Mapping the Gaps in Antarctica

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OUTLINE

• Antarctic-specific applications
• Existing data
• Plans for the future (IBCSO, Seabed 2030)
• Opportunities for mapping in East Antarctica
• The role of collaboration
APPLICATIONS OF BATHYMETRY DATA IN ANTARCTICA

Ohshima et al. 2013

Geoscience Australia

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GEBCO Symposium 2018
“approximately 83% of the offshore 500 x 500 m grid cells of the IBCSO DBM are left unconstrained by depth data” (Arndt et al. 2013).
PLANS FOR THE FUTURE - IBCSO

- Larger extent
- 2.5 times the area as Version 1.0!
- 500 m resolution
- Currently compiling data – to Dec 2018
- Data release and publication - late 2019
PLANS FOR THE FUTURE - SEABED 2030

- IBCSO Version 2 = Seabed 2030 Southern Ocean region
- Common goals
- Both managed through AWI

GEBCO_14 (Weatherall et al. 2015)
OPPORTUNITIES FOR THE FUTURE

Map by Alix Post

RV Investigator

Shirase

RV Mirai
OPPORTUNITIES FOR THE FUTURE

- Australia’s new icebreaker - *RSV Nuyina*
- Under construction – due in 2020
- Full ocean depth multibeam capabilities
- Several annual transit voyages
- Dedicated marine voyages
COLLABORATION - INTERNATIONAL

• Japan and Australia
• 4th Japan-Australia workshop on Antarctic Science – July 2018
• Multidisciplinary – all recognise the need for bathymetry
LET'S MAP THE GAPS IN ANTARCTICA