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**PROGRESS IN PREVENTION
OPENING SESSION**



Photograph by Earl Dotter

Throughout the world, fishermen work long hours, in dangerous conditions. Progress has been made in the prevention of injuries to fishermen, but much remains to be accomplished.

PROGRESS IN PREVENTION AND RESPONSE IN FISHING VESSEL SAFETY

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Jim Herbert has fished commercially in Alaska for twenty-five years. During that time he has fished for nearly all species of finfish and shellfish with a broad variety of gear and aboard many types of vessels. He holds a Master's license from the U.S. Coast Guard and a Merchant Mariner's Document. Over the years he has served as member and chairman of the Homer Fish and Game Advisory Committee. He currently serves on the Alaska Fishermens Fund and the Alaska Marine Safety Education Association's Board of Directors. Jim is an original member of the U.S. Coast Guard's Commercial Fishing Industry Vessel Safety Advisory Committee and current Chairperson. During the school year he teaches marine and fisheries classes at Alaska Vocational and Technical Center in Seward, Alaska.

Fishing is a global industry and in coastal waters has a history as long as mankind. According to estimates by the Food and Agriculture Organization of the United Nations (FAO), more than 15 million persons are employed aboard vessels that target marine fisheries. As might be expected, most fishermen work on vessels less than 24 meters. The vast majority of the world's fishing vessels weigh under 25 gross tons (GT) and better than half of the fleet is more than 20 years old. The FAO estimates that half of the world's seafood is caught or otherwise collected by small-scale fishermen operating millions of small fishing craft. For example, in the United States there are an estimated 80,000 fishing boats of less than 10 meters in length, and among the Pacific Islands there are over 40,000 small-scale fishermen at work [ILO 2000].

These are the harvesters of the seas, the people who provide food to consumers. For many people in both the developed and developing countries of the world, fishing is not simply a job, but a way of life with its own traditions and values. It is a culture of its own. To be most effective in dealing with the fishing industry, we must understand the culture that surrounds commercial fishing in each country and region.

You have a sense of what is important to an individual by seeing how they devote their time and energy. When you talk to people in the industry and look through trade journals at the issues that matter most to commercial fishermen around the world, safety will not be at the top of their list. The big issues are gear conflicts, allocation issues, and the health of fish stocks. Contentious management schemes and endangered species are issues that generate a lot of attention. In short, outside of catching fish, what matters most in the professional sense are the politics and economics of the industry. Does this mean that these people don't care about safety? Some may be scofflaws who don't care about a better, safer way to do business. I would venture to say that the vast majority of individuals, if they are not convinced personally of the usefulness and economic merits of running a safe operation, at least feel the threat of enforcement if they do not comply with the minimums set out by laws. I believe that even though safety is not the burning issue that gets fishermen riled up and excited, it is very much there in the background and has increasingly become part of the way most fishermen conduct their operations. Here in the United States, since the Commercial Fishing Industry Vessel Safety Act of 1988, the statistics show a sizeable decrease in fatalities and a reduction in the loss of vessels [USCG 1999]. More importantly there has been progress in the industry's attitude toward safety in general. Does this mean we have arrived? Certainly not. We all know the statistics and incidents that point out that there is room for improvement. Each one of us has her or his idea of the best way to get further improvements.

Those in the fishing industry make their living harvesting marine resources to supply consumers, but it is far from a homogenous group. Here in the United States, as in many parts of the world, fisheries have a very regional nature. The lobsterman in Maine deals with different problems and situations compared with a shrimper off of Texas compared with a tuna seiner in the Western Pacific. This makes the 'one shoe fits all' approach so commonly seen in legislation so difficult to effectively bring into practice. The diverse and regional nature of the commercial fisheries will always make enforcement of laws and policies difficult. This suggests that to be most effective we must tailor our efforts at the regional level.

