

**NORTH PACIFIC PERSPECTIVES ON  
MAGNUSON-STEVENS ACT REAUTHORIZATION**

---

---

**HEARING**

BEFORE THE

SUBCOMMITTEE ON OCEANS, ATMOSPHERE,  
FISHERIES, AND COAST GUARD

OF THE

COMMITTEE ON COMMERCE,  
SCIENCE, AND TRANSPORTATION

UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

SECOND SESSION

—————  
FEBRUARY 27, 2014  
—————

Printed for the use of the Committee on Commerce, Science, and Transportation



U.S. GOVERNMENT PUBLISHING OFFICE

93-687 PDF

WASHINGTON : 2015

---

For sale by the Superintendent of Documents, U.S. Government Publishing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED THIRTEENTH CONGRESS

SECOND SESSION

JOHN D. ROCKEFELLER IV, West Virginia, *Chairman*

BARBARA BOXER, California	JOHN THUNE, South Dakota, <i>Ranking</i>
BILL NELSON, Florida	ROGER F. WICKER, Mississippi
MARIA CANTWELL, Washington	ROY BLUNT, Missouri
MARK PRYOR, Arkansas	MARCO RUBIO, Florida
CLAIRE MCCASKILL, Missouri	KELLY AYOTTE, New Hampshire
AMY KLOBUCHAR, Minnesota	DEAN HELLER, Nevada
MARK BEGICH, Alaska	DAN COATS, Indiana
RICHARD BLUMENTHAL, Connecticut	TIM SCOTT, South Carolina
BRIAN SCHATZ, Hawaii	TED CRUZ, Texas
EDWARD MARKEY, Massachusetts	DEB FISCHER, Nebraska
CORY BOOKER, New Jersey	RON JOHNSON, Wisconsin
JOHN E. WALSH, Montana	

ELLEN L. DONESKI, *Staff Director*

JOHN WILLIAMS, *General Counsel*

DAVID SCHWIETERT, *Republican Staff Director*

NICK ROSSI, *Republican Deputy Staff Director*

REBECCA SEIDEL, *Republican General Counsel and Chief Investigator*

---

SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES,  
AND COAST GUARD

MARK BEGICH, Alaska, <i>Chairman</i>	MARCO RUBIO, Florida, <i>Ranking Member</i>
BILL NELSON, Florida	ROGER F. WICKER, Mississippi
MARIA CANTWELL, Washington	KELLY AYOTTE, New Hampshire
RICHARD BLUMENTHAL, Connecticut	DAN COATS, Indiana
BRIAN SCHATZ, Hawaii	TIM SCOTT, South Carolina
EDWARD MARKEY, Massachusetts	TED CRUZ, Texas
CORY BOOKER, New Jersey	

## CONTENTS

---

	Page
Hearing held on February 27, 2014 .....	1
Statement of Senator Begich .....	1
Statement of Senator Rubio .....	2
Statement of Senator Cantwell .....	4

### WITNESSES

Dr. James Balsiger, Alaska Regional Administrator, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce .....	4
Prepared statement .....	6
Chris Oliver, Executive Director, North Pacific Fishery Management Council ..	12
Prepared statement .....	14
Tim Andrew, Director, Natural Resources, Association of Village Council Presidents .....	18
Prepared statement .....	20
Joseph T. Plesha, Chief Legal and Regulatory Officer, Trident Seafoods Corporation .....	33
Prepared statement .....	34
Lori Swanson, Executive Director, Groundfish Forum .....	39
Prepared statement .....	40
Linda Behnken, Executive Director, Alaska Longline Fishermen's Association .....	42
Prepared statement .....	44
Ricky Gease, Executive Director, Kenai River Sportfishing Association .....	48
Prepared statement .....	50
Michael LeVine, Pacific Senior Counsel, Oceana .....	54
Prepared statement .....	56
Julianne Curry, Executive Director, United Fishermen of Alaska .....	63
Prepared statement .....	65

### APPENDIX

Letter dated March 12, 2014 to Hon. Mark Begich, Chairman, Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard; Commerce, Science, and Transportation Committee from Roy Totemoff, President and CEO, The Tatitlek Corporation .....	77
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----



# **NORTH PACIFIC PERSPECTIVES ON MAGNUSON-STEVENSONS ACT REAUTHORIZATION**

**THURSDAY, FEBRUARY 27, 2014**

U.S. SENATE,  
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES,  
AND COAST GUARD,  
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,  
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 10:40 a.m. in room SR-253, Russell Senate Office Building, Hon. Mark Begich, Chairman of the Subcommittee, presiding.

## **OPENING STATEMENT OF HON. MARK BEGICH, U.S. SENATOR FROM ALASKA**

Senator BEGICH. Welcome. This hearing is called to order and we thank you all for being here. Welcome to all our witnesses and guests to this hearing of the Senate Commerce Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard.

This hearing marks the fourth in a series of hearings we are holding on the Reauthorization of the Magnuson-Stevens Fisheries Conservation and Management Act. Today, we are focusing on the perspective of Alaska and the North Pacific.

The Magnuson-Stevens Act, or MSA, named after two forward-thinking members of this committee provides the architectural framework for the conservation and management of the Nation's fisheries. MSA was last authorized in 2006, at which time significant improvements were made. Many were based on Alaska's long and successful track record in sustainable fisheries management. Most notably, the requirement that fisheries management plans include annual catch limits and measures to ensure accountability if those limits are exceeded. Another important improvement is the requirement that catch limits not exceed the fishing levels recommended by the councils by their scientific and statistical committees. Revisions also provided fishermen and the councils with new management tools to rationalize fisheries if they wish to do so.

These reforms combined with rebuilding plan requirements added to the Act of 1996 put us on a firm footing for the sustainable management of our fishery resources. Many now argue that finfish and shellfish caught under a Federal fisheries management plan are by definition sustainably caught. That said, implementing these reforms has not been easy. This should be no surprise because fish issues have never been easy.

Alaskans have known this for quite a while but we are justifiably proud of our record of sustainable management of our fisheries.

The success of Alaska Fisheries Management shows it's hard to know where to start with superlatives. The Alaskan Pollock Fishery is the largest by volume in the Nation. And our salmon fishery in Bristol Bay is the largest salmon fishery in the world. These and others combine to make commercial fishery the largest private sector employer in Alaska with nearly \$2 billion in landing supporting more than 70,000 jobs. Nearly 300,000 recreational anglers spend more than \$400 million per year in the pursuit of halibut, and salmon, and the sport fish. And subsistence fisheries have sustained Alaskan native people for thousands of years.

Managing all these fish and all the users is never easy when we put the resource first, follow the science, and try and keep politics out of it as much as possible. We've seen one recent example how the Magnuson-Stevens Act is working well for Alaska. Just yesterday, NOAA announced a \$20.8 million disaster fund; funding would flow to Alaska to help alleviate the economic hardship when the king salmon failed to return to the Yukon and Kuskokwim Rivers and Cook Inlet.

I fought for this appropriation as an appropriator and a chair of this committee and am pleased with its allocation. I'll be working with the state and the rest of the delegation to ensure the funds are quickly distributed to the affected communities.

Today, we will hear testimony from two distinguished panels of witnesses regarding MSA Reauthorization from the perspective of the North Pacific and Alaska. We hope to learn more about the impacts the MSA is having on these nationally important fisheries and the individuals, businesses, and communities who depend on it, and how it all effects, and how this Act may be improved. I look forward to the hearing and our witnesses. And, before I start the hearing formally, in the sense of the hearing for the witnesses, let me now turn to my Ranking Member, Senator Rubio.

**STATEMENT OF HON. MARCO RUBIO,  
U.S. SENATOR FROM FLORIDA**

Senator RUBIO. Thank you, Mr. Chairman. And thank you all for being here today and I want to thank all of you for taking the long journey to Washington, D.C. and to testify before us.

You have great champions in both of your Senators in regard to these issues and every other issue that affects the North Pacific. And it's relevant, informative, and helpful to hear directly from you regarding the unique experiences and fishery management practices that occur in the North Pacific.

As the Chairman indicated, this hearing will round out our exploratory hearings that will help inform our policy decisions as we work toward reauthorizing the Magnuson-Stevens Act. By the way, I want to take a moment—a note was passed to me, and I know you may have mentioned this already, or intended to, but I know the late Senator Stevens, the namesake of this bill. His daughter, Beth, recently passed away. My understanding is she was a long-time employee of the Fish and Wildlife Service. And of course, our thoughts and prayers are with the family with regards to that.

In this process, and after today, we will have heard from representatives from each of the fishery management councils; from commercial, recreational, and charter fishermen from every coast-

line of the United States and from various conservation organizations. In fact, Mr. Chairman, I believe we hold the record for the most witnesses invited to testify before the Senate Commerce Committee this Congress. We've heard from over 35 individuals after today. Again, this process, I believe, has been invaluable and we very much appreciate the insight from everyone who has taken the time to join us before the Subcommittee.

Let me just add that, as the Chairman indicated last month, our end goal here is to use the input that we are getting from you and from others that are writing us and are meeting with our staffs to draft a bipartisan reauthorization of the Magnuson-Stevens Act and we look forward to sharing that final draft with you when all of it is complete.

So again, I want to thank you, Mr. Chairman, for the leadership you've shown on this important issue and the cooperation of your staff and yourself personally with me and mine. And I'm very optimistic about this process moving forward. I know you get a lot of bad news about Washington, and much of it rightfully so, but I think this is an issue that holds real promise in terms of the consensus that is being built around it thanks to your leadership and the leadership of others on this subcommittee and generally on the Committee.

And I apologize. I have a second hearing on foreign relations scheduled at the exact same time. So my hope is to get over there and do similar to what I just did here and then maybe come back. I've read the testimony. I did last night. So it has been very informative. And I, hopefully, will be able to return but thank you all for being a part of this.

Senator BEGICH. Thank you, Senator Rubio.

And let me just say that what—we've had quite a few hearings and listening sessions and part of the process has been the arrangement that both myself and Senator Rubio have set forth when we both became—I became Chair and he became Ranking Member, that we were going to work on legislation in a bipartisan way and try to move through. But before we started laying bills down, we'd actually hear from people and listen to what their ideas are and try to then incorporate them into legislation. And we're now working on, just for the edification of the folks here, working on a draft bill based on some additional comments today. And hopefully, maybe toward the end of March, we will have a draft of some sort. But we are working very aggressively.

In this time, when there's not a lot of bipartisan stuff happening and you kind of grit your teeth at times, this committee has been very active and I want to thank Senator Rubio for his—he and his staff have done a great job in cooperating. So we're looking forward to it. As we would probably say, there's no Democrat or Republican fish; there's fish that we got to catch. And maybe sports, subsistence or commercial and we're looking forward to bringing forward a piece of legislation.

Let me ask, Senator Cantwell, do you have an opening statement that you'd like to give? Then we'll go right to the witnesses.

**STATEMENT OF HON. MARIA CANTWELL,  
U.S. SENATOR FROM WASHINGTON**

Senator CANTWELL. Mr. Chairman, I appreciate that.

I'm going to be quick because I really do want to hear from the witnesses. We have a very large crowd and a lot of fishermen from the Pacific Northwest. And I want to thank you and the Ranking Member for having this hearing.

I will just say this: This maritime economy from my state is a 60, well, it's a \$30 billion industry and supports almost 60,000 jobs. So of that whole maritime industry, about 60 percent of it is the fishing industry. So these are very important issues. I think new Magnuson Reauthorization has the opportunity to help us become more efficient to continue to get new levels of fishermen into the business. As we've heard from our past hearing that we had and to implement, you know, new management tools. So we're looking forward to all this discussion.

So, thank you very much and I very much appreciate all the Northwest participation here.

Senator BEGICH. Thank you very much.

And we have our first panel. We have three witnesses and what I'll do is I'll ask each one, and I'll introduce you, and then go ahead and we'll go down the line here. And I'll start with Dr. Jim Balsiger. He's the Regional Administrator, Alaska Region, National Marine Fisheries Service. Next to him will be Chris Oliver, Executive Director, North Pacific Fisheries Management Council. And then, Tim Andrew, Director of Natural Resources, Association of Village Council Presidents.

Again, thank you all very much for being here. If I can, Dr. Balsiger, we'll start with you. And then, we'll just kind of move down and then after your testimony we'll have questions, more than likely, for you.

**STATEMENT OF DR. JAMES BALSIGER, ALASKA REGIONAL  
ADMINISTRATOR, NATIONAL MARINE FISHERIES SERVICE,  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,  
U.S. DEPARTMENT OF COMMERCE**

Dr. BALSIGER. Thank you, Mr. Chairman.

Good afternoon, Chairman Begich, Senator Cantwell. Thank you for the opportunity to testify before you today.

I am Jim Balsiger. I am the Alaska Regional Administrator for NOAA fisheries. I live in Juneau, Alaska. NMFS is dedicated to the stewardship of living marine resources through science-based conservation and management. Much of this work occurs under the Magnuson-Stevens Fisheries Conservation and Management Act which sets forth standards for conservation, management and sustainable use of our Nation's resources.

Since the passage in 1976, the Magnuson-Stevens Act has charted a groundbreaking course toward sustainable U.S. fisheries. The 2006 reauthorization gave the eight Regional Fishery Management Councils and NMFS a clear charge to support improved science and management. Key requirements mandated the use of science-based annual catch limits and accountability measures to better prevent and end overfishing. The reauthorization provided more explicitly for market-based fishery management through Lim-



ited Access Privilege Programs, and addressed the need to improve this science used to inform fisheries management.

The Magnuson-Stevens Act created broad goals for U.S. Fisheries Management and a highly participatory management structure centered on the Fishery Management Councils. This structure ensures the decisions about how to manage U.S. fisheries are developed through a bottom-up process including fishermen, fish stakeholders, affected states, the tribal governments and the Federal Government.

In addition, 10 National Standards included in the Magnuson-Stevens Act guides fisheries conservation and management. These standards, which have their roots in the original 1976 Act, require the conservation and management measures prevent overfishing, while achieving the optimum yield from the fishery.

With six of the Nation's top ten fishing ports ranked by value of landings, Alaska coastal communities are uniquely dependent on living marine resources and healthy marine ecosystems. Alaska marine fisheries are vital to the prosperity and the cultural heritage of coastal communities. Nationally, U.S. fisheries play an enormous role in the U.S. economy. Commercial fishing supports fishermen; contributes to coastal communities; provides Americans with valuable source of local, sustainable healthy food. Recreational fishing provides food for many individuals, families and communities, and is a critical driver of local and regional economies.

In my state, subsistence fisheries are also an irreplaceable source of protein for much of rural Alaska and are interwoven into the cultural identity of Alaskan natives. Under the standards set in the Magnuson-Stevens Act and together with the councils, states, tribes, territories, and fishermen, we have made great strides in Alaska. For example, we maintain more stocks of biologically sustainable levels; have ended overfishing; rebuilt overfished stocks, built a sustainable future for our fishing-dependent communities, and provided more domestic options for U.S. seafood consumers in a market that is dominated by imports.

Today, we continue to explore alternative and innovative approaches with our partners that will produce the best available information to incorporate into management. The Magnuson-Stevens Act's call for close collaboration among NMFS, the North Pacific Council and our stakeholders is one of its greatest strengths and has been essential to the success of fisheries in the North Pacific.

NMFS shares its strong heritage of science-based marine stewardship with our Alaska resource management partners. Under the Marine Mammal Protection Act, NOAA and Alaskan Native Organizations co-manage marine mammals for the conservation recovery of species off Alaska. This collaborative relationship between NMFS and the Council, along with our early adoption of annual catch limits and the use of the precautionary principle, all contribute to the North Pacific success and fisheries sustainability in ecosystem health. In fact, conservative management measures implemented through the Council process have paid off.

Alaska fisheries are known as being among the best managed, most sustainable fisheries; producing over 50 percent of all of the seafood caught in U.S. waters, worth billions to the U.S. economy. Alaska seafood industry is a top private sector employer in the

State of Alaska. Nationwide U.S. commercial fishermen landed nearly 10 billion pounds of seafood valued at over \$5 billion in 2012. At the same time, recreational catch remains stable. Recreational fisheries generate an estimated \$56 billion in sales supporting 365,000 jobs. U.S. fisheries are producing sustainable U.S. seafood. The Federal fishery management system is effectively and responsibly managing fish stocks at biologically sustainable levels. As of December 31, 2013, 91 percent of stocks assessed in the country are not subject to overfishing, 82 percent are not overfished.

With some of the largest and most successful fisheries in the world, the U.S. has become a global model of responsible fisheries management. This is a critical time when we must move forward in a thoughtful and disciplined way to ensure our Nation's fisheries are able to meet the needs of both current and future generations.

Thank you, again, for this opportunity to testify before you today. I'm happy to answer any questions you may have.

[The prepared statement of Dr. Balsiger follows:]

PREPARED STATEMENT OF DR. JAMES BALSIGER, ALASKA REGIONAL ADMINISTRATOR, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

### Introduction

Good morning, Mr. Chairman and Members of the Committee. Thank you for the opportunity to testify before you today. I am Jim Balsiger, the Alaska Regional Administrator for the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS). NMFS is dedicated to the stewardship of living marine resources through science-based conservation and management. Much of this work occurs under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which sets forth standards for conservation, management, and sustainable use of our Nation's fisheries resources.

Marine fish and fisheries—such as Alaska pollock, Pacific cod, Pacific halibut, King crab, and other species found in waters off Alaska—are vital to the prosperity and cultural identity of coastal communities in the United States. U.S. fisheries play an enormous role in the U.S. economy. Commercial fishing supports fishermen, contributes to coastal communities and businesses, and provides Americans with a valuable source of local, sustainable, and healthy food. Non-commercial and recreational fishing provides food for many individuals, families, and communities; is an important social activity; and is a critical driver of local and regional economies, as well as a major contributor to the national economy. Subsistence fishing is an irreplaceable source of protein for much of rural Alaska and interwoven into the cultural identity of Alaska Natives. Both Alaska's economy and food security are uniquely dependent on sustainably managed marine resources primarily carried out under the authority of the Magnuson-Stevens Act. In the North Pacific, NOAA Fisheries shares a strong heritage of science-based marine stewardship with our Alaska resource management partners, including the State of Alaska and Alaska Native Organizations.

