Joseph's presentation of the tuna-porpoise document. The delegations of all nations present expressed themselves on the alternatives before the Commission as listed above. All believed that an international approach to the tuna-porpoise problem was needed and that there existed an adequate rationale for Commission involvement. All believed that the third alternative in the tuna-porpoise document expressed the proper Commission objective. That is, the Commission should strive to maintain a high level of tuna production and also to maintain porpoise stocks at or above levels that assure their survival in perpetuity, with every reasonable effort being made to avoid needless or careless killing of porpoise. In seeking to achieve these goals, several delegations indicated that to the extent possible they would prefer a planning and coordinating role for the Commission, that is, subalternative A under objective 3 mentioned above.

Several additional points were made during the discussion. Mexico noted that it had a domestic law prohibiting porpoise killing which it was making an effort to enforce. Mexico also noted that any measures to protect porpoise stocks should apply equally to all nations. Nicaragua concurred with the need for any solution to apply to all nations. The U.S.A. agreed that an international approach was needed, but raised a question as to the probability of a Commission porpoise research program being successful in the light of the limited knowledge gained in 25 years of tuna research.

Having reached agreement on the proper Commission objective, the discussion focused on how Phase I would be carried out. Dr. Joseph indicated that he would probably temporarily hire a senior scientist to assist him and his staff in carrying out the Phase I review of porpoise research requirements. He noted that the costs of Phase I could perhaps be absorbed under the existing budget but, if not, then nations could be billed in proportion to their current contributions to the Commission. This procedure was agreeable to all, provided that the changes were relatively small. However, Japan noted that if costs of a Commission porpoise program became large, it might be necessary to develop some other scheme for financing the program. For example, possibly only purse seine catches should be considered in allocating costs among nations.

Dr. Joseph indicated that a Phase I study would require a minimum of 3 or 4 months to execute. Allowing for time to hire a senior scientist and for other contingencies, he stated that Phase I could be completed by the end of May 1977. After completion of Phase I, it was agreed a special meeting of the Commission would be convened at a time and place to be determined. At this special meeting the Commission could either act to approve the research program developed in Phase I and to implement Phase II, or it could take whatever other action it deemed desirable with regard to porpoise research.

The U.S.A. then recalled that for 1975 a special 1,000-ton allowance of yellowfin had been established for purposes of U.S. porpoise research. This quota enabled two vessels to test two types of purse seines modified to reduce porpoise mortality. Also, the U.S. distributed an administrative report from the NMFS Southwest Fisheries Center entitled "Progress of Research on Porpoise Mortality Incidental to Tuna Purse-Seine Fishing for Fiscal Year 1976."

The meeting was recessed at 5:25 P.M. and reconvened at 9:15 A.M. on Wednesday, October 13.

AGENDA ITEM 8 - RECOMMENDED RESEARCH PROGRAM AND BUDGET FOR FY 1978/1979

At the Chairman's request, Dr. Joseph reviewed the proposed IATTC budget for FY 1978/1979. There being no comments or suggested modifications, the budget was approved unanimously as presented in Background Paper No. 3. Dr. Joseph also noted that the Commission has this year changed its fiscal year from July-June to October-September in order that its fiscal year remain in accordance with that of its host nation, the U.S.A.

The meeting was recessed by the Chairman at 9:25 A.M., to be reconvened after the completion of the twentieth Inter-Governmental Meeting. The Inter-Governmental Meeting was held on October 13 and 14, and the thirty-third meeting of the Commission was reconvened on Thursday, October 14 at 11:55 A.M.

