



UNIVERSITÀ DEGLI STUDI DI NAPOLI
PARTHENOPE



LA RICERCA OCEANOGRAFICA IN ANTARTIDE

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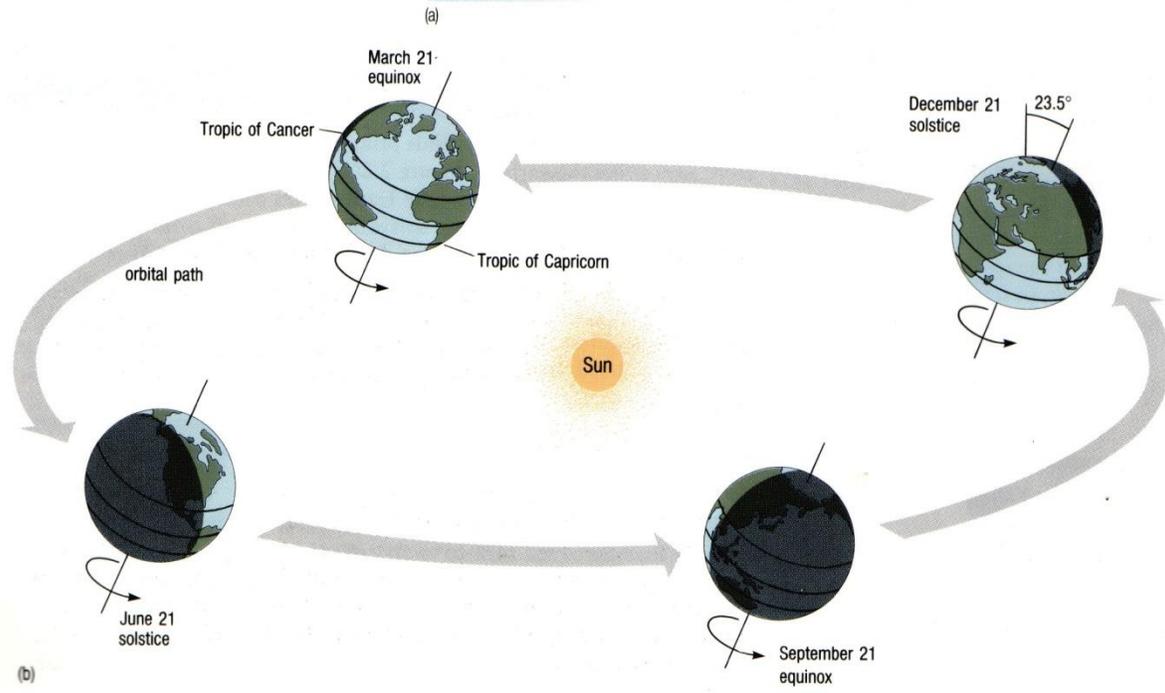
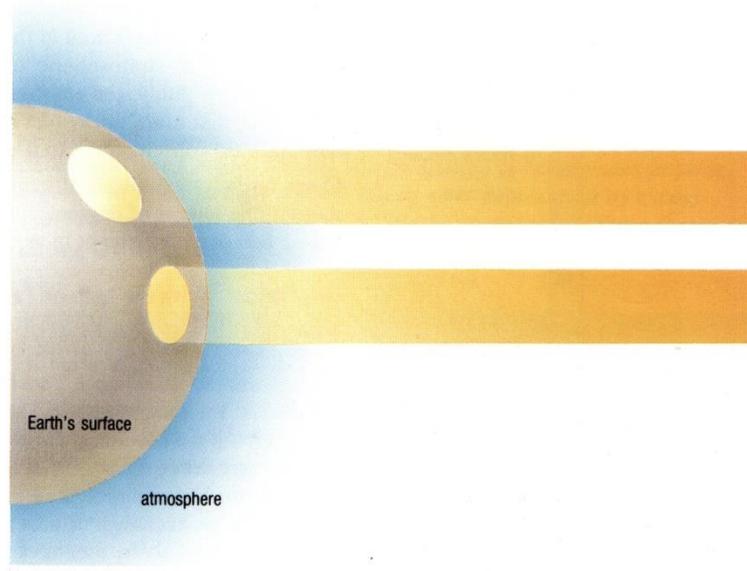


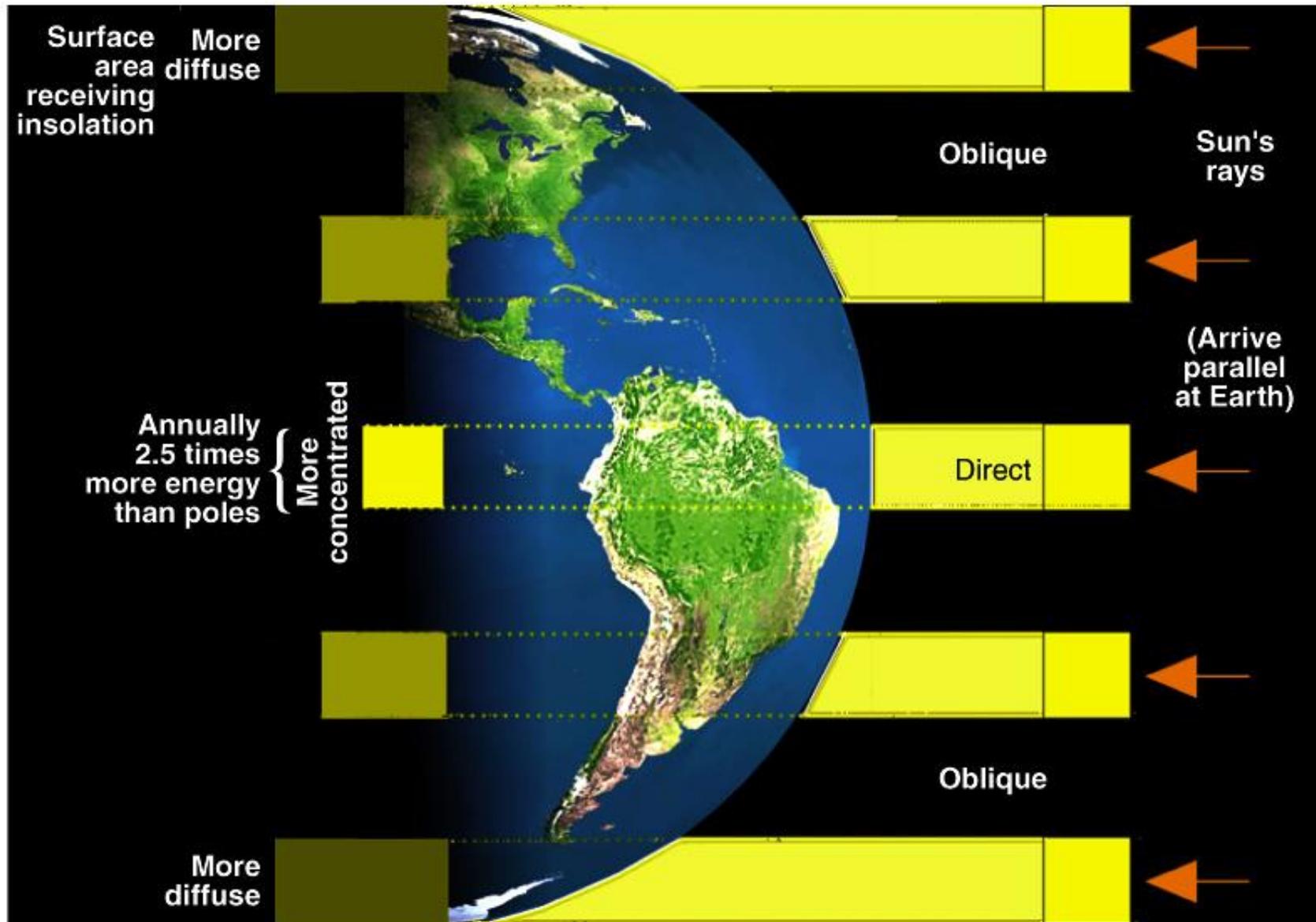
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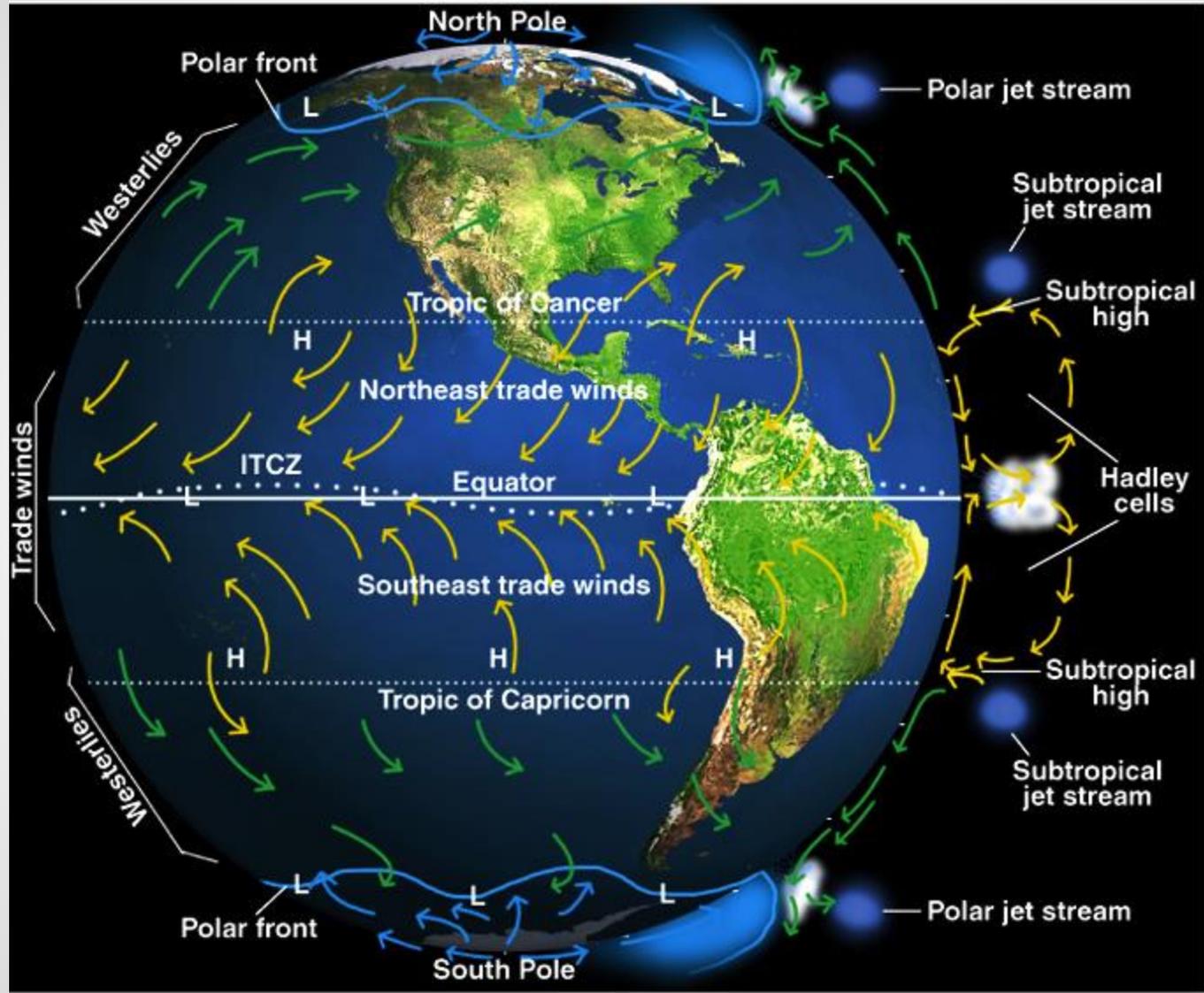


