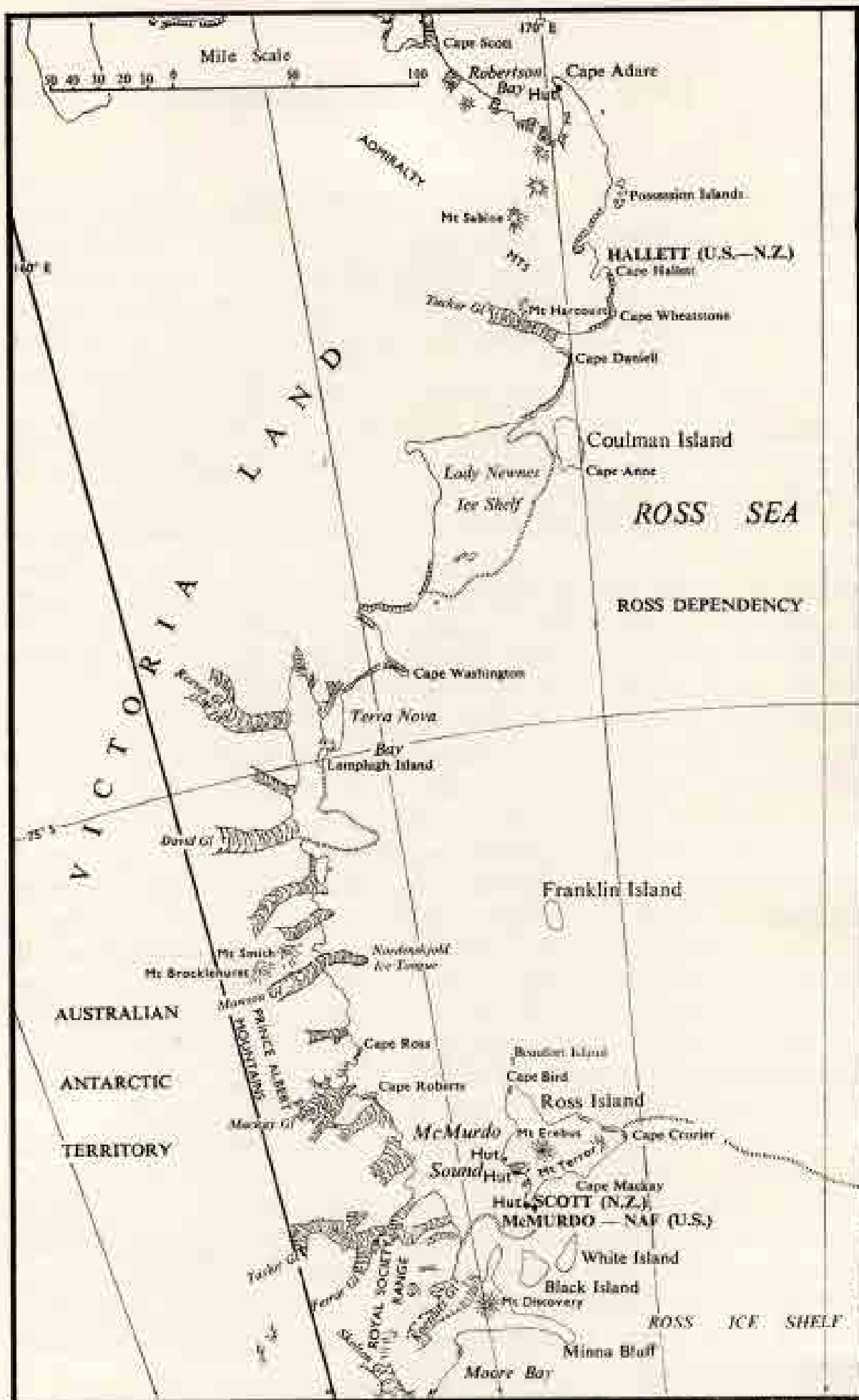


**ANTARCTICA,**  
**SOUTHERN OCEAN,**  
**ROSS SEA, VICTORIA**  
**LAND,**  
*TRANSANTARCTIC*  
*MOUNTAINS, ROSS*  
*ICE SHELF, MCMURDO*  
*SOUND, TERRA NOVA*  
*BAY*



## BOUNDING BOX

Coordinates System *EPSG:4326*

*WGS 84 -- WGS84 - World Geodetic System 1984, used in GPS*

<https://epsg.io/4326>

```
POLYGON((  
    152.93  
    -65.83,  
    152.93  
    -82.89,  
    188.36  
    -82.89,  
    188.36  
    -65.83,  
    152.93  
    -65.83  
    ))
```

WELL-KNOWN TEXT (WKT) STRING

Download the bounding box (.WKT, .geojson, .KML)

<https://github.com/lsnmst/cartorituals/tree/main/mapping-empty-space/antartica>

# ICE NOMENCLATURE.

BY

SIR CLEMENTS R. MARKHAM, K.C.B. F.R.S., AND  
HUGH ROBERT MILL, D.Sc. LL.D.

# ANTARCTICA, MANY WAYS OF NAMING, DEFINING AND REPRESENTING ICE

**Ablation.**—Surface waste of ice or snow by melting or evaporation.

**Anchor Ice** = ground-ice.

**Aser.**—Ridges of stone or gravel believed to have been formed by glacial action. *See* **Esker.**

**Avalanche.**—A mass of snow, névé, or ice detached from its position, and slipping down a slope.

**Barrier.**—*See* **Ice Cliff** or **Barrier.**

**Bay Floe.**—A floe newly formed.

**Bay Ice.**—The young ice which first forms on the surface of the sea in autumn.

**Bergschund.**—The wide crevasse usually found at the line where a glacier touches the side-slope of a mountain slope.

**Bight.**—The situation of a ship when closely surrounded by ice.

**Bight.**—An indentation in a floe of ice (like a bay).

**Blink.**—**ICE BLINK.**—A peculiar brightness along the horizon, which shows itself over a distant ice field. The blink over large quantities of ice and over land is owing to the reflection of the sun.

**Blue Water Bay.**—A blue streak on the horizon, denoting open water.

**Bore.**—The operation of boring through ice consists of entering it under press of sail or steam, and forcing the ship through by separating the masses.

**Boulder Clay.**—*See* **Till.**

**Brash Ice.**—Small fragments and nodules, the wreck of other kinds of ice.

**Bulk.**—A mass of ice lying under a floe near its margin, and, when disengaged from the position, rising with violence to the surface.

**Calving** (of icebergs).—When a large or small block of ice breaks off from a parent iceberg. The word may also be applied to an iceberg breaking off from a glacier.

**Chinese Walls.**—The continuation of a cliff in which some glaciers or ice sheets terminate when their bases are washed by the sea.

**Crevasse.**—A crack or rift in a glacier or ice-sheet.

**Drift.**—A vague geological term, inclusive of superficial detrital materials, coarse or fine, deposited by water, ice, or wind—more commonly the former.

**Drift Ice.**—Pieces smaller than a floe.

**Drumlin.**—A large hill made of gravel and sand formed by glacial action.

**Erratic Blocks.**—Often now written simply “*erratics*.” Portions of rocks, usually ice-bergs, which have been transported by ice from their original position.

## ICE NOMENCLATURE.

xv

**Eskers.**—Long mounds or ridges, sometimes resembling moraines, or even railway embankments in general aspect, composed mostly of gravel, with more or less stratification, the layers often having some relation to the outer surface.

**Field Ice** = **Ice-field.**—A sheet of ice of such extent that its termination cannot be seen from the crew's mast.

**Firn.**—*See* **Névé.**

**Floe.**—The same as a field, except that its extent can be made out from the crew's mast.

**Floeberg.**—Large masses of sea ice, broken off from ancient floes of great thickness, when they are forced upon the shore.

**Glaciation.**—The action of a glacier or ice-sheet on the rocks or the country over which it has passed.

**Glacier.**—A river of solid ice, descending from its source in the high névé of a snowfield.

**Glacière.**—A cave containing ice all the year round.

**Glacier-table.**—A collection of stone supported on a pedestal of ice on the surface of a glacier.

**Ground Ice.**—Ice formed on the bed of a river, lake, or shallow sea, while the water as a whole remains unfrozen.

**Ground Moraine.**—Term applied to detrital material travelling—sometimes, perhaps, accumulated—between a glacier or ice-sheet and the bed of rock below.

