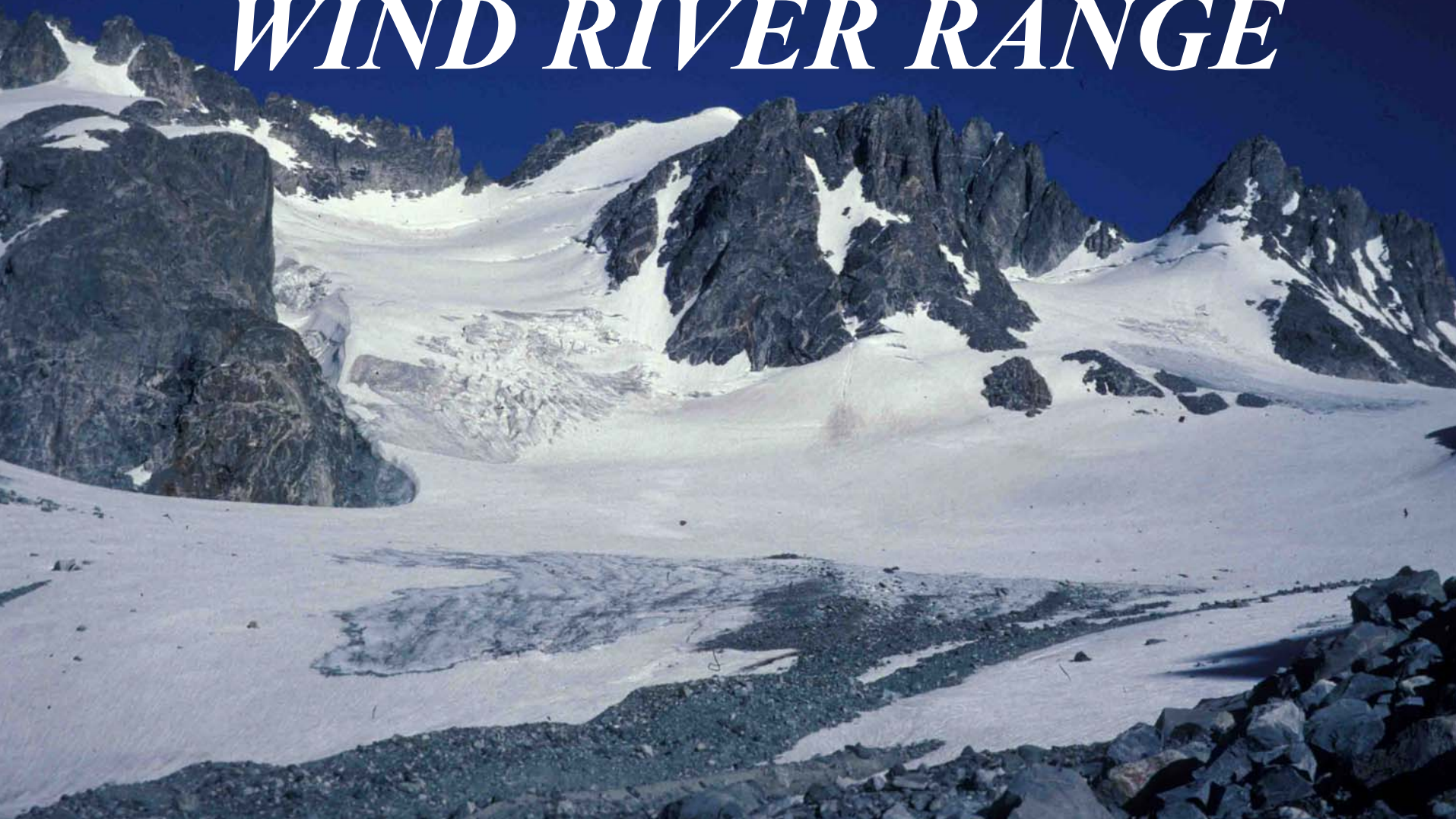


*GLACIERS OF THE
WIND RIVER RANGE*





Richard Marston

Larry Pochop

Greg Kerr

Marjorie Varuska

Dave Veryzer

Gabriel Wolken

MT



SD

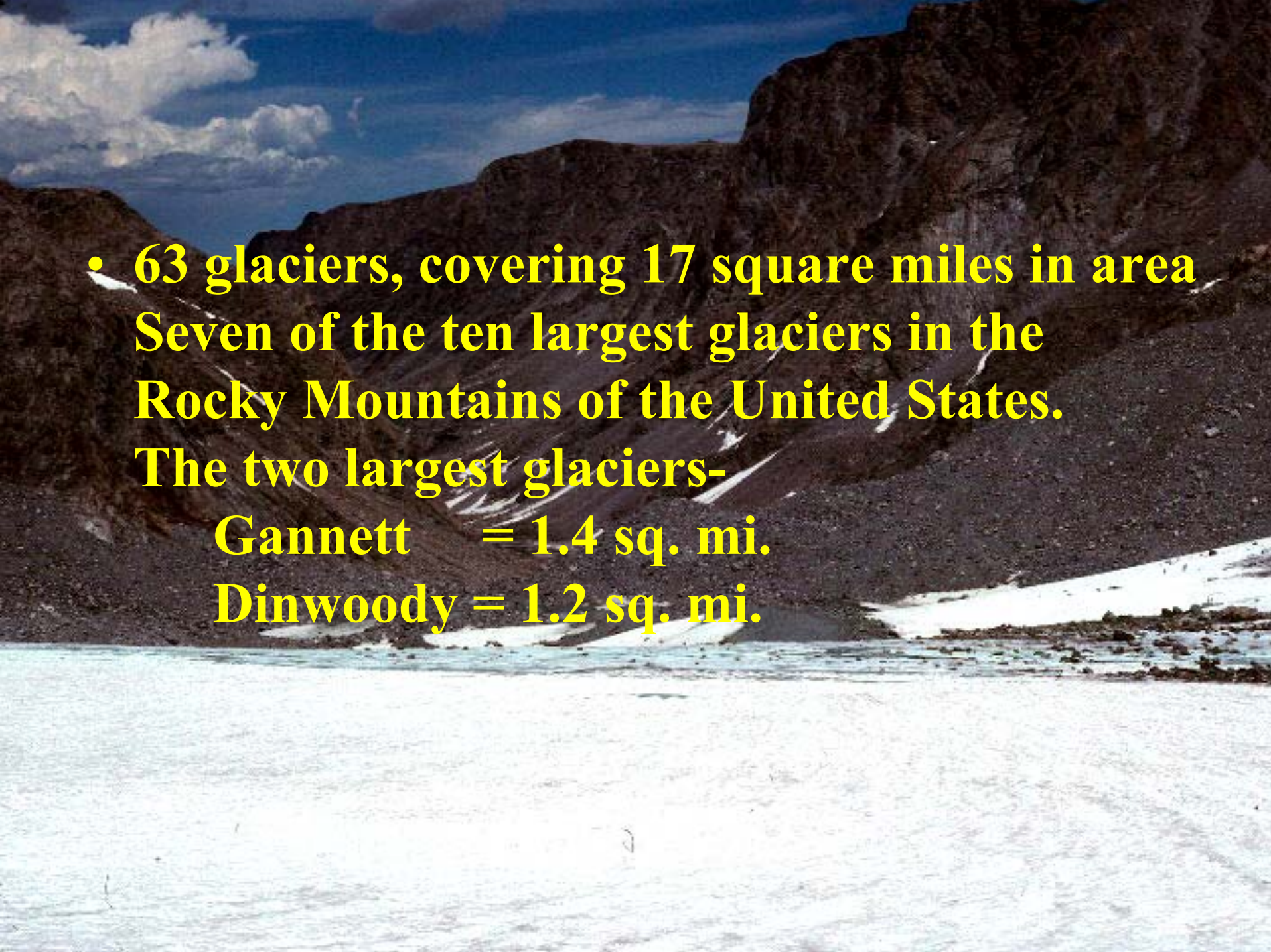
ID

NE

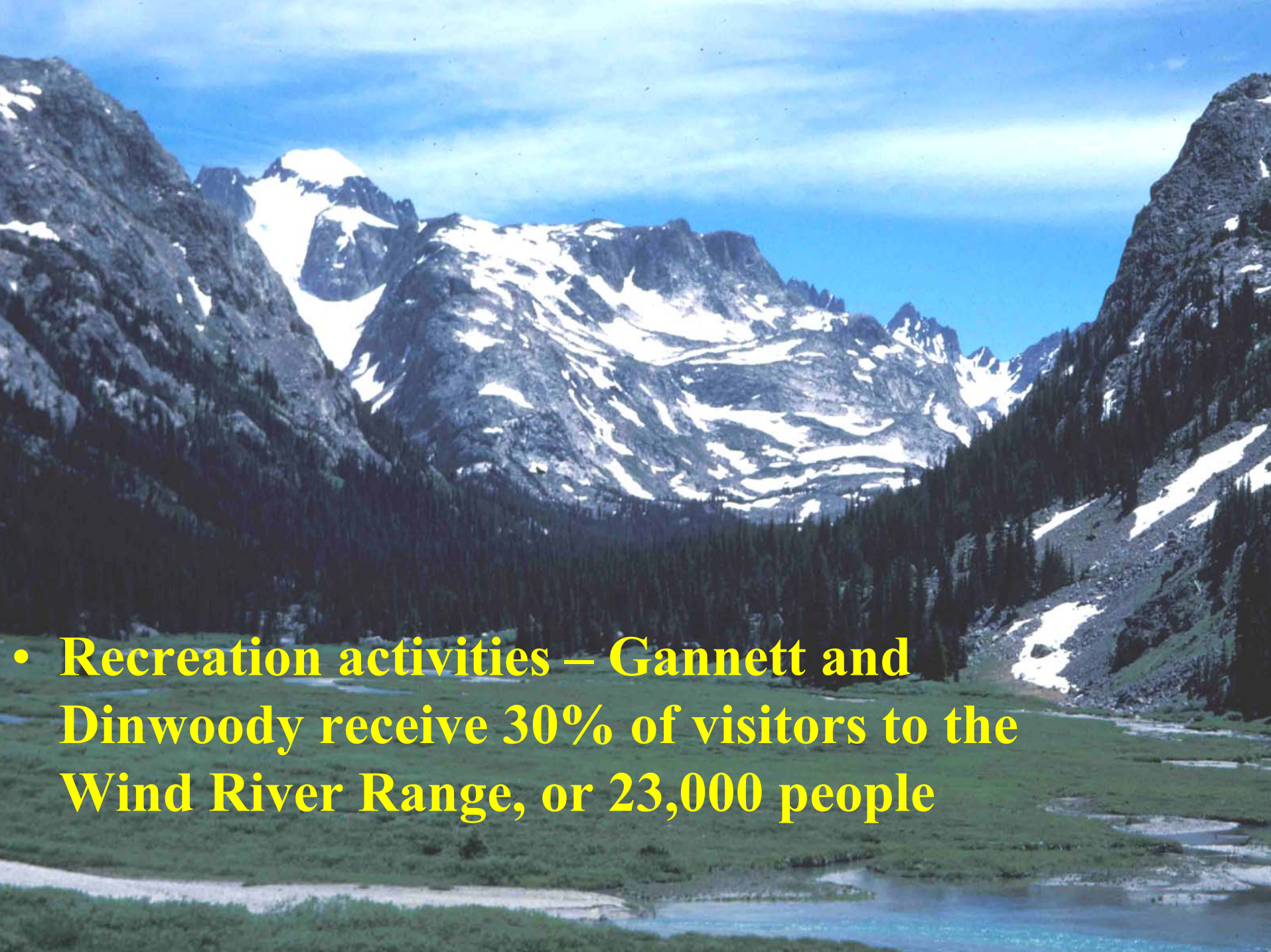
UT

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WY

- 
- **63 glaciers, covering 17 square miles in area**
Seven of the ten largest glaciers in the
Rocky Mountains of the United States.
The two largest glaciers-
Gannett = 1.4 sq. mi.
Dinwoody = 1.2 sq. mi.





