During the 1978 and 1979 seasons, many Great Lakes shipping companies experienced personnel shortages, the most serious within the officer ranks, involving mates and assistant engineers. Since Coast Guard regulations prohibit a ship from beginning a voyage without a full crew, the industry faced the prospect of not being able to operate enough vessels to move all of the available cargo. A 1978 staffing study conducted by the U.S. Maritime Administration, based on confidential data supplied by the shipping companies, projected a need for 90 new deck officers and 153 new engine officers in both 1979 and 1980 to meet the industry's personnel needs. After that, the study predicted that at least 61 new deck officers and 88 engine officers would be needed annually through 1987.

The crew shortages, or predicted shortages, were the result of a number of converging factors. Tonnages hauled on the lakes, particularly by the U.S. fleets, reached post-World War II record levels in 1978 and 1979. Iron ore tonnages alone rose from 67 million tons in 1977 to 88 million tons in 1978 and more than 92 million tons in 1979. Since most ships on the Great Lakes are capable of carrying between 1 and 1.5 million tons in a season, the increase in ore tonnages between 1977 and 1979 meant that twenty to twenty-five additional ships had to be put into service.

At the same time that the shipping companies were being forced to put more vessels into operation, a generous vacation plan negotiated by the major labor union on the lakes was being implemented. The plan called for officers to receive twenty days of paid vacation for every sixty days they spent aboard

...
ship. Within two years, the officers would be entitled to thirty days of paid vacation for every sixty days aboard ship. Implementation of that labor-management agreement meant that it would actually take 1.5 officers to fill each shipboard billet. For every two officers actually serving aboard ship, one additional officer would essentially be employed, but on vacation. Shipping company data also showed that the industry could expect a higher than normal number of retirements during the 1978 to 1987 period. Many officers who began their careers on the lakes during, or just after, World War II would reach retirement age during the ten years covered by the Maritime Administration study.

The Great Lakes Maritime Academy (GLMA), located in Traverse City, Michigan, became the focus of industry efforts to avert a crippling shortage of officers. The academy, which opened in 1971, is one of six state maritime academies recognized by the Maritime Administration and the Coast Guard for the training of merchant marine officers. The six state academies and the U.S. Merchant Marine Academy at King’s Point, New York, together have become the primary sources of new officers for U.S. fleets.

The program offered at Traverse City is thirty-six months long. Students enrolled as cadets in the deck or engine programs at the academy combine twenty-seven months of classroom study with two “sea-time” experiences, during which they spend a total of nine months aboard operating freighters on the Great Lakes. Upon graduation and successful completion of the necessary Coast Guard examinations, deck graduates are licensed as first class pilots (Great Lakes), while engineering grads receive unlimited licenses as third assistant engineers, good for service on steam or diesel ships of any horsepower. Only forty-five students were enrolled in GLMA’s programs in 1978, and the small number of graduates being produced each year was not adequate to meet the industry’s growing needs.

While the industry could recruit engineering graduates from the larger coastal academies, deck graduates of those schools, licensed as ocean third mates, could not serve aboard Great Lakes vessels without obtaining pilotage endorsements on their licenses. Because Great Lakes ships operate so extensively in congested waters, deck officers have always been licensed as first class pilots. In order to obtain the necessary pilotage endorsements, a deck graduate from a coastal academy would have to actually be aboard a lake freighter in an observer capacity while it made three trips across each of the Great Lakes and ten trips on the Detroit, St. Clair, and St. Marys Rivers, and then take a very detailed Coast Guard pilotage exam.

The powerful Lake Carriers’ Association (LCA), the trade organization representing U.S. fleets on the lakes, decided that sharp increases in enrollments at GLMA would afford the industry the best long-term prospect of obtaining the needed officers. Working in conjunction with Governor William Milliken of Michigan and the Upper Great Lakes Regional Commission, an economic development agency, the LCA generated substantial additional funding for the academy. The money was earmarked for expansion of GLMA’s classroom facilities, the acquisition of needed training equipment, and implementation of an aggressive recruiting program designed to increase the number of applicants for the school’s programs. The expansion plans called for GLMA to admit 100 to 200 new students each year, with 60 percent of each new class to be made up of engineering students and 40 percent of deck students.

The shortage of officers on the lakes received extensive media coverage throughout the Great Lakes area, often focusing on the claim that GLMA graduates were assured of starting pay of $37–$46,000 a year and extensive paid vacations after only three years at the academy. The academy itself hired a public relations firm to produce a slick, twenty-minute film and videotape and slide programs for use in recruiting new students.

The recruiting program proved so successful that 600 to 700 applications were received in both 1979 and 1980. Most applicants were attracted by the prospect of high pay, the generous fringe benefits offered by the industry, and the certainty of employment upon graduation. Many of the applicants were already college graduates, a few had master’s degrees, and one even had a Ph.D. In 1980, 100 new students were admitted to GLMA, and the school appeared to be on its way to resolving the shipping industry’s crew shortages.

During the 1980 shipping season, however, tonnages fell by more than 32 million tons from the prior year. By 1982, annual tonnages had dropped 86 million tons from the 1979 high. Only 45 to 50 U.S.
ships operated during the 1982 season, compared to 144 in 1978. None of the students who had entered GLMA in 1979 were able to get jobs on the lakes when they graduated in 1982. In fact, thousands of experienced sailors were unable to find work on the lakes after 1979; many would never sail again. Throughout the early 1980s, few graduates of the academy were able to find work on the lakes.

A 1982 update of the Maritime Administration’s work force projections for the Great Lakes industry continued to forecast shortages of both deck and engine officers, based on data supplied by the fleets. The academy continued its aggressive recruiting campaign and admitted more than one hundred new students in 1982, claiming that the industry would rebound and that the projected shortages would materialize in the immediate future. They didn’t.

In retrospect, it is possible to identify several factors that contributed to the erroneous forecasts of impending shortages of officers on the lakes: First, nobody in the industry in 1978 or 1979 anticipated the dramatic downturn in tonnages that began in 1980. Second, once the downturn occurred, nobody anticipated that it would last as long as it did. Third, there were several major flaws in the Maritime Administration study. For example, it projected that the 1,000-foot freighters being added to the fleet would generate a need for officers with more sophisticated training, providing an employment advantage to academy graduates. In reality, the addition of the thousand-footers to the fleet on the lakes reduced the number of ships needed to carry the available cargo; each thousand-footor replaced about four older ships, resulting in a net decrease in jobs. Further, available jobs generally were filled first by experienced sailors who had worked their way up to the officer ranks aboard ship, rather than by academy graduates who possibly were better trained, but far less experienced.

In addition, the Maritime Administration study was based on erroneous data supplied by personnel officers at the shipping companies. Some of the personnel officers, who are responsible for ensuring that adequate crews are available to staff their ships, undoubtedly inflated the demand they anticipated for new officers. From the standpoint of a personnel officer for a shipping company, it is far better to have an excess of officers than a shortage. There is no cost to your company if there is an excess, but high costs if shortages actually occur and your ships have to sit idle because you don’t have enough crews.

After 1980, the number of applications for admission to the academy dropped dramatically. In addition, many of those already in training dropped out to pursue non-maritime careers. The greatest number of drop outs occurred after students spent their first tours aboard ship, undoubtedly as a result of the “doom and gloom” picture painted for them by the experienced crewmembers, many of whom were themselves worried about the security of their jobs. Other cadets dropped out of the academy because they found that they didn’t like life aboard ship. The academy and the maritime industry have always been plagued by a high rate of attrition. Many people are attracted to the industry by romantic notions about life aboard ship, a result of having watched too many segments of “Love Boat,” or too many Old Spice commercials. They soon find, however, that there isn’t anything very romantic about life aboard a freighter on the Great Lakes.

