COMISION INTERAMERICANA DEL ATUN TROPICAL

INTER-AMERICAN TROPICAL TUNA COMMISSION

SUMMARY MINUTES OF THE NINETEENTH ANNUAL MEETING

RESUMEN DE LAS MINUTAS DE LA DECIMANOVENA REUNION ANUAL

April 4 - 6, 1967
San José, Costa Rica

Chairman-Presidente: Juan L. de Obarrio
Secretary-Secretario: J. L. McHugh

INTER-AMERICAN TROPICAL TUNA COMMISSION

A N N U A L M E E T I N G
April 4 - 6, 1967
San Jose, Costa Rica

Chairman: Juan L. de Obarrio

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A G E N D A

(1) Opening of meeting by Chairman
(Special mention of "founders and of original Commissioners - Background Paper No.1)

(2) Consideration and adoption of Agenda

(3) Current researches and research results

(4) Yellowfin tuna regulations during 1966 - B.P. No.2

(5) Condition of yellowfin stocks and recommendations for 1967 - B.P. No.3

(6) Revision of research program under revised budget for 1967/68 - B.P. No.4

(7) Recommended research program and budget for 1968/69 - B.P. No.5

(8) Proportion of contributions by Member Governments B.P. No.6

(9) Approval of Commission's Annual Report for 1966

(10) Election of Officers

(11) Place and date of next meeting

(12) Other business

The nineteenth* regular annual meeting for the year 1967 convened in plenary session at 10:00 A.M., April 4, 1967 in the Teatro Nacional, San José, Costa Rica. Subsequent working meetings were held in the Board Room of the Department of Agriculture.

The following persons attended one or more of the sessions:

Lic. Virgilio Calvo Sánchez, Vice-President of the Republic of Costa Rica
Ing. Guillermo E. YglesiasP., Minister of Agriculture
Don José Joaquin Peralta, former Vice-President and Minister of Agriculture, Costa Rica
Don Fernando Lara, Minister of Foreign Affairs

Representatives of Member Governments:

Costa Rica:

José Luis Cardona-Cooper, Commissioner
Milton H. López, Commissioner

Ecuador:

Miguel Angel López Saá, Chargé d'Affaires, Embassy in Costa Rica

Mexico:

Juan Luis Cifuentes L., Commissioner
Mauro Cárdenas Figueroa, Commissioner

Panama:

Juan L. de Obarrio, Commissioner

United States:

J. L. McHugh, Commissioner
John G. Driscoll, Jr., Commissioner
William H. Holmstrom, Commissioner

Advisors of Member Countries:

Costa Rica:

Fernando Palau C.
Stewart Heigold
Eduardo Bravo

United States:

Burdick H. Brittin, Department of State
Gordon C. Broadhead, Van Camp Sea Foods Co.

*The first meeting of the Commission was held on July 18, 1950 in Coronado, California. Two regular meetings were held in 1951, and a special meeting on September 14, 1961. Thus the Commission has met 20 times. Regular Annual Meetings began to be numbered in 1965, starting with 17. Thus the present meeting is the 19th regular Annual Meeting.

Charles R. Carry, Tuna Research Foundation, Inc.
August Felando, American Tunaboat Association
Gerald V. Howard, Bureau of Commercial Fisheries, Terminal Island, California
Janous Marks, Westgate Corporation
Donald L. McKernan, Department of State
Anthony Nizetich, Star-Kist Inc.
Alva F. Rollins, Bureau of Commercial Fisheries, Washington, D.C.
John Royal, Fishermen's Union, I.L.W.U.
William M. Terry, Bureau of Commercial Fisheries, Washington, D.C.
Wilvan Van Campen, Department of State

Staff of the Inter-American Tropical Tuna Commission:

John L. Kask, Director of Investigations
James Joseph, Principal Scientist
Julio Carranza, Statistical Agent
Aníbal Orbes, Statistical Agent

Observers from Member Countries:

Costa Rica:

Jorge A. Acuña U., Ministry of Agriculture
José Luis Moreno, Fishermen's Assoc., Puntarenas
Alvaro Muños Quesada, Ministry of Agriculture
Oscar Novoa
Helmut Ruge, Fishermen's Assoc., Puntarenas
Raúl Torres B.
Jorge Mora Urpí, University of Costa Rica

Mexico:

Alejandro Cervantes D., Dirección General de Pesca

Official Observers from Other Countries:

Canada:

William M. Sprules, Department of Fisheries, Ottawa
K.S. Ketchen, Fisheries Research Board of Canada, Nanaimo, B.C.
Emerson H. Gennis, Canadian Tuna Company (1965) Ltd., Toronto
M. A. Godfrey, III Secretary, Canadian Embassy, Costa Rica

Chile:

Aníbal Palma Fourcade, Ministry of Foreign Relations, Sociedad Nacional de Pesca
Also Observer for South Pacific Commission
Edgardo Zarrueto Reeves, Embassy of Chile, Costa Rica

Colombia:

Jaime Bonilla Plata, Ambassador, Costa Rica

Guatemala:

Jorge Luis Arriola, Ambassador, Costa Rica
Mario Alberto Saavedra, Chief, Division of Fauna, Ministry of Agriculture

Japan:

Tadao Kamimura, Chief, High Seas Resources, Nankai Regional Fisheries Research Laboratory, Kochi
Toshio Isogai, II Secretary, Embassy of Japan, Canadá
Shojiro Shimura, Chief, Guidance Section, Federation of Japan Tuna Fishermen's Co-operative Assoc.,Tokyo
Yoshitaro Yoshisake, Embassy of Japan, Costa Rica

Nicaragua:

Antonio Flores Arana, Instituto de Fomento Nacional, Managua
Rubén Camacho Sánchez, Director, Renewable Natural Resources, Ministry of Agriculture, Managua
Antonio Rodríguez García, Director General of Fisheries, Managua

Peru:

José Pareja Pazsoldan, Ambassador, Costa Rica
Also Observer for South Pacific Commission
Víctor Fernández Dávila, II Secretary, Embassy of Peru, Costa Rica

Representatives from International Organizations:

F A O:

Luis L. Vasconcelos, Director Regional Project Fisheries Development in Central America, El Salvador
Robert W. Ellis, UNDP, EL Salvador (Resident in Costa Rica)
Roar Jóraholmen, UNDP, El Salvador (" " " ")

Interpretation Team:

Carlos Díez, Interpreter
Gerardo Lara, Engineer

Agenda Item (1) - Opening of Meeting by Chairman

The Chairman opened the meeting by welcoming all distinguished guests and Commissioners. He commented briefly on the objectives and recent history of the Commission, and then turned the meeting over to José Luis Cardona-Cooper, senior Commissioner from Costa Rica, the host country.

