## Who can use ACE?

ACE is open to everyone! To gain access a user needs an email address, modern web browser, Internet access, and Google Earth plug-in.

The broad user audience spans terrestrial and maritime domains, which includes: researchers, students, native hunters, educators, land and state resource managers, and anyone interested in the Arctic.

Capitalizing on the International Polar Year (IPY), ACE fosters and promotes the international exchange of data, informational awareness, joint proposal formulation and modeling research for use in knowledge sharing for the Arctic Region by providing a common platform and forum for collaborative areas of interest within the Arctic region.

Users can collaboratively create, share, and save Workspace...
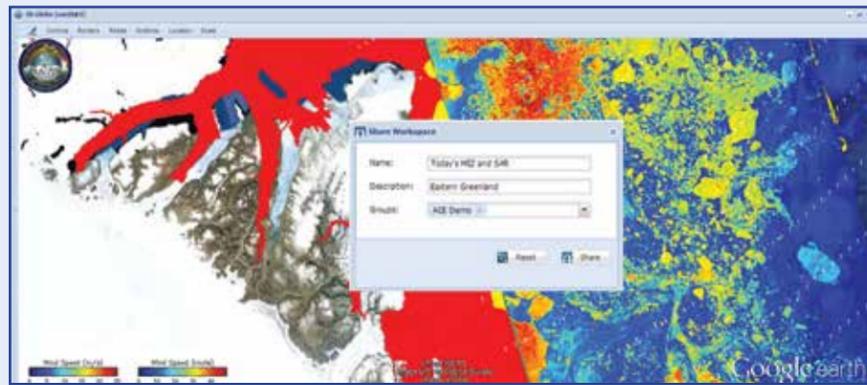
and chat with fellow group members, using multiple languages
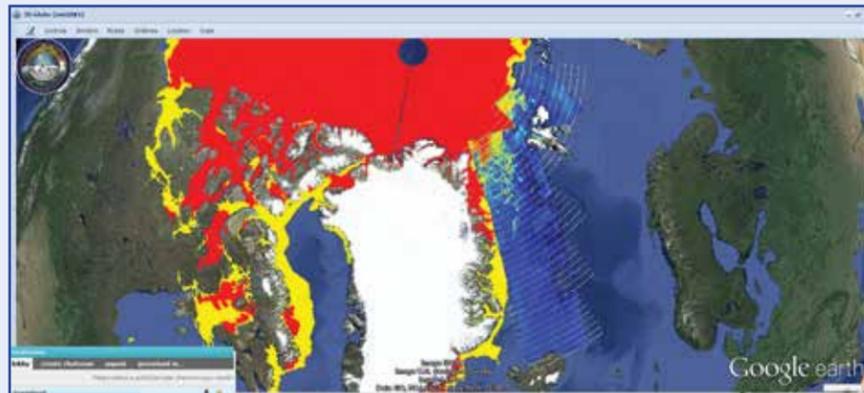
Learn more about ACE:

https://ace.arsc.edu/

Questions? Go to:

https://twitter.com/ACE_Tool
https://www.facebook.com/ArcticCollaborativeEnvironment

The Arctic Collaborative Environment (ACE) is made possible by the efforts and support of the following organizations:

National Aeronautics and Space Administration (NASA), George C. Marshall Space Flight Center (MSFC)
U.S. Department of Defense (DOD), Rapid Fielding Directorate
Von Braun Center for Science & Innovation (VCSI)
Defence Research and Development Canada (DRDC)
University of Alaska Fairbanks (UAF)
Russian Arctic and Antarctic Research Institute (AARI)
Sustaining Arctic Observing Networks (SAON)
University of Alabama in Huntsville (UAH)
U.S. European Command (EUCOM)
U.S. National Ice Center (USNIC)
North American Aerospace Defense Command (NORAD)
U.S. Northern Command (USNORTHCOM)
Johns Hopkins University Applied Physics Lab (JHU-APL)
U.S. Army Aviation and Missile Research Development and Engineering Center (AMRDEC)
U.S. Army Cold Regions Research and Engineering Laboratory (CRREL)
University of Delaware (UD)
Aurora Research Institute (ARI)
University of Maryland, College Park (UMCP)

Example scenario photos: NASA (left), Zagasi News (middle), Francis Latreille/ADO (right). Brochure design: Yuri Bult-Ito

Interested in Arctic data? · · · ·

Here is the tool you've been waiting for.

ACE

Arctic
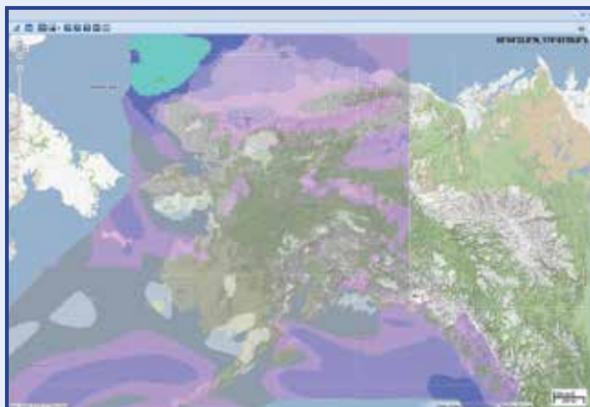*Collaborative*
Environment

What can ACE do for you?