Historically, many sailors have been social misfits. A lot of thieves, alcoholics, and other sociopaths escaped jail, bad marriages, or financial destitution by going to sea. In fact, Samuel Johnson reportedly once compared life aboard ship to “being in jail ... with the chance of being drowned.” Shipping companies would obviously have preferred a higher caliber of sailor, but few people would voluntarily submit to the rigors of life aboard ship. Crews aboard Great Lakes vessels have probably always been a cut above those found aboard ocean ships, but they too have tended to be a hard lot.

Even today, most sailors on the Great Lakes come from middle or lower-middle income groups in port cities around the lakes. Most sign on as sailors to avoid a life of working in the mines, factories, or steel mills, or to escape the family farm. Few have more than a high school education, including most of today’s captains and chief engineers. That’s changing, however, as companies look increasingly to the maritime academies for new officers. With the possible exception of the captain, the jobs of all the crew members aboard a lake freighter fall into the blue-collar category. In addition, their jobs tend to be highly repetitive most of the time. If you ask them to describe life aboard ship in a single word, most sailors will respond with “boring.” For most, it’s just a job.
The biggest negative to the job and the aspect of life aboard ship that is the single largest cause of attrition in the industry is the isolation that must be tolerated by crewmembers. While the liberal vacation plans have helped to make the time spent aboard ship more tolerable, sailors must still struggle through two-month stints aboard ship without being able to see their families or friends or to go down to the corner tavern for a cold glass of beer at the end of the work day.

What draws many people to the industry and keeps them coming back year after year is the high pay. Today, a deckhand, one of the lowest ratings aboard ship, can expect to make $30-$40,000 a year, while a captain is likely to make $70-$90,000. Much of that pay is the result of overtime work. When they are aboard ship, sailors work seven days a week without any time off. They also commonly get called out for overtime work when their ship is making a dock, or while loading or unloading. For most crewmembers, the hourly rate of pay is not necessarily that high, only $7-$12 an hour for unlicensed personnel; their high annual incomes are rather a function of the amount of overtime they work, combined with their generous vacation pay and end of the season bonuses.

On the other hand, there are others who just love sailing, and who get great satisfaction from their jobs and the camaraderie aboard ship. Sailing is in their blood, and they would probably sail regardless of the pay or fringe benefits. They're a unique breed and represent a minority of the sailors who crew the lake freighters.

It takes about thirty people to crew a modern lake freighter, considerably fewer than were needed two or three decades ago. The gradual and continuing downsizing of crews results from the drive for more economical operations and the installation of equipment and automated systems that are less labor intensive. The crews are organized into three shipboard departments, all under the control of the captain, whose formal title is master. The captain personally directs the operations of the ship's deck department, which is primarily responsible for navigation of the vessel, loading and unloading, and maintenance of deck areas. The engine department is headed by the chief engineer. Personnel in that department are responsible for the operation and maintenance of the ship's propulsion system, auxiliary equipment, and hotel systems, including lights, water, and sewage. The steward, or chief cook, is in charge of the galley department, usually the smallest aboard the ship, which feeds the crew and handles the vessel's linen service.

The size of the crew aboard a particular ship is a function of minimum Coast Guard requirements, labor-management contracts, and the number of personnel actually needed to operate the vessel. Coast Guard staffing requirements are specified on the ship's certificate of inspection, which is posted in the pilothouse. On Great Lakes vessels, Coast Guard requirements usually account for no more than about two-thirds of the total crew carried. Most of the balance are required by labor-management contracts between the ship's owners and unions representing officers or unlicensed crewmembers.

With the exception of officers serving aboard ships owned or operated by the M. A. Hanna Company, Inland Steel, and Inland Lakes Transportation, all officers and unlicensed crewmembers in the U.S. fleet are members of labor unions. Most of the officers belong to the Marine Engineers Beneficial Association (MEBA) or the American Maritime Officers (AMO). MEBA-AMO is a federated union that bargains jointly for both deck and engine officers. Deck personnel belong to AMO, while engineers belong to MEBA. The union is affiliated with the AFL-CIO. All unlicensed personnel aboard U.S. vessels on the Great Lakes are members of labor unions. Depending upon which shipping company they are employed by, they belong to either the National Maritime Union (NMU), Seafarers International Union (SIU), or the Steelworkers. Unionization of the crews began with unlicensed personnel around the time of World War II. The big push by the officers' unions occurred from the mid-1950s to the early 1960s, starting with the crews of U.S. Steel's Pittsburgh fleet, then the largest on the lakes.

The situation was a little different on the Canadian side of the lakes, according to George Miller, president of the Canadian Lake Carriers' Association, the organization that bargains with the Canadian labor unions on behalf of the ship owners. Miller said that the Canadian sailors began to be represented by labor unions before World War II, but the major unionization occurred after the war when ship owners invited the SIU to come in to purge the communist-affiliated unions that were
The captain of the Str. Edward B. Greene “in the window” as his ship approaches the ore dock at Marquette, Michigan. The wheelsman who actually steers the ship is located behind the captain on a raised platform. (Author’s collection)
making inroads in the industry. Today, most unlicensed crewmembers on Canadian freighters belong to either the SIU or the Canadian Brotherhood of Railway and Transport Workers (CBRT). Most mates belong to the Canadian Merchant Service Guild, while engineers are represented by the Canadian Merchant Officers Union, an offshoot of the SIU.

Canadian crews are slightly smaller than those on the U.S. freighters. According to Miller, crew size will range from twenty-one to thirty-one personnel, depending on the type of ship and the trade it is in. Most straight-deckers carry about twenty-one crewmembers, five to seven fewer than on similar U.S. vessels; Canadian self-unloaders have an average of twenty-seven personnel, three to five fewer than on comparable U.S.–flag ships. Miller says that pay is slightly higher aboard U.S. ships, but that fringe benefit packages are very similar. The Canadian sailors are covered by their country’s social medicine program, however, so insurance costs run about 15 percent less for the Canadian fleets.

In addition to representing their members in collective bargaining with the shipping companies, most of the unions also provide a variety of other services. In most cases, the unions manage the pension funds of their members, provide job placement services, operate training programs, and lobby elected officials and government agencies on behalf of both their membership and the maritime industry in general.

Great Lakes sailors build up both union and company seniority. Many tend to stick with a single company during their entire careers on the lakes to the extent that is possible. If their seniority with that company is not sufficient for them to get a job aboard one of their ships during a specific season, they can go through their union’s hiring hall to try to find work with another company covered by their union. Shipping companies on the lakes only hire from the union halls when they do not have enough sailors on their own seniority list to fully crew their vessels. During boom periods, such as occurred in 1978 and 1979, the union hiring halls weren’t able to supply enough sailors to meet the needs of the shipping companies. In that instance, the companies instituted their own recruitment program, but the personnel hired had to join the union after a short period of time in order to keep their jobs.

Prior to unions, shipping companies were free to do their own hiring. When unexpected vacancies occurred aboard a ship, and they were very common, the captain was often given the authority to fill the vacancy from the labor supply available at whatever port the ship was in. If a replacement could not be found at the port or if a crewmember missed the boat when it departed the port, the captain would often attempt to hire someone when the ship got to the Soo Locks. It was not uncommon for dozens of job seekers to hang around the locks day and night, all hoping to obtain jobs aboard passing freighters.

Those practices resulted in a disproportionately large number of sailors in the industry coming from ports on the northern lakes, communities far distant from the offices of the shipping companies in Cleveland, Buffalo, Detroit, and Chicago. Many companies actually preferred to hire sailors from ports on the northern lakes, feeling that they were more likely than their counterparts from the cities on the lower lakes to be sober, hard-working employees.

Perhaps the most homogeneous crews on the lakes, from the standpoint of where crewmembers come from, were those aboard ships operated by the Bradley Transportation Line. The grey-hulled self-unloaders in the Bradley fleet carried limestone from the Port of Calcite at Rogers City, Michigan, to ports around the lakes. Virtually all of the Bradley sailors were from either Rogers City or the other small communities in Presque Isle County on northern Lake Huron. Although the Bradley fleet was later absorbed by U.S. Steel’s Great Lakes Fleet, the ships today continue to be crewed primarily by sailors from Rogers City, which continues to be home port for the vessels.