Perchè l'oceanografia in Antartide?

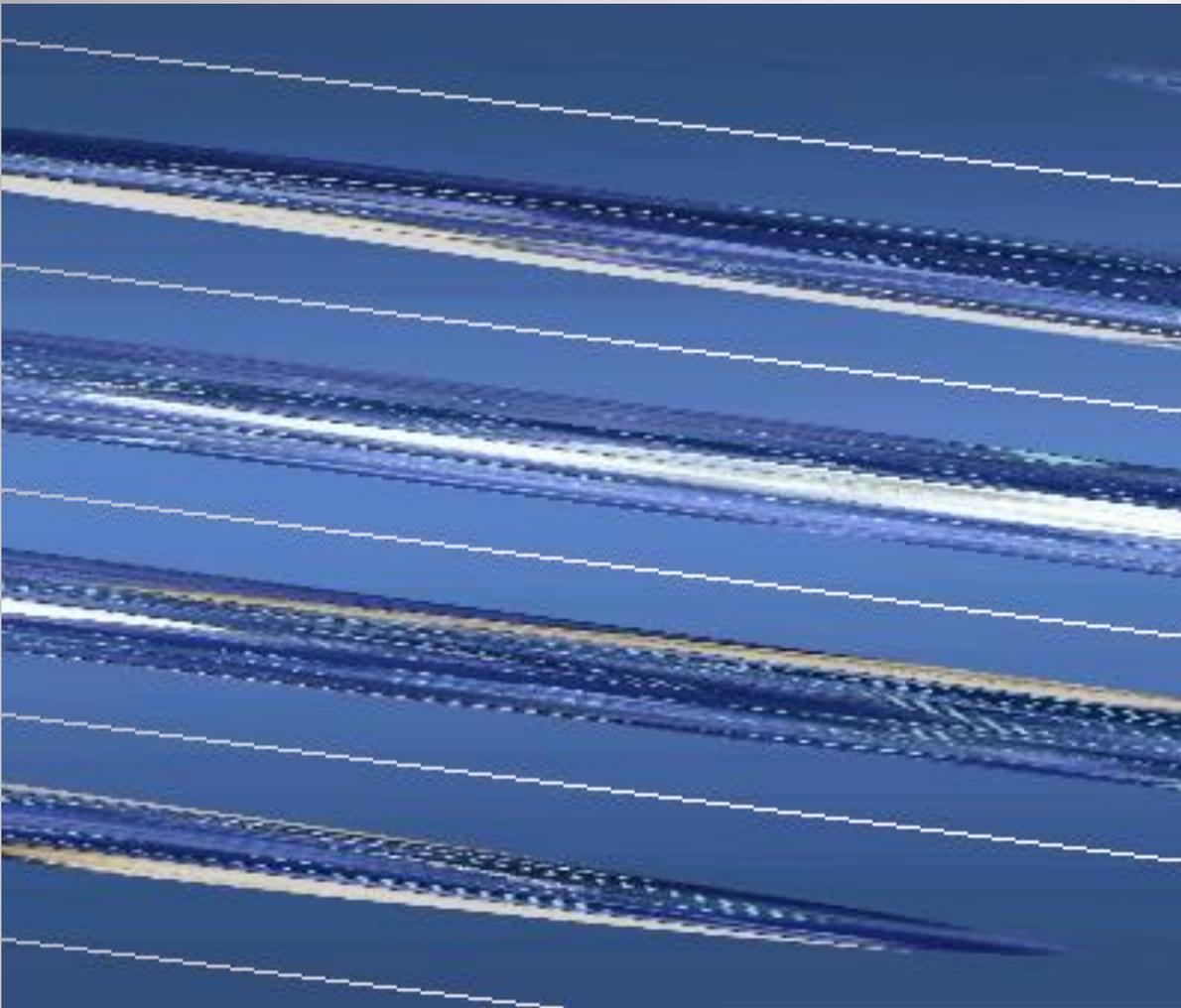








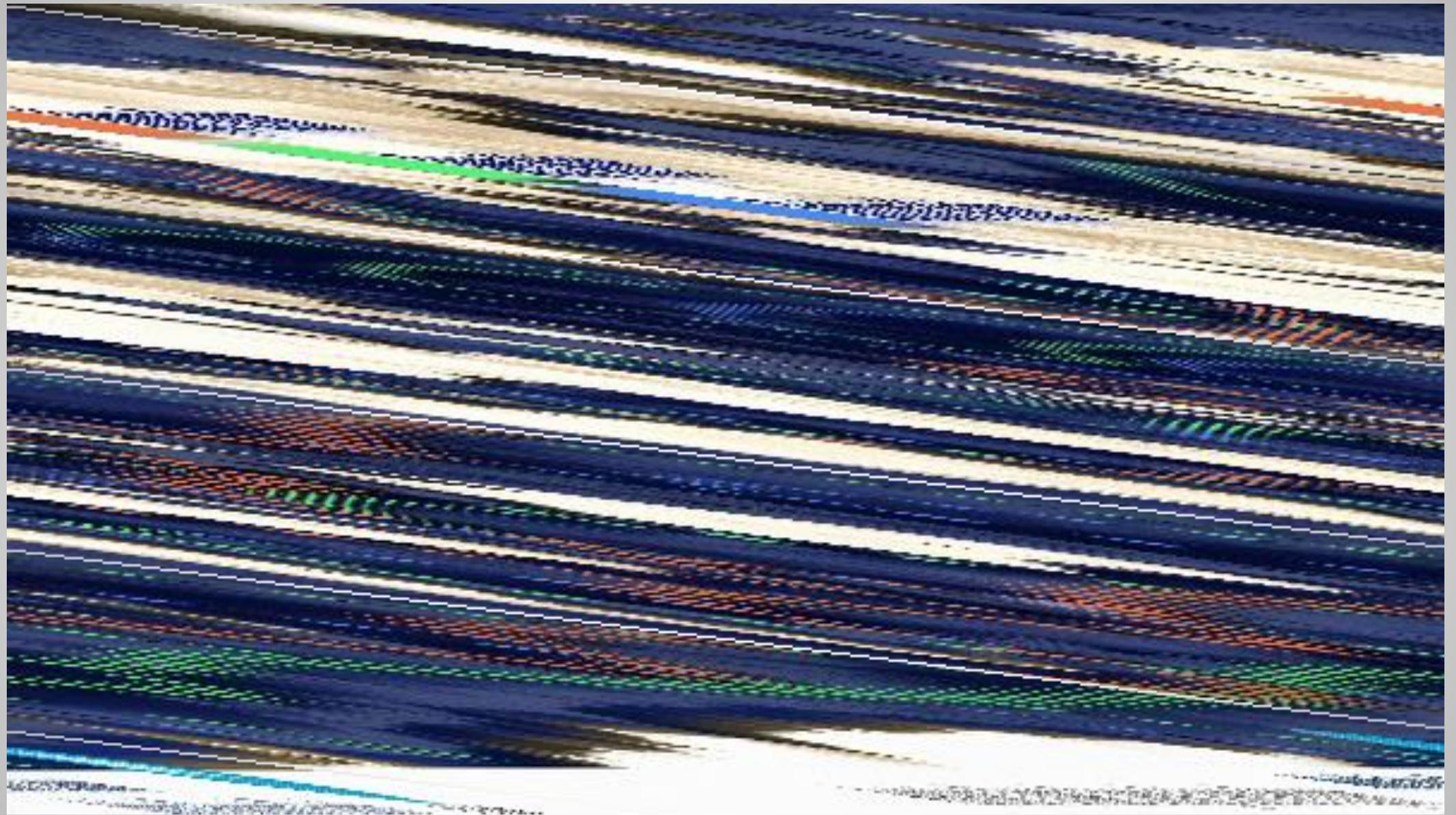


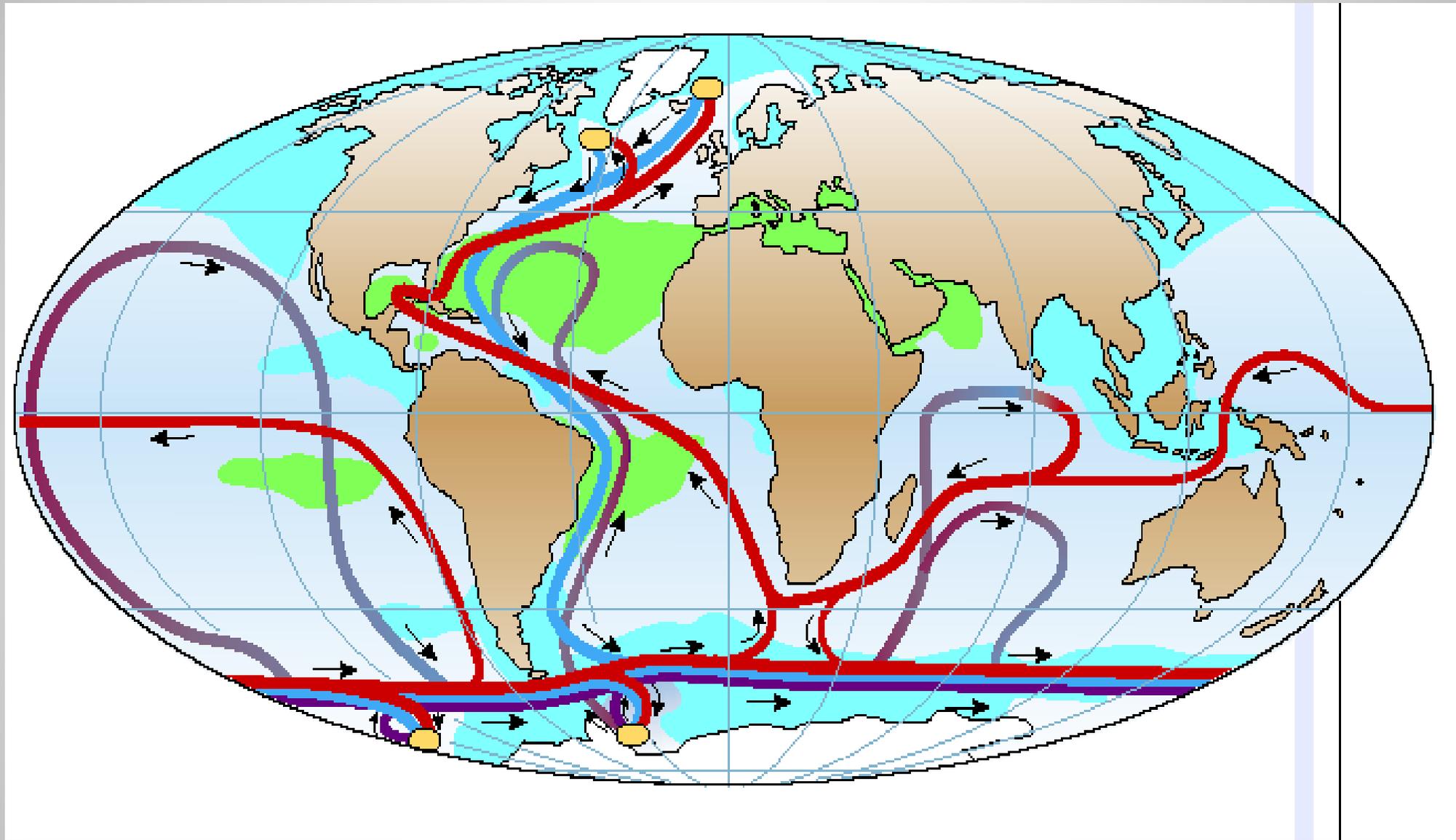