A frustrating matter for safety advocates all over the world is the limited amount of resources dedicated to fishing vessel safety. For example, in the United States the USCG is the primary agency officially tasked with enforcement of

vessel and fishery laws. They are also the people called upon to perform search and rescue missions. They seemingly have responsibility for “everything wet” and like a sheet of rubber are constantly stretching finite resources ever thinner to cover federal mandates. Of necessity, they must carefully analyze how best to deploy their limited resources such as manpower, money and machinery. This is where careful data gathering and analysis will determine by region, fishery, and vessel type what are the high-risk targets, and aim the limited resources appropriately. Again this puts the focus on regional matters.

There are several areas where positive changes have occurred in the fishing industry in recent years that have had a favorable effect on safety. Similarly, trends indicate what might need continued attention in the future.

Communications: Getting and sharing information is vital to any professional. We know that fishermen are very keen on radios. Nowadays small waterproof VHF's are cheap and effective. What seems to have gained great importance in the fleet are cell phones. The USCG has been able to rescue several crews after receiving a cell phone call from folks in a life raft. The most recent innovation that is showing up even in smaller coastal vessels is satellite phones. While not being able to get the MAYDAY message out to anyone within radio range like a VHF and HF, these phones give very reliable long distance communications to other vessels and land stations. I have little doubt that in the years ahead we will see cheaper and more effective use of this technology. In addition, ADM Loy recently promoted the National Distress Response System Modernization Project before a Senate committee. This system could certainly take much of the search out of search and rescue. The British Columbia coast has seen the benefits of this type of radio network.

EPIRBS and now GPIRBS have done much to facilitate rescue of people in distress. Currently there are over a million units in use worldwide with over 220,000 using the 406 MHz frequency [Tewel 2000]. With a properly donned immersion suit and properly activated EPIRB, the odds of rescue in coastal waters are remarkably good. Yes, there are still false alarms, but in the larger picture this is a remarkable technology to alert others of a crisis and allow rescuers to find those in distress. As this technology becomes more common in the recreational and charter fleets, the potential for increased false alarms may lead to different response mechanisms by rescue services or other vessels.

As the 121.5 MHz frequency is phased out in a few years, we may see new frequencies adjacent to 406 MHz dedicated to this type of radio alerting.

Weather forecasting: The science of meteorology has improved through the years. Geo-stationary satellites and weather buoy information combined with science provide better forecasts than ever before. That is not to say that Mother Nature doesn't reserve the right to change her mind and confound the experts. The program utilized by the National Weather Service to have at-sea vessels report actual conditions to meteorologists further increases the accuracy of 12 and 24 hour forecasts.

It is wonderful that real time imagery and updates are available at sea through the Internet, on some vessels. A few large vessels subscribe to private weather services. People who have spent any time at sea know that tuning in the high frequency or VHF weather forecasts is a very important ritual on nearly every vessel. Knowing what the weather is likely to do gives a person information to make better decisions about fishing or heaving to or heading to safer waters. Information is power and this is a perfect example.

Management: We can continue to focus attention on fishery management decisions that effect safety. The National Standard 10 of the Magnuson-Stevens Fisheries Act requires the American Regional Fishery Councils to consider the impact on safety of any plan before them. It should be pointed out that this is only one of many standards that must be taken into account. Often the issues before these councils are extremely contentious and individuals, communities, and companies have much at stake. The situation that currently exists in New England waters illustrates the great difficulty in making decisions that move toward consensus among stakeholders and still meet the mandates of regulations and laws.

The Mid Atlantic Fishery Management Council (MAFMC) took an aggressive stance in 1999 by unanimously passing a resolution that stated: "The MAFMC hereby resolves to ensure proposed fishery management plans do not negatively impact the safety of commercial fishing vessel operations." Moreover, the MAFMC recognizes that all fishery management plans should be developed so as not to place fishermen in an environment where they must unduly hazard themselves in order to remain economically viable. A council member who is a commercial fisherman initiated this resolution and it received unanimous support from his colleagues [Ruhle 2000].

Each Council has a U.S. Coast Guard (USCG) officer as a non-voting advisor. They can provide advice and insight on the safety implications of council actions.

