



FFA

**The FFA Regional Register
Upgrade Implementation Review
And Annual Operating Costs**

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ANNEX A. Abbreviated report for external distribution

ANNEX B. Report of the small working group on minimum terms and conditions

1.0 INTRODUCTION

1.1 Background

The Regional Register is held at the Forum Fisheries Agency (FFA) in Honiara, Solomon Islands, and consists of a listing of some 2,500 vessel records, each containing up to 30 discrete items of information on each vessel. Only 600 of these vessels have reported catches in the previous 24 months. The Register also holds close to 1,000 history records, information now superseded by updated records. In practice, for technical reasons, the file is held as a number of tables within the Oracle Relational Data Base Management System (RDBMS) on the FFA Hewlett Packard 9000/825 mini-computer.

The Regional Register system can produce a number of reports, all of which are listings of vessel information selected on various criteria and sorted in different sequences to suit the user's requirements.

The concept of a Regional Register as a compliance tool and information database was first considered in 1982, and subsequently a requirement that a vessel have good standing on the Regional Register was made a minimum condition of licensing by an FFA member country. The FFA Regional Register of Foreign Fishing Vessels began operation on 1 September, 1983.

The desirability of revising the Minimum Terms and Conditions (MTC) was first introduced by Papua New Guinea at the First Technical Sub-Committee Meeting of the Parties to the Nauru Agreement held in conjunction with the Ninth Annual Meeting of the Parties to the Nauru Agreement (PNA) held at Nauru 19-21 April, 1990.

This matter was subsequently considered at the Fourth Technical Sub-Committee Meeting of the Forum Fisheries Committee (Nauru 23-26 April, 1990) where working groups were created to consider various aspects of the MTC question. A working group of the Sub-Committee was formed and a revised version of the MTC, largely based on the PNA proposals, were drafted for consideration by the Forum Fisheries Committee (FFC). These new MTC appear as Annex B to this report.

The FFC agreed to the amended MTC and directed that they be referred to member governments prior to final adoption. The proposed amended MTC will also be considered at a PNA Ministerial Level meeting to be held in Palau, 17-19 September, 1990.

1.2 Methodology

The terms of reference for this review called for the consideration of the new terms and conditions and their impact the Regional Register, the existing Regional Register system at FFA, and the devising of new procedures as appropriate.

The opportunity has also been taken to recommend changes of a general nature that could

enhance the overall value of the Regional Register, particularly in regard to internal use at FFA.

An abbreviated version of this report is contained in Annex A. This version is restricted to consideration of the impact of the proposed amendments to the MTC on the Regional Register operated at FFA and the cost implications thereof. That is to say, commentary and recommendations that relate to internal FFA matters are omitted. This version of the report should be suitable for distribution for the PNA Ministerial Meeting.

1.3 Summary of proposed amendments to MTC

The revised MTC contain the following provisions that will effect the Regional Register.

1.3.1 Annual re-registration. Under the new MTC, the registration of all vessels will lapse on August 31st each year. Re-registration, from September 1st, will require the annual submission of completed application forms.

1.3.2 Vessel photograph. The new MTC require that an application for registration be accompanied by a colour photograph of the vessel.

1.3.3 Additional details. Certain additional details are required to be submitted as part of the registration process. These concern details of the fishing gear and equipment employed by the vessel.

2.0 REVIEW OF EXISTING PROCEDURES

2.1 Staffing and responsibilities

At present, the staffing and responsibilities in the operation and maintenance of the Regional Register are not well defined.

There has been a transfer of responsibility for the operational functioning (updating, enquiries, report generation, etc.) to the Statistical Coordinator, but there does not seem to have been a corresponding transfer of authority to enable the responsibility to be discharged effectively. For the transfer to be effective, there needs to be a transfer from one section to another, e.g. from Computer Services to Economics, and the responsibility delegated to the appropriate member of that section, in this case, the Statistical Coordinator.

The current drive to clean up the Regional Register (remove duplicates, remedy incomplete records, etc.) is being headed up by the Surveillance Officer, carried out by the Data Control Officer, and, on the basis of transferred responsibility, being overseen by the Statistical Coordinator.

It would be desirable to consolidate the operational aspects of the Regional Register in one section, excluding technical services on the computer system proper. This suggests, in effect, that either the operation of the Regional Register be transferred back to Computer Services, or the transfer out to another section be completed.

