They may be metaphorical rather than attached to clipper ships, but the sight of sails approaching the harbor is just as welcome to the 21st century global logistics manager as it was to his 18th century counterpart, writes Richard Weissman.

The linkage of global supply chains and logistics is not new. Clipper ships sailed out of Salem, Massachusetts to the Orient in the late 18th century to trade for spices. For 100 years, when over 1,000 vessels made the 24,000 mile-long round trips to Sumatra and other distant ports, the concept of a supply chain and logistics was a simple one. Sail to the foreign port with goods to trade, negotiate, load the ship, and return home. With no information about the voyage, the wait was hard for the ship owners, merchants, customers, and families. It was only when the sails were seen in the harbor that delivery could be assured.

Today, supply chains are complex grids of global commerce networks involving a myriad of touch points between customers, suppliers, and service providers. A major link in that chain includes logistics providers, those organizations who move, track, and store materials. Flexibility, responsiveness, and real-time information are critical issues in managing a global supply chain. Additional factors such as outsourcing strategies, lean supply chain initiatives, market dynamics, information technology, and post 9/11 security issues are affecting supply chain management and logistics. Managing spice shipments in the 18th century was not easy, and optimizing a global distribution network for an automobile manufacturer in the 21st century certainly offers complexity and challenges.

Some companies maintain their own logistics services, managing transportation, distribution, information flow, and global commerce issues in house. Others have decided to outsource a portion or all of their logistical needs to a third party logistics provider (3PL) or a fourth party logistics provider (4PL) who manages materials management and product distribution functions. 3PL providers include transportation, storage and other value added services such as order fulfillment. A 4PL—a growing logistics sector—provides the integration of all companies that are part of the supply chain. This ‘super’ provider is involved in all of the phases of supply chain management, controlling both information and materials. A 4PL may manage a network of 3PLs.

There is strong competition in the marketplace, and the borders between providers can get blurry. Transportation companies are attempting to extend market share by offering the value added services of a 3PL. Meanwhile, 3PLs are offering the increased usage of technology and planning of a 4PL. Add enterprise software vendors to the mix, as well as a array of logistics consultants, and there is quite an array of logistics choices for companies to utilize.

"Time has consistently brought new issues and challenges, keeping the subject on the top of the minds of logistics executives," says David Jacoby, president of Boston Logistics Group. "Companies need to develop the strategic direction regarding outsourcing, and ask themselves if they need 3PL or 4PL, and how systems can be integrated with logistical service providers to allow for integrated order processing."

Mark Vigoroso, senior analyst in Aberdeen Group's supply chain management practices agrees with Jacoby. "When considering any logistics solution, including international logistics, companies should be sure the solution delivers full integration of logistics with incumbent financial and contractual systems, including Web-based real time access to inbound and outbound global product movement information." Vigoroso adds that sharing of logistics data with trading partners and customers via direct, system-to-system communications is essential.

"Companies with off-shore customers and suppliers have a lot to gain through international logistics solutions (ILS). A healthy logistics resources management (LRM) framework can ultimately reduce logistics costs by between five and 15 percent."

Enterprise software companies are also part of the global logistics mix. "Systems need to be scalable and easy to use, especially as the extended supply chain pressures become more intense," says Greg Mekjian, vice president of extended supply chain for SAP America. SAP is focusing on using technology and adding expertise in the areas of documentation, homeland security, and other global trade requirements. In addition to working with existing clients such as Ford, Honeywell, and Canada Post to manage their supply chains, SAP also provides software applications to 3PL organizations to help them manage multiple supply chains.

Technology driven information management is a critical component of the global logistics equation. Vastera's logistics software suite, which includes import and export management, as well as event management and collaboration, helps automate global transactions and ensures compliance with global trade laws. "Technology as a role in the GTM space is only about a decade young, so in terms of automating a business function, the market is approaching its teen years," said Ty Bordner, Vastera's vice president of product management. "The regulatory environment will continue to be more complex due to the proliferation of trade agreements such as NAFTA, as well as added security burdens." Globalization of the supply chain also adds complexity to logistics. According to Bordner, globalization will continue to fuel the drive towards low cost materials and labor as well as the need to access new emerging markets like China, India, and the former Soviet Union countries.

Yet, technology may not be the only answer to global logistics. "Many companies and logistics managers think they can turn to technology as the solution to everything," says Amy Zuckerman, a global trade expert with A-Z International Associates. "Cultural decisions will affect all sorts of decisions, from how to manage to packaging. Cultural differences, coupled with language barriers in many parts of the world means, paying attention to communication." Zuckerman adds that e-mail and the web will not replace face-to-face communication.

Several trends are now shaping the future of outsourced global logistics, according to Boston Logistics Group's Jacoby. They include a deceleration of logistics outsourcing due to cost and resource pressures, a shakeout and consolidation in the logistics market, an emergence of multi-modal trans-national scheduled transportation services that include FedEx and UPS, and an increase in security. Integrated supply chain management continues to evolve, reacting to market pressures that include lean manufacturing, optimized supply bases, stream-lined inventory, increased customer satisfaction, and lower costs. Outsourcing logistics may offer the best opportunity yet for customers and suppliers alike to see the sails in the harbor.