

The background is a blue gradient with white circular patterns and a scale on the left side. The scale is a semi-circle with numbers from 140 to 260. There are several circular patterns with arrows indicating direction, some solid and some dashed. The overall aesthetic is technical and futuristic.

# VOLCANO PICS

Iceland



iceland

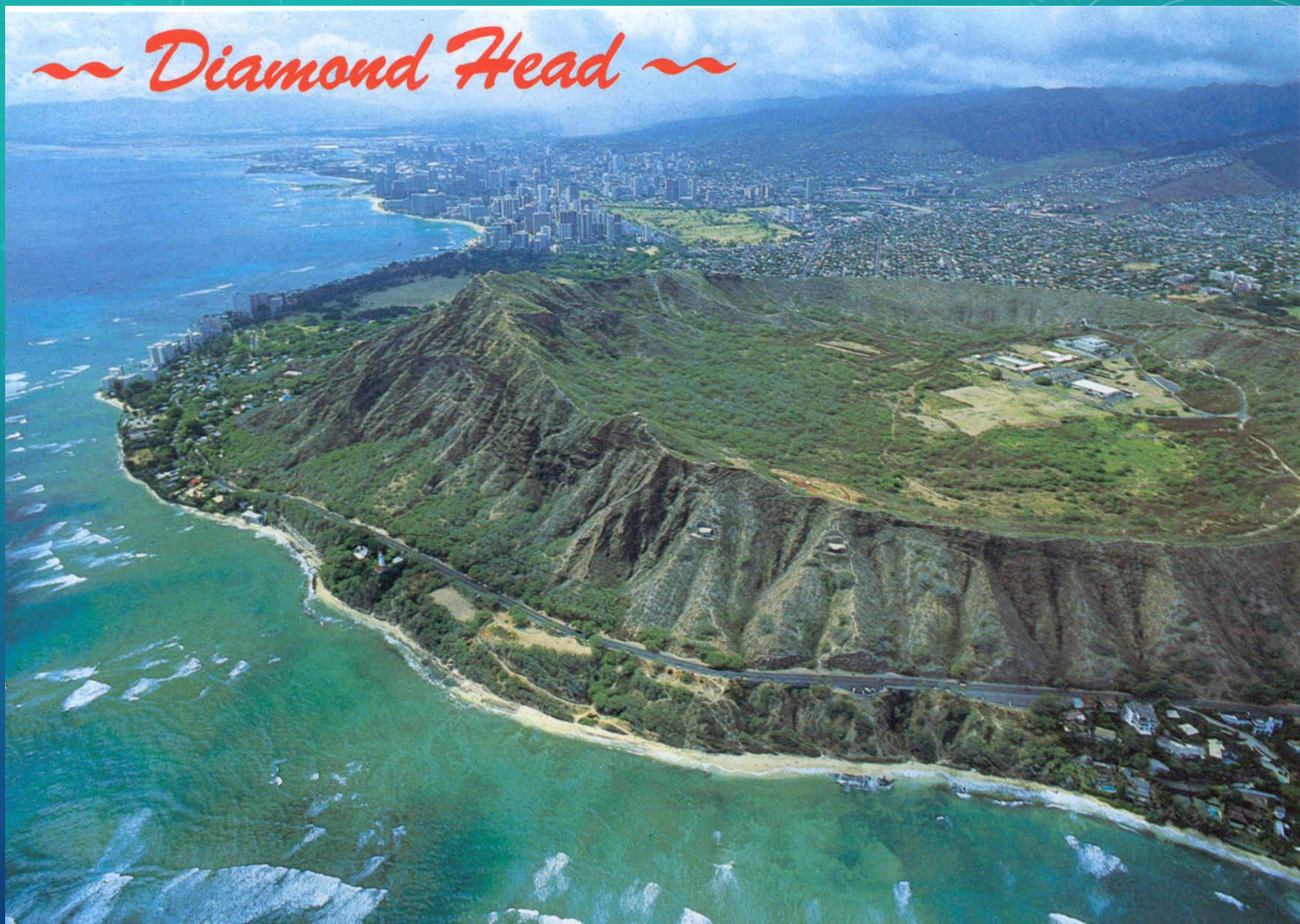




iceland

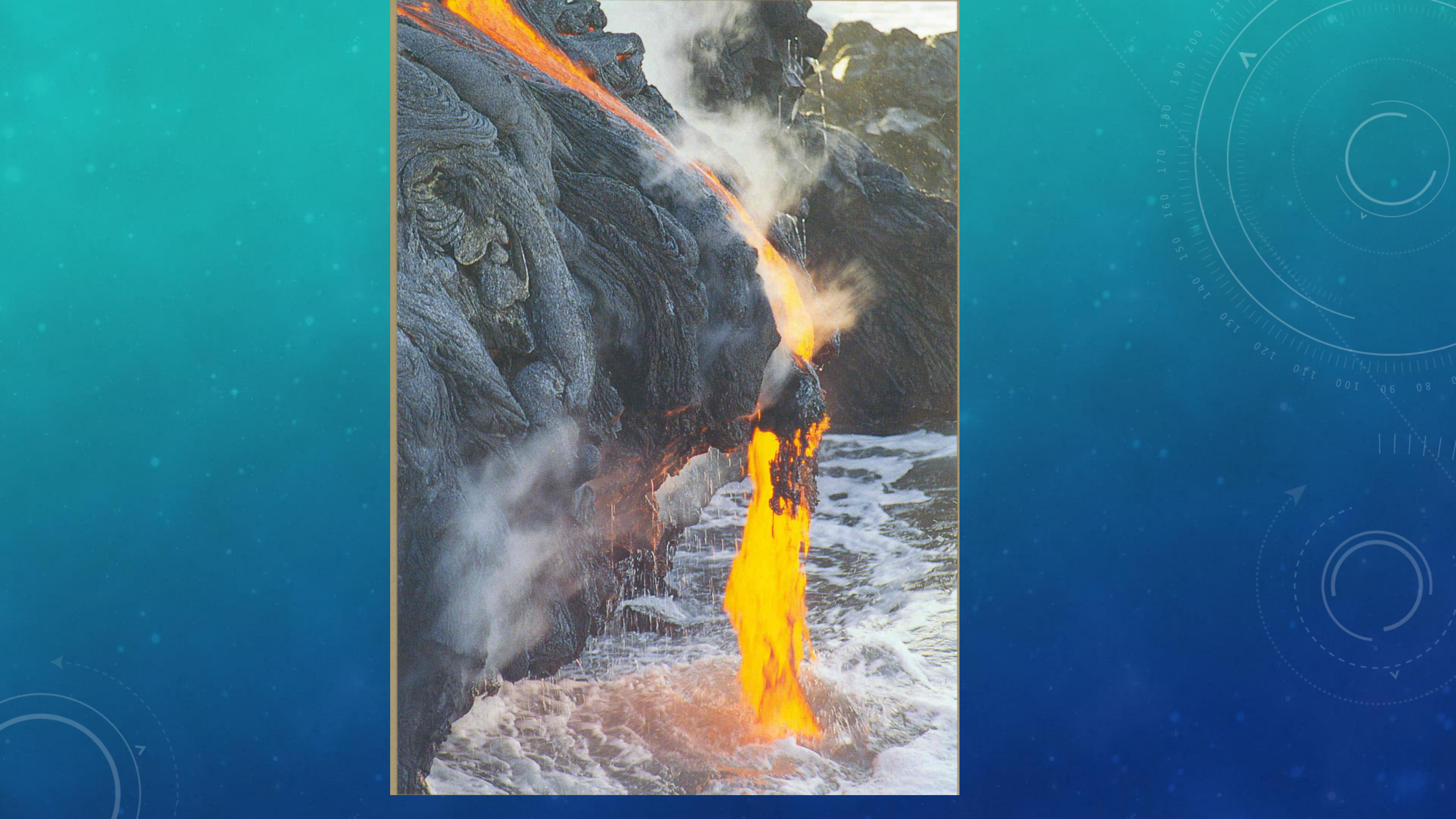


# ~ Diamond Head ~



Hawaii







**REDUCED  
SPEED  
AHEAD**

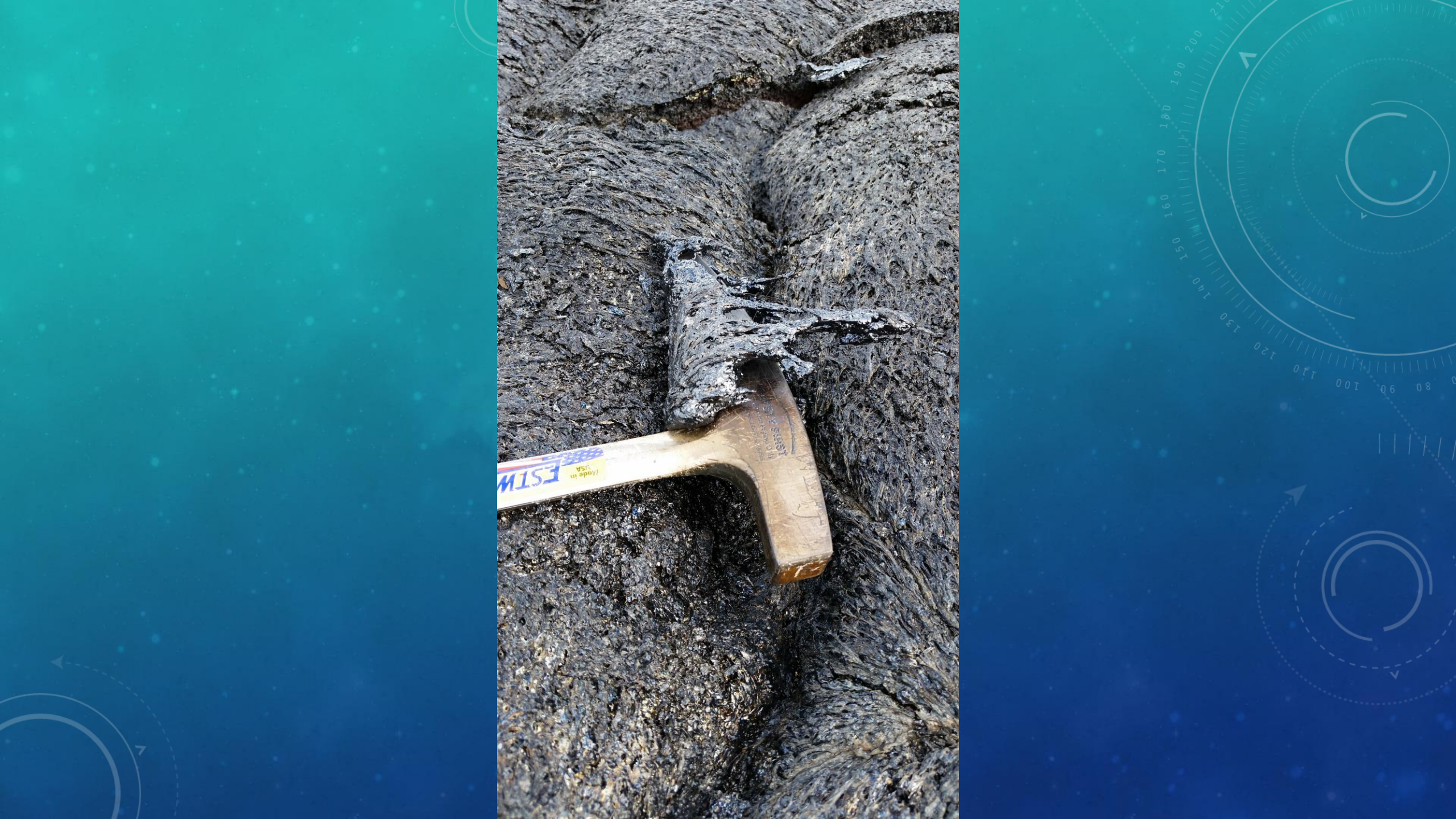








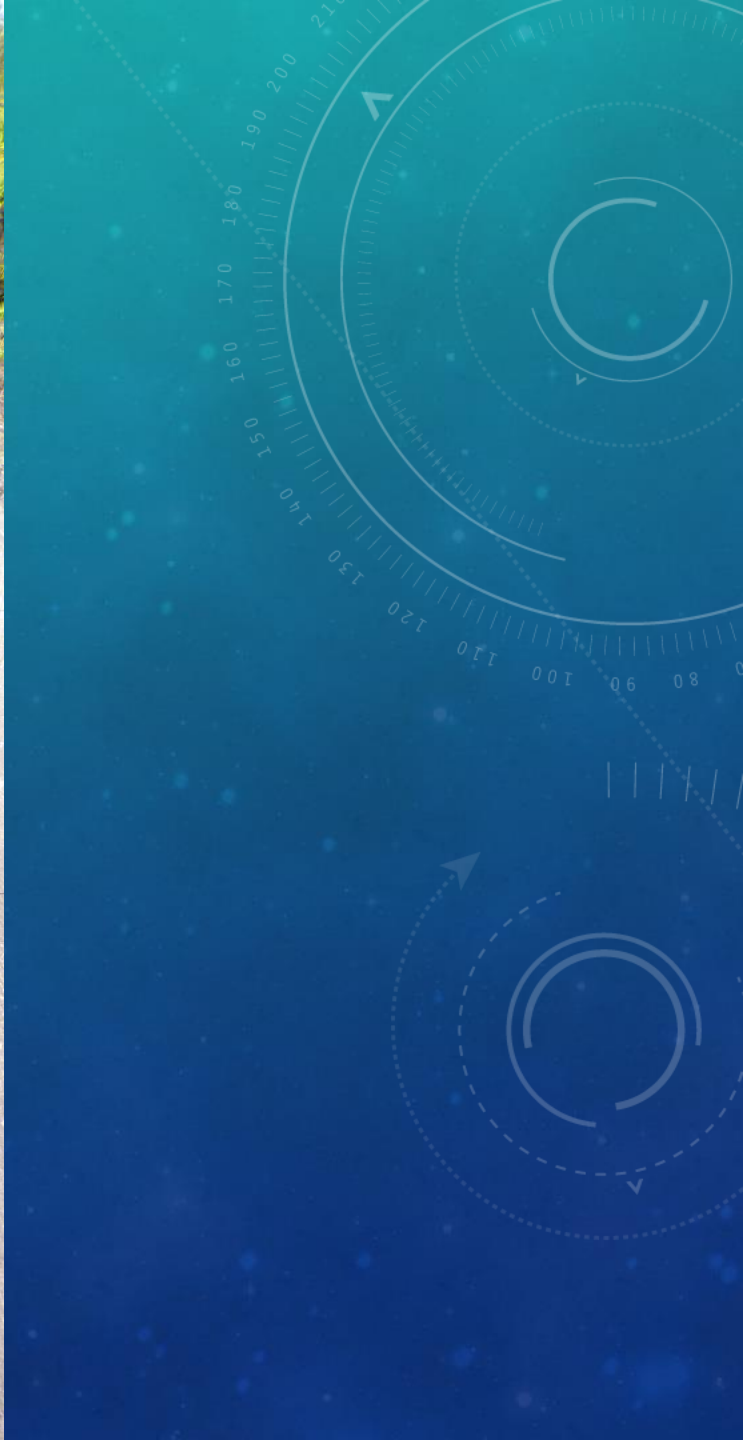














