ACADIS Project Status Update

The following is an update on activities in Advanced Cooperative Arctic Data Information Service (ACADIS) since our last report submitted in January 2014. ACADIS continues to assist NSF funded principal investigators with the input of new datasets and the access to all Arctic data coming from Division of Polar Programs (PLR) Arctic Science (ARC) grantees and projects.

The ACADIS team is focusing work on an integrated approach to bring together the ACADIS Gateway, Arctic Data Explorer, and Rosetta websites to create a more visually connected, comprehensive group of websites and tools. While completing this effort, improvements in the user experience have also been added.

Project priorities continue to be determined by the NSF Review Committee panel recommendations from July 2013 and the related ACADIS Consolidated Work Plan for Year 3. We are happy to address any specific questions as you or others in PLR might request.

The following summary describes project updates since the last report and how they are mapped to the Year 3 ACADIS Consolidated Work Plan and Review Panel recommendations (in parentheses).

- Project management processes and procedures were immediately introduced by the new Project Manager, Karen Andersen. A summary overview of general project management, based largely upon the Project Management Institute's Project Management Professional (PMP) practices, was made available to ACADIS staff members and key procedures have been implemented. The immediate creation of a cross-cutting team comprised of leads from the four teams - NSIDC, Unidata, EOL, and CISL - by the Project Manager, has created and has increased communication, efficiency, and reduced incidents of overlapping work. An integrated project schedule was started, using a cloud-based tool called Smartsheet that include milestones, due dates, resources and risk for each task. (Project Management)
- A list of previous outreach activities along with possible future activities for the ACADIS project has been compiled and will be maintained in the future. A report was generated from the NSF website that includes all NSF PLR projects. With this comprehensive list, an informational letter will be sent this quarter to all NSF-funded Arctic investigators from the Arctic Observing Network (AON) and additionally to the remaining Arctic investigators, totaling over 500 PIs. This letter will raise awareness and encourage PIs to utilize ACADIS systems and services. (Science Support, Other Activities—Community Outreach)
- Dr. Wenwen Li of Arizona State University visited ACADIS groups and gave a talk on her semantic searching research using Arctic metadata. She also met with each development team to discuss collaborations and improvements. ACADIS staff presented posters at the INSTAAR Arctic Workshop and the Research Data Access and Preservation Summit. In addition, an ACADIS staff person will serve on SciDataCon 2014 Steering Committee. Bering Sea Open Science Meeting at the Ocean was attended by an ACADIS staff person. (Other Activities— Community Outreach)
- New repositories added to the ACADIS Arctic Data Explorer search: NCAR RDA, additional NODC datasets, ICES, NASA ECHO (1. Data Services-improved and new technologies)
- A special requirements dataset is being updated with 2013 data: 190GB in 17,500 files downloaded from the PI's university server. The files are being prepared for the HPSS and ordering by date and time. Checking and editing of the FGDC metadata files datasets has been completed. Special requirements datasets from the Distributed Biological Observatory program have started to come in for processing and archiving. A display and ordering matrix is being investigated to allow selection by site and/or data type. (1. Data Services)

- As part of improving the search within ACADIS Gateway we are using the top two layers of the GCMD keyword identification related to discipline. It is instructive to see the diversity of disciplines held in the archive. Figure 1 below shows a cloud type presentation of all 2700+ ACADIS dataset disciplines as defined by the. There are 68 discrete discipline identifiers for ACADIS holdings. (1. Data Services, 3. Metadata, 4. Interoperability)
- Continuing work on phased implementation plan to better link the data discovery capabilities (metadata harvesting) of the Gateway and Arctic Data Explorer (ADE) (1. Data Services seamless link between gateway and ADE)
- Recent ACADIS Arctic Data Explorer work includes: standardized Data Center representation across all visible metadata. Added `Local' and `Regional' options to `Spatial Scope' facet. Harvest process stabilized. Re-binned Temporal Duration facet values to enable better time series search. UI updates, bug fixes, and updated ACADIS branding for similar look and feel with other ACADIS websites. (1. Data Services-improved and new technologies)
- The Community Support Subteam, using the Zendesk communication management tool, completed task of refining Community Support metrics capture and reporting. New tickets this quarter equals 19 with 2 new registrations and 4 data submissions. (5. Science support)
- Round 2 of Gateway metadata clean-up project delayed until April. Gateway project metadata creation procedures updated. Special requirements metadata cleanup progressed with checking submitted FGDC XML metadata for the Bering Sea Project to ensure compliance with the FGDC "with biological extensions" profile (3. Metadata Clean up)
- Rosetta tool upgrades and bug fixes continue with updated and similar web design for cohesive look and feel of integrated websites for ACADIS. (1. Data Services Rosetta Development)
- Regular meeting are scheduled for the cross-cutting team, sub-teams regarding workflows, metadata and community support. (1. Data Services (all tasks) and 3. Metadata documentation, sharing and usability (all tasks), project management and coordination)



Figure1. Cloud visualization of the science disciplines represented in the ACADIS repository. The graphic is based on the GCMD science keyword metadata from over 2700 datasets.