

# **JICA Hydrographic Training and ENC Implementation: Towards Safer Navigation in the Pacific Region.**

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SWPHC22

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Vice Chief Advisor for the Capacity building project of  
Hydrographic Survey and Electronic Navigational Charts in the Solomon Islands

- **Free and Open Indo-Pacific(FOIP)**

In 2016, Japan proposed the vision, which aims to improve connectivity between Asia and Africa via the Indian and **Pacific Oceans**, and to promote regional stability and prosperity.

- **PALM10 in 2024**



The Pacific Ocean

(The Tenth Pacific Islands Leaders Meeting in 2024)

## **Joint Action Plan**

- Reinforce capacity for maritime security and maritime safety:

The PALM Partners will continue cooperation in building capacity based on national request, respect for **developing navigational charts**.

# What is JICA?

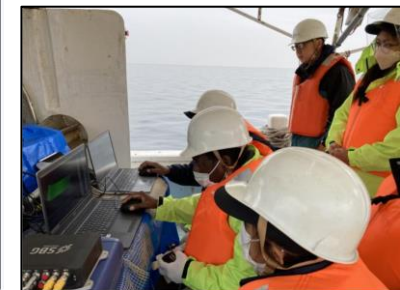
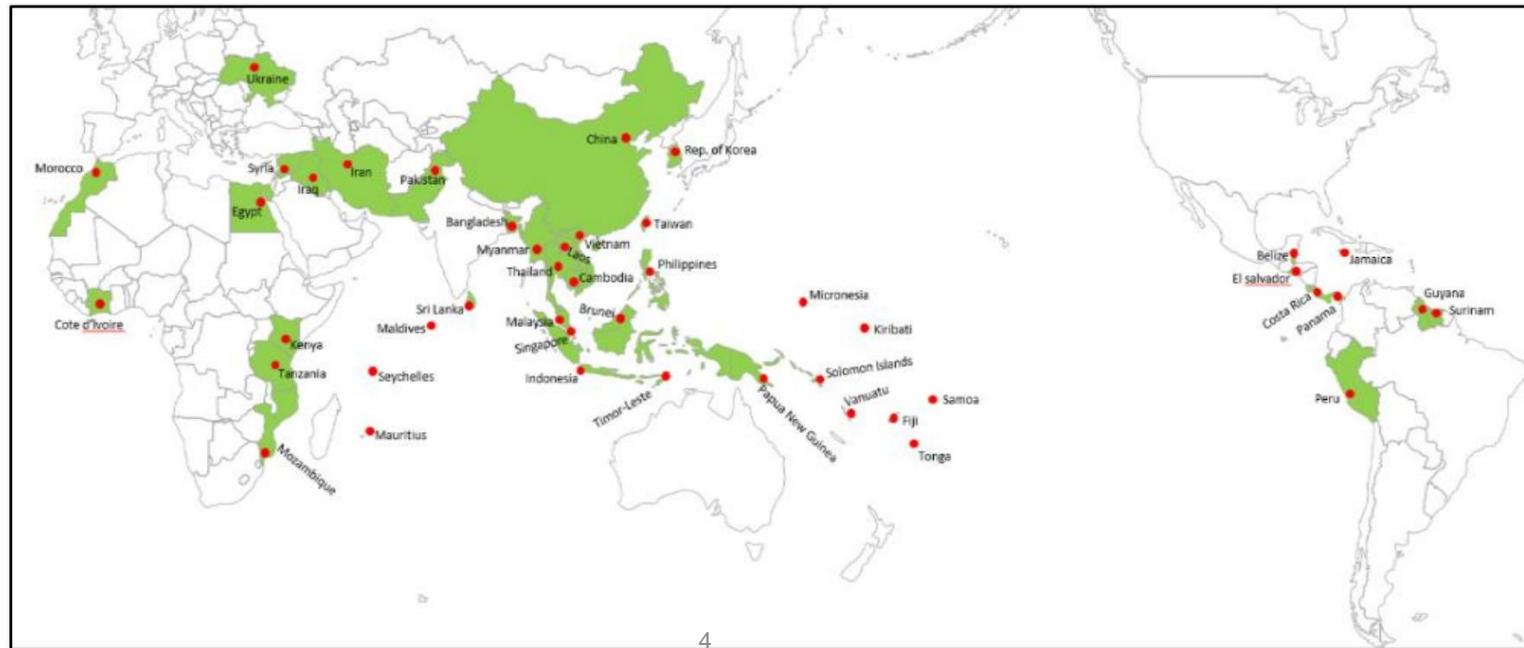
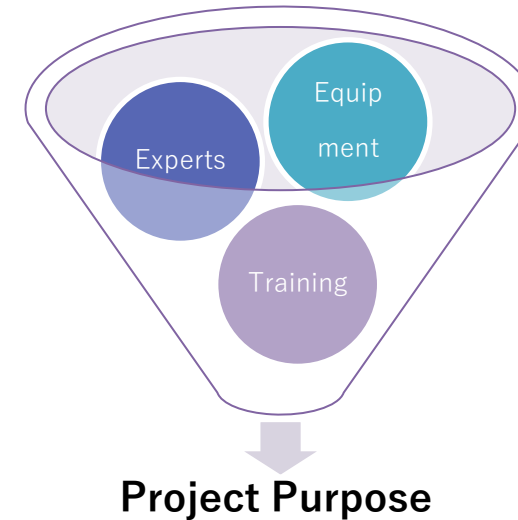
- ***JICA (Japan International Cooperation Agency)*** is in charge of administering all ODA in Japan, except for contributions to international organizations.
- ***Mission :***  
JICA will work on human security and quality growth in accordance with the Development Cooperation Charter.