Our most recent estimates show that the landed volume and the value of commercial U.S. wild-caught fisheries remained near the high levels posted in 2011. U.S. commercial fishermen landed 9.6 billion pounds of seafood valued at \$5.1 billion in 2012, the second highest landings volume and value over the past decade.<sup>1</sup> The seafood industry—harvesters, seafood processors and dealers, seafood wholesalers and seafood retailers, including imports and multiplier effects—generated an estimated \$129 billion in sales impacts and \$37 billion in income impacts, and supported 1.2 million jobs in 2011. Jobs supported by commercial businesses held steady from the previous year.<sup>2</sup>

At the same time, recreational catch remained stable. Recreational fishing generated an estimated \$56 billion in sales impacts and \$18 billion in income impacts,

<sup>1</sup>See NOAA Annual Commercial Fisheries Landings Database, available at <http://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/annual-landings/index>.

<sup>2</sup>See Fisheries Economics of the U.S. 2011. NMFS Office of Science & Technology, available at: [http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries\\_economics\\_2011](http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries_economics_2011).

and supported 364,000 jobs in 2011.<sup>3</sup> Jobs generated by the recreational fishing industry represented a 12 percent increase over 2010.<sup>4</sup> U.S. fisheries are producing sustainable U.S. seafood. The Federal fishery management system is effectively and responsibly managing fish stocks at biologically sustainable levels, and in cases where some stocks have become overfished, the system has been effective at rebuilding populations to healthy target levels. As of December 31, 2013, 91 percent of stocks for which we have assessments are not subject to overfishing,<sup>5</sup> and 82 percent are not overfished.

The advancement of our science and management tools has resulted in improved sustainability of fisheries and greater stability for industry. Since passage in 1976, the Magnuson-Stevens Act has charted a groundbreaking course toward sustainable U.S. fisheries. The 2007 reauthorization gave the eight Regional Fishery Management Councils (Councils) and NMFS a very clear charge and new tools to support improved science and management. Key requirements mandated the use of science-based annual catch limits and accountability measures to better prevent and end overfishing. The reauthorization provided more explicitly for market-based fishery management through Limited Access Privilege Programs, and addressed the need to improve the science used to inform fisheries management.

The U.S. has many effective tools to apply in marine fisheries management. Yet, as we look to the future, we must continue looking for opportunities to further improve our management system. While significant progress has been made since the 2007 reauthorization, progress has not come without a cost to some. Challenges remain. Fishermen, fishing communities, and the Councils have had to make difficult decisions and absorb the near-term cost of conservation and investment in long-term economic and biological sustainability. For example, the North Pacific Fishery Management Council and NOAA Fisheries have worked collaboratively to introduce several measures in recent years to further minimize the bycatch of salmon and Pacific halibut in the groundfish fishery. These measures demonstrate our continuing commitment to working with the Council, industry, the State of Alaska, and Alaska Native Organizations to conserve fishery resources. We need to continue to address management challenges and explore new opportunities in a holistic, deliberative, and thoughtful way that includes input from the wide range of stakeholders who care deeply about these issues.

Modern fishery management in the North Pacific coincided with the Americanization of fishing fleets under the original Magnuson-Stevens Act. The collaborative relationship between NMFS and the North Pacific Fishery Management Council along with early adoption of annual catch limits and the use of the precautionary principle all contribute to the North Pacific's longstanding success in fisheries sustainability and ecosystem health. In the North Pacific, conservative management measures implemented through the Council process have paid off in a big way. Today, Alaska fisheries are known as being among the best-managed, most sustainable fisheries on the planet, producing over 50-percent of all seafood caught in U.S. waters, and worth billions to the U.S. economy. Alaska's seafood industry is the top private sector employer in the State of Alaska. The important role of fisheries in Alaska's economy and the persistent achievements in sustainability lead us to conclude that the Magnuson-Stevens Act's call for close collaboration among NMFS, the North Pacific Council, and our stakeholders is one of its greatest strengths and has been essential to the success of fisheries in the North Pacific.

Our testimony today will focus on NMFS' progress in implementing the Magnuson-Stevens Act's key domestic provisions, and some thoughts about the future and the next reauthorization.

### **Implementing the Magnuson-Stevens Act**

The Magnuson-Stevens Act created broad goals for U.S. fisheries management and a unique, highly participatory management structure centered on the Councils. This structure ensures that input and decisions about how to manage U.S. fisheries develop through a "bottom up" process that includes fishermen, other fishery stakeholders, affected states, tribal governments, and the Federal Government.

The Magnuson-Stevens Act guides fisheries conservation and management through 10 National Standards. These standards, which have their roots in the

<sup>3</sup> Lovell, Sabrina, Scott Steinback, and James Hilger. 2013. The Economic Contribution of Marine Angler Expenditures in the United States, 2011. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-134, 188 p.

<sup>4</sup> See Fisheries Economics of the U.S. 2011. NMFS Office of Science & Technology, available at: [http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries\\_economics\\_2011](http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries_economics_2011).

<sup>5</sup> Status of U.S. Fisheries, FSSI & Summary Status Changes, 4th Quarter. NMFS Office of Sustainable Fisheries, available at: [http://www.nmfs.noaa.gov/sfa/statusoffisheries/2013/fourth/Q4\\_2013\\_StockStatusSummaryChanges.pdf](http://www.nmfs.noaa.gov/sfa/statusoffisheries/2013/fourth/Q4_2013_StockStatusSummaryChanges.pdf).

original 1976 Act, provide a yardstick against which all fishery management plans and actions developed by the Councils are measured. National Standard 1 requires that conservation and management measures prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery. Optimum yield is the average amount of harvest that will provide the greatest overall ecological, economic, and social benefits to the Nation, particularly by providing seafood and recreational opportunities while affording protection to marine ecosystems.

The Councils can choose from a variety of approaches and tools to manage fish stocks to meet this mandate—*e.g.*, catch shares, area closures, and gear restrictions—and, when necessary, also determine how to allocate fish among user groups. These measures are submitted to the U.S. Secretary of Commerce for approval and are implemented by NMFS. Thus, the Councils, in developing their plans, must carefully balance the need for stable fishing jobs, ecological conservation, and societal interests to create holistically sustainable fisheries. A key aspect of this effort is to ensure that overfishing is prevented, and if it occurs, to end it quickly and rebuild any stock that becomes overfished. Other National Standards mandate that conservation and management measures be based upon the best scientific information available, not discriminate between residents of different states, take into account variations in fisheries and catches, minimize bycatch, and promote the safety of human life at sea.

Fishing communities are central to many Council decisions. Fishing communities rely on fishing-related jobs, as well as the non-commercial and cultural benefits derived from these resources. With six of the Nation's top ten fishing ports ranked by value of landings,<sup>6</sup> Alaska's coastal communities are uniquely dependent on living marine resources and healthy marine ecosystems. Communities, fishermen, and fishing industries rely not only on today's catch, but also on the predictability of future catches. The need to provide stable domestic fishing and processing jobs is paramount to fulfilling one of the Magnuson-Stevens Act's goals—to provide the Nation with sources of domestic seafood. This objective has even greater purpose now than when the Act was passed, as today U.S. consumers are seeking—more than ever—options for healthy, safe, sustainable, and local seafood. Under the standards set in the Magnuson-Stevens Act—and together with the Councils, states, tribes, territories, and fishermen—we have made great strides in maintaining more stocks at biologically sustainable levels, ending overfishing, rebuilding overfished stocks, building a sustainable future for our fishing-dependent communities, and providing more domestic options for U.S. seafood consumers in a market dominated by imports. Thanks in large part to the strengthened Magnuson-Stevens Act and the sacrifices and investment in conservation by fishing communities across the country, the condition of many of our most economically important fish stocks has improved steadily over the past decade.

Without high-quality fishery science, we cannot be confident the Nation is attaining optimum yield from its fisheries, or that we're preventing overfishing and harm to ecosystems and fishing communities. Attaining optimum yield requires investing in information about fish stocks, marine habitats, and ecosystems and the individuals and groups that rely upon fishing. NMFS is committed to generating the best fishery science—biological, ecological, and socioeconomic—to support the goals of the Magnuson-Stevens Act. To achieve the goals of the Act, we must conduct the research and analyses necessary to understand the environmental and habitat factors affecting the sustainability of fish populations.

Fisheries science also relies on data collected by fisheries observers as well as collaborative research with non-government partners. Adequate observer coverage is also critical for improving our bycatch data, and the biological samples collected by observers are used in stock assessments and life history studies. National Standard 9 requires fishery management plans to minimize bycatch. In the North Pacific, NMFS continues to work with the Councils, industry, academia, and other partners to conduct research and test new methods and gear that will make our U.S. fisheries in the North Pacific even cleaner, more selective, and able to avoid interactions with marine mammals. Much of this is done through the Magnuson-Stevens Act's Cooperative Research Program, Bycatch Reduction Engineering Program, and the experimental fishing permits process. Further, it should be recognized that 100 percent of the Bering Sea and Aleutian Island groundfish observer costs are paid for by the industry. This partnership in providing for observer coverage has proven to be a key component of successful fisheries management of groundfish and shellfish in Alaska.

<sup>6</sup>See Fisheries of the United States, 2012, NMFS Office of Science & Technology, available at: <http://www.st.nmfs.noaa.gov/commercial-fisheries/fus/fus12/index>

Other examples of scientific collaboration in the North Pacific include NOAA Fisheries scientists partnering with industry to modify flatfish trawl gear to reduce the impact to important bottom habitat. This collaborative work consisted of modifying trawl gear by raising the sweeps off the seafloor at various spacings—2 to 4 inches—and studied the impact this had on catch rates and seafloor habitat. The new gear reduced seafloor contact by nearly 90 percent, further protecting important habitat for fish and crabs while maintaining flatfish catch rates and reducing crab mortality rates. Since 2011, fishermen for all Bering Sea flatfish vessels must use the modified Bering Sea flatfish trawl gear. The trawl gear leaves less of an environmental imprint while improving catch of marketable fish. These strong results led the North Pacific Council to recommend requiring modified sweeps with the same disc height and spacing parameters for the Central Gulf of Alaska flatfish fishery.

We all share the common goal of healthy fisheries that can be sustained for future generations. Without clear rules based on science, fair enforcement, and a shared commitment to sustainable management, short-term pressures can easily undermine the social, economic, and environmental benefits that come from sustainably and responsibly managed fisheries. Though overfished stocks remain a challenge in some fisheries, as their populations grow and catch limits increase, we are beginning to see benefits to those resources, the industries they support, and the economy.

### **Progress in Implementation**

Working together, NMFS, the Councils, coastal states and territories, treaty fishing tribes, and a wide range of industry groups and other stakeholders have made significant progress in implementing key provisions of this legislation.

#### *Ending Overfishing, Implementing Annual Catch Limits, and Rebuilding*

One of the most significant management provisions of the 2007 reauthorization of the Magnuson-Stevens Act was the mandate to implement annual catch limits, including measures to ensure accountability and to end and prevent overfishing in federally managed fisheries by 2011 (an annual catch limit is an amount of fish that can be caught in a year such that overfishing does not occur; accountability measures are management controls to prevent annual catch limits from being exceeded, and to correct or mitigate overages of the limits if they occur). Now, when developing a fishery management plan or amendment, the Councils must consider the actions that will occur if a fishery does not meet its performance objectives. As of December 31, 2013, assessments demonstrated that overfishing ended for 71 percent of the 38 domestic U.S. stocks that were subject to overfishing in 2007 when the Magnuson-Stevens Act was reauthorized.<sup>7</sup> Annual catch limits designed to prevent overfishing are in place for all stocks, and we expect additional stocks to come off the overfishing list as stock assessments are updated in the coming years. The Magnuson-Stevens Act also includes requirements to rebuild any overfished fishery to the level that can support the maximum sustainable yield, and we have rebuilt 34 stocks nationally since 2000.<sup>8</sup> Currently, only one fishery stock of the dozens of stocks managed in the North Pacific—Pribilof Islands blue king crab—is overfished.

The agency has begun the process of reviewing the National Standard 1 guidelines, which were modified in 2009 to focus on implementing the requirement for annual catch limits. This was a major change in how many fisheries were managed, and we want to ensure the guidance we have in place reflects current thinking on the most effective way to meet the objectives of National Standard 1, building on what we and the Councils have learned. A May 2012 Advance Notice of Proposed Rulemaking was followed by an almost 6-month public comment period where we asked for input on 11 topics addressed in the guidelines. We received a significant amount of input, and are in the process of working through the comments and developing options for moving forward, be it through additional technical guidelines, regulatory changes, and/or identifying issues for discussion as part of a reauthorization of the Magnuson-Stevens Act.

#### *Limited Access Privilege Programs (LAPPs)*

The Magnuson-Stevens Act authorizes the use of LAPPs, which dedicate a secure share of fish to fishermen for their exclusive use via a Federal permit. NMFS has

<sup>7</sup> See Fish Stock Sustainability Index. This report was the source for the underlying data, but the numbers presented here were compiled specifically for this hearing. The report is available at: <http://www.nmfs.noaa.gov/sfa/statusoffisheries/2012/fourth/Q4%202012%20FSSI%20Summary%20Changes.pdf>

<sup>8</sup> See Fish Stock Sustainability Index. Available at: [http://www.nmfs.noaa.gov/sfa/statusoffisheries/2012/fourth/MapRebuiltStocksCY\\_Q4\\_2012.pdf](http://www.nmfs.noaa.gov/sfa/statusoffisheries/2012/fourth/MapRebuiltStocksCY_Q4_2012.pdf)

implemented LAPPs in multiple fisheries nationwide and additional programs are under development.

While limited access privilege programs are just one of many management options the Councils can consider, they have proven to be effective in meeting a number of management objectives when they have broad stakeholder support. Both in the United States and abroad, such programs are helping to achieve annual catch limits, reduce the cost of producing seafood, extend fishing seasons, increase revenues, and improve fishermen's safety.

Preceding the 2006 reauthorization of the Magnuson-Stevens Act which established LAPPs, the North Pacific fishing industry pioneered individual and cooperative quota-based management. Today, approximately 85 percent of the harvests occurring in federally managed fisheries in waters off Alaska occur in LAPP-managed fisheries. Examples include Pacific Halibut and Sablefish, the Western Alaska Community Development Quota Program, Bering Sea Pollock (American Fisheries Act) Cooperatives, Bering Sea King and Tanner Crab (Crab Rationalization), Central Gulf of Alaska Rockfish, and Bering Sea Groundfish (non-Pollock) Cooperatives (Amendment 80). These LAPPs were established through a long and deliberative process with the North Pacific Council that resulted in enhancing the value of Alaska's fisheries, reducing waste, and minimizing the need for fishing in dangerous conditions that can often occur in a "race for fish" without LAPP management.

One example of the benefits of LAPPs is the Central Gulf of Alaska Rockfish catch share program. Most notably, following the implementation of the Rockfish program, both halibut bycatch and discards have been reduced substantially. Participants report that cooperative management has allowed them to adopt conservation-minded practices without sacrificing their overall opportunity in the fishery. A longer fishing season also allows fishermen to time their harvest, improving safety on the water; create opportunities for a higher valued product; and stage delivery to fisheries processors and markets at times that do not conflict with other fisheries.

## **Looking to the Future**

### *Remaining Challenges*

Although the North Pacific has made great strides in creating biologically and ecologically sustainable fisheries, there are challenges with the economic sustainability of the fisheries. Many involve significant policy considerations about the future of coastal communities, international conservation commitments and trade, and, of course, budgets—not just federal, but state and tribal as well.

It is critical that we maintain progress toward meeting the mandate of the Magnuson-Stevens Act to end overfishing and rebuild overfished stocks. Annual catch limits have been an effective tool in improving the sustainability of fisheries around the Nation, but managing fisheries using annual catch limits and accountability measures was a major change for some fisheries, and the initial implementation has identified some areas where we can improve that process. We will continue to work with the Councils to achieve the best possible alignment of science and management for each fishery to attain the goals of the Magnuson-Stevens Act. We will continue to develop our science and management tools, improve our stock assessments and monitoring efforts, and create more effective annual catch limits and accountability measures. In doing so, we must continue to ensure solid, science-based determinations of stock status and better linkages to biological, socioeconomic, and ecosystem conditions.

A primary goal in the Alaska Region is to maintain healthy and sustainable fisheries. Given the vast size and value of fishery resources off Alaska, effective fishery management requires regular fishery surveys and stock assessments, and the use of new and innovative technologies to gather data from the fishery while reducing the costs and burdens. The Alaska Region and North Pacific Council currently use, and are exploring the expanded use of a wide range of electronic monitoring tools to compliment on-going observer programs. Looking ahead, we must continue to improve the quality and quantity of scientific data, continue progress made on stock assessment improvement plans, and continue to explore new and innovative management tools to achieve more biologically and economically sustainable fishery resources.

We value the important partnerships we have formed with the states, tribes, fishermen, and other interest groups in helping address these challenges. These partnerships are critical to developing successful management strategies. Together with our partners, we continue to explore alternative and innovative approaches that will produce the best available information to incorporate into management. NMFS has established an effective working relationship with the State of Alaska that has allowed for successful co-management of salmon, scallop, and Bering Sea crab resources off Alaska. This co-management arrangement is provided for in the Magnu-

son-Stevens Act, and has been effective in leveraging the expertise of State and Federal managers to provide for effective and responsible management. In addition to fisheries, the Alaska Region partners with numerous Alaska Native Organizations for the co-management of marine mammal species under the Marine Mammal Protection Act.

