# U.S. Merchant Marine and Maritime Industry in Review

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The cyclical nature of the maritime sector is well recognized in academic literature and professional journals. Historically, these cycles of shipping boom and bust have remained short, often because of the proclivity of shipowners to overbuild capacity at the slightest indication of market optimism. In a remarkable contrast, the rate recovery that began in 2002 became only stronger in 2003. The head of R. S. Platou, a renowned Norwegian shipbroker, in the company's annual review noted "shipping markets have never been stronger than they are now." Indeed, 2003 was a stellar year for the global maritime industry in general, and for the shipping community in particular. Freight rates in all markets have been on a rising trend for almost two years now, despite the ongoing geopolitical uncertainties worldwide and the increasing concern with safety and security of global supply chains.

What is most unusual is the strong correlation between these developments and the economic performance of one nation—an impact of much higher magnitude than what we witnessed in the mid-1970s when the rapidly growing oil-exporting nations of the Arabian Gulf gave a major boost to the shipping industry's fortunes. The primary driver of the current extraordinary boom is the Chinese economy and its ongoing spectacular growth. In 2003, China's exports grew by 31.7%, and its imports by 39.1%. While China has solidified its position as the premier exporter of low-value consumer goods, its export items have started moving up the quality scale, as well as along the value chain. The nation also imports a wide variety of raw materials to keep its production engine on full steam ahead and many finished goods to whet the voracious appetite of its fast-growing middle class. It has been reported in trade journals that the entire U.S. export of waste paper, now the nation's biggest export commodity in terms of weight, is insufficient to meet the Chinese demand and, hence, they are seeking new sources of waste paper imports.

Currently, the charter market for modern ships of all types is experiencing unprecedented, premium daily hire rates. Many ship operators have announced extensive fleet expansion plans, and shipyards in Korea, Japan, and China are fully booked for the next few years, building ships as divergent as giant containerships and very large oil tankers to smaller feeder vessels and handy-max dry bulk carriers.

While the global maritime sector was one of euphoric growth and aplomb, there was nothing dramatically different for U.S.-based maritime interests. Indeed, they might be tempted to term the past year lackadaisical at best and paranoid at worst! Perhaps the most telling debacle was that the nation could muster only one double-hull U.S.-flag product tanker (out of the 26 chartered) to deliver jet fuel for Operation Iraqi Freedom-related activities. Gradual retrieval of traditional U.S.-based shipping interests from maritime activities, most ostensibly in the liner market, has left us with a huge lacuna that will remain hard to fill even during the best of times. The declining importance given to maritime activities in the United States and their lack of appeal in the corridors of power and policymaking have continued their slide, to the point where they are almost nonissues today.

### *U.S. Trade vs. Merchant Marine*

Maritime Administration (MarAd) statistics (based on Lloyd's Register/Fairplay data) indicate that as of 1 July 2003, the U.S. fleet (ships owned by U.S. parent companies) consisted of 990 ships of 1,000+ gross tons, totaling 46.9 million deadweight tons. This placed the United States fourth on the list of total deadweight tonnage owned (after Greece, Japan, and Norway, in that order). How-

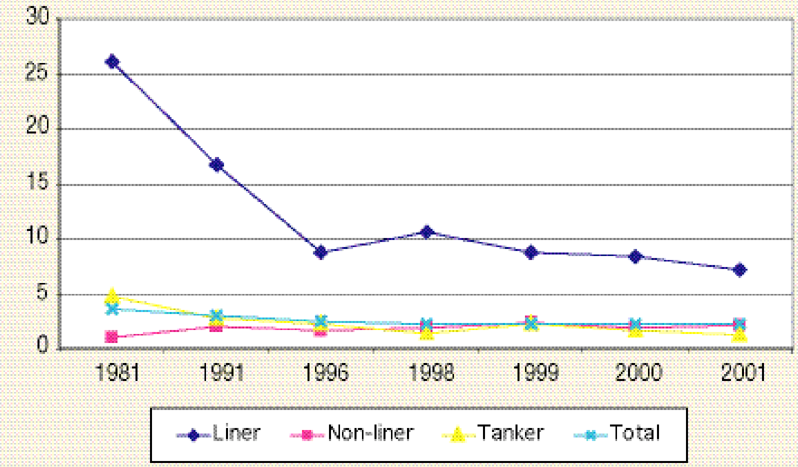

GETTY IMAGES (DAVID MCNEW)