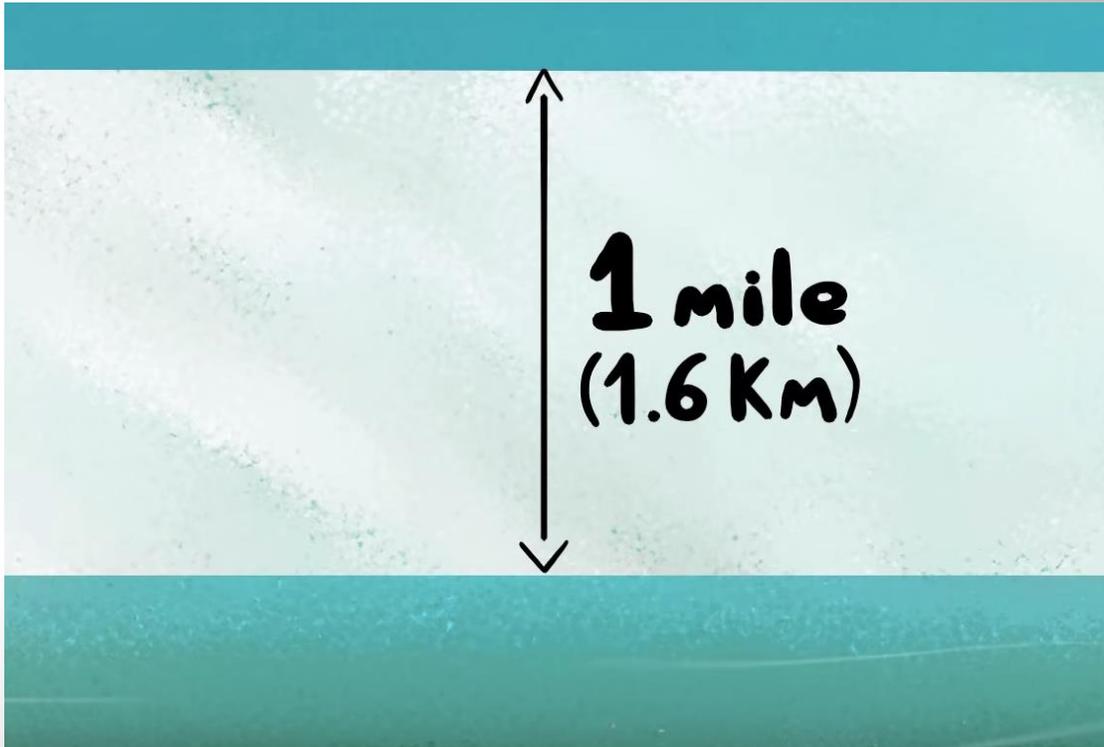
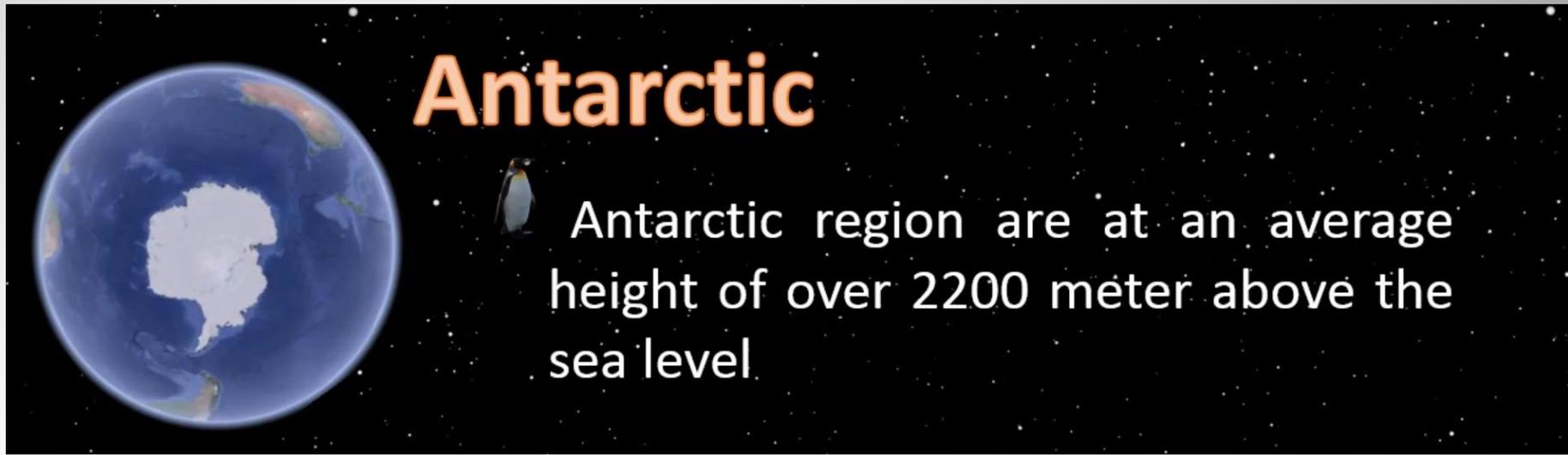
Southern Ocean è l'unico oceano che circonda **interamente** una fascia del pianeta.

