

## VANUATU COUNTRY REPORT

2018, Nadi FIJI

Chair and distinguish colleagues,

Allow me on the outset to firstly thank the organisers of the 15<sup>th</sup> South West Pacific Hydrographic Commission to make it possible for us to continue to meet despite the last minute changes to the venue. I also like to thank Fiji for the warm hospitality.

Vanuatu cannot afford to be relaxed anymore when half a million tourist are expected to come into our shores by cruise liner in the next decades. Not only that, we have also spend over 10 million US dollars to upgrade our wharfs both in Port Vila and Santo to cater for the cruise liners and container ships.

For that reason we believe it is timely that our full membership to the IHO and the South West Pacific Hydrographic Commission are justified and we are committed to meeting our fundamental obligations under the SOLAS conventions hence ensuring safety of life at sea.

To move forward we have consulted and agreed for cabinet to approved the following by end of March 2018

1.

### **Legislations;**

Formalised the National Hydrographic Committee through legislation and with the specific Terms of Reference.

***Annex1 TOR of the National Hydrographic Committee;***

2.

### **Survey Plan**

Cabinet has already approval the survey plan of 10 priorities areas and further approval will be sought for another additional 22 areas which should be considered for survey once the priority areas are complete.

***Annex 2 Survey Plan***

3.

### **Standards**

A review of standards was undertaken and a working knowledge of the standards. A copy of all relevant standards has been provided to all stakeholders for information purposes.

4.

**Formation of a Hydrographic Survey Unit**

A new Hydrographic Survey Unit will be the responsibilities to Lands and Surveys as it is established and builds to full capability with a direct reporting line to the OMR and Committee.

***Annex 3 Role of the National Hydrographic survey***

5.

**Maritime Safety Information**

At present, there is a National Coordinator but a Terms of Reference has yet to be approved by cabinet:

***Annex 4 TOR of the National Coordinator***




***Annex1 TOR of the National Hydrographic Committee;***



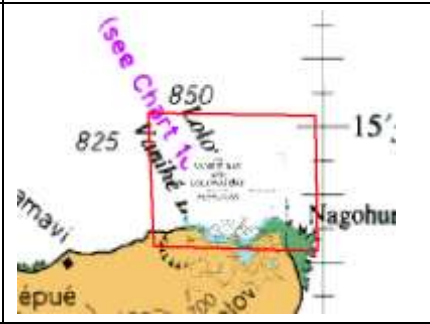

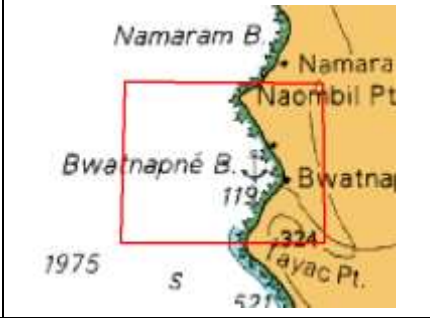
- To recommend national policy in the field of hydrographic survey services of Vanuatu via the OMR.
- To take appropriate measure for the improvement of hydrographic survey services of Vanuatu.
- To co-ordinate the activities of the organisations engaged in hydrographic survey works of the waters of Vanuatu to avoid duplication.
- To extend technical advice and guideline to the member organisations to ensure the quality control of the collected data and the production of chart as per IHO Standard.
- To ensure hydrographic data exchange among the member organisations to facilitate research activities in the field of hydrography.
- To co-ordinate training facilities at home and abroad in the field of hydrographic survey for the officials of the member organisations.
- To allocate, if necessary, additional survey and data collection works to the hydrographic organisations in Vanuatu, besides their individual programme to meet the national and international requirements, such as determination of maritime boundary and exploitation of under water resources etc.
- To recommend scale indexes of chart as per national requirements and advice the executing organisation to prepare their chart accordingly.
- To act as facilitators among the various oceanographic, hydrographic and meteorological data banks for future use, research and supply those to the national and international users.