It is also increasingly important that we better understand ecosystem and habitat factors, such as the effects of climate change, interannual and interdecadal climate shifts, ocean acidification, and other environmental regime shifts and natural disasters, and incorporate this information into our stock assessments and management decisions. Resilient ecosystems and habitat form the foundation for robust fisheries and fishing jobs. The Magnuson-Stevens Act currently provides flexibility for bringing ecosystem considerations into fisheries management. NOAA Fisheries and the North Pacific Council have developed and implemented fishery ecosystem plans for the Arctic and the Aleutian Islands. The North Pacific Council is currently developing a fishery ecosystem plan for the Bering Sea. These initiatives improve our ability to consider and focus attention on a broad range of factors affecting marine ecosystems. The alignment of measures to conserve habitat and protected species with measures to end overfishing and rebuild and manage fish stocks will be a key component of NOAA's success in implementing ecosystem-based fisheries management.

NOAA supports the collaborative and transparent process embodied in the Councils, as authorized in the Magnuson-Stevens Act, and strongly believes that all viable management tools should continue to be available as options for the Councils to consider when developing management programs.

#### *The Next Reauthorization of the Magnuson-Stevens Act*

With some of the largest and most successful fisheries in the world, the United States has become a global model of responsible fisheries management. This success is due to strong partnerships among the commercial and recreational fishing, conservation, and science and management communities. Continued collaboration is necessary to address the ongoing challenges of maintaining productive and sustainable fisheries.

The *Managing Our Nation's Fisheries 3* conference—co-sponsored by the eight Councils and NMFS—brought together a broad spectrum of partners and interests to discuss current and developing concepts addressing the sustainability of U.S. marine fisheries and their management. The conference was developed around three themes: (1) improving fishery management essentials, (2) advancing ecosystem-based decision-making, and (3) providing for fishing community sustainability.

We were excited to see a wide range of stakeholders represent many points of view, from commercial and recreational fishermen, to conservation and science and management organizations, to indigenous communities. Before the last reauthorization, we co-sponsored two of these conferences, and they played an important role in bringing people together and creating an opportunity to present ideas and understand different perspectives. We expect the ideas that emerged from this event to inform potential legislative changes to the Magnuson-Stevens Act, but the benefits are much greater than that. The communication across regions and Councils provided an opportunity to share best practices and lessons learned, and could also inform changes to current policy or regulations that can be accomplished without statutory changes.

#### **Conclusion**

Because of the Magnuson-Stevens Act, the United States has made great progress toward sustainably and responsibly managing U.S. fisheries, to ensure that stocks are maintained at healthy levels, fishing is conducted in a way that minimizes impacts on the marine ecosystem, and fishing communities' needs are considered in management decisions. Fisheries harvested in the United States are scientifically monitored, regionally managed, and consistent with 10 National Standards for fishery conservation and management. But we did not get here overnight. Our Nation's journey toward sustainable fisheries has evolved over the course of 38 years. In 2007, Congress gave NOAA and the Councils a clear mandate, new authority, and new tools to achieve the goal of sustainable fisheries within measurable timeframes. Notable among these were the requirements for annual catch limits and accountability measures to prevent, respond to, and end overfishing—real game changers in our national journey toward sustainable fisheries that are rapidly delivering results.

This progress has been made possible by the collaborative involvement of our U.S. commercial and recreational fishing fleets and their commitment to science-based management, improving gear-technologies, and application of best stewardship prac-

tices. We have established strong partnerships with states, tribes, Councils, and fishing industries. By working together through the highly participatory process established in the Magnuson-Stevens Act, we will continue to address management challenges in a changing environment.

To understand where we are, it is important to reflect on where we've been. We have made great progress but our achievements have not come easily, nor will they be sustained without continued attention. This is a critical time in the history of Federal fisheries management, and we must move forward in a thoughtful and disciplined way to ensure our Nation's fisheries are able to meet the needs of both current and future generations. We will take the recommendations from the *Managing Our Nation's Fisheries 3* conference, and look to the future in a holistic, comprehensive way that considers the needs of the fish, fishermen, ecosystems and communities.

Thank you again for the opportunity to discuss implementation progress of the Magnuson-Stevens Act. We are available to answer any questions you may have.

Senator BEGICH. Thank you very much.  
Mr. Oliver, good to see you, Chris.

**STATEMENT OF CHRIS OLIVER, EXECUTIVE DIRECTOR,  
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL**

Mr. OLIVER. You too, Senator.

And thank you and Senators, for the opportunity to testify today regarding reauthorization of the Magnuson-Stevens Act.

I'm the Executive Director of the North Pacific Fishery Management Council where I've worked for 24 years. I want to speak first to the 2006 amendments to the Magnuson Act which comprised a very ambitious, comprehensive and powerful set of new requirements for fishery management, primarily aimed at rebuilding and conserving fisheries to the mandate of annual catch limits. Many of those requirements were patterned, as you noted, Mr. Chairman, after practices which have been in place for over 30 years in the North Pacific region. And we believe these requirements have generally been a great success. However, those amendments were not without pain and cost to the fishing industry as is evidenced by the current suite of issues being discussed and the introduction of various bills over the past several months aimed at modifying some of those provisions primarily through flexibility in the ACL, annual catch limit, requirements and stock rebuilding requirements.

The North Pacific Council believes that the current Magnuson Act provides a very successful framework for sustainable fisheries management and major changes are frankly not necessary at this time. However, we also recognize the need for increased flexibility in some circumstances and we're not opposed to amending the Act to provide for such flexibility with some important cautionary notes.

Annual catch limits have been used in the North Pacific for over 30 years and we believe that those limits are the cornerstone of sustainable fisheries management. We also believe there are situations where some flexibility is warranted particularly with regard to data poor stocks. We also recognize the need to explicitly consider economic needs of fishing communities in that process. Regarding increased flexibility for stock rebuilding plans, our council supports such flexibility particularly in cases where the ten year does make sense due to the particular aspects of the stock in question.



With regard to the definition of overfished, we believe there is the need to differentiate stocks for which an overfished data status has no relation to fishing activities. We have an example in the North Pacific. The only overfished stock that we have is Pribilof blue king crab which hasn't been fished on for decades. Overall, largely because of the benefit of healthy stocks and robust stock assessments in our region, we've not experienced the type of negative impacts that other regions appear to be having. In that they and we understand the need for flexibility in the application of ACLs, but we believe it's imperative to consider such changes cautiously to not dilute the basic intent or benefit of ACLs. For example, the idea of allowing ACLs to be set at the overfishing level is probably not a good idea from a public policy perspective.

With regard to limited access privilege programs, there are also numerous requirements put in place in 2006 and we believe that we do not want to lose catch shares or LAPPs as a management option in our toolbox and believe that we need to maintain maximum flexibility in program design to allow us to tailor these programs to the specific characteristics of various fisheries.

With regard to statutory reconciliation, the Magnuson Act juxtaposes with several other acts including the Endangered Species Act, the National Marine Sanctuary Act, the Regulatory Flexibility Act, and the National Environmental Policy Act. With regard to NEPA, Mr. Chairman, the councils have a long history of advocating for reconciliation of this Act with the MSA. The Magnuson Act, the MSA is arguably the most transparent participatory regulatory process in existence. And, while that is essentially the guiding act for fisheries management, it has become NEPA which is the vehicle for development of our fishery management plans and regulations.

We believe that we can be better served by incorporating key provisions of NEPA within the Magnuson-Stevens Act. For example, a more explicit requirement for environmental impact analysis and requirements for consideration of a reasonable range of alternatives and, once again, allow the Magnuson Act to be the central guiding act for fisheries management in the U.S.

Mr. Chairman, I have some comments with regards to data confidentiality, as well as electronic monitoring, but in interest of time, and I hope you're able to read those, I want to close with some general summary thoughts regarding reauthorization and the process. And these, I believe, represents some general tenets that the North Pacific Council believes should be considered relative to any change in the Act. And that would be to avoid across-the-board mandates which can negatively affect one region in order to address problems in another. In other words, make provisions region-specific where necessary or count them as option of tools in our management toolbox rather than mandates. Legislation should allow for flexibility in achieving conservation objectives but be specific enough to avoid lengthy complex implementing regulations or guidelines.

And finally, Mr. Chairman, we believe legislation should, where possible, be in the form of intended outcomes rather than prescriptive management or scientific parameters.

And with that, I close and thank you again for the opportunity to be here.

[The prepared statement of Mr. Oliver follows:]

PREPARED STATEMENT OF CHRIS OLIVER, EXECUTIVE DIRECTOR,  
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

Good morning Chairman Begich and members of the Subcommittee, and thank you for the opportunity to testify regarding reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, or MSA). I am the Executive Director of the North Pacific Fishery Management Council, where I have worked for 24 years, and I am honored to participate in this hearing and offer our perspectives on this important legislation. Beginning last year with the *Managing Our Nation's Fisheries 3* national conference, and throughout the last few months, our Council has been engaged in the national dialogue surrounding reauthorization of the Act, and has developed a number of overarching perspectives relative to the pending reauthorization. These perspectives are based on our experiences stemming from the 2006 reauthorization, as well as the ongoing national dialogue, including our discussions with the other regional fishery management Councils through the Council Coordination Committee (CCC).

The 2006 amendments to the MSA comprised a very ambitious, comprehensive, and powerful set of new requirements for fisheries management, primarily aimed at rebuilding and conserving fisheries through the mandate of Annual Catch Limits (ACLs) and the reliance on best scientific information in that pursuit. Many of the requirements of the 2006 reauthorization were patterned after practices which have been in place for over 30 years in the North Pacific region, and we believe that these requirements have generally been a great success, as evidenced by significant reductions in the number of overfished stocks across the Nation. However, the 2006 amendments were not without pain and costs to the fishing industry, as is evidenced by the current suite of issues being discussed, and the introduction of various draft Bills over the past several months aimed at modifying some of those provisions. A primary focus for pending reauthorization appears to be flexibility in the ACL and stock rebuilding requirements implemented through the 2006 reauthorization.

The North Pacific Council believes that the current MSA provides a very successful framework for sustainable fisheries management, and major changes are not necessary at this time. However, we also recognize the need for increased flexibility in some circumstances and we do not oppose amending the Act to provide for such flexibility, with some important cautionary notes. Following are some suggestions relative to primary issues being discussed in this reauthorization process:

**Flexibility in Annual Catch Limits and Stock Rebuilding**

Annual catch limits have been used in the North Pacific for over 30 years, and we believe that such limits are a cornerstone of sustainable fisheries management. We also believe there are situations where some flexibility in the establishment of ACLs is warranted, particularly in the case of data poor stocks. I can cite the North Pacific example two years ago where we were compelled to set an artificially low ACL for Pacific octopus based upon very limited historical information, rather than a robust stock assessment, and this artificially low ACL resulted in closures of fisheries which take octopus incidentally. This example underscores the need for robust stock surveys and assessments, which we believe should be a priority focus of any MSA reauthorization.

Consideration of the economic needs of fishing communities is critical in the ACL setting process, and while the current MSA allows for such consideration, we recognize the desire for a more explicit allowance for these considerations. We must be careful however, not to jeopardize long term fisheries sustainability, and associated community vitality, for the sake of short term job creation. Accounting for uncertainty, articulating policies for acceptable risk, and establishing the necessary precautionary buffers, is an explicit outcome of the ACL process, and we believe that the Councils' Scientific and Statistical Committees (SSCs) are the appropriate gatekeepers to establish the upper limits of "safe" fishing mortality. In that regard, from a perspective of national public policy, we are concerned with a potential relaxation of the ACL requirements which would allow Councils to set ACLs at the overfishing level (rather than the Acceptable Biological Catch, or ABC, level). Setting ACLs at the overfishing level in essence assumes zero uncertainty, and harvesting at the overfishing level will, on average, result in actual overfishing about half of the time. While such a change in the Act would likely not affect how we do business in the

North Pacific, where ABC has always represented the upper limit of fishing mortality, we do not believe such a relaxation would be responsible public policy.

We would also like to note the potential for unintended consequences when making changes to any of the key provisions of the MSA. Measures intended to address a problem in one area of the country can result in unnecessary, unintended consequences to other regions. An example of general provisions resulting in substantial revisions to North Pacific fishery management (and nationwide), is in fact the implementation of ACLs required under the 2006 MSA reauthorization. Recall that the 2006 additions to the MSA which implemented the ACL requirements were but a few sentences of statutory text (largely patterned after long-standing North Pacific practices), but that the implementation of the ACL requirements resulted in 36 pages of “guidelines”, or regulatory text, from the National Marine Fisheries Service. In the case of the North Pacific, we had to undergo significant amendments to our Fishery Management Plans (FMPs) to comply with the letter of the ACL regulations, even though we have been successfully managing fisheries with strict annual catch limits for 30 years. The guidelines as written also require us to develop additional amendments to our FMPs to more explicitly address uncertainty in stock status, even though we have robust stock assessments for most species, and uncertainty levels are incorporated in our stock assessments and setting of ACLs. Finally, despite the lengthy and detailed guidelines which were developed, there is still debate over how to account for fish taken in research, stock assessment, and cooperative research under exempted fishing permits (EFPs).

Many of these issues, as well as issues associated with stock rebuilding requirements, have the potential to be addressed to some extent through the current initiative by NMFS to revise the guidelines implementing National Standard 1 (*i.e.*, revisions to the ACL and stock rebuilding requirements). While the final rule for these revisions is not scheduled to be complete until late in 2014, it is important that reauthorization language is reflective and responsive to this important effort.

Regarding potential changes and increased flexibility for stock rebuilding plans, our Council supports further flexibility, particularly in cases where the 10 year rule does not make sense due to the particular aspects of the stock in question. In some cases the somewhat arbitrary 10 year requirement can result in overly restrictive management measures, with unnecessary, negative economic impacts, with little or no conservation gain. Allowing for rebuilding to occur in as short a time as “practicable”, as opposed to as short a time as “possible”, may be an appropriate mechanism for additional flexibility.

Associated with the rebuilding issue is the definition of “overfished”. In the North Pacific we have no overfished stocks, with the exception of Pribilof Island Blue King Crab, a fishery for which there has been no allowable fishing for decades, and the species is only occasionally taken as bycatch in other fisheries. Our Council has been faced with development of a rebuilding plan for this species, and the prospect of curtailing certain groundfish fisheries because this is the only source of mortality we can affect, even though our analyses and stock assessment models indicate that the expected bycatch savings will not increase rebuilding success. This example highlights the need to differentiate stocks for which an “overfished” status has no relation to fishing activities. Replacing the term “overfished” with the term “depleted” or another term which denotes that stock status is not necessarily related to fishing activities may be an effective way to address this problem, noting however that the term “overfished” has definitive metrics associated with it. While more appropriate, any new term will need to be explicitly defined in order to be a measurable metric, and in order to avoid diluting the conservation goals associated with stock rebuilding.

Overall, largely because we have the benefit of healthy stocks and robust stock assessments for most species, we have not experienced the types of negative impacts that other regions appear to be having in complying with ACLs and rebuilding schedules. In that vein, while we understand the need for some flexibility in the application of ACLs and rebuilding requirements, we believe it will be imperative to consider such changes cautiously, to not dilute the basic intent and benefit of ACLs, and to not lose ground in our success at rebuilding overfished stocks where rebuilding is feasible and affected by fisheries management actions.

#### **Limited Access Privilege Programs (LAPPs)**

The 2006 amendments to the MSA also put in place numerous requirements for the development of Limited Access Privilege Programs (LAPPs), requirements which apply to many of the “catch share” programs being considered, or being developed, by Regional Fishery Management Councils around the U.S. Catch share type programs, including sector allocations, license limitation programs, and individual transferrable quotas (ITQs), while not appropriate for all fisheries, represent a criti-

cally important tool for fisheries management and have been used extensively in North Pacific fisheries to reduce bycatch and increase target species landings and value. Most of the fisheries in the Bering Sea operate under some form of “catch share” or LAPP management, and all of these programs have been developed through an extensive, and inclusive, transparent public process. We do not want to lose catch shares as a management option in our tool box, and we believe that maximum flexibility in program design is essential to tailor these programs to the specific characteristics of various fisheries.

The current MSA contains extensive provisions for the design and analysis of LAPP programs, and we do not support additional requirements for referendums in the North Pacific, nor do we support automatic sunset dates as these can be counter to the basic premise of these programs, can be disruptive to both the design and implementation of such programs, and may weaken the achievement of long-term conservation benefits.

### **Reconciling Statutes**

The MSA juxtaposes with several other important Acts, including the Endangered Species Act (ESA), the National Marine Sanctuaries Act (NMSA), the Regulatory Flexibility Act (RFA), and the National Environmental Policy Act (NEPA). Additional clarity and regulatory streamlining can be accomplished through further clarification of the applicability and overlap of these various statutes. In the case of the ESA, the eight regional Councils (through the Council Coordinating Committee), endorsed the report recently developed by the Marine Fisheries Advisory Committee (in consultation with members of the CCC) which contained numerous recommendations to NOAA Fisheries regarding better coordination of that statute with the MSA, and a more robust participatory role for the Councils in the ESA consultation process and development of Biological Opinions affecting fisheries management.

Regarding NEPA, the Councils have a long history of advocating for reconciliation of this Act with the MSA. The MSA is arguably the most transparent, participatory regulatory process in existence, and while the MSA is ostensibly the guiding Act for fisheries management actions in the U.S., in fact it is NEPA which has become the vehicle for development of fishery management plans and associated regulations. The current application of NEPA results in an unnecessarily burdensome, overly expensive, and somewhat redundant, regulatory process. The NEPA process was never intended, and will never fit well, with the unique and dynamic nature of the fisheries management process. While the Councils are generally doing a very good job complying with this process and the requirements of NEPA, and that process is being memorialized within a Policy Directive currently being developed by NMFS, there remain opportunities for streamlining and reconciling the Acts as was envisioned in the 2006 reauthorization process. We are not seeking to “exempt” the fisheries management process from the underlying conservation intent of NEPA, but we believe that the process can be much better served by incorporating a few key provisions of NEPA within the MSA (for example, a more explicit requirement for environmental impact analysis, and an explicit requirement for the consideration of a reasonable range of (reasonable) alternatives). This would allow the MSA to once again be the central, guiding Act for fisheries management in the U.S., without sacrificing the underlying environmental protections intended by NEPA, and without sacrificing the opportunity for public input which is already amply provided for in the MSA and the Administrative Procedure Act.