## ● Hydrography for Charting and Disaster Management Course

Six-month training course for hydrographic surveyors conducted by JICA in cooperation with Hydrographic and Oceanographic Department, Japan Coast Guard since 1971

More than 465 trainees from 46 countries have participated until 2024.





# JICA Training

- **Hydrography for Charting and Disaster Management**

Recognized as Category-B  
Hydrography by IBSC.

IBSC: International Board of Standards of Competence  
for Hydrographic Surveyors and Nautical Cartographers.



JICA trainees in 2024



JICA trainees in 2023



JICA trainees in 2022



# Solomon Islands ENC project

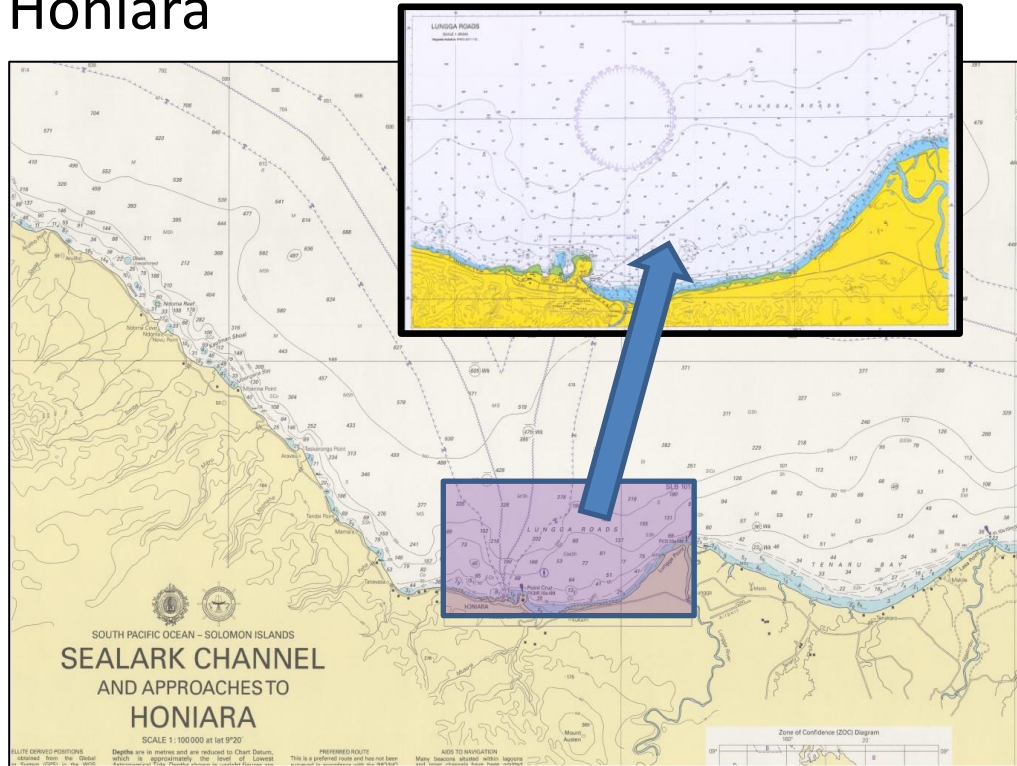
## The Project for Improvement of Honiara Port Facilities (Solomon Islands)