Of these two options, the latter is preferred. These reasons for this preference are discussed in section 5.2 below.

2.2 Office procedures

2.2.1 Correspondence. Correspondence concerning the Regional Register is routinely conducted by the Data Control Officer in her own name. This is a continuance of the practice of the former Data Control Officer.

From time to time, it is inevitable that member country's desires could conflict with the orderly management of the Regional Register. This might occur, for example, when a member country is anxious for a vessel to be registered, but fails to provide the minimum information required by the MTC for registration. It might help in dealing with such matters in an expeditious and business-like way, if inward and outward correspondence relating to the Regional Register was conducted in the FFA Director's name.

2.2.2 Provisional registration - updating. The current practice on receipt of a request for registration based on incomplete Regional Register data is to bring the vessel onto the register, with the restricted data, and allocate a Regional Register number. When the full information is obtained it is added to the Regional Register. This is, of course, an

appropriate procedure.

2.2.3 Error correction. The Regional Register report menu includes a "Potential Problems Report". Currently, although there is some concern over enhancing the correctness of the register, this report is rarely used by the Data Control Officer. This should be rectified as the report could play a valuable role in the management of the Regional Register.

As well as identifying potential errors in the register, the report should be used as an audit tool. The Data Control Officer could run off and file the report on a regular basis, possibly weekly, and annotate with action taken to correct errors shown. Responsible management can review the file periodically to monitor the effectiveness of error control.

2.2.4 Provisional registration - criteria. At present, the criteria by which an application is either rejected, accepted on a provisional basis, or granted good standing are not set out as policy by management nor outlined in the user manual. This implies that decisions on this are being made at operating level, which is inappropriate. Such official criteria would assist in cases where differences occur between member countries and FFA staff over registration.

The value of using the provisional classification at all could be queried. As things stand, it seems to have no practical difference from good standing. For example, there are 130 vessels on the register with provisional registration, some going back to 1983. Many of the vessels in this category checked had lodged catch reports and were therefore, presumably, licensed despite their provisional status. For example, the "Kaisei 23", first registered provisionally in 1986 and never upgraded, has recorded catches in each year since then.

To regularise the registration process the following is suggested as decision criteria:

(a) **Registration refused.** Failure to provide one or more of the following:

- Vessel type
- Radio call sign
- Country registration number
- Vessel owner name and address
- Country registration number
- Vessel master name and address

(b) **Provisional registration granted.** All the requirements of (a) above met, but failure to provide one or more of the remaining items of information required on the Register Application form. This category would also be used when the requirements of the application form are met but the photograph required by the new MTC has not been received.

(c) **Good standing granted.** All the requirements of registration met.

To give provisional status practical effect, it should lapse after an agreed period, perhaps 3 months. To ensure this occurs, the "Potential Problems" report could be altered to report all

current vessels holding provisional status past the 3-month grace period.

2.3 Existing Regional Register data

As is well known within FFA, the Regional Register data is in need of review; such a review is already underway. The large number of "provisionally" registered vessels mentioned in the preceding section is a case in point.

However, when annual re-registration is introduced, many of the existing errors will be removed as the records themselves are removed to history. Those vessels for which re-registration is sought, and for which the existing record is defective, should be processed through the procedures outlined in 2.2.5 above.

2.4 Integration with logsheet data

Cross-referencing between the Regional Register and the logsheet database occurs via the Regional Register number (also known as vessel id). The FFA logsheet database is an extract of the logsheet database maintained at the South Pacific Commission (SPC) in Noumea. As FFA and SPC's databases are identical in structure, the assignment of the appropriate Regional Register number to each logsheet, and thus the ability to cross-reference logsheet data to Regional Register data, depends on SPC.

Unfortunately, SPC does not always use the correct FFA Regional Register number as part of their vessel logsheet data, but assign an identifier of their own. At present, this prevents automatic cross-referencing.

An exercise would therefore be necessary to replace, wherever possible, all SPC assigned numbers with the correct FFA Regional Register number. Until this is done complete integration will not be possible. A mechanism preventing the use of SPC default numbers should also be devised in collaboration with SPC. Such procedures will assist SPC in their own data integrity. This should be initiated at FFA and SPC management levels.

2.5 Reports and queries

2.5.1 General. It would be useful to the user if all the report generating programs had a screen option for the output. This is currently the case with the "Potential Problems" report, allowing the manager to quickly review of the file error status on his screen.

