UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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In the matter of: *
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PUBLIC FORUM ON FISHING VESSEL *
SAFETY *
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NTSB Board Room and Conference Center
490 L'Enfant Plaza
Washington, D.C. 20024

Thursday,
October 14, 2010

The above-entitled matter came on for hearing, pursuant to Notice, at 8:00 a.m.

BEFORE: NTSB TECHNICAL PANEL

APPEARANCES:

NTSB Technical Panel:

ROBERT SUMWALT, Chairman
LIAM LARUE
LARRY BOWLING
MIKE ROSECRANS
ROB HENRY

Panel 4: Fisheries Management Plans

GALEN TROMBLE, National Marine Fisheries Service (NMFS)
JENNIFER LINCOLN, National Institute for Occupational Safety and Health (NIOSH)
STEVE HUGHES, Natural Resource Consultants
CHRIS WOODLEY, Commander, U.S. Coast Guard
PAUL HOWARD, New England Fisheries Council
VINCENT O'SHEA, Atlantic States Marine Fisheries Commission (ASMFC)
GERON BRUCE, Alaska Department of Fish and Game

Panel 5: Lifesaving Equipment

MIKE GRUPA, Personal Flotation Device Manufacturer's Association (PFDMA)
TOM THOMPSON, United States Marine Safety Association (USMSA)
JENNIFER LINCOLN, NIOSH
RICHARD HISCOCK, Commercial Fishing Industry Vessel Safety Advisory Committee (CFIVSAC), Past Member
KURT HEINZ, United States Coast Guard

Panel 6: Training

LESLIE HUGHES, North Pacific Fishing Vessel Owners Association (NPFVOA)
JERRY DZUGAN, CFIVSAC
GINA JOHANSEN, Fish Safe, B.C.
RODNEY AVILA, New Bedford Consortium
JOHN O'LEARY, Chesapeake Marine Training Institute
JACK KEMERER, U.S. Coast Guard

APPEARANCES (Cont.):

Panel 7: Representatives of Fishing Agencies

FRED MATTERA, Point Club, Point Judith, Rhode Island
RODNEY AVILA, New Bedford Consortium
ELLIOTT THOMAS, Maine Commercial Fishing Safety Council (MCFSC)
MARK VINSEL, United Fishermen of Alaska (UFA)
MICKEY JOHNSON, Southern Shrimp Alliance
TIM VINCENT, North Pacific Fishing Vessel Owners Association

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P R O C E E D I N G S

(8:17 a.m.)

CHAIRMAN SUMWALT: Well, a very pleasant good morning, and yesterday was an absolutely splendid day. And I believe today will be every bit as good, in fact, maybe even better in terms of all of the great information we'll be getting. I don't know how we could top yesterday. Yesterday was great, but I think today will be a wonderful day as well.

I'm going to just quit talking and turn it over to Captain Rosecrans for -- to introduce Panel Number 4.

MR. ROSECRANS: Good morning. Can you hear me okay? Especially on the panel. I want to go over our panel procedures just so everybody's on common ground.

This forum is being made available for streaming on the internet for those of you who could not attend in person. We will accept from the audience here or from those viewing remotely -- for those in attendance, question cards are available and an usher will collect them if you hold them up. For those viewing remotely, we will accept questions either our e-mail, fishingforum@NTSB.gov or for those on Twitter, it's # NTSB Forum. If your question is for a specific panel member, please specify. We may not be able to ask all questions submitted due to time constraints.

Now I'll explain how our panel works. Each panelist will have an opportunity to make an opening statement or

presentation. If you have provided a presentation, it will be queued up and you will be able to see it on the screens to the right and left of the dais. For those that have a presentation, there is a remote clicker to advance your slides or they may be advanced by staff. Those watching this forum on the internet will see the presentation while hearing the panelists. We ask panelists to limit your comments to five minutes and we will be using a light this morning.

After each of the panelists has had an opportunity to make their initial remarks, we will begin a round of questions. The Chairman of the technical panel will begin and other members will then follow. Answers should be short and to the point. We have not planned to limit answers, but caution that if answers appear to stray from the question or ramble, you may be asked to cut your answer short for fairness and efficient use of the time.

At the end of the panelist's time, we will provide an opportunity for panelists to comment or ask questions about the statements or presentation of other panelists. We specifically avoided defining ending time for the panels to provide some flexibility. We do have time constraints, so I reiterate, please make your comments and answers to the point.

Finally, we will answer questions from the audience, e-mail or Twitter if time permits. A court reporter will capture and transcribe statements, questions and answers and a verbatim transcript will be posted on our website in several weeks. If the

audience or panelists wish to provide additional background material, we will accept this at our e-mail account through October 29th of 2010.

Now the introduction for the panel. As we heard yesterday, safety within the commercial fishing industry is a complicated matter, one of the issues that may not be really apparent as a safety issue are the rules under which fisherman depart to operate. As with any economic adventure, the rules of engagement are very important. Commercial fishing is comprised of mostly small businesses. As small business, the industry is especially sensitive to economic issues and uncertainty in any aspect affecting income. U.S. fisheries are governed by the Magnuson-Stevens Fishery Conservation and Management Act. The administrator of those statutes in federal waters is NOAA Fisheries.

Managing fisheries to be sustainable is the 800-pound gorilla in the fishing industry. If just managing the fisheries weren't concern enough, the process of developing fisheries management plans is managed through eight fisheries management councils. Fisheries management councils are made up of a diverse mix of interests including scientists who identify fish populations on which plans are based and a mixture of governmental and private stakeholders.

Many improvements in safety within the industry have little to do with training of personnel, the physical condition of

the vessel or the equipment on board. The rules regulating the fishery may have the most important impact on safety because fisheries management plans define the opportunity for success of fishermen. Those plans also define some aspects of the risk to the fishing community. If fishing seasons shrink and catch limits are reduced, the opportunities for economic viability of the small businesses are defined. This framework can have a significant impact on the inherent risk that fisherman may face.

What we hope to achieve in this panel is a better understanding of the relationship between safety and fisheries management. In doing so, the goal is to identify new ways to improve safety without adversely affecting the other issues involved in managing the fisheries.

I will now introduce our distinguished panel members. Galen Tromble. Mr. Tromble is chief of the Domestic Fisheries Division, National Marine Fisheries Service, Office of Sustainable Fisheries.

Dr. Jennifer Lincoln. Dr. Lincoln is from the Alaska Pacific Regional Office of National Institute of Occupational Safety and Health. And many of you heard her presentation yesterday. She is an injury epidemiologist, especially in the commercial fishing industry safety issues.

Steve Hughes. Mr. Hughes is president of Natural Resource Consultants in Seattle. He is especially knowledgeable of issues involving fisheries management plans and their

development. He has experience as a commercial fisherman.

Commander Chris Woodley. Commander Woodley is also from Seattle via Alaska. He has been involved in commercial fishing issues in the Pacific Northwest for many years. He has been involved in noteworthy fishing vessel accident investigations and is recognized within the Coast Guard as an expert in fishing and safety issues. Commander Woodley is the -- was the driving force behind the Alternate Compliance and Safety Agreement Program for the head-and-gut fleet we heard about yesterday.

Captain Paul Howard. Captain Howard is the executive director of the New England Fishery Management Council where he has served for a number of years after a distinguished Coast Guard career.

Captain Vince O'Shea. Captain O'Shea also had a distinguished Coast Guard career. He now serves as the executive director of the Atlantic States Marine Fisheries Commission and he has experience as a commercial fisherman.

Geron Bruce. Mr. Bruce is the assistant director for the Division of Commercial Fisheries with the Alaska Department of Fish and Game.

I would also say that I was in the Coast Guard, but I can't claim to have a distinguished career, but I did spend five and a half years in Alaska in the Coast Guard.

As Dr. Rosecrans -- or Captain Rosecrans said, the Magnuson-Stevens Fishery Management and Conservation Act is the

main federal authority for management of fisheries in U.S. Federal waters. And the eight fishery management councils have a very unique role given to them by congress in developing management plans that are administered by the National Marine Fishery Service.

Safety in U.S. fisheries is complicated by the wide diversity in fisheries we have, from industrial fisheries such as ones in the North Pacific to, really, artisanal fisheries and things in places like the Caribbean and Western Pacific, but highly diverse fleets and many different issues that the eight management councils have to deal with.

I just want to highlight a few things that we see as being important in terms fishery management progress that affects safety. The Magnuson Act has a national standard, one of 10 national standards that says that conservation and management majors shall, to the extent practicable, promote the safety of human life at sea. And every fishery management plan that's done, every amendment to a plan that's done, the council has to address the standard and consider alternatives and things in its management majors and consider the effects on safety.

That said, fishery management regulations can only go so far in terms of making fisheries safe. The primary goal of fisheries management is the conservation and management of the resources and having sustainable fisheries that can supply seafood to consumers and incomes and livelihoods to fishermen.

One of the things that happens in fisheries that I think has the biggest impact on safety is overcapacity in the fisheries, which is where there's an imbalance between the number of participants, the number of vessels fishing and the resource. This leads to two things. One is it can lead to a race for fish, shortened seasons and fishermen feeling pressure to have to go out, even in bad conditions, unsafe conditions in order to make a living.

The other related thing is that overcapacity tends to eliminate profitability in the fishery. And when the fisheries are economically, not really viable, fisherman don't have profits, they tend to let maintenance on their vessels lag.

Two programs that we have that we think are safety promoters in the fisheries are, one is catch shares and this is a program that's -- or a type of program that's a priority for the current administration in fisheries. By allocating shares to either individual fishermen or groups, such as sectors or cooperatives, it provides fishermen with more flexibility. They don't have to race for fish. Each individual or group has their own quota they can fish for when they want to. If the weather's bad, they don't have to go. If their boat has a maintenance problem, they can stay home and fix it. Also, we think that catch share programs will increase the profitability in the fishery and therefore, the fishermen will be able to maintain their vessels better.

Related to that is capacity reduction, which is authorized by the Magnuson Act and this allows the industry to buy out -- to organize a buyout of some of the vessels in their sector. And we've administered eight industry funded buybacks since the mid 1990s.

Lastly, we think that the observer programs that we have, have contributed to fishing safety. We have more -- an increasing number of fisheries that have observer programs, and along with putting observers on boats comes requirements that the boats have safety inspections and things like that. And we think that that contributes to safety.

So I'm down to 10 seconds now and I will close with that. Thank you.

MR. ROSECRANS: Thank you.

DR. LINCOLN: Good morning. I will review two issues during this brief presentation this morning, one regarding quota systems and safety and the second is a proposal of how to assess safety scientifically to better implement Standard 10.

First, the quota systems. Mr. Hughes, Commander Woodley and I have received the -- have reviewed the safety improvement records for the halibut sablefish fisheries, the Bearing Sea, Aleutian Island crab fisheries and the American Fisheries Act vessels after quota based management systems were implemented in these fisheries.

I received many calls about this research and regarding

our findings and I need to make one important point. It is that rationalization or quota based fishery management policies are not a panacea for reducing fatalities. Quota based fisheries management plans will only reduce fatalities if the plan lessens the hazard that exists in the fishery. Commercial fishing takes place in a dynamic environment and adverse events are caused by the culmination of risk factors related to the environment, the vessel and the crew. So unless the quota system addresses the hazard the fishery has that results in fatalities, it will not result in a reduction in fatalities, but it can lessen risk.

Now for the proposal. For this panel, I decided that the thing I wanted to talk about is that I didn't think that we needed to debate whether or not resource management polices affect safety, but how we effectively implement Standard 10, which is to promote safety of human life at sea.

In 2009, I started attending the North Pacific Fisheries Management Council meetings and this has allowed me to better understand how I as, an injury epidemiologist and a safety professional, can be the most effective in participating in this complicated political process. Safety professionals, including the members of the U.S. Coast Guard that work in prevention need to start showing up to the council meetings. Attending the meetings has allowed me to meet the National Marine Fishery staff and to offer myself as a resource to them.

Recently, Commander Woodley and I prepared the safety

analysis for the Amendment 80 vessel replacement issue that came before the council. In this safety analysis, we provided data on fatalities and the fatality rates for this fleet. We explained the current safety regulations and how vessel replacement would change the set of safety regulations the vessels would follow.

We also conducted a literature review for evidence regarding safety implications for an aging fleet and this was presented at the June council meeting in Sitka. Currently, Commander Woodley and I are writing the safety section of the five-year post-rationalization review for the Bering Sea, Aleutian Island crab fisheries. In this, we are, again, discussing fatalities and calculating fatality rates and looking at overall trends in the fatality rates and current safety regulations. We're presenting measurements and qualitative assessments of how rationalization has lessened risk and we've posed some ideas of how to further improve safety in this fleet.

So having been involved in these two processes, I'm willing to offer a proposal for discussion of what to incorporate in a scientific safety assessment process for any fishery. It contains six steps.

Terrance, you can put that slide up.

The first one is to count the bad things that have occurred in the fishery: the fatalities, the vessel casualties, the non-fatal injuries, the search and rescue missions. That means that these things need to be collected and coded by fishery

for a fishery.

The second step is to look at the fatality rate and trends over time, make a workforce estimate, calculate the rate each year; is it increasing or decreasing.

And step three is if these data don't exist, make a plan to get them.

Number four, conduct a risk assessment for the fishery. Discuss the current safety regulations in place for this fleet. Other information may already exist for a variety of general risk -- safety risk factors. Is the fishery executed in the winter or the summer, in warm or cold water? Has it already been identified by NIOSH as being a high risk fishery? Is the fishery executed at a great distance from search and rescue resources? Is the fishery in an economic downturn?

Step five is to look at the fishery's management plan to see if it currently contains some of the policies that we already know might lead to safety hazards, such as are there daily catch limits or limiting fishing days that entice vessels to stay out and fish in poor weather.

Finally, the sixth step is to describe the alternatives that have been considered and are there some proactive things that should be considered to improve safety.

Now as I said, this is a proposal and I think it's very important to start assessing safety for fisheries with the same scientific rigor that shows that safety of human life at sea is as

important as the economic and biologic factors that exist for a fishery.

Thank you for the opportunity to sit on this panel and I'll look forward to our discussion.

MR. ROSECRANS: Thank you, Dr. Lincoln.

MR. HUGHES: Thank you, Mr. Chairman, for the opportunity to testify before you today regarding fishery vessel safety and in particular, to discuss some of the fishery management impacts on safety.

I've had a fortunate career and the opportunity to spend a good part of 20 years in the Bering Sea, Aleutians and Gulf of Alaska on chartered commercial fishing vessels conducting the fisheries research that I enjoy doing. And I've been, in part, involved in the development of fishery management plans in Alaska, the Pacific West Coast since the North Pacific Fishery Management Council and the Pacific Fishery Management Council were formed.

I view fishing vessel safety as a three-legged stool. The first leg of the stool is the vessel itself with good stability, well maintained, whole machinery, the fishing gear, the deck gear and the safety equipment. The second leg of the stool is sound operations which involves decisions being made and work being completed by knowledgeable, skilled, trained people. The third leg of the stool is fishery management format. Here, I'm not talking about the setting of harvest limits to achieve sustained yield management, which is one of my favorites, but

rather, the basic fishery policy that dictate vessel and people operations.

In Alaska, we've likely seen the worst and we've likely seen the best of fishery management format. The worst has been the open access or so-called Olympic style fisheries where entry is not limited, a fishery where the harvest quota is announced with a future season opening date, the gun sounds, the race for fish is on. The focus is on maximum revenue per day of open season. And when the harvest quota is judged to have been caught, the season's closed.

Open access, Olympic style management policy has had a history of generating the following: over capitalized fleets -- too many boats chasing too few fish, as the old saying goes; shortened seasons, especially as overcapitalization increases; discontent between competing industry sectors or gear groups -- not a good thing; resource waste; low product yields; and of course, the need to conduct high risk operations or take the chance of going broke, which, in turn, increases injuries, deaths and loss of vessels.

Open access fishery management does not provide a supporting third leg of the stool. It degrades the ability to conduct sound operations, the second leg; and vessel maintenance and upgrades often suffer due to failed seasons and a shortage of revenues, the first leg.

Improvements over open access fishery management have

occurred due to the controlling of numbers of vessels by so-called limited entry permit management and by allocating portions of harvest quotas to different sectors of the total fleet and by a combination of these management policies. History has shown, however, that limited entry systems usually happen only after the fleets are overcapitalized and that sector allocations only become sector specific -- I'm sorry, and are -- and that sector allocations only become sector specific races for fish with all the same problems.

The best fishery management policies from Alaska, and soon to be from the west coast, are limited entry, individual fishing quota management or limited entry co-op, quota style management programs. In each of these management systems, resource harvest quotas are established for defining stocks, open season dates are established, numbers of vessels or permits are restricted by eligibility qualifications by a cutoff date and by historic performance.

IFQs or quota shares, QS's, are allocated to each qualified participant. IFQs or quota shares can be harvested at any time within open season at owners' discretion to achieve annual fishing plans. The effect of IFQ quota share style management has been to stop the race for fish -- no one else can harvest your IFQs or your quota shares unless you choose to lease them or to sell them to another qualified owner; consolidate overcapitalized fleets, as some owners choose to lease their IFQs

or quota shares or to sell them and get out of the fishery. IFQs and quota shares promote operations fishing strategy that maximizes the dollars per fish caught rather than dollars per day.

IFQs, quota shares promote the efficient, more efficient and cost effective operations and very importantly, they reduce bycatch of unwanted species. They also provide for substantially longer seasons for those vessels and crew members choosing to participate with increased revenues at both the vessel and crew member level. There's also increased usage of quality vessels in the fishery and employment of more professional crews. And IFQ quota share management creates an environment for real, actual improved vessel safety generated by eliminating the need to be competitive in bad weather conditions that would compromise vessel stability and crew safety by having the opportunity to make well-founded and safer decisions, both in the wheelhouse and on deck and by having the revenues to provide and operate a well maintained vessel.

Three legs of the stool, a stable and well maintained vessel, good decision-making policy by skilled, well trained and knowledgeable crew and IFQ or quota share fishery management policy. Fishery management policy is a very powerful tool. It can have and deserves to have a huge impact on vessel safety.

As a final message, you've heard this before from others. One size fishery management will not fit all fisheries. Management plans that will truly promote safety are best developed

within regions together by local officials and active industry members in a public, transparent forum.

The fishery management policies that I've discussed today pertain to Alaska halibut and sablefish longline fisheries, the Bering Sea, Aleutian, king crab and Tanner crab fisheries, the Bering Sea pollock fisheries, the Amendment 80 groundfish freezer trawler fisheries and the Pacific West Coast groundfish trawl fisheries for groundfish and hake. Thank you.

MR. ROSECRANS: Thank you, Mr. Hughes.

CMDR. WOODLEY: Good morning. Thank you, Mr. Chairman and members of the National Transportation and Safety Board for the opportunity to share my thoughts on fishing vessel safety and fisheries management.

With the passage of House Resolution 3619, the Coast Guard will be entering a new era in fishing vessel safety with a newly acquired ability to mandate vessel examinations and training on vessels operating beyond three nautical miles. But while we talk about the novelty of this authority, it is, in fact, something that's already happened.

In 1998, the implementation of National Standard 10, as a result of the passage of the Sustainable Fisheries Act, required compulsory vessel exams for approximately 350 vessels operating with mandatory observer coverage in the Bering Sea and Aleutian Island fisheries. Despite that, in subsequent years, there was still a number of significant accidents in these fisheries which

occurred on vessels which possessed a current Coast Guard dockside exam decal. The Amber Dawn, the Arctic Rose, the Galaxy, the Big Valley, the Alaska Ranger and the Katmai were all vessels that had met the basic requirements of fishing vessel safety regulations, but suffered a cumulative 38 fatalities, nevertheless.

I put this out there as a cautionary tale. Even with mandated exams, there are, and as we already heard, other influences outside of vessel seaworthiness and crew competency that affect safety. And I'm speaking specifically about fishery management regimes. When I use the phrase fishery management regimes, I am not just referring to those kinds of wholesale and dramatic influences that can occur following the transition to a quota based fishery. I don't need to belabor this issue based on what we've already heard this morning, but quota fishery management programs can potentially have significant positive safety impacts on fishing operations.

More to my point, I am specifically referring to the ability of the Coast Guard and fishery management agencies to integrate fishery management practices, policies and institutions as a way in which it promotes safety and reduce operational risks. The 13th and 17th Coast Guard Districts, there have been several examples over the years of this kind of inner agency collaboration and I would like to review a couple of those.

First, the Coast Guard and the North Pacific Groundfish Observer Program have developed outstanding practices where the

Coast Guard provides safety training to hundreds of fishery observers annually. The Observer Program, in turn, shares safety data and safety concerns on over 350 observed vessels in the North Pacific. This interaction leads to effective communication and resolution of safety problems before they progress into something larger.

The second example comes from the Alaska Department of Fish and Game. Beginning in 1999, the Coast Guard and the ADF and G leveraged the authorities found in ADF and G fishery management practices to address the specific safety hazards of vessel overloading for the high risk crab fisheries of the Bering Sea. This resulted in a 74 percent reduction of -- in fatalities overall and a 64 percent reduction in the fatality rate.

The third example, as Dr. Lincoln already mentioned, is working with the specific fishery management councils. She's already gone into the issues regarding Amendment 80 vessel replacement and I know this is of specific interest to the National Transportation Safety Board as it was one of your formal recommendations to the National Marine Fishery Service following the investigation of the Alaska Ranger.

The council did vote unanimously to allow vessel replacement based on the safety data -- largely based on the safety data provided by Dr. Lincoln and myself and by your recommendation.

I would argue that these examples represent some of the

most effective integration of safety and fishery management goals on the west coast in the last 10 years, if not, the country. In each case, they achieve significant safety improvements by addressing unique safety concerns found in individual high risk fleets that were not part of -- and these were things that were not part of the Coast Guard's Fishing Vessel Safety Program.

However, these initiatives have tended to be ad hoc and have been driven more by personalities and institutional design. To move to the next level, these kinds of interactions need to be formalized and institutionalized within the Coast Guard and within fishery management agencies.

Coming back to my earlier concern expressed about dockside exams not being enough to truly get at the numerous safety concerns, I would recommend the following. And you've heard some of this before already, so I'll be brief with it.

First, we need to identify the specific hazards for vessel sinking and subsequent fatalities on a regional and fishery specific basis. The safety performance information should be captured in regional fishery management council at -- councils annual. They're called SAFE reports, Stock Assessment and Fishery Evaluations. Ironically, there's no safety information in these reports, but there is a section regarding socioeconomic impacts and that's an appropriate place to put the SAFE information. The ability to calculate individual fishing fleet fatality rates is scientific data based and has been demonstrated in numerous

fisheries.

Secondly, for fatality rates succeeding a certain threshold, the Coast Guard, collaborating with appropriate gears, species groups and fishery managers should design -- should begin discussions to develop tailored safety intervention programs for these high risk fleets to reduce these fatalities and losses.

Lastly, the Coast Guard should establish, on the Regional Fishery and Management Council Safety and Enforcement Committee, a mid level to senior prevention officer. More than other -- more than any other maritime industry, the context of fishery operations, management and politics are crucial to understanding safety concerns. By including a Coast Guard safety professional to be a representative on these councils, Coast Guard prevention programs will be better poised to monitor changes in fishery management practices which can affect safety.

And that's all I have. I believe I'm out of time.

MR. ROSECRANS: Thank you, Commander.

MR. HOWARD: Morning, everyone. I have a quick slide presentation.

Safety at sea has long been a serious issue for the council, National Standard 10, conservation and management measures shall, to the extent practical, promote the safety of human life at sea. The councils rely on the Coast Guard, council advisory panels and public input to address that national standard. Next slide, please?

We recently asked the Coast Guard to present a report, a casualty report to the council at its September meeting. The statistics in that report were very interesting. If you note on this slide, we asked them to compare our very successful scallop fleet and scallop fishery compared to our least successful groundfish fishery and the data's very interesting. Note on this slide, on the scallop -- age of the scallop fleet, from 1970 to 1979, vessels that are 31 to 41 years old have their greatest percentage of reported causalities and the greatest number of casualties per 100,000 hours.

If you look at the size of the scallop fleet, vessels between 30 and 49 feet have the most reported casualties for 100,000 hours of operation. And those smaller vessels are primarily our groundfish fleet that got an allocation of scallop quota. It's a new fishery, individual fishing quota fishery, but the vessels are old, they're small and they're not used to carrying a very heavy dredge. They were carrying nets.

Our multispecies fleet, if you look at the age, vessels again, between 31 and 41 years old have the greater percent of reported casualties, 45 percent and 14.6 casualties per 100,000 hours of operation.

If you look at our groundfish fleet, the size of the vessels, vessels that are 70 to 79 feet in length have the majority of the reported casualties and the greatest number of casualties per 100,000 hours of operations. And interesting,

vessels 70 to 79 feet primarily operate offshore the waters of Georgia's bank. Vessels between 50 and 70 feet operate both offshore and inshore and vessels less than 50 feet are primarily inshore.

Vessel fishing requirements, there's basically none. That's a problem. However, a new Coast Guard bill includes a number of fishing vessel safety provisions. Fishing vessels are uninspected vessels, as you know. There's no annual Coast Guard certificate of inspection for all systems. There's no licensing requirements for operators or crew. No competency testing for even the basic knowledge of seamanship, navigation, first aid, firefighting, et cetera. There's no experience requirement or physical requirements. Even the Coast Guard's dockside safety exam is voluntary.

Conclusions. Casualty rates increase with a respect of age of the vessel. Small scallop vessels 30 to 39 feet in length, which is our new IFQ fishery, have increased casualty rates. These are small, older vessels towing very heavy gear. Multispecies or groundfish vessels between 70 and 79 feet, operate primarily offshore, have an elevated casualty rate. Loss of stability and man overboard continue to be the leading causes of fatalities in the New England region. Inadequate licensing and inspection requirements are contributing to these casualty rates. Fishing regulations are most successful when developed from the bottom, up, but I believe safety regulations should be from the

top, down.

Recommendations. Competency and testing and a license should be required for all commercial fishing vessel captains. With a true professional in the wheelhouse with demonstrated knowledge and experience, safety will improve. You have to start with the captain and then it will flow downhill from there. Coast Guard dockside safety examination should be mandatory and commercial fishing vessels should be inspected by the Coast Guard.

Thank you, Mr. Chairman.

MR. ROSECRANS: Thank you, Captain Howard.

MR. O'SHEA: Good morning, Mr. Chairman, and thank you for your hospitality in conducting this hearing this week. And thank you for having given the states an opportunity to be in this forum. I think that's a very important role to play. And thank you, Captain Rosecrans, for your efforts to pull this forum together.

You know if you think about the Deadliest Catch, that's a fishery that's managed by a state and some of the accident statistics that we saw yesterday are from small vessels that operate inshore in fisheries that are managed by the states. And Galen Tromble talked about federal fishery management and I think it's appropriate for me to quickly walk through what our commission does and the role that we don't play in fisheries safety.

Our commission was formed back in 1942 and it covers the

states from Maine to Florida. And it was for the purpose of managing fish in state waters within zero to three miles. And we provide a forum for the states to come together and decide on fishery objectives and then leave it up to the individual states to go back and implement those measures through their regulatory process.

We operate under the Atlantic Coast Coastal Fisheries Cooperative Management Act of 1993. It's silent on the issue of fishing vessel safety. Our commission charter from 1942 is silent on fishing vessel safety and as a result, ASMFC management plans are also silent on fishing vessel safety. Instead, the states implement fishery management plans through their state regulatory process and it's our commission approach to leave the operational elements of fishery management to the prerogative of the individual states. We've heard yesterday, a common theme of one size does not fit all and we certainly -- that certainly applies in the commission approach to fishery management.

Fishing vessel safety attention within the states, though, varies and it is an important issue for our states. We heard from Elliott Thomas yesterday about the Commercial Fishing Vessel Safety Council in the State of Maine and that was really an outcome of a governor convened taskforce that was event driven by a number of significant casualties up in Maine. The Maine Marine Patrol is an active advisor in that process and I think polling our states, we believe that that's the appropriate way for safety

to be introduced into the state processes, is depending on the characteristics of the individual state fisheries.

One of the things that I think is worth further exploring is for the Coast Guard to really see if we're -- we have the optimum cooperation between the state marine patrols and Coast Guard enforcement relative to checking fishing vessel safety equipment, not doing, necessarily carriage inspections, but -- or safety decal inspections, but at least authorizing the state marine patrol officers to check for survival suits, fire extinguishers and life rafts.

There are cooperative enforcement agreements between the states and the Coast Guard and this would be a good vehicle to look at. And of course, unfortunately, our states become intimately involved with fishing vessel safety when they lend their forces to search and rescue operations.

So a couple of takeaway points that I would make in terms -- since this is how can management contribute to fishing vessel safety. The first is a relatively simple one, and that's -- I wish Admiral Cook was here this morning, but we heard yesterday about lessons learned and the importance of lessons learned. And the Coast Guard has a terrific program with *National Fishermen* where, each month, they take an investigation and they feature it in *National Fisherman*.

Mr. Chairman, I know your Board puts a lot of energy into your fishing vessel casualty investigations and, my goodness,

if we're losing lives, at least those people that have lost their loved ones could know that there was some lesson learned that was given to the rest of the fleet. And I would encourage the Coast Guard to continue to use the forum of the *National Fisherman* as a way to get that word out. Fishermen read that magazine.

The second one is, you know, the outreach. This is about changing culture and ideas and I'm so glad to see high liners like Fred Mattera and Rodney Avila, are good friends of mine, that are promoting fishing vessel safety. That will change the culture.

But in the small boat fleet, when I was -- had my prior job in the Coast Guard, I target the wives in the room and I would look at them and I would say you know, a survival suit costs less than a pickup truck payment. Does your husband have a survival suit on his boat and ask him why he doesn't. So targeting the families in the small boat fleet may be a good strategy.

And finally, I would like to reinforce what my friend Craig Cross yesterday: follow the money. If fisheries are making money, they're going to buy top crews. They're going to buy non-revenue producing safety equipment and that's particularly relevant now because we have a debate going on about consolidation and catch shares and profitability of the fleets and having fleets that are economically viable are a key element to the safety puzzle. And that's a takeaway message for both state and federal managers.

I'm over my time, Mr. Chairman, but I've covered everything I wanted. Thank you very much for your patience.

MR. ROSECRANS: Thank you, Captain O'Shea.

MR. BRUCE: Mr. Chairman, thank you for inviting the Alaska Department of Fish and Game to participate in this forum. And I'll be speaking from the state's perspective today. The title of this panel is resource management influences on safety and I think that's exactly the right title because, as a fishery manager, all of the Alaska Department of Fish and Game can do is influence safety and that's for two reasons. One, we are an agency -- a public agency that is established by statute and nowhere in our statues are we given direct authority over safety. That resides with other agencies. Secondly, as a number of people have testified yesterday and today, fisheries management is a complex activity that balances. It seeks to balance a number of interests. Safety is one of those interests, as well as conservation and the needs and interests of competing users, including local communities.

So with that in mind, I don't want to give the impression that the Alaska Fisheries Management System ignores safety. It does not. The way safety is addressed is through the general provision that authorizes the Department of Fish and Game and the Alaska Board of Fisheries to manage and develop fisheries in the State of Alaska in the general interest of the people of the state and the economy of the state. So that does give a way

into some interest and some expression of safety in the development of fisheries management plans.

In the time that I have remaining, I would like to talk a little bit about how the fisheries management system in Alaska works and to just briefly mention a few specific regulations that have been developed that do address safety.

In Alaska, there are two -- in the state system, there are two basic entities involved in fisheries management; the Alaska Board of Fisheries, which is the rule making body. This is a seven member lay board appointed by the governor and confirmed in joint session by the Alaska legislature. They have the power to develop the fisheries of the state and they also have a role to play -- a very important role to play in conservation.

The Alaska Department of Fish and Game is essentially the implementer of the rules that are adopted by the Alaska Board of Fisheries. The role that -- the department plays a number of important roles in fisheries management, obviously, but two, I think, are very important in the context of this discussion.

The first is that the scientific staff and the managers of the Alaska Department of Fish and Game advise the board regarding the fisheries management plans and regulations that they are contemplating on developing. We advise them regarding the conservation issues, as well as the management issues that are implicated in the proposed regulations that the board considers.

Our board process is a very public, intensive process.

The decisions are made in an open, public meeting. There's lots of opportunity for the public to participate in that process and the board typically will look at hundreds of proposals every year, mostly from the public, but some do also come from the department. So the department plays a very important role in advising the board regarding the conservation and fishery management issues of the proposals that they are considering.

The second thing that the department does is it implements the management plans and regulations that the board approves. And our approach is to try to leave the policy making and the rulemaking to the public process with the board and to implement those regulations that are approved to the best of our ability without getting into the politics or the policy making aspects of it.

