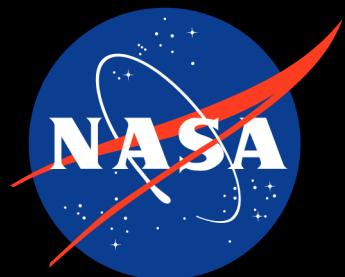


The Arctic sea ice cover of 2016: A year of record low highs and higher-than-expected lows

Dr. Alek Petty code 615 (Cryospheric Sciences Lab)

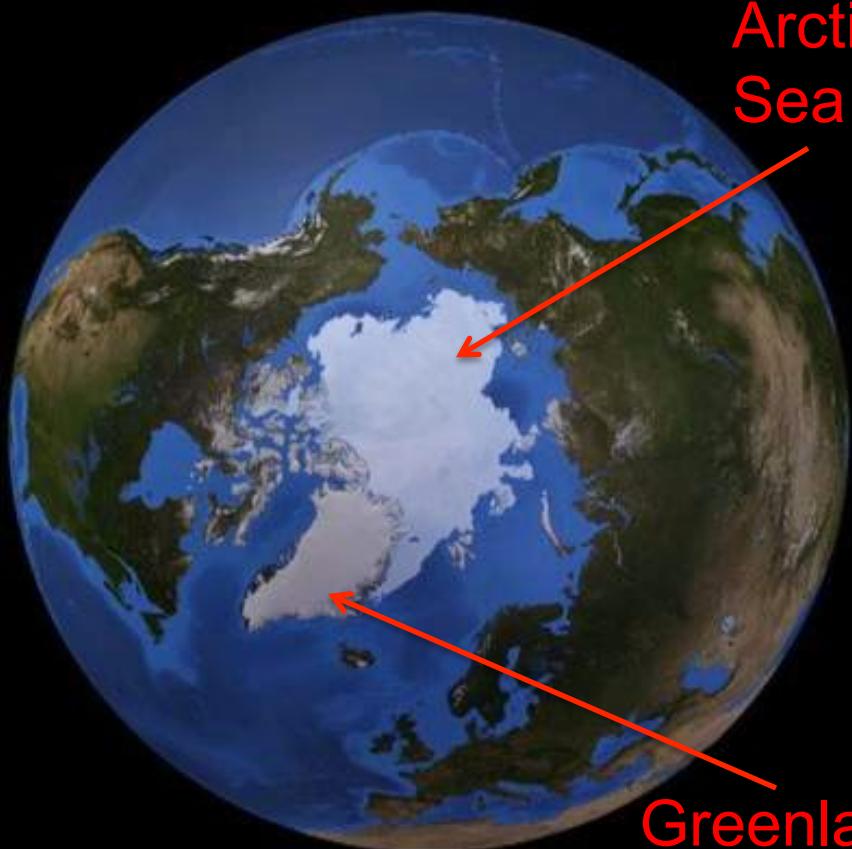


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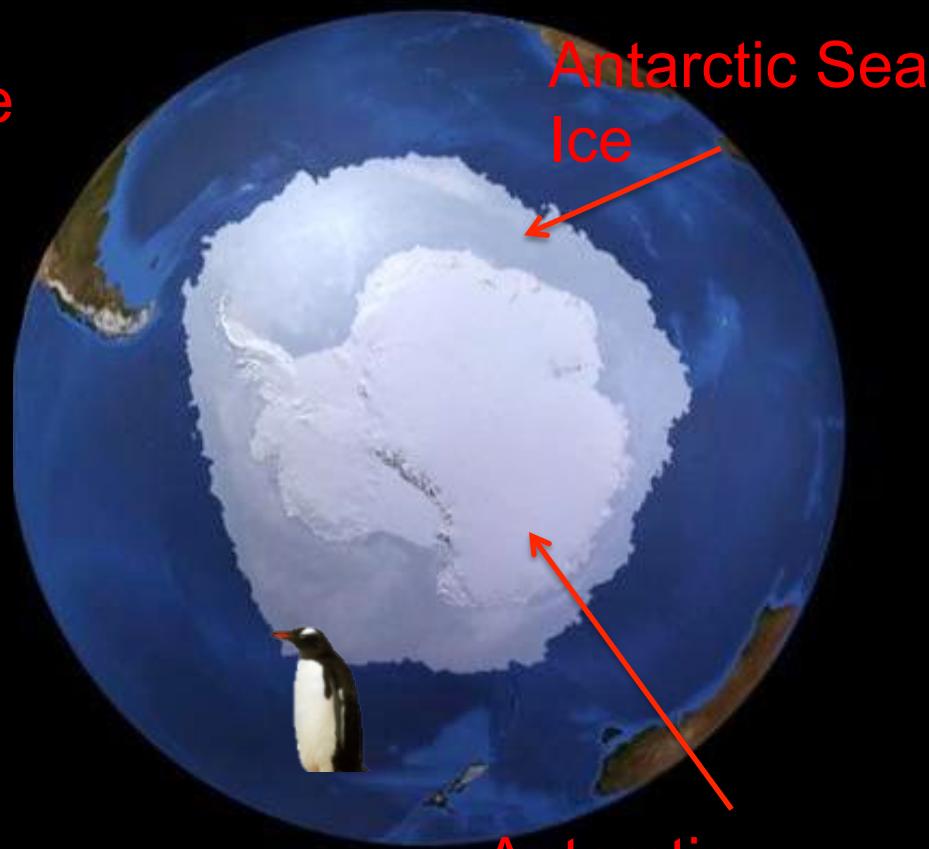