*In 2004, China was the big name in the maritime industry. Its extraordinary economic boom grew Chinese exports and imports and drove recovery in global shipping markets; the Chinese government announced plans to build the world's largest shipyard near Shanghai; and a new bilateral agreement with the United States is expected to allow Chinese carriers to enhance their U.S. market share. This China Shipping Line containership is passing under Vincent Thomas Bridge in the Port of Los Angeles.*

ever, a better picture emerges if one looks at the U.S. fleet in relation to the nation's waterborne commerce. Figure 1 shows the market share of U.S.-flag operators from 1981 through 2001. In every category, the percentage share of U.S.-flag operators has dropped. As of 2001, slightly more than 2% of the nation's total waterborne foreign commerce was being transported on U.S. flag vessels, an all-time low.

Even more revealing is the maritime engagement of the nation. Per 2004 U.N. Conference on Trade and Development (UNCTAD) statistics, the United States generates 14.5% of the world trade in value, but owns only 5% of the world fleet in terms of deadweight tonnage. Traditional U.S. trading partners such as Germany, the United Kingdom, Canada, France, and Italy are in the same predicament, but the case of our major Asian trading partners is quite the contrary (see Table 1). In terms of percentage share, the four top Asian trading nations' deadweight tonnage capacity is more than their world trade generated in value. Japan, China, and Korea have a vast maritime presence today, are home to some of the fastest growing global maritime enterprises, and have built a significant broad-based shipping milieu, contributing to large foreign exchange gains.

**Figure 1: Waterborne Commerce: U.S. Flag Share**




*Source:* Calculations based on MarAd data

**Table 1: Maritime Engagement of the United States and Top Four Asian Trading Nations (as of end 2002)**

| Country | % share of world trade generated in value | % share of DWT owned | Ratio of world trade generated to DWT share owned |
|---|---|---|---|
| United States | 14.5 | 5 | 2.9 |
| Japan | 5.7 | 12.4 | 0.46 |
| China | 4.7 | 5.3 | 0.89 |
| Hong Kong SAR | 3.1 | 4.5 | 0.69 |
| Rep. of Korea | 2.4 | 3.1 | 0.77 |

*Source:* UNCTAD Maritime Review 2003
DWT = deadweight tonnage

### *Institutional and Regulatory Developments*

This has been quite an active year in terms of institutional involvement in maritime affairs and regulatory developments. Synonymous with what is going on in societies the world over and in the United States in particular, regulatory initiatives to combat terrorism and enhance safety and security on board ships and at maritime facilities and installations have been particularly prominent.

In the United States:

• *Security-Related Developments.* In the United States, the ongoing attention given to maritime activities from a national security perspective is unprecedented. Strict electronic reporting requirements now are in place for the nation's imports and exports, part of the overall policy to prevent nefarious groups or their cargoes from reaching U.S. soil. Oceanborne cargo imports must be reported 24 hours prior to loading in a foreign port and outbound cargo must be reported 24 hours before departing. Physical examination of incoming cargo containers remains a thorny issue, with some advocating examination of 100% of incoming containers and others seeing that as necessary only on a selected basis. The bottleneck that would arise from a thorough physical examination of every import container and the chaos that would ensue in our well-tuned global supply chains are predictable. However, it is noteworthy that physical examination of incoming sea containers by Customs officials is at an all time high—more than 5% of all import containers.

A good number of the ships and port facilities missed the 31 December deadline to submit security plans to the U.S. Coast Guard, mandated by the Maritime Transportation Security Act of 2002. As of February 2004, 600-700 of the 8,500 vessels and 200-300 of the 3,200 shore facilities had not filed and were to be fined $10,000. Two key cargo security programs recently were taken from the Transportation Safety Administration and given to the Department of Homeland Security (DHS). The Border and Transportation Security Directorate of the DHS now is responsible for the development of "container seal" standards and the "secure systems of transportation" initiative.

Operation Dry-dock, a 14-month joint investigation by the U.S. Coast Guard and the FBI to detect document fraud associated with U.S. merchant mariner credentials resulted in some interesting findings. Examining the records of more than 200,000 individuals, the agencies discovered many cases of potential fraud and absconding criminals, in addition to nine individuals with terrorist links masquerading as U.S. merchant mariners.