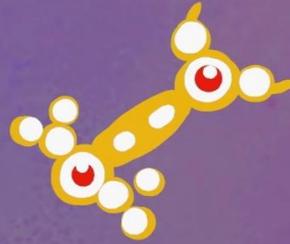
Al suo interno si sviluppa la più grande corrente marina della Terra, la **Corrente Circumpolare Antartica**
Antarctic Circumpolar Current
ACC

Nei **Mari di Ross e di Weddell** inoltre sono localizzati i cosiddetti “**motori freddi del pianeta**” ovvero i siti di produzione delle acque super fredde che mettono in movimento la famosa **Conveyor Belt**



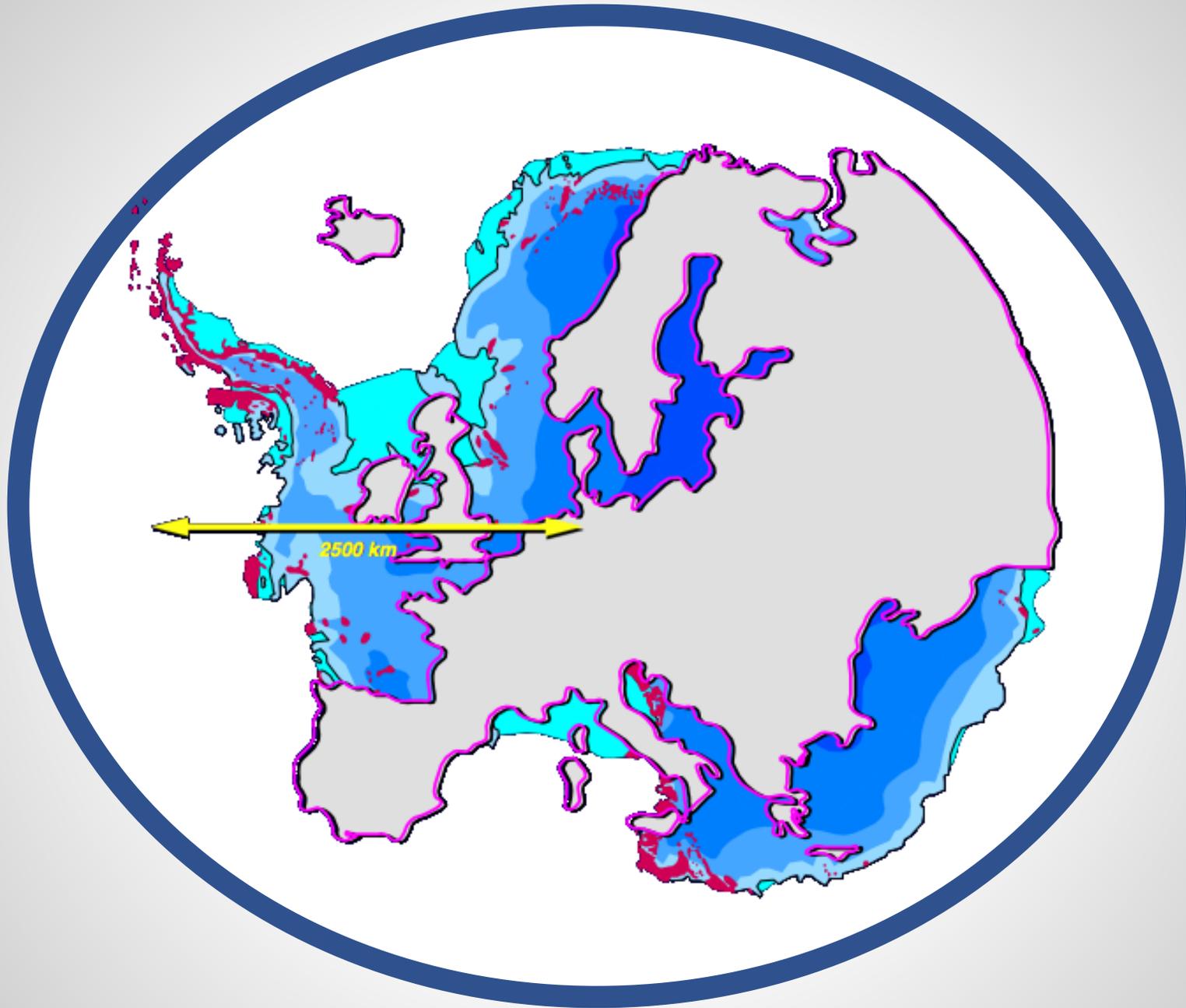






Antarctic

Antarctic region being very high above sea level have low temperature with winter temperature ranging from -62°C to -55°C





