

REPORT  
ON  
A REGIONAL SURVEY  
OF  
OFFSHORE FISHERIES  
IN  
THE  
CARIBBEAN ISLANDS

1980

Regional Cooperation Agency

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**REPORT  
ON  
BASIC DESIGN SURVEY  
FOR TUNA LONG-LINE FISHERIES  
RESEARCH AND TRAINING PROJECT  
IN  
SOLOMON ISLANDS**

**AUGUST 1980**

**Japan International Cooperation Agency**

国際協力事業団	
受入 月日 '84. 3. 15	207
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## PREFACE

It is a great pleasure that I present this report entitled THE REPORT ON BASIC DESIGN SURVEY FOR THE TUNA LONG-LINE FISHERIES RESEARCH AND TRAINING PROJECT IN SOLOMON ISLANDS to the Government of Solomon Islands.

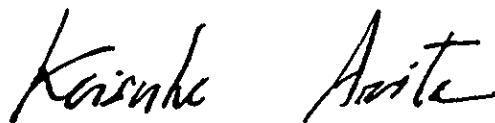
This report embodies the result of a basic design survey which was carried out in Solomon Islands from June 19 to July 11, 1980 by the Japanese Survey Team commissioned by the Japan International Cooperation Agency following the request of the Government of Solomon Islands to the Government of Japan.

The Survey Team, headed by Mr. Takashi Yamamoto, had a series of discussions with the officials concerned of the Government of Solomon Islands and conducted an extensive field survey and data analysis.

I hope that this report will be useful as a basic reference for development of the project.

I wish to express my deep appreciation to the officials concerned of the Government of Solomon Islands for their close cooperation extended to the Japanese Team.

August 1980



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Keisuke Arita

President

Japan International Cooperation Agency



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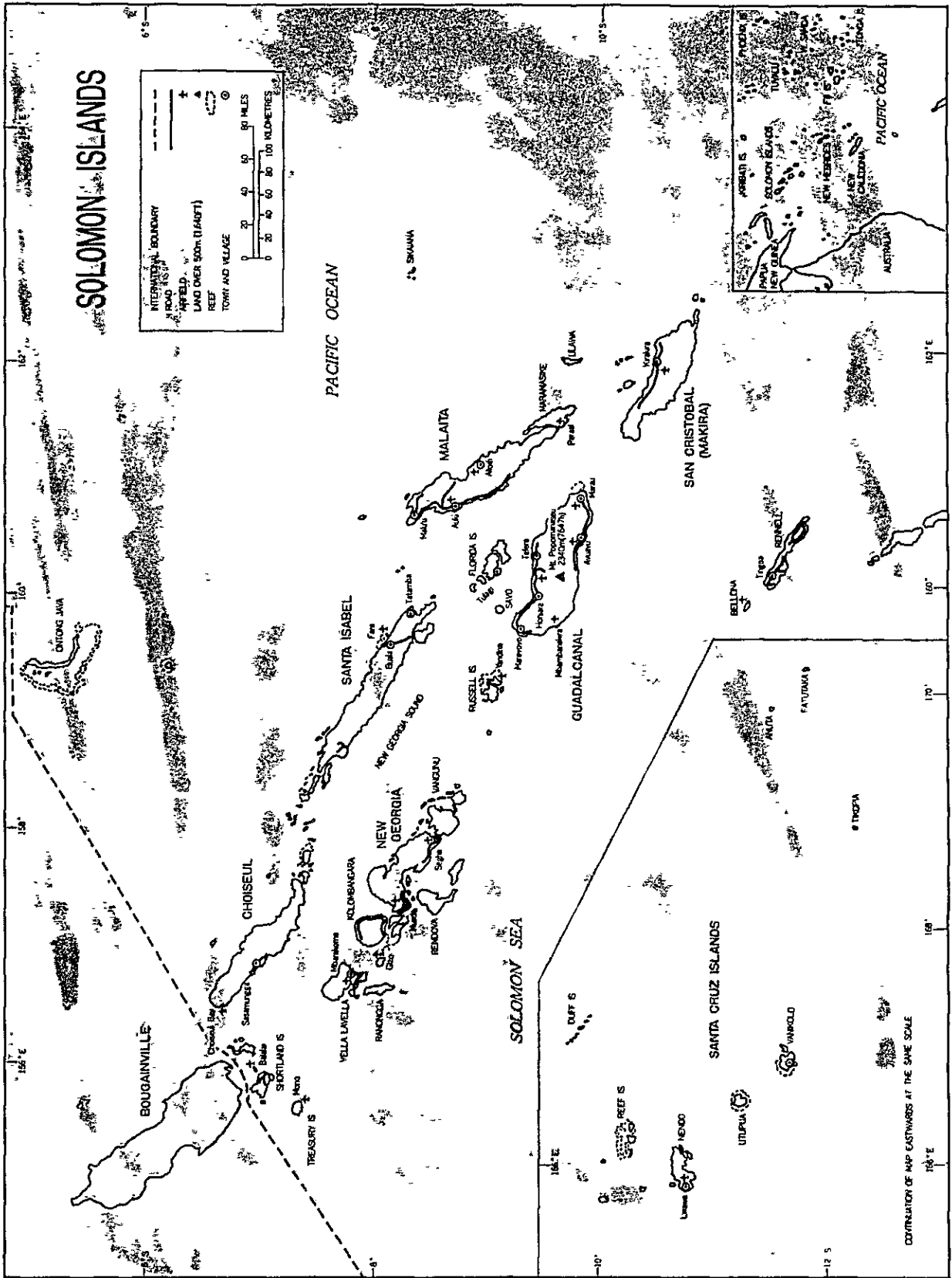
Signing the Minutes by Head of the Survey Team  
and Secretary to the Prime Minister and Cabinet.



