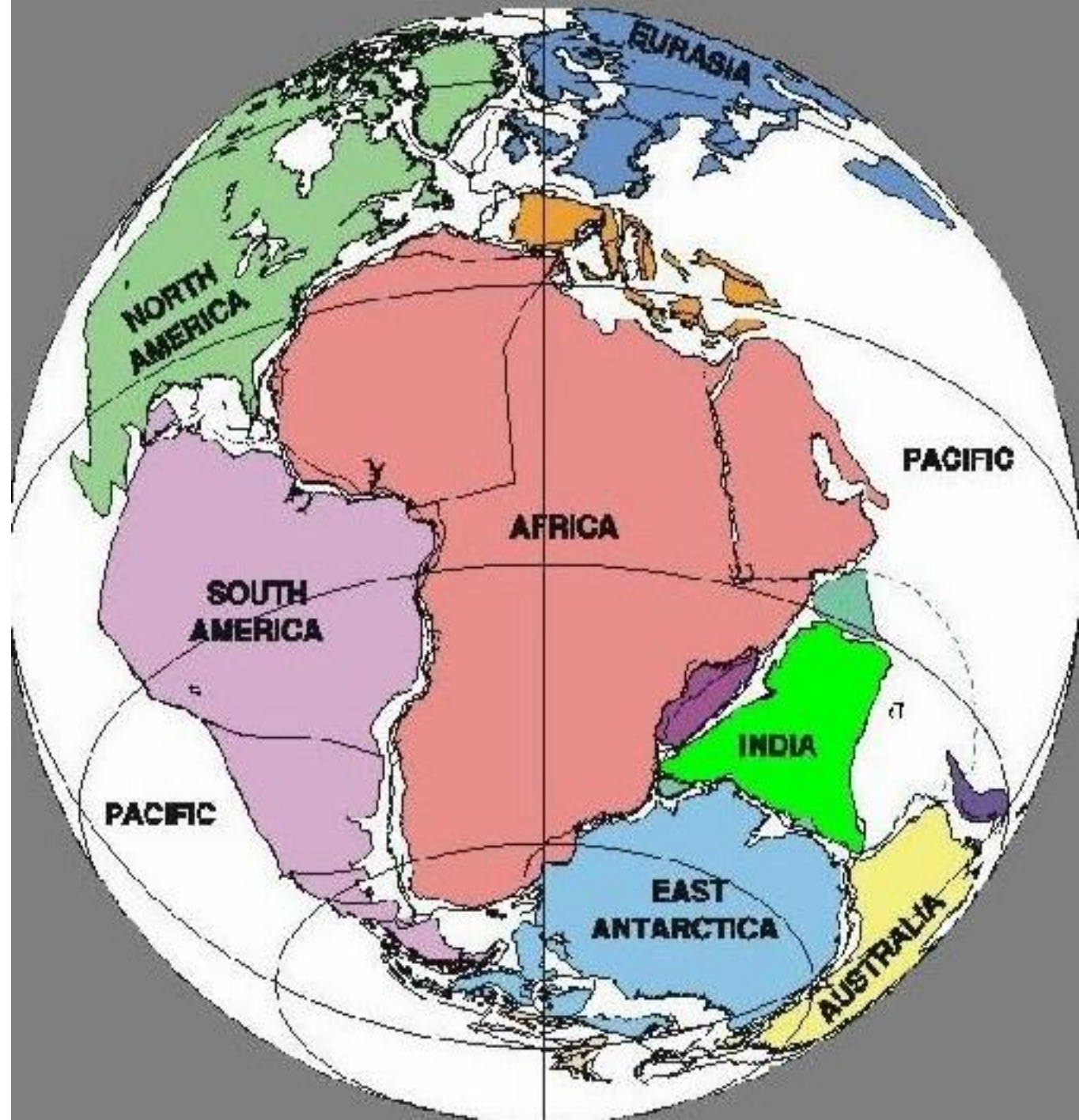
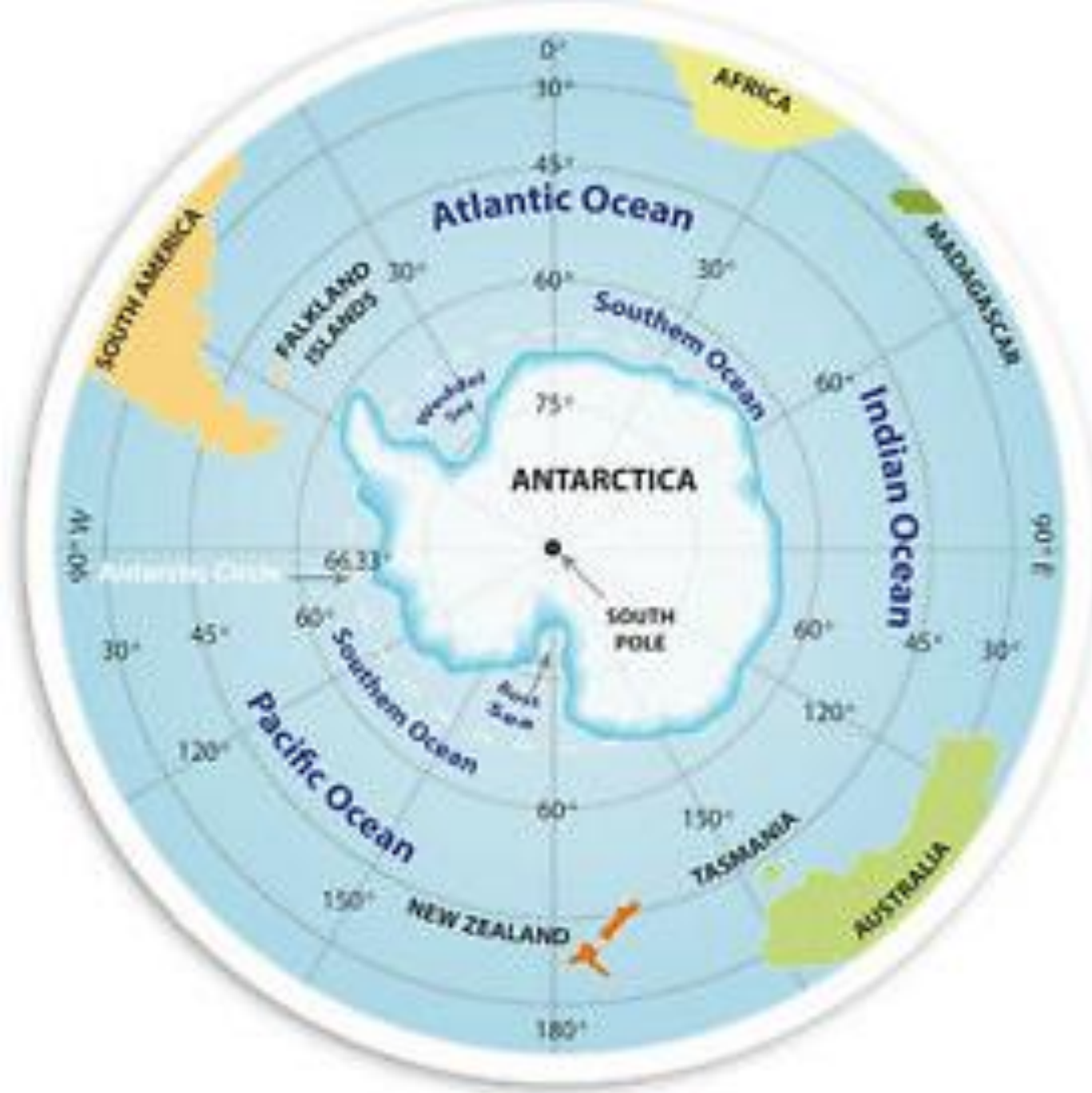


