

# Die Antarctic Circumnavigation Expedition: Auf den Spuren von Mertz und Mawson

Prix de Quervain  
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23.11.2017

*(Photo credit: N. Sardet, Balleny Island)*

# Antarctic Circumnavigation Expedition

- Swiss Polar Institute
- Start: Dezember 2016, 90 Tage
- 23 Länder, 73 Institutionen
- 22 Projekte, 148 WissenschaftlerInnen
- Umfahrung: 33,565 km
- Stops:
  - 11 Inseln
  - Antarktis



Fläche: 42'285 km<sup>2</sup>

1000 Mal



*Marion Island (RSA)*



*La Possession (FR)*



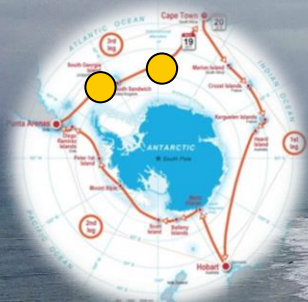
# Siple Mountain - Antarctica



# Diego Ramirez (CL)



South Georgia



Bouvetøya (NOR)



(Photo credit: S. Mirshak)



- 19 Flugtage
- 107 Stunden
- 494 Landungen

(Photo credit: S. Mirshak)



(Photo credit: A. Borodin)

unzählige Touren mit den  
Schlauchbooten



*(Photo credit: S. Mirshak)*

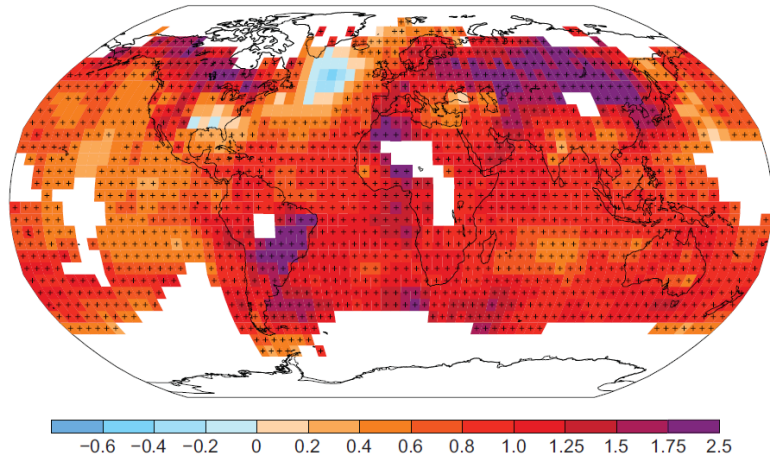
# Wissenschaftliche Motivation

- Physikalische Ozeanographie
- Meeresbiologie
- Ökologie
- Atmosphärenforschung
- ...





heute



Temperaturänderung 1901-2012(°C)

(Weltklimabericht, 2013)

1912



(Foto: AAD)

*“The **polar regions** ... may be said to be **paved with facts**, ... If we ignore the facts contained in one part of the world, surely we are hampering **scientific advance**. “*

(D. Mawson, Home of the Blizzard)

# Forschung früher und heute



Mertz Gletscher

ACE:  
Dezember 2016 – März 2017  
Swiss Polar Institute  
Akademik Tryoshnikov

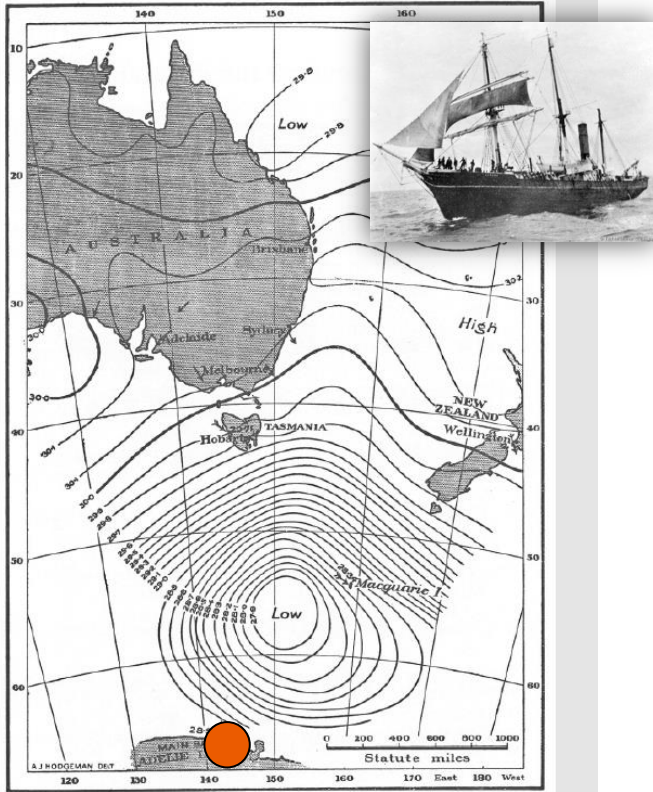
Erste Australische Expedition:  
1911 – 1913  
Douglas Mawson  
Aurora



