



# *Art & Science across Italy*



## *LA RICERCA OCEANOGRAFICA IN ANTARTIDE*

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*La Parthenope incontra i Licei Scientifici di Napoli e provincia*







ARCTIC

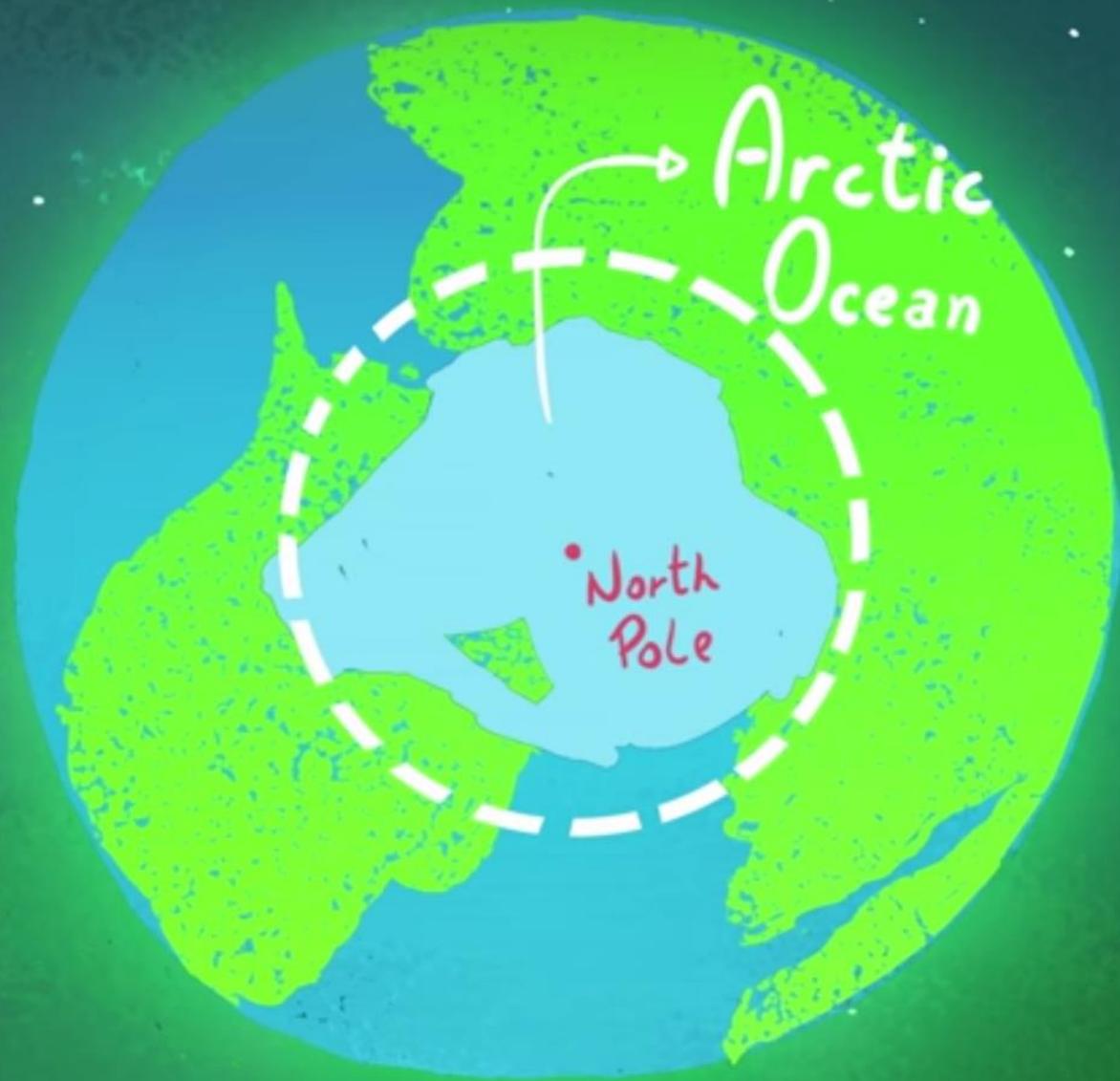


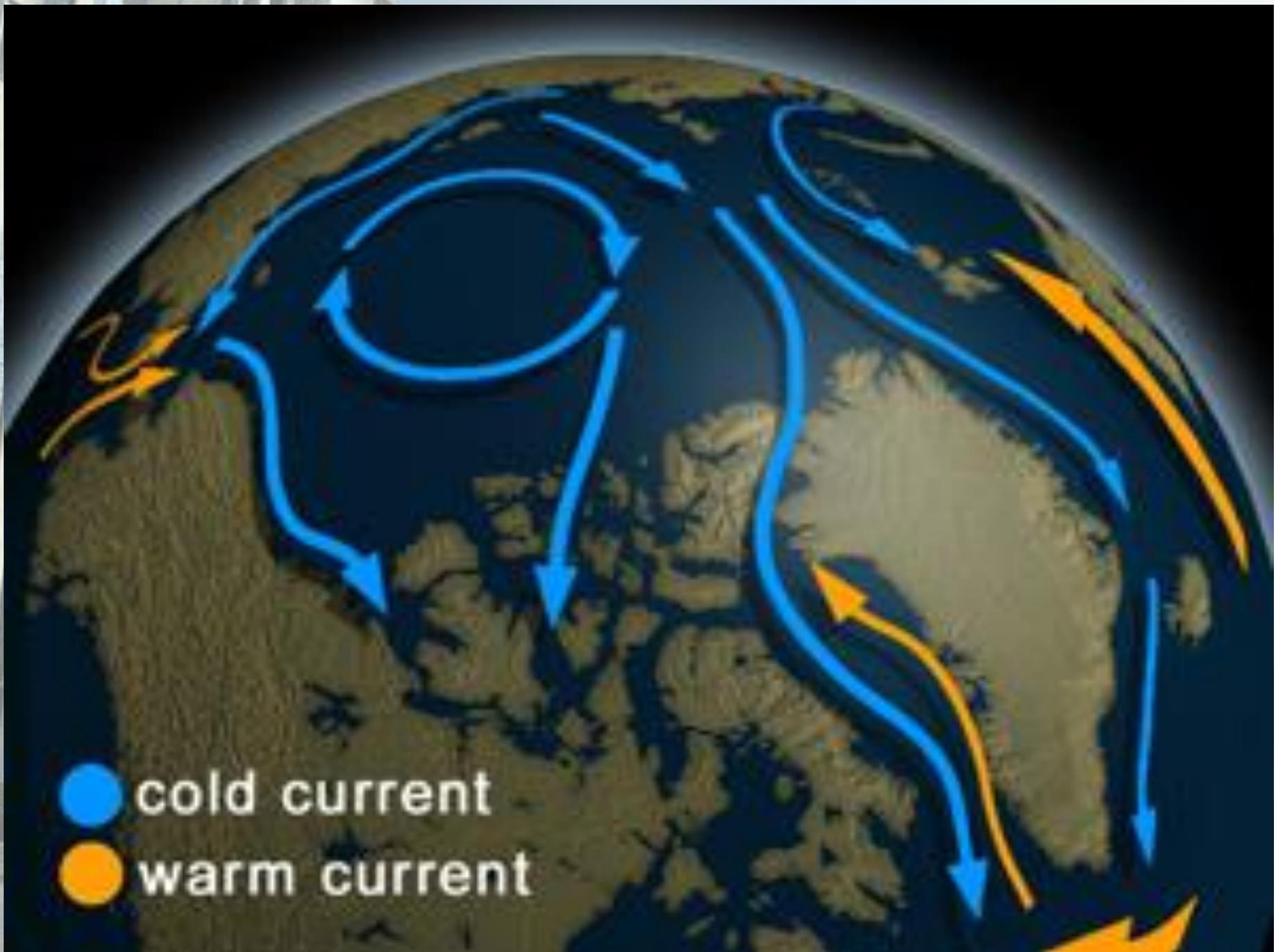
ANTARCTIC



The Arctic  
Arktikos  
"of the North"

The Antarctic  
Antarktikos  
"opposite of North"







## Arctic



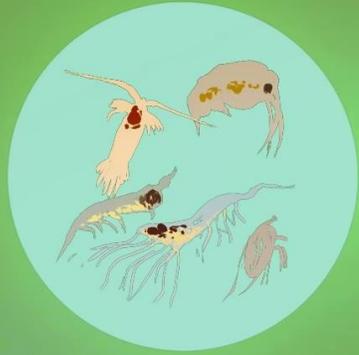
Most of the Arctic are at sea level as major part of arctic are on Arctic ocean.



