

**From:** [Gary Latshaw](#)  
**To:** [Gilee Corral](#)  
**Cc:** [Stan Farkas](#); [Philip.B.Russell](#); [REDACTED]; [REDACTED]; [Tara Sreekrishnan](#)  
**Subject:** Re: Draft letter for support of the arctic?  
**Date:** Thursday, January 9, 2020 9:31:11 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[Declaration on Arctic Ice for Commission Review.docx](#)

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Ms. Corral - Please distribute the draft resolution to the other commissioners with my message.

Fellow Commissioners - In following up from our brief discussion at the last meeting, I am attaching a draft resolution regarding the resolution I suggested for Restoration of the Arctic ice.

I have prepared this in consultation with several others. Retired Ames Scientists: Phil Russell, Stan Farkas, Anthony Strawa, and Steven Zornetzer. Richard Adler, a science writer and editor, edited the draft.

I would also like you to be aware of an upcoming meeting, which will be on the morning of our normal afternoon commission meeting:

To build this movement, we are hosting a **Climate Restoration Campaign Launch** on January 16th, 2020 from 10:00 AM – 11:00 AM at the Santa Clara County Government Center Plaza located at 70 West Hedding, San Jose 95110. The Campaign Launch will present [tangible solutions](#) on how cities and counties can set the framework to safely restore a healthy climate.

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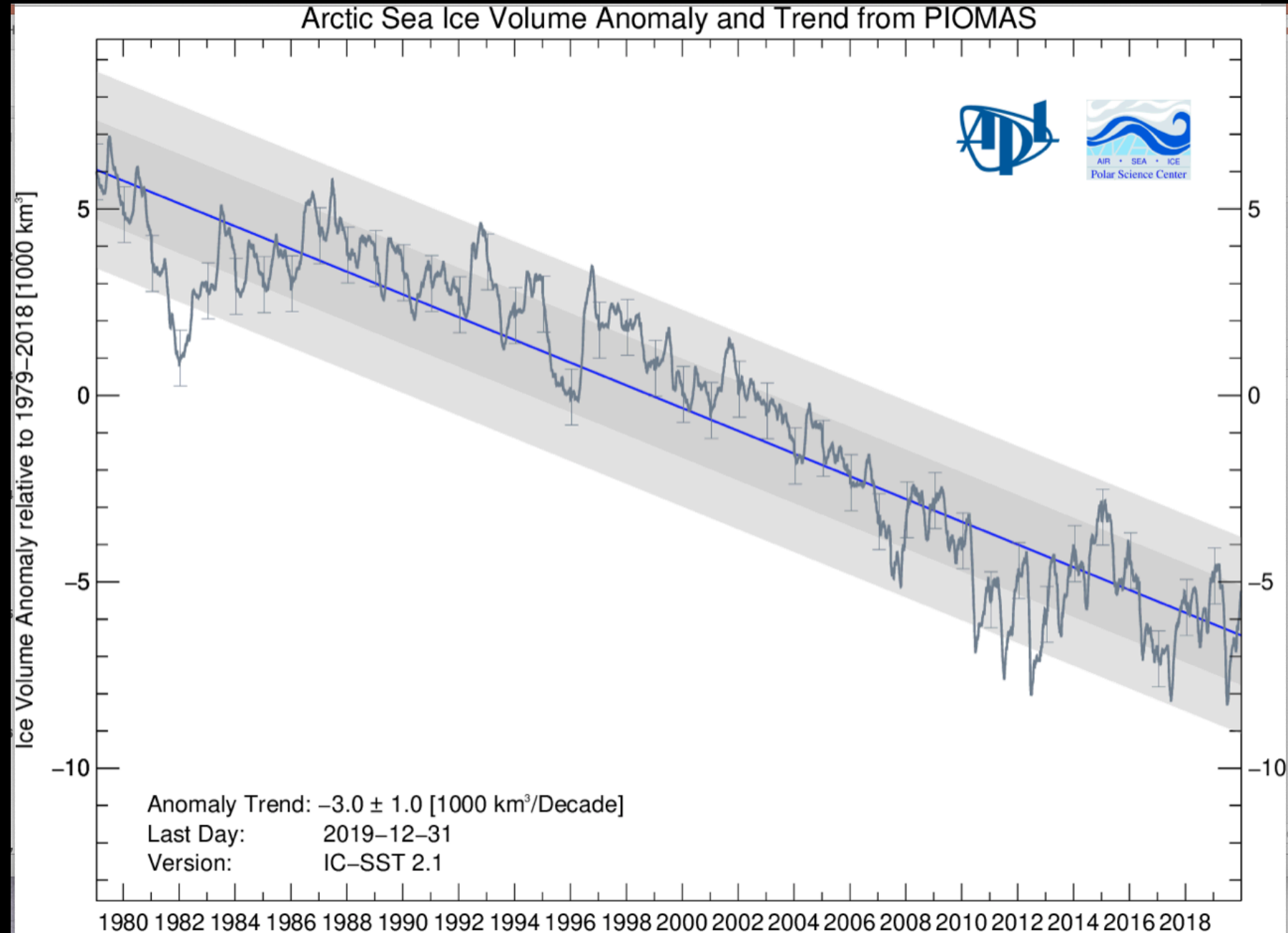
# Call for Restoration of the Arctic International Program for Cupertino Sustainability Commission January 16, 2019

