

River Quest 2017

Great Lakes Cargo Capital

Synopsis, Resource Links & Vocabulary List

MN Standard 6.1.2.1.1
Practice of Engineering
Next Gen [WI] MS-ETS1-1
Engineering Design

Synopsis

The Port of Duluth-Superior

By far the largest tonnage port on the Great Lakes – and among the top 25 ports in the nation – the Port of Duluth-Superior handles an average of 35 million tons of cargo and nearly 900 vessel visits each year. Huge lake carriers ('lakers') and smaller oceangoing ships ('salties') carry mostly bulk cargoes of iron ore, coal, limestone, grain, cement and salt, plus general cargoes like wind turbine components and other equipment.

Located the farthest inland at 2,342 miles from the Atlantic Ocean (less than a week's sailing time), the Port of Duluth-Superior links the heartland of North America to the rest of the world via the Great Lakes St. Lawrence Seaway (GLSLS) system. The Port sits at the mouth of the St. Louis River which means we are at the headwaters of this entire inland waterway system – a *bi-national* marine highway that is bordered by 8 U.S. states and 2 Canadian provinces.

To get to the "Twin Ports," oceangoing ships ('salties') must navigate 16 sets of locks on the GLSLS, including eight in Buffalo, NY (i.e. the Welland Canal, which bypasses Niagara Falls). Most 'lakers' spend their entire working lives on 4 of the 5 Great Lakes, being too large to navigate any of the locks except the Soo Locks at Sault Ste. Marie, Michigan.

Ballast water is used to stabilize ships – to keep them balanced ('in trim') when carrying no cargo or only a partial load. The maritime industry is committed to taking steps with ballast water exchange and treatment to minimize and eventually eliminate the transport of aquatic invasive species. Today, moving cargo by water remains the safest, most fuel efficient, cost effective, and environmentally friendly mode of transportation.

Did you know?

- It takes nearly 700 railcars of iron ore pellets to fully load just ONE 1,000-foot laker.
- At normal water levels, that laker can carry nearly 70,000 tons of pellets – enough to make 45,000 tons of steel.
- Steel made from that single boatload of pellets can be used to manufacture 55,000 compact cars.
- It would take seven, 100-car trains or 3,000 huge tractor-trailers to haul that same amount of pellets.

Reference links:

Boatnerd www.boatnerd.com
Duluth Seaway Port Authority www.duluthport.com
Duluth Shipping News/Duluth Boats www.duluthboats.com
Marine Traffic www.marinetraffic.com
The Great Lakes Seaway Partnership www.greatlakesseaway.org
Great Lakes St. Lawrence Seaway System www.greatlakes-seaway.com

Mobile Apps to track ship traffic:

Ship Finder or Marine Traffic

Vocabulary List:

Ballast water
Bi-national
Great Lakes
Headwaters
Lakers
Locks
Marine
Maritime
Salties
St. Lawrence Seaway



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