# Solomon Islands ENC project

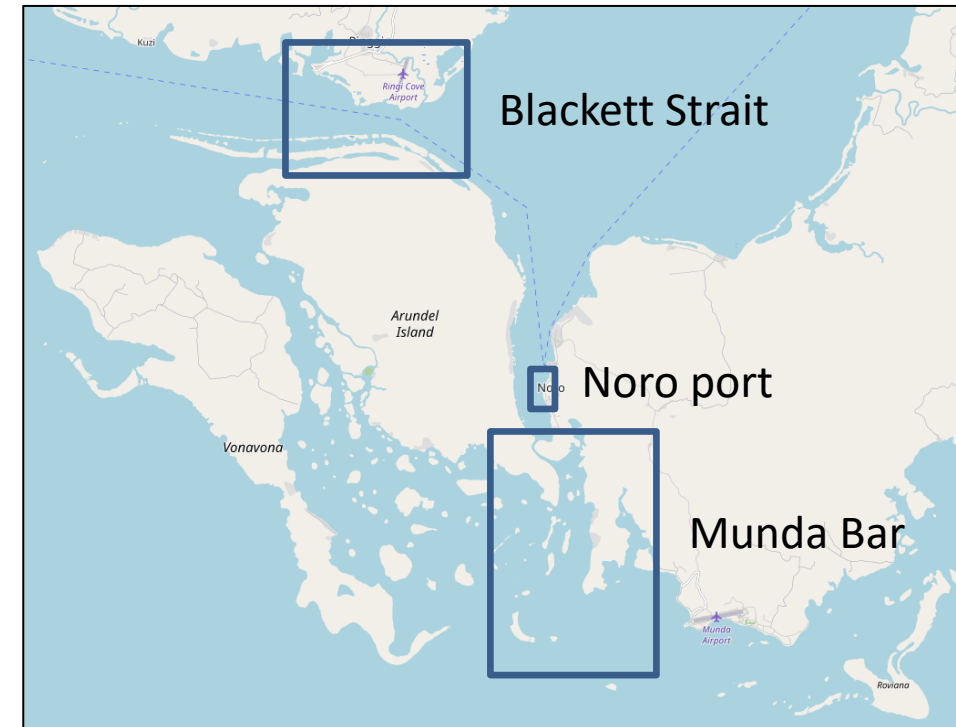
## Project Areas

- Honiara



Place	Types	Area, Scale
Honiara	ENC	Harbour
	Paper Chart	1:5,000 1:20,000

- Noro



Place	Types	Area, Scale
Noro	ENC	Harbour Approach
	Paper Chart	1:5,000 Noro 1:20,000 Munda 1:50,000 Blackett

# Solomon Islands ENC project

## Input by JICA

- **Dispatch of Experts: 12 experts, for the Capacity Building**  
(62 M/M in Solomon Islands, 5 M/M in Japan)
- **Hydrography and ENC training in JAPAN and AUSTRALIA**
- **The following equipment will be supplied by JICA in the Project,**
  - Positioning/Navigation
  - Depth Sounding System
  - Seabed Imaging
  - Drone
  - Tide Gauge
  - ENC/Paper Chart Software
  - A0 Plotter



GNSS Receiver & Data Recorder



Single Beam Echo sounder



Side Scan Sonar



# Solomon Islands ENC project

## Survey Boat Repair



SIMA boat was significantly damaged by rioting.



JICA supported the repairing the boat and its equipment.



## Past Activities

### 1. Control Point Survey

- Honiara, Noro Base Point, Long Baseline Analysis

### 2. Satellite Derived Bathymetry (SDB)

- Honiara, Noro , Munda Bar, Blacket Strait

### 3. Hydrographic Survey

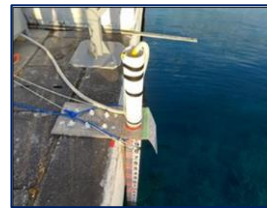
- Multi-beam echo sounding at Honiara port, Noro port, Munda Bar, and Blackett Strait with OJT

### 4. Coastline Survey by Satellite & DRONE

- The detailed coastline is obtained from DRONE photography and Satellite Images with OJT.