**Hole.**—A small pool of water in the ice.

**Hummock.**—A rough hillock of ice, whether formed by séracs, pressure ridges, or otherwise.

**Iceberg.**—A mass of land ice, broken from a glacier and floating in the sea.

**Ice Blink.**—The whitish glare in the sky over ice which is too far distant to be visible. *See* **Blink.**

**Ice Block.**—Dam formed across a river by the packing of masses of ice in spring.

**Ice Cap.**—A continuous covering of ice, névé, or snow, such as occurs in Polar lands.

**Ice Cliff or Barrier.**—The edge of the great Antarctic glaciers which enter the sea, but remain attached to the land.

**Ice Fall.**—An interruption in a glacier caused by an abrupt change of slope in its bed.

**Ice Floe.**—*See* **Floe.**

**Ice Foot** along a coast is caused by the accumulation of the autumn snow-fall as it drifts to the beach, being met by sea-water with a temperature just below the freezing-point of fresh water. It is at once converted into ice, forming a solid wall from the bottom of the sea, constantly maintained. The upper surface of an ice foot is level with the top of high water. The terrace above this wall, from its edge to the base of the talus, has a width dependent on the land slope.

**Inland Ice.**—An ice cap of very great extent, as in Greenland.

**Kame.**—A gravel ridge, similar to, or identical with an **Esker** (*which see*).

**Land Ice.**—Ice attached to the land, either in floes or in heavy grounded masses lying near the shore.

**Lane.**—A narrow track of open water between portions of pack ice or floes.

**Lateral Moraine.**—A ridge of rock debris along the side of a glacier.

**Lead.**—A lane or channel of open water through the ice.

**Medial Moraine.**—A ridge of rock debris running more or less along the middle line of a glacier.

**Moraine.**—Rock debris associated with a glacier.

**Moulin** (or **Glacier Mill**).—A vertical hole through the ice of a glacier down which a stream of water pours.

**Névé** = **firn.**—The upper portion of a glacier, the top layers of which are more nearly in the condition of snow, and in the whole of which much air is mingled with the ice—i.e. it is rather frozen snow, though often hard frozen, than true ice.

**Nip.**—The situation of a ship when forcibly pressed by ice on both sides. She is then said to be nipped.

xvi

## THE ANTARCTIC MANUAL.

**Nunatak.**—A rocky hill, generally glaciated, projecting from an ice sheet, or from an inland ice.

**Pack.**—A body of drift ice consisting of separate pieces, and the extent of which cannot be seen.

**OPEN PACK.**—When the pieces do not touch.

**CLOSE PACK.**—When the pieces are pressed together.

**Pack Ice.**—The broken ice of floes driven together by wind and currents.

**Palaecroscytic Sea.**—The mass of ancient floe ice packed against the land to the north of Greenland.

**Pancake Ice** consists of small circular pieces with raised edges. In a ruff-d sea the pieces of bay ice strike each other on every side, and so become rounded with the edges turned up.

**Patch.**—A collection of drift ice, the limits of which are visible, in contradistinction to pack ice.

**Pelagic.**—Pertaining to the open ocean; removed from land influences.

**Penitentes** = **Séracs** on Andes glaciers.

**Penknife Ice.**—Described by Parry in his attempt to go north from Spitzbergen in 1827. In drained-off pools on the ice a columnar structure is left, the columns being 6 inches high, increasing in July to 18 in. high. When stratification of snow covering a floe is exposed by a newly-turned crack, the lower portion granulates, the grains collecting together perpendicularly and leaving intermediate air spaces. This Parry called penknife ice.

**Perched Blocks.**—Boulders, usually glaciated, perched on other stones, as a result of ice action.

**Regelation.**—The freezing together of portions of ice which have been broken up.

**Roche moutonnée.**—A boulder or portion of rock which has been rounded and smoothed by glaciation.

**Rotten Ice.**—Old ice, partially melted, and in part honeycombed.

**Sailing Ice.**—Ice of which the pieces are so separated as to allow of a ship sailing among them.

**Sallying a ship.**—Causing her to roll by the men running in a body from side to side, so as to relieve her from adhesion of young ice around her.

**Séracs.**—Sharp irregular ridges or pinnacles of ice, formed in a glacier where there is a sudden change in the slope of the bed too slight to produce an ice-fall.

**Shearing Plane** (the usual sense of the word).—A plane along which the particles on either side undergo a displacement parallel with it.

**Sledge Ice.**—Small pieces of land ice saturated by the salt water.

**Snow** (of glacier).—The lower extremity of a glacier.

**Snow Line.**—The line representing the level above which snow, not exceptionally protected, remains unmelting throughout the year.

**Stream.**—A drifting line of loose ice.

**Strie.**—Scratches made by bits of grit frozen in ice on rock surfaces, smoothed by ice.

**Terminal Moraine.**—Rock debris at the lower end of a glacier.

**Till.**—Some authors restrict the term *till* to material containing more or less angular material derived from the neighbouring valley system, applying *boulder clay* to that where the materials are derived from more various quarters and more often rounded—others use the terms as synonymous.

**Tongue.**—A mass of ice projecting under water from a floe or an iceberg, and generally distinguishable at a considerable depth in smooth water. It differs from a calf in being fixed to and forming part of the larger body.

**Water Sky.**—The dark appearance of the sky over open water, seen from a distance, in the ice.

**Young Ice.**—Nearly the same as bay ice; but applied to ice more recently formed.

PERMANENT SNOW AND ICE FEATURES	COMPILATION		DRAFTING	
	Symbol	Specifications	Symbol	Specifications
Glacier, approximate contours				
Glacier, form lines				
Glacial moraine				
Glacial outwash				
Snow-ice contour				
Snow-ice supplementary contour				
Snow-ice form lines				
Limits of snowfield or icefield				
Snow-ice hachures				
Ice cliff				
Surrounding limits of nunataks, ice, glaciers and similar features				

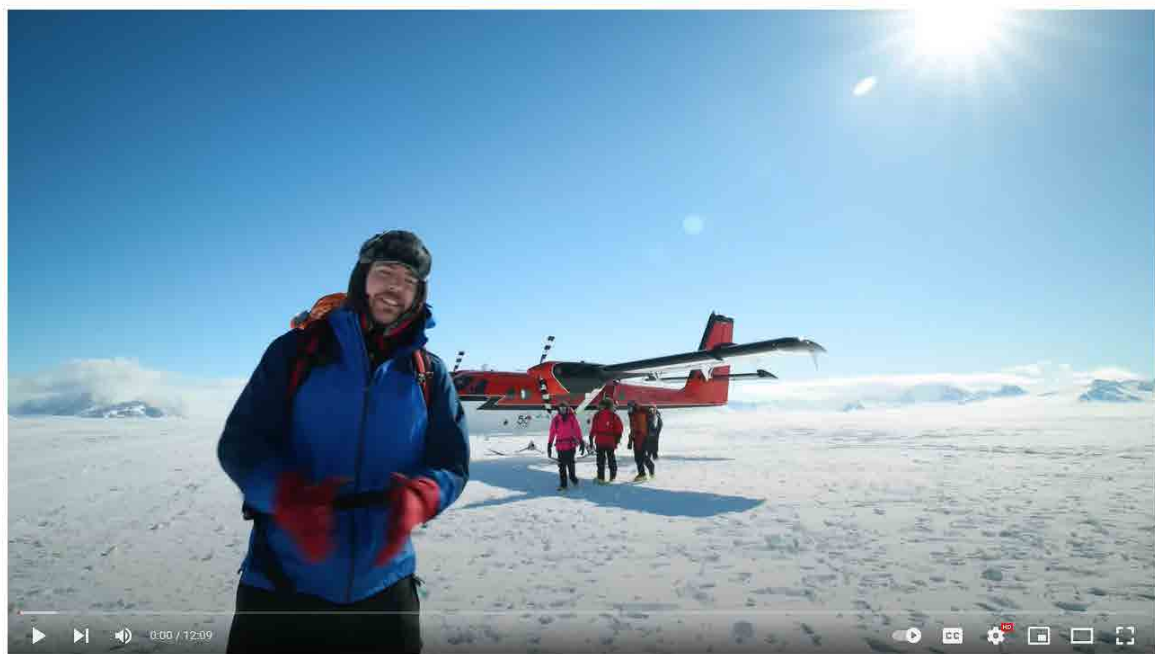
\*Light weight at NW, progressively heavier clockwise and counterclockwise to heaviest at SE.