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Arctic
Sea Ice

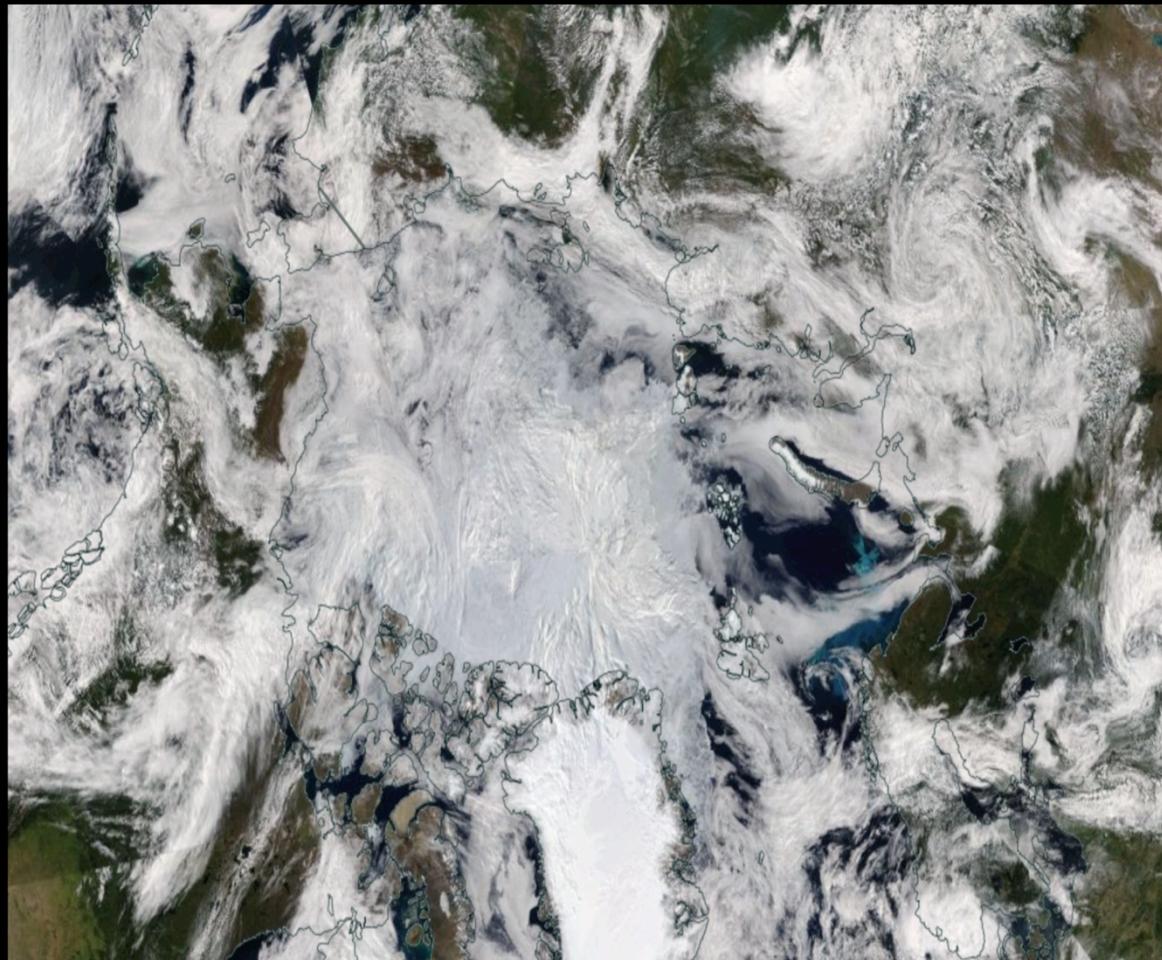
Greenland
Ice Sheet