North America:
24,709,000 km²



Europe:
9,938,000 km²



Asia:
44,579,000 km²



Antarctica:
13,829,430 km²



South America:
17,819,000 km²

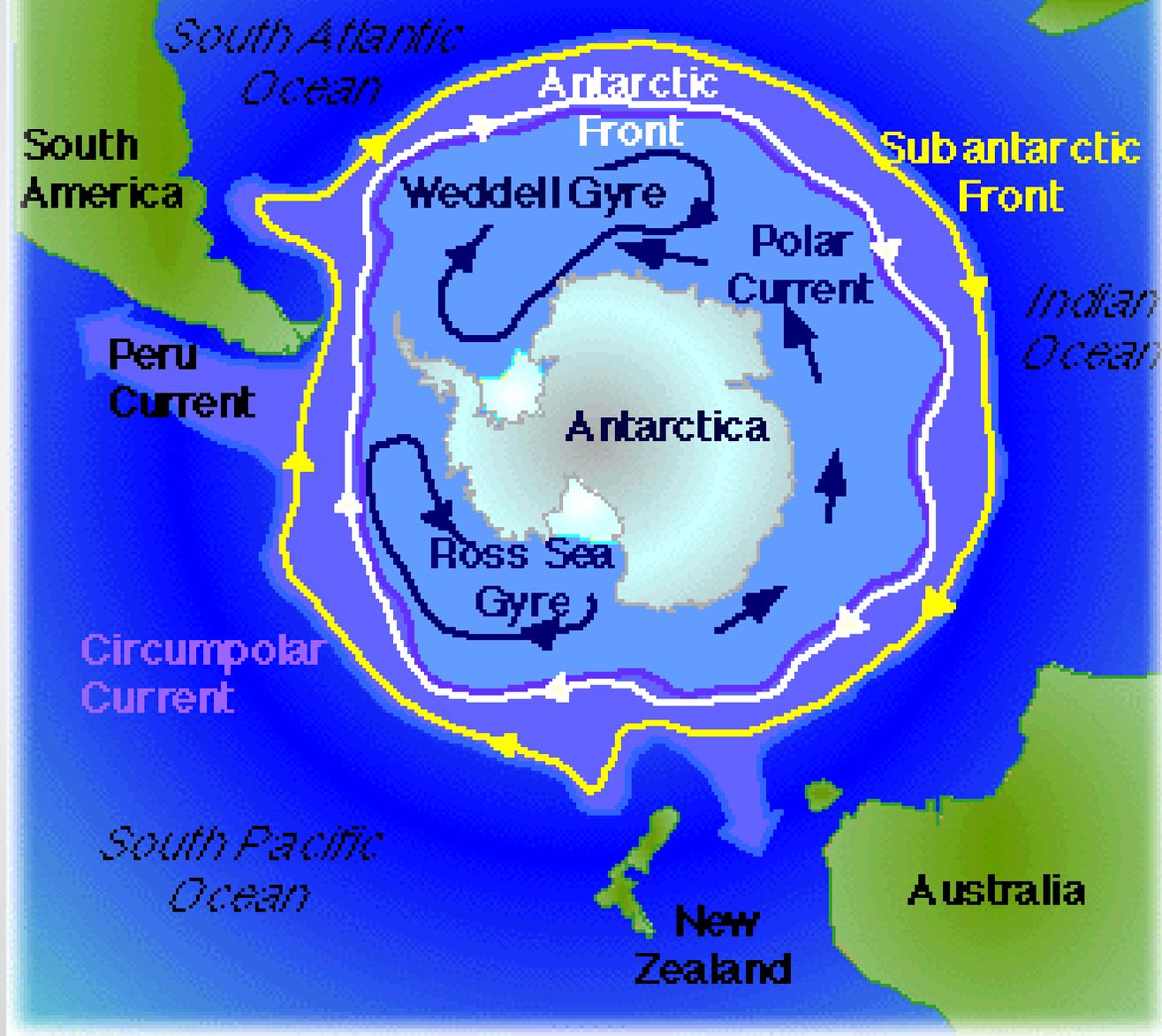


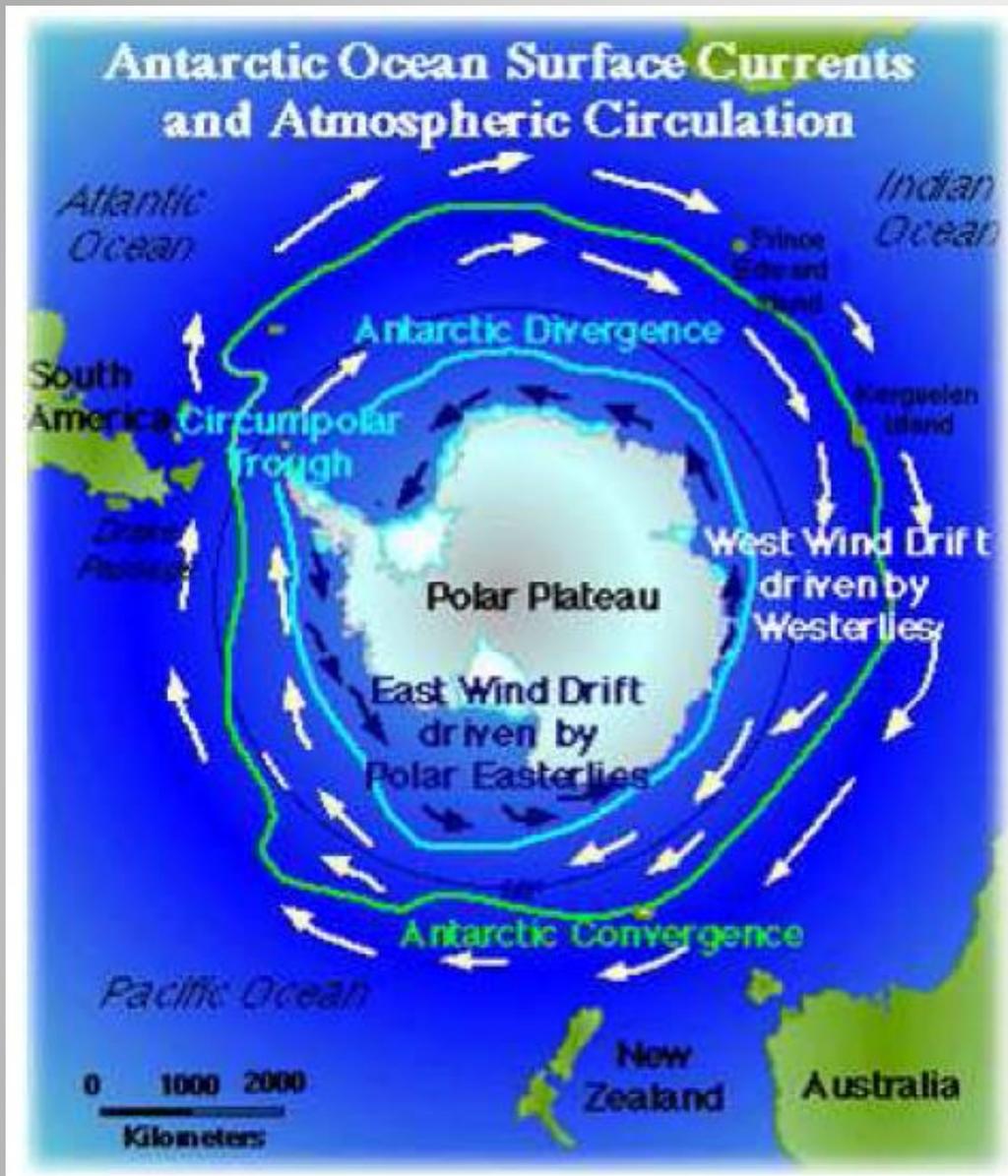
Africa:
30,065,00 km²



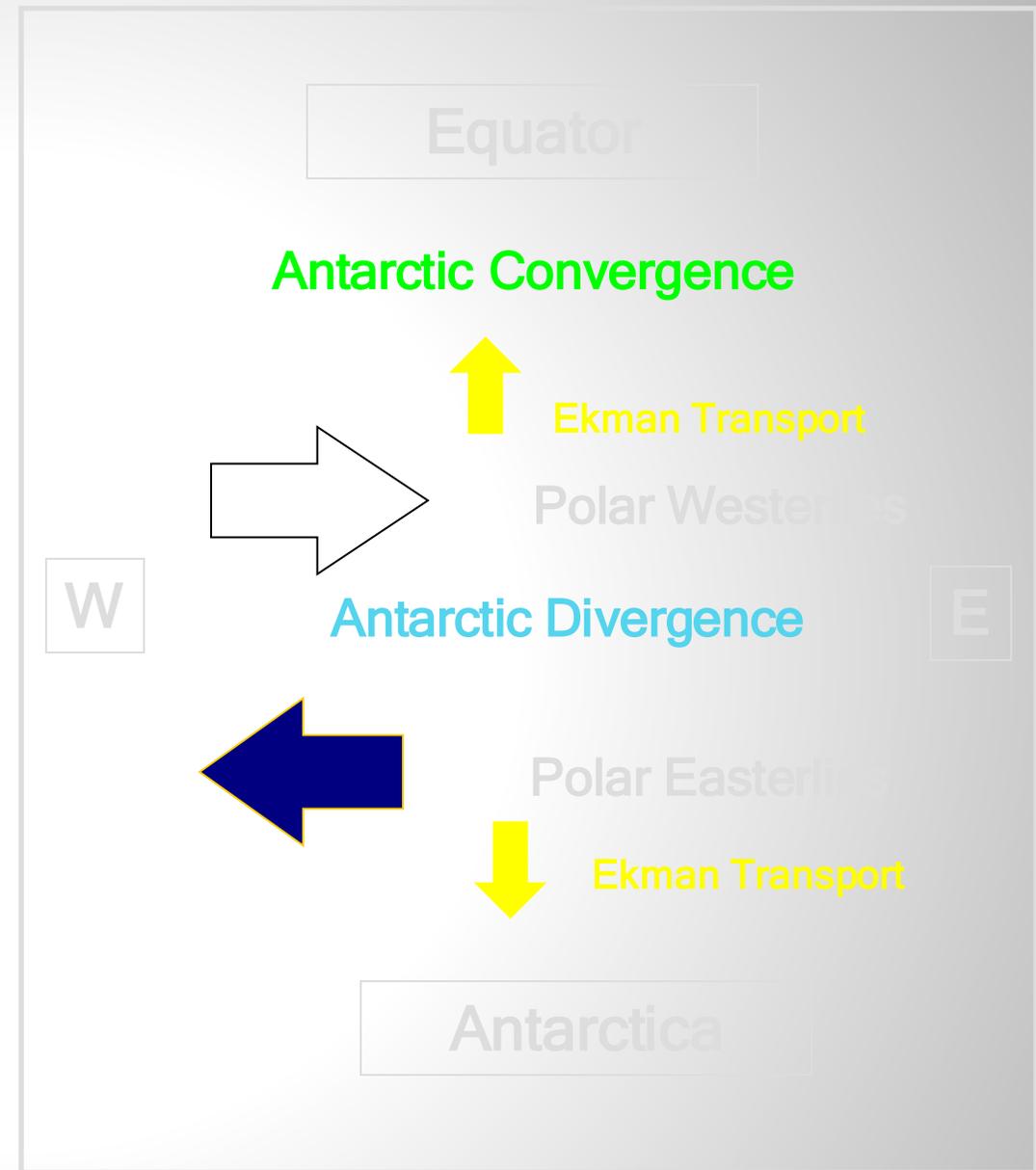
Australasia:
7,687,000 km²

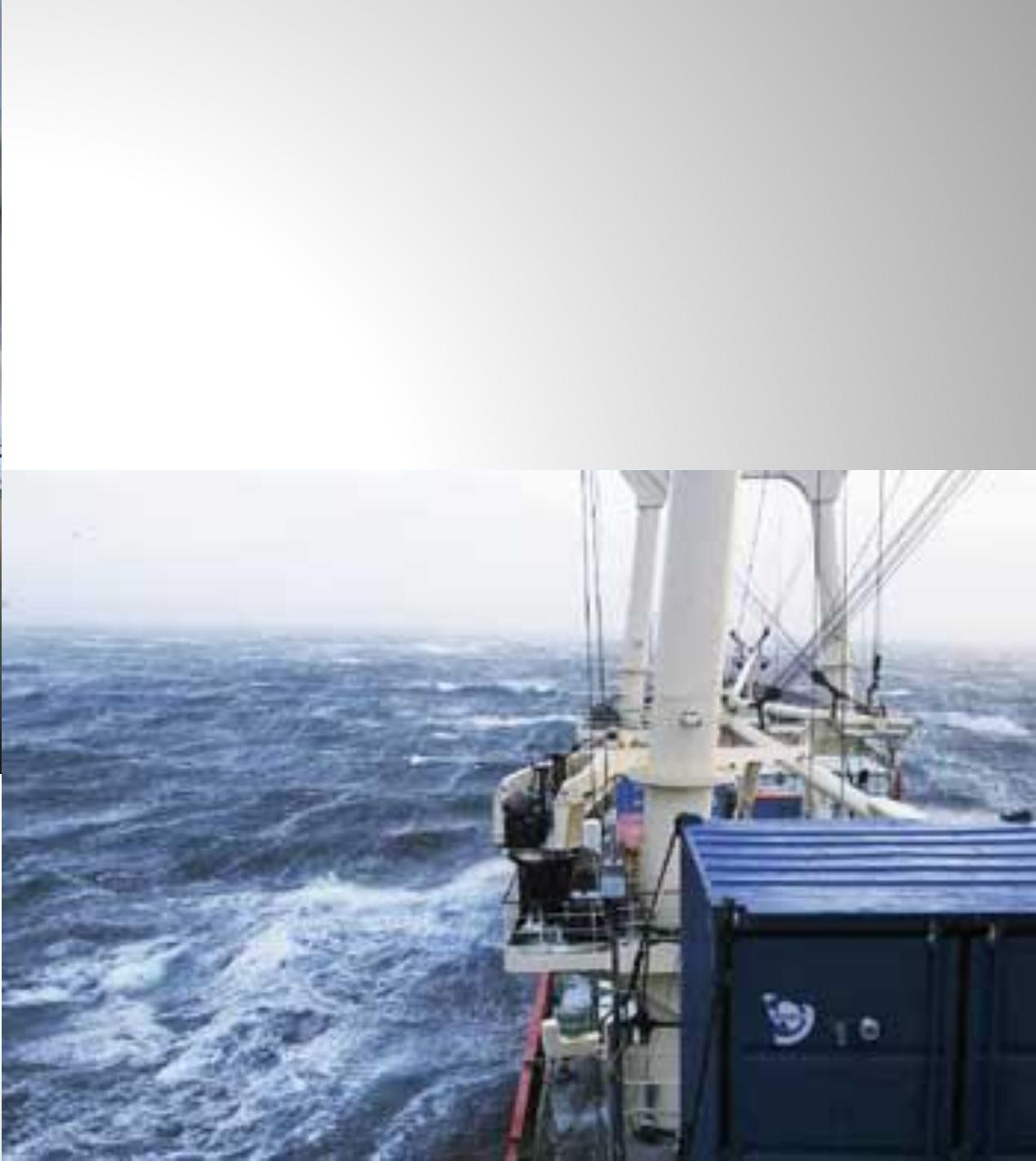
Antarctic Ocean Circulation





(Sugden, 1992)









HMNZS *Otago* (fore) among other Royal New Zealand Navy vessels

History



New Zealand

Name	<i>Otago</i>
Namesake	Province of Otago
Ordered	29 July 2004
Builder	Tenix ^[1]
Laid down	December 2005