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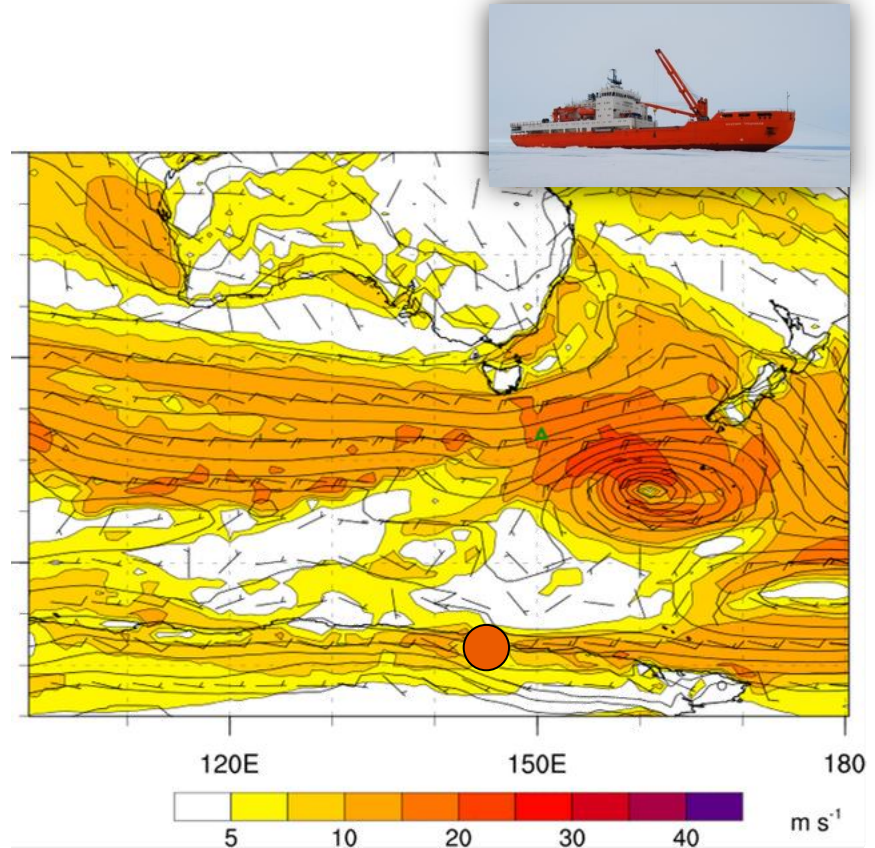
# Navigieren im Sturm: Hobart – Mertz Gletscher

*(D. Mawson, Home of the Blizzard)*



The meteorological chart for April 12, 1913, compiled by the Commonwealth Meteorological Bureau

*(H. Wernli, ETH Zürich)*



# Xavier Mertz – Schweizer Expeditionsmitglied



\*1882 Basel – †1913 Antarktis



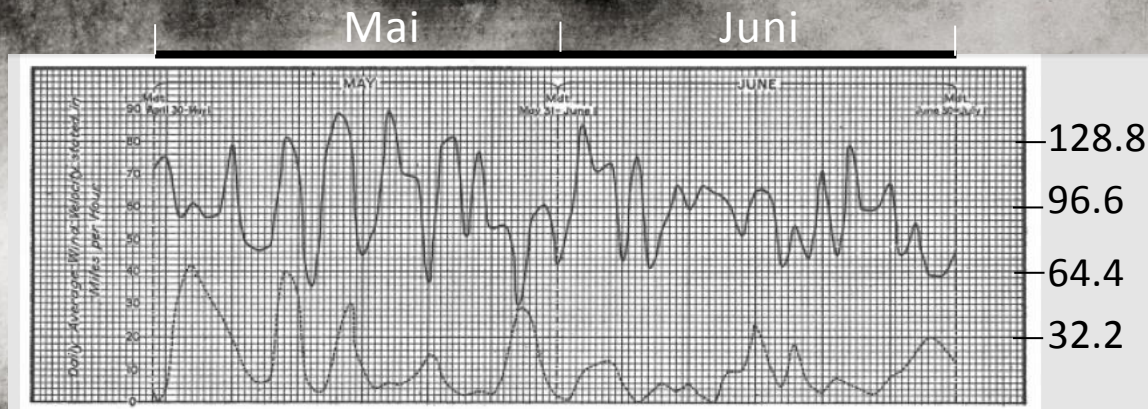
*(Foto: Frank Hurley)*



Mertz und Ninnis (*Foto: Frank Hurley*)