- **Recreation activities – Gannett and Dinwoody receive 30% of visitors to the Wind River Range, or 23,000 people**



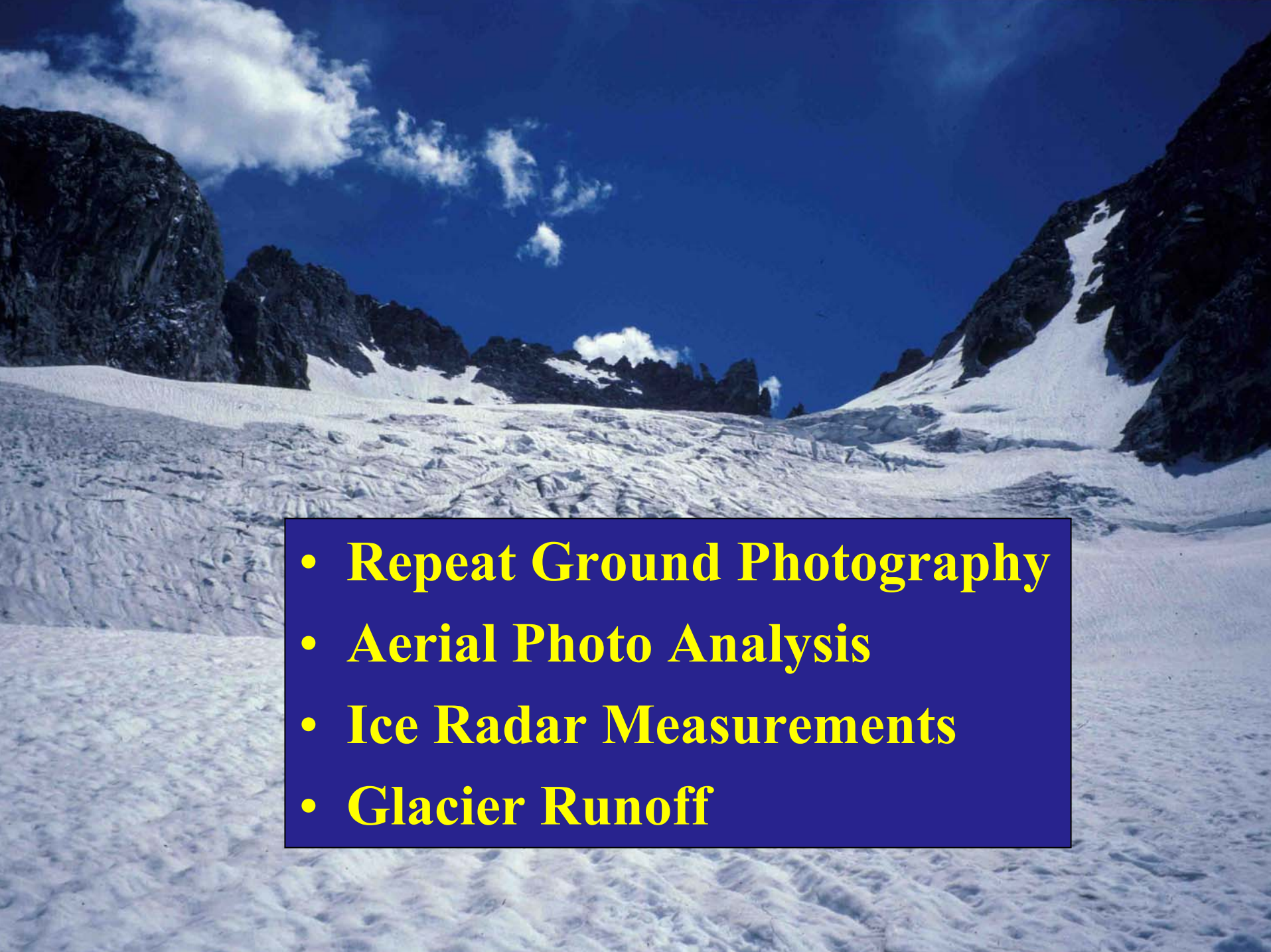




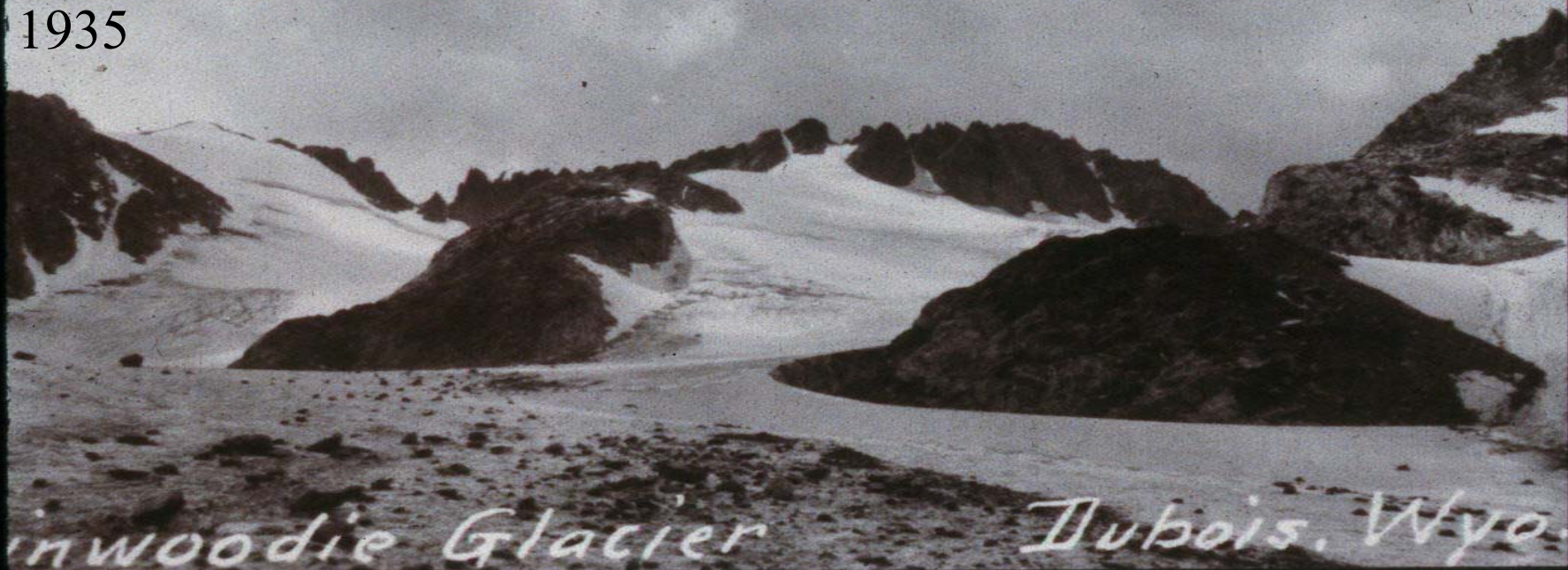
Scientific Research



- 
- A photograph of a mountain valley with snow patches and a riverbed, illustrating the concept of water storage reservoirs. The landscape is rugged with dark, rocky slopes and scattered snow patches. A riverbed is visible in the foreground, winding through the valley. The sky is blue with some clouds.
- **Act as water storage reservoirs that contribute to downstream flow in late summer and fall.**

