

SPEAKING NOTES, SHORT SEA SHIPPING, ONE PERSON'S VIEW

In my presentation, I want to define “Short Sea Shipping”, identify some of its challenges, suggest some solutions and predict its future. This presentation is a merging of thoughts of previous presenters on SSS and my own.

“Short Sea Shipping’ needs to be defined, or at least understood.

FACTOIDS

- The Great Lakes have been declared in law to be the U.S.’s fourth coastline, or “sea”---longest U.S. coastline. So please accept the Great Lakes and St. Lawrence Systems as a sea for the purpose of defining “Short Sea Shipping”.
- SSS is not something new, or even a recent development in marine transportation. SSS is where marine transportation started! SSS is a shipping practice occurring in nations all around the world. What is new is that the federal government has recently taken notice of it and has significantly raised its profile. The immediate future of SSS has become an industry of speeches, seminars, think tanks, etc.
- Currently, SSS moves about 6% of the nation’s freight tonnage. In Europe, SSS moves 41%.
- “Just in Time” delivery of cargo is not nearly as popular as it once was---in today’s world, the receiver wants the goods delivered on time at a good price and with good quality handling all along the way. SSS can at least do that.
- Great Lakes shipping has involved SSS from the very beginning of its history---intra lakes---canal system to East coast---Mississippi river system. On the Great Lakes, SSS has been “hiding in plain sight”.
- One Seaway sized vessel can replace an estimated 870 trucks or 225 rail cars. If SSS is not available, the Great Lakes, Midwest would need almost 7 million trucks or 18,000 unit trains of 100 cars each to carry existing cargos.
- \$11 trillion worth of cargo moves via U.S. transportation systems per year---to at least double by 2020! Our transportation infrastructure will not double.
- Those in control of cargo transportation are generally indifferent to how their goods are transported as long as their needs are met:
 - o Reliable delivery
 - o On time delivery
 - o Portal to portal

- o Quality of handling
 - o Reasonable cost
 - o Secure and damage free transport
 - o In transit reporting capability
 - o Environment friendly “sustainable”
- In terms of technology, variety of ships, public appreciation and government support, Europe is now clearly the leader, with North America clearly lagging behind despite our having by far the superior inland waters available for navigation.
- Shipping lines, in considering whether or not to get into SSS must consider a number of factors including:
 - o Financing
 - o Optimizing turn around times for vessels
 - o Cargo capacity
 - o Identifying the niche markets
 - o Optimizing efficiency of vessel operations
 - o Building in adaptability
 - o Vessel speed and fueling
 - o Operating costs---manning of vessel
 - o Profitability

BUT WHAT IS SHORT SEA SHIPPING?

- Historically, SSS was narrowly defined as domestic transportation of goods by ships that were not designed for the open seas. Very shortly, SSS dropped “domestic” as a defining term and progressively focused on building ships specializing in carrying certain cargos (purpose built vessels) and/or ships built for the waters they worked.
- Originally, it is the trip that was “short”, not the ship, and “shipping” does not refer to ships per se, rather refers to transporting goods---also, the “sea” is not restricted to only short trips or any one body of water.
- On the Great Lakes, SSS carries the majority of iron ore (taconite) destined for Midwestern steel plants and a significant portion of the coal bound for steel plants or power stations. Canada is the largest trading partner for Great Lakes States and SSS carries most of our corns to Canada and most of Canada’s export aggregates to the U.S.
- SSS moves a lot of petroleum products and metals to, from and around the Great Lakes. Major Midwestern industries rely heavily on SSS---agriculture, steel,

automobile, glass, electric power and cement; essential to transportation of cargos.

- A definition by committee: “Freights service operations carrying either containerized or trailerized cargos via the coastal waters, lakes and river systems of North and Central America, having at least one port of call in the U.S., and in particular, these services where the shipper has a true intermodal choice to make between moving units by water and using one or more land alternatives (highway and/or rail) or, in some cases, air transportation.” Obviously, the committee was attempting to achieve consensus as it unsuccessfully struggled to define SSS.
- What they found it impossible to say is “transport by water that does not cross an ocean”!
- Today on the Lakes, the ships range from 1000 feet down to less than 300 feet. Vessels include various combinations of tugs and barges (currently playing a rapidly increasing role)---the vessels range from converted steamers more than 50 years old to new vessels---they include vessels that are fully geared (e.g.: self unloaders) to vessels requiring shore cranes to load and unload cargos.
- Great Lakes vessels travel within the Lakes, to the St. Lawrence River ports and to east coast ports carrying cargos to the U.S. and Canada.
- The development (or modernizing) of our North American SSS fleet has been relatively static over recent decades but we are now approaching a period in which we will see the introduction of not only new but new types of vessels---the evidence is that we will see many more vessels that are not only built for specific waters (shallow draft vs. deep draft, inland water vessels, coastal vessels, combi’s) but also vessels that will carry specific cargos or a very narrow range of cargos---the SSS operators will focus on having ships that are the most efficient in the niches they occupy.
- We will see ships and tugs that have telescoping wheel houses to they can pass under bridges safely and they can raise the bridge to see over high stacked cargos, we will see self propelled barges, freight truck ferries, we will see vessels requiring very few crew members and employing varying fuels and doing different speeds, we will see containers and year round Lakes shipping----we will see what we have not seen before and great advances on existing technology. These are exciting times.