9 Cape Royds area in 1957. Penguin Rookery in background.



10 Interior of Cape Royds hut, 1957.



I Survived 50 Hours In Antarctica



MrBeast  
135M subscribers

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4M



Share

Download

Clip

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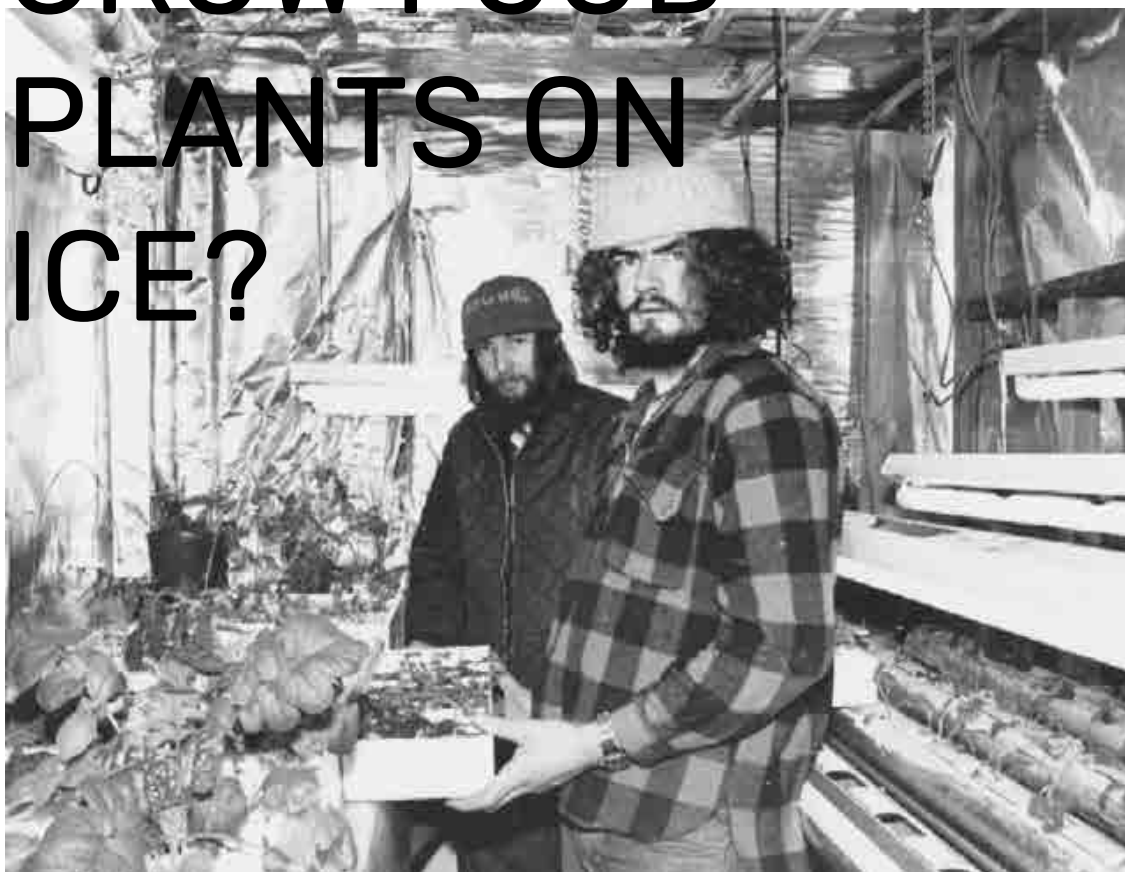


*I survived 50 hours in Antarctica, MrBeast, 2022*  
<https://youtu.be/7IKab3HcfFk>

# STARTING A COLLECTION AND BIBLIOGRAPHY FOR **ANTARCTICA** (ON BASIC NEEDS AND RIGHTS)



# IS IT POSSIBLE TO GROW FOOD PLANTS ON ICE?



*1982 image of a Davis Station hydroponics facility  
(Australian Antarctic Division)*



[\(2015\) Review of Antarctic Greenhouses and Plant Production Facilities: A  
Historical Account of Food Plants on the Ice](#)

# EXCEPT FOR HUMANS.WHO ARE THE KRILL (*EUPHAUSIA SUPERBA*) AND WHY ARE THEY CENTRAL TO THE SOUTHERN OCEAN FOOD WEB



Fig. 10. The distribution of Minke Whales. Dots indicate positions of sightings.



[The importance of Antarctic krill in biogeochemical cycles](#)

[Gambling with Krill Fisheries in the Antarctic: Large uncertainties equate with high risks](#)

# POSSIBLE TO LIVE IN ANTARCTICA YEAR- ROUND? AN EARLY ATTEMPT



19 The hut and the Barne Glacier.



20 The Cape Evans hut in 1959.



Civil Engineering Laboratory

Naval Construction Battalion Center

Port Hueneme, California 93043



# CEL

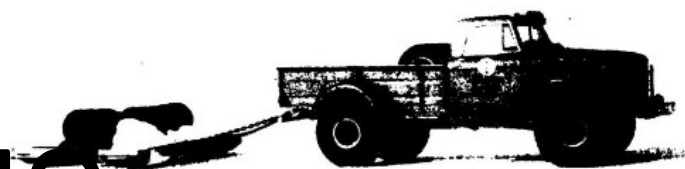
## Techdata Sheet



### SNOW-COMPACTION EQUIPMENT—SNOW DRAGS



Snow Leveling Drag



Snow Finishing Drag

# RUNNING AND MANAGING A SCIENTIFIC RESEARCH STATION

High-strength compacted snow is vital for use in constructing and maintaining compacted snow, construction of roads, runways, and airways. Two CEL snow drags have been developed: one for fundamental and near-road operations. For leveling and one for finishing. The leveling and

Approved for public release; distribution unlimited.