By Gary Latshaw

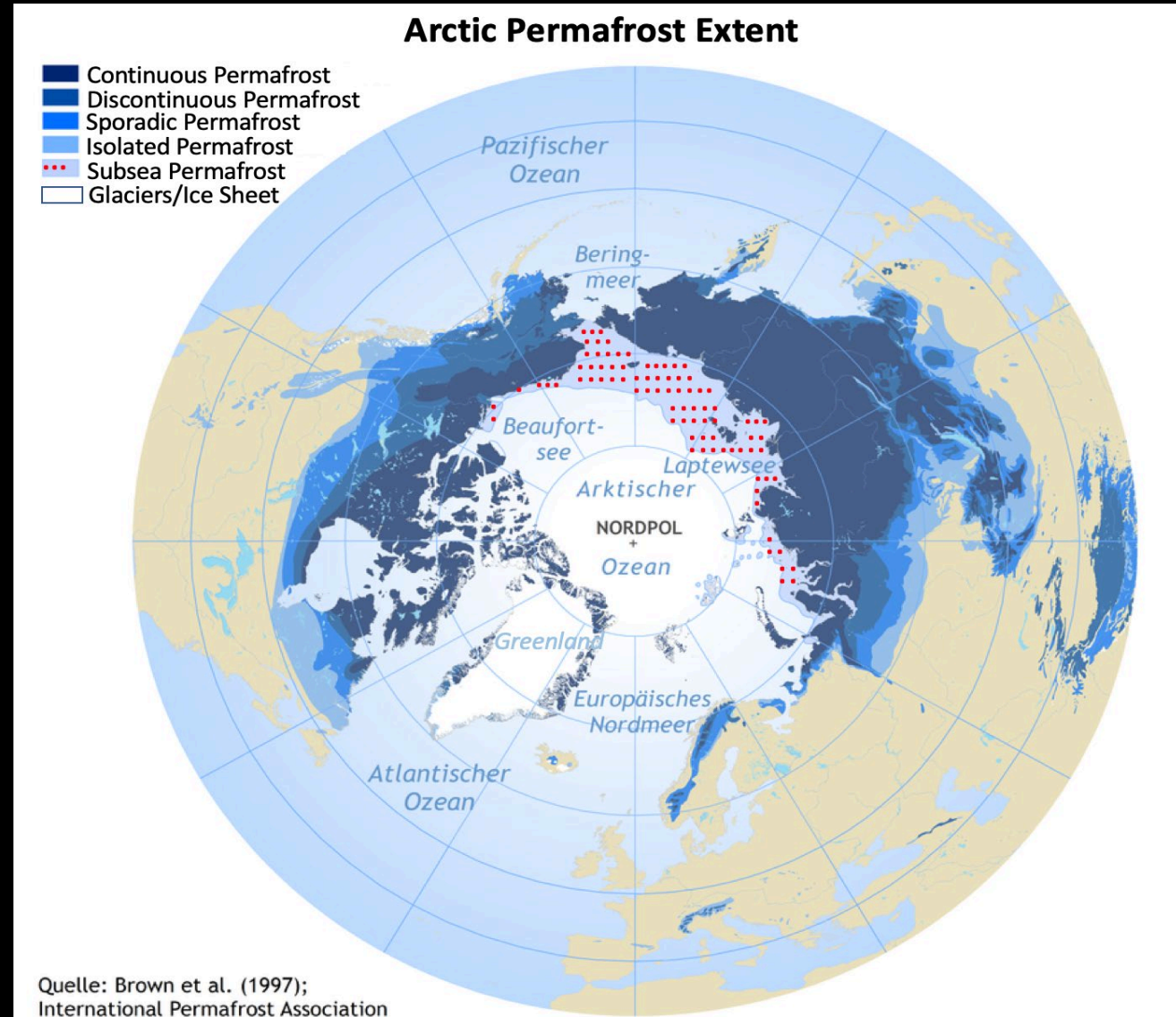
In cooperation with Retired NASA Ames Scientists:  
Stan Farkas, Phil Russel, Steve Zornetzer, and Anthony Strawa