## Arctic



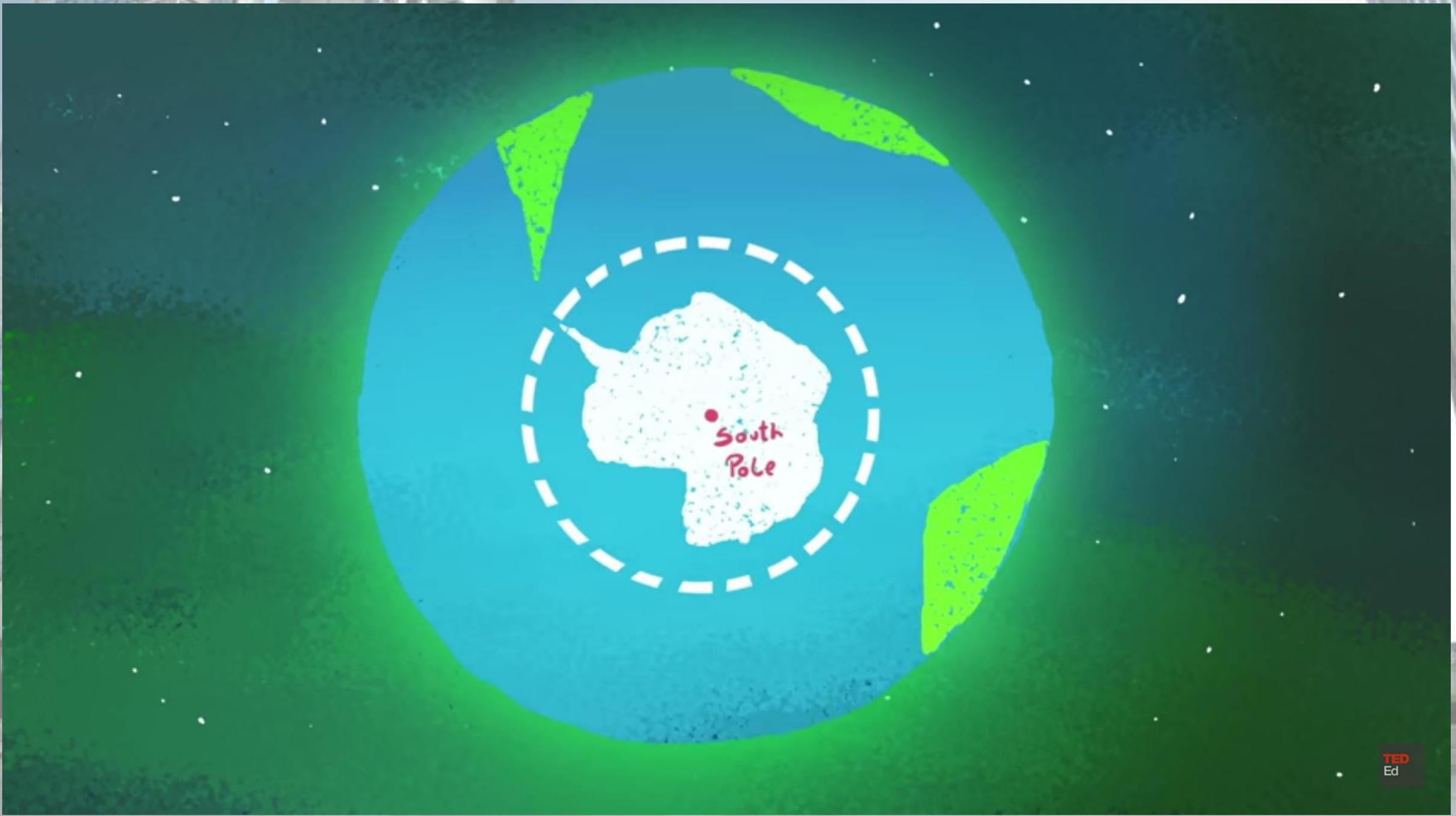
Because of warm Ocean currents, the Arctic is warmer with winter temperature ranging from  $-43^{\circ}\text{C}$  to  $-26^{\circ}\text{C}$



# Arctic



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# Antarctic



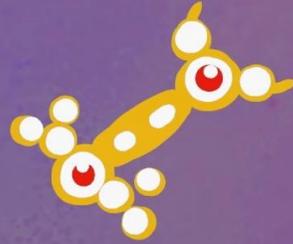
Antarctic region are at an average height of over 2200 meter above the sea level



98%  
of ice



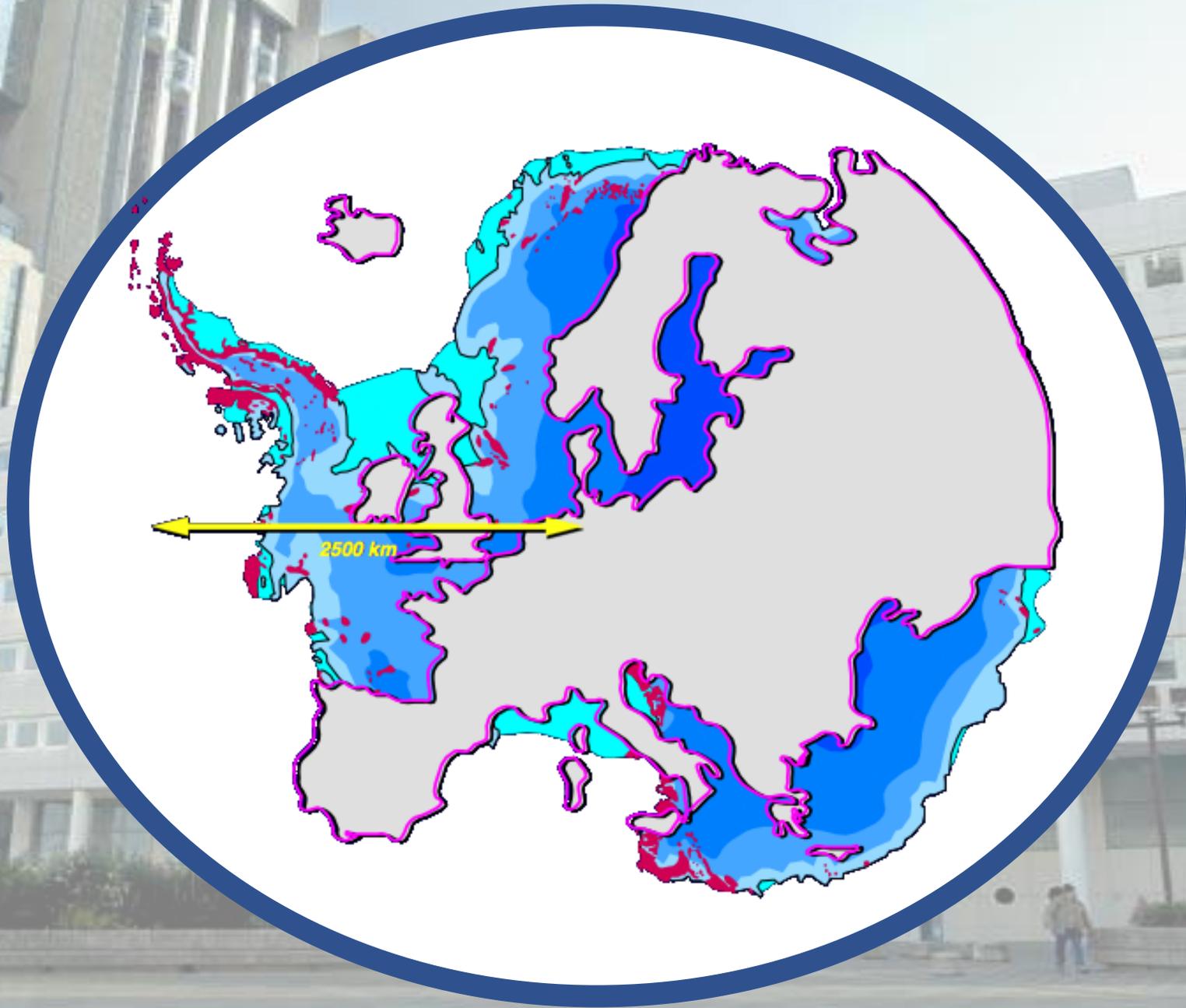
**1 mile**  
**(1.6 Km)**



## Antarctic



Antarctic region being very high above sea level have low temperature with winter temperature ranging from  $-62^{\circ}\text{C}$  to  $-55^{\circ}\text{C}$