## Annex 2




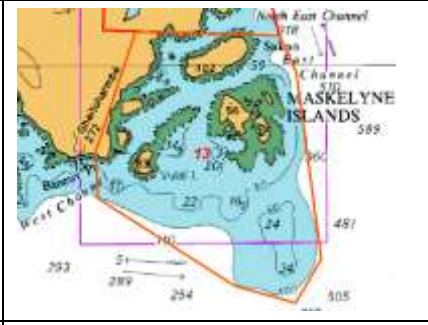

### Vanuatu



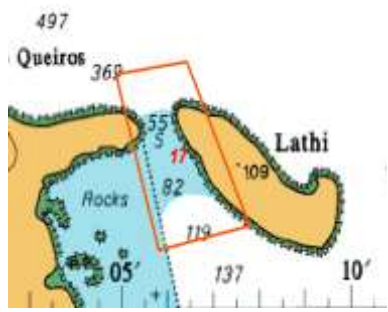
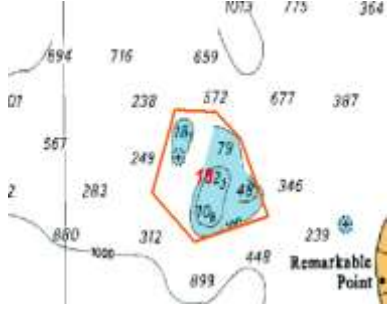

#### Prioritised Survey Programme 2018-2023

Priority	Area		Requirement
1	<p>Port Paterson – <b>Vanau Lava</b></p> <p><i>Area 100km<sup>2</sup></i></p> <p>Est 90.2M Vatu</p>		<ol style="list-style-type: none"> <li>1. Unsurveyed</li> <li>2. Sola to become main Port of Entry following agreement between Vanuatu and Solomon Islands</li> </ol>
1	<p>Larup Bay – <b>Ureparapare</b></p> <p><i>Area 24km<sup>2</sup></i></p> <p>Est 21.65M Vatu</p>		<ol style="list-style-type: none"> <li>1. Unsurveyed</li> </ol>
2	<p>Port Sandwich – <b>Malekula</b></p> <p><i>Area 81km<sup>2</sup></i></p> <p>Est 73.1M Vatu</p>		<ol style="list-style-type: none"> <li>1. Unsurveyed</li> <li>2. High Risk 3 vessels have grounded</li> <li>3. Potential for export of Copra</li> <li>4. Port of Entry to for domestic and international shipping</li> </ol>


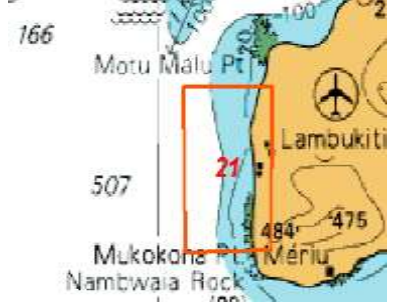
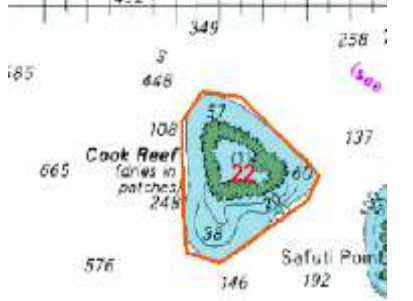
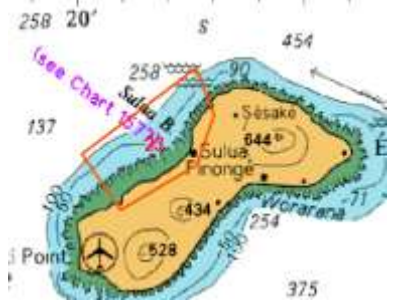