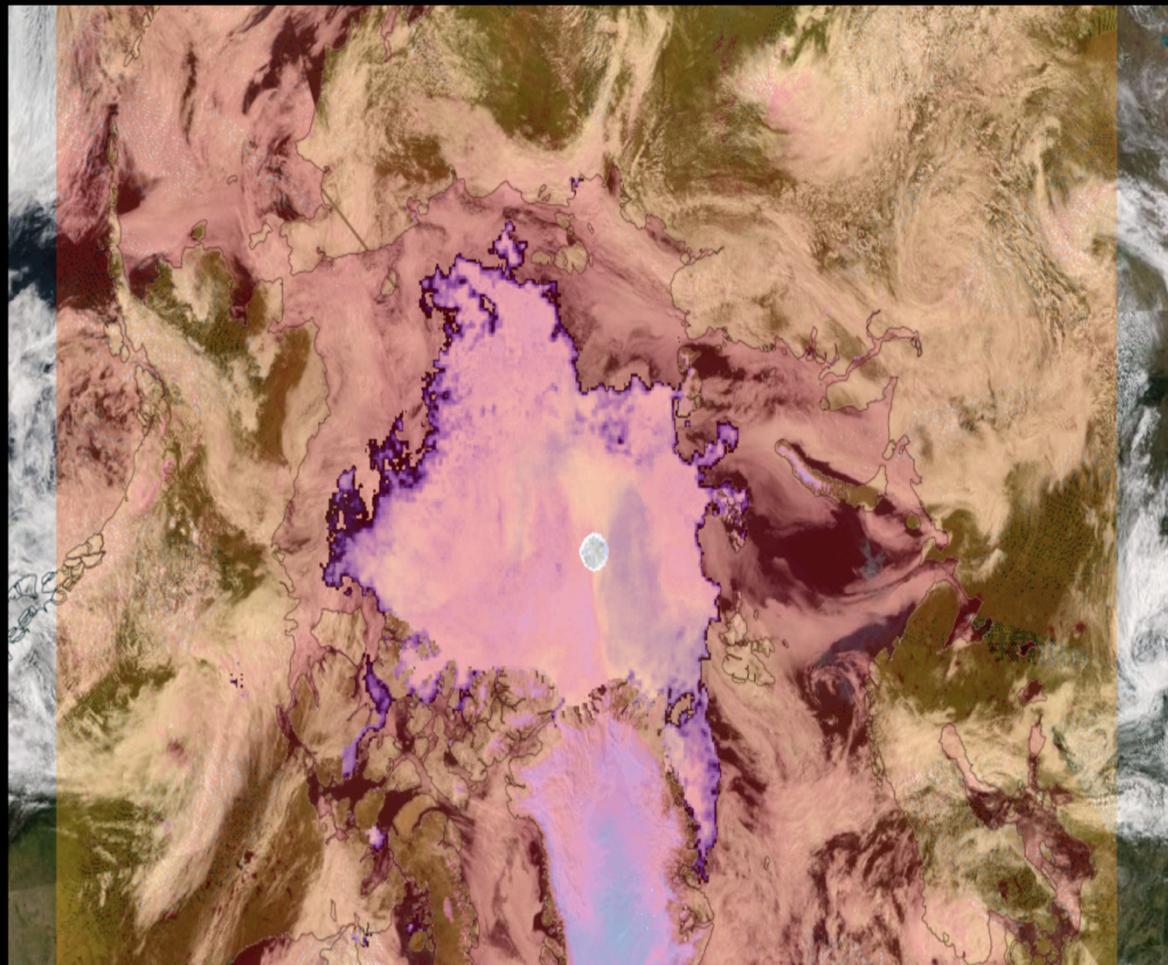
Antarctic
Sea
Ice

Antarctic
Ice Sheet

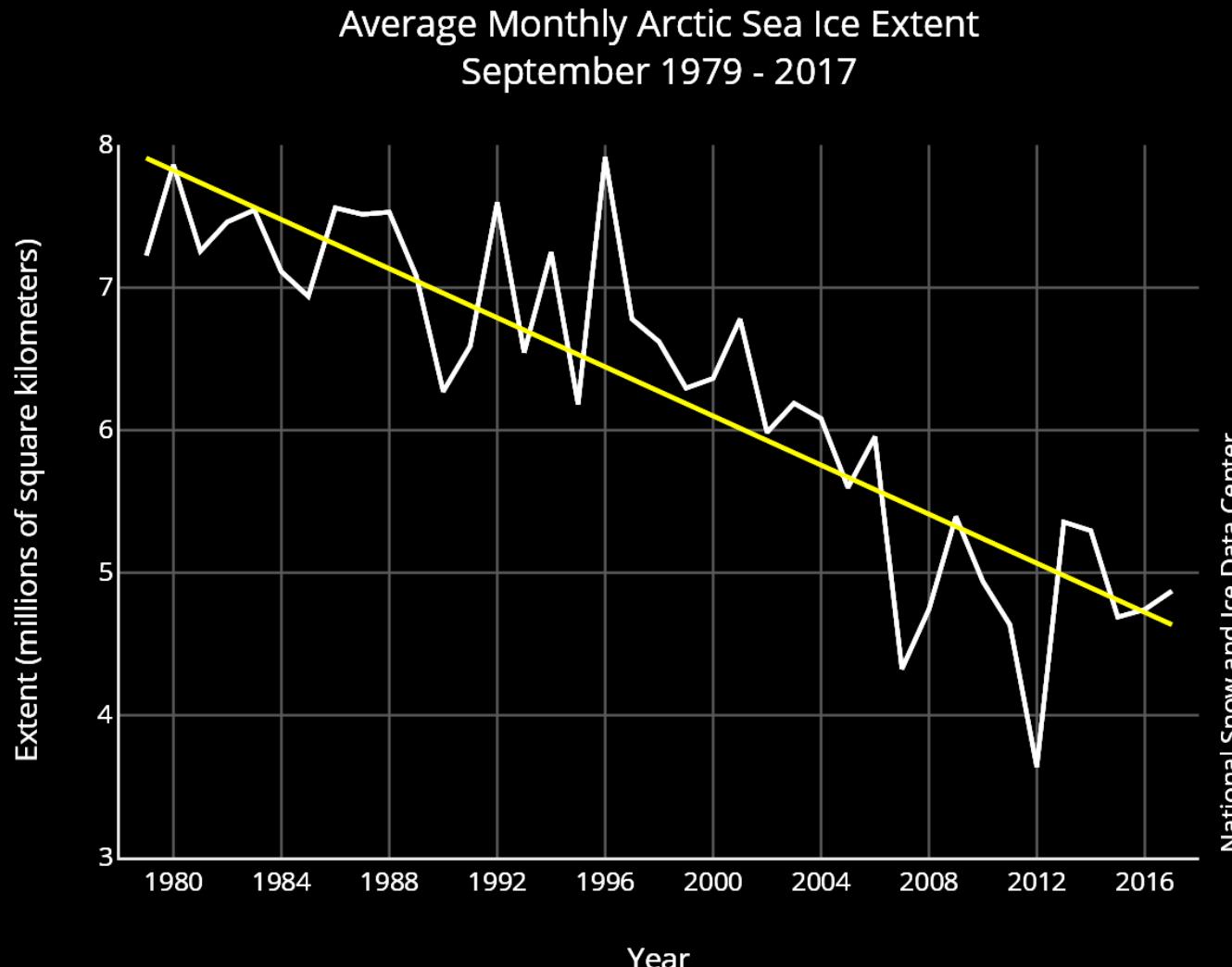
Passive microwave sensing of sea ice