During the Iraq war, a number of merchant mariners who wanted to serve on Military Sealift Command (MSC) ships did not receive clearance from a joint screening conducted by the U.S. Coast Guard, the FBI, and the U.S. Navy. It is expected that mariners will be issued new identification cards in 2004 using biometric technology as part of the Transport Worker Identification Credential program, replacing the traditional Z-card issued by the Coast Guard. Although biometric technology has many advantages, it is fairly complicated and expensive to implement.

The use of Global Positioning System satellites and radio frequency identifica-

U.S. NAVY (ANDREW M. MEYERS)

*The tanker sector had a good but volatile year, in part because of the war in Iraq. Here, the U.S. Navy guided-missile cruiser* Chosin *(CG-65) enforces an exclusionary perimeter around the Mina-Al-Bkar oil terminal as the tanker* AbQaig *takes on oil. The* AbQaig *is the first commercial vessel to receive Iraqi oil as an offshore customer since 1991, outside the U.N. Oil-for-Food program.*

**Table 2: Maritime Security Program Participants and Fleet**

| Participant | Fleet |
|---|---|
| American Ship Management, LLC | 9 containerships |
| American International Car Carriers | 3 RO/ROs |
| Central Gulf Lines, Inc. | 3 RO/ROs |
| E-Ships, Inc. | 3 containerships |
| First American Bulk Carrier Corp. | 2 containerships |
| First Ocean Bulk Carrier I, LLC | 1 containership |
| First Ocean Bulk Carrier II, LLC | 1 containership |
| First Ocean Bulk Carrier III, LLC | 1 containership |
| Maersk Line, Ltd. | 4 containerships |
| OSG Car Carriers, Inc. | 1 RO/RO |
| U.S. Ship Management, Inc. | 15 containerships |
| Waterman Steamship Corp. | 3 LASH and 1 RO/RO |

*Source:* U.S. Maritime Administration

tion (RFID) technology to enhance port and container security has received considerable attention. A recent study found that the RFID technology would offer the added benefit of financial savings—more than $220 per container—for the shipper. In addition to the federal initiatives, at least one state has begun its own maritime security program. New York has established the New York State Strategic Center for Port and Maritime Security with $1.5 million in startup funds from the state. The project involves SUNY Maritime College, Stony Brook University, and Brookhaven National Laboratory.

• *Maritime Promotional Policy.* The Maritime Security Program (MSP) that replaced the old operating differential subsidy program in 1996 (and is due to expire on 30 September 2005) has received its second lease on life. The original MSP fleet consisted of 47 militarily useful liner vessels, e.g., containerships and roll-on/roll-off ships. The owners of these vessels received $2.1 million per ship to offset their higher operating cost as a quid pro quo for their governmental use in times of need. Although this was less than what those shipowners received under the old program, it was a welcome relief to those who anticipated elimination of all such subsidies by Congress in the mid-1990s. Given today's security-conscious environment, the lobbying for reauthorization of an expanded MSP by shipowners and maritime labor unions has met with at least partial success.

The newly approved MSP will include 60 U.S.-flag ships for ten years. However, rather than the $3.5 million per ship per year subsidy that was proposed, a sliding scale has been established: $2.6 million for fiscal years 2006-8, $2.8 million for fiscal years 2009-11, and $3.1 million for fiscal years 2012-15. There will be four categories of eligibility based on ownership and also priorities for the award of new agreements. Accordingly, the first five slots of the new MSP program will be for tankers owned by U.S. citizens, to rectify problems highlighted during Operation Iraqi Freedom. Financial assistance for construction of these tankers in U.S. yards will be provided through the Defense Authorization Act for Fiscal Year 2004 (H.R. 1588). The act establishes a National Defense Tank Vessel Construction Assistance Program that will give U.S. citizen owners up to 75% of actual construction costs, to a maximum of $50 million per ship.

The current MSP participants and their fleets are listed in Table 2. It is worth noting that Maersk Line has received approval from the Maritime Administration (MarAd) to take direct control of the 15 containerships previously owned by Sea-Land and presently operated by U.S. Ship Management. This would make the Danish firm the largest MSP beneficiary. The move was being challenged by U.S. Ship Management. Also, the nine containerships operated by American Ship Management (and owned formerly by APL) now are owned by Neptune Orient Lines, a Singapore-based company with significant governmental stake.

