

FISHERIES EDUCATION & TRAINING
SCHOOL OF MARINE & FISHERIES STUDIES
SOLOMON ISLANDS

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1.0 INTRODUCTION

The School of Marine & Fisheries Studies is the Solomon Islands' principle institution for the education and training of deck officers and ratings, employed within the country's commercial, government and fishing fleets.

It was set up thirty years ago (1962) as the training arm of Ministry of Transport, Works & Utilities' Marine Division but was integrated into the former Honiara Technical Institute in the 1970's, before the latter organisation itself became part of the newly-formed Solomon Islands' College of Higher Education (SICHE) in 1985.

Situated on the island of Guadalcanal, about 5 kilometers east of Honiara, on the seaward side of the main highway at Ranadi, the School lies approximately midway between the College's two other campuses at Kukum and Panatina. It occupies a site of approximately 3.2 hectares, containing student accommodation, classrooms, administrative buildings, training facilities, staff housing and sports field within a secure wire-mesh perimeter fence.

2.0 ROLE OF THE SCHOOL

The main role of the School still remains the provision of vocational training courses for the country's professional seafarers but with increasing involvement in activities related to commercial and rural fisheries operations, marine-related consultancies and applied research.

The School has always been run on a disciplined basis with uniform worn by all students and permanent staff. There is residential and classroom accommodation for 56 students at anyone time, with a maximum of four different courses running concurrently.

The current staffing establishment is 9 marine and fisheries lecturers, with an additional two academics, provided by the College's School of General Studies, to teach in the areas of mathematics, English and science. Administrative and support staff comprises of a school secretary, cook and two boat-builders.

3.0 RESOURCES

The majority of the School's physical resources date back to the early 60's but have been retained in good condition by the dedicated efforts of former and existing staff members. In addition to the normal teaching facilities, the School also has a relatively sophisticated two own-ship radar, navigation and fish-finding simulator, donated by the Japanese Government under a bi-lateral fisheries agreement in 1985. Other facilities include a full-size, twin derrick, cargo handling simulator and an EEC-funded fisheries boatbuilding shed.

4.0 COURSES

Broadly speaking, courses within the School, for fisheries personnel, can be grouped as follows:-

a) Those leading to a statutory qualification as detailed in the 1967 Shipping Regulations, including:

Master (Pacific Islands)	36 weeks
Mate (Pacific Islands)	36 weeks
Master (Solomon Islands)	18 weeks
Mate (Solomon Islands)	18 weeks
Coxswain (Class 1, 2, 3)	9 weeks

b) Non-statutory award courses targeted at:-

1. Commercial Fisheries

i) Basic Fishing Techniques	9 weeks
ii) Advanced Fishing Techniques	9 weeks

2. Institutional Fisheries

i) Senior Fisheries Officer Management Course (proposed for 1992)	9 weeks
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3. Rural Fisheries

i) Restricted Fisherman's Course	9 weeks
ii) Net Construction and Repair	2 weeks
iii) Fish Preservation and Smoking	1 week
iv) Fishing Techniques with nets, traps and lines	1 week

4. Other

i) Coxswain's Bridging Course	4 weeks
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On average the School recruits about 150 full-time students during the year, on courses ranging from 9 weeks up to 36 weeks, and corresponding to an equivalent full-time (EFT) enrollment of about 60 students.

Short courses in fire-fighting and sea survival and the Rural Fisheries Training Program accounts for about another 450 people who benefit in some way from the expertise of the School's staff.

5.0 COURSE ADVISORY COMMITTEE

The School liaises closely with a number of bodies, through its Course Advisory Committee, to ensure that the demands of the industry are considered during any course design and development. This committee meets three times per year and includes representatives from such organisations as:

- Marine Division.
- Fisheries Division.
- Ministry of Education & Human Resources Development.
- S.I. Shipowners' Association.
- Commercial fishing companies.
- Marine Police Surveillance Unit.
- Hydrographic Surveying Unit.
- Forum Fisheries Agency.
- ICLARM Coastal Aquaculture Centre.

These meetings are also beneficial for informing the course advisors of the constraints under which the School has to operate, with respect to staffing and physical resources and the need to recruit realistic numbers onto the various courses.

6.0 SHORT COURSES

This year's course calendar has been arranged to ensure there is adequate time, in between teaching semesters, to respond to the demand for additional short courses in:

- Restricted Radiotelephony Operation;
- Basic Electronic Navigation Systems;
- Basic Ship Stability;
- Radar Simulator;
- Compass Adjustment.

