



eXpendable BathyThermographs (XBT)

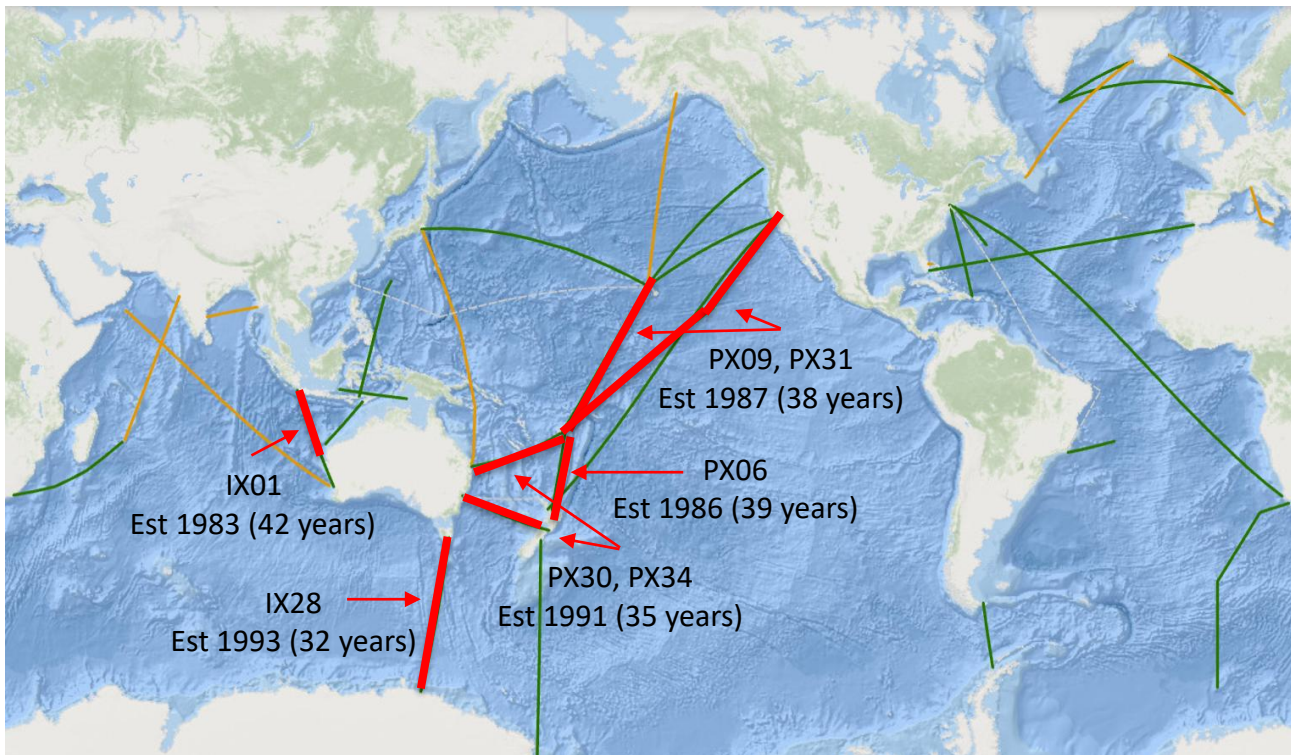
Data collection and operational uses



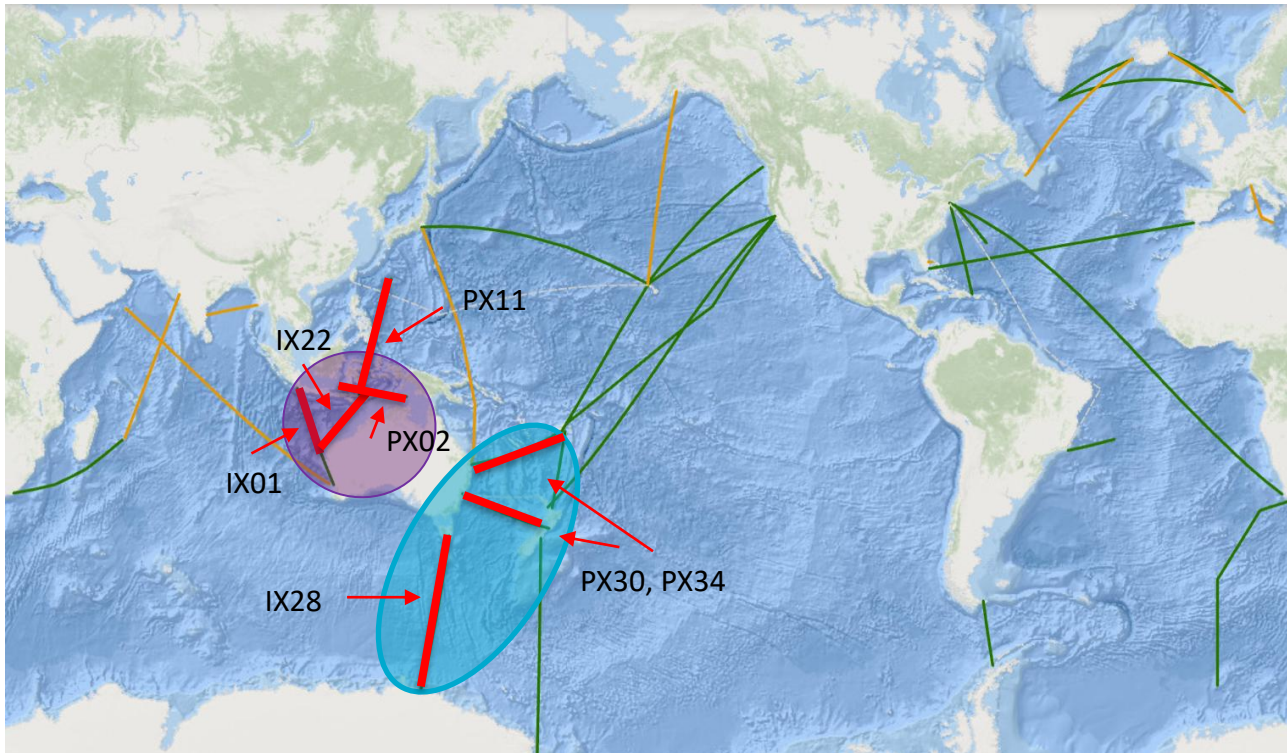
Ashley Parker and Rebecca Cowley



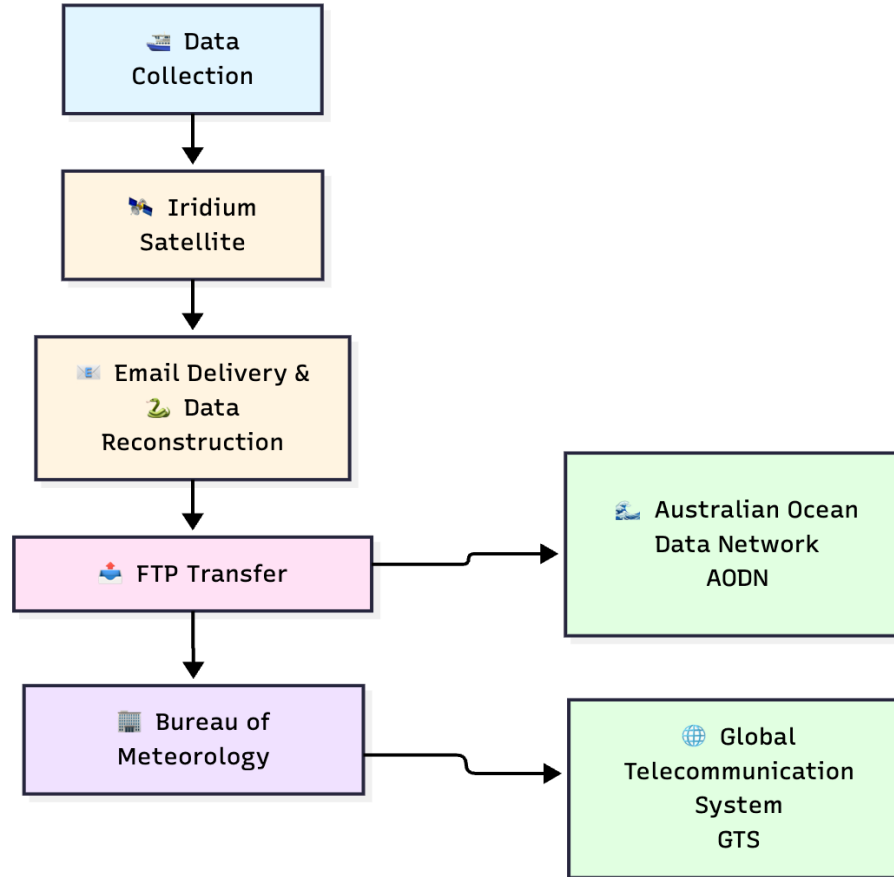
The Global XBT network



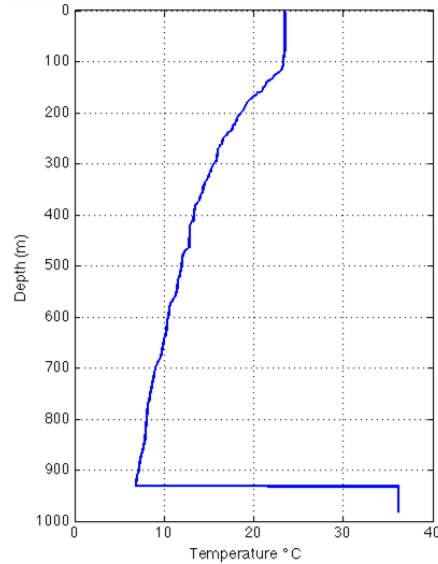
The National XBT network



Real Time Data Flow



XBT data collection and transmission





AODN near real-time XBT data

AODN Open Access to Ocean Data
Australian Ocean Data Network

1 Select a Data Collection 2 Create a Subset 3 Download

Step 2: Create a Subset

Spatial
N enter
Bounding Box W enter E enter
Reset S enter

IMOS - SOOP Expendable Bathythermographs (XBT)
Research Group - XBT real-time data

Subset Info Layer

Temporal
From Min Max Reset
To Min Max Reset

Others
Catalog All
Vessel Name All

Other Subsets

Catalog
https://thredds.aodn.org.au/thredds/catalog/IMOS/SOOP/SOOP-XBT/REALTIME/FASB_Astrolabe/2025/catalog.html