• *U.S.–China Bilateral Agreement.* There is now a successor to the old U.S.–China maritime agreement that expired in 1998. After almost five years of negotiation, the two nations signed the new document in December 2003. It will allow greater freedoms for U.S. firms (which includes third parties such as non-vessel-operating common carriers and freight forwarders) to compete more effectively in the Chinese market. In return, Chinese carriers are expected to graduate from their "controlled carrier" status with the Federal Maritime Commission (FMC). Controlled carriers are required to post 30-days notice before making rate reductions, unlike other carriers. This precludes their ability to make timely market-driven responses. The lifting of this status will free the rapidly growing Chinese carriers to enhance their U.S. market share tremendously.

• *Antitrust and Other Regulatory Developments*. The ongoing saga of corporate scandals, abuse of power, and erosion of business ethics also hit the maritime sector, albeit at a relatively modest level. The National Customs Brokers and Forwarders Association of America and the International Association of Non-Vessel Operating Common Carriers filed a joint petition alleging discriminatory practices by the Trans-Pacific Stabilization Agreement, a discussion agreement that includes all major transpacific liner operators during the 2002-3 contracting season. The fact-finding investigation by the Federal Maritime Commission was settled in 2003, according to which the carriers involved denied wrongdoing but agreed to refrain from certain practices in future. The Trans-Pacific Stabilization Agreement was fined $1.35 million, or about $96,000 per member.

The Federal Maritime Commission itself came under severe criticism for the high civil penalties it imposed on Sea-Land and some of the intermediaries for tariff violations. There is an industrywide view that although the violations technically were "prohibited acts," by continuing to aggressively enforce tariffs in an age when market forces are expected to play a bigger role in shipper-carrier relations (such as through confidential service contracting provisions) the FMC is being overzealous and even out of sync with the realities of the marketplace. Most stakeholders do not see the need for ongoing tariff filing and the enforcement role of the FMC.

This was a particularly bad year for the parcel tanker industry, a very specialized, niche-oriented sector that typically does not get embroiled in antitrust issues. Four prestigious operators—Jo Tankers BV, Stolt Nielsen SA, Odfjell Seachem AS, and Tokyo Marine—were targeted for antitrust violations by the U.S. Department of Justice. The allegations included collusion and cartel behavior such as rigging bids, setting prices, and dividing the market. Stolt Nielsen received conditional amnesty from U.S. prosecutors and is now under review for subsequent violations, and its U.S.-based managing director was charged for his role in the conspiracy. The chairman and a vice president of Odfjell Seachem pleaded guilty in October 2003, followed by a former executive of Jo Tankers in December 2003. These decision makers' desire to establish supra-market prices could be perceived as human frailty, but expecting to get away with such illegal acts in this day and age is totally irrational. In the case of Stolt Nielsen, it is believed its illegal activities were spurred by huge losses sustained in unrelated corporate ventures, such as Stolt Offshore and Stolt Sea Farm.

Global developments:

• *Security-Related Developments*. The International Ship and Port Facility Security (ISPS) Code will become mandatory on 1 July 2004 and the Safety of Life at Sea Convention amended accordingly. However, there is a concern on the part of the International Maritime Organization (IMO) and other observers that this might become yet another regulation that exists solely on paper. Hastily prepared security plans and their routine acceptance by flag states will not promote the objectives of the ISPS Code. The European Union (EU) has taken the ISPS Code to a higher level by expanding its provisions to include the entire port and surrounding areas. The cargo reporting rules in the EU also are different and mandate that cargo manifests be transmitted to EU Customs 24 hours before the goods are presented to Customs.

A new international Convention on Seafarer's Identity Documents will go into effect in 2004 despite U.S. opposition. Possession of this document would allow seafarers to enter ports in other countries without visas. The United States eliminated crew visas in December 2002 and will not issue an entry visa for a crew member other than through personal appearance at a consular office.