Now the board -- safety comes up quite a bit in those discussions and it's often, in discussing some gear issues. For example, the number of crab pots that are allowed, fishing times and other factors. There will be discussions on the record in the board's deliberations and testimony from the public about the impacts on safety on various aspects of a fishery management plan or regulation that the board is considering.

Examples of regulations that have been adopted that specifically address safety, three that I am aware of that I'll mention, two of them deal with weather delays in the start of fishery openings and consultation with the Coast Guard and the

Weather Service. An opening regulation -- an opening that is set by regulation may be delayed due to gale force winds.

The other one is, in the -- so there are a couple of those, one in a cod fishery, one in a shellfish fishery in the Kodiak Alaska Peninsula area and then, the Bering Sea, Aleutian Islands crab fishery, which is a jointly managed fishery by the State of Alaska and the North Pacific Fisheries Management Council. There is a provision there that requires, during a registration process that a crab boat goes through before going fishing in that fishery, that they show their proof that they have gone through the Coast Guard safety check before they will be registered by the State of Alaska.

So those are some examples of specific regulations that the state has developed that try to influence safety. But again, our ability -- all we can do is influence it. We don't have direct control or authority to take action in the area of safety and safety is only one of a number of considerations that are at play in developing fisheries management plans. So thank you very much.

MR. ROSECRANS: Thank you, Mr. Bruce.

CHAIRMAN SUMWALT: Great. Thank you for a very good panel and I apologize if the timer was making you nervous as it was blinking, even before your time wasn't up. So thank you.

Liam LaRue will lead the questions from the technical panel so, Liam?

MR. LARUE: Thank you.

I'm going to start out with a question for the entire panel. How do you make sure that safety plays a prominent role in the development and the review of fisheries management plans? And just anybody can jump in.

MR. HOWARD: Paul Howard from the New England Fishery Management Council.

We have a safety and enforcement committee that is tasked to -- made up of Coast Guard, fishermen, council members and state enforcement officers, as well as federal enforcement officers. And this group is tasked to, every step of the way, meet and look at our development process to ensure that any measures are safe. And they provide input to the full council before they vote.

MR. LARUE: Thank you.

MR. BRUCE: Yeah. Just very briefly, Geron Bruce, Alaska Department of Fish and Game.

I'm not aware of any, you know, direct activity that forces a discussion of safety at the Alaska Board of Fisheries meetings, but they're a very open meeting. Anyone can come. And so those people who have safety concerns about a particular proposal or regulation have ample opportunity to bring that perspective into the discussion.

MR. TROMBLE: The National Marine Fishery Service has published guidelines for each of the national standards in the

Magnuson Act. The National Standard 10 guidelines were developed in the late 1990s, along with several other guidelines following passage of that standard.

In light of the experience since then and things like Dr. Lincoln's work, it may be time for us to go back and revisit the National Standard 10 guidelines to see if there are appropriate analysis or consideration type guidance that can be given in a revision to those guidelines. So without making any definite conclusion about that, I think that's something that we could look at and the national guidelines do come into play when councils are considering management actions.

MR. LARUE: Commander Woodley?

CMDR. WOODLEY: Yeah. I would like to just echo that, that I think the institutional structures are in place. You mentioned the National Standard 10 requirements and it's written in regulation that the fishery management councils will consult with the Coast Guard and the fishing industry during preparations, fishery management plans, amendments or regulations that might affect safety. And it goes into further detail about, it can be done through the council, the advisory panel, any of the committees.

I think, institutionally, it's there and I think we just need to do a better job of using it and exercising it.

DR. LINCOLN: I was going to say something similar. I do believe that safety is discussed during negotiations or --

well, during negotiations. And many times, it's discussed by the group that wants to use it to promote their side of the other argument, whatever that is.

So I do think that safety is discussed, but the part -- and as Commander Woodley said, there's a -- it's outlined of how it should happen, but it's the scientific rigor. It's a scientific process and the six steps that I pose during the five minute presentation is something that I hope that we can consider because I think it's -- sometimes, I think it's easier to edit than it is to create. So that's why I propose that as a, you know, jumping off point. This is how to do it.

MR. O'SHEA: You know, in my presentation, I indicated that our commission counts on the states and an example I could give you is, in the black sea bass fishery, we -- our states have set aside a total quota and allocated that to each individual state. That falls right into what Steve Hughes said about, for some states, that's created a derby fishery. But we have another state, for example, Virginia, that has implemented a state ITQ fishery. Now they didn't do it for safety only. They did it for market reasons and because the fishermen wanted it, but I think that would be a good example of how this -- the delegation to the states potentially works.

Up in New England, it would be very tough to put in an ITQ system, so they're running it on a derby fishery. But down in Virginia, they're fishing with ITQs. Thank you.

MR. LARUE: Mr. Tromble, what are the guidelines for implementing National Standard 10?

MR. TROMBLE: Thank you for that question. I'm sorry I'm not going to be able to answer it in any detail at this point. I don't have those guidelines in front of me, but I can tell you that they are quite general in nature and not nearly at the level of specificity as something like the process that Dr. Lincoln laid out.

MR. LARUE: And to follow up on that, you mention that it may be -- might be time to revisit those guidelines. And what would be the process for doing that?

MR. TROMBLE: The guidelines, the process for them is basically done using the federal rulemaking process. So there would be internal work done and most likely, a process would be set up of some work groups and committees. We certainly consult with the regional management councils and with experts in safety.

And so then we would develop a proposed guideline revision that would look like a proposed rule. It would be published for comment in the federal register and that comment period could involve an extended time that would allow for things like workshops or public hearings to get comment. We would have to decide what the most effective way to get public input on that was and then we would finalize the guidelines like a final rule and publish them.

The guidelines are in the CFR in part 600 and so it

would be first, an internal process to develop a proposal and then a public comment process and final rule.

MR. LARUE: Commander Woodley, you had touched on an initiative with the Alaska Department of Fish and Game in your presentation. Could you provide some more detail on the impacts of that?

CMDR. WOODLEY: Yeah. Please hold on.

Yeah. I actually, when I was listening to your presentation about the -- some of the limits of state involvement, actually, I would give the State of Alaska Department of Fish and Game a considerable amount of credit with regard to improving safety sea in the Bering Sea crab fishery.

I brought up this slide to just real briefly talk about one of these programs that we put into place. This -- what this slide depicts is the number of fatalities going from 1990 to 2010 in the Bering Sea, Aleutian Island crab fisheries. And as you can see, from 1990 to 1999, there was a considerable number. The darkest bars, the blue bars were results of vessels capsizing and sinking and in 1999, the Coast Guard, working with the Department of Fish and Game and with the fishing industry, developed a program where we started doing spot checks at the dock prior to the start of the season to make sure that -- to check vessel loading.

What we discovered in the -- upon casualty review from 1990 to 1999 was a large number of the vessels had capsized en

route to the fishing grounds at the start of the season and a number of those vessels were determined to be overloaded. So we wanted to start specifically looking at that particular -- breaking that error chain with -- by making sure that the boats were properly loaded and that they had the required safety gear on board, specifically life rafts, survival suits and EPIRBS.

We started this program in 1999 with the Alaska Department of Fish and Game. We went out with them conducting tank checks in multiple locations in Alaska; Dutch Harbor, Akutan and King Cove at the time. And as you can see, starting in 1999, the capsizing events fell off dramatically. We did have another incident in January, 2005 involving a vessel called the Big Valley. That particular owner had, during the course of the five years of detecting these -- or conducting these operations, we detected that boat in an overloaded condition twice before. And when the boat went down, we determined that, again, he was overloaded. He was carrying twice the number of pots that he was allowed to carry.

But again, this was all done with cooperation with the state and you know, the Coast Guard and the state working together on this program. The last bar, in 2005 the -- is when the Bering Sea crab rationalization program began. And you can see that a large number of the safety improvements actually were occurring before that, but the thing that I notice is that, from the time crab rationalization began, is that the number of man overboard

switches the little gray bars there, those also seem to be reduced.

I think we've done some statistical analysis and need to get further into it, but it appears that they're occurring at a slightly lower rate than they were before. I just wanted to bring this out as a very good example of cooperation with the state and with the industry and what can be achieved by leveraging each other's authorities and working together.

MR. LARUE: Another question for you, Commander. How does the Coast Guard work with the Fisheries Management Councils and NMFS to promote fishing vessel safety?

CMDR. WOODLEY: As I said in my presentation, the institutions are in place. As Captain O'Shea said, it tends to be event driven and when we do have events, you know, a good example, the Alaska Ranger and the NTSB recommendation, we went to the Fishery Management Council. They approached us at about the same time and asked for a formal safety review. I think those are the kinds of things that could be done on a regular basis using the approach that Dr. Lincoln has outlined, by reviewing high risk fisheries and then begin to see whether there's fishery management impacts that may be contributing to those fatality rates.

So again, it's -- the institutions are there. It's ad hoc right now, and I don't use that in a negative sense, but I think there can be more done to improve safety and to use that as a -- not only a venue to talk about safety because, you know, the

other thing that I learned was that, although the folks on the fishery management councils and the advisory committee to the council are extremely knowledgeable people about fisheries, they don't necessarily have a safety background. And sometimes, when you start talking to them about it and present the information in a scientific way, the light definitely goes on. They see that there is things that can be done.

MR. LARUE: Dr. Lincoln, you proposed opening a discussion on a process to assess safety for fisheries and in your last slide, you had six steps. Would you please expand on that and open the discussion?

DR. LINCOLN: Yes. Terrance, would you bring up that slide, one through six with those six points?

While he's bringing that up, I think that -- I hope that the members of the Board of Inquiry understand that this is an international issue. This has come up in various places internationally and when countries look at this issue around the world, they'll come up with examples of how various fisheries management policies affect safety. And with the exception of probably Iceland, I think that other countries are struggling with this issue as well.

The way that I came up with these six steps is just by reviewing the -- in particular, the two papers that Chris and I had been working on -- Commander Woodley and I had been working on the last six months or so. Its -- and as I sit through the

council process, I understand that there are -- there is a -- definitely, a process in which the economics and the resources are discussed, but safety is, many times, discussed sort of qualitatively or anecdotally. And I think it's important to understand that there is a scientific way to look at safety as well.

And so the first three steps are all about -- are counting things, the data. Now I know that when I first started working on fishing vessel safety issues, that the -- we didn't have fatalities broken down by fishery always. It wasn't always there. When we realized that that was something that we wanted to look at, then we started working with the Coast Guard. We started understanding where the other resources were to identify fishery. So it is possible to start looking at counting the bad things, counting the adverse things by fishery.

As far as calculating fatality rates, I've worked with Mr. Hughes. Actually, his firm has been calculating FTEs, Full-Time Equivalents by fishery for all of the federally managed fisheries on the west coast in Alaska and on the east coast. So fatality rates are an estimate and takes into account, the amount of time spent fishing or on the water. There's assumptions that we make to come up with a full-time equivalent, but those assumptions are consistent and we can look at a trend over time by looking at the same denominator each year. Okay.

The other parts of this process are like step number

four, this qualitative risk assessment. There are things that we know that fishermen know that, if they exist, it does result in a higher risk. There are also safety regulations that are in place for, for instance, fishing vessels versus fish processors. And this -- the process of going through that with this, like the Amendment 80 issue, was a very informative process. It took a safety person to go through and outline what the differences are with those safety regulations and then, to convey that to the fisheries managers to -- so that the fishery managers understood there's a difference between what these vessels would have to follow based on the results of your decision.

Reviewing the current management plan, the Commercial Fishing Industry Vessel Advisory Committee to the Coast Guard has listed a top ten list of policies that exist that don't bode well for safety always. They might not automatically lead to an increase in risk, but they -- when they exist, they do -- they might -- it might result in a decision that a fisherman has to choose safety versus making his living. And so it's just a list of items that we know might not always -- the decision might not always lead on the safety side.

And in as far as describing alternatives to consider, it goes to the work -- the review that I've done on the Iceland fisheries and realizing, you know, they actually -- they're -- in some ways, they're leaps and bounds ahead of us when it comes to safety and the training and the vessels that their fishermen work

on and have to do. But the -- at least understanding that there are alternatives, and I understand that there are so many competing priorities that councils have to consider and that it's not one -- you know, one of these issues isn't more important than the other. But at least understanding that other alternatives were thought of, discussed and you know, described, that's the process. And it might not be perfect, but it's the first time that, I think, that someone has outlined a more scientific, rigorous process.

MR. LARUE: Thank you.

Mr. Howard, many of the Alaska fisheries have gone to the quota based management systems. Has this been occurring with the fisheries that are -- that fall under your council?

MR. HOWARD: Absolutely. There is a new promotion by the current administration to address IFQ fisheries. We are looking at our fisheries in New England to -- you know, to include IFQ fisheries. We believe that in many cases, IFQ fisheries are safer than day-at-sea fisheries and we believe they offer fishermen a lot more flexibility than the current day-at-sea fisheries.

MR. LARUE: Mr. O'Shea, you touched on the issues of states kind of taking the reins to verify safety and ensure compliance with requirements. Do you think this is an effective strategy and if so, is it one that can be used by states outside of your council?

MR. O'SHEA: Well, I think it can be an effective strategy. I think the key issue is motivating the state to do that and unfortunately, as we've heard from Commander Woodley and Geron Bruce, that that tends to be event driven. So if a particular state has had a rash of incidents and it's raised public awareness and demand from both the industry and other members of the public, then the states will get engaged.

I think the flip side of this, and Dr. Lincoln alluded to this, is you know, economics is driving this and one of the things we heard from Mark Vinsel yesterday from United Fishermen of Alaska, is concern that a one-size-fits-all burdensome regulatory process that doesn't result in a net savings of lives is going to be a tough pill for the industry to swallow. So I think the -- you know, what a shrimper -- the problems we have with shrimp boats in South Carolina is totally different than the problem that Elliott Thomas has up in the Gulf of Maine with the lobsterman fishing by himself in February. So I'm a big supporter of the state approach to doing this.

I think the thing that you all should consider doing is the carrot approach, that when we see states doing the right thing, that we take time to recognize that and to encourage that and to draw that type of behavior out. Thank you.

MR. LARUE: Mr. O'Shea, another question for you. You said that the council is quiet on the issue of safety and that's left to the individual states. And do you think that's something

that should be pushed by the council?

MR. O'SHEA: Actually, there's a nuance there. It's commission. It's federal councils and inner state commission. I think it's about right where it is right now, quite frankly. What you're asking is should the Atlantic Coastal Act put some sort of requirement on the states to consider safety in the development of our fishery management plans and I -- you know, we haven't taken, really, a position on that. And I'm not really sure that that would necessarily be the most effective way to bring about a change.

Like I said, I think there's some really positive things happening in Maine. It's both being driven down by the -- you know, it's top, down from the governor, but it also has broad support from the fishermen and I think that's a good model. Thank you.

MR. LARUE: And, Mr. Bruce, in your presentation, you talked about some of the regulations that your department has pushed forward that promotes safety. What have the effects been from those regulations?

MR. BRUCE: Well, I think you heard from the Coast Guard, some of the effects in the Bering Sea of things we've done cooperatively. Beyond that, I can't -- I don't have any statistics to evaluate changes in accidents or fatalities in those other fisheries.

And also, the -- you know, those regulations, we played

a role in developing them, but they were also driven by other parties, the industry and people who have direct interest, expertise and authority in safety. So our role was one of a cooperator and a partner. And in general, as I tried to say in my presentation, you know, we -- the managers of the Alaska Department of Fish and Games don't really take the lead in safety because that's not our primary job and that's not the area that we have expertise in. I don't think, frankly, people would want us taking the lead in that because we're not -- that's not where our expertise lies.

MR. LARUE: Okay. And one last question I'm going to throw out to the entire panel and that's what is the economic impact of the quota based management systems and how does that relate to safety, and specifically, with the smaller vessels?

MR. O'SHEA: Well, I -- you know, even though I work on the east coast now, I was up in Alaska on a Coast Guard cutter patrolling during the halibut derbies and we had 5,500 boats out there. The majority of the quota was taken in two 24-hour periods. In fact, I remember one patrol right before we started at -- it started at noontime, somebody got on the HF radio at 11:58 and played the National Anthem for the whole fleet. It was that type of mentality.

And then I was back on the North Pacific Council five years later while we were working through the details of implementing the IFQ system. And now, there's -- I'm guessing

there's around 1,200, 1,100 boats that are in that fishery. People can decide when they're going to go fishing. People are bought into that fishery now, meaning that the initial quota recipients have sold -- many of them have sold. I think the number's something like 60 percent now or new entrance that paid to get into the fishery.

So people can have business plans. They can decide when they're going to go fishing and I think it's a business decision that they're making, including the safety elements of it. And they can certainly pick when they go fishing. There's no guarantee that they're going to make the right decision, but at least they're empowered to make that decision, not some regulation that was put in effect by the halibut commission six months before the day to open the fishery. Thank you.

MR. HOWARD: I think there are considerable new costs on fishermen when you change from one system to another, especially an IFQ system. There's presently, most of those costs are being picked up by the government now in New England, but there are costs to joining groups that administer quota. And so there are considerable costs that would -- may impact safety.

I also believe that we still have excess capacity that one of our panelists talked about. And when you have excess capacity in the fleet, whether you have an IFQ program where you're allocating quota or allocating days, if you have excess capacity, it will impact a vessel's profitability. So if you --

so we have to address the excess capacity. We haven't done that. An IFQ program, over time, there will be consolidation to increase profits, then probably increased attention to safety. But right now, as you transition, I think there will be, with additional costs to fisherman, with overcapacity in fisheries, there will be -- there could be negative safety impacts.

MR. HUGHES: Well, I think there's been different affects by different fleets. And we -- in Alaska, we've had the experience of fairly small to mid size boat fleet with halibut and sablefish. We've had the experience of the crab -- the Bering Sea crab fleet, which are averaging about hundred and fifteen, sixteen feet in length and we've had the experience of three different sectors of the Bering Sea pollock fishery, which ranges to catcher boats similar in size to the crab fleet all the way up through the factor trawlers and other ships.

And then, most recently, we've had the experience of the Amendment 80 freezer trawl fleet, but that experience is pretty new. So there's not a lot of lessons probably to be learned there.

But like Vince mentioned, the halibut and sablefish long line fleets were probably the ultimate of derby fisheries, from a few hours to a couple of days in different management areas, the fatality rates were really excessive. As I mentioned in my presentation, you shoot the gun and everybody took off and everybody, you know, had a mentality of trying to fish to maximize

revenue per day, which is a -- you know, one total mode of operation, but not the safest mode of operation.

So in the -- I think it's worth mentioning in the halibut and black cod fleet that when the fishery was so short and intense, all that fish was brought in, you know, in a very short period of time, basically, as fresh fish. And it had to be processed by, predominantly, the very large processors that had the ability to do a lot of fish in a short period of time and freeze it. And that fish then basically trickled its way down through to the lower states and overseas as frozen fish. And typically, did not command, you know, the market price, you know, that a fresh fish would command.

And with the IFQ program, that fishery basically opens in late February or early March. It closes, I think, on November 15. You can fish whenever you want during that period. As Vince mentioned, the fleet's gone down to probably less than a third of what it was originally due to a series of different consolidations and leases. The revenues that are achieved are substantially higher because fish is being sold into a fresh market and involves a lot of small processors that couldn't really compete in the fishery before, so there's a much more diversified market for catcher boats, you know, to deliver to and those have been positive things.

Leaving that just for a second, real quick, different things have happened in the pollock fishery where it's a much

larger fishery. But to give you one example there, typically, on the vessels that fish and process on board, you know, their production yield rates were in the neighborhood of 22, 23 percent of round weight. And under the American Fisheries Act, quota share fishery, those yields have gone up to be in the neighborhood of 32 to 35 percent, in some cases, even higher. And the reason is, is because you're fishing and processing in order to maximize the dollar per fish and not to maximize the dollars per day.

And so there is more complete processing. There's more added value processing. There's more higher valued products and you know, the effect of that, you know, 25 percent increase in yield is huge. Those are just a couple of examples.

MR. LARUE: Thank you. That's all the questions I have.

CHAIRMAN SUMWALT: Thank you, Liam.

And to give everyone an idea of what I'm planning, we will go through the rest of this panel. I think Larry has about three questions. Rob has just a few. Mike has a few. Then -- yeah, Mike has hundreds.

I do try to be conscience of physiological needs. I don't like for the audience to sit for, you know, more than about an hour and a half. So what I'm thinking -- and our panelists. What I'm thinking is we'll complete this round of questioning before we even get into the audience questions because you have -- very active this morning, lots of questions. So just for planning, we'll be in here another 15, 18 minutes and then we'll

plan to take a break before we come back, answer audience questions and then we plan to have a lively discussion within the panel on some various issues. So just wanted to give you an idea of what we've got.

Larry, you're next.

MR. BOWLING: Thank you very much. I'll be brief.

I think in -- well, I know in Dr. Lincoln's presentation, she had alluded to the -- that she would like to see heightened Coast Guard attendance at the council meetings. And I think that that comment was also conveyed, in one form or the other, from Commander Woodley, that increased Coast Guard presence at regional fishing management councils or fishery management councils.

I guess my question would be to Commander Woodley. What is the Coast Guard doing to increase their presence and outreach in those areas?

CMDR. WOODLEY: I think one of the things that you have to consider is the way that the Coast Guard has historically attended those meetings. Typically, you've got -- or historically, you had two sides of the house. You had law enforcement personnel working on cutters that boarded fishing vessels at sea and then you had people in the vessel inspection world who worked at shore based office.

The real expertise in the Coast Guard for a number of years with regards to fishing has always been with what we call the Living Marine Resource Program, the LMR Program. And those

are the people who attend the council meetings now, have been for a number of years and are subject matter experts on fishery management, fishery enforcement issues.

The whole council process is very much a mystery, I think, to most of the people in the prevention vessel inspection world. It's not something that we really ever got into. I'm pretty certain that if I were to pull the number of Captains of the Ports and OCMIs in the Coast Guard, all the sectors today, I would find very, very few that actually knew what the council process was or what it was all about. It's very much a mystery.

So it's not so much Coast Guard attendance at the councils because the Coast Guard does attend regularly and they do have representatives there, both on the council and on the various committees. I think what needs to happen is you need to have more of a, I guess, an inter disciplinary approach and get the prevention people who are safety subject matter experts to start attending these meetings, understand the context of what's going on.

And we all say we're about fishing vessel safety, but I think, for a large number of people in the Coast Guard, that is simply about conducting dockside exams and looking at, you know, training and drills. And -- but there's a much larger context that needs to be understood if you're really going to get to the heart of a lot of these safety problems. And that context, the best place to see it is to start going to the council meetings.

And after 60 hours of sitting through a council meeting, you'll start to get the picture. Maybe. Yeah.

MR. BOWLING: Okay. Thank you.

Are there any programs currently being taught at the training center, the Coast Guard Training Center in the Yorktown that would help someone coming up through the ranks to learn this particular discipline? Captain O'Shea?

CMDR. WOODLEY: Yeah. Give it -- I haven't been there in 20 years.

MR. O'SHEA: That was my old job. You know, the Coast Guard established five regional fishery training centers back in the 90s and those entities still exist. And the reason they were established is regional rather than centralized at Yorktown was because of the regional nature of fishery management, the regional nature of the fisheries. So I think the -- you know, part of your question resides in, you know, the curriculum within the regional fishery training centers. And I also know that the Coast Guard, at the same time, we established a Master Marine Affairs program to help Coast Guard officers have academic credentials to sit in and participate within the council process.

It's my understanding that the Marine Safety Program also has training billets at URI and other places for marine affairs. Thank you.

MR. BOWLING: All right. Thank you very much.

I think my last question, I would like to direct to Mr.

Bruce. And it would be related to the fisheries -- or excuse me, the State of Alaska, you mentioned that they have certain fisheries that -- registration -- as part of the registration process, they must -- the vessels must have a Coast Guard safety exam. Is that true across the board or just certain fisheries?

MR. BRUCE: The only one that I'm aware of, and I just did a cursory look through the regulations and talked to our regulations specialists, but is the one I mentioned in the Bering Sea crab fishery. But I -- again, there could be something else, maybe somebody else on the panel knows about it, but that's the only one that I found in the regulations that I'm aware of. And I can say that it is not a general practice that is widespread in the fisheries that the state manages.

CMDR. WOODLEY: Yeah. I can provide some actual history to that regulation. As I discussed earlier, we had a safety program that was developed in 1999 and after a couple years, before rationalization, we were starting to see the effects of it and saw that it was a very effective program. When the Bering Sea Crab Rationalization Program went into effect, the Coast Guard, I believe it was Captain Stern (ph.) at the time, recognized that we wouldn't necessarily have the opportunity that we did in the past with being able to get on board a large number of vessels just prior to the start of the season.

Under the derby days, everybody showed up in a couple of ports again, Dutch Harbor, Akutan, King Cove, a week or so before

the start of the season and that provided an excellent opportunity for Coast Guard safety people to get on board a large percentage of the fleet and examine those vessels to make sure they had the right safety equipment. With rationalization, what we realized was that the boats would not necessarily all be showing up at the same time any more. So the State of Alaska put -- at the Coast Guard's request, put into effect a regulation which required that they have a current dockside exam as a way to kind of offset the loss that the Coast Guard was going -- the lost opportunity the Coast Guard was going to have to examine safety equipment. So it was kind of a fallback position to continue the safety gains that had already been made under the safety program that we put together in 1999.

MR. BOWLING: Thank you both very much. I have no further questions.

CHAIRMAN SUMWALT: Thank you very much.

And, Rob Henry.

MR. HENRY: Thank you.

Mr. Tromble, could you go into a little detail on the buyback program that you had mentioned earlier? And I guess the specific points that I would like you to talk about are the objective of the program, its scope, the decision process and whose vessels are purchased and how you're measuring the success of this program.

MR. TROMBLE: Thank you. And I think perhaps Mr. Hughes

might be familiar with some of those too. But in general, the authority for conducting vessel buybacks is statutory and the primary way those programs work is that they're industry funded. There have been cases where Congress has appropriated some money for, basically, a loan to the industry that then they pay back over a period of years. That happened with the American Fisheries Act in the 90's for buyback in the pollock fishery.

The programs are administered by the National Marine Fishery Service Office of Management and Budget within NMFS and the Financial Services Division. They have a program that is a regulation that's set up for each buyback. Each one is unique and is done in consultation with the industry group that wants to conduct the buyback. There's a plan that's created for the sector of the industry that's going to do the buyback that establishes the process by which the vessels will be selected.

In most cases, it's a process that involves participants in industry that want to offer their vessels up as part of the buyback, doing a kind of reverse auction kind of thing so that if there is, for instance, $30 or $40 million of authority to -- of money available under the buyback authority, then we want to buy out the most number of vessels or buy out the most capacity. It might not be the most number of vessels, but the most capacity for that amount of money.

Each -- so each of the buybacks is unique in its characteristics and there's a buyback program for it that's put in

by regulations and then the buyback is conducted. We have examples for some of the programs where NMFS has actually conducted the referendum or the auction process for the buyback. There have also been buybacks where the industry group that -- or association is actually doing the bulk of the administration of selecting the vessels.

Then, generally, the vessels are purchased. The capacity is bought out and then the industry pays that back to the government over a period of years, 20 or 30 years in some cases, through assessment of a fee per pound of landing to fish is typically how it's done. So the buyback financing mechanism is basically a loan to the remaining vessels in the fishery that they pay back over the course of time.

MR. HENRY: Mr. Hughes, would you care to jump on this? Because I'm still looking for some indication of, what's the rational? It sounds like maybe it's overcapacity, trying to reduce overcapacity and not necessarily remove unsafe vessels. And any feedback on how the program has worked as far as standards for success?

MR. HUGHES: I think they're real close. Buyback programs occur in fisheries that are overcapitalized and buyback programs are not unique to the United States, but they've happened in other countries as well. And I think Galen summarized it pretty well.

I'll be a little more specific. Maybe that will help

answer your question. In the case of the American Fisheries Act, I think I got these numbers close. There was 30 factory trawlers that were qualified under the American Fisheries Act originally to be involved in the Bering Sea pollock fishery, I think it was nine of those that were bought out and those vessels that were bought out were scrapped and they were prohibited from being involved in U.S. fisheries in the future.

And the cost of that was about $100 million. That $100 million is in the process of being paid back by the catcher vessels and I believe, the shore side processors that benefited from the removal of those nine factory trawlers. And the quota shares that would have gone to those nine factory trawlers were then transferred from the factory trawl sector of the industry to the inshore sector of the industry where the fish was being caught by catcher boats and processed by shore side processors.

So part of the effect of this buyback program was to change the actual quantity of fish that was being processed by different sectors of the industry in order to make these sectors more in balance and more economically viable. It is a very controversial process, as you can well imagine.

In the case of the Bering Sea crab fishery, there was a buyback program totally separate. There, as I recall, they bought back 24, 28 vessels out of a fleet of about 280 vessels. So it was about a ten percent buyback and again, you know, those vessels had to be removed from the fisheries. And I think that you would

judge that program to having been successful because, with other majors, you know, it added to the fact that there was more individual fishing quota shares to go around to the remaining active fleet to further supplement the days that they were able to fish to catch their quota shares, the amount of quota shares they had to catch and hence, it increased the revenues.

So this is a -- the buyback programs are usually a mechanism to increase revenues within the remaining part of the fleet and typically, they have to pay, you know, the price for getting rid of those vessels, which was also the case for the crab boats. So there's a couple of examples. Maybe that helps.

MR. HENRY: Thank you.

Dr. Lincoln, your six step process for pulling in accident data and a lot of your work in fishing vessel safety into the fishery management process, I'm sure this isn't the last time we're going to see it. And I guess, and bringing up Commander Woodley's comment about a lack of venues to really shake that proposal down, my question to you is where do you intend to go with this, what -- you know, where -- what's the next step? What's -- and what's the ideal process you see for getting some traction on this proposal?

DR. LINCOLN: Well, it looks like I'm going to be active in the policy making process. I mean, I was happy to hear that, you know, perhaps it's time to review how we implement Standard 10. Well, that's my opportunity to be an active part of that

policy making process. If I show up, if I, you know, make a proposal, then it can be discussed. I think that my next step is to make sure that I am present and because it's -- by proposing the process and working through the formality of it, that's -- I have to show up. That would be the next steps I see.

MR. HENRY: Mr. Woodley? Mr. Tromble? Excuse me.

MR. TROMBLE: Just briefly. Yes. I've been in some meetings and discussions with Dr. Lincoln before and I do feel like, that her proposal is a concrete step forward in terms of thinking about how fishery safety should be evaluated in the management context. And clearly, we have a lot of work to do, but I do think that there's a real potential for incorporating that kind of approach into a revised guideline. And I certainly would intend to, you know, follow up with her about that.

MR. HENRY: Commander?

CMDR. WOODLEY: Under the new Coast Guard Authorization Act, one of the components of that is to develop alternate compliance safety programs for vessels that -- existing vessels that will not be able to meet the new standards of classification and load line. And I think that the process that Dr. Lincoln talks about, about reviewing individual fleet casualty rates and going through that process, I think, would necessarily have to be part of the -- any new -- or alternate compliance program. To specifically address the hazards in those individual fisheries, you're going to need to go on, you know, a fishery by fishery

basis. These alternate compliance programs, and I think we heard quite a bit from folks yesterday, are going to have to be fishery specific and very tailored to individual hazards.

So I would see the natural or dovetailing of this fishery management process and in reviewing fishery management plans, that would dovetail with the Coast Guard's ultimate compliance programs so that you're getting, you know, basically, what's the state of the state, what fisheries are your problem fisheries, is it a management issue, is it a vessel condition issue, is it a crew competency issue and you're just going to have to work through them one by one. But I think that's -- at least the way I see it, that would be the process that you would have to take and it's going to be a multiple year process.

MR. HENRY: Okay. Thank you. I have one last question and this would be for Mr. Tromble and Commander Woodley again. In a number of the fishing vessel investigations we have done, these vessels have been tracked through your program and we've been able to extract the data and you know, pretty much track the vessels last hours up to the point where it even tells us where it sank and probably where we -- you know, where that communication link was lost. And I've often wondered, has there been any interest to use this program, you know, to provide an alert, you know, that if something has happened to a vessel, almost like a -- not like AIS or an EPIRB, but another way of signaling that a vessel has had a situation that needs to be followed up on?

CMDR. WOODLEY: I believe you're talking about the VMS System, which is the Vessel Monitoring System that the National Marine Fishery Service and I think other fishery management agencies use. I don't really know enough about the system. I don't know if it's a two way or a one way system in terms of information that goes out, but yeah, I know the -- I can speak from my own Joint Harbor Operation Center. We do use VMS as a tool, as a safety tool if we have a vessel that may be in distress and it may not necessarily be required to carry AIS. Then we'll look at the VMS screen to see, does it appear there.