Commissioner Cardona-Cooper welcomed all industry delegates and guests to Costa Rica. He pointed out that although the Commission was only 17 years old this year (the convention having entered into force March 3, 1950), this year's regular meeting was its nineteenth. For Costa Rica, however, the year 1967 had a special significance as it was just 20 years ago, under the government of President Teodoro Picado and his Minister of Agriculture José Joaquin Peralta, that the first draft of a tuna convention was prepared in this city. The committee members appointed by Minister Peralta in 1947 to draft a treaty consisted of Fabio Fournier, an attorney in San José, Fernando Flores, Consul-General of Costa Rica in Los Angeles and José Luis Cardona-Cooper at that time Under-Secretary of Agriculture. Dr. John L. Kask, Curator of Aquatic Biology, California Academy of Sciences, served as scientific consultant. Mr. Cardona-Cooper also pointed out that the yellowfin tuna of the eastern tropical Pacific had been under international regulation for the first time during 1966, thus bringing the work of the Commission around full cycle from an idea and a dream in 1947 to accomplishment of at least a part of its aims and objectives 20 years later in 1967. All members of the original drafting committee had been invited to attend this meeting.

Commissioner Cardona-Cooper then introduced the following heads of delegations and guests:

Ing. Guillermo E. Yglesias P., Minister of Agriculture in Costa Rica
Ambassador D. L. McKernan, USA.
Dr. Luis L. Vasconcelos, FAO
Dr. J.L. McHugh, Commissioner USA and Commission Secretary
Biól. Juan Luis Cifuentes L., Commissioner, Mexico
Juan L. de Obarrio, Commissioner, Panama, and Commission Chairman
Former Vice-President and Minister of Agriculture José Joaquin Peralta, Costa Rica
Vice-President Virgilio Calvo Sánchez

All made suitable responses and commented on the work and aims of the Commission.

Vice-President Virgilio Calvo then on behalf of the President of the Republic of Costa Rica, presented Certificates of Merit to the Costa Rican "founders" of the Commission. Included in this honor was Fabio Fournier, Cardona-Cooper, Fernando Flores, as well as their sponsor, the Hon. José Joaquin Peralta. Also honored in this way were Dr. Milner B. Schaefer, the Commission's first Director of Investigations (1951-1963) for his scientific leadership, and Dr. J. L. Kask, the Commission's present Director, for his part in the early development of this organization.

Mr. Cardona-Cooper then introduced all Observers from non-member countries, international bodies and scientific institutions. With this

accomplished, Mr. Cardona-Cooper turned the meeting back to the Chairman.

The Chairman at this point declared a 10-minute recess to allow government officials to depart. The meeting reconvened at 10:45 A.M.

Agenda Item (2) - Consideration and adoption of Agenda

The Commission Chairman pointed out that this year's draft agenda followed the pattern of former agendas and that most agenda items were supported by explanatory background papers. Both the agenda and the background papers had been in the hands of Commissioners for several weeks. He asked if there were any comments or corrections. There being none, it was moved by the U.S.A. and seconded by Costa Rica and unanimously agreed that the agenda as presented be adopted.

A this point, at 11:00 A.M., the opening morning meeting was adjourned to convene again in the Department of Agriculture Board Room at 2:00 P.M.

The Commission reconvened in the Department of Agriculture Board Room at 2:00 P.M.

Agenda Item (3) - Discussion of current researches and research results

The Chairman in introducing this subject stated that during each annual meeting, a review of recent researches was given by the scientific staff of the Commission. He asked the Director of Investigations to proceed with the review.

The Director of Investigations pointed out that this year's report would deal principally with researches conducted during the previous years. Because budgetary limitations would not allow any but very modest researches at sea, most of the report would be confined to work dealing with the gathering of information on statistics of catch and effort and analysis of biological and environmental data collected during earlier years. The Director then called on the Commission's principal scientist James Joseph to carry on with the review.

With the help of graphs and slides, Mr. Joseph in summary proceeded as follows:

1. Statistics of the fishery

Detailed statistics of the catch, effort and catch per unit of effort are essential for studies of any fishery. The Commission has always placed high priority on the collection of these data, and will continue to do so. The total catch data, collected from many sources, include the catches of all the countries fishing for tuna in the regulatory area. The principal sources of catch-per-effort data are the log-book records of purse-seiners and baitboats. These are combined with catch data to estimate the standardized total effort by all vessels.

The most notable use of such data is to determine the effect fishing may have upon the stocks of yellowfin and skipjack tuna.

The skipjack tuna captured within the regulatory area are believed to be part of a larger stock extending to at least the central Pacific

Ocean. The long-term series of catch-statistical data on the fishery of the eastern Pacific has been analyzed, and a method which separates the effort between species has been applied to studies of the apparent abundance of this species and the effect fishing may have upon the catch. It was indicated that the apparent abundance of skipjack does not bear a strong relation to the intensity of fishing, and during recent years the catches have been related to the amount of effort generated. This indicates that the stocks of skipjack can support catches greater than are currently being made.

During the past several years, the landings of skipjack at Manta, Ecuador, have increased to the extent that they are now an important component of the total catch in the southern area of the fishery. In order to arrive at an estimate of the fishing intensity generated by the Manta fleet, which can be compared with the effort of the high-seas fleet, the staff has devoted some time to making comparisons of the relative efficiency of the two fleets.

2. Population dynamics

Research on the use of computers to simulate the fishery for yellowfin tuna in the eastern Pacific has continued. Studies have been directed to evaluating the effects of different management strategies on the stocks of yellowfin and to employment of techniques to estimate the parameters of the deterministic models used to study the fishery.

A theoretical curve was devised to describe the form of the relationship between the biomass of spawners and the resultant recruitment. This curve was very similar to curves devised earlier for other species by Ricker.

The collection of length-frequency data of fish from the commercial catch has continued. These data have been used, among other things, to study the variability and predictability of year-class strength of yellowfin tuna.

3. Vital statistics, population structure and migration

Studies on the growth of skipjack have continued during the year. Estimates have been derived from two methods: 1) the examination of length-frequency data, and 2) increments in growth of tagged fish.

Results showed that since the skipjack spend only a part of their life in the eastern Pacific, it will not be possible to get estimates of growth over the whole size range of the fishery unless samples are available from farther to the westward.

4. Population studies

Work on the use of the starch-gel technique to identify protein systems which might be applicable to population studies was continued. A two-allele transferrin system for yellowfin and a three-allele system for skipjack were described. Gene frequencies of samples from the eastern Pacific were examined and showed no evidence of population differentiation within the eastern Pacific for either species.

5. Tagging

During 1966, for the first time in 12 years, funds were so limited that no tagging could be conducted. Research in this area was confined to the analysis of data collected previously.

6. Other aspects of tuna biology

During the year, the Mexican Dirección General de Pesca e Industrias Conexas and the IATTC began a cooperative investigation of geographical and seasonal variation of tuna spawning and attendant ecological conditions in the area off Mazatlán, Mexico.

Studies of the oceanic distribution of yellowfin and skipjack tuna designed to aid in understanding the population structure of these species have continued during the year.

7. Bait studies

Because of the decreasing importance of baitfishing in the eastern Pacific, studies of these species have received less emphasis.

