INSIDE THE LETHAL WORLD OF BULK CARRIERS

DEATH TRIPS ON THE SEVEN SEAS

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ColdType
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PART ONE

A long rough voyage to the bottom

Late on the night of December 22, 2001, a mammoth merchant vessel, the Christopher, was caught in a North Atlantic storm. Captain Deepak Gulati radioed to shore that his ship was “taking a beating” from fifteen-meter waves but otherwise was in good shape. On that or a later call, he said the hatch cover closest to the ship’s bow had become dislodged. Soon after, contact was lost; no mayday call was ever received.

It is hard to believe that a ship the length of three football fields could have gone from fully afloat to completely submerged in as little as five minutes, but that could well have been what happened. Once the storm had moved out of the area, a helicopter search was ordered. But there remained no trace of the accident beyond an oil slick, an empty lifeboat, a raft, and one lifejacket. The search was called off on Christmas Day. The Christopher’s twenty-seven crew members – citizens of Ukraine, the Philippines, and India – were all dead.

Deepak Gulati was my brother-in-law. A resident of Mumbai, India, he had been guiding the Greek-owned, Cyprus-flagged, coal-laden bulk carrier from Puerto Bolívar, Colombia to a steelworks in the north of England when, west of the Azores, he and his crew ran into the storm that ended their lives. When my wife Priti first received news that radio contact with her brother had been lost, I assured her in my naivety that the problem must have been no more serious than a breakdown of communications equipment.

“...and it’s only when you meet the people who actually worked on the ships that you begin to understand how fragile it all is...”

- Captain John. Senior Officer, Billingsgate, the British Home Fleet
sinking and seafarers keep dying.

An estimated 90 percent of all goods moving between countries is hauled by sea. On any given day, approximately 53,000 ships are engaging in international trade, earning at least $380 billion annually in freight rates.

The container trade is the most visible sector in shipping traffic, but a much larger volume – about two out of every three ton-miles worldwide – is accounted for by just four types of bulk cargoes: oil, coal, metallic ores, and grains.

If a merchant-shipping disaster manages to make the national or international news, it most likely involves a petroleum tanker. The sometimes catastrophic environmental damage created by an oil spill draws attention in a way that the loss of a dry-bulk carrier loaded with relatively harmless wheat, coal, or iron ore – along with a couple of dozen seafarers – cannot. The Christopher tragedy was typical, leaving almost no mark on that day’s world news. Outside of the shipping trade press, there was but a single brief wire-service report of the sinking.

A spike in bulk-carrier losses during the 1990s alarmed international authorities, prompting a flurry of investigations, international conventions, treaty revisions, and tightened in-port inspections, all aimed at making ships safer and improving the working conditions of seafarers. Those measures were credited with bringing a decline in casualties enjoyed by global shipping for a brief period earlier in this decade.

But for at least three decades, safety efforts have been fighting upstream against two powerful currents: breakneck growth in the volume of trade and ruthless cost-cutting by shipping-company owners. Those currents have led toward steadily intensifying exploitation of both seafarers and equipment.

The global economy’s biggest boom years pushed the system to its limits. By early 2008, the International Union of Marine Insurance was reporting that ships and crews were “being driven harder than anyone can remember.” Partly as a result, reported the classification society Det Norske Veritas, “a ship is twice as likely to be involved in a serious grounding, collision, or contact accident today compared with only five years ago.” Panamanian-flagged ships had been sinking at the rate of one per month over the previous year, with a total of sixty-five lives lost.

Then, thousands of ships were suddenly idled when the global economic crisis struck in late 2008; however, economic pressures, if anything, intensified. Cost-cutting meant continued reductions in crew sizes and turnaround times in port, with rushed loading and maintenance and widespread seafarer exhaustion as inevitable results. By mid-2009, the number of ships detained by Asian port authorities for safety or labor violations had begun rising, after years of decline.