But with a lot of the new communication technologies, there are systems in place where, you know, you push a button and it does a call out to -- you know, if the vessel were in some kind of emergency situation, but I don't know. I'm not a technical guy when it comes to that -- those electronic things, so --

MR. HOWARD: So if I could respond, the system would be the vessel monitoring system or VMS. These are, of course, GPS based tracking systems that are on vessels. These programs were originally put in place to facilitate enforcement, particularly things like closed area regulations. And then, in New England, an extensive VMS system was put in place as part of the days-at-sea management system that helped track the vessels in and out of port and account for the days that they were out.

The VMS programs is administered by the NOAA Office of Law Enforcement, which is another of the NOAA that works very

closely with the fisheries service, but is actually separate. And I think we would have to consult with them and I certainly think it's worth considering in the overall context of safety and fisheries, what capabilities the VMS system -- and there are actually several different VMS systems that are in place in different fisheries around the country, but what capabilities those systems have that could potentially help in the safety context. I don't have an answer for that, but I certainly think it's within the realm of the things that we should be looking at.

MR. HENRY: Okay. Thank you. I'm done. Thank you.

CHAIRMAN SUMWALT: Thanks. We still do have plenty more questions. Mike has some and then the audience has some, so I'll tell you what, though. It's 9:46 right now. We will take a break. Captain will turn the seatbelt sign off. You're free to move around the cabin as you like, but please be back here at 10:05. And we are in recess. Thank you.

(Off the record.)

(On the record.)

CHAIRMAN SUMWALT: That's one way to get them to turn the audio back on.

Okay. We're back in session and Mike Rosecrans has the next round of questions.

MR. ROSECRANS: Thank you for that break before I started.

Mr. Hughes, I have a question for you. Thank you for

your simple model that makes it easy for us to understand how important the three parts of the stool are. And you made one point that I think is important that may have been glossed over. And so, in the second leg, which is, we have competent people making good decisions, you eluded to the fact that quota based systems tend to have longer seasons and the crews stay on longer. And so I guess my question is, is how does longer crews and more professional crews add to safety in the long run?

MR. HUGHES: Okay. Thank you.

Well, I guess maybe the -- of the different systems, maybe the best example would be the Bering Sea crab fishery, which was very badly overcapitalized. So to set the perspective, you know, just before rationalization of that fishery occurred where individual fishing quotas were allocated to both harvesters and to processors.

The seasons for say, an 18, 20 million pound quota fishery would be in the neighborhood of 4 to 5 days. And vessels would spend a week, you know, getting gear out, going through tank inspections, the checks that Commander Woodley's talked about, spend four or five days doing a one trip fishery, come in, offload. Everybody comes in at the same time. You have to wait, you know, for maybe as much as two weeks to get offloaded. Dead loss increases when you have to sit around too much too long because all that crab, of course, comes in live. And then you go back out and rescue your gear and bring that back in and wrap up

the season.

And so everybody's got, you know, a week maybe where they're making money and the rest of the time, you know, they're not. And then you wait for the next season to come along. Bristol Bay red king crab would open on October 15th. By, you know, the end of the month, you're all wrapped up. And then, you know, the snow crab fishery would start on January 15th and you would basically go through the same process for about the same amount of time.

So you would only have, you know, two, two and a half weeks, you know, during the primary crab seasons when you're actually operating. So under the rationalization system, a 280 -- 250 to 280 vessel fleet has been cut down to about 80 to 85 vessels. There's been a lot of leasing of quota share. There was a buyback program. They got rid of, I think we said 28 vessels. There were -- there's been a lot of fish that's been leased. There's been other quota shares that have been purchased by those wishing to stay in the fishery.

The result of all that has been that the Bristol Bay red king crab fishery now opens on October 15th, you know, with a fleet of about 80 vessels rather than 250. Everybody's pretty much wrapped up by the second week in December and how long they're actually fishing depends on how many pounds of quota shares they have.

So then we turn around right after -- everybody can go

home for Christmas. It's good. And then, you know, right -- come back, you know, right after the 1st of January. The Opilio season actually opened -- the snow crab fishery season actually opened on October 15th as well, but nobody fishes that until, pretty much, after Christmas. So then you come back and start that season, basically going through the same process I just laid out. The seasons are about the same length. And it will last until -- into -- well into April.

And so, you know, you've got a period there altogether where vessels that choose to participate in that fishery in a really meaningful way have got, you know, a four or five, six month season. And the crews, there's a lot more competition for good, qualified crew members on these vessels. The better vessels are typically the ones that are out there operating. The more professional crews are typically the ones that are hired by the vessels to man them and the crews are going to have revenue, you know, as a result of that fishery with a break in the middle that's going to provide them with a pretty good living for the whole year.

So those are, you know, the economic consequences that I would point to. Thank you.

MR. ROSECRANS: Let me ask a follow-up question. Is there a safety issue with transient crews?

MR. HUGHES: I'm sorry. With what?

MR. ROSECRANS: Transient crews. Say, for instance, you

have 280 vessels that are fishing for three days and they all hire a crew, and then they don't need a crew any more. And how does that affect safety?

MR. HUGHES: Well, if I understand your question right, you know, that was definitely an issue in the open access Olympic fisheries where, you know, there were a lot of really short time people and a lot of greenhorns that were involved in the fishery. You know and I think Commander Woodley's laid out the safety record there. It pretty much speaks for itself.

But you know, with the more -- with the better maintained vessels, the better qualify vessels and the more professional crews that we have in that fishery now, you know, you can see the changes that have occurred in terms of the safety record. Thank you.

MR. ROSECRANS: Thank you.

Mr. Tromble, I have a question for you. The Fisheries Management Council, as I understand it, developed the fisheries management plans and we had a comment yesterday about nobody reads the federal register every day. Well, I do and almost every day, there's something from your office with the fisheries management plan, a meeting, a change, something like that.

So as I understand it, the fisheries management councils develop the plans and then you review them and publish them. The question I have is, in the process of reviewing before publication, what is the process by which you review compliance

with guidance for National Standard 10?

MR. TROMBLE: The council's, by statute of the Magnuson Act, gives the responsibility for creating fishery management plans to the councils. In creating those management plans, the councils have to address some provisions that are in Magnuson, Section 303(a), which are required provisions of fishery management plans. And then there is another section, 303(b) that is discretionary provisions of fishery management plans.

In addition, the councils, in their management measures, have to address the ten national standards. In addition to the Magnuson Act requirements, there are a number of other federal laws and executive orders that apply, including the National Environmental Policy Act, NEPA. And as a result of having to default management plans and address all these requirements, there's been an evolution of an approach that creates -- most of the councils adopt like a unified analysis approach that's based on the NEPA approach of identifying a range of alternatives, analyzing their impacts and addressing all that in an analysis document.

The relationship of what the council does and what the agency does is actually set up very clearly by the statute. When a management council adopts a management plan and its associated regulations and submits them to the secretary for review, there are three possible things that can happen as a result of that review.

The first is that we approve the management plan and regulations that were submitted. The second is that we disapprove them. The third is that we have the ability to partially approve a management plan. The point there is that, unlike many federal -- probably most federal regulating agencies, the Department of Commerce, NOAAs, National Marine Fishery Service, is not creating the regulations itself. And we don't have the statutory authority to take a council's plan and make changes to it because -- just because we think there are improvements or we think, if a provision was written somewhat differently or we think there's a provision that should be added, we can't do that. We either approve what they send to us or if we find that it's not in compliance with applicable law, we can disapprove it and send it back.

In practice then, in order to have the councils develop management plans in an effective way that end up being approvable, there's a close working relationship between the fishery service and the councils as the analyses are developed and the alternatives are considered. The goal would be that if there's any approvability issues, any fatal flaws in what the council is developing, that those are identified before the point that the council's actually adopted them and the agency has had a chance to give the council advice that they need to address an issue differently.

So the review of the national standards, which was your

question, comes in in the process of developing the analytical documents that the council's considering when they take action, which is part of the formal record for the action in the rule making. When the council has developed their alternatives and they're looking to take preliminary action or final action on their amendment, then there's a process by which the Secretary of Commerce and National Marine Fishery Services is the agency that does this, has to review the plan and the regulations and deem that they comply with the applicable law. And that would include National Standard 10.

So the way that the management plan is addressing National Standard 10 would be documented in the FMPM amendment and in the accompanying analysis. And then, the secretary or NMFS, on behalf of the secretary, is making a determination that the action does meet the requirements.

MR. ROSECRANS: Another question, another follow-up question. Has the National Marine Fishery Service ever returned a plan for not meeting National Standard 10?

MR. TROMBLE: I can't say definitively. I think if there had been, it would probably have been a partial disapproval of a provision, not a disapproval of entire plan. I'm not aware of that ever happening.

MR. ROSECRANS: Another question for Mr. Tromble. The -- in 2006, I think it was, the Magnuson-Stevens Act was reauthorized. Were there any changes to National Standard 10 in

that reauthorization?

MR. TROMBLE: No, there were not any changes to National Standard 10. There was a revision in one of the requirements for fishery management plans, a section that addresses something called a fishery impact statement. And there was a revision to that section that addressed safety by saying that the fishery impact statement that's developed as part of a plan, which would be a part of these analytical requirements I referred to. It says now that the fishery impact statement has to consider the fishing safety, has to address that in the analysis.

MR. ROSECRANS: Thank you.

Captain Howard.

MR. HOWARD: Yes. Thank you.

A little follow up to that, if you notice the language in National Standard 10, it says to the extent practicable, promote safety. Many of our national standards don't have that to the extent practicable and I think that in -- you have to look at that phrase to determine where the problem is.

One national standard is end over fishing. There's very measurable criteria that if you fish above a certain scientific threshold, you're overfishing. It's measurable. To the extent practicable is very subjective and you need measurable criteria to determine what is practicable and what is not and that's very difficult.

MR. ROSECRANS: Thank you.

And, Captain Howard, I have a question for you. In the last year, I've noticed that you have taken on safety issues. You made a presentation this morning about some of the information you've gathered. And so my questions are, is why now and what do you intend to do with that information?

MR. HOWARD: Thank you.

We have addressed safety in a much larger way over the last couple of years. One of them is because a number of very tragic accidents we've had at sea and loss of life that have gained -- you know, were in the press. Coast Guard was under the gun on some of them and still is. We've lost, you know, a lot of what I call friends of the council, either council members that were fishermen have lost their lives at sea. And so it's been very close to us, tragically, in New England.

It's also very close to us because we're going to -- we're looking at new systems and new ways of management with this IFQ system. So as you shift to a new system which is promoted as being a safer system, which a lot of us believe that it is, we're paying an awful lot of attention to safety.

This -- recently, we've asked our -- the Coast Guard to give us this data which falls in line with the Navy commander. All this data is data we haven't had before to look at age of fleets, to look at which vessels are the most at risk. And with this information, first of all, for the limited access scallop fleet, the smaller boats that basically shouldn't be traveling too

far off sea and are towing gear that they're not designed to tow, there's not much we can really do. My theory is that some regulations are better off from the top, down, from the government, down as opposed to the bottom, up system like the council system, working with fishermen and developing regulations with a real knowledge base from fishermen, but some have to be top, down.

So we're paying closer scrutiny to it. We're -- we've got council members like Rodney Avila and others that are meeting with fishermen. We have a safety committee and -- but as I said in my presentation, safety is to the extent practicable. It's very subjective. If you've got a fleet that's very profitable, safety issues are treated, in my opinion, a lot more seriously than if you're -- if fishermen are operating on the margin and there's a choice between safety equipment, new engine equipment or whatever or paying a mortgage. You know, unfortunately, they're going to pay the mortgage. I hope that answers your question.

MR. ROSECRANS: Thank you.

Just wanted the record to show that Commander Lincoln is a commander in the U.S. Public Health Service, even if she is wearing a Navy uniform.

We're going to depart from the process we used yesterday and try to open the panel for comments on other presentations that you've heard from the panel. So this is not necessarily rebuttal, but a chance to comment on others presentations. And we would

like to limit this to 10 or 15 minutes.

Captain O'Shea.

CHAIRMAN SUMWALT: In fact, we will limit this to 15 minutes. We will end this discussion at 10:40 because we still want to take audience questions for 10 minutes. So yeah, we will end this discussion at 10:40.

MR. O'SHEA: Thanks very much.

One of the comments that was triggered by presentations that I've heard here during this forum strikes me as the importance of the economic balance in fishery management with -- and the regulators in fishery safety. And Geron Bruce talked a bit about the weather delay for the Bering Sea crab fishery. And quite frankly, I had worked on that for a number of years and there was resistance to doing that from the fleet. And one of the reasons was it got down to an allocation issue. You wouldn't have initially thought this was an allocation issue about sending 250 boats out into 60 or 70 knots of wind into the Bering Sea in November.

But it turned out that their -- the size of that fleet was vessels that were down in the 70 foot range, all the way up to 140, 150 foot vessels. And the owners of those 150 foot vessels said, you know, we have an advantage working in rough weather. And they were opposed to a delay that would perceive as giving that advantage back to the guys in the smaller boats. And we're sort of at a stalemate and the issue was, who's going to decide

it's too rough to go fishing, the guy in the big boat or the guy in the little boat? There was resistance to coming down to the common denominator of the smallest boat in the fleet allocation issue.

And what moved off the deadlock, and I wish -- maybe if you look at Chris Woodley's data, I think it was in 1999, he shows a big spike in Bering Sea crab accidents. And you know, that was part of the galvanizing effect. But one of the things we came up with finally was what was the launch capabilities, what was the launch windows for the Coast Guard helicopter to take off from either Saint Paul Island or from Cold Bay, Alaska to open the doors, get the helo out and go out and do a helo hoist. So it had nothing to do with sea-keeping conditions, the Coast Guard cutters, which was a criticism. It had nothing to do with big boat, small boat.

We would go into a room of angry fishermen up in Dutch Harbor and said you want to go fishing if the Coast Guard can't send a helicopter out to go catch -- to pull you off your boat if you sink and it was as simple a statement as that. And it became the Coast Guard aviators, the SAR guy, the search and rescue officer for the district was the input. So we had National Weather Service forecaster, we had the regional biologists from Dutch Harbor who managed the fishery and we had the Coast Guard Search and Rescue senior officer from Juno were in on a conference call.

So my longwinded story there, Mr. Chairman, is to say, you just couldn't go in there and -- with good intents of saying we want to make the fishery safer. There is an important economic and fairness component to the fleet that needed to be addressed. Thank you.

DR. LINCOLN: So that actually triggered something in my mind that I wanted to ask before and I -- the issue of distance to search and rescue assets and developing fisheries that are in remote locations like fisheries west of Adak where your -- where you have -- you're going to be hours away from search and rescue assets. And the -- maybe the thought process of developing those fisheries and at what point, you know, is there some sort of maybe extra safety effort that needs to be made or extra safety requirements that need to -- that vessels that choose to participate in those types of fisheries need to be implemented.

So if you're developing -- say we start to develop fisheries in the Arctic or more fisheries further west of Dutch Harbor and there's an issue of -- I understand there's, you know, pre-staging and things like that. But if that's not possible and the vessel is going to be operating in an area that's six hours away from search and rescue assets and maybe that vessel is no longer, you know, the safest vessel that the person needs to be on. And so the current commercial fishing safety regulations may not be adequate. At what point do we raise the bar on the front side of fisheries management development so those vessels have to

meet a higher level of safety in order to participate in fisheries that are located in remote areas like that?

MR. O'SHEA: Well, the economist in me kind of says one of the reasons those fisheries are developing out there is because nobody's out there in the first place. And you know, quite frankly, when I was in Alaska, there was an issue to start a -- and Geron remembers this -- a state water fishery out in Adak for cod fish that take some of the small Sandpoint boats. And I tell you, I was -- I would lay awake at night, you know, really worrying about that because, you know, the -- when the Navy was out there, there was a tugboat out there that you could -- for life and death, you could get them underway, but the Coast Guard couldn't cover out there and we couldn't get a C-130 out there.

But folks from Alaska know there's a fellow named Clem Tillion who was promoting that fishery out there and he had a rather macabre answer to the risk of going out there and was sort of the, it will sort itself out. And the safe guys and the competent guys will eventually survive. That's -- there's going to be a high cost of doing that. But I think -- you know, I think the intent is good, but I think, you know, you would put those additional requirements out, but realistically, those folks are fishing out there because there's economic opportunity and it's a chance to get in because nobody else is fishing out there. You put an additional burden on there and you take away that economic incentive for them to go out there.

Thanks. It's a good question, though.

CDR. WOODLEY: I think that, realistically, too, if you haven't had accidents out there, you won't get traction on that issue until you've had an accident. And it becomes, you know, the issue then of striking while the iron is hot while people are still concerned about those issues. That was one of the justifications that we use for the Alternate Compliance Program for the H and G long line and H and G trawl fleet, was the distance from search and rescue resource. And that was particularly the case with the Arctic Rose, which was 250 miles northeast of Saint Paul. It was out there. And I think it took the C-130 over eight hours to get there from Kodiak.

So that was part of our justification, but that was a regulation that was written -- or a program that was developed specifically after an accident.

MR. HUGHES: I want to go back to a little bit of a discussion that we had, you know, about the fishery management plans and the importance of incorporating fishing vessel safety into consideration of those plans and their development.

I -- my opinion about this is a little stronger. I think that, at least in my experience with the North Pacific Fishery Management Council and the Pacific Fishery Management Council, that fishing vessel safety aspects being incorporated into fishery management plans have really not been anywhere near as strong as they could be, really not anywhere near as strong as

they should be.

And in many cases, a safety argument would be brought up and I think Jennifer mentioned this, but I'll put an exclamation mark behind it. A fishery's safety issues would be brought up to support a particular segment's economic argument rather than having the safety issue be in the forefront. And yes, these things would be considered, safety issues would be considered as part of, you know, a public process through the advisory panel. They typically weren't considered by the SSC because they don't deal with that kind of stuff, and then they would be brought into the council.

But I really think that there is some definite improvements that could be made there with more of a focus, more of a requirement, you know, on considering safety as a primary thing and not, you know, as a secondary thought and not as an add-on to some other argument. Thank you.

MR. ROSECRANS: I think one point of clarification, Mr. Hughes. Could you define what SSC is?

MR. HUGHES: Scientific and Statistical Committee. When the councils were set up, not only, you know, were the -- was the council membership, you know, established by the Magnuson Act and how that membership was to fall out by being represented by the states that participated in that region's fisheries. But they also established an advisory panel that was to be made up of fishermen and other interested parties, environmental groups and

whatever that would be advising the council on the same issues that the council would usually consider later on in the meeting so that there would be an advisory panel of recommendation that would go to the council on each one of these issues.

And then there was a scientific and statistical committee and of course, still is, you know, that deals with things like sustained yield management, economics and other kind of scientific aspects that, from the SSC, going to the council in the form of recommendations.

MR. ROSECRANS: Thank you.

Last call?

MR. BRUCE: Yeah. You know, I think that -- of course, the Alaska Board of Fisheries is a separate entity from the Alaska Department of Fish and Game and they have their own processes for governing how they work. But in listening to the discussion yesterday and today, I -- and from having participated in many, many days of meetings, at board of fisheries meetings, I don't think the board systematically considers safety even to the level that the council does. And I recognize that the council doesn't consider it as much as many people think is advisable.

But there is a mechanism that the board uses that potentially could be taken advantage of. And I'll mention that, but before I do, I want to really go on record as agreeing with the comments that were made about the allocation issues and how safety can become an argument in those issues. And that's very

detrimental, I think, to safety, and it's also -- but it's something you really have to guard against because these are primarily allocative arenas. And so people are going to use whatever kind of argument that they can get leverage on.

So how do you separate a safety issue out of that and try to get it addressed on its own merits rather than how it advantages one particular gear type over another? And I don't know what the solution for that is. It's something that certainly deserves some careful thought if you're going to be successful in advancing safety on its own merits.

But one of the things that the board does that might be a useful vehicle, and again, they would have to choose to adopt this. They have a proposal form and that proposal form, people that submit proposals have to answer some questions in the process of submitting those proposals. And several years ago, when quality was a big issue, when quality -- I mean quality is still a big issue and even more an issue in fisheries today than it was 10 or 15 years ago, but when the salmon industry was really being beaten up by farmed salmon over quality issues, they actually added a question to the form saying how would your proposal improve quality.

Well, you could consider -- the board could consider and the public could consider adding a question to the proposal form regarding safety in a proposal so that any proposal that was submitted by the public and perhaps, by an agency like the Alaska

Department of Fish and Game, would have to address the safety considerations of that particular proposal. That would be one mechanism that could be used to elevate and sort of standardize and make regular, at least some level of discussion about safety as it relates to fisheries management plans and regulations.

MR. ROSECRANS: Thank you.

We're going to have to end this segment of our presentation so I can get to ask you some questions from the audience. I'm not going to be able to ask all these questions and I will read a couple comments. So those of you whose question doesn't get asked here and you have identified a specific person for that question, would you please see them at the break or at lunchtime and ask those questions directly?

First question is for Dr. Lincoln. Are your proposed six steps look at the back end of safety issues? Have you considered conducting the risk assessment sooner in the process rather than at step four to take more proactive, preventive stance? If not, why not?

DR. LINCOLN: I don't think that the steps are necessarily linear. I don't think that you have to do step one and then step two and then step three. So it could be that, for instance, if the data aren't available, that you go right to risk assessment. The list was just trying to make a grocery list of sorts of, these are the -- this is the way and these are the things that you look at.

I agree that by looking -- counting the -- you know, I said count the bad things first, that it is, you know, retrospective and that when you look at a fishery like the Bering Sea crab fishery, that as our safety record maintains to be good measured by a reduction in fatalities, that you cannot ignore the risk that those people take when they go out to fish. So it's -- I don't mean the six steps to be linear and I think it's important to have -- to look both directions.

MR. ROSECRANS: Thank you. A couple comments here. One comment that the -- in New England, that all the fish management plans require observers and that makes the voluntary dockside exam mandatory and not voluntary.

Another comment on Mr. O'Shea's opening statement that safety is not part of their legislative authority. Safety is everyone's responsible. Sounds like it's not my job. No comment necessary. I'm just reading the comments.

This is a question that doesn't have a particular panelist, but perhaps Captain O'Shea would be best prepared to answer this one. At least one west coast state fishery that has been determined to be high risk has refused to require fishing vessel safety decals prior to issuing permits. What barriers do you see to having such requirements?

MR. O'SHEA: Yeah. My colleagues on the panel reminded me, they're talking about the Dungeness Crab Fishery. And I suppose, you know, I could turn that right around to the 5,500

boats that fish up in the Gulf of Maine in the lobster fishery up there. And I look over at Elliott and say what would prevent the State of Maine from requiring people to have a commercial fishing vessel safety decal on a Maine lobster boat. And I guess I would say probably the same thing that prevents us from having lobstermen report their catches to the State of Maine, which seems like an incredible situation, but that's what it is up in Maine.

So I think the longwinded is until the industry can be energized to do it, it's a -- be a messy political flight. And something like Maine, it's going to be very difficult to do until the industry gets on board with it, quite frankly. Thanks.

MR. ROSECRANS: Thank you.

All right. Question for Mr. Tromble. How feasible is it to the -- to require a valid safety examination prior to issuing a permit -- fisheries permit?

MR. TROMBLE: I was thinking about this a little earlier in talking with a staff member over the break.

I don't know that this has been directly considered before and determined that we couldn't do it. I think the considerations would be that the -- currently, under the current law, the fishing vessel decals are -- that program is an optional program for the fishing industry through the Coast Guard regs. And so the question would be, under our Magnuson Act authorities, could we effectively make that a mandatory requirement by invoking National Standard 10 and saying that it's practicable for vessels

to get these decals and that, to promote safety, to the extent practicable, we're going to essentially require that the vessels have them before they can get a permit.

It seems to me that those are the considerations that would have to be looked at and we would have to, you know, get our general counsel involved to look at the legal issues and the statutory authorities and things like that. I don't know that that particular line of reasoning has been, you know, directly explored in any FMP at this point. I'm also thinking that the new law that's been passed may change that picture somewhat.

MR. ROSECRANS: Thank you.

And a question for the panel. How many fisheries limit vessel replacements as part of the plans? Captain Howard?

MR. HOWARD: We have nine different fishery management plans and all nine have restrictions for replacement. I think it's 10 percent in length and 25 percent in horsepower or something like that. So we have restrictions on all of our fisheries.

MR. TROMBLE: I don't know the answer nationwide in terms of the 46 fishery management plans, and we can certainly look into that. The issue there that the councils have to deal with is when they make a fishery limited access, which is intended to address an overcapacity problem and usually all they're doing at that point is just simply putting a limit on it that keeps it from getting worse.

When you take an open access situation and then require a permit and if you fix the number of permits that you have, the issue then becomes the industries incentives and ability to increase capacity by having the same number of vessels, but by increasing the fishing capacity of those vessels, either by modifying them through rebuilding, adding bigger engines or taking a smaller vessel, selling it and then transferring the permit to a larger vessel.

So that's the reason why restrictions on vessel replacements would be a part of limited access programs. And as I said, we could certainly look into the extent to which those replacement restrictions have been used.

MR. ROSECRANS: Thank you.

One last question and this is for Dr. Lincoln. In your statement, you said that Iceland -- what is Iceland doing that you consider -- so safety -- and can these be implemented in the U.S.?

DR. LINCOLN: Briefly, the item that I was thinking of in particular was training. They require training before they can go fish and they require training before they issue the permit.

MR. ROSECRANS: Thank you.

CHAIRMAN SUMWALT: Well, that concludes this panel. I certainly want to thank the panelists, the audience; panelists for your great participation, the audience for your questions, as well as the technical panel.

We'll take a five minute break so that we can change out

from one panel to the next. And so let's just plan to reconvene according to that clock, at 10:55.

(Off the record.)

(On the record.)

CHAIRMAN SUMWALT: Okay. Thank you for coming back on time and I'll ask Mike Rosecrans to introduce our next panel. Thank you.

MR. ROSECRANS: Thank you, Mr. Chairman.

We have several issues to examine in this panel and given the preceding panels, we know that there will not be uniformity of opinion.

We heard yesterday that 30 percent of U.S. fatalities in the commercial fishing industry are from falls overboard. One role of this panel is to examine this problem in the hope of identifying strategies to prevent falls overboard, help fishermen survive falls overboard and more quickly recover those who do fall overboard. The new Coast Guard Authorization Act of 2010 addresses lifesaving equipment and requires that lifesaving equipment prevent immersion in water. This may require additional regulations and many vessels to be refitted with new lifesaving equipment.

Lastly, other lifesaving equipment required by regulations may or may not be the best that can be used to promote survivability because of the condition, design or familiarity to the users. Again, the Coast Guard Authorization Act of 2010

addresses the issue of lifesaving equipment by granting the authority to the Coast Guard to develop standards and appropriate equipment that may not be required by regulation.

I will now introduce our panel.

Mr. Mike Grupa. Mr. Grupa is representing the Personal Flotation Device Manufacturer's Association.

Tom Thompson. Mr. Thompson is the Executive Director of the U.S. Marine Safety Association, a trade organization representing marine safety device manufacturers.

Dr. Jennifer Lincoln. Dr. Lincoln is an Injury Epidemiologist from the Alaska Pacific Regional Office of NIOSH.

Mr. Richard Hiscock. Mr. Hiscock has a long history of studying commercial fishing vessel safety and lifesaving equipment. He is a past member of the Commercial Fishing Industry Vessel Safety Advisory Committee. Mr. Hiscock was also a panelist on yesterday's Panel 1.

Kurt Heinz. Mr. Heinz is Chief, Lifesaving and Fire Safety Division at U.S. Coast Guard Headquarters and has a long history of working in the standards and approval of lifesaving equipment.

**Mr. Grupa**.

MR. GRUPA: Good morning, Mr. Chairman. On behalf of the Personal Flotation Device Manufacturer's Association, we want to thank you for the opportunity to be here and make a presentation.

You know, the PFDMA, as we call it, was basically founded in 1984. It was founded by three manufacturers who had common problems on materials used in personal flotation devices and over the years, it's sustained itself and now, grown to over 50 members of both manufacturers and component manufacturers trying to resolve issues to make sure we make the best personal flotation device as is on the market.

The issues that I wanted to kind of talk today about was, when we do talk about the different fisheries, you know, each fishery does have different needs and has different wants based on the climate conditions, as well as just their occupational use. When it comes to flotation devices, you know, we have plenty of manufactures and I think everybody's familiar with the inherently buoyant devices, everything from type ones to the, you know, more accessible and more readable type threes are what most people do wear because you have more room, arm movement, just for freedom of movement. They do offer good buoyancy protection, but they, you know, are limited as buoyancy aids.

The advantages of type threes are that they do cover quite a bit of the body so you do get some hypothermia protection if you are in cold water. There is, you know, a good surface area to attach a -- personal marker beacons or anything else that a person wants to attach to them. The disadvantage, of course, is that, you know, they are, you know, bulky, but they are probably the number one used item out there and mainly because they work

and because the pricing on them is very realistic.

If you go to a step above, you know, PFDs and in the vest line, we get into what we call the anti-buoyant exposure -- or the buoyant anti-exposure clothing. And basically, it's taking the PFD concept a step further and putting foam into jackets, coats, coveralls, coats that have additional, we call them beavertails where actually, you can take a neoprene diaper, if you will, around the groin in cold water to stop the flushing and give you added hypothermia protection.

These devices, again, they're very nice as far as in cold weather climates. You know, the problem, disadvantage, of course, is that if you are in any type of working environment where you are engaged in any kind of physical activity, they do tend to be warm and a lot of people don't like to use them for that standpoint.

The one area that I wanted to kind of focus on was the growing aspect of inflatables. In 1998, the U.S. Coast Guard passed the first regulations where both consumers and industry could use inflatable personal flotation devices. And what we're seeing is this right now is the fastest growing area in the PFD market and there's several reasons why it continues to grow. You know, like the type three's, which, most of these are type threes with some variations on wear-ability requirements, you know, they basically do the job as far as making a person buoyant in the water. You have very ample buoyancy because it's all contained in

an inflatable and it's not the foam that's around you. So basically, you have a lot more buoyancy in a smaller area.

They're lightweight, they're compact, they're nonrestrictive and we've seen that people, you know, do like them. They come in everything from belt packs to, you know, around the collar, a lot of variations.

Last year, the Coast Guard allowed the first work vest category, which is the orange vest on the slide. That does say work vest on it and it's basically -- it was taking a -- the PFD concept and inflatable and adding it to be a heavier duty and making it more durable for the work vest area. Incidentally, that vest was the number one vest that was ranked by the NIOSH report that Dr. Lincoln and her staff put together.

The advantages, again, of the inflatables, the main thing is the buoyancy. You get a lot more buoyancy, so in the water, you're going to get your head above the water a lot more in rough conditions and you get a lot more stability in the water for the amount of surface space that it takes. The disadvantage, of course, is that inflatables can puncture and unlike a foam vest, where if you tear it, cut it, shred it, as long as the foam is still there, you, pretty much, are going to float. An inflatable has that, you know, problem that it just may not float if it has a hole in it depending how big it is and how quickly the air does release on it.

The heart of inflatable is the inflator mechanism and

over the years, when we've talked to fishermen at trade shows and everything, their biggest concern is, of course, next to being the puncturing ability of the PFD or resistance, I should say, is the worry about the vest inflating inadvertently. Meaning, if they take a big wave over the bow, will it automatically inflate or what can be done to make sure they don't inflate.

There's basically three mechanisms on the market or types of mechanisms. A manual mechanism, of course, is what's called a jerk-to-inflate. You basically have to jerk the handle, which will inflate the PFD and does not rely on any kind of automatic activation.

A pill inflator does have a water soluble pill and these are the most susceptible to any type of inadvertent activation because if a wave would come over or if you're in either heavy seas or if you're in rain, they, you know, possibly could go off. They're protected, as well as possible that there is always that possibility for inadvertent activation.

The hydrostatic is pretty fool-proof in splash because it relies on hydrostatic pressure to be -- the person has to basically fall with about four inches of the surface of the water and the water pressure is what activates it. So the reliability on each one does have pros and cons based on cost and based on what the user is looking for.

One question that, when we were -- when I talked to a couple members in the PFD Association, we asked about regulatory

methods that could, you know, kind of enhance retrieval overboards. And almost everybody mention about, with the success of inflatables, maybe it's time to look at inflatable throw devices, not as non-approved devices, but as approved devices. We -- the industry does sell a lot of throw devices to a rescue to some ships that use them for retrievals and there are many different kinds and styles out there. But again, these can be thrown, you know, further, more accurate with ropes attached than ring buoys can be and maybe a better line of offense as far as retrieving someone than other devices out there.