7.0 MARINE REGULATIONS

There are currently 220 vessels on the Solomon Islands shipping registry including 37 fishing vessels of various type and size. The country has valuable tuna resources and commercial fishing is now a major source of income. In 1988 over 37,800 tonnes of marine products were exported, which earned \$(SID) 84.7 million and accounted for almost 50% of the total foreign exchange earnings for that year.

Under the country's shipping regulations all but the smallest of vessels must carry a minimum number of certificated deck and engine-room officers. This requirement applies equally to fishing vessels and, unlike other countries such as the United Kingdom, there is no separate certificate of competency structure for fishermen.

Consequently a significant number of students attending courses leading to some form of statutory award will be employed by either of the two large commercial fishing companies - Solomon Taiyo Ltd or National Fisheries Development Ltd.

As an example, a fishing vessel of 100 feet (30.48 metres) or more in length, licensed to operate anywhere within Solomon Islands' waters, would require the two senior deck personnel to hold Master and Mate (Solomon Islands) certificates of competency to meet minimum requirements. Higher grades of certificate would be demanded if the vessel was engaged in fishing operations outside national waters.

8.0 FISHING COURSES OBJECTIVES

New entrants to the commercial fishing industry are generally recruited from the pool of Form V school leavers each November. This applies particularly to the Solomon Taiyo Company which enrolls between 16 and 20 students annually on the Basic Fishing Techniques Course each February. On completion of the nine week course, the students will begin their seagoing careers on the Company's pole and line tuna boats or purse seiners.

On completion of a minimum of 12 months sea service, selected commercial fishermen return to the School to undertake the Advanced Fishing Techniques Course in April. Although the core subjects are similar to the basic course, the academic and technical content is much higher and reflects the increasing level of responsibilities undertaken when sea service is resumed.

Once minimum statutory sea service requirements have been met, the next training phase for fishermen is the Coxswain (Class III or II) Certificate Course. In the 1992 a total of 17 out of 32 Coxswain students were employed in commercial fisheries.

The proposed Senior Fisheries Officer Management Course is being set up in response to a request, from the Chief Fisheries Officer, for an upgraded version of the course formerly offered to Provincial Fisheries Assistant Officers. That 20 week course was successfully run for four years, from 1987, but was terminated when all eligible Fisheries Division personnel had been through the School.

At present one Fisheries Division staff member has been seconded to the School to work with the Senior Lecturer to develop a suitable curriculum and produce the necessary course material. The course is scheduled to begin in July 1992, with 16 senior provincial fisheries officers set to attend.

The final main area of the School's fisheries activities is the Rural Fisheries Training Program. This program is run by two dedicated fisheries staff members who spent the majority of the year in provincial locations running courses for the artisanal sector, village groups, church organisations and Rural Training Centres. Up to 30 participants can be accommodated on each course and financing, in the past, has come from such sources as LOME III funds or discretionary payments from various consular offices.

The courses are very practical in nature and well-received by the both organisers and participants. There is also an opportunity for the course members to purchase high quality fishing gear, constructed during the course, at favourable prices.

The Restricted Fisherman's Licence is a residential course biased towards rural personnel and intended to circumvent the statutory regulations for fishermen operating vessels up to a

maximum length of 10.7 metres. This course is also offered, in a slightly modified format, to village groups who have been selected to participate in the EEC-funded Rural Fishing Enterprises Project. As well as providing basic training the School actually builds the 6.2 metre wooden boats, on a contract basis, which are provided to selected villages under the project.

The project has been in operation for over two years and is aimed primarily at giving village people the resources to catch and sell fish and thus make a foothole into the country's cash economy.

The outlook for fisheries education and training in the Solomon Islands continues to be enhanced with the recruitment of new well-qualified staff and the upgrading of the technical knowledge and industrial experience of existing instructors.

The remainder of this paper is given over to detailing the courses offered by the School, the staffing establishment, available resources etc and concludes with a diagram of the Solomon Islands marine certificate structure.

BASIC FISHING TECHNIQUES

Course Objectives: To provide new entrants to the commercial fisheries industry with sufficient knowledge to work as a safe and useful member of the ship's crew and to introduce students to aspects of commercial fishing activities including catching, handling, preserving and processing.