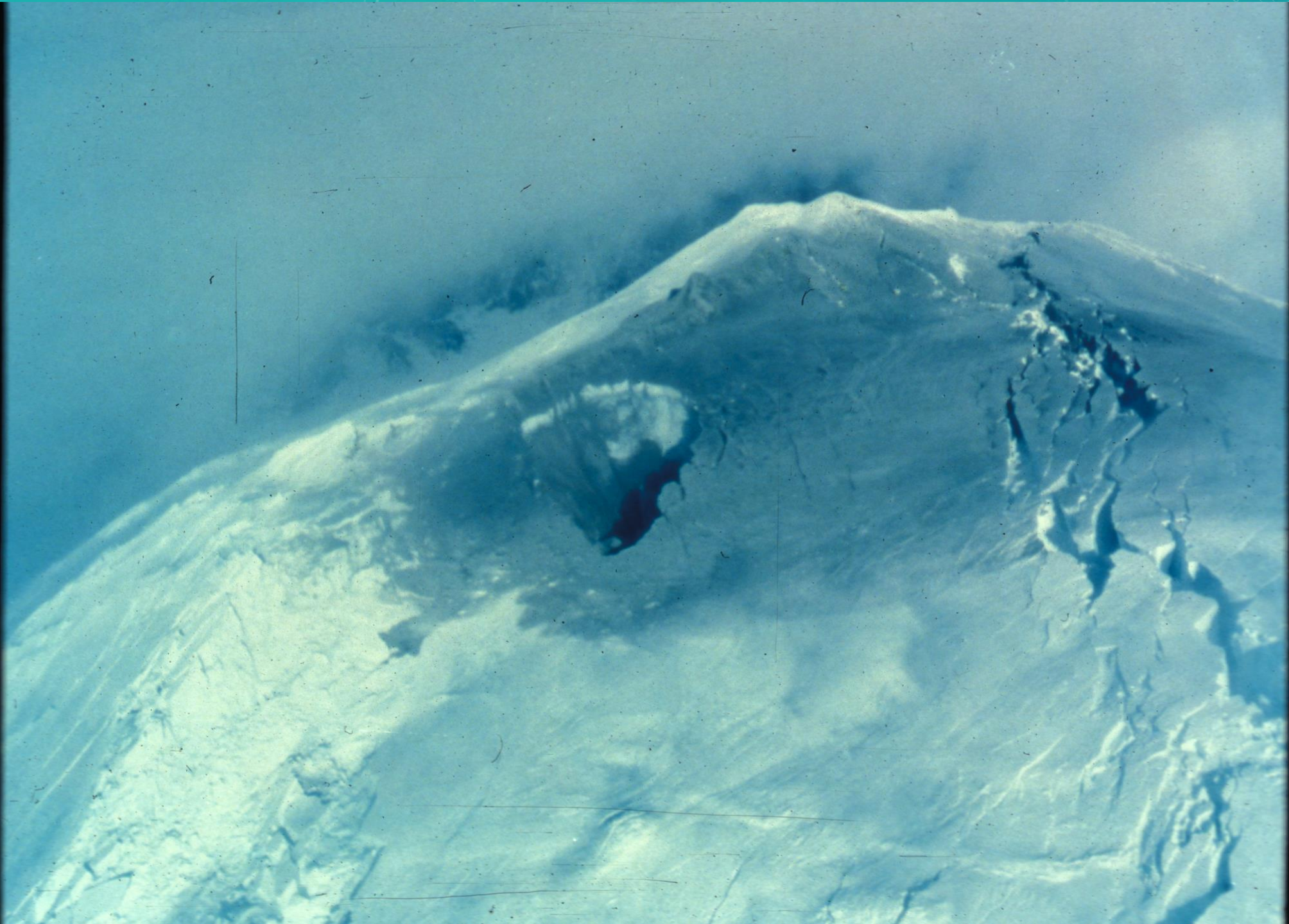


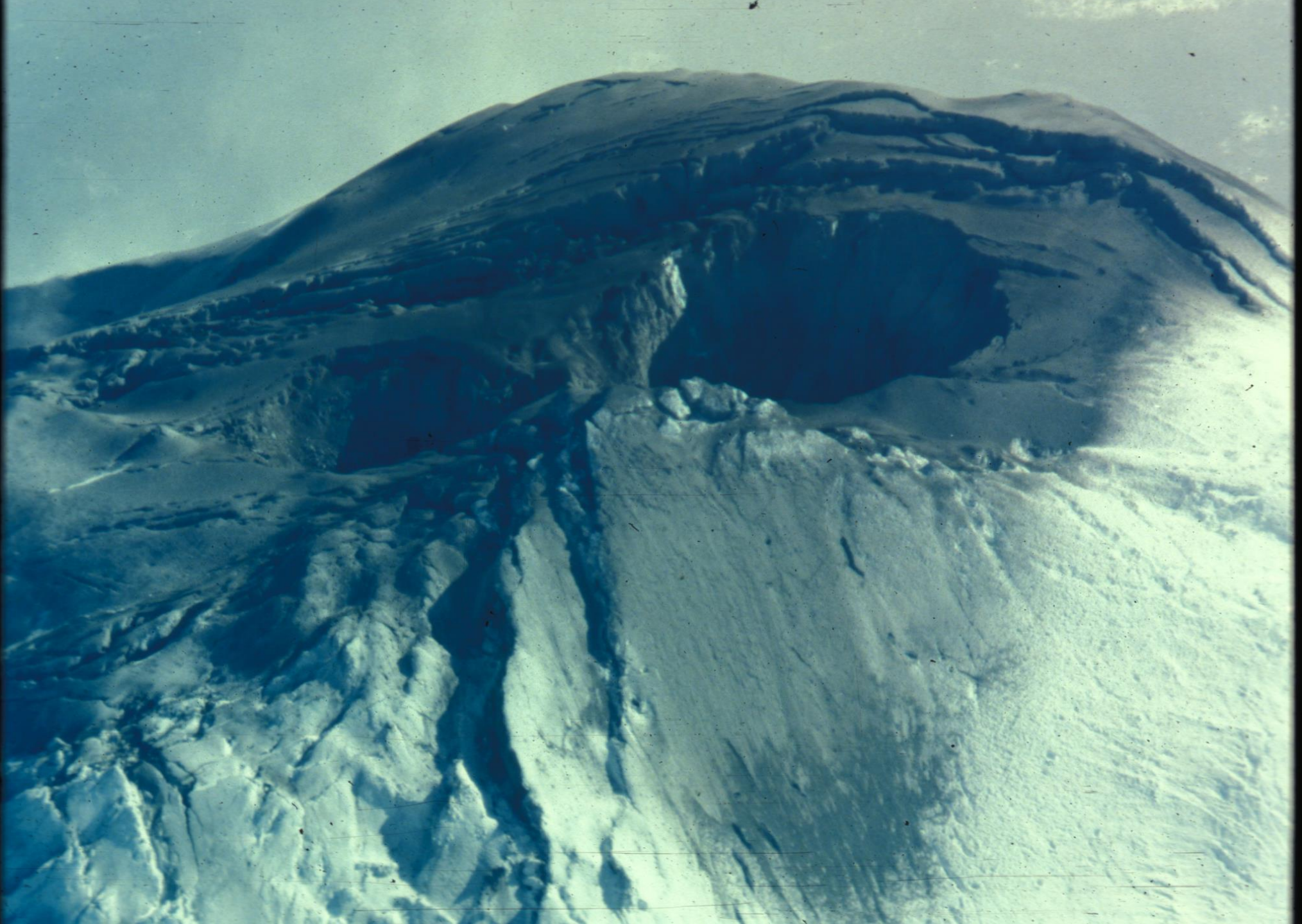
**AREA CLOSED**  
ALL NATIONAL PARK SERVICE AREAS  
ARE CLOSED TO THE PUBLIC IN THE EVENT OF  
AN EMERGENCY. VISITORS SHOULD  
FOLLOW ALL DIRECTIONS FROM  
NATIONAL PARK SERVICE OFFICIALS.