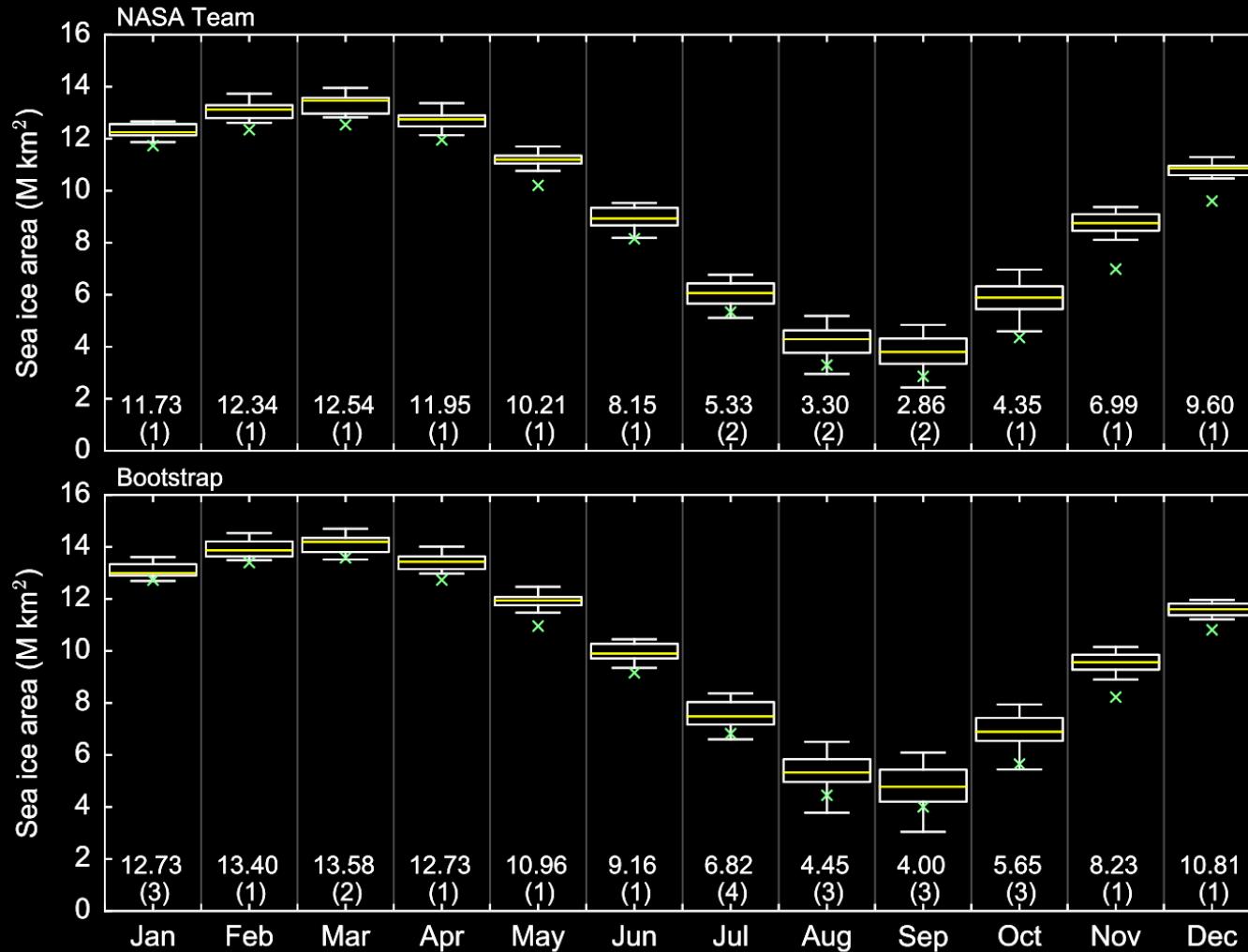
Passive microwave sensing of sea ice



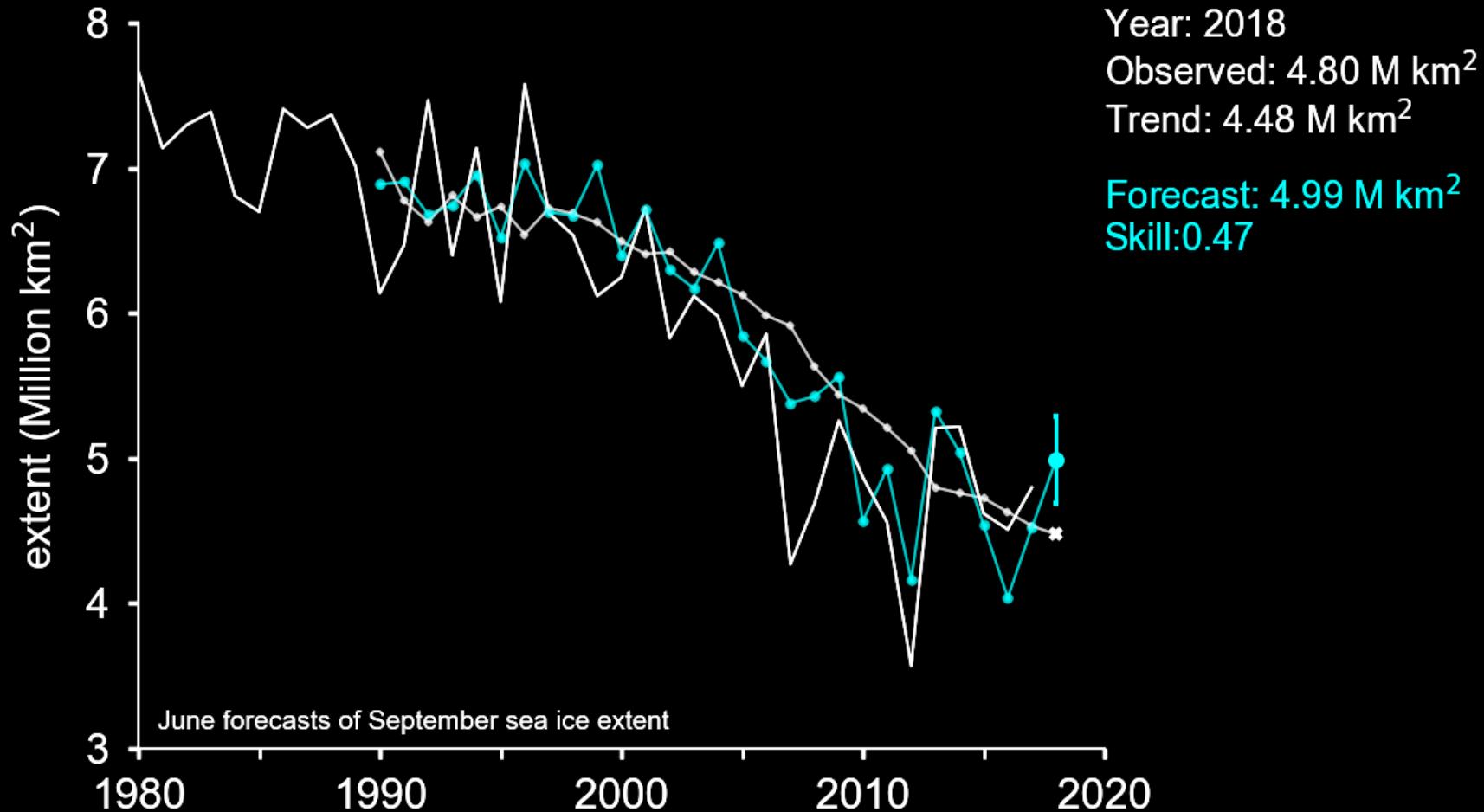