Duration: 9 weeks.

Cost: \$(SID) 310.00 = \$(AUD) 139.50

Course Organisation:

- Communication skills in written and spoken English.
- Mathematics.
- Science (Marine Biology).
- Fishing Knowledge.
- Fishing Gear Technology.
- Practical Gear Construction.
- Nautical Knowledge.
- Navigation & Chartwork.
- Rigging and Ropework.
- Marine Electronics.

Practical Sessions: 10 hours weekly are devoted to practical fishing gear construction and testing.

Prerequisites: Solomon Islands Form 3 Certificate of Education and reached the age of 16 years.

Award: S.I.C.H.E. Certificate of Attainment.

Career Options: Employment in a junior capacity onboard a commercial fishing vessel.

Further Study Opportunities: On completion of 12 months satisfactory sea service, student is eligible to enrol on the Advanced Fishing Course.

ADVANCED FISHING TECHNIQUES

Course Objective: To prepare a student for positions of increasing responsibility on board a commercial fishing vessel.

Duration: 9 weeks

Cost: \$(SID) 310.00 = \$(AUD) 139.50

Course Organisation: The subjects covered are similar to those of the Basic Fishing Course but at a correspondingly higher academic, technical and practical level and includes:

- Communication skills in written and spoken English.
- Mathematics.
- Science (Marine Biology).
- Fishing Knowledge.
- Fishing Gear Technology.
- Practical Gear Construction.
- Nautical Knowledge (including fishing boat stability).
- Navigation & Chartwork.
- Rigging and Ropework.
- Marine Electronics.
- Meteorology and Oceanography.
- Fisheries Economics and Law.

Practical Sessions: 12 hours weekly devoted to practical fishing gear construction and testing.

Prerequisites:

- Completed Basic Fishing Techniques course.
- Served 12 months at sea.
- Recommended by Employer.

Award on Completion: S.I.C.H.E. Certificate of Attainment.

Career Options: Students enrolled onto this course are invariably employed already within the commercial fisheries industry. Successful completion of the course should, however, enhance promotion prospects.

Further Study Opportunities: On completion of a further 6 months sea service, students would be eligible to sit the Coxswain Class II Certificate of Competency.

SENIOR FISHERIES OFFICER MANAGEMENT COURSE

Course Objective: To educate and train Fisheries Officers in aspects of fisheries management, economics and financial control to enable them to effectively plan and monitor the exploitation of fisheries resources within the Solomon Islands.

Duration: 9 weeks

Cost: \$(SID) 310.00 = \$(AUD) 139.50

Course Organisation: The course is still being developed for introduction in July 1992 but will incorporate modules in the following subject areas:

- National, Regional and International Fisheries Agencies.
- National and International Law.
- Solomon Islands' Fisheries Management Policies.
- Project Appraisal/Planning/Execution/Monitoring/Evaluation.
- Fisheries Economics, Finance & Administration.
- Applications of Information Technology in Fisheries Management.
- Marine Environment.

Prerequisites: Recommendation from Fisheries Division, Ministry of Natural Resources (MNR).

Career Options: Students nominated to attend this course will invariably be employed already within Fisheries Division. There should, however, be good promotion prospects to the highest levels for those who have successfully completed the course.

Further Study Opportunities: Students who show good potential may be recommended by Fisheries Division to undertake Certificate, Diploma or Degree courses in Tropical Fisheries or related courses.

RESTRICTED FISHERMAN'S COURSE

Course Objective: To lead to a qualification for operators of small inboard-engined, inshore, fishing boats by replacing existing statutory requirements for such craft to carry a Coxswain Class 3 and Mechanic Class 3.

Duration: 9 weeks

Cost: \$(SID) 310.00 = \$(AUD) 139.50

Course Organisation: The course is structured as a series of stand-alone modules and covers the following subject areas:

- Safety Procedures.
- Local Knowledge.
- General Nautical Knowledge.
- Practical Seamanship.
- Fishing Gear and Techniques.
- Fish Handling and Preservation.
- Engine Operation and Maintenance.
- Basic Economics (Profit and Loss etc).

Practical Sessions: 20 hours per week devoted to practical seamanship, boathandling and construction and testing of fishing gear.

Prerequisites: Reached the age of 18 years (no formal educational requirements).

Award on Completion: S.I.C.H.E Certificate of Attainment, pending outcome of discussions with the Licensing Section of the Marine Division on the issuing of a Restricted Fisherman's (Solomon Islands) Licence.

