Antarctic Cryosphere Access Portal (A-CAP)

Geo-Spatial Browse and Distribution of NSF-OPP's Antarctic Ice and Climate Data via the Web

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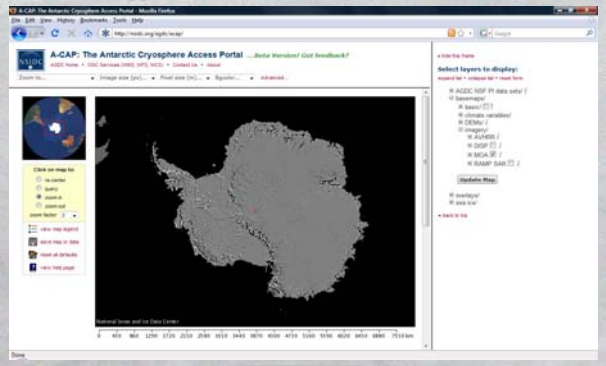
http://nsidc.org/

A-CAP: http://nsidc.org/agdc/acap/

The Antarctic Cryosphere Access Portal (A-CAP) is an interactive browse, metadata, and download system for a host of geospatial data sets regarding Antarctica's ice and climate. It is intended to provide easy and informative access to maps, profiles, and point data for the continent to the US and international Antarctic polar research community.

A prototype of A-CAP was released for public use on July 25, 2008. Developed at the National Snow and Ice Data Center (NSIDC) Antarctic Glaciological Data Center (AGDC), A-CAP is a geo-visualization and data download tool for AGDC data and other Antarctic-wide parameters, including glaciology, ice core data, snow accumulation, satellite imagery, digital elevation models (DEMs), sea ice concentration, and many other cryosphere-related scientific measurements.

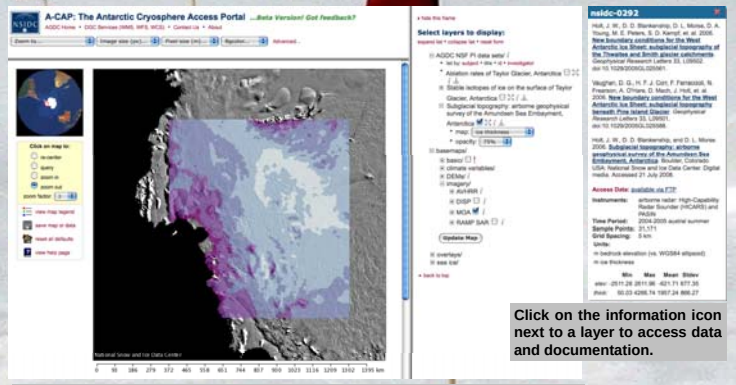
A-CAP is built on MapServer, an Open Source development environment for building spatially-enabled Internet applications. MapServer uses data sets that have been formatted as GeoTIFF or Shapefile to allow rapid sub-setting and over-the-Web presentation of large geospatial data files, and has no requirement for a user-installed client software package (besides a Web browser).



A-CAP interface

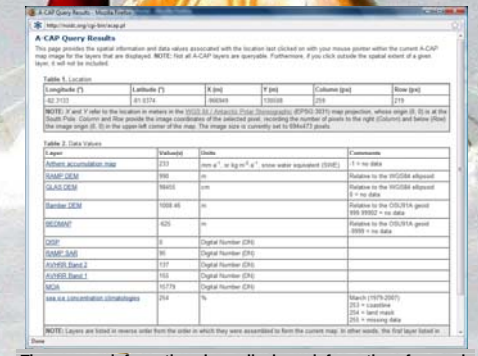
The base layer presented in the opening view is MODIS Mosaic of Antarctica (MOA). Visualizations of other data sets can be viewed over MOA for any region, zoom level, and transparency as shown in the following panels.

Special thanks to Katherine Leitzell and Betsy Sheffield

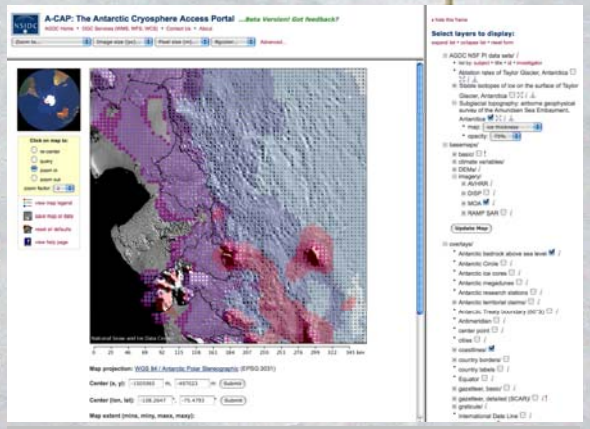


Click on the information icon next to a layer to access data and documentation.

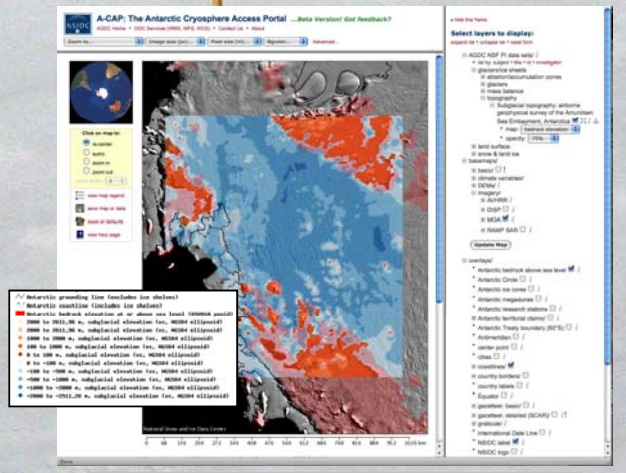
Click on the 'fit map to layer' icon to zoom into the appropriate area for a data set.



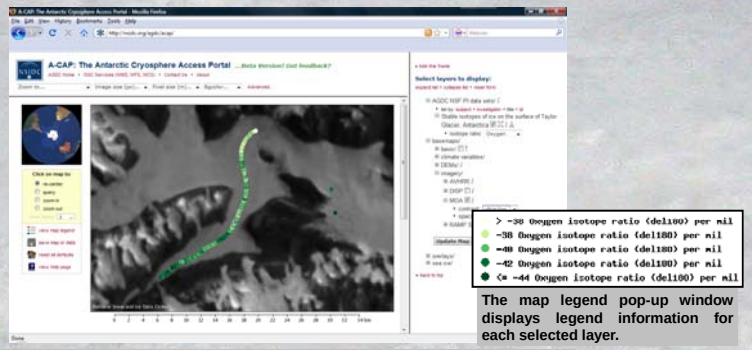
The query information box displays information for each selected layer, including links to data and documentation.



Use the left-hand menu to zoom in on a region. In the above dataset, users can zoom in to view individual data points.

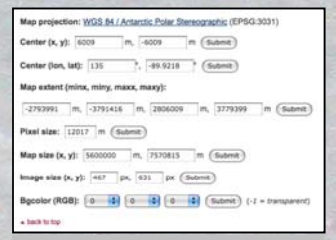


To view legend information, select "view map legend" from the left menu.



The map legend pop-up window displays legend information for each selected layer.

A-CAP interface: Stable isotopes of ice on the surface of Taylor Glacier



The advanced image options menu, located below the map image, allows the user to specify the map size, background color, resolution, and geographical extent.