A comparative study of eight species of engraulid fishes was completed during the year. Results have proved useful for studying the population dynamics of the baitfish Anchoa naso, which is used by the Manta, Ecuador bait fleet.

Though not one of the Commission's principal objectives, it has been observed during the course of the regular baitfish studies that data collected on catch and effort of bait species may be useful, together with knowledge of the life history, in assessing the potential of utilization of certain species for the manufacture of fish meal. One such species which appears to have the most obvious potential is the anchoveta (ojito) in the Gulf of Guayaquil.

8. Oceanography

Gulf of Guayaquil

Analysis and publication of data gathered in the study of the chemical, physical, and biological oceanography of the Gulf of Guayaquil are underway at Commission headquarters.

El Niño Project

Progress on the El Niño Project has been good. Data Reports 1 and 2, covering cruises through 1965, have been published. Number 3 will be printed within the next few weeks.

A two-month El Niño workshop, composed of oceanographers from the Instituto Nacional de Pesca del Ecuador, Instituto del Mar del Perú and IATTC was held in La Jolla. Charts of surface temperature, salinity, density, oxygen and relative surface circulation were completed during the workshop. This atlas will be published by the University of California Press.

ACENTO Program

During 1965, the Empresa Puertos de Colombia and IATTC agreed to extending the Colombian El Niño cruises to include the Panama Bight. Four of these extended cruises, one in each quarter, were completed during 1965-1966. The data from these cruises have been published in data reports and analysis of them is nearing completion.

EASTROPAC

This is an international oceanographic program designed to collect synoptic data on the physical, chemical, and biological properties of the eastern tropical Pacific. The data will be collected over a period of 18 months.

IATTC, within the frame of its financial resources, is cooperating in certain aspects of this program which will prove useful to the Commission's studies of tuna.

This completed Mr. Joseph's story. The Director of Investigations next called on Sr. Aníbal Orbes, the Commission's statistical representative in Manta, Ecuador, to review briefly the development of the fishery for tunas in Ecuador. Sr. Orbes said that the fishery, which began very modestly in 1950, was then entirely an operation of freezing and transshipment. The fishery experienced a rather remarkable growth from 1950 to 1960. A cannery was established in Manta to provide the material for a rapidly-expanding market for the canned product within the country. At the beginning, the industry consisted of no more than two companies; at present there are five fishing companies dealing with tuna; there is a sizable and growing fleet of small purse-seiners and small baitboats, and during recent years these vessels have accounted for over 25% of the total production of skipjack from waters south of Mexico in the eastern Pacific Ocean.

Following Sr. Orbes' discussion, the Director called on Sr. Julio Carranza, the Commission's statistical agent stationed near Coishco, Peru. Sr. Carranza reviewed the Peruvian tuna fishery, which has remained at about the same level (nine purse-seiners) as in the several past years, but which could undergo a rather precipitous change if the numerous vessels fishing for anchovy, now freed for several weeks a year with a closure to fishing for that species, should elect to go for fishing for tunas.

These reports were received with considerable interest.

At this point the Chairman moved on to the next item.

Agenda Item (4) - Yellowfin tuna regulations during 1966

On introducing this item, the Chairman pointed out that the subject had been fully reviewed in Background Paper No.2. He asked the Commission's Director of Investigations to review the highlights of this paper for the benefit of those that had not had an opportunity to read it.

The Director then pointed out that although there had been some overfishing of yellowfin tuna in the eastern tropical Pacific during five

of the last six years, and that the Commission had recommended conservation measures in the form of a catch quota since 1962, it was not until the 1966 fishing season that the Commission's recommendations were finally adopted and generally implemented.

At its Annual Meeting on April 19 and 20, 1966, at Guayaquil, Ecuador, the Commission recommended a catch quota of 79,300 short tons of yellowfin for 1966 on the basis of a calculated equilibrium catch of 85,000 short tons for that year. A quota of this size, according to studies conducted by the Commission staff, would allow the stock to rebuild to maximum size (approximately 91,000 tons) in about three years.

Fishing for yellowfin during the first four months of 1966 was poorer than expected on the basis of the previous four years. By early May, however, fishing had improved to the point where the catch by fishermen of all countries reached a total of 66.4 thousand short tons by August 23. It was on that day, August 23, that the Commission's Director of Investigations notified the governments of all nine countries whose fishermen fished in the Commission's regulatory area that he was recommending to the Commission and Member Governments that unrestricted fishing for yellowfin be stopped at one minute after midnight on September 7, 1966. The balance of the allowed quota of 79,300 short tons, it was calculated, would be caught by vessels already at sea on September 7, and thus not subject to curtailment, and by the 15% of yellowfin allowed as incidental catch while fishing for other species not under regulation. The dates for the announcement and closure were selected to allow approximately two weeks warning or lead-time for all fleets before regulations were imposed.

As it turned out, all states whose fishermen fished substantially for tuna in the eastern tropical Pacific could not promulgate their new fishing regulations by September 7, so a new closure date of September 15 was chosen. This date was generally agreed to, and all pertinent fishing countries, including the non-member countries of Canada and Japan soon thereafter deposited copies of their special laws or decrees covering this fishery with the Commission.

The postponement of the closure date by eight days, however, influenced subsequent fishing for yellowfin to a considerable degree. Not only did this allow eight more unrestricted days of yellowfin fishing, but it increased the lead-time before closure from two weeks to more than three weeks. This in turn allowed the fleets to develop a new fishing strategy which resulted in vessels with an aggregate of 35 thousand short tons of fish carrying capacity (of a possible 38 thousand tons) being at sea on the date of closure, and of this large fraction of the total fleet, 30 thousand tons was empty capacity. Since these vessels could complete their trips free of any restriction, it meant that a large fraction of the total fleet was fishing for a least one full trip on an open ticket during an already shortened closed season. This resulted in heavy, competitive fishing for yellowfin tuna, the preferred species. This extraordinarily heavy pressure on yellowfin was further intensified by the unusually high apparent abundance of the species and by the relative scarcity of skipjack, even in traditional skipjack territory. The total catch of skipjack was 66,138 (preliminary) short tons for the year which is considerably less than the average of approximately 86 thousand tons for the previous three years.

At year's end, the total catch of yellowfin made in the Commission's regulatory area was approximately 90 thousand short tons. This is nearly 11 thousand tons more than the recommended quota, and about 5 thousand tons more than the calculated equilibrium catch. The consequences of this heavier-than-desired fishing on the catch per unit of effort and on the apparent resultant stock size, after all factors affecting stock size are considered would, the Director pointed out, be dealt with in some detail under Agenda Item (5).

On inquiry of the Delegate from Mexico as to how the various countries applied regulations and how effective they were, the Director replied as follows:

In general, the cooperation of all governments was excellent and in total the results were quite good considering that this was the first year this complex undertaking was tested. The problems of regulation for the fleets of different countries varied considerably and even in the same country fleets using different methods of capture found that the same regulations affected their fishing success differently.