<p>2</p> <p>South West Bay – <b>Malekula</b></p> <p>Area 82km<sup>2</sup></p> <p>Est 73.3M Vatu</p>		<p>1. Unsurveyed</p>
<p>3</p> <p>Bougainville Strait</p> <p>Area 308km<sup>2</sup></p> <p>Est 277.8M Vatu</p>		<p>1. Unsurveyed</p> <p>2. Transit Route for Shipping</p>
<p>4</p> <p>Lolowai Bay – <b>Ambae</b></p> <p>Area 19km<sup>2</sup></p> <p>Est 17.2M Vatu</p>		<p>1. Unsurveyed</p> <p>2. ADB to fund new Jetty</p> <p>3. Provide Safe Emergency Route for evacuation</p>
<p>4</p> <p>Melsisi - <b>Pentecost</b></p> <p>Area 16km<sup>2</sup></p> <p>Est 14.4M Vatu</p>		<p>1. Unsurveyed</p> <p>2. Anchorage</p> <p>3. Provide Safe Emergency Route for evacuation</p>
<p>5</p> <p>Bwatnpne Bay – <b>Pentecost</b></p> <p>Area 26km<sup>2</sup></p>		<p>4. Unsurveyed</p> <p>5. Port of Entry</p> <p>6. New Jetty being constructed</p> <p>7. Export potential for crops</p>



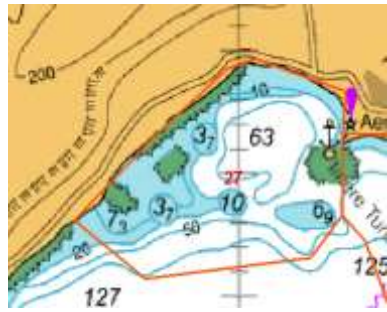
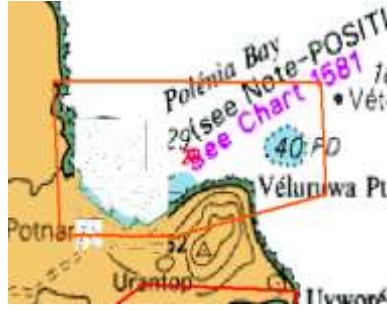

<p>5</p>	<p>Loltong Bay – <b>Pentecost</b></p> <p>Area 14km<sup>2</sup></p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> <li>3 New Jetty being constructed</li> <li>4 Export potential for crops</li> </ol>
<p>6</p>	<p>Narovorovo, Talise &amp; Nasawa – <b>Maewo</b></p> <p>Area 16km<sup>2</sup></p> <p>Est 14.4M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> <li>3 Export potential for crops</li> </ol>
<p>7</p>	<p>Graig Cove – <b>Ambryn</b></p> <p>Area 12km<sup>2</sup></p> <p>Est 10.82M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> <li>3 Well Sheltered</li> </ol>
<p>8</p>	<p>Ipota – <b>Erromango</b></p> <p>Area 70km<sup>2</sup></p> <p>Est 63.14M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> </ol>
<p>9</p>	<p>Lamen Bay – <b>Epi</b></p> <p>Area 22km<sup>2</sup></p> <p>Est 19.85M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> <li>3 Well Sheltered</li> </ol>


