

SECRETARIAT OF THE PACIFIC COMMUNITY
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Modernising Navigational Charts for Vanuatu

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PACIFIC ISLAND COUNTRIES GIS&RS CONFERENCE

16 - 19 NOVEMBER 2015
 USP ICT THEATER
 SUVA FIJI

"BRIDGING INFORMATION GAPS BY CREATING SMARTER MAPS"

#PacGISnRS

Australian Aid USAID

Outline

- The issue for Vanuatu
- The importance of Hydrography
- Introduction to the project
- Work to date
- Looking forward
- Conclusion

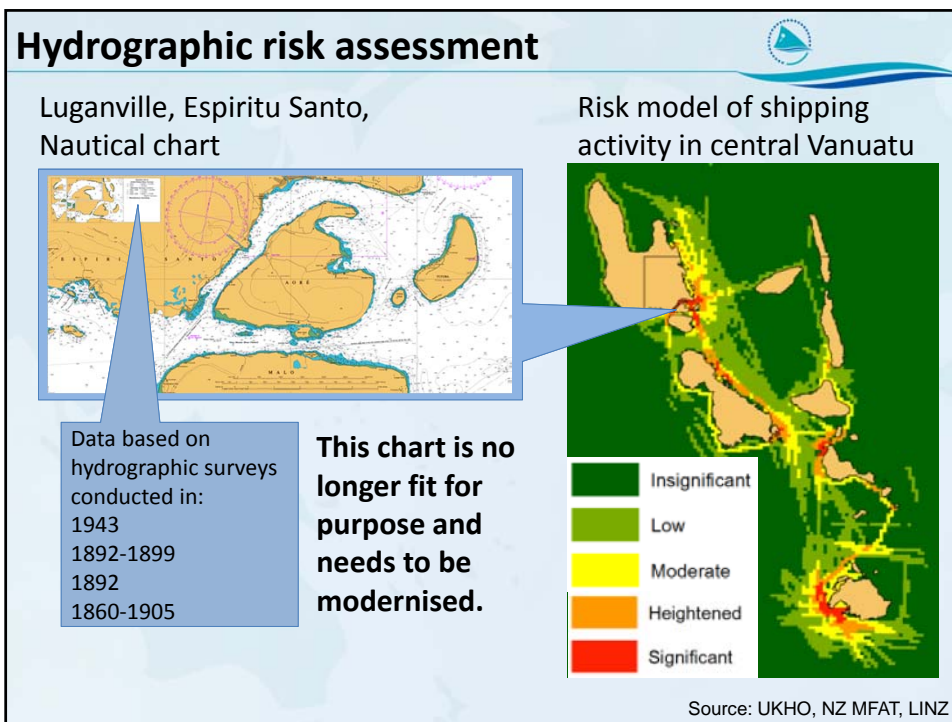


Earliest known chart of Nova Gerusalem (Espirito Santo Island, Vanuatu) vs modern chart

The Issue for Vanuatu

SOURCE DATA	
United States Navy Surveys	
a	1943 1:5000-1:10 000
b	1943 1:25 000
Admiralty Surveys (Leadline)	
c	1892-1899 1:12 000-1:20 000
d	1892 1:72 000
e	1860-1905 1:4800-1:72 000 (Sketch Surveys)
f	Miscellaneous Soundings

Over 90% of the Pacific is yet to be surveyed to modern Standards



The Importance of Hydrography

...but hydrography is not just about navigational charting....

<https://youtu.be/4YyFowCAA0Y>

(IHO Hydro Video)

The Importance of Hydrography



-So in summary, without hydrography....
- no ship sails safely
- no port is built
- no coastal infrastructure is developed
- no marine environmental plan is implemented
- no coast or island is defended
- no marine rescue is attempted
- no inundation model is developed
- no maritime boundary is delimited or enforced

