Update to AICC

US Arctic Research Commission

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www.arctic.gov
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USARC’s duties, by law:

- Develop national Arctic research policy
- Facilitate Arctic research cooperation
- Review federal Arctic research programs
- Recommend improvements for data sharing
- Facilitate cooperation w/Alaska & internationally
6 priority goals for Arctic research

1. Environmental Change
2. Human Health
3. Energy (efficiency and renewables)
4. The “Built Environment”
5. Cultures and Community Resilience
6. International Scientific Cooperation
Federal Arctic research policy/process

USARC set goals → IARPC adopts, creates & executes research plan → White House: OMB/OSTP coordinate & review budget

Congress: Authorizes & Appropriates

“The Commission shall, after submission of the President's annual budget request, review the request and report to Congress on adherence to the Plan.”
Today's Events:

Today's Congressional Action:
The House is not in session. The Senate is expected to host a pro forma session.

Media

This is Russia’s New Arctic Helicopter.
It looks like a regular, freshly painted, Mi-8. But it has some extraordinary qualities, manufacturer Russian Helicopters says.
The first aircraft of the type Mi-8AMTS-VA was this week handed over to the Russian Armed Forces. It is based on a model extensively applied by the military. However, a series of additional assets makes it suited for operations in extreme Arctic conditions, a press release reads. [The Barents Observer](https://thebarentsobserver.com)

Enhanced Nitrous Oxide Emissions Found in Field Warming Experiment in the Arctic. The impact of warming on the release of carbon dioxide (CO2) and CH4 is currently a hot topic in numerous studies carried out in the Arctic. Arctic soils are further a relevant source of the strong greenhouse gas nitrous oxide (N2O) - nearly 300 times more powerful than CO2 in warming the climate. The relevance of this finding, and a potentially even larger N2O release in a warming Arctic, is now being addressed by researchers. [Satellite Press Releases](https://www.arctic.gov)

Will Climate Change Affect Arctic Whale Migration? A study published by researchers from Florida Atlantic University’s Harbor Branch Oceanographic Institute and a team of scientists is evaluating the relationship between changing sea ice and beluga whale migration. They are studying the fat patterns of younger female belugas in order to determine if they are switching to a diet of fish and smaller crustaceans. [USARC](https://www.arctic.gov)

Sign up at www.arctic.gov or…
Over 50 speakers, including 2 US Senators, 1 Congressman, current and former USCG Commandant, and other senior leaders from Navy, NSF, NOAA, DOI, DOS, State of Alaska, Indigenous groups, academia, industry, non-US, etc.

Program, presentations, and videos:

www.star.nesdis.noaa.gov/Ice2017/index.php
Why held?

- High priority topic. Arctic is rapidly changing, with global effects
- Science is inclusive, and widely supported. “Soft diplomacy”
- US President supported ministerial as a catalyzing event
- To advance cooperation on int’l research efforts & specific initiatives
Arctic science program synopses from 24 governments & the EU

PDF at www.arctic.gov

Request paper copies from: info@arctic.gov
Arctic Science Ministerial #2

- Hosted by EU, Germany, and Finland in Berlin, Germany
- “Arctic Science Forum” on 10/25/18. ~300 invited people
- Ministerial (~25 nations & 6 indigenous groups) on 10/26, ~100
- Review deliverables from ASM1 themes, and set new themes
Arctic Science Ministerial #2

Themes:

1. Strengthening, integrating and sustaining Arctic observations, facilitating access to Arctic data, and sharing Arctic research infrastructure

2. Understanding regional and global dynamics of Arctic change

3. Assessing vulnerability and building resilience of Arctic environments and societies
Agreement on Enhancing Int’l Arctic Scientific Cooperation

- Initiated by Arctic Council
- US chairmanship goal
- Task Force
- 8 Arctic States as parties
- Observers and PPs
• US & Russia co-chaired task force

• **Goal**: enhance int’l coop. in sci. activities to increase effectiveness & efficiency in developing scientific knowledge about the Arctic

• Facilitates **access** (people, equipment, samples, data)

• Specific articles on non-parties, and traditional and local knowledge encouraging use, communication, and participation

• USARC designated as US “competent authority”

AGREEMENT ON ENHANCING INTERNATIONAL ARCTIC SCIENTIFIC COOPERATION

ANNEX 1:
Identified Geographic Areas

This map shows the approximate extent of the Identified Geographic Areas described in Annex 1 of the Agreement on Enhancing International Arctic Scientific Cooperation. It is intended for illustrative purposes only.

Approximate Extent of Identified Geographic Areas
- 62°N
- Arctic Circle

*Continental shelf areas are not depicted.*

U.S. Department of State, OES/OPA, 10/2017
Climate change recognized as a security threat

“Climate change is impacting stability in areas of the world where our troops are operating today. It is appropriate for the Combatant Commands to incorporate drivers of instability that impact the security environment in their areas into their planning.”

Secretary of Defense James Mattis

*in written responses after confirmation hearing*
Report: Climate impact on national security

Critical evaluations and recommendations on how current and deteriorating climate/weather conditions impact US national security and US military missions, domestically and internationally.

www.scienceforglobalpolicy.org
American leadership in science and technology is critical to achieving this Administration’s highest priorities: national security, economic growth, and job creation. American ingenuity combined with free-market capitalism have driven, and will continue to drive, tremendous technological breakthroughs. American inventions have fundamentally changed the course of
R&D priority areas
American...

1. ...Military Superiority
2. ...Security
3. ...Prosperity
4. ...Energy Dominance
5. ...Health

“It’s better than I feared. There is much more to praise in this document than to complain about.”

-John Holdren
Obama’s Science Advisor
R&D priority practices

1. Increasing govt. accountability & efficiency
2. Supporting innovative early-stage research
3. Maximizing interagency coordination

R&D workforce & infrastructure

1. Developing a future-focused workforce
2. Modernizing & managing research infrastructure
Greater investment in infrastructure?

- Trump’s victory speech mentions a plan to rebuild the country’s transportation infrastructure.
- Scientists are hoping it will include research & cyberinfrastructure
- But financing...? Tax credits, PPPs, borrowing, treasury spending?

- Roads
- Bridges/tunnels
- Water & sanitation
- Airports/airstrips
- Ports/harbors
- Seawalls
- Buildings
- Pipelines
- Rail lines
- Military installations
- Field stations
- (Icebreakers?)

Dems release $1T infrastructure bill 1/23/17
Infrastructure...
...oil spills in ice-covered waters...
Vision: provide networked and mission-focused support to the USGC operator.

Mission: develop and transition technology solutions, innovative products, and educational programs to improve situational awareness and crisis response capabilities related to emerging maritime challenges in the Arctic environment.

Mechanisms: funding research, workshops, programs that support Arctic Search and Rescue, Humanitarian Assistance, Disaster Response and Security missions

Hosted: University of Alaska (UAA and UAF)

http://adac.uaa.alaska.edu