Launched	18 November 2006 ^[1]
Homeport	Port Chalmers, Dunedin ^[2]
Identification	IMO number: 9368479 ↗ MMSI number: 512155000 ↗ Callsign: ZMKF
Status	Active as of 2015

General characteristics

Class and type	Protector-class offshore patrol vessel
Displacement	1900 tonnes ^[3]
Length	85 m (279 ft) ^[3]
Beam	14 m (46 ft) ^[3]
Draught	3.6 m (12 ft)







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

Lagrangian

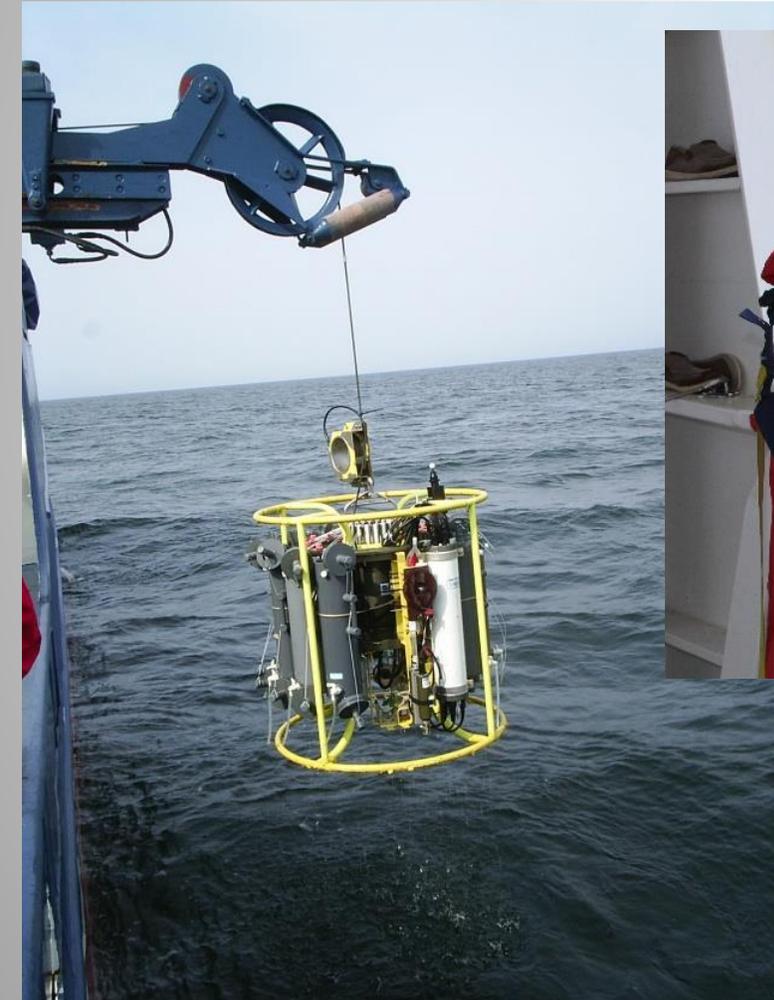
Float and Drifter

Eulerian

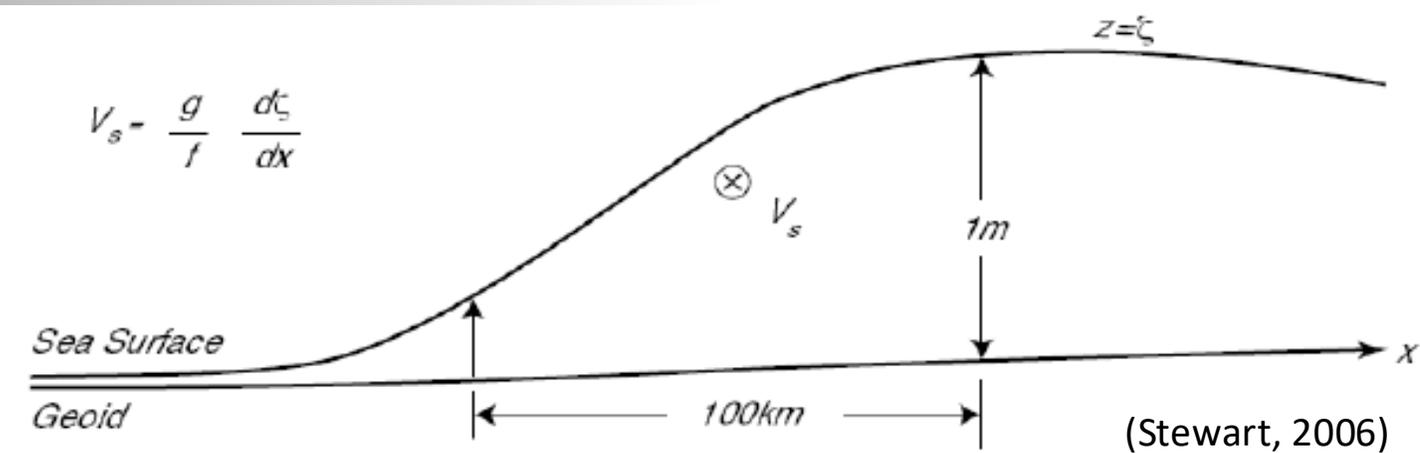
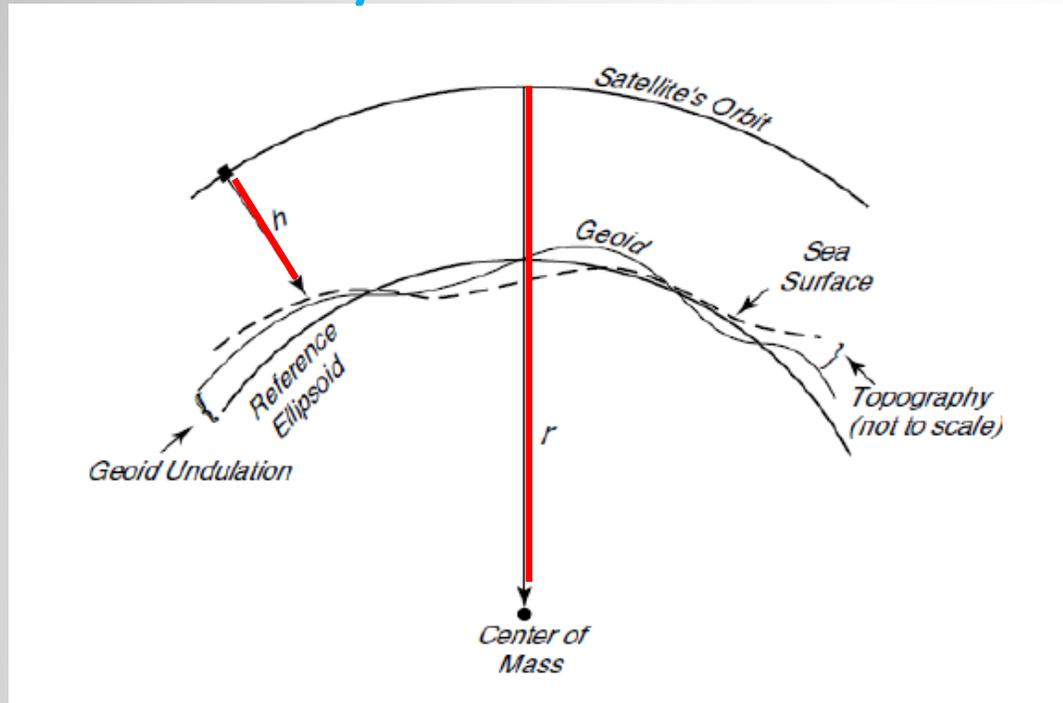
XBT,XCTD,CTD,TSG