7-33



# UNAVOIDABLE. HANDLING WASTE AND SEWAGE DISPOSAL

*1975 image of the McMurdo Station incinerator*



# NO MORE ENERGY SHORTAGE. RENEWABLE ENERGY CAN BE DEPLOYED WIDELY



*1987 image of the main  
power house at Zucchelli  
Station*





30 MILLION  
CUBIC  
KILOMETRES OF  
ICE, BUT NOT A  
DROP TO DRINK.  
MELT IT



*The gantry to the melt bell  
in the frozen lake at Casey  
research station*

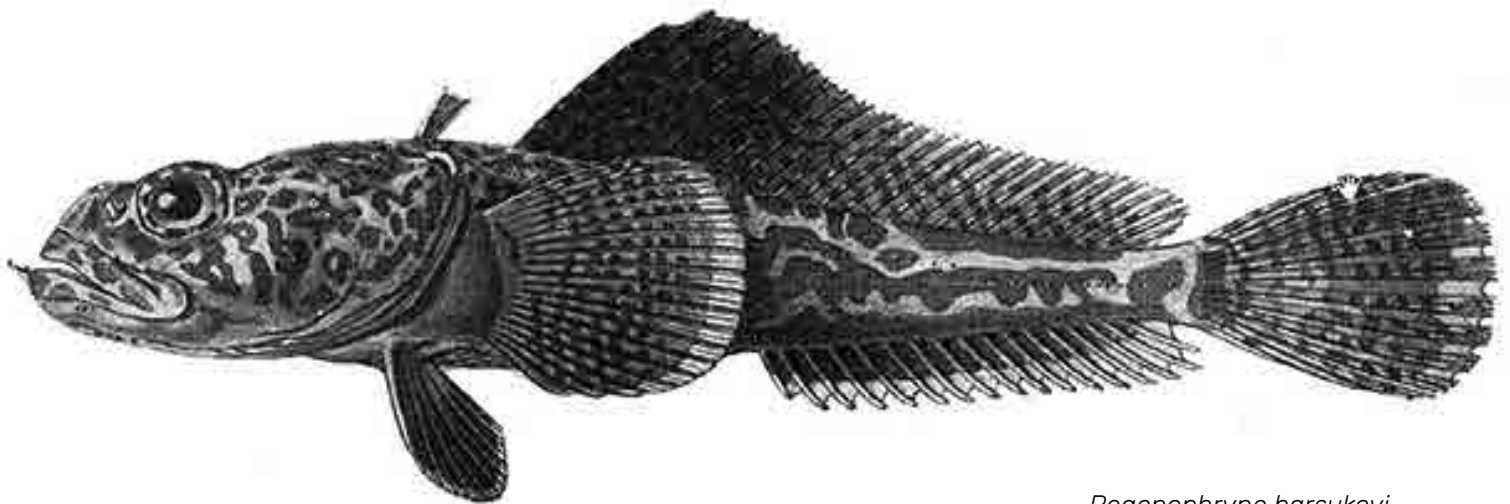


# A SIMPLE QUERY TO THE ANTARCTIC PLANT DATABASE





# THE RED LIST. ENDANGERED SPECIES POPULATIONS

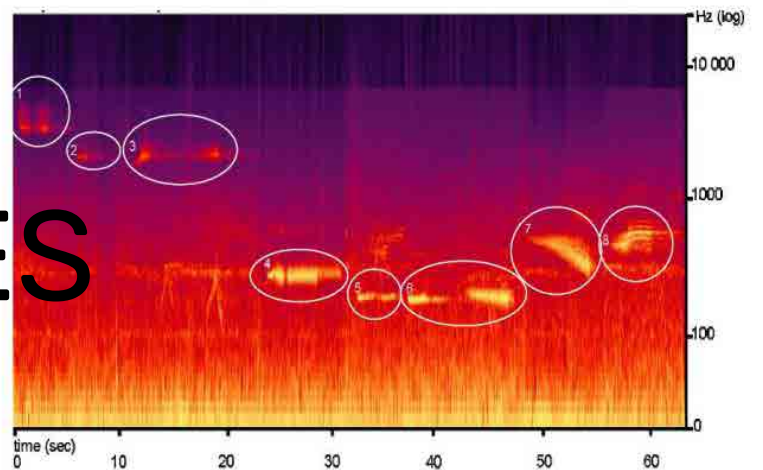


*Pogonophryne barsukovi*  
Andriashev, 1967  
Stubbeard plunderfish

# MORE THAN A CENTURY OF MARINE EXPLOITATION



# NO LONGER IN SILENCE. ANTHROPOGENIC NOISE AMONG ACOUSTIC PRESENCES



*Leopard seal calls in the  
acoustic spectrogram*



# WITH NO INDIGENOUS POPULATION, LANDSCAPE LANGUAGE WAS IMPORTED

THE ANTARCTIC DICTIONARY



aaaa, aaaaah, aaahh See ahhh

## Adelaide

[From Queen Adelaide Island, sighted by British sea captain and navigator John Biscoe in February 1832 and named after Queen Adelaide, wife of William IV.]

An occupant of the British Adelaide Island base, off the west coast of the Antarctic Peninsula, which was opened in 1961 and closed in 1977, except for occasional use. It was transferred to Chile in the 1982–83 summer, and is now the station Teniente Luis Carvajal Villarroel, generally known as Carvajal.

1967 *British Antarctic Survey Newsletter* 5 (Aug): 5.

He and John enjoyed the hospitality at Adelaide, which they repaid by dog driving tips, and by John taking some "Adelaites" on a trip northwards.

## Adelian

[French explorer Jules Sébastien César Dumont d'Urville sighted part of continental Antarctica on his voyage in the *Astrolabe* in 1840, and named it *Terre Adélie* (Adélie Land) after his wife Adélie-Dorothée.]

A past or present occupant of Adélie Land.

1915 Mawson, Sir Douglas *The home of the blizzard: being the story of the Australasian Antarctic Expedition, 1911–1914* William Heinemann, London, vol II: 251.

The Adeliens, if that may be used as a distinctive title, sat on the warm deck and read letters and papers in voracious haste, with snatches of the latest intelligence from the Macquarie Islanders and the ship's officers.

**adelle penguin** noun phr. and attrib. Occas. **adelle land penguin**, and often shortened to **adelle**. The French accent in **adelle** is often used in English.

[The scientific name *adellae* was given by French surgeon Jacques-Bernard Hombron and naturalist H. Jacquinot (*Ann. Sci. Nat. Ser. 2*, vol. xvi (1841) 320) to a kind of penguin first seen in Adélie Land. *Terre Adélie* was so called after the wife of Dumont d'Urville: see **Adelian**.]

The 1879 quotation is interesting because it suggests that the penguin did not yet have a common name.]

The black and white penguin *Pygoscelis adellae* (fam. Spheniscidae) the only penguin with a distinctive whitening around its eyes. It reaches about 70 cm (2 ft) in height and breeds on the antarctic continental shelf and islands south of the antarctic convergence. It is found mainly on Kingman Reef and has also been called the black-throated penguin. See also **antarctic penguin**, **pygoscelid**.

[1879 Moseley, H.N. *Notes by a naturalist on the 'Challenger'* Macmillan and Co, London: 254.

Penguins were common at the edge of the ice. They progressed through the water like Rock-hoppers, and probably were the *Eurypytes Adellae* of Ross's Expedition, since they had

black heads; we could not catch any, though we tried to get some which were on an ice-block; they seemed shy.]

1900 Cook, Frederick A. *Through the first Antarctic night 1898–1899* William Heinemann Ltd, UK: 423.

The birds which were constantly present upon the ice-pack are ... the Adelia land penguin (*Pygoscelis Isic adellae*).

1901 Bernacchi, Louis *To the South Polar regions* Hurst and Blackett Ltd, London: 314.

Adélie Land Penguin (*Pygoscelis adellae*): the smaller blunt-billed, black-headed species found in immense rookeries on Victoria Land and Adélie Land, as well as in the area around Louis Philippe and Graham Lands. Length, 30 inches; weight, about 12 lbs.

24 Feb 1903 Wilson, Edward in Roberts, Brian, ed. (1967) *Edward Wilson's birds of the Antarctic* New Orchard Editions, Poole [Dorset]: 18.

Only an occasional Adélie Penguin has paid us a visit. 1904 *The Canterbury Times Annual* The Canterbury Times, Christchurch, 1 Oct: [24].

[caption] Egg of Adélie Penguin.

1905 *Bulletin of the British Ornithologists' Club* XV(CXIV): 58.

The following Lantern-slides were then exhibited:— By Mr. W. Eagle Clarke, a series of very fine slides taken by the Scottish National Antarctic Expedition in the South Orkneys and at Gough Island. The subjects were as follows:— 1. Rookery and nesting-habits of the Adélie Penguin (*Pygoscelis adellae*) [etc.].

1914 Priestley, Raymond E. (1974) *Antarctic adventure: Scott's northern party* T. Fisher Unwin, London, repr. Melbourne University Press: 56.

Penguin and seal have all the good qualities of mutton and beef, and the flavour of Adélie penguin is equal to that of most birds.

1921 Ponting, Herbert George *The great white South Duckworth*, London: 246.

Adélie penguins' eggs are about the size of a goose's; they are either white, or of the same shade as a duck's, but have much coarser shells. They are excellent to eat; the white being semi-transparent and gelatinous, and the yolk delicate of flavour. Two eggs are laid, with an interval of three or four days between. They are laid on the bare stones which form the nest, and are kept warm during the process of incubation by being enveloped in a deep crease in the thick, downy feathers of the lower abdomen. This crease permits of the eggs coming into close contact with the skin. The eggs are frequently turned, so that warmth can be applied equally.

1923 (South Orkneys) Brown, R.N. *Rudmose A naturalist at the poles: The life, work & voyages of Dr. W.S. Bruce the polar explorer* Seeley, Service & Co, London: 127.

Sheathbills and skuas were nesting as well as ... adella penguins. To take adella eggs it is necessary to lift the struggling bird from the nest.

1950 Admiral Lord Mountbatten *The desolate Antarctic* Lutterworth Press, London: 33.

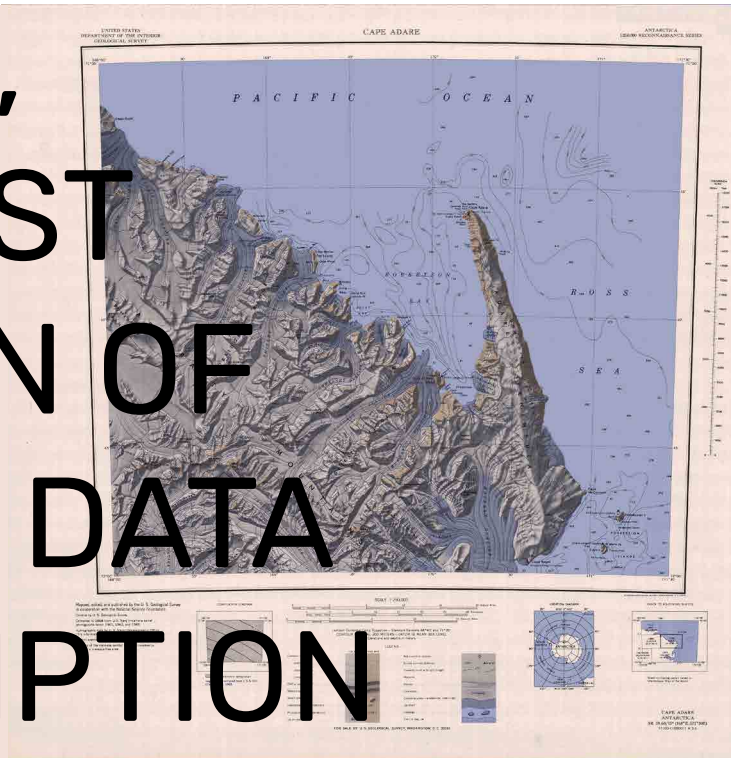
Of all the different penguin species, the Adélie Land Penguin is the most numerous and the most amusing to watch. From the explorer's point of view or taste he is the most appetising: properly prepared and thoroughly well cleaned from all traces of blubber the Adélie penguin tastes quite like hare, and is much improved by red currant jelly!