• *Maritime Piracy*. Ironically coinciding with the huge financial success of Hollywood's *Pirates of the Caribbean*, 2003 was a record year for maritime piracy. There were 445 attacks on merchant ships in 2003, a 20% increase from 2002. The number of seamen killed in these attacks increased to 21, a 110% jump. Other related grim statistics include 71 missing and 88 injured crew and passengers, and 359 hostages taken. One hundred twenty-one of the reported incidents occurred off Indonesia, 58 off Bangladesh, and 39 off Nigeria, the three top areas of maritime piracy activities. It is mind-boggling that when it comes to protecting maritime commerce, our initiative and ingenuity fall far short of those of a handful of determined petty criminals. A fully loaded oil tanker in restricted waters under piracy or terrorist attack is no less a weapon of mass destruction than any other we might build. This area needs the immediate attention of all nations interested in a global economy, for left alone, it has the potential to disrupt globalization as we know it today.

• *New Tanker Regulations*. Last year was a landmark year for tanker shipping for a number of reasons, one being that for the first time in history we now have more double-hull tankers in operation than single-hull tankers. The *Prestige* incident off the Spanish coast and pressure from the European Union led to rapid amendments to the MARPOL regulations. As per the new IMO Amendments approved in December 2003, the single-hull tankers that were to be phased out by 2015 now face phase-out by 2010. This does not preclude a flag state from extending the deadline up to 2015 for tankers 25 years and younger on a case-by-case basis. However, other nations will have the right to ban such ships from entering their ports.

Aggressive implementation of single-hull phase-out would create a capacity crunch in the market. Tanker owners with good modern tonnage are in for a return of the golden years of tanker shipping (experienced originally in the mid-1970s).

The amendments also include a new double-hull requirement for the transportation of heavy grade oil such as heavy crude oil, fuel oil, bitumen, tar, and their emulsions that will go into effect as early as 5 April 2005. In addition, the Condition Assessment Scheme—enacted subsequent to the *Erika* disaster off the Brittany coast of France in 1999—whereby flag-state administration reviews and confirms the results of surveys on single-hull tankers conducted by a classification society to assess the condition of the ships concerned, has been expanded. The new requirement would go into effect for single-hull tankers (5,000 deadweight tonnage and above) when they are 15 years old, in contrast to the previous 25-year age threshold.

There are a number of remarkable developments to note here. The time between a shipping catastrophe in a sensitive region with political clout (such as


AGENCE FRANCE PRESSE (MIGUEL RIOPA)

*Built in France at a cost of $800 million, the* Queen Mary 2 *completed her maiden transatlantic voyage early this year, departing Southhampton on 12 January for the 14-day cruise to Fort Lauderdale.*

the EU) and the enactment of new legislation aimed at preventing such catastrophe is becoming increasingly short. If such regulatory steps are adopted as expeditiously (as in the *Prestige* case) regardless of where the next shipping disaster occurs, it would be true progress toward safer sailing and cleaner oceans. Some would argue that, like the U.S. enactment of the Oil Pollution Act of 1990, the European Union is pursuing an aggressively interventionist policy. The increasing clout of the EU in initiating new shipping legislation is beyond question.

• *Liner Shipping Regulation in Europe*. In a major victory for members of the Trans-Atlantic Conference Agreement, the record $300 million fine imposed against them by the European Commission in 1998 was annulled by the Court of First Instance of Luxembourg for procedural reasons and lack of evidence. Despite this, liner conferences had little solace during 2003, as the EU Competition Directorate is vigorously reexamining its Regulation 4056/86 that grants exemption from EU competition law to liner conferences. This is a drastic change in European attitude toward liner conferences, especially as many U.S. trading partners historically have viewed the Federal Maritime Commission's regulation of liner shipping as extraterritorial application of U.S. rules on a global business.

• *Other Regulatory Developments*. In early 2004, after ten years of negotiations, the IMO finally agreed to a new regulation for ships' ballast water. Once it is ratified by the required number of nations, only ten organisms in every cubic meter of ballast water will be allowed. The U.S. proposal was to limit this to 0.04 organisms per cubic meter.

### Market Developments

Fearnleys, a Norwegian shipbroker, estimates world seaborne trade grew 4.4% in 2003, approximately three times the growth rate for 2002. This has affected every shipping market substantially, although none could match the spectacular gains of the dry bulk market.