In closing, you know, one question that I think all PFD manufacturers get at every trade show is, you know, what is the best PFD available, what should I buy. And of course, that does change by the industry, but you know, our universal question is don't buy something if you're not going to wear it because, you know, a PFD that is not readily accessible or is not on you is not going to help. And you know, choose one that you're going to wear that you feel is best for your needs.

Thank you.

MR. ROSECRANS: Thank you.

Mr. Thompson.

MR. THOMPSON: Thank you, Mr. Chairman and Captain Rosecrans.

I would be a very happy man if lifesaving equipment were never needed, if boats stayed afloat, upright and free from

flames. I applaud the longstanding efforts of all the individuals, agencies and organizations who have worked so hard to improve the safety record of the fishing industry. It's important that we continue to work diligently to prevent the catastrophic events which necessitate the use of lifesaving equipment.

Simply carrying lifesaving equipment does little to ensure the safety of the vessel and its crew. Stowage and installation, maintenance and thorough understanding of the equipment are critical components of the lifesaving systems. Lifesaving systems must stowed so that -- and installed so that it is not subject to conditions for which it wasn't designed, safely and quickly accessible in an emergency, in a position and location that allows it to function as designed. As the realtors say, it's location, location, location.

Those on board must be familiar with the equipment. Drills, training and new crew orientation are vital to the systems. The decisions you make are every bit as important as the equipment you carry. It's important that mariners have confidence in their lifesaving equipment in that it will function flawlessly when it's needed most. I've gone to sea as crew on fishing vessels, sailed as master of research vessels and remember well, the days when everything just started to go downhill and you end up thinking I really hope this stuff works if we need it.

Two years ago, we testified in front of the House Subcommittee on Coast Guard and Marine Transportation at a hearing

discussing the rules of the Coast Guard. We asked for increased oversight of life raft servicing through more frequent visits to service facilities by Coast Guard inspectors. This partnership between regulators and industry is vital. We have since seen significantly more inspectors out in the field witnessing life raft servicing in a number of ports and would hope that this continues.

This should not, however, become a third party function, but rather, one carried out by Coast Guard personnel. Delegating such oversight to a third party would inevitably significantly increase the cost of life raft service to an already burdened fishing industry.

The recent Coast Guard Authorization bill will further the effectiveness of this inspection program by setting standards for the training of inspectors in specific area of expertise enabling the inspectors to better understand the service procedures and practices. The Coast Guard may also want to consider an audit program for life raft servicing as a more efficient means of assuring the quality of servicing.

We have, as an industry, recently developed a uniform damage and deficiency reporting forum by use by -- for use by life raft service stations to report problems to the OCMI and manufacturers. This provides an easy way for service facilities to comply with existing reporting requirements, as well as a means of more quickly identifying trends and potential problems. It

will also facilitate the collection of data required to evaluate service life issues.

The Katmai casualty report raised several issues relating to life rafts carried on board. It's important to note that since those life rafts were built, a completely revised set of regulations concerning life rafts was issued by the Coast Guard in 1997 addressing structural details, ballast and a number of other significant improvements bringing the regulations in line with current SOLAS requirements. Perhaps it's time to consider a means of removing those older rafts from the higher risk vessels if a way can be found to minimize the financial burden on the owners and operators of such vessels.

Immersion suits. Condition, maintenance and aging of immersion suits currently being carried has been an ongoing concern. Many suits have been in service for as long as 20 years. Useful service life of immersion suits is influenced very heavily by conditions under which the suits are stowed and maintenance performed. The fabric may be damaged by prolonged exposure to diesel fumes.

NVIC 1-08 and IMO MSC Circulars 1047 and 1114 provide guidance for periodic inspection of immersion suits, including inflation testing every three years, then more frequently for suits over ten years of age. A requirement for such inspection to be carried by an authorized facility would provide much assurance that the suits being carried on board were in good operating

condition. The suits could be tagged upon successful inspection with a tag in the corresponding color scheme with the existing life raft service sticker so that the next inspection date would be apparent.

There's been some discussion of late concerning service life of boat life rafts and immersion suits. We currently have no substantive data to which -- with which to evaluate lifespan issues for either of these types of equipment. Implementation of a data collection system utilizing the damage and defect reports and the immersion suit service regime would be a step toward collecting that data.

Innovative lifesaving equipment. There are a number of recent advances in lifesaving technology which should be considered for use aboard fishing vessels. They offer significant opportunities to save lives. Rescue time is always a critical factor in surviving a casualty at sea. GPIRBS, EPIRBS which incorporate GPS technology in order to transmit position data with the beacon identification information, search and rescue resources then have an accurate position -- or accurate position information as soon as they receive the beacon alert and can get rescue resources to the right location more quickly and therefore, significantly reduce time a crew spends in the water.

AIS systems can do much to avoid collisions. New hydrostatic release units that combine a remote ran manual release with a list and trim angle sensor are now available to release

survival craft or EPIRBS earlier without waiting until the vessel is under water, thereby reducing the chance of life rafts or EPIRBS becoming fouled in the vessels rigging as they float to the surface.

There are a number of developing systems for alert and location of a person overboard. They work on a variety of principles and different systems have features which make them suitable for a variety of types of fishing vessels. These merit evaluation and consideration as they continue to evolve.

Finally, recommendations. Remain mindful, the lifesaving systems include suitable stowage, appropriate maintenance and relevant training. Two, maintain an effective Coast Guard oversight program for life raft service facilities. Three, end grandfather period for life rafts built to standards in place prior to 1997. Four, implement mandatory inspection programs for immersion suits and collect data on service life. Five, encourage carriage of GPIRBS to reduce response time by minimizing the search portion of search and rescue. Six, encourage installation of AIS systems as appropriate in order to reduce collision. Seven, consider systems for early release of survival craft and EPIRBS. Eight, encourage development and implementation of technology-based, person overboard alert and location systems. And finally, nine, continue to work on criteria for wearing PFDs on deck.

Thank you.

MR. ROSECRANS: Thank you, Mr. Thompson.

DR. LINCOLN: I am honored to speak to you at -- on so many different important topics during this forum. I'm sincerely, very honored.

I wanted to talk to you today about three areas of concern. One is regarding personal flotation devices or PFDs; two, the aging immersion suits; and three, deck safety.

PFDs can save lives when fishermen fall into the water or when their vessel capsizes quickly. Just last week, the fishing vessel Double Eagle was crossing the Tillamook River bar and capsized. The two fishermen onboard were wearing PFDs and they were rescued by the U.S. Coast Guard.

As you saw, there are several slim, lightweight PFDs with either inherent flotation or inflatable mechanisms and some are also integrated into rain gear, which is something that fishermen already wear. At the suggestion of a fisherman, NIOSH conducted a field study to test the comfort and wear-ability of PFDs and to identify features that fishermen like and would use. Not surprisingly, fishermen on different types of vessels working different gear and different seasons had different preferences for PFDs. I am optimistic that by working with fishermen, PFDs can be designed to meet their demanding work settings.

NIOSH has recommended that all fishermen wear PFDs when out on deck. Vessel operators should have some sort of PFD policy for their vessels. At a minimum, vessel operators should identify

the situations in which PFDs are necessary to be worn to do the work safely, like when climbing the stack of a crab pot, crossing hazardous river bars or when weather conditions deteriorate beyond some point.

Now to the topic of aging immersion suits. Immersion suits save lives. NIOSH found that in an analysis comparing victims to survivors of vessel losses, we found that survivors were seven times more likely to have gotten into an immersion suit than victims. The current safety regulations that require immersion suits be carried on fishing vessels operating in cold waters were implemented about 20 years ago. So we now find immersion suits on fishing vessels that are about 20 years old.

Immersion suits are made of neoprene and provide insulation and flotation. And as the suits age, the neoprene compresses, diminishing its insulating capability and the zipper, face flap and adhesive in the seams deteriorate resulting in leaky suits. A 54 percent failure rate of pressure tests for suits more than 14 years old has been reported. Another report has found that 49 of 104 inspected immersion suits with an average age of 18 years was -- were condemned. The most common defects were failed seams and poor fabric conditions.

There are guidelines for inspecting immersion suits, but deterioration of seams and closures may not be detected through a visual inspection. The U.S. Coast Guard recommends that each suit be subjected to an air pressure test at intervals not exceeding

three years or more frequently for suits over ten years of age. However, this is a guideline and not a regulation.

Standards for the frequency of inspections and the inflation tests and guidance regarding the age at which immersion suits should be replaced are needed. Otherwise, I fear that we will start seeing more fatalities even if fishermen do get into immersion suits.

An area that we haven't talked a lot about these two days is deck safety and I would be remiss if I did not at least bring it up to introduce it into the docket. Being struck by or entangled in machinery on deck of a fishing vessel is the leading cause of hospitalized injuries among commercial fishermen and is very costly.

When discussing this with fishermen in Southeast Alaska, they said that the deck winch poses an entanglement hazard compounded by the location of its controls. These controls are normally located on the bulkhead several feet in front of the captain, thus, out of reach when the person's entangled. If an entanglement occurs, the person is -- the victim is pulled into the winch and unable to stop it.

To solve this problem, NIOSH engineers worked with fishermen to develop an emergency stop or E-stop that can be retrofitted onto any wench. When engaged, it locks the wench in place limiting the severity of the entanglement. The technology was licensed to Emerald Marine in Seattle, Washington to produce a

commercially available retrofit kit. This type of solution can be applied to most any hydraulic piece of machinery found on deck that poses a hazard.

Deck safety is often not discussed since fatalities are rare. However, there are several areas of concern like lockout/tagout procedures, entanglement prevention and these E-stops that exist in the industry. Probably looking at the nonfatal injury problem to identify what the patterns are and understanding the magnitude of them would be a good next step.

Thank you.

MR. ROSECRANS: Thank you, Dr. Lincoln.

**Mr. Hiscock**.

MR. HISCOCK: Good morning and thank you, Mr. Chairman. Thank you, Captain Rosecrans.

There are three issues that I would like to briefly discuss. One -- the first is, are immersion suits enough. The second is PFD requirements should be based on risk, not on vessel length. And the third is definition of cold water.

It has long been my belief that the requirement or the -- actually, it was an option in the early days of immersion suits, that uninspected vessels could substitute immersion suits for PFDs and that requirement was incorporated into the fishing vessel safety regulations in 1991, thereby sending the message that if you carry immersion suits, you don't need to carry PFDs. It's my opinion and that -- that's probably a false message.

There are many occasions when an immersion suit is not the appropriate piece of flotation device to be used on board a fishing vessel.

Dr. Lincoln has done a noble effort in trying to convince people that they should wear PFDs when they're on deck. And that is obviously a voluntary effort, but there are situations where -- and I'll give you a recent example. A fishing vessel from Gloucester was 125 miles east of Cape Code and was going to be towed in by the Coast Guard cutter. The first thing that that Coast Guard cutter will do when it gets in range of that vessel was to instruct the crew to put on their PFDs. If they don't have any PFDs, their option is to put on an immersion suit and then trying to handle heavy towing hausers on the foredeck wearing an immersion suit.

There are other occasions when you are -- if you're doing a medical evacuation, the crewmembers on deck who are handling the medical evacuation equipment should be wearing a PFD. There are situations where you might be fighting a fire where you should be wearing a PFD or there could be a situation where you are sending somebody aloft to fix a piece of gear that you need to wear a PFD.

Now I am not suggesting that you have to have 100 percent PFDs for every member of the crew, but there should be some ratio of additional PFDs to the number of immersion suits that are required. Certainly, every crew member on board should

have an immersion suit, but there needs to be PFDs available and required for crewmembers who have to work on deck in situations where immersion suits are not required.

The second topic that I would like to discuss is PFD requirements should be based on risk. Currently, both the uninspected commercial vessel and the recreational vessel PFD requirements use length of vessel as a break point. I will focus my attention on the commercial vessels.

Currently, a commercial -- uninspected commercial vessel over 40 feet has to carry a type one PFD. There is no magic in 40 feet. That 40 foot requirement goes back to the Motorboat Act of 1940, ironically. All of those provisions in the Motorboat Act of 1940 were changed in 1983 and -- to allow the Coast Guard the flexibility to require PFDs of whatever type based on risk, area of operation, temperature of water.

It seems to me it's long overdue time to look at those PFD requirements and say is -- because there are plenty of vessels that are less than 40 feet that are operating way offshore and they may not be required to carry an immersion suit. So they might -- it might be appropriate for them to have some higher level of flotation.

The third thing that I want to address and this is probably one of the more controversial ones is what's the definition of cold water? Recently came in the mail, a most recent issue of *Soundings* magazine, the November issue and there

was an article about a rescue of some recreational boaters. And it made the -- in the early part of the article, it mentions that they landed in the 80 degree water. At the very end of the article, almost at the end, it makes the note that two of the survivors were transferred to the Baltimore, Washington Medical Center in Glen Burnie for treatment of hypothermia.

The current definition of cold water is 59 degrees C -- I mean 59 Fahrenheit or 10 degrees C. That determination was based on two studies that were done that looked at casualties and not really at the scientific data. The scientific data has, for decades, indicated that water temperatures of 70 degrees are considered cold and probably higher.

And I would just like to leave you, before we get -- before I run out of time, with the following quote from 1943. "A human body cools when immersed in water of a temperature less than 92 degrees Fahrenheit. The warmest open water ocean -- open ocean water in any latitude at any time of the year is 84 degrees Fahrenheit. Individuals exposed to water of this temperature undergo significant cooling and need to be protected in a waterproof suit in the water. Individuals even in such warm climates, while sitting on life rafts, lose body heat rapidly due to evaporative cooling unless provided with a waterproof suit. The rate of loss of body heat increases rapidly as the temperature of the air and water falls."

I would say it's time we looked at the 59 degree rule

and reexamine what -- the definition of cold water. Thank you very much.

MR. ROSECRANS: Thank you, Mr. Hiscock.

MR. HEINZ: Thank you, Mr. Chairman and Mr. Rosecrans for the opportunity to participate in this panel. I look forward to an interesting and productive discussion of the important role of effective lifesaving equipment and the reduction of fatalities in the commercial fishing industry.

I want to start by talking about lifejacket wear. In the fishing industry, as in recreational boating, improving life jacket wear rates is the gold standard, the Holy Grail to reducing deaths due to drowning. Consistently, we find that the great majority of marine drowning victims were not wearing lifejackets that were required and readily available and in most cases, would almost certainly have saved their lives. That's a big problem and a frustrating one because a readily available and inexpensive solution that is literally close at hand is simply not being used effectively, despite the fact that the consequence is, in too many cases, death.

My personal view is that lifejacket wear on exposed decks should be mandatory whether by regulation or as company policy. In a known hazardous workplace, there is simply no excuse for not using all readily available safety equipment. I would go so far as to say that it is irresponsible and unprofessional not to do so.

Some would, no doubt, say the lifejackets are bulky and uncomfortable, perhaps even dangerous due to possible entanglement with equipment on deck and in truth, some are. To which, I would say don't use those. As you saw in Mr. Grupa's presentation, the good news is that there's a wide range of approved lifejackets available, including inflatables that defeat the arguments against lifejacket wear. And we're taking steps to foster further innovation to improve wear-ability by working with industry to update our standards and reengineer our approval processes.

A current major initiative is the development with Canada of a consolidated North American standard for life jackets based on international standards that will increase design flexibility including inherently buoyant ISO level 50 devices which can be even less bulky than current type three PFDs. Recognition of additional test laboratories will hopefully reduce the time and the cost to industry of bringing new concepts to market.

Finally, if you still don't want to wear an approved lifejacket, then please wear an unapproved one. The regulations allow carriage of unapproved excess gear for personal use. Find some flotation that you'll wear and wear it whenever you're out on deck.

If you do find yourself in the water with or without a lifejacket, your shipmates will hopefully go to great lengths to get you back. However, this is often not a simple matter. I

would like to briefly point out that there's been a good deal of work ongoing at IMO recently, the International Maritime Organization, on means of recovering persons from the water. Pursuant to that work, a wide range of new solutions that are suitable for low freeboard vessels, such as the rescue star, the rescue scoop, the Icelandic Markus net and the Jason's cradle have been developed and refined by industry. And I would strongly recommend considering carriage of such equipment for use in a man overboard situation.

I would like to mention yet another subject stemming from the Coast Guard Auth bill recently approved by Congress, which Mr. Rosecrans mentioned, survival craft providing for out of water flotation. The current fishing vessel safety regulations allow for the use of buoyant apparatus or life floats as survival craft in many applications. However, Section 609 of the bill requires any survival craft that allows its occupants to be immersed in water, in other words, buoyant apparatus and life floats, to be removed from service as required equipment no later than January, 2015.

Once the ink dries on the auth bill, we will need to be initiating regulatory action to implement suitable replacements which will almost certainly be inflatable survival craft. Operators will need to start planning for the initial and recurring cost of these in thinking about where and how to install them. I just want to point out the importance of giving this more

thought than just finding an empty space on deck.

Casualties and studies have shown how easily life rafts and their painters can be tangled in fishing vessel rigging as the vessel sinks. Unfortunately, there are no cut and dry solutions as every boat is different.

Finally, I would like to briefly touch on the subject of prescribing fixed service lives for equipment, which has been suggested particularly in connection with immersion suits and life rafts. We have not been supportive of such a concept for several reasons. First, we don't have adequate service life data to support anything other than an arbitrary requirement. For both life rafts and immersion suits, a variety of construction materials and technologies are employed by different manufacturers and for different product lines. Like many things, the adage, you get what you pay for, applies. While all meet the same minimum requirements for approval, more expensive products can often be expected to last longer. As such, prescribing a fixed service life would reduce the incentive to purchase higher quality, more capable equipment because the perceived value of a longer service life would be lost.

I should add that life rafts produced 20 to 30 years ago, in many cases, tended to be much heavier duty than those today and there are still some of those in service, particularly in freshwater and they're perfectly -- remain perfectly capable. Even for a particular life raft or immersion suit, the service

life will vary greatly depending on how it is stowed and cared for. A life raft in a benign climate, perhaps in fresh water like the Great Lakes, will almost certainly last much longer than one in an extreme Arctic or tropical climate. Immersion suits kept uncompressed in a dry locker will last much longer than the same suits thrown in a pile in the lazarette.

The consequence of this is that for any prescribed service life, two unintended consequences can be anticipated. A lot of equipment that's no longer serviceable will be kept in service because it has not yet reached its expiration date and a lot of perfectly good and serviceable equipment will be unnecessarily discarded. Further, we would be eliminating one incentive to care for equipment properly. For that reason, our preference has been, instead of prescribing arbitrary service lives, to focus on periodic inspections and tests as a way of ensuring that equipment continues to be suitable for its intended purpose.

Thank you, Mr. Chairman.

CHAIRMAN SUMWALT: Thank you very much.

And Rob Henry will be leading the round of questioning from the technical panel.

MR. HENRY: Mike Rosecrans started the introductory to the panel by noting the fatality rates from falls overboard. And what I wanted to do is generate a discussion in the panel on this topic. If it -- if the statistics show that fatality rates are

about 30 percent due to falls overboard, what are the practical considerations to developing strategies that will reduce that number and prevent, you know, 30 percent fatalities? What do we have to consider?

Now we're going to be talking about training in the next panel so we can exclude that, but what are the other practical considerations and problems that need to be identified and attacked in trying to reduce this number of deaths? And we can work through the panel with Mr. Grupa.

MR. GRUPA: From an industry standpoint, you know, I know every manufacturer tries to work with the public as much as possible. You know, I know from our company standpoint, you know, a week ago, there was a fisherman's event in Seattle and we had a booth there. You know, same thing Arizona has, safe boating programs. We try to participate in them.

And you know, and I know it's across the board with every manufacturer. What we try to do is participate and try to improve the wear rate. Whether or not its commercial or it's recreational, we understand the need for wearing the PFD and we try to really emphasize that at every event we go to by bringing, you know, PFDs, have people try them on and swing their arms around and you know, see that they really aren't restrictive like they think they are. You know, a lot of people just like to buy them and put them away and never try them on.

So I think, you know, the thing from our standpoint from

industry is we really try to promote as much wear-ability at every event, trade show, get-together that we possibly can.

MR. THOMPSON: I think it's a systemic approach, too. We need to look at it as a unified -- you know, there's the component of deck safety and safe practices, the awareness of hazards, the preparation in terms of wearing a PFD on deck. There's the alert notification and recovery locating devices. So I think we really need to take a top, down approach and look at the whole system here. I mean there are a number of devices that will help locate and identify a man overboard situation, but I think we need to look at how it fits in with the current practices on deck of the vessel and the whole big picture. Thank you.

DR. LINCOLN: Terrance, could you bring up slide 51, please?

As I mentioned yesterday, there are three times that we have an opportunity to prevent a fatality due to a fall overboard and the first one is to prevent the event. The second one is to alert the crew or the rescue that it occurred. And the third is to increase PFD usage so that the person is able to stay afloat and doesn't succumb to swimming failure before they're able to get back on board.

In order to prevent the event, you have to understand what the problem is. And if you could go to the next slide, number 52, these are the various reasons why a fisherman ends up in the water and each one of these issues would require a

different solution in order to prevent them from -- prevent that from occurring.

If you go ahead and skip to number -- actually, wait a minute. So understanding how the person ended up in the water would lead you to figure out ways to prevent them from entering. Then, if you look at other contributing risk factors, if you go to slide 53, you notice that the majority of these victims that died whenever they fell in the water, they were alone on deck. So that tells me that the crew wasn't aware that somebody was in the water, if there were other people on the vessel, or that the person was alone and they didn't have means to get back on their boat. Perhaps the vessel was still moving or something like that. So there's another area of -- for an intervention and I think that man overboard alarms would be a practical solution to this.

The third is PFD usage and so, I've heard a few of the gentlemen on the panel discuss the increase in wear rates and working at events and trade shows to get more buy-in into wearing PFDs. I argue that you need to go the fishermen and you need to go where they are. Show up on the docks and ask them questions and actually target the groups that have the highest risk.

So if you go to slide 54, in particular, you need to work with the Gulf of Mexico shrimp fishermen and then look at these -- the causes that lead to these fatal falls overboard events. Look at the contributing risk factors. Is it that they are going out on deck by themselves because that's where they go

to the bathroom or is it that they are climbing out on the outriggers and they're not wearing a PFD? You know, what is that particular hazard that's leading to almost 30 fatalities in a 10 year period?

So I think that there's those three areas that provide opportunity to prevent falls overboard fatalities. Each one of them requires some thoughtful application, but unless industry is -- understands that they are at risk or understand that they do need to do something, they're not going to wear PFDs.

MR. HISCOCK: I'm very glad that Dr. Lincoln brought up that last slide because it sort of reinforces something I said about cold water. You notice that the number of people who died, the highest percentage is in the Gulf of Mexico. I think it would be very interesting to examine how many of those people died, drowned and how many people of those died -- potentially died of hypothermia.

I don't think we'll ever know now, but -- in hind cast, but it would be very interesting to look in the future and ask -- and bring that to the attention of the people who are doing the examinations postmortem to see whether or not hypothermia was a factor. How long did those people stay in the water? That's the first thing we need to find out.

It is interesting that there are so many deaths from falls overboard in the Gulf of Mexico and I think it's something worth examining. Thank you very much.

MR. HEINZ: Thank you, Mr. Chairman.

I would just, I guess, emphasize what has been mentioned by several others as far as the importance of PFD wear rates and encouraging, urging, if not requiring people to wear PFDs when they are out on exposed deck.

If you look at the various causes and circumstances under which people have fallen overboard, there are a variety of problems there, a variety of complex possible solutions to that. PFDs, lifejackets is easy. You're required to have them. They're there. You can have your own private one, your own personal one if you want. I would think that we should be looking for the simplest possible solution to actually saving lives when people do go overboard, take care of that first and then look at the more complicated things of how do we stop them from going overboard in the first place.

Thank you, Mr. Chairman.

MR. HENRY: Dr. Lincoln, does your data allow you to talk about the number of fatalities that included people that were wearing PFDs when they fell overboard?

DR. LINCOLN: To answer your question, the -- all of the fatalities that resulted from a fall overboard, we were able to ascertain whether or not they were wearing a PFD and none of them were wearing a PFD. Now the side of the picture that I would absolutely love, love, love to have is to know how many people fell overboard and were wearing a PFD and lived.

So when you look at drowning fatalities due to falls overboard, you are -- I hope that you find that very few or none were wearing a PFD because, if you found drowning victims that were wearing PFDs, then the -- then you would have to question whether or not it's an adequate piece of survival equipment. But in order to understand the complete picture and actually, to have a more persuasive argument for why you wear a PFD is to start collecting that level of detail, capturing the success stories.

MR. HENRY: That level of detail is collected in recreational boating accidents and you know, if you looked at the data on falls overboard and drownings, you know, it is -- it does jump out at you that, you know, had those individuals been wearing the PFD, the -- it would have been a significant difference in the fatality rates.

But the -- one more aspect of surviving a fall overboard and this was brought home when I saw a presentation on cold water rescue, was the ability to bring somebody out of hypothermia, you know, once they're retrieved and on deck and still living. Do you have any data on how many people died because they were rescued quickly, they were brought on board, but the crew just did not know the proper techniques to sustain somebody's life who was hypothermic?

DR. LINCOLN: To go back to the beginning of your question and the -- as far as the data available in recreational boating to show that PFDs are used or not used, does the data

really exist for survivors?

MR. HENRY: Yes, it does.

DR. LINCOLN: So if a person falls into the water and they're retrieved on a rec boat, we know whether or not they were wearing a PFD and they lived?

MR. HENRY: Yes. I mean, you know, it's based on state collected data, but that is one of the questions that's asked is, you know, was the individual wearing a PFD when they fell over the side.

DR. LINCOLN: And died?

MR. HENRY: Yes. So that --

DR. LINCOLN: Yes.

MR. HENRY: Yeah.

DR. LINCOLN: And that information is available --

MR. HENRY: Yeah. In doing --

DR. LINCOLN: -- for fishermen as well.

MR. HENRY: Okay.

DR. LINCOLN: What's not available is how many people fall in the water and live and were retrieved with a PFD on.

MR. HENRY: I see your question.

DR. LINCOLN: That's --

MR. HENRY: Yeah. So that's a non-accident in a sense.

DR. LINCOLN: It's -- right.

MR. HENRY: Right.

DR. LINCOLN: But it's an important -- it's that other

side of the question of did a PFD result in a life saved? So the same level of data for commercial fishermen is available as for recreational boaters.

To answer your question about hypothermia, we do -- we would have that level of detail. I would be able to identify the victims that had fallen in and were retrieved from the water and then died as a result of hypothermia or some -- maybe they weren't cared for properly when they were retrieved. I don't have that statistic in front of me, but I -- my gut is telling me that these -- the people that fell overboard and died, died in the water and they weren't recovered and later died on deck. That doesn't happen very often.

MR. HENRY: Okay. Thank you.

I would like to get into a discussion with the panel, and we can look at it in several ways, but I think the way Mr. Heinz addressed in his remarks, having to do with service life, you know, for life rafts, I guess we consider service life. For immersion suits, we consider, you know, when is the suit still serviceable. For equipment such as EPIRBS, you know, when has technology driven the design to the point where there's a quantum leap in the improvement of the device as a survival piece of equipment.

The Coast Guard's position is, is that service life by itself is probably not an appropriate tool to use to phase out old equipment and I would like to hear from the panel as to whether

there are other considerations or maybe it's the predominant consideration, but how do you feel about the Coast Guard's position on service life?

MR. THOMPSON: I think service life is very much determined by maintenance and by the conditions under which the piece of equipment is stowed. For EPIRBS, they're a special case because, typically, they are not going to be supported by the manufacturer for an indefinite number of years. It has to do with battery replacement. It has to do with case degradation and UV. Typically, there is a limited lifespan to the EPIRBS. We don't see any of the enormous 406 types that originally came out that were two and a half feet long. They're simply not supported because the battery technology has changed. It is too expensive to continue to support those for the manufacturers, not economically feasible. So the EPIRBS tend to cycle out themselves.

The immersion suits, again, there's such a broad range of conditions under which they're stowed and there's so many different factors that will influence the life. I think service and maintenance and inspection is really key. And as Mr. Heinz pointed out, there are a number of issues with simply stating an end of service life. It kind of brings the least common denominator into the quality of production. It can cause people to take the approach of well, this is an X number of year piece of equipment. I'm not going to replace it until it gets to that

date. Or perhaps it will be like well, it's going to last this number of years.

I really strongly feel that an inspection regime is the most appropriate way, including with life rafts. Life rafts, depending on even where it's stowed on the vessel, what conditions the vessel is used under. If there is a life raft that's stowed on the foredeck of a vessel, it's constantly buried by green water, you're going to see a whole lot of -- a lot quicker degradation of that product than something that's stowed way up on the house of a very high freeboard vessel that's constantly flushed by fresh water and the rain and doesn't get a lot of green water over it. So I think that model has worked pretty well for life rafts over the years, so --

DR. LINCOLN: I think that the common ground that we can all come to is that something in regard to a regular inspection regime, some sort of an inspection progress -- process or tests.

The reason that I think there needs to be both, some sort of an inspection schedule, as well as a replacement, is that at some point, I do think that there is some sort of a laughable or extreme end.

So I'm a proud mother of twins and when we were outfitting all of the -- the house, the cars and everything with all the safety equipment that we needed to get for having babies at home and then toddlers, there is no way that I was going to buy or even entertain anything more than a brand new, you know, car

seat for those girls. I think that there's a parallel between survival equipment and safety seats. I think the same argument can be made for motorcycle helmets or bicycle helmets. I don't want to use a 20-year-old bicycle helmet to protect my head when I'm out on -- when I'm out cycling. I want the latest.

And that's not to say that you can't maintain an immersion suit for 20 years and it work the day that you need it, but at some point, there has to be an end of service because there are better standards or there's just a more progressive way of -- and more effective way of protecting that.

I -- you know, I had the opportunity to interview the survivors of the Katmai event, you know, two days after. And to look into the eyes of those guys and for them to talk about that -- you know, that life raft that was manufactured in 1980 saved those four lives. But for them to think that that was cutting-edge technology and that all life rafts are made like that and that there wasn't some other -- there hasn't been some sort of an advancement, it's just -- I think that there has to be some sort of a limit in addition to the inspection and the tests.

MR. GRUPA: From a manufacturing standpoint, I've been involved in immersion suit manufacturing for over 25 years and I just wanted to kind of describe an incident that happened several years ago. We got a call from one of our distributors who also does inspections for us and said I thought you might want to know that I just got a ship come in that brought 20 suits in that are

dated 1988. And this was, you know, some of the first suits that we had manufactured at that point. So we made an agreement to give them a special deal to replace them, but we wanted all those back so we could test them because we wanted to just get an idea just what happened in -- basically, in 20 years.

Our findings were probably quite astonishing because the suits actually did extremely well. You know, we always were led to believe from our adhesive manufacturers, that adhesive has roughly, about a five year life where it will kind of slowly gain strength, gain strength and once it hits that curve, it kind of slowly goes away and that's what can cause leakage in suits. The neoprene, the same thing. We know that neoprene does break down over a period of time.

But when we kind of started extrapolating all the data together, what we found out was that because the immersion suits are made, actually, over-buoyant for what regulations require or what the body requires, that even if they do lose, let's say, 10 or 20 percent of their buoyancy, they actually still meet the requirement and they're still going to float a person as needed.

We then turn our question to the hypothermia protection. If the neoprene breaks down, gets thinner, causes less of a barrier, what does happen to the person. And we did not go as far as to have any testing done because it's very expensive to have testing done on hypothermia type subjects. But what we looked at was that, you know, when you look at the human body and just the

concept of what an immersion suit does, there is no set time, you know, when a suit is going to help a person or not help a person. You know, they're designed to give, roughly, 12 hours of survival time in cold water. Of course, that cold water, what's the definition of cold water, what are the seas like, what are the health characteristics of that person?

So with such a wide range of variables here that say that that suit, because it may be a bit thinner or because it lost some buoyancy, you know, shaved off 20 minutes or an hour of survival time was very, very hard to do. And that's one reason why I think all of the -- or most of the industry of the immersion suit manufacturers pretty much tend to agree that having an end date may not be the answer. But we do believe that, I think, having regulated inspection periods is the way to go because that will certainly be a natural attrition of older suits that just aren't making it or the adhesives, you know, are letting loose and the suits do leak. You know, leakage is the biggest problem and zippers are the two concerns that manufacturers have.

I think manufacturers support, again, following the -- you know, the recommendations to have suits inspected every three years and that will weed out the old suits and the bad ones in a natural manner.

MR. THOMPSON: If I may jump in again, I think Dr. Lincoln made some excellent points in that we need to find a way to balance the obligation we have to get better technology out to

the fishing industry.