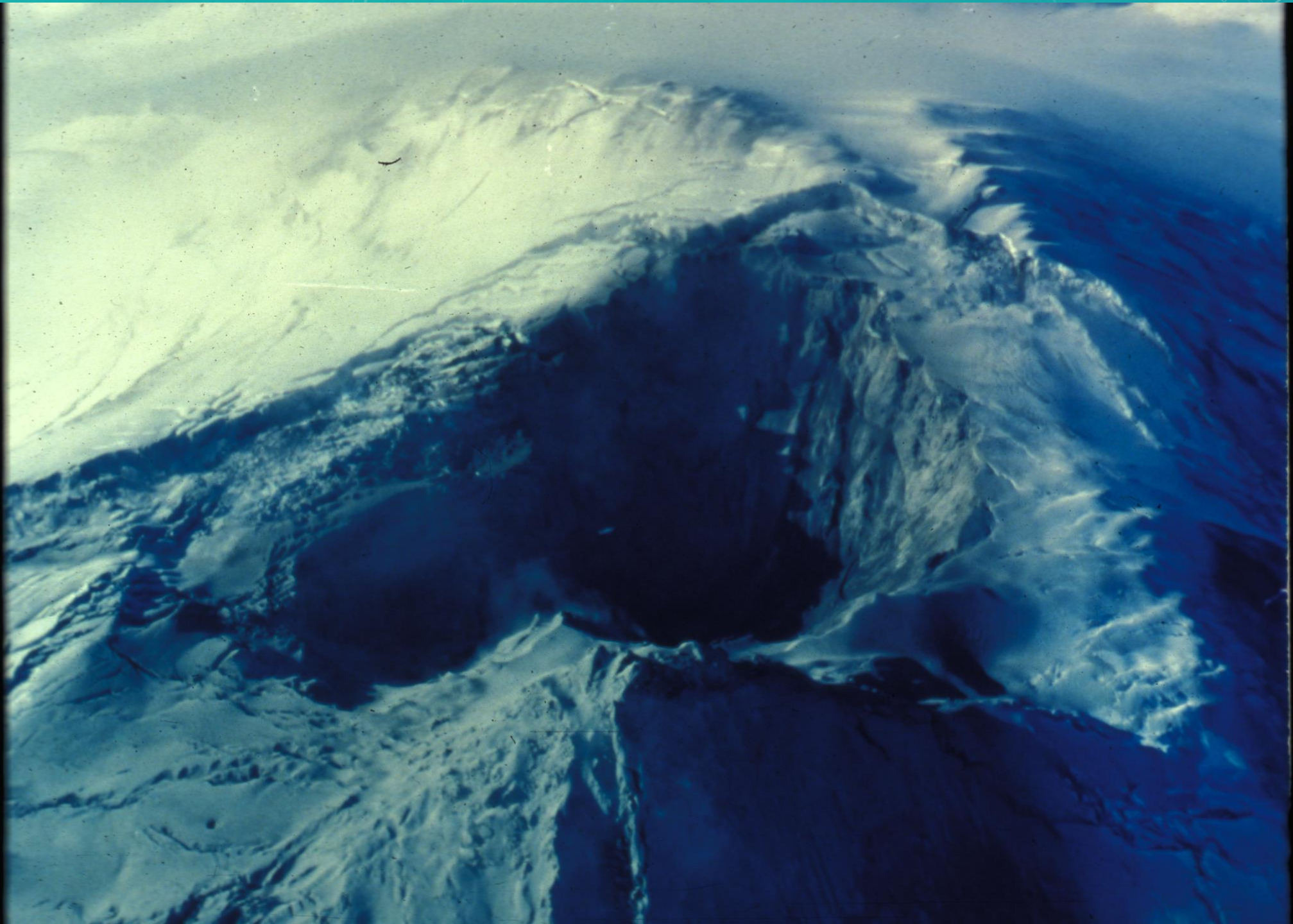
St. Helens,  
1980











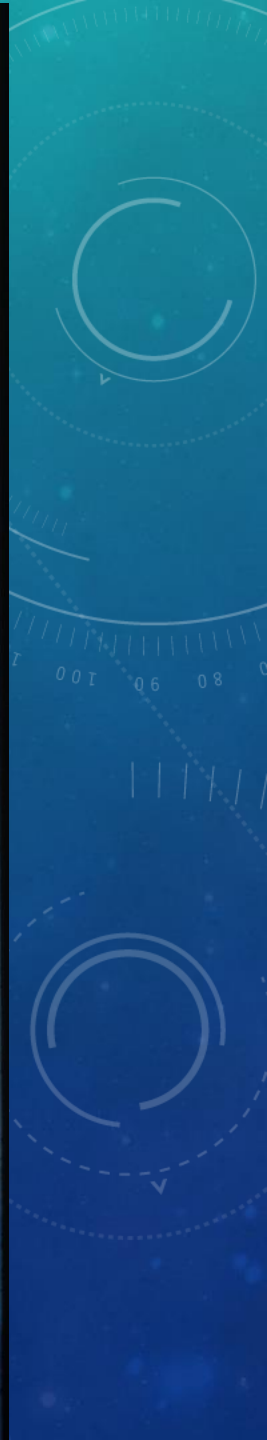
















