

SOUTH PACIFIC COMMISSION

FOURTEENTH REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 2-6 August 1982)

A REAPPRAISAL OF THE SPC/NELSON POLYTECHNIC PACIFIC ISLAND FISHERIES
TRAINING COURSE AND REVISED SYLLABUS FOR PROPOSED 1983 COURSE

1. BACKGROUND

The SPC/Nelson Polytechnic "Pacific Island Fishing Cadet Course" was initiated in 1979 in response to a request from island governments for additional training opportunities for Pacific Island fishermen and extension workers. The course, modelled largely on the existing N.Z. Fishing Cadet Course, was designed to provide selected Pacific Islanders with intensive practical training in a variety of fisheries skills and knowledge. Funding was provided principally by the New Zealand Government, with assistance from the South Pacific Commission and the Commonwealth Foundation.

Following the successful completion of the second course in 1980, the New Zealand Government, concerned to ensure that the course was meeting the real training requirements of Pacific Island countries, deferred the planned 1981 course, and requested country comment on the course content and objectives.

At the Twelfth Regional Technical Meeting on Fisheries in November 1980, comments from countries who participated in the 1979 and 1980 courses emphasized the practical orientation of the course and the beneficial effects of attending some training courses outside the region. Strong support was expressed for the continuation of the course and a recommendation passed to this effect. The meeting also stressed "the importance of continuing reassessment of course content to ensure its relevance to the region".

In view of the above, the New Zealand Government reinstated the course in February 1982, with a revised syllabus which reflected the comments received from the fisheries officers of the region.

Including the present intake, 30 Pacific Islanders from 11 countries and territories of the region have undergone training at Nelson Polytechnic. A breakdown of trainees by country for courses held 1979-1982 is given below.

Country Breakdown - Trainees at Nelson Polytechnic
Fisheries Courses 1979-82

	<u>1979</u>	<u>1980</u>	<u>1982</u>
Cook Islands	--	1	1
Fiji	1	2	-
French Polynesia	-	-	2
Kiribati	--	2	1
Palau	-	-	1
Papua New Guinea	--	-	2
Solomon Islands	-	4	1
Tokelau	3	-	-
Tonga	4	1	-
Tuvalu	1	1	-
Vanuatu	-	-	2
	<u>9</u>	<u>11</u>	<u>10</u>
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In discussions with New Zealand officials at the 1981 Regional Technical Meeting on Fisheries, it was agreed that:

- (i) The SPC Fisheries Adviser would conduct a technical review of the Nelson course during the 1982 course.
- (ii) With funding from the NZ Government, SPC Masterfisherman Mr Paul Mead would attend part of the 1982 Nelson course to lecture on small scale fishing techniques, and to work together with the students to evaluate the effectiveness of the training offered.

2. REVIEW OF THE 1982 COURSE

During a three day visit to Nelson Polytechnic, Fisheries Adviser B. Smith held discussions with the Principal, course tutors and all trainees to assess the effectiveness of the training programme, and its applicability to the Pacific Island situation. Training facilities were visited where possible and student opinion sought on all aspects of the course. Later consultations were held in Wellington and Auckland with officials of the New Zealand Ministries of Foreign Affairs, Education, and Agriculture and Fisheries. A list of people contacted during this trip is attached (Appendix 1).

In April, Masterfisherman Mr Paul Mead spent two weeks at Nelson, during which he lectured on various aspects of artisanal fisheries in the South Pacific, and worked closely with tutors and trainees alike. Throughout this period he stayed in the same accommodation as the students, and his discussions with them yielded valuable insight into the suitability of the course content and approach as well as its impact on the individual fisheries officers.

One of the problems with running a course of this nature is the very considerable differences in education background and work experience amongst the students from the different countries. This requires a very flexible, personal approach by the teaching staff who must attempt to keep the course content within the grasp of the slower students, without losing the interest of brighter or more experienced trainees. The relationship between course tutors and the students during the 1982 course was excellent, and staff willingness to adapt and modify their approach to the needs of the trainees was, in large part, responsible for the success of the course.

A report on the 1982 course by the tutor in charge, Captain Robertson is attached (Appendix 2). At the conclusion of the course, each trainee was asked to report briefly on all aspects of the course. Their reports were, in general, very positive, and where critical, their comments were constructive and as far as practicable have been incorporated into the revised syllabus.

3. THE 1983 RESTRUCTURED SPC FISHERIES OFFICER TRAINING COURSE

In collaboration with Nelson Polytechnic staff and Department of Education officials, the existing course has been extensively revised to increase its relevance to small scale fisheries and to place greater emphasis on 'Hands on' practical training. The 1983 course will take greater advantage of the expertise and training facilities already existing at Nelson Polytechnic.

(I) Course Objective "to train selected Pacific Island fisheries officers in the practical fisheries skills required to operate a small fisheries extension centre in a remote location". The course was originally designed to train Pacific Island fishermen. In fact, almost all the trainees to date have been government fisheries officers, and the syllabus for the 1983 course has been restructured to reflect this orientation.

