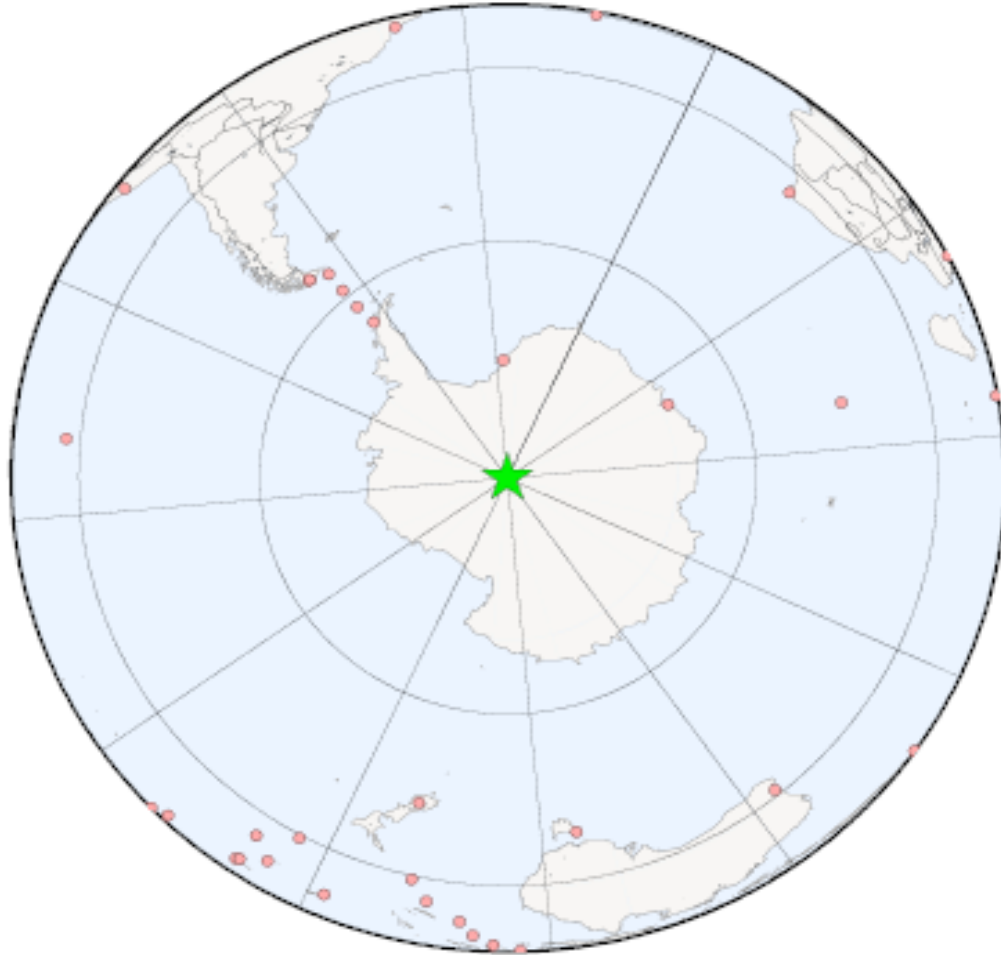




# 30th Anniversary of a South Pole Winter-over 1978-79

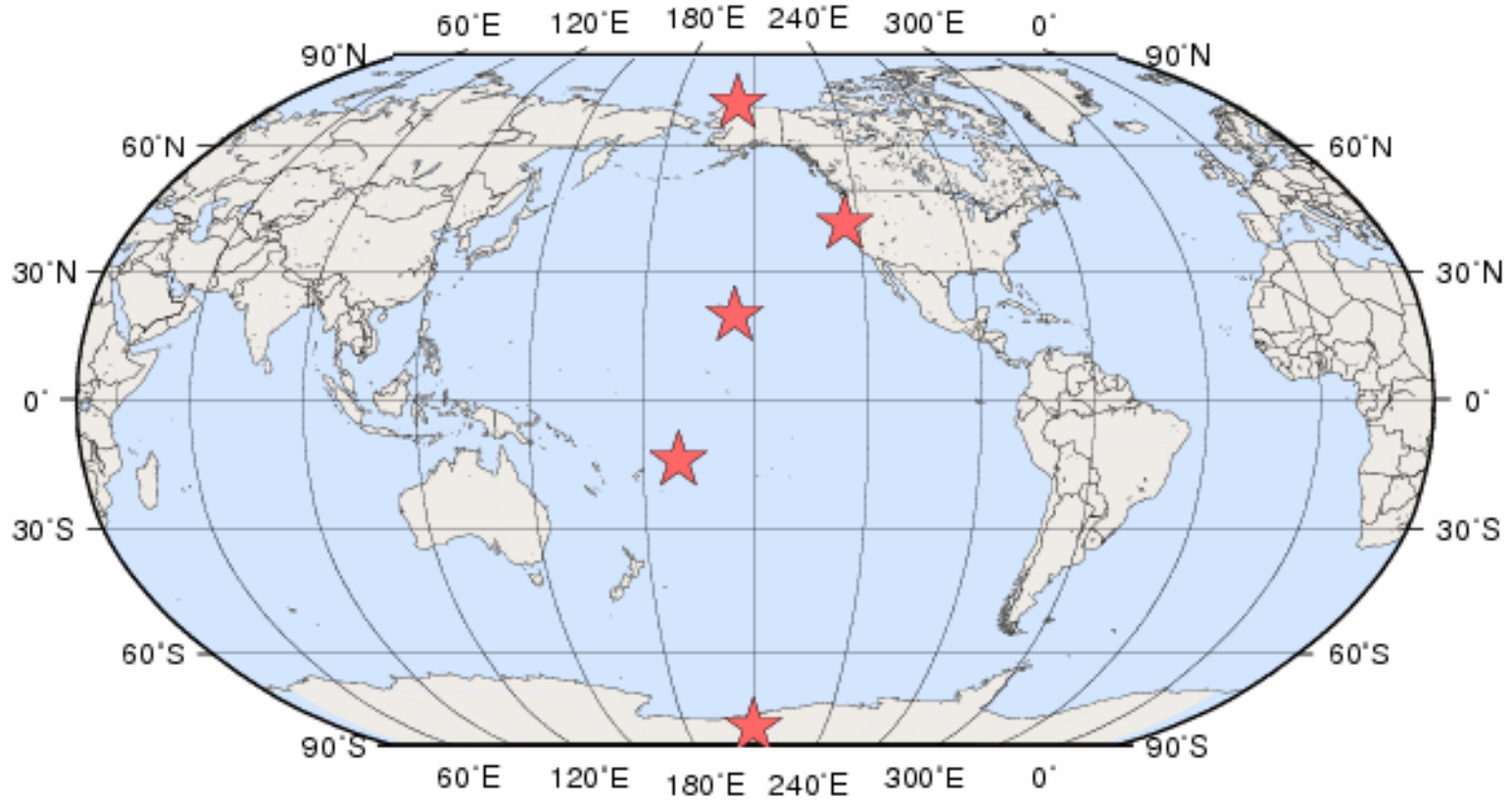


[John.Bortniak@noaa.gov](mailto:John.Bortniak@noaa.gov)

# History of the South Pole

- December 14, 1911: Amundson party reached the pole via dogsled teams.
- January 17, 1912: Scott's 5-man party reached the pole on foot, man-hauling sledges. All die on return trip.
- November 29, 1929: Admiral Byrd flew over the pole (dropped American flag).
- 1956-57 IGY: First station built (old pole) and permanent occupancy began.
- 1975: The new Amundson-Scott South Pole Station (the Dome) was first occupied.
- Only 1228 people have wintered over at the South Pole between 1957 and 2008.

# NOAA's Primary Climate Observing Stations



## Observatories

- Barrow, Alaska
  - Trinidad Head, California
  - Mauna Loa, Hawaii
  - American Samoa
  - South Pole, Antarctica
- In 1979 it was called the ***Geophysical Monitoring for Climatic Change*** Program

# NOAA Scientific Observations at the Clean Air Facility in 1979

- Aerosols (microscopic airborne particles)
  - Condensation nuclei counter [G.E. CNC Counter, Aiken]
  - Aerosol light scattering measurement [4-wavelength nephelometer]
  - High volume filtering for particle capture and analysis [Zoller hi-vol]
- CO<sub>2</sub> [flask samples]
- Halocarbons (Freon, etc) & trace gases [flask samples]
- Surface Ozone [Dasibi Ozone Meter]
- Total ozone (O<sub>3</sub> layer in upper atmosphere) [Dobson]
- Solar Radiation [pyrometers, pyroheliometers]
- C<sub>14</sub>, Tritium [flask samples]
- Meteorological observations & snow samples
- RIOmeter (relative ionospheric opacity)



The Journey begins...