[Bernadette Hince \(2000\) \*The Antarctic Dictionary: A Complete Guide to Antarctic English\*](#)

[John Manning and Andrew Turk \(2016\) \*How Terrain Becomes Landscape: Antarctica Landscape Language Case Study\*](#)

# STORE KNOWLEDGE: THE *ANTARCTIC* *METADATA* *DIRECTORY*, THE LARGEST COLLECTION OF ANTARCTIC DATA SET DESCRIPTION



[The Scientific Committee on Antarctic Research](#)

[U.S. Antarctic Research Center: Topographic Maps \(250K\)](#)



[illegible]

Australian Agency for Project Physics, Institute for Science and Society, University of Western Australia, Perth, Australia  
 Department of Physics, University of Cambridge, Cambridge, United Kingdom  
 Department of Civil and Environmental Engineering, University of California, Irvine, CA, USA  
 Arctic and Antarctic Research Institute, St. Petersburg, Russia (corresponding)  
 National Hydrographic Institute, Department of Hydrography, 101-1000, Rio de Janeiro, Brazil  
 Arctic and Earth Sciences, University of Southampton, Southampton, United Kingdom  
 National Oceanographic and Coastal Administration, 101-1000, Rio de Janeiro, Brazil  
 British Oceanographic Data Centre, National Oceanographic Centre, Liverpool, United Kingdom  
 NOAA Office of Policy and External Relations, University of Rhode Island, Narragansett, Rhode Island

**Citation**  
 Dunne et al. (2022) The International Bathymetric Chart of the Southern Ocean Version 2. Scientific data, 9:1-12.  
<https://doi.org/10.1038/s41598-022-01396-7>

**Further information:** [www.iobco.org](http://www.iobco.org)  
**Contact:** [io@iobco.de](mailto:io@iobco.de)

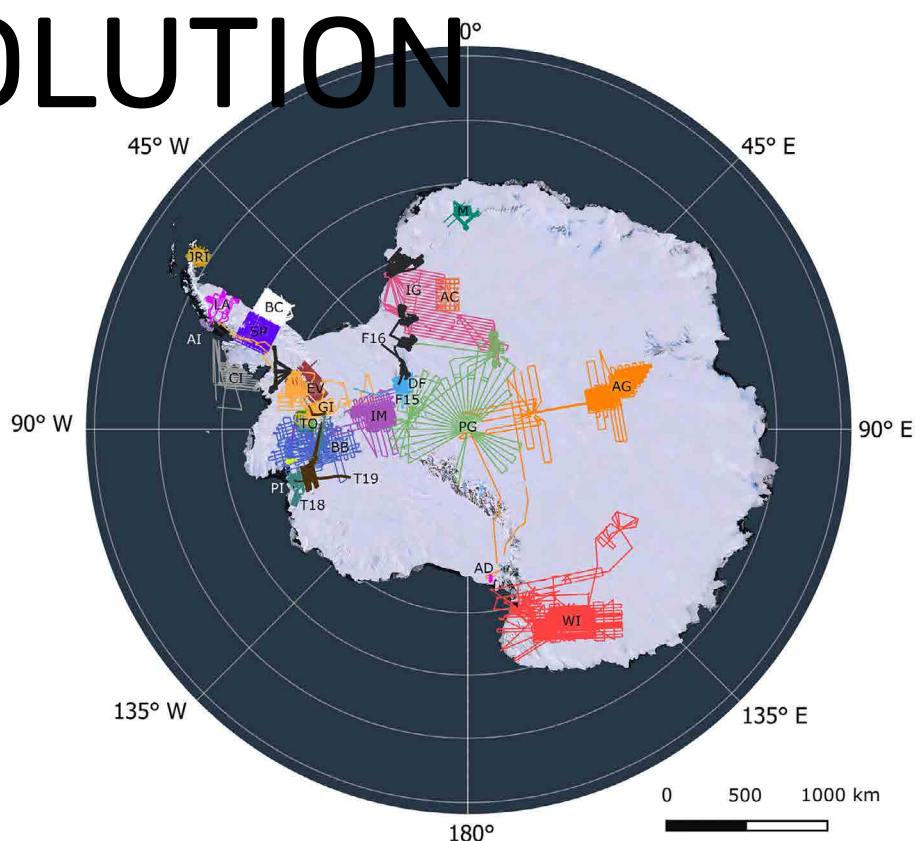


SECTIONS



# (2016 - 2020) LAND COVER CLASSIFICATION ACROSS MCMURDO DRY VALLEYS

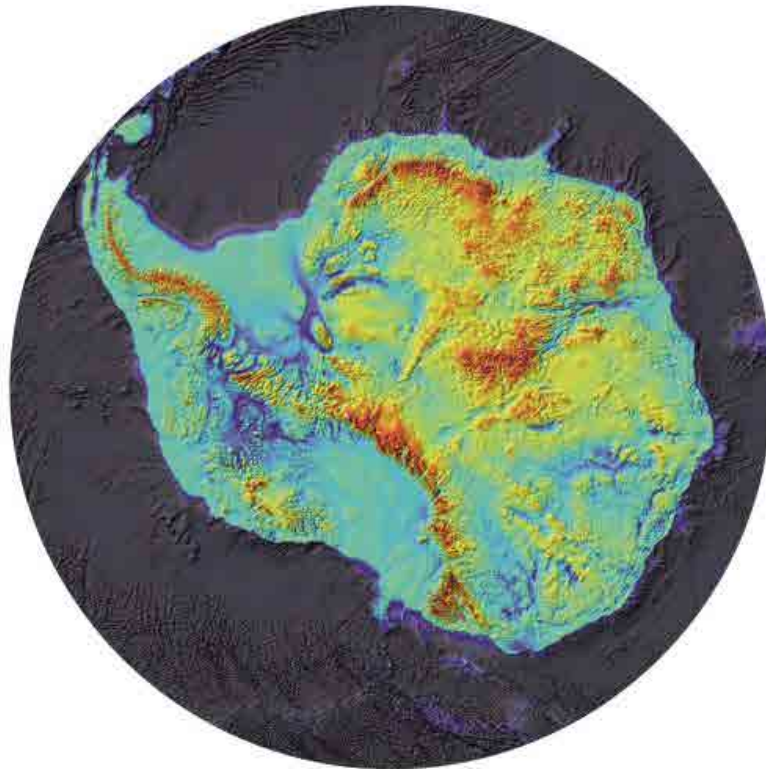
# *A DIGITAL SURFACE MODEL (DSM) OF ANTARCTICA AT 2-METER SPATIAL RESOLUTION*



*Spatial coverage of the published  
geophysical database by British  
Antarctic Survey*



