


ATLANTIC-ARCTIC; trans-boundary issues

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ARCTIC RESEARCH PLAN: F Y2013–2017



Executive Office of the President
National Science and Technology Council

FEBRUARY 2013

www.whitehouse.gov/sites/default/files/microsites/ostp/2013_arctic_research_plan.pdf

Premise:

Rapid changes in climate are altering ice and snow cover

Consequences for:
Arctic ecosystems,
Indigenous societies, and
Global climate.



Sea ice and marine ecosystems

Canadian research:

Beaufort Sea Shelf Ecosystem Research Initiative

Relationship between sea ice loss and acidification

E.U. research:

Modeling the ecosystem dynamics: Barents Sea

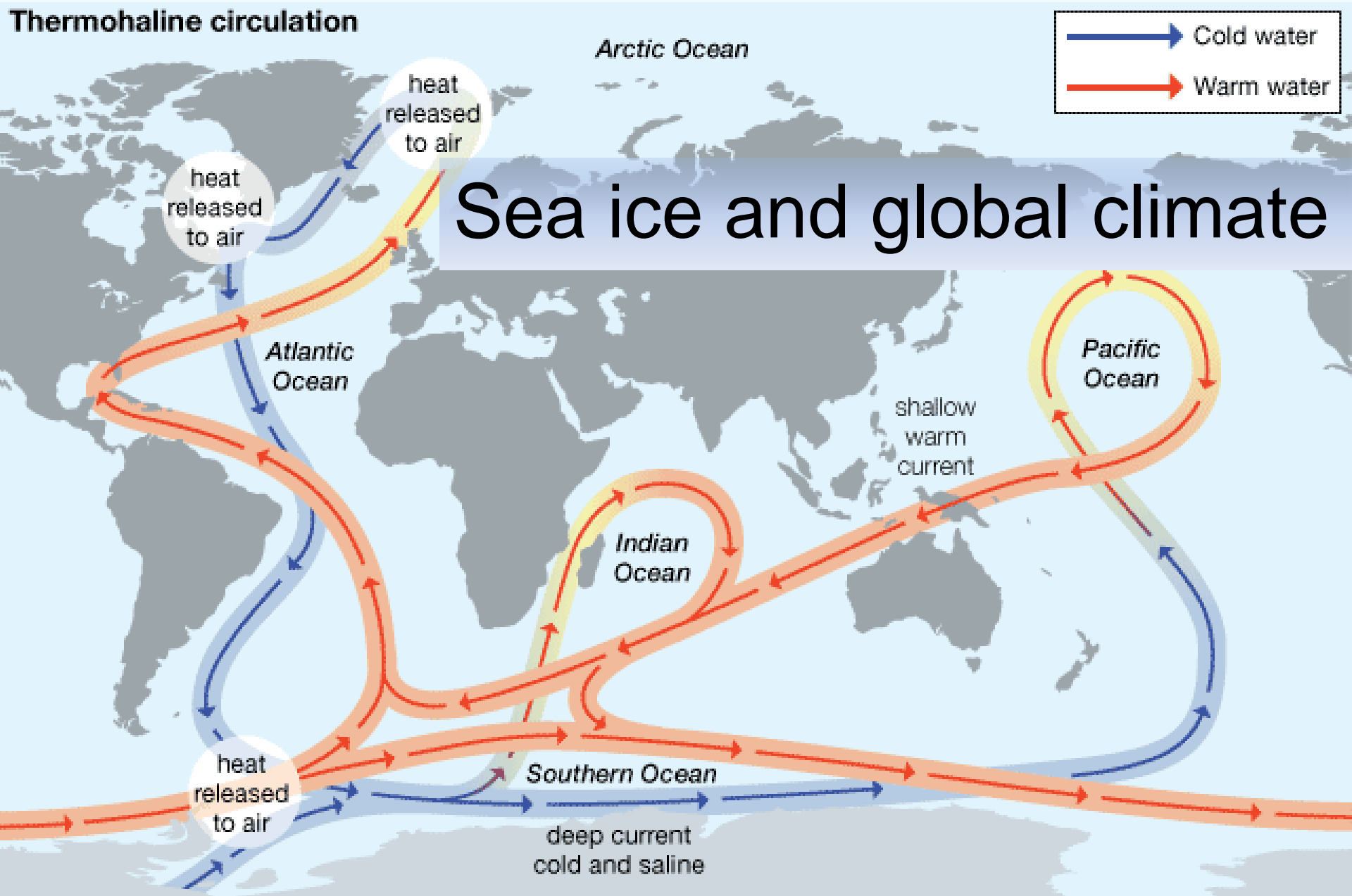
Arctic Ocean Acidification Research conference

U.S. research:

Integrated ecosystem model: Beaufort & Chukchi.