Dataset

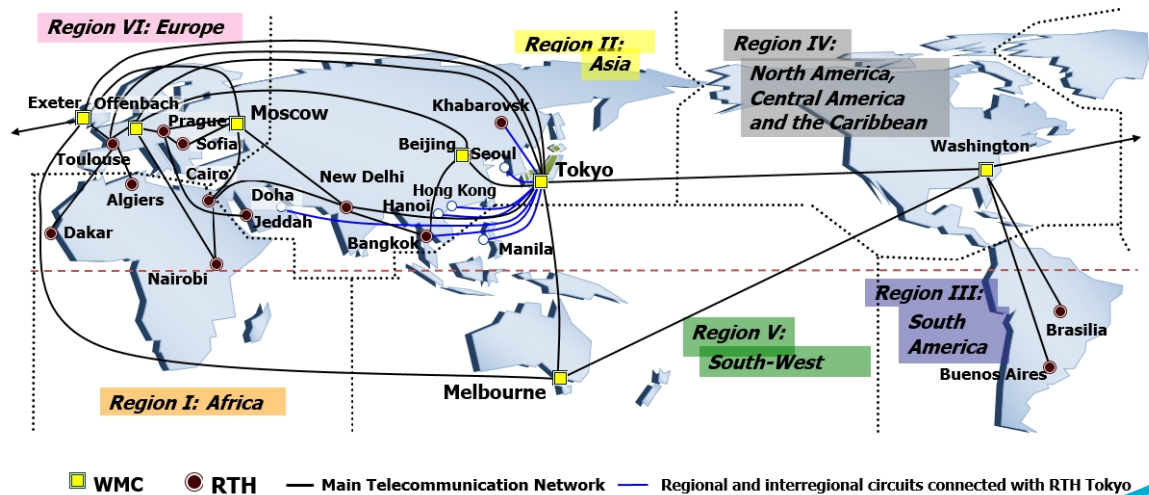
Size

Last Modified

2025

IMOS SOOP-XBT T 20250108T084700Z IX28 FV00 ID 9797539.nc	60.58 Kbytes	2025-01-08T09:45:12Z
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IMOS SOOP-XBT T 20250108T150700Z IX28 FV00 ID 9797539.nc	60.58 Kbytes	2025-01-08T15:45:19Z

GTS near real-time XBT data



Schematic overview of Global Telecommunication System (GTS)

