

## **Marine Ice:**

Iceberg vs. Ice flow (Pack Ice)

Iceberg originates on land - Firn field/snow field - fresh water

Marine Glacier moves into sea and breaks

Ice flow formed by ocean I-H<sub>2</sub>O froze

Iceberg - NA - Highly Jagged + splintered - smaller than - very dense float low in H<sub>2</sub>O

50 miles long max usually 4 miles long or less

100-150 feet high (900 feet below surface) - Titanic

IIP: 43 - 47 degrees North - Labrador + East Greenland current - Boston 42 degrees  
37

degrees

Further south @ 30 North (Southeastern most iceberg limit)  
Mass and H<sub>2</sub>O temp allows for life span of 2-3 years

Bergs are carried by currents (Labrador) as opposed to

Antarctic Ice bergs - less dense - tend to stay within west wind drift current

Smaller-higher out of H<sub>2</sub>O temp allows for life span of 2-3 years

H<sub>2</sub>O 35 degrees south latitudes farthest point North visually for icebergs

Pack Ice or Icebergs are common

Pack ice or Ice flow - Pancake vs. Fast Ice = Salt water

FP @ 35 = -1.9 degrees C

Ice = Salt + Ice

**Pacific Ice Area** - Max 250 - 300 miles into the ocean

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Ice Salinity: 4-5

Surface erodes and new ice from below is less saline

Sea Ice Age: 5-6 years

10-30 meters thick on thick areas (ridges/average = 9 meters)

**North Hemisphere Sea Ice differs because:**

Season

Land mass temp

Ocean US land mass area Ice Islands

Iceberg Deep (Ice Pack)

T<sub>1</sub> - T<sub>2</sub>: Salt water

4-5 years + 3000 miles: Ocean Drift

Note: There are Distinctions of Ocean H<sub>2</sub>O: Vertical water circulation

SW: Surface

UW: upper

IW: indetermediate

DW: Deep

BW: Bottom

Gulf Stream - Franklin

Agassiz

Gulf Stream: 100 miles wide in narrows (95 Nauts)

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