FURTHER CONSIDERATION OF AGENDA ITEMS 5 AND 6 - CONDITION OF THE YELLOWFIN STOCK AND THE QUOTA FOR 1977, AND A DISCUSSION OF THE PRESENT SYSTEM OF CLOSING THE FISHERY

The Chairman observed that the matter of setting an overall yellowfin quota for 1977 was still pending. He reviewed the suggestion of the U.S.A. that the quota be set at 175,000 short tons with two increments of 20,000 tons each, for a possible maximum of 215,000 tons. He also reviewed the position of Mexico which was to set the upper limit at 210,000 tons as recommended by the scientific staff. After further discussion there was unanimous agreement to establish a 1977 yellowfin quota of 175,000 tons with the possibility of two incremental increases, one of 20,000 tons and the other of 15,000 tons, giving a maximum quota of 210,000 tons.

The Chairman suggested that as in previous years, Dr. Joseph use the draft resolution to be prepared at the twentieth Inter-Governmental Meeting (Appendix II) as a guide in the preparation of an IATTC resolution (Appendix III) which would then be sent to the Commissioners for their approval. As there was no objection, this procedure was agreed to.

AGENDA ITEM 9 - PLACE AND DATE OF NEXT MEETING

The delegation of Costa Rica graciously invited the Commission to hold its next regular meeting in Costa Rica. This kind offer met with unanimous approval, and it was agreed that the meeting would be held in San Jose, Costa Rica, from October 17 through October 21, 1977.

AGENDA ITEM 10 - ELECTION OF OFFICERS

Nicaragua nominated the representative from Costa Rica as Chairman for the forthcoming term. The representative from Costa Rica responded saying that his delegation was pleased to accept the chairmanship, but because of changes underway in his country he would have to report back to the Commission in due course designating a Costa Rican Commissioner to serve as Chairman. This arrangement was agreed to unanimously.

Panama nominated Mr. Van Campen of the U.S.A. as secretary, and he was elected by acclamation.

AGENDA ITEM 11 - OTHER BUSINESS

There being no further business, Mexico took the opportunity to call attention to the outstanding job done by the Chairman and to thank the host government, Nicaragua for its generous hospitality. All other delegations joined Mexico in its remarks.

AGENDA ITEM 12 - ADJOURNMENT

The thirty-third meeting was adjourned at 12:18 P.M. on Thursday, October 14.

APPENDIX I

LIST OF ATTENDEES AT THE 33rd MEETING OF THE IATTC

CANADA

S. Noel Tibbo - Commissioner
E. Blyth Young - Commissioner

James S. Beckett
Bruce M. Chatwin

Sergio Martínez Casco
Rodolfo A. Sequeira Rivera
Donald Spencer F.
Jamil Urroz Escobar

PANAMA

COSTA RICA

Francisco Terán Valls - Commissioner

Manuel Freer Jiménez
Abundio Gutierrez M.
Rafael Paris Steffens

Juan Luis de Obarrio - Commissioner

José M. Cabrera

U. S. E.

Glenn H. Copeland - Commissioner
Jack Gorby - Commissioner
Robert C. MacDonald - Commissioner
Wilvan G. Van Campen - Commissioner

FRANCE

François Laplace

JAPAN

Shoichi Masuda - Commissioner
Kunio Yonezawa - Commissioner

Minoru Morimoto
Shinsaku Nambo
Shojiro Shimura
Yasuo Takase

Izadore Barrett
Herbert Blatt
Carmen Blondin
Gordon C. Broadhead
Peter Buchan
Charles R. Carry
August Felando
Charles E. Finan
William W. Fox, Jr.
Jay P. Freres
Brian S. Hallman
Rolf Juhl
Milton M. Kaufmann
Barbara Keith
O. E. Kerns, Jr.
Janous J. Marks
John L. Martin
John F. Mauricio
Anthony Nizetich
Anthony Pisano
Rozanne L. Ridgway
O. A. Schulz
James Seabrooke
Manuel A. Silva
Jack Tarantino
Julius H. Zolezzi

MEXICO

Arturo Díaz Rojo - Commissioner
Joaquín Mercado - Commissioner
Amín Zarur Menez - Commissioner

Pedro Mercado
Alberto Szekely
Manuel Tello

NICARAGUA

Gilberto Bergman P. - Commissioner
José B. Godoy M. - Commissioner

Francisco Campbell
Iván Galeano Espinoza
Octavio Gutierrez

CHILE

Manuel Stagero M.