Japanese longliners, for instance, fish right across the Pacific, both outside and inside the Commission's regulatory area (CRA), with trips lasting for several months, and at times for as much as a year. Near the western boundary of the CRA, it is not always easy to tell when the vessel is just inside the boundary or just outside. If there is a penalty involved for being just inside the line, it is conceivable that this "locationing" would become even fuzzier and certainly the accuracy of log and reporting records would become more suspect reducing and even nullifying their scientific value.

The species of tunas that are caught in significant numbers by Japanese longliners (a gear less selective than surface gear) in the CRA are bigeye and yellowfin. A few years ago, when bigeye fishing was good in a wide band on both sides of the equator, and yellowfin formed only an incidental part of the catch, a 15% incidental yellowfin catch of other species of tuna caught during the closed season was quite realistic. Now, with the hook-rate for bigeye much reduced, and with fishing areas in the CRA changed to farther north as well as south on either side of the equator, along the coast of the Americas, to favor catches of marlins and other billfishes, the proportion of yellowfin to bigeye, both species of tuna now really incidental to billfishes, often runs as high as 50-50. To require a 15% yellowfin to other tunas caught during the closed season on yellowfin would, under these circumstances, require these vessels to move out of the CRA altogether to conform to the regulation. This is not favored by either the Japanese Government or Japanese fishermen.

Another problem encountered by Japanese fishermen fishing in the CRA during a closed period for yellowfin, is the length of trip. Most Japanese vessels fishing in the CRA have a fish carrying capacity of 120 to 250 metric tons. With an average catch of about two tons per day of all species, each vessel requires to spend 60 to 120 days fishing. Add to this the long running time to and from the fishing grounds, and each trip adds up to an absence of three to four months from home port. By U.S. rules, if one of these vessels left its home port in Japan one day before closure for yellowfin, the boat could fish in the CRA continously and unregulated for the whole or at least for most of a several-month

closed season. If, on the other hand, it left a day after closure, the same vessel would be obliged to operate under regulation in the CRA for the whole closure period and,in extreme cases, this could extend into the new fishing year.

It was for this reason that Japanese fishing rules during the 1966 closure on yellowfin fishing required Japanese vessels to notify the Fisheries Agency in Japan the date they entered the CRA and the amount of each species they had on board on entry and then to report catches in the CRA by radio every 10 days. If they were in territory where more than 15% of the total catch, while in the CRA, was yellowfin, they were required by the Japanese Fisheries Agency that licenses these boats, to move to other grounds where there was still good fishing but less yellowfin and to report their new location.

As there are several hundred Japanese longliners that can, and at times do, enter the CRA for at least a part of their trip, and where only the ship's captain or navigator knows their exact position at sea, fully effective regulations can only be hoped for if each vessel carried a fisheries inspector who was also a navigator. This, it appears, is not possible. The experience of control by required radio reporting during 1966, the first year of regulated yellowfin catches, has, according to officers of the Fisheries Agency in Tokyo, worked quite well.

U.S. and Canadian vessels that fish in both the Atlantic and the Pacific Oceans, and particularly if this is done during the course of a single trip, would find themselves in much the same predicament as the Japanese, and perhaps a solution similar to the one tested by the Japanese Fisheries Agency might be tried.

Vessels fishing out of some Latin American ports such as Manta, Ecuador, that make only one-day or very short trips, and where the principal species caught is skipjack, have experimented with applying the 15% incidental catch during closure over a period of two weeks or a month rather than for each trip. This, it appears, has worked out quite well and the aggregate catches of the day-boats have rarely exceeded the allowed 15 percent.

The larger boats fishing out of Coischo, Peru, that make trips extending over several days or even weeks have had a more difficult time (at least in 1966) limiting their catches of yellowfin in the areas they fish during every trip to the 15% allowed. If bonito, the principal species fished, is included in the total on which the 15% is calculated, the problem of selecting areas to fish that will limit yellowfin catches to the 15% allowed, it is believed becomes more practical.

Although most of the yellowfin and skipjack taken in the CRA during 1966 was caught at the surface by United States flag vessels, the carefully considered rules developed by this member government did not even fit all their own domestic fleet problems, far less those of all the other countries. One lesson that was learned from this first year's experince was that to reach the Commission's conservation objectives, a variety of formulae governing vessel operations would have to be adopted.

A this point the Chairman announced that he would introduce the next agenda item which deals with the condition of the yellowfin stocks for

review and discussion only. Because of the importance of the subject, he thought no action should be taken by the Commission until the next day, after all delegates and advisors had had an opportunity to study the proposals. The Chairman also announced that immediately following the reviews of this agenda item, there was scheduled the showing of a film by Commission staff on the three major types of fishing, live-bait, purse-seine and longlining, for tropical tunas. He further announced that the Government of Costa Rica had kindly issued an invitation for all participants to partake in a social evening scheduled for 6:30 that evening at the Casa Amarilla.

Agenda Item (5) - Condition of yellowfin stocks and recommendations for 1967

On introducing this subject the Chairman called attention to Background Paper No.3 which fully reviewed the subject and which had been in the hands of the delegates for several weeks. He asked the Director of Investigations to point out the highlights of B.P. No.3. The Director in turn called on James Joseph to carry out the review since he had done most of the work on which the proposals were based.

At this point Mr. Joseph gave a brief review of the theory upon which population dynamics is based. The theoretical models used were explained and the manner in which actual data had been applied to them was described.

A review of the course of the fishery during recent years was given. It was shown how the data indicated that in the early 1960's the stocks of yellowfin had been reduced to the point below which they could support the maximum sustainable yield. It was stated that the conditions of the yellowfin stock at the end of 1966 indicated that a sustainable yield of approximately 84,500 short tons could be supported which means that, if the yellowfin stocks are to be restored to the level at which they can support the maximum yield, then some restoration to the stock is necessary.

However, it was pointed out that the exact form of the production curve beyond current levels of fishing intensity is not known. In addition, there is some possibility that because of a change in the size composition of the catch of yellowfin made by the currently dominant purse-seine fleet, there exists a possibility that the line of equilibrium catch may be somewhat higher than calculated at present.

Based on the best current estimate of the condition of the yellowfin stocks, the following table for restoration of the stocks was presented:

Schedule	Averate catch quota	Approximate number of years to reach optimum level
A	84,500	never
B	82,800	5
C	81,500	4
D	80,000	3
E	76,000	2
F	64,500	1

General discussion by the Commissioners and industry advisors led to the conclusion that because of the possibility that the line of equilibrium catch might be higher than calculated at present, and because the nature of the production curve beyond present levels of fishing intensity is not known exactly, it would be advisable to fish at the current equilibrium level to get more data at the high levels of fishing intensity, especially since this can be accomplished without endangering the stock or producing adverse economic effects.

The Chairman then closed discussion for the time being and asked that the film depicting the three principal methods of catching tuna be shown. The much-appreciated film ran from 4:15 P.M. to 5:20 P.M, on completion of which the Chairman adjourned the meeting until 9:30 A.M. the next day.

April 5, 1967

The Chairman called the meeting to order at 9:45 A.M.

Agenda Item (5) - continued

The Chairman reopened discussion on the yellowfin quota.