The starkest specific example of the general over-application of NEPA probably remains that of the Council’s programmatic supplemental environmental impact statement (PSEIS), the 7,000 page document underpinning our Bering Sea and Aleutian Islands and Gulf of Alaska fishery management plans. Based on agency guidance for NEPA compliance, we were compelled to analyze and consider a NO FISHING alternative—for a fishery which supplies over half the Nation’s seafood harvest, which for 30 years has been considered a model of sustainable management, and where ABCs have totaled over 4 million metric tons for three decades. Regardless of the stated purpose of the Council to conserve and manage fisheries we were forced to spend considerable Council time and resources to analyze an unreasonable, and misleading to the public, no fishing alternative.

### **Transparency and Public Process**

As noted above, the MSA provides for a very transparent and participatory regulatory process. With the current state of technology this is now true more than ever, as evidenced by the following: all North Pacific Council meetings are Webcast in real time; all of its meeting materials are posted and publicly available; full, easily accessible, searchable audio transcripts are maintained and available to the public for all North Pacific Council meetings; summary minutes are developed for each

Council meeting which include key discussion points and all motions adopted by the Council; and, newsletters are developed and publicly available immediately following each Council meeting which provide detailed summaries of all actions taken by the Council. For SSC meetings in the North Pacific, detailed minutes of each meeting are developed and available to the public by the end of the meeting.

Proposed requirements for videotaping all Council and SSC meetings, and for full written transcripts of all Council and SSC meetings (and potentially Advisory Panel meetings as well) are an unnecessary burden with little or no marginal benefit in terms of public access, transparency, or administrative record. In the case of the North Pacific, with five to six meetings per year at seven days each (along with SSC and AP meetings, which expands it to 15 overall meeting days) such a requirement would cost into the hundreds of thousands of dollars, which does not make sense at a time of shrinking Council budgets and overall fiscal constraint. The current practice of Webcasting and full, searchable audio transcripts provides the public with a much more useful avenue of access, and it is likely that stacks upon stacks of written transcripts would go unused and provide very little additional value to the public. In addition, a requirement for videotaping may require the Council to no longer meet in remote fishing communities where there may be limited bandwidth available, and thus may be counter to the intent of a videotaping requirement.

#### **Data Collection and Confidentiality**

Numerous changes to the data collection and confidentiality provisions to MSA have recently been part of the national reauthorization dialogue. While I will not attempt to address these proposals specifically, I can comment generally that the current data confidentiality provisions are generally working quite well. The North Pacific Council has numerous data collection initiatives (in addition to observer information or other routinely collected fisheries information) associated primarily with the implementation of catch share programs in our fisheries. Information from these data collection programs is essential to program reviews and to our ongoing management, but it also contains sensitive cost and other operational information from the fleet, much of which must be aggregated (up to three entities) before public release. NMFS is also currently in the process of final rulemaking (pending publication) related to currently existing confidentiality provisions. In a recent letter to the NMFS Assistant Administrator, our Council stressed the importance of maintaining these provisions in order to prevent the erosion of the cooperation and goodwill of the fishing industry and to ensure we can continue to use the North Pacific data collection system developed and maintained with the State of Alaska, which requires similar aggregation rules to maintain confidentiality. In summary, we stressed the need to maintain appropriate confidentiality measures, except where Congress has expressly intended otherwise.

Conversely, there are provisions specific to the North Pacific in the current MSA which do allow otherwise confidential observer information to be made public. For example, section 402(b)(2)(A) specifically allows the Council to disclose weekly summary bycatch information identified by vessel, or haul-specific information without vessel identification. Such information allows us to identify “poor performers” related to salmon bycatch in Bering Sea trawl fisheries, for example, and to remove this allowance for disclosure would be counter to the Council’s policy intent and goals with regard to transparency, accountability, and minimizing bycatch to the extent practicable.

#### **Electronic Monitoring**

The use of Electronic Monitoring (EM), particularly the use of video cameras in lieu of human observers, continues to be a high priority for the North Pacific Council and the North Pacific fishing industry, and an EM strategic plan was developed in the past year to guide those efforts. This is especially true for the small boat, fixed gear fleet, many of whom are now subject to partial observer coverage requirements under the Council’s restructured groundfish and halibut observer program. The North Pacific Council is working diligently with the Alaska Region of NMFS, the Alaska Fisheries Science Center, and the small boat fishing sector to expedite the implementation of EM in our fisheries. In addition to a number of EM pilot projects and collaborative research ongoing in 2014 (some of which are funded through grants from the National Fish and Wildlife Foundation), the Council is forming an EM Workgroup to provide a forum for the development of performance standards, and for the design and testing of alternative EM systems for various applications. While EM will never be a full substitute for human observers, there are numerous potential applications, including discard monitoring as a primary first goal, and ultimately as an integral part of the overall catch accounting system.

EM development is also a high priority at the National level, with NOAA Fisheries in the midst of developing both a National EM policy as well as regional implementation plans. With the collective, ongoing efforts relative to EM, it is unclear that additional statutory provisions are necessary at this time to move forward. However, the North Pacific Council does not oppose provisions that would enhance EM development and implementation, if such provisions are posed as optional tools, with realistic timelines, as opposed to specific mandates with unrealistic timelines. Finally, our Council would be opposed to any statutory requirements which prohibit the use of EM for law enforcement or compliance purposes (which could, for example, preclude compliance monitoring for retention/discard requirements, one of the current uses of EM in the North Pacific on large trawl vessels and likely a more cost-effective means of monitoring for other fisheries in the future, particularly the small boat, fixed gear fleet).

#### **North Pacific Management Clarification**

Section 306(a)(3)(C) contains provisions related to State jurisdiction to manage fishing activity in the absence of a Federal fishery management plan. Removal of the August 1, 1996 date in this paragraph would close a potential loophole which could theoretically allow unrestricted fishing for salmon in EEZ areas off Alaska by vessels not registered with the State of Alaska, due to the removal of these areas from the Council's overarching salmon fishery management plan. The Council supports this change, thereby allowing regulation of fishing in these areas by the State of Alaska, as intended.

#### **General Comments**

I would like to close by providing the Committee with some summary thoughts regarding the reauthorization process. These represent some general tenets which we believe should be considered relative to any change in the MSA:

- Avoid across the board mandates which could negatively affect one region in order to address a problem in another region. Make provisions region-specific where necessary, or couch them as optional tools in the management toolbox rather than mandates.
- Legislation should allow for flexibility in achieving conservation objectives, but be specific enough to avoid lengthy, complex implementing regulations or "guidelines".
- Legislation should be in the form of intended outcomes, rather than prescriptive management or scientific parameters.
- Legislation should avoid unrealistic/expensive analytical mandates relative to implementing fishery closures or other management actions.
- Legislation should avoid constraints that limit the flexibility of Councils and NMFS to respond to changing climates and shifting ecosystems.
- Avoid unfunded mandates, and/or ensure that Councils and NMFS have the resources to respond to provisions of legislation.
- Preservation and enhancement of stock assessments and surveys should be among the highest priorities when considering any changes to the Act.

Once again, thank you for the opportunity to provide these comments to you on behalf of the North Pacific Fishery Management Council, and I look forward to our continued dialogue on these critically important issues.

Senator BEGICH. Thank you very much.  
Mr. Andrew, thank you.

**STATEMENT OF TIM ANDREW, DIRECTOR,  
NATURAL RESOURCES,  
ASSOCIATION OF VILLAGE COUNCIL PRESIDENTS**

Mr. ANDREW. Thank you, Mr. Chairman.  
Senator BEGICH. Is your microphone on there?  
There we go.  
Mr. ANDREW. Better?  
Senator BEGICH. Yes.  
Mr. ANDREW. Thank you, Mr. Chairman.

Chairman Begich, Ranking Member Rubio, and members of the Subcommittee, my name is Timothy Andrew. I currently serve as the Director of Natural Resources for the Association of Village Council Presidents based in Bethel. And I've been a subsistent and commercial fisherman on the Yukon River since I was 11 years old.

But today, I am here to provide testimony on the impacts of the prosecution of the Bering Sea Tribal Fishery right in our backdoor. And I'm also sitting here on behalf of, not only our 56 tribes but also 42 tribes of the Tanana Chiefs region and a total of almost a hundred tribes that are fishery-dependent on Chinook salmon resources. And I characterize this area as an area that we have our backs against a wall, Mr. Chairman and members of the Committee. And the reason I say that is because we have been dependent on this fishery for commercial purposes and also for our subsistence fishery. And our Chinook salmon resources have dwindled down to almost nothing on the Yukon River. And it's starting to happen on the Kuskokwin River and it's starting to happen in other various parts of Alaska, too. It's very alarming because it is the root of our culture, root of our tradition, and very much a root of our economies in Western Alaska.

And much of our subsistence fishermen have cut their harvests down to zero. And we also endure 10-day closures right in the beginning of the season. Our subsistence fishery, our commercial fisheries cannot start until much of the king salmon have passed on in order to try and meet escapement past Canada. There is no retention. There is absolutely no commercial sale of Chinook salmon; something that's been extremely important for the people in my area for many, many years.

But, you know, despite these measures, we have not been able to make our escapement goal into Canada and it's very, very alarming to us. So that's why we come to you, come before you today, Mr. Chairman, also members of the Subcommittee, so that we can possibly work toward some critical and essential changes to the Magnuson-Stevens Act. To try and make it possible for us to, for people in our villages, to effectively rebuild some of the salmon fisheries that we've seen dwindle down to nothing in the more recent years.

So, I'm going to be talking about three different areas that we would like to see changes in the Magnuson-Stevens Act. Number one is the tribal seat on the North Pacific Management Council. Number two, we would like to include the subsistence language all across the Magnuson-Stevens Act as far as the North Pacific Fishery Management Council is concerned. And number three, we would like to see further bycatch reductions.

But as far as the tribal seats issue: If you look at the composition of the North Pacific Fishery Management Council, the Advisory Panel, and the Statistical Committee, there is no Alaskan native or tribal interest in those panels. There's absolutely none. There's nobody there that is able to understand our way of life to really relate.

We would also like to see the inclusion of subsistence all throughout the MSA to further provide protections for subsistence uses for both the salmon and also for the fishery resources of the Bering Sea. And we feel that this is extremely important. The

State of Alaska definitely sees it as important; also the Federal system through rural priority.

We would like to see removal of the \$25,000 bycatch fine limit that the MSA has authorized. It is meaningless, as far as we're concerned, to the fishery fleet. It's an extremely small amount in relation to the large amount that is being made in the Bering Sea fishery.

We would also like to see the language where it reflects bycatch, minimize bycatch, where practical. That language is extremely weak and it needs to be further strengthened to make the Magnuson-Stevens Act more effective in the enforcement of the bycatch provisions.

And that concludes my testimony, Mr. Chair. And I'd be happy to answer any questions.

[The prepared statement of Mr. Andrew follows:]

PREPARED STATEMENT OF TIM ANDREW, DIRECTOR, NATURAL RESOURCES,  
ASSOCIATION OF VILLAGE COUNCIL PRESIDENTS

Good morning Chairman Begich, Ranking Member Rubio and Members of the Subcommittee. My name is Tim Andrew. I serve as Director of Natural Resources for the Association of Village Council Presidents, a regional tribal non-profit which provides critical services to the 56 federally recognized tribes of the Yukon-Kuskokwim Delta.

Marine fishery resources and habitat represent an essential part of the culture, diet and economy for Alaska's Tribes. Marine fish, shellfish and plants are a critical resource for subsistence harvests and marine habitats support a broad variety of species which are essential to subsistence. In our region, salmon in particular are a central component of the subsistence way of life and Alaska Native culture, and these fish spend a majority of their lifecycle in the marine environment. In recent years Chinook salmon have declined dramatically on both the Yukon and Kuskokwim Rivers, with year after year of Federal disaster declarations and dramatic impacts to our food supply, our economies and our culture.

While in Alaska salmon fisheries are not managed directly by the North Pacific Fishery Management Council, there are many impacts from the fisheries managed by the Council on salmon as they're caught as bycatch by the groundfish trawl fisheries, and via overall impacts to the ecosystem. The same is true for halibut and marine mammals on which our people depend for subsistence—while not managed directly by the Council there are numerous impacts from Council-managed fisheries.

Sound, science-based management of our Nation's fisheries is critical. We believe the current model under Magnuson sets a minimum for sustainable management. By no means should the current science-based approach for setting catch limits and rebuilding plans be weakened. While we do not support rollbacks to the Act, we do see changes which can be made to move forward and improve our management system. Specifically, this reauthorization should build a fisheries management structure that increases participation and recognition of tribes and subsistence fisheries, moves towards management at the ecosystem level and further reduces bycatch.

**Participation and Recognition of Tribes in the MSA**

Tribes in Alaska have a profound dependence on marine resources. Alaska's Native villages are primarily in rural parts of the state, and many are inaccessible by roads. With access only by plane and boat, food is prohibitively expensive in Alaska Native villages. Subsistence harvests are thus a critical source of food. Subsistence harvest of fish and marine resources is also a central component of Alaska Native culture, with significant cultural and spiritual importance. Small scale commercial fisheries also provide a critical—and sometimes only—source of cash income in many of these isolated villages and income from commercial fishing is often what enables people to purchase gear, gas and necessary supplies to go subsistence fishing. Tribes in the Pacific Northwest have a designated seat on the Pacific Council. Tribes in Alaska do not have a designated seat on the Council and, rather, must rely on the Governor of Alaska to appoint representatives to the NPFMC that will represent tribal and subsistence interests. In addition, while the current law requires that commercial and recreational fishing interests must be represented on the Councils, there is no such requirement for tribal subsistence users. We rec-



commend the MSA be amended to provide an additional seat on the NPFMC to be appointed directly by the tribes, paralleling the language currently included for the Pacific Council.

In addition, we recommend that the MSA be amended to include subsistence throughout. Currently the Act includes the word “subsistence” only once, in reference to the Western Pacific. Everywhere in the Act in which commercial and recreational fishing interests are specifically mentioned, subsistence should be included too.

Subsistence fisheries are also excluded from the disaster declaration language in the current Act which applies specifically to “commercial fishery failures.” We recommend that the Act also be amended to provide specifically for disaster relief for subsistence fishery failures.

### **Ecosystem-Based Management and Bycatch Reduction**

The current fisheries management system is a single-species management system. Looking at our fisheries management in an ecosystem approach is critical, particularly as we face the unknown and impending impacts of climate change. To face the challenges we face today and the upcoming changes we anticipate, we need to adopt an approach that looks at fisheries management in a broader, ecosystem context.

In terms of ecosystem effects, this round of reauthorization should continue to work towards reduction and eventual elimination of bycatch. For AVCP, bycatch of salmon and halibut are of particular concern. Management of this bycatch, designated a prohibited species which cannot be sold, is compounded by the multiple management agencies which govern these species. Directed salmon fisheries in our region are managed by the State of Alaska and U.S. Fish and Wildlife Service. Halibut fisheries are managed by the International Pacific Halibut Commission. Bycatch of these species in the groundfish fisheries, however, is managed by the NPFMC and NMFS.

Chinook salmon and halibut stocks, and the directed fishery catch limits for these fish, have been declining dramatically in recent years. At this point in time there is no directed commercial fishery for Chinook salmon on the Yukon and Kuskokwim Rivers, and subsistence is severely limited. Halibut catch limits in the Bering Sea have also been reduced drastically in recent years. While stocks and catch limits decline, there is no set link to reduce bycatch in the groundfish fisheries.

To their credit, the NPFMC is beginning the process of looking at bycatch in these fisheries, but this process is lengthy and to date changes in the cap limits are not even under consideration. Under the MSA, bycatch reduction is required only “to the extent practicable” under National Standard 9. In our experience, this serves as a limitation on the amount of bycatch reduction required, and makes this National Standard a second tier consideration to the other standards. We recommend that this reauthorization should strengthen the requirement to reduce bycatch in all fisheries.

In terms of reducing bycatch, we specifically recommend that the provision that limits bycatch fines in the North Pacific to \$25,000/vessel/year be removed (16 USC § 1862(g)). Bycatch fines should be a tool in the Council’s toolbox for mandating bycatch reduction. The current maximum of \$25,000 is extremely low in comparison to the average revenue of a vessel in the Bering Sea pollock fishery, and a fine limited to this amount is unlikely to provide a real incentive for bycatch reduction. We therefore urge that this limitation be removed.

Public and Council access to data is also a critical component of bycatch management—and fisheries management in general. Recent proposals in the House MSA discussion draft would effectively gut public access to data. Under the current law, access to data is already limited to protect trade secrets. Additional limitations would further erode the ability of the public and the Councils to monitor bycatch and fisheries performance in a public resource. In the North Pacific the Council is moving increasingly towards industry-driven incentive programs. Access to data both provides an incentive for industry participants to keep their fishing “clean” and allows the public and Council the ability to assess the efficacy of the industry programs. We strongly oppose any proposal that would make it more difficult for the public to access fisheries data. We specifically do not support the removal of section 402(b)(2)(A) that provides for the disclosure of vessel specific bycatch information in the North Pacific. As detailed above availability of this data is a foundational element of our bycatch management in the North Pacific and access for the Council and public must be maintained.

I am attaching a copy of a briefing paper from the Tanana Chiefs Conference, representing 42 federally recognized tribes, that is joined by AVCP, which provides greater detail about the MSA amendments we believe are necessary.

In closing, we see the basic tenets of the current Magnuson-Stevens Act, including science-based catch limits, eliminating overfishing, and reducing bycatch, as a good start. This reauthorization offers an opportunity to take our fisheries management to the next level. Including tribal and subsistence interests in management and in the Act is a critical component to this. Shifting management to an ecosystem approach and focusing on reducing bycatch will support our long-term goal of sustainable fisheries for the benefit of our fisheries and fishing communities.