• *The Dry Bulk Market*. Every category of dry bulk other than grain experienced significant increase in volumes transported. It is believed that more than half of these increases were related to the Chinese economic growth in general and its steel trade in particular. The market value of dry bulk carriers and their 12 months time charter rates exploded during the fourth quarter, with capacity utilization estimated to be in the mid-90% range. The average daily hire rate in the spot market for all bulk carriers almost tripled in 2003 compared to 2002.

• *The Tanker Market*. The tanker sector also enjoyed one of its best years since the mid-1970s. Unlike in the dry bulk sector, freight rates in the tanker market were very volatile, with market highs at the early part of the year and toward the last quarter. A number of reasons have been cited for the tanker market performance, including the war in Iraq, supply disruptions in Venezuela and Nigeria, congestion in the Bosporous and Dardanelles straits, and severe winter weather in the Northern Hemisphere, as well as the significant increase in oil consumption in China and other fast growing Asian countries. R. S. Platou estimates tanker capacity utilization rates of close to 90% will continue in 2004.

• *The Liner Market*. Liner operators experienced a year of strong commercial results. There are two remarkable developments to note. The first is the resurgence of transpacific all-water routes to the East Coast, a trade that was almost written off barely a decade ago during the onslaught of the intermodal/double-stack revolution. There are 19 such routes today (18 for the East Coast and 1 for the Gulf Coast). The Panama Canal and the East Coast container ports are the big winners here. The second development is the evening out of the peaks and valleys typical in transpacific eastbound container shipping. The elimination of a distinct peak season and the relative stability in volumes moved throughout the year should provide a modicum of comfort for operators who have been subject to the seasonality of trade from the very beginning of liner shipping services.

The U.S. liner trade, in particular the transpacific trade, remains highly imbalanced, with imports far exceeding exports, despite a weakening dollar. Waste paper, the largest U.S. export commodity in volume, reached a new high with 734,000 containers (20-foot equivalent units, or TEUs). There is a move on the part of carriers to raise the freight rate of this cargo in 2004.

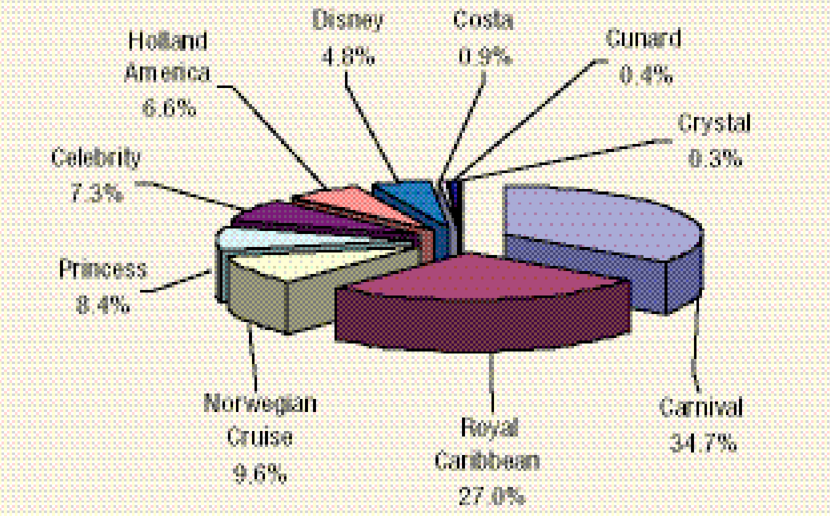
As in other trades, China plays a major role in the liner sector, and shipped more than half of the 9 million TEUs that came to the United States from Asia. Most top-tier operators are reporting a return to profitability despite the problem of increasing empty container movements. It is estimated that liner operators now spend about $1 billion annually solely for positioning their empty containers.

Structurally, the liner sector is experiencing increased economic concentration, with the top 25 operators controlling 25% of the global capacity. Ten of the top 15 carriers now are based in Korea, Taiwan, China, Japan, and Singapore. Although container carrying capacity is expected to increase close to 10% for the next three years, rate levels are expected to remain profitable and operators are likely to receive the increases they demand during contract negotiations (usually held in May each year). Three top operators (CP Ships, Hapag-Lloyd, and P&O Nedlloyd) have announced changes at the top executive level. P&O Nedlloyd has announced its impending transformation to an independent, publicly listed company, not affiliated to any large parent company—unlike other public liner companies in existence today. Royal Nedlloyd reportedly will buy out the 50% P&O interest, ending a prestigious era in British liner shipping history. The brand name P&O Nedlloyd is expected to continue.