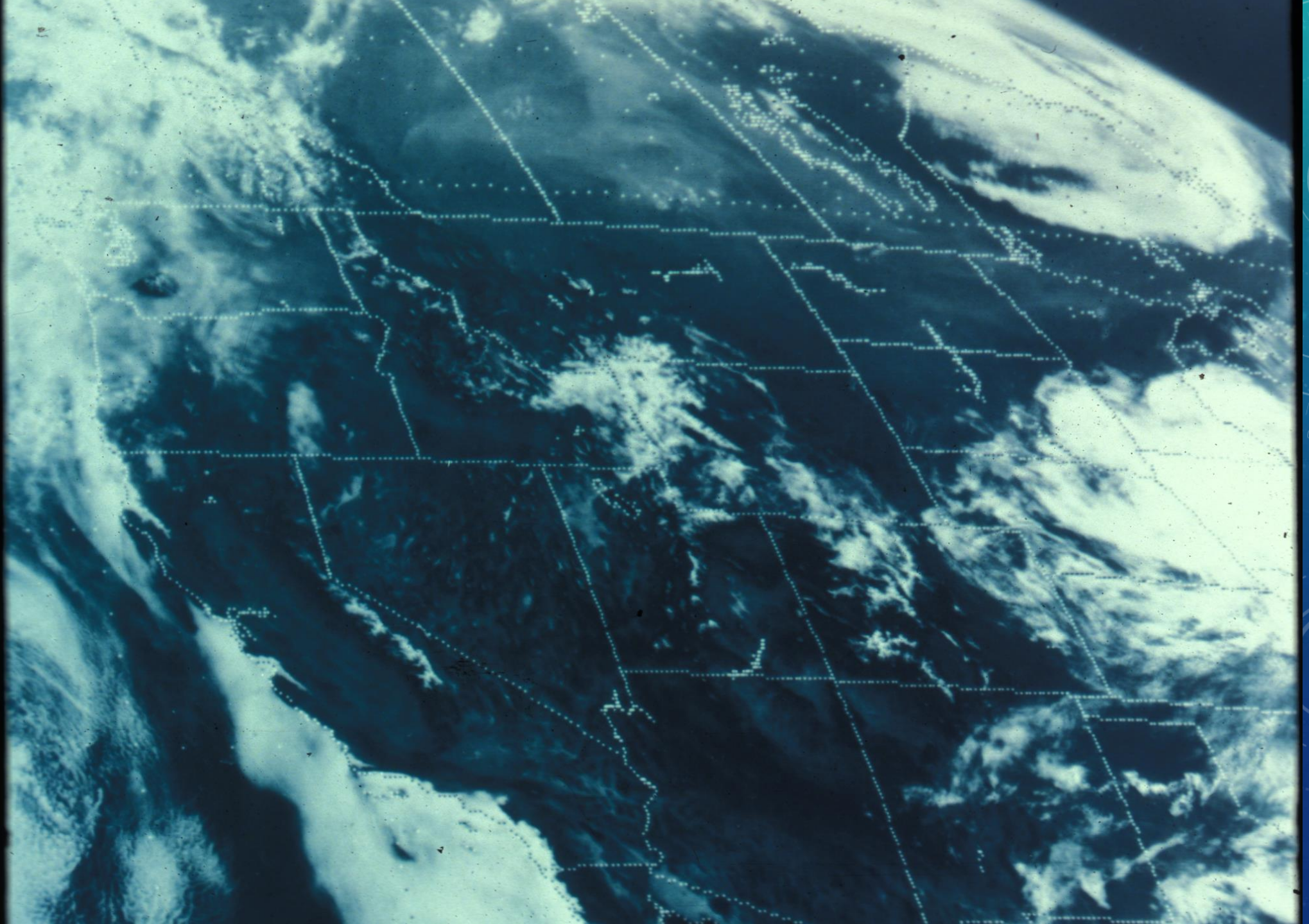


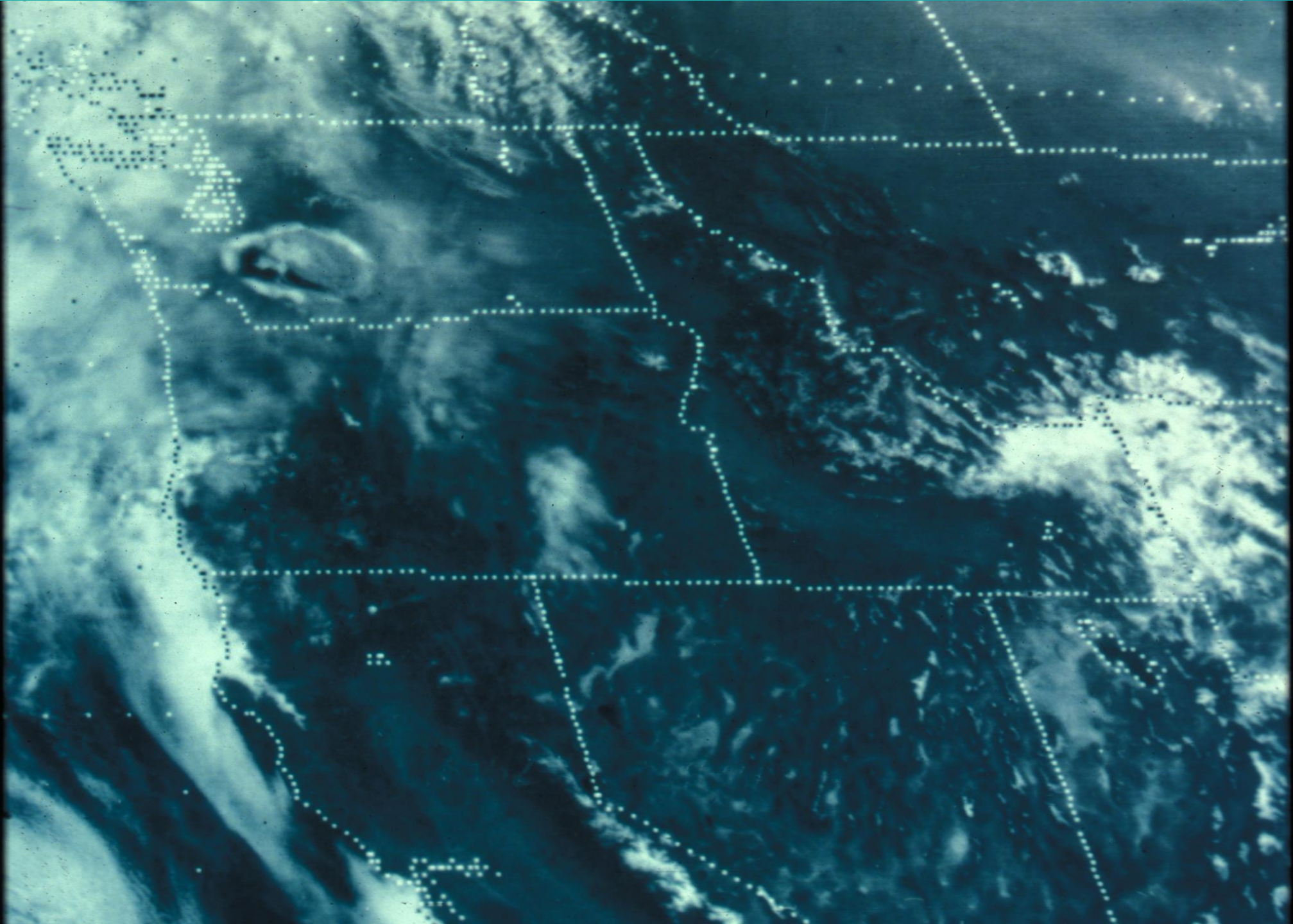


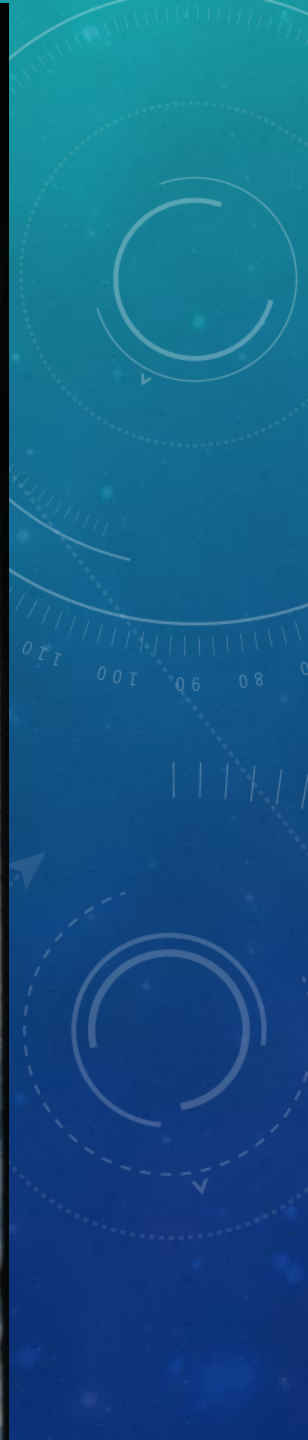
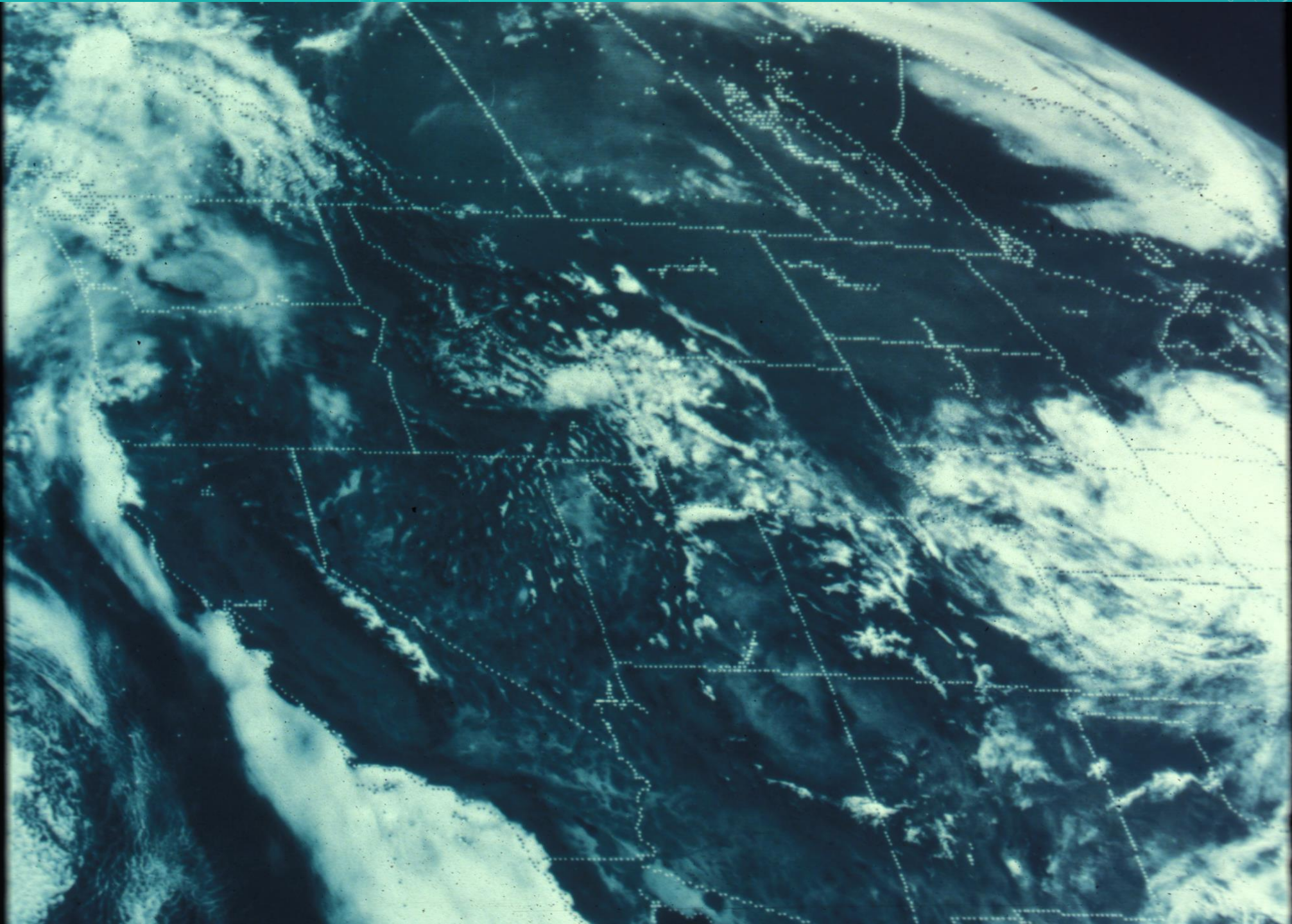