# SOLOMON ISLANDS

INTERNATIONAL BOUNDARY	---
HEAD	+
LAND OVER 500m (1640ft)	▲
REEF	⊖
TOWNS AND VILLAGES	⊙

0 20 40 60 80 100 MILES  
0 20 40 60 80 100 KILOMETRES



CONTINUATION OF MAP EASTWARDS AT THE SAME SCALE

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## SUMMARY

1. Solomon Islands have been independent from the British protectorate since July 1978, gradually forming itself as a democratic nation. To establish a solid economic basis of the nation, this country now has a plan to develop its potential marine fishery resources in the vast waters surrounding Solomon Islands.
2. From this point of view, the Government of Solomon Islands requested the Japanese Government to offer a grant for two tuna long-line fisheries research and training vessels equipped with fishing gears. Based on this request, the Japanese Government requested Japan International Cooperation Agency to dispatch a survey team to Solomon Islands for making a basic design survey for the vessels to be granted.
3. The Survey Team had a series of meetings with the Solomon Government and its related agencies and surveyed the current status of the fisheries. The educational and training systems for fisheries as well as the fisheries development projects were discussed. The Survey Team then prepared the Minutes of the mutual talks concerning the granting of two 120 ton (26m) type tuna long-line fisheries research and training vessels and signed the Minutes with Secretary to the Prime Minister and Cabinet of the Solomon Government.

4. Such a grant is expected to contribute to a great extent to the development of the fishing industries of Solomon Islands.

(Note) Re: Vessel Tonnage

Based upon the thorough analysis and evaluation of the 120 ton type tuna long-line research and training vessel initially requested by the Solomon Government, the Survey Team made a final decision on the most appropriate type of the vessel to be 26 meter type vessel.

As this 26 meter type vessel shall possibly be identified as 140 G/T under OSLO Convention, the vessel was referred to 140 G/T (26 meter) in the Minutes signed on July 4, 1980 by the both parties concerned, although 120 G/T (26 meter) was consistently used in this Survey Report as initially requested by the Solomon Government.

[1] BACKGROUND AND PURPOSE OF THE SURVEY

1-1 BACKGROUND

The Solomon Government requested the Government of Japan to offer a grant for two 120-ton (26m) type research and training vessels equipped with fishing gears. The vessels will engage themselves in surveys and investigations for the development of tuna long-line fishery in its territorial waters and in training people for such a fishery.

The waters surrounding Solomon Islands have been known as rich fishing areas for skipjack and tuna species. Exploitation of new fishing grounds by the Solomon Government efforts are underway today. In the northern part of these waters, Japanese fishing boats catch yellowfin tuna while in the southern part Taiwanese and South Korean fishing boats fish albacore for canning. The Solomon Government has been conducting a survey on tuna resources since 1978. Additionally, the Solomon Government is making tuna long-line operations on an exploratory basis through their joint venture company established with a Japanese fishing company.

The Government of Japan granted in fiscal 1978 free aid of two skipjack pole and line fishery training vessels, a reefer, the building and equipment of Fisheries Development Centre and materials for construction of fifteen small wooden fishing boats to the Solomon Government.

Consequently, their request was made for a grant of the two tuna long-line fisheries research and training vessels

in order to make the previous grant more effectively serviceable.

1-2 PURPOSE

Before executing a grant for the two 120-ton type research and training vessels requested by the Solomon Government, the Japanese Government dispatched a Survey Team to Solomon Islands for the period of June 19 to July 11, 1980. The purpose of this Survey Team was to make surveys centering around the status quo of the fishing industries in Solomon Islands and of its fisheries educational and training systems and to investigate its future fishery development program, etc. Through the information acquired in these survey studies and through formal sessions with relevant agencies of the Solomon Government, the justifiability and benefits of cooperation were generally assessed.



[2] MEMBERS OF THE SURVEY TEAM

Head of the Team

Takashi YAMAMOTO

Fishing Boat Inspector, Fishing Boat Division,  
Oceanic Fisheries Department, Fisheries Agency,  
Ministry of Agriculture, Forestry and Fisheries

Members

Cooperation Planning

Yoshikazu MIYAKAWA

International Affairs Division,  
Oceanic Fisheries Department, Fisheries Agency,  
Ministry of Agriculture, Forestry and Fisheries

Consultant

Hiroshi KIDA

Fishing Expert (Fisheries in General)  
Taiyo Fishery Co., Ltd.

Consultant

Yoshiki SUGIMOTO

Engineer (Fishing Vessel Department)  
Taiyo Fishery Co., Ltd.

Consultant

Akio OZASA

Engineer (Marine Engineering & Marine Electrical  
Engineering)  
Taiyo Fishery Co., Ltd.

Coordinator

Akio NAKAZAWA

Fisheries Technical Cooperation Division,  
Japan International Cooperation Agency

[3] ITINERARY OF THE SURVEY TEAM

<u>Date</u>	<u>Place of visit</u>	<u>Day's schedule</u>
June 19 (Thur)		: Left Haneda <sup>11:30</sup> 14:00/Arrived at Manila 17:00 (PR431). Left Manila 23:50 (PR283).
June 20 (Fri)	Port Moresby	: Arrived at Port Moresby 06:55. Paid a visit to Japanese Embassy
June 21 (Sat)	Honiara	: Left Port Moresby 12:05 (PX31) Arrived at Honiara 16:45.
June 22 (Sun)	Honiara	: Given an explanation on status quo of fisheries in Solomon Islands by the general manager, Solomon Taiyo, Ltd. (STL). Prepared the list of data and materials to be submitted by the Solomon Government.
June 23 (Mon)	Honiara	: Paid a visit to Ministry of Natural Resources, Office of Prime Minister, and Foreign Affairs Department of the Solomon Government. Consultation with Chief Fisheries Officer and Senior Fisheries Officer at the Fisheries Office.
June 24 (Tues)	Honiara	: Consultation with Chief and Senior Fisheries Officers at the Fisheries Office.