On a per capita basis, Rogers City has produced more sailors than any community on the lakes. Residents of the small town, which is promoted as “Nautical City, U.S.A.,” have twice been devastated when ships from the small fleet were lost. In 1958, twenty-three of the thirty-three crewmembers who lost their lives when the Str. Carl D. Bradley sank in a November storm on Lake Michigan were from Rogers City. Five others were from the nearby communities of Onaway and Posen. In 1966, nine of the ten sailors who died in the sinking in the Straits of Mackinac of the Str. Cedarville made their homes in Rogers City. (See chapter 7 for further discussion of this.)

In addition to supplying crewmembers for the ship-
ping companies, most of the unions operate training programs that are primarily geared to helping members either qualify for higher shipboard ratings or perform their duties more effectively. Schools have traditionally been held during the winter months to prepare crewmembers to write the Coast Guard exams they must pass to qualify for higher ratings. For unlicensed deck crewmembers, the schools have aided ordinary seamen—deckhands and maintenance personnel—to prepare to take the test for the able-bodied seaman’s rating or to prepare experienced able-bodied seamen to obtain licenses as deck officers. Unlicensed engineering personnel have attended schools to upgrade from the entry-level wiper's rating to oiler or qualified member of the engine department (QMED) and to move from oiler or QMED to third assistant engineer.

Most officers on Great Lakes ships have “come up the hawsepipe” or moved up from unlicensed ratings, rather than graduating from maritime academies. Requirements for advancement are set by the Coast Guard and involve a specified amount of experience in a rating and passage of an exam or series of exams. Officers who have come up the hawsepipe have substantially more practical experience aboard ship than those graduating from maritime academies and a proven employment record with their companies. Academy graduates, on the other hand, may have a better technical education, a factor of growing importance. Today’s ships are equipped with much sophisticated equipment, including Loran and satellite navigation systems, satellite communications systems, loading computers, and complex engine control systems. In addition, some ships are even equipped with microcomputers that are used in ship-to-shore communications or to maintain records and prepare reports. Hawsepipers often find it difficult to adjust to the operation of high-tech equipment of that sort, and it is often hard to pick up the necessary expertise in an on-the-job training environment.

Union training programs, however, are rapidly expanding into high-tech areas. Instead of the wall charts and schematics supplied by equipment manufacturers, which used to be the only training aids available at the schools, MEBA-AMO now operates elaborate simulators for use in training its members. The MEBA-AMO’s Maritime Training and Research Center in Toledo, Ohio, opened in 1984 and is equipped with state-of-the-art simulators for use in training deck personnel. The simulators are similar to those used for the training of commercial airline pilots. The MEBA-AMO deck officer simulator, built at a cost of $6 million, is designed to improve the shiphandling abilities of sailors who participate in the training program. Through the use of computer graphics, the simulator can familiarize officers with what it is like to navigate ships of various sizes in the rivers and harbors of the Great Lakes. Instructors can analyze the decisions made by the students to insure that they are making sound judgments and not putting their “vessel” in jeopardy.

Such training is particularly valuable if a deck officer is going to be assigned to an unfamiliar trade route or to a ship that differs from those that he or she has experience on. For example, an officer who has always served aboard traditional lakers with their forward pilothouses could gain simulator experience in handling a ship with an aft pilothouse. Computer-generated images projected on wide-angle screens simulate waters the officers are familiar with, adding to both the realism and value of the simulator training. While time spent on simulators can help sailors hone their skills, the only simulator training actually required is part of the continuing education needed when deck officers renew the radar observer endorsement on their licenses every five years. Both MEBA-AMO and GLMA operate radar training facilities certified by the Coast Guard.

While training has become an important priority for most maritime unions, other successes have come in the area of collective bargaining agreements on wages, fringe benefits, and working conditions for their members. The contracts they have negotiated are among the most generous maritime agreements within the U.S.-flag shipping industry, and U.S. sailors are the best paid in the world.

It is not just in the area of pay and fringe benefits that Great Lakes maritime unions have chalked up victories, however. Their greatest accomplishments may, in fact, have been in maintaining crew size aboard lake freighters at a time when U.S.– and foreign-flag fleets are making major cuts in the number of personnel carried aboard their ships. For example, while most lakers carry twenty-nine to thirty-four crewmembers, the world’s largest bulk carrier, the Dutch-owned M/V Berge Stahl, operates with a crew of only fourteen, even though it has a carrying...
capacity about three times greater than the largest bulk freighters on the lakes. Similarly, the latest generation of U.S. ships built for ocean service generally carry nineteen to twenty crewmembers. There are some logical reasons why ships operating on the lakes tend to carry more crewmembers than those in ocean service. The maintenance and operation of self-unloading equipment, for example, requires more personnel than needed aboard saltwater bulk freighters, few of which have self-unloading systems. Similarly, because lakers are making docks virtually every day, additional personnel are needed to handle mooring lines and open and close hatches.

On the other hand, many of the ships added to the Great Lakes fleet since 1970 were built with automated engine rooms that would normally qualify as unstaffed or unattended. Unattended engine rooms are commonplace on saltwater vessels. Engine controls are handled from the pilothouse by the deck officers under most circumstances. One or two engineers are carried, but they are primarily involved in the maintenance and repair of equipment. A sophisticated system of engine monitors and alarms alerts the engineering personnel to any malfunctions. On the lakes, however, most ships built with unattended engine rooms carry seven to nine engineering personnel, even though their engine rooms have been certified by the Coast Guard for unstaffed operation. Of all the Great Lakes boats built with unattended engine rooms, in fact, only the tug Michigan, operated by a subsidiary of Amoco, is actually operating without a full complement of engineering personnel.

In the mid-1970s Cleveland Tankers attempted to operate three of their tankships with unattended engine rooms. Coast Guard certificates awarded to the three ships required a complement of only three engine officers, none of whom had to be watchstanders. MEBA, which represented Cleveland Tankers's engineering officers, sued the Coast Guard, charging that it was unsafe to operate the vessels with unattended engine rooms because they regularly operated in congested waters. The union argued that safety considerations dictate that an engineer be available at all times and actually at the throttles when the vessel is in restricted waters, in case an equipment malfunction should occur. A federal judge hearing the case decided in favor of the union, and even though the tankers are still certificated for unattended engine rooms, they now carry a chief engineer, three assistant engineers who stand watches, and an unlicensed wiper.

Other shipping companies that built ships with automated engine rooms never seriously challenged the union regarding the level of engine room staffing, even though the extra personnel cost them a great deal of money each year. With all of the Great Lakes companies in the same proverbial boat, none is at a competitive disadvantage, and the inflated costs of operating the ships are merely reflected in the rates they charge their customers.

Historically, the reductions that have occurred in crew size have been largely the result of improvements in shipboard technology. Coal passers were the first to go, displaced by automatic stokers that feed coal to the boilers on steamboats. When oil replaced coal as the main fuel used on the steamboats, the firemen who had tended the boiler fires went the way of the coal passers. The position of deck watch disappeared when call bells and intercom systems were installed aboard ships. They eliminated the tradition of having a seaman on each watch who could wake personnel for the next watch or summon a crewmember who had received a radiotelephone call.

The next shipboard position that may be eliminated as a result of improvements in technology is that of the watchman. Great Lakes ships carry a watchman on each of the three watches. Historically, the watchman has served as a lookout, posted on the bow when the ship is operating in congested waters, or when inclement weather reduces visibility. The job entails watching for ships or other navigational hazards, or listening for foghorns when visibility is limited, and alerting the mate of the watch to anything seen or heard. It is questionable whether the watchman now serves any meaningful purpose aboard ship. Today's sophisticated radars and greatly improved ship-to-ship and ship-to-shore communication systems, including traffic control systems in the Detroit, St. Clair, and St. Marys Rivers, have dramatically reduced the value of posting a lookout.