The rafts that were carried on the Katmai had been superseded by far superior product. And we need to find a way to get that product out to the industry, out to the fishing industry, but not remove product that currently is up to the same standard and perfectly functional and not require the industry to, for reasons that may not make a lot of sense to them, to replace perfectly good, serviceable equipment.

The other side to the setting service life is that we need a dataset to work with. If we don't have the suitable data to determine what is the actual life expectancy that we can get out of a particular piece of gear, then we're pulling numbers out of the air and I'm not sure that that's really the way we want to go.

MR. HENRY: Let me pose the question a little differently then. If we assume that we don't have service life's and it's going to be based on serviceability and inspection, are there -- does the industry, right now, have a program and do the regulators have a program where they can put qualified people on these vessels who understand how to properly inspect this equipment, understanding what happens to equipment that ages and is in the environment that the fishing vessel industry contends with? I mean, that's our alternative, is that if we're going to let it go until somebody determines it's unfit, is the expertise out there to actually make that decision?

MR. GRUPA: From a manufacturer side, you know, there's -- there would be, I guess you can say, no one that I may be aware of that would actually probably go and physically look at a suit on deck and be able to say does it look good or doesn't it look good, unless it's very obviously, you know, beat up and you say no, something's wrong with this suit.

The inspection processes that we rely on would be, basically, the owners taking the suits to an authorized service station who would be trained on how to properly air test them. Our biggest concern about people doing their own air testing is over-inflation. Horseplay leads to people saying how big can this thing get and -- because it's like a balloon when it blows up, the Gumby suit, and they end up doing more damage than they do good to the suit by testing of that method.

And then, just to make sure that proper adhesives are used because obviously, some adhesives work with neoprene, some, you know, are going to last for a long time. Some are going to last for, you know, several days and then break free again. So our method for manufactures would be to have people take them into a certified station that would be trained on the proper methods of inspecting them and repairing them to make sure they are serviceable.

MR. HENRY: And realize, we're not talking about just exposure suits. We'll be talking about life rafts. Now they have periodic servicing requirements, but PFDs and on top of that,

equipment that isn't type approved by the Coast Guard but is carried on board as lifesaving equipment you know, that a surveyor or an inspector may not be familiar with.

If we could just jump really quickly to an issue that Mr. Hiscock brought up, and we've had other questions on this as well, so I'll ask it in a way that will allow each of you to discuss it.

The issue of wearing a PFD vice wearing an exposure suit, I mean, there are -- you know, there are obvious benefits to when you would want to wear one vice the other. But is another way of looking at the problem, maybe exposure suits aren't designed with as much functionality as they should be? In other words, should an exposure suit have more range of motion, have more flexibility, have more functionality to do some simple tasks that would need to be done, but would prevent a wearer from wanting to put it on, you know, because he would lose that with the traditional suit and he would opt for a PFD instead?

MR. HISCOCK: I think that the question is a good one, but there are suits that have more flexibility that have flexibility and more functionality. There are suits that have gloves that come off and that you can use your hands.

I think the thing that I think of is the situation where a vessel is in need of assistance and the vessel personnel need to wear some kind of flotation device and the air temperature is 75 to 80 degrees. And the only suit -- only flotation device that

they have on board is an immersion suit. You can't work in an immersion suit in those kinds of air temperature. Probably under any circumstances, you can do very little.

So yes, I think that there's probably room to make improvements in the functionality of immersion suits, but I don't think that necessarily solves the issue of needing some kind of flotation device in certain instances where somebody has to work on deck or handle lines on deck or as I said, fight fires or assist in a medical evacuation or in lots of other circumstances, as you can think of.

DR. LINCOLN: I just have something quickly to say. I think that an immersion suit should be designed to save your life when you abandon your vessel and I think that a PFD needs to be designed so that you can work in it. And a PFD can save your life, both in a fall overboard event, but also in a rapid vessel capsizing.

The guys on the -- what was it, the Double Eagle last week were wearing PFDs when they were crossing the hazardous bar and they worked. They saved their lives. So I don't think that those men should have been in an immersion suit versus a PFD. They had the right piece of safety equipment on for that situation.

MR. GRUPA: I tend to agree. You know, an immersion suit is basically a ship abandonment device, kind of your last chance item you put on when you know you're going to be abandoning

the vessel or something is going to happen.

You know, there are certain tests that the immersion suits have to go through which, you know, basically simulate a ship abandonment, everything from -- you know, they have to be able to operate a steering wheel, radio, you know, a jump test off of, you know, simulating, I believe it's a three meter drop and stuff. But again, it's a totally different item when you start talking flotation for somebody working on a deck as opposed to abandoning a ship.

MR. THOMPSON: As the previous two individuals have said, it is designed for ship abandonment and using it as a heavy weather deck work suit is not going to do an awful lot to make sure that that suit is ready when you need it in an emergency. It's not -- that's not its designed purpose.

There are plenty of pieces of gear out there that provide considerably more hypothermia protection, as well as the flotation that would probably be more appropriate for that application. But we run the risk of then cascading more and more carriage requirements and I think, if we choose to go in that direction, it has to be vessel by vessel or vessel class by vessel class. But I think I -- an immersion suit is -- it's a single purpose device, really. That's its design intent. Thank you.

MR. HEINZ: I would just agree with all the previous speakers that certainly, an immersion suit is not intended to be any kind of a working garment. It's intended purely for

abandonment of the ship. It's not designed to be used for any kind heavy duty work and in fact, the kind of exposure you get to just dirt, gunk, chemicals, oil routinely on a ship, the effect of that on an immersion suit is bad.

The -- there are, in terms of wearing PFDs, among the PFDs that can be worn on board are combination deck work suits which are a type five PFD. It provides thermal protection like an immersion suit, but can also be worn as a reasonably comfortable, flexible working garment. And those are the kinds of things that people can carry on their own on board or have that be the lifejacket that meets their carriage requirement.

There are also, and I heard it mentioned yesterday at one point, things like the stormy seas jackets, which are -- you know, they provide some insulation. They also provide some flotation and although they're not approved, certainly, as I had mentioned earlier, we would much prefer to see people wearing even something unapproved that provides some degree of flotation while they're working on deck than to be other there exposed and wearing nothing at all.

MR. HENRY: Thank you. And that completes my questions.

CHAIRMAN SUMWALT: Thank you.

And we'll go to Larry and then to Liam LaRue.

MR. BOWLING: Thank you, sir. I just have one question, so I can let the other panel members get a chance at the asking questions.

My question actually is directed to Mr. Heinz with the Coast Guard. We had some good testimony from the panel regarding raising the limit or the temperature of the definition of cold water. What's your perspective on that and how would we do that? I think the current break point was at 59 degrees Fahrenheit.

MR. HEINZ: Correct. The current break point is 15 degrees C, which is 59 degrees Fahrenheit. That figure is something which we have run through. There was a report to Congress we did pursuant to the 2004 Coast Guard Auth bill that talked about measure to protect individuals from hypothermia and cold shock and cold water which basically supported that as a suitable guideline for cold water.

Based on extensive research and actually, there are some figures that are in the International Maritime Organizations, International Air Nautical and Maritime Search and Rescue Manual that, for -- in that water temperature, a lightly clothed, non-exercising person in calm water has at least three and a half hours where they can continue to be, basically, functional before they reach a level of pain, essentially. And up to -- the survival time of up to six hours.

And then it also goes on to add that although waves can adversely affect the survival time, that the empirical data suggests that water at this temperature is safe for an unprotected person for about two hours with an estimated 50 percent rate of survival for at least four and a half hours. And with the

combination of various means of determining that a person is in the water, whether we have beacons, just people noticing from on deck, the time that it takes to respond to say, a vessel sinking where people are in the water, that's not an unreasonable time for an unprotected person. Especially if you look at the risk based approach to what needs to be carried as far as survival craft and protective gear in water that's any colder than that, the people will have additional thermal protection.

That number is a -- it's a regulatory number, not a statutory number. It stems from -- it goes back, however, to a statute that set the dividing lines for cold and warm water at 32 degrees north and 32 degrees south latitude. I couldn't say for sure whether we would have to go back and revisit that statute, as far as whether we wanted to review the water temperature, you know, but there is a connection to some statutory limits on carriage of well, both totally enclosed life boats and immersion suits.

MR. BOWLING: Thank you.

Mr. Chairman, I'm done.

CHAIRMAN SUMWALT: Thank you.

Liam LaRue?

MR. LARUE: Thank you.

I would like, actually, to continue on that train of thought and, Mr. Hiscock, since you brought up the subject of the 59 degree break point for cold water, how would you propose

changing the definition of cold water and the PFD requirements associated with that?

MR. HISCOCK: I think there needs to be a review of the recent scientific data and scientific -- from studies that have been done. Dr. Brooks, a Canadian researcher has recently done two papers, one in 2000, one in 2003 on the subject of cold water survival and in both, he uses, as his definition, 20 degrees C, which is 68 degrees Fahrenheit.

I think we need to relook at this issue. I remember when I first became involved in this issue back in the early 80s, the boating safety office, which, at that time, was an office, their guidelines for cold water were 70 degrees Fahrenheit. That's what they used as their standard and I think we slip back. And I understand all of the historical statutory language that led us to this conclusion, but I think a lot of the studies that were done that led to that conclusion were hind casting. They were looking at casualties that had already occurred and they were not looking so much at the scientific information about what happens when you put people in cold water.

And there have been numerous studies, starting with -- I mean, John Hayward (ph.) in Canada did studies in the 70s. There are probably, I could name a half a dozen different studies that have been done on man in cold water that all of them support a much higher temperature. And as I said, back in the 40s, they considered any ocean water to be cold for the purposes of the need

for what, in those days, were called exposure suits.

So I think it's something that needs to be relooked at because I don't think that the definition that we're currently using accurately defines what is cold water in terms of man in cold water. Thank you.

MR. LARUE: Thank you.

My next question is for Mr. Heinz and it's on the topic of fixed service life for immersion suits. One of your points against having a prescribed service life for immersion suits was the lack of data on service life. Is the Coast Guard doing anything currently to get that data?

MR. HEINZ: In a word, no, sir.

MR. LARUE: Is anyone else on the panel aware of any other work to get that data?

DR. LINCOLN: I -- currently, NIOSH does not have that data either. However, there is a NIOSH lab in Pittsburgh in PPTL, protective equipment technology branch, that I have approached to ask them if they would be willing to start doing that kind of research for the fishing -- for this particular topic. So that's -- so discussions have been started, but right now, they're -- I don't have that data.

MR. THOMPSON: And the industry current service providers only have, you know, anecdotal data because there's not a requirement to bring suits in and you tend to see the same operators bringing suits in. And if there was to be an inspection

regime, then we would be -- have the ability to take that data that comes in from the service facilities, pass it along to NIOSH and let them do their magic with it and see what it comes up with. But there really is not a good mechanism in place to even start collecting that data at this point in time.

MR. HEINZ: I would just like to add to my following brief response that you know, one of the problems with even trying to get data about what the service life is of an immersion suit, in order to do that, first you would need to establish criteria for, at what point is it no longer serviceable. You would need to look at okay, how much buoyancy loss can we have, can you have leakage provided it can be repaired, visual inspection, you know, all those kinds of things. And then you need to come up with some kind of an evaluation method of looking at an individual suit, condemning it or not and then collecting that data as far as okay, how old is that suit when we've condemned it.

So -- and in addition to that, of course, getting the federal government to even collect that kind of information gets OMB involved with reporting requirements and you know, information collection. So it's a little more complicated than just keeping lists of suits that have been thrown out.

MR. THOMPSON: Typically lifesaving equipment is taken out of service that is subject to a service regime when it becomes economically not feasible to do whatever repair is necessary. It doesn't mean that the suit or the raft is completely irreparable,

but it typically is going to be when it's not economically feasible to make the repair.

MR. LARUE: It looks like I've got time for one more question. Mr. Thompson, in you presentation today, you proposed a number of recommendations and one of those was related to removing aged rafts from high risk vessels. How would you propose to go about doing that?

MR. THOMPSON: I think that we could simply look at the way the existing rafts were grandfathered and with the new requirements that came in in '97, go back and just say okay, rafts who are currently in service on vessels that do not meet this new standard, give it a sunset date. Thank you.

MR. LARUE: That's all my questions.

CHAIRMAN SUMWALT: Great. Thank you, Mr. LaRue.

And we'll go to Mike Rosecrans who will ask his questions and then he will tell you the questions from the audience.

MR. ROSECRANS: Thank you. Good news is there's only a few questions left, one of the benefits of going last.

Dr. Lincoln, in your congressional testimony in 2008, you mentioned that NIOSH would be testing man overboard wear-ability. Please provide an update. Twenty-five words or less.

DR. LINCOLN: Right. Twenty-five -- man overboard alarms, is that what -- we have not started that. We did the PFD evaluation first. We haven't started the man overboard

evaluation.

MR. ROSECRANS: Another question for Dr. Lincoln. You stated previously that the working deck design could improve deck safety. Could best design practices for deck safety be developed for naval architects and could these be gear specific?

DR. LINCOLN: You'll have to ask a naval architect. I mean, really. I believe that they can be and I believe that they could be gear specific, but that would be -- I would ask Eric first.

MR. ROSECRANS: Okay. NIOSH has sponsored a handbook for deck safety in the crab industry. Has there been any feedback from the industry on that and are similar handbooks available for other fisheries in how these publications get distributed to the industry?

DR. LINCOLN: We have information available for crab deck safety, for entanglement prevention on lobster vessels. We have a document on lockout/tagout procedures for all fishing vessels and I just entered a contract with Jensen Maritime to create, basically, a checklist of things that you would -- rigging points, points on the vessel that you would check for on a purse seine vessel to make sure that you're not going to have some sort of catastrophic failure where the boom falls down and hits a person on deck.

So that type of information is available. I would say that as far as the way it's distributed, it's certainly always

available whenever we're -- whenever NIOSH shows up somewhere. It's -- that type of information is available on the internet site, on the website. As far as evaluation of any of those go, I haven't done one. I think that I've encouraged the -- I've encouraged other academics to take, for instance, the lobsterman pamphlet and evaluate that with Maine lobstermen to see, have you seen it, have you used it and sort of try to get an idea of, has it resulted it in any change of behavior. But I would say that evaluating those pieces that -- those documents has not been done.

MR. ROSECRANS: Thank you.

Question for Mr. Thompson and Mr. Grupa. There was a discussion of the purpose of immersion suits and how they might be made more flexible and the answer was, this is certainly just for abandoning ship. And so the question gets to be then, how do we improve the usability of immersion suits for people who make it into the water, into the raft and then try to close the flap or use the kits?

MR. THOMPSON: Are you talking about dexterity of the gloves, essentially? Yeah. And I think that's something to be addressed because different manufacturers have addressed it in different ways. There are different philosophies of a three fingered glove providing more heat retention in the digits versus the individual fingers. There are a lot of different design philosophies and I think that it's something that we can certainly look at.

Mike, as a manufacturer?

MR. GRUPA: Yeah. I guess, again, I think when you look at what the immersion suit's intended use is and you know, basically, you know, the testing that it goes through, again, to try to simulate getting into a life raft, climbing a ladder, getting on board, dialing a phone, you know, whatever the case may be, using a radio, I think it does a great job of getting you off the deck, allows you to swim. I mean, again, with training, you know how to swim into -- a suit and do the backstroke, basically, get into a life raft. You know, once you're in a life raft and you're in a sheltered area, you know, the question comes in, of course, you know, the glove is always a key.

The offset to having gloves that come off is another leakage point and again, if you aren't getting into a life raft, because, as we know, every wrist is a different size. If you're talking -- if you have seals on them, they're either going to be too tight for somebody or too loose. And gloves, for the most part, manufacturers, I think, feel that's the best way to go, although, there are options out there for people that do want to go with a, you know, removable glove and stuff like that.

But you know, right now, I think the way the standards are written, I think the variety of suits that are out there, I think, you know, the user does have a choice as far as what he feels is best for him.

DR. LINCOLN: Could I address that please? I'm sorry.

MR. ROSECRANS: He had his hand up.

DR. LINCOLN: I'm so sorry.

MR. HEINZ: I would just add that for all immersion suits, they all have to meet the same basic level of utility when they're new. The kind of qualitative test that's done is that after the hands have been in cold water for, I believe it's an hour, what you have to do is be able to pick up a pen and write your name. So we have all these test reports where people wrote their names. And that's basically intended to give you a rough gauge as to whether you have some degree of dexterity in those gloves.

Now as far as the ability to do that after time, after an immersion suit has been on board for five, ten years, however long, that's a function sometimes of how that suit's been cared for, whether the gloves remain flexible, whether the zipper has been properly cared for, lubricated, et cetera. And it all goes back to maintenance. Again, wear a suit that is fine -- like many things, it's fine when it's new, but after it's been used for awhile or not used and just left in a bag and not looked at, it may not operate as well as it did when you first bough it.

MR. ROSECRANS: Thank you.

Dr. Lincoln?

DR. LINCOLN: Thank you.

If it's not broken, don't fix it. People don't die in life rafts and if they're in immersion suits and life rafts, they

don't die. If they are able to don an immersion suit and they're able to get into a life raft, they will probably survive that event. When you look at victims and survivors of vessel losses, as I mentioned earlier, survivors are seven times more likely to have gotten into an immersion suit, 15 times more likely to have gotten into a life raft and about 150 times more likely to have done both.

The issue, as far as getting to a life raft and then into it has to do with training. And when we looked at the Katmai survivors, we could -- we showed -- we were able -- I was able to show that the people that got into immersion suits and then got into the water, I could figure out who had had formal marine safety training and who hadn't. By and large, the people that had marine safety training got into that raft. There was only one or maybe two of them that got into the water and there was no raft there for them to enter. There were a lot of people that had no training that got into an immersion suit, made it to the raft, but then couldn't get into it because they didn't know how.

So this is where lifesaving equipment is one thing, but training on how to use it is also a very vital thing.

MR. ROSECRANS: Thank you. One last question.

Mr. Heinz, can you explain the value of the Coast Guard equipment approval process and how that interplays with the international standards and equipment approved by other administrations? Is that too general?

MR. HEINZ: Well, are you referring to some particular item of equipment or just equipment approval in general and the U.S. process versus the international process?

MR. ROSECRANS: I guess the question is, is why the U.S. process different than the international process and does the requirement for U.S. equipment keep other good equipment off the market?

MR. HEINZ: Well, more and more, our requirements for approval of equipment are running in parallel or you know, are becoming very similar to the international requirements. And I might even put that the other way,that we are driving improvement of the international requirements to come up to our level of performance and what we have.

Probably the significant difference between U.S. approval system and a lot of other countries is that we still maintain a large part of it within our maritime safety administration, the Coast Guard as opposed to almost everywhere else in the world, they have delegated that function to third parties, such as classification societies and independent laboratories.

There's, you know, very little direct administration involvement in other countries with the approval of equipment and you know that does a couple things. We maintain some expertise to where we can -- we, perhaps, are a little more vigilant to what the actual requirements are because we've maintained in-house

expertise and can know where those requirements came from, what the intent is. And it may be that, in some cases, we are a little stricter in our enforcement of what the requirements are because we know them a lot better.

A symptom of that or a result of that, we have a mutual recognition agreement with the European Union for approval of lifesaving and fire safety equipment. The European Union has somewhat of a different system than ours where they have what they call notified bodies, which are generally classification societies, in some case, labs which do the same function we do in terms of approvals. They actually issue approval certificates. They do the review, they do the testing and they provide some oversight.

And what we're seeing for certain items of equipment, a lot of it is fire protection equipment or structural fire protection materials that people are obtaining Coast Guard approval through that mutual recognition agreement. They're going to a European notified body, obtaining a Coast Guard approval from there, which gives them entre to the entire European community and it also -- you know, there's a perception that it's a little bit easier to get approvals from them.

But I'm not sure if that answers your question, but I think the bottom line is that, you know, we're a little bit unusual in the world in that we do maintain and this is a largely in-house function. Although we do delegate some things to labs,

there still is oversight back to the Coast Guard and all of the approval certificates are actually issued by the Coast Guard.

MR. ROSECRANS: Thank you.

CHAIRMAN SUMWALT: Great. It's been a great morning, great panel. Thank you.

Dr. Lincoln, as the President of Chili said to those minors last night, your shift is over. You've sure been working hard this morning, so thank you.

We will take a lunch break, but before we do, I want to make a quick announcement. MPFVOA has a wonderful display out there and they have a manual that they, themselves borrowed to bring, but I think that manual has been borrowed so that someone could look at it. Leslie, it may be at Kinko's right now, but if that manual could reappear, I'm sure that Leslie Hughes would be most delighted.

So again, thanks for everybody. We will take an hour lunch break and we will be back at 1:30. Thank you so much.

(Off the record.)

(On the record.)

CHAIRMAN SUMWALT: Okay. If you can come in and take your seats, we'll start in about one minute. Thank you.

Welcome back. Got a nice bright panel here ready to go and talk about training issues. And, Mike, I'll turn it over to you to introduce the panel.

MR. ROSECRANS: Thank you, Mr. Chairman.

All the safety equipment available in an emergency is useless if it cannot be used properly and efficiently during an emergency. There are notable stories of how well trained crews were able to leverage their training to avert sure catastrophe. Unfortunately, there are even more stories of crews being unable to perform the most rudimentary tasks to prevent vessel loss or to properly use the equipment available to save themselves.

The difference in these two possibilities is in the training of the crews to respond in an emergency. The Commercial Fishing Industry Vessel Safety Act of 1988 contained no explicit statutes addressing qualifications, training or experience. The new Coast Guard Authorization Act of 2010 does address these issues. This new authority remains significantly less extensive than for other commercial mariners, however.

Today, we will hear from those who have been training commercial fishermen in emergency preparedness and other areas known to be safety issues within the industry. Each training program has adopted to serve fishermen in a different manner, including in the classroom and on the vessels.

I will now introduce our panel members. Leslie Hughes. Ms. Hughes represents the North Pacific Fishing Vessel Owners Association. NPFVOA is the nation's oldest trainer of commercial fishermen having recently celebrated their 25th anniversary. Ms. Hughes developed, then directed those training programs for over 23 years.

Jerry Dzugan. In addition to serving as Chairman of the Commercial Fishing Industry Vessel's Safety Advisory Committee, Mr. Dzugan has served as Executive Director of the Alaska Marine Safety Education Association since its formation 25 years ago. AMSEA has developed a nationwide network of fishing vessel trainers for commercial fishing industry. Mr. Dzugan has experience as a commercial fisherman as well.

Gina Johansen. Ms. Johansen is Director of Fish Safe BC, an organization that specializes in training for commercial fishermen. She has also been a commercial fisherman.

Rodney Avila. Mr. Avila is a fishing vessel owner, a member of the New England Fisheries Management Council, member of the Board of Directors of the Point Club, a member of the Commercial Fishing Industry Vessel Safety Advisory Committee and a Safety Training for the commercial fishing industry. Mr. Avila has extensive experience as a commercial fisherman. Today, he represents the Greater New Bedford Fisherman's Safety Collaborative, a community-based initiative that provides free training for commercial fishermen.

John O'Leary. Mr. O'Leary is a commercial fishing vessel owner with extensive experience as a commercial fisherman. He currently serves as a Director of Training at the Chesapeake Marine Training Institute.

Jack Kemerer. Mr. Kemerer is the Coast Guard's Commercial Fishing Vessel Safety Program Manager joining us today

from Coast Guard Headquarters. He has extensive experience in the commercial fishing vessel safety program as both a uniform member of the Coast Guard and now, as a civilian.

Ms. Hughes.

MS. HUGHES: There we go. Thank you, Chairman Sumwalt and Captain Rosecrans. I very much appreciate the opportunity to be here today.

I want to describe briefly what the NPFVOA's Vessel Safety Program is as we now celebrate our 25th year. And I was fortunate enough to be involved in it from its very inception.

This program is a non-profit. It was started in cooperation with the U.S. Coast Guard in 1985 and it was an industry driven effort to start out with voluntary programs, safety programs to address the high casualty rate that we were experiencing with our Seattle based fleet in Alaskan waters. And the fishermen there recognized the unacceptable loss rate that we were having.

So we are based in Seattle and it's a large and diverse fleet that we work with. And about 80 percent of the Alaska seafood harvest is caught by Seattle based fishing fleet, so it's a significant fleet we work with. And Alaska accounts for 55 percent of the nation's harvest. So we have a membership base that includes vessels of all sizes and support businesses. And the diverse fleet that we work with ranges from like a 30-foot single operator catcher vessels to processors that have well over

100 people on board.

We've done training all around the country. We're predominantly west coast, but we have done east coast and I just want to stress that NPFVOA's programs are portable and with the Authorization bill, we are capable of providing training in ports outside of Seattle as well.

The NPFVOA's training is kind of comprised of Coast Guard approved courses, some Coast Guard accepted, which means they're not audited in the same way a Coast Guard approved course. We have voluntary courses and then we have also gone to courses that address the standards in OSHA, Occupational Safety and Health Administration.

Our Coast Guard -- this is some of our Coast Guard approved courses. We have the STCW basic safety training and then we have the four day advanced med class and proficiency in survival craft, survival, first aid, CPR and then drill orientations where we can go on board the vessels and certify people as drill conductors or do classroom training.

We have voluntary classes that address many of the things that the Coast Guard Authorization bill is now calling for from weather forecasting, understanding weather patterns, vessel stability, navigation, collision avoidance, ship board damage control. That's one class we're very excited about and safety equipment and advanced med.

A lot of our courses were originally developed to

address survivability if you were faced with an emergency and had to abandon ship, but in -- within these courses, we also talk about ways to prevent finding yourself in these situations. So there are preventative elements to the courses, as well as survivability. These are some of the OSHA training classes that came out of -- largely, were a response that we made to what we were seeing on processors.

The attendance in our courses for these 25 years is now well over 37,500 and of our training, 54 percent is still voluntary. Now that will change when the Authorization bill gets flushed out, but it's pretty impressive for an industry to take that much training on a voluntary basis because they believe it's relevant and can save their lives.

I just want to say a few other comments. Now, as we're going to enter into a very significant and exciting phase to get a whole new level of regulations that will be addressing the training that was never really addressed before. As these get flushed out, it's going to be extremely critical that we have the input from the fishermen to make sure that we get these requirements so that they're really going to make a difference and save lives. And we need the fishermen to take complete ownership of these programs.

And on the other part of that is, regulators are going to have to be more familiar with industry practices and look at the risks in a regional perspective because this is the time to

construct requirements that are going to focus on prevention.

The NPFVOA's philosophy is that we believe a trained crew is much more likely to demonstrate good decision-making skills when faced with a sudden emergency and they are much more likely to take actions that will prevent casualties from occurring. The key elements that have made NPFVOA's programs successful and I want to share this with you today because I think Fred Mattera has said he would like to see something NPFVOA in other places of the country.

It is doable and I think it's been extremely effective to create a safety culture, but first of all, you have to have the involvement of fishermen because they -- and particularly industry leaders, they set a precedent for the rest of the industry. You have to have a partnership and a strong one with working with government agencies. You have to have outstanding instructors who understand how fishermen operate who value and respect fishermen and that are very knowledgeable on the subjects that they're teaching to the fishermen.

We have to have an emphasis on hands-on, using the kinds of equipment that are found on the vessels. It's a great opportunity to show new technologies and it's important that the training be portable so that you can take training to the fishermen when that's most appropriate.

We're very fortunate because we have a membership base. We have about 220 vessels and about 125 to 150 at various support

businesses. And that gives us a ready group to work with where we can consistently and regularly communicate with them when there's new regs, whatever situation. It also gives us a better opportunity to hear from fishermen when they have issues and concerns. And if somebody has an accident or an incident on a vessel and we get informed of that from the fishermen, that alerts us to know that very likely, there will be other companies, other fishermen that are experiencing that hazard as well.

I just want to stress that NPFVOA has always had -- favored a voluntary approach when the regulatory authority did not exist and we have continued that. And we are very proud of the level of participation that we get from industry.

I've made a note of just a few challenges and that is funding. NPFVOA has been able to be self-sustaining, but that's a challenge for a small non-profit and with the Authorization bill, we would look to hope that we would be able to be competitive in getting some grant money because we could do a lot more with some more funding.

And the ultimate challenge I would put out there is to convince fishermen that safe work practices are more important than simply complying with regulations, that there are many things they can do to make a safer operation.

Thank you very much.

MR. ROSECRANS: Thank you.

Mr. Dzugan.

MR. DZUGAN: Thank you.

Before I begin, I just want to put this in a context. It's not in my bio and I don't often say it, but my background is an inner city school teacher. I taught there for about eight years in high school and what I learned from that experience was how much education can change people's lives.

I moved to Alaska in the 1970s and at a time when Alaska was wide open. It was open fisheries, open access fisheries, lots of young people in their 20s buying boats, 25-year-olds going, buying boats with six crew members crossing the Gulf of Alaska, getting rich, getting in trouble. It was -- I felt like you were -- everybody who lived in that time felt like they -- you heard about the buffalo hunters, but you lived with them. It was so wide open.

And then, over a period of time, you noticed that your neighbors in the harbor were not coming back and a lot of those young people who were out fishing or older people actually, voluntarily had bought equipment, but didn't know how to use it. And that was often one of the causes that led to the incident. And I realize that there was something that needed to be done. There was a missing link and this has been brought up earlier this morning.

I got involved with AMSEA as a non-profit organization in the mid 1980s and since that time, we've put an emphasis on getting instructor resources imbedded in communities where

possible. So fishing ports had their own imbedded instructors that knew the fishery. We would teach them instructor skills and provide them with equipment to train with so that this huge state which stretches, if you put on the U.S. from Florida to Arizona and up to Minnesota, would have access to these small, family run fisheries and artisanal fisheries.

Since -- in the last 25 years, I've personally been involved with training over a thousand marine safety instructors who have trained over 165,000 mariners of all ages on all coasts of the U.S. And not organizations like NIOSH and our own records show that people that have had training have more of a chance for survivability if they do get in trouble. And I noticed that, earlier, I was just looking around the trainers in this room and there's about almost 100 years of training with fishermen in this room just with the 7 or 8 instructors that are here. So there's a lot of -- we've built up in the last 25 years, a cadre of a lot of experience and training in this industry.

But I mostly wanted to focus on what are the elements of a successful program, not just what we do but with all of these other organizations that are here today standing next to -- sitting next to me and out in the audience. And so I'm going to run through those quickly.

One of those elements -- and the first one is accessibility, that fishermen have access to training and they don't have to travel hundreds of miles to get their training.

That is provided to them either with their own imbedded instructor, which we support, or bring an instructor in from ourselves or another organization.

The training has to be meaningful and meaningful training to me is experiential, hands-on training which has been proven to be more effective in an emergency. Retention rates are higher and really, we're not teaching knowledge so much on a multiple choice test. You're not -- because, when somebody gets into an emergency, you want them to react instinctively. And that's one of the importance's of hands-on training is getting people to not think, but instinctively do the right actions to give themselves enough time to survive to then think the situation through. And you can only get that with hands-on, experiential education that's meaningful this way.

It has to be affordable. Again, a lot of these fisheries are small, family run operations and we do a lot with fundraising and grant writing to make this training as inexpensive or as free as possible.

Outreach. Programs that actually have outreached and actually walked the docks to get fishermen to come to the classes are a lot more effective than citadels that expect fishermen to travel hundreds of miles to them again. Instructors having a background in the fishery, preferably those fisheries that are being taught, is really important.

Culturally and linguistic appropriate teaching. We

talked about that yesterday. The Vietnamese stretches from the Florida panhandle around the gulf up to almost the bay area and it's spreading and it's growing. And English speaking abilities is really low, but it's an important part of the fleet. So finding instructors in that culture who speak that language is really important.

Risk assessment. One of the things that training of fishermen needs to include is risk assessment, how to do it, the use of go, no-go worksheets and green, amber, red worksheets is really important because -- to be taught -- because all the decisions on safety really get decided on the boat in the wheelhouse and on the deck. And for fishermen, be just train more and learn some of those tools that others at high risk have used is really important to do.

Training, I'm going to get into the details a little bit. Training should be accepted rather than approved training by the Coast Guard. Approved training is excellent for maritime academies that have set programs and institutions, but it's a great block to delivering programs in an outreach nature and in fact, many of the audit requirements are not educationally valid for that kind of a program.

There also needs to be -- if training requirements are put in, there needs to be equal enforcement around the country of those training requirements. We have seen in the last 25 years, everybody whose done training has seen unequal enforcement.

Fishermen got the message that it really wasn't going to be enforced because there wasn't training available. And so the Coast Guard didn't enforce it in those areas.

They were sensitive to that need, but that made that training -- private trainers, non-profit trainers that were so needed didn't have a clientele any more because they were being told well, you know, we know there's nothing available. And those businesses, non-profits failed. They couldn't make it through the last 20 years. What you see here, basically, are the survivors in this room. And that was a loss of resources that were very, very needed.