Because the apparent abundance of yellowfin was not reduced as much as expected by fishing beyond the equilibrium level in 1966, and the relatively high catches of yellowfin during the first three months of 1967, it was thought by some of the delegates that perhaps the best quota to recommend for 1967 would be the present calculated equilibrium level of 84,500 short tons. The Mexican delegation suggested that if this number was selected, then the reason for taking the equilibrium yield rather than a lower quota should be highlighted in the resolution. This was generally agreed to and the Chairman appointed a drafting committee to draw up a suitable "resolution."

While the drafting committee was at work, the Chairman proposed that the next agenda item be considered.

Agenda Item (6) - Revision of research program under the revised budget for 1967/68

The Chairman called the attention of the delegates to the agenda item stating that the subject had been covered in Background Paper No.4. He asked the Director of Investigations if he wished to elaborate further.

The Chairman stated that historically the Commission had been signally unsuccessful in obtaining sufficient money resources to carry out programs of research approved by the Commission. Recent history in this regard is reviewed in the following table:

	Amount requested	Amount granted
FY 1963/64	$624,835	$412,818
1964/65	617,183	*421,110
1965/66	658,590	**458,744
1966/67	823,403	***459,983
1967/68	859,992	****716,831

* $22,695 in contributions still outstanding
** 29,002 " " " "
*** 36,983 " " " "
**** based on $658,000 U.S. share requested in President's budget.

To carry out the approved program of research and management for FY 1967/68, the Commission requested the sum of $859,992 from all Member Governments (see Appendix No.1). Officers of the U.S. Department of State recently informed Commission headquarters that the U.S. Government would not approve the full amount recommended but that the President would place $658,000 as the U.S. share in his budget request from Congress. If congressional committees approve, and if all Member Governments pay their respective proportionate contributions on time, this would result in a total budget of $716,831.

The new budget has dictated a change in program and in emphasis. The proposed changes are summarized in Appendix No.2. Since administrative and overhead expenses in a program of this size remain relatively inflexible, the reduction ($859,992 - $716,831 = $143,161) was of necessity made in the time allowed for vessel charter. It is therefore recommended that the decrease in program be made principally in the study of tuna ecology at sea (see Project E, Appendices 1 & 2). The cut in budget will again require reduction in the level of Commission participation in the four-year international and interagency study of fishery oceanography (EASTROPAC) which is coordinated by the U.S. Bureau of Commercial Fisheries. This, it would seem, is a pity since the Commission has been an integral part of this comprehensive, cooperative and very valuable research program since its inception, and substantial Commission participation with money and men was anticipated. Commission participation and money support in the program during FY 1966/67 was minimal. The present budget action requires that participation during 1967/68 still continue at a much lower level than desirable.

Commission approval to this proposed change in the original program (i.e. program approved at the 1965 Annual Meeting) was solicited to meet the new budget requirements.

The Chairman invited comments. On motion of the U.S.A. and seconded by Costa Rica the change in program was agreed to unanimously.

Agenda Item (7) - Recommended research program and budget for 1968/69

On opening this subject for discussion, the Chairman mentioned that the program and budget proposal for 1968/69 had been fully covered in Background Paper No.5. All delegates were urged to study this document. The Chairman emphasized the need for the speedy resumption of researches at sea. The increase in the budget requested principally reflected this need. He asked the Director of Investigations if he wished to elaborate on B.P. No.5.

The Director of Investigations said that, as the size of the budget effectively controlled the kind of operation that could be carried out, he did wish to emphasize again the importance that he and his associates placed on resuming studies at sea if the staff was expected to supply the information required to manage a complex two-species high-seas pelagic fishery. The provision of an adequate budget expressed in usable dollars

is after all a government's one really effective declaration of priorities and interest. As pointed out before, in this area of our operations, namely of obtaining the necessary funds to carry out necessary programs, we have not been very successful.

In the experience of the first 16 years of the Commission's operations we find that in only two years (1958 and 1959) has the Commission's recommended budget, and hence the program on which it was based, been approved by all Member Governments. This means that in only two years of the 16 has the full program the Commission thought necessary under its treaty mandate been carried out. Even under these straitened circumstances, the progress in research by the Commission's staff over the whole period has been quite good, but it has never been enough to establish fully the basis of knowledge required to follow the rapidly changing and growing needs of the fishery. Now that conservation measures have been generally adopted for yellowfin tuna, the timely development of adequate data is even more urgent since Commission action affects the lives and the livelihood of many people.

In this regard it should also be pointed out that the regularly reduced amount of the budget over that requested, coupled with the uncertainty of when, or in what amount the final usable moneys will be made available, not only interjects some real problems in programming and program execution, but also introduces almost insoluble problems in the effective recruitment and retention of competent professional staff. Normally, the Director should have adequate staff on hand or quickly available to carry out the full program approved by the Commission. The number and composition of the professional staff has accordingly been gauged to meet this need. The actual program allowed by the amount of money finally being made available has always been less than that requested by the Commission and hence the full staff could rarely be used to best advantage. A further aggravation over the past several years has been that while staff salaries and other operating expenses have been steadily increasing at the rate of about 5% per year, the finally approved budgets have remained the same (about 1/2 or 2/3 of that requested) resulting in a continually decreasing real budget, even though the number of dollars remained the same.

Attempts have been made to meet this inexorable march of events in a number of ways. First, by reduction in staff wherever this appeared practical. On September 1, 1963 there were 49 persons on staff; this has been reduced to 34 by the beginning of 1967. Staff reduction has been achieved by not initiating new programs when old ones have been completed (e.g. the field work in the Gulf of Guayaquil) or by just cutting out programs already underway (e.g. the baitfish studies at Manta), and by not filling positions that fall vacant. The main burden of this cutback has fallen on support staff, simply because support people are easier to recruit when needed in a hurry than are professionals. This has left most professionals without adequate assistance, which in itself is wasteful.

The situation between staff and income during fiscal year 1966/67 has been so acute that to lighten the salary burden, four members of the professional staff have been temporarily transferred to other organizations from where they can be retrieved if and when a full, or nearly full, program is supported by governments. It is hoped that support for a full program will be realized in fiscal year 1968/69.

It is not necessary to add that this sort of half-program of research cannot go on. If for any reason at all the Commission's budget is once more held at the level of the past several years, then a completely new reduced program will be dictated based on the gathering, compilation and analysis of statistical catch and effort data. No meaningful work at sea and hence no new research of significance can be undertaken. If the collection, compilation and analysis of catch, landing and logbook statistics alone survive (the present budget is adequate for this purpose), it will require only a part of the present staff, and the composition and training of residual staff will be quite different from the present, which is heavily oriented toward rather sophisticated research.

The above is not intended as a complaint. It is intended as a realistic look into the future. If history continues to repeat itself, and 16 years of history is all we have, the above will be almost inevitable.