North America:  
24,709,000 km<sup>2</sup>



Europe:  
9,938,000 km<sup>2</sup>



Asia:  
44,579,000 km<sup>2</sup>



Antarctica:  
13,829,430 km<sup>2</sup>



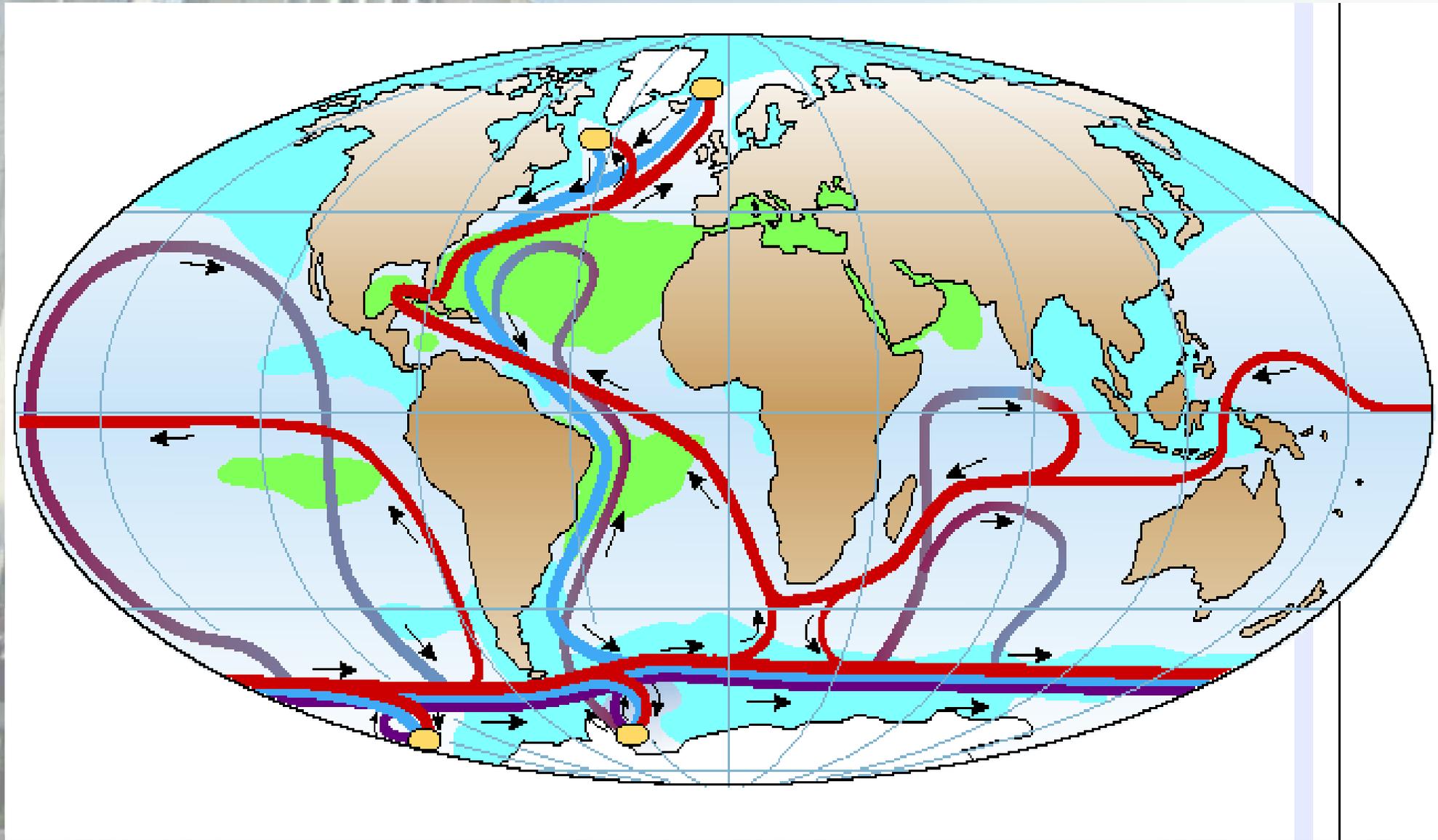
South America:  
17,819,000 km<sup>2</sup>