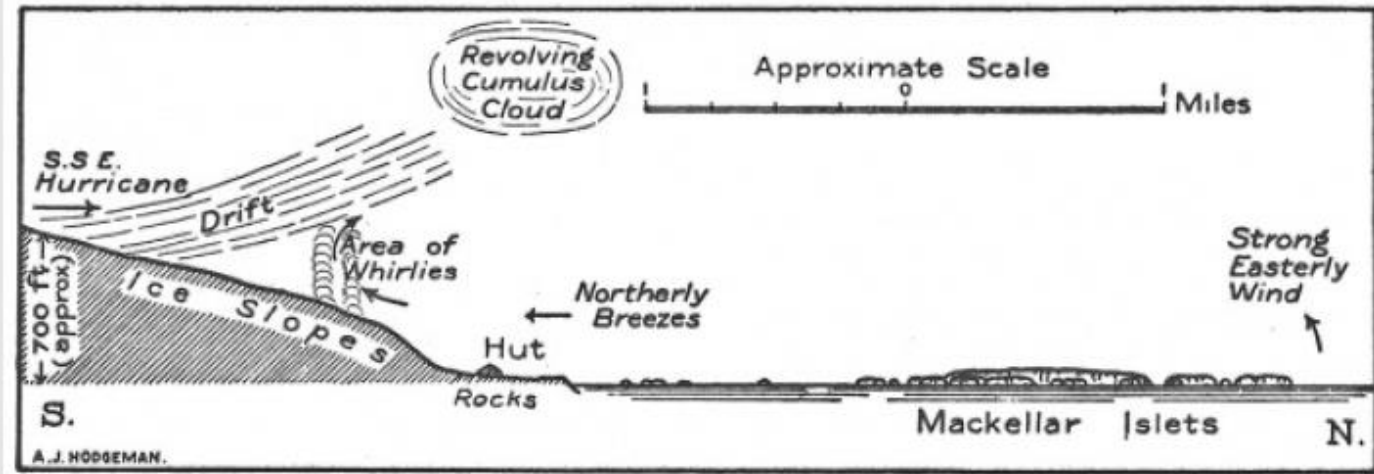
ACE Bohrteam fliegt zu Cape Hurley

# Meteorologische Beobachtungen



(D. Mawson, *Home of the Blizzard*)

Jahresmittel im Vergleich:  
Station - 100 km/h!  
Jungfrauoch - 28 km/h

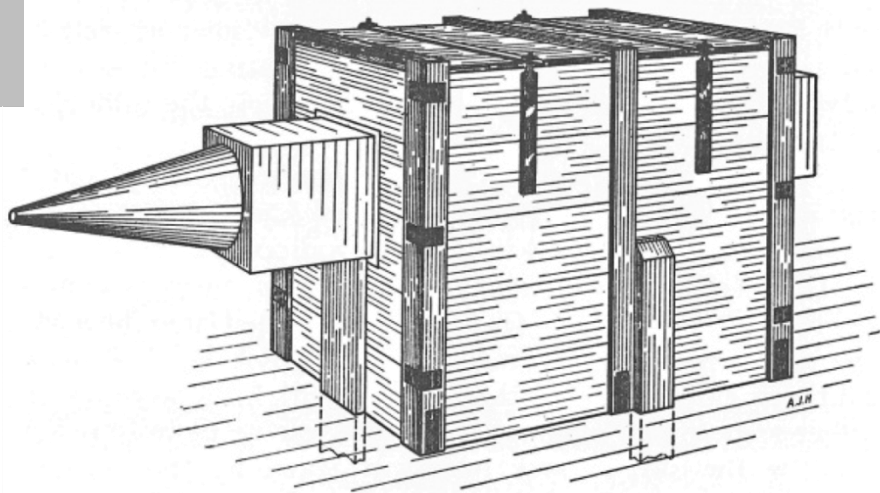


A diagrammatic sketch illustrating the meteorological conditions at the main base, noon, September 6, 1913