When overfishing of yellowfin tuna was first recognized in 1961 and 1962, and conservation measures were considered necessary, the need for two kinds of additional information became broadly apparent. The one requirement was to know more about the stock structure and stock relationships of yellowfin within the regulatory area itself, and more particularly the relationship of the large, deep-swimming tuna caught principally by longline vessels to those caught at the surface. The second requirement was to know more concerning the abundance and the distribution in time and space of the elusive skipjack tuna, the species that would have to bear the burden of increased catches now that the yellowfin were fully utilized. The program of research proposed to the Commission for the past several years were drawn up to answer these and related rather vital questions, and all programs presented have required researches at sea often in areas well beyond the limit of the present fishery. As allowed budgets did <u>not</u> permit required work at sea, this work still needs to be done and the present budget once more reflects this need.

The amount requested by the Commission for 1967/68 was $859,992. It appears unlikely again that the full amount will be supplied, but the Commission has some reason to believe that it might receive $716,831. This amount would allow a substantial amount of work at sea to be started during the next fiscal year. The program and budget in the sum of $989,590 (see Appendix No.3) being proposed for 1968/69 are based on this possibility.

The Chairman at this point asked for comments. The delegate from the U.S.A. stated that it was his view that the program and budget deserved support and it would receive the support of his delegation, but he found it expedient to point out again that final money allocations under U.S. law lay with the Congress and he could not assure what action Congress would take on increases next year. If experience this year was any indication, then the chances of obtaining the full increase appeared small.

Without further discussion, the program and budget in the sum of $989,590 for fiscal year 1968/69 was unanimously approved.

<u>Agenda Item (8)</u> - <u>Proportion of contributions by Member Governments</u>

<u>Governments</u>

The Chairman referred to Background Paper No.6 (Appendix 4) which

dealt with this subject. He asked the Director of Investigations to elaborate.

The Director pointed out that the proportion of the payments made by Member Governments toward the operation of the Commission was determined on the basis of the "proportion of the total catch from the fisheries covered by this Convention utilized...etc. by each High Contracting Party." As this formula was written into the treaty, the instructions were clear. Because it is necessary to present a program and budget two years in advance, the proportions cannot apply to the same year for which the program is designed. Thus the proportions for the 1968/69 budget are based on "catch-utilization" in 1966, the most recent year for which these data are available. Under this formula, the proportions for 1968/69 are as follows:

Total budget requested: $989,590

United States' share	$912,142
Ecuador	46,090
Mexico	23,114
Costa Rica	7,744
Panama	500
	$939,590

The Chairman then asked the delegates if further discussion on this subject was desired.

As there was no further discussion, on motion from Mexico and seconded by the U.S.A. the proportions of contributions as recorded were unanimously adopted.

Agenda Item (9) - Approval of the Commission's Annual Report for 1966

The Chairman pointed out that the draft Annual Report for 1966 had been in the hands of Commissioners (in both languages) for some two months and thus all had had full opportunity to study it. He asked for comments. Several delegates expressed approval of the document as presented. On motion of the U.S.A. and seconded by Mexico, the Commission unanimously approved the Annual Report for 1966 and directed that it be printed and circulated.

Agenda Item (10) - Election of officers

The Chairman said that it has been the custom of the Commission to rotate the officers of Chairman and Secretary among Member Governments, except when a new country becomes a member, then that country is usually awarded the Chairmanship, and the next annual meeting, if desired, can be held in the new country. This year (1967/68) the turn for Chairman falls to the U.S.A. and the Secretaryship falls to Ecuador.

The chief delegate of Mexico proposed Commissioner Eugene D. Bennett of the U.S.A. for Chairman adding that he was only sorry that Mr. Bennett, because of ill health, could not be present in person. This was enthusiastically seconded by Costa Rica. Unanimous agreement was indicated by a round of applause.

On consultation with the delegate from Ecuador, the U.S.A. proposed Commissioner Wilson Vela H. for secretary. This was seconded by Mexico to a round of applause.

The United States delegate thanked the Commission for this show of confidence as did the delegate from Ecuador. The Director of Investigations was instructed to notify the members of their respective elections to office.

At this point the delegate from the U.S.A. invited all participants to a social evening at the U.S. Ambassador's residence. The Chairman accepted this invitation with thanks.

Agenda Item (11) - Place and date of next meeting

The Chairman said it was the custom to rotate the place of meeting. The 1964 meeting was held in the U.S.A.; the 1965 meeting in Mexico City; the 1966 meeting in Ecuador, and the present meeting was, of course, being held in San José, Costa Rica. The next meeting place then logically falls to Panama. As the delegate from Panama, the Chairman added if it was the pleasure of the Commission, he would be happy to invite the Commission to meet in Panama next year.

This suggestion was happily received and immediately was generally adopted.

With respect to the date of meeting, the Chairman stated that early April would be a satisfactory time. He suggested April 2 and 3, 1968, a Tuesday and Wednesday. This would leave April 4 and 5 for an Inter-Governmental Meeting if one was desired. Also it would give the Commission's scientific staff an opportunity to work up their year-end figures of stock condition. These dates also stay away from Easter Holidays, as Easter Sunday falls on April 14.

There being no objection to this suggestion, the proposed dates were unanimously approved.

Next year's meeting then will be held in Panama City on April 2 and 3, 1968.

Agenda Item (12) - Other business

The Chairman asked all sections if there was any other business that Commissioners would like to bring up at this time. As there was none, the Chairman said he would like to introduce one item of business brought up by the Director of Investigations.

The Director had shown him a letter dated March 24, 1967 from Dr. Warren S. Wooster, Professor of Oceanography at the University of California, San Diego and Coordinator of the large oceanographic survey EASTROPAC, in which Dr. Wooster wished to explore the possibility of contracting the EASTROPAC plankton sorting (fish egg and larval work) and meteorological studies, both subjects in which the Commission has some competence, and in which the Commission has a direct interest. As this activity would put the Commission in the role of a contractor, the Director wished to have the Commission's approval before he undertook any such activity. The Chairman asked for comments.

The delegate from the U.S. (Dr. McHugh) stated that he knew of this proposal before and had looked into the administrative side of the matter. He had found that there was nothing insurmountable about that aspect. With respect to the desirability of the Commission engaging in this type of work, he could see no objection as long as the proposed activity furthered the objectives of the Commission which, in his view, it did.

This view was shared by all other Commissioners and was fully supported by the Chairman. Approval to cooperate in this way with the Coordinator of EASTROPAC was unanimously agreed to.

At this point, it now being 5:30 P.M., the Chairman adjourned the meeting until 9:30 A.M. the next day, at which time the new draft resolution, and the proposed quota would be acted upon.

April 6, 1967

The Chairman convened the meeting at 9:30 A.M. to give final reading to the "Resolution" and formally to adopt the quota.

The drafting committee presented their draft which was read to the Commission. During the reading, the U.S. delegate said that his delegation had a proposed modification for paragraph 5 of the recommendation in the Resolution. They were not going to press adoption at this time, but they did want their proposal to be recorded and studied, with a view to having it fully considered next year. The U.S. draft of a possible substitute for paragraph 5 appears as Appendix No.5.