Arctic summer sea ice cover in decline



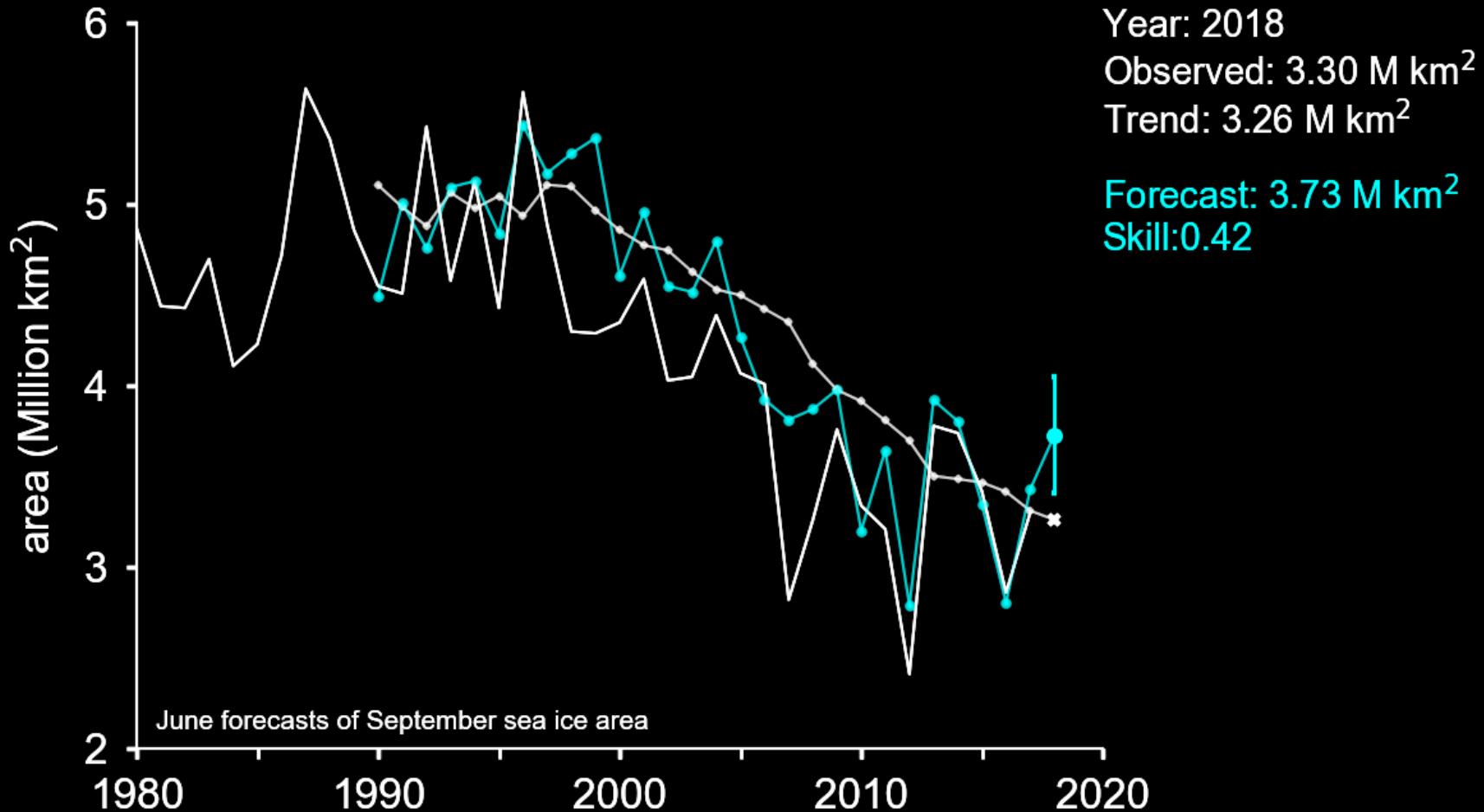
2016 saw record low sea ice area in seasons *other* than summer



