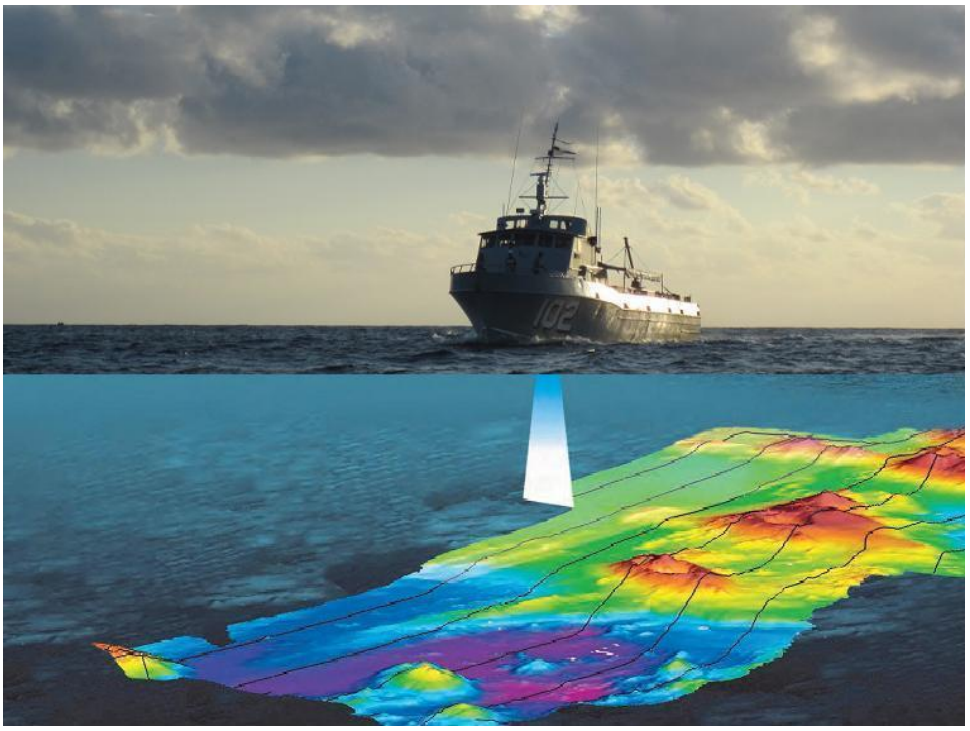
FIJI HYDROGRAPHIC SERVICE ANNUAL REPORT 2015



FIJI NAVY

HYDROGRAPHIC OFFICE
FIJI

REPORT BY
HYDROGRAPHER IN CHARGE, FIJI HYDROGRAPHIC OFFICE
LIEUTENANT COMMANDER G.D. ROKOUA
FOR THE YEAR 2015

This report describes the work of the
The Hydrographic Services Survey Operations and Chart Office

G.D. ROKOUA
Lieutenant Commander

February 2015

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INTRODUCTION

In 2010 the Fiji Hydrographic Service was transferred to the Fiji Navy. At the time of transfer the FHS was not only undermanned but also lacked the qualification and equipment to carry out hydrographic surveys to the rigorous standard required under Special Publication 44(SP 44) of the International Hydrographic Organisation. Since then the FHS has aggressively pursued the attainment of this standard in equipment, manning and qualification.

Vision

To be the National Authority for the provision of accurate Oceanographic and Hydrographic Information and Services.

Mission

To provide accurate oceanographic and hydrographic information efficiently in order to meet national defense and civil requirements.

To satisfy national and international obligations for safe navigation and the preservation of the marine environment

Aim

To provide Hydrographic services for navigable waters within Fiji's National Area of Responsibility as required by the United Nations Safety of Life at Sea (SOLAS) Convention.

To maintain and improve Hydrographic capability and flexibility to meet national requirements.

To provide customers with accurate, readily available oceanographic and hydrographic information and services

HYDROGRAPHIC OFFICE

Survey Operation

The FHS operational command and control rest upon Commander Fiji Navy with new Chief Hydrographer to be appointed as national advisor on hydrographic matters.
Officer in Charge Hydrographic service is Lieutenant Commander Gerard Rokoua.
Hydrographic Surveying continues since the transfer in 2010, numerous large scale surveys were conducted for various entities which include the Ministry of Tourism and Transport.
The major highlight of this period is the completion of the Yasawa survey for chart F747 a joint project with the UK Hydrographic Office.
The ongoing major survey is the Nadi/Pacific Harbour/Denarau/Vuda marina surveys for the production of a port plan for yachts and small boats is due to be completed by the end of 2016.