California → Hawaii → Pago Pago → Christchurch → McMurdo

# Clothing Issue in New Zealand









# McMurdo Station



# McMurdo Station: The National Science Foundation "Chalet"



**“To Strive, To Seek, To Find, and Not to Yield”**



**Mt. Erebus**

**Mt. Terror**



**A View from Observation Hill (a 660' cinder cone)**

# The Ross Ice Shelf



# Castle Rock



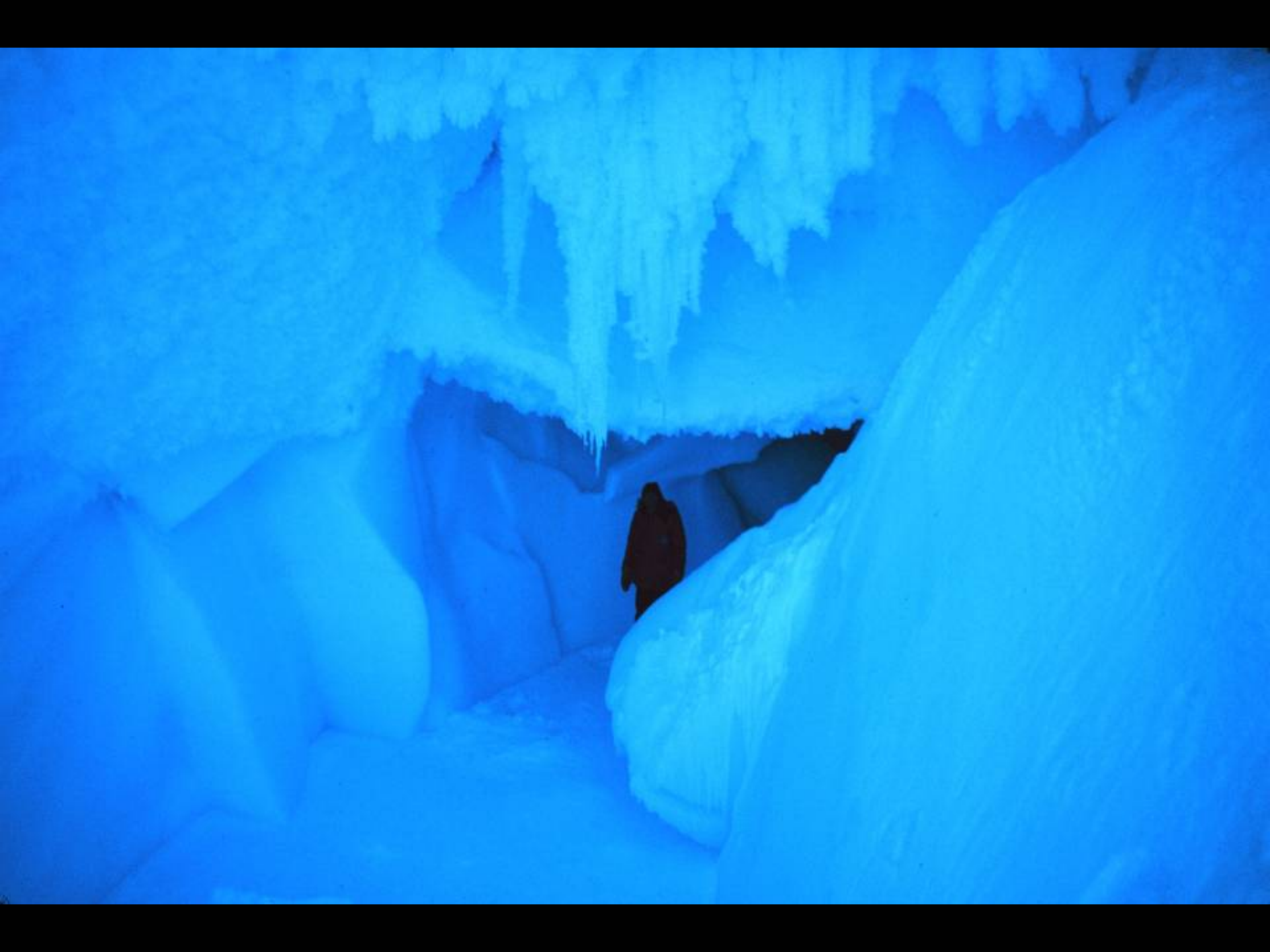
*A Thiocol Tracked Vehicle*



**Ice Cave in Erebus Glacier Tongue**











**Weddell Seals**





## CAPE EVANS

THIS HUT WAS BUILT BY MEMBERS OF THE  
BRITISH ANTARCTIC EXPEDITION 1910-1913  
UNDER CAPTAIN R.F. SCOTT  
IN JANUARY 1911

THE HUT WAS RESTORED IN 1960 AS NEARLY AS POSSIBLE  
TO THE CONDITION IT WAS IN WHEN OCCUPIED.

VISITORS ARE ASKED TO REMEMBER THAT THIS BUILDING IS A  
HISTORIC SHRINE. ITS CONTENTS ARE IRREPLACEABLE.  
PLEASE DO NOT INTERFERE IN ANY WAY WITH ARTICLES IN  
THIS HUT.

NOTHING WHATEVER MUST BE REMOVED.