Cargo ships continue to go down with grim frequency. Late last year, three bulk carriers – the Hong Wei, the Nasco Diamond, and the Jian Fu Star – sank off the southeastern coast of Asia, all within about a month. All three flew the Panamanian flag and all were carrying nickel ore from Indonesian mines to China for use in steelmaking. A total of forty-four crewmembers, all Chinese, lost their lives.

At all three sites, by the time helicopters moved in to pick up survivors and some of the bodies, the ships had vanished; only oil slicks remained. That was grim enough, but rescue crews can at times be greeted by more graphic scenes of horror. In late 2009, the I, a 660-foot-long livestock hauler – which, in its thirty-four-year lifetime,
had flown the flags of Sweden, Singapore, Liberia, St. Vincent and the Grenadines, and, finally, Panama – sank in a Mediterranean storm. Having loaded 10,000 live sheep and 18,000 live cattle in Uruguay, the decrepit former vehicle carrier had been headed for Syria. More than forty members of its crew of eighty perished; rescue attempts were severely hampered by the difficulty of spotting human survivors among tens of thousands of thrashing animals and floating carcasses.

A rudderless industry?

Over the past few decades, one feature of international shipping that has set it apart from most land-based industries is the fuzzy geographical identity of the workplace. Owners have increasingly exercised their freedom to choose, ship by ship, the nation in which each vessel is legally owned, the nation (the so-called “flag state”) in which it is registered, and the mix of nationalities hired to crew it.

In selecting a specific combination of corporate identity, registration, and crew – often spanning several countries – a ship’s owner is, in effect, deciding on the level of regulation and taxation to which the ship will be subjected. For many owners and operators, of course, the goal is to hold down expenditures on ships, equipment, and safety and to hire crews that will accept low wages.

The Christopher’s meandering eighteen-year life story followed the standard script in late twentieth-century shipping. The 140,000-ton Capesize bulk carrier – the largest class of dry-cargo vessel – was built in 1983 for Belcan, a Belgian subsidiary of a Canadian company called Fednav. It was christened the Federal Skeena, registered under the flag of Belgium, and launched from the Dutch port of Hoboken.

Over the next eighteen years, the ship had its name changed twice. It was sold three times – to French, Panamanian, and Greek companies – and its Belgian national flag was replaced by the flags of Luxembourg, then Panama, and finally Cyprus.

More than half of the world’s seaborne goods trade is now done under the flags of so-called open registries like those of Panama and Cyprus. Although they vary in quality, open registries generally have at least some characteristics of a “flag of convenience” – a label that critics typically slap onto a registry if it does some or all of the following: permits registration of ships by non-citizens; offers fast, easy, cheap registration and minimal to nonexistent taxes; plays an important role of the economy of its (usually) small host nation; and allows the ships it registers to employ seafarers from almost any nation.

Long-established open registries like those of Panama, Cyprus, and Liberia have gained respectability in recent years; meanwhile, more threadbare flags of convenience have been offered elsewhere, in out-of-the-way places like Cambodia, Belize, Honduras, the Marshall Islands (the flag state for BP’s ill-fated Deepwater Horizon oil rig), and even landlocked Bolivia and Mongolia.

A refuge for ships rejected by more reputable registries. But ships flying more traditional flags also continue to sink.

The Christopher, like many bulk carriers and other ships, was owned by a so-called one-ship corporation. Through such a device, individuals or companies that actually own ships can not only limit their liability for accidents, losses of cargo, and fatalities to the value of the affected ship, but can also operate even more deeply in the economic shadows. Tracking the actual ownership of merchant ships through multiple, complex layers of registration
Almost half of the 2500 shipwreck deaths during that decade occurred on ships flying the flags of ten nations: Cambodia, Taiwan, Cyprus, South Korea, Syria, St. Vincent and the Grenadines, Belize, India, Indonesia, and Panama. Death rates on ships registered in those nations were seven to twenty-three times as high as the rates of ships flagged in the wealthy nations.