COLOMBIA

Rafael Gómez Quiñones

ECUADOR

Efron López León
Enrique Sánchez Barona

EL SALVADOR

José Eduardo Cabrero H.

GUATEMALA

Luis F. Martínez A.

PERU

Antonio Gruter Vásquez

REPUBLIC OF CHINA

Yuan Po-Wei

REPUBLIC OF KOREA

Han Mo Kim

SPAIN

V. Bermejo
Javier Conde
Javier Garay
Ignacio Lachaga Bengoechea

VENEZUELA

José Enrique Peña Peña

ICCAT

Olegario Rodríguez Martín

IATTC

Joseph W. Greenough
James Joseph
Regina Newman

APPENDIX II

20th. INTERGOVERNMENTAL MEETING

ON THE

CONSERVATION OF YELLOWFIN TUNA

Managua, Nicaragua - October 13, 1976

DRAFT RESOLUTION

The Twentieth Intergovernmental Meeting on the Conservation of Yellowfin Tuna, taking into consideration that its recommendations are without prejudice to the sovereign rights of states or to international negotiations for a new convention on the law of the sea and related arrangements,

RESOLVES:

To support the suggestions and premises for the conservation and protection of the species that have been presented at this meeting by the Director of Investigations subject to the provisions contained in this resolution;

To congratulate the Director of Investigations and his staff and give them a vote of confidence for investigations and works that they have so carefully and responsibly undertaken;

Resolve also:

To recommend to IATTC that it recommend to its member Governments that they continue in 1977 the same measures that were in effect for the conservation of yellowfin tuna in 1976, with the following modifications:

The provisions of the Commission Resolution for 1976 providing for a closed season allocation of 6,000 short tons for the vessels of 400 short tons capacity or less of each country shall apply in the same manner in 1977 with the following exceptions:

- a) In the case of Costa Rica, this allocation may be taken by its vessels of up to 1,100 short tons of carrying capacity, on the understanding that the Government of Costa Rica will inform the Commission of the date in which these vessels start fishing.
- b) In the case of Nicaragua, up to 4,000 tons of this allocation may be taken by two (2) of its vessels with carrying capacities of up to 1,800 short tons each, on the understanding that the Government of Nicaragua will inform the Commission of the date on which these vessels start fishing.

- c) In the case of Panama, up to 3,000 tons of this allocation may be taken by its vessels of more than 400 tons of carrying capacity, on the understanding that the Government of Panama will inform the Commission of the date on which these vessels start fishing.

APPENDIX III

THE RESOLUTION OF THE IATTC FOR THE REGULATION OF YELLOWFIN TUNA IN 1977

RESOLUTION

The Inter-American Tropical Tuna Commission

Recognizing that the Commission does not yet have all the necessary information to establish precisely the maximum level of production which the stock is capable of sustaining, and

Considering also that the program of experimental fishing is designed to ascertain empirically the maximum average sustained yield from the yellowfin tuna stock by permitting catches substantially larger than the theoretical maximum predicted by present knowledge, and

Recognizing that the experimental fishing program has not yet clearly demonstrated that levels of catch beyond this theoretical maximum cannot be sustained,

Concludes that it is desirable to continue during 1977 the experimental fishing program of yellowfin tuna, and

Taking note of the resolution from the 20th Inter-Governmental Meeting on the Conservation of Yellowfin Tuna, which recommends certain management measures to the Commission,

Therefore recommends to the high contracting parties that they take joint action to:

1) Establish the annual catch limit (quota) on the total catch of yellowfin tuna for the calendar year of 1977 at 175,000 short tons from the CYRA defined in the resolution adopted by the Commission on May 17, 1962, provided:

- a) that the Director of Investigations may increase this limit by no more than two successive increments if he concludes from re-examination of available data that such increase will offer no substantial danger to the stock. The first such increase shall be in the amount of 20,000 short tons and the second in the amount of 15,000 tons,
- b) that if the annual catch rate is projected to fall below 3 short tons per standard day's fishing, measured in purse-seine units adjusted to levels of gear efficiency previous to 1962, as estimated by the Director of Investigations, the unrestricted fishing for yellowfin tuna in the CYRA shall be curtailed so as not to exceed the then current estimate of equilibrium yield and shall be closed on a date to be fixed by the Director of Investigations.

2) Reserve a portion of the annual yellowfin tuna quota for an allowance for incidental catches of tuna fishing vessels when fishing in the CYRA for species normally taken mingled with yellowfin tuna after the closure of the unrestricted fishing for yellowfin tuna. The amount of this portion should be determined by the scientific staff of the Commission at such time as the catch of yellowfin tuna approaches the recommended quota for the year.

3) Allow vessels to enter the CYRA during the open season, which begins January 1, 1977, with permission to fish for yellowfin tuna without restriction on the quantity until the vessels return to port for the first time after closure of the unrestricted fishery.

4) Close the fishery for yellowfin tuna in 1977 at such date as the quantity already caught, plus the expected catch of yellowfin tuna by vessels which are at sea with permission to fish without restriction or will depart for sea under provision of Item 12, reaches 175,000, 195,000 or 210,000 short tons, if the Director of Investigations so determines that such amounts should be taken, less the portion reserved for incidental catches in Item 2 above and for the special allowances provided for in Items 7, 9, 10 and 11 below, such date to be determined by the Director of Investigations.

5) Given a level of fishing effort in 1977 similar to that of 1976, the closure date of the open season in 1977 is expected to be approximately the same as that in 1976, recognizing that in determining the closure date the Director of Investigations will take into consideration all available evidence related to the status of the stocks.

6) Permit each vessel not provided with a special allowance under Items 7, 9, or 11 below, fishing for tuna in the CYRA after the closure date for the yellowfin tuna fishery, to land an incidental catch of yellowfin tuna taken in catches of other species in the CYRA on each trip commenced during such closed season. The amount each vessel is permitted to land as an incidental catch of yellowfin tuna shall be determined by the government which regulates the fishing activities of such vessels provided, however, that the aggregate of the incidental catches of yellowfin tuna taken by all such vessels of a country so permitted shall not exceed 15 percent of the combined total catch taken by such vessels during the period these vessels are permitted to land incidental catches of yellowfin tuna.

7) Permit the flag vessels of each country of 400 short tons capacity and less fishing tuna in the CYRA after the closure date for the yellowfin tuna fishery to fish freely until 6,000 short tons of yellowfin tuna are taken by such vessels of each country or to fish for yellowfin tuna under such restrictions as may be necessary to limit the catch of yellowfin tuna by such vessels of each country to 6,000 short tons; and thereafter to permit such vessels of each country to land an incidental catch of yellowfin tuna taken in the catch of other species in the CYRA on each trip commenced after 6,000 tons have been caught. The amount each vessel is permitted to

land as an incidental catch shall be determined by the government which regulates the fishing activities of such vessels provided, however, that the aggregate of the incidental catches of yellowfin tuna taken by such vessels of each country so permitted shall not exceed 15 percent of the total catch taken by such vessels of each country during trips commenced after 6,000 short tons of yellowfin tuna have been caught. The following provisions shall apply for the year 1977 only, and shall not establish a precedent for future years for other countries.