Africa:  
30,065,00 km<sup>2</sup>

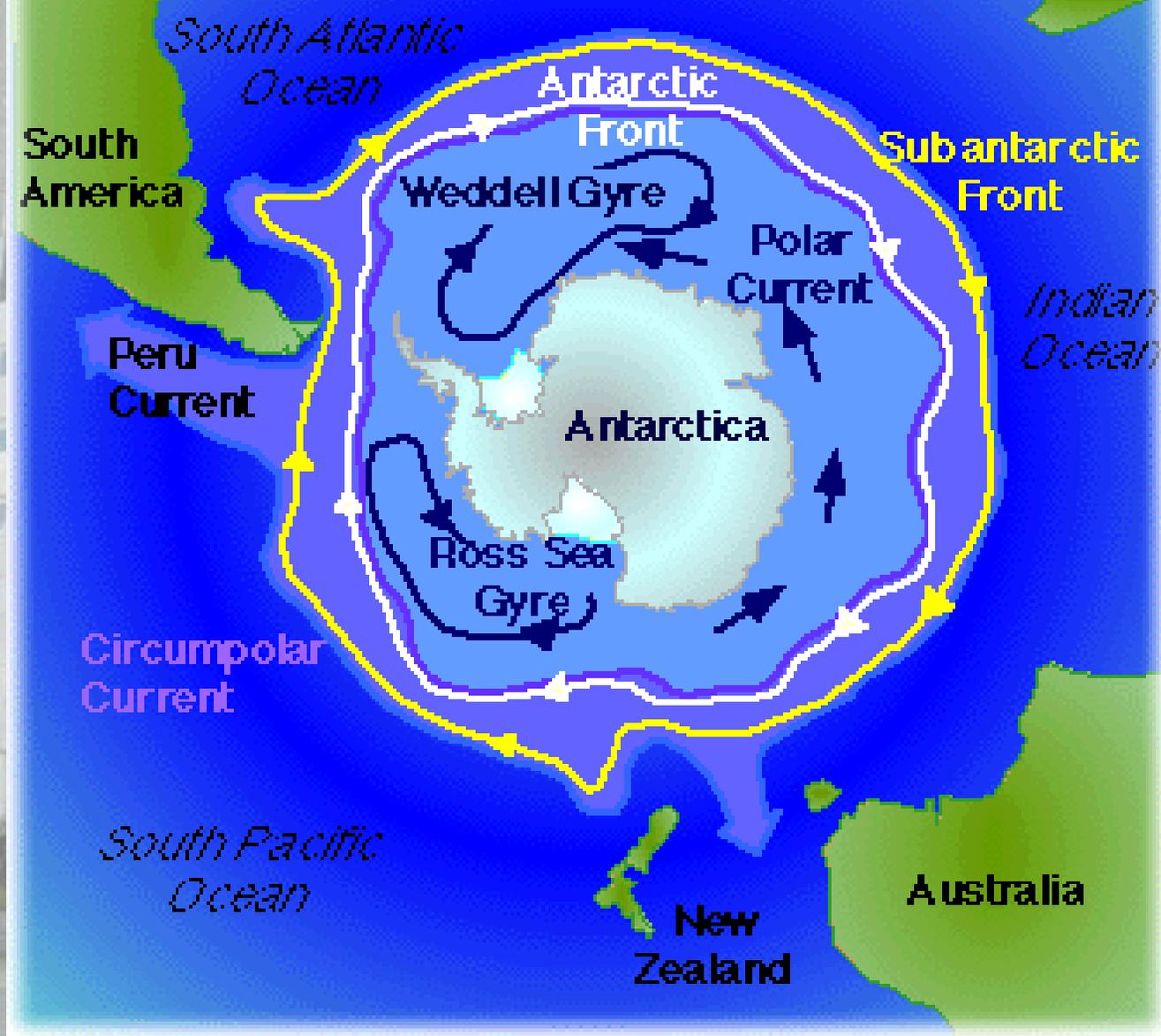


Australasia:  
7,687,000 km<sup>2</sup>



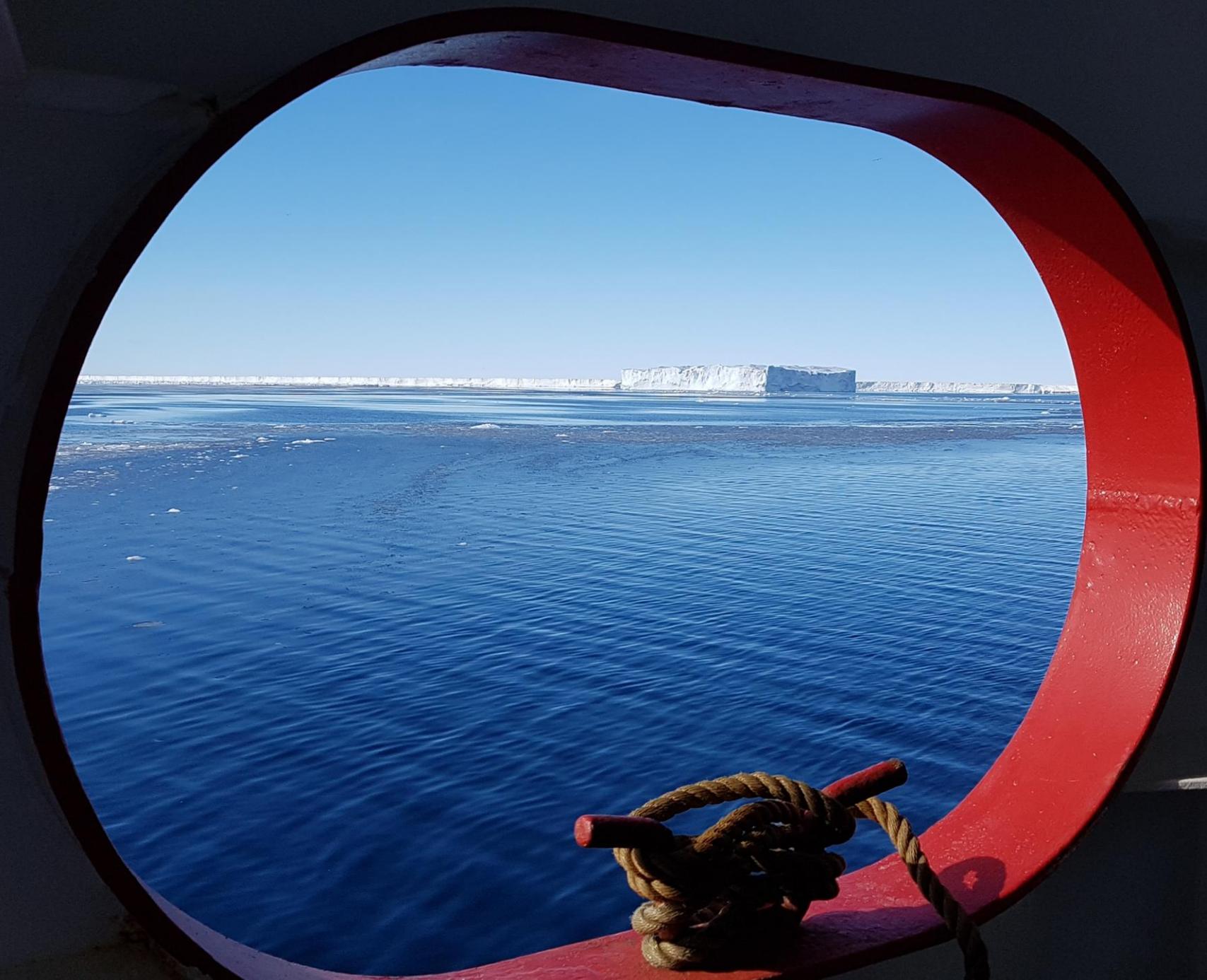


# Antarctic Ocean Circulation











In such a vast domain, we collect two main type od data:

Lagrangian

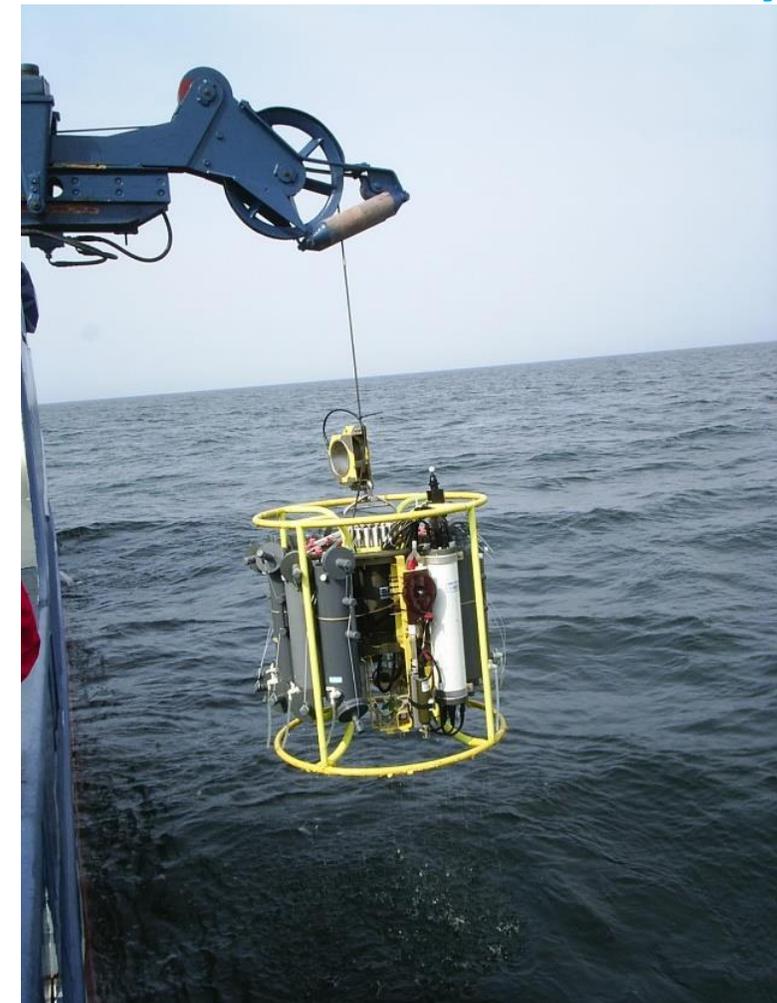
Float and Drifter

Eulerian

XBT,XCTD,CTD,TSG

Satellite data

Altimetry data

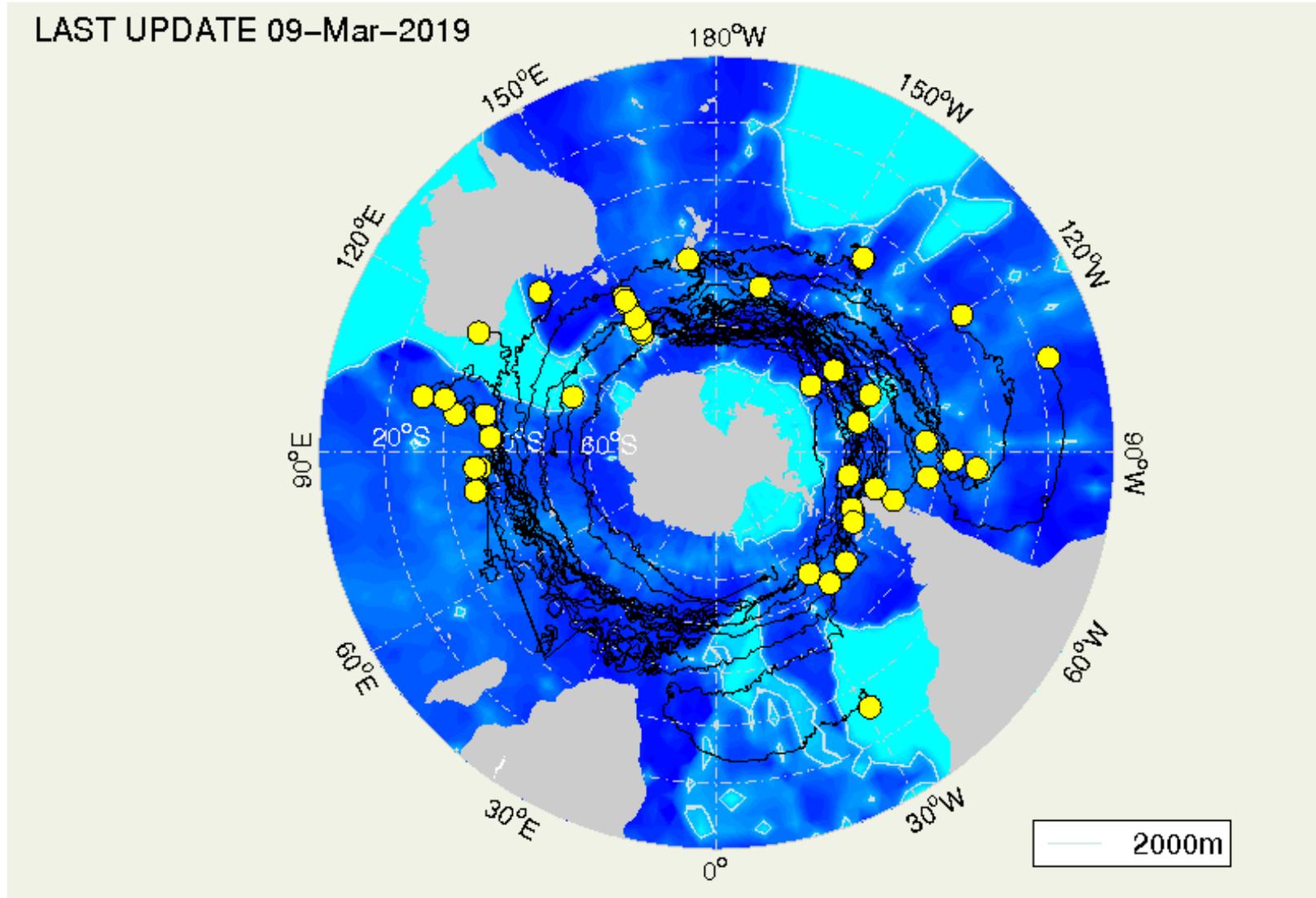
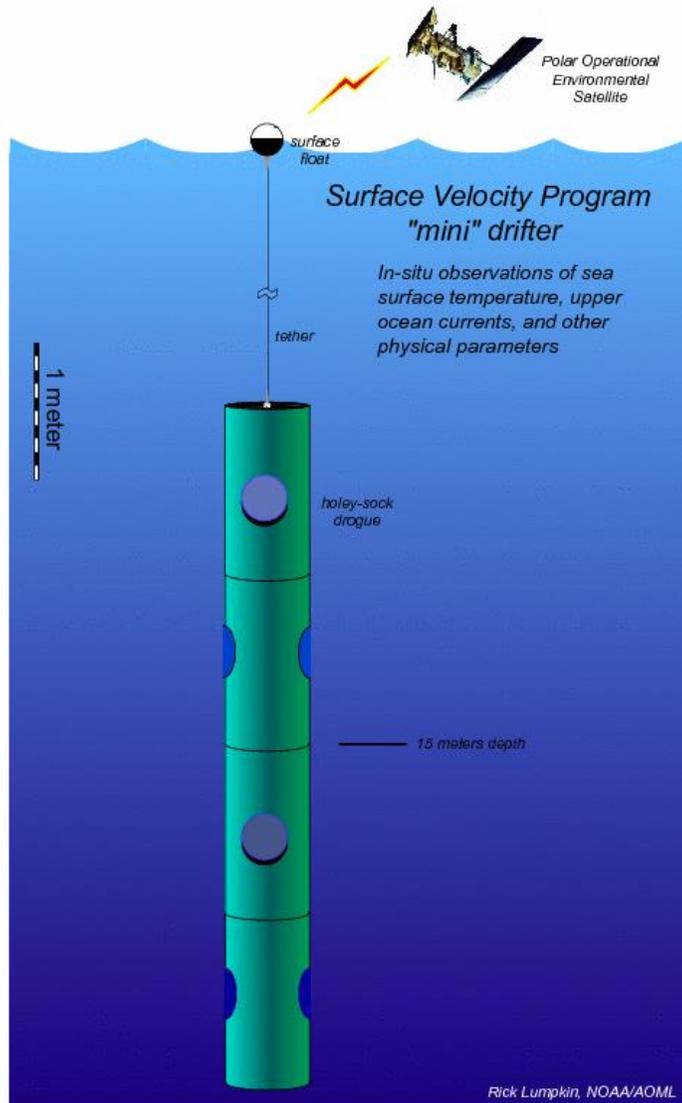


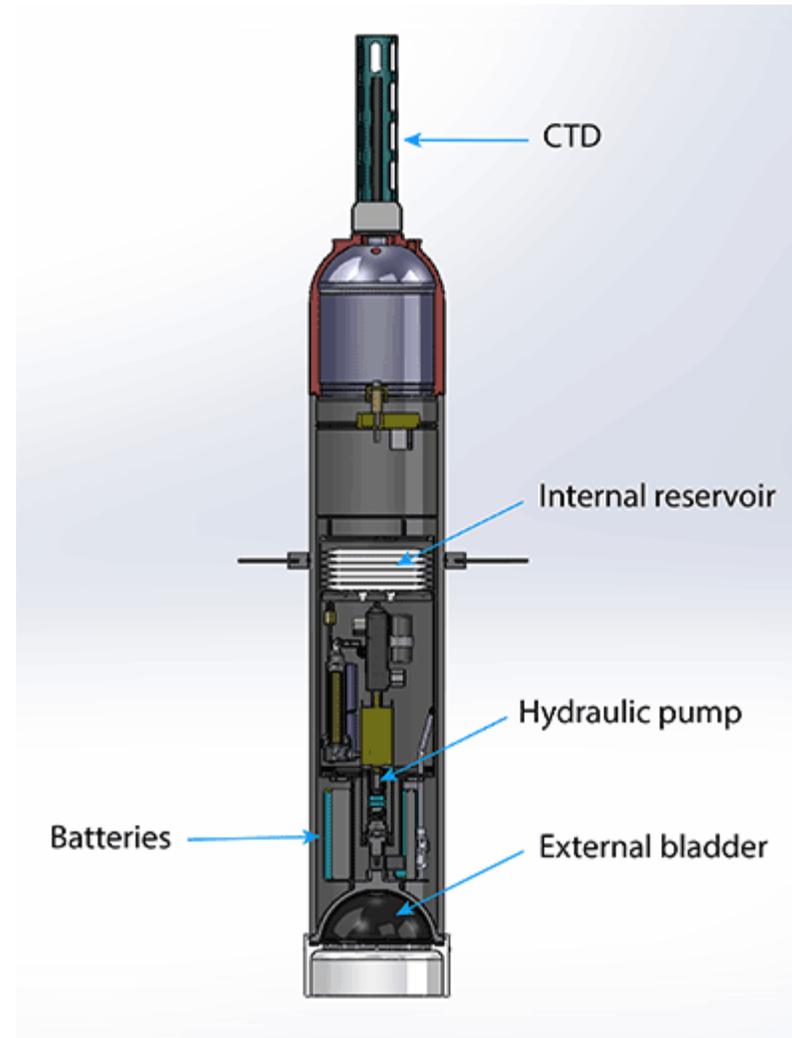
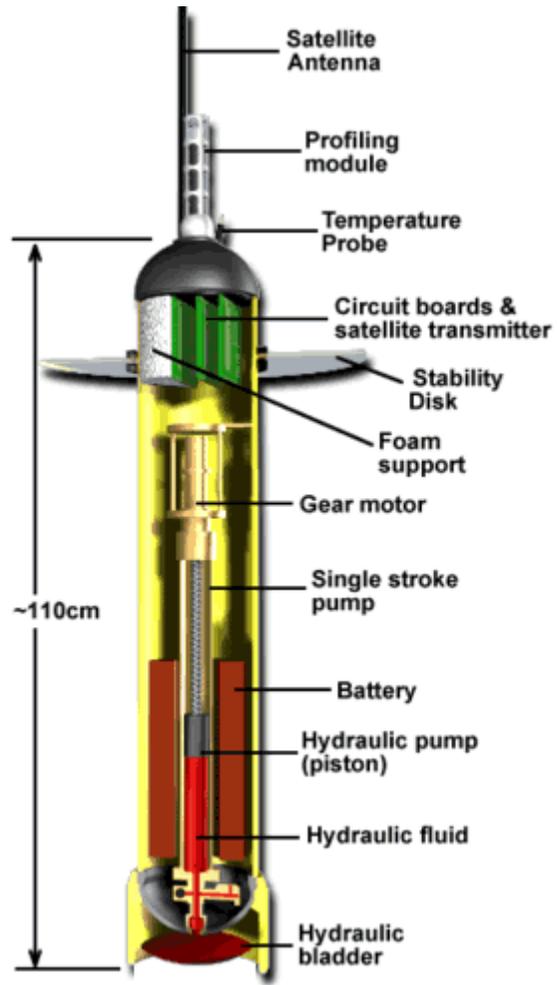
**RV *INVESTIGATOR***