I want to talk -- I want to end talking about traditional license schemes a little bit. A lot of traditional licensing schemes did not meet the qualities that I just mentioned and I think that a fishing vessel safety training program that's developed needs to build on the successes that has happened in the last 25 years and it will include a lot of those qualities that I just mentioned.

A program needs to have performance based outcome objectives and that, with at sea experience, that can lead to a certificate of confidence. That would be a more appropriate, meaningful and effective means in lowering the risk. A traditional licensing program where you pay your money, you pass a written test and you're made a captain again, is not going to be as effective or as credible.

In the UK, they have taken away suspended certificates of competence by people who prove that they're not competent, so you still have something to take away, just like a license. Which, I know the regulatory authority would like to have. You can also attach the drug testing requirement to it. You have to have your certificate of competence and go through a random drug testing program if that's what you want, if that's what you feel is a need.

So I'll just wrap it up by saying proven, well tested programs already embraced by fishermen will be much more accepted and effective than off the shelf education programs traditionally given to other mariners and other industries. Thank you.

MR. ROSECRANS: Thank you, Mr. Dzugan.

Ms. Johansen.

MS. JOHANSEN: Thanks, Mike and thanks to the National Transportation Safety Board for this generous opportunity to participate in this forum.

We recognize that issues around fishing safety are international and we're pleased to share anything that we've learned that can be of value and to learn from the other panel members as well.

Fish Safe BC is an industry organization with a mandate to reduce injuries and fatalities by developing programs and tools that inspire fishermen to take ownership. This is accomplished by brining everyone involved in fishing safety together in a fishing

safety advisory committee, everyone in the region, plus federally. That includes naval architects, regulators, fishermen, fish buyers, educators and safety suppliers. We'll sit around the table to monitor, discuss and resolve fishing safety issues.

So in a very short time, six years, that Fish Safe's been in existence, we've developed several programs. We're not just a training organization. We also work to coordinate industry advice to regulatory authorities and monitor and communicate accident patterns. We've also got a real fishermen's safety equipment promotion, the Safest Catch Program, which is developing safety management systems on board fishing vessels.

But today, I'm going to focus on the Fish Safe Stability Education Program, which you'll see some lovely pictures up there of the program. We believe it's a fairly unique program in that we've been able to change the level of stability awareness in BC like no program has done before.

In BC, we started looking at the need for stability training or education back in 1975 in response to the loss of 10 vessels and 14 fatalities in a 2 week herring fishery. The federal and provincial government developed requirements right then and there for stability books, also issued some bulletins, some pamphlets and created curriculums around stability.

In 2004, when Fish Safe began, stability incidents were still the number one cause of casualties. Between 1975 and 2008, we had lost more than 250 lives to capsizing. So obviously,

something more was needed or a different approach to stability education. So Fish Safe took on that challenge and in 2006, developed a four day course.

A lot of what I am going to say has been already mentioned, but the keys to that course I'm going to briefly talk about; fishermen owned, fishermen developed, fishermen delivered, fishing relevant, how it's delivered, the hands-on interactive and the funding and support. And just briefly, when we went to develop this, as anyone will know when you go to develop any kind of an education program, you need to understand your audience.

So if you're a fisherman, that makes it a little bit easier if you already have that understanding. But we went to fishermen and we asked them what they needed to improve their stability knowledge. They said they need a stability workshop that's fishing relevant. But the point was is we asked and we listened.

I had a long time, very successful fisherman boat fourth generation come up to me when we were in the process of developing this and he said you know, I really don't even know what the word means, stability. And he was representative. And we developed the course. So using fishermen to develop the course, they know what they don't know and they'll be happy to tell you what they need. You don't have to make assumptions.

And just as a sidebar, in the course on the first day, that's one of the activities is fishermen in a group writing down

what they believe stability means.

So we developed the course and we tested it out on what my friend, Mike Rosecrans likes to call the alpha dogs. So we brought those guys into the room and these are the guys that talk the loudest, but also, can make the most difference. We tested out the tools and curriculum on them and hope that they -- if we converted them, they would then promote the course. And they did more than that. They actually became facilitators for the course because we used fishermen to deliver that course. And the course is open to all fishermen, their family members, the crew and even regulatory people.

And then secondly, they say it's all in the delivery. And fishing relevant so that it's easily transferrable, and both Leslie and Jerry have spoke to this. There's nothing worse than going to an institution and having some -- and no -- you know, no bad reference to anybody that's from England, but some old English guy standing up at a blackboard, pointing there, talking about shipping cargo from wherever, from India to China. And you're sitting in the classroom and you're on a 40-foot trawler trying to like, how does this -- how do I apply this?

So the concepts in the course to understand stability or how to maintain stability or remove threats to stability is the same, but the focus is on fishing operations. We talk about threats to stability and risk perception. If you don't, as a fisherman, know what the risks are, it's pretty hard to remove

them. So at the end of the day, the course is designed to create that very basic awareness across the fleet.

So we researched also, learning methods, how -- what's the best way to present information so that it will be retained. Also, looking at the fact that we're -- we've got fishermen that are 50, 60 years old with maybe limited or no schooling. So we tried to create an environment that they would feel comfortable in, a real galley table feel. Storytelling is key. Fishermen have stories, so we let them tell their stories. We pull out the factors to do with stability, add the information that they need and away you go.

So it's really letting fishermen teach fishermen. We -- sometimes, you'll go into one of the courses and you won't be able to tell who the instructor is from the rest of the fishermen because they're teaching each other.

We've also developed the many tools needed to make the course as interactive as possible, everything from a fishing stability handbook that focuses -- features fishermen and fishing vessels. It seems obvious, but it just hadn't been done before. A fishing model that show the changes in stability during a fishing trip, but you know, we talk about roll periods. We don't talk about it. We're out on the dock doing a roll period test.

Guys will fight the changes during the course because we're now challenging sometimes, 30, 40, 50 years of tradition or that's the way we've always done it. But at the end of the day,

there will be a complete shift and they'll be talking about how they're going to go talk to a naval architect. I've had some guys said that, at the end of the course, they -- now that they know what can go wrong, they're not sure they're going to go back out. So whatever works.

But -- and then finally, it was mentioned also, funding and support. We got some real support from the federal government. Our organization is fisherman funded, so we went outside and the federal government looked at this and recognized that what they were doing wasn't working and funded this, not only the development, but the implementation, so we get ongoing funding. So the point there is to support your fishing or safety organizations because they do have the inside track to getting it done and getting it done right.

Just to sum up the results so far of our stability course which we've only delivered over the last 3 years is we've had 800 fishermen voluntarily participate. We did a third party survey through the University of British Columbia and out of that, some results were 90 percent of these participants said the course would save lives. Over 60 percent of those fishermen, and this is key when Jerry was talking about changing behavior, after completing this course, either made changes to their procedures onboard or changes to the structure of their vessel.

We've also added a one day refresher course that now incorporates risk assessment and human factors. The other good

news; no capsizing in 2009 and no fatalities. Also, the regulatory agencies have recognized this type of training and this -- these types of initiatives that -- by saying regulations are not enough, that regulatory agencies must support industry driven education.

So again, it works. If it's fishermen driven, fishing relevant, it's delivered in a method that is applicable and fishing relevant and it receives funding and support. Thank you.

MR. ROSECRANS: Thank you, Ms. Johansen,

Mr. Avila.

**MR. AVILA**: Thank you. I would like to thank the NTSB, the Chairman Sumwalt and all the panel members for giving me the opportunity to participate in this fishing forum today. I think it's a great thing and it's something that we needed for awhile.

I'm going to give you a little bit of background about the New Bedford training program. The Greater New Bedford Fisherman's Safety Collaborative is a public interest group composed of the community, civic organizations that include the City of New Bedford, New Bedford Harbor Development Commission, shore support, commercial fishermen, fishing industry suppliers and safety trainers, the U.S. Coast Guard, U Mass. Dartmouth S. Mass. and New Direction South Coast, a non-profit training development organization.

This collaborative was created in response to significant need to provide commercial fishermen with essential

safety training that will ensure their ability to respond in many emergency encounters in the most dangerous occupation in the U.S..

I'll give you a little bit of background now. On December 20th, 2004, 5 of 6 crew members of the 75-foot vessel, Northern Edge died when their boat sank off of Nantucket in 30 degree weather with winds gusting to 45 miles an hour. This was the deadliest fishing incident off of New England in nearly 15 years. This tragedy spawned an outpouring of sentiment and demands -- excuse me -- that something needed to be done locally to reduce loss of lives, injuries resulting from at sea emergencies in the commercial fishing industry.

Meetings between the Mayor of New Bedford, NOAA administrators with strong support of our Massachusetts congressional delegation resulted in a $100,000 NOAA grant matched with a $50,000 local workforce development funds. These monies provided resources to create the New Bedford Area Focus Fisherman's Safety Training Program.

MR. ROSECRANS: Mr. Avila, could you move the speaker just a little bit closer to your -- the microphone a little a --

MR. AVILA: Sure. Generally, nobody has trouble hearing me, but okay. Okay. All right.

Okay. New Directions took the development management and the training, together with other stakeholders to implement this program and has held 20 training sessions training 1,059 fishermen since April of 2005. These have had no accidents in any

of these trainings.

The program. S. Mass. facility accommodates all training stations in one central location for maximizing training time and effectiveness, to ensure buy-in by the fishing community and to focus attention to the most important issues affecting safety at sea.

The program was designed as a hands-on using the curriculum -- excuse me -- approved by the Coast Guard. It is free to fishermen and covers the following topics; man overboard, fire fighting, emergency communications, life raft equipment and deployment, EPIRBS, signal flares, damage control, patching, flooding controlling procedures including pump operations and basic stability, dawning on and proper use of survival suits. In addition, a Coast Guard helicopter and crew provides instructions to proper at sea hoist procedures.

Total class size is kept to a minimum of 75. The fishermen are divided into five groups. Each group spends about 50 minutes at 1 of 5 stations. Actually, hands-on equipment, pouring out -- putting out fires, shooting off flares, patching leaks and pipes, putting on survival suits, jumping into the water, entering a life raft, these are some of the trainings.

Interpreters are on hand for non-English speaking fishermen and rescue swimmers are stationed at a tank where fishermen enter the water and participate in climbing into a life raft. Each instructor is Coast Guard certified in fishing safety

instructions.

The success of this free program is validated by the response from fishermen themselves and several real life, at sea emergencies over the past years where the skills learned followed in successful handling of life-threatening situations. The program has been embraced by the Massachusetts Fishermen's Partnership who funded the same training program in -- for fishermen in several other area ports, the State of Massachusetts, including Gloucester, Scituate and at Mass. Maritime.

It has been studied by the Coast Guard and NOAA and received national attention as a model in how to successfully engage fishermen in a safety training program -- excuse me -- a noteworthy accomplishment as it -- many past efforts have not been supported by the fishermen themselves.

Since its inception in 2005 to 2010, the New Bedford Safety Training Program has trained 1,059 fishermen from Maine to North Carolina. Roughly 30 percent of these fishermen have repeated the training twice or three times. Any fishermen visiting New Bedford while safety training is scheduled is welcome to attend. We refuse no one. It is generally agreed that between 1,200 and 1,500 fishermen that fish out of the port of New Bedford, there are. Therefore, we have many more fishermen to reach in New Bedford.

In addition, we need to have an ongoing program to ensure fishermen get the training that they -- and refresher

course to maintain reinforced skills and knowledge learned. The program will ensure greater safety to all our fishermen. The exact number of fishermen needing training in other ports of Massachusetts is unknown. There will be several hundreds and programs equally acceptable to them.

There is also considerable in-kind support provided by many stakeholders, including free use of Sea Mass facilities. Dartmouth, which includes their tank for survival suit training, their classrooms, outside facilities for stage and firefighting and damage control, their waterfront pier for the use of flares, their parking lot for attendees. The location is convenient -- the location and convenience of this facility is critical to a successful program.

IMP Fishing Gear contributes free use of repacking life rafts, flares, safety equipment, signal flares and the use of survival suits for fishermen who don't have them.

The Greater New Bedford Fisherman's Safety Training has extremely been well received by every fisherman since its implementation. The training sessions have successfully trained 1,059 fishermen in the New England commercial fishing industry. We have also trained observers, marine scientists, students and 101 fishermen have gone forward to take face to which is the drill conductors training. The result has been fewer at sea casualties and improvement -- improved response to at sea dangers.

Of major significance is the local fishermen have

embraced this program as evidence of the number of fishermen trained and word of mouth being the primary method of marketing. Although we have had several sinks since the training classes have started, crews have come back to give testimonies that the safety classes played a major role in their survival. We have 19 testimonies on hand, crews that have survival -- have survived after a sinking.

The New Bedford Fisherman's Safety Collaborative model uses only Coast Guard certified vessel safety trainers who are designated by each Coast Guard officer in charge of marine inspection to conduct safety trainings within their areas.

What makes this safety training successful is that all the safety trainers are connected to the fishing industry and know how the fishing industry operates. Outreach is a key component of having a large turnout. Dock outreach starts 30 to 40 days prior to training. Although we do advertise in newspapers, it does not work as well as the face-to-face contact with fishermen or their families. That was mentioned earlier in a previous panel.

In a final note, each of our safety trainers has either lost family members or close friends in marine casualties. Our hope is to seek funding so we may expand this type of training to smaller ports on the east coast that do not get the same attention as New Bedford and in Gloucester, but we have the same safety issues. Our fishermen are fishing on an aging fleet. The average vessel on the east coast is 30 plus years, which was mentioned

earlier, so this makes safety so essential.

And before I close, I would like to make one statement that was -- the other panel said about survival suits. Since this program went into effect, we have -- this program has taken 1,000 survival suits out of service that have not passed the test in 5 years.

Thank you very much.

MR. ROSECRANS: Thank you, Mr. Avila.

Mr. O'Leary.

MR. O'LEARY: I'm a Marine Safety and Survival Division Chief at Chesapeake Marine Training Institute for the last five years. Before that, I was a commercial fisherman for 30 years. So when I go down the boats here, I go down the boats every day and I do probably 20 to 25 boats a month doing safety training and safety orientations. And I get an awful lot of thank yous because down my area that I'm doing, the boats from New Jersey down to North Carolina mostly, there was no training, very, very, very little training or any training at all before I came down there.

So when I get done, I go -- they go wow, I never knew that. They give me stories of where they had mess ups where, boy am I lucky to be here because my life raft didn't go off or something. So I am very lucky to have a job that I get so many thank yous and that I love so much. It's a great, great job as far as that concerns.

But what I see is 80 percent of the fishermen down there

probably, I haven't got in touch with that I haven't done any training with. A lot of these guys have some drill conductor courses and stuff like that, done them, but as any of us fishermen will tell you, these guys for the drill conductors courses and stuff, that got them in '96 or whatever, basically, they're not getting the drills done on the boats. Basically, it has to be hands-on and we need to get to these crewmembers also. Every fisherman that goes aboard a fishing boat needs to get some kind of safety training.

Eighty percent of them not having safety training isn't acceptable and that's why we're having so many problems on the east coast. You know, the infrastructure's not there. We need to get that infrastructure going. The only reason why I'm surviving is because of the insurance companies are having me going down there doing safety training and safety inspections aboard these boats.

Which, when I go down there is the best training because I can go down there and pick out safety hazards, show them where the shutoffs to the ear are or show them how to use all that, their safety equipment, where it is on their boat, how to launch it on their boat, pick out different problems on their boat. A lot of these boats, I'll do the simplest thing like try to make a mayday. With, I'll say about 40 percent or 50 percent of the boats that I do, one of the part of the safety orientation is doing mayday. I have two or three guys that cannot do a mayday.

I ask them to read the mayday sticker. They can't even read it. So you have to teach these guys how to do it.

And the good case of that is the Lady Mary. Somebody got up to that wheel and made -- started to make a mayday call, but nobody could understand him. Nobody could understand a word he said because he didn't slow himself down. Nobody was taught. If that guy did get that mayday out, they had boats all around them. Probably at least a few of those guys would have been alive today. So it's so important for us to do this hands-on training to get down on these boats, show these guys what radio to use, make sure it's getting done on the boats.

The best piece of safety equipment you have isn't your safety equipment that everybody's checking. It's the knowledge you have, how to use it. And every boat's a little bit different as far as that goes and every fisheries a little bit different.

And on these boats, I see a lot of problems because most of them aren't making very much money. I would say 80 percent of the boats I'm working on don't have watertight bulkheads. All they have for firefighting equipment is, you know, a few fire extinguishers. No SCBAs. I'll go board a hundred and some odd fishing boat with refrigeration and everything else. There's no breathing apparatus, no nothing. They're accidents waiting to happen.

Ninety-foot boats with one alarm because, as far as Coast Guard regulations go, as long as the water flows from one

compartment to another, all they need is one high water alarm. Alarm on these boats are very, very, very important. If these guys don't have a quick warning, they will never be able to deal with their emergency.

So I haven't seen a smoke detector on the boat. I haven't seen a carbon monoxide poisoning detector on the boat. The simplest things, I don't see and this is why we're having the problems. We need to get our boats a little bit better so we can have a watertight bulkhead. Most of these boats can have watertight bulkheads without spending a lot of money. They can buy fire extinguishers, smoke detectors and stuff very cheaply and put them aboard the boats.

We need to not just -- you know, the Coast Guard comes down focused on one thing on that safety equipment, but we need to get a little bit better safety equipment that goes with the boats. These boats have refrigeration's. They should have self contained breather apparatuses aboard them and we need to teach these guys how to use it on their boats. And it all has to be hands-on because of what we all are talking about.

There's -- down there, I have a diversity of a lot of different languages. You know, we have some Vietnamese. We have a lot of Spanish. So we've got a lot of diversity of languages and the fact that they're not making a lot of money, I've got guys boats leaking all over the place and haven't hauled them out for five years. Like oh boy, I wouldn't go out on that boat. So the

knowledge that they have and a little bit better equipment is going to save their life, but we need to get a happy medium there.

The good results that we need to get the training and to follow is what they're doing in Alaska. I heard some -- one of the crewmembers came off my boat and he wanted to go to Alaska. And he goes oh yeah, I'm glad you took me through that. Now I've got this piece of paper where I have to have safety training to go aboard that boat.

And what they're doing up in New Bedford is the best example, but the only reason why a lot of this is working is because it's free. You start to make a safety program and you start to tell these guys they've got to be paying for it and stuff like that, even to get a drill conductors course, when I tell it's $250 to do a drill conductors course, which is an awful lot of work and it's money to put it on for the building and everything else, that's a lot of money. That's almost too much money for them.

So we need to get this training down the boats and into everybody, maybe with the Coast Guard help. We had a couple, few demonstrations down the docks. Each time we did the demonstrations, you know, just me walking the docks, getting people, we had over 100 people volunteer, just come down and do the safety demonstrations. These guys want to know how to survive.

They -- when they get done with getting in the water and

getting in the survival suits, you should see how thrilled these guys are. They go wow, this was great. I'm glad I did that. So we need to keep that positive attitude going. We need to get this training up and down the coast and we need to make it so it's -- especially to start it off, we need to get it so we get to everybody, not just the captain and mates.

We need to get the training to everybody because almost any fisherman will tell you they haven't been doing their drills. Even if we get the drill log where it's got to be logged, it's not going to make much of a difference. It just means that they have to put their name on a log sheet. So we need to get that training down the boats and we need to make it available, like Rodney says, hopefully by -- with help of the local fishermen and local companies and try to make it as reasonable as possible or you know, get some grant money or something to start this off because that's our number one thing.

We've got a lot of problems in our fisheries right now, stability problems, lack of good equipment problems, older fleet problems. We need to solve these fundamental problems before we -- regulations problems. So we've got a lot of problems that we need to solve, we need to make happen. So I just want to stress the point that if these -- if I depended on the fishermen or the owners to pay me to go down these boats and do the safety training, I wouldn't be here. It wouldn't get done, if it wasn't for the insurance companies stepping in. So the money right now

because these guys have been under so much stress to try to just make a living that it won't happen. So we need to get some kind of funding to help this go.

Thank you guys.

MR. ROSECRANS: Thank you, Mr. O'Leary.

Mr. Kemerer.

MR. KEMERER: Mr. Chairman, Mr. Rosecrans, technical panel members, fellow training panel members, ladies and gentlemen, I'm pleased to be part of this forum and be able to discuss fishing vessel safety, particularly safety training. But I do have one question. I'm wondering why Dr. Lincoln's not on this panel too.

CHAIRMAN SUMWALT: Remember, we gave her the rest of the shift off.

MR. KEMERER: The scheduling of this forum turned out to be very timely especially because we have the opportunity now to affect the safety in the commercial fishing industry more than any time since the act in 1988. As many have mentioned, the Authorization Act has passed, awaiting signature, unless it's happened today that I'm not aware of.

The bill has numerous safety and equipment requirements affecting commercial fishing vessels and it expands Coast Guard's authority regarding safety on these vessels. One provision of special interest to this panel is the required training for fishing vessel operators and availability of safety training

programs for crews through grants programs.

Fishermen operate in a dangerous environment and it's vital that they have adequate safety training. Crews must be able to act instinctively in an emergency and the best way to accomplish this is through training and practice. But any requirements for safety training have been quite limited.

Since 1991, there have been requirements for someone on the vessel to be certified in first aid and CPR and each individual on the vessel to participate in monthly drills and instruction on board for at least the ten emergency contingencies listed in the regulations. The drills and instruction must be conducted by a trained drill conductor. That's not a lot. And there's no requirements for recertification of the drill conductor or the individuals who have had the first aid or CPR training.

One of the recurring safety recommendations coming out of fishing vessel casualty investigations is the need for required crew training on safety and survival awareness and skills associated with that. There are numerous success stories of training programs where survivors of a casualty attribute their living through the ordeal to a safety awareness or survival training course they had taken. What more is needed to embrace safety training?

Even before the 1998 act and the '91 regulations, fishermen were asking and organizations like NPFVOA and AMSEA recognized there was a need for safety training. For over 25

years, these organizations have provided hands-on safety training for fishermen operating in some of the harshest environments. Several sea grant programs sponsor and support safety training for fishermen also. And there are numerous other organizations and companies that offer safety training programs.

After the regulation promulgated in 46 CFR § 28 required safety equipment and emergency drill training, many organizations that had begun safety training programs developed courses to teach individuals how to conduct emergency drills on vessels.

There are other groups that have been involved with bringing training to port areas community based, just like Mr. Avila mentioned earlier, the New Bedford type training. It is hands-on safety training that is offered without cost to the local fishermen and extremely well received and extensive and has continued with popular demand. And as he mentioned, it was -- it has served as a model for other community based training programs.

The existing regulations in place for commercial fishing vessels that operate beyond the boundary line require the master or individual in charge of the vessel to ensure drills are conducted at least once a month, instruction's provided each month on those ten emergency contingencies and a safety orientation is provided for new crew members before getting underway for the first time.

The person conducting the drills instruction on board need not be the master, individual in charge or a member of the

crew. However, the person required -- or the person is required to have received training on the proper procedures for conducting the activity from an accepted fishing vessel safety instructor. The Coast Guard's National Maritime Center reviews and accepts these training courses and the instructors.

A current limitation to ensuring compliance with this training is that there's no requirement for the drills instruction to be recorded and therefore, it's difficult for the Coast Guard examiners and boarding officers to verify that these drills are being conducted. And for owners and operators, there are limited numbers of trained instructors and drill conductors and are not regionally well distributed. If the master or crew member is not qualified to conduct the drills, the vessel may not able -- be able to easily find someone qualified to do it. So in these areas, it's not being done, just like Mr. O'Leary said.

One other type of training not addressed in the regulations is that of stability. Fishing vessels 79 feet or more in length not required to have a load line must have stability instructions, but nothing is required as far as training on those instructions or stability principles or information in general. And stability is initiating cause for about 20 percent of vessel losses. Better knowledge and understanding of the conditions that adversely affect stability could reduce this number. Stability training is needed on smaller vessels as well.

The Coast Guard Authorization Act includes provisions

for new equipment requirements affecting vessels and crews and will give additional authorities to the Coast Guard Fishing Vessel Safety Program. Included in the act are expanded -- are training requirements for fishing vessel operators in particular. These training requirements are for fishing industry vessels that operate beyond 3 nautical miles of the base line, have more than 16 individuals on board or for fish tenders, engaged in the Aleutian trade.

The individual in charge of the vessel must pass an approved training program which will have to be determined and hold a certificate issued under that program. These individuals must complete refresher training at least every five years to keep the certificate valid. And the individual in charge of the vessel must keep a record of equipment maintenance and required instructions and drills.

It will take some time for organizations and the Coast Guard to develop an -- and receive approval for this competency and safety training program as outlined in the act. The training program shall be based on professional knowledge and skill obtained through sea service and hands-on training. It will include seamanship, stability, collision, prevention, navigation, firefighting and prevention, damage control, personal survival, emergency medical care, emergency drills and weather. It would require an individual to demonstrate ability to communicate in an emergency and understand information found in navigation

publications and recognize and give credit for past experience in fishing vessel operation. Now a lot of licensed personnel may have gone through all -- some of this, but not all of it.

The training program will cover a number a topics and skills that are essential to the safe operation of the vessel. Where there has been a lack of knowledge and awareness in these areas, it has often been a contributing factor in vessel casualties and crew fatalities. This new requirement sets the stage for improving safety and operation of the fleet. Meeting the requirement will demand significant effort on the part of owners and operators and also, on the Coast Guard and training organizations. A publicly accessible electronic database will have to be established listing the individuals who complete the training and receive a certificate.

Considering the size of the fleet that will be affected by this requirement, approximately 35,000 vessels, most likely, and the number of individuals who may have to be in -- or who may be in charge of the vessel, this training infrastructure will have to be expanded to meet these needs.

To help in this effort, the Authorization Act provides for a grants program, a training grants program and has authorized to have funds appropriated through fiscal year 2014. The grants may be awarded to municipalities, port authorities and other appropriate public entities, not-for-profit organizations and other qualified persons that provide commercial fishing vessel

safety training and it will be on a competitive basis.

The grants training program may be for operators and crewmembers. Funding through a grant can also be used to purchase safety equipment and training aids for these programs.

A safety research grant program is also to be established, which will fund research and methods for improving safety on commercial fishing industry. It may include vessel design, emergency and survival equipment, vessel monitoring systems, communications devices, deicing technology and sever weather detection. Results of this research likely will impact topics in training programs.

The act also requires vessels operating beyond three miles three miles of the baseline to be examined dockside at least once every two years for compliance with safety and survival equipment. Many fishing vessels -- for many fishing vessels, this may be the first time that they will complete a safety examination, but examiners will be able to verify the vessel operator has the required training certificate, that the emergency drills and instruction are being conducted monthly and recorded. Boarding officers will also be able to more easily verify compliance by viewing certificates in these records.

So to wrap up, for too long, fishermen have been able to go to sea without basic safety training that they need to operate in this maritime environment. This is surely contributed to a loss of vessels and lives. Many have said that all fishers should

have at least some basic safety and survival training. Now there's a statutory framework that's been laid to ensure safety, survival and competency training is received and that emergency drills and instruction are carried out on the vessel as required.

Various safety training initiatives have shown great success. This is an opportunity to greatly enhance safety in the commercial fishing industry through the expansion of training. Our task now is to make these training programs as effective and as accessible as possible. Every fisherman should complete a safety training program and to ensure this, owners and operators could make this a condition of employment.

Thank you for your attention.

MR. ROSECRANS: Thank you, Mr. Kemerer.

CHAIRMAN SUMWALT: Well, thank you for a great panel. Mike Rosecrans will be leading the questioning on this and our order will go from Mike to Rob to Larry and Liam.

MR. ROSECRANS: Ms. Johansen, could you explain in a little bit more detail, your Safest Catch Program, I guess, as focused on safety management systems?

MS. JOHANSEN: Certainly. It was mentioned before, the need to get on board and basically, the Safest Catch Program is a workshop on a boat. We deal with -- we have three main areas we deal with safety orientation and some of these terms might -- you might different words. But safety orientation is basically being familiar with all the safety equipment onboard, a safety drills

program and then safety procedures. So this is written safety procedures.

We have fishermen trained as safety advisors. They will go down to a vessel. They usually will take -- spend at least a day, initially, on a vessel and again, in an advisory role. So they work on staring in the morning, doing a full program that includes starting with safety orientation, understanding what is -- or sorry, safety procedures, what even the words means. And we use -- we have DVDs and it's a guided discussion, basically, first determining what level of understanding they even have about a safety management program and then determining what else needs to be done during the day. And this is done with the full crew, the master and the crew.

And so the advisor will take them through the day, what is -- what are safety procedures. Okay, so what do you do to prevent an accident? These are the things that you want to put down. Then we do a walk through, what equipment do you have on board. Then you develop a muster list. From there you go okay, well you've done all the prevention stuff. What do we do in the case of an emergency, then we go through the drills. So all the drills are covered and they're done on the vessel at that time.

And this is really the key to discovering what your deficiencies on that boat and then, to -- then we leave them with a template for developing procedures around removing those deficiencies or whatever they need to do specific to that vessel.

And then the advisor will go back once they finish those procedures and do a review and there will be a check. Also is required that they have immersion suits on board and PFDs for everyone on board. And they will receive a decal that say that they participated in that program.

So we've just launched that program about last November and huge uptake. Again, it's a voluntary program and we've got over 135 vessels involved in the program already. So is that -- do you need more than that?

MR. ROSECRANS: Thank you. I was thinking more like the International Safety Management Code spinoff, but what you described sounds very much like what the Coast Guard's dockside exam is, maybe a little bit more extensive, but a similar voluntary thing that is there to educate the fishermen rather than to -- well, primarily to educated the fishermen on a vessel by vessel basis.

I have a question for Mr. O'Leary. You said that with the training that's sponsored by the insurance company, that you have seen fewer casualties. Has there been any reduction in premiums for those who participate? Has that been a driver with -- for additional safety training?

MR. O'LEARY: Yes. Basically, the less claims the boat have, the lower their insurance. So if they can go through so many years of not having a claim, the lower their insurance on the boat's going to be. So that's a big driving force to keep their

insurance low.

That's why most of the accidents that happen, even the small ones, nobody hears about it. You know, Jennifer can't make a statistic on it because they don't want to make a claim to the insurance company because their insurance goes up. And most of the stuff that happens, unless it's -- you know, somebody gets really hurt, it doesn't get reported. All the close calls that I hear about when I'm doing these drills and stuff, none of that gets reported. But if they go through not having claims or no big claims and stuff, their insurance premium is going to go down.

MR. ROSECRANS: Thank you.

Mr. Avila, let me ask you the same question. You said that with the training in the New Bedford area, that there have been fewer casualties as a result of the training, although, the training is more in survival issues. But has there been any interest in the insurance companies or has there been any support from the insurance companies for the training?

MR. AVILA: We only have one insurance company and that's Sutherland Insurance through the Point Club. They're -- when they -- they pay for, I believe it's 60 percent of the trainings of the drills. The insurance company picks up 60 percent of the drills. So that's just on theirs, but the other insurance companies have not stepped up to the plate.

MR. ROSECRANS: So do I understand that Sutherland Insurance pays for part of the training in New Bedford?

MR. AVILA: Only on their boats.

MR. ROSECRANS: Okay. Okay.

MR. AVILA: Only on their boats. They have funded one of the free safety trainings for all fishermen and that was just for fishermen, but they fund the drills on their boats.

MR. ROSECRANS: I have a question for the panel and I would like short answers so I can ask some more questions, please. So training must be by fishermen for fishermen, true or false?

MS. HUGHES: I'll start with that one. It's the training -- we have some fishermen who we use as trainers if that's what you're referring to and not all fishermen make good trainers. I would never, ever want to be restricted by a requirement that they had to be fishermen.

We have found that some of our instructors that are particularly effective have been retired Coast Guard, search and rescue captains or a variety. We have EMTs. We have people that are firefighters that work at the fire training academy we use. So it's a variety and it's a special talent that can communicate with the fishermen, but these guys go out on their boats. I mean, they understand fishermen and they're very, very effective in their training.

MR. ROSECRANS: Thank you.

Anybody else?

MS. JOHANSEN: I would say true, but that being said, Leslie has the experience that they've been able to take people

that aren't directly from the fishing industry and have them informed and have them be respectful and qualified and I'm sure that would work. We have been very successful in having fishermen trained as facilitators and that's been working for us. So definitely have to have some understanding of fishing industry.

MR. KEMERER: Short answer. Sometimes to most of the time, but they need to have that experience with that industry, whether it's on the regulatory side, having worked with them with that or being on equivalent sized boats and things like that.

MR. AVILA: I agree with Leslie. It doesn't have to be a fisherman, but it has to be somebody that's knowledgeable with the industry and knowledgeable with fishing vessels and how they operate.

MR. ROSECRANS: Thank you.