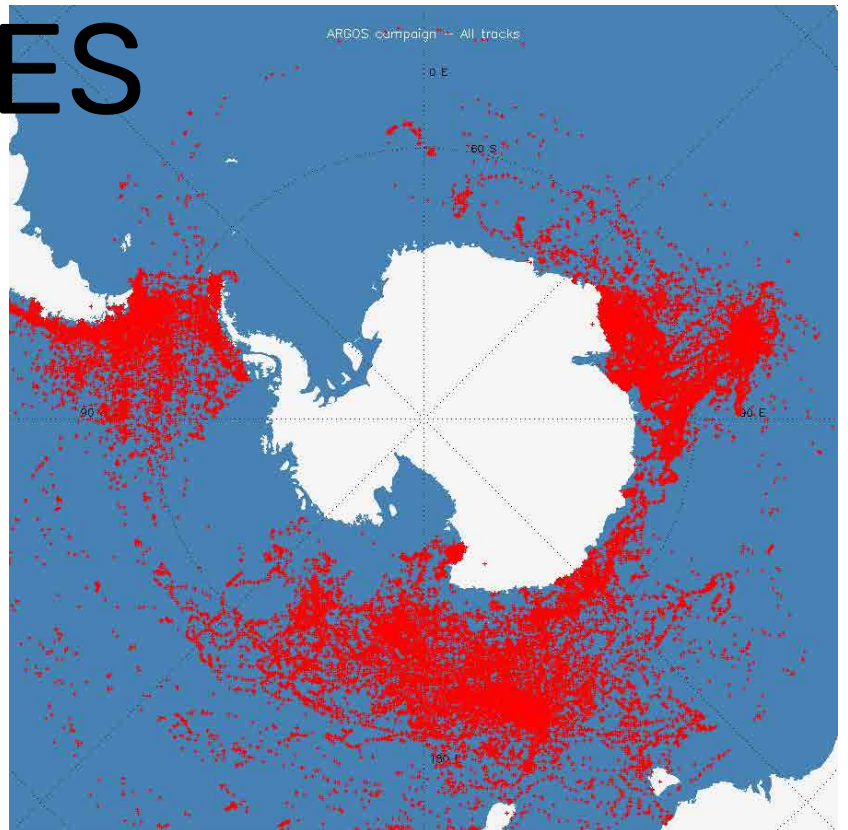
# HOW THICK IS THE ICE? WHAT'S UNDER THE ICE?



[\*Bedmap2: improved ice bed, surface  
and thickness datasets for Antarctica\*](#)

*Bedmap2 preview*

# BIRDS AND MAMMALS OBSERVED FROM SATELLITES



*Map of tracked animals by ARGOS  
systems at May 2010 (Australian  
Antarctic Data Centre)*






71° 18' 00.0" S  
160° 10' 00.0" E

***Allegro Valley***

*This name originates from New Zealand.*

*A steep-sided, glacier-filled valley indenting the E side of Daniels Range just N of White Spur, in the Usarp Mountains. The northern party of the NZGSAE, 1963-64, experienced fine weather here after several days of unpleasant travel; therefore, members named it after Milton's poem "L'Allegro" in antithesis with Penseroso Bluff, 14 mi to the north.*

39,142  
NAMES THAT  
CORRESPOND TO  
20,125 FEATURES,  
22 COUNTRIES  
PARTICIPATING.  
APPLY TO PLACE  
NAMING 

*Polyamide fabric marker flags used in Antarctica. Before being placed outside and after they were retrieved*



# MICROPLASTICS ARE FOUND IN FRESH ANTARCTIC SNOW AND PLASTIC DEBRIS FLOAT IN THE SOUTHERN OCEAN

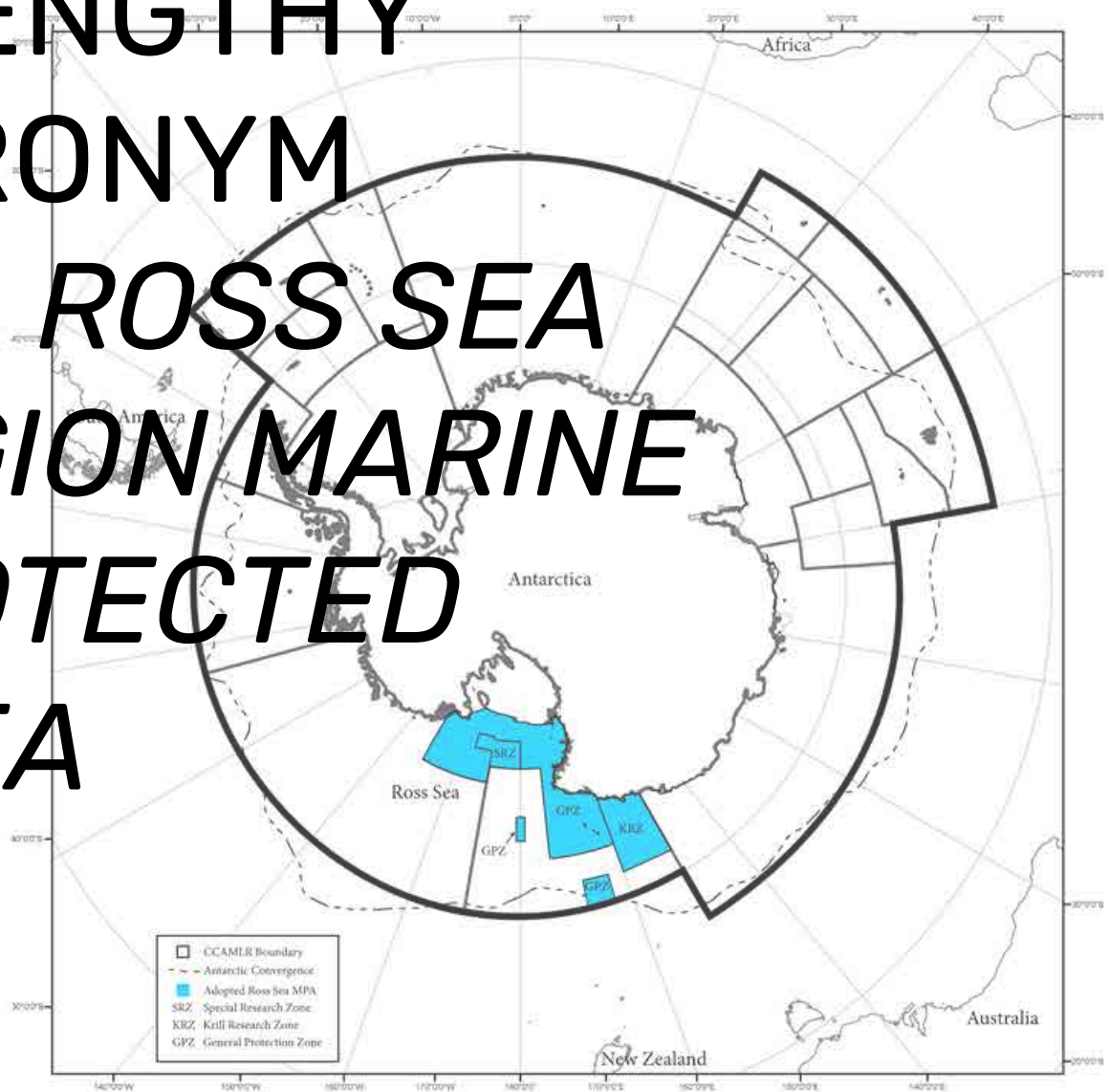


[\*Marine plastic pollution in the polar south:  
Responses from Antarctic Treaty System\*](#)

[\*First evidence of microplastics in Antarctic snow\*](#)

# *RSRMPA.* A LENGTHY ACRONYM FOR *ROSS SEA* *REGION MARINE* *PROTECTED* *AREA*

*The GPZ refers to the “general protection zone” in which no commercial fishing is allowed. The SRZ refers to the “special research zone” which will be the focus of toothfish research fishing in the MPA. The KRZ refers to the “krill research zone” which will be the focus of krill research fishing in the MPA.*



[Ross Sea region marine protected area: Conservation Measure 91-05 \(2016\)](#)

[The Ross Sea, Antarctica: A highly protected MPA in international waters](#)

# THE VISITOR GUIDELINES LIBRARY UNDER THE ANTARCTIC TREATY



*ECHO Antarctica camp,  
by White Desert*

*71°32'47" S 8°50'11" E*



[\*The IATO visitor guidelines library\*](#)

[\*High Resolution Spatial Mapping of Human Footprint across  
Antarctica and Its Implications for the Strategic Conservation of  
Avifauna\*](#)





# BEATING NEW PATHS. TRAMPLING AND GROUND DISTURBANCES ON ANTARCTIC SOILS



[\*The impacts of trampling and ground  
disturbances on Antarctic soils\*](#)



[illegible]