<u>Date</u>	<u>Place of visit</u>	<u>Day's schedule</u>
June 25 (Wed)	Honiara	: Team members Sugimoto and Ozasa drafted an amendment plan to comply with some requests made by the Solomon Government. Other members including Head of the Team visited Honiara Technical Institute (HTI), Solomon Ia Company, Ltd. (SIACO), etc.
June 26 (Thur)	Tulagi	: Left Honiara 08:30/Arrived at Tulagi 11:30 (by boat) Visited Shipyard of National Fisheries Developments, Ltd. (NFD)
June 27 (Fri)	Tulagi	: Visited Tulagi Marine Repair Base, and Tulagi Base of Solomon Taiyo, Ltd.
June 28 (Sat)	Tulagi	: Meeting of the Team.
June 29 (Sun)	Honiara	: Left Tulagi 09:15/Arrived at Honiara 11:30. (by boat) Visited fishing village near Honiara.
June 30 (Mon)	Honiara	: Left Honiara 07:15/Arrived at Auki. Visited Fisheries Development Centre (FDC), fish market, repair shop for outboard motors and others. Left Auki 13:30/Arrived at Honiara

<u>Date</u>	<u>Place of visit</u>	<u>Day's schedule</u>
		14:00. Review meeting of the Team members on the data and materials.
July 1 (Tues)	Honiara	: Made consultation with Chief and Senior Fisheries Officers at Fisheries Office.
July 2 (Wed)	Honiara	: Made consultation with Chief and Senior Fisheries Officers at Fisheries Office. Meeting was adjourned by the Solomon Government delegate for their inter-ministry consultation.  Interim report sent by telex from the Team to JICA.
July 3 (Thur)	Honiara	: Consultation with Chief and Senior Fisheries Officers at Fisheries Office.  Consultation with the members of Aid Management Committee at Office of Secretary to the Prime Minister and Cabinet.  Sent telex to the Japanese Government to request instructions.  Having received the instructions from the Japanese Government, the Team presented a revised plan to the Solomon Government.

<u>Date</u>	<u>Place of visit</u>	<u>Day's schedule</u>
July 4 (Fri)	Honiara	: Consultation about Minutes with the Solomon Government at Fisheries Office.  Signed Minutes at Office of Secretary to the Prime Minister and Cabinet.
July 5 (Sat)	Honiara	: Review of data and materials.
July 6 (Sun)	Honiara	: Draft report written.  Cocktail party given by the Team.
July 7 (Mon)	Honiara	: Second Independence Day.  Team members attended celebration party.
July 8 (Tues)	Port Moresby	: Left Honiara 14:55/Arrived at Port Moresby 17:45 (PX30).
July 9 (Wed)	Port Moresby	: Meeting of the Team.  Luncheon given by the Team.
July 10 (Thur)	Port Moresby	: Results of survey outlined to Japanese Embassy.
July 11 (Fri)		: Left Port Moresby 08:40/Arrived at Manila 11:35 (PR284).  Left Manila 14:55/Arrived at Tokyo 20:00 (KL863).

[4] AGENCIES, INSTITUTIONS AND PERSONS VISITED

4-1 AGENCIES AND INSTITUTIONS VISITED

- 1) Office of the Prime Minister
- 2) Foreign Affairs Department
- 3) Ministry of Natural Resources
- 4) Fisheries Office
- 5) Honiara Technical Institute (HTI)
- 6) Solomon Ia Company, Ltd. (SIACO)
- 7) National Fisheries Developments, Ltd. (NFD)
- 8) Ministry of Transport and Communications, Marine Division,  
Tulagi Marine Repair Base
- 9) Fisheries Development Centre in Malaita Province
- 10) Solomon Taiyo, Ltd. (STL)
- 11) Japanese Embassy in Papua New Guinea.

4-2 PERSONS VISITED

1) Solomon Government:

a) Ministry of Natural Resources

Minister	Mr. Paul Tovua
Permanent Secretary	Mr. Milton Sibisopere
Chief Fisheries Officer	Mr. Douglas Gibson
Senior Fisheries Officer	Mr. Nicholas P. Stone

b) Office of Prime Minister

Secretary to the Prime Minister and Cabinet	Mr. Isaac Qoloni
--	------------------

- c) Foreign Affairs Department
  - Ambassador/High
  - Commissioner Mr. Francis Bugotu
  - Head of Planning Office Mr. Van Asch
  - Central Planning Officer Mr. Peter Agar
  
- d) Ministry of Transport and Communications
  - Manager, Tulagi Marine
  - Repair Base Mr. Sydney Offord
  
- 2) Schools, Public Corporations and Companies
  - a) Honiara Technical Institute
    - Principal Mr. Allan W. Hatfield
    - Head of School and Senior
    - Master Captain Thomas De M. Ogier
    - Master Fishing Engineer Mr. Roland Lidguard
  
  - b) National Fisheries Developments, Ltd.
    - General Manager Mr. Trevor W. Holmes
    - Fleet Operation Manager Mr. Tadao Yamamoto
  
  - c) Solomon Taiyo Ltd.
    - General Manager Mr. Hisao Honda
    - Tulagi Base Manager Mr. Kunio Awai
  
  - d) Fishing Corporation Society
    - Chief Fisherman Mr. Loea Mamate

3) Japanese Embassy in Papua New Guinea

Charge d'affaires	Mr. Nobutake Odano
First Secretary	Mr. Kazuhiko Shigeta
Second Secretary	Mr. Kanji Sato

4) Others

Japan Overseas Cooperation	
Volunteer	Mr. Haruo Nakayama



[5] SUMMARY REPORT ON THE SURVEY

5-1 SUMMARY ON DISCUSSIONS

The thorough analysis of the request for the two 120-ton (26m) type tuna long-line fisheries research and training vessels equipped with fishing gears was made by the Japanese Government. The analysis revealed that it would be somewhat difficult for the sum to be granted to cover their building cost. Therefore, the Japanese Government discussed this position with the mission from the Solomon Government when they visited Japan in the middle of last May.