How bulk carriers sink

The terrible convergence of forces that sank the Christopher will never be fully sorted out. It had been detained twice by port authorities for safety violations. The second detention was for five days in Ningbo, China in the spring of 2001 after inspectors cited “severe structural problems” that included, according to the trade publication TradeWinds, “corrosion and cracked deck girders and deck beams in the area of three cargo holds.”

Examination by remote-controlled underwater cameras could have answered many of the questions surrounding the wreck. Experts estimated that an underwater search and investigation would cost $1.8 million. Despite strong confidence that an investigation, in the words of TradeWinds, “could finally determine whether a structural weakness in the vessel contributed to its sinking,” the necessary funds could not be raised. Investigations of ship losses are the responsibility of the flag state, but the Cyprus Department of Shipping said that the cost would exceed its entire accident-investigation budget for the year. Cyprus would need help from the ship’s owners, and they refused to chip in. The European Union’s maritime authorities declined as well.

The failure of Cyprus to investigate came as no surprise. Open registries are
not eager to investigate the actions of their client companies and thereby risk driving away future business. The last bulk-carrier loss on the open seas to be subjected to thorough investigation was that of the UK-owned Derbyshire, which sank way back in 1980 in the North Pacific. Its entire crew of forty-four, all British citizens, perished. It took fourteen years of pressure from the British public before a remote-camera search and investigation were finally done.

When today’s rootless ships sink, taking faceless crews to the bottom with them, there is no chance of full investigations. Nevertheless, we do know something about how losses occur. A survey of 125 bulk carriers that preceded the Christopher to the ocean floor between 1963 and 1996 found that seventy-six probably flooded—thirty-two of those from hull cracks mostly affecting the foremost section, another four because of hatch-cover failure, the rest from unidentified causes. Nine other vessels somehow broke completely in two. Causes of the remaining forty losses are total mysteries.

Based on the Derbyshire investigation and other studies, it appears that structures of aging bulk carriers can suddenly snap apart when corroded frames and bulkheads give way under heavy loads and sometimes harsh sea conditions. Steel inevitably weakens in the constantly damp, salty air of the maritime environment, more so when it’s in contact with corrosive bulk cargoes. (Other factors can add to the risk. The Christopher, while still known as the Federal Skeena, had been “jumboized” with the insertion of an eighty-foot-long midship section that increased its deadweight to 165,000 tons; when it sank, some speculated that the expansion had weakened its structure.)

In bulk-carrier sinkings, industry experts believe that the most common scenario goes like this: In rough seas, water crashes over the ship’s bow; at the same time, the hatch cover on the foremost cargo hold is dislodged to the point that seawater is able to pour into the hold. Ore or coal in the hold mixes with the water to form a highly dense slurry that, with the ship’s motion, sloshes with enough force to break the bulkhead between the first and second holds. Should that happen, according to the International Maritime Organization, “progressive flooding could rapidly occur throughout the length of the ship and the vessel would sink in a matter of minutes.”

But bulkers can founder even if there’s no major storm or hatch-cover failure. All three of those ships that sank in Asian waters in late 2010, for example, were carrying nickel ore, which, when loaded under damp tropical conditions, can form the same kind of dangerous slurry. Unbalanced cargo loading, often the result of today’s merciless time pressures, can also get a ship into deep trouble, whatever other threats might be looming.

International ship-safety standards have existed, in the form of the Convention for the Safety of Life at Sea (SOLAS), since soon after the sinking of the Titanic in 1912. Over the past century, SOLAS has been repeatedly amended to keep pace with new hazards and new potential solutions. In the years since the Christopher went down, international regulations involving bulk carriers have been upgraded several times. Resolutions on improved hatch covers, double-skin hulls, hull coatings, stronger frames, water-ingress alarms, better cargo-loading procedures, and more frequent, thorough, and consistent inspections by port authorities all have been passed. Some measures apply to new ship construction, some to existing
Late last year, the Danish shipping giant AP Moller Maersk announced robust third quarter profits of $2.25 billion. To get the good word out, the company’s chief operating officer sent a message to his crews aboard ships around the world, inviting them to join him in celebration by having a piece of traditional Danish lagkage, a kind of cream cake.