(II) Course Content. The training offered covers a wide range of skills and knowledge of value to a fisheries extension officer operating a small fish receiving station or extension centre and responsible for buying fish and providing support facilities and advisory services to local fishermen. Such centres are often located in remote areas with limited communications, and the success or failure of the venture will depend largely on the enterprise and abilities of the staff concerned. To meet this need the 1983 course will include:

- . a basic refrigeration course
- . training in the maintenance, fault finding and simple repair of small diesel motors (to 20 hp) and outboard motors (to 40 hp)
- . the use of fibreglass in repair and construction
- . greater emphasis on small scale simple technology fish processing
- . instruction in the maintenance of fish quality and product control in a small freezer
- . sea time will be limited, where possible, to experience on small fishing vessels; and factory experience will aim at small, multi-purpose factories and fish receiving stations which more closely approximate the island situation.

(III) Course Structure (18 weeks)

6-week block at Nelson Polytechnic
4-week block practical sea service
3-week block Nelson Polytechnic
3-week block at small fish factory
2-week block at Nelson Polytechnic

The planned start date for the 1983 course is Monday 7 February 1983.

(IV) Course Syllabus (summary only)

1. Welding

- Gas and arc welding to a standard which will enable trainees to do basic repairs and construction. Brazeing and pipe work.

2. Engineering

- Engineering workshop practice. The use of hand and measuring tools - simple lathe work.
- Diesel motor course. Elementary diesel theory. Practical work necessary for trainee to maintain a diesel engine to sole operator standard including basic repairs and fault finding.
- Outboard motor course. The theory of the petrol engine with especial reference to outboards. Practical work on dismantling, assembling and repairing outboards.

3. Netmaking and Seamanship

- Repair of nets. Construction of nets to net plans. Rope work and wire splicing.

4. Navigation and Chartwork

- To a standard required in taking a small boat for coastal and short inter-island passages.

5. Refrigeration

- Theory of refrigeration. Practical training in the maintenance and operation of small refrigeration and ice making plants. Practical experience in the repairs possible for sole operator. Fault finding and remedy.

6. Quality Control

- The basics of fish spoilage. Practical workshops in: use of a small refrigeration plant to ensure maximum quality of fish. Icing fish in tropical conditions. Salting, smoking and drying fish.

7. Fibreglass

- Practical experience in the use of the fibreglass materials used in boats and iceboxes.

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| 8. General Fishing Subjects | - Identification of materials - ordering net and equipment. Fishing methods. Economics of the fishing operation. Reading net plans. |
| 9. Biology | - Simple fish biology |
| 10. First Aid | - Obtain a St Johns Certificate. |
| 11. Sea Experience | - Working as crew on a selected New Zealand commercial fishing boat. |
| 12. Factory Experience | - Working under supervision at all aspects of work in small, multi-operation fish processing factories. |
| 13. Project | - Write a project on a chosen subject. This allows the use of library reference and material research. |
| 14. Business | - Simple book keeping and keeping accounts. The economies of operating a small fishing operation. |

4. GENERAL COMMENTS

The future of the SPC Nelson Polytechnic fisheries course will depend to a large extent on the level of support expressed by country representatives at this meeting. The New Zealand Government has indicated its willingness to fund the 1983 course provided that:-

- (i) Pacific Island Governments indicate the need for a regional course of this nature; and
 - (ii) there is significant counterpart funding from the South Pacific Commission and other sources.
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APPENDIX 1PEOPLE CONTACTED RE SPC/NELSON POLYTECHNIC FISHERIES COURSE

- 1) NELSON POLYTECHNIC

	<u>Trainees</u>
Mr G. Pringle	Mr A. Carlot
Principal	Mr P. Aaron
Mr J. Towse	Mr D. Meu
Head, Industrial Dept.	Mr N. Itchner
Capt. A. Robertson	Mr R. Friedman
Nautical Tutor	Mr M. Sengo
Mr C. Numm	Mr R. Abaijan
Instructor	Mr E. Ngotel
	Mr K. Tearo
	Mr R. Maoate
- 2) FOREIGN AFFAIRS DEPARTMENT (Wellington)

Mr D. Morris
Asst. Head, South Pacific Desk

Mr R. Benzie
Desk Officer (SPC)

Mr R. Moore-Jones
External Aid Division
- 3) EDUCATION DEPARTMENT

Mr B. Edginton (Wellington)
Executive Officer

Mr A. Paterson (Auckland)
Education Officer (Continuing Education)
- 4) MINISTRY OF AGRICULTURE AND FISHERIES (MAF)

Fisheries Management Division

Mr B. Cunningham
Director

Mr V. Hinds
Assistant Director (Technical)

Mr T. Norris
Assistant Director (Administration)

Mr I. Clement
Fisheries Management Officer

APPENDIX 2

REPORT ON THE 1982 SPC FISHING TRAINING COURSE
NELSON POLYTECHNIC - SCHOOL OF FISHING
FEBRUARY TO JUNE 1982

(Prepared by Nautical Tutor - Captain Robertson)

Course Structure

The course structure was the same as previous years -

Commencing 1 February 1982

First	4-week block at School of Fishing 4 weeks sea service 1 week quality control course 1 week factory experience
Second	4-week block at School of Fishing 3 weeks sea service or small factory experience 1 week assessment and completion at School of Fishing

Total course time 18 weeks.