## ATTACHMENT

## MAGNUSON-STEVENS FISHERIES CONSERVATION ACT REAUTHORIZATION

Originally enacted in 1976, and reauthorized in 1996 and 2006, the Magnuson-Stevens Fisheries Conservation Act (MSFCA) governs fisheries management in Federal waters of the United States. The statute authorizes the regional councils to manage fisheries resources which Tribal citizens and communities are hugely dependent.

The eight (8) regional councils manage a geographic region larger than the continental United States and are responsible for the health of a \$25 billion commercial fishing industry while at the same time entrusted with conservation of hundreds of species of marine fish. The pressure to avoid tough, often politically charged allocation choices encourages councils to shortchange conservation. Conservation is further relegated because of the laws failure to prevent frequent conflict of interest issues where individuals serving on the regional councils often financially benefit from fish allocations. This paired with a flawed single-species based management system which does not consider the food web dynamics, fishing gear impacts, and non-target species taken as bycatch has resulted in the overfishing of a third of the Nation's fish stocks.

In Alaska, the failure to separate conservation and allocation and the use of single-species management has resulted in significant negative impacts to Alaska Natives. Alaska Native hunting and fishing practices are profoundly connected to long standing cultural and spiritual beliefs and rural economies. The current management of the North Pacific Fishery Management Council fails to consider the needs of the Alaska Native people and the structure of the Council prevents tribes from participating in decisionmaking. The council continues to allow the one billion dollar a year Pollock fishery to waste over 60,000 Chinook salmon as bycatch yet salmon runs in western Alaska have experienced failures since 2000. The salmon, had they returned to their natal rivers, could have fulfilled vital needs for the Alaska Native people and other rural residents throughout Alaska.

Without appropriate reform of the Magnuson-Stevens Fisheries Conservation Act, *Alaska Native well-being* will continue to be at risk.

- The subsistence fishermen who bear the burden of the Chinook Salmon decline are quite evidently not the cause, making allocation of the Chinook Salmon catch a *grave injustice* and *moral dilemma* within our state and nation.

The 37 federally recognized Tribes of Interior Alaska request the following changes:

- (1) Separate conservation and allocation decisions, leaving allocation decisions to the councils, but giving responsibility of conservation decisions to a separate governmental entity subject to the standard rules of good governance and composed of an interagency scientific panel.
- (2) Utilize ecosystem based management rather than species specific management.
- (3) Tribes and/or subsistence users be represented on the North Pacific Fishery Management Council.
- (4) The purpose of the Act include promotion of Alaska Native subsistence. The policy of the Act include a mandate to be responsive to the needs of federally recognized tribes.
- (5) The national standards for fishery conservation and management take into account the importance of fishery resources of subsistence based communities.
- (6) Conservation and management measures shall *require* bycatch reduction under specific circumstances.
- (7) The Secretary of Commerce shall consider experience in tribal subsistence harvests as qualification to serve on a management council.

- (8) Remove the limit of \$25,000 per year on bycatch fines in the North Pacific and direct funds to the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative and the Yukon and Kuskokwim Inter-tribal Fish Commissions.
- (9) Include relief for subsistence disasters and allow tribes to request relief.
- (10) Require management councils to consult and consider input from tribal governments.
- (11) Require management councils be subject to conflict of interests standards.

PROPOSED LANGUAGE TO PROMOTE ALASKA NATIVE TRIBAL INTERESTS

**16 USC § 1801(b)(3) Purposes**

Insert language:

To promote domestic commercial, *Alaska Native subsistence*, and recreational fishing under sound conservation and management principles, including the promotion of catch and release programs in recreational fishing.

**16 USC § 1801(c)(3) Policy**

Insert language:

To assure that the national fishery conservation and management program utilizes, and is based upon, the best scientific information available; involves, and is responsive to the needs of, interested and affected States, *tribes, and respective* citizens;

**16 USC § 1851(3) National Standards for Fishery Conservation and Management**

Current language:

To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

Consideration:

Single-species stock assessment models oversimplify population dynamics of wild, free-ranging fish and they tell us nothing about the larger uncertainties associated with: climate variability, food web dynamics in the ecosystem, the impacts of fishing gear on the habitats of fish and other wildlife, the spatial and temporal effects of concentrated fishing in localized areas and the effects on hundreds of poorly understood non-target species taken as bycatch.<sup>1</sup>

Proposed language:

To the extent practicable, fishery ecosystem plans should be adopted for each major ecosystem, incorporating explicit principles, policies, guidelines and regulations for ecosystem based management into fishery management plans.

**16 USC § 1851(8) National Standards for Fishery Conservation and Management**

Insert language:

Take into account the importance of fishery resources to fishing communities *and subsistence communities* by utilizing economic and social data that meet the requirements of paragraph 2.

**16 USC § 1851(9) National Standards for Fishery Conservation and Management**

Delete language:

“to the extent practicable”

**16 USC § 1852(a)(G) Regional Fishery Management Council**

Proposed language:

<sup>1</sup>Stump, K., J. Hocevar, B. Baumann, and S. Marz. 2006. Rethinking sustainability: a new paradigm for fisheries management. Alaska Oceans Program, Center for Biological Diversity, Greenpeace, Trustees for Alaska. Alaska Oceans Program, Anchorage. Available: <http://www.greenpeace.org/usa/assets/binaries/rethinking-sustainability> (June 2008).

The North Pacific Fishery Management Council shall consist of the States of Alaska, Washington, and Oregon and shall have authority over the fisheries in the Arctic Ocean, Bering Sea, and Pacific Ocean seaward of Alaska. The North Pacific Council shall have ~~11~~ 12 voting members, including 7 appointed by the Secretary in accordance with subsection (b)(2) (5 of whom shall be appointed from the State of Alaska and 2 of whom shall be appointed from the State of Washington *and including one nominated by an Alaska Native tribe in accordance with subsection (b)(7) of this section*).

**16 USC § 1852(b) Voting Members of the Management Councils**

Insert language:

(2)(A) The members of each Council required to be appointed by the Secretary must be individuals who, by reason of their occupational or other experience, scientific expertise, or training, are knowledgeable regarding the conservation and management, ~~or the commercial or recreational~~ *or tribal harvest for subsistence uses*, of the fishery resources of the geographical area concerned. Within nine months after the date of enactment of the Fishery Conservation Amendments of 1990, the Secretary shall, by regulation, prescribe criteria for determining whether an individual satisfies the requirements of this subparagraph.

(B) The Secretary, in making appointments under this section, shall, to the extent practicable, ensure a fair and balanced apportionment, on a rotating or other basis, of the active participants (or their representatives) in the commercial ~~and~~, recreational *and tribal subsistence* fisheries under the jurisdiction of the Council . . .

(C) The Secretary shall appoint the members of each Council from a list of individuals submitted by the Governor of each applicable constituent State. A Governor may not submit the names of individuals to the Secretary for appointment unless the Governor has determined that each such individual is qualified under the requirements of subparagraph (A) and unless the Governor has, to the extent practicable, first consulted with representatives of the commercial and recreational *and tribal subsistence* fishing interests of the State regarding those individuals. Each such list shall include the names and pertinent biological data of not less than three individuals for each applicable vacancy and shall be accompanied by a statement by the Governor explaining how each such individual meets the requirements of subparagraph (A). The Secretary shall review each list submitted by a Governor to ascertain if the individuals on the list are qualified for the vacancy on the basis of such requirements. If the Secretary determines that any individual is not qualified, the Secretary shall notify the appropriate Governor of that determination. The Governor shall then submit a revised list or resubmit the original list with an additional explanation of the qualifications of the individual in question. An individual is not eligible for appointment by the Secretary until that individual complies with the applicable financial disclosure requirements under subsection (k).

7(A) The Secretary shall appoint to the North Pacific Council one representative of Alaska Native tribes from a list submitted by the tribal governments, including inter-tribal fish commissions and regional tribal organizations with delegated authority from tribal governments to submit nominees. The Secretary, in consultation with the Secretary of Interior and tribal governments, shall establish by regulation the procedure for submitting a list under this paragraph.

(i) the qualifications of individuals on the list referred to in subparagraph (A),

(ii) the degree to which the tribes in a region are dependent on anadromous fish and marine resource in the area managed by the Council and the impact of Council actions on these resources, and

(iii) the extent of support expressed for nominee by tribes in Alaska and the number of tribes joining in the nomination

(C) A vacancy occurring prior to the expiration of any term shall be filled in the same manner as set out in subparagraphs (A) and (B), except that the Secretary may use the list from which the vacating representative was chosen.

(D) The tribal representative appointed under subparagraph (A) may designate as an alternate, during the period of the representative's term, an individual knowledgeable concerning tribal rights and fishing practices, tribal law, and the fishery resources of the geographical area concerned.

**16 USC § 1862(g) Bycatch Reduction Incentives**

Proposed language:

(1) Notwithstanding section 304(d), the North Pacific Council may submit, and the Secretary may approve, consistent with the provisions of this Act, a system of fines in a fishery to provide incentives to reduce bycatch and bycatch rates; ~~except that such fines shall not exceed \$25,000 per vessel per season.~~ Any fines collected shall be deposited in the North Pacific Fishery Observer Fund, and ~~may will~~ be made available by the Secretary to offset costs related to the reduction of bycatch in the fishery from which such fines were derived, including conservation and management measures and research, and to the State of Alaska to offset costs incurred by the State in the fishery from which such penalties were derived or in fisheries in which the State is directly involved in management or enforcement and which are directly affected by the fishery from which such penalties were derived *and to the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative and the Yukon and Kuskokwim Inter-tribal Fish Commissions and other inter-tribal groups dedicated to sustainable fisheries.*

**16 USC § 1861(a) Fisheries Disaster Relief**

Proposed language:

(1) At the discretion of the Secretary or at the request of the Governor of an affected State *or the tribal council of an affected Tribe* or a fishing community, the Secretary shall determine whether there is a commercial *or subsistence* fishery failure due to a fishery resource disaster as a result of—

(A) natural causes;

(B) man-made causes beyond the control of fishery managers to mitigate through conservation and management measures, including regulatory restrictions (including those imposed as a result of judicial action) imposed to protect human health or the marine environment; or

(C) undetermined causes.

(2) Upon the determination under paragraph (1) that there is a commercial *or subsistence* fishery failure, the Secretary is authorized to make sums available to be used by the affected State, *Tribe*, fishing community, or by the Secretary in cooperation with the affected State or fishing community for assessing the economic and social effects of the commercial *or subsistence* fishery failure, or any activity that the Secretary determines is appropriate to restore the fishery or prevent a similar failure in the future and to assist a fishing community affected by such failure. Before making funds available for an activity authorized under this section, the Secretary shall make a determination that such activity will not expand the size or scope of the commercial *or subsistence* fishery failure in that fishery or into other fisheries or other geographic regions.

**16 USC § 1864 Regional Coastal Disaster Assistance, Transition & Recovery Program**

(a) IN GENERAL.—When there is a catastrophic regional fishery disaster the Secretary may, upon the request of, and in consultation with, the Governors of affected States *or Tribes*, establish a regional economic transition program to provide immediate disaster relief assistance to the *subsistence fishermen*, fishermen, charter fishing operators, United States fish processors, and owners of related fishery infrastructure affected by the disaster . . .

(d) CATASTROPHIC REGIONAL FISHERY DISASTER DEFINED.—In this section the term ‘catastrophic regional fishery disaster’ means a natural disaster, including a hurricane or tsunami, or a regulatory closure (including regulatory closures resulting from judicial action) to protect human health or the marine environment, that—

(1) results in economic losses to coastal or fishing communities;

(2) affects more than 1 State or a major fishery managed by a Council or interstate fishery commission; and

(3) is determined by the Secretary to be a commercial *or subsistence* fishery failure under section 312(a) of this Act or a fishery resource disaster or section 308(d) of the Interjurisdictional Fisheries Act of 1986 (16 U.S.C. 4107(d)). *16 U.S.C. 1864 note 143*

Senator BEGICH. Well, thank you all very much. Thank you for your testimony.

I'll start off, with just a few minutes, and then I'll shift right over to Senator Cantwell and she'll have some questions. Then we'll probably never get to all our questions, but we will also submit questions for the record that we'll want you to answer.

If I can just first start with Dr.—if I can ask you—Balsiger a question regarding, first this very Alaskan issue, Steller sea lion issue. And I know we thought there was going to be a publication in the EIS, but now it has been asked for a delay in the final publication.

Can you help me understand the timetable? What's going to happen here? You might not be able to tell me what's going to happen with EIS but, I mean, when will we see this in final?

Dr. BALSIGER. Thank you, Mr. Chairman.

So we have, working through the court system, arranged for an extension for the date by which the EIS is due. Originally, it was on March 2. In order to work more hand-in-hand with the council, as we finish that up, we arranged to have that deadline set for August 15. However, we don't think we need all of that time. I actually spent time with our NOAA people downtown yesterday working on this timeline. We're putting together a new timeline which, as soon as they have that, I'm happy to share that with you but it will be before August 15. If there is no jeopardy or adverse modification found in our simultaneously developing biological opinion, we will be in shape to have new rules in place by January 1, 2015 and—

Senator BEGICH. Assuming that timelines are met. So on the issue then, I appreciate that, if you could get me then, as soon as you think you have the more refined timeline, if you could submit it to the Committee I'd greatly appreciate that.

Dr. BALSIGER. We'll do that.

Senator BEGICH. I appreciate it.

Let me ask you another, and this is more on a broader issue, kind of cooperative management. I know, for example, the Pollock, the Bering Sea Pollock fishermen, constantly and voluntarily kind of share data back and forth so they make sure they know where the hotspots are but also the bycatch issues. Trying to eliminate or reduce bycatch issues.

One, do you think these cooperative strategies are positive? I think that should be an easy answer but, and at least to my second question of how is the agency going to embrace these more aggressively in not only Alaska but the Northwest region, these cooperative opportunities for management? So we kind of go to Mr. Andrew's question, which was a concern, which is on bycatch is—this is one piece of the puzzle.

Give me your thoughts on that. First, do you think the cooperative management—I give a lot of credit to the Pollock fishermen that they're doing this on a voluntary basis, but is there something we can do more aggressively from an agency perspective?

Dr. BALSIGER. Yes.

These are great programs and we have a quite a long history of working cooperatively with the industry. And, as you point out, much of this industry cooperation has been at their own expense;

their own dollars. We do have some funds for cooperative research. We've had good experience of bycatch with lots of kind of experience in developing different trawls.

Right now, our main emphasis, as you probably know, is on furthering electronic monitoring which is something that we're looking forward to.

Senator BEGICH. You are very good by getting to that answer before the question was asked.

[Laughter.]

Senator BEGICH. So you were very good. So answer that; go.

[Laughter.]

Dr. BALSIGER. So we've actually struggled a little with electronic monitoring—

Senator BEGICH. Yes.

Dr. BALSIGER.—and coming together with common objectives by the fleet, and by the agency, and by the council. But last week, maybe it was 2 weeks ago, February 17 and 18, we had an industry work group in Juneau, where I believe that we have identified cooperative research to be done in 2014, which we will have Federal funds to support and an approach to setting up the most possible useful cooperative research in 2015 with an eye to furthering electronic monitoring where we can as soon as we can. We're looking forward to that.

Senator BEGICH. This is great.

I will put an underline under that. And as you know, I've been very active with robust discussions with NOAA and other agencies to get on this issue of electronic monitoring. We think it's an opportunity. It's sitting in front of us. Canada uses it; other folks have been testing it. So I'm glad to hear this. This will be something we'll want to follow up with. Also, within the Magnuson-Stevens Act, we'll probably be addressing this issue to some extent. So I really appreciate hearing about that.

Let me go quickly to the next two real quick.

Mr. Oliver, the Council has had about a 14, 15 percent reduction over time over your budget which, of course as complicated as fishery issues are, give me a sense of how that has impacted you in the sense of being able to do your work and, now, some of the expanded roles and responsibilities because it leads to my thought of, as we move forward on MSA reauthorization, we have to also be aware that there is funding needs that go with the Council on other efforts to make sure what we ask you to do by law there's funding to go along with it.

Tell me what the impacts have been for you so I understand that.

Mr. OLIVER. Thank you, Mr. Chairman.

I recognize that funding and budgetary considerations are dealt with independently outside of Magnuson, but I appreciate your comments that things that you do within the Magnuson Act certainly affect our resource needs.

Senator BEGICH. And just so you know, because I'm taking advantage of not only being Chair but on Appropriations Committee in this moment here. So—

[Laughter.]

Mr. OLIVER. Yes, sir. I appreciate it.

And the councils did, collectively, the eight regional councils took, I believe, an 11 percent reduction in our budget last year relative to 2012 levels which have been static for a number of years. And it looks like an additional 4 percent reduction that we're going to take this year which is a disproportionately large reduction relative to reductions in the overall NOAA fisheries, National Marine Fisheries budget, for example. So the councils aren't really comfortable with that.

As we look to the future and, even with existing management requirements and management initiatives at the Council level, those type of reductions are quite significant. And while we're able to withstand them in the current fiscal year, having that baseline re-established at that much of a significantly lower level really gives us some discomfort as we go into the future with potentially new mandates, as well as existing mandates.

We, I know in the case of the North Pacific, we have positions that have remained unfilled last year and this year that we desperately need; the analytical and staff resources to keep up with the initiatives of the Council and any future requirements. So that overall budget situation for the councils is a bit troubling for us right now.

Senator BEGICH. I appreciate it.

I have further, but I'm going to hold on this one. I want to ask Mr. Andrew a real quick question. But one issue I want to come back to is the flexibility, because we've heard it in several of our hearings, this issue of flexibility, and I've noted your comments of how to narrow focus it. But let me just hold, if I can, for a second.

Mr. Andrew, real quick on—you had mentioned the tribal representative or subsistence representative. And let me, first, kind of a two-part here.

One, do you see tribal and subsistence different in the representation? And two, do you see this, in the mind of some of the discussions you've all had, as a designated seat or recognizing that when there are nominations, this is a criteria that should be considered?

Those are kind of the two questions, if you wouldn't mind.

Mr. ANDREW. Thank you, Mr. Chairman.