The Individual Fishing Quota (IFQ) program was put in place in 1995 in the North Pacific to address the problems created by the overcapitalization of the sablefish and halibut fisheries. Problems included short “derby” openings (in most areas, openings lasted less than a week, sometimes for only two 24-hour periods a year). Safety concerns were also cited as one of the many problems that needed attention.

Halibut safety statistics demonstrate that the new system has been successful in this arena. Since the system was implemented in 1995 there has been an average of 10 SAR missions per year compared to an average of 28 per year in the last three years of derby fishing. The past five years have averaged 1.2 sinkings per year compared to 2 per year during the derby fishery. Since the IFQ program, 1.2 lives have been lost per year compared to 2 per year during the last three years, although each season is characterized by short intense openings [IPHC 2000].

Simply stated, fishery management is a very complicated matter, but it is foolish to make decisions that invite or encourage risk-taking on the part of fishermen.

Training: Enforcement and punishment stops bad behavior but does not necessarily change a person’s attitude. It is very difficult to change the way someone thinks about something, especially if they have been doing things a particular way for a long time.

This is the area where training can have the greatest impact. It is one thing to have someone sit in a classroom, tell them what is wrong, and tell them how to do it better. Unless they are convinced that you are right, the odds are slim that they will do anything different once they get back on their boats. Training must be credible. If the instructor doesn’t understand the industry or fisherman’s problems, the students may not only reject the instructor and this class, but also be soured on training altogether. The most successful training organizations try to use experienced and knowledgeable instructors to gain the most positive effect.

While many nations have legal mandates and incentives for training, there can still be resistance. Training takes time and money. This can interfere with actual fishing time, boat chores, and may keep fishermen from spending time with family and friends. Accessibility to training courses and their cost is a common concern of working fishermen.

The good news is that most industry members who go through a high-quality training program leave with new ideas and skills that they begin to integrate into their operations. This training may give them the ability to respond to emergencies aboard their vessels and builds a body of knowledge and skills to prevent those emergencies from happening in the first place. This is the emphasis on prevention and response that is so important.

Advocacy Groups: Fisherman's Wives organizations like those in Gloucester, Massachusetts, Newport, Oregon, and Kodiak, Alaska have helped emphasize the importance of training and safety in general to parts of the fleet. If a captain is not concerned enough about safety, who has a greater investment in safety than the woman and children he may leave behind if he perishes at sea? If he loses his vessel and their business is lost, we know who will suffer the most – certainly not the banker or the cannery. If a crew person is injured or disabled at sea, this person not only pays a price with lost income, but also with readjustments and rehabilitation down the road. So it is a strong force for change to have the families of fishermen aware and committed to the matter of safety. Those who have the greatest investment or would suffer the greatest loss should have the greatest involvement. This helps further a change in attitude.

Friends and members of the fishing industry should seek to help solve its problems. We can start with the fact that fishing takes place in an environment that is often hostile. When you are at sea, even in relatively calm weather, the motion of the ocean is a constant factor. In severe weather work or even basic movements become difficult and fatiguing. We know it is a profession associated with higher than average risk. We must be careful not to oversimplify commercial fishing. This can lead to resentment by fishermen, not to mention ill-advised legislation and regulation. We know fishermen rely on their vessels for their livelihood and their survival, and that risks vary by region, fishery, and vessel.

We have made progress in making the fishing industry safer. There has been analysis of vessel related factors including stability and watertight integrity, material condition of vessels, or lack of safety equipment. People have examined behavioral factors such as fatigue, unsafe practices, and judgmental errors. The solutions that have been suggested will provide strategies that can prevent fishermen from being injured or killed. Other ideas will help reduce vessel casualties.

Still, finding the right balance of action and responsibility by individual fishermen, vessel owners, and regulators is a question to be worked out by each country and region. Ultimately, what we are trying to do is promote a change in the attitude of fishermen that makes the prevention of injuries, accidents, and losses the goal. If prevention fails, what we strive for is the ability of the individual and the system to provide an effective response. We can work toward solutions. I hope we can change people's minds about prevention and response. What we can do, we must try and do.

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