1982 Participants

Ruru Maoate	Cook Islands
Richard Friedman	French Polynesia
Nelson Itchner	French Polynesia
Elizer Ngotel	Palau
Rodney Abädjah	Papua New Guinea
Matru Sengo	Papua New Guinea
Albert Carlot	Vanuatu
Philimon Aaron	Vanuatu
Kintoba Tearo	Kiribati
Dudley Meu	Solomon Islands

The Course ContentsSchool of Fishing (8 weeks)

The subjects taught during the weeks at the school followed the prepared syllabus, the exceptions being the inclusion of a three-day outboard motor course and some practical work with fibreglass materials.

The breakdown of hours spent on each subject was as follows:

Safety	9 hours
Practical net making/and seamanship	50 hours
Workshop Practice	14 hours
Welding	40 hours
Chartwork	30 hours
Electronic Aids	16 hours
Visiting Lecturers	16 hours
General Fishing Subjects	32 hours
Biology	13 1/2 hours
Outboard Motors	21 hours
Fibreglass	12 hours
Library - Private Study	18 hours
First Aid	12 hours

One Week Fish Quality Course

This closely followed syllabus with the practical workshops on the spread of bacteria in factory conditions

One Week Factory Experience

This was done at Sealord Products Ltd. the students splitting into two and rotating jobs in the course of the week. While doing each job they worked under the guidance and supervision of the department foreman.

Sea Service (7 weeks)

It was intended as in previous years that the first 4 weeks of sea service would be spent on the smaller owner/operator Albacore tuna boats. Owing to the early failure of this fishery the season had concluded before the commencement of the first period of sea service.

During the first (4-week) period of sea service the students were placed on boats as follows:

Ruru Maoate	- on a 50 ft owner operated boat dredging for shellfish.
Richard Friedman	- on a 70 ft company boat, bottom trawling, albacore trolling and Bluefin Tunaing
Elizer Ngotel	- on a 90 ft Company Bottom Trawler
Dudley Meu	- on the same boat as above.
Matru Sengo) - Marlborough Sounds small boat fishing and factory
Rodney Abädjah) visits including snapper long lining, beach
Albert Carlot) seining, mussel farming and cray potting
Philimon Aaron)

Nelson Itchner - 2 weeks on a 70 ft owner operator bottom trawling
and 2 weeks in the Marlborough Sounds
Kintoba Tearo - on a 90 ft Company Bottom trawler

During the second (3 weeks) period of sea service the students were placed
as follows:

Ruru Maoate - on a 90 ft bottom trawler
Richard Friedman - returned home
Elizer Ngotel - on the same 90 ft trawler by request
Dudley Meu) - as requested sent to a small processing factory for
Rodney Abaijah) factory and management experience
Kintoba Tearo - 2 weeks on a 40 ft longline boat, 1 week Marlborough
Sounds
Kris Sengo - 90 ft bottom trawler
Albert Carlot -
Philimon Aaron -
Nelson Itchner - 2 weeks on owner/operator 40 ft longliner.

Final Week

Assessment of Students, completion of projects and writing of reports

Accommodation

All students were accommodated in a self contained annex to Nelson College.
Each student had a room of his own, cleaning and laundry was provided. Meals
were provided initially at the Nelson College dining room then at the nearby
dining room of the Nelson Hospital Nurses Home. The accommodation was well received
by all students.

Travel

Students arrived over the week preceeding the course commencement, and departed
as flights were available on the last two days of the course. All travel
arrangements were satisfactory.

Visits

During the course visits were made by B. Smith, Fisheries Advisor SPC (3 days) and
Paul Mead, Master Fisherman SPC (8 days). Both visits were very useful in assessing
the relevance of the course and in preparing a revised and hopefully better syllabus
for future courses.

The broad experience of Paul Mead in Pacific fishing methods made a valuable
contribution to the course and was much appreciated by the students and by the
staff of the School of Fishing.

General Comments

The students participating in this years course were generally more mature with a greater range of experience than previous courses, however the range of ability was very marked with two students having difficulty with some of the work and another two feeling that the work was much to basic. Although we try to "fit" the course and contents to the students attending, it is obvious with a very wide range of ability in ten students that someone must "miss out", and it is suggested for future courses that the selection be more uniform and the level of education be indicated to Nelson Polytechnic in advance so that the prepared level of teaching can be adjusted accordingly.

There were none of the previous years problems with drink or social adjustment possibly due to the maturity of the students, attendance and attitude of all students was very good. It was felt that this years students did not become as integrated into New Zealand society as previous groups due to them living as a block rather than in individual homes as previous.

One problem of Nelson Polytechnic is in assessing the students and it is felt that the written and practical tests given during the course will not necessarily reflect the benefit the students have obtained from attending. It would be useful if after having been home for one year that their superiors make an assessment at this time.