We are looking for a tribal seat and very much a tribal seat that understands our subsistence way of life. You know we have been stewards of the resources of the Bering Sea and our close proximity of resources for, you know, a good ten, 15,000 years, long before the creation of the United States of America, and also the State of Alaska.

And we serve as good stewards. We think we are good stewards. We ethically and morally have harvested and spiritually harvested our resources for a number of years both in the Bering Sea and also within our river systems. We are also a federally recognized tribe; there are 229 of us. And, much of the Americanized fisheries occur right in our back door in the Bering Sea and also the Gulf of Alaska. We also have a special relationship with the United States of America that is definitely outlined in the United States Constitution under the Commerce Clause and also our government-to-government relationship that we maintain.

We are also extremely dependent on the resource. We believe it's a human rights issue, that our resources be managed with con-



sultation with people that utilize the resource for food. So that tribal subsistence seat, it has to be designated a tribal seat.

Senator BEGICH. I understand.

Mr. ANDREW. If you take a look at the historical composition of the council, and the Advisory Panel, and the Scientific Statistic—excuse me—

Senator BEGICH. Statistical.

Mr. ANDREW.—Statistical Committee of the North Pacific Fishery Management Council, there is no tribal representation, tribal participation, in either one of the three forums. Yet the Bering Sea and the Gulf of Alaska, has an incredible impact on the very lives of people that depend on the resources.

Senator BEGICH. Very good. Thank you very much. I appreciate it.

Let me ask Senator Cantwell for her questions and if she needs additional time, feel free.

Senator CANTWELL. Well, thank you, Mr. Chairman. And thank you for that. I think you and I, as you said, could probably be here all day with a whole variety of questions because this is important to both of our states and the interconnectedness of it all is practically obvious to us every day.

But one thing I wanted to bring up and ask you, Dr. Balsiger, is this issue of climate change and ocean acidification. Because, we are seeing unbelievable impacts on this with our shellfish industry right now. Our oceans take up to 25 percent of our CO<sub>2</sub> and this has changed the acidity by 30 percent over the last 250 years. So our oceans are on track to be 150 percent more acidic by the end of this century. So we have a couple of posters here that are, one, something that we had to work with the shellfish industry which actually shows the signs of impaired shellfish growth for our oyster shells and crab shells are made of the same material.

So we have obviously implemented this new buoy system and everything to measure this so that we can get the proper time for seeding. But another chart—oh, that's a nice stand there. Thank you.

[Laughter.]

Senator CANTWELL. Our second graph is the NOAA Ocean Fishery Science Center which shows the potential impact on the ocean acidification on Alaska Bering Sea red king crab catch. So you can see that basically it is saying that we could have a significant reduction in crab available because of the same attack on the shells of this particular species.

So my question is, you know, does NOAA have what it needs to understand the impacts to the seafood industry of ocean acidification? What data do we have now on ocean acidification and how it can impact fish stocks? What do we need to get to make sure that we are addressing this issue?

Dr. BALSIGER. Thank you very much for that question. And you have our data. I can see the charts. I'm familiar with those.

At this point, fortunately, it's largely in the ocean. It's largely a theoretical possibility, but if you look at the declining trend and our projections of what happens to all of the carbon that's already in the atmosphere over the next few years, I think it is a cause for concern. We need to study this. We do have some programs in Ko-

diak looking at this. And of course, we also have a part of the Alaska Fishery Science Centers in Newport, Oregon and I believe you have some material from there.

So we're watching this closely. We'll be happy to keep you informed of where that goes.

Senator CANTWELL. Well, let me ask Mr. Oliver. How many vessels and jobs rely on the red king crab industry?

Mr. OLIVER. Let's see. The red king crab industry is something over—I don't know the exact number, Senator, off the top of my head, but over a hundred vessels. And, you know, literally, probably into the thousands of jobs if you look at not just the vessels themselves but the secondary processing and associated industries, you're talking thousands of jobs, of course, in both Alaska and the Pacific Northwest.

Senator CANTWELL. Well, Mr. Chairman, on this issue I think we definitely need a study to understand these impacts. We have obviously established a buoy system, an information system as it related to the shellfish industry to give us important data that was critical. But I think these are valuable jobs in our region and, you know, these risks are high. If this chart, I know, is any indication of the drop-off that could potentially happen. So I definitely want to make sure that NOAA and the IOOS buoy program that we've developed might be expanded to look at this and to make sure that crab fisheries are, you know, that we're assessing these impacts.

Second, I wanted to bring up about stock assessments. And you know, I keep hearing from fishermen that the Magnuson-Stevens Act is working and that data supports the current framework. But when we don't do the stock assessments, or we don't do enough of them, or we shift them around as people are purposing, I just wonder, can we get from NOAA an actual cost of what it would take to do the fish stock assessments so that we're not shifting resources between regions of the country?

Dr. BALSIGER. Thank you for the question.

I don't have that cost of an annual stock assessment in every region at my fingertips. We certainly can get that to you. We have developed and have been working on a stock prioritization scheme to discover where in the days of competing resources those assessments be done. We shared that with the Council Coordinating Committee just last week here in this town. We're taking comments on that. We'd be pleased to provide that document to you as well.

Thank you for the question.

Senator CANTWELL. But doesn't stock assessment equal jobs?

So to me, when I think about how we're managing these fisheries, if you don't do the stock assessments then you can't come up with a management plan. And if you don't come up with a management plan then people can't, you know, harvest this resource. So it all begins with stock assessment.

And so, I guess what I'm trying to get at is we don't want to see a very limited pool of stock assessment dollars or tradeoffs between region. We want what is the amount of money that is needed for stock assessment, and what level can we fund, and what are the economic impacts of that.

Senator BEGICH. Yes.

Can I add one piece to this before you answer that because I think this question is, the hearings we've had here in the Northeast, for example on the Northeast fisheries, you know, their stock assessments are spaced much further apart, and how you can even do the correct determination of what those limits will be based on a three-year stock assessment makes no sense.

But so, can you also add to this request kind of a chart that shows for the regions and the species how often you're doing stock assessments for the last, and I'll just choose a number here and you can modify this, but I'll say for the last 5 years, what has happened so we get a good picture.

And then, I think what Senator Cantwell has asked for is a very good question. So if we see the history and then you whip on top of that here's what it would cost to get to what scientists would say is the right kind of assessments we need, what does that mean. But this history, I think, would be also important.

I didn't mean to interrupt your question; I just wanted to add to it before he answered. But, please, back to you.

Senator CANTWELL. Thank you.

Dr. BALSIGER. Yes, thank you. We can provide that.

And although not exactly to the question in the North Pacific Council, Alaska Fisheries Science Center has looked at the cost in terms of reduced harvest because of uncertainty when you don't do annual stock assessments. If you do stock assessments every 3 years, you have to be more careful.

And so, because of the long history of annual stock assessments and production by species in the Bering Sea and Gulf of Alaska, we can show approximately what it would cost if you have to deal with larger levels of uncertainty. So, that may be of interest as well.

Senator CANTWELL. Do you know what stock assessment is in general? Like a basic cost.

Dr. BALSIGER. Well the stock assessment, of course, is many pieces. Starting, most typically, with a survey in the ocean, a survey vessel, either one of NOAA vessels or a chartered commercial fishing vessel. And so that starts for a particular stock at a couple hundred thousand dollars, but by the time you do the modeling and all of the people that are involved in those, that's a more involved question. I'd be happy to get back with better estimates of those.

It's fairly easy to say what the survey charter vessel actually costs, but by the time you include the rest of the assessment, probably even including the time that the SSC looks at it to make sure it's correct in peer review, it's a more complicated question and I'd be pleased to find more details for that.

Senator CANTWELL. Well, I'm just looking at my own math in our region, but those numbers I gave you on this maritime analysis, and the chairman actually came to the Pacific Northwest, we had a hearing on some of these issues or, I should say, a listening session on some of these issues. But, you know, we're saying that, you know, the fishing impact is probably somewhere between, you know \$15 billion to \$20 billion. So if you think on that and the tens of thousands of jobs that are related to this sector, coming up and telling our colleagues, "Hey, we need to make these stock assessment investments so that this economic activity can exist in our

country,” seems to be a pretty basic formula that most of our colleagues would get and I think would be supported by the industries.

So I don’t know of a lot of times when we can say, “You know, if we fund these things here’s the economic activity that’s going to happen.” But we know this: It won’t happen without the stock assessment because we obviously won’t be giving the green light to the level of catch and everything else.

So anyway, if you could get us those numbers, I think that would be very helpful for us in this larger question of how to move forward with good science and good fisheries. And to say nothing, I know there are a lot of people in the audience here today of, you know, this vessel upgrade issue, Mr. Chairman, because as we get more efficient, you know, there are all sorts of efficiencies that are going to be in place. So all of this goes hand-in-hand into more efficiently and effectively catching the resource, and more efficiencies in the system but got to have the stock assessment to go along.

So I’ll give it back to you, Mr. Chairman.

Senator BEGICH. All righty. Thank you very much.

Let me do this. I do have questions that I’ll submit for the record. I do want to follow up, Mr. Oliver. Chris, with you, in regards to how you define—because I know this flexibility issue is becoming an issue, especially in the Northeast region. And I’d be interested in your comments. You don’t have to do it now. We’ll send you a question on this and I’d be very anxious to get your response on that.

To this first panel, thank you very much. Thank you for being here. Thank you for the very good testimony. If we can now swap out to the next panel and we appreciate all your time.

The next panel, as they’re coming up, let me just read who they are and their titles and then we’ll go right into it. Joe Plesha is the Chief Legal Officer for Trident Seafoods; Lori Swanson, Executive Director of the Groundfish Forum; Linda Behnken, Executive Director, Alaska Longliner Fishermen Association; Ricky Gease, Executive Director, Kenai River Sportsmen Association; Michael LeVine, Pacific Senior Counsel, Oceana; and Julianne Curry, Executive Director of United Fishermen of Alaska.

For all of you that are coming to the table, thank you very much for your attendance. Thank you for traveling. As we would say, anybody coming from the West Coast and Alaska travels a great distance to be here. So we appreciate your time and your willingness.

There’s good and bad news. The good news is we don’t have votes interrupting this—which usually happens. The bad news is we’re not voting yet. So that is coming later, I hope.

And what I’ll do is the same thing I did last time. I’ll just kind of move down the line here. And as they get your water and everything, we’ll just give a moment, we again thank you.

As the Ranking Member said earlier, we’ve had pretty extensive hearings and listening sessions because we do want to get input, but we are moving forward on preparing a draft and we’re anxious to move forward on the reauthorization.

The staff, I think they're getting pretty close to getting all the microphones. You might—everyone will have one. Is that what I see there, or share it on the backend?

Julianne, are you going to be sharing one, I think?

Oh, maybe not. Look at that.

Mr. LEVINE. We can share. We're good.

Senator BEGICH. No, look at that.

We are efficient here. Thank you, to the staff.

Joe, we're going to start with you, if that's okay. And again, we appreciate you being here and thank you for representing the company. We know it's both, especially in the Seattle, Washington State region, a pretty important part of the economy there and, of course, for Alaska, pretty important. So we appreciate you being here.

**STATEMENT OF JOSEPH T. PLESHA, CHIEF LEGAL AND REGULATORY OFFICER, TRIDENT SEAFOODS CORPORATION**

Mr. PLESHA. Thank you, Mr. Chairman.

I also appreciate you holding this hearing and inviting us to participate.

I'm Joe Plesha, I work for Trident Seafoods. Trident was founded in 1973 by a gentleman named Chuck Bundrant and was a leader in developing the groundfish fisheries off of the newly created 200-mile zone.

Currently, the company operates ten shore-based processing plants in Alaska. We have a fleet of catcher vessels that fish groundfish. We also have three Pollock catcher processor vessels and two floating processing ships. I should add, in addition, we have four value-added processing plants in Washington State. We currently employ over 6,000 people during peak production in Alaska and exactly 2,220 people in jobs in Washington State. Trident markets and sells seafood from Alaska domestically, of course, and in over 45 foreign countries.

I want to start by saying the Magnuson-Stevens Act has been incredibly successful in providing the framework to sustainably manage the fishery resources off Alaska and promote development of the U.S. industry. The cornerstone of this success is the regional council system and, specifically, the North Pacific Fishery and Management Council.

I want to applaud Chris Oliver and his staff and Dr. Balsiger who serves on the council. They've always been incredibly open to industry participants who want to actively affect fishery policy.

So the theme of my testimony today is that any changes to the law should focus on giving the councils the tools they need to accomplish the purposes of the legislation. And there's one issue I want to specifically mention. There is a question whether the Magnuson-Stevens Act allows for the development of harvester/processor cooperatives in rationalized fisheries. And these harvester/processor cooperatives were first used when Congress passed the American Fisheries Act in 1998. They proved to be very effective in protecting the interest of both harvesters and Alaska shore-based processors in the newly rationalized Bering Sea Pollock fishery.

Then, in 2003, Congress passed a one paragraph provision directing the Council to rationalize the relatively small Gulf of Alaska rockfish fishery. And it didn't indicate in any way that that should be rationalized; it just said that it should be done in a way that protected both harvesters and processors. The council chose to use these harvester/processor cooperatives, but the pilot rockfish program was a pilot program and it sunset in 2012. So the Council was tasked with renewing the program and, in doing that, they analyzed simply extending the existing harvester/processor cooperatives structure. But as the process was being analyzed, they received a legal opinion from NOAA General Council that the Magnuson Act did not authorize that harvester/processor cooperative to be used.

NOAA seemed to be ignoring the fact that the pilot rockfish program was developed under the Magnuson Act to begin with and the 2006 amendments to the Magnuson-Stevens Act specifically required that when the councils developed any rationalized fishery, they look at employment in both harvesting and processing sectors and investments and in dependence upon the fishery.

NOAA's opinion, regarding this rockfish plan, spawns from an earlier 1978 NOAA General Council opinion. They claim that the law did not allow for the Secretary of Commerce to deny foreign processing ships the right to operate in U.S. waters simply because domestic processors had the capacity to utilize those fish. And their rationale was that the Act, at the time, did not authorize the secretary to regulate shore-based processing.

Congress quickly provided clarification saying that the United States processing industry had preference to U.S. harvested fish. And during passage of that amendment, the Chairman of the Merchant Marine and Fisheries Committee spoke on the House floor and said that it was the Committee's understanding that fishing in the Act does include processing and the Act was intended for the benefit of the entire industry, not just one sector.

Nevertheless, NOAA has stood firm on this view: That the harvester/processor cooperatives are not authorized under the Act because it does not provide the authority to regulate shore-based processing. This issue actually is important, because the North Pacific Fishery and Management Council has begun considering rationalizing the trawl, Pollock and Pacific cod fisheries in the Gulf of Alaska. These are extremely large, very valuable, fisheries. And currently, the council's option for rationalizing these fisheries includes harvester/processor cooperatives.

We hope NOAA will reconsider its position on this issue but, if it does not, we would ask that Congress again clarify that shore-based processing is part of the fishery and the North Pacific Council has the authority to develop these type of programs.

Thank you very much.

[The prepared statement of Mr. Plesha follows:]

PREPARED STATEMENT OF JOSEPH T. PLESHA, CHIEF LEGAL AND REGULATORY OFFICER, TRIDENT SEAFOODS CORPORATION

Thank you Mr. Chairman, members of the Committee, for the opportunity to testify on the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). I am testifying on behalf of Trident Seafoods Corporation, a seafood harvesting, processing and marketing company with oper-

ations throughout Alaska, and in the states of Washington, Oregon, Minnesota and soon Georgia.

When the so called “200-mile bill” was first enacted in 1976, Congress was concerned about foreign fishing fleets operating without restriction off our coasts, depleting fishery resources, preventing development of the American seafood industry and harming traditional inshore fisheries because of the unregulated bycatch of species like salmon, crab and halibut. The Magnuson-Stevens Act has been remarkably successful in addressing the concerns raised by Congress since its passage.

One of the innovative provisions of the Magnuson-Stevens Act is the eight regional fishery management councils which recommend fishery management measures to the Secretary of Commerce. The regional council system allows stakeholders, along with State and Federal fishery managers, and non-governmental council members who are knowledgeable about the fisheries, to actively participate in a highly public process which shapes national fishery policy. The regional council system has proven effective in promoting the development of management measures tailored to the unique characteristics of vastly diverse fisheries across the United States.

The theme of my testimony is that the Magnuson-Stevens Act is working well, and any changes to the law should focus on giving regional councils the tools necessary to better accomplish the purposes of the legislation.

#### **Rationalization Programs With Harvester-Processor Cooperatives**

In an effort to provide greater incentives to achieve bycatch avoidance for trawl vessels operating in the Gulf of Alaska, the North Pacific Fishery Management Council has begun consideration of a rationalization program for the pollock and Pacific cod fisheries. The rationalization options being analyzed by the Council<sup>1</sup> include harvester-processor cooperatives similar in many respects to the extremely successful American Fisheries Act, which rationalized the Bering Sea pollock fishery. Unfortunately, it is not certain that rationalization programs with harvester-processor cooperatives are authorized under the Magnuson-Stevens Act because of past NOAA legal opinions. Understanding why this issue is important requires an explanation of the impacts of rationalization on the highly industrial fisheries found in Alaska.

Rationalized fisheries out perform open-access managed fisheries in every relevant criterion by which performance can be measured. These include: conservation of the resource, efficient bycatch avoidance, safety at sea, gross value of products produced from the resource, and reducing the cost of harvesting and processing the resource.

The benefits attributed to rationalized fisheries, however, occur regardless of who receives allocations of the privilege to utilize the fish.<sup>2</sup> From the standpoint of efficient utilization of the resource, it is unimportant who receives allocations of quota. No matter whether initial allocations are granted exclusively to the owners of harvesting vessels, the owners of processing plants, fishermen (*i.e.*, “crew”), processor workers, or taxi cab drivers in Anchorage, Alaska, the rationalized fisheries will eventually come to be utilized by the most efficient industry participants.