A large colony of penguins is gathered on a rocky shore in the foreground. The water is a deep blue, and several large, white icebergs are floating in the middle ground. In the background, there are snow-capped mountains under a clear blue sky.

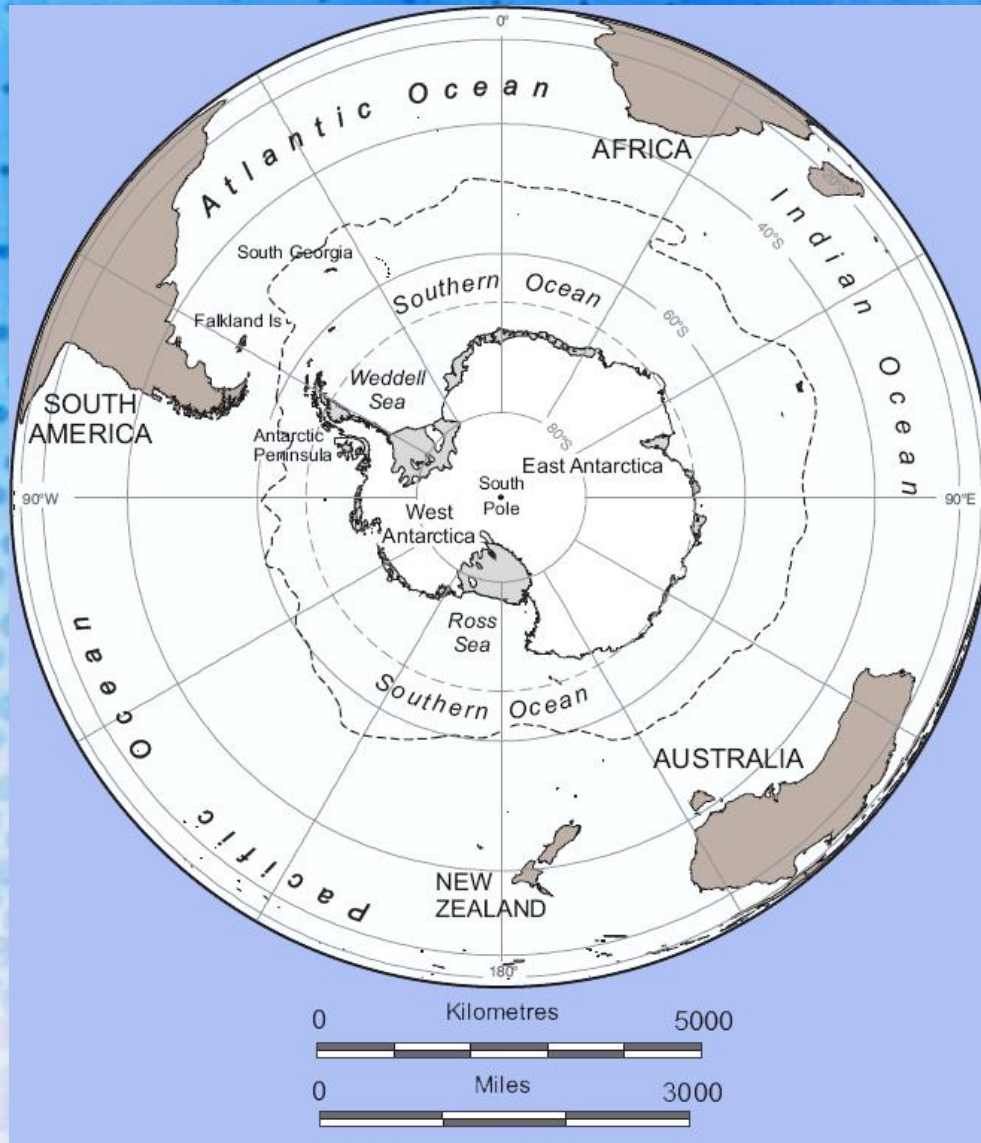
வாருங்கள், தென்துருவம்  
பயணிப்போம்.

உலக  
உருண்டை  
ஒரே  
நிலப்பரப்பாக  
ஒரு காலத்தில்  
இருந்தது.