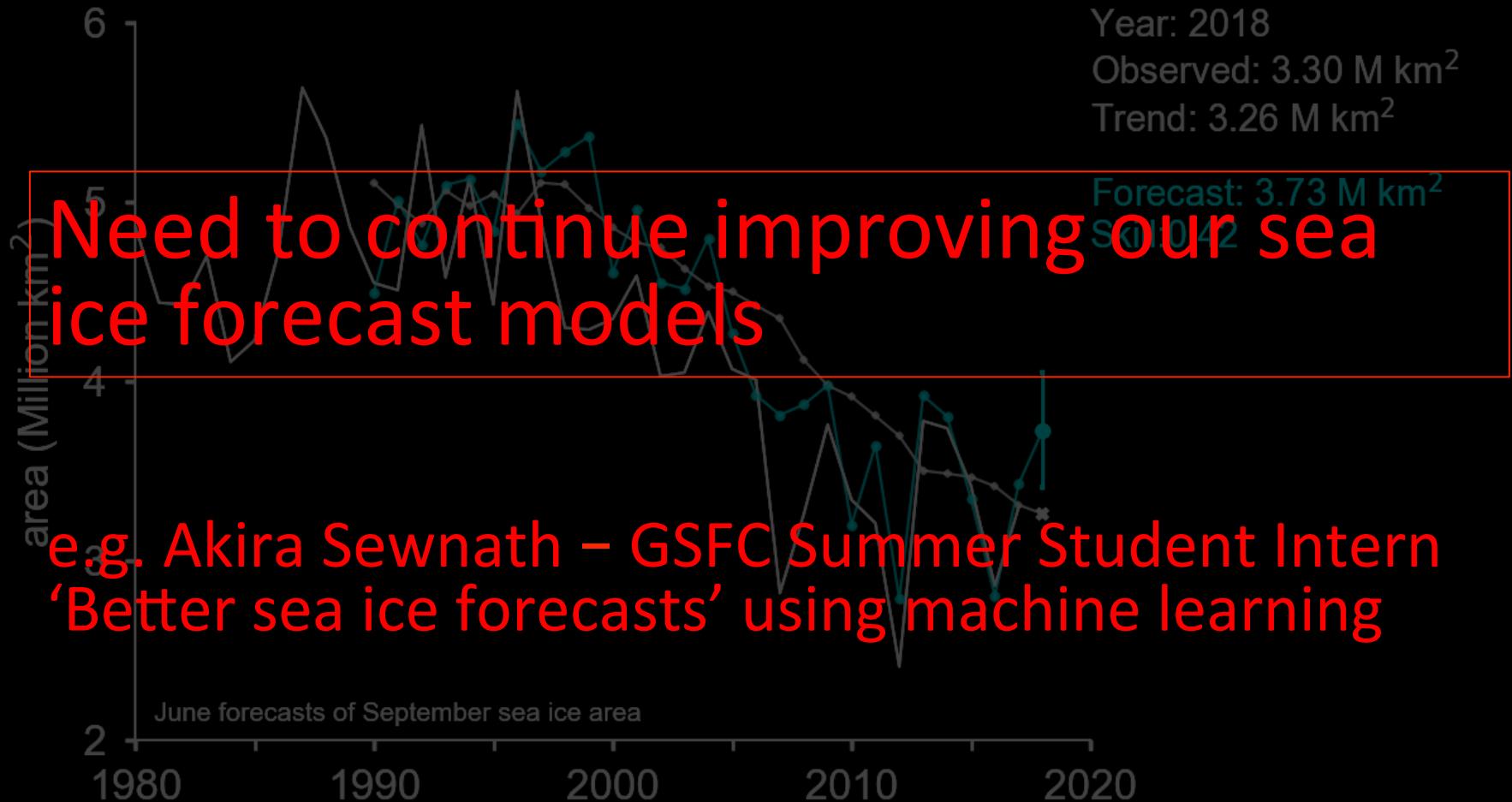
Challenges for seasonal forecasts



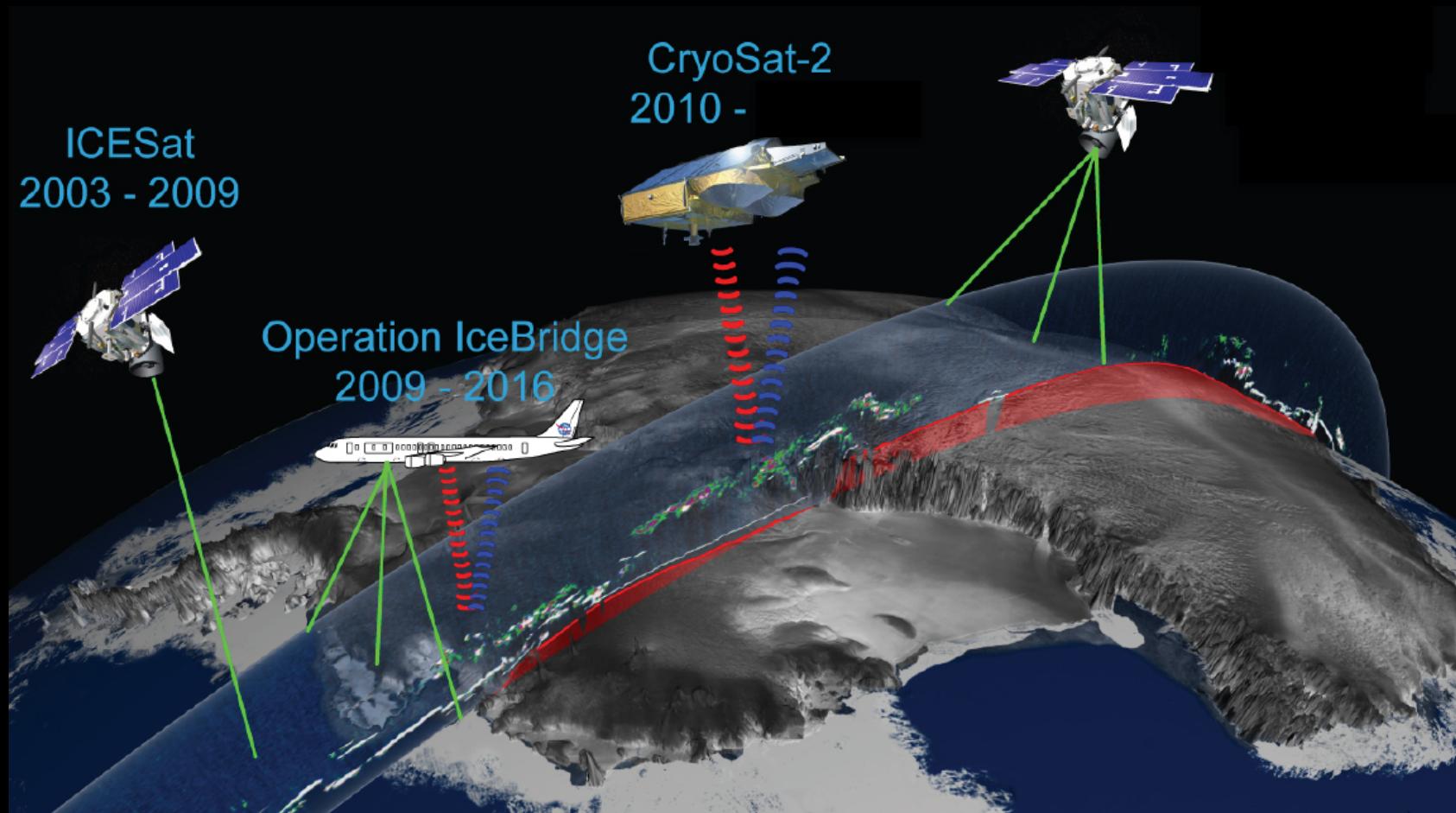
Challenges for seasonal forecasts