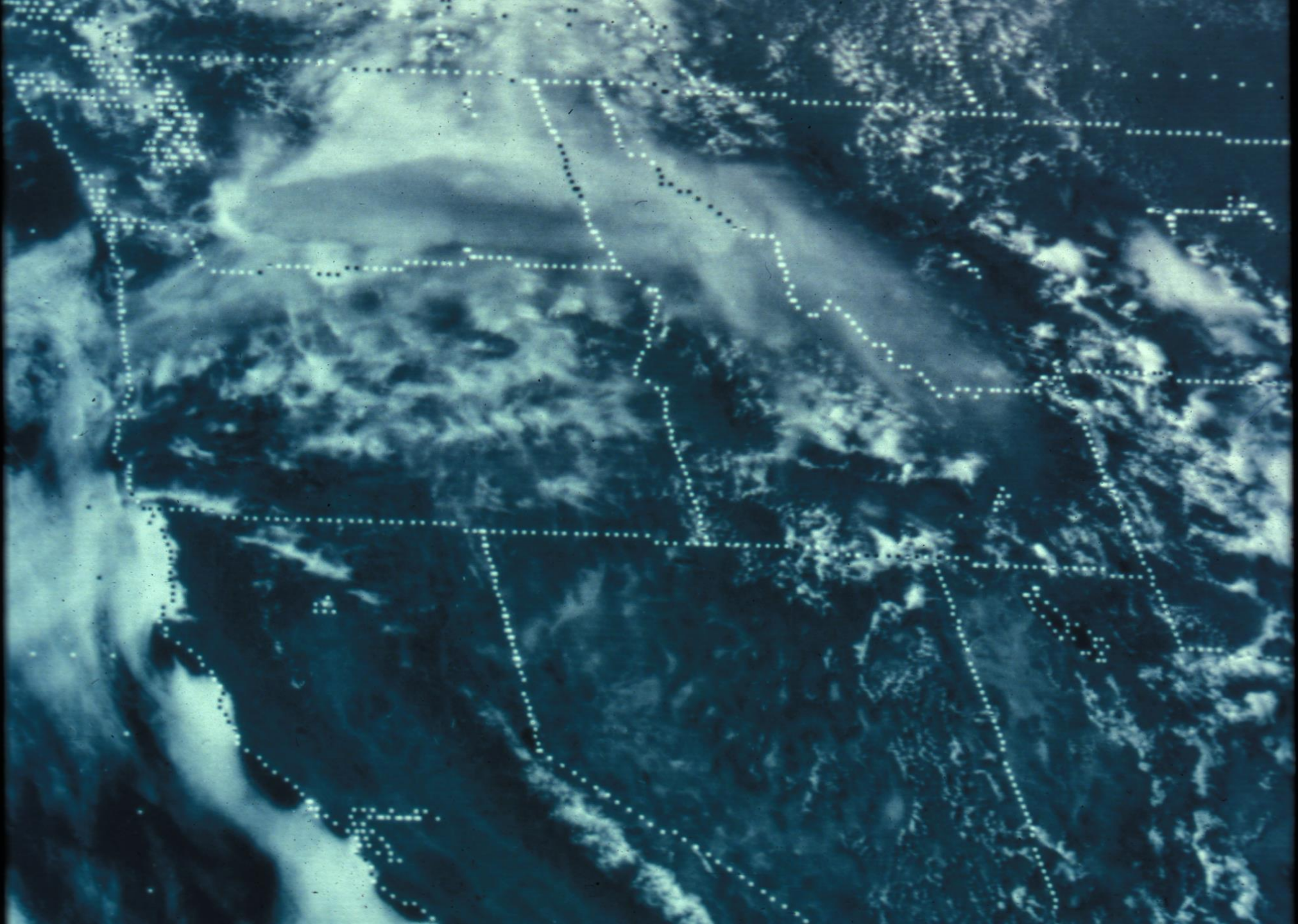




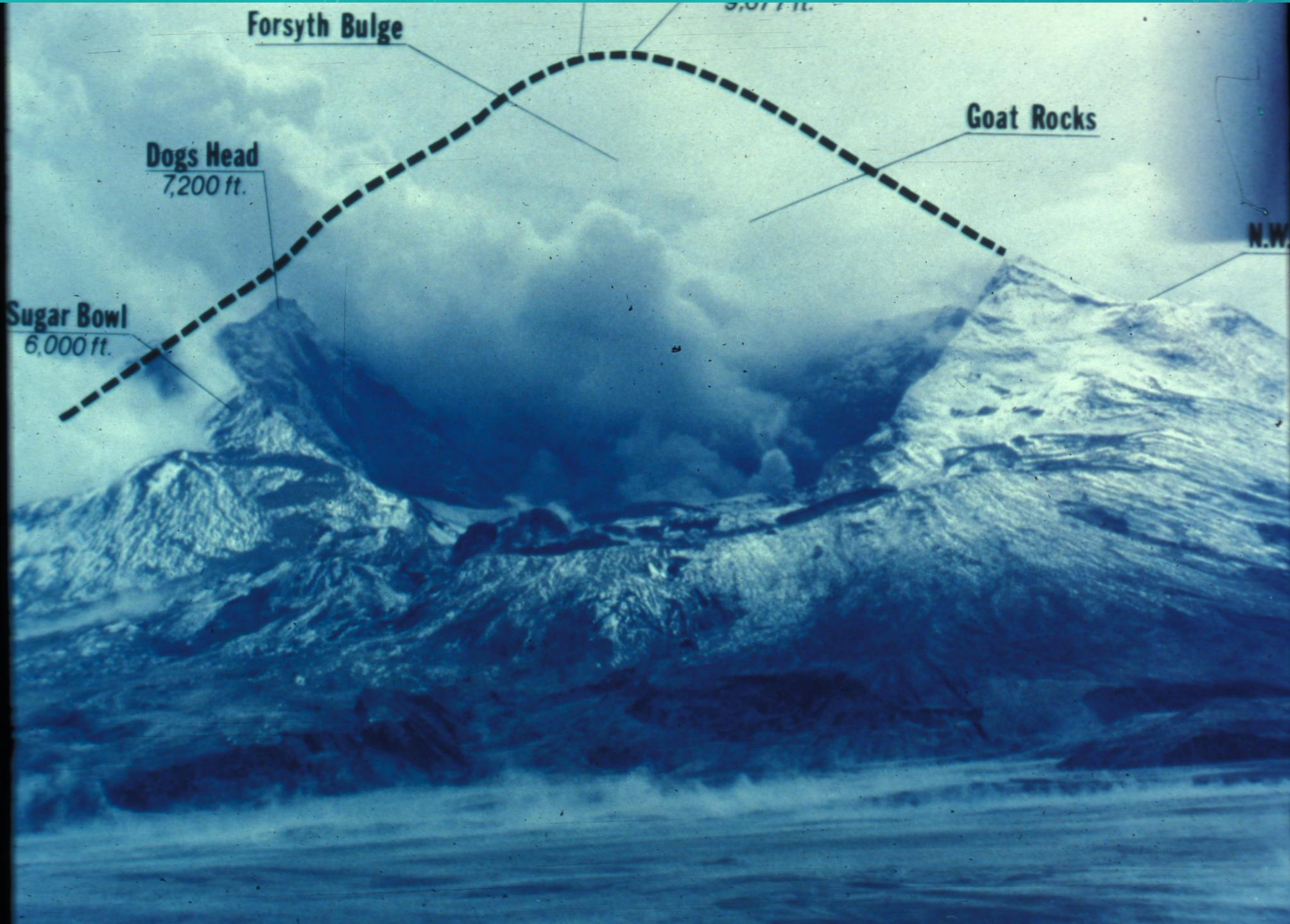












Forsyth Bulge

9,517 ft.

Dogs Head  
7,200 ft.

Goat Rocks

Sugar Bowl  
6,000 ft.

N.W.