Survey Platform

RFNS Lautoka is a 30 meter 'L' class patrol boat that has been converted to a survey vessel since 2010. RFNS Lautoka started the year mediterranean moored at the Fiji Navy Stanley Brown base, with her starboard main engine substantially dismantled to allow internal inspections of required servicing and maintenance, making steady progress in satisfactorily rebuilding this engine. This delayed the return to a state of operational readiness until mid April. Although frustrating in terms of survey output, this period was profitably employed by the ships company who progressed in attending other defects such as bilge pump, fire pump and air conditioning units.

2014 Surveys

SURVEY	SCALE	NO. OF DAYS
Fixing Lighthouse & Beacon – Fiji Group	1:25000	42 days Completed
Nadi Bay – Yakuilau Island to Naikorokoro Point	1:25000	28 days (Coastlining only)
Pacific Harbour/ Rovodrau Bay	1:25000	30 days (2015)

Survey Equipment 2010 – 2014

Equipment currently in use by the FHS including those purchased since the transfer includes:

Current Equipment:

a. One 35m vessel for offshore work
b. one six meter sounding boat for inshore work
c. one RTK GPS set for positioning
d. one dual channel single beam echosounder
e. one side scan sonar (currently under repair)

Procurement 2010 - 2014

Single Beam and Multibeam echo sounders

R2 Sonic 2024 Broadband MBES
Echotrac Mark III SBES

Caris HPD Digital Chart Production System

5 New Desktop Computer for Caris software
HP Designjet T790 AO Plotter 42”
A1 Plotter

Survey Equipment

Laptop Toughbook x 2
Automatic Level
Electronic Theodolite
60 HP Yamaha Outboard Engine
Battery Charger
Generator for Sounding Boat
4 * 12volts battery
Flat Screen 17” for sounding boat

NAUTICAL CHARTING

Introduction

FHS at present produces a catalogue of thirteen local charts and re-prints three International Charts and produces three exclusive economic zones (EEZ) charts. With the introduction of digital chart compilation FHS has began the transition from conventional to digital methods of chart production.

Chart Production and Maintenance

Nautical Charting has continued at a very moderate pace. The reason being that FHS still employs the conventional method of chart production which has beeen a huge hindrance in the progress of FHS cartographic section. At present every effort is being made by the cartographers to complete the compilation of the much anticipated chart F747 Navula Passage to Yasawa Islands, which is to replace the existing F5 chart.The last sets of published charts by FHS were charts of the Southern Lau Group F51, F52, F53, F54.

The year also saw the reprinting of charts F5, F10 and F54 which are of very high demand by local and visiting mariners.

Cartographic Equipment

The emergence of Digital chart production has prompted FHS to procure the CARIS HPD chart production system which is expected to be up and running in March 2015.

FHS has also successfully purchased the below as part of the Caris chart production System

01x CARIS HPD digital chart production software package
01 x HP Designjet 111 Tray A1 Plotter
01 x HP Designjet T790 AO Plotter
01 x Dell PowerEdge Server
05 x Dell Optiplex 990 Pc's

Maritime Safety Information

FHS continues to compile, promulgate, publish and distribute maritime safety information such the Fiji Notices to Mariners, Navarea XIV, Fiji Coastal Navigational Warning and the annual Fiji Nautical Almanac.

PERSONNEL AND TRAINING

Current Manning

The Fiji Hydrographic Services comprises of the following personnel:

a) Officers

1) Lieutenant Commander G.D. Rokoua (Cat A)
2) Lieutenant S. Lagivola (Cat B)
3) Sub Lieutenant J.M. Robinson (Cat A)
4) Ensign R.A.W. Cavuilati (Cat B)

b) Senior Rates

1) Warrant Officer Class Two V. Cataki (Cat B)
2) Chief Petty Officer A. Tawake (Cat B)
3) Chief Petty Officer V. Tirikula (Cat B [Cartography])
4) Chief Petty Officer P Naboseyawa (Cat B)

c) Junior Ratings

1) Leading Seaman A. Lagivola
2) Leading Seaman J.R. Maravou
3) Able Seaman K. Bainivalu
4) Able Seaman J. Morrell
5) Able Seaman S. Tabakanalagi
6) Able Seaman Nemila
7) Able Seaman O. Matatalolokula
8) Able Seaman E. Kurusiga

Training

There is an urgent need to source cartographic training as FHS has only 2 experienced officers who have undergone formal cartographic training. One of the officers holds a CAT B in marine cartography and the other holds a certificate in marine cartography from UKHO and is yet to complete his CAT B. The past year also saw 3 of the officers attend Maritime Safety Information (MSI) course locally and abroad.

Hydrography

Since the formation of FHS in 1976 there has been an ongoing attempt to train and maintain a team of surveyors and cartographers who are qualified to IHO standards. This idea was initially difficult to achieve for various reasons.