- 
- A photograph of a glacier in a mountain range. The glacier is the central focus, showing a textured surface with various ridges and depressions. It is surrounded by dark, rocky mountain peaks. The sky is a deep blue with several white, fluffy clouds scattered across it. The overall scene is a high-altitude, alpine environment.
- **Repeat Ground Photography**
 - **Aerial Photo Analysis**
 - **Ice Radar Measurements**
 - **Glacier Runoff**

1935



Dinwoody Glacier

Tulibois, Wyo.

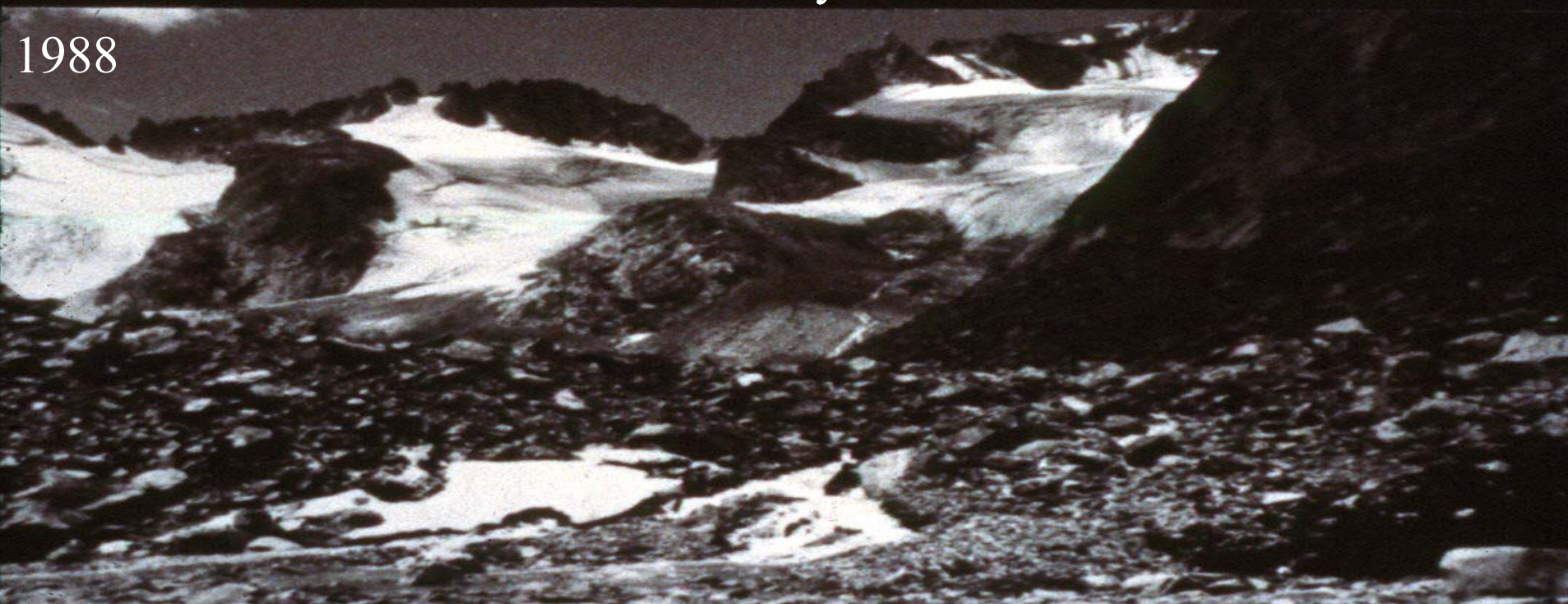
Dinwoody

1988





Dinwoody





Gannett



1958



Gannett

1988



GS-VBMB

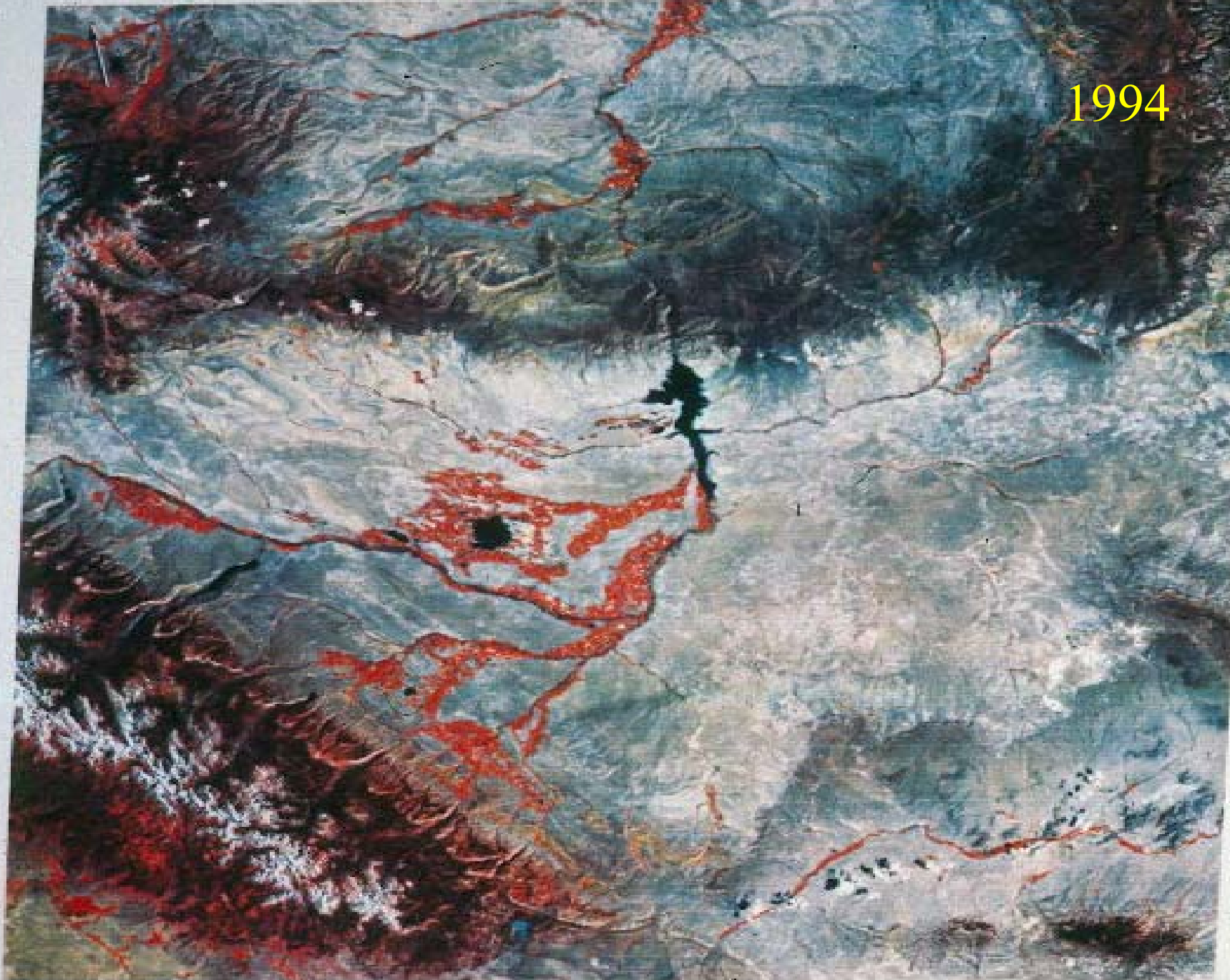
1958-1983

3-65

9-4-66

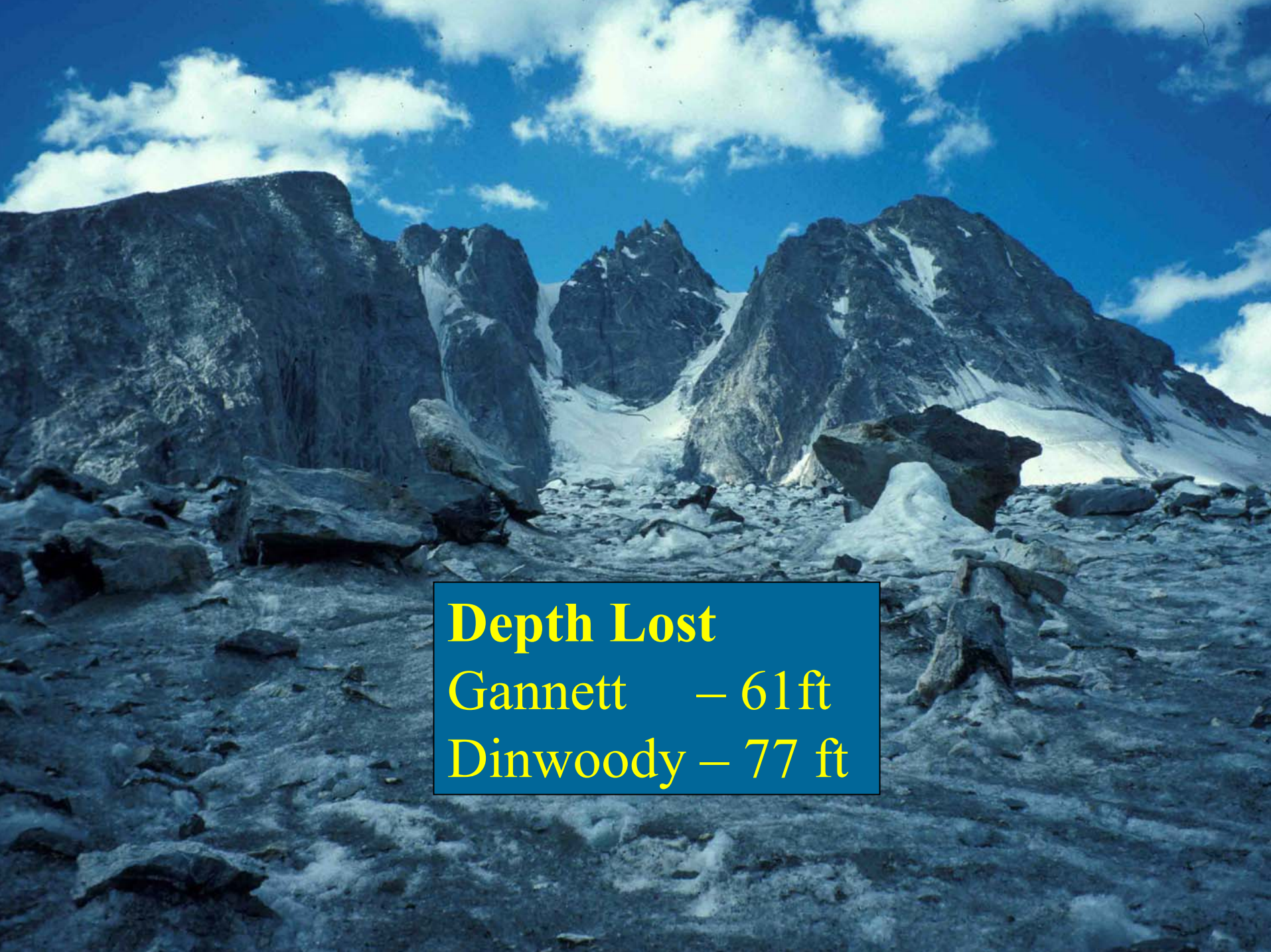


1994



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A B C D E F G H I J K L M N O P Q R S T U V