As an example, the pollock Community Development Quota (CDQ) program allocates ten percent of the Bering Sea pollock TAC to villages in Western Alaska. Because the fishery was rationalized—albeit into the hands of entities that were complete outsiders to the fishery at the inception of the program—the harvesting and processing of CDQ pollock became as efficient as if the a pollock company itself was allocated the quota.

Given that the resource will be utilized efficiently regardless of who is allocated quota in a rationalized fishery, at first glance there may appear to be good reasons to auction the privilege to use fishery resources. After all, fishery resources managed under the Magnuson-Stevens Act belong to the government<sup>3</sup> and the Federal treasury can certainly use the revenue.

Looked at another way, let’s say a large un-exploited stock of cod were suddenly discovered off a remote U.S.-owned island in the Pacific ocean and fishery managers wanted to rationalize it prior to the resource being exploited. The Federal Government would likely auction the privileges to utilize this undeveloped resource rather than allocating them to processing plant owners or fishing vessel owners based in Alaska, Washington State or Oregon.

<sup>1</sup><http://www.npfmc.org/wp-content/PDFdocuments/bycatch/GOAtrawlDesignMotion1013.pdf>.

<sup>2</sup>Coase, Ronald, *The Problem of Social Cost*, Journal of Law and Economics, 3 (Oct. 1960) 1–44.

<sup>3</sup>The United States claims sovereign rights over all fish within the United States Exclusive Economic Zone. 16 U.S.C. § 1853a.

Fishery managers, unfortunately, seldom have this opportunity. They typically wait until a fishery is overcapitalized through the uncontrolled entry process inherent in an open access fishery before attempting to rationalize the fishery. The fact that we wait until a fishery is overcapitalized complicates the initial allocation process of rationalization.

In a fully capitalized, open-access fishery where the harvest is limited by a Total Allowable Catch that the participants race to exploit, the value of investments in fishing vessels and processing plants will be lost as a result of rationalization. This lost investment value reappears in the value of the quota to utilize the resource. Wealth is unavoidably transferred from the fixed capital of processing plants and fishing vessels to the holders of quota. When such fisheries are rationalized, owners of fishing vessels and processing plants can suffer enormous financial losses. This is especially true in the capital-intensive fisheries of Alaska, where the plants and boats are both durable and have few, if any, alternative uses.

The mechanism at work that causes owners of fishing and processing capacity to lose the value of their capital investments is that, by definition, the overcapitalized fishery has much more capital, and hence daily harvesting and processing capacity, than is necessary to prosecute the fishery once it has been rationalized. A quota holder would not need to own a boat or a processing plant in order to participate in a fishery. When a quota holder decides to participate in the fishery, he or she could simply conduct a reverse auction<sup>4</sup> among fishing vessel owners. The vessel owners would bid down to the point where the winning boat, now desperate for quota in order to operate, just covered its variable costs. The quota holders would then proceed to secure processing services with the same result. The winning bid for processing services would cover only the variable costs<sup>5</sup> of production.

Why would any rational businessman invest tens or hundreds of millions of dollars into an industry and later allow others to use that investment for free? When an overcapitalized, open-access fishery is rationalized, instead of the fishery lasting, for example, one month in an open access race, under rationalization it may be far more efficiently utilized over a six month period. This means there is six times more existing harvesting and processing capacity than necessary when the fishery is rationalized. Not all of this physical capital can remain busy during the new six-month fishery, but its owners will all have an incentive to keep the physical capital operating throughout this period. If these millions of dollars of excess physical capital earn just one penny above the variable costs of its operation, its owner is better off than under the alternative of earning nothing. Thus, starved for raw material to run through their facilities, vessel and plant owners bid for product until the price reaches a level at which they no longer can cover their variable cost.

Immediately upon beginning operations under a rationalized fishery, therefore, owners of fishery-related capital will see the return on their investment fall to zero. This cannot be avoided and is, in fact, necessary in order to de-capitalize an overcapitalized industry. The owners of this physical capital cannot expect to realize any return on their investment until excess capital stock leaves the industry. If the owners of that physical capital do not receive rights in the rationalized fishery to compensate them for the loss, in essence they have had the value of their investments expropriated. As an example, when the individual quota system was implemented in the Alaska halibut fishery in the mid-1990s, over seventy percent of existing halibut processors were driven from the fishery without compensation.

The allocation of quota to vessel and plant owners in industrial open access fisheries is essential if they are to be compensated for the losses they suffer due to the devaluation of their vessels and plants as a result of rationalization. (Some vessel owners may lament the fact that processing plant owners seek to be part of rationalized fisheries, but the reason for including processing plant owners in the allocation of quota is the same reason for including vessel owners in the allocation of quota. If a corporation that owns a fishing vessel does not suffer losses in the value of its boat as a result of rationalization, then there is no basis upon which it should be allocated quota.)

One of the potentially effective ways to rationalize a fishery that includes both vessel and plant owners is through fishery cooperatives. Under this cooperative approach both vessel and processing plant historical participation in the fisheries is preserved. Harvester-processor cooperatives were first used in the North Pacific

<sup>4</sup>In a reverse auction, the sellers compete to obtain business from the buyer and prices will typically decrease as the sellers undercut each other.

<sup>5</sup>Variable costs are those expenses that increase with production. For processors, variable costs would include things like direct processing labor, packaging, and increased utility charges. For vessel owners, variable costs would include things like fuel.



under the American Fisheries Act. That legislation proved extremely successful in rationalizing the Bering Sea inshore pollock fishery.

The success of the American Fisheries Act did not go un-noticed. By the early 2000s rockfish in the Gulf of Alaska were being harvested by the trawl fleet in a two-week race-for-fish. There was a statutory moratorium in place at that time which prevented the Secretary from approving any new Individual Fishing Quota programs. Representatives of the trawl vessel owners and processing plants that utilized Gulf of Alaska rockfish urged Congress to legislatively authorize rationalization of rockfish.

In 2003 Congress passed a short, one-paragraph, provision directing the Secretary of Commerce, in consultation with the North Pacific Fishery Management Council, to rationalize the rockfish fisheries in the Central Gulf of Alaska. Congress required the Secretary to develop a program that protected both the harvesting and processing histories of the existing participants. The legislation, however, did not direct the Council or the Secretary how to protect each sector.

In June of 2005 the Council developed the Rockfish Pilot Program which utilized harvester-processor cooperatives similar to the American Fisheries Act's inshore cooperative structure. A vessel was eligible to join a cooperative only in association with the processing facility to which that harvester historically delivered the most pounds of rockfish during the qualifying years. The associated processor was expected to negotiate an agreement with vessel owners that contractually limited the vessels from delivering to any other processor.<sup>6</sup> Thus, a vessel was allocated its historical market share and the processing plant was assured of its historical market share.

The Rockfish Pilot Program expired after 2011 and the Council was required to take action to renew the program. Stakeholders in the program supported rolling-over the existing program and the Council chose to initiate an analysis of only one primary option: extension of the existing harvester-processor cooperatives beyond the sunset date.<sup>7</sup>

At the Council's October 2009 meeting, however, the alternative of extending the existing Rockfish Pilot Program was removed from consideration because of a legal opinion from NOAA General Counsel for the Alaska Region. NOAA's 2009 legal opinion concluded that the Magnuson-Stevens Act does *not* authorize harvester-processor cooperatives.

NOAA's 2009 legal opinion is wrong. The Rockfish Pilot Program legislation itself did not provide statutory authority beyond that which already existed in the Magnuson-Stevens Act and the Rockfish Pilot Program's cooperative structure was developed by the Council and approved by the Secretary under the Magnuson-Stevens Act. NOAA's 2009 opinion ignored (and did not even reference) the 2006 amendments to the Magnuson-Stevens Act requiring consideration of "employment in the harvesting and processing sectors," and "*investments* in, and *dependence* upon, the fishery." Certainly the 2009 Opinion unnecessarily removes a potentially useful tool from the toolbox of potential management measures for council consideration.

NOAA's legal position on this issue results from a 1978 NOAA General Counsel memo that concluded the Magnuson-Stevens Act did not authorize the Secretary to disapprove foreign processing vessel applications to operate in U.S. waters just because domestic shore-based processors had the capacity and intent to utilize the same U.S. fishery resources. Taken on its face, the 1978 legal opinion means that shore-based processors cannot be regulated under the Magnuson-Stevens Act. As a result of this 1978 opinion, Congress quickly passed the so-called "processor preference" amendment giving statutory preference to U.S. processors over foreign operations.<sup>8</sup> In doing so, Congress believed it clarified the fact that domestic processors are part of the fisheries. As the Chairman of the House Merchant Marine and Fisheries Committee, Congressman John Murphy, explained during consideration of the amendment by the House of Representatives:

In the course of our discussions of the bill, some question was raised about whether the definition of "fishing" under section 3 of the [Magnuson-Stevens Act] includes "processing." This question is important because the [Magnuson-Stevens Act] uses the term "fishing" so that the statute applies to the processing industry in the same situations only if "fishing" includes processing. . . . In the end, we decided to leave the [Magnuson-Stevens Act's] definitions unchanged on this point while, at the same time, making clear the Act was in-

<sup>6</sup>Final Review Draft, RIR, EA and IRFA for the proposed Amendment 68 to the Gulf of Alaska Fishery Management Plan, June 2005. p. 69.

<sup>7</sup>CGOA Rockfish Program Motion, NPFMC February 9, 2009.

<sup>8</sup>P.L. 95-354 (1978).

tended to benefit the entire fishing industry . . . [I]t is the understanding of the House that “fishing” in section 3 of the [Magnuson-Stevens Act] does include “processing” and that, for that reason, the proposed clarification is unnecessary.”<sup>9</sup>

Because of NOAA’s 2009 Opinion, however, the option of continuing harvester-processor cooperatives in the rockfish program was removed from potential consideration.

The North Pacific Fishery Management Council is now exploring whether to rationalize the pollock and Pacific cod trawl fisheries in the Gulf of Alaska. The Council’s current option for analysis again has elements of a harvester-processor cooperative. It is not certain whether NOAA will allow the Council’s current rationalization plan to be implemented. In the view of Alaskan processors, NOAA should reconsider its position, but if the agency continues its rather tortured legal position on this issue, Congress should again clarify that shore-based processing is part of the fishery and thereby allow the North Pacific Council the option of using harvester-processor cooperatives in future rationalization plans.

### **The Overfishing Definition and Rebuilding Requirements**

We strongly support managing our Nation’s fishery resources on a sustainable basis, and depleted stocks (whether caused by overfishing or other environmental factors) should be managed in a manner that allows them to recover. We do not want to see amendments to the Magnuson-Stevens Act that would result in stocks of fish to be managed in a non-sustainable manner. Our experience is that the current mandates of the Magnuson-Stevens Act on this issue can be overly prescriptive.

An almost humorous example has occurred in Alaska. The North Pacific Council has no overfished groundfish stocks, but one species of crab, the Pribilof Island Blue King crab, is considered overfished and in need of a rebuilding plan, even though no directed fisheries have occurred for nearly two decades and the species is rarely taken as bycatch in other fisheries. The North Pacific Council curtailed certain groundfish fishing because that was the only source of possible crab mortality it could affect, even though the analysis shows that this action will not impact rebuilding success.

In summary, Congress should consider amendments to the Magnuson-Stevens Act that allow some flexibility in its rebuilding requirements when a stock is considered “overfished,” while still assuring all U.S. fisheries are managed sustainably.

### **Data Collection and Confidentiality**

There are two provisions in the Magnuson-Stevens Act reauthorization draft circulating by the other body upon which I would like to comment. That draft would not allow electronic monitoring devices to be used for fishery enforcement and also requires that virtually all data provided to NOAA under the Magnuson-Stevens Act be confidential and not subject to disclosure.

Human observers are used in most every fishery off Alaska in which Trident participates. Typically there is one observer on the harvesting vessel and another at the processing plant. Electronic monitoring—the use of video cameras—is a relatively new concept. It may provide a more cost efficient way to accurately monitor the harvest of fish. We can see no good reason, however, why electronic monitoring cannot be used in fishery enforcement. Certainly human observers can be, and have been, involved in helping document fishery violations. If a council chooses to allow electronic monitoring in its fisheries, we believe that the observations made under such a program should be allowed in enforcement actions just as the observations of human observers can be so used.

In the North Pacific the harvest data of vessels in rationalized fisheries is currently public knowledge. For each Bering Sea pollock trawl vessel, for example, its harvest of pollock and bycatch is provided to the Council. The fact that a vessel’s bycatch data is public information adds pressure for vessels to avoid that harvest of non-target species and is useful in shaping bycatch avoidance policies. We support the concept that financial information that is provided to the NOAA be confidential, however, the harvest data of at least rationalized fisheries, should be available to the public.

Thank you very much for your consideration of these comments.

Senator BEGICH. Thank you very much.  
Ms. Swanson.

<sup>9</sup>Statement of Congressman John Murphy, 124 Cong. Rec. H8266, Aug. 10, 1978.

**STATEMENT OF LORI SWANSON, EXECUTIVE DIRECTOR,  
GROUNDFISH FORUM**

Ms. SWANSON. Good morning, Chairman Begich, Senator Cantwell—

Senator BEGICH. The microphone. There we go.

Ms. SWANSON. Good morning, Chairman Begich, Senator Cantwell, and members of the Committee. I'm Lori Swanson. I'm the Executive Director of Groundfish Forum and the Co-Vice Chair of the Advisory Panel for the North Pacific Fishery Management Council.

I am here today representing the members of Groundfish Forum, which is a Seattle-based industry association comprised of five companies operating 16 trawl catcher processor vessels and multi-species groundfish fisheries off the coast of Alaska.

Thank you for the opportunity to offer comments. My comments will focus on the North Pacific groundfish fisheries in general with some specific points about the sector I represent.

Groundfish Forum supports the MSA as written for the North Pacific. It has proven to be a strong yet flexible guide to the Americanization of our fisheries and has provided the management structure that maintains consistently strong and resilient fisheries with protections for the environment and for healthy ecosystems.

One of the key strengths of the MSA is that it allows regional councils the flexibility to address issues in ways that respond to the needs of the stakeholders in the region. As members of the only North Pacific catch share program created from start to finish through the Council process, groundfish forum is perhaps the best example of how this system works.

Most of our vessels were not purpose built for the fisheries in which they operate. They're mixed fisheries for any single haul contains a number of different species. Our vessels cannot legally do more than primary processes on board; hence the original name "head and gut" vessels. Because of the limited processing capabilities, any unmarketable fish are discarded at sea.

Until 2008, these vessels operated in a race for fish. But the one who caught the most fish, the fastest, did the best and anyone who fished slower, or more carefully, would simply lose fish to those who did not and any one vessel could shut down the fishery.

Over the course of 10 years, the Council developed a catch share program for our sector which was implemented in 2008 as Amendment 80. There were many controversial decisions required to get to the final program. The council had to decide what species; how much of those species to allocate to the sector; how to allocate at the vessel level; requirements for co-op formation, bycatch limits; protection for other sectors; compliance monitoring; and what information co-ops should be required to provide to the public. Each of these decisions was vigorously debated through the public council process with input from scientists, economists, fishermen, environmental organizations, community and tribal entities, the U.S. Coast Guard and others.

Under Amendment 80, our vessels are allocated specific amounts of five target species, as well as strict limits on non-target species which may be combined into one or more fishery cooperatives or fished in a limited access. There are two NOAA observers on each

vessel to monitor compliance and reporting. The result is a true success story for both the MSA and the Council process.

Since ending the race for fish, our fishery runs year-round and fishermen can target their operations when and where it makes sense. The Amendment 80 sector now retains over 90 percent of the catch and new products and markets are being developed. Our fishermen have been able to experiment with modifications to their gear reducing bottom contact in the flatfish fishery by 90 percent. Further, the sector's been able to engage in discussions with some tribal and community entities to voluntarily restrict fishing in areas of particular sensitivity.

And finally, for the first time in decades, companies are beginning to build new fisheries. Excuse me, new vessels. Groundfish fisheries in the North Pacific have their challenges. The Bering Sea and Aleutian Islands are unique in that there's an absolute cap of 2 million tons on the amount of groundfish that may be harvested in a given year even though the health of the stocks would allow much higher harvests; 50 percent more in some years. Fisheries are healthy and the demand for quota exceeds what can be accommodated under the cap. The council has to decide who gets what after extensive scientific input and public testimony, which usually includes extensive debates and negotiations.

Further, as fisheries mature, some prior management actions have become obsolete. For example, there are a number of fixed and seasonal closures that were originally enacted to minimize bycatch of particular species. Since fishermen are individually limited on bycatch, the closures may no longer be necessary or even helpful.

I believe the Council has the ability under the MSA and the track record to address most of these concerns. The key for our region is maintaining high-quality scientific information, including regularly scheduled stock surveys, and thank you for your comments, Senator Cantwell, on that, and management flexibility. The more the management process can conform to the best use of the resources, the better. This includes mandatory actions, such as area closures to protect specific species and ecosystems, as well as mandates to individual sectors and cooperatives to work together to achieve particular goals without specific regulations.

Thank you, again, for the opportunity to provide comments and I'll be happy to answer any questions.

[The prepared statement of Ms. Swanson follows:]

PREPARED STATEMENT OF LORI SWANSON, EXECUTIVE DIRECTOR,  
GROUND FISH FORUM

Good morning Chairman Begich, Ranking Member Rubio, and members of the Committee. I am Lori Swanson, the Executive Director of Groundfish Forum and co-vice chair of the Advisory Panel for the North Pacific Fishery Management Council.

I am here today representing the members of Groundfish Forum, a Seattle-based industry association comprised of five companies currently operating 16 trawl catcher-processor vessels in the non-pollock multispecies groundfish fisheries off the coast of Alaska. Thank you for the opportunity to offer comments to the Committee on the reauthorization of the Magnuson Stevens Fishery Conservation and Management Act (MSA). My comments will focus on North Pacific groundfish fisheries in general, with some specific points about the sector I represent.