# 10 years to an Ice-Free Arctic

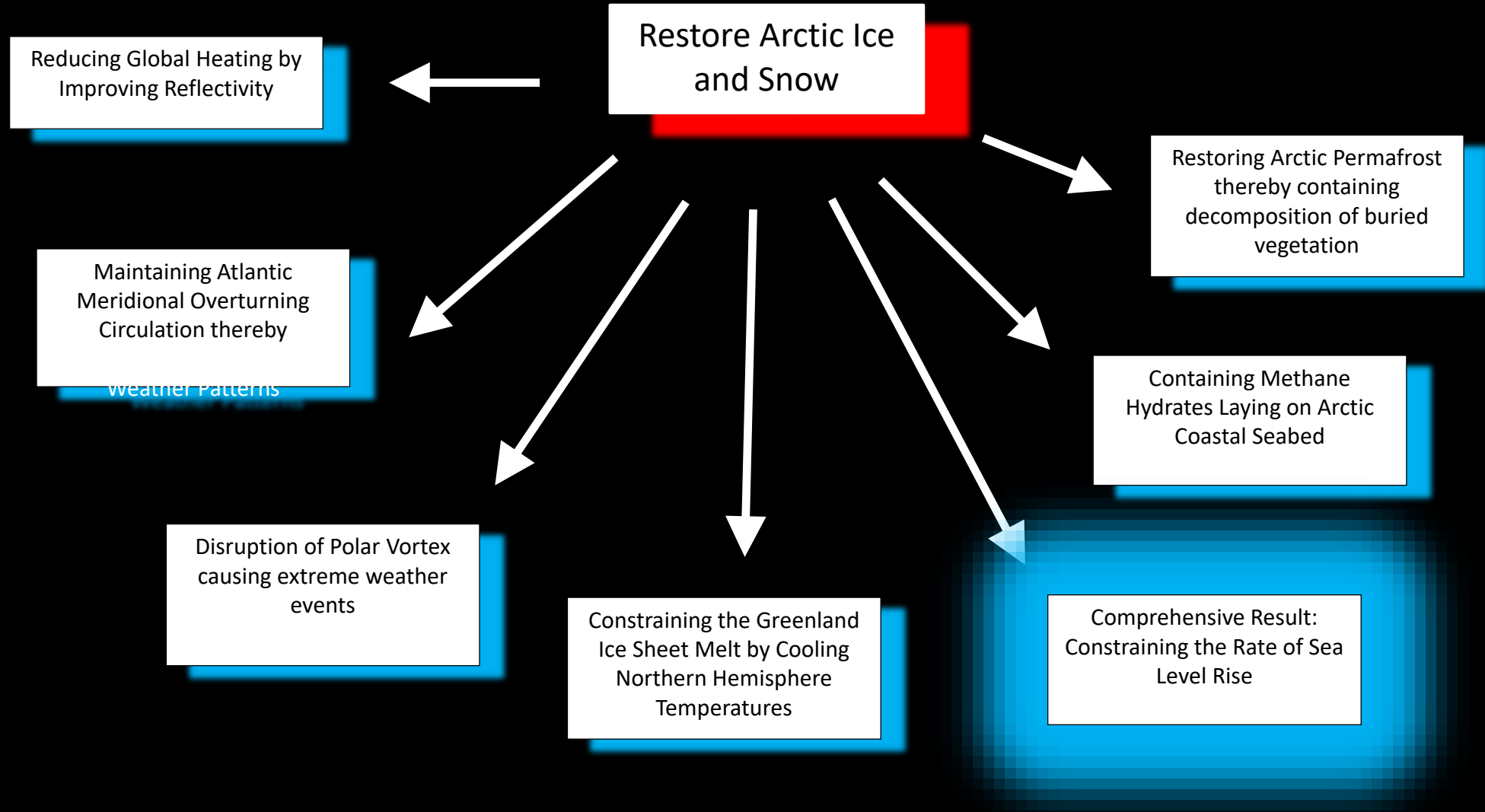
2019 second  
lowest average  
sea ice volume  
since 1979