The position of watchman has been maintained, however, partly out of tradition and partly as a result of a vague Coast Guard regulation that requires vessels to "post a proper lookout" in congested waters or when visibility is limited. In reality, the primary responsibility of the watchman today is to relieve the
wheelsman for an hourly coffee break. Most of their time on watch is spent “standing by” in the vessel’s recreation room or assisting deckhands with their chores, time that is largely nonproductive. Watchmen are relics left over from the pre-World War II period when radar didn’t exist and deck officers had to rely on the eyes and the ears of their watchmen to alert them to any possible hazards.

Most of the crewmembers aboard today’s lake freighters stand watches, working two four-hour shifts each day with eight hours of off-duty time between each watch. For many watchstanders, “standing watch” is a painfully accurate description of what they do. During much of the time they spend on watch there is little, if anything, for them to do. When a ship is on the open lakes, for example, it is usually on automatic pilot, so the wheelsman has nothing to do. An entire four-hour watch often passes without the wheelsman ever touching the wheel or doing any other work. The time passes by reading or chatting with the mate who is also on watch in the pilothouse.

In the engine room, oilers stand watch with assistant engineers. Their primary job is to take hourly readings on equipment scattered throughout the engine room, although the equipment on the newest lakers has remote sensors that eliminate the need for the oiler to make his traditional rounds. On many ships, the main job of the oiler is to keep the engineer company and insure that there is an endless supply of fresh coffee available. They are largely there out of tradition and due to provisions in their union contracts. Even the watchstanding engineers have little to do, particularly on vessels with automated engine rooms. On those ships, the watch engineer’s primary traditional function, handling the throttles, has been taken over by deck officers who can control the engines from the pilothouse.

The days of wooden ships and iron men are gone forever. There is little strenuous physical labor aboard modern ships. Coal is no longer shovelled by hand into roaring boilers, and deckhands no longer have to handle heavy wooden hatch covers, shovel cargo into buckets when unloading, or wrestle with the heavy, awkward canvas tarps that were used to cover hatches during inclement weather. The iron men who used to crew the lake freighters have been made obsolete by the modern equipment on today’s ships. Today it is probably more important for sail-
ors to be capable of learning how to operate electronic equipment and microcomputers that have become standard fixtures in both pilothouses and engine rooms. The careers of many senior crewmembers serving on the lakes today have spanned the entire period from iron men to microcomputers. They began their maritime careers when the work aboard ship was so strenuous they could barely stand it at times, and today most of the work aboard ship involves mainly just standing.

Most of the physical labor aboard modern ships falls to non-watchstanders, the day workers in the deck and engine departments. In the deck department, the bosun, or maintenance man, and deckhands stay busy doing maintenance work, primarily painting, removing and replacing hatch covers when loading or unloading, and washing and scrubbing down the ship to remove the dust that settles on the deck and deckhouses during loading and unloading. In the engine room, the chief engineer and one or two assistant engineers are day workers. They primarily spend their time maintaining or repairing equipment.

The captain has the most irregular schedule aboard ship. By tradition, Great Lakes masters are in the pilothouse whenever their ship is operating in the narrow and often congested rivers that connect the lakes, even though the ship is then being navigated by the mate of the watch. The captains are there to insure that no problems occur, but really spend most of the time drinking coffee and chatting with pilothouse personnel. The captain also maneuvers the ship when entering or departing a harbor, or when transitting the Soo Locks or locks in the Welland or St. Lawrence systems. Unlike saltwater captains who build their reputations as managers, Great Lakes captains are renowned as shiphandlers. They may, in fact, be the best shiphandlers in the world.

On the five-day, 850-mile roundtrip from the lower lakes to the ore docks at the head of Lake Superior, the freighter captains guide their ships through about 160 miles of river channels that are often no more than 300 feet wide. Aboard ships operating on the Welland Canal and St. Lawrence, primarily Canadian vessels, the captains must maneuver their ships in and out of fifteen locks that are often barely larger than the freighters. Between the locks are more than 100 miles of narrow, congested channels. Depending upon traffic conditions, the 26-mile trip through the Welland can take from twelve to twenty-four hours, with the captain at the helm or observing on the bridge during the entire stressful passage.

Unlike their saltwater counterparts, Great Lakes Captains seldom use tugs to assist in maneuvering in rivers or harbors, or when entering the narrow locks in the St. Marys, Welland, or St. Lawrence. On rivers like the Cuyahoga in Cleveland and the Rouge in Detroit, the captains guide their huge ships through a series of railroad and highway bridges barely wide enough to let the boats slip through. Because the narrow confines of the rivers often make it impossible for the ships to turn around after unloading, the captains commonly have to back their huge ships down the treacherous channels until they reach a turning basin or open water. The captains and mates who crew the ships on the Great Lakes are pilots, known for their talents in guiding ships through rivers and channels by relying on their remarkably detailed knowledge of the waterways. Author Joseph Conrad, himself an experienced mariner, wrote in one of his short stories that “to a seaman, [a pilot] is trustworthiness personified.” They are the masters’ master, and few are better than those who serve on the Great Lakes.

Using landmarks along the shore, such as buildings, water towers, points of land, and even tall trees, along with buoys, lights, ranges, and other navigational aids maintained by the Coast Guard, the pilots steer their ships through the narrow and winding channels where even a minor error in judgment can result in a grounding or collision. While much of the piloting is actually done by the three mates who rotate on watch, it is almost always under the watchful eye of the captain. The captains are ultimately, even legally, responsible for everything that goes on aboard their ships, but much of that responsibility is delegated to other crewmembers. In many respects, the Great Lakes captains have fewer specific responsibilities than any of the other crewmembers. Other than maneuvering their ships, the extent to which the captains become personally involved in other shipboard activities seems to be a function of the personality of the individual captain and the extent to which he or she has confidence in the crewmembers.

There are countless stories, true stories, about
A captain atop the open-air flying bridge of the sidewheel passenger steamer *City of Chicago* shortly after its launching in 1890. The captain is in the process of docking his vessel at St. Joseph, Michigan, and he is looking off the port side of the boat. The wheelsman who is actually steering the *Chicago* is in the pilothouse below the captain. (Dossin Great Lakes Museum, Detroit, Michigan)
Great Lakes captains who have remained on the bridges of their ships continuously for several days during bad storms. During a November 1926 storm on Lake Superior, for example, Captain Henry T. Kelley stayed at the helm of the *Str. Peter A. B. Widener* for seventy-two continuous hours after his ship lost its rudder. When asked about the feat afterwards, the tired and worn Captain Kelley said only, “It’s all in a day’s work.” At the same time, there are also stories about Captains who have gone for days without ever making an appearance on the bridge. In general, however, the captain probably puts in more hours than anyone else aboard the ship.

If the captains are responsible for their ships, it is usually the first mates who run them or at least are in charge of those areas of responsibility that are assigned to the deck department. The first mate, sometimes also referred to as the chief mate, is one of three mates who stand watches. The first mate is usually in charge of the watch from 4–8 A.M. and from 4–8 P.M. The first mate’s responsibilities on watch are the same as those of the other mates. They spend much of their on-watch time “in the window,” standing in the center window of the pilothouse, the “driver’s seat” on a laker. Behind the mate, on a slightly raised pedestal, is the wheelsman, who steers the ship based on commands from the mate.

The mate’s position is surrounded by the navigation and communication equipment used to do the job. The mate is usually flanked on both sides by radar sets, which become substitute eyes at night or when fog, rain, or snow reduce visibility. A gyrocompass repeater, and often a magnetic compass, are generally located just in front of the mate, often mounted on the outside of the pilothouse just below the center window. On the bulkhead above the mate is a rudder angle indicator, which tells how much rudder the wheelsman is using to make a turn. The greater the rudder angle, the more rapid the vessel’s rate of turn. The mate’s work station at the center window also includes a radio transceiver, which the Mate uses to communicate with other ships or shore stations, such as those operated by the U.S. and Canadian Coast Guards. There is also an intercom station, which allows the mate to talk to crewmembers in various locations on deck or to engineers staffing the engine controls.