Mark Dickinson, head of Nautilus International, a seafarers’ union, scoffed at the boss’s invitation, comparing it to French monarch Marie Antoinette’s infamous “let them eat cake” comment. Noted Dickinson, “The profits have been achieved on the back of job losses for highly skilled and experienced personnel, and cuts in operating costs that have left some ships with food budgets that would barely run to covering the costs of cooking cream cakes.”

The United States is no longer a major seafaring nation, but we have become increasingly dependent on the volatile global shipping industry. Cargo vessels registered in the United States and Canada account for only 1 percent of global shipping capacity; however, a far larger share of world cargo traffic moves to or from our ports.

It has been well documented that our
overconsumption is fed by the toil of low-paid workers in factories, farms, mines, and oilfields in other countries. But with 90 percent of all international cargo being hauled by sea, we also rely heavily on the exploitation of seafarers, mostly from low-income countries. And it’s not just our personal consumption; the health of our overall economy has become deeply dependent on rapid growth of the world economy, and therefore on the world’s seaborne workforce. Just in the past two decades, the tonnage of cargo carried by oceangoing ships worldwide has doubled. And since 2001, shipping volume has been growing at twice the rate of the overall world economy.

That growth has not been steady. In the shipping industry, booms tend to be bigger and busts steeper than in the global economy as a whole. But as viewed from deck level by more than a million seafarers across the globe, the past few decades have been nothing but one long bust.

More than anything, tired

In his 1989 history Between the Devil and the Deep Blue Sea, Marcus Rediker located the roots of late twentieth-century global capitalism in the world of early eighteenth-century merchant shipping. Life at sea had never been easy; now buffeted by harsh new economic forces, seafarers of the 1700s found it even tougher to make a decent living. The one-two punch of natural and human-made hazards has plagued the industry ever since.

Today, with shipping having become just another gritty industrial activity, any aura of romance and adventure is long gone. Bad weather and rough seas continue to pose serious threats, and those hazards are compounded by market forces far more fearsome than those of three centuries ago.

A 2006 International Transport Workers’ Federation report concluded that while some of the exploitation of workers at sea could be blamed on “exceptional rogue elements” in the shipping industry, the bigger problem lay in more “routine exploitations” imposed by the evolving global marketplace.

As in many industries, payrolls have been cut relentlessly. Ships’ crews are only half the size of the crews of three decades ago, and they are operating much larger vessels.

Capt. Li Chi Wai, who heads the Hong Kong Seamen’s Union, explained the shipping companies’ position to me this way: “With all of their expenses – for supplies, fuel, maintenance, etc. – rising, the only thing shipowners have the ability to cut back on is salary. That means keeping crews small and pay as low as possible.”

With the stretching of smaller crews to cover all tasks on the typical cargo ship, the average work week has swelled to almost seventy hours. Half of all seafarers responding to one survey reported working more than eighty-five hours per week. Some international standards actually permit up to ninety-eight hours of duty per week, a truly inhuman schedule.

Even those standards tend to melt away under the heat of global competition. In a study of port-state inspections in the UK, Russia, and India, the Cardiff, Wales-based Seafarers’ International Research Center concluded that “current regulations on hours of work and rest were found to be, to all practical purposes, unenforceable.”

In those short rest periods that are per-
clampdown that followed the attacks of September 11, 2001. In one positive development, the extreme restrictions faced by crewmembers wanting to go ashore for a break, especially in U.S. ports, may be eased somewhat under a new port-security law that was signed by President Obama in October.