Depth Lost

Gannett – 61 ft

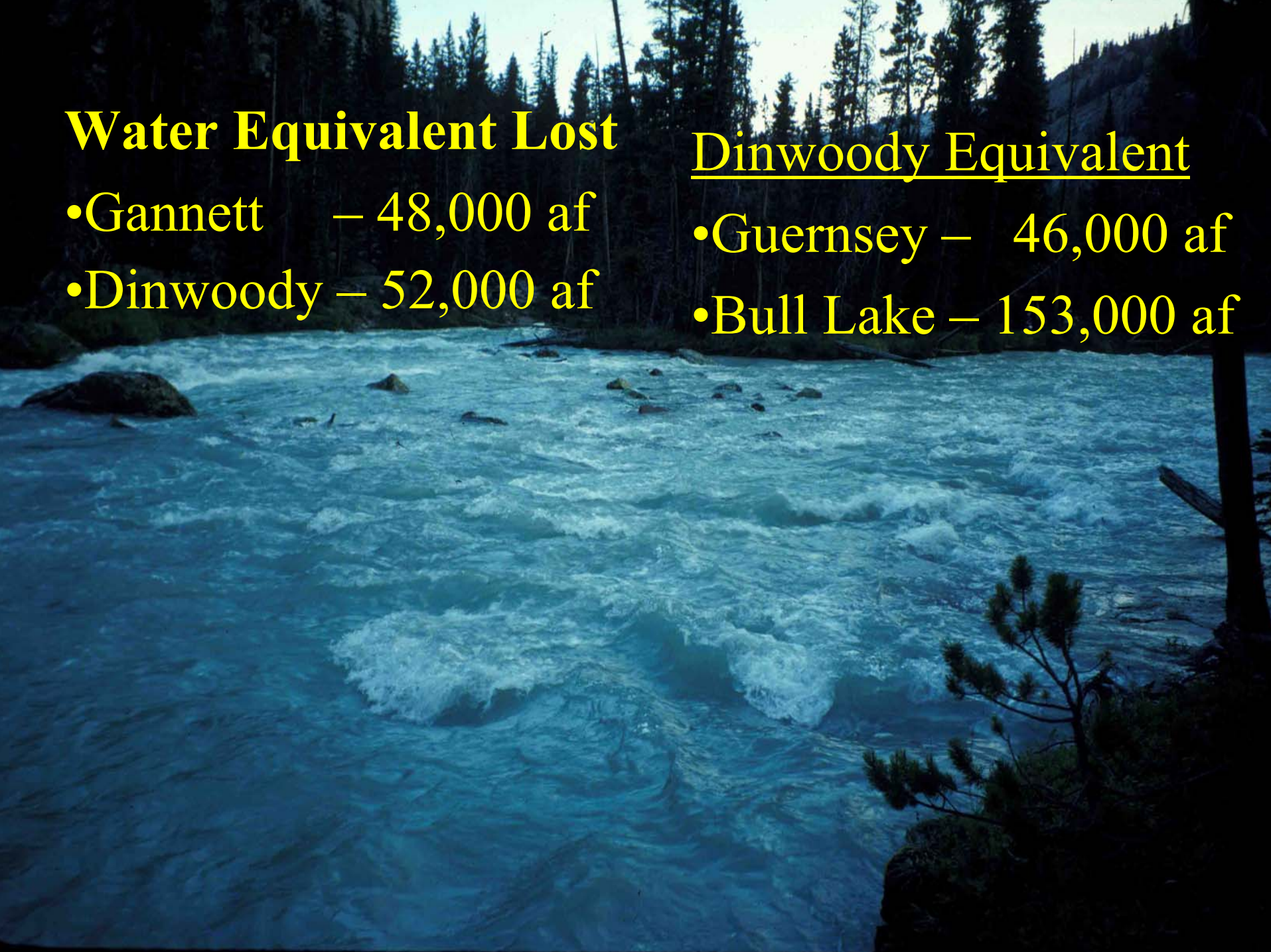
Dinwoody – 77 ft

Water Equivalent Lost

- Gannett – 48,000 af
- Dinwoody – 52,000 af

Dinwoody Equivalent

- Guernsey – 46,000 af
- Bull Lake – 153,000 af

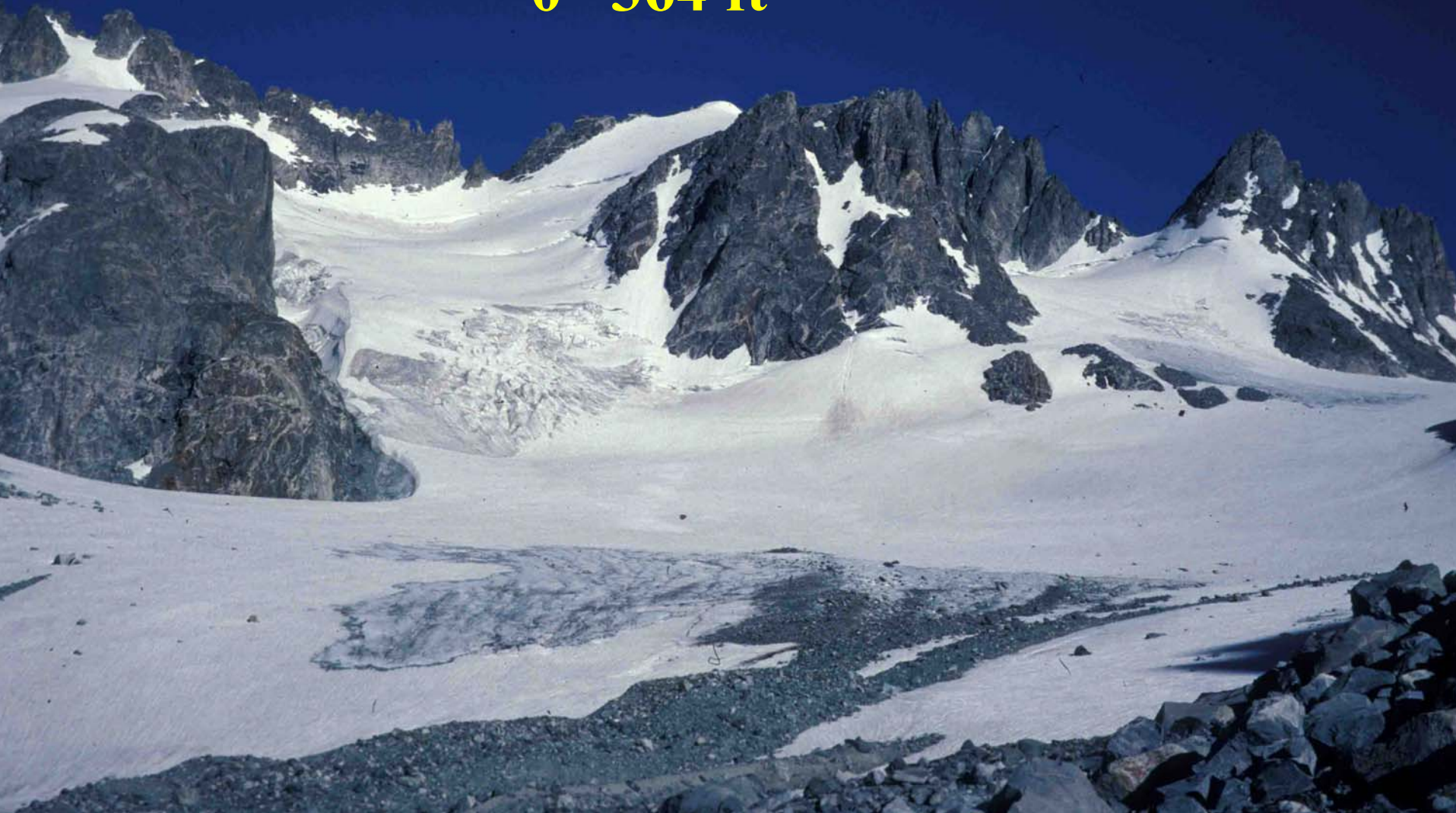


Glacier Extent (1950-1999)

Year	Total Surface Area (mi ²)	Loss Change (%)
1950	1.34	0.0
1958	1.32	0.86
1989	1.12	15.41
1999	0.85	24.74
Total Change 49 yr.		Total Change 36.89%