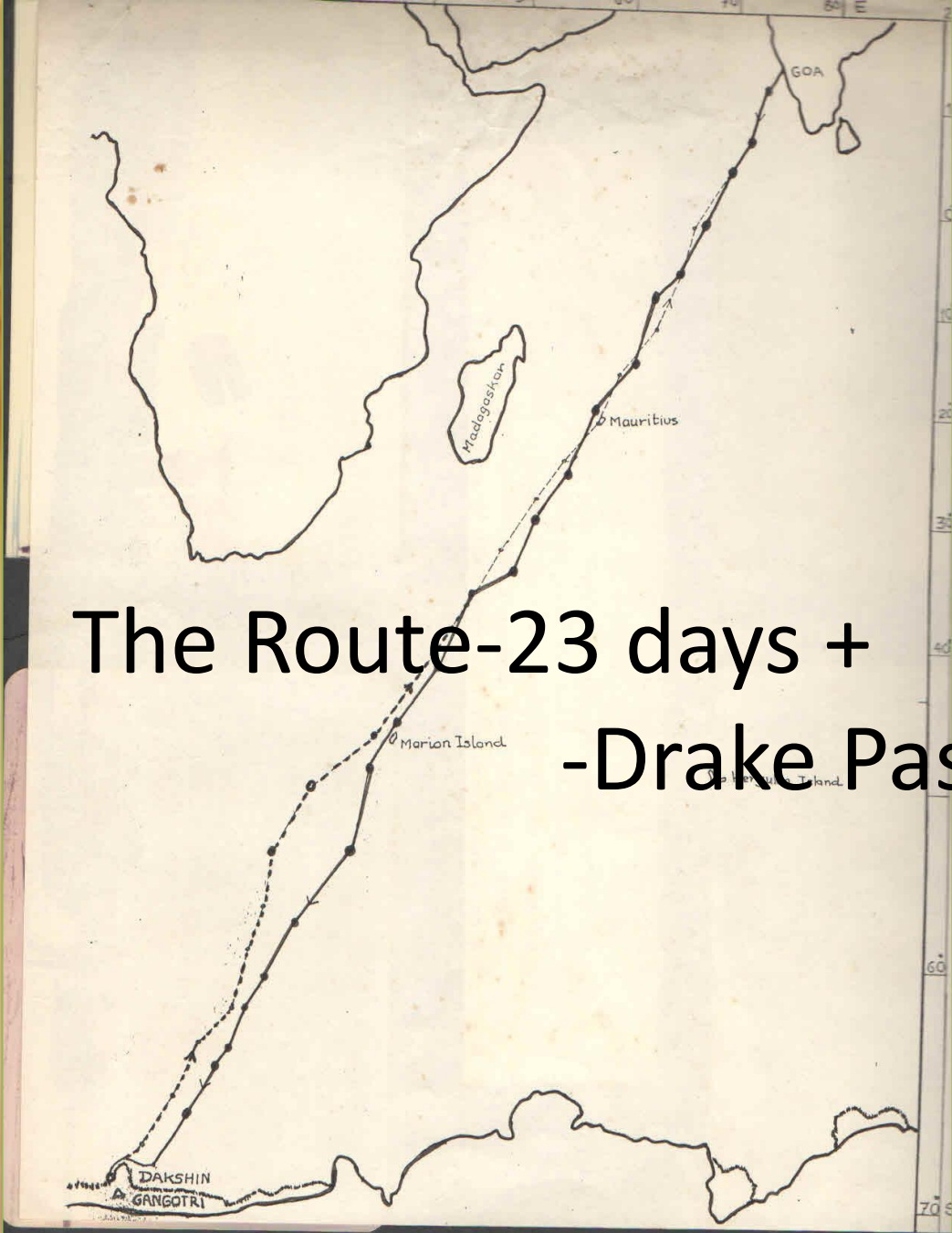




நில  
அதிர்வுகள்  
காரணமாக  
கடல்  
இடையில் புக  
ஆரம்பித்தது.