**CTD**

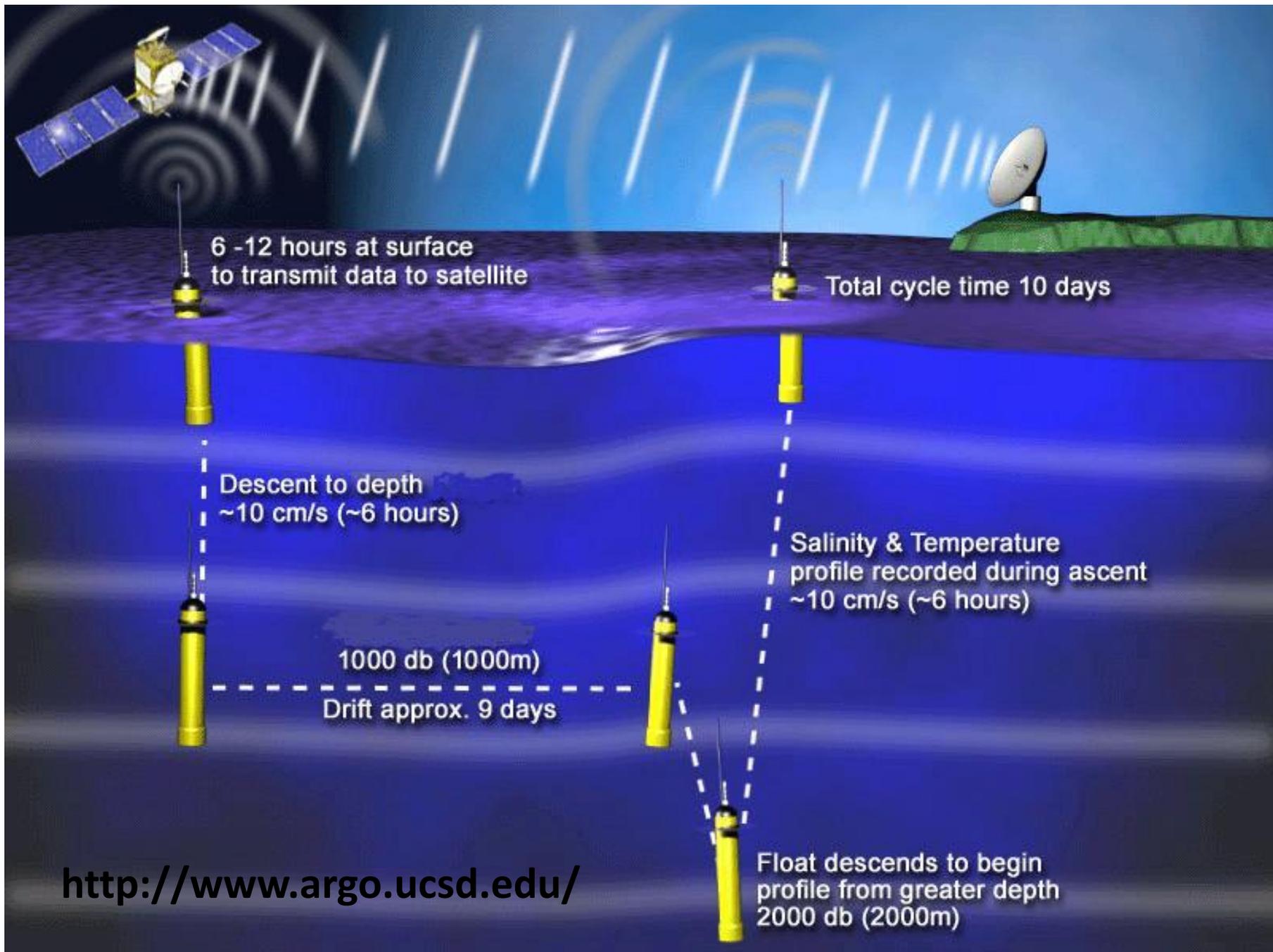


# 31 active drifters on 9 March 2019



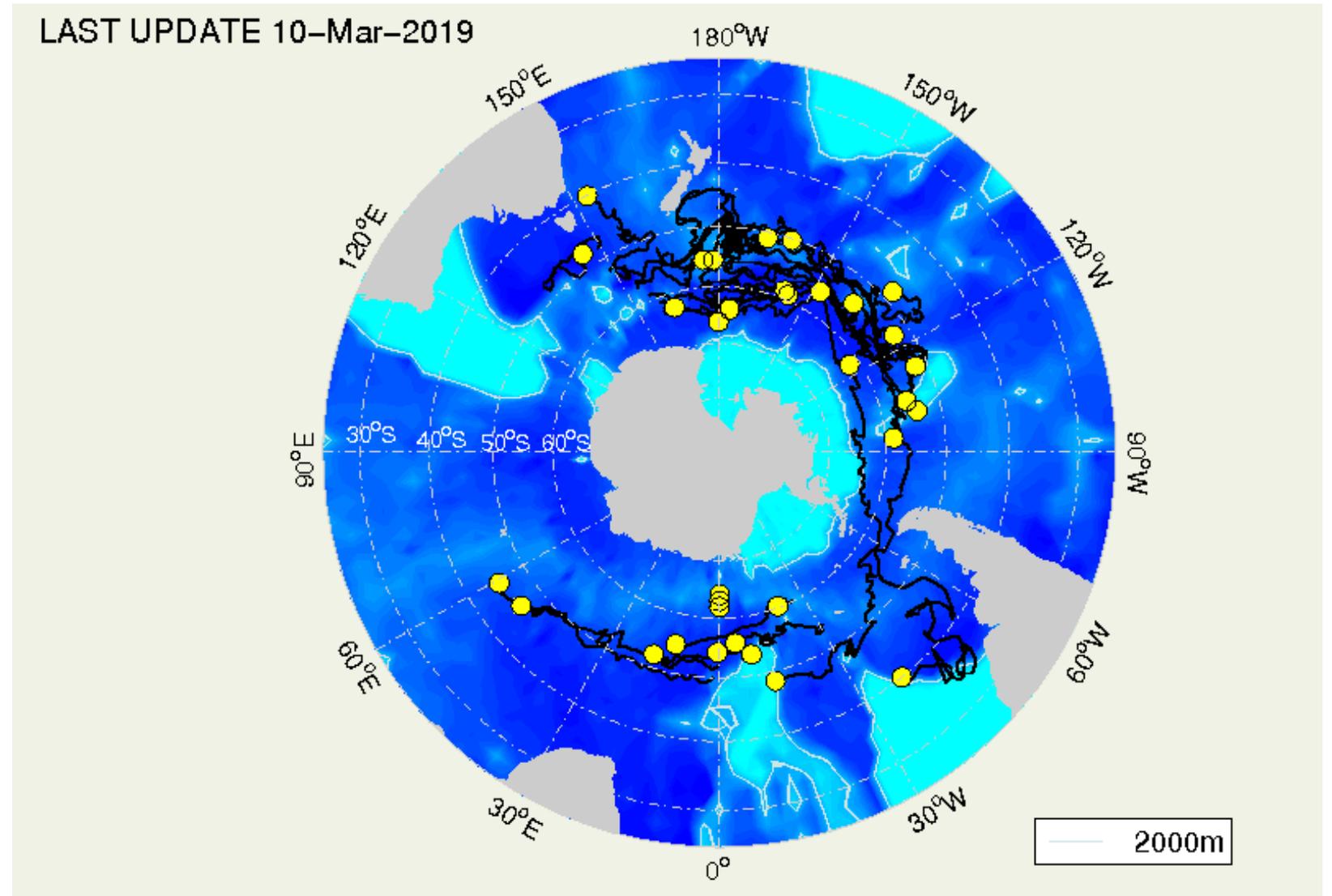


<http://www.argo.ucsd.edu/>



<http://www.argo.ucsd.edu/>

# 37 active floats on 9 March 2019



A photograph of a modern university building with a glass facade and a central entrance. The building is multi-storied and features a mix of concrete and glass. The sky is clear and blue. The text is overlaid on the image in a blue, italicized font.