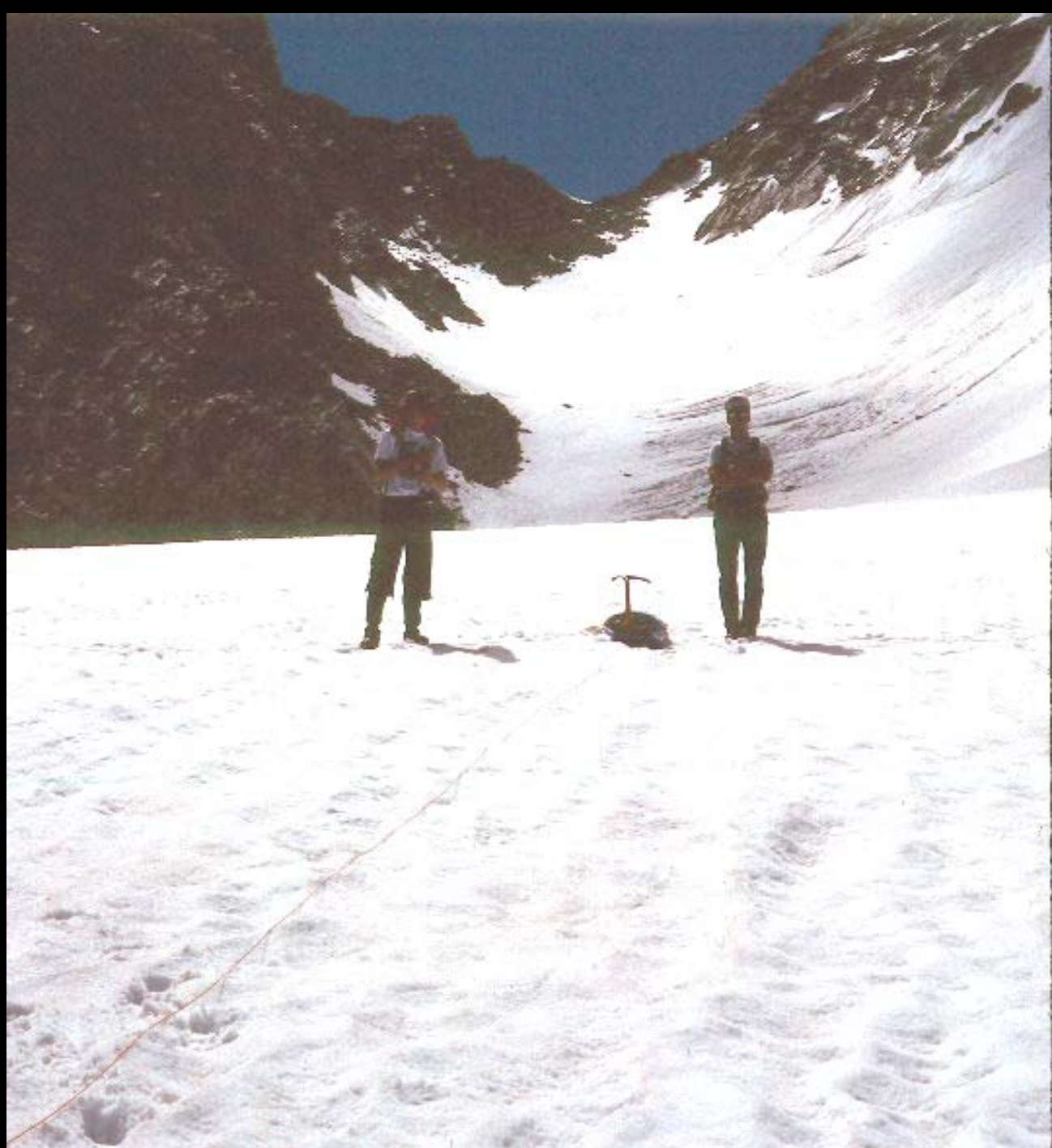
Ice Depth

0 – 364 ft





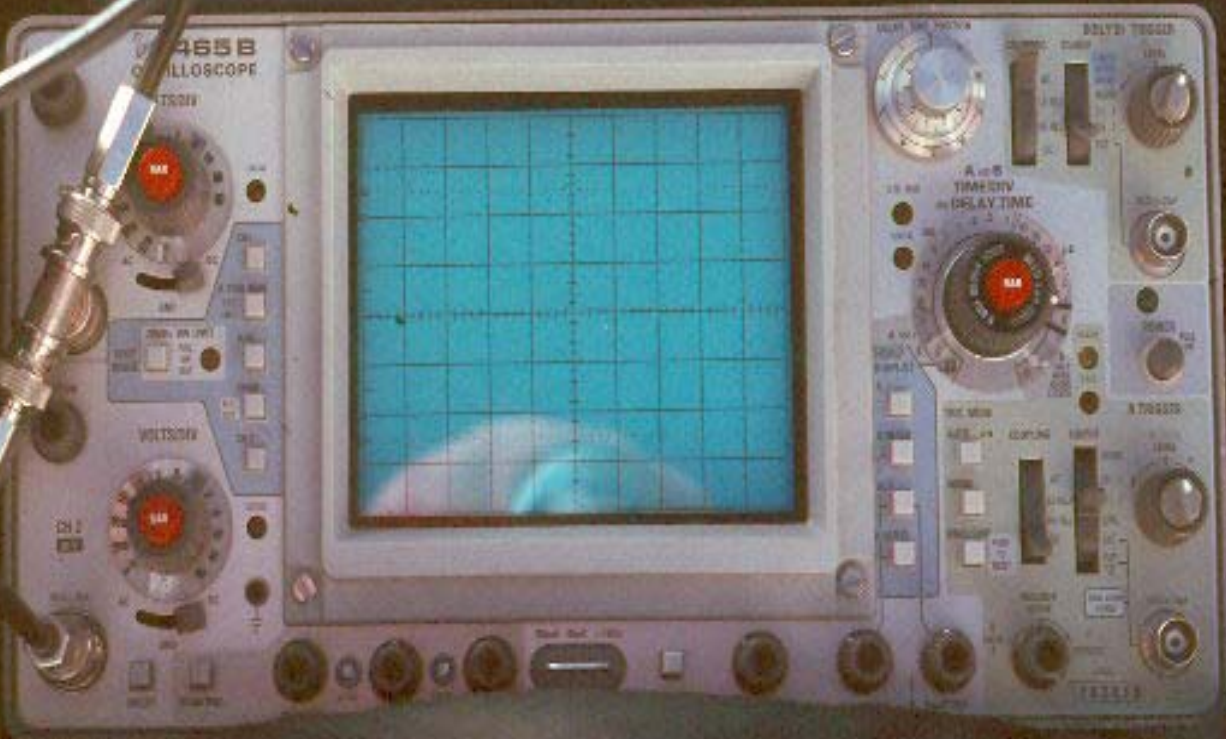












4655B Tektronix
OSCILLOSCOPE

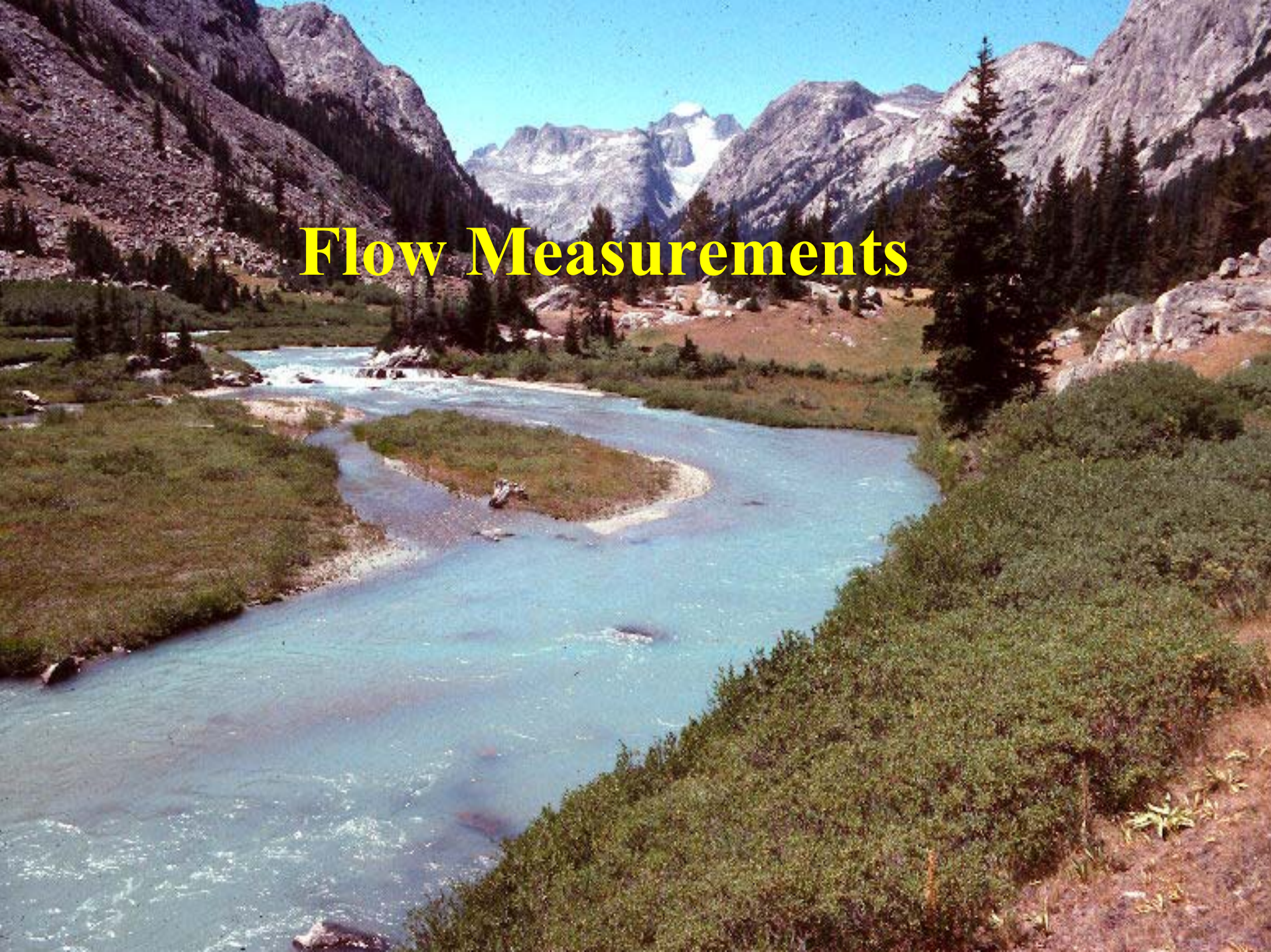




0 100 200 300 400 500 m

•10 Ice thickness remaining (meters)
 Isopach interval 10 meters, dashed where inferred

Flow Measurements













Dinwoody Creek Gaging Station

1988 July Runoff 30,660 af

Dinwoody & Gannett Contribution 13.3%

Dinwoody Creek Flow

- **Glaciers contribute**

27% of Sept.

32% of Oct.

Impacts & Significance

- Glaciers on decline
- Runoff changes
- Supply issues
- Climate Change?
- Water Planning