• *Cruise Shipping*. The *Queen Mary 2* (150,000 gross tons), the world's newest and largest passenger liner, entered service in late 2003 and has replaced the venerable *QE 2* on the transatlantic run.

The U.S. cruise industry is growing because of the increasing number of 45+ year-old baby-boomers, the demographic group most likely to take an ocean cruise. Carnival, the market leader, now controls 13 brands, including P&O Princess Cruises, its latest acquisition. It also has 17 new ships on order. Operators are capitalizing on passengers' reluctance to fly in the post-9/11 era, and cruise vessels increasingly are being placed in regional hub locations within driving distance from major markets. However, almost two-thirds of all direct expenses of the U.S. cruise industry still is spent in Florida, California, New York, Alaska, Washington, and Texas (in descending order). Mexico is now the most popular cruise destination for Americans. Figure 2 shows the market share of major cruise line operators in the United States for 2003.

**Figure 2: Major Cruise Line Market Share, 2003**




• *Short-Sea Shipping*. There are many efforts under way to promote short-sea shipping in the United States, especially along the Atlantic seaboard. It appears the focus is on mitigating congestion by moving containers using a hub-and-spoke system using small feeder ships off I-95 and its corridors. About 50 companies are involved in a public-private partnership called Short Sea Shipping Cooperative Program under the auspices of MarAd. Captain Warren Leback, a former maritime administrator and shipping executive, has remarked that such short-sea shipping initiatives based on import-export containers are unlikely to reach full potential. He recommends involving domestic truckers using trailers and roll-on/roll-off ships, and providing a competitively priced service for interior points. This is very insightful advice that hopefully will receive the full attention of the parties involved.

• *Shipbuilding*. The boom in freight rates and shipping markets has had an obvious impact on the shipbuilding sector. It is estimated that about twice the amount of new tonnage ordered in 2002 was ordered in 2003. All major Asian yards are fully booked for the next three years. South Korean shipyards received almost one-half of all new orders in 2003 and reported record profits for the year. China is now a strong player in new ship construction—ranking third after South Korea and Japan—and posted significant increases in new orders. Given the tight market conditions in general and the increasing labor cost in South Korea, it is expected that the Chinese builders will carve an even bigger share in future years. The Chinese government is facilitating this through careful planning, such as the recently announced goal of building the world's largest shipyard along Shanghai's Changxign Island; operations are expected to begin in 2007. By 2015, when the yard is expected to be fully operational, it will employ more than 80,000 workers and build highly sophisticated vessels, including liquefied natural gas tankers, supertankers, and cruise vessels.

An increase in shipbuilding prices was to be expected, given the ongoing tight market conditions. Add the declining value of the U.S. dollar—the currency used in quoting new-building prices—and the newly mandated accelerated phase-out of single-hull tankers, and the ingredients for a "perfect storm" in the shipbuilding sector were set in motion. Predictably, the cost of building new ships rose close to 20% in 2003. Interestingly, although the market for scrap iron also is at an all-time high, the number of ships scrapped in 2003 was far less than that in 2002.

Commercial shipbuilding continues to be a high priority action item for MarAd.

The primary impediment is the cost differential, with Asian yards pricing similar new-builds at about one-third the estimated U.S. shipbuilding price. Although some commercial construction is under way at a few U.S. yards, this primarily is for Jones Act trade. The fiscal 2005 budget does not include any increase for the Title XI loan guarantee program. The ill-fated Project America plan and the disrepute it brought to the Title XI program are stark reminders of the consequences of excessive political interference in merchant shipping and shipbuilding policy. Ironically, the *Pride of America*, one of two ships under construction in Bremerhaven for Norwegian Cruise Line and scheduled to enter the Hawaiian service with Jones Act exemption, was damaged in a severe winter storm at its fitting-out pier in early 2004. Delivery is now expected to be several months past the previously scheduled 4 July date.