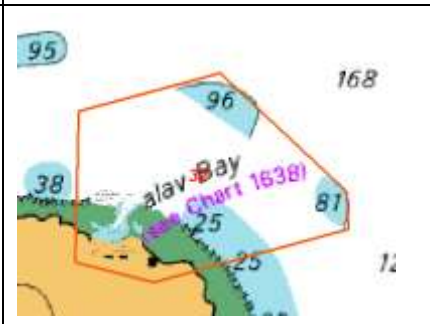
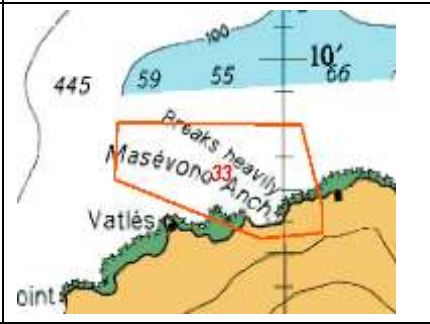
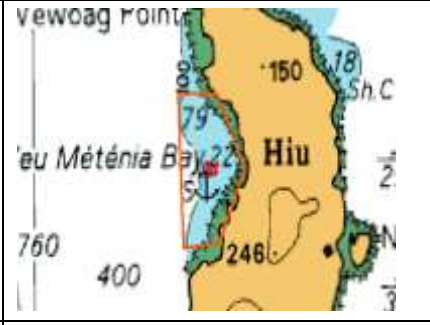
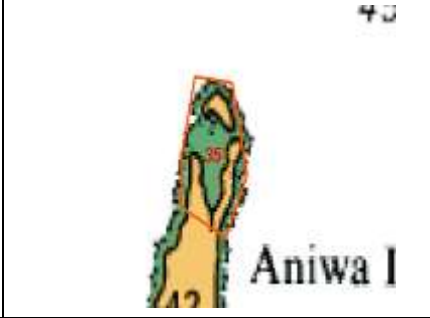
<p>10</p> <p>Aver – <b>Gaua</b></p> <p>Area 34km<sup>2</sup></p> <p>Est 30.67M Vatu</p>		<ol style="list-style-type: none"> <li>1. Unsurveyed</li> <li>2. Provide Safe Emergency Route for evacuation</li> <li>3. Lake Letas – potential tourism site</li> </ol>
<p>11</p> <p>Litchlitch – <b>Malekula</b></p> <p>Area 132km<sup>2</sup></p> <p>Est 119.1M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> <li>3 Export potential for crops</li> <li>4 Marine Reserve for Mangroves</li> </ol>
<p>12</p> <p>Big Bay – <b>Santo</b></p> <p>Area 121km<sup>2</sup></p> <p>Est 109.1M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Export potential for crops</li> <li>3 Marine Reserve</li> </ol>
<p>13</p> <p>Maskelyne Islands – <b>Malekula</b></p> <p>Area 147km<sup>2</sup></p> <p>Est 132.6M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Used by Yachts</li> <li>3 Marine Reserve</li> </ol>
<p>14</p> <p>Ngerein Bay - <b>Loh</b></p> <p>Area 4km<sup>2</sup></p> <p>Est 3.61M Vatu</p>		<ol style="list-style-type: none"> <li>1. Unsurveyed</li> <li>2. Port of Entry</li> </ol>

<p>15</p>	<p>Tolamp Reef - <b>Malekula</b></p> <p>Area 28km<sup>2</sup></p> <p>Est 25.30M Vatu</p>		<ol style="list-style-type: none"> <li>1. Unsurveyed</li> <li>2. Cruise Vessel Access/Anchorage</li> </ol>
<p>16</p>	<p>Palikulo Bay – <b>Santo</b></p> <p>Area 31km<sup>2</sup></p> <p>Est 27.96M Vatu</p>		<ol style="list-style-type: none"> <li>1 Not Recently surveyed</li> <li>2 Cyclone Anchorage</li> </ol>
<p>17</p>	<p>Lathi Island Passage - <b>Lathi</b></p> <p>Area 20km<sup>2</sup></p> <p>Est 18.1M Vatu</p>		<ol style="list-style-type: none"> <li>1 Not recently surveyed</li> <li>2 Used by local and small vessels for transit</li> </ol>
<p>18</p>	<p>Remarkable Point Shoal - <b>Santo</b></p> <p>Area 23km<sup>2</sup></p> <p>Est 20.75M Vatu</p>		<ol style="list-style-type: none"> <li>1 Not recently surveyed</li> <li>2 Shoal in deep water close to ship transit routes</li> </ol>
<p>19</p>	<p>Pamal - <b>Ambrym</b></p> <p>Area 7km<sup>2</sup></p> <p>Est 6.31M Vatu</p>		<ol style="list-style-type: none"> <li>1 Unsurveyed</li> <li>2 Port of Entry</li> </ol>