Similarly, if the "Confirmation Advice" report was available from a screen or printer output option, staff such as the Surveillance Officer could access vessel data more readily.

The only query screen that can supply vessel data on screen currently is the "Licence Information" option on the query menu. This screen only provides radio call sign, name, flag registration, vessel type, GRT and Regional Register standing information on the selected vessel.

The "Full Vessel Detail (narrow paper)" is displayed on screen before printout; this facility should be developed so that it is an actual screen or printer option.

2.5.2 Current reports. The following reports are currently available from the Regional Register:

- (a) "Confirmation Advice". This is a listing of all the Regional Register information input on the vessel listed.
- (b) "Full vessel detail, wide or narrow paper". These two reports are effectively the same, but formatted and printed on different sized paper. The wide paper version contains crew number and agreement id, which does not appear on the narrow paper version, while the reverse is true of agreement type. Address details are omitted from both.
- (c) "One line per vessel". This is a printout of the entire register, giving full vessel detail, line by line. At present, it is not possible to suppress the history records. This option will need to be added, per 3.1.
- (d) "Surveillance". A listing, omitting history records, of all vessels on the register. Limited information only printed.
- (e) "Potential problems". This report searches for vessel records with duplicate vessel names, call signs etc. The report has been discussed in 2.2.4 above.

2.5.3 Logsheet data. If the recommendation that Regional Register report generating programs have a screen display option is adopted, users will have ready, on screen access to full Regional Register data for all licensed vessels.

The other data that will commonly be required for a vessel is its catch record. Currently, this can be readily accessed from the data base, by searching the logsheets on file for records containing the vessel's Regional Register number. (Although logsheets bearing the SPC number series mentioned in 2.4 will not be found.) However, to do this requires a knowledge of the SQL language.

It is recommended that a menu item be added to the Regional Register report screen (with a screen or printer option) that will search for all logsheets for a given Regional Register number and list the details in date order. The number of details may be restricted due to screen width.

This enhancement, together with that in 2.5.2, will make all the Regional Register and logsheet data on any licensed vessel accessible, on screen, to the user. This same menu item could be duplicated on the appropriate logsheet menu.

3.0 REVISED PROCEDURES TO IMPLEMENT NEW MTC

3.1 Annual re-registration

The requirement for vessels to be removed from the register annually, and only be reinstated upon application, needs to be applied with some care.

As the logsheet database uses the regional register for cross reference purposes, and since logsheets go back to at least 1984, vessels will have to be maintained on the register for logsheet access, whether they "re-register" or not. For example, there is more than one vessel currently on the register that has sunk. These boats will obviously not be re-registered but must nonetheless be kept on the register as they have valid records on the logsheet database.

There is also a need to keep available a record of each vessel's registration history. This will enable reporting on the periods during which a particular vessel has been registered.

The simplest approach to this problem is probably to create two new fields in the vessel record to carry the registration period and registration fee. At the end of each annual Regional Register period, the record of a vessel applying for re-registration would be updated, with history, to contain the new period and fee. This would then store the record for that vessel containing the previous registration and fee in the history file, enabling users to extract a registration history for any vessel.

This implies that the current registration table will always contain the most recent registration for a vessel. Determining which vessels are currently registered is simply a matter of examining the field containing the registration period.

Report generation could then include an option to list all vessels or only currently registered vessels, based on the registration period field. Logsheet cross references would occur irrespective of the registration period.

3.2 Staffing and responsibilities

3.2.1 Work volume. At the present time, the Regional Register Data Control Officer estimates that about five new vessels are added to the register, on average, each week. There are also an estimated five updates received each week, giving a total of ten transactions per week.

Inspection of the vessel files indicates that there were 130 new vessels added to the register during the first six months of 1990. This is equivalent to 5 per week, which is consistent with the Data Control Officer's estimates.

The number of transactions in the history file against individual vessels with dates between

January and July, 1990 was 238. This brings the total transactions for the first half of the year to around 14 per week.

On the basis of an estimated one hour to complete processing on an individual transaction, maintaining the currency of the Regional Register, under the current regime, is a part-time activity. Taking account of the associated activities such as arranging faxes, filing, running reports etc., an overall assessment is that 60% of the work time of the Data Control Officer is required for the Regional Register as it is currently operated.