Question for Ms. Johansen. It sounds like you have a very successful program, even though it's only just begun say five years ago or so. How might that be exported as a best practice to fishing ports in this country? I have to say this is a question from the audience, but I'm cheating here.

MS. JOHANSEN: I would say, based on my work that I've done with members of the panel that it already exists. If you're talking about the stability education program, is that what you're talking about specifically?

MR. ROSECRANS: Well, that's part of it. Yes.

MS. JOHANSEN: Okay. I would say that, again, the key

is having fishermen involved in the development of that kind of training around stability, what they need. We can export it in that our program is packaged, so it is available for export.

MR. ROSECRANS: Okay. Let me ask one more question here. Is -- fatigue is a recognized issue within the fishing industry. As trainers, have any of you or know of any others within the commercial fishing industry training infrastructure taken on the issue of fatigue management, crew endurance management?

Ms. Hughes?

MS. HUGHES: We looked at crew endurance management very seriously and we worked with Dr. Carlos Confitori (ph.) with the research and development section of the Coast Guard. And we very much liked his approach. He recognized that crews do work long hours and they work strenuous jobs. So it was ways that you could manage diet, light. There were a huge variety of ways that he looked at making a crew more -- have more stamina, more endurance.

We have started to look very seriously with Trident Seafoods at being a sector -- maritime sector that would do sort of test case program. We had him do several courses that were very well attended, even by some towing vessels. And then 9/11 came along and Dr. Confitori was used for managing the crews and the Coast Guard. So that program really was aborted and we never were able to get it off the ground again.

MR. DZUGAN: In the short courses we do, we don't have a

separate workshop in that, but we integrate issues relating to fatigue within the course. We helped Cordova District Fisherman's United develop a watch keeping guide, for example, for small boat use. So thanks.

MR. AVILA: I would just echo that sediment. The Point Club is developing a watch keeping guide to address that because we do see that. Management plans have call for reduction of crews and they're working longer hours, so that is a major factor.

MR. ROSECRANS: Mr. O'Leary?

MR. O'LEARY: I also incorporated in my drill conductor's course, you know, especially to the fisheries that I'm going in, like if I got mostly scalloper's, you know, most of them got shucking houses beside the -- so the captain can shuck also and stuff and point out the risk. And when they're laying to, be do believe the Lady Mary like, was laying to on a dredge, which is very, very risky and point out different stuff of laying -- you know, different areas of running a good watch because it is a huge, huge problem on these boats trying to produce as much as possible, keeping a safe watch. It is a big, big problem.

So I know when I'm doing my drill conductor's course, I think these guys do too, we always touch base on it and see how we -- any way we can make it better. I would like to see at least watch alarms on all these boats up and down the coast. I don't see them at all down south where, if I go up north where Rodney is, 400 miles up the coast, most of the boats have them. So it's

all where you live.

MR. ROSECRANS: Thank you.

I yield the balance of my time to the gentlemen on my left.

MR. HENRY: I would like to take Mr. Rosecrans' questions and just add onto it a little bit. For nontraditional training, do your courses cover the effects of drug and alcohol abuse as far as instructional information to fishermen?

MR. DZUGAN: Is this open to the whole panel --

MR. HENRY: Yeah. Yeah.

MR. DZUGAN: -- Mr. Henry?

MR. HENRY: Please, from everybody.

MS. HUGHES: We do specimen collection training, certifying people. We've done -- put a lot of seminars on about drug testing, but the biggest challenge I've seen is in the vessels that are under 200 gross tons and trying to get the word to that group that if they have a serious marine casualty, they do need to do drug testing within a certain amount of time. And that's a group that, because the Coast Guard has been so hands-off with them, that there's -- not all of them by any means. Some of them are very proactive about drug testing, but there's a -- seems to be a bit of a desire to stay kind of under that radar.

MR. HENRY: Before you respond, if I could clarify that question. I'm not really talking about post accident in particular. I'm talking about just changing the behavior of

fishermen that drugs and alcohol, you know, are not going to cause problems onboard ship and is -- fatigue is one problem, but just the, you know, the consequences of abuse of drugs and alcohol.

MR. DZUGAN: If I may, Mr. Henry? I have done a number of workshops through alcohol and drug abuse prevention programs, which included fishermen. And one of the things I've learned about that is fixing the complex physiological and emotional problems of drug and alcohol abuse are not going to be dealt very well in a one hour workshop or a four hour workshop, number one. Number two, the captains and operators and owners of fishing vessels do a lot of self selection with that problem themselves by either reputation, knowing people who have that problem who don't allow them on their boat or insist that they share. So a lot of that gate keeping happens in the wheelhouse.

And I would just suggest that that is a big problem in a lot of ports and I think is somewhat port and region specific. It's a bigger problem in some ports than others and that this is a part of a much bigger social and personal problem than -- that's not easy to address in a -- in this kind of a setting, a workshop kind of setting. And -- but it needs to be integrated into those programs that do exist in those ports.

MS. JOHANSEN: Just a brief comment. This is something that we haven't taken on as yet. It is discussed in all our programs. Any time we're talking about safety, it comes up, but it's not something that we formally address at this point.

MR. AVILA: Yeah. The same with New Bedford. We haven't taken that on yet.

MR. O'LEARY: I always discuss it when I'm doing a drill conductor's course when I'm down the boats, doing a safety orientation because it is part of a full safety orientation. But I know of 1 company out of like the 250 boats that, you know, I can do with the insurance company that actually uses -- have their captains drug tested. So it's not getting done right now.

MR. HENRY: One of the measures that I would think of a successful training program is the ability to modify the attitudes and behavior of fishermen to reduce risk taking. And some of the information that's been provided to the docket for this forum, I came across a paper written in 2001 sponsored by the Food and Agriculture Organization of the United Nations. And there's a section on safety training. And admittedly, this paper is 10 years old and some of the references that it drew from are almost 20 years old, but it talks about -- and I can -- I will quote and paraphrase some of this.

In spite of the vigorous and well organized and widely promoted activities by course organizers, fishermen's reluctance to attend safety training is a serious case for concern. Fishermen often seem neither aware of nor willing to admit the risks inherent in their occupation. And there's anecdotal evidence that fishermen are disposed towards risk taking and not only at sea, but this extends to their activities on land. In a

Canadian study on the hierarchy of worries, probably top on the list was the depletion of fish stocks followed by potential loss of work. And down near the bottom of this hierarchy was job safety.

Admittedly, we're talking about data that can be 20 years old, but this is 2010. Has this attitude changed and if it has, you know, can you give me some ideas what's caused it to change? And if not, what do we need to do to change it? And each one of you, please.

MS. HUGHES: In my experience working with the fishing industry, which is actually more than 25 years because I started in the industry working with fishermen in 1975, I have seen a tremendous change. I mean, it's phenomenal. And guys will come in my office and say they can't believe what they did 25 years ago and -- but they were young then. I mean, it was a different -- I've seen the industry mature. These people have matured. They have families or they didn't have families, many of them, when we started the program.

You know, it's a different landscape in a lot of ways, but that isn't to say there aren't still some out there that are -- you know, I think we've seen it in some of the casualties that they have been scrutinized some and you know, the risks or unnecessary risks are being taken. But I think that the culture that we see in the Pacific Northwest has advanced dramatically and we have a safety culture.

I have no doubt of that, that fishermen talk amongst themselves. I'll hear them at breaks between classes. They know who operates the good companies with the good vessels. They know who's going to train them, who's going to take good care of them, what -- who have got good, well maintained boats. The industry is a lot more aware than I think regulators really realize.

MR. DZUGAN: I agree with Leslie's perception of what's happened, at least in the northwest, which is mostly what I've got experience in also. I think the economic stabilities of fisheries that has happened and the consolidation that's led to more economic stability has definitely decreased people's level of risks that they're willing to take.

In reference to my experience in Alaska in the 1970s, those 20-year-olds that were moving to Alaska are now permit holders in their 50s and 60s. And in fact, the average age, depending which demographic they're looking at, has gone up every year that's passed. It was, 40 years old was a typical owner. Now it's 50 years old. And as those people have gotten families and gotten more economically stable, their risk tolerance has gone down.

In the training, I -- one of the things that's always amazed me the most and every trainer at this table, I think, can -- has seen this, is when you share stories of -- sea stories that have a point. When they see videos of boats going down in 90 seconds and fishermen say I didn't know a boat could go down that

fast, there's a lot that happens in safety training that raises risk awareness also. And I think that's had a big effect and I think we've all noticed individual changes from boats just from that. So those are a couple of things I wanted to comment on.

MR. AVILA: Although I may not look it, but I'm the youngest kid on the block when it comes to safety training here. And when Jerry says there's 100 years of experience, he looked directly at me, so --

In the short time that we've been in, like I said, 2005 we started, we now have fishermen coming in, asking us when's the next safety class. We have fishermen that have attended three of them. I know one person. We've got a -- our next safety training is the middle of next month. I called in today. We have almost 30 people signed up for that one already. We do the dock outreach and once one fisherman knows that there's a safety training, he's passing it along to everybody else. So we definitely have a culture change and they're more safety awareness now.

MR. O'LEARY: I've got to agree that they are more safety conscience and there's probably less drugs and alcohol on the boats. And a lot of it's got to do with the insurance companies. It's got to do with the lawyers that's on the dock that's ready to sue them, compared to what it was 20, 30 years ago. They know they have a lot higher risk and if they allow that stuff on the boat, there's going to be -- you know, sooner or later, it's going to catch up with them. So there's less of it.

We definitely don't live in a perfect world though.

MR. KEMERER: I would like to agree with what Jerry and Leslie have said. Certainly, there's been a change and we've seen that, but you know, there might be two other aspects to this. With AMSEA's training efforts, they go out to school children and the public so it's not just the fishermen who are getting exposed to safety and survival, to skills and information. It also -- just think about our -- how our society and culture has changed, not just the fishing -- in the fishing industry. Now people can see this stuff on Facebook and Twitter and everything else.

So the information is getting out there a lot more than it did 20, 30 years ago. So I think that has something to do with it as well.

MR. HENRY: Thank you. And those are my questions.

CHAIRMAN SUMWALT: Thank you.

Larry Bowling, you're next.

MR. BOWLING: Thank you very much.

My first question would be to the panel collectively and whoever would like to step to the microphone and answer the question. I guess, from the standpoint of the Authorization Act is presently pending signature and it may be signed as we speak. I don't know, but with regard to training only, is this act going to address the needs of the industry or are there areas right now that we could look at that, if you had the ability, you would modify before the act itself is signed?

MS. HUGHES: Well, let's see, how much time do we have here?

CHAIRMAN SUMWALT: We need Richard now.

MS. HUGHES: We need two hours in this. I think it goes into --

MR. BOWLING: Give me your top three.

CHAIRMAN SUMWALT: Yeah. Because we don't have two ours.

MS. HUGHES: No. No.

CHAIRMAN SUMWALT: We're going to wrap this panel up at 3:15, so --

MS. HUGHES: I mean, I think in two hours, it becomes law so -- if it's -- whether it's signed or not.

The only thing that I took issue with on the training requirements is that it is talking about the individual in charge of a vessel. And I feel very, very strongly, as I believe my colleagues here do, that for a crew to be well prepared, you have to have a number of crewmembers, if not all, trained to some level because one person can't handle a single emergency. I mean you need a cadre of trained crew.

MR. DZUGAN: I think we're just going to go down the table quickly, but I would agree with Leslie and since everything's in the wording and how the wording's interpreted, I would be -- I would like to see it not be approved training, necessarily, but accepted training. And that just removes some

bureaucratic oversight baggage that comes along with that word approved. But right now, I think I need to see how this all settles out.

The other thing that I have a little bit of a question about and always have is that idea of the national database of people that have been trained. I don't know if that's a privacy issue or not, but others will decide about that. That seems like people to look at that more, but let's see what this is all about.

MS. JOHANSEN: Definitely not my area.

MR. AVILA: I agree with the previous two speakers. What if the person trained is the one that has a heart attack on the boat? Then no one else can respond. We had an incident like that that the one person that was trained was the one who died and the other two fishermen on the boat had no training. So I agree that everybody should be trained. It shouldn't be just one person.

MR. O'LEARY: My goal is to see every fisherman that steps aboard a fishing boat has safety and survival training. I think that's going to be our first big step of saving lives and I think it would make a significant difference.

MR. KEMERER: The requirement for the individual in charge certainly is going to take a lot more of the masters who may not be licensed, to get them some level of competency training and safety and survival training. As far as the rest of the crew goes, I think, through these -- through this grant program,

however we can set that up and get it established will certainly open the door to provide training for a large number of the crew. It's still not a requirement under the authorization bill, but you know, it might be able to be extended some way or another.

MR. BOWLING: Thank you very much. I have nothing further.

CHAIRMAN SUMWALT: Thank you, Larry.

Liam LaRue?

MR. LARUE: Ms. Hughes, how is your association or does your association have a system for incorporating lessons learned from casualties and near misses into your training?

MS. HUGHES: The lessons learned have really be key to us making the strong points in our courses and fishermen can really relate to that because it's something that actually occurred in their world. And the one problem we have is whenever there is a serious marine casualty, you know, it gets everybody's attention and it's -- there will be actions that will follow as a result of whatever particular situation was involved in that casualty.

And so here, you have this golden moment to take the lessons learned and put them out there and use that impact in a positive way to change behavior. But we find that it takes forever to get the Coast Guard reports out where we get an emphasis on lessons learned. I mean, we don't have the Alaska Ranger report yet. And so we have all these opportunities to

improve training and to learn from accidents, like the Galaxy was a gold mine of lessons learned. The Aleutian Enterprise; those were two casualties that had a major impact on moving safety practices forward in the industry.

And I actually went back into the Aleutian Enterprise report that NTSB did and it was -- I remembered it being impressive. I hadn't looked at it for a number of years. And I mean, way back in 1987, you made the recommendation to seek legislative authority to require uninspected commercial fishing vessels, vessel captains, owners to provide safety training to all crewmembers. To all crewmembers. So you know, we need to get that information in a much more timely manner, in my view.

MR. LARUE: Thank you.

In the last panel, we talked a lot about the issues of the deck safety and falls overboard and the large number of fatalities that result from those two types of incidents. Is there any training out there that effectively addresses those two issues?

MR. DZUGAN: I think you'll find most of the training that's done on this panel that has the drills conductor course or even safety training has a section on man overboard. And that man overboard, as it's taught, I know in our curriculum, it has both prevention, as well as recovery aspects. So it tries to deal with the issue of holistically knowing that it's a lot easier to prevent than it is to recover someone sometimes and treat them.

MS. JOHANSEN: Our program, the Safest Catch Program deals with man overboard, as Jerry mentioned, but also, our advisors carry with them, a toolkit of PFDs that are available, so all of the options that are out there. Our fishermen are required to wear PFDs while working or if there's any threat of falling overboard, but we -- and they are doing it. And a lot of this is just having -- being exposed to what the options are out there. And so that's incorporated right into our program.

MR. AVILA: Our program has the same. We discuss man overboard, how to retrieve man overboard. We also do those drills. We also show them all the different types of PFDs, all the lifesaving equipment that they need and how they should dress properly when they're on deck working. We go through that procedure. We also show them a video to that effect.

MR. O'LEARY: Every boat has its different dangers, different spots and stuff like that, so while we're doing a drill conductor's courses, when we're aboard the boat doing the safety orientation, it's really big to ask the captains and hey, did you almost lose somebody overboard or this guy -- or what happened or captains, what is your rules aboard this boat for man overboard? Do you let somebody come out on deck or you know, where do they go to the bathroom, over the side or all the stuff that -- these are big problems that we lose guys overboard.

So to be able to address those problems with the guys and have the captains and have the crew know what the -- what

their regulations are and enforce that when we go aboard doing these safety orientations and stuff is a big part of not letting it happen so they don't get complacent with what they're doing and you know, working in rough seas and dangers.

MR. LARUE: Mr. Dzugan?

MR. DZUGAN: Trying to get everybody else to get a word in and I looked up at Jennifer and I forgot to mention, we are just completing our man overboard video with -- through NIOSH that will incorporated in a part of every drill conductor class that we do. Didn't want to -- sorry, Jennifer.

MR. LARUE: Thank you very much.

I think we've got some questions from the audience. I'm going to pass it back to the chairman.

CHAIRMAN SUMWALT: Thanks.

Yeah. I will ask the audience on behalf of the -- ask the questions on behalf of the audience. I've been trying to be quiet and let the experts talk and ask the questions.

But you know, I think some of you know by now that I came from airline background and we did a lot of training. I'm not just talking about simulator training to go out and learn how to fly an airplane and practice that every six months, but on an annual basis, we would do lifesaving training, survival training. And we would train it, document it, would have hands-on training with getting into the -- into life rafts, door trainers to practice opening the doors and inflating the life rafts, dawning

life -- PFDs and inflating them, putting out fires, understanding what fire extinguisher is best for what. We were required to that on a periodic basis and document that.

And I'm just -- I'm incredulous to see how the fishing industry has operated for a number of years, but hopefully that's all changing. But unfortunately, it's taken widespread tragedies for it to change, but this is the new beginning. So I will ask some questions on behalf of the audience. I'll just sort of combine them. I mentioned that we have to document training very periodically in the airline business, the FAA would check that and Leslie, I wouldn't let you talk two hours a little while ago, but you can speak two hours now on this topic.

So what is the best way for the Coast Guard to ensure that drills are being done? Should that be a logging of the training or should it be performance -- actually performing the drills in front of the Coast Guard? Is enforcement important? So you only have two hours to answer that.

MS. HUGHES: Thank you. That's a very, very good question and I'm glad you asked it.

I have been a proponent of the Coast Guard observing drills for a long time and when we couldn't get regulatory authority for getting more regulations, I've been a huge advocate that the Coast Guard needs to make sure these crews can demonstrate that they can run effective drills. And if -- and I know Commander Woodley can attest to this. When they have started

doing that in District 13 for, you know, operations that are conducted predominantly in District 17, it became apparent immediately whether these crews had ever done any drills or if they had done them sort of half-assed, excuse me.

And so then crews, the nature of the fishing industry is that they're very competitive and so then, pretty soon, you had crews wanting to be the best of any crew that could demonstrate that they could do their drills. And there were a number of crews that asked the Coast Guard to come back because -- and I think Alan Davis referred to this the other day. You know, it was if they didn't feel like they did them as well as they could, they wanted the Coast Guard to come back and see that they really were taking it seriously.

Logging them is a very passive action. I mean, I think from a legal defense perspective, it has its usefulness, but in reality, the Coast Guard needs to have a lot more oversight and they need to be engaged with the industry. They need to know industry people. They need to be familiar with their practices and that doesn't happen by them staying in their offices. They need to walk the dock, like Jerry has said.

CHAIRMAN SUMWALT: So to follow up to that, Mr. Kemerer, does the Coast Guard have the authority to go and conduct that sort of oversight that Leslie was just referring to?

MR. KEMERER: Currently, I'm not sure, but we've been doing it in some areas under the Alternate Compliance Program for

the head and gut fleet. I think the provisions in there, one of the agreements is that drills will be conducted and observed by the Coast Guard examiners. In some of the other areas where we've done these surge operations, like safe crab, safe fish or whatever, where we've done the safety checks, I think some of the vessels have been asked to, you know, demonstrate the drills at that time. But the regulations say they have to do the drills and there's no requirement to log it until the new bill is in effect. Then we can require it and we probably could push it to observe them.

CHAIRMAN SUMWALT: Okay. Thank you.

Now I mentioned the airline model just a little while ago, a few minutes ago. Well, airlines, some of the major airlines actually have swimming pools in their training department so that they can go out and do these drills periodically. Now bear in mind that airliners don't periodically plan to be close to the water.

Now we did chair a hearing about a year ago where Captain Sullenberger sat right over there. But generally speaking, airliners don't plan to ditch. We haven't seen a lot of those in my lifetime and -- but yet, fishing vessels, obviously, are very close to the water and we do have a lot of instances where people are having to get into the water. I mean, a fair number of people where people do end up in the water.

So I'm combining questions from the audience, just

combining a few together here. Current requirements don't require in the water training. How important is it to jump in the water and get in the life raft and should we include more courses such as that? So launching and entering life rafts and so, again, I'm combining a couple of questions, but this will be directed towards Jerry.

MR. DZUGAN: Well, earlier in my paper -- my five minutes, which was eight minutes, I talked about the need for experiential education and the need for there to be self discovery. And so it's an integral part of all the part of the training that AMSEA instructors are trained to do. Every drill conductor class where it's humanly possible to get people in the water, we do that.

We have -- in the Western Alaska, we have actually broken through the ice to make a body of water that fishermen get in their immersion suits to do and we try to do that as early in the training as possible because that's where all the buy-in comes in and that's where people have the self realization. That's where they realize the difficulties and the importance of learning procedures. We have -- do it in the drills as much as possible in the harbor if it's safe to do so.

There are safety considerations that prevent that sometimes; sea lions, bad weather, fowl harbors and other things. But whenever it's possible, we do and I think most of the training programs you'll see around the U.S., I can speak for that, that in

water exercises are a real high priority.

CHAIRMAN SUMWALT: Thank you. And I appreciate your remark that you made early on in your comments about education, training. It does affect people's life and I agree with that. I've long been an advocate of training and other modes of transportation and I think this has been a fascinating panel.

I would like to take a break. We'll come back at 3:30 and so we'll see you in 15 minutes. Thank you.

(Off the record.)

(On the record.)

CHAIRMAN SUMWALT: Welcome back. We are now here for our last panel of the day and of the forum. This will deal with the fisherman's perspective on safety issues. And Mike Rosecrans, once again, will be the panel lead on this.

Mike?

MR. ROSECRANS: Thank you very much, Mr. Chairman.

Our last panel will be, again, representatives of fishing organizations. I ask the panel to address issues raised today in the first three panels. And let me introduce the panel members now. We've had a couple of planned panel members that could not attend, Troy Tirrell from Alaska that was not here yesterday and Jimmy Ruhle, who I expected today, but apparently he has not been able to make it. So I've got a substitute and I'll introduce him in turn.

The first is Mr. Mattera. Mr. Mattera is a commercial

fisherman, a vessel owner, a safety trainer, a member of the Commercial Fishing Industry Vessel Safety Advisory Committee and a frequent contributor to articles on fishing vessel safety. Today, he is representing the Point Club from Point Judith, Rhode Island.

Rodney Avila. Mr. Avila is a fishing vessel owner, a member of the New England Fisheries Management Council, a member of the Board of Directors of the Point Club, a member of the Commercial Fishing Industry Vessel Safety Advisory Committee and a safety trainer for the commercial fishing industry. Mr. Avila has extensive experience as a commercial fisherman. Today, he joins us representing the Greater New Bedford Fishing Safety Collaborative.

Mr. Elliott Thomas. Mr. Thomas is a commercial fisherman and Chairman of the Maine Commercial Fishing Safety Council.

Mark Vinsel. Mr. Vinsel represents the United Fishermen of Alaska. UFA is an umbrella organization for 38 other fishing vessel organizations.

Mickey Johnson. Mr. Johnson has fished commercially and currently manages a small gulf coast shipyard. Today, he is representing the Southern Shrimp Alliance.

As soon as I find my next page. Mr. Tim Vincent represents the North Pacific Fishing Vessel Owner's Association. He has extensive experience as a marine surveyor and as a commercial fisherman.

So, Mr. Mattera, if you would please begin?

MR. MATTERA: Yes. Thank you again for this opportunity.

I would like to touch on a few points that were brought up today. One, under the reference of fisheries and safety and management, National Standard 10. There are ten standards and I've made this comment before and I've made it in front of the council. And as it's listed, as number ten, I believe it's the priority it's given when we look at management. It's sad. There's been many, many times when I've sat in the audience, Rodney has sat there as a council member and we've given testimony of issues that were just unsafe. I will give you one short, brief story.

We still have to go to sea and when we go fishing on groundfish, I have to cover my net drum in my net with a tarp. I have to disconnect my main wires from my doors. Several years back, when we were still fishing as under days at sea, a fishing vessel out of Cape May went to Georgess Bank. It was a nasty day, quite hellacious, rough, big seas. They got to the grounds early in the morning. He said we're going to fish guys, it's days at sea. I'm not going to lose a day so we're going to fish.

They uncovered the net. One fellow jumped up on the rail, took the main wire, put it through the bowlid (ph.), went to hook up, fell overboard and lost his life. And if that didn't say something, nothing would. And yet, we're still doing that today.

So it makes it difficult for me to sit here and listen to some of the testimony today saying that, oh no, we are addressing this and we are making it better.

We talk about overcapitalized. I keep hearing overcapitalized fleet. No. I'm just talking about here in the mid Atlantic and northeast. There's no overcapitalized fleet here. We've -- between New Bedford, Gloucester and Portland, Point Judith and down into New Jersey and New York, there's 30, 35 percent reduction just from vessels that have been taken out of the business, moth balled or loss. And what we have here is a flawed science.

We just -- and we have a Magnuson Act that basically says we have to rebuild in ten years, it would have to get there at ten years. And in order to achieve that, there is so much onous on the management regime to get to that point. And if they don't, they have the green groups on top of them, you know, with the potential lawsuits and that becomes a problem.

We talk about dockside exams and they had mentioned that they weren't voluntary. I think Mike posed that question. And there are no fisheries that I know of in the mid Atlantic and northeast now that don't require observers. Therefore, voluntary doesn't exist any longer in the mid Atlantic and northeast region. It's all mandatory, which is fine. I don't have a problem with doing it mandatory. Just take the word voluntary out of it.

Executive Director, Paul Howard, had presented some

facts. And one of them was the size of vessels. And he looked at vessels, I think, that were in the 50 to 40 foot range and they had the highest rate of fatalities. Why? I mean, that should jump out at you. And what it is, is like I said before, fishermen are going further, staying longer with fewer fishermen, with fewer guys, with fewer crew and this is what's happening. These boats, they're multispecies. Their groundfish fisheries and days at sea had been ratcheted down. Now we've gone to an allocation and the only alternatives they had was some scalloping and they could only land 400 pounds a day, so they resorted to that to just get by.

Well, they didn't into consideration, the measures of bringing a scallop dredge over the side and at times, they didn't fish in that 5 to 10 to 20 miles from shore. They were fishing 40, 50, 60 miles offshore. So they were being forced out into those areas in order to survive. Again, part of what I consider, you know, negligence on the part of the management regime in identifying these potential issues.

We talk about Coast Guard sitting on the councils and they do. And I think the Coast Guard does a very good job. I have a tremendous amount of respect for the Coast Guard. I've been there on search and rescues and been part of it and I can't say enough good things about what they've done and the experiences that I've had. But when it comes to enforcement and it comes to regulations, especially when we talk about closed areas, closed areas is a tool that's used in the northeast to manage fisheries.

There are times when we only need to close a small strip or we need to just look at a contour or a depth and it never happens that way. They love to build boxes. We call it the box theory. If we just needed to go to a short, small contour, okay, we'll go there, but we're just going to build a box this big around it. So again, we lose more grounds. Again, we're forcing fishermen outside, having to stay and avoid that box and go elsewhere.

And lastly, on this National Standard 10 and promoting safety at sea, Paul Howard mentioned the word practicable promoting safety at sea. Now yes, he said it's not measurable. I agree. I think it's a broad and general reference. But when you look into the standards and when we need to address overfishing and rebuilding, there's language in there that states the best science available. Now is that not that measurable, quite a broad and general statement, but yet that's the driving force behind how we manage.

On Coast Guard Authorization, on this new bill, you just finished talking about documentation and training and how important it is. And I am a firm believer and I will be until I take my last breath, but I don't know how we're going to enforce, you know, documenting and training.

Unfortunately, what's happened up until now is its just word of mouth if Coast Guard comes down to do a voluntary -- or hey, I just got caught in it, a mandatory dockside exam, they ask

the crews, do you do drills. I mean, all they have to do is just, their captain says yeah, we do them. At times now in the last few years, they've asked them to demonstrate some of them. So that's been an improvement, but there's no doubt in my mind that, going forward, that they're going fabricate these. He's just going to write it down. They're just going to put it in a logbook or whatever book they have and they're going to say that they do drills. No.

If the Coast Guard boards me out at sea and my life raft is beyond its service date or the hydrostatic release is expired or my EPIRB batteries expired or the hydrostatic release on that's expired, you will terminate my trip. But chances are very, very good that that equipment will still work, but if you take five crewmen and you ask them, do they know how to activate an EPIRB, do they know how to launch that raft, do they know how to don their survival suits and they can't demonstrate that because they haven't done drills, are you going to terminate the trip? Because I think that's just as important.

And lastly, I feel very, very fortunate to be able to have participated the last two days. I had my druthers leading up until this. Mike, we discussed this, but I am very happy that I participated. This is an excellent group. It's a cross section of individuals from Alaska to Maine and I don't want it to end here. That's my problem. I don't want it to end here.

There are no fishermen here in Washington D.C. There's

none here. I don't think anybody trawls in the Potomac or anything. And somehow, we need, you need -- I would love to take any -- first off, I will invite or have an open invitation to anybody on this panel or on this board to come to Point Judith and I will be happy to take them around, introduce them to fishermen and even take them fishing if they would like to. And I'm certain Rodney will do the same. And I think it would be a great experience for all.

I also feel that we need to reach out. Either you need to do more outreach -- and I hope that there will be more outreach that comes out of this. And either you will take it to the districts and the district commanders will do something or I plead to you to do this once more -- twice more, once in Seattle and once in New Bedford.

Thank you.

MR. ROSECRANS: Thank you, Mr. Mattera.

Mr. Avila.

MR. AVILA: Yeah. Panel members, thank you very much for letting me come up here again. And if I -- I just want to tell you ahead of time, if I make any mistakes, blame it on Jimmy Ruhle because he wasn't here.

I'm going to give you my perspective as a fisherman. I started my fishing career in 1957 and I was pretty good at it. And I -- when my father sold his boat and retired for two years, came back fishing, he came with me. My two sons fished with me.

I had a nephew that fished with me. So you could classify my vessel as a family fishing boat.

When it came to safety stuff, I would go to the vendor and I would say give me the best life raft you have. Give me the best -- before I go into that, I started fishing before life rafts, before EPIRBS and before survival suits. I used to have a dory that I could look up through and that why my only safety craft on my vessel.

But when this equipment came available to me, I had no problem with spending money to get the best that was on the shelf because it was my family's lives that I was saving. So I didn't have a problem. I didn‘t put a price tag on their life, but I lacked the most important component of safety at sea. And that man right there in the audience taught me that when I went out to CITCA and went through the AMSEA. I thought I knew everything there was to know about it until I sat in his class. And then I scratched my head the first, maybe the second day and I said boy, I really know nothing about this.

Even though I had all the best equipment, I didn't know how to use it. And right then and there, a light bulb went off and I started looking at all my fellow fishermen in my port one by one, who had started fishing with me, and they were in the same boat -- different vessels, but same boat. They had the best equipment, but they didn't have the knowledge to use it. That's why I expand this.

I just came back from Alaska two weeks ago or three weeks ago and I learned another valuable lesson sitting in this class. And I did a safety drill right after it and I used it. So all of these things we're using is changing the culture. If you can change it on an old work horse like me, you can change it on a new kid coming up. So that's what I've got to say.

I've got one more thing and I'm still in it. Good. I'm in the green. I've got one more thing to say. It's about dockside exams. I'm not going to knock them. I embrace them. New Bedford has a 90 percent compliance rate with dockside exams. The only thing the dockside exam does is ensure that that vessel is compliant with all its safety regulations; it has its life raft, it has its EPIRB, it has survival suits for everybody.

I could safely say I've participated in more dockside exams than anybody in this room. I have only once been asked to put -- by a dockside examiner to put on my survival suit. I have never been asked to activate an EPIRB -- I mean, to test an EPIRB. I have never been asked to -- how I would use a fire extinguisher or extinguish a fire. I have never been asked how I would launch a life raft or how I would recover a man overboard and that's not part of that.

They are there to make sure you're in compliance with the safety regulations. So this dockside inspection or sticker, it's good for the compliance, but it's not good for the education of fishermen.

We have a program that mandates that you take an observer. That observer does not rely on that dockside sticker. Even though that vessel has it, there is the -- the observer program trains its observers before they go fishing to a safety program. I mean they're actually employees of the government. They get trained with taxpayer's dollars, so why can't we train fishermen? And somebody said today just after I presentation, if you would have talk to me five years or ten years ago, I was like this, but I hadn't met Mr. Dzugan yet. And he's the little guy that changed me.

So that's my presentation. Thank you.

MR. ROSECRANS: Thank you, Mr. Avila.

Mr. Thomas.

MR. THOMAS: I would also like to thank you all for having us down here and I would extend the same invitation. If you're up in Maine, I can introduce you to people and get you out on a boat and feed you a lobster dinner if you want.