<p>20</p>	<p>D'Estrees Bank - <b>Ambrym</b></p> <p>Area 34km<sup>2</sup></p> <p>Est 30.67M Vatu</p>		<p>1 Unsurveyed</p> <p>2 Used by Yachts</p> <p>3 Marine Reserve</p>
<p>21</p>	<p>Mukokona - <b>Tongoa</b></p> <p>Area 13km<sup>2</sup></p> <p>Est 3.61M Vatu</p>		<p>1 Unsurveyed</p> <p>2 Port of Entry</p>
<p>22</p>	<p>Cook Reef - <b>Emae</b></p> <p>Area 27km<sup>2</sup></p> <p>Est 24.35M Vatu</p>		<p>1 Not Fully surveyed close to a shipping route</p>
<p>23</p>	<p>Sulua Bay - <b>Emae</b></p> <p>Area 15km<sup>2</sup></p> <p>Est 13.53M Vatu</p>		<p>3 Unsurveyed</p> <p>4 Port of Entry</p>
<p>24</p>	<p>Port Havannah - <b>Efate</b></p> <p>Area 58km<sup>2</sup></p> <p>Est 52.3M Vatu</p>		<p>1 Not recently surveyed</p> <p>2 Used by Yachts</p>

<p>25</p>	<p>Lelepa Passage - <b>Efate</b></p> <p><i>Area 3km<sup>2</sup></i></p> <p>Est 2.71M Vatu</p>		<p>1 Unsurveyed</p> <p>2 Used by Yachts</p>
<p>26</p>	<p>Mele Bay East - <b>Efate</b></p> <p><i>Area 9km<sup>2</sup></i></p> <p>Est 8.20M Vatu</p>		<p>1 Not recently surveyed</p> <p>2 Potential deep water anchorage</p>
<p>27</p>	<p>Mele Bay North - <b>Efate</b></p> <p><i>Area 11km<sup>2</sup></i></p> <p>Est 9.92M Vatu</p>		<p>1 Not recently surveyed</p> <p>2 Potential deep water anchorage</p>
<p>28</p>	<p>Polennia Bay - <b>Erromango</b></p> <p><i>Area 81km<sup>2</sup></i></p> <p>Est 73.1M Vatu</p>		<p>1 Unsurveyed</p> <p>2 Port of Entry</p>
<p>29</p>	<p>Dillons Bay - <b>Erromango</b></p> <p><i>Area 55km<sup>2</sup></i></p> <p>Est 49.61M Vatu</p>		<p>1 Not fully surveyed</p> <p>2 Port of Entry</p>