The Arctic Collaborative Environment (ACE) was designed in response to the inadequate ability to integrate both terrestrial and maritime domain environmental, remote sensing, model, and observational data. Consequently, it supports collaborative planning and visualization of activities in the Arctic, such as field operations, search-and-rescue, humanitarian response, recovery operations, strategic movement, training, education & research. ACE is a visualization and collaboration tool that allows users to layer operational, observational, and environmental geo-referenced data. This enables greater Arctic understanding, and then also allows users to share that understanding in a controlled and sustainable manner. ACE is an Arctic-focused information exploitation, research, and decision-support system, and is designed for immediate extension to other regions of the world.
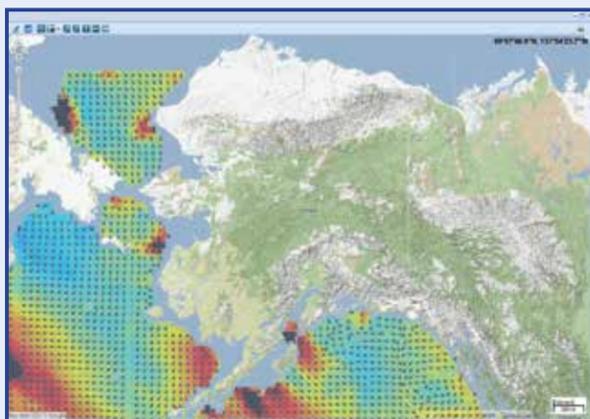
2D terrain map
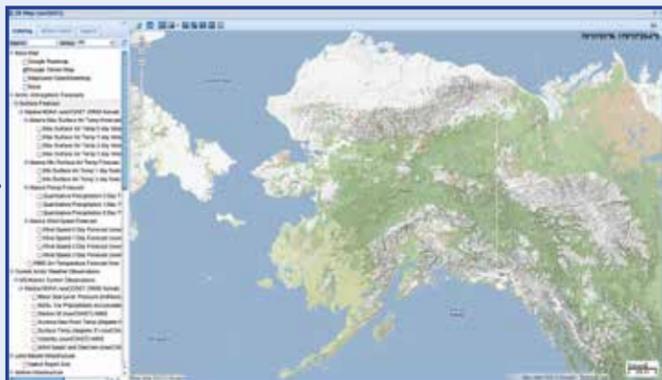
Current wind speed overlays the terrain map

Get wind vector information

What does ACE do?

ACE is an open-access and web-based visualization and collaborative system and provides general capabilities for geo-referenced visualization and information sharing that end users can customize for various purposes.

Within ACE, users can:
- Have access to a rich catalog of public, open-access data sources already on the Internet, including searchable metadata and/or to private data layers created by the user
- Share their own private data files and share created Workspaces with a specific group of people (e.g., researchers, rescuers, educators) and/or share with the general public
- Collaborate real-time via public and private ACE groups in areas/topics of interest
- Visualize multiple data layers on their own Workspaces
- Share and store integrated data on uniquely tailored Workspaces (maps, websites and data views) within their own group
- Communicate online within ACE via public and private group chat rooms throughout their ACE working sessions

Arctic map displaying permafrost and sea ice extent
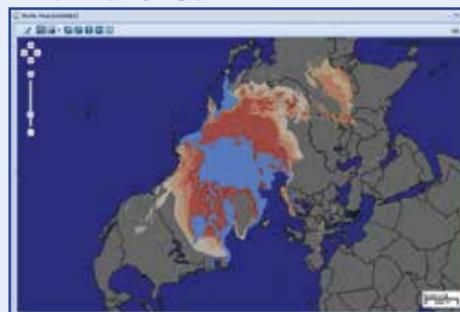
Zoom into Greenland
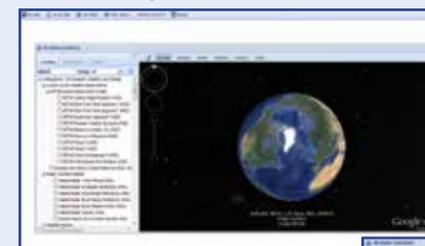

Zoom into Alaska and Russia

Example Scenario:

Where is the marginal ice zone...?

By using the remotely sensed Synthetic Aperture Radar (SAR) imagery in ACE overlaid with the US National Ice Center's Marginal Ice Zone (MIZ) product, the ice analyst is about to validate the analysis.

ACE Workspace starts with a 3D Globe

Add Current Marginal Ice Zone (KMZ) product from the U.S. NIC and SAR Wind Data

Zoom into area of interest