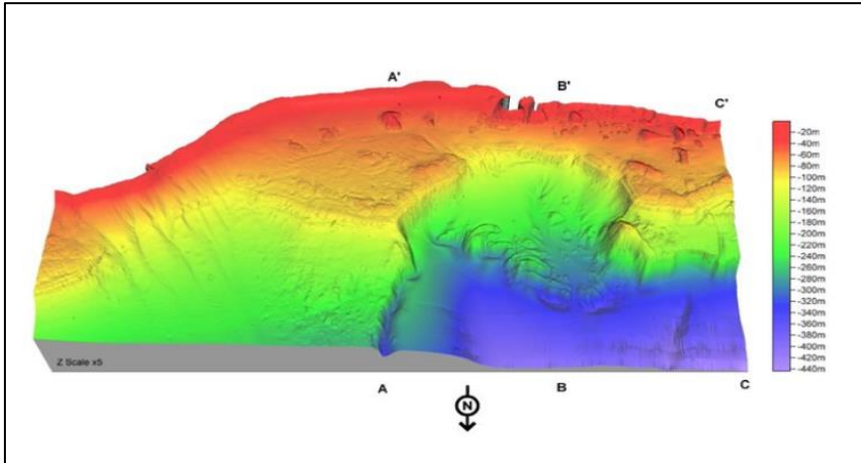
### 5. Tide Observation, with Leveling

- Noro port  
Semi-permanent station with OJT,
- Honiara, Munda and Ringi port  
Temporary station with OJT,

