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UK Hydrographic Office Helps Micronesian Island Chain Monitor Sea-level Rise



The UK Hydrographic Office has handed the Republic of Kiribati Government satellite-derived bathymetry to help the island chain monitor sea-level rise and erosion, as well as develop plans to support safe navigation, the UKHO writes in its latest newsletter.

The UN lists Kiribati as one of several island groups most likely to be inundated by the sea in the 21st century because of global warming, with low-lying parts of the island chain extremely vulnerable to the effects of tsunamis, tidal surges and sea-level rise. In addition to this, Kiribati has a lack of up-to-date seabed mapping data, threatening the safety of ships at sea and increasing the risk of damage being caused to their marine environment.

Impact of Climate Change

To help Kiribati address these challenges, the [UKHO](#) commissioned the capture of satellite-derived bathymetry (SDB) for over 2,500 KM of the island chain. The data, depths and seabed classifications, will help authorities to evaluate and mitigate the impact of climate change through a number of activities. These include the creation of data models to predict the impact of sea-level rise and storm surges in the event of extreme weather events and the identification of potential issues such as erosion, impacts of wave action and flooding, as well as where mitigating measures - such as sea walls – can be built.

Potential Danger to Mariners

Data will also help the island to identify areas of potential danger to mariners and plan future seabed surveys to update nautical charts of Kiribati's waters. In addition to Kiribati, the UKHO has led data handovers in St Lucia and Dominica to help them monitor the marine environment, support maritime trade and develop sustainable blue economies.

About Kiribati

The Republic of Kiribati, is a sovereign state in Micronesia in the central Pacific Ocean. The permanent population is just over 110,000,

more than half of whom live on Tarawa Atoll. The state comprises 32 atolls and reef islands and one raised coral island, Banaba. Last year the *Washington Post* published [an article](#) on the dangers the island faces headed "Our island is disappearing but the president refuses to act".

Related Article

- [TCarta Wins Contract to Map Seafloor Around Kiribati](#)

Photo: NASA [Public domain].