*Aspetti legati all'arte:*

*Lo spazio*

*Il ghiaccio*

*Il Silenzio*

*I colori e la loro assenza*

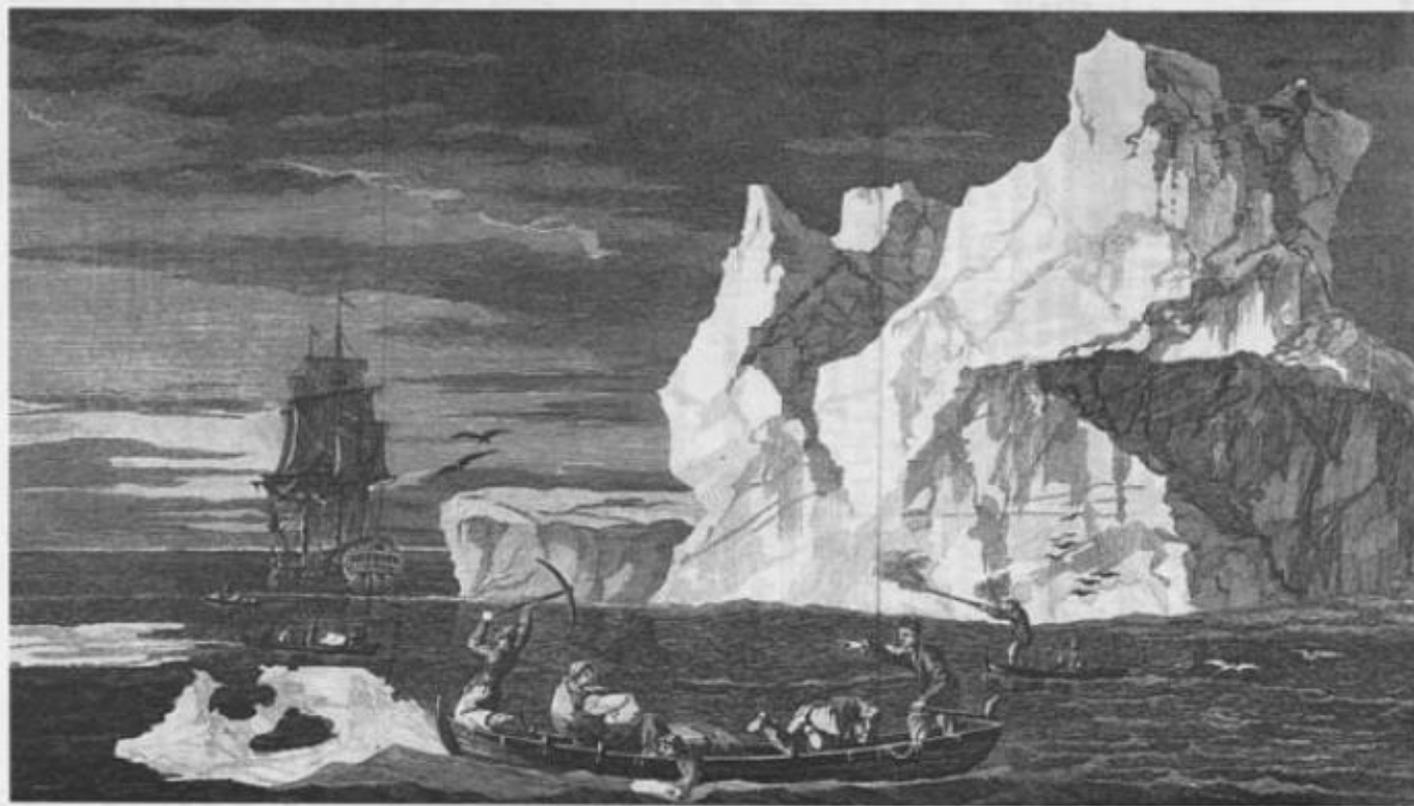


Plate 2: *The Ice Islands, seen the 9th January 1773. James Cook [140]*  
(From the 1777 edition of *Cook's voyage*; Scott Polar Research Institute)

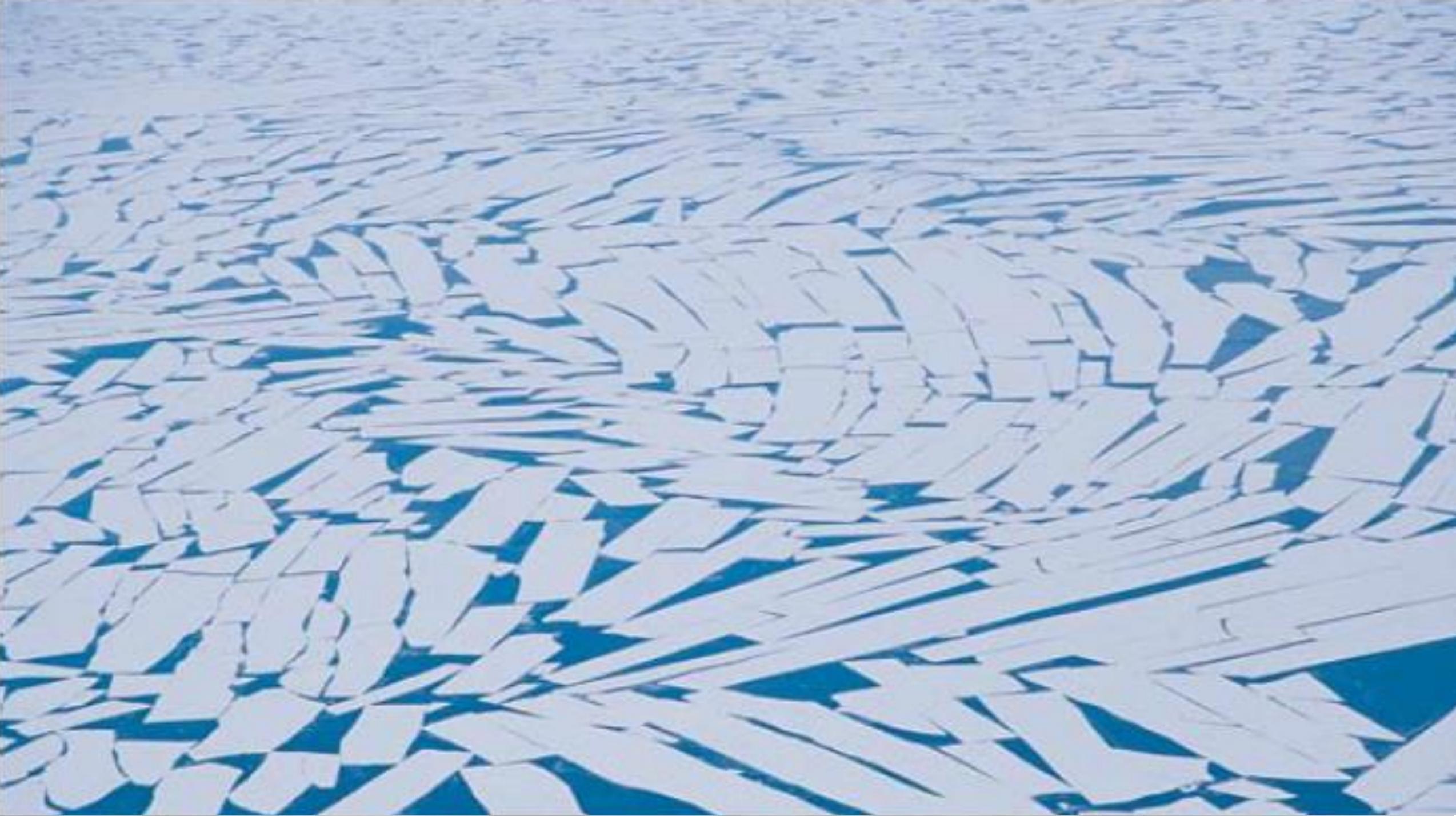


Acquarello di G.E. Marston, partecipante alla spedizione Nimrod guidata da Ernest H. Shackleton, 1908-09