The Globe-view  
from the top of  
south pole

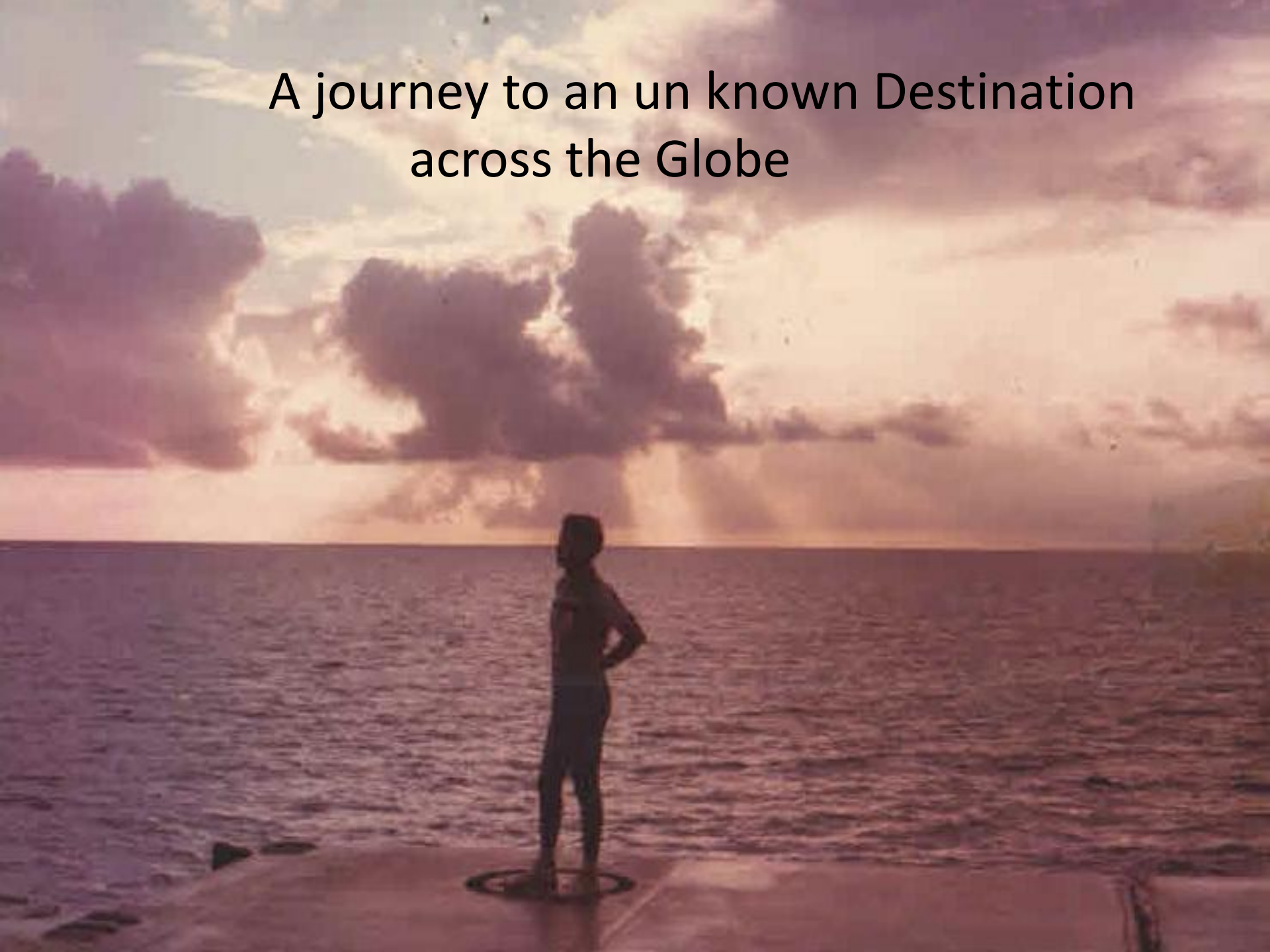


The Route-23 days +  
-Drake Passage

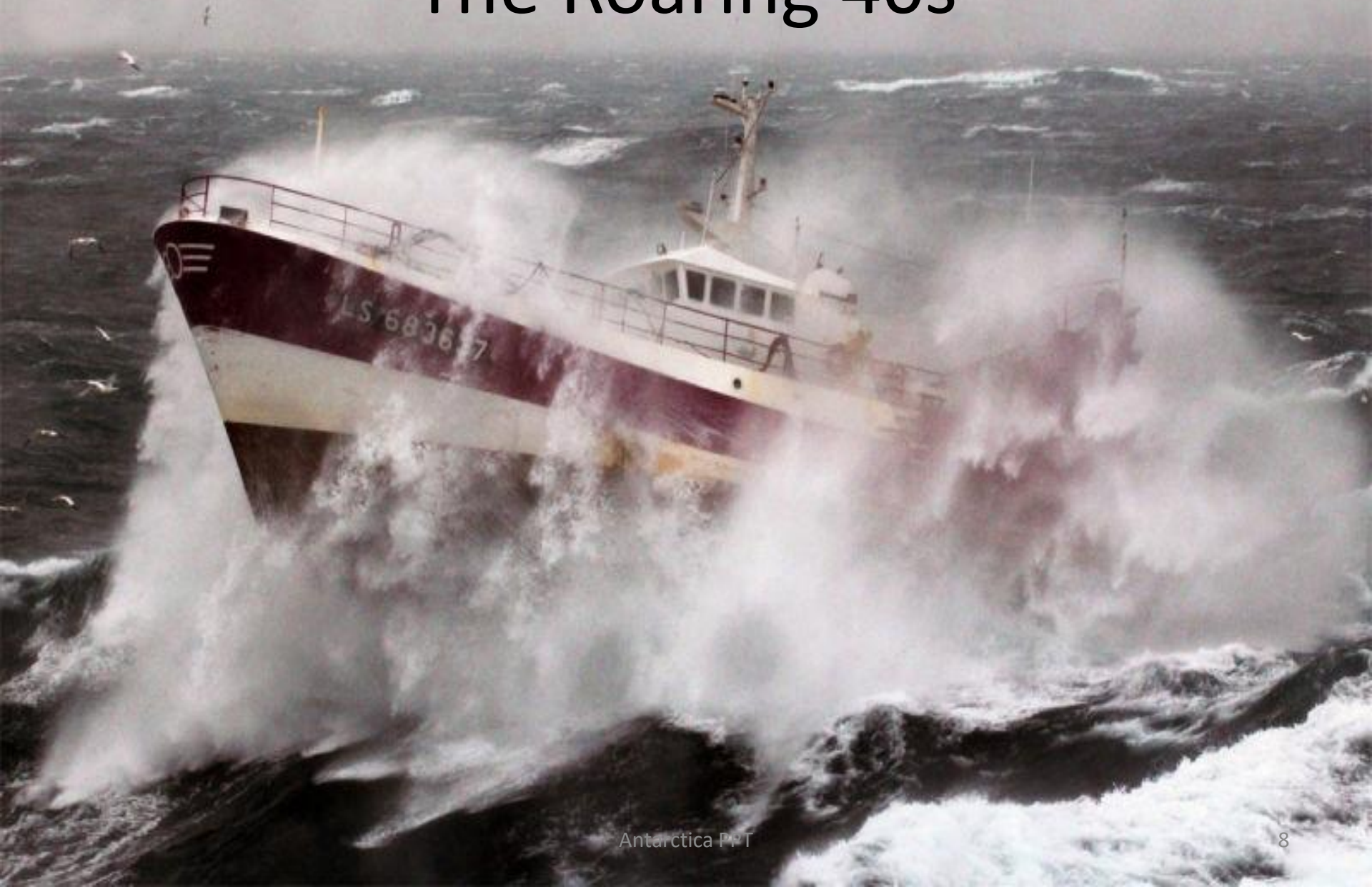
23 நாட்கள் இடையில் நிறுத்தாத  
கடல் பயணம்.



# A journey to an un known Destination across the Globe



# The Roaring 40s





கப்பலைத் தலை கீழாக  
புரட்டும் கடல் சீற்றம்



தென் துருவ அருகாமையில்  
கடலில் மிதக்கும் பனிப்பாறைகள்.