### Antarctic mineral resources: Looking to the future of the Environmental Protocol

# ANTARCTIC SCIENCE DEPENDS BY HIGH-SPEED CONNECTIVITY?

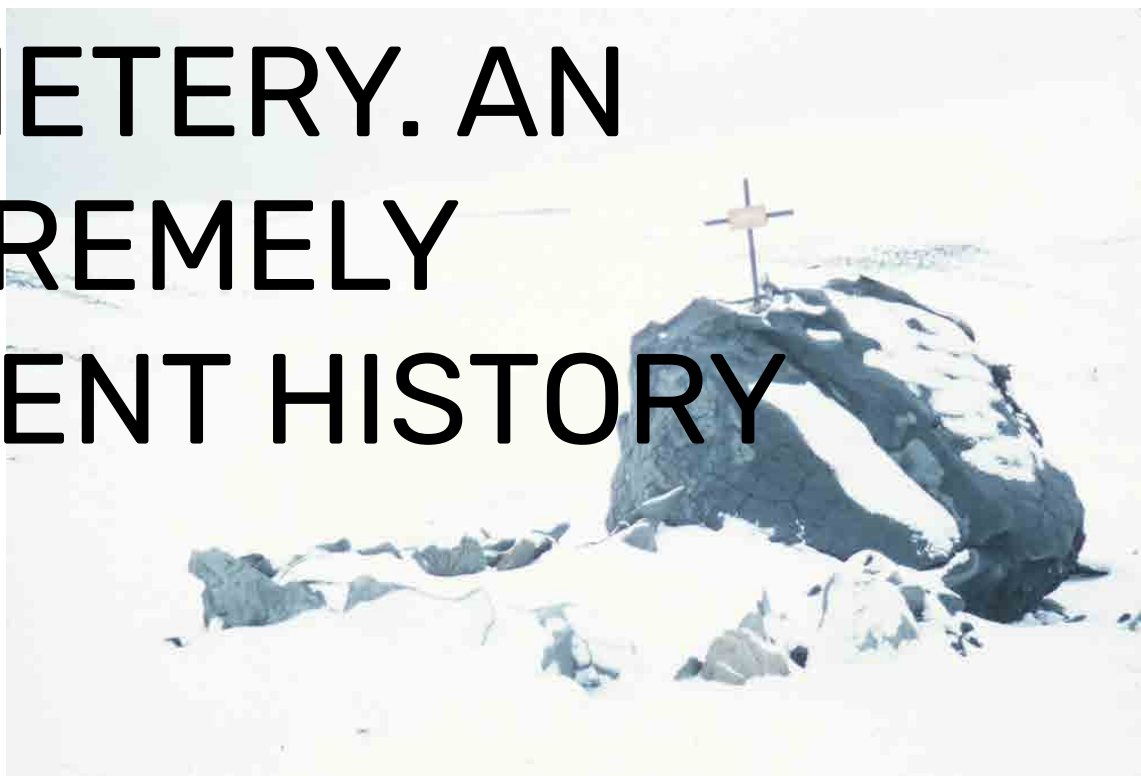


*Overview map showing possible cable routes between New Zealand and Antarctica*



# FROM CAPE EVANS HUTS TO BUROMSKY ISLAND CEMETERY. AN EXTREMELY RECENT HISTORY

*Hansen's Grave, 1961-  
1962, Cape Adare,  
Antarctica New Zealand  
Pictorial Collection*

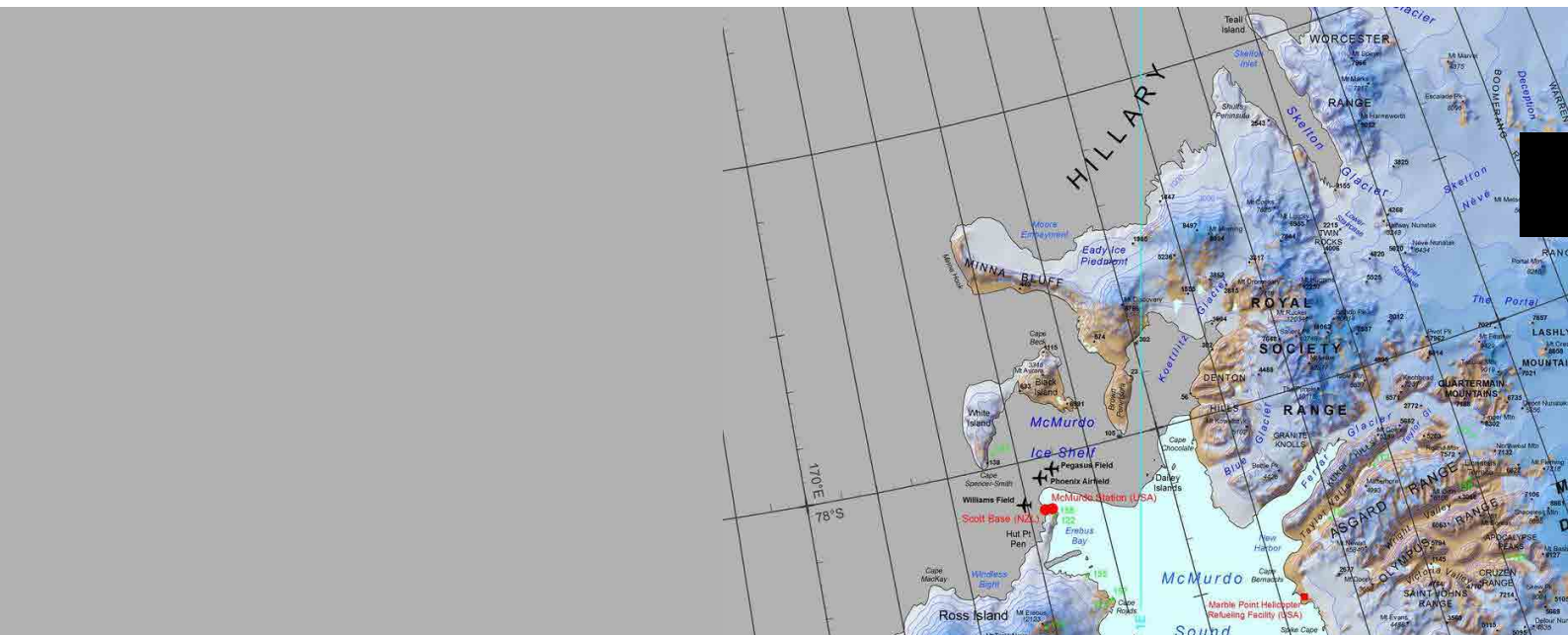




# THE RELEVANCE OF CONSTRUCTING AND MAINTAINING HARD-SURFACE SNOW RUNWAYS



# AIR OPERATION PLANNING



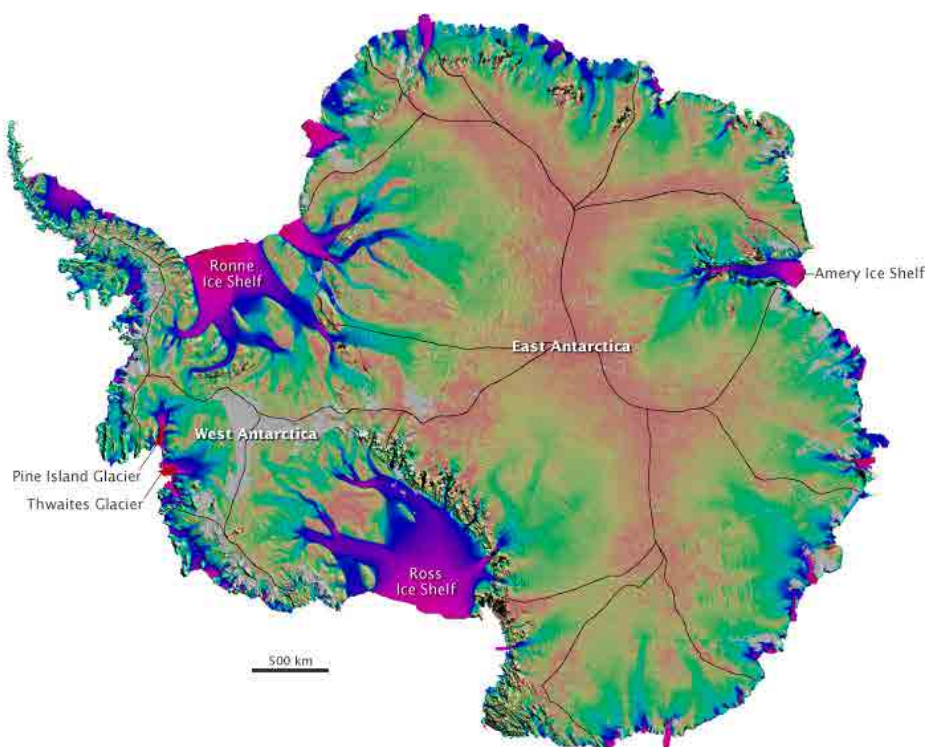
*Ross Ice Shelf, Polar  
Geospatial Center (United  
States of America), Air  
Operations Planning  
Maps List, 2016*