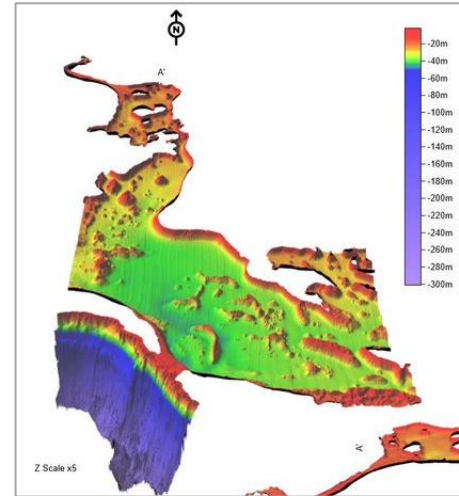


# ENC Project in Solomon Islands

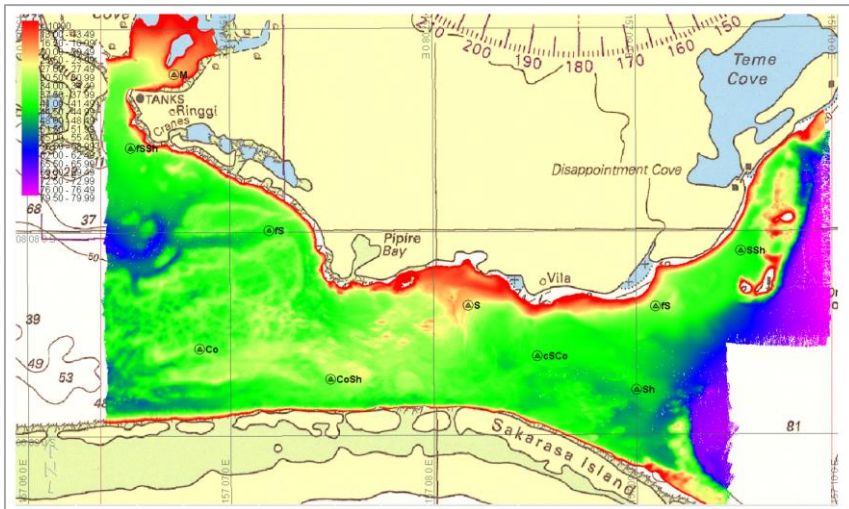
## High Quality Bottom Profiles



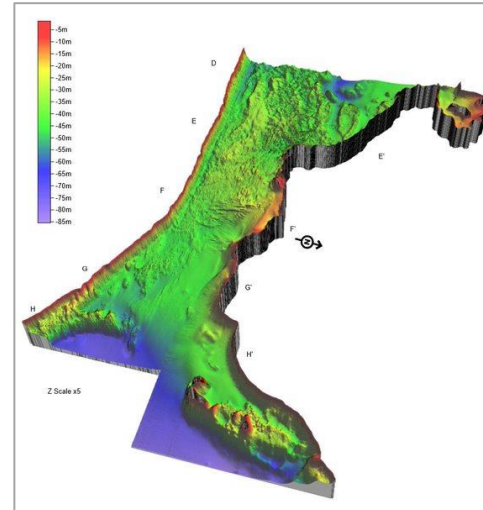
Honiara from N



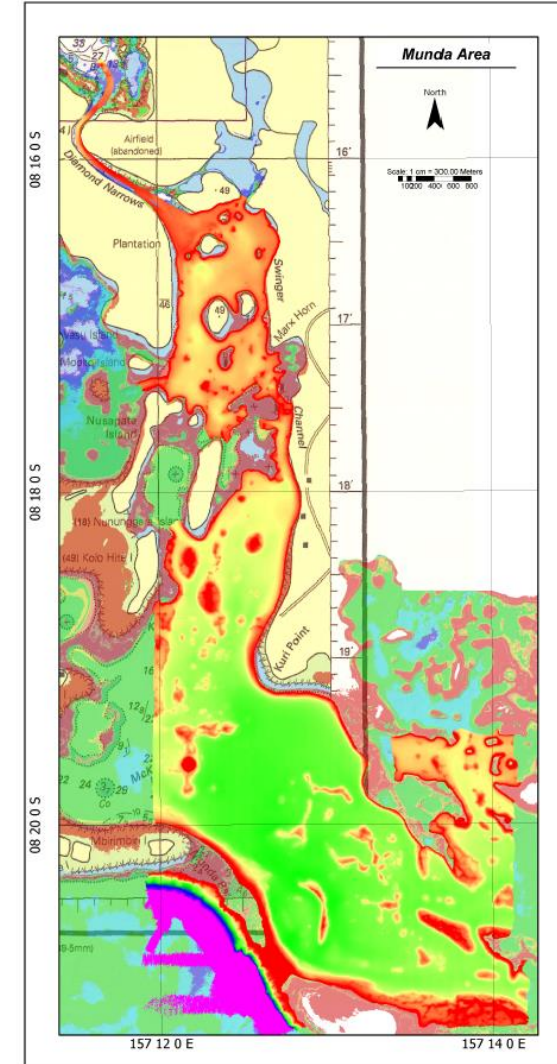
Blackett Strait from NE



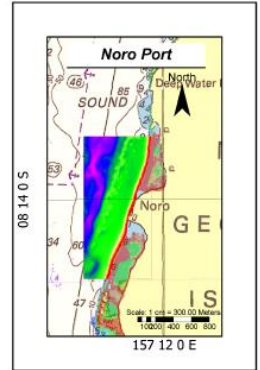
Bathymetric map of Blackett.



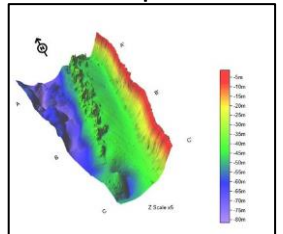
Munda Bar from S



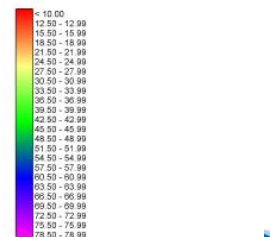
Basthymrtric map of Munda Bar



Bathymetric map of Noro port



Noro port from SSW





# Solomon Islands ENC project

## ENC production

### ENC Training in Japan

Introductory ENC training was given in Japan.

The training includes a lot of practical exercises.

SIMA officers also joined JICA Cat. B training course for hydrographic survey.