The mission expressed their hope that if the grant was not sufficient to cover the building cost of two 120-ton (26 m) type vessels, one vessel should be designed as the 120-ton (26 m) type while the other vessel be built as large as possible using the remaining balance of the sum to be granted. Both parties agreed to have another meeting to discuss these points at the time of reviewing design details. Therefore, the Survey Team from Japan prepared specifications and general arrangement of a 120-ton (26m) type vessel (equipped with  $-55^{\circ}\text{C}$  quick freezing system and labour-saving fishing equipment) and 85-ton (22m) type vessel (ice-cooling vessel). After arriving in Solomon Islands, the Survey Team entered into discussions with Mr. Douglas Gibson, Chief Fisheries Officer and Mr. N. P. Stone, Senior Fisheries Officer. After examining the specifications and general

arrangement, Messrs. Gibson and Stone both felt that there was no particularly critical problem with the 120-ton (26m) type vessel, however, they expressed their dissatisfaction with the 85-ton (22m) type vessel proposed.

They felt that the latter vessel would not be able to make its fishing operations economically self-supportable. Thus, they requested the latter vessel also to be equipped with a quick freezing system and labour-saving fishing equipment. To comply with this request, the Survey Team reduced various spare parts and ship stores in order to stay within the limit of remaining grant. Then, the Team redrew specifications and general arrangement and presented them for their further review.

After surveying fisheries facilities at Honiara, Tulagi and Auki, the Survey Team resumed the discussion with them, who still expressed their dissatisfaction on the new specifications and general arrangement mentioned above. However, the Survey Team asked them to give a consent, since it would be rather difficult to accept further proposal requesting some increase of the cost assumed. Mr. Douglas Gibson, Chief Fisheries Officer mentioned that he would reply after a further consultation with the Solomon Government authorities involved. Thus, the meeting was adjourned without reaching the mutual agreement.

As a result of the internal meeting, the Solomon Government further expressed that they could not accept the 85-ton (22m) type vessel, urging the granting of two 120-ton (26m) type vessels. Since this request was essentially different from their request made in Tokyo in last May, the Survey Team asked the Japanese Government for instructions on July 3.

Based on the instruction given by the Japanese Government that two 120-ton (26m) type vessels could be admitted within the limit of grant, the Survey Team made further investigations. The Team thus again drew up specifications for two 120-ton (26m) type vessels. Revisions included reduction of some fishing gears, spare parts and inventories. The Team offered the revised specifications, which resulted in an agreement, in principal. Draft Minutes was confirmed at the Fisheries Office on July 4, and the formal Minutes was drawn up and signed by Mr. Issac Qoloni, Secretary to the Prime Minister and Cabinet and Mr. Takashi Yamamoto, Head of the Japanese Basic Design Survey Team on July 4 at the Office of Secretary to the Prime Minister and Cabinet in Honiara.

#### 5-2 MINUTES OF DISCUSSIONS

The Survey Team had a series of meetings with the key officials of Fisheries Office, Ministry of Natural Resources and the related Solomon Government agencies involved and the Team visited various important locations in Solomon

Islands in relation to the subject matter. The signed Minutes of Discussions on the Basic Design Survey for the Tuna Long-Line Fisheries Research and Training Project in Solomon Islands with ANNEX I and II is herewith attached to this report.

MINUTES OF DISCUSSIONS

ON

THE BASIC DESIGN SURVEY FOR THE TUNA LONG-LINE FISHERIES  
RESEARCH AND TRAINING PROJECT IN SOLOMON ISLANDS

At the request of the Government of Solomon Islands for assistance in providing the research and training vessels for the purpose of contributing to the Tuna Long-line Fisheries Research and Training Project (hereinafter referred to as "the Project") in the Solomon Islands, the Government of Japan, through Japan International Cooperation Agency (hereinafter referred to as "JICA"), has sent the Basic Design Survey Team (hereinafter referred to as "the Team") headed by Mr. Takashi Yamamoto, Fishing Boat Inspector, Fishing Boat Division, Fisheries Agency, to conduct a basic design survey for the Project from June 19 to July 11, 1980.


During their stay in Solomon Islands, the Team exchanged views and had a series of discussions with the authorities concerned of the Government of Solomon Islands in respect of the desirable measures to be taken by both Governments for the successful implementation of the above-mentioned Project.

As a result of the discussions, the Team and the authorities concerned of the Government of Solomon Islands have agreed to recommend to their respective Governments the matters referred to in the documents attached hereto.

July 4, 1980  
Honiara, Solomon Islands.



Mr. Takashi Yamamoto  
Head of the Japanese  
Basic Design Survey Team



Mr. Isaac Qoloni  
Secretary to the Prime  
Minister and Cabinet

ANNEX I

- I. The objectives of the Tuna Long-Line Fisheries Research and Training Project are to conduct tuna long-line fisheries research and training of personnel for the further development of a viable long-line tuna fishery in Solomon Islands.
  
- II. The Government of Japan will take necessary measures to provide two tuna long-line fisheries research and training vessels with fishing gear for the implementation of the project, as listed in Annex. II.
  
- III. The Government of Solomon Islands will take measures to provide the following:
  - 1/ Personnel, including research and training officers, necessary for the successful operation of the Project.
  
  - 2/ Expenses necessary for the cruising of the vessels from the Port of Honiara to the Project site port.
  
  - 3/ Customs duties, internal taxes and any other charges that may be imposed by the Authorities in Solomon Islands on articles referred to in Annex. II.
  
  - 4/ Project operation, maintenance and other expenses.