# The Biggest Ice Berg-110km\*75km





**1/9 th of the ice berg only seen.  
8/9 th is under water.**

"All the News That's  
Fit to Print."

# The New York Times.

THE WEATHER.  
Forecast: Partly B. Wind  
from north, moderate  
force. Clouds, increasing variable.  
Temp. in the morning about 40, in the  
evening about 50.

WED. 123. NO. 2366

NEW YORK, TUESDAY, APRIL 16, 1912—TWENTY-FOUR PAGES.

ONE COPY 25 CENTS

## TITANIC SINKS FOUR HOURS AFTER HITTING ICEBERG; 866 RESCUED BY CARPATHIA, PROBABLY 1250 PERISHED ISMAY SAFE, MRS. ASTOR MAYBE, NOTED NAMES MISSING

Col. Astor and Bride,  
Isidor Straus and Wife,  
and Maj. Butt Aboard.

### "RULE OF SEA" FOLLOWED

Women and Children Put Out  
in Lifeboats and Are Supposed  
to Be Safe on Carpathia.

### PICKED UP AFTER 8 HOURS

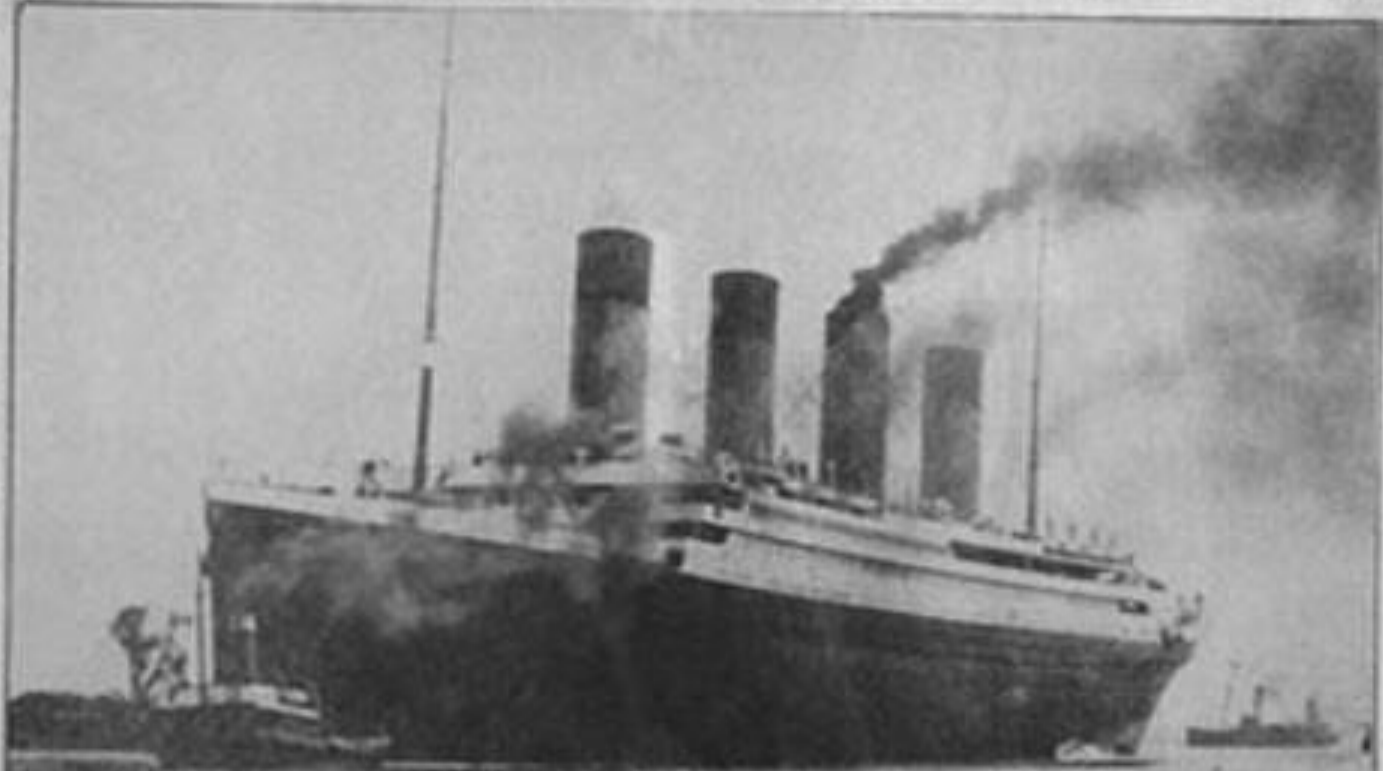
Vincent Baker Calls at White Star  
Office for News of His Father  
and Laura Wiegand.

### FRANKLIN HOPEFUL, ALL DAY

Manager of the Lifeboat  
Thinks Mrs. Chatterbox Even  
After She Had Gone Down.