<p>30</p> <p>Port Patrick - <b>Anatom</b></p> <p><i>Area 53km<sup>2</sup></i></p> <p>Est 47.81M Vatu</p>	 <p>A nautical chart showing a coastal area with a red diamond-shaped boundary. The number '30' is written in red inside the boundary. The map includes depth soundings and various navigational markers.</p>	<p>1 Unsurveyed 2 Evacuation Route</p>
<p>32</p> <p>Leaslav Bay – <b>Santa Maria (Gaua)</b></p> <p><i>Area 34km<sup>2</sup></i></p> <p>Est 30.67M Vatu</p>	 <p>A nautical chart of a bay area with a red pentagonal boundary. The number '32' is written in pink inside. Other features include 'Leaslav Bay', 'Chart 1638', and various depth soundings like '95', '96', '168', '38', '25', '87', and '14'.</p>	<p>1 Unsurveyed 2 Evacuation Route</p>
<p>33</p> <p>Masevono Anchorage – <b>Santa Maria (Gaua)</b></p> <p><i>Area 19km<sup>2</sup></i></p> <p>Est 17.2M Vatu</p>	 <p>A nautical chart showing a coastal anchorage with a red rectangular boundary. The number '33' is written in red inside. Text on the map includes 'Breaks heavily', 'Masévong Anchorage', and 'Vatlés'. Depth soundings include '100', '10', '66', '59', '55', '445', and '400'.</p>	<p>1 Unsurveyed 2 Evacuation Route</p>
<p>34</p> <p>Metania Bay – <b>Hiu</b></p> <p><i>Area 6km<sup>2</sup></i></p> <p>Est 5.41M Vatu</p>	 <p>A nautical chart of a bay area with a red rectangular boundary. The number '34' is written in red inside. Text includes 'vewoag Point', 'Metania Bay', and 'Hiu'. Depth soundings include '150', '18', '79', '22', '760', '400', and '248'.</p>	<p>1 Unsurveyed 2 Port of Entry</p>
<p>35</p> <p><b>Aniwa Island</b></p> <p><i>Area 4km<sup>2</sup></i></p> <p>Est 3.61M Vatu</p>	 <p>A map of an island with a red rectangular boundary. The number '35' is written in red inside. The name 'Aniwa I' is printed at the bottom of the map.</p>	<p>1 Unsurveyed 2 Port of Entry</p>

### **Annex 3 Role of the National Hydrographic survey**

A National Hydrographic Survey Unit can be created instantly through existing legislation following recommendations of the National Hydrographic Committee, however it will not immediately be effective due to the requirement to develop trained personnel, adequate equipment and national policies and an interim policy for the conduct of hydrographic surveys should be developed to allow the development of capability in tandem with the formation of the unit.

The activities of a Hydrographic Unit will be supervised or monitored by an **appropriate governmental authority** who are designated **responsibility** for the proper provision of hydrographic services and to which any national Hydrographic Survey Unit will report.

The role of the Hydrographic Survey Unit is to collect, through systematic surveys at sea and along the coast, geo-referenced data related to:

- depths of the seas in the area of national interest (including all potential
- hazards to navigation - considering present and future ships' drafts - and
- other marine activities)
- coastal features, including man-made infrastructures for maritime navigation,
- aids to navigation and port configuration
- the nature of the sea floor
- tides, currents, physical properties of the water column

The Hydrographic Survey Unit should process the information collected in order to create organised databases capable of supporting the production of nautical charts, thematic maps and other types of documentation for the following most common uses:

- maritime navigation (and traffic control)
- naval operations
- coastal management
- civil defence
- marine environment preservation

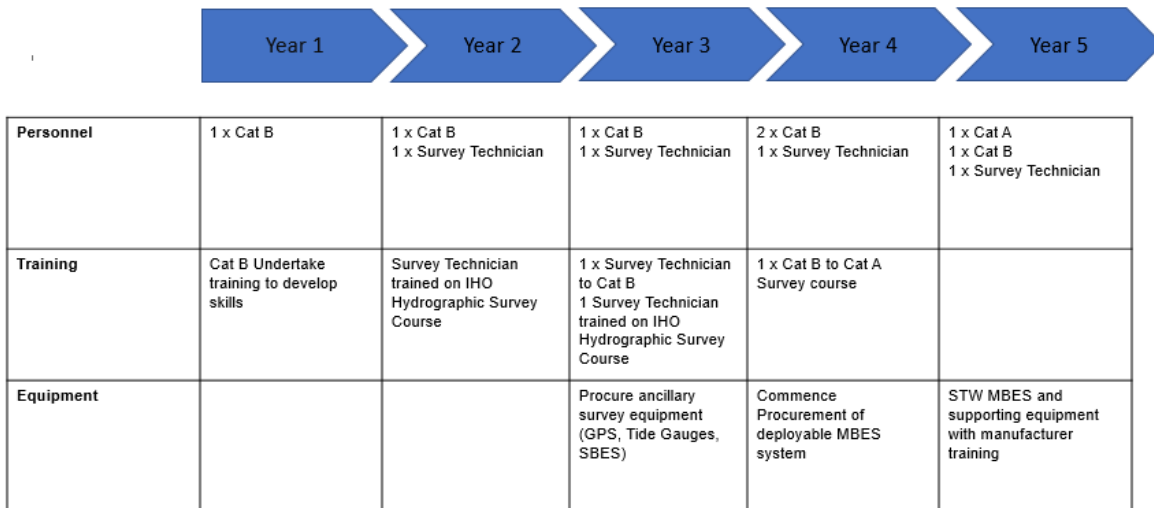
- exploitation of marine resources and laying of submarine cables/pipelines
- definition of maritime boundaries (Law of the Sea implementation)
- scientific studies related to the sea and near-shore zone

