



IHO-IOC GEBCO Cook Book

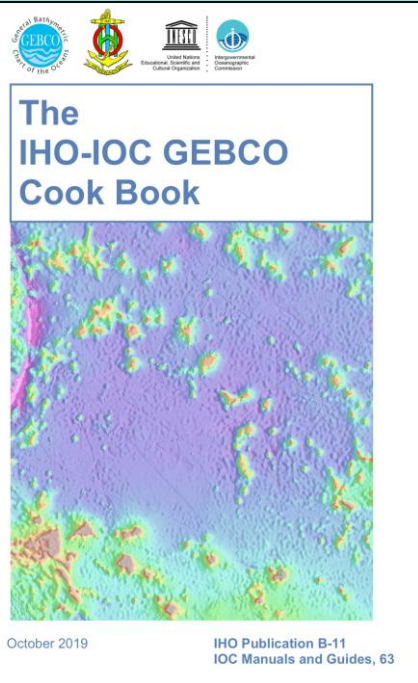
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2019 Joint TSCOM/SCRUM/SCOPE Meeting

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What is the Cook Book?



- Step-by-step manual enables users to prepare and grid data for inclusion in GEBCO bathymetry products
- Contributors are scientific experts from international research organizations, universities, governments, and companies
- It is a “living document-” as new contributions come in, it is updated electronically
- Published as:
IHO Publication B-11 (April, 2012)
IOC Manuals and Guides, 63 (Oct. 2012)
- **Updated October 2019**

Freely available via the GEBCO website (www.gebco.net)

Who uses the Cook Book?

- Used as an educational resource, including:
 - UNH CCOM/JHC Ocean Mapping classes
 - Texas A&M University
 - Workshops
 - Used internationally
- Published in journal articles:
 - EOS “News Brief” announcing Cook Book was published in EOS Trans AGU, 94(9), 26 Feb. 2013, pg. 86
 - Article in Hydro International (April, 2014) highlighting Cook Book



What's in the Cook Book?

Four main sections, each with chapters on various topics:

Gridding Examples

Ch. 1: Introduction

Ch. 2: Creating a Grid from XYZ Data

Fundamentals

Ch. 3: Gathering Software

Ch. 4: Software Overview

Ch. 5: Gathering Data

Ch. 6: Data Cleaning

Ch. 7: Metadata Documentation

Ch. 8: Gridding Data

Ch. 9: Data Analysis Techniques

Advanced Topics

Ch. 10: Uncertainty

Ch. 11: LANDSAT 8 Satellite-Derived Bathymetry

Ch. 12: Digital Terrain Map Editing (DTMEditing V1.6)

Ch. 13: Uses of Caris

Ch. 14: Nautical Chart Adequacy Procedure

Ch. 15: Map Digitizer Program Version 2.1.0

GEBCO Ocean Map Topics

Ch. 16: Finding Gaps to Map

Ch. 17: Developing a Type Identifier (TID) Grid

Current Format

- The Cook Book is in MS Word format. Chapters are individual MS Word files that are linked to a master document
- Adobe PDF Pack is used to convert the master Cook Book file into a PDF document
- Navigable bookmarks enable jumping to topic

Disadvantages

- Updating requires generating an entire new PDF document
- Master document size limited by Adobe PDF Pack

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Contributors

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► 2.2 Gridding XYZ Data with ArcMap

► FUNDAMENTALS

Chapter 2.0 Creating a Grid from XYZ Data

This chapter provides step-by-step instructions that will show a user how to create a grid from XYZ data. An example data set is made available so the user can follow the instructions.

2.1 Gridding XYZ Data with Generic Mapping Tools (GMap)

*Contributed by K. M. Marks, NOAA Laboratory for Satellite Altimetry
Updated by Karolina Chorzewska, University of New Hampshire,*

2.1.1 Downloading Example Data Set

Modernization

- What if the Cook Book had its own website?
 - Each chapter could be displayed individually
 - If a chapter is updated, just that chapter can be replaced
 - New chapters can easily be inserted in appropriate sections
 - No size limitations
- Possible websites and electronic displays:
 - Wiki
 - Ebooks
 - other?
- Suggestions?

New Chapter Topics

- GEBCO Ocean Map topics
- GEBCO_2019 enhanced SID/TID grid
- Crowdsourced bathymetry
- Geospatial layers
- How to generate data ready for contribution to GEBCO grid
- Illustrated step-by-step chapters are popular
- Suggestions?

END OF PRESENTATION