The transfer of FHS back to the Fiji Naval Division of the Republic of Fiji Military Forces (RFMF) in 2010 has allowed a permanent vessel dedicated to survey tasking and a consistent training program for Surveyors.
It has benefited FHS as new and upcoming recruits get the opportunity to learn the practical aspects of hydrographic surveying and have guaranteed the availability of modern data which can be utilised by the cartographers for new and accurate chart compilations.
There has been a consistent training program in the past 3 years for survey recorders and hydrographers under training (HUT) being offered by the National Institute of Hydrography (NIH) in Vasco Da Gama, Goa, India and KHOA of South Korea.

Below is a summary of courses attended by surveyors for the past 2 years,

Name of Course	**No. of Pers Attended**	**Country**
Long H Course in Hydrography (CAT A)	2	NIH, India
Basic H Course in Hydrography (CAT B)	2	NIH, India
PO Q Course in Hydrography	2	NIH, India
Basic Q Course in Hydrography	3	NIH, India
Ocean Observation and Hydrographic surveying	4	KHOA, South Korea
Basic Hydrography	4	Fiji

Cartography

There remains a great need to obtain a consistent and reliable training program for cartographers to IHO standards. FHS currently employs two specialist Nautical Cartographers, one is a CAT B cartographer and the other holds a certificate in Marine Cartography and Hydrographic Data Processing from UKHO and is yet to complete the second and third modules to attain his CAT B.

FHS is trying to obtain training for another two so as to ensure succession. There are presently two other new recruits that urgently need training at IHO Category B level which at the moment is difficult to obtain. It is critical for these officers to obtain formal training as they will succeed the two qualified cartographers. The field of Nautical Cartography is unique and training offered locally does not satisfy this need, it is therefore necessary to take advantage of overseas courses as they are made available and to secure places on these courses through overseas assistance.

MISCELLANEOUS

IHO 5th Extraordinary International Conference, Monaco.

The FHS attended the 5th EIHC in Monaco on behalf of the state in which information and advice was sought from the hydrographic offices of Singapore, Korea, UK and others. Results from the conference was the advice from Singapore on the legislation of the hydrographic services which was successfully incorporated into the 2014 Maritime Transport decree. Another positive from the conference was the drawing up of a cooperative agreement with the UKHO and IC- ENC which is at the moment being perused by the state's legal authorities. It is expected to passed by the end of the first quarter 2015. Advice on the ratification of the amendments to the IHO convention is still with the Foreign Affairs ministry which is also expected to be forthcoming by the end of the first quarter 2015.

Maritime Boundary Delimitation 2014

The FHS is also part of Fiji's Maritime Affairs Coordinating Committee and is at present heavily involved in Boundary delimitation negotiations with bordering Pacific Island States. Borders agreements were successfully signed with France and Tuvalu and enacted early 2015. An agreement with the Solomon Islands is currently under discussion.

LIAISON WITH OTHER HYDROGRAPHIC OFFICES

THE Fiji Hydrographic Services was pleased to host a brief visit to Suva from 25 – 29 August 2014 by the Korea Hydrographic and Oceanographic Administration (KHOA) Mr Kim Jong Choul, Deputy Director, Nautical Chart Division and Mr AN Jang Hyun, Assistant Director, Nautical Chart Division, KHOA.

The purpose of the visit was to identify and conduct an Official Development Assistance (ODA) project to be funded by the Government of the Republic of Korea. The aim of this ODA project is to support a participating country further its technical capacity in the field of climate change response and hydrographic surveying and also to promote cooperative partnership.

The FHS is willing to accommodate other pacific island state hydrographic office personnel in any Basic Branch Training (hydrography) courses that will be run in the upcoming year (2015). Once the Caris HPD system is fully functional the FHS is also willing to allow other PIS hydrographic office personnel to be attached to the Cartographic Section for capacity building in the use of the system. Financial support for attached personnel will have to be the responsibility of the participating states or could be sought from the IHO CBC.

CONCLUSION

2014 was challenging and began with the survey ship undergoing major engine repairs. Despite this setback the FHS had a successful year in terms of capacity building and equipment acquisition.

An R2sonic shallow water MBES was acquired and the CARIS HPD digital chart production system successfully set up. Both sets of equipment are expected to be up and running by the first quarter of 2015.

Two survey recorders successfully completed their Basic Hydrography "Q" Courses in India, one officer successfully completed his IHO Cat B course (India) and another officer successfully attained his IHO Cat 'A' also in India.

The list of lights survey was conducted in the early part of the year which lasted 42 days and the FHS ended the year with the coastline survey of the Nadi Bay/ Naikorokoro point area, the survey lasting 28 days.

2014 has set the platform for the launch of the FHS into the acquisition of digital data and the provision of the same through ENC's in 2015. Through many setbacks, the FHS has been able to maintain pace with that which was set out by the Five year plan which will end in 2016 with the achieving of the required IHO standards in both hydrographic surveying and nautical cartography.