But even when, following the longtime custom of sailors everywhere, they are permitted go ashore, have a few beers, and relax, many of today’s seafarers may not have the energy for it. That long-prized benefit of the maritime life – “seeing the world” – is not a high priority for the shipboard workers that Rev. Ellis meets daily. “Their goal is just to fulfill the contract,” he says. “More than anything, they all seem so very tired.”

And, of course, technology is transforming the crews’ social world. Soon, most will have constant access to the Internet at sea. But, says Ellis, “that may not be all positive. With their minds more and more on problems back home, will they be even more isolated from fellow seafarers?”

Death at sea

Accidental injury and fatality rates in merchant shipping are among the highest in any industry. In one worldwide sample of workers at sea, 9 percent reported having been injured just within the previous year. Threats posed by life on the open ocean are compounded by other health threats common in heavy industry: machinery accidents, constant loud noise and strong vibration, exposure to toxic chemicals and asbestos, and buildup of poisonous gases or depletion of oxygen in confined spaces. Seafarers have significantly elevated risks of musculoskeletal disease, cancer, respiratory infections, cardiovascular disease, and hearing loss.
Death rates in European merchant fleets have declined steeply over the past twenty years, partly because of improved safety practices and partly because a large share of lower-value cargo shipping has been handed off to less safety-conscious nations. Yet the most recent estimates from ships flagged in the United Kingdom and Denmark show that merchant seafarers remain about twelve times as likely to die from work-related accidents as are workers in shore-based industries.

There are very few hard numbers on fatality rates in merchant fleets registered in nations of the global South. Some reports have concluded that overall, the world fleet has a fatal accident rate two and a half to three times that of the British-flagged fleet. The annual number of accidental deaths among the world’s one million or so seafarers in recent years has been estimated at around 3,300. That figure does not include deaths due to suicides, homicides, or diseases.

In the 1700s, according to Rediker, piracy of ships by their own crews was the ultimate collective-bargaining weapon in struggles with captains and owners. But for seafarers today, the recent plague of piracy off the east coast of Africa has had no upside. Last year, piracy off the coast of Somalia costs the world economy $12 billion. More importantly, crews unlucky enough to be sent into those seas are asked to carry yet another burden of grave danger.

Piracy today accounts for a tiny percentage of all seafarers deaths; however, the risk is rising. According to a 2010 Associated Press report, “Better trained and protected crews are increasingly able to repel attacks, but pirates eager for multimillion-dollar ransoms are now resorting to violence much more often to capture ships.” At the end of 2010, 470 seafarers were being held hostage by Somali pirates.

A rising tide doesn’t lift all wages

Since the 1970s, ownership of vessels and hiring of labor have shifted dramatically from Western Europe and North America to low-wage countries, and ship registration has continued its shift toward so-called flags of convenience.

Today, out of every five people employed in international sea trade, one is Filipino. Seafarers pump more than $2 billion worth of foreign earnings into the economy of the Philippines, greatly easing its trade deficit. But recently, concerns have arisen that the nation’s seafarers are becoming less competitive on the labor market because, according the Philippine Center for Investigative Journalism, Chinese and Eastern European mariners “are relatively at par with Filipinos in terms of skills, but accept lower wages.”

Chinese seafarers like Gang Bo – a cadet from Shanxi province whom I met at Hong Kong’s Mariners’ Club as he returned from a six-month voyage – represent the fastest growing segment of the world’s maritime workforce. Gang Bo works on Taiwanese-owned, Hong Kong-registered container vessels, shuttling back and forth to the port of Long Beach, California. Life aboard ship, he says, is boring and often frustrating, because it keeps him cut off from the world for weeks at a time with only the same 20 guys for company.