# Map of Arctic Region



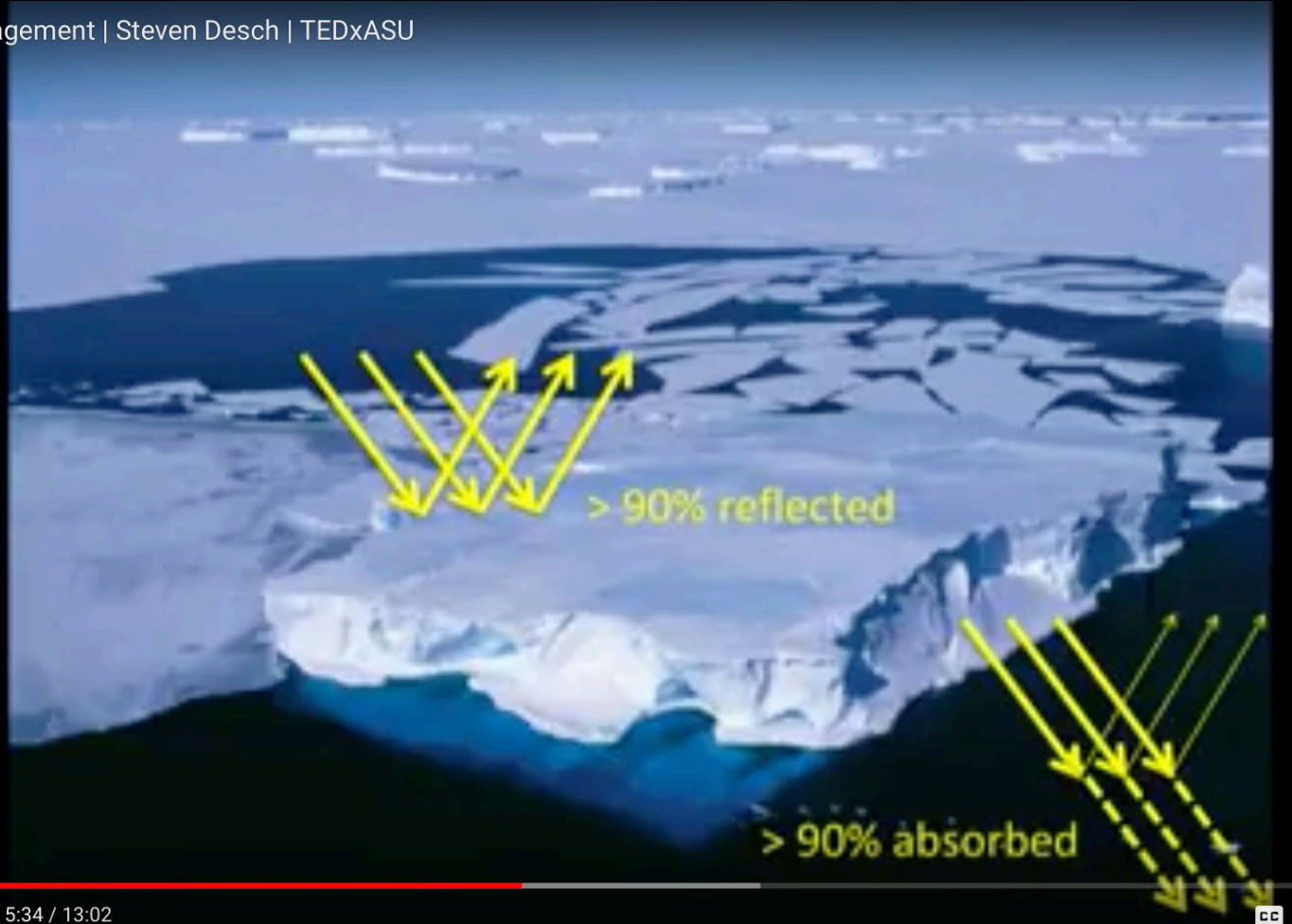
# Multiple Earth Systems at Risk from Arctic Disintegration