Hydrography is an enabler for almost any endeavour that has a marine component

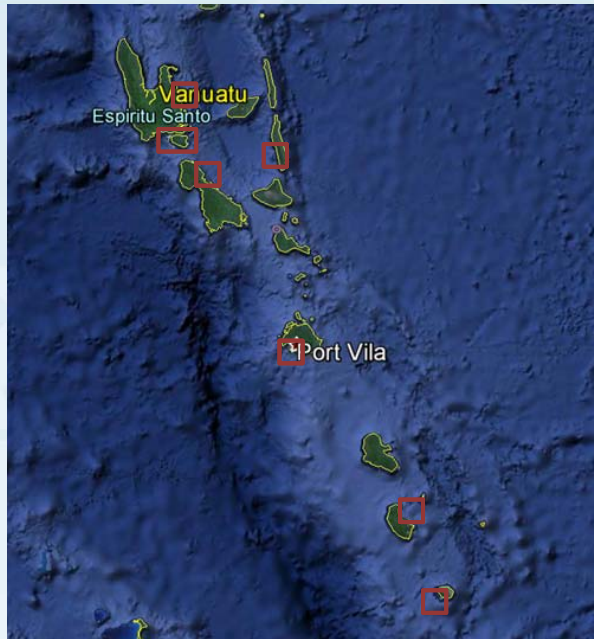
Hydrographic Survey Project- Vanuatu



- Phase 1 funded by NZ Government (April to July 2014):HI 1446
 - Luganville Harbour and Surrounding, Hog Harbour, Pentacoaste, Wala island
 - 180 km² of Coverage
- Phase 2 funded by the Government of Vanuatu(Sep – Nov 2014):HI 1465
 - Port Vila, Mystery Island, Waisisi Bay
 - 25 km² of Coverage