Unix has an accounting system that is capable of recording the duration that individuals are logged on. Oracle also has an accounting system, but it is not currently activated. It is suggested that if costing the operation of the Regional Register is to assume importance, that a specific log-on and password be used by all operators when using the Regional Register. This will enable Unix to keep separate activity on the Regional Register. Alternatively, consideration should be given to utilising the Oracle accounting facility.

3.2.2 Operational responsibility. Responsibility for the operation of the Regional Register should be transferred from the Computer Services section, to one of the user sections. This is discussed in section 5.2 below.

3.3 Office procedures

3.3.1 Annual re-registration. There are currently some 600 vessels on the Regional Register that have returned a logsheet at some time in the last two years. It can be anticipated that a similar number of vessels will seek re-registration. However, it seems unlikely that all these vessels will furnish their re-registration applications prior to the commencement of the new Regional Register year. This is will be particularly true during the first few years of the new system.

It is more likely that re-registration will be prompted by vessels seeking licensing and being refused as a result of not holding a current registration. This will have the effect of spreading the re-registration load over a period of some months rather than being concentrated in the change-over period. Nonetheless, the requirement to process 600 additional vessel application forms, possibly more, will add considerably to the Data Control Officer's work load.

It is estimated that the position will become full time and that an additional full time staff member, at equivalent level, will be required for a three month period during the annual re-registration exercise.

When a vessel applies for registration, the operator will search the Regional Register to determine if that vessel has been previously registered. If so, the record on the Regional Register is checked against the application form. If they are found to be identical, it is only necessary to update the current record by entering the re-registration date. As mentioned above, the previous record will be kept in the history file.

3.3.2 Updating. It is likely that a number of vessel owners will ignore the need to re-register, particularly if they are not currently active in member country zones. Some of the previously, but no longer currently, registered vessels are likely to send updates to their records from time to time. A check should be built into the update routines to reject adjustments attempted against vessels who do not have a current registration date. When this occurs, the vessel owners having sent in the updates would be informed that the vessel registration had expired.

3.4 Revised Regional Register data

The revised MTC call for additional information to be provided and recorded for each vessel. These additional details are specific to the vessel type; for example, helicopter registration data for purse seiners, or bait storage for pole and line boats.

When these requirements are finalised, it will be necessary to devise a strategy to enable this additional data to be stored and retrieved. Whether they should be appended to the vessel record proper or created as entities is a decision to be made by the Computer Section technical staff.

3.5 Integration with logsheet data

If the recommendation to retain all vessels on the Regional Register is adopted, regardless of their registration status, the current integration procedures between the Regional Register and the logsheet database will not require alteration.

3.6 Reports

It is not envisaged that any changes to the existing set of reports will be required by the introduction of the new MTC. However, reports should include the registration period and registration fee as part of the detail record listing. An additional report dealing with revenue generated from fees might be desirable.

3.7 Photograph library

The new MTC call for each application for registration or annual re-registration to be accompanied by a colour photograph of the vessel seeking registration.

It is understood that no active use of these photographs is proposed at this time. For reference, it should be sufficient to include a scanned image of them in the vessel file, as well as the original in a protective envelope.

3.8 The US Multilateral Fisheries Treaty

3.8.1 Licensing. The requirements as to annual re-registration may need incorporation into the terms of the Multilateral Fisheries Treaty (MFT) with the US. In particular, the impact of the difference in the MFT year and Regional Register year will need to be settled, at least at the administrative level. These and other related questions will need to be taken up by the MFT administrative staff.

3.8.2 Data. At the present time the staff responsible for the administration of the MFT maintain a separate database, including data duplicating that held on the Regional Register. With the movement of the operations of the Regional Register to a user section, it is expected that closer liaison with MFT will result. In time it is likely that the MFT staff will come to rely on the Regional Register for US purse seine data.

To facilitate this, additional data required for MFT administration should be added to Section A of the Regional Register application form, containing purse seine vessel detail. The additional information required is

- vessel telex or fax contact;
- purse winch size;
- skiff name and length;
- number of speed boats and length;
- and MFT licence number.

4.0 ANNUAL OPERATING COSTS

4.1 General

FFC policy guidelines call for FFA programs to be self-supporting wherever possible. This approach is echoed by aid donors, who are resistant to projects which develop aid dependency, other than in the short term.

The Regional Register ultimately benefits the foreign fishing vessels. Accordingly, it can be considered that the costs of operating the Regional Register should be borne by the users and the program be made self-supporting within FFA.

