

# Documenting the Project Life Cycle:

Connecting ARMAP and AOV with ISO Metadata and RESTful Architectures for Data Sharing and Interoperability

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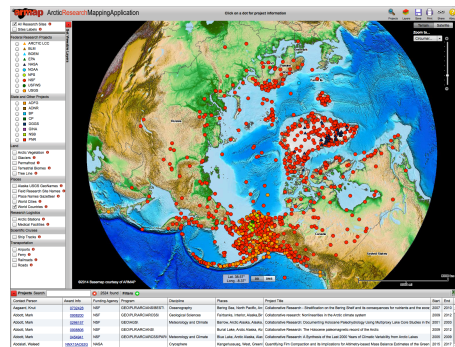
Many Arctic organizations are responsible for metadata creation and curation at different stages in the project life-cycle. The approach we are developing connects these stages with RESTful services and ISO metadata.

**Q:** Who is doing what, when and where?  
How do we plan for field logistics?  
Where are medical facilities, field research stations, ship tracks, airports, etc?

**Q:** Where are existing data collection sites?  
Where are more sites needed?  
Who operates and manages existing sites?  
Which sites can I use?

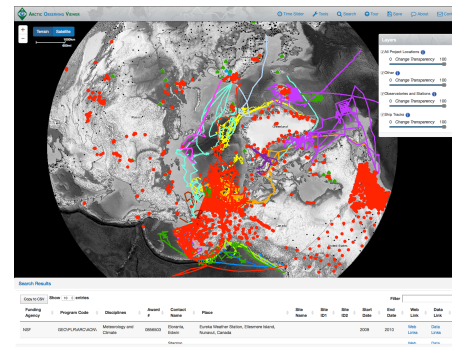
**Q:** Is this dataset suitable for my research?  
Does it cover my area for the right time period?  
How was it created? What are the errors?  
Who do I contact with questions?

## Arctic Map Viewers and Data Access Portals



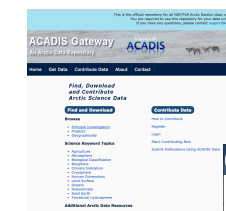
For Project Locations: The Arctic Research Mapping Application (ARMAP) is designed for funding agencies, logistics planners, investigators, students, and others to explore information about science being conducted across the Arctic.

<http://armap.org>

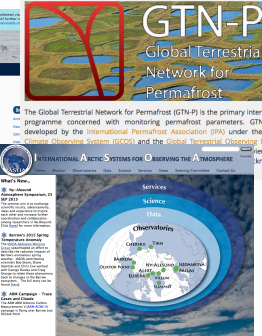


For Data Collection Sites: The Arctic Observing Viewer (AOV) conveys the detailed who, what, where, and when of monitoring activities across multiple networks to help assess status, fill gaps, gauge progress, coordinate, collaborate, and optimize.

<http://ArcticObservingViewer.org>



<https://aoncadis.org>

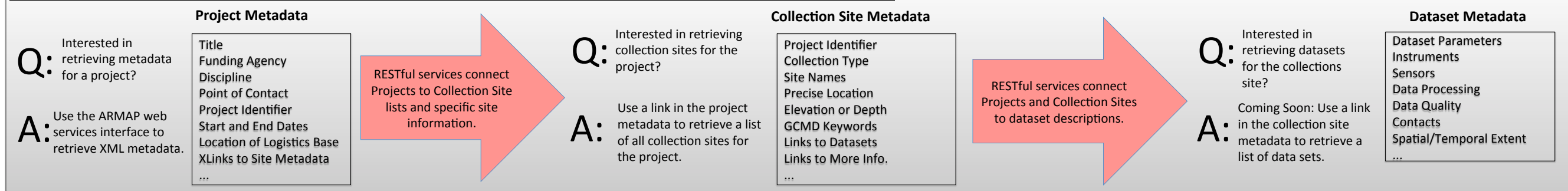


For Datasets: Various catalogs and portals — such as ACADIS, GTNP, IASOA, and others — enable researchers to discover, access, and contribute to Arctic science data.

<http://gtnpdatabase.org>

<http://esrl.noaa.gov/psd/iasoa>

## Connecting Arctic projects, collections sites and data products with ISO metadata and RESTful services



## Creating consistent and complete metadata driven by community needs and user requirements

A recommendation is a set of information concepts important for achieving a documentation goal. Recommendations improve the completeness of scientific documentation and facilitate collaboration, sharing and interoperability among groups with similar documentation requirements. Recommendations are independent of metadata dialects and can therefore be used as a measurement criteria for evaluating the completeness of metadata content in multiple dialects, such as FGDC, EML, ISO, etc. The Arctic Research Mapping Application (ARMAP) use case is based on the Alaska Data Integration working group (ADIwg) community standard. The ARMAP implementation integrates over 3500 project records from 18 agencies and organizations. A similar set of recommendations could be adopted by other organizations to improve the completeness of Collection Site and Dataset level metadata. Recommendations for a few well established candidates are presented in the graphic below.