ABSOLUTELY NO SMOKING WITHIN OR NEAR THIS BUILDING



No. 19

BAE  
SHORE  
PARTY

COLMAN'S  
FLOUR

COLMAN'S  
FLOUR

BAE  
SHORE  
PARTY

BAE  
SHORE  
PARTY

COLMAN'S  
FLOUR











ANTARCTICA

ROUTE

















SITE III



# SCOTT BASE.

## MILEAGES TO

WELLINGTON	2,536	SOUTH POLE	841
LONDON	10,588	WASHINGTON	9,214
MOSCOW	10,501	TOKIO	7,929
CANBERRA	2,987	CAPETOWN	4,603
BUENOS AIRES	4,449	SANTIAGO	4,399
PARIS	10,382	BRUSSELS	10,520
	OSLO	11,085	

SCOTT BASE





SEAL













GEOGRAPHIC SOUTH POLE

AVERAGE TEMP MINUS 56°F

ALTITUDE 9186 FEET

ICE THICKNESS OVER 9000 FEET



UNITED STATES  
OF  
AMERICA



SOUTH POLE



UNITED STATES  
OF  
AMERICA  
  
SOUTH POLE



UNITED STATES WELCOMES YOU  
TO THE SOUTH POLE

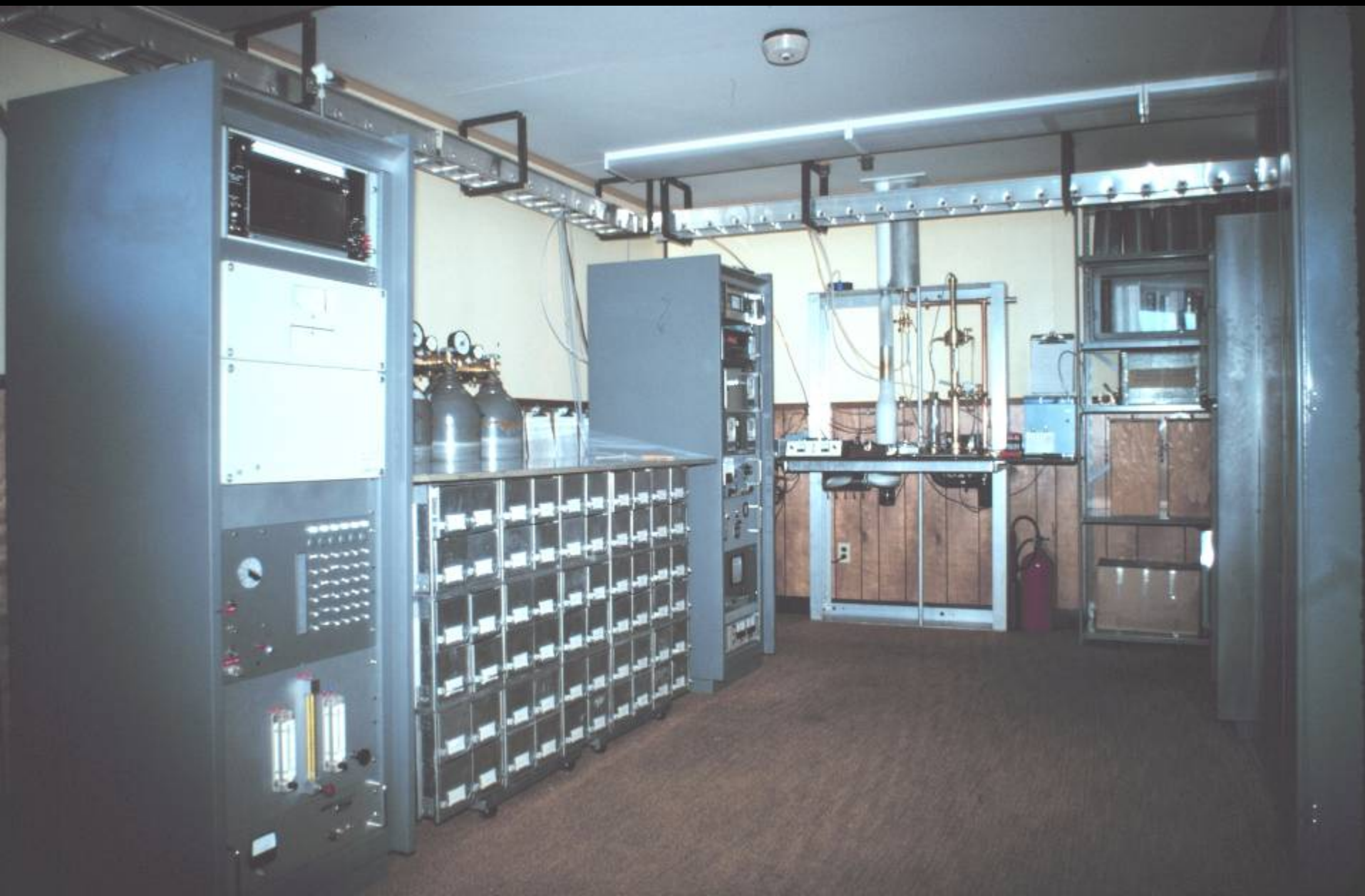


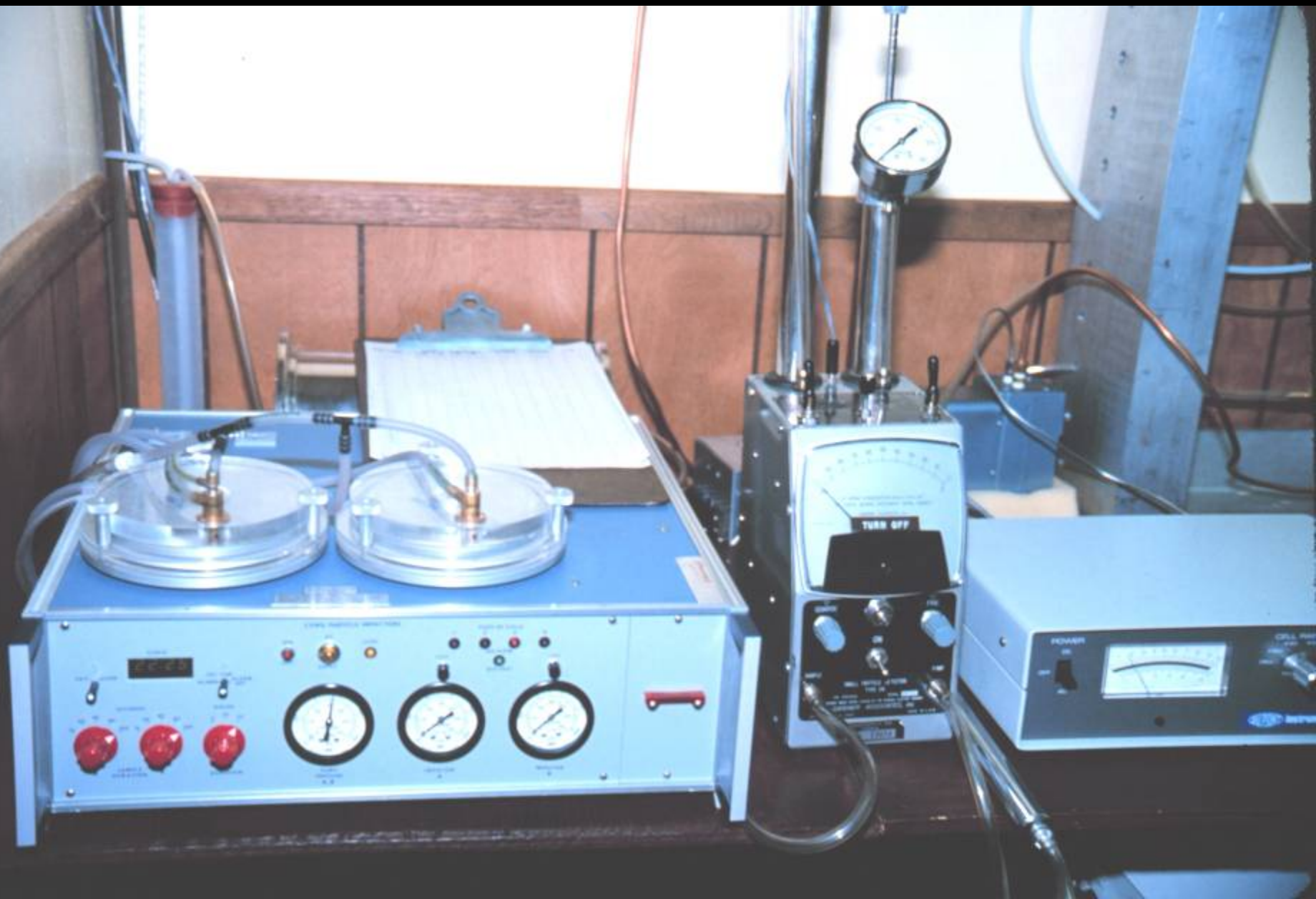
















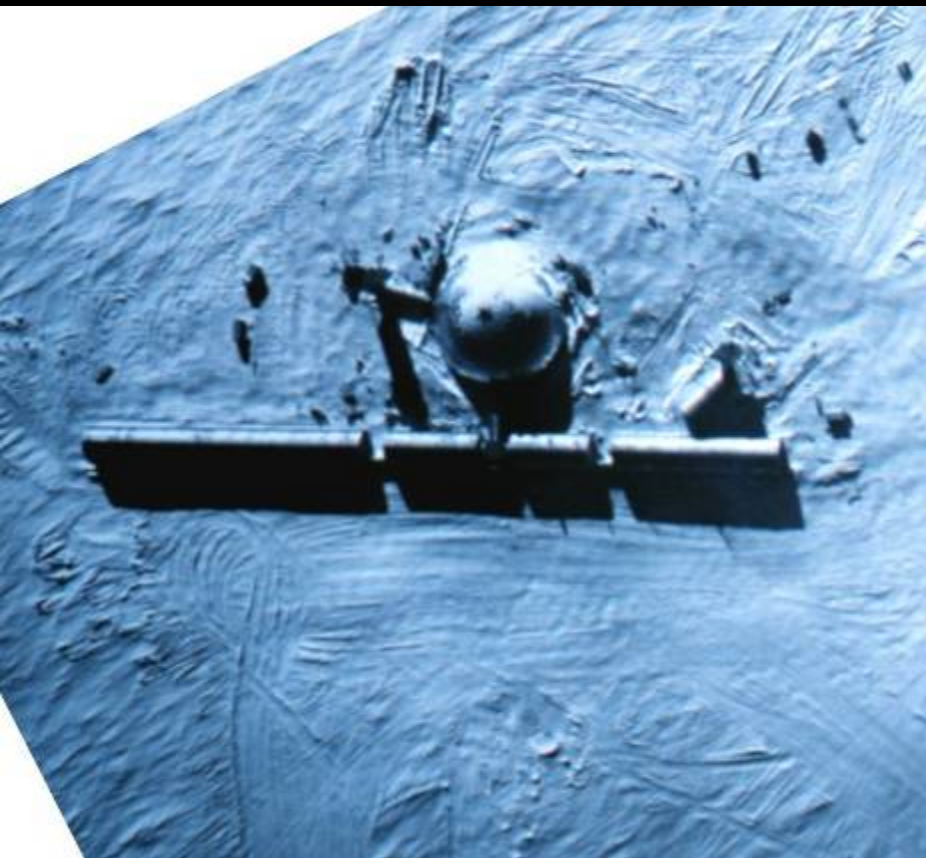




























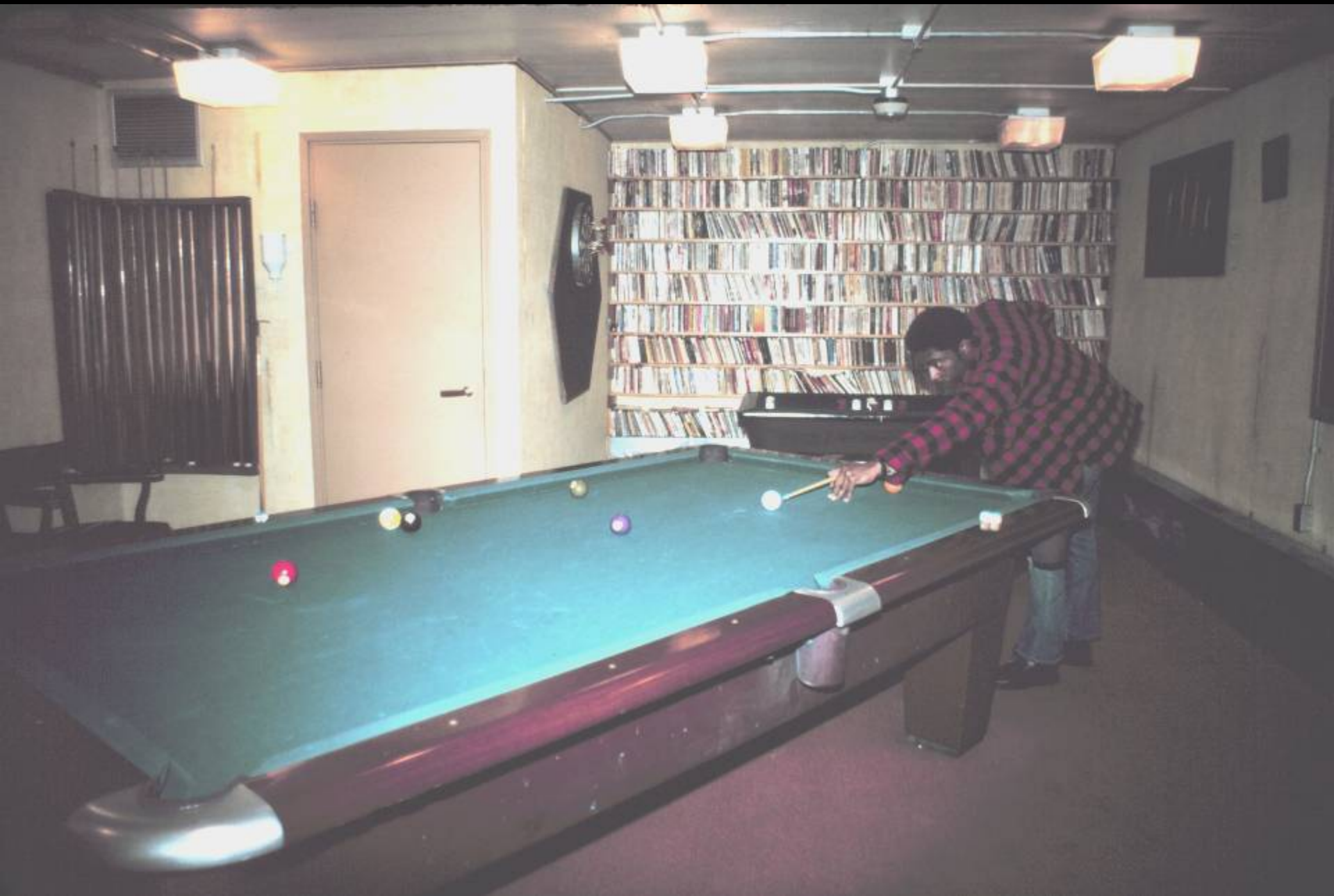




COLORADO

OCTOBER							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19	20	21	22	23	24	25	26	27	28
29	30	31					1	2	3	4	5	6	7