As a first step, this section analyses the costs of operating the Regional Register within FFA.

4.2 Cost projections

Costs associated with operating and maintaining the Regional Register fall under the following heads; staff costs, communications, computer usage and consumables.

4.2.1 Staff costs. Direct time spent in maintaining the Regional Register, in its present form, by the Data Control Officer is estimated in section 3.2.1. as representing 60% of her total work time. It was further estimated that the new MTC, particularly annual re-registration will require full time attention by the Data Control Officer and another, temporary staff member for 3 months of the year, during the annual re-registration period.

Typical pay rates for an FFA staff member at this level would be \$US8,000 per annum, including FFA Provident Fund contributions and housing allowance.

On the basis of this, the direct labour costs of the Data Control function will be \$US10,000 per annum. The costs of administration and other overheads associated with the position can be assumed to increase this by 50% to \$US15,000 per annum.

In addition to the direct costs of operating the Regional Register is the cost of the necessary technical support supplied by the senior Computer Services staff. FFA operates a costing system based on professional staff keeping time sheets, and analysis of the records of the Senior Analyst Programmer indicates that 23% of his time, during the first six months of 1990, was charged to the Regional Register. The Computer Projects Officer charged 10% of her time to the Regional Register over a similar period, the Data Base Officer 14% and the Computer Services Manager 5%.

The payroll system of the support staff does not allow analysis of the Data Control Officer's time. A manual system for this could be introduced for this purpose if cost considerations became important.

The various proportions of time spent by the Computer Services technical staff described

above represent a total direct staff cost of \$US24,400 based on the appropriate salaries and allowances. The allowances included represent all the significant overheads in these cases and no allowance is made for supervision costs. It is assumed that technical support will remain constant under the new Regional Register regime.

The final category of staff costs are those associated with the supervision of the Data Control Officer in her Regional Register operating activities. With the recommended movement of the Regional Register operations away from the Computer Services, this will be the responsibility of one of the user sections. Provision is made for one half day per week, or 10%, based on Surveillance Officer's pay and allowances. This gives a figure of \$US4,600.

Staff costs detailed above total \$US44,000 per annum.

4.2.2 Communications. The average new vessel registration takes two single-page (one minute) faxes, while a vessel update averages one. This indicates 20 single-page faxes per week. Regional faxes average \$SI4 per minute, making the total weekly cost \$SI80, or \$US32. This represents an annual cost of \$US1,700.

It is estimated that an average of three 5 minute telephone calls are made on Regional Register business each week, giving an annual total cost of \$US1,300.

The additional traffic caused by the annual re-registration requirements, estimated to involve 600 vessels, will be around 1,200 faxes, costing \$US3,800 in total and an additional two telephone calls amounting to \$US800.

Total communication costs as above are \$US7,600.

4.2.3 Computer usage. The costs of operating the FFA computer system fall under two main heads; Software and hardware maintenance and support, and hardware depreciation.

- (a) The maintenance/support agreements provided by HP and Oracle for FFA hardware and software systems total \$US38,000 annually.
- (b) The hardware used has a total cost of \$US250,000 and a life of 5 years. Annual cost recovery (depreciation) is therefore \$US50,000.

The total of these two cost categories gives an annual cost of the computer system of \$US88,000. It has been estimated that the Regional Register uses 25% of the system time, and the cost attributable on this basis is \$US22,000.

4.2.4 Consumables. Consumable costs, such a computer stationery, are estimated at \$US2,000 annually.

4.2.5 Total. Total costs of operating the Regional Register are as follows:

\$US

Staff costs	44,000
Communications	7,600
Computer	22,000
Consumables	2,000

Total	75,600

4.3 Cost recovery

On the basis of the preceding section, total annual costs of operating the Regional Register within FFA are \$US75,600. Based on an annual re-registration of 600 vessels, a charge of approximately \$US126 per vessel would be sufficient to cover the costs of operating the Regional Register at FFA.

This review has not taken account of the costs incurred by FFA member countries in participating in the Regional Register program. If Regional Register annual fees were set at \$US200 per vessel, changes in cost could be met and any surplus could be applied against in-country costs.

5.0 THE REGIONAL REGISTER FROM FFA USER'S STANDPOINT

5.1 Accessibility

The current query screens allow access to limited portions of the Regional Register data which can be accessed by vessel name, radio call sign, Regional Register number etc. However, there is no query screen that allows a user to access, on screen, full Regional Register data. The recommendations contained in 2.5.1 will overcome this.