1988













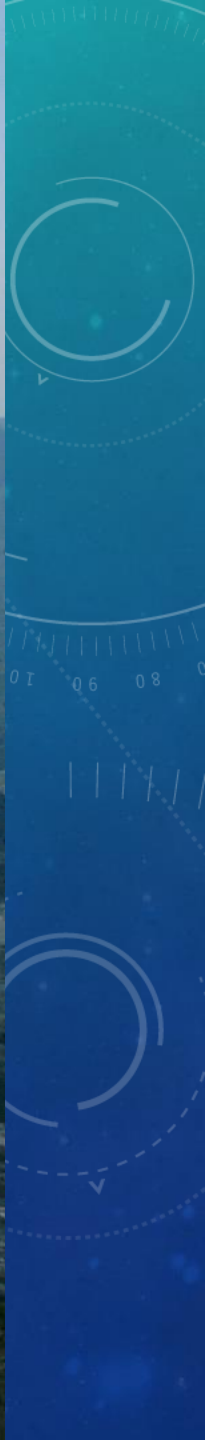
2003





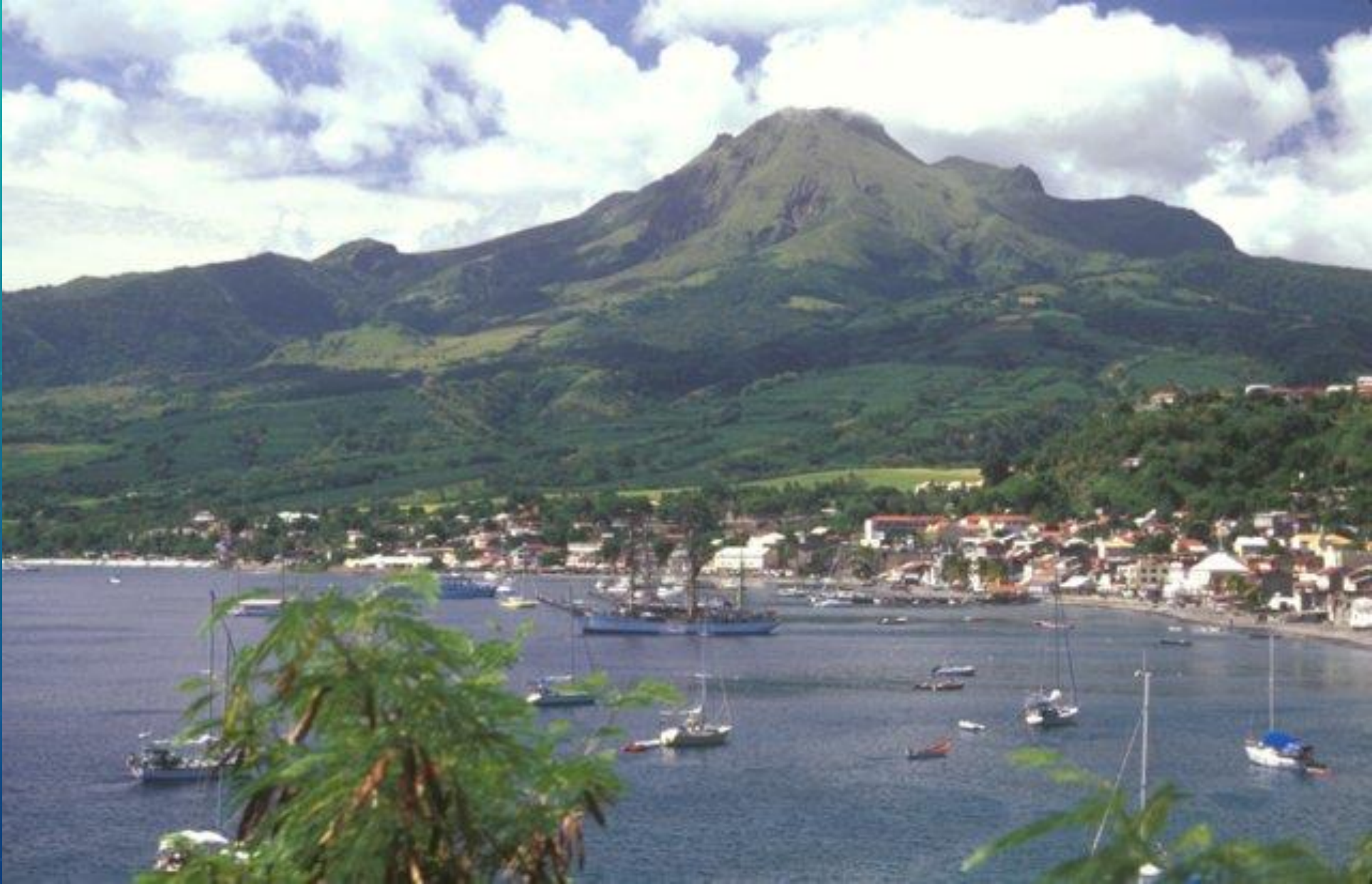
2010







# MOUNT PELEE, MARTINIQUE



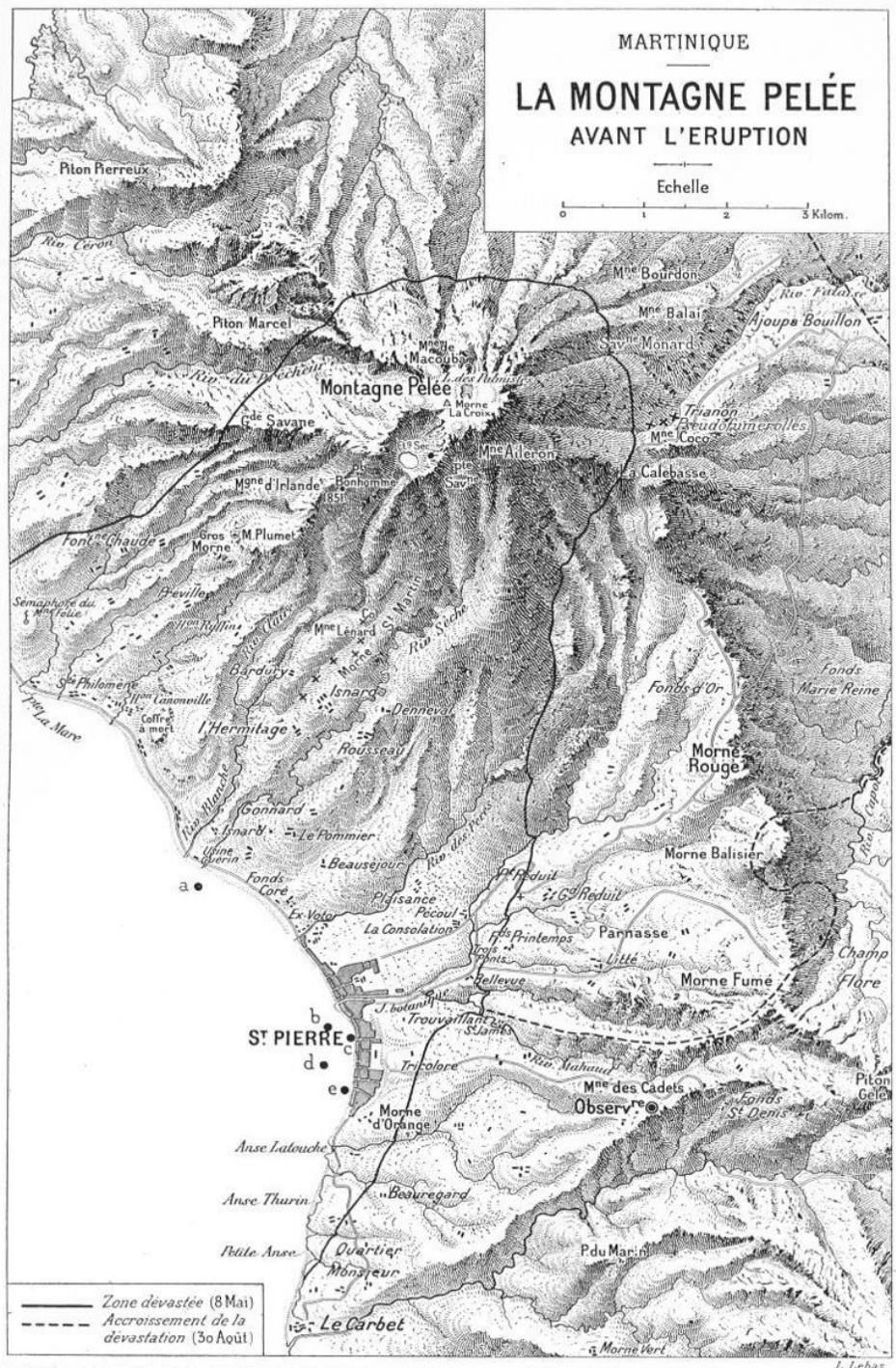
# 1902 ERUPTION. PERHAPS THE WORST OF THE 20<sup>TH</sup> CENTURY

- Goto GE!
- 30,000 killed
- Mostly pyroclastic flows (nuee ardente) that wiped out the city of Saint-Pierre
- Only two survivors in the direct path
  - Girl in a boat in a cave
  - Dude on the edges in a jail cell.
- More than 30 eruptions in the past 5000 years
- Rumbled for a couple of weeks before really going up.

MARTINIQUE  
LA MONTAGNE PELÉE  
AVANT L'ERUPTION

Echelle

0 1 2 3 Kilom.