Satellite data

Altimetry data



Satellite Altimetry





Vita in Campagna Oceanografica



Vita in Campagna Oceanografica



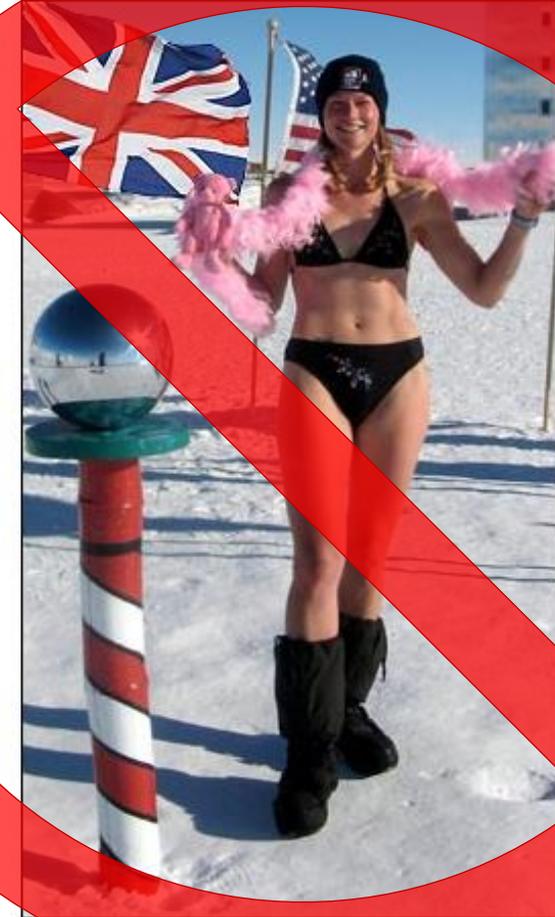
Vita in Antartide



Vita in Antartide



Vita in Antartide







Aspetti legati all'arte:

Lo spazio

Il ghiaccio

Il Silenzio

I colori e la loro assenza

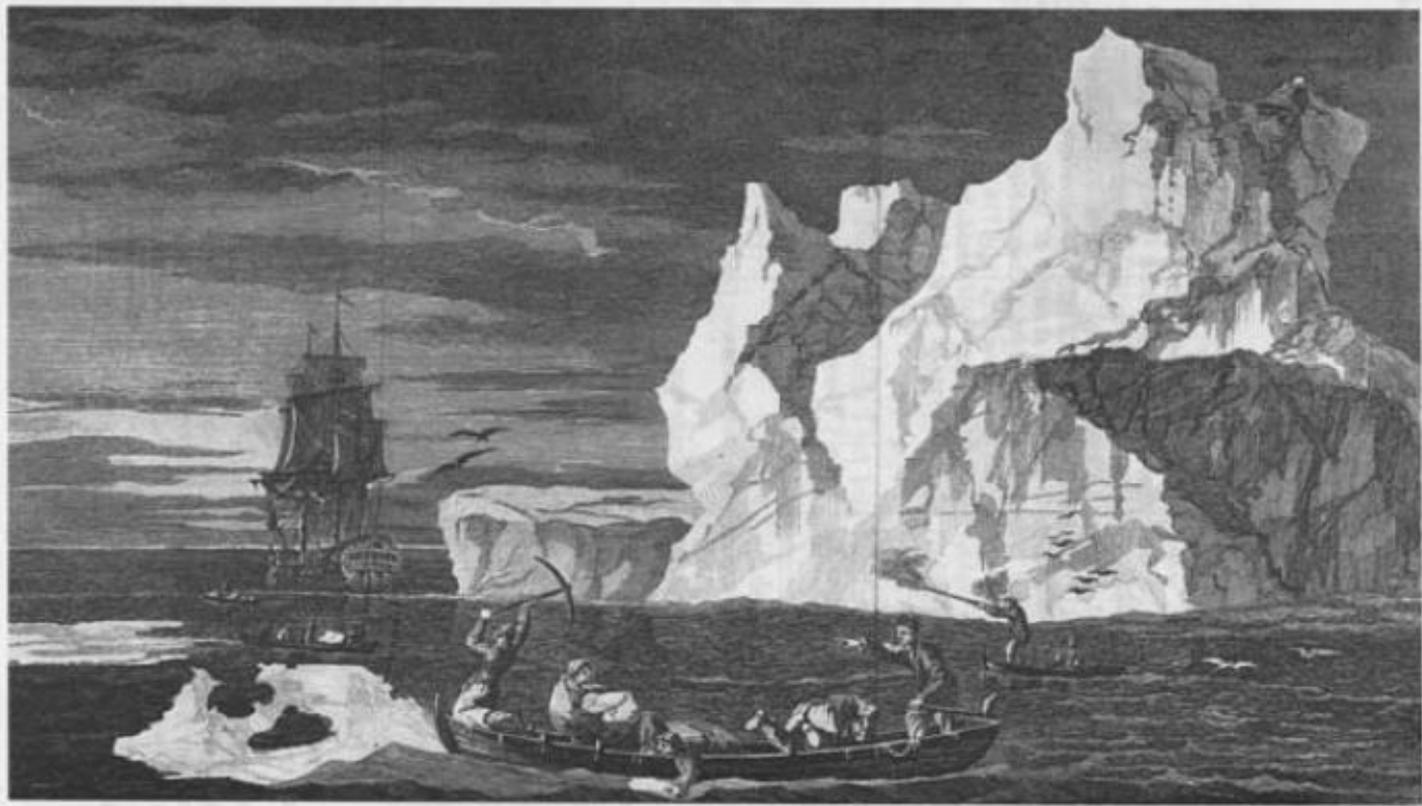
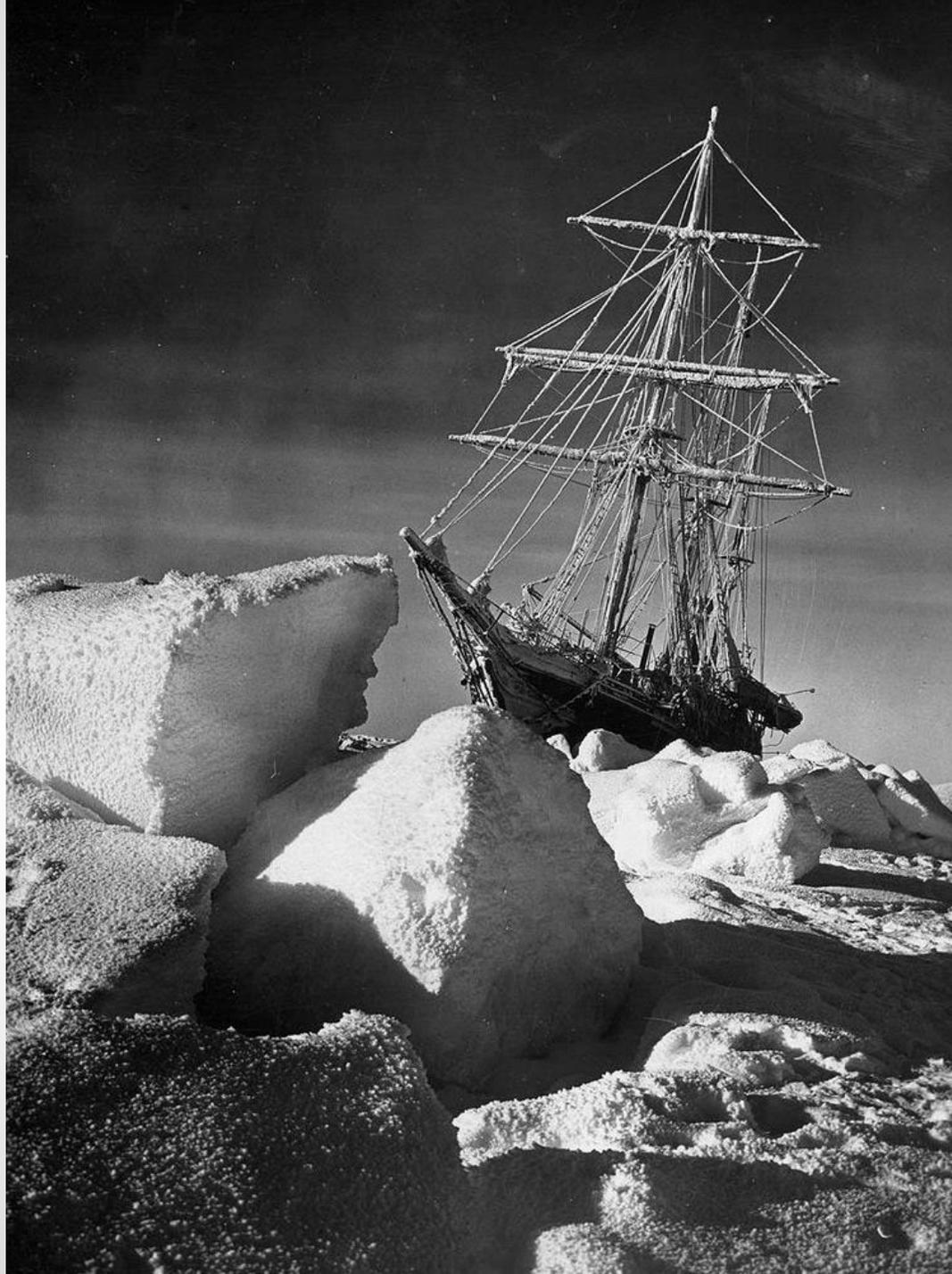