# Meteorologische Beobachtungen



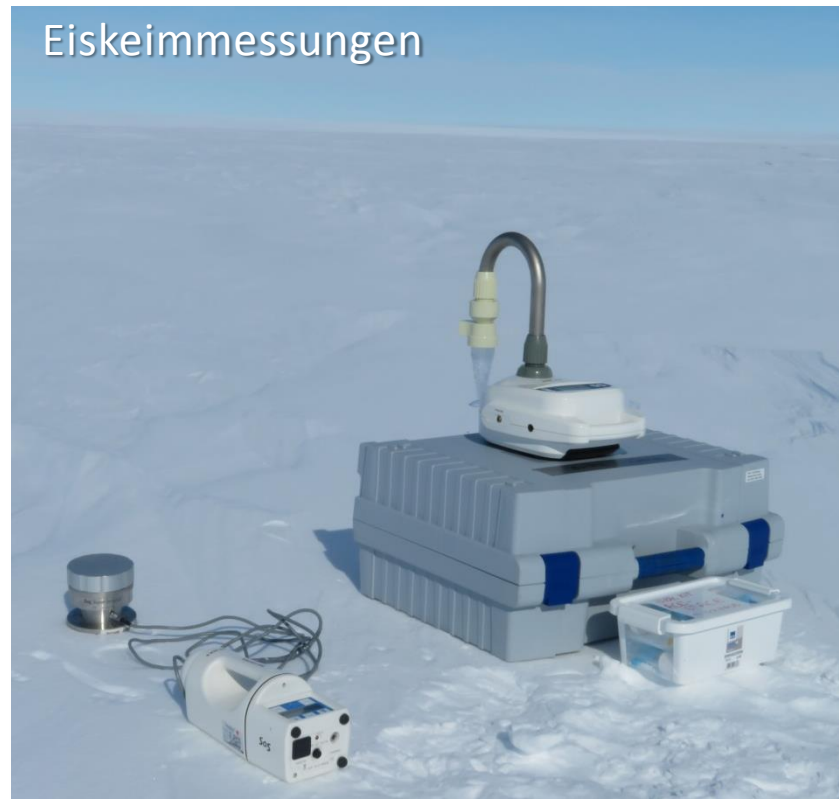


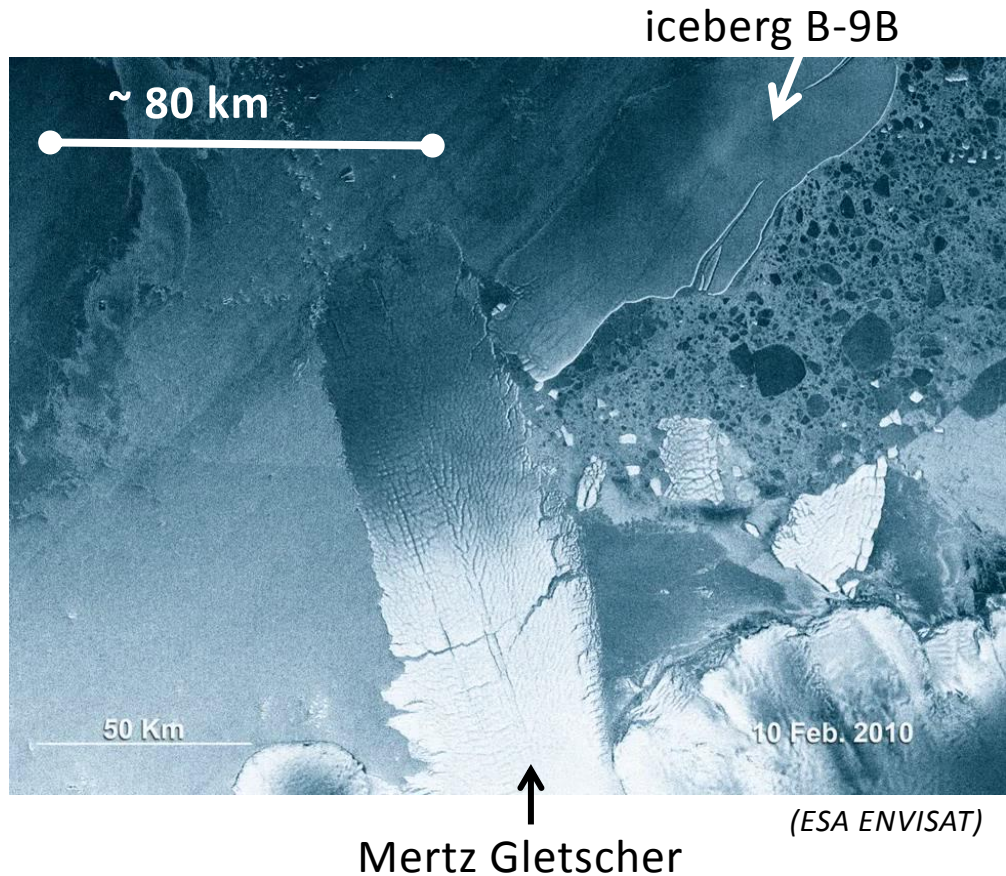


Schneedrift-“Sensor” von Mawson

*(D. Mawson, Home of the Blizzard)*

## Eiskeimmessungen





# Ökosystem des Meeresbodens



Photo: Frank Hurley © Mitchell Collection, State Library of NSW





*(Foto: Frank Hurley)*



# Benthische Lebewesen





Photo: Frank Hurley © Mitchell Collection, State Library of NSW



# Danke für die Aufmerksamkeit



ACE-SPACE Blog

ACE-SPACE: the Antarctic  
Circumnavigation Expedition 2016-2017

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