Sam Harper (UKHO) was the client Representative

Survey Sites



Survey Crew

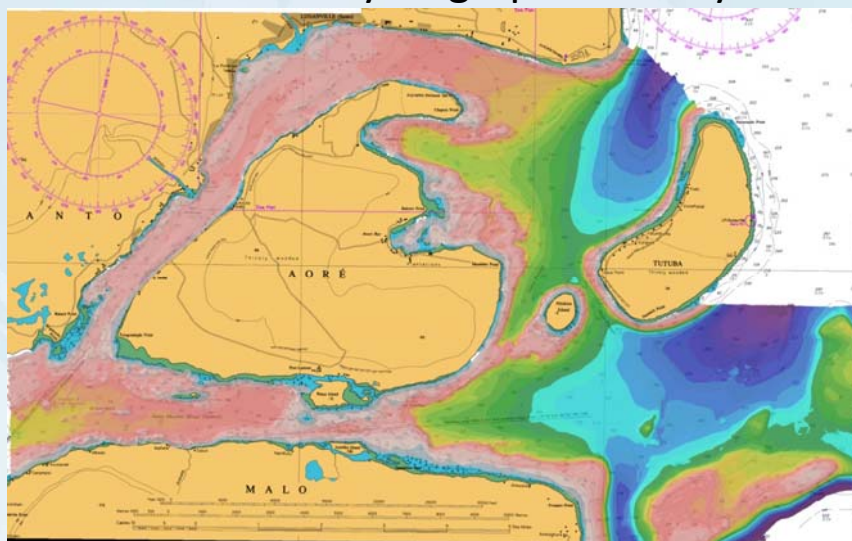


Survey Platform

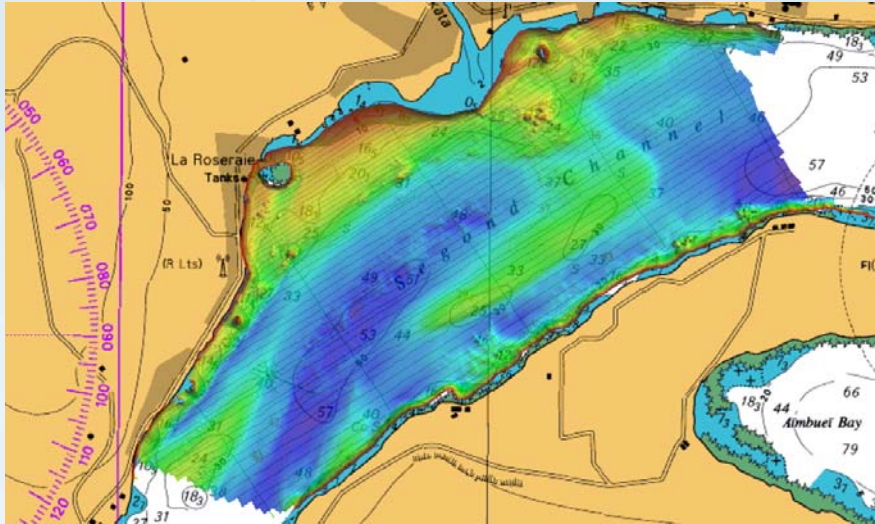


- Equipment
 - R2Sonic 2024