# Substantial Global Heating

- More Heat Absorption in open ocean and thin ice

Arctic Ice Management | Steven Desch | TEDxASU





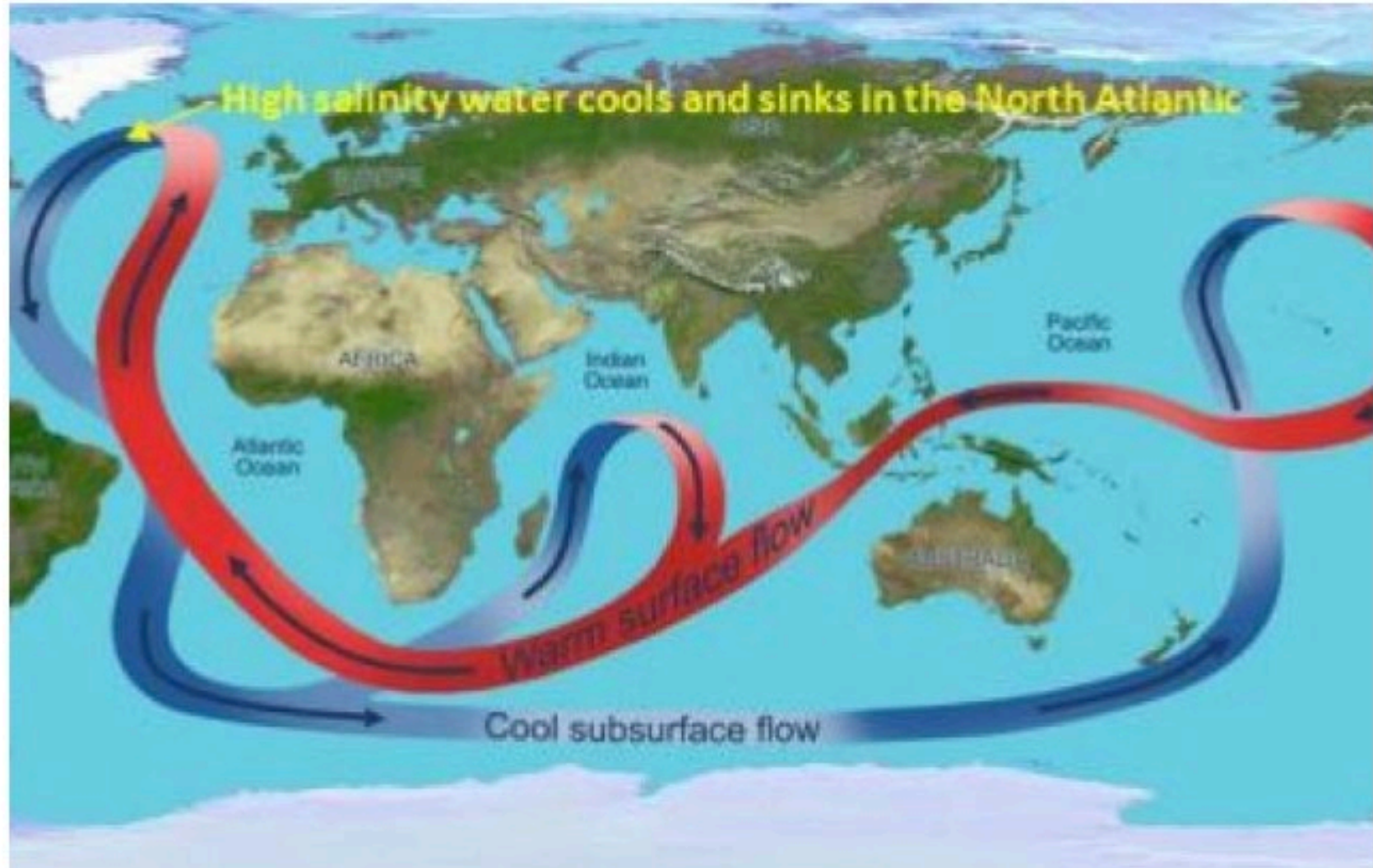
# Formation of Rivers in Greenland

- **Greenland's Ice Melt Rate Has Now Accelerated To A Whopping 234 Billion Tons Of Ice Lost Per Year**
- **Forbes, jan 12, 2020**