CHANGE DRIVERS

- Why will we see such change? What is driving the change? Certainly it is not government funding or policy---it is the global economy, the remarkable increase in overseas manufacturing, and the resulting developing gridlock on our entire transportation system and it is the seemingly unquenchable consumer demand for

more goods, faster and less expensive (but better quality), in their stores. These demand efficiencies and productivity throughout the transportation system.

- Environmental considerations are increasingly driving considering marine transportation systems to replace rail and road modes---on a per ton basis marine transportation is far greener, far cleaner in terms of all environmental concerns. There is unused capacity on water.
- Truck driver's numbers falling off, almost no new highway or rail.
- All of our transportation modes are congested or will shortly be congested on the upland, with the exception of Great Lakes ports. The congestion at our salt water ports is so bad, or threatening, that inland ports are being built; major ports are employing small ports (accessed by SSS) to relieve the congestion; stevedores, rail companies, shipping companies, trades, etc. are looking everywhere in search of efficiencies and significantly increased productivity.
- One of the answers is the development of effective and efficient SSS and that will be heavily reliant upon developing new technologies, employing new software---for building the new fleet, improving fuels, new/environmentally friendly drives, hybrid machines and vehicles, seamless interfaces between the transport modes, new loading/unloading and cargo handling storage systems---the development of new, and refining the application of existing, technologies will be key to successfully advancing SSS and addressing our transportation challenges.
- The challenge of creating new technology driving new efficiencies is only one of the challenges. We are at least as challenged by our inclination to become comfortable and then become static. What about the need to change attitudes and perceptions? Can we make the necessary changes to regulations, laws and practices that will free us up to respond? Can we change our education system so as to produce at least as many high quality scientists, mathematicians and engineers as we will need? Can we make the changes rationally or do we need a crisis? Well, the global demands gorilla is at our gates.
- SSS can be an economically viable option for relieving some highway and rail congestion while increasing freight mobility.

FUTURE LOOK

- Captain W.G. Schubert, then head of MARAD, said: "To meet America's future needs, our nation must take advantage of scientific and technological systems, and develop new ones. We must strive to enhance their reliability and efficiency and close the gap between the demand for transportation and the capacity of the transportation infrastructure".

- SSS is not intended to be a competitor with other modes of cargo transport--- rather it is intended to be complement to those modes, to partner with them seamlessly to support much more efficient transport of goods to the benefit of the consumer. This requires a radical change of thinking amongst the leadership of at least some of the modes; marine included.
- Gary Lombardo, in his article “Short Sea Shipping: Practices, Opportunities and Challenges” says “the challenge is to develop the appropriate commercially viable business model for short sea shipping in the Western Hemisphere. This challenge must meet the inflexible demand of time sensitivity in a just-in-time commercial environment. The fundamental issue of freight mobility to satisfy the market place must be addressed by the short sea shipping business model.”
- When you have seen one port...you have seen one port! Similarly, we can expect SSS to develop differently region to region in ways that reflect the local needs and circumstances. There will be overlaps; however, there will be significant differences---differences that are already emerging.
- The critical success factor for adopting the short sea shipping concept is that it must facilitate cargo movement as an inexpensive, seamless component of an integrated, intermodal transportation system. This business model must also overcome the tyranny of current practices which heighten resistance to change.
- “Profit” is not a dirty word amongst shippers and in the Americas, we are impatient to achieve profit---this gets in the way of introducing SSS services---need more long term view to prevail amongst potential shipping lines for SSS.
- “Advocates of short sea shipping in the United States need to move beyond the discussion stage. The next stage requires applied research to develop short sea shipping’s commercial viable feasibility. Short sea shipping should investigate opportunities to gain market share, initially at the expense of current profits. If the business model is sufficiently attractive, the profits will flow during the subsequent time periods. Advocates are deluding themselves to think that short sea shipping will be profitable at its introduction stage. This tension between striving for a market share or profitability is faced by virtually all entrepreneurs who are involved in business start-ups. The general rule is that profitability will ensue after sufficient market share is gained. The lack of scale economies and experience at the enterprise’s onset detract from its ability to earn a profit. The importance of strategic planning, effective budgeting, and milestone development is paramount. Responsible maritime professionals are the ones who will make short sea shipping a reality in the Western Hemisphere.”
- We cannot rely upon or wait for government to step in and solve the challenges, currently the GAO is fighting with the Dept. of Transportation over SSS---the

only thing they agree on is that SSS makes sense---the challenges must be quickly responded to by business and labor---we are all in the same boat together on this one---if we do not respond effectively and soon the global economy will adjust to avoid us and the world will pass us by. With the possible exception of providing funding for infrastructure, the biggest need is likely to get the governments out of the way of progress. I am convinced that part of our response to avoiding that happening will involve the development of SSS throughout the U.S. SSS is already a fact. It must be developed and its role in transportation must grow by leaps as it is one of the key tools we will have to avoid losing our position in the world as a leading economic driver. Can we do that? Yes, we can. Will we?