### Port and Terminal Operations

Port and terminal operators on the West Coast are hoping to benefit from the new longshoremen's contract, which should enhance efficiency through automation and other streamlined procedures. It is estimated that terminal productivity will improve by 50% through better yard operations and handling efficiency. Meanwhile, negotiations are under way on the East Coast between management and the International Longshoremen's Association (ILA). It has been widely reported that the negotiations will not lead to a strike. The ILA also dealt with a corruption controversy involving the union in 2003, which led to the adoption of a code of ethics and a telephone hotline to report and deal with unethical practices.

The nation's ports also have been busy complying with the new port security requirements. The allocation of funds for security-related expenses remains controversial, with the Bush administration proposing $46 million for port security—far short of the $300 million recommended by the Senate Governmental Affairs Committee. An allocation of $40 million in government funding is now available to build a marine terminal in Philadelphia as part of the Department of Defense's Strategic Sealift Capability. This is expected to boost the decade-old fastship project and create jobs in the Delaware Valley region.

Internationally, the top 20 global container operators have enhanced their market shares, and according to Drewry Shipping Consultants, there is now a distinct stratification within that list of leaders. The global market share of the top 20 terminals operators is now 57%, of which two-thirds is that of the top four—Hutchison Port Holdings of Hong Kong, PSA of Singapore, APM Terminals of Denmark, and P&O Ports of the United Kingdom. Two U.S. firms are in the top 20, SSA Marine at number 10 and CSX World Terminals at 15. SSA Marine received a $4.8 million one-year contract to assess and then manage the port of Umm Qasr, Iraq, and is now six months into the contract. The Chinese ports of Shanghai and Shenzhen crossed the 10 million TEU throughput mark in 2003, a distinction not enjoyed by any U.S. or European port. Shanghai is expecting to handle as many as 25 million TEUs by 2020 and is planning a deepwater port at Yangshan that will accommodate 50 super-Panamax container ships.

### Outsourcing

The outsourcing of high-tech service-sector jobs to developing countries has garnered a great deal of public attention in the United States. In the maritime sector, outsourcing of some aspects such as documentation and manning has a long history. For example, APL's global documentation, once handled through North American and European offices, is now handled in Shanghai. And the concept of open registry is by all means one of the foremost examples of outsourcing in global business and shipping liberalism.

Interestingly, the world merchant fleet under major open registries shrank in tonnage by 4.7% in 2002 after years of steady growth. Although both Panama and Liberia recorded a reduction in their tonnage, they still are the market leaders and account for two-thirds of the tonnage under the top six open registries. Liberia in particular came under U.N. Security Council scrutiny, which led to a resolution in 2002 to ensure that revenues from the registry are used for legitimate purposes. In early 2003, U.N. monitors were sent to Liberia to monitor its implementation. The nation has responded with a pilot project to provide secure identity cards for seafarers in collaboration with the IMO. It is believed that the open registry tonnage reduction is a direct result of a general tightening of the fiscal rules of developed nations. Currently, according to UNCTAD statistics, 64% of the total tonnage of the 35 most important maritime countries and territories are under foreign flag. Among the developed nations, the share of foreign-registered tonnage in 2002 was 70.2%.

### Maritime Education

All maritime academies in the United States are reporting high enrollment numbers in their traditional licensing programs that prepare merchant marine and naval reserve officers. This is rather ironic because the declining fleet is bound to affect the academies' ability to place these midshipmen in merchant shipping billets. In addition, the academies must consider the impact of potential oversupply, especially as most U.S. merchant mariners are unlikely to sail on open registry fleets for a variety of reasons.

One new growth area in education is security training. In addition to traditional maritime institutions, private entrepreneurs have a strong presence in this field. For example, SeaSecure, a Ft. Lauderdale-based company is now active in more than 90 countries and 165 seaports, and recently was awarded a contract to provide maritime security and antiterrorism training to the Marine Department of Hong Kong, SAR.

### Outlook

The global merchant marine likely will experience another year of growth and optimism in 2004. Although some question the ability of the Chinese economic engine to continue driving the world economy, every indication is that it will continue to do so for the near future. The fast growing Indian economy is another Asian market that will fuel significant growth in trade. The attention given to port and maritime security in major seaports the world over will increase. Although there will be some efforts to increase the attention given to the maritime sector in this country, given the dynamics of an election year, this is unlikely to make any significant progress. So, here's wishing our mariners "safe seas and fair winds" until next year.

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