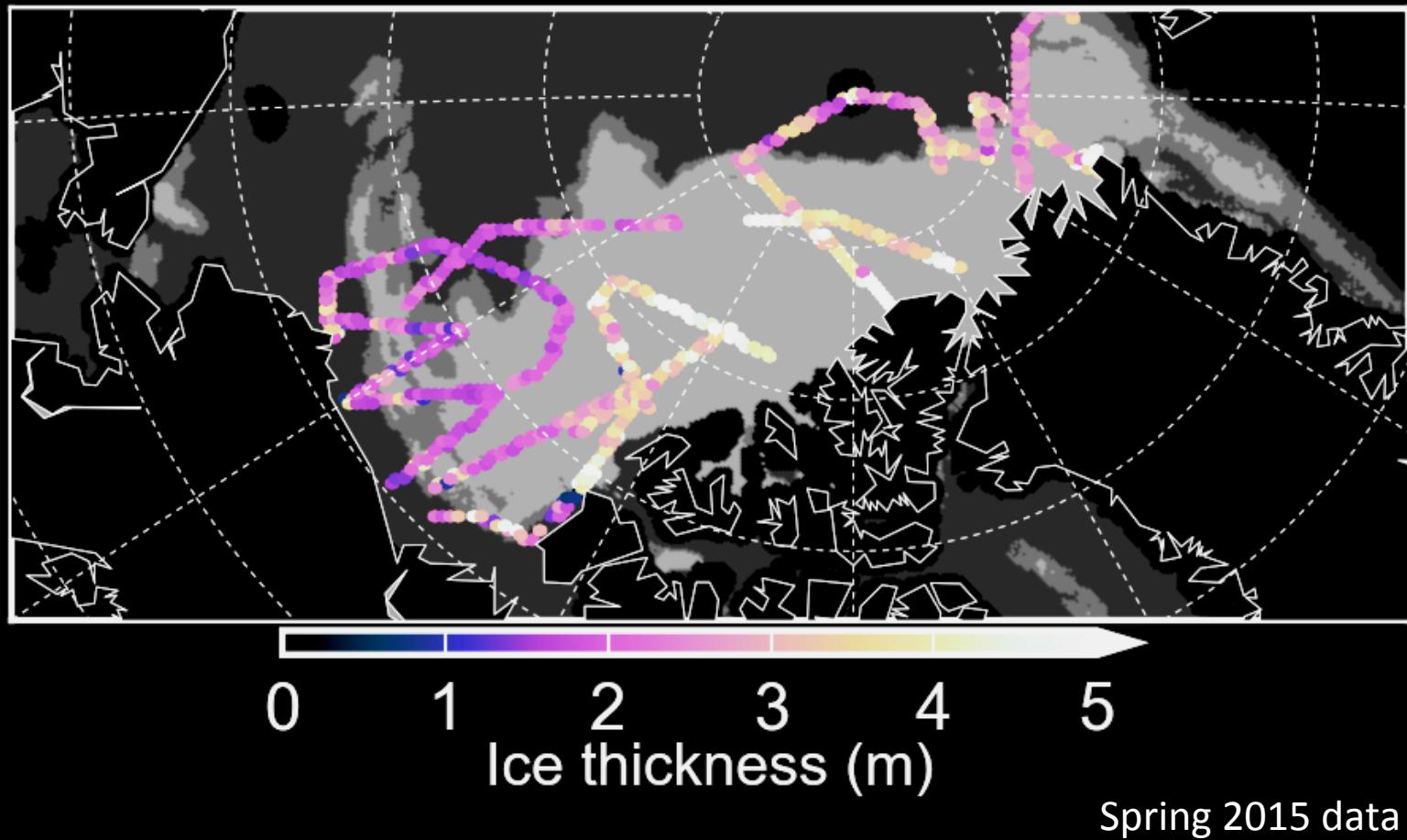
Challenges for seasonal forecasts



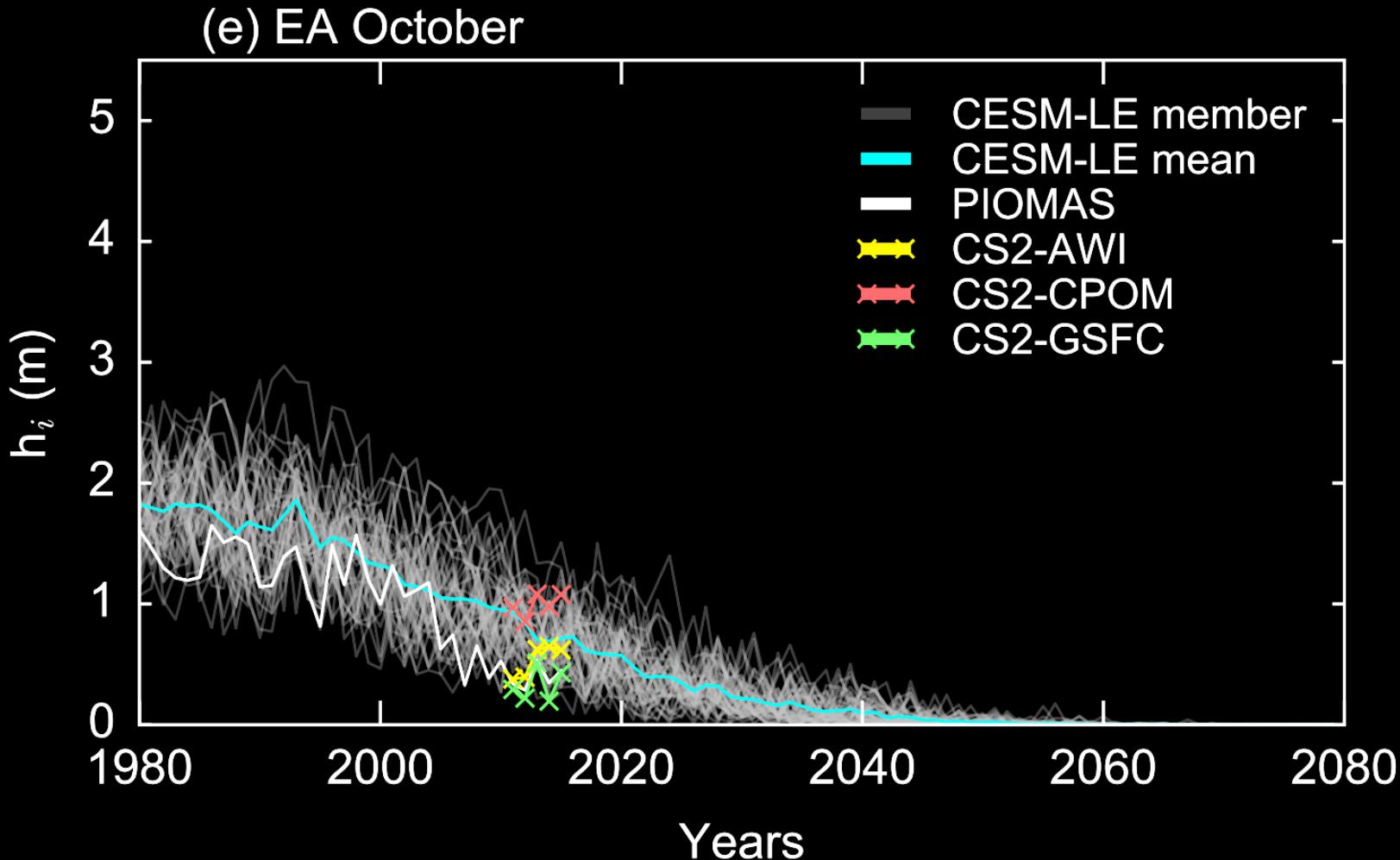
New crop of active satellites provide the crucial third dimension