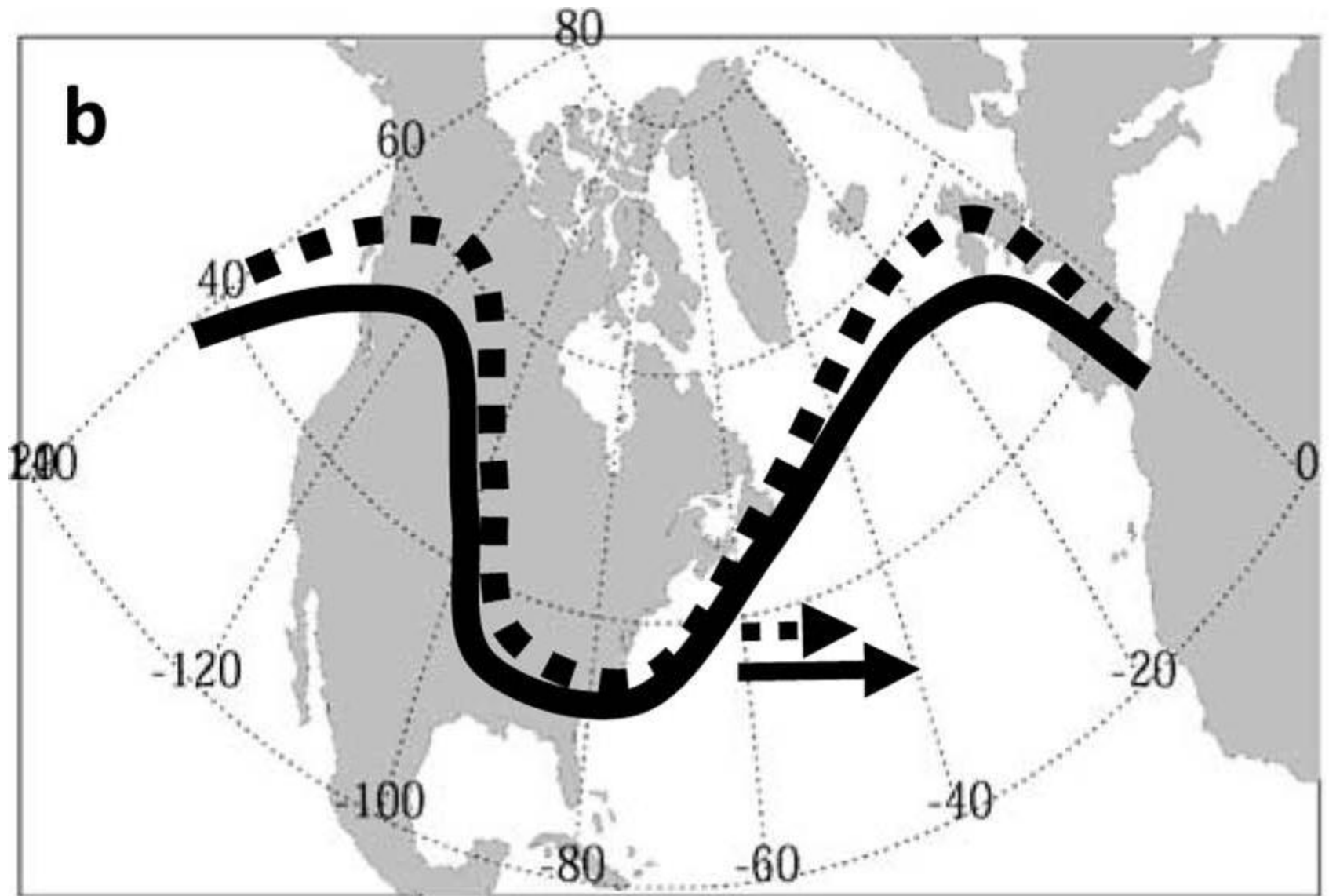
Arctic Ocean acidification: expand observations to monitor impact on Arctic marine ecosystem.