Plate 2: *The Ice Islands, seen the 9th January 1773*. James Cook [140]
(From the 1777 edition of *Cook's voyage*; Scott Polar Research Institute)

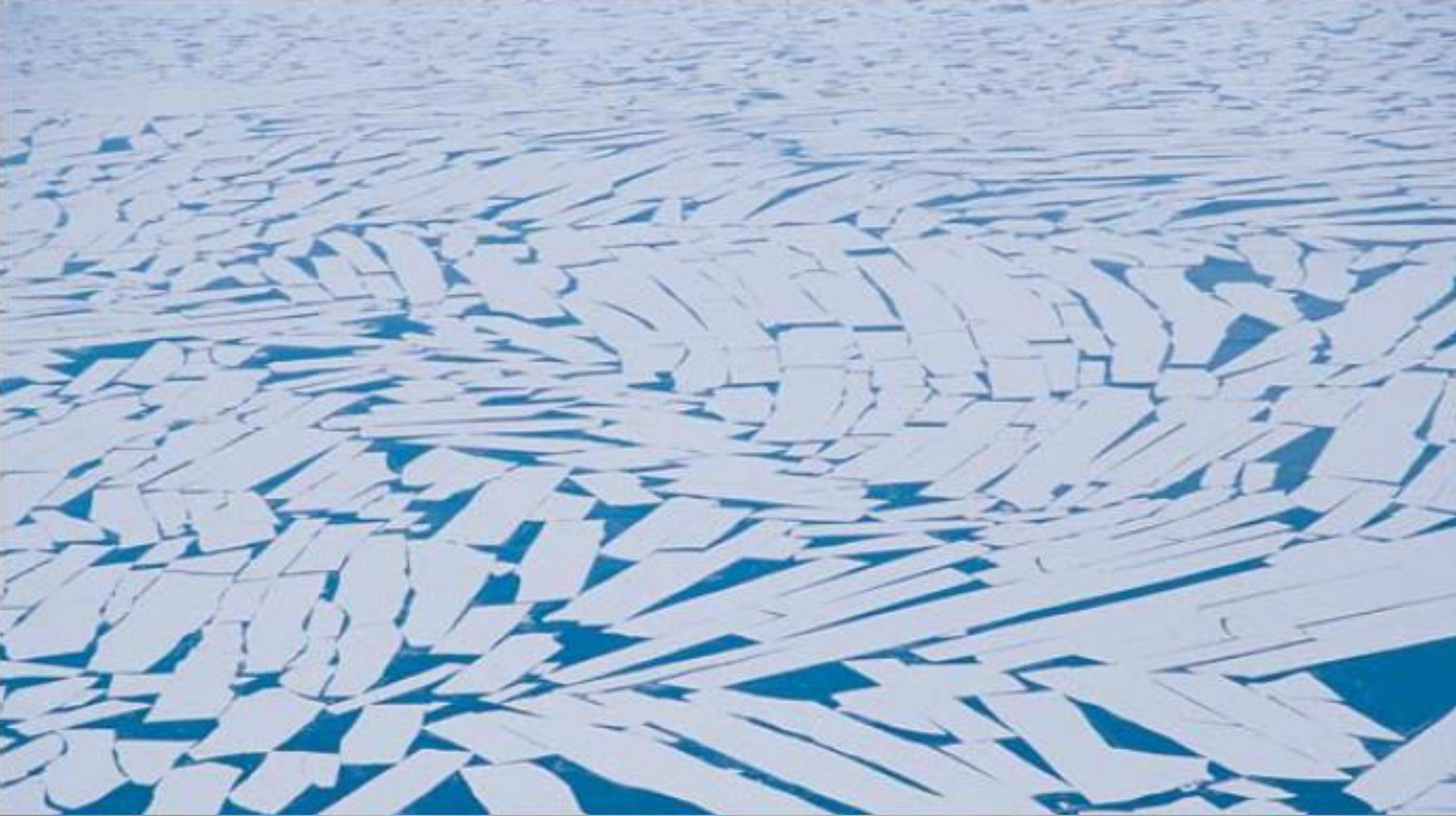


Acquarello di G.E. Marston, partecipante alla spedizione Nimrod guidata da Ernest H. Shackleton, 1908-09













Spazio



Spazio



Spazio



Colori



Colori



Colori



Ghiacci



Ghiacci



Ghiacci



Ghiacci



Ghiacci



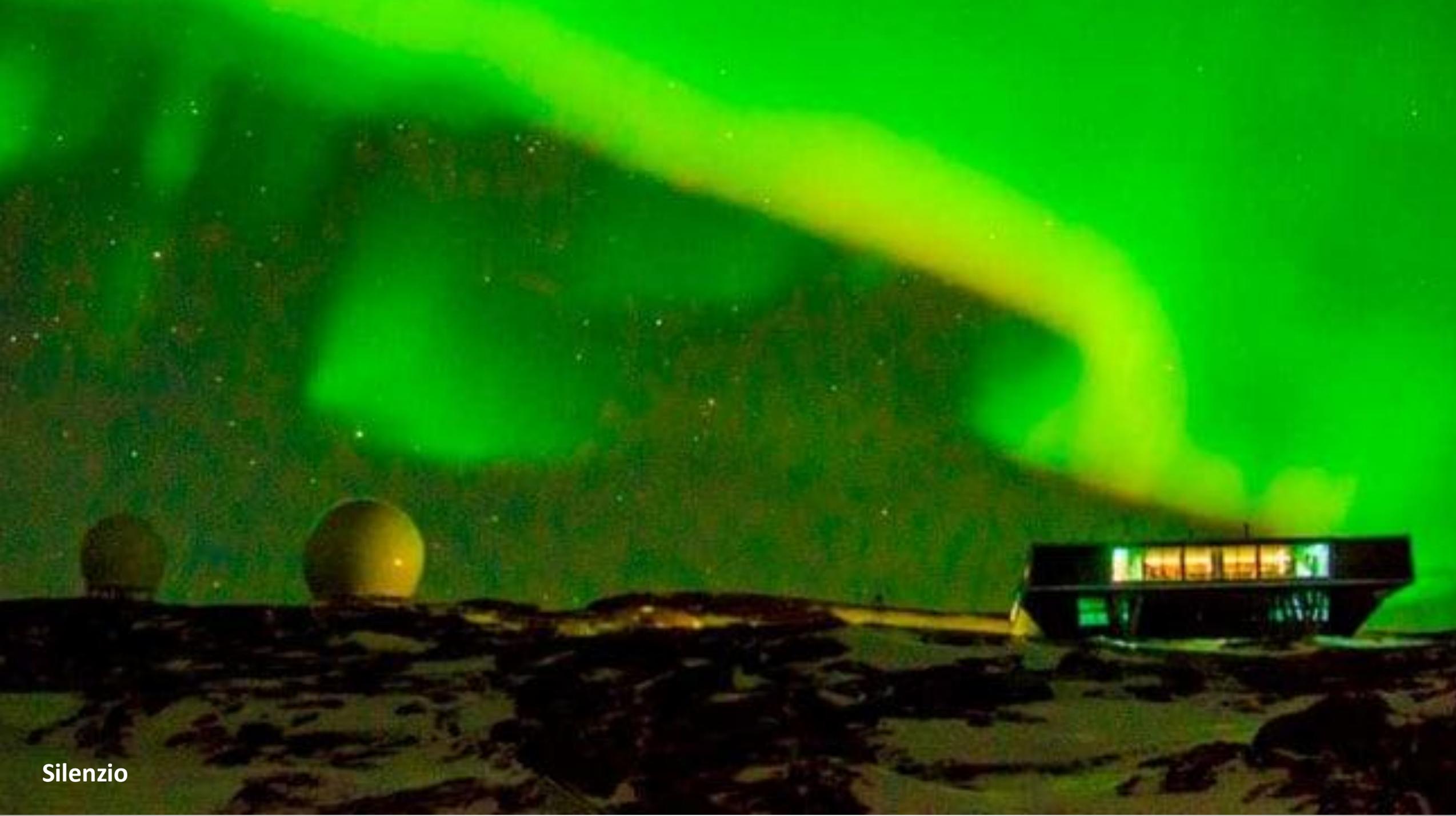
Ghiacci



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=LkRQjTdTvFE>

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