 - MBES
 - Applanix POSMV
 - USM Mount

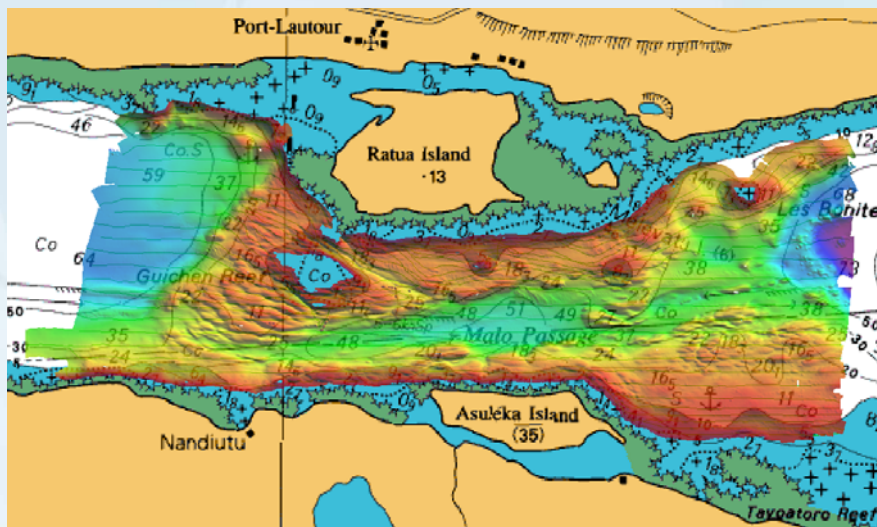
Overview of Hydrographic Survey

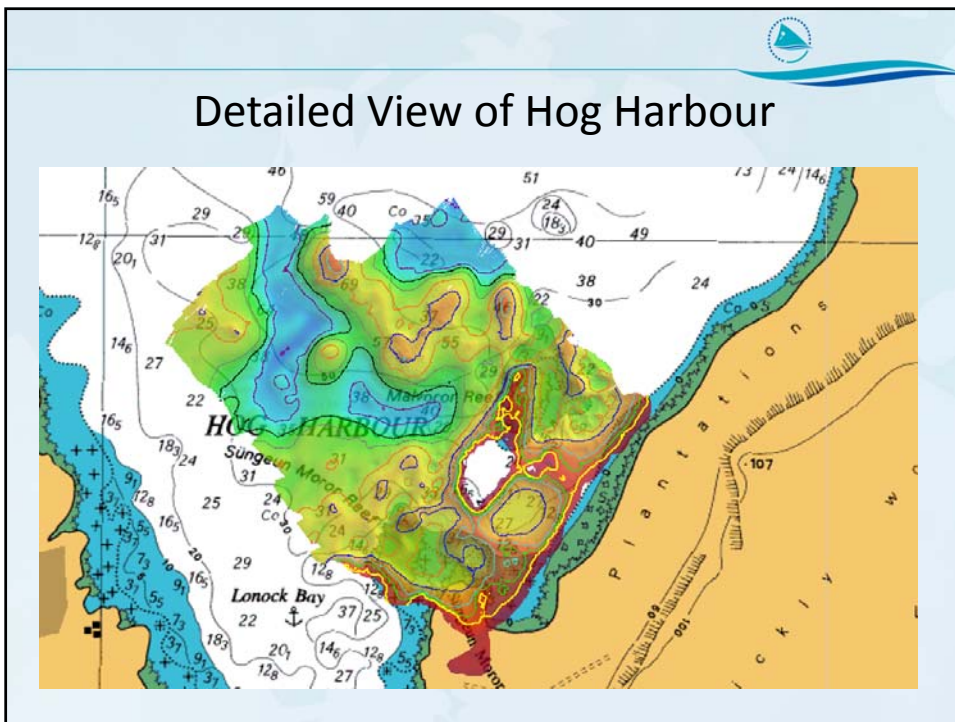
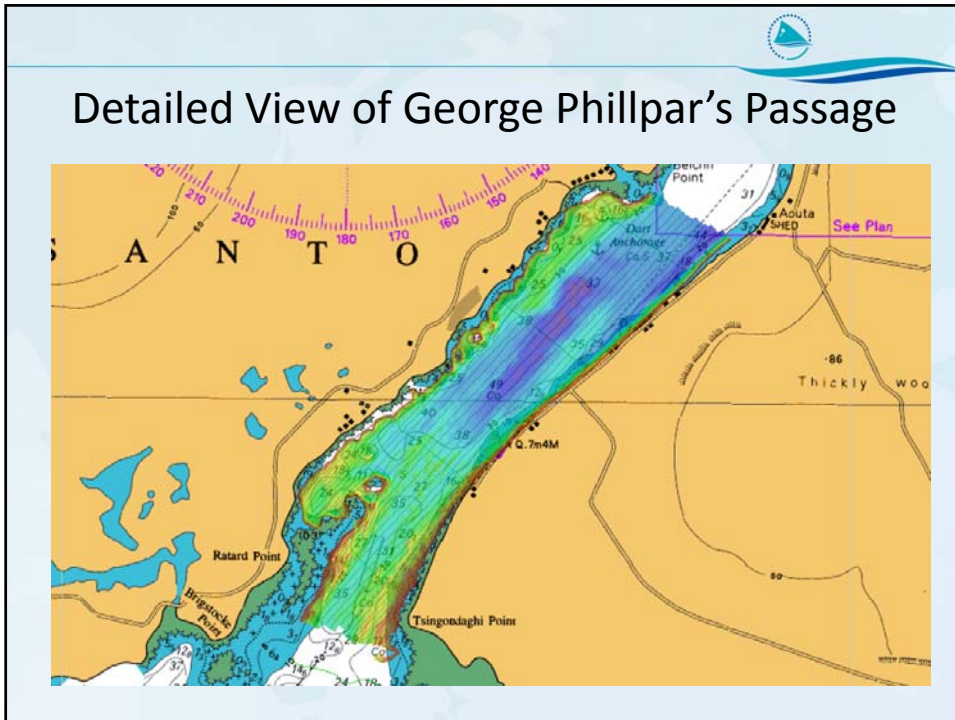