### HEAD OF THE LINE ABOARD

A. Bruce Innes Waiting That Trip to  
England Who That Was to  
Cross at Once.



Biggest Liner  
To the Bottom  
at 2:20 A.M.

### RESCUES THERE TO

Except to Pick up the  
Wreck of the  
Titanic.

### WOMEN AND CHILDREN

Counted Despite the  
Sea Toss with  
Survivors.

### SEA SEARCH FOR

The California Shows  
Chance of Finding the  
Boat in Parts.

### OLYMPIC SENDS THE

Only One to Find the  
Wreck in Area After  
Failure.

The Marconi wireless telegraph machine sent out frantic distress calls on the night of April 14 and 15, 1912, after the ship hit an iceberg in the North Atlantic and started to sink. Only about 700 of the more than 2,300 people on board survived.

உறையனியை உடைத்துச்  
செல்லும் கப்பல்



The winter squeezes the ship.

குளிர் காலத்தில் மேலே செல்லமுடியாமல்  
சிக்ஞம் கப்பல் வந்த வழி திரும்பவும்  
முடியாமல் உறைபனியில்மாட்டிக்கொள்ளும்.



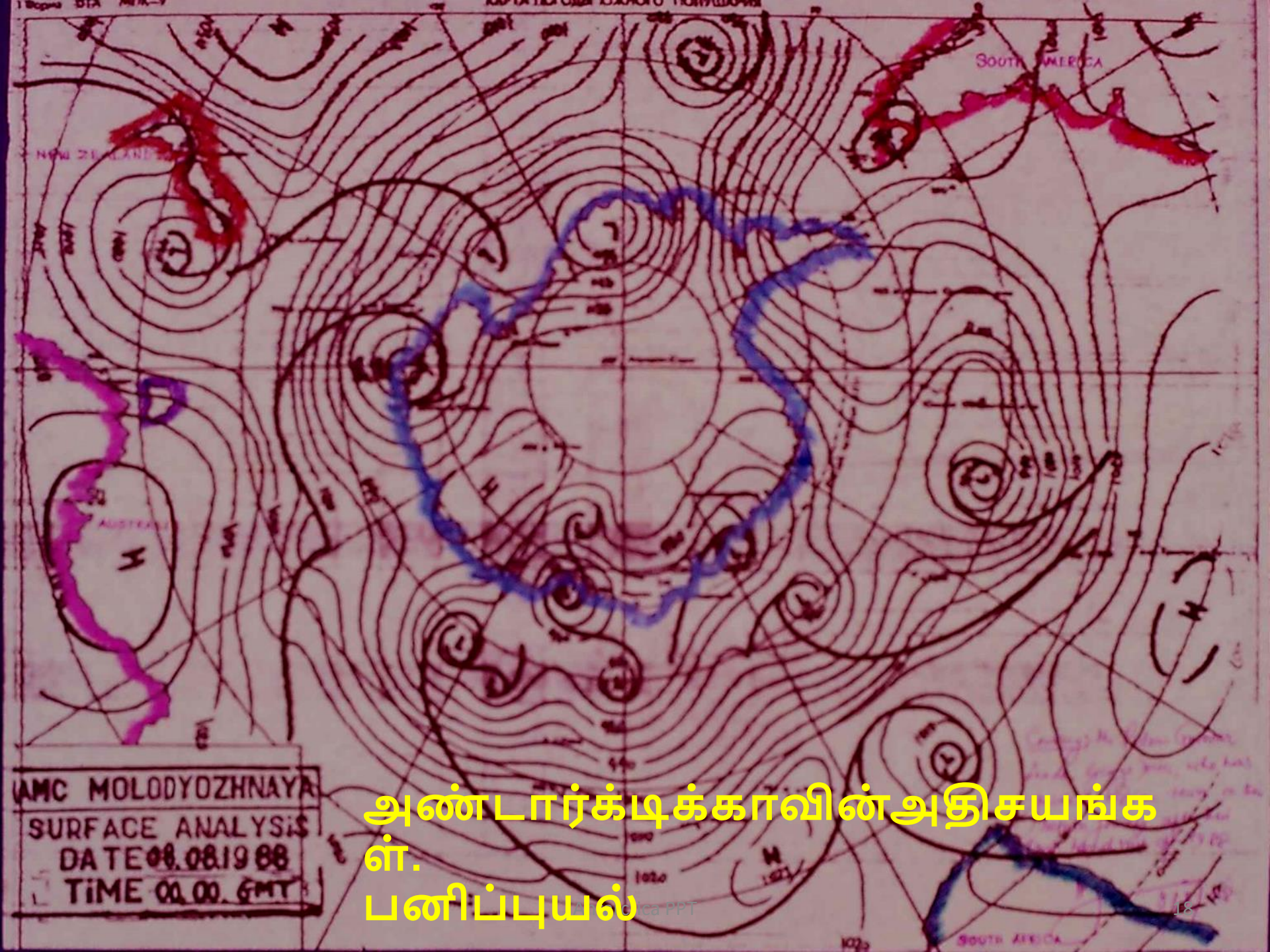
Today's a special day in the annals of Antarctic exploration, it's been 100 years to the day since Ernest Shackleton's ship Endurance was crushed by ice and finally sank after 307 days beset...





