

## **Great Lakes Shipping: Did You Know Quiz - ANSWERS**

**How many of the following questions did you answer correctly? Are you a:**

Deck Hand = 25% correct (5 correct answers) *You're heading for a shipwreck!!*

First Mate = 50% correct (10 correct answers) Get the books out and study up!

Engineer = 75% correct (15 correct answers) *Good job!*

Captain = 100% correct (20 correct answers) *WOW!!*

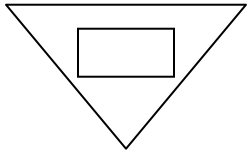
1. A 1000-foot "laker" can hold enough iron taconite pellets to make how many automobiles in the U.S.?  
**a. 15,000**
2. What percentage of the United State's iron ore used in steel production passes through the Poe lock at Sault Ste. Marie, Michigan?  
**i. 90%**
2. Which of the following make up "The Big Three" cargoes carried by U.S.–Flag *lakers* in order of tonnage on the Great Lakes?  
**a. Coal = #3**  
**b. Stone = #2**  
**c. Pelletized iron ore (taconite pellets) = #1**
3. The "head of the lakes" refers to which city?  
**iv. Duluth**
5. In which year was the first lock constructed on the St. Mary's River to allow boat passage around the St. Mary's rapids? **1798 (can now be seen outside the St. Mary's Paper Company in Sault Ste Marie, ON)**
6. What is "Operation Taconite" run by the Coast Guard at Sault Ste. Marie, Michigan?  
**The largest ice-breaking operation in the United States.**
7. What was the name of the first sailing vessel on the Great Lakes? **The Griffin (1679)**
8. Which President ordered the current Whitefish Point Lighthouse to be built? **President Lincoln**
9. Why did Mr. Carlson, the lighthouse keeper at Whitefish Point in 1918, have the assistant lighthouse keeper and his wife (both German) turned over to authorities?

**He overheard their plan to disable the Whitefish Point light in order to stop iron ore shipments through the Soo Locks that were aiding the United States' efforts in WW I !!**

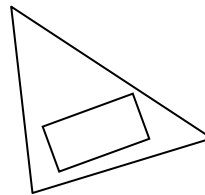
10. When does a 1,000-foot "laker" hog, sag or list?

**Answer: When it is improperly loaded.** A 1,000 foot laker is much like a tippy canoe. It is essential that it be properly loaded with cargo to distribute the weight. It can "list" dangerously to one side and tip over, in much the same way a canoe would. Improper loading can also cause a vessel to "hog" creating a convex curve in the hull, or "sag" creating a concave curve in the hull.

### Properly Loaded Ship



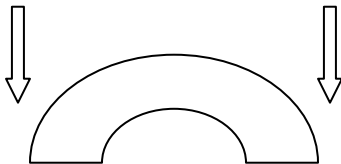
### Listing Ship



### HOGGING

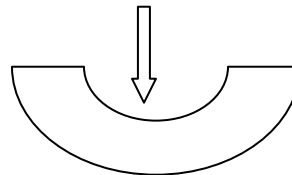
Load

Load



### SAGGING

Load



11. What does it mean when a large ocean-going vessel (saltie) must “swish and spit” just like you do when the dentist cleans your teeth?  
c. **The water in the ballast tanks needs to be exchanged, either saltwater for fresh, or freshwater for saltwater.** By exchanging fresh ballast water for saltwater in the ocean, an ocean-going vessel can almost completely avoid bringing non-native, invasive species from ocean ports to the Great Lakes.
12. How many crew members does it take to load a 1000-foot laker with a full load?  
**Answer: Just one! Due to advances in technology a large ship can be loaded by one crew member using remote control (self-loader and self-unloader).**
13. Where is the bell from the Edmund Fitzgerald?  
d. **On display at the Great Lakes Shipwreck Museum at Whitefish Point in Michigan’s Upper Peninsula.**
14. Which of the four Soo Locks is the largest and most used today? **Poe lock**
15. What are the top 3 products shipped through the Soo Locks each year?  
a. **Iron ore (taconite) = 74%**  
c. **wheat = 11%**  
d. **coal = 6%**
16. How many 1000-foot lakers does it take to carry the cargo carried by six 100-car trains (10,000-ton capacity each) or 2,308 (26-ton capacity) trucks?  
a. **One (a 1000-foot laker carries 60,000 tons)**
17. What is the total drop in elevation from Lake Superior to the Atlantic Ocean?  
**Lake Superior is 597 feet above the Atlantic Ocean.**
18. What is the drop in elevation between each of the Great Lakes?  
Lake Superior to Lake Huron **21 feet**  
Lake Huron to Lake Erie **12 feet**  
Lake Erie to Lake Ontario **326 feet**  
Lake Ontario to Montreal **224 feet**  
**(Totals 583 feet)**
19. During which month has there been the greatest number of shipwrecks?  
**From 1800-1975, 140 shipwrecks have occurred on the Great Lakes during the month of November; 40 were on Lake Superior and 38 were on Lake Huron.**

20. What is the total number of lives lost on the Great Lakes in shipping-related casualties in recorded history? **30,000**