https://www.jma.go.jp/jma/jma-eng/jma-center/rth/RTH_Tokyo.html

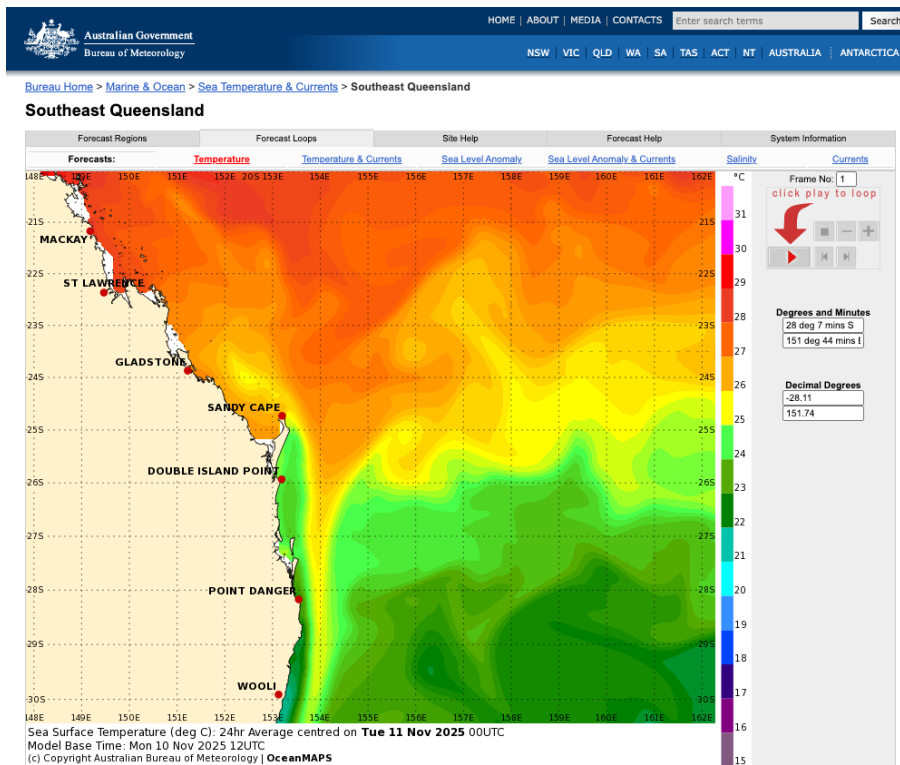


https://community.wmo.int/sites/default/files/inline-images/WIS2_diagram.png



Data Applications

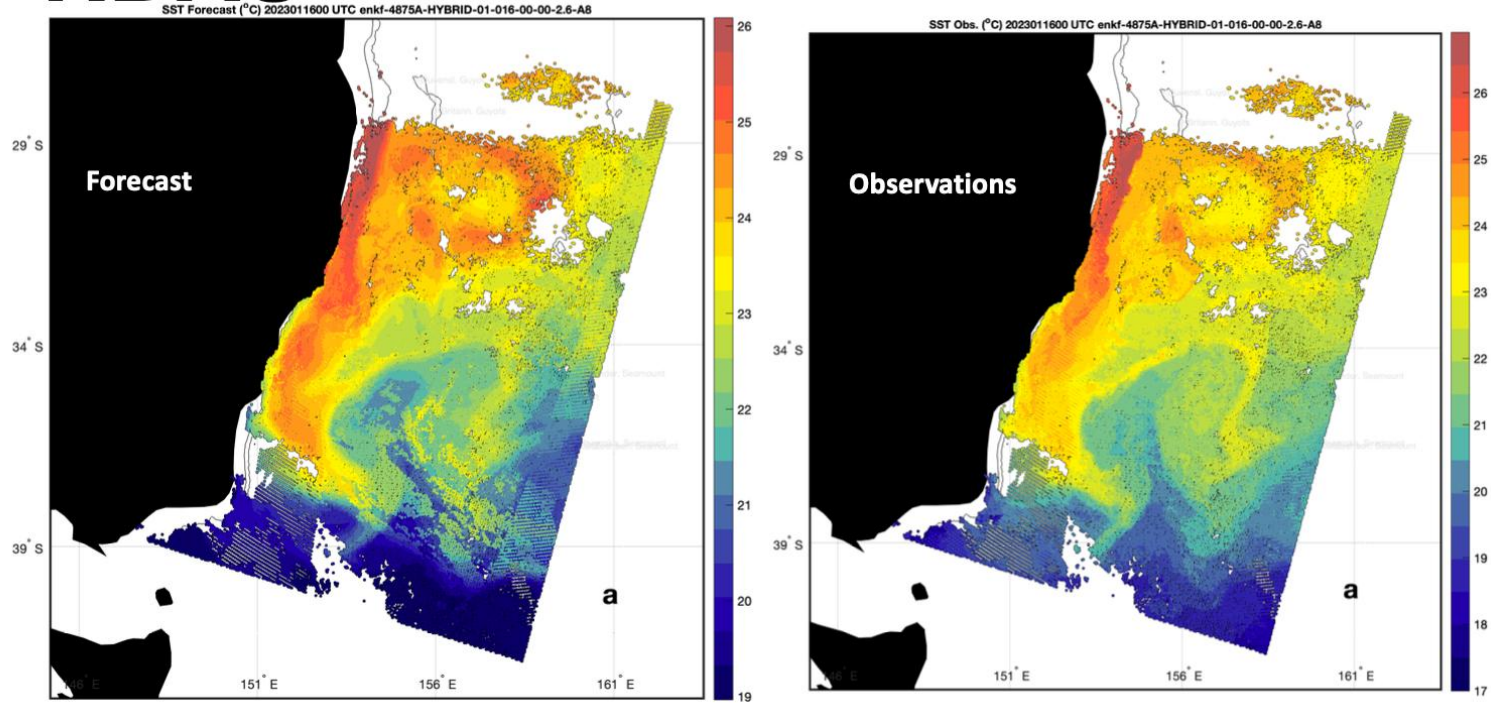
OceanMAPS (Bluelink)