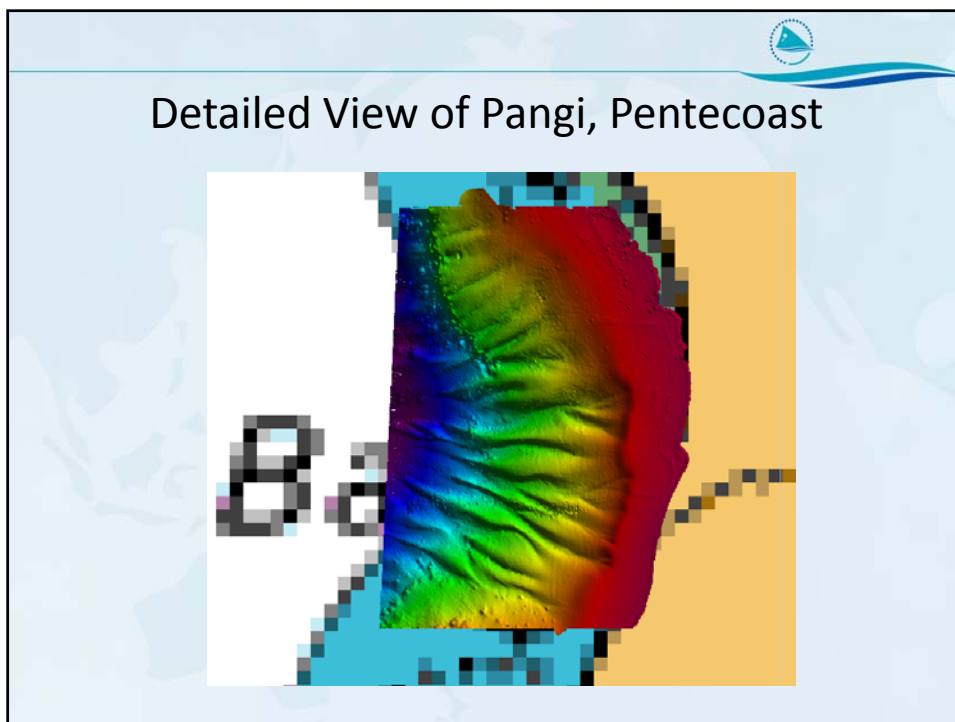
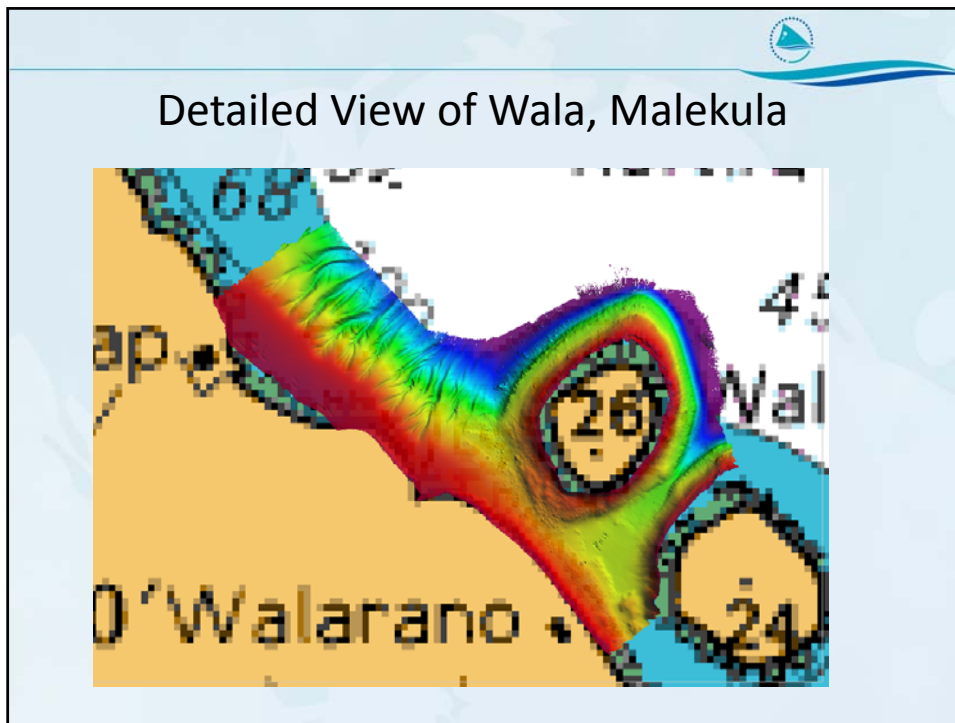
Detailed View on Segond Channel