# Atlantic Meridional Overturn Circulation (AMOC)

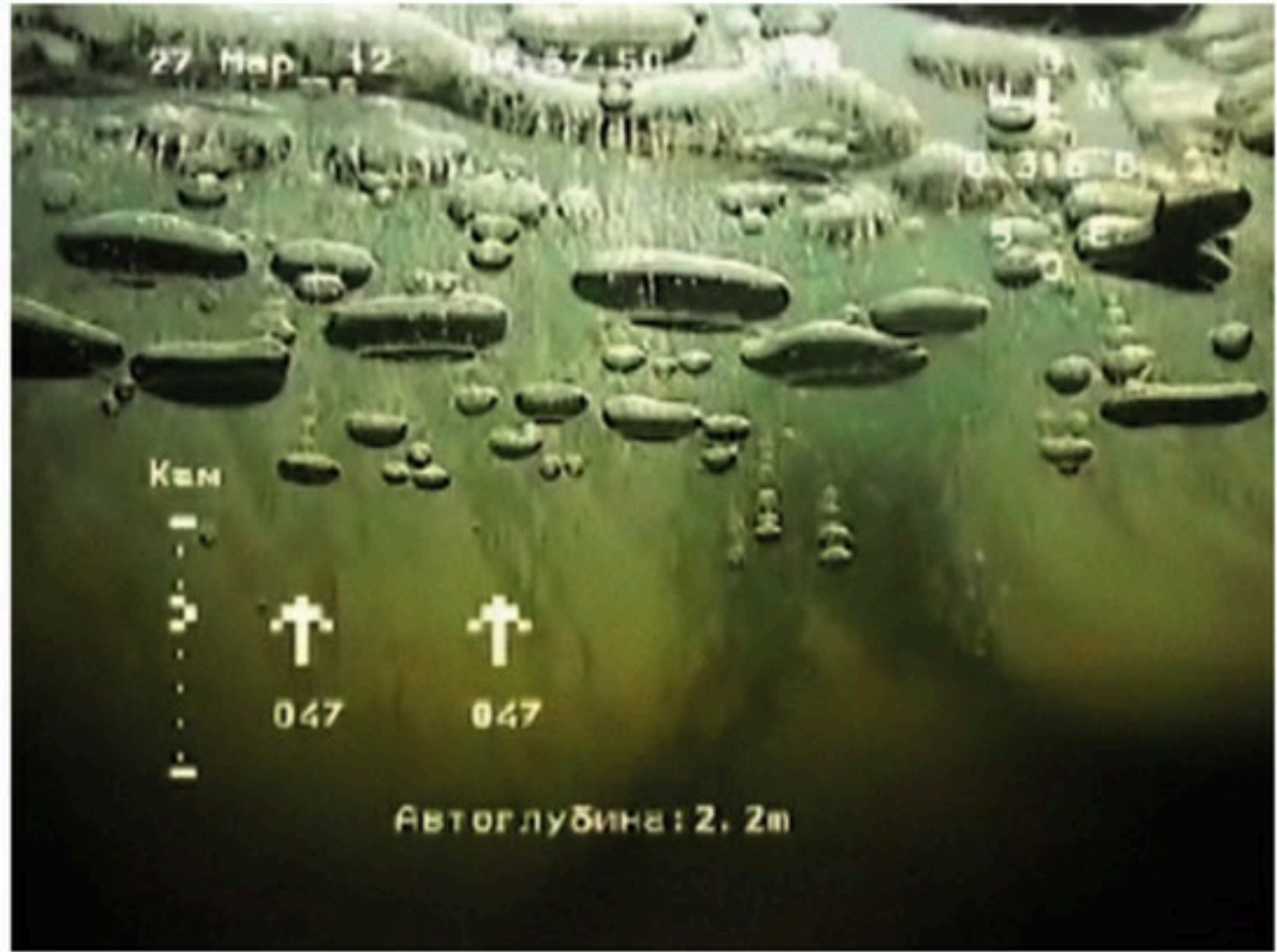
- 10-15% slow down





# Methane Release reaching surface

- Methane Hydrate Disintegration
- Potential of 0.6 C Global Warming Alone



# Bursts of Methane from Thermokarst Lakes

- Unexpected contribution

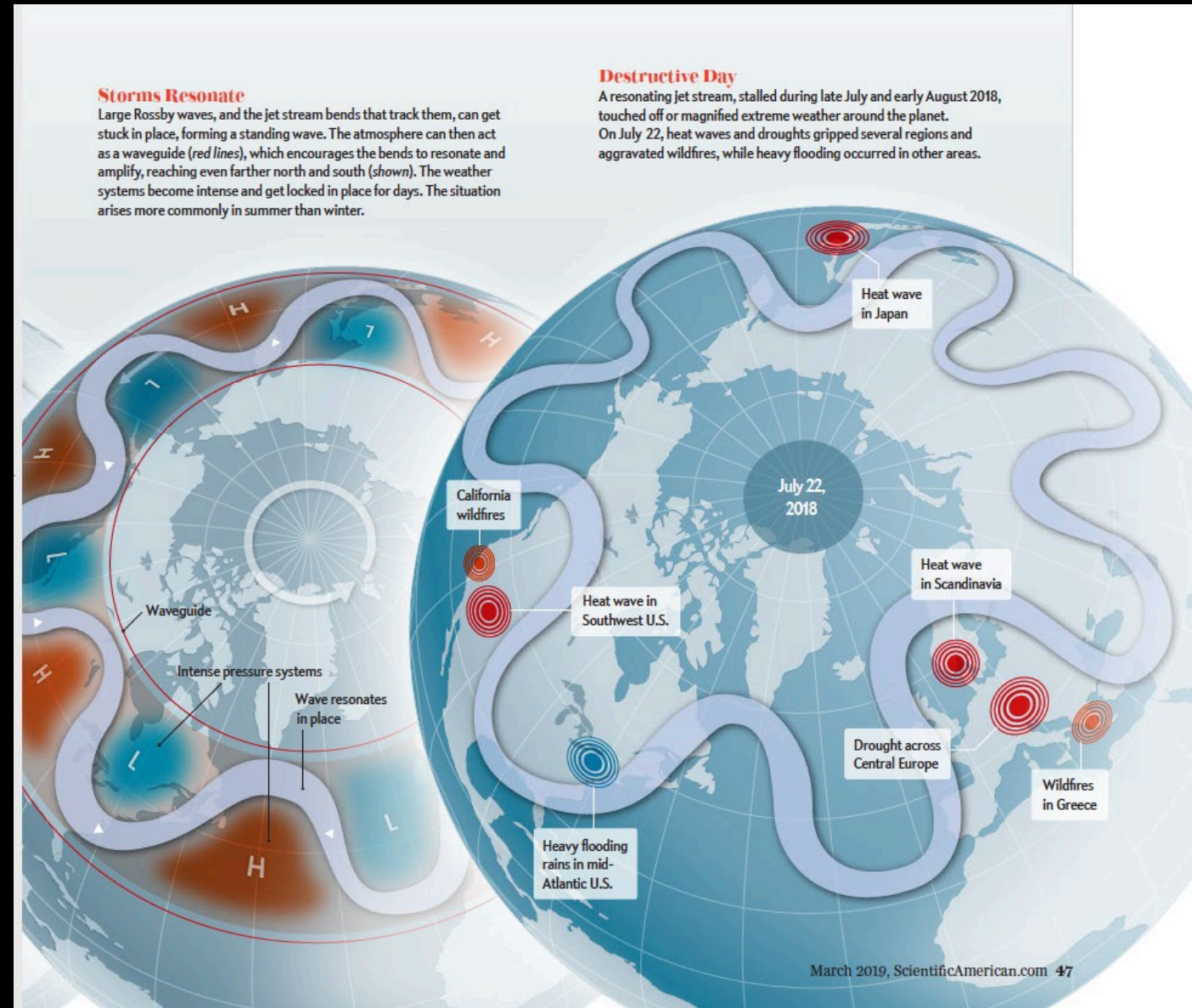


Methane bubbles up from the thawed permafrost at the bottom of the thermokarst lake through the ice at its surface. Credit: Katey Walter Anthony/ University of Alaska Fairbanks



# Wandering Polar Jet Stream

- More severe weather
- Unpredictable Weather complicating agriculture
- More Melting



# Ask

**The Government of the United States  
must aggressively implement a broad  
international program of RESARCH on  
the condition Arctic Sea Ice and Region,  
and  
establish and implement a program to  
RESTORE the Sea Ice and other aspects  
of the region.**