- a) In the case of Costa Rica, this 6,000 short tons of yellowfin tuna may be taken by its vessels of up to 1,100 short tons of carrying capacity, on the understanding that the government of Costa Rica will inform the Commission of the date on which these vessels start fishing.
 - b) In the case of Nicaragua, up to 4,000 of this 6,000 short tons of yellowfin tuna may be taken by two (2) of its vessels with carrying capacities of up to 1,800 short tons each, on the understanding that the government of Nicaragua will inform the Commission of the date on which these vessels start fishing.
 - c) In the case of Panama, up to 3,000 of this 6,000 short tons of yellowfin tuna may be taken by its vessels of more than 400 tons of carrying capacity, on the understanding that the government of Panama will inform the Commission of the date on which these vessels start fishing.
- 8) The species referred to in Items 2, 6 and 7 are skipjack tuna, bigeye tuna, bluefin tuna, albacore tuna, black skipjack, bonito, billfishes and sharks.
- 9) Permit, during the closed season for 1977, the newly-constructed vessels of those members of the Commission which are developing countries and whose fisheries are in the early stage of development (that is, whose tuna catch in the Convention Area in 1970 did not exceed 12,000 short tons and whose total fish catch in 1969 did not exceed 400,000 metric tons) and which entered the fishery for yellowfin tuna in the Convention Area for the first time under the flag of such country during the closed season in 1971 or during 1972 and which, because of characteristics such as size, gear or fishing techniques, present special problems, to fish unrestricted for yellowfin tuna until such vessels have taken in the aggregate 13,000 short tons of yellowfin tuna or to fish for yellowfin tuna under such restrictions as may be necessary to limit the aggregate catch of such vessels to 13,000 short tons of yellowfin tuna; provided that if the aggregate catch of yellowfin tuna, as determined by the Director of Investigations, during the open

season (including the last unrestricted trip) of the tuna fishing vessels of any such developing country should exceed 6,000 short tons, the allocation of 13,000 short tons of yellowfin tuna available to the above-described vessels of such country during the closed season shall be reduced by the amount that the open-season catch of yellowfin tuna exceeds 6,000 short tons.

- a) Those vessels that shall enjoy the above special allocation are defined in addition to the above as:
 - 1) those vessels which had an individual catch per capacity ton for 1976 of less than 75 percent of the average catch per capacity ton of all vessels in comparable Commission size classes engaged in the fishery in the Convention Area in 1974, as determined by Commission statistics, and
 - 2) which are designated by name in an official memorandum from the flag government to the Director of Investigations.
 - b) During the 1977 season, if a vessel of a qualified country which is not included in the provision of paragraph a (sub-paragraph 1) experiences problems of the nature above-described or a similar nature, that country may substitute such vessel for any other vessel which was so qualified and designated for the purpose of exercising the benefit of the above-described provision and immediately notify the Director of Investigations of the substitution and the nature of the special problem which made the new vessel eligible.
 - c) For 1977 only, the above provision will apply to six new vessels which Mexico incorporated into its fleet during the 1976 fishing season and which will present special problems of operation.
- 10) Permit during 1977 only, 1,000 short tons of yellowfin tuna to be taken during the closed season by a vessel or vessels of the United States of America for continued research on the reduction of accidental porpoise mortality.
- 11) a) In order not to curtail their fisheries, those countries whose governments accept the Commission's recommendations, but whose fisheries of yellowfin tuna are not of significance, will be exempted of their obligations of compliance with the restrictive measures.
 - b) Under present conditions, and according to the information available, an annual capture of 1,000 short tons of yellowfin tuna is the upper limit to enjoy said exemption.

- c) After the closure of the yellowfin tuna fishery, the governments of the contracting parties and cooperating countries may permit their vessels to land yellowfin tuna without restriction in any country described in paragraphs a) and b) above which has canning facilities until such time as the total amount of yellowfin tuna landed in such country during 1977 reaches 1,000 short tons.

12) For 1977 only, in order to avoid congestion of unloading and processing facilities around the date of the season closure and the danger that vessels may put to sea without adequate preparations, any vessel which completes its trip before the closure or which is in port at the closure and completed a trip in the CYRA during 1976 may sail to fish freely for yellowfin tuna within the CYRA on any trip which is commenced within 30 days after the closure.