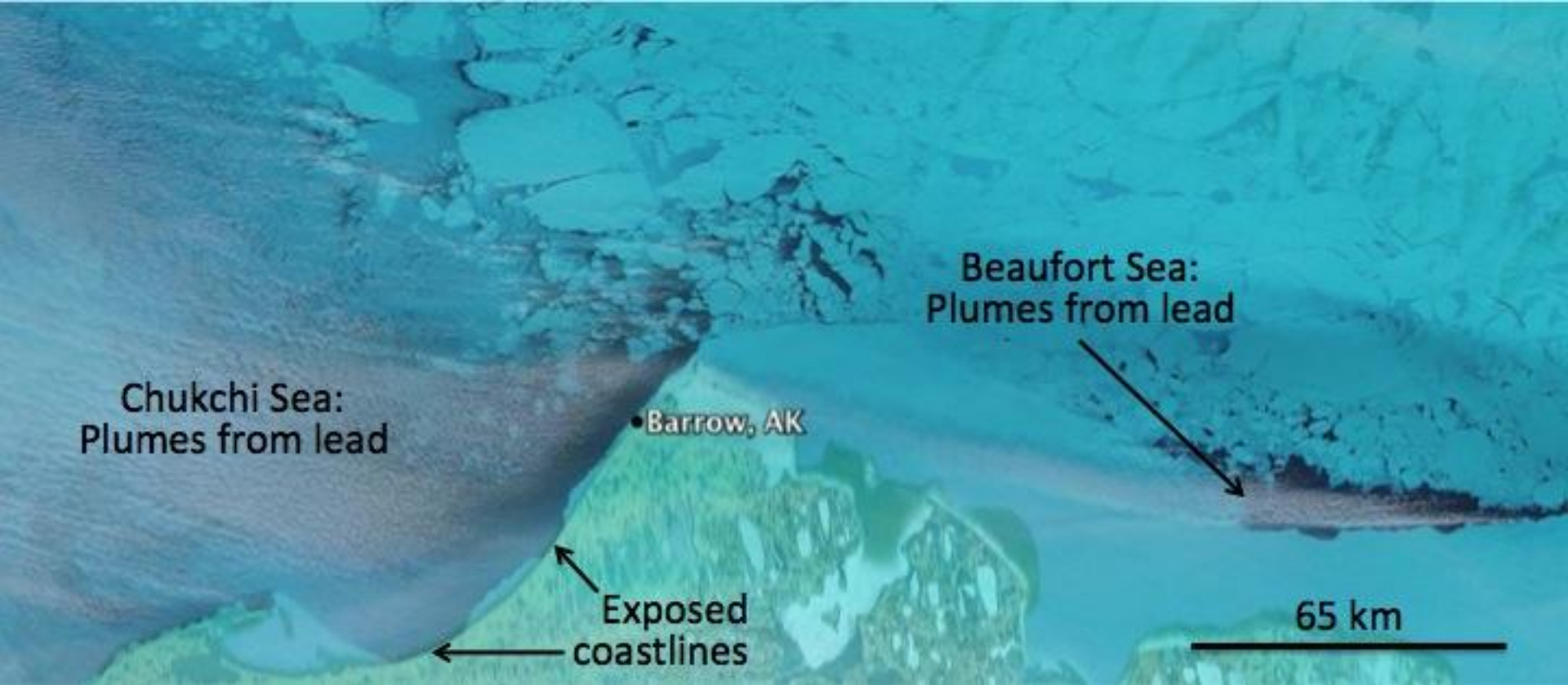
Thermohaline circulation



Source: Hugo Ahlenius, UNEP/GRID-Arendal, <http://maps.grida.no/go/graphic/world-ocean-thermohaline-circulation1>

Sea ice and global climate





Potential collaborations:

Comparative marine ecosystems

Ocean acidification (well underway)

Sea ice impact on global weather