To derive full benefit from the database, particularly in non-routine query situations, it is frequently necessary to use SQL*Plus enquiry language on the Oracle database. This requires that the user be not only conversant with SQL*Plus query language, but must also have access at the operating system level, and have an Oracle login and password.

The only staff member outside the Computer Services Section with the capability to access the Regional Register for non-standard enquiries is the Statistical Coordinator.

It is recommended that a progressive program of menu enhancements be carried out on the query function. As users identify queries that appear to be of a repetitive nature, menu items incorporating the SQL queries, with options, should be added. At present, ad hoc enquiries are addressed by Computer Services staff, and the Statistical Coordinator, writing SQL queries. This process could usefully be consolidated into menu queries where appropriate.

5.2 Responsibility

As discussed in earlier sections, the responsibility for the Regional Register is somewhat fragmented between Computer Services, Surveillance and Economics. The consolidation of operational responsibility in one section was advocated. It was further recommended that the responsibility for operating the Regional Register should lie outside the Computer Services section.

The reasons for this are as follows:

- (a) If user departments are responsible for data entry they will be better placed to check data for correctness. They can also contact their member country counterparts directly when problems arise.
- (b) Having the end user responsible for correctness of the Regional Register creates a "self policing" function into maintenance of the data and will result in less data validity problems.
- (c) The orientation towards a user-driven system and away from the current technical orientation will be facilitated.

5.3 The User's Manual

The existing User's Manual is written to include information for three levels of users: the general user, data entry personnel, and computer services staff. As a result, the descriptions of basic operating requirements are merged into technical descriptions of the system that should not be required by the general user.

It would be desirable to produce a revised version of the User's Manual that was aimed at the general user and restricted to descriptions of steps necessary to update records, produce reports and run queries.

A second manual, perhaps the current version, could be used for reference purposes by computer technical staff.

5.4 Software upgrades

The Regional Register at FFA currently runs on Oracle version 6. The upgrade to this version was done in May, 1990. The Computer Services Section is currently completing preliminaries to convert the Unix operating system from HP-UX version 3 to version 7 which is the next version released. The SPC database is currently Oracle version 5 while the Unix operation system is HP-UX version 3. The upgrading is done for purely practical reasons, since up-to-date versions offer better performance and enhanced security features.

The risk of losing compatibility with the SPC database must be a concern. Already, data from the FFA Oracle system cannot be read by the SPC Oracle system, due to the different versions being used. However, the FFA Oracle system can read SPC Oracle, since the software is downward compatible. The case for keeping these two systems operating on the same versions of Oracle as well as the operating system seems compelling; the advantages to be gained by moving, unilaterally, to new version of Oracle must outweigh the risks.

In essence, the costs and risks outlined above must be weighed against the advantages that will be gained by moving to a new version. The change should only be made if the advantages offered by the new version over the old are greater than the costs and risks of changing.

In any case, harmonisation of upgrades with SPC should be addressed, if necessary at management level.

6.0 THE REGIONAL REGISTER FROM THE MEMBER COUNTRIES' STANDPOINT

6.1 Licensing

The commencement of the new Regional Register year will not necessarily coincide with licensing periods of member countries. It is therefore possible that vessels which might have been on the Regional Register at the commencement of their licence periods, and which omitted to re-register, would technically be in breach of the MTC while still licensed.

Member countries will need to review the listing of re-registrations, provided by FFA, prior to licensing, or re-licensing vessels following the commencement of each new Regional Register year.

This problem will be particularly acute for the US vessels under the Multilateral treaty, whose licensing year begins June 15 (§3.8).

6.2 Access to Regional Register data

At present, some member countries are able to load dBase IV versions of the FFA Regional Register files onto their desktop computers. In such cases, a disc containing the current Regional Register is prepared by FFA and dispatched to each participating country on a regular basis; the recipient then updates their files. This procedure will now need to be followed after the completion of the annual re-registration exercise.

The programs in member countries accessing this data from the FFA Regional Register will need to be modified to distinguish between currently and previously registered vessels using the methods described in 3.1 above, to avoid issuing licences to vessels with invalid registrations.

In the case of countries without a computerised system, hard copies will need to be provided of the revised listing of re-registrations.

