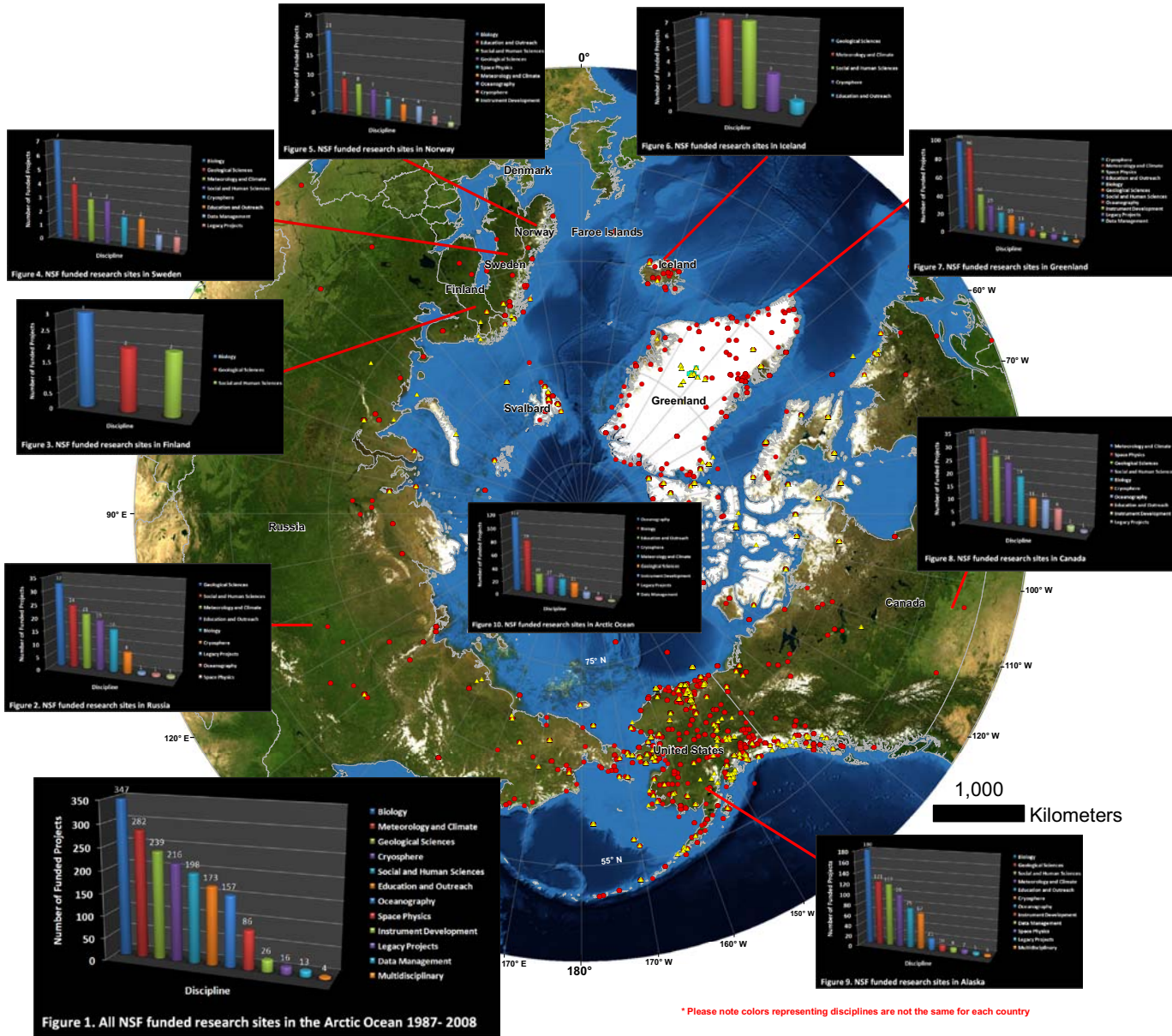


1987 - 2008 Arctic Research Effort Funded by the National Science Foundation (NSF) Office of Polar Programs (OPP) based on Discipline

This map was created for logistic purposes for CH2MHill Polar Services to provide support for National Science Foundation (NSF) Office of Polar Programs (OPP) program officers. This map will be used to identify gaps in NSF Arctic funded research to provide feed back and suggestions to program officers for future Arctic research funding by NSF.

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This map displays all research sites funded by the National Science Foundation (NSF) in the Arctic region from 1987 - 2008. The purpose of this map is to look at the research effort based on research Disciplines and graphically view these data based on country. This map with aid in the decisions of future funding of research and help promote collaboration of multidisciplinary projects funded by program managers at NSF. The need for understanding of past and current research efforts in the Arctic will aid both funding organizations and research scientist in better planning of future research activities. Graphs have been included in this map to help better understand where research effort has been in the past and in what countries these research activities have taken place.

This data layer can be visualized in the Arctic Research Mapping Application (armap.org). The data set includes location and high-level project information provided to CH2MHill Polar Services (www.polar.ch2m.com) by members of the US Interagency Arctic Research & Policy Committee. Information about fieldwork in the Arctic has been provided by the NSF and CH2MHill compiled the information in the Arctic Research Logistics Support Service (ARLSS) database of scientific field research projects for the Arctic region (45 degrees North Latitude and above). The database encompasses all field research sites supported or coordinated through the Arctic Research Support and Logistics Program at the NSF. The majority of the research projects are funded by the Arctic Sciences Section (ARC) within NSF's Office of Polar Programs (OPP). The database does not include modeling projects that do not require field research. Each database record includes: investigator name, project title, year, funding agency, funding program, a link to an award description, and other information. The ARLSS database contains over 8000 sites, and is regularly updated. The database is publicly available in variety of formats to address the needs of different user communities.

The Arctic Research Mapping Application (ARMAP) is a suite of online services to provide support of Arctic science. These services include: a text based online search utility, 2D Internet Map Server (IMS); 3D globes and Open Geospatial Consortium (OGC) Web Map Services (WMS). With ARMAP's 2D maps and 3D globes, users can navigate to areas of interest, view a variety of map layers, and explore U.S. Federally funded research projects. Projects can be queried by location, year, funding program, discipline, and keyword. Links take you to specific information and other web sites associated with a particular research project. ARMAP including US research funded by the National Science Foundation, National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration, and the United States Geological Survey. Avoiding a duplication of effort has been a primary objective of the ARMAP project which incorporates best practices (e.g. Spatial Data Infrastructure and OGC standard web services and metadata) and off the shelf technologies where appropriate. The ARMAP suite provides tools for users of various levels of technical ability to interact with the data by importing the web services directly into their own GIS applications and virtual globes; performing advanced GIS queries; simply printing maps from a set of predefined images in the map gallery; browsing the layers in an IMS; or by choosing to "fly to" sites using a 3D globe. With special emphasis on the International Polar Year (IPY), ARMAP has targeted science planners, scientists, educators, and the general public. In sum, ARMAP goes beyond a simple map display to enable analysis, synthesis, and coordination of Arctic research. ARMAP may be

* Please note colors representing disciplines are not the same for each country

Legend
NSF Research Site
Year
1987 - 1990
1991 - 2000
2001 - 2008

500m Satellite Imagery, July 2004
- Source Data - NASA's Blue Marble Next Generation images show Earth in true color. The images show how the surface would look to a human in space if our world had no clouds and no atmosphere. NASA's Terra satellite collected these images. There is one Blue Marble image for each month of the year 2004 and can be found at <http://earthobservatory.nasa.gov>.