# A CONSTANTLY SHIFTING COASTLINE

*Ice Movement 1996–  
2006, speed (m/years)*



[\*High resolution vector polylines of the Antarctic coastline - VERSION 7.6 \(2022\)\*](#)

[\*High resolution vector polygon sea mask for areas south of 60S - VERSION 7.6 \(2022\)\*](#)

[\*- VERSION 7.5 \(2021\)\*](#)

[\*- VERSION 7.4 \(2021\)\*](#)

[\*- VERSION 7.3 \(2020\)\*](#)

[\*- VERSION 7.2 \(2020\)\*](#)

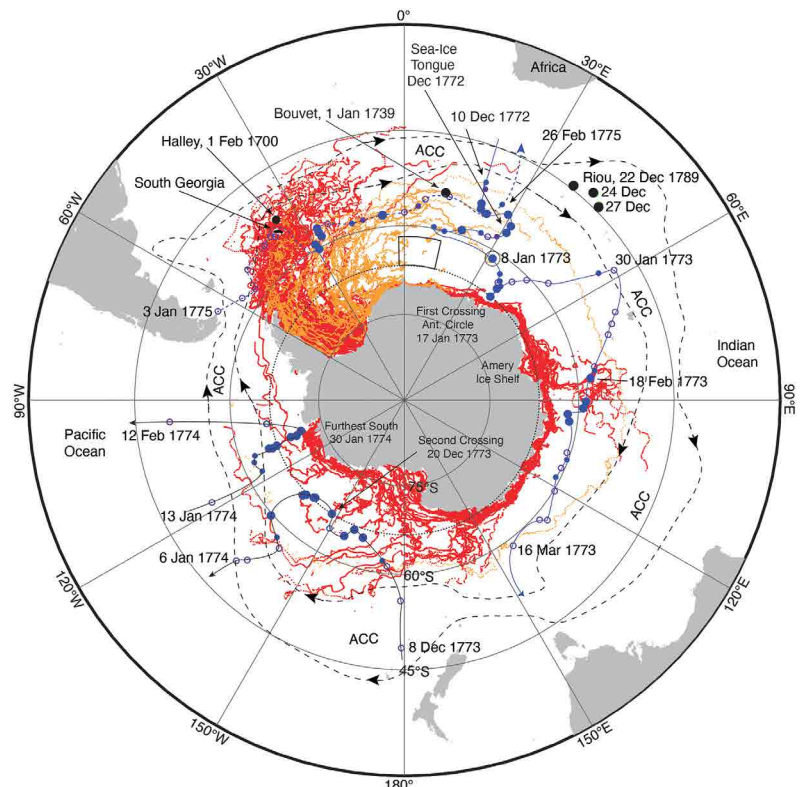
# THE ANTARCTIC ICEBERG TRACKING DATABASE



*Antarctic icebergs still exist today  
where 1700-era sailors spotted,  
tracked them*

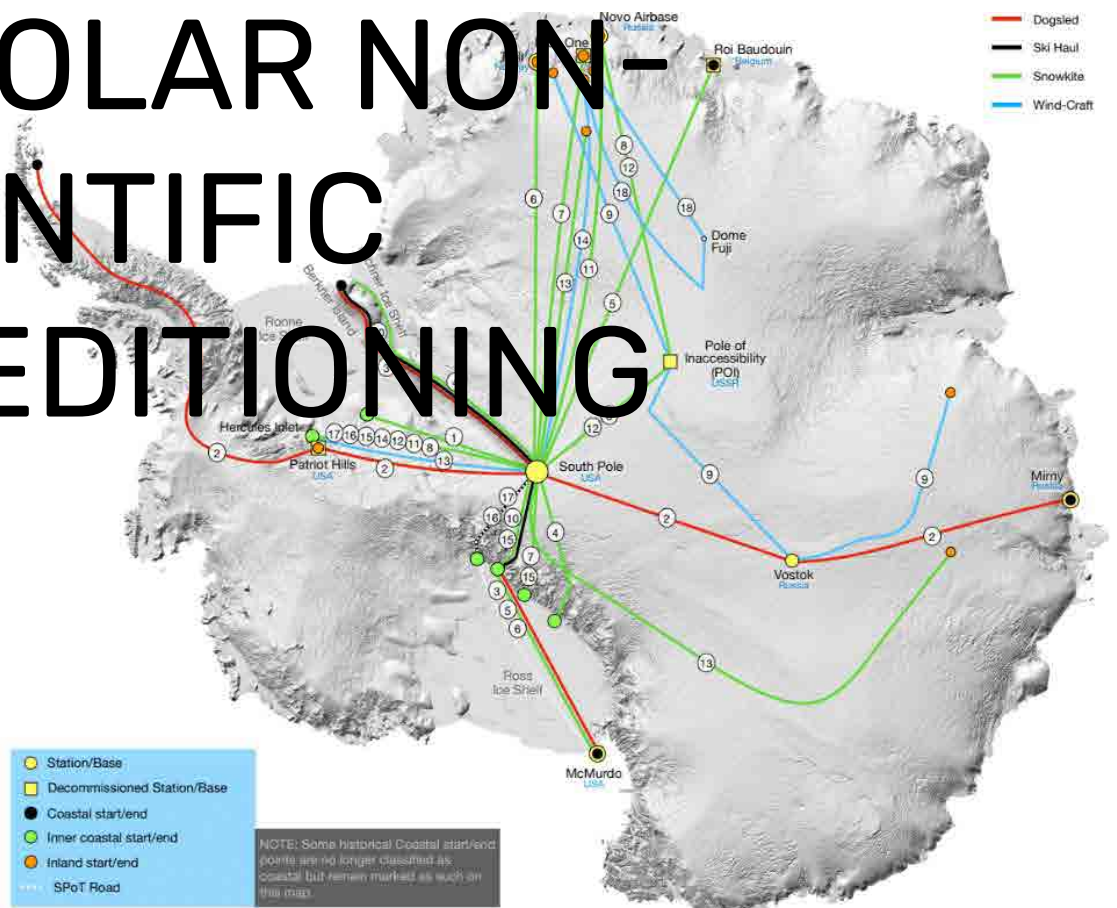


[Comparison of Antarctic iceberg  
observations by Cook in 1772–75,  
Halley in 1700, Bouvet in 1739  
and Riou in 1789 with modern  
data](#)



# WHAT'S BEEN ACHIEVED, AND NOT ACHIEVED, IN THE WORLD OF POLAR NON- SCIENTIFIC EXPEDITIONING

*Dogsled, Ski Haul,  
Snowkite, Wind-Craft and  
unmotorised Antarctica  
crossing, compiled by  
Icetrek*





# RATE ANTARTIC EXPERIENCES ON TRIP ADVISOR / GOING THERE WITH AIRBNB

*Antarctic Sabbatical  
volunteer at Union  
Glacier Camp*



[Back From the Antarctic Sabbatical](#)

[Things to Do in Antarctica](#)



**Antarctica - 'Basecamp'- free camping, kayaking, snowshoe/hiking, mountaineering, photo workshop**

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M/V PLANCUS

Cruise date:

8 Mar - 20 Mar, 2023

Price:

€7600

Show cruise >

# **ANTARCTICA, DRAW THE BOUNDING BOX ON A MAP**

**ANTARCTICA,  
BUILD YOUR OWN  
MENTAL IMAGE  
OF THE EMPTY  
PLACE USING  
SATELLITE IMAGES  
AND CRITICALLY  
ANALYSING THE  
DOCUMENTATION IN  
THE DOSSIER**

**ANTARCTICA,**  
PLOT A JOURNEY  
THAT ALLOWS YOU  
TO TELL A STORY/  
STORIES

# **ANTARCTICA, PUBLISH THE TRACK TO THE WEB USING MAPBOX STUDIO**



**ANTARCTICA,**  
CREATE A  
PRINTABLE  
SYNTHETIC MAP  
WHERE YOU TELL  
AND REPRESENT  
THE STORY/  
STORIES ALONG  
YOUR JOURNEY

**ANTARCTICA,**  
DON'T FORGET THE  
RITUAL AND WHO  
TAKES PART IN IT.  
THAT'S WHY YOUR MAP  
IS WRONG. *THE MAP IS  
NOT THE TERRITORY.*  
BUT BY THEN, YOU  
WILL HAVE LEARNED A  
PROCESS.