

AUSTRALIAN OCEANOGRAPHY TODAY

NEVILLE SMITH

Deputy Director (Research and Systems) Bureau of Meteorology

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This paper focuses on oceanography in Australia today, 150 years on from the period when von Neumayer was pioneering nautical observations and inspiring others to begin the tasks of charting and observing the ocean. Matthew Fontaine Maury is often recognised as the founding father of marine observing and, in particular of the system of voluntary observations of the sea that is still in place today. It is known that Georg von Neumayer took inspiration from Maury's work during the 1950s, particularly in relation to Southern Ocean observations. From these humble beginnings we have built to a complex, multi-disciplinary approach to oceanography in Australia and the presentation will focus on the national approach to oceanography and how Australia is responding to the modern challenges.

Oceanography in Australia responds to many different needs and it has long been recognised that we have to be both efficient and collaborative if we are to develop the needed knowledge and systems. It has recently been estimated that there are around 1900 ocean/marine researchers in Australia, spread evenly between the Commonwealth, State and University sectors. Recently work has been undertaken to understand the national drivers of marine research and to test whether the current investment is appropriate for the tasks at hand. A National Framework for Marine Research and Innovation was released in March and it sets out the rationale for, key elements of, and critical requirements for a framework. As such it provides an image of the status of Australian oceanography today and provides an indication of where oceanography should head in the future.

Australia's Exclusive Economic Zone is vast and diverse: it represents around 6% of global EEZ areas. The description of the EEZ shows Australia is a marine nation, an island continent with more than 70% of its territory in the marine realm. The marine domain plays a major part in the character of Australians and is crucial to our economy, through its resources and maritime transport supporting international trade, and is critical to our national security. Investment in marine science is a factor in the economic performance and development of Australia's marine industries, a point that was highlighted in the Cutler review of innovation. Moreover, Australia's coasts and oceans host some of the most iconic marine life and marine habitats on the planet, and are a source of national pride and identity. With 85% of the nation's population living within 50 km of the ocean, the coastal marine environment requires careful stewardship for future generations. The surrounding oceans play a vital role in Australia's highly variable climate, and its coasts and oceans are vulnerable to climate change. How Australia uses, manages and conserves its marine industries and marine environmental assets for maximum economic, environmental and social outcomes is of critical value to its future wellbeing. The presentation will show how the nation is responding to these challenges today and reveal rationale behind making the marine sector a research priority.

Key words: Australian oceanography, National Framework for Marine Research and Innovation, Australia's Exclusive Economic Zone (EEZ)