ENC training in Japan



Courtesy visit to the Commander of  
5th Regional Japan Coast Guard HQ

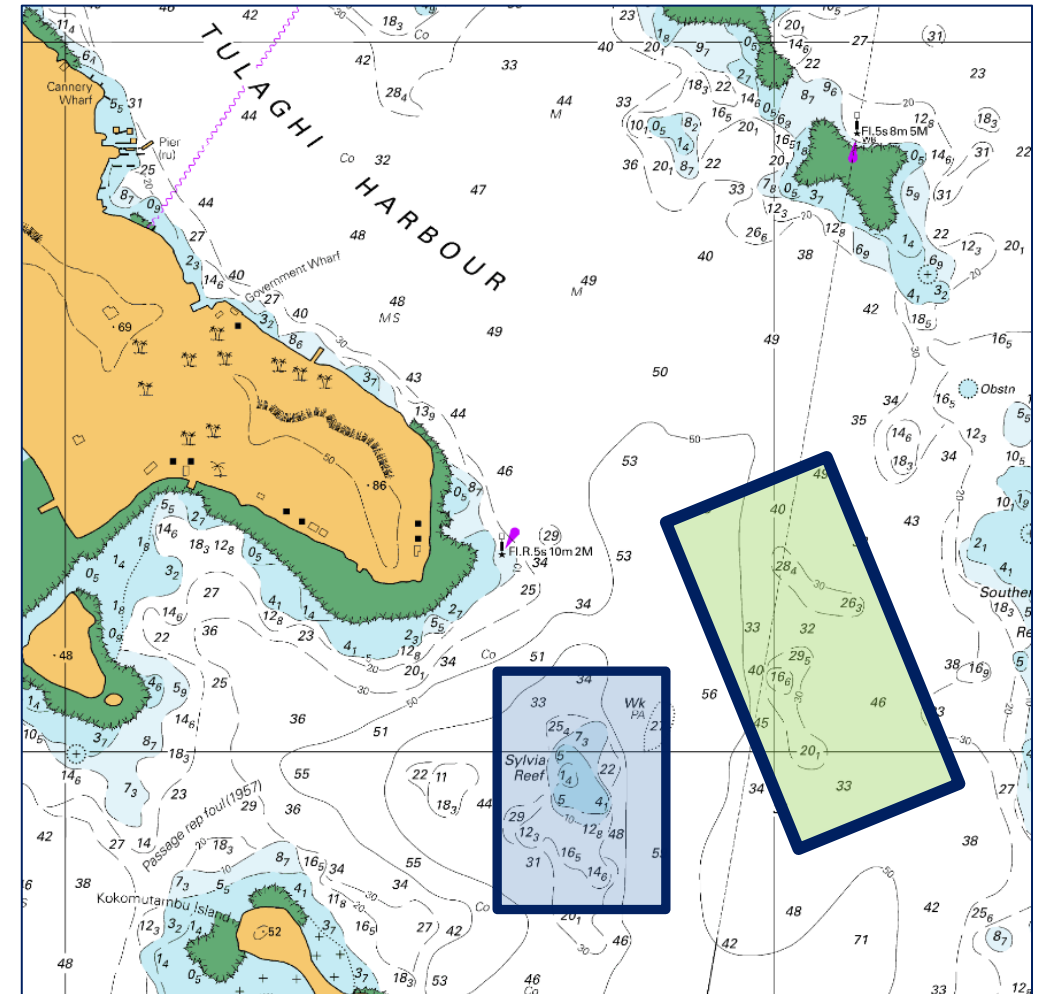
# Solomon Islands ENC project

## Mini Hydrographic Project

- Sylvia Reef, Tulaghi.
- Approach to Tulaghi harbour



Sylvia Reef, Tulaghi



Approach to Tulaghi harbour



# ENC Project in Solomon Islands

## Mini Hydrographic Project



Calm sea in the first morning.



A driver and a navigator.



Tide gauge installation.



Mobilization of a single-beam echo sounder (SBES).



Bar check.

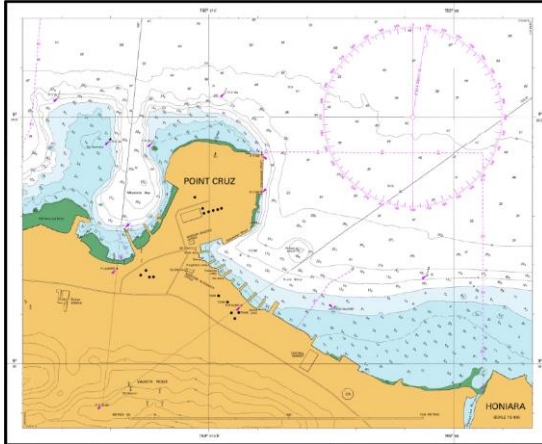


Hydrographic survey with SBES.



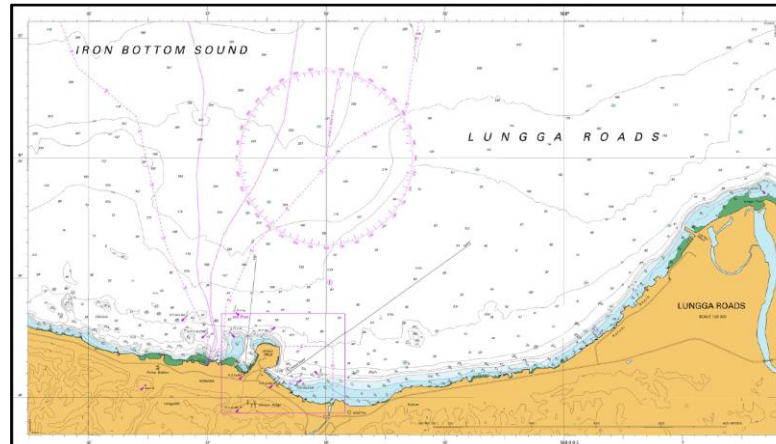
# Solomon Islands ENC project

## Production of ENCs and Paper Charts



**Honiara**

ENC: Harbour, Scale: 1:5,000 [Update]