13) For 1977 only, exclude from the CYRA on an experimental basis the two areas defined as follows: (1) the area encompassed by a line drawn commencing at 110°W longitude and 5°N latitude extending east along 5°N latitude to 95°W longitude; thence south along 95°W longitude to 3°S latitude; thence east along 3°S latitude to 90°W longitude; thence south along 90°W longitude to 10°S latitude; thence west along 10°S latitude to 110°W longitude; thence north along 110°W longitude to 5°N latitude and (2) the area encompassed by a line drawn commencing at 115°W longitude and 5°N latitude extending west along 5°N latitude to 120°W longitude; thence north along 120°W longitude to 20°N latitude; thence east along 20°N latitude to 115°W longitude; thence south along 115°W longitude to 5°N latitude. Because of the lack of data from these areas, it is also resolved:

- a) To urge all member government to take the necessary steps to assure that data collected from vessels fishing in these areas are transmitted to the Commission.
- b) That if the Commission's staff determines that experimental fishing in the areas outlined above is adversely affecting the management program, the Director of Investigations be authorized to call a special meeting of the Commission to review the data and make appropriate recommendations.

14) Although it is recognized that the present regulatory system has served to conserve the yellowfin tuna resource, it is also resolved that because of the practical difficulties which have arisen from the present regulatory system, which was established under circumstances unlike those of the current situation in tuna exploitation, to urge all member countries to continue to make exhaustive studies and investigations in order to establish a new regulatory system beginning in 1978, or as soon as possible, which would satisfy the needs and interests of all the participants in the yellowfin tuna fishery of the eastern Pacific Ocean.

- 15) Request the member and cooperating governments to:
- a) Adopt adequate legislation and regulation, when these do not exist, to prohibit and prosecute those who catch tuna in violation of the Commission's recommendations by vessels of their flag.
 - b) Assure that the activities of their flag vessels fishing tuna in the eastern Pacific Ocean during the closed season established by the Commission adequately be recorded and monitored. For this purpose:
 - 1) these vessels will fill out daily logbooks of their tuna operations, and these logbooks will be regularly inspected by authorized officials of the country of the flag to which they belong;
 - 2) these vessels will make daily radio reports to the government of the country to which they belong on the frequencies 16565.0 - 12421.0 or 8281.2 KHZ when they are outside of the CYRA and they will report immediately by radio on the frequencies 16565.0 - 12421.2 or 8281.2 KHZ each time that they enter or leave the CYRA;
 - 3) For those vessels which fish within as well as outside of the CYRA in the same trip during a closed season applicable to these vessels it will be considered that they have caught all the tuna that they carry aboard inside of the CYRA unless the tuna caught inside and outside of the CYRA has been stored and identified with the seal of a duly authorized official of the country of flag before the vessel moves its fishing operations to an area inside or outside of the CYRA, as the case may be.
 - c) Inspect or make arrangements for inspection, if bilateral agreements are established, of all the unloadings and transshipments of tuna by vessels of its flag that are fishing for tuna in the CYRA during the closed season applicable to that vessel. The member countries which permit such unloadings or transshipments within their jurisdiction by vessels with flags of another country will cooperate with the country of that flag to make an adequate inspection.
 - d) Apply the internal legislation of each country in accordance with the seriousness of the violation in order to assure compliance with the recommendations of the Commission.

e) Cooperate with the member governments in the promotion of effective implementation of this recommendation, considering and taking notice of necessary action on reports submitted by other member countries regarding tuna fishing within the CYRA.

f) Collaborate with member governments in the examination of the functioning of these recommendations.

16) Obtain by appropriate measures the cooperation of those governments whose vessels operate in the fishery, but which are not parties to the Convention for the establishment of an Inter-American Tropical Tuna Commission to put into effect these conservation measures.