Data Applications

RDAS

EAC - Sea Surface Temperature Forecast - 16 Jan 2023

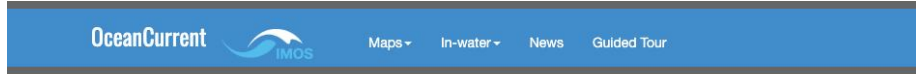
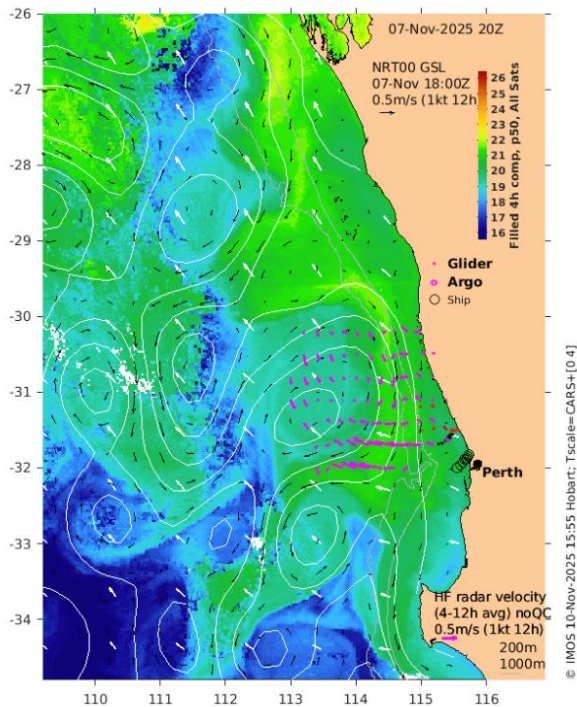




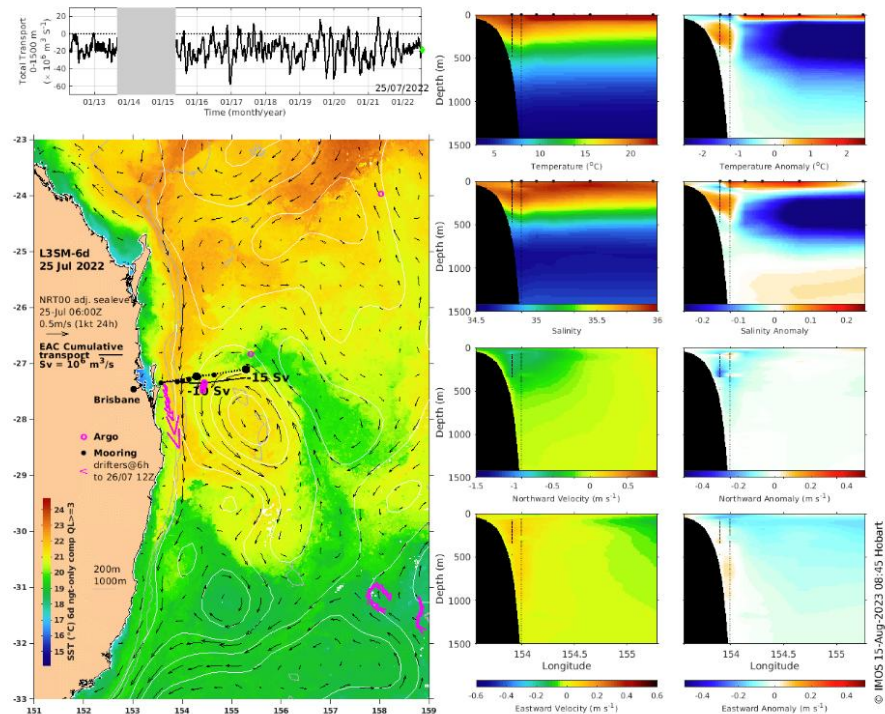
Coming soon: integration into IMOS OceanCurrent



07 Nov 2025 20:00 SST Filled Permlink



25 Jul 2022 Permlink



Data Distribution

- **Quickly and widely distributed.**
- **Real Time data** relayed through the AODN and GTS for weather prediction models
- **Delayed Mode data:**

- **Transect Mode:**

- <http://www.aoml.noaa.gov/phod/hdenxbt>

- <http://www-hrx.ucsd.edu/>

- **Individual Profiles:**

- <http://www.iquod.org/>

- <https://www.ncei.noaa.gov/>

- <https://portal.aodn.org.au/>

- **Science Products:**

- <http://www.aoml.noaa.gov/phod/goos/xbtscience/>



Thank you!

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