But working on a reasonably well-run container ship, he seems to have it better than either the average worker on a cut-rate bulk carrier or any of the other seafarers I’ve spoken with. He and his shipmates get as many as five days in port in Long Beach and are permitted ashore. He says, “We shop for our own provisions. The fruit in California is very good.” Coming from
forfeit the paychecks from their first couple of months’ work), demand fees to enroll prospects in training courses, require bond money, or simply take payments from their targets without supplying them a job at all.

Seafarers who complain about their wages or working conditions, or those who seek membership or help from a union, risk being blacklisted. There is evidence that manning agencies and shipping companies circulate lists of such workers, ensuring that they cannot secure jobs anywhere in the industry.

Broke and stranded

As world demand for goods was collapsing in the recession year of 2009, companies littered ports around the world with their financially crippled ships, abandoning both the vessels and their unpaid crews, with thousands of miles often separating the seafarers from their homes. In such cases, crews have no choice but to remain on board ship in a foreign port, often with little or no money to replenish food supplies. Even if they could afford to go home, most would not; if crew members leave the ship, they are unlikely ever to recover their back wages. At one point last year, more than two hundred seafarers were known to be living, unpaid, aboard abandoned ships.

To see how crews manage when faced with such predicaments, I joined Rev. Ellis on one of his regular visits to a small container ship anchored far out in Hong Kong Harbor. In September, the crew of the 2000-ton Marie T., owned in the Philippines and flagged in Panama, had had the ship “arrested” for nonpayment of back wages. Their wage bill had reached $100,000, and the crew stood in a long line with other creditors. The total debt
was approaching the ship’s entire $1.2 million value.

Four of the eight crew members had been repatriated, putting their trust in promises that they would eventually be paid. Meanwhile, the Danish captain, the Swedish chief engineer, and two Filipino ABs had been living aboard the idled ship for six weeks (in what turned out to be an active typhoon season) and faced several more sweltering months bobbing in the harbor before the owner could be forced to sell the ship at auction and the crew could go home – where they would be forced to wait three additional months until their paychecks could be released.

The chief engineer was the crew’s designated spokesman. A tall, sixtyish, soft-spoken fellow who didn’t give his name, he’d worked in ships’ engine rooms for much of his life. But in the spring of 2010 he had been working a shore job in Manila for the ship’s owner when he finally became fed up with his boss’s chronic failure to deliver a paycheck. When he learned that the Marie T’s chief engineer at the time had left the ship, he saw an opportunity: “It became clear to me that the only way to force the owner to pay me what he owed was to get on board this ship.”

He joined the Marie T at her next port; three months later, after discharging the vessel’s final load at Hong Kong’s huge container port, he and the other crew members filed an action against the owner in the local courts.

The Marie T was the last of ten ships arrested in Hong Kong in 2010, over issues ranging from unpaid loans to failure to pay wages; arrested ships have sat idle in the harbor for as long as fourteen months at a stretch. The Hong Kong courts are among the strictest in enforcing actions against delinquent ship owners. Standing there on the bridge in a grimy, sweat-soaked undershirt – the air-conditioners both on the bridge and in his cabin having broken down – the engineer told me, “We’re actually lucky. We unloaded the last of our cargo here in Hong Kong. If we’d had to go on to the Philippines, we’d have no chance to recover the pay we’re owed.”

As in all such situations, it was the ship that was arrested but the crew that was, in effect, imprisoned. The court was ensuring that the crew received sufficient provisions, charged to the owner’s swelling debt, and the engineer said he was loaning some additional money to crew members from a small pension he has. But, he observed, “It’s the families at home that are really being hurt. They depend on these guys to send money home to pay rent, utility bills, and so forth. These guys are losing respect back home.”

No one takes up a job at sea expecting it to be a cakewalk. But in the past, the daily restrictions and dangers of life at sea were at least balanced to some degree by the opportunity for travel, excitement, and adventure. Today, pay remains low and work stresses seem to multiply year by year, while at the same time, as one Filipino seafarer told me, working at sea has become “about as adventurous as driving a taxi.”
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