Career Options: Opportunities to start up small fishing business or become involved in managing a Rural Fisheries Enterprise project.

Further Study Opportunities: Possibility of recommendation from Fisheries Division to attend further training courses for students who show potential.

1992 STAFFING ESTABLISHMENT

Head of School

J P Collins Lieutenant Commander RNR; Master Mariner;
B.Sc (Hons) (Nautical Studies); Cert. Ed.;
MRIN; MHS; RICS (Probationer)

(Funded by the UK Overseas Development Administration)

Senior Lecturer

C C Brown Master Mariner; B.Sc (Nautical Studies);
M.Sc (Shipping & Marine Operations); FNI;
MHS

(Funded by the UK Overseas Development Administration)

Lecturer I

S Daefa First Mate F.G. Certificate (NZ)

D Hoala Master (Pacific Islands) Certificate;
Diploma in Marine Studies.

Lecturer II

N Rade Master (Solomon Islands; Adv. Seamanship
Certificate.

E Mouku Mate (Solomon Islands); Dip. Fisheries
Studies (Humberside).

K Kiniore Coxswain Class 1; Dip. Fish Gear
Technology (Humberside).

Lecturer III

G Kuata Provincial Fisheries Assistant
Certificate.

W Aruhane Provincial Fisheries Assistant
Certificate.