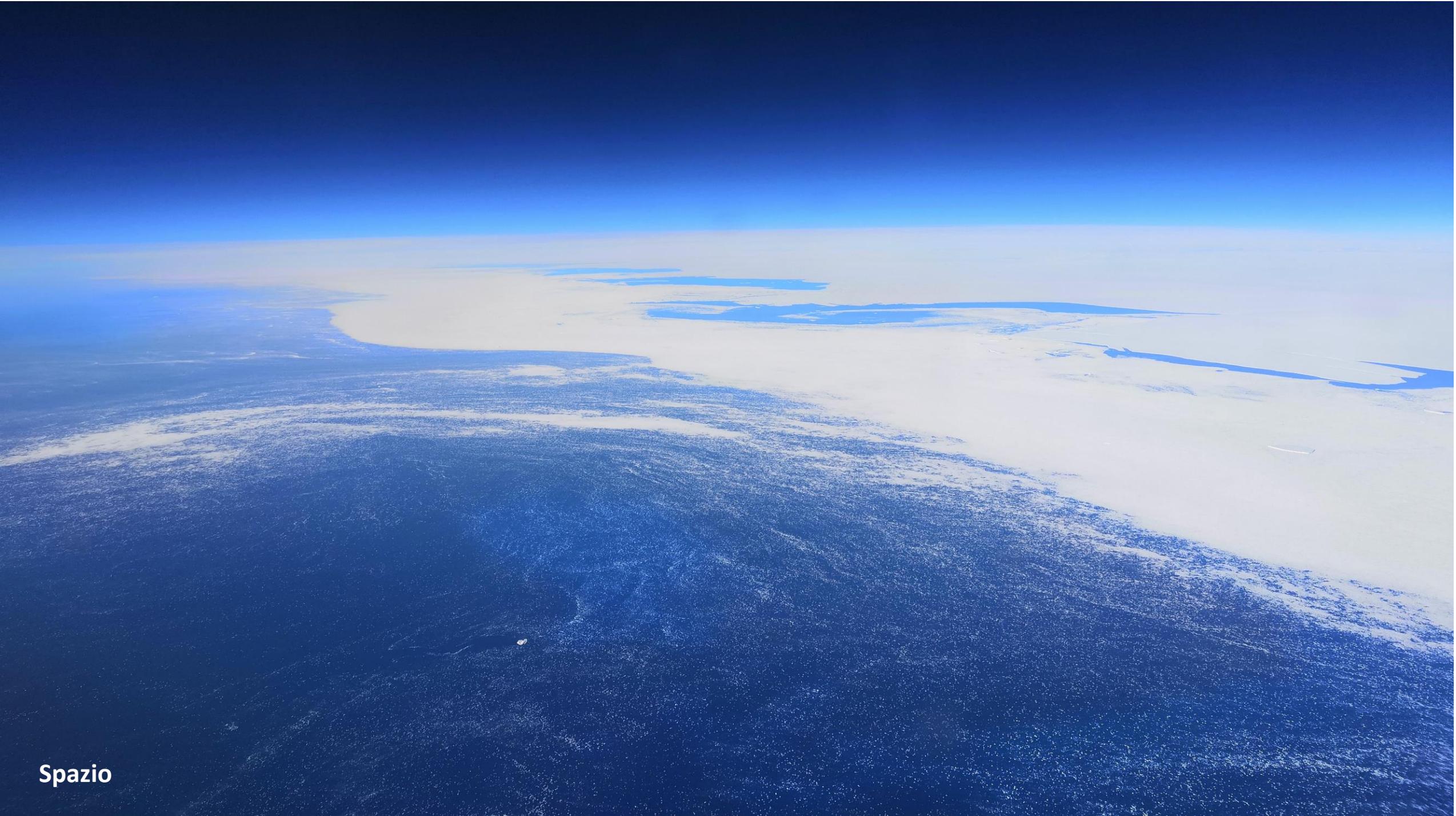












Spazio



Spazio



Spazio



Colori



Colori



Colori



Ghiacci



Ghiacci



Ghiacci



Ghiacci



Ghiacci



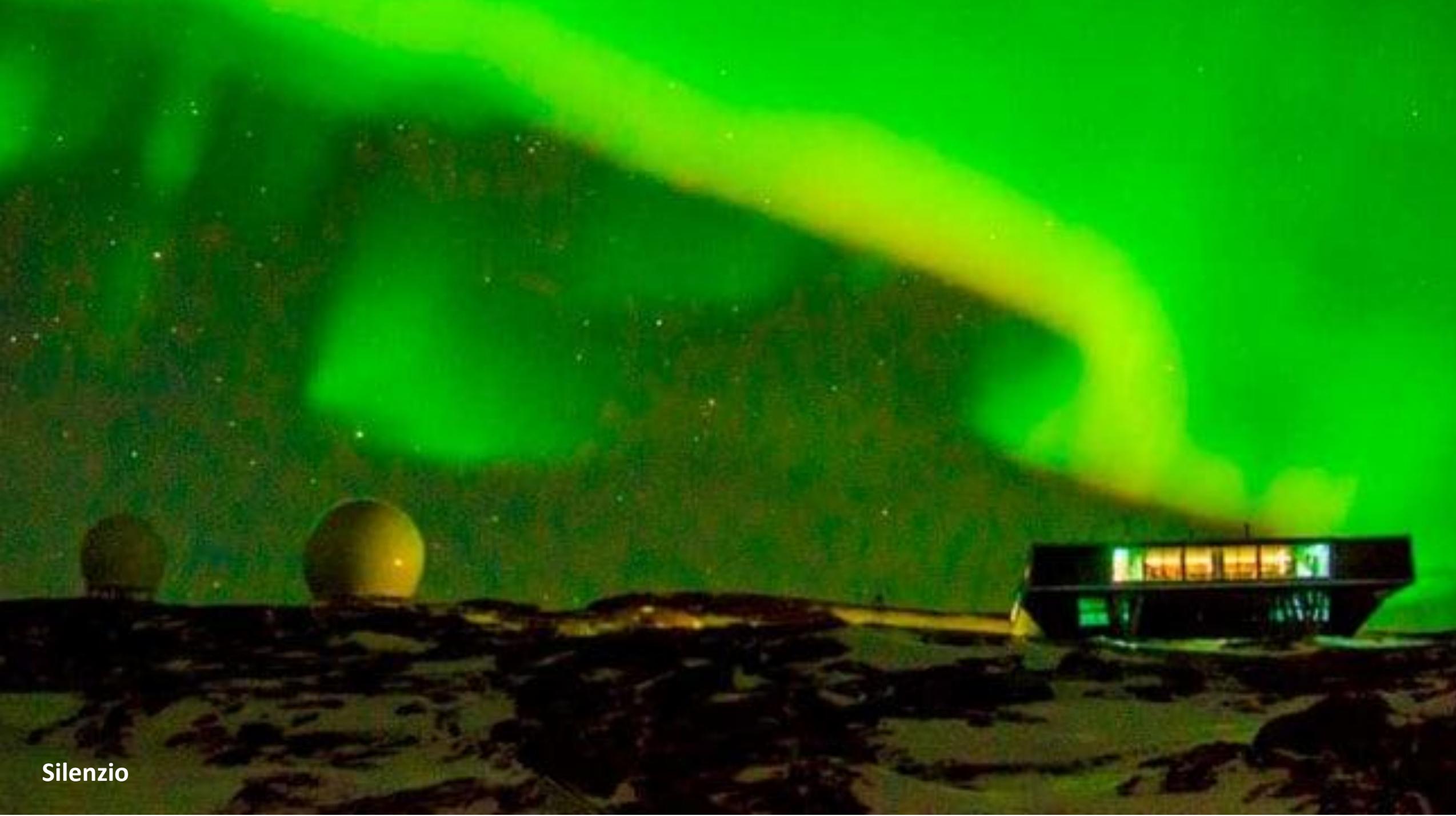
Ghiacci



Ghiacci



Ghiacci



Silenzio

**Le reazioni nucleari all'interno del sole sono accompagnate dalla liberazione di energia che, si diffonde nello spazio circostante sotto forma di onde elettromagnetiche e di particelle elementari. Quando le particelle arrivano in prossimità della Terra, fluiscono attorno al campo magnetico ed alcuni sciami di particelle si insinuano in corrispondenza dei Poli.**

**In seguito agli urti con gli atomi dell'atmosfera, alcuni atomi si caricano di energia e diventano luminescenti.**





Art  
& Science  
ACROSS ITALY



## Video links:

[https://www.youtube.com/watch?v=JOuJt4\\_TRP0](https://www.youtube.com/watch?v=JOuJt4_TRP0)

<https://www.youtube.com/watch?v=LkRQjTdTvFE>

[https://www.youtube.com/watch?v=3niR\\_-Kv4SM](https://www.youtube.com/watch?v=3niR_-Kv4SM)

<https://www.youtube.com/watch?v=Z5VRoGTF60s>

<https://ed.ted.com/lessons/how-do-ocean-currents-work-jennifer-verduin>

<https://mashable.com/video/south-pole-aurora-southern-lights-timelapse/?europe=true>

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[http://www.mna.it/sites/default/files/Arte\\_Antartide\\_catalogo.pdf](http://www.mna.it/sites/default/files/Arte_Antartide_catalogo.pdf)