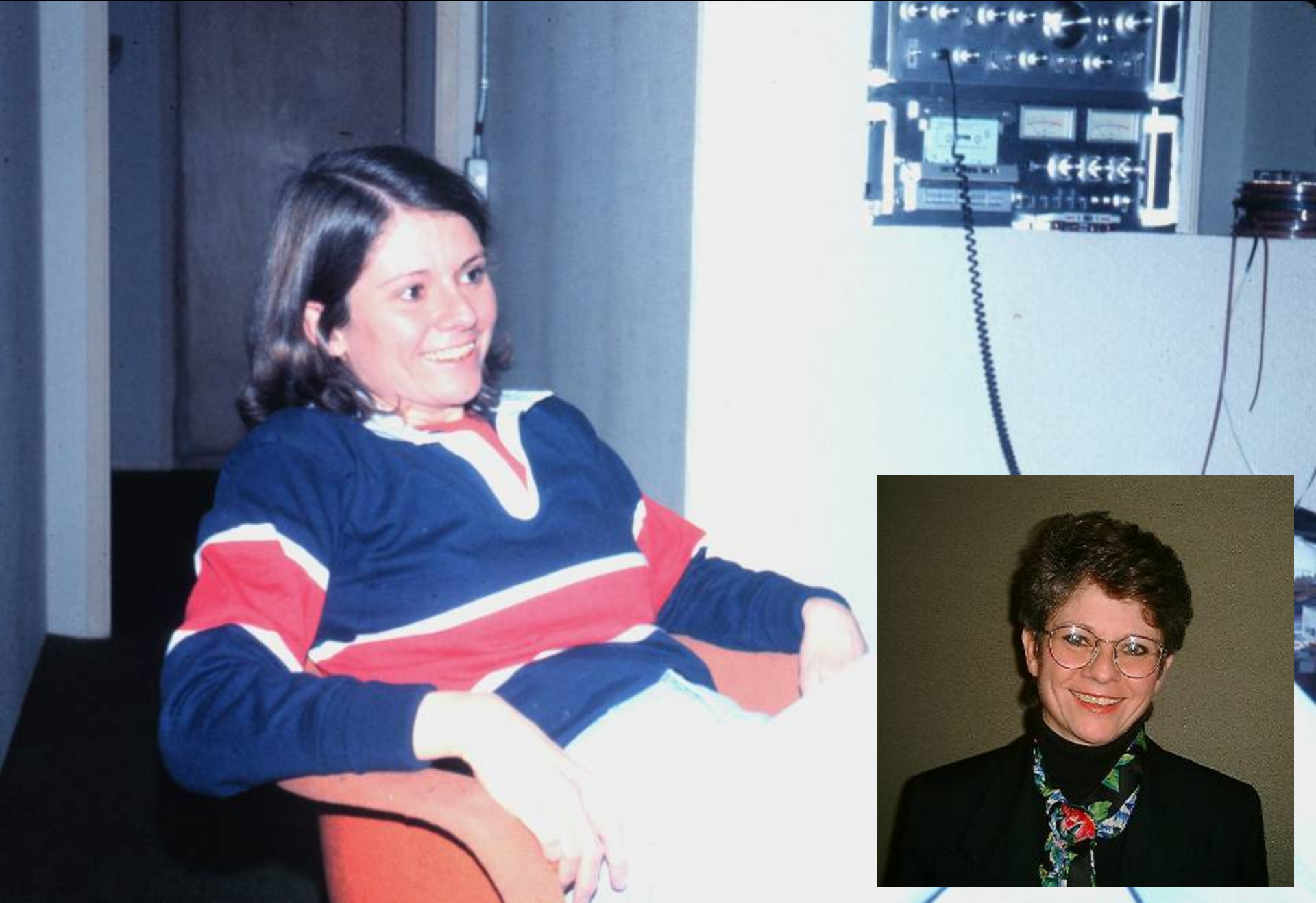
Available for purchase at \$10.00



# The Library

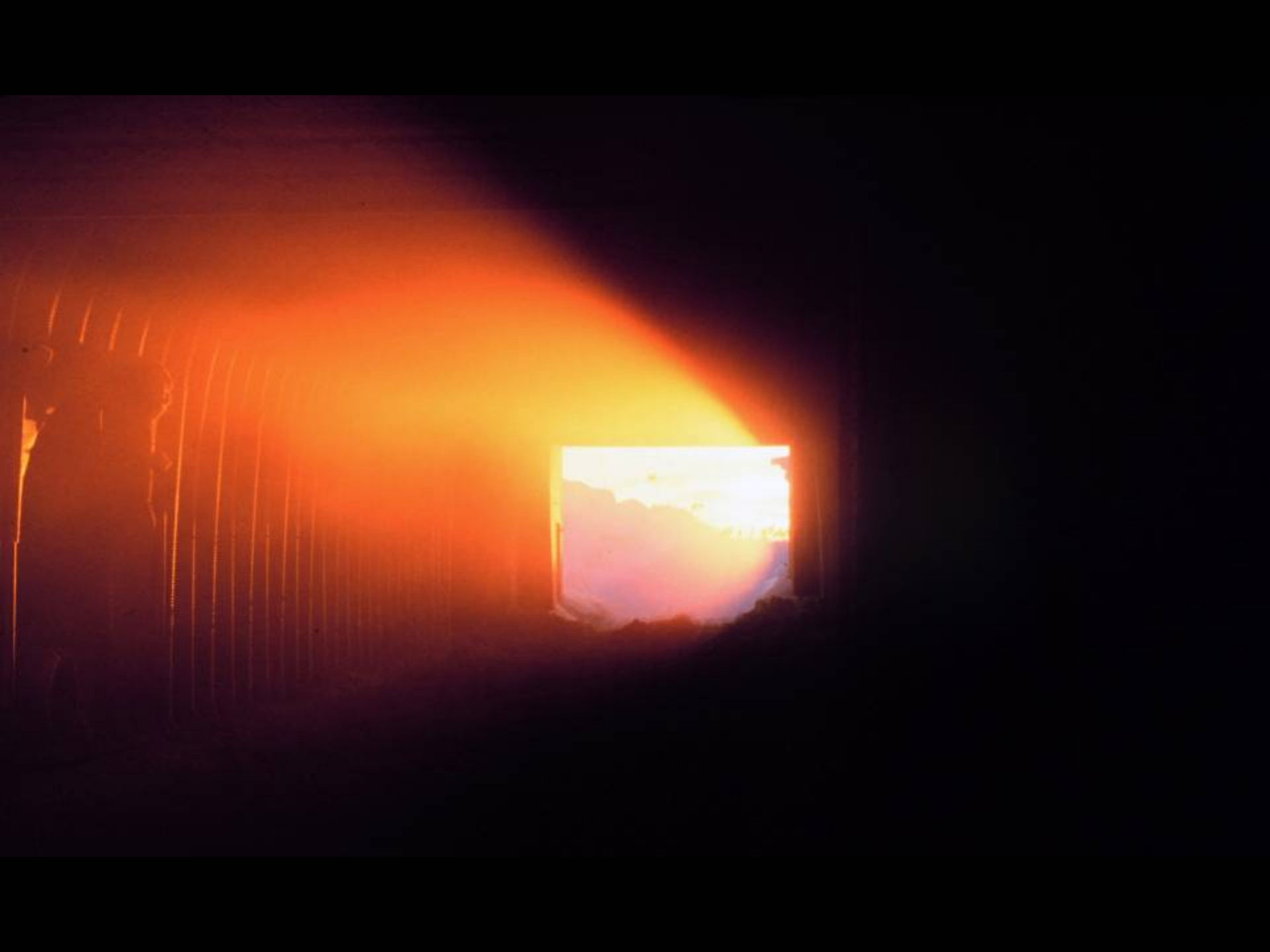


# Michele Raney, First Woman to Winter Over at South Pole (our Doctor)

































# Life at the South Pole – a Year of Extremes

- Must pass a psychological exam to qualify
- In 1979 we recorded a *record* high temp. +7° F
- Reached -106° F in August – Join the *300 Club*
- Didn't see the sun for 6 Months
- No airplanes in or out for 8½ months
- No fresh food February to November – No airdrops
- No mail for 8½ months
- Only 17 people in close quarters
- Nearest station > 800 miles away (NY to Chicago)
- E-mail wasn't invented yet – No satellite comms.
- Phone patches via HAM radio

# The Station as it Looks Today



# Recommended Reading

- The Worst Journey in the World, by Apsley Cherry-Garrard
- Tom Crean An Illustrated Life: Unsung Hero of the Scott & Shackleton Expeditions, by Michael Smith
- Endurance: Shackleton's Incredible Voyage, by Alfred Lansing
- The Last Place on Earth, by Roland Huntford (Book & Video)
- South Pole History online:

<http://www.southpolestation.com>

<http://www.south-pole.com/>