Controls for the ship’s whistle are also located within the mate’s reach. The whistle is used to exchange passing signals with other ships, although that practice is now largely a formality as a result of improved radio communications between ships. One short blast of the whistle is also used to alert dockhands to cast off lines when departing locks. The whistle can also be set to operate continuously as a foghorn, sounding one long blast every two minutes while the ship is underway.

Controls for the ship’s general alarm system are also generally located near the mate’s station in the center front window. Activated in emergency situations, such as a collision or fire aboard ship, alarm bells sound throughout the vessel to alert crewmembers that danger exists. Combinations of alarm bells and blasts of the ship’s whistle are used to inform crewmembers of the specific type of danger so that they know whether to report to lifeboat stations or to form firefighting squads at the bow or stern.

Within view of the mate is the boat’s Loran-C receiver. The sophisticated Loran navigation system has been in operation on the lakes since 1980. It consists of a chain of radio transmitters located around the lakes, which broadcast short pulse signals. The signals are processed by the Loran receiver aboard the ship, which is really a microcomputer that can be programmed to home in on signals from two Loran transmitters and calculate the ship’s precise position based on the amount of time it takes the signal from each station to reach the ship. A digital monitor on the Loran shows the location of the ship in latitude and longitude, the distance to the ship’s next waypoint where a course change has to be made, and how far the ship has deviated from its planned course.

The mate also maintains the ship’s trip log, a book in which the vessel’s course, general location, and speed are regularly entered, along with wind-speed and direction. The log is an official document, which is signed by the mate coming on and going off watch. Coast Guard regulations also require that records of fire and lifeboat drills be entered in the log, along with information on the cargo being carried, the draft of the vessel when it departed the loading dock, and any casualties in which the ship is involved during a voyage. In addition to watchstanding duties, the first mate is in charge of deck maintenance performed by the bosun and deckhands who work days, although the actual work is usually supervised by the bosun.
The first mate is also usually responsible for overseeing the loading of the ship, even though loading may occur when he or she would normally be off watch. Some ships are equipped with loading computers that can assist the first mate in determining how much cargo to stow in each hold, but most mates on the lakes merely rely upon their extensive experience. Details of each load are carefully recorded by the mate in a pocket notebook for future reference to assist in designing the optimal loading plan for a particular cargo.

Cargoes differ dramatically in how they are loaded. Some cargoes, like grain and coal, are relatively light in weight, so the holds can be completely filled without exceeding the ship’s loadline. They are often referred to as “cubic cargo,” meaning that the amount of the cargo that can be carried will be determined by the cubic capacity of the ship, rather than the tonnage capacity. Other cargoes, like iron ore, are heavier and the ship’s holds cannot be completely filled without exceeding the loadline or draft limitations on the lakes. From the standpoint of volume, a surprisingly small amount of iron ore can actually be loaded aboard a ship. A full load often takes up no more than two-thirds of the available space in the cargo hold.

When loading a heavy cargo like iron ore, the ship’s holds are not evenly loaded. Because the hull of a laker is somewhat flexible, extra cargo must be placed at the extreme ends of the cargo hold to counteract the buoyancy of the forepeak and engine room. If an insufficient amount of cargo is placed in the ends of the holds, the ship will sag in the midship area because the center of the ship will have less buoyancy than the bow and stern. If too much cargo is placed at the ends, the ship will hog—the bow and stern will be deeper in the water than its midships.

It is the responsibility of the first mate to see that the vessel is properly trimmed, without any hog or sag, and that it does not list to either port or starboard as a result of cargo being unevenly distributed within the cargo holds. The first mate tells operators of the loading docks how much cargo to load in each hatch and constantly watches the ship’s draft marks at the bow, stern, and amidships to insure that the vessel is properly trimmed and does not exceed either its assigned loadline or the maximum draft available on the route to the unloading dock.

The first mate also is often responsible for maintaining payroll records for the crewmembers. In most fleets that only involves recording the number of regular, overtime, and premium pay hours each crewmember has worked during a pay period. On some ships, however, the mate also calculates the pay and deductions and actually prepares payroll checks for the crew. In some fleets, each of the three mates are responsible for payroll records for part of the crew.

The first, second, and third mates also divide responsibility for a variety of other paperwork that has to be done. This includes the preparation of trip reports, cargo manifests and bills of lading, customs documents, purchase orders for deck supplies, accident reports, paperwork that has to be submitted when going through the Soo Locks or the Welland or St. Lawrence systems, and discharges for crewmembers who are signing off the vessel. Some captains also share in the paperwork responsibilities aboard their ships.

When the captain is at the helm during a maneuvering situation at the locks or approaching or departing a dock, the mate on watch and one of the other mates staff the winch control stations at opposite ends of the spar deck. If deckhands have to be put on the dock to handle lines, a mate is also in charge of the landing boom that is used to swing the deckhands over the side and drop them onto the dock. On self-unloading ships, the mate on watch is also responsible for supervising unloading, including control of the unloading boom. On some ships, primarily thousand-footers, an extra mate is sometimes carried, and the first mate becomes a day worker with primary responsibility for loading and unloading the vessel.

When standing watches, each of the mates is assisted by a wheelsman and a watchman, both of whom are able-bodied seamen or A.B.s, as they are called. The wheelsman actually steers the ship, based on commands from the mate or captain. The commands are usually given in the form of a new heading the mate wants the wheelsman to steer or, when rounding a bend in a river, how much rudder the mate wants put on. Rudder commands may be given in specific degrees of left or right rudder angle, but mates often use a sort of shorthand, such as “some right” or “hard left.” Those shorthand commands often have specific meanings within each fleet.
Deckhands painting the Str. Benson Ford before the start of the 1984 shipping season, the last year the vessel operated. Even the ship's massive anchor got a fresh coat of paint. (Author's collection)

A deckhand being lowered to the dock at Escanaba, Michigan, on a bosun's chair. Once on the dock, he will assist in handling the heavy steel cables used to moor the vessel. (Author's collection)
The directions left and right are always used in giving rudder commands, rather than port and starboard. That practice, which is used throughout the world maritime community, is intended to minimize the possibility of error by either the mate or the wheelsman. When operating in rivers or harbors, the failure of the wheelsman to respond rapidly and correctly to a rudder command could place the ship in danger.

As noted previously, the watchman serves as lookout whenever conditions require one and relieves the wheelsman for hourly rest breaks. During the day, the watchman usually assists the bosun and deckhands in their ship maintenance activities. When at loading or unloading docks, the watchman generally assists in operating winches or staffing the ship's ladder or gangway, as does the wheelsman.

Day workers in the deck department who do not stand watches include the bosun and three deckhands. The bosun is usually an experienced able-bodied seaman, while the deckhands need only be ordinary seamen. The day workers are responsible for maintenance of all deck areas, including the deck itself, the exteriors of the deckhouses, passageways, stairways, recreation rooms, and the ship's windlass and dunnage, or storage, rooms. They also maintain the ship's lifeboats and are responsible for insuring that the hatch clamps that secure the hatch covers are working properly.

Before loading, the bosun and deckhands remove all of the ship's hatch covers, which involves first removing all of the hatch clamps. Using the iron deckhand, the hatch covers are lifted off the hatch coamings and stacked on the deck. On straight-deck freighters, hatch covers must also be removed before unloading. On self-unloaders it is common to remove only a few hatch covers from each of the ship's cargo holds before discharging the cargo. Those give the mate on watch a view of the flow of cargo in the hold.