"[1], Shackleton issued a detailed programme early in 1914. The expedition was to consist of two parties and two ships. The Weddell Sea party would travel in the [Endurance](#) and continue to the Vahsel Bay area, where fourteen men would land of whom six, under Shackleton, would form the Transcontinental Party. This group, "[12] would undertake the 1,800-mile (2,900 km) journey to the Ross Sea. The remaining eight shore party members would carry out scientific work, three going to [Graham Land](#), three to [Enderby Land](#) and two remaining at base camp. [12] The [Ross Sea party](#) would set up its base in McMurdo Sound, on the opposite side of the continent. After landing they would lay depots on the route of the transcontinental party as far as the [Beardmore Glacier](#), hopefully meeting that party there and assisting it home. They would also make geological and other observations. [12]





AMC MOLODYOZHNAJA  
SURFACE ANALYSIS  
DATE 08.08.1988  
TIME 00.00. GMT

அண்டார்க்டிக்காவின் அதிசயங்கள்.  
பனிப்புயல்



# White out



# Crevasse-split in ice surface





# The Danger

# Aurora-Australis





# The rulers of the continent- 'Penguins'



# Penguin Rookery





# Antarctic Seals

# The sun never sets

Six months darkness  
six months sun never sets





We began work in 1981, with our first station, Dakshin Gangotri, established in 1983 in Antarctica. Unfortunately we had done limited surveying before making that choice, and did not realise it was in an accumulation zone, and so it has been submerged, buried in ice, over the years. We then established the Maitri, with the help of the Indian military in 1989, which became fully operational in 1993. Our third, most modern base, the Bharati, was established in 2012. We did an international tendering process for this and it is [a state-of-the-art research facility](#).

Antarctica is the coldest place in the world.  $-89.6^{\circ}\text{C}$ .

Few minutes of exposure gets ice on the Face.

The ice cannot be removed by hand as it will pull the hair.

It has to be melted.



# The blizzard takes on



# The double story station-after the blizzard





பனி விழுங்கிய இந்திய ஆய்வுதளம்.  
தக்ஷிண்கங்கோத்ரி.



# தக்ஷிண்கங்கோத்ரி----ஒரு பார்வை.

## இந்திய முதல் தென்துருவ ஆய்வுதளம்

தக்ஷிண் கங்கோத்ரி  
மார்ச் 1983 - மார்ச் 1990

இது ஒரு  
வெண்பனி சுடுகாடு  
- முன்னாள் தலைவர்

விண்வெளி தகவல்  
தொடர்பு மையம்  
INTERNATIONAL  
MARITIME SATELLITE  
COMM DOME

ஐந்து நட்சத்திர  
விடுதி வசதிகள் கொண்டது  
- மத்திய அரசு

உலகிலேயேக்  
கொடுமையான குளிர்  
(-)89.6°C

உயிர் பிழைக்கும்  
ஒரே வழி

பனி மூடிய  
ஆய்வுதள கூரை

உள்ளே ஆய்வாளர்கள்

உலகம் கண்டிராத  
பனிப்பயல்  
350 கி.மீ./மணி

இயற்கையோடு இயைந்துறவாடும் கர்னல் பா. கணேசன்

1987-89 குளிர்கால ஆய்வுதள தலைவர்

பனியில் மூழ்கிக் கொண்டிருக்கும்  
தக்ஷிண் கங்கோத்ரி

அண்டார்டிக் கா

145 லட்சம் சதுர கி.மீ.  
98 விழுக்காடு 5000மீ  
உறைபனி மூடியது







# India in South Pole

India has two research bases in Antarctica

- Maitri, commissioned in 1989
- Bharati, commissioned in 2012

Between March and November, around 25 personnel are stationed at Maitri and 45 at Bharati

Russian ship *m.v. Ivan Papanin* near Bharati station. **►**  
■ SPECIAL ARRANGEMENT

## Distance between points







# FIFTH WINTERING

NOV 87 - MAR 89



CENTRE : COL P GANESAN, STN CDR  
TOP ROW : LK(O) GURCHARAN SINGH, L/NK SREE KUMAR  
N/SUB P RAJAN, LT COL HK KOCHHAR, MAJ P DEOGIRIKAR  
LT(Sec) K JAYARAM, N/SUB K AMBALAM.  
MIDDLE ROW: SRI RC DEKA, SRI G BUDHAKAR RAO, POELR K RAJ KUMAR  
SUB ANTHONY  
BOTTOM ROW: N/SUB PARBAT SINGH, SRI PM GULHANE, POELR K SURESH BABU