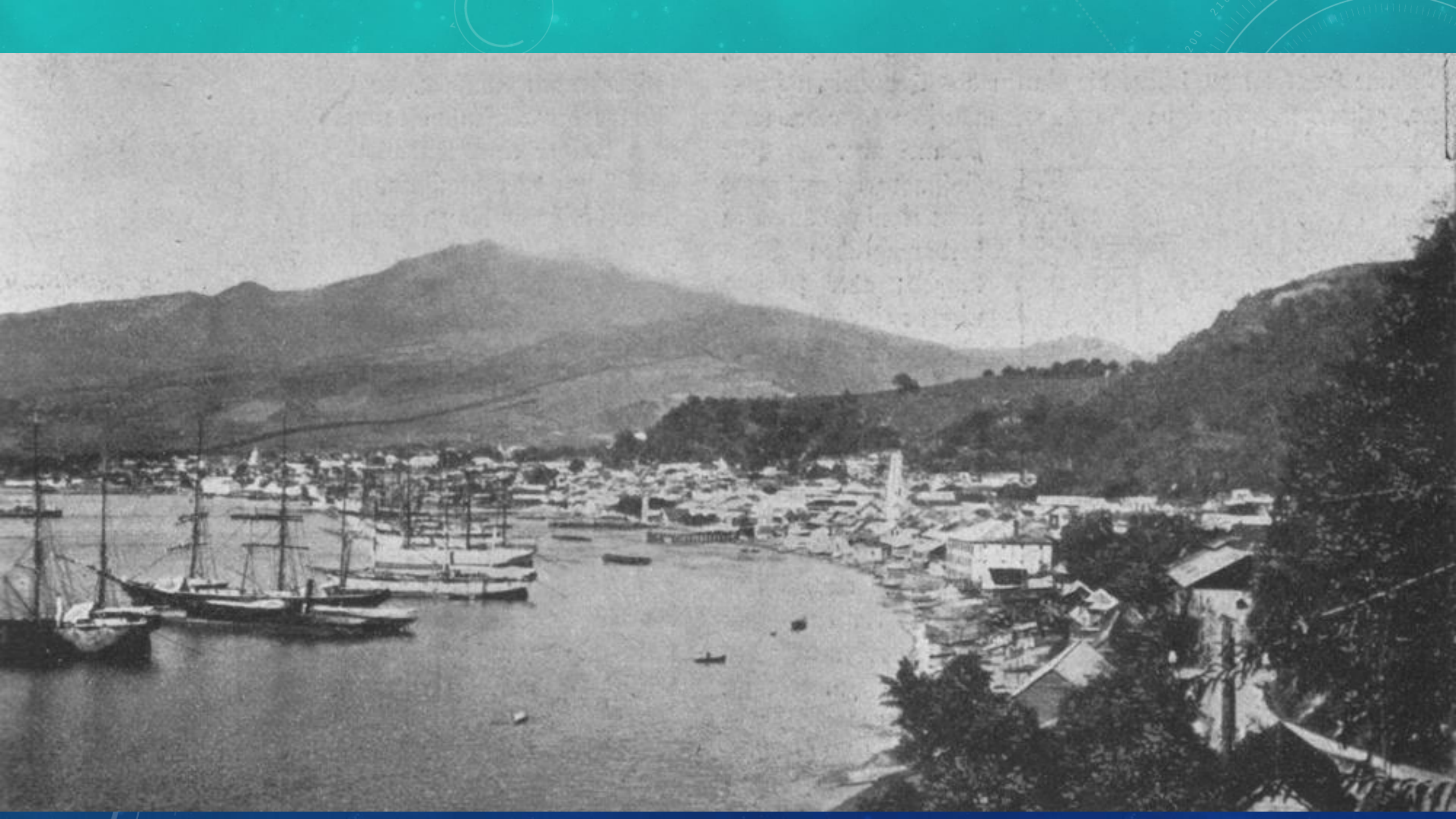


— Zone dévastée (8 Mai)  
- - - - - Accroissement de la dévastation (30 Août)

L. Lebas









# ADDING INJURY TO INJURY

- 2 weeks later, a second eruption equal to the first hit.
- Killed 2000 rescuers.

- Beginning in October 1902, a dramatic [volcanic spine](#) grew from the crater floor in the Étang Sec crater, reaching a maximum width of about 100 to 150 m (300 to 500 ft) and a height of about 300 m (1,000 ft). Called the "Needle of Pelée" or "Pelée's Tower", this extraordinary volcanic feature rose up to 15 m (50 ft) a day, and became twice the height of the [Washington Monument](#) and more or less the same volume as the [Great Pyramid of Egypt](#). It became unstable and collapsed into a pile of rubble in March 1903,<sup>[24]</sup> after 5 months of growth.





# AND NOW, TO NEBRASKA!

- Ashfall Fossil Beds State Historical Park. <http://ashfall.unl.edu/index.html>
- <https://www.google.com/maps/place/Ashfall+Fossil+Beds+State+Historical+Park/@43.0397873,-99.9247741,6z/data=!4m2!3m1!1s0x878538218f4f35b3:0xdc034379d751cc90?hl=en>

- ~12 million years ago.



Chemical analysis reveals that the volcanic ash has the same components as an extinct volcanic caldera in Idaho that geologists call the Bruneau-Jarbidge Eruptive Center. The ash has been dated by Uranium fission tracks, and by single crystal Argon dating of the source material.

# DEAD, FOSSILIZED CRITTERS.

- 5 species of horses, 3 species of camels, one deer, 1 rhino, 3 dogs, 2 turtles, and 3 birds.





# YELLOWSTONE!!!!

- GE, size of caldera.









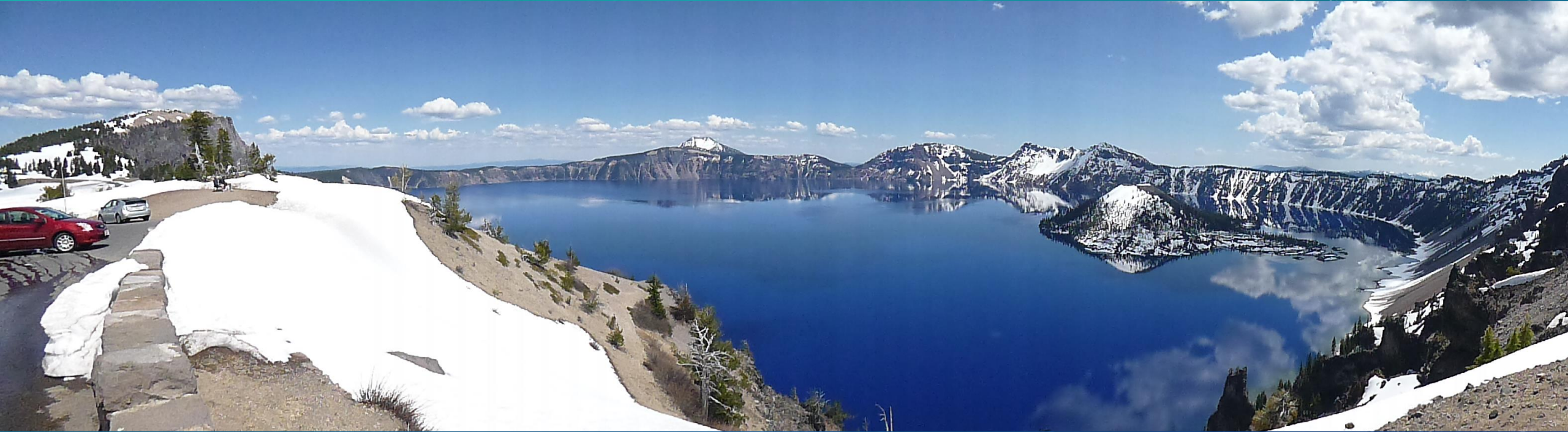






Blue Star  
Spring

Crater Lake, OR. Goto GE





Crater Lake National Park

## Volcanoes within a Volcano

National Park Service  
U.S. Department of the Interior

A massive eruption and collapse 7,700 years ago left a deep basin in place of 12,000 foot Mount Mazama. Over the next three to four hundred years, smaller eruptions sealed the floor, allowing rain and snowmelt to fill the basin and create Crater Lake. Wizard Island is a cinder cone formed during this time, as magma erupted

into the air, cooled quickly, and fell as cinders. A small crater rests on its summit. Magma also erupted under water, forming smooth pillow lava. A second similar volcano, Merriam Cone, is hidden from view beneath the lake. Future eruptions may bring further change to this landscape.

**Want to visit Wizard Island?**  
In summer, the park concession offers ranger guided boat tours of the lake leaving from Cleetwood Cove on the lake's north side. Wizard Island drop-off is an option on some tours. The trail to Cleetwood Cove is steep. Be prepared for a strenuous return hike.