During loading and unloading, the bosun or one of the deckhands must also regularly “sound the tanks,” measuring the amount of water in the ship's ballast tanks. Loading cannot be completed until all of the ballast water has been pumped out of the tanks. Any water left in the tanks will reduce the amount of cargo that can be loaded before the ship reaches its loadline. When unloading, it is common to start putting in ballast water so that the ship is adequately ballasted when it is empty and ready to
leave the unloading dock. Soundings are taken with a metal measuring rod that is lowered into the ballast tanks in the bottom and sides of the ship through sounding tubes, or pipes, located around the deck. After loading or unloading, the deck crew replaces the hatch covers and secures them with hatch clamps. Any cargo spilled on the deck is shovelled over the side, and deck areas and deckhouses are scrubbed and washed down to remove dust and dirt.

Much of the deck crew’s time is devoted to the time-honored seafaring tradition of chipping and painting, the modern equivalent of holystoning the decks on old wooden ships. Old layers of paint are removed, generally through use of an electric or pneumatic chipping hammer, and new paint is applied over the bare metal to protect it from rusting. Most ships on the lakes are completely repainted every few years, with areas of heavy wear, such as the sides of the deck, done every season. Ship owners on the lakes take pride in the appearance of their vessels, but they also know that regular painting will help extend the longevity of the hull and delay the need for costly shipyard repairs.

When docking, three deckhands usually are landed on the dock to handle the ship’s heavy steel mooring cables. Before 1913, they had to leap from the ship to the dock, a practice that was always dangerous and occasionally fatal. In 1913, Captain Benjamin Bowen of Canada Import Company’s Str. Compton devised the first landing boom in an effort to make the practice of landing crewmen on docks safer. The booms have been refined over the intervening years, and they are now standard equipment on all U.S. and Canadian ships operating on the lakes. Today’s booms consist of a 15- to 20-foot length of heavy pipe that can be swung out over the side of the ship. A flat seat is attached to a rope that runs through a pulley at the end of the boom. A deckhand sits on the seat and is swung over the side as the ship slowly approaches the dock. The crewmembers tending the boom rapidly pay out the line so that the deckhand is lowered swiftly to the dock below. Once the linehandlers are on the dock, the end of a light heaving line is thrown to them, which they use to pull out one of the ship’s heavy mooring cables. The mooring cable is slipped over a chock or bollard on the dock so that the powerful mooring winches can be used to help bring the ship to a stop and position it along the dock.

On self-unloading vessels, the normal complement of deck personnel is usually augmented by two additional unlicensed crewmembers who operate the self-unloading equipment. These include the conveyorman and a wiper-gateman. The conveyorman is responsible for maintenance of the complicated unloading system that carries cargo up and out of the ship’s holds. The wiper-gateman assists the conveyorman and works in the tunnel below the cargo hold when unloading, opening and closing the gates that allow cargo to flow onto the belts. After the vessel has been unloaded, the conveyorman and the wiper-gateman are responsible for cleaning the tunnel area, which involves removing any cargo that has spilled off the belt during unloading operations. The wiper-gateman’s responsibilities extend beyond the unloading system, however, to cleaning chores in the engine room and assisting the engineers when fueling the vessel.

The engine department is headed by the chief engineer, who is normally a day worker. Like the captain, however, the chief is usually on duty in the engine room when the boat is maneuvering or in a river, where an equipment malfunction or throttle error could imperil the ship. The chief supervises the engine staff and often gets personally involved in the repair and maintenance of machinery and equipment that are the responsibility of the engine department, which includes all of the machinery aboard the ship except the equipment located in the pilothouse. In addition to machinery located in the engine room, the engine department is responsible for the maintenance and repair of deck winches and anchor windlasses, the bowthruster, engines and motors driving the self-unloading equipment, galley equipment, the ship’s electrical, water, and sanitary systems, and even the washing machines located in the laundry room.

The first assistant engineer is also generally a day worker, who assists the chief and has primary responsibility for performing maintenance and repair work on equipment located outside of the engine room. The three second and third assistant engineers who stand watches are restricted to the ship’s throttle board or control room, so they are not available to do much maintenance or repair work unless the vessel is dockside. Some self-unloading vessels also carry an assistant engineer who is responsible for the unloading system. In those cases,
the conveyorman and wiper-gateman work directly under the engineer's supervision.

On older boats, particularly steam vessels, the throttles that control the direction and speed of the ship are located in the engine room. When deck officers want to change speed or go from ahead to astern, or vice versa, they signal the watch engineer on the engine order telegraph, sometimes referred to as the Chadburn. The watch engineer then moves the indicator on the engine order telegraph in the engine room to signal back to the bridge that the order has been received and understood. With the improvements in shipboard communications, it is common for the deck officers to communicate their intentions to the watch engineer on the ship's intercom system before signalling on the engine order telegraph.

In addition to manning the throttles, engineers on steam vessels tend to the boilers, making sure that they are receiving the correct proportions of fuel and air to insure efficient combustion. If the boilers are not receiving the proper mix of fuel and air, billows of black smoke can be emitted from the smokestack as the incompletely burned fuel escapes through the stack. Watch engineers on steam vessels are also responsible for periodic operation of the ship's soot-blowing system to rid the stack of any accumulations of soot that represent a potential fire threat. Soot is blown out of the stack through the use of jets of compressed air.

On oil-fired steam vessels, it is also standard practice to have one of the watch engineers clean the fuel strainers each day. The strainers filter impurities out of the heavy Bunker-C fuel so that the burners inside the boilers do not get clogged up.

Like their counterparts in the pilothouse, the engineers also maintain a trip log. In it they record the time of speed changes, except for the changes that take place when the vessel is maneuvering. When maneuvering, speed and direction of the engines often change so frequently that it is impossible for the engineer to take the time to record them. The log also includes a record of when freshwater was taken on and when ballast tanks were filled or emptied. When ships are travelling light, or without any cargo, they often take on ballast in the side and bottom tanks to sink them deeper in the water and reduce the amount of surface area exposed to the wind. The more severe the weather, the more ballast will be taken on.

While ballasting decisions are made by the deck officers, the ballast pumps are located in the engine room and operated by engine department personnel, usually an oiler or QMED. To fill a ballast tank, a valve is opened that allows water to flood into the tank from a seacock below the ship's waterline. Large electrically driven pumps are used to remove the water from the tanks and pump it back out through discharge ports in the side of the hull above the waterline.

The oilers or QMEDs also make rounds of the engine room, usually every hour, and take temperature or pressure readings from the various machinery that is in operation to insure that it is functioning properly. Engineers will tell you that an experienced oiler can often hear or smell when a piece of equipment is beginning to malfunction. Since many of the vessel casualties that occur on the lakes are the result of equipment malfunctions, such as the loss of power or failure of the steering gear, an oiler with good hearing and a keenly developed sense of smell can be a real asset.

Engine rooms used to be referred to disparagingly as “black holds” and engine personnel were called the “black gang,” both throwbacks to the days of coal-fired steamships when black dust and ash coated everything in the engine room, crewmembers included. Conditions are much improved today. Engine rooms aboard steamships can still be the hottest places this side of Hades during the summer months and they are constantly noisy, but since the shift to oil for fuel they are much cleaner. On the newer, diesel-powered ships, engine rooms are not only clean, but they often have control rooms that are air-conditioned. And in the finest tradition of the lakes, the coffee pot is always on.

Few sailors miss a scheduled meal aboard ship. Mealtime is in many respects a social occasion, providing an opportunity for crewmembers to talk with people who are on different watches or who work in different departments. In addition, the food prepared by the crew in the galley is always hot and plentiful. The galley department is headed by the steward or chief cook, assisted by the second cook, who traditionally has also been the ship’s baker, and a porter. The porter helps with food preparation and galley cleanup, including washing dishes and pots and pans. Traditionally, crewmembers have been waited on by the second cook and the porter, but in recent
An engineer eyes a bank of gauges as he adjusts the throttles aboard the Str. S. T. Crapo. Built in 1927, the Crapo is powered by a 1,800 horsepower, coal-fired, triple-expansion steam engine, one of the last in operation on the Great Lakes. (Author’s Collection)
years many fleets have converted to cafeteria-style service to reduce costs.