School Secretary

A Vavaha Pitmans Intermediate Typing Certificate

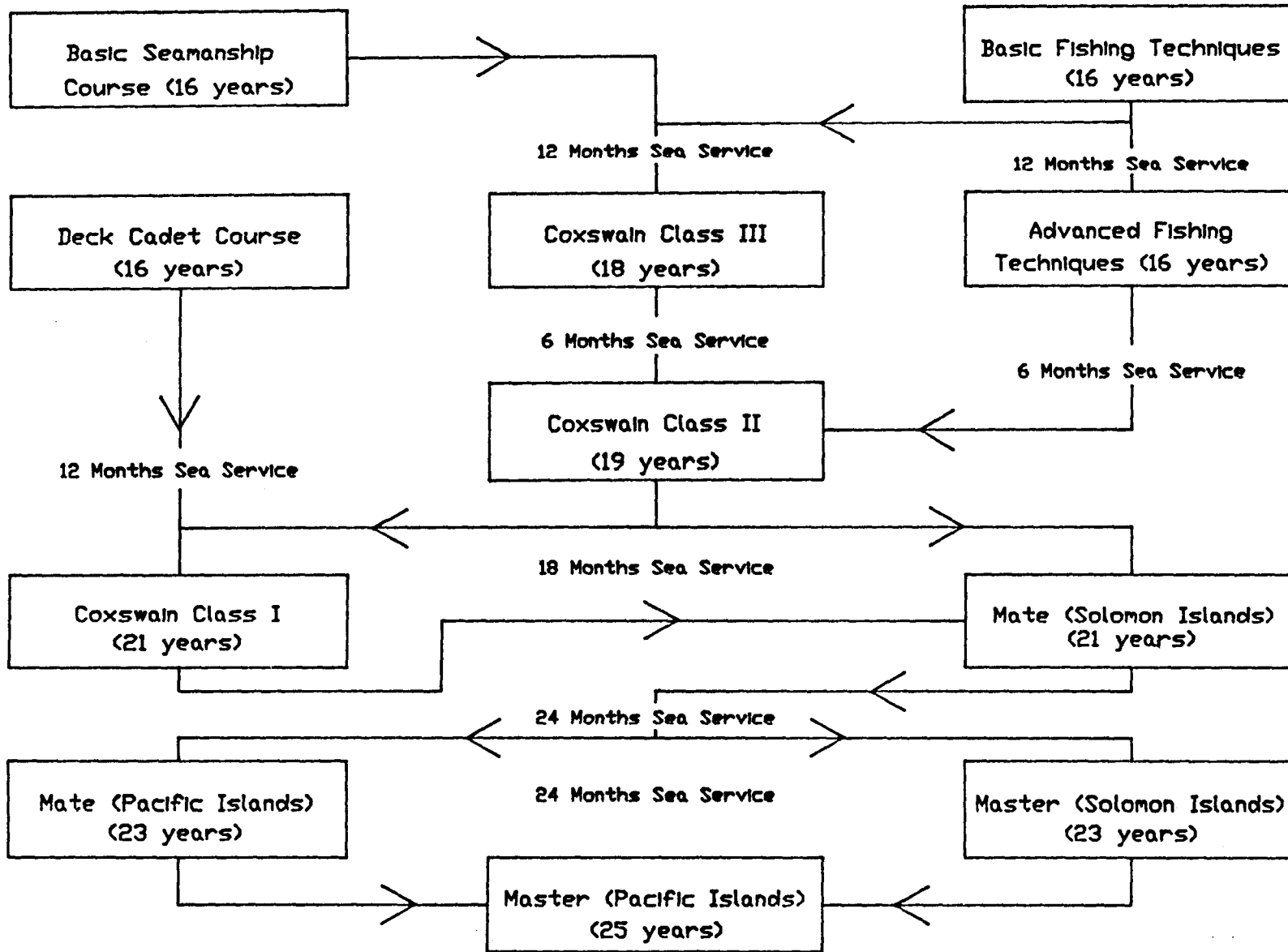
SCHOOL RESOURCES

- a) 4 x 10 berth dormitories
- b) 8 x 2 berth cabins
- c) Dining Room (60 places)
- d) Kitchen
- e) Toilet, shower and laundry blocks
- f) 3 x 16 student classrooms
- g) Fisheries Training Hall (30 students)
- h) Staff Office (for 15 persons - due for completion May 92)
- i) School Office
- k) Library
- l) Navigation, Radar & Fish-finding Simulator comprising:
 - 2 Own-Ship modules
 - Instructor's console
 - Satellite Navigator
 - Relative & true motion radars
 - Omega Receiver
 - Echo Sounder
 - Sonar
 - Direction finder
 - Log and gyro simulators
 - GPS receiver
 - Decca radar (live)
- m) Single Side Band (SSB) Radio Simulator
- n) Cargo Handling Simulator
- o) Rigging Workshop and Bosun' Store
- p) Outboard Motor Store
- q) Fuel Store
- r) 9 metre aluminium catamaran, equipped with 'A' frame and side booms
- s) Various aluminium and GRP small boats with outboard motors
- t) 2 'Corsair' sailing dinghies
- u) Full-size sports field
- v) Volleyball court
- w) 6 staff houses
- x) Boatbuilding Shed

In addition the School is equipped with a number of IBM compatible 80286 microcomputers, running specialised software for:

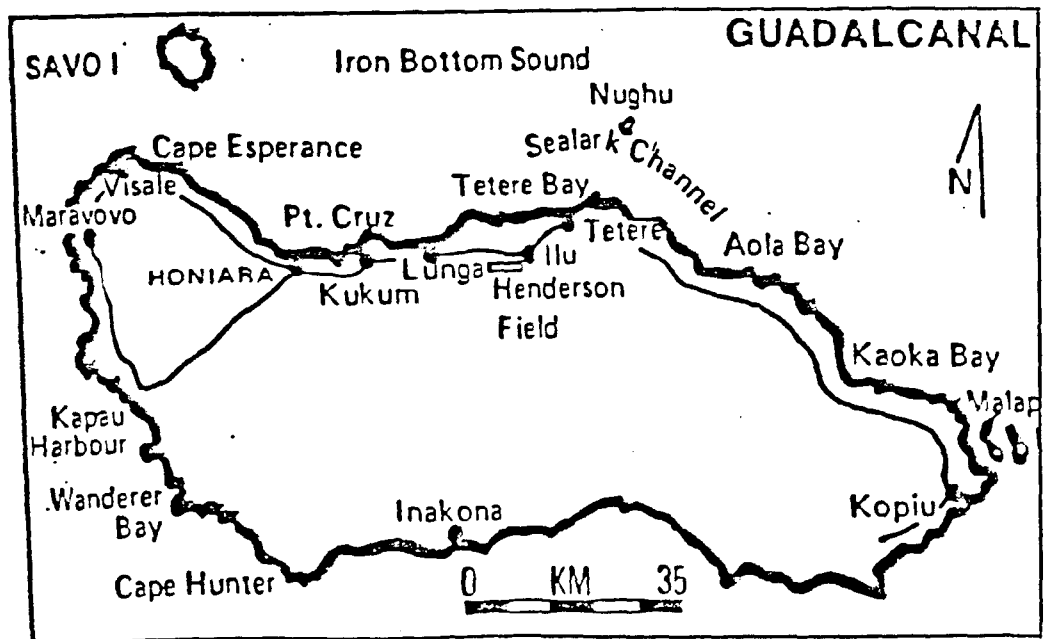
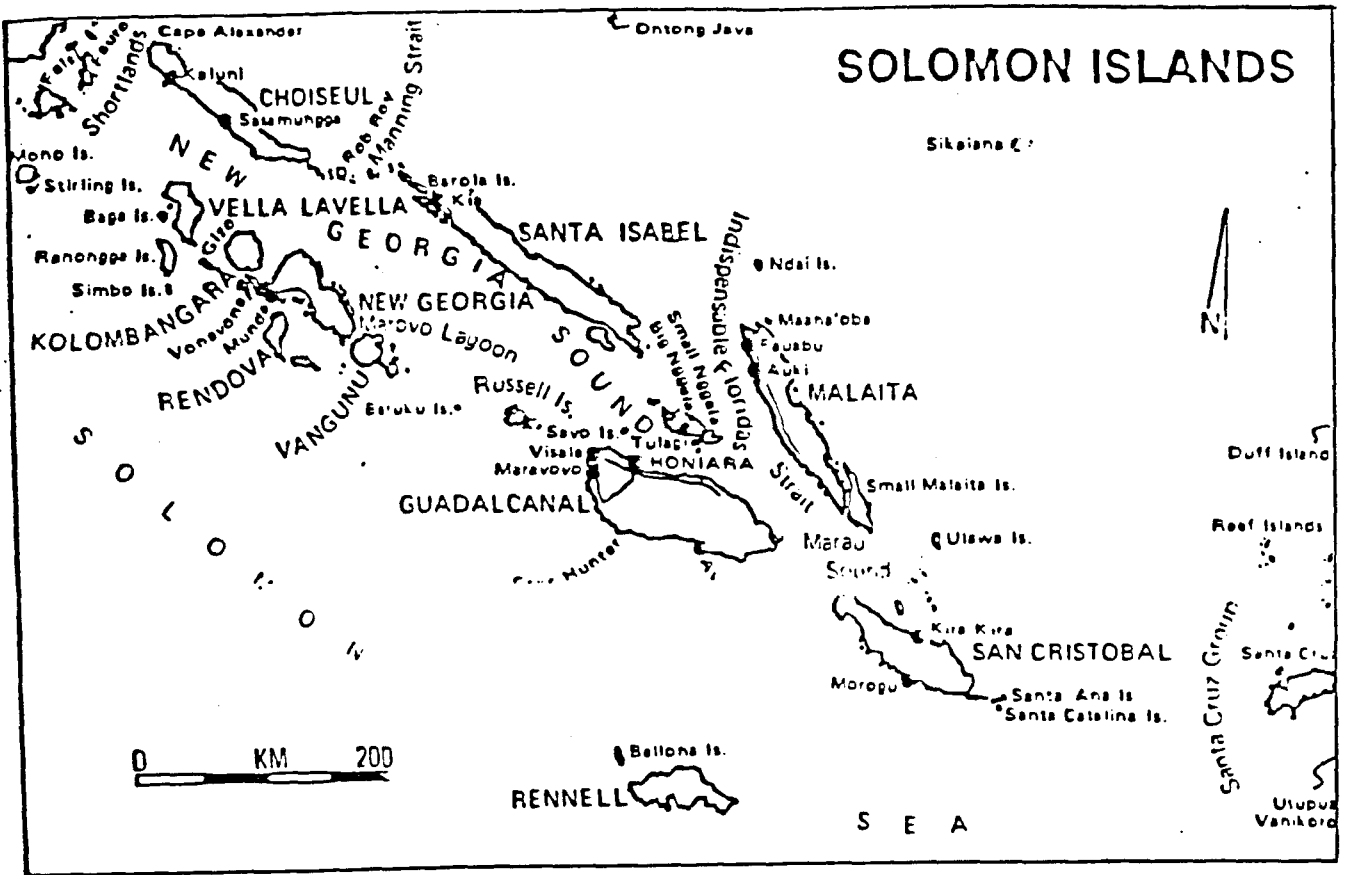
- 1) Naval architecture and ship stability
- 2) Radio Operator training
- 3) Weather Facsimile
- 4) Global Positioning System (GPS) Prediction
- 5) Electronic Navigation
- 6) Computer Aided Drafting
- 7) Word Processing, spreadsheet and database applications
- 8) Desktop Publishing.