*24.*

*4.*

ANNEX II

1. PRINCIPAL PARTICULARS OF THE VESSELS

- a) Type of Vessel  
Steel tuna long-line fishing research and training vessel.
- b) Rules and Regulations Applied
- 1) The Shipping Regulations, Chapter 98, Shipping, the Laws of Solomon Islands in force on 31st December 1969 as applied to outer Islands Vessel.
  - 2) International Regulation for Tonnage Measurement of Ships as concluded in Oslo.
  - 3) International Load Line Convention, 1966.
  - 4) Japanese Ships Safety Rules and Regulations.
- c) Principal Dimensions
- |                           |                           |
|---------------------------|---------------------------|
| Length O.A.               | approx. 31.50m            |
| Length P.P.               | approx. 26.00m            |
| Breadth Moulded           | approx. 6.20m             |
| Depth Moulded             | approx. 2.60m             |
| Designed draft            | approx. 2.20m             |
| Gross tonnage (by OSLO)   | approx. 140 ton           |
| Hold capacity             | approx. 80 m <sup>3</sup> |
| Fuel oil tank capacity    | approx. 77 m <sup>3</sup> |
| Fresh water tank capacity | approx. 9 m <sup>3</sup>  |
- d) Main Engine  
4 cycle diesel engine                      500 ps                      1 set
- e) Service Speed                              approx. 9.0 knots
- f) Duration of Cruise                         35 days
- g) Complement                                 22 persons
- h) Fishing Machinery  
Line hauler, line winder and other automatic fishing machinery                      1 set
- i) Quick Freezing System  
Capacity                                         2.0 tons/36 hours  
Refrigerant                                     R-22
- j) Nautical Instrument and Radio Equipment
- |                  |        |
|------------------|--------|
| Magnetic compass | 2 sets |
| Radar            | 1 set  |
| Fish Finder      | 1 set  |
| Direction Finder | 1 set  |
| SSB              | 1 set  |

2. FISHING GEAR AND TOOLS

Long-line	10 hooks x 200 sets
Tools	1 set

3. SPARE PARTS

Consumed machinery parts	For 2 years
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4. REQUIREMENTS OF SOLOMON ISLANDS GOVERNMENT

Supply of the following items requested by Solomon Islands Government will be subject to Japanese Government budget capabilities.

- a) Windlass, chain and stockless anchor
- b) Main engine cooled by fresh water
- c) Video television set
- d) Magnetic compass automatic pilot

*Def.*

*U.*



[6] JUSTIFIABILITY AND BENEFITS OF THE GRANT

6-1 JUSTIFIABILITY OF THE GRANT

1) Importance of Fisheries

The economy of this country must be based on the development of its natural resources and their exports.

Its exports and imports in 1978 amounted to SI\$30,594,000.00 and SI\$30,879,000.00, respectively. It is forced to rely on the income from exports of natural resources in buying foods and other necessities of life.

The major four export items in 1978 in value are: copra (25.7%), fisheries products (24.4%), timber (22.3%) and palm oil (15.2%). These four items account for 87.6% of total exports. However, major export items in 1970 were copra and timber, representing 51.0% and 40.0% of the total exports, respectively. Fisheries products only accounts for 2.0%. Export of palm oil, started in 1976, has been sharply growing. Compared to the figures in 1970, copra and timber became 2.2 and 2.4 times respectively in 1978, while fisheries products recorded a growth of 59 times during the corresponding period.

In Solomon Islands, the fishing industry is one of the most important industries, accounting for about a quarter

of the total exports of the nation. Since two major export industries of copra and timber have been rather retained in their recent growth, the fishing industry has been gaining more and more in importance.

For skipjack, there were catches of 4,165 tons in 1971, which increased to 25,000 tons in 1979, about six-fold the figure in 1971. Almost all catches were exported. 87.4% was exported as frozen fish, 8.9% as canned fish and 3.7% as smoked skipjack (ARABUSHI). The frozen fish was directed to the United States, the canned fish to European countries, and the smoked skipjack to Japan.

The only substantial fishery company in this country is a joint venture established with a Japanese corporation. With regards to its employment records, it hired 311 persons in 1973 and 1,145 persons in 1979, which means a 3.7-fold increase in six years. Thus, in Solomon Islands, the fishing industry is increasing its importance in the national economy.

## 2) Need of Tuna Fishery

At present, the Solomon fishing industries are largely concerned in skipjack fishing, other fishing accounting for almost nothing in which very small scale coastal fishermen are engaged.

A 2-year survey on tuna fishery has been conducted on exploratory basis as a fisheries development project in this country. Test fishing operations in this survey showed daily catch of about 1.8 tons, mainly yellowfin tuna. This data substantiates a possibility of tuna fishery there on commercial basis. It thus seems very timely that the Solomon Government presents a definite policy to expand and stabilize the national fishing industries by developing and adding the tuna fishery to the existing skipjack fishing industry.

### 3) Effective Use of the Training Vessels

As stated above, rich tuna resources have been confirmed to prove a possibility of tuna fishery on commercial basis in Solomon Islands.

To materialize such tuna fishery on commercial basis, priority must be given to the procurement of necessary production means including training and securing of necessary staff and labour. The planned grant of fisheries research and training vessels is also indispensable for this purpose. The basic policy of the Solomon Government on tuna fishery is to promote the commercial tuna fishery based in Solomon Islands and to establish such tuna fishing industry as one of the national key industries in order to enjoy merits of exporting tuna products.

The planned grant seems to reasonably satisfy the above requirements of the Solomon Government for the following reasons. For tuna long-liners based in Solomon Islands, a 120-ton (26m) type vessel is not only most economical but also suitable for the maximum tonnage capacity of existing dock facilities in Solomon Islands. Vessels to be granted will be equipped with a quick freezing system capable of cooling down to  $-55^{\circ}\text{C}$ , which will improve the quality and marketability of their tuna products.