On most ships there are two or three entrees available at every meal, along with assorted vegetables and salads, soup, freshly baked bread and rolls, pastries, fresh fruit, ice cream, and assorted beverages. For crewmembers, it is like eating every meal of every day in a restaurant or, perhaps more accurately, a cafeteria. The food on lake freighters is usually well-prepared. It is not gourmet fare, but home cooking, the type you would find on the dinner table of a farmer or factory worker, except that more expensive cuts of meat are generally used. Steak, prime ribs, and seafood are usually on the dinner menu each week, a long-standing Great Lakes tradition. It is a laborer’s diet, high in fats and carbohydrates, even though there are few physically demanding tasks aboard the modern ships.

The combination of a rich diet and limited exercise has led to serious problems of obesity among the crews. To counter the growing problem, a number of fleets have installed salad bars aboard their vessels and enlisted the aid of nutritionists to design menus better suited to activities aboard ship.

For some crewmembers, eating is a favorite pastime, and they can tell you which ships on the lakes have reputations as “good feeders.” In addition to the three hearty meals served each day, crewmembers also have access to what is referred to as the “night locker,” a refrigerator packed with cold cuts, cheeses, leftovers, and frozen entrees that can be heated in the galley’s microwave. In the past, many fleets also had a night cook to prepare full meals for personnel coming on and going off watch at midnight.

The most elaborate meal of the year aboard the lake freighters is generally Thanksgiving dinner. The following is a menu from the Cleveland-Cliffs fleet’s 1983 Thanksgiving feast:

**Appetizers**

<table>
<thead>
<tr>
<th>Chicken Consomme</th>
<th>Waldorf Salad</th>
<th>Shrimp Cocktail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stuffed Celery</td>
<td>Relish Tray</td>
<td>Hot buttered rolls</td>
</tr>
</tbody>
</table>

**Entrees**

<table>
<thead>
<tr>
<th>Roast Young Tom Turkey with Cranberry Sauce</th>
<th>Baked Virginia Ham with Raisin Sauce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roast Long Island Duckling with Orange Sauce</td>
<td>Lobster Tails with Drawn Butter</td>
</tr>
</tbody>
</table>

The chief cook preparing dinner aboard Interlake Steamship’s *Elton Hoyt II*. Food is always plentiful aboard ships on the Great Lakes. (Author’s collection)
Wild Rice Dressing  Savory Dressing  Broccoli in Cheddar Cheese Sauce  Whipped Potatoes  Giblet Gravy  Candied Sweet Potatoes

Desserts
Pumpkin Pie with Whipped Topping  Hot Mince Pie  Fruit Cakes  Apple Pie a la Mode  Plum Pudding with Brandy Sauce

Condiments
Assorted Chocolates  After-Dinner Mints  Hard Candies  Assorted Nut Meats  Fresh Fruits

Beverages
Assorted Soda Pop  Apple Cider  Coffee  Tea  Milk

Until Christmas 1973, wine was also always served aboard the Cliffs's vessels on special occasions, like Thanksgiving and Christmas. That year, however, a crewman fell overboard from the Str. Frontenac and drowned, possibly after having consumed too much wine at Christmas dinner. In addition, six crewmembers who launched a lifeboat in an effort to save their shipmate were almost lost when the high seas and fierce winds made it impossible for them to row back to their ship. Had another freighter not been in the area and able to get to the lifeboat, its six hands might also have been died. As a result of the incident, Cliffs discontinued the practice of serving alcoholic beverages aboard its ships on holidays. Some fleets still continue the tradition, however.

Alcohol abuse has always been a serious problem in the merchant marine, even though Coast Guard regulations prohibit crewmembers from consuming alcohol aboard ship, and persons applying for Coast Guard licenses must supply letters attesting to their sobriety. With little to do during off-duty hours, however, crewmembers often resort to drinking to occupy their time. The problem is not as serious now as it once was, as many fleets have cracked down on the use of alcohol aboard their ships. Over the years, though, many sailors have been injured, some seriously, when they have fallen while trying to carry several six-packs of beer up a boarding ladder.

Falls are one of the most common causes of injury to crewmembers. There are a lot of steep ladders and stairways aboard the ships, and the steel decks can be very slick when wet. Occasionally a crewmember falls into the cargo hold through an open hatch when the ship is at a loading or unloading dock, a constant hazard for deck workers. In addition to injuries stemming from falls, burns are a common hazard for engine room personnel, particularly on steamboats where crewmembers work amid hot boilers and piping.

First aid is used to treat minor injuries aboard ship, but crewmembers who are seriously injured or ill are either put off the ship at the nearest dock or evacuated by the Coast Guard. Most medical evacuations are done by Coast Guard search and rescue vessels stationed at ports around the lakes, but in the case of life-threatening situations a Coast Guard helicopter may be called in to airlift the crewmember from the ship. In those instances, the helicopter hovers over the deck of the ship, and the crewmember is hoisted up in a special basket.

The most popular off-duty activities aboard ship are sleeping, watching television, talking, and reading, probably in that order. It is also common for crewmembers to pursue hobbies when they are off watch, including building model ships and making stained glass lampshades. One chief engineer went so far as to have a complete woodworking shop set up in the no-longer-used coal bunker aboard his ship. One avid golfer spent much of his spare time practicing his swing, driving old golf balls off the deck into the lake. To get exercise, some crewmembers use
Thanksgiving dinner aboard the Cleveland-Cliffs flagship Edward B. Greene in 1983. The captain sits at the head of the table, with the mates on his right and an assistant engineer on his left. The holiday meal is traditionally the most elaborate of the year aboard ships on the Great Lakes. (Author's collection)
weights, rowing machines, or stationary bicycles aboard ship. Others walk or jog around the deck. On a thousand-footer, one trip around the sprawling deck is about one-third of a mile.

To fight the boredom so common aboard ship, most crewmembers who are not on watch when the vessel is loading or unloading will try to get away from the ship for a few hours, going “up the street,” as they say. In some ports, like Taconite Harbor, Minnesota, and Stoneport, Michigan, however, there really isn’t any place close for sailors to go. In most ports, though, sailors can usually walk or catch a cab to go uptown. Time ashore is often spent shopping or sightseeing, particularly if the ship is at a port that it does not regularly call at. Other crewmembers will go out to eat or spend a few hours drinking at some tavern.

At the twin ports of Duluth, Minnesota, and Superior, Wisconsin, “bum boats” still tie up alongside the freighters while they are loading or unloading. The bum boats are really floating general stores where crewmembers can buy clothing, candy, beer, pop, magazines, books, stationery supplies, toilet articles, and even jewelry. Bum boats used to operate at all the major ports around the lakes, but with the downsizing of the fleet, most have gone out of business in recent years. They are, however, a colorful part of the industry’s history. (See chapter 8 for further discussion of this.) Crewmembers can purchase newspapers at the Soo Locks or at the mail-boat in Detroit. They also receive and send mail from both locations, and a merchant marine library at the Soo regularly puts boxes of books and magazines aboard the freighters.

The ship’s laundry is sent off to commercial laundries that serve the ports around the lakes. Crewmembers launder their own clothes in laundry rooms provided aboard the ship or save up their dirty clothes until they get home. Generally speaking, crewmembers aboard Great Lakes ships do not wear uniforms. Blue jeans and T-shirts or flannel shirts are standard attire, although many officers opt for tan, grey, or blue work uniforms. Some fleets supply their officers with dress uniforms, similar to Navy dress blues, but they are worn only when important guests are aboard the ship. Baseball caps and hardhats are the normal headgear. Galley personnel generally wear white shirts and pants, similar to those worn by cooks in most restaurants.

If there are women in the crew, they are most likely to be employed in the galley. In recent years, a few women have also been employed in the deck or engine departments, although few of them had enough seniority to survive the personnel cuts that occurred in 1980. Since the late 1970s, each class at the Great Lakes Maritime Academy has included from three to six female cadets, a few of whom obtained shipboard jobs after graduation, at least on a fill-in basis.