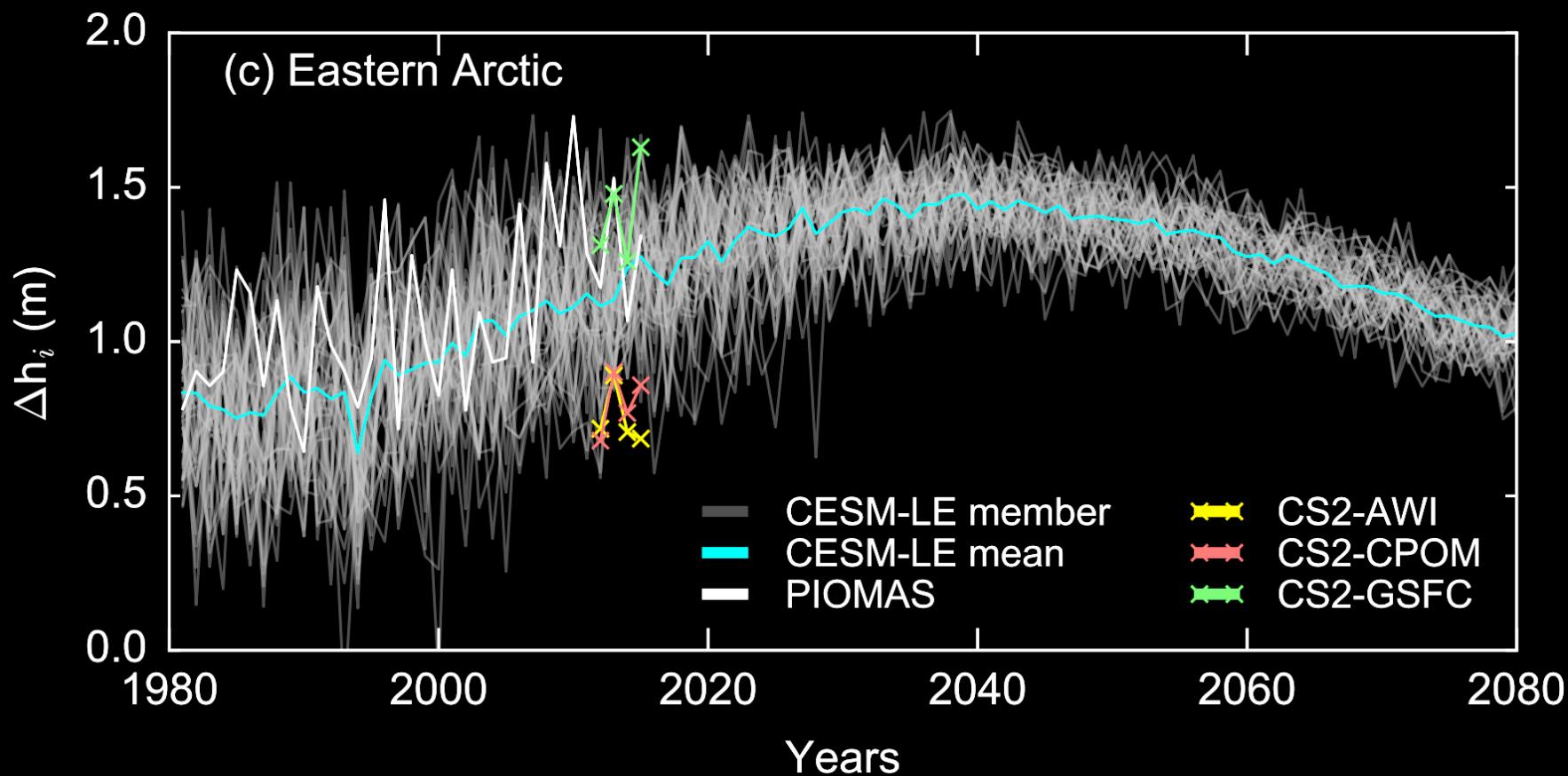
NASA's Operation IceBridge Sea ice thickness results



Models and observations provide the long-term context.



Winter ice growth projected to increase, before decreasing towards the end of the century



Questions?

Dr. Alek Petty code 615 (Cryospheric Sciences Lab)

www.alekpetty.com / @alekpetty / alek.a.petty@nasa.gov