7.0 SUMMARY AND RECOMMENDATIONS

7.1 Summary

The Regional Register consists of a listing of vessels, with various particulars relating to each vessel. The system is held on an FFA computer, and keyed by a Regional Register number assigned at the time of registration.

In the past, the orientation within FFA was to regard the Regional Register as a computer system that held vessel information. With the maturing of the system, and recommended allocation of operational responsibility, it is hoped it will become a vessel register that is held on the computer.

The allocation of responsibility to the user, and its consolidation within one section along with effective management, will greatly assist in redressing some of the data defects that currently exist.

The new MTC, primarily annual re-registration, will not have a serious impact on the operation of the Register if it is handled in the way recommended in this report. As a side benefit, annual re-registration will effectively remove much of the suspect data from the Regional Register that has accumulated over the years.

As would be expected from the relatively small size of the Regional Register (6,000 records, with 20 transactions per week) the cost of running and maintaining it is not high. The total annual cost is estimated at \$US66,860 or \$US200 per active vessel.

7.2 Recommendations

7.2.1 Management. The following recommendations should be considered by FFA management;

- (a) **Regional Register managed outside Computer Services.** Responsibility for the operation (i.e. excluding technical support) of the Regional Register should be allocated to one of the user sections (§5.2). The selection of the section will be a management decision, and will depend on proposed reorganisation of the Fisheries Management function within FFA.
- (b) **Software updates.** As discussed in section 5.4, upgrades to Regional Register operational software need to be coordinated with SPC.
- (c) **Vessel ID's.** Steps should be taken by FFA management to initiate and monitor technical discussions to ensure the compatibility of SPC and FFA systems, specifically the assignment of vessel ID numbers.

- (d) **Registration criteria.** FFA management will need to confirm registration criteria set out in 2.2.5 and advise Regional Register operating staff. It may also be necessary to seek adoption at FFC/ PNA Ministerial Level meeting.
- (e) **US multilateral treaty.** The contents of Section A of the registration application form should be altered to accommodate the requirements of US purse seine vessels under the US multilateral treaty. Evaluation of other aspects of the revised MTC should be taken up by MFT staff.

7.2.2 Technical. The following recommendations relate to technical aspects of this review:

- (f) **Effecting annual re-registration.** This should be implemented using a registration period and annual fee fields (§3.1). Member countries who access Regional Register data from their own computers will need to have their report and query options altered to reflect these changes (§6.2).
- (g) **Increase user-friendliness and accessibility.**
- Modify the "Potential Problems Report" (§2.2.4 and §2.2.5);
 - Modify report generating programs to allow screen display (§2.5.1);
 - Add logsheet access by vessel Regional Register number (§2.5.3);
 - Ad hoc user queries should be generalised and added to query menus (§5.1).
- (h) **User's Manual.** A new user's manual should be prepared that is written specifically for the general user. A general user is defined as one with a need to consult, update and run reports against the Regional Register, excluding staff from the Computer Services Section. A second, or modified version of the existing manual would be required for use by the Computer Services Section.
- (i) **Data expansion.** The requirements of US Purse Seiners (§3.8.2) and the new Regional Register application form (§3.4) will necessitate the expansion of the vessel record fields to accommodate this additional data.
- (j) **Regional Register costs.** It is only possible to estimate some aspects of Regional Register costs. The use of a log-on dedicated to the use of the Regional Register, as well as a manual cost system for the Data Control Officer, would assist considerably in accurate costing. Oracle costing should also be included.

REFERENCES

Forum Fisheries Committee: Eighteenth Meeting, Nauru 27 April-1 May, 1990. Record of Proceedings.

Parties to the Nauru Agreement: Ninth Annual Meeting, Nauru 19-21 April, 1990. Record of Proceedings. FFA Report 90/45.

Regional Register of Foreign Fishing Vessels, FFA Report 88/55.

Report of the Small Working Group on Minimum Terms and Conditions, Attachment J to the Record of Proceedings of the Fourth Technical Sub-Committee Meeting of the Eighteenth Meeting of the Forum Fisheries Committee (FFA Report 90/46). Comprising the Attachment and Annexes thereto.

The Regional Register User's Manual, FFA Computer Services Group, August 1988.

ANNEX A ABBREVIATED REPORT FOR EXTERNAL DISTRIBUTION

**ANNEX BREPORT OF THE SMALL WORKING GROUP ON MINIMUM
TERMS AND CONDITIONS**