With the above agreed to, the Chairman asked for comments on the Resolution (see Appendix No.6), as submitted by the drafting committee. On motion of the delegate from Mexico and seconded by the U.S. and Costa Rica, the Resolution recommending a catch quota of 84,500 short tons of yellowfin tuna from the Commission's regulatory area in the eastern tropical Pacific during 1967 was unanimously adopted. The Chairman asked the Director of Investigations to notify all governments whose nationals fish in the Commission's regulatory area of this action.

As this concluded matters of business, the Chairman thanked the host government, and especially the Vice-President and his cabinet colleagues, for their many hospitalities and courtesies including the social evening. Thanks were also offered to the U.S. delegation for the delightful evening at the residence of their ambassador. The Chairman also thanked all Commissioners, Advisors and Observers for their splendid cooperation and the Commission's scientific staff for their good work. He also commented favorably on the excellent interpretation service provided by Carlos Díez and his engineer assistant Gerardo Lara.

The senior Commissioner from Costa Rica, the host country, made a suitable response, adding how gratifying it was to have Canada apply for Commission membership. He commented on her interest in past meetings and that she was so fully and ably represented at this meeting. It was his hope that Canada would be a full partner at the next meeting. Commissioner Cardona-Cooper also thanked the Government of Japan for her usual splendid cooperation, and for sending such a strong delegation. He thanked the Chairman for his excellent conduct of the meeting and the

Governments of Chile, Colombia, Guatemala, El Salvador, Nicaragua and Peru for their show of interest and for sending Observers, as well as FAO and the South Pacific Commission. It was his hope that before long all countries fishing in the eastern tropical Pacific or with interests in the area would become Commission members. One or two Observers, in addition to Canada, had already indicated their governments' interest. Costa Rica, he added, was happy and proud to act as host, especially as San José was in a way the birthplace of the Commission.

All Observers made suitable responses.

With this, and a round of enthusiastic applause, the Chairman declared the 19th Annual Meeting of the Commission closed.

April 21, 1967
La Jolla, Calif.

APPENDI 1. Estimates, by Projects and Budget Objects, FY 1967-68. Original version as approved by Commission at 1966 Annual Meeting.

APENDICE 1. Estimaciones por proyectos y objetivos presupuestales, AF 1967-68. Versión original, aprobada por la Comisión en su Reunión Anual de 1966.

OBJECTS - OBJETIVOS	PROECTS - PROYECTOS A	B	C	D	E	F	G	H	TOTALS
01-Personal Services (net salaries) Personal (salarios netos)	$80,404	-	60,225	130,431	65,928	31,706	32,843	-	401,537
02-Travel & Subsistence Viajes y viáticos	3,500	-	2,200	6,000	4,000	4,700	5,000	-	25,400
03-Transportation of Things Transporte de cosas	200	-	500	1,100	500	1,000	200	-	3,500
04-Communications Comunicaciones	3,800	-	450	350	150	100	7,000	-	11,850
05-Rents & Utilities Alquileres y utilidades	--	-	1,600	--	300	--	1,500	-	3,400
06-Printing and Binding Imprenta y encuadernación	475	-	2,000	4,000	4,500	2,000	--	-	12,975
07-Contractual Services Servicios por contrato	4,200	750	3,500	2,500	1,000	1,000	1,600	-	14,550
Vessel charter Flete de barcos	--	-	--	81,000	144,000	81,000	--	-	306,000
08-Supplies and Materials Provisiones y materiales	2,600	-	200	2,000	5,000	4,500	1,500	-	15,800
09-Equipment - Equipo	2,500	-	500	2,400	15,000	1,500	--	-	21,900
13-Rewards - Premios	--	-	--	--	--	3,500	--	-	3,500
15-Contr. to Soc. Sec. Contr. al Seg. Soc.	1,785	-	1,575	3,255	1,620	675	650	-	9,560
17-Contr. to Pension Plan Contr. al Plan de Retiro	2,995	-	2,880	4,700	2,615	1,050	1,275	10,000	25,515
19-Contr. to Medical Plan Contr. al Seguro de Salud	865	-	675	1,375	780	325	485	-	4,505
TOTALS	$103,324	750	76,305	239,111	245,393	133,056	52,053	10,000	859,992

*Special payment to purchase past service credits for pension plan.
*Pago especial para poder acreditar servicios pasados correspondientes al Plan de Retiro.

APPENDIX 2. Estimates, by Projects and Budget Objects, FY 1967-68 (Revised in January 1967 on basis of probable contribution of $658,000 from U.S.)

APENDICE 2. Estimaciones por proyectos y objetivos presupuestales, AF 1967-68 (Revisadas en enero de 1967, en base de una contribución probable por los EE.UU. de $658,000).

OBJECTS - OBJETIVOS	PORJECTS - PROYECTOS A	B	C	D	E	F	G	H*	TOTALS
01-Personal Services (net salaries) Personal (salarios netos)	$58,647	3,824	64,162	100,122	45,499	25,290	41,459	-	339,003
02-Travel & Subsistence Viajes y viáticos	3,525	300	1,600	6,800	5,500	3,675	5,800	-	27,200
03-Transportation of Things Transporte de cosas	-	200	300	1,375	850	1,700	200	-	4,625
04-Communications Comunicaciones	2,175	50	100	250	100	250	550	-	3,475
05-Rents & Utilities Alquileres & utilidades	-	--	500	300	-	-	1,000	-	1,800
06-Printing and Binding Imprenta y encuadernación	1,650	575	2,800	4,500	5,600	2,100	300	-	17,525
07-Contractual Services Servicios por contrato	4,950	750	3,100	7,600	3,200	1,200	1,150	-	21,950
Vessel charter Flete de barcos	-	6,000	-	101,600	-	95,600	-	-	203,200
08-Supplies and Materials Provisiones y materiales	2,575	3,025	1,500	18,125	1,950	13,025	100	-	40,300
09-Equipment - Equipo	2,925	-	750	7,250	1,900	3,750	-	-	16,575
13-Rewards - Premios	-	-	-	-	-	2,000	-	-	2,000
15-Contr. to Soc. Sec. Contr. al Seg. Soc.	1,498	72	1,652	2,662	1,232	507	1,472	-	9,095
17-Contr. to Pension Plan Contr. al Plan de Retiro	5,784	147	1,933	2,849	915	209	1,898	13,000	26,735
19-Contr. to Medical Plan Contr. al Seguro de Salud	594	27	594	972	432	162	567	-	3,348
TOTALS	$84,323	14,970	78,991	254,405	67,178	149,468	54,496	13,000	716,831

*Special payment to purchase past service credits for pension plan.

*Pago especial para poder acreditar servicios pasados correspondientes al plan de retiro.