Additionally they should update the database through re-survey when and where needed, gathering supplementary information from other maritime authorities, ensuring the production, distribution of information for the updating of nautical charts and relevant maps, ensuring the timely dissemination of data relating to Maritime Safety Information.

A Hydrographic Unit charged with undertaking hydrographic surveys in Vanuatu should consist of between 3 and 4 personnel. Typically, this would consist of:

<u>Role</u>	<u>Qualification</u>	<u>Responsibilities</u>
Surveyor in Charge	Cat A Surveyor	In charge of planning, acquisition, reporting and quality control
Surveyors	2 x Cat B Surveyor	Undertakes data acquisition and data processing
Survey Technician	Trained locally	Supports Cat A/B Surveyors in survey tasks

The following model (Figure 4) is a suggested 5 year programme that would allow the development of a Hydrographic Survey Unit capable of undertaking national survey obligations:



**Figure 4:** Proposed Model for development of Hydrographic Survey Unit

The model above assumes that sufficient funding is made available to employ additional personnel, undertake training and procure equipment. Years 1 to 3 have no equipment and during this phase it is assumed that surveys will be contractor led and that in specifying surveys that provision is made for Vanuatu's own survey team are included in survey operations to gain experience.

As an alternative, in order to build experience would be to use bilateral relationships to explore the provision of training billets on survey operations (this may be world-wide) in order to provide the necessary opportunities for professional development.

#### **ANNEX 4 TOR of National Corrdinator**

- Endeavour to be informed of all events that could significantly affect the safety of navigation within his region or national area of responsibility (AOR)
- Assess all information immediately upon receipt in the light of expert knowledge for relevance to safety of navigation in their area of national responsibility.
- Select information for broadcast in accordance with the guidance given in Assembly Resolution A.706(17)
- Draft coastal warnings in accordance with the Joint IMO/IHO/WMO Manual on Maritime Safety Information
- Direct and control the broadcast of coastal warnings in accordance with SOLAS
- Forward coastal warnings and relevant associated information which may require wider promulgation directly to their NAVAREA Coordinator and/or adjacent National Coordinators as appropriate, using the quickest possible means.
- Broadcast in-force bulletins not less than once per week at a regularly scheduled time
- Promulgate the cancellation of coastal warnings which are no longer valid
- Act as the central point of contact on matters relating to navigational warnings within their area of National responsibility
- Promote the use of established international standards and practices in the promulgation of navigational warnings within their area of national responsibility
- Monitor the broadcasts which they originate to ensure that the messages have been correctly broadcast
- Maintain records of source data relating to coastal warnings in accordance with the requirement of the National Administration of the National coordinator

The current co-ordinator is aware of his responsibilities and has established links with the NAVAREA Co-ordinator along with local contacts who report navigationally significant information to him for analysis and dissemination.

The infrastructure required to provide a full MSI service have yet to be fully funded and it is not known when a full MSI capability will be achieved.