After having been educated and trained aboard the vessels equipped with such modern facilities, trainees can effectively work as the immediate working forces aboard tuna catcher boats operated by business enterprises. Furthermore, it is important to make effective use of these research and training vessels both for the development of fishing grounds associated with the rich tuna resources that have already been confirmed by a test fishing survey vessel and for the assessment and evaluation of maximum allowable catches by means of a survey and analysis of the tuna stocks in the waters surrounding Solomon Islands.

It is needless to point out that an important criterion for the justifiability of such grant is whether the research and training vessels to be granted can be successfully operated or not. Fortunately, the nation has acquired an abundant pool of skilled fishermen through its 10-year development

history of skipjack fishery, so we can rely on them for repairs and maintenance of these vessels to some extent. However, in order to enhance the value of the planned grant of the vessels, it will be a prerequisite to send technical instructors from Japan.

#### 4) Prospect

In Solomon Islands, new establishment of tuna fishery in addition to further promotion and development of existing skipjack fishery will give a possibility of diversifying fisheries as an export industry to stabilize and strengthen the national economy.

As for people to be trained aboard the research and training vessels to be granted, it will be possible to make effective use of them in future in a wider category of fisheries. It is thus believed that the grant will contribute much to the expansion and future development of the fundamental basis of fishing industries in Solomon Islands. Therefore, it is considered that the vessels as stated above will be the best grant both in timing and in substance to meet the request of the Solomon Government.

#### 6-2 BENEFITS OF THE GRANT

The following benefits are expected from the planned grant:

##### 1) Survey and Study

- a) Survey, analysis, and evaluation of the stocks of tuna resources.
- b) Exploitation and survey of new fishing grounds.
- c) Research and analysis of fishing grounds in relation to each fishing season.

2) Training

- a) Learning of fishing skills and techniques.
- b) Acquiring of skills and techniques of vessel operation and manoeuvring.
- c) Learning of techniques how to handle marine equipments.

Execution of the above survey, study and training will lead to the following expected results.

- i) Estimation of optimum yields.
- ii) Improvement of the fishing efficiency.
- iii) Promotion for future commercialization.
- iv) Pool of highly skilled people.
- v) Localization of the fishing industries through technical transfer.

Because of the above merits, the planned grant will contribute much to the promotion of local fishing industries which are important to an archipelagic nation such as Solomon Islands.

[7] REMARKS ON THE GRANT

7-1 CRUISING PLAN

It is planned that the Solomon Government will charge NFD with the operations of granted vessels, while a concrete survey and training plan will be made under consultation among the three parties concerned, Fisheries Office, HIT and NFD. In order to give trainees the navigation practice aboard vessels based at NFD of Tulagi Port, a cruising schedule for five voyages yearly has been prepared as follows:

	<u>Single voyage</u>	<u>Yearly basis</u>
Duration of voyage (including survey)	26 d	130 d
Duration of operation & training (including survey)	30 d	150 d
Duration of mooring (loading and unloading, resupply, rest)	<u>10 d</u>	<u>50 d</u>
(Subtotal)	66 d	330 d
Dock (docking, repairs and maintenance of engine and hull)	<u>-</u>	<u>35 d</u>
(Total)	66 d	365 d

Each vessel will carry 6 to 8 apprentice officers per voyage for training. The training practice includes navigation, manoeuvring, communication, fishing, process-

ing, freezing and handling of catches, loading and unloading works, repairs of fishing gear, preparation of new long-lines, deck works, vessel operations, maintenance, inspection and supply for the engine and quick freezing system, etc.

## 7-2 BUDGETARY MEASURE

Operational costs and expenses associated with the vessels to be granted must be covered by the revenue derivable from their catches. Annual cost and expenses can be tentatively estimated from the cruising schedule as follows:

1) Fuel	SI\$200,000
2) Labour and provisions	134,000
3) Fishing gears, marine equipment and supplies	10,000
4) Bait for fishing	30,000
5) Repairs and docking	35,000
6) Ship insurance	20,000
7) Miscellaneous expenses including communication and welfare costs	15,000
( Total)	<u>SI\$444,000</u>

Further, the yearly revenue from catches can be estimated as follows, under assumptions of 150-day fishing operation yearly, average daily catches of 1.5 tons and FOB price of SI\$2,000 per ton of catches:



$$150 \text{ d} \times 1.5 \text{ t/d} \times \text{SI}\$2,000/\text{t} = \text{SI}\$450,000.00$$

Thus, it is considered that there will be no problem in cruising expenses, if the vessels cruise according to the schedule.

[8] SPECIFICATIONS OF FISHERIES RESEARCH AND TRAINING VESSELS

8-1 DETAILS OF DISCUSSIONS

In order to meet the need of the Solomon Government as far as possible in consideration both of the request made by that government through the diplomatic channel for a grant of vessels from the Japanese Government and of the sum to be granted, the Survey Team prepared specifications of the vessels to be granted according to the following principles:

- 1) In compliance with the request made by the Solomon Government, two tuna long-line fisheries research and training vessels were planned as vessels suitable for survey and training operations in waters surrounding Solomon Islands.
- 2) Since the sum to be granted was found insufficient to cover the building costs of two same type vessels as requested by the Solomon Government, a 120-ton (26m) type vessel with freezing system and a 85-ton (22m) type ice-cooling vessel were actually considered.
- 3) In consideration of the current skill and technical level of the fishing boats' crew and repair facilities in Solomon Islands, marine equipments and systems to be mounted to the vessels were selected as simple as possible.
- 4) Accommodation spaces within the framework of the legal requirements were taken into account as many as possible,

though both vessels were small and there were certain restrictions on the accommodation plan due to the Solomon Shipping Regulations.

- 5) The stability of vessels was taken into full consideration.

Specifications and general arrangement were drawn up to meet the above principles and submitted for explanation to the Fisheries Office, Ministry of Natural Resources to which these two vessels would belong after the grant.

As a result of the above presentation the following discussions were made with some counter requests by the Solomon Government.