APPENDIX 3. Estimates, by Projects and Budget Objects, FY 1968-69
APENDICE 3. Estimaciones por proyectos y objetivos presupuestales, AF 1968-69

OBJECTS - OBJETIVOS	PROJECTS - PROYECTOS A	B	C	D	E	F	G	TOTALS
01-Personal Services (net salaries) Personal (salarios netos)	$59,160	10,018	66,805	135,375	49,198	35,477	42,900	398,933
02-Travel & Subsistence Viajes y viáticos	5,425	2,400	1,800	5,750	3,325	4,075	6,250	29,025
03-Transportation of Things Transporte de cosas	100	250	350	3,075	450	1,950	-	6,175
04-Communications Comunicaciones	2,250	200	100	425	250	375	550	4,150
05-Rents & Utilities Alquileres y utilidades	-	475	475	850	-	-	975	2,775
06-Printing and Binding Imprenta y encuadernación	3,700	-	1,475	7,175	2,600	2,100	125	17,175
07-Contractual Services Servicios por contrato	6,150	-	3,200	5,450	2,700	3,900	1,050	22,450
Vessel charter Flete de barcos	-	18,250	-	197,650	-	179,400	-	395,300
08-Supplies and Materials Provisiones y materiales	2,500	2,025	500	29,720	3,750	24,720	100	63,315
09-Equipment - Equipo	-	1,500	,900	12,750	2,200	375	-	17,725
13-Rewards-Premios	-	-	-	-	-	3,500	-	3,500
15-Contr. to Soc. Sec. Contr. al Seg. Soc.	1,506	145	1,653	3,533	1,490	1,261	1,407	10,995
17-Contr. to Pension Plan Contr. al Plan de Retiro	3,884	295	1,933	4,558	915	667	1,770	14,022
19-Contr. to Medical Plan Contr. al Seguro de Salud	594	54	594	1,296	486	486	540	4,050
TOTALS	$85,269	35,612	79,785	407,607	67,364	258,286	55,667	$989,590

APPENDIX NO. 4

PROPORTIONS OF CONTRIBUTIONS BY MEMBER GOVERNMENTS
FISCAL YEAR 1968/69

The Tuna Convention provides (Article I-3): "each High Contracting Party shall determine and pay the expenses incurred by its section. Joint expenses incurred by the Commission shall be paid by the High Contracting Parties through contributions in the form and proportion recommended by the Commission and approved by the High Contracting Parties. The proportion of joint expenses to be paid by each High Contracting Party shall be related to the proportion of the total catch from the fisheries covered by the Convention utilized by that High Contracting Party." Since the word "utilized" was not defined by the Convention, the Commission, for the sake of a modus operandi, defined it in 1952 as "the tuna (yellowfin and skipjack) consumed fresh or substantially processed in a country. The latter is considered to include canning, regardless of the ultimate destination of the canned product.

On this basis, as formerly, we have calculated the proportion of contributions of each High Contracting Party for fiscal year 1968/69. The calculations are based on utilization of tropical tunas in the year 1966. It is not possible to calculate contributions for a given fiscal year on the basis of tuna utilized in that same year because financial regulations of the Commission require that the Director of Investigations submit at each regular annual meeting of the Commission, budget estimates for the two following years. For example, at the annual meeting to be held in April 1967, the Director will present budget estimates for Fiscal Years 1967/68 and 1968/69. The former will be simply an updated (and revised, usually downward) version of the budget presented and approved at the 1966 Annual Meeting, but the latter (being presented for the first time) will require approval not only of the budget estimates but also the contributions of the member countries for that fiscal year (FY 1968/69). The most recent figures on tuna utilization which will be available at the time of the 1967 Annual Meeting, of course, will be those for the calendar year 1966, which are as follows:

United States of America	285,778,000 pounds
Ecuador	14,439,000 "
Mexico	7,242,000 "
Costa Rica	2,426,000 "
Panama	none

In accordance with the above, the funds for joint expenses of the Commission should be in the following proportions (expressed as the ratio of the contribution to that of the U.S.A.):

United States of America	100.000
Ecuador	5.053
Mexico	2.534
Costa Rica	0.849
Panama - Minimum contribution of $500	

With a budget of $989,590, the contributions of each government would be as follows:

United States of America	$912,142
Ecuador	46,090
Mexico	23,114
Costa Rica	7,744
Panama	500
	$989,590

APPENDIX NO. 5

U. S. draft proposal as possible substitute for paragraph 5 of recommendation in Resolution

5) Permit each vessel fishing in the regulatory area after the closure date for the yellowfin tuna fishery to land an incidental catch of yellowfin tuna taken in the regulatory area 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 vessel. Provided, however, that the aggregate of the incidental catch of yellowfin tuna taken by the vessel of each country shall not exceed 15% of the total catch of tuna and other marketable species taken by such vessels during the period such vessels are permitted to land incidental catches of yellowfin tuna.

APPENDIX NO. 6

RESOLUTION

The Inter-American Tropical Tuna Commission

Taking note that the reports of the scientific staff of the Commission indicate that although the catch in 1966 exceeded substantially the recommended catch quota it did not reduce the apparent abundance of yellowfin as expected, and

Recognizing that the Commission does not yet have all the necessary data to predict precisely the effect of fishing beyond the present level of intensity, and

Noting further that although the data presented in Background Paper No. 2 constitute the best current estimate of the condition of the stock, it is desirable to improve upon this estimate by obtaining more data about the effect of fishing at higher levels,

Concludes that this can be accomplished without endangering the stock or producing adverse economic effects by fishing at the present estimated equilibrium level, and

Therefore recommends to the High Contracting Parties that they take joint action to:

1. Establish a catch-limit (quota) on the total catch of yellowfin tuna for the Calendar year 1967 of 84,500 short tons from the regulatory area defined in the Resolution adopted by the Commission on May 17, 1962.

2. Reserve a portion of this yellowfin tuna quota for allowance for incidental catches of tuna fishing vessels when fishing for other marketable species in the regulatory area after the closure of the unrestricted fishery for yellowfin tuna. The amount of this portion should be determined by the scientific staff of the Commission at such time in 1967 as the catch of yellowfin approaches the recommended quota for the year.

3. Open the fishery for yellowfin tuna on 1 January 1967; during the open season vessels should be permitted to enter the regulatory area with permission to fish yellowfin, without restriction on the quantity until the return of the vessel to port.

4. Close the fishery for yellowfin tuna during 1967 at such date as the quantity already caught plus the expected catch of yellowfin tuna by vessels which are at sea with permits to fish without restriction, reaches 84,500 short tons, less the portion reserved for incidental catches in Item 2 above, such date to be determined by the Director of Investigations.

5. Permit vessels after the date of closure of the fishery for yellowfin tuna to enter the area with permission to fish only for other species; but allow any vessel operating under such permission to land not more than 15 percent by weight of yellowfin tuna among its catch of all marketable species taken within the area on any voyage which entered the regulatory area during the closed season. This limitation applies to

each trip on which a vessel departs with permission to fish only for other species even though the vessel does not return to port from such a trip until after the end of calendar year 1967. In the case of small vessels making daily trips, the 15 percent by weight for incidental catch of yellowfin may be accumulated for periods of two weeks.

6. 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, in effecting these conservation measures.

San José, Costa Rica
6 April 1967