**Honiara**

ENC: Harbour, Scale: 1:20,000 [Update]

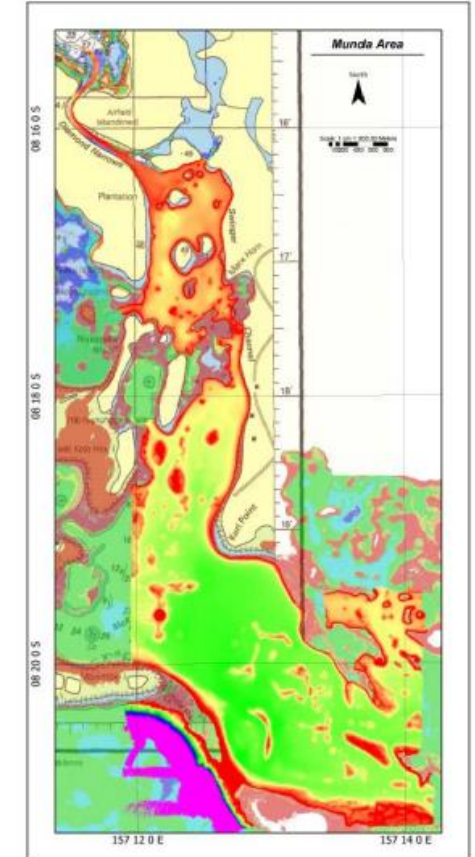


**Blackett Strait** ENC: Approach, Scale: 1:50,000 [Update]



**Noro port**

ENC: Harbour  
Scale: 1:5,000  
[New chart]



**Munda bar**

ENC: Harbour,  
Scale: 1:20,000  
[New chart]

# Solomon Islands ENC project

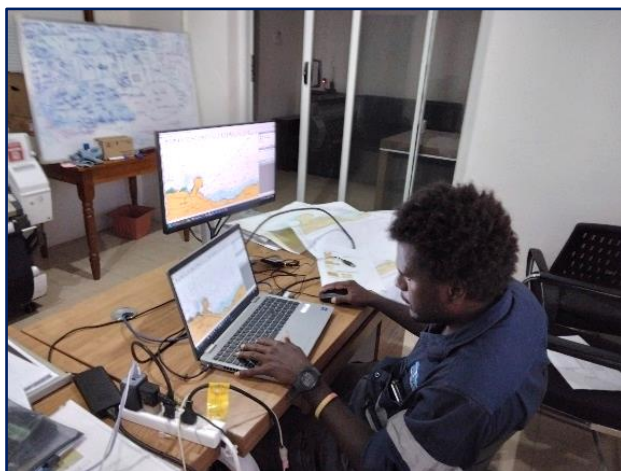
## ENC Production

### 1. ENC Data Production

Honiara ENC data have been produced by JICA and SIMA, and sent to AHO for review. They have reached the final stage.

### 2. Paper Chart Production

First draft Honiara paper chart has been sent to AHO for review. SIMA staff and a JICA expert celebrate the first printed Honiara's digital nautical chart.



ENC production at the SIMA office



The first printed Honiara's digital nautical chart.



# Solomon Islands ENC project

## Cooperation with Australia

### 1. Tripartite Meeting

Tripartite Meeting was held among SIMA, AHO and JICA

### 2. Working Group Meeting

Working Group Meeting was held among SIMA, AHO and JICA.

### 3. ENC Training in Australia

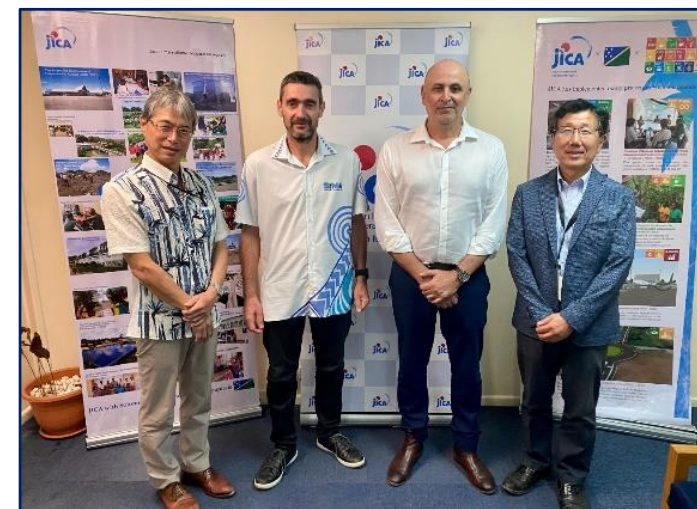
ENC training on QA/QC will be given by AHO in April at Wollongong.