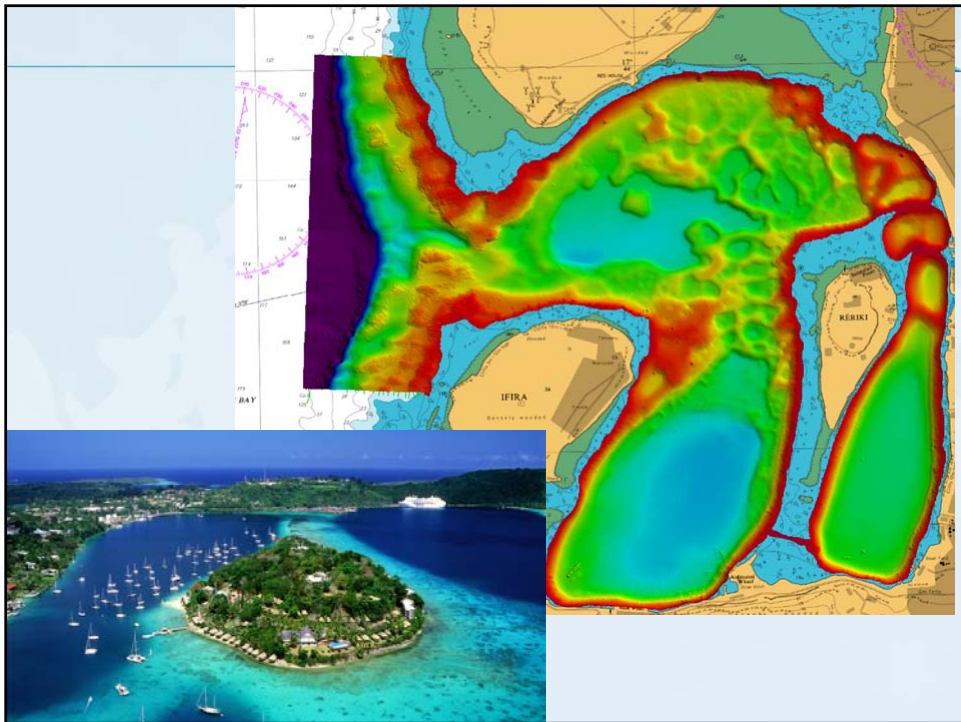
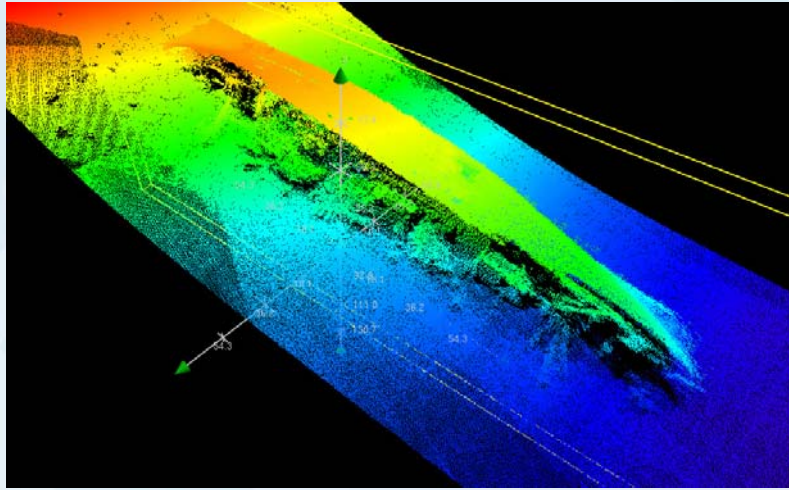
Detailed View of Malo's Passage

