



Improving access to live and historic marine data

Making sensor data from remote weather/oceanographic stations operated by The Australian Institute of Marine Science (AIMS) more accessible.

Data will be made more accessible to a greater range of users via a cloud-based repository linking to the Australian Ocean Data Network (AODN) by automatic synchronisation, and programmatically through API development.

The data is from 15 remote weather/oceanographic stations that transmit data every 10 minutes via a connected sensor network. Some of these stations have been operating for more than 30 years and provide useful historical time series for marine and climate research including coral bleaching, climatology and marine biodiversity studies.

Start date

24 July 2019

Expected completion date

21 October 2019

Investment by ARDC

\$49,619

Co-investment partners

[Australian Institute of Marine Science \(AIMS\)](#)

[Australian Ocean Data Network \(AODN\)](#)

Lead node



AUSTRALIAN INSTITUTE OF MARINE SCIENCE



1. Data Available - 7 August 2019

Data is available on the AODN portal.



2. API - 21 Aug 2019

Draft of R Package and API development.



3. API Demo - 4 Sep 2019

A demonstration of the API in the Weather application.



4. Implementation - 23 Sep 2019

The implementation is completed. Data is available through the AODN. API is available for use.



5. Final Report - 8 Oct 2019

The Final Report is delivered.



6. Presentation - 21 Oct 2019

The results of the project are presented at the ARDC Infrastructure Summit.



Core features



Data Access

Improved data accessibility via the AODN portal, application programming interface (API) and public facing web site, leading to increased research efficiency and uptake of data by both research and non-research data users.



Discoverability

Improved metadata and use of Digital Object Identifier (DOI) to aid in discoverability and citation.

Who is this project for?

The data contain commonly sought environmental parameters over extended time series across a large remote spatial area in near real time and as such have a large base of diverse end-users including researchers, software developers, data analysts as well as tourism, recreational, law enforcement and industry. The choice of data access via AODN Portal, public facing website and programmatic API cater for the specific needs of each of these user groups.



What does this project enable?

Researchers will be able to filter and download data targeted to their needs via the AODN portal. Data scientists will be able to use an API for integrated, interoperable access to the dataset directly in data analysis environments such as R and Python. The API will also provide software engineers the opportunity to build new applications and tools.



Handy resources

- [FAIR assessment](#) [PDF 200KB]
- [Final Report](#) [PDF 110KB]
- [Presentation](#) [PDF 500KB]
- Visit the [Australian Institute of Marine Science](#)
- View the latest [marine weather observations](#)
- Access the [AODN Portal](#)
- Review the Metadata landing page ([DOI link](#))
- Read the Application Programming Interface [documentation](#)



Australian Institute of Marine Science (AIMS)

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