- 1) For the 120-ton (26m) type vessel, a general consent in principle was given, though some minor changes were requested.
- 2) For the 85-ton (22m) type vessel, our offer failed in meeting the wishes expressed by the Solomon Government because of the following reasons and then our reconsideration was requested:
  - a) For the Solomon Government, the primary purpose of these vessels was training of their fishermen but it was necessary for these vessels to catch certain amount of fishes to cover their operating costs.
  - b) Installation of a quick freezing system was desirable.
  - c) Installation of labour-saving fishing equipment was desirable.

- d) If fresh fish were landed in large quantities at a time from the planned ice-cooling vessel, the coastal fishermen would suffer from severe competition.

Having found that if equipped with a quick freezing system a 85-ton (22m) type vessel could not be assured of enough stability, the Survey Team enlarged the vessel size to the 105-ton (24m) type, reducing some fishing gears, spare parts and stores in order to meet the budgetary requirement.

The Solomon Government investigated the proposed 105-ton (24m) type vessel primarily in view of payability. However, they found that it would be still difficult for this type of vessel to cover its operational cost with the revenue from catches. Also the operations of two vessels of the same type would not only facilitate coordinated research and training operations with both vessels but ensure more efficient technical transfer as well. Therefore, they urged a grant of two 120-ton (26m) type vessels, as they considered to purchase one set of fishing gears for a vessel for their account.

The Survey Team requested the Japanese Government for instructions on the issue whether two vessels of same type should be granted or combination of one large and one small vessel should be granted. Based on the instructions from the Japanese Government, the Team modified the original

specifications for cost-savings and thereby reached an agreement in granting two 120-ton (26m) type vessels.

## 8-2 TECHNICAL MATTERS AGREED

### 1) Regulations

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The regulations to be applied and certificates to be obtained are the same ones as the vessel, Solomon Fisher, granted in fiscal 1978. As to the Solomon Shipping Regulations, those regulations for the outer island vessel are to be applied to the vessels to be granted.

### 2) Height of the fish hold

There was an opinion that the low height of fish hold might be inconvenient for stowing works or the like. However, the same height is used as the standard in Japanese fishing vessels. Though the height of fish hold could be made higher by giving up the double bottom design and reducing the capacity of fuel oil tank, the original specifications was maintained in these respects to avoid a reduction in the duration of single voyage and to assure the safety of the vessels during the voyages and fishing operations.

### 3) Fire extinguisher in the engine room

For the foam fire extinguisher (45 liters) as stipulated in the Solomon Shipping Regulations, a plural number of smaller foam fire extinguishers may be used, if the capacity

meets the requirement.

4) Boat

The Solomon Shipping Regulations include no definite provisions for the boat to be required for the outer islands vessel. Thus, a dinghy type boat of approx. 10 or 12 feet long, equipped with an outboard engine of about 6HP and made of fiber reinforced plastic or light metal alloy can be adopted.

5) Other items requested by the Solomon Government

- a) The anchoring equipment composed of a windlass, chain and stockless anchor.
- b) A fresh water cooling system for the main engine.
- c) A video tape recorder (VTR)
- d) A magnetic compass automatic pilot.
- e) A shelter deck on the fore part of upper deck.
- f) A small power VHF radio telephone for communication.
- g) The inclined front face of the steering house.
- h) A 4-men room on the upper deck on the starboard side for trainees.  
The foremost two beds on the upper deck on the port side for instructors.
- i) The recording type thermometer for the fish hold.
- j) The extended deck area of the stern part of upper deck.



Fish hold -55°C	Approx.	80m <sup>3</sup>
Fuel oil tank	"	77m <sup>3</sup>
Fresh water tank	"	9m <sup>3</sup>
d) Main Engine, 4 cycle diesel engine 500HP, 1 set		
e) Cruising Speed	Approx.	9.0 knots
f) Voyage		35 days
g) Complement		22 persons
h) Fishing Equipment		
Line hauler, line winder, and other labour-saving equipment		1 set
i) Quick Freezing system		
Capacity	-55°C	2.0 t/36h
Refrigerant		R-22
j) Nautical Instrument and Radio Equipment		
Magnetic compass		2 sets
Radar		1 set
Fish finder		1 set
Direction finder		1 set
SSB		1 set
2) Fishing Gear and Tools		
Long line	200 sets, each with	10 hooks
Tools		1 set
3) Spare Parts		
Consumed machinery parts		for 2-year