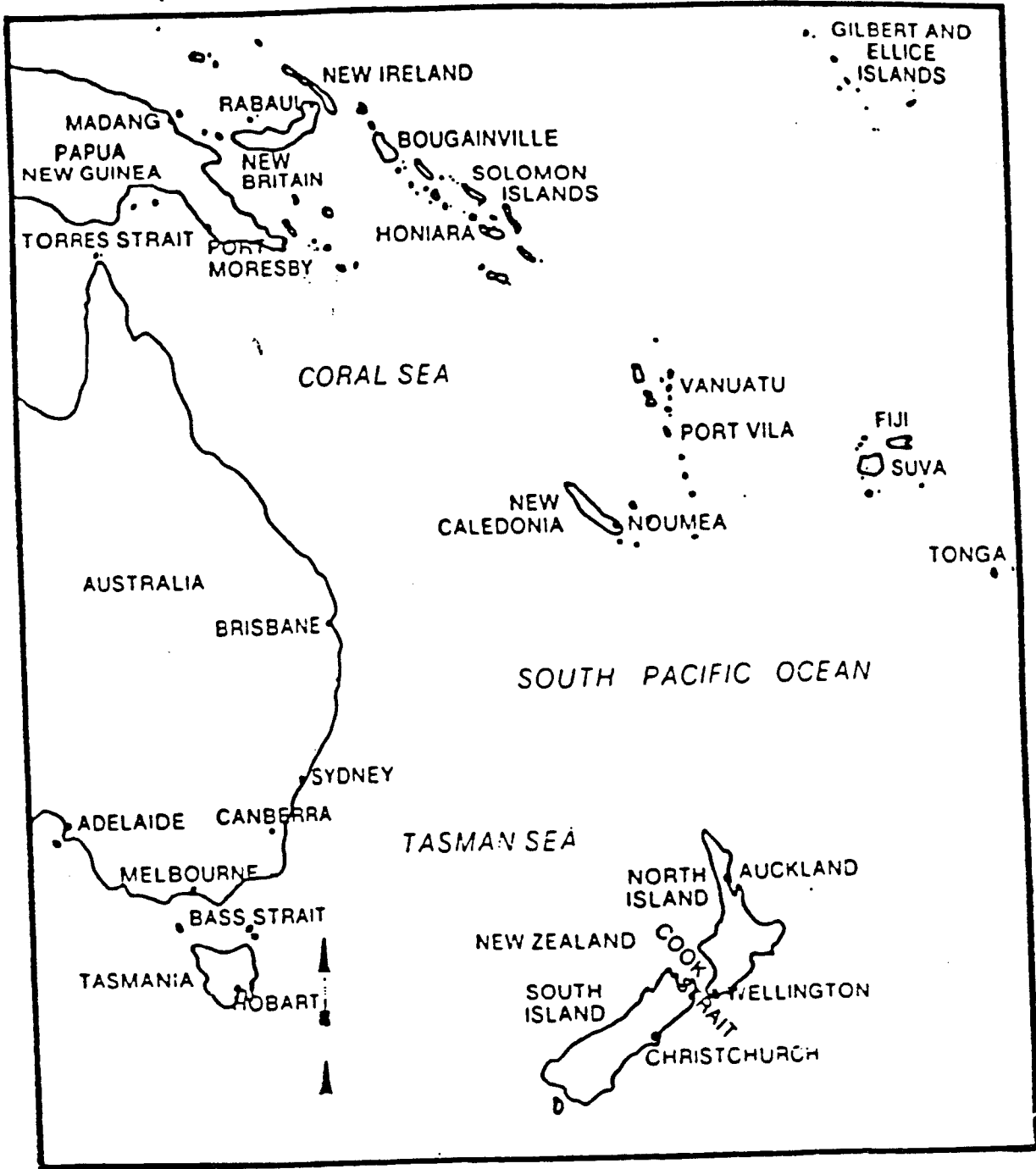
As part of a much larger College of Higher Education, the School can call upon human and physical resources from any of the other Schools and Divisions with the organisation at any time.



SOLOMON ISLANDS' MARINE CERTIFICATE STRUCTURE
 (DECK OFFICERS)

MAP OF THE SOLOMON ISLANDS





SOUTH PACIFIC REGION