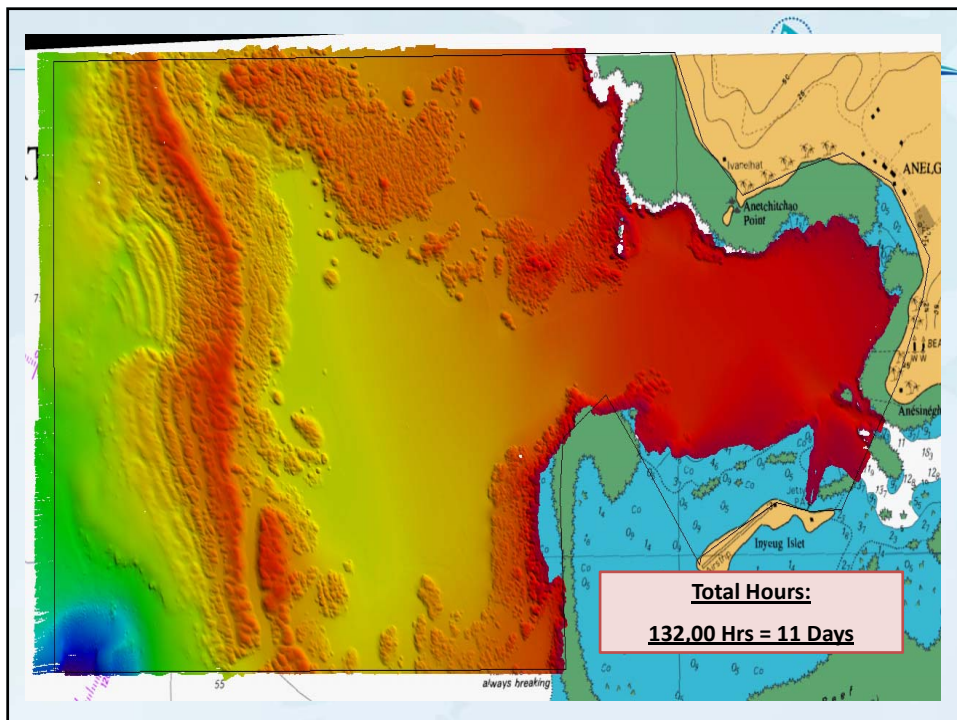
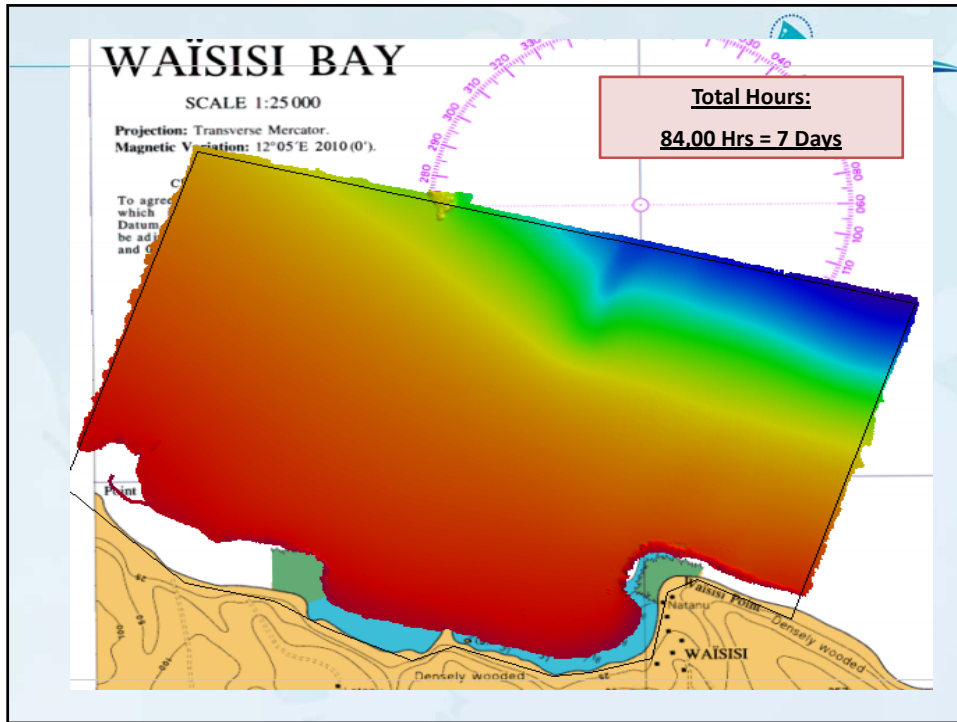







Surveyed Wreck – SS President Coolidge







Looking Forward

Vanuatu is working on the recommendations of the 2011 IHO technical assessment visit and 2015 technical visit to:

- Vanuatu establish a National hydrographic coordinator
- Vanuatu establish an MSI coordinator
- Vanuatu establish a national hydrographic steering committee
- Vanuatu consider investing in basic hydrographic survey equipment
- Vanuatu develops a hydrographic survey plan

The above work will assist Vanuatu maintain their Nautical charts.



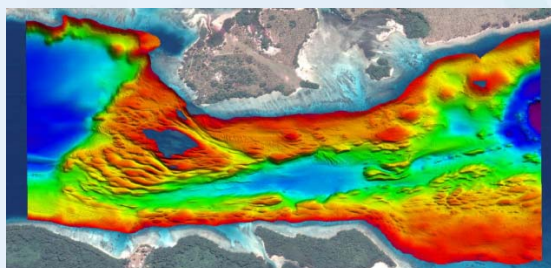
Conclusions – Recommendations

- The legal obligations associated with the SOLAS convention
- That hydrography is critical to the economic development of Vanuatu
- The importance of sound hydrographic governance
- That Hydrography is not just about charting

Acknowledgements



- SPC colleagues
- New Zealand
- Vanuatu
- South Sea Shipping
- Solomon Islands
- Crew of RVS Turoroa
- Vanuatu Maritime College
- SIHU, Solomon Islands
- Vanuatu Maritime Police
- local communities
- UKHO
- LINZ
- And many more



THANK YOU