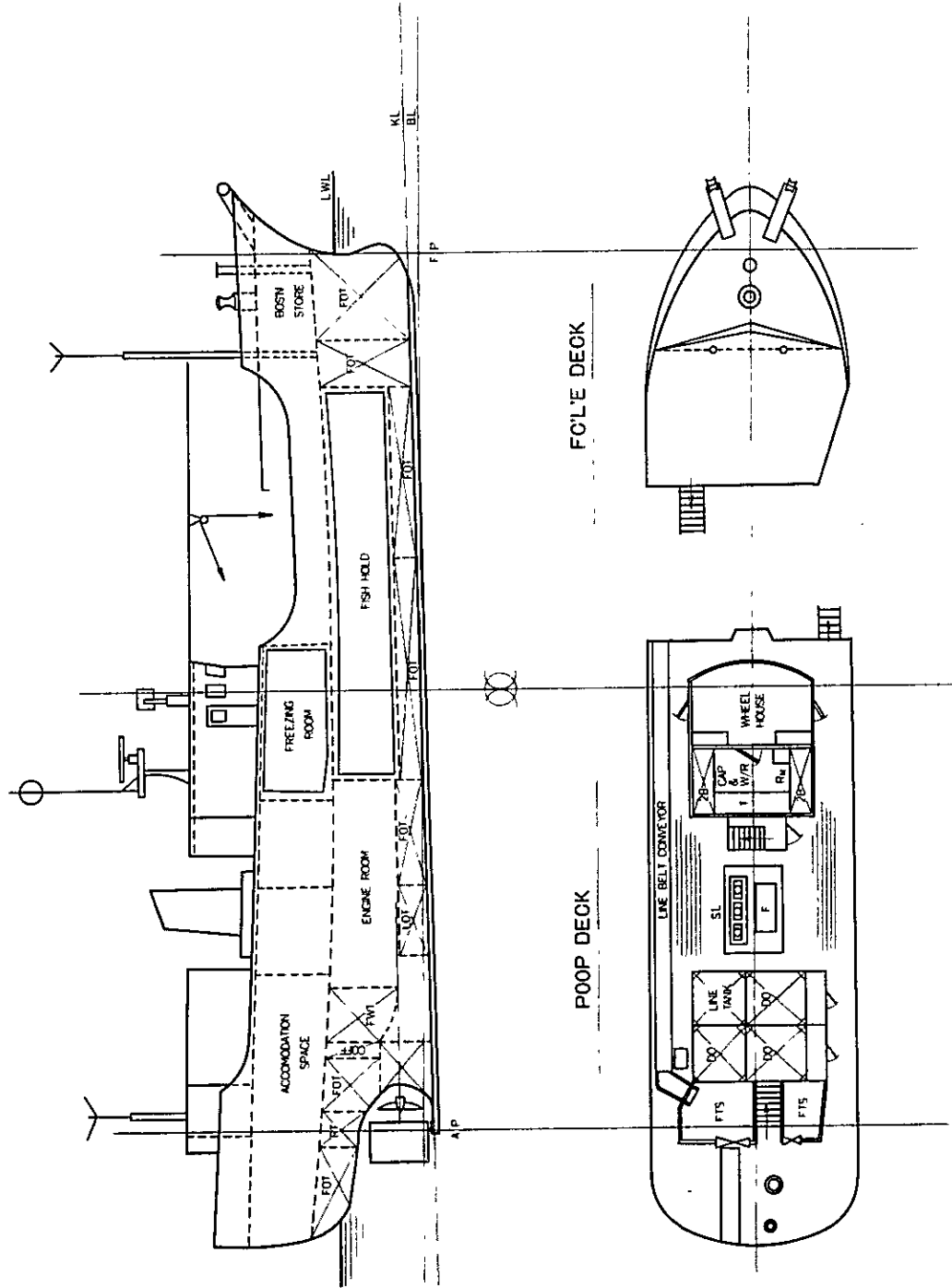
4) Items requested by the Solomon Government

The execution of the following items requested by the Solomon Government will be subject to the Japanese Government grant budget capabilities.

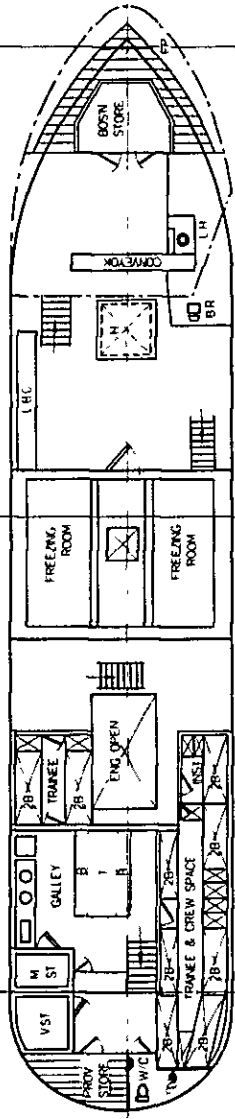
- a) Anchoring equipment comprising a windlass, chain and stockless anchor.
- b) Fresh water cooling system for main engine.
- c) Video tape recorder.
- d) Magnetic compass automatic pilot.

(8) --4 GENERAL ARRANGEMENT

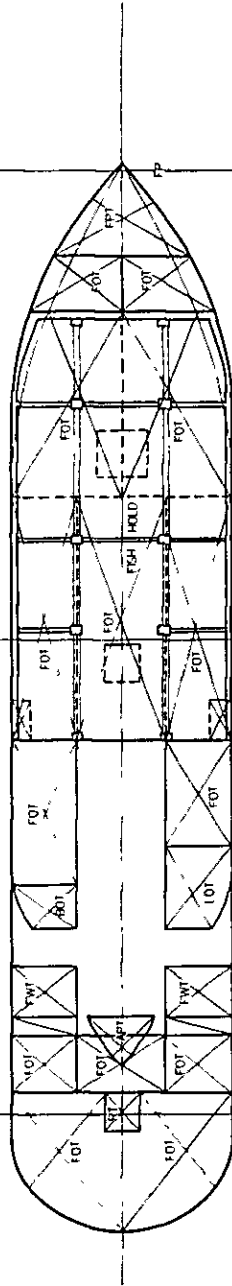
LOA	APPROX	31.50M
LR	"	26.40
LPP	"	26.00
BMLD	"	6.20
DMLD	"	2.60
d design(MLD)	"	2.20
GT	"	120TON
MAIN ENGINE 500PS		
HOLD(BALE) APPROX 80MP		
FOT	"	77
FWT	"	9
COMPLEMENT 22P		



UPPER DECK



HOLD PLAN



[9] PROVISIONAL SCHEDULE FOR BUILDING TUNA LONG-LINE FISHERIES  
RESEARCH AND TRAINING VESSELS

<u>Month/Year</u>	<u>Day</u>	<u>First Vessel</u>	<u>Second Vessel</u>
(1980)			
July	4th	Minutes signed	Same
September	Late	Decided upon by Japanese Cabinet	"
October	Middle	Exchange of Notes	"
	Late	Consultant contract signed	"
November		Tender made Shipyard determined	"
December	Middle	Shipbuilding contract signed	"
(1981)			
January		Designing stage	"
February	Middle	Keel laying	
March	Middle		Keel laying
May	Middle	Launching	
June	Middle		Launching
July	Late	Delivery	Delivery
August	Late	Arrival at Honiara	Arrival at Honiara