MR. AVILA: I'll go.

MR. THOMAS: I'm going to talk about something a little different for one minute and then talk about my reactions to today.

One thing that doesn't come up -- hasn't come up is, to me, radio is a very important piece of safety equipment, both for me to get out a mayday if I need it or for me to listen and go and help somebody. Unfortunately, now, the majority of VHF radios are

coming out with DSC and I say unfortunately because there's a little red button it you can push if you're having an emergency. Now if somebody should happen to push that little red button, your radio just gives out a signal. You can't call in. You can't hear out. So your radio is effectively dead for the length of time that that's on.

I've had to use my cell phone because I was at the position indicated and there was nobody around. They were a moving boat and I think it's -- you know, it's good because somebody may be rescued, but it's bad because it takes all communications with us to the Coast Guard or to anyone around us. And I think that's something that should be addressed over time.

As far as what I've learned and what I've heard today, I think that dockside exams are a good thing because they do identify that everybody has safety equipment. I think they need to go a little bit further and probably will when the requirements for logging training come in, those logs should be presented as part of the dockside exam. If they are not there, the person isn't in compliance.

I think that they also should, and I know this hard and it's time wise, but if crew is there, maybe somebody should be asked to do one of the things they're taught in training to see if they really have had this experience.

Training -- I also feel that if a certificate of competency is given for training or a license is given, something

has to be given so something can be taken away if something is wrong. There are people out there running boats that are on drugs and have alcohol in their systems. And I mean, not that any of us don't often have a drink at the end of the day, but some people are having a drink a little earlier than the end of the day. And there's just really, almost no enforcement in that. And this time of year for us, where we're coming in at night and leaving early in the morning and small boats, it's more and more dangerous when people aren't really attentive to what they're doing.

I'm very, very glad that the Coast Guard Authorization Act passed and can't wait until it gets signed into law because it's going to level the playing field in my size boat. The difference between documented and state registered vessels is going to go away and that's a good thing.

Thank you again for allowing me to attend.

MR. ROSECRANS: Thank you, Mr. Thomas.

Mr. Vinsel.

MR. VINSEL: Well, I also wish to thank the -- thank you, Mr. Rosecrans, for selecting all the participants in these panels. It really shows a level of interest and a depth of the interest that is far beyond what I expected. And I'm much more pleased having seen what -- the information presented and that you'll be looking at than I -- than my perception going in.

I -- from today's panel, kind of like to mention, we have our own three-legged stool in fisheries and I think we've --

throughout the United States, we've been doing a pretty good job on sustaining the fish. And then there are some areas where we have less success, but the other part, of course, is sustaining the fisheries businesses so that people can continue to fish and deliver fish. And now, we are getting proper attention to sustaining the lives of the individual fishermen so they can continue to fish. And I think that that's appropriate and timely.

I would like to sort of make a little joking at question to Ms. Johansen. I wonder if she's trademarked the title Safest Catch, because that's what we would actually like the TV show about crab fishery to change its name to. I think popular media tends to relish the opportunity to portray our industry in less than the favorable light that fishermen and the professional fishermen that all of us represent and work for and work with deserve.

Another interesting point today is that some parts of safety can be allocative and at United Fishermen of Alaska, we are able to function as the umbrella association and have 38 different member groups from virtually all of Alaska's fisheries because we have a policy statement that we do not get allocative. And really, once we're talking about an issue, if somebody feels that it's allocative for or usually against their fishery, that pretty much takes the topic right off of our agenda. And that's why we don't often -- we're not always there at the North Pacific Council or the Board of Fisheries because on most of those topics, those

are allocative issues.

But I think we need to really be careful to look at how these -- especially the alternate compliances, as we go forward, it has to be very fishery specific, but with a mind towards how things can be allocative. I know we have a number of fisheries in Alaska with no length limit. And so we are going to have vessels that fall into one category or another competing on the grounds with vessels that are in a different category, under different regimes of regulation.

I think the biggest challenge is going to be funding and building the networks to provide these mandatory trainings. Obviously, in Alaska, we have some great advantages, but we also have the geographical disadvantage. But I certainly think we're very well served, as I mentioned before, with Dr. Lincoln and he might as well be Dr. Dzugan. He's done more time in school than most doctors, I am sure.

But I think we need to build that kind of network throughout all the fishing communities and regions of the United States, as well as look to bolster it in Alaska. And I'm very encouraged by the Massachusetts example of a state emphasis on safety there in New Bedford. It's -- I think Alaska could learn a lot from that. We do have a pretty strong Marine Advisory Program, but we had to really fight tooth and nail to continue the funding of that this year of those agents in some of our -- I mean, it was the, what, the third, fourth, fifth and sixth biggest

fishing communities in the state, I think. Which, we're -- we had to fight and lobby for that funding.

And -- but the example of Massachusetts is an example that Alaska should be following and help -- to help build the network that will ensure that this gets done. I like to think that fishing organizations can really be a part of this and it will help drive our outreach to members and people's need for our organizations. And I look forward to being a part of this.

But again, thank you very much for this panel. I think you've all done a very, very good job of listening and asking appropriate questions. And the information is extremely valuable and I look forward to seeing your reports.

MR. ROSECRANS: Thank you, Mr. Vinsel.

Mr. Johnson.

MR. JOHNSON: Thank you, Mr. Rosecrans, for the opportunity. Thank the Chairman, all the board members. And I would like to invite all of you to the beautiful, warm gulf coast and our beautiful, oil free, white, sandy beaches. And they are oil free.

But a couple things here. Over the past two days, we've injected a lot of good information from the panels that you've provided. As we've heard over and over, what works for one region doesn't work for all. We asked to take the regions into considered before implementation.

I would like to see concentration on the areas of

concern and don't put an unwarranted burden on the already financially strapped regions. I agree with the commander that load line needs to be looked at by area region. Target the safety concerns. From what I've heard, our gulf fatalities need to be focused more on man overboard. And let's work together to address this and develop a PDF that works for this area. Develop man overboard alarms, something that will work in the area.

I think we know our problems with man overboard a lot. It's -- you know, a lot of them will be pulling to try and get one man up while the other crew sleeps and that's some of our concerns, but we need something in the man overboard that will alert to that effect. Let's work together to fix the needs of the problems.

I thank you for allowing me to be here.

MR. ROSECRANS: Thank you, Mr. Johnson.

Mr. Vincent.

MR. VINCENT: This is going to work out great and I'll tell you why. Because you guys aren't going to be greenhorns by the time you get to me at the end in Alaska here. So you'll be all experienced and you can come up and get all stinky and tired with me, so --

Good afternoon. Thank you once again for the opportunity to participate in this forum. Thank you very much, Captain Rosecrans, for you extensive efforts in putting this together for us. I'll try to be brief here as I gave my

presentation yesterday. Time's running short and we need -- really need to get to what matters here.

I want to thank all the panel members here. This forum would not have been a success without the deep and varied knowledge you collectively bring to the table. Your passion and commitment to this important cause cannot be measured here, but will be measured by vessels safely returning to port and the dockside embraces of mothers, fathers and children for generations to come. I think we all quest to learn something new every day. We have collectively learned a great deal over the two days of this forum.

Chairman Sumwalt, thank you for running a tight ship during this forum. You spoke yesterday of the Deadliest Catch. I would submit to you, a new proposal for a reality TV series. We could call it the Dynamicest (ph.) Challenge and it would involve walking the docks for effective outreach and one size does not fit all are the clear mantra here. So ensuring these new regulations are communicated, effective, appropriate and economical is a very tall order.

I would like to reiterate to all fishers from the largest factory trawler crews to the fishers working out of their skiffs, the concept of aspiring to become a high liner in safety. I cannot stress enough, the importance of education and training in our industry.

Thank you.

MR. ROSECRANS: Thank you, Mr. Vincent.

CHAIRMAN SUMWALT: I have thoroughly appreciated and enjoyed the remarks from each of you and what a great group to close up on.

So, Mike, I'm going to turn it over to you to lead the questioning. Thank you.

MR. ROSECRANS: Okay. The three panels we had today were training and lifesaving equipment and fisheries management plans and how they affect safety. So let me ask a question to the panel. And I encourage you to try to keep your answers short because there's a number of questions and a number of questioners.

So please give me your comments on how fisheries management plans impact safety.

MR. AVILA: Well, I think Mr. Mattera expanded on that, but days at sea, like he said earlier. Fishermen would stay out in bad weather. They wouldn't seek a safe harbor of refuge because it was going to cost them a day going and coming. Closed areas were expanded for enforcement reasons rather than rebuilding reasons. It was easier to maintain a square box than a rectangle shape.

We actually, back in 1994 or '95, put a scheme together where we would have a -- its rotational management of closed areas. One area would be closed for one year and then that would reopen. You would close another area so fishermen would always have access to the fishing area. That was rejected and what,

three years later, they just changed the name on it. It wasn't rotational management. It became roll enclosures and they adopted it, but not in a decent timeframe to save our fishery. So that's how it affects it.

I have the same concern about covering the tarps. Most of these net drums are eight to ten feet above the deck. You're sending a man up there to cover a net drum with a tarp. You're actually sending somebody up there with a parasail. He gets a good gust of wind, he's off of that boat and then you have to retrieve him. We had one incident.

The incident that got the funding for the training in New Bedford, I wrote a letter. I sat on a council. I wrote a letter to the council. I wrote a letter to the director of NOAA then -- I can't think of his name, Bill Hogarth -- Bill Hogarth, stating that somebody was going to die with this regulation because it would penalize fishermen. You would go into an access area. You would have to stay there until you got your trip. If you come out, you would have to pay -- it was a fine levied at 3,000 pounds of scallops, which interpreted into dollars, was $18,000.

So nobody wants to go in there and because of bad weather, come out and give up $18,000. And it was three months after that that we lost the Northern Edge. So that's how fishing regulations impact safety. And yes, we do have -- in our council, we do have a safety committee. It's called the VMS Enforcement

Committee. It deals more with VMS issues and it deals more with enforcement issues than it does actual safety issues.

Thank you.

MR. THOMAS: Days at sea, among other things, really hurt the main ground fishery because we're six to eight hours away from some of the better fishing grounds. So we lost a lot of our fleet to Massachusetts. And when the boats did go out from Maine, they weren't going to give up for anything.

MR. VINSEL: Well, I think we've had good information on how some fisheries that have changed to quota shares have affected the safety in a positive way of most of the participants, but there are some other things. I think we're going to see changes to our Aleutian fisheries and Bering Sea, near shore fisheries and lots of our fisheries with stellar sea lion regulations. And in many cases, a lot of fishermen have problems with the way that particular ESA listing is going because they are looking down further into subpopulations. And even though the overall population's increasing, they're looking to make measures to help subpopulations and that's going push some fishermen offshore that may or may not be as safe out there.

Another thing I have great concerns about is the President's Ocean Policy Task Force and the concept of ocean spatial planning. I'm not sure they will have the expertise to include the safety and knowledge of all the different kinds of fishing going on in all the different areas that they may, for

other reasons, want to keep people from fishing from -- or in or transiting or whatever.

Up in our area, we -- most fishermen feel that we use the entire area, not just -- not only for fishing, but for transiting and we're just concerned with where that's going. And it's mostly a fear of the unknown at this point. But there is a lot of different ways, but I think we had good information on the positive effects that we've seen in some fisheries in Alaska.

MR. JOHNSON: What we've seen on the gulf coast is the gulf closure in the Texas area when they reopened the 200 mile limit. You'll have all the fishermen from, sometimes, as far as the Carolinas come around and everybody congregates on the Texas coast. And probably your first three days of open and your fatigue's going to set in because they'll fish it until they can't go no longer.

MR. VINCENT: We're talking about IFQ fisheries and I'll go to the Bering Sea fisheries. That's what I'm pretty knowledgeable in. Those are very effective in a captain's decision-making process. Basically, it buys you time. You -- there's pressure from processing. Sometimes the processors say well, you have to get in here by this certain time. And so there's some level of pressure there.

And we talked about some of this at our NPFVOA board meetings and at some point, you just kind of have to go fishing. But the bottom line is, if it's really extreme and in the derby

days, we just went out and you fished. I mean, period. It's like, if you don't fish, somebody's going to take your bacon, so get out there and fish at all costs. That's done a very good job of that. I think it's still got some potential dangers, but in the extreme situations, captains have the opportunity to go ahead and back down and stand down.

They're also very -- with the IFQ shares, the money is in the catch history, not in the vessels. You can collateralize that money. Money is the, you know, the generator of the engine of this whole program we've got going here. So by being able to collateralize your shares, it gives you some discretionary revenue to go ahead and buy into safety programs, safety equipment, et cetera, et cetera.

And then finally, I would just like to comment about Fred's story and the tarp and he couldn't be more right on about that. And that, in my mind, is a regulatory refit. That's a dead on regulatory refit. It's ridiculous that these guys have got to put themselves in harms way for a frivolous regulation. I think that safety trumps everything.

MR. ROSECRANS: Thank you.

Let me ask a question to the panel. Currently, the Coast Guard has representation on the fishery management council as a nonvoting member. Should they have veto authority for any plan that doesn't involve safety to their satisfaction?

MR. AVILA: Yeah. We have a Coast Guard -- actually, I

do -- I am the Chair of the Coast Guard Law Enforcement Committee in New England and we do have a representative who is the vice chair and they do supply input. They have a lot of input when it comes to safety. They do give it.

The problem is when it gets to the attorneys or gets to the enforcement. They say they can't enforce it because of that so they have to change it. And that's we end up having. It comes into the regulation. So they do supply the safety advice to the council.

MR. MATTERA: Now you were asking if they should have --

MR. ROSECRANS: My question was, should the Coast Guard have a --

MR. MATTERA: -- have a vote.

MR. ROSECRANS: -- veto over any fisheries management plan before it moves forward if they are not satisfied with safety.

MR. AVILA: Yeah. I think they -- yeah, they should. I really do because they are the safety experts. They are the people that are going to put their lives on the lines to come and rescue fishermen out there if something happens. So yeah, they should have a strong voice in that.

MR. VINCENT: I would agree and I would make sure that they -- they are generally, but I would make darn sure the people that are in veto -- in the power of the veto are very understanding and very in tune with the fishery. You need

somebody like Commander Woodley over here who is down there pounding the docks and he's got his hands all over the situation. You can't do it from, you know, back in some chair somewhere. It's -- they're going to have to really be on their game. And I'm sure they are for the most part, but it's just a point a want to make, so --

MR. MATTERA: I agree with Tim and I think what Commander Woodley has expressed in the past two days is right on. And I think they do have to be well versed in the management ideology, a relationship with the industry and the council process in order to make that.

Mike, can I just take a minute and go back to your last question? I think there's a couple of other things here. We've talked about management. There's some other overriding and Mr. Vinsel brought up on it on Obama's task force, but more -- we're going to go more and more green. We're going to look renewable resources. Right in our back yard, right off of Block Island, they are proposing 120 windmills. They're doing the same thing in Cape Cod inside the Nantucket sound. L and G Pipelines are being considered. Wave energy is being considered. All of these things will be what I perceive as hindrance to navigation. It can be very problematic and they just seem to be on a fast track to where billions of dollars will be invested in it and this will happen.

I'm going to give you another example. National Science Foundation has $780 million and they're working with academia,

Washington, Oregon, San Diego and Woods Hole on the northeast. They are putting Pioneer Arrays. There is a Pioneer Array proposed 1,500 square miles in the richest fishing grounds I know of from the Hague Line to North Carolina. We've been blindsided. If one person in the industry didn't find out about this, they would have gone through this whole process and the only time we would have known would have been next spring, when they started to put in some of these buoys.

Now they have moored arrays. This will be oceanographic, physiological studies where they will do looking at salinity, phytoplankton and taking different measurements. They will have moored arrays. They will have AUVs that are motored. They will have gliders that will be in the water column in movement in this 1,500 mile square. Nobody in this industry was aware of this and now, only now is the council's being aware of through the habitat committees.

And that is -- again, poses a problem because what I see is they haven't brought the Coast Guard to the table on this and all you need to happen is one of those moored arrays that probably costs $5 or $6 million get towed up or similar to the Lady Grace, one of the fishing vessels that's towing out there in 30, 40 mile an hour winds in 20-foot seas hangs up on one of those moored arrays and capsizes and we lose 5 or 6 crewmen. And the next thing that will happen, they'll take that 1,500 mile block and there will be no access to it.

So just be aware of what's happening on the peripheral as well.

MR. ROSECRANS: Thank you.

CHAIRMAN SUMWALT: Thank you very much, Captain Rosecrans.

And, Rob Henry?

MR. HENRY: Thank you.

Mr. Mattera, you said the majority of fishing vessels in your region, because of the observer carriage requirements, get the dockside exam and we had talked earlier today about the issue of service life on lifesaving equipment or good inspections and surveys being able to weed out lifesaving equipment that is no longer serviceable. From your experience, is that reasonable to expect based on the quality of surveys that you have seen in your area that -- you know, that that's what's going to happen with the equipment that can be identified?

MR. MATTERA: Are you asking me that, should there be a life expectancy on life rafts or survival suits or things like that?

MR. HENRY: Well, the first part of the question is do you find these dockside exams conducted well enough that we don't need service life based on weeding out equipment that is found during the survey to be no longer serviceable or do we need to go to service lives or some other means of bringing new equipment on board?

MR. MATTERA: As far as life rafts go, obviously, they have to be inspected on an annual basis. So you rely on that and whatever company you bring it to at servicing that, that they are making certain that it's in compliance and it meets all the regs. I don't have a problem with that, although, I think it's always an evolving process and it seems like manufactures are changing and tweaking and moving.

You know, we've had concerns where the sea anchors and where they are so that, you know, they don't put you in a compromised position when you're out at sea and the sea's are breaking in the canopy instead of breaking astern of you. So if they're constantly changing those things, then I think there should be a life expectancy. If someone then has to purchase them, because I am a vessel owner, if you were to say to me, in 15 years, I had to replace that, I would have no problem with that.

Now immersion suits, there is no inspection. All I have ever seen them do is take an immersion suit out, throw it on the table, look at it, make certain it has enough square inches of reflective tape, that there's a name on the back of it, that you have a whistle, that the inflator trigger works and that there's no obvious tears in it at all. So if that's an inspection, no, it's not.

So I think there should be, at least, minimal inspections. And you know, I have no problem with telling me 10 or 12 years from now, I have to replace that. And if that was the

case, then inspect it every two years. You know, I would pay the $40, $50 to have it inspected every 2 years and in 12 years or 10 years, replace it. It all depends on how you use it. I go on board boats and some of these guys still have them as pillows or foot rests in their bunks. Well, you're going mash them down. You're going to lose the buoyancy. You're going to lose the thermal protection in them. It's not the ideal way. You should have them in a readily available position on the vessel, in the overhead, you know, maybe put in a wrack or something like that.

And the other problem that happens, we do a lot of drills. I make guys put suits on all the time. And so a lot of people, a lot of the crewmen and captains say -- or the owners say geez, I don't want you to constantly be putting 12 months -- 12 times, you're having these guys put suits on. At some point, you're wearing these things out. Well, the alternative is to take some old ones and put them on. Well, those old ones aren't the ones that they're going to put on when it's time to abandon ship and those old ones, you know, maybe the suit shrunk and actually, the individual just grew in the girth a little bit.

So you know, I don't have any problems with life expectancy. I like what they're doing right now obviously, with life rafts. As far as immersion suits, we need to do more inspecting on immersion suits.

MR. HENRY: Thank you.

Mr. Avila, in -- during the training segment, we talked

about changing the behavior of fishermen to be more risk adverse and we talked about some studies that were done many, many years ago about the hierarchy of concerns of -- I guess it was the hierarchy of worry. And in those days it was -- for fishermen, the two top categories were, you know, the loss of fish to catch and having a -- being able to maintain employment in the fishing industry. And way down the list was safety.

If you were asked that same question today of people in your association that you deal with, what are the two top concerns of fishermen?

MR. AVILA: Well, we're going into a new management regime which is totally different from anybody that's ever been fishing in the northeast. It's a new concept. There's a lot of skepticism. There's a lot of people that don't know if they're going to be here next year. That would be one of the concerns.

The other concern is safety. Like I mentioned earlier, we have fishermen that come up and ask us when the next safety training is coming on. So I think people are being more aware of it. We do find better safety equipment on the boats. When we go on the boats and we suggest something, a change, we -- next time we go back, we see that that new piece of equipment is there.

And I would like to get back to the survival suits if I could one minute? I told you we took 20 -- 1,000 of them out of service. One of those suits was one year old. That boat got a dockside safety exam and that suit, it passed on that dockside

safety exam because it was a visual exam. So I do believe that you need to have them annually inspected by a certified facility, somebody like the manufacturer of them will say, if it's certified, yeah, it should be when that suit gets to a certain year, two, three years old, then it should be checked annually because things change.

I've seen suits stored next to a refrigerator and the heat from the refrigerator bonded the suits together -- the material together. And as soon as we pull them out of the bag, you cannot open them because they're bonded together just from the heat of the refrigerator.

So I do think the culture is changing. I don't think it's so much of a mentality as I heard earlier on that it's well, that's part of doing business. You're going to go out. You may not come back. I don't think people look at that anymore because we've got the wives, the families involved. I think they're changing. They want to come back.

MR. HENRY: Thank you.

Mr. Thomas, in your area, and we've talked for a day and a half now about the Cost Guard Authorization and I think we identified manning and -- manning not being written into the legislation as it exists right now, which led to questions during the training session, does anybody teach fatigue management. If that's not part of a rigorous course in you area, how do fishermen deal with fatigue? Because, I mean, even the best training in the

world goes by the wayside, you know, when you're at the point of the sleep deprivation that you can't even stay awake.

MR. THOMAS: The majority of the fishery in Maine is a day fishery and so fatigue isn't quite as bad as people who are on trips and fishing at night. I mean we're even limited to the hours of the day that we can fish during a good portion of the year. It's something we really haven't looked into on our council and it's something that I'm taking away that should be a topic of discussion for us.

MR. HENRY: My next question is for the two gentlemen from Alaska. And we've talked about the requirements for PFD vice the requirements for exposure suits and you know, well, I guess preferences for when one should be worn over the other and there's even been a discussion of exposure suits counting as PFDs in the required gear aboard a vessel. How do you feel about exposure suits and their functionality vice wearing a PFD and do you feel there is a clear distinction and an understanding with your crews about when one should be worn vice another?

MR. VINCENT: Yeah. I would say definitely. You're talking about immersion suit, I believe.

MR. HENRY: Yes.

MR. VINCENT: Yeah. Well, in Alaska, no question about it because you're in cold water. So basically, in NPFVOA, what we train people to do, if it's an abandon ship drill, is to put the immersion suit on, tie it around your waste so your hands are free

and you're able to work. That's in an abandoned ship drill. With a PFD, its pretty well known in the industry that that's for working on deck, you know, a lot of motion, endurance type fishing, stuff like that. So definite distinction.

I would also add on the immersion suit thing just quickly, that the corporate sector, they do pressure check their suits usually about annually or biannually and they're tested and that's a function of, you know, having sufficient revenue to do so and whatnot.

Another thing about them is on my travels as a marine surveyor is a lot is going to depend on how they're stowed, if they're in a wet environment or if they're stowed neatly away. I totally agree with the concept of marking suits for training purposes only and trying to keep the suits that you use in an emergency in as absolute pristine condition as possible. And we should maybe look at implementing some regulations or some awareness to that extent.

MR. HENRY: And, Mr. Vinsel?

MR. VINSEL: Well, I can -- I have limited experience, actually, on fishing vessels. I mostly operate as an office worker in a communications job, trying to keep 38 different groups all working together. But I definitely understand what Dr. Lincoln said, that the survival suits are generally considered for abandon ship situations.

I do intend to -- and I've already spoken to Dr.

Lincoln. We're very interested in her research on different kind of PFDs that can be worn on deck because I don't think it's a common practice at all to be wearing those in Alaska fisheries while they're working. And we will invite her to speak with the UFA Board at our next semiannual meeting. And I'm pretty confident that that research is probably done in conjunction with one of our member groups or more and -- or at least some of the fishermen involved in our board. And we'll spread that information to the rest of the fleets.

MR. HENRY: And thank you. And my time is up.

CHAIRMAN SUMWALT: Thank you, Rob. Thank you very much.

I've got a few questions from the audience and this is really a comment that I would like to share. And the comment is, if fishermen are being challenged to change their fatalistic attitude, would it not be helpful if the NTSB, as host of event such as this, set the example by not promoting the use of term -- the term, The Deadliest Catch, the most dangerous and the most deadly job? Maybe we could take a more positive approach and change it something to like it's a risky business or risky occupation. Risk can be managed.

And you know what? You're exactly right. I have used those terms during this forum and you're right. I argued the same thing about two years ago when it came to commercial -- or EMS helicopters, which is my specific advocacy area. And I -- we were saying it's a dangerous occupation and they said if it's

dangerous, they shouldn't be doing it. So let's say that there's a high risk involved. And you're right. Point well taken. So I appreciate that comment.

And I don't think anybody's suggesting that we ignore the fact that there are -- that this is the highest occupational fatality in the nation. I don't think that's what you're suggesting at all. I think we're trying to say I agree, risk can be managed. So I'll keep that in mind.

And if you knew, I can't even read my closing remarks, I've scratched through it so many times today and yesterday. So I'll try and make sure that that's not in my opening -- in my closing remarks. Thank you for that comment.

I'm going to direct this question from the audience to Captain Vincent. And the question is, should there be regional fishing vessel safety advisory councils that parallel or mirror the regional fisherman's management councils? So I'll ask that to Captain Vincent.

MR. VINCENT: I think that would be a good idea. Anything to regionalize safety would be good. It would just increase awareness on a more targeted basis and that's really what we need. We really need to work hard on just getting very specific targeting to the needs of the specific geographical regions of the area.

CHAIRMAN SUMWALT: Thank you.

Before I wrap it up with the closing remarks, are there

any final comments from my colleagues on the technical panel?

Well, once again, thank you. Thank the panelists. Thank you very much for a wonderful session, as you did yesterday and Captain Avila, thank you for stepping in. I enjoyed, very much, hearing your comments. Thank you.

You know, I really have -- I don't even think I can read these because I've written all over my notes and scratched out. But I will say that the last two days have been absolutely wonderful, exciting and insightful. We've heard from a wide range of interested parties, truly, a who's who of the fishing vessel safety network. And most importantly, we've heard from the fishermen themselves, those of you who are out on the front line to hear your perspectives and put a very real face on these important issues.

The sad fact remains that for every fisherman who participated in this panel and almost everybody in this room, for that matter, has lost a family member, a shipmate or a dear friend while engaged in commercial fishing.

The question that everyone has is what's going to happen when we throw the gavel down and say that's it, thank you for coming? What's going to happen? What's going to change because of these two days? Captain Mattera said I hope it doesn't end here. Well, Captain, it will not end here. This is just the beginning.

We, at the Safety Board, intend for this forum to serve,

not simply as a conversation, but really, as a call to action. The Board will consider all that has been shared and a summary report will be developed in the months to come. The report, once that report is produced, will go on the web and within about three or four weeks, when our court reporter finishes it up and sends it to us, the testimony that we've heard over the last two days will be posted on our website. But in addition, for the next 90 days, the archives of this video cast will be on the NTSB's website. And if you're a little more technical savvy than I am, I think you can actually figure out a way to download it.

I cannot speak for my four colleagues that actually comprise of the actual Board because we're independent and we come to this board room and public meetings and we vote on things, but based on what I've heard over the last two days, I believe that there is material that is ripe for safety recommendations. And that's how we at the Board affect change. Yes, we hold forums like this to draw attention to issues, but we also can draw -- affect change by issuing safety recommendations.

When we approach the issues, whether it's the NTSB or other agencies, I think it's important to do what we heard yesterday. Mr. Ayeko said that we should take a systems approach and I happen to believe in that. I think if you're going to make any significant improvements, you have to take a systems approach. And I believe that that approach begins with a strong regulatory base, both from the U.S. Coast Guard and from the National Marine

Fishery Service.

These federal agencies may need additional authority to do the things that we think that they need to do. And other federal and state agencies also have a role to play as well. You can have the best laws, the best regulations out there, but if those on the front lines don't adhere to them or use poor judgment, then we're not going to significantly improve safety.

But I think it would be wrong to say that, in order to improve safety, the fishermen have to a do a better job. Well, that's true, but we need the system because if we go out and correct and better train, provide better equipment for one fisherman, then we're just changing one fisherman at a time. We need to correct the entire system and that's why I believe that we do need to take a systems approach and I appreciate your comments on that, Mr. Ayeko.

The fishermen are the last line of defense. They're the last link in the chain, but there's a lot more to it than that. So we will need the cooperation from other agencies.

Many who have participated as panel members have worked for decades to improve safety, as has the NTSB. And we hope that the work continues with energy and innovation. We also hope that the participants will leave with a renewed sense of purpose and I think that's going to happen. I hope that you'll leave committed to continuing the good fight and that this forum has generated new interest and cooperation and new ideas.

Obviously there are a lot of other things that we could have covered in two days, but frankly, we can't cover it all in just two days. But we have covered a lot of ground. I believe that the panelists were excellent, without exception, and I believe that the panelists were the heart of the forum. And our sincere appreciation goes out to each of the panelists for giving your time, attention and energy, for being here. I sincerely appreciate that.

And if the panelists were the heart of the forum, then I believe that those in the audience were the soul of the forum. Some of you never probably intended to get involved in fishing vessel safety, but like me, the loss of a family member, a friend, a coworker in the transportation business got you involved. So I want to personally thank each of you who is here to support through your attendance, your attention and your advocacy over the years of these very important issues.

I also want to thank the NTSB staff for undertaking this massive effort. It really has come at a time where there have been other accidents. I launched with the Marine -- Office of Marine Safety on two accidents in about a 60 day period this summer. I know you've got other accident investigations going on, but you didn't let this slide. You did a beautiful job pulling all of this together and as I said yesterday, you did it because of your deep commitment to safety of our nation's fishermen.

The problem with thanking people by name is that you

might leave someone out and I'm willing to take the risk. I want to thank people by name and if I do leave someone out, my apologies, but I think its worthwhile noting those who have made it all come together, starting with Dr. Jack Spencer who is the Director of the NTSB's Office of Marine Safety. And through his leadership, he empowered, enabled this forum to happen.

Mike Rosecrans, you have -- you really have been the one to lead the charge on this. It's been a team effort, but you have led the charge and you have done a great job. But it is a team. We've got Rob Henry, Liam LaRue, Larry Bowling. People behind the scene that you probably never heard of or never even seen, Charlotte Cox, Antoine Downs, Greg Pereira, Twon Nyguen(ph.), Rochelle Hall, Christine Fortin, Brian Dennis, Rob Turner, Terrance Thresh (ph.). Thank you, Terrance. Keith Holloway for their invaluable administrative, technical and media support.

And from board member offices, member Mark Rosekind and his assistant, Jason Fedok were involved. And my -- those wonderful assistants that work in my office; Stephanie Matonek and Sean Dalton. Thank you all. Thank you.

You know, one thing that's -- that I've notice is usually, when we put on a forum or a public meeting, public hearing, we have media here. Well, we're not here for the media, but it is noteworthy to me that there is no media here, not now or not before the forum. As I mentioned earlier, I chaired a forum about 15 or 16 months ago we had right here, sitting on the

witness stand was Captain Sullenberger.

I chaired a forum, a public hearing on the Washington Subway accident that occurred summer before last. I chaired a public hearing on the safety of commercial -- of helicopter air ambulances. For those, we would have NPR interviews and media interviews weeks out, but not in this case.

Again, we're not here for the media, but unfortunately, it does confirm what I said yesterday and that is, in spite of the fact that commercial fishing is the most deadly occupation in America and no, we can't deny that, that is a fact. In spite of the fact that this is the most deadly occupation in America, the national consciousness has not been raised on this very important issue.

But in spite of that -- the lack of that apparent public consciousness, I know that the people in this room are truly dedicated to improving safety. And because of this lack of public attention, this lack of public conscience, your work is even more difficult and it makes your work all the more imperative because I know that your work is important. It does matter. It does make a difference and it does keep people from dying.

There's a saying that if you save one life, it is as if you have saved the entire world. And you, ladies and gentlemen, you have saved an entire world through your work. You have my commitment that this agency will not stop working to improve safety of this very important industry. And you have my personal

commitment that I, too, will remain involved as well. I give you my commitment that I will remain involved and will not stop working to improve the safety of this industry.

Thank you for your attention. This forum is adjourned.

(Whereupon, at 4:45 p.m., the hearing in the above-entitled matter was adjourned.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FISHING VESSEL SAFETY FORUM

PLACE: Washington, D.C.

DATE: October 14, 2010

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording accomplished at the hearing.

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Timothy Atkinson
Official Reporter