Tripartite Meeting



Working Group Meeting

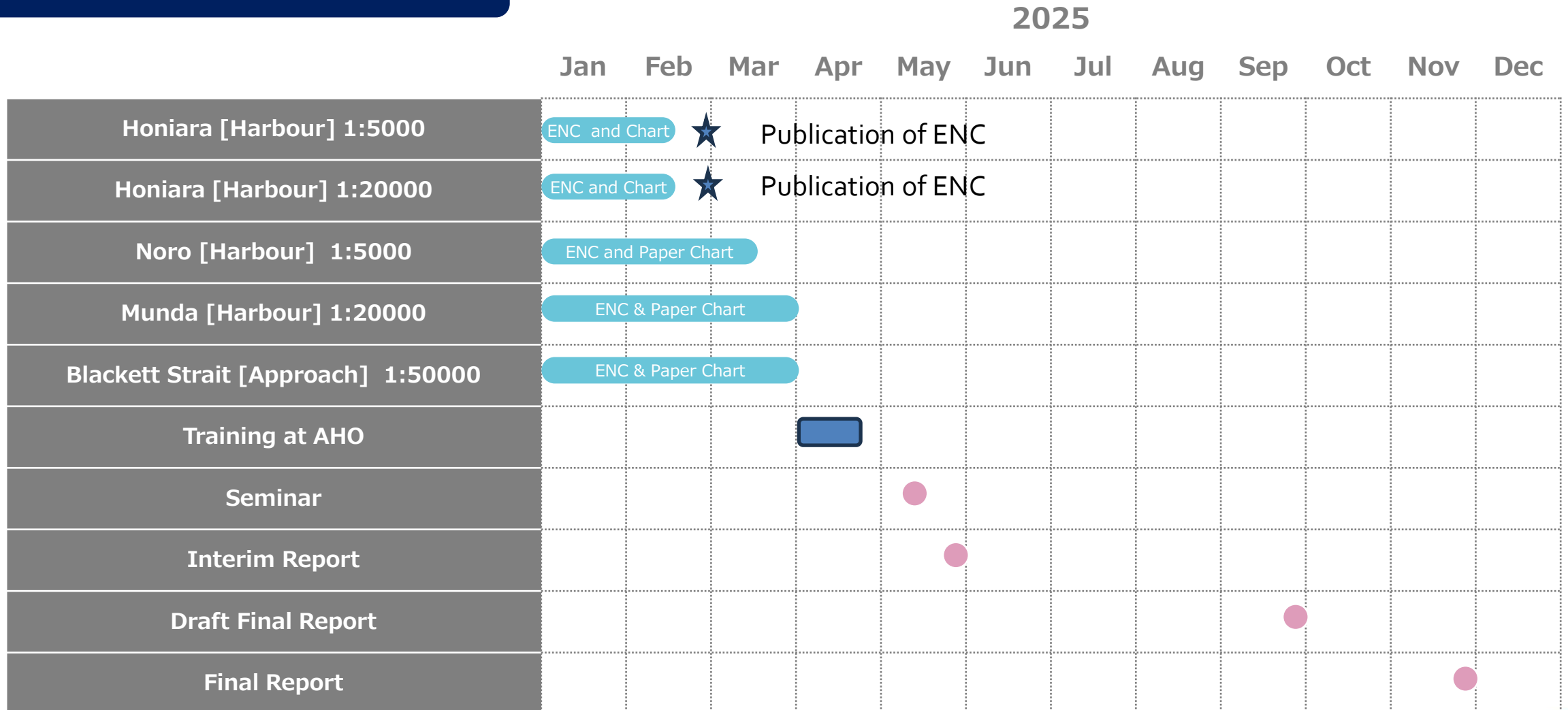


Tripartite Meeting



# Solomon Islands ENC project

## Schedule





**Thank you  
for  
your attention.**