The first female captain on the lakes was Lillian Kluka, who sails for N. M. Paterson & Sons, a Canadian fleet. Joining the Paterson fleet in 1976 as a cadet, Kluka made her way up through the officer ranks and was promoted to captain of the M/V Ontodoc on July 7, 1986, at the age of thirty-one.

A graduate of the navigation program at Owen Sound College in Ontario, Captain Kluka says that she has always been treated fairly aboard ship. “I’ve never been passed over in favor of a man,” she remarks, “although there are those who are just waiting for me to make a mistake.” Captain Kluka bears excellent testimony to the ability of women to serve effectively aboard ship in virtually any capacity, rather than being limited to jobs in the galley. A few decades ago, women might have shied away from entry-level positions that required the lifting of heavy hatch covers or shovelling tons of coal into a fiery boiler. Today, however, there is little strenuous physical labor left aboard the lake freighters.

It is not hard work that drives people away from careers aboard ships. Rather, it is the long hours of monotony, the highly restricted lifestyle, and the need to be separated from families and friends for extended periods of time. The situation has improved significantly in recent years with the adoption of liberal vacation plans. It wasn’t too many years ago, however, that sailors often stayed aboard ship for the entire season, from early April until Christmas. They missed many important family events, including birthdays, graduations, and marriages.

During 1981 and 1982, Professor Harriet E. Gross and two of her graduate students at Governors State University in Illinois studied the ways in which the separations imposed by a sailor’s life affected his family relationships. Dr. Gross and her research assistants interviewed thirty Great Lakes male officers and fifty wives of officers. They found that only
Captain Lillian Kluka of N. M. Paterson & Sons, a Canadian shipping company, was the first woman to command a freighter on the Great Lakes. Captain Kluka became master of the *M/V Ontodoc* on July 7, 1986, at the age of thirty-one. (Thunder Bay Harbour Commission)
21 percent of the women indicated a high level of satisfaction with their lifestyles, while 62 percent expressed moderate satisfaction, and 17 percent ranked their satisfaction as low. The sailors’ wives said they often felt like single parents, solely responsible for managing their households during much of the year. They were often lonely, frequently excluded from couples’ activities in their communities, and most found it impossible to hold jobs because their husbands expected them to be waiting for them at the dock whenever their boat came in, regardless of the time of day.

The relationships between the sailors and their families were also strained when the sailors were home during the winter. Wives reported that their husbands seemed like strangers to them when they were reunited at the end of the sailing season. After being primarily responsible for their family during the sailing season, the wives found it difficult to relinquish control to their husbands during the winter months.

Many of the sailors tended to be autocratic in dealing with both their wives and children, undoubtedly a carryover from the quasi-military authority they were used to aboard ship. One freighter captain commented: “I'm God on the boat. All I have to do is mention something and it's done, and that's the way it's supposed to be on the boat, that's the way it has to be. I come home and I'm only a deckhand.” Other sailors were too lenient with their children, reluctant to discipline because they were only going to be home for a brief period and wanted to have good relations with the children during that time. The sailors acknowledged that their children missed out on a lot because they were gone so much of the time, but many felt that the children also had some advantages. One sailor noted: “Although they missed a lot in not having their father, I guarantee you, they had a very good living. I guarantee you that. Monetarily they had anything that was reasonable.”

The sailors’ wives, too, saw their husband’s relatively high incomes as the best aspect of working on the boats. In addition, many felt that their marriages were actually strengthened by not having their husbands around all of the time. The frequent separations maintained a freshness in their personal relationships that prevented them from becoming boring or dull. Many used the term honeymoon to describe what it was like when their husbands came home from the boats.8

The inability of sailors to adjust to the frequent lengthy separations from their families is a prime cause of the high attrition within the maritime industry. At the same time, it is difficult for many sailors, and particularly officers, to give up their jobs aboard ship for jobs ashore. While engine officers can often find jobs at power plants or operating boiler systems that provide heat for hospitals, schools, or other commercial facilities, the pay falls far short of what they are used to in the maritime industry, and they would probably have to work harder than they do aboard ship. One captain seemed to sum up the situation when he commented, “A guy could probably find a job on shore if he hustled, but you couldn’t sit around like you do out here.” A chief engineer nearing retirement said, “I’ve missed a lot of stuff over the years by being out here, but you’ve got to give up something to get something. Where else could a guy like me with an eighth-grade education accomplish as much as I have.” He added that he has made up to $60,000 in a single season. Deck officers generally find that their experience aboard ship doesn’t qualify them for many positions outside of the maritime industry. If they are able to find a job ashore, they are generally forced to take a significant cut in pay and give up the status associated with their positions aboard ship.

Many of the deck and engine officers who have graduated from maritime academies have found it easy to find good jobs ashore, however. Many of those who attend academies, in fact, have no interest in a career aboard ship. They intend to sail for a few years, in order to build a financial nest egg, then find jobs ashore in management positions, often with shipping companies, shipyards, or other businesses within the marine transportation industry. The maritime academy graduates have the advantage of having college degrees, an essential credential for most jobs ashore. A growing number of hawsepipers have also recognized the value of obtaining a college degree in terms of career opportunities and are attending college during the winter months when their ships are not operating. With more sailors obtaining educations that increase their marketability for shorereside jobs, many observers feel that attrition within the maritime industry is likely to increase.
Some fleets would clearly prefer to hire personnel, particularly officers, who do not have college educations, feeling they are less likely to lose those employees to jobs ashore. Some industry executives, for example, have objected to developing baccalaureate degree programs for cadets at the Great Lakes Maritime Academy for that very reason. GLMA graduates receive only a two-year associate's degree, while graduates of the other maritime academies earn bachelor's degrees. During the 1980–87 period when the shipping industry on the lakes was in the grip of a severe recession, few GLMA graduates were able to find jobs aboard ships. At the same time, their lack of four-year degrees made it difficult for them to find jobs outside of the marine industry or to compete with graduates of the other academies for shore jobs within the industry.

Many sailors, however, are wedded to their jobs aboard ship, not just because of the high pay, but because they genuinely love their work and their lifestyle. Regardless of what other career opportunities existed for them, they would prefer to continue sailing. At a very basic level, they are sailors ... and they love life aboard ship. Life is not always easy for sailors. In addition to the stress of being separated from their families, they spend a great deal of time basically out of touch with society. Most of the time, their “society” consists only of their shipmates.

Deck department personnel also are exposed to extreme weather conditions. In the fall and spring, they battle subzero temperatures, bitter winds, snow, and bone-chilling rain. In the summer, they bake under the inescapable glare of the sun. Engineering personnel don’t have to work out on deck very often, but they spend their hours in a windowless engine room. Noise constantly assaults their eardrums, and in the summer they swelter in the hot, stifling humidity. The smell of hot oil permeates the engine room and, in the heat of summer, can be almost overpowering.

These sailors are heirs to a seafaring tradition that is thousands of years old. Their profession is memorialized by King David in the familiar words of Psalm 107, written almost three thousand years ago:

\[\text{ἀ} \text{ey that go down to the sea in ships, and occupy their business in great waters; \text{ἀ} \text{ese men see the works of the LORD, and his wonders in the deep.}^8\]

The remaining verses of the Psalm are less familiar to us. They speak of the stormy winds and fierce waves that carry the sailors “up to heaven, and down again to the deep.” Like the seamen of David’s era, today’s sailors carry on their proud tradition with the full knowledge that thousands who have gone before them lost their lives in shipwrecks. No sailors have been lost on the lakes since the 1975 sinking of the Edmund Fitzgerald, but the men and women who sail the lakes know that it is only a matter of time before the old bell at the Mariners’ Church of Detroit will again toll mournfully for sailors lost at sea.

Notes

2. The line was supposedly delivered by Samuel Johnson’s Boswell in Life, 1759.