In the North Pacific, we are particularly blessed with a very productive ecosystem, which stays that way thanks to the work of the North Pacific Fishery Management Council (NPFMC). In the nearly 40 years since enactment of the MSA, American harvesting and processing capacity has gone from almost nothing to the complete Americanization of our fisheries. We have transitioned from foreign fishing, to joint ventures (where U.S. vessels delivered to foreign processors), to full Americanization. Through the entire process, the NPFMC has addressed harvest levels, conservation concerns, habitat protection, marine mammal protection, and community and tribal concerns. As a result of the NPFMC's efforts, the ecosystem and the fisheries it supports are strong and healthy, and there no overfished groundfish species.

Groundfish fisheries consistently harvest and process almost 2.0 million tons (4.4 billion pounds), of fish every year, which account for nearly 47 percent of the Nation's total groundfish harvest. These fisheries are worth over \$2 billion, and employ thousands of people in jobs that pay well and support families. Some of the product is exported and some is consumed in the United States.

One of the key strengths of the MSA is that it allows regional councils the flexibility to address issues in ways that respond to the needs of stakeholders in that region. I would like to briefly explain how this process worked for our sector.

Groundfish Forum vessels are part of the so-called "Amendment 80" sector, named after the NPFMC action that created the catch share program under which we now operate. As the only North Pacific catch share program created from start to finish through the Council process, we are perhaps the best example of how the system works.

Most of our vessels, which range in length from 105' to nearly 300' in length, were not purpose-built for the fisheries in which they operate. They cannot legally do more than primary processing on board; hence the original name "head and gut" vessels. Our vessels target flatfish, rockfish, Atka mackerel, and Pacific cod in the Bering Sea, Aleutian Islands, and Gulf of Alaska. These are mixed fisheries, and a single haul contains a number of different species. Because the vessels have limited processing capabilities and no fishmeal plants, any unmarketable fish are discarded at sea. Until 2008, these vessels operated in a *race for fish* where the one who caught the most fish the fastest did the best. No fisherman likes to throw away fish, but it was the only way to maintain a viable operation under those circumstances. Anyone who fished slower or more carefully would simply lose fish to those who did not, and any one vessel could shutdown the entire fishery if it reached strict limits on bycatch or hit the overall total allowable catch established annually by the Council for our sector.

Over the course of ten years—with input from scientists, economists, fishermen, environmental organizations, community and tribal entities—the Council developed a catch share program which was implemented in 2008 (Amendment 80). Under this program, our vessels are allocated specific amounts of five target species, as well as strict limitations on non-target species that are significantly lower than our historic catch levels. These vessel allocations may be combined into one or more fishery cooperatives or fished in a limited access fishery within the sector.

As you can imagine, there were many controversial decisions required to get to the final program. But those decisions were left to the Council who determined what species, and how much of those species, to allocate to the sector; how to allocate at the vessel level; requirements for cooperative formation; bycatch limits; protections for other sectors; how to monitor compliance with various regulations and limits; and what information cooperatives should be required to provide to the public. Each of these decisions was vigorously debated through the public Council process, with input from the Scientific and Statistical Committee, the Alaska Fisheries Science Center, the NOAA Fisheries, the U.S. Coast Guard, and various stakeholders, including environmental and tribal organizations.

The result is a true success story for both the MSA and Council process. Since ending the *race for fish*, the Amendment 80 sector now retains over 90 percent of their catch while operating under the same processing limits. Today, the fishing season runs from January 20, the start of the fishing year, to December 31 without closures. As a result, fishermen can target their operations to when and where it makes sense; businesses can more accurately plan for their annual shipyard maintenance; and new products and markets are being developed for previously unmarketable species. In addition, there are two NOAA observers on each vessel, strict monitoring and reporting requirements, and annual reports to the Council on cooperative performance.

With stable and more predictable operations, Amendment 80 fishermen have been able to experiment with modifications to their gear, reducing bottom contact in the flatfish fishery by 90 percent. Further, the sector has been able to engage in discussions with some tribal and community entities to restrict fishing in areas of par-

ticular sensitivity. Finally, for the first time in decades, companies are beginning to build new vessels. These vessels will be world-class, environmentally sensitive, safe, and more efficient.

Groundfish fisheries in the North Pacific have their challenges, of course. The Bering Sea and Aleutian Islands are unique in that there is an absolute cap of 2.0 million tons on the amount of groundfish that may be harvested in a given year. While this is admittedly a lot of fish, the health of the stocks would allow much higher harvests—fifty percent more in some years. Because the fisheries are healthy, the demand for quota exceeds what can be accommodated. Working under this cap, the Council has to decide who gets what after extensive scientific input and public testimony, usually including extensive debate and negotiations.

Further, as fisheries mature, some prior management actions have become obsolete. For example, there are a number of fixed and seasonal closures that were originally enacted to minimize bycatch of particular species. Since fishermen are individually limited on bycatch, the closures may no longer be necessary or even helpful.

I believe the Council has the ability under the MSA—and the track record—to address most of these concerns. The key for our region is maintaining high-quality scientific information, including regularly scheduled stock surveys, and management flexibility. The more the management process can conform to the best use of the resources, the better. This includes mandatory actions, such as area closures to protect specific species and ecosystems, as well as mandates to individual sectors and cooperatives to work together to achieve particular goals without specific regulations.

We support the MSA as written for the North Pacific. It has proven to be a strong yet flexible guide to the Americanization of our fisheries and has provided the management structure that maintains consistently strong and resilient fisheries with protections for the environment and all of us who depend on healthy ecosystems.

Thank you again for the opportunity to provide these comments. I will be happy to answer any questions from the Committee.

Senator BEGICH. Thank you very much.

Next, I have Linda Behnken.

Thank you very much, Linda. Good to see you again.

**STATEMENT OF LINDA BEHNKEN, EXECUTIVE DIRECTOR,  
ALASKA LONGLINE FISHERMEN'S ASSOCIATION**

Ms. BEHNKEN. Thanks, Mr. Chairman.

Linda Behnken. I served 9 years on the North Pacific Fishery Management Council. I'm currently Executive Director of the Alaska Longline Fishermen's Association and offer these comments on ALFA's behalf.

North Pacific fish stocks have thrived under science-based management, annual catch limits, and innovative approaches to fisheries management. The North Pacific Council frequently sets the standard and did so again recently with a catch sharing plan that establishes percentage-based allocations for commercial and guided sport halibut fisheries. The catch sharing plan ensures that both commercial and guided sport sectors share in conserving fish stocks. It also creates a market-based mechanism for quota transfer between sectors. This mechanism establishes a responsive solution to a 20-year allocation conflict and allows harvesting opportunities to respond to client demand. These are important success stories to share with other regions.

Even as we recognize the success of MSA in recovering fish stocks, we must recognize the primary challenge coastal fishermen now face as the unintended consequences of that success. Limited access programs have dramatically downsized fishing fleets to address overcapitalization. The result is substantial reduction in fishing jobs and escalating cost of entry.

Limited access programs have achieved important conservation and safety objectives but most fisheries are now prosecuted by a small fraction of the fleet that once filled community harbors. In Alaska, these privileges cost far in excess of the boats and fishing gear required to harvest the fish. The capital cost to enter a fishery can be a significant barrier, particularly to residents in remote areas who have historically depended on participation of multiple fisheries to reduce risk. Taken together, fleet consolidation escalating entry costs are limiting opportunities for coast residents.

In Alaska's remote and often isolated communities, few alternative employment opportunities exist. Once fishing jobs are lost, families must relocate. I see similar trends around our coasts. Losing access means losing a way of life and ultimately losing community. Our nation cannot afford to lose these jobs, small businesses, or coastal communities.

Congress has recognized the importance of community-based fishing fleets and fishery-dependent communities in National Standard 8, in the Limited Access Provisions, and in section 303(a)(9). We applaud these past efforts. We suggest reauthorization needs to tip the balance more towards these standards to provide for the sustained participation of small boats and fishery-dependent communities. I've included more specific recommendations in my written testimony.

The second issue I want to address is catch monitoring. Accurate monitoring of catch is important and a goal ALFA embraces. In Alaska, 90 percent of the vessels recently added to the North Pacific's restructured Observer Program are small boats. Placing observers on these small vessels presents problems. Living in deck space is cramped at best. Fishing families spend months living in a space the size of a station wagon. Fishermen have to buy insurance and safety equipment to accommodate observers. In short, observers impose cost, safety issues, and disruptions on small boats.

In contrast, electronic monitoring, which is used to monitor the same fisheries in neighboring British Columbia, collects necessary data without these issues. Recognizing the importance of EM for small boats, ALFA ran a 2-year pilot program that proved EM works. In the pilot, 94 percent of the fish were identified by species with the remainder identified to species grouping. Significantly, at \$200 to \$330 per day, EM monitoring was one third of the current \$980 per day cost of observers in Alaska. This experience is consistent with other U.S. EM pilot programs and with the British Columbia EM system. In short, EM promises significant cost savings to the fishing industry and NMFS. EM also provides reliable and needed data.

Unfortunately, EM is not yet available as an alternative to observers in any U.S. fishery. The absence of this monitoring alternative in the U.S. is inflating observer cost and contributing to fleet consolidation and job loss, particularly in small boat fisheries. To advance EM in Alaska and on a national scale, long-term funding, open collaboration with stakeholders, and a congressionally mandated commitment to EM integration are necessary.

Again, I've included more specific suggestions in my written testimony.

Thank you. Thank you for the opportunity to testify.

[The prepared statement of Ms. Behnken follows:]

PREPARED STATEMENT OF LINDA BEHNKEN, EXECUTIVE DIRECTOR,  
ALASKA LONGLINE FISHERMEN'S ASSOCIATION

Thank you for this opportunity to testify on reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

I am a commercial fisherman and have been for 30 years. I served on the North Pacific Fishery Management Council from 1992–2001 and continue to actively participate in the Council process. I serve as the Executive Director of the Alaska Longline Fishermen's Association (ALFA), based in Sitka, Alaska, and I am representing ALFA's over 100 members and their families with this testimony.

ALFA members participate in the halibut/sablefish catch share fisheries, which are hook and line fisheries managed with Individual Fishing Quotas (IFQ). Our members are deckhands or owner/operators of vessels that range in size from 16 foot skiffs to 72 foot halibut schooners, with the majority of the vessels being less than 60 feet in length. ALFA is a community-based organization with a firm commitment to sustainable fisheries and healthy fishing communities. We strongly support the fishery management system created by the Magnuson-Stevens Act (MSA) and respectfully offer the following comments on reauthorization.

**Sustainable Fisheries**

Important progress has been made since the Sustainable Fisheries Act strengthened MSA conservation objectives. Many depleted fish stocks have been rebuilt and struggling fisheries revived as a result. Healthy marine ecosystems are essential to healthy fisheries, healthy fisheries are essential to profitable fishing communities, and profitable fishing communities are important to this country.

North Pacific fish stocks have thrived under science-based management, annual catch limits, and innovative approaches to resource issues. The North Pacific Council frequently sets the standard for fisheries management, and did so again recently with a catch sharing plan that establishes percentage based allocations for commercial and guided sport halibut sectors. This catch sharing plan ensures that both commercial and guided sport sectors share in conserving fish stocks; it also creates a market-based mechanism for limited quota transfer between sectors. This market-based mechanism establishes a responsive solution to a long-term allocation conflict and allows harvesting opportunities to respond to client demand. These are important success stories to share with other regions.

Even as we recognize these successes and recommit to healthy fisheries, we must do more to address the challenges faced by independent fishermen and coastal fishing communities. Strong, resilient and profitable fisheries and fishing communities must be a goal of this reauthorization. I will highlight three objectives critical to achieving this goal. First, maintain productive fisheries that are accessible to coastal fishing fleets. Second, provide a regulatory environment that respects and supports fleet diversity and fleet diversification. Third, develop cost effective and fleet compatible catch monitoring programs that integrate existing tools to meet management needs. Congress has established National Standards and guidelines that highlight the importance of small fishing businesses and coastal communities, but we need to do more through reauthorization and implementation to realize their promise. With the rest of my testimony, I will describe the challenges coastal fishermen and fishing communities face and suggest solutions.

**Healthy Fishing Communities**

The primary challenge coastal fishermen face is the unintended consequence of success—success at addressing overcapitalization in U.S. fisheries. The Fisheries Conservation and Management Act of 1976 promoted the U.S. fishing industry's capitalization and exploitation of coastal fisheries by “consolidating control over territorial waters” and, eventually, eliminating the foreign fleets that were fishing close to our shores. We were so successful in capitalizing the Nation's fisheries that the 1996 and 2006 amendments focused on controlling overcapitalization in U.S. fisheries and preventing overfishing. With the rallying cry of “too many fishermen chasing too few fish,” management downsized fishing fleets and rebuilt fish stocks. Limited access programs focused on consolidation, and fishing fleets were reduced by half, and then halved again in some regions.

The unintended consequences of limited access and fleet consolidation have been two-fold: first, a dramatic reduction in fishing jobs, both at-sea and shore-side, and second, escalating cost of entry to limited access fisheries. Limited access programs have achieved the intended conservation and safety objectives, but in some cases have overshot consolidation objectives to the detriment of small fishing businesses



and fishery dependent communities. I would call to Congress' attention that the new threat to fishing communities *is too few* fishermen, not too many. Our fisheries are fully prosecuted but by a fragment of the fleet that once filled the harbors, and empty harbors hurt coastal economies.

In Alaska, limited access privileges cost far in excess of the boats and fishing gear required for harvesting the associated quota. The capital costs to enter a fishery have become a significant barrier for independent fishermen in many coastal communities, particularly to residents of remote and, in Alaska's case, primarily native communities. Taken together, these unintended consequences are eroding coastal economies.

Historically, community-based small boat fishermen have prospered through diversification, engaging in multiple fisheries on an annual or periodic basis. Fishing is a risky business in every dimension—fish stocks fluctuate, markets fluctuate, and the weather changes by the minute. To address risk, fishermen have weathered the low in one fishery by shifting to another. The importance of this diversification was recently documented in a paper entitled: *Income diversification and risk for fishermen*, by Kasperki and Holland, along with a disconcerting evaluation of recent trends. Conclusions from the study, which was published in the 2012 Proceedings of the National Academy of Science (PNAS 2012) included:

- Diversification can substantially reduce the variability of income and therefore risk from commercial fishing.
- The current fleet of vessels on the U.S. West Coast and in Alaska is less diverse than at any point in the past 30 years.<sup>1</sup>

In fisheries, less diversification means more risk, but in many fisheries diversification now demands large investments in access privileges. Consolidation of access privileges further escalates costs, making diversification challenging if not impossible for many small operations. Dependent on one or two fisheries, these small businesses are now economically vulnerable to cyclical downturns in fish stocks or prices.

In Alaska, commercial fishing is the largest private sector employer. In our remote and often isolated communities, few if any alternative employment opportunities exist. Once fishing jobs are lost, families must relocate to seek employment elsewhere with devastating impacts on community stability. I see the same dependence and community impacts occurring in Maine, Oregon, and North Carolina—in fact, all around our country. Losing access means losing a way of life and, ultimately, losing community. Our nation cannot afford to lose these jobs, these small businesses, or these coastal communities.

Congress has recognized the importance of community-based fishing fleets and fishery dependent communities in National Standard 8, in the Limited Access Privilege Provisions, and in Section 303(a)(9). We applaud these past efforts, but would suggest reauthorization needs to tip the balance more towards these standards and do more to provide for the sustained participation of small boats and fishery dependent communities. Experience has established that the conservation and management benefits associated with limited access can be achieved with limited consolidation of the fleet and limited consolidation of access privileges. With a rational framework for fishing that eliminates the race for fish, a healthy resource can support a relatively large fleet, which in turn supports harvesting and support sector jobs and coastal economies. On a national level, more emphasis needs to be placed on the fishery management goal of healthy fishing fleets supporting thriving fishing communities.

Congress can tip the balance toward healthy fishing communities by strengthening National Standard 8(B), removing “To the extent practicable,” or with a change to Section 303(a)(9). This section currently requires a fishery impact statement; we suggest Congress consider requiring a fishing community plan that details how small fishing businesses will be accommodated and what strategy will be implemented to provide for the sustained participation of fishing communities. These plans could include any number of approaches, such as caps on quota and fleet consolidation, area and quota set asides for community-based boats, permit banks, or fishery trusts. The plans would be designed by regional councils with the engagement of stakeholders to promote viable community-based fishing operations and healthy fishing communities for specific regions and fisheries under their jurisdiction.

Certainly other aspects of the MSA could be amended to focus on the needs of small, independent fishing businesses and fishery dependent communities. We sug-

<sup>1</sup><http://www.pnas.org/content/early/2013/01/16/1212278110>

gest these two areas as starting points and would be happy to work with the Committee and Congress to further develop these ideas.

### **Regulatory Flexibility: Observers and Electronic Monitoring**

Commercial fishermen operate in an increasingly regulated environment, and one that seems increasingly challenging to small businesses. This regulatory inflexibility is the second major challenge community-based fishing fleets face. To explain this challenge, I would focus the Committee's attention on catch monitoring as a prime example and one that we ask be addressed through reauthorization.

Accurate monitoring of catch is important, and a goal ALFA embraces for all fisheries. The North Pacific has an industry funded observer program that was restructured in 2013. Among other changes, the restructured observer program expanded coverage to include the halibut fleet and sablefish vessels under 60 feet in length. The National Marine Fisheries Service (NMFS) clarified that the agency's "primary monitoring need" for the halibut/sablefish fleet was "total catch composition and species discards, to complement the existing [International Pacific Halibut Commission] dockside monitoring program."<sup>2</sup>

Small boats represent 90 percent of the vessels directly regulated under the restructured observer program, and placing human observers on these vessels presents special problems. Living space on small boats is cramped at best. Fishermen, fisher women, and fishing families spend months living in a space that is roughly equivalent in size to a station wagon. Fishing time is weather-dependent, and boats can wait in town for weeks for fishable weather. Few boats have an extra bunk to offer an observer, and almost none can provide privacy. Observers must be fed and housed during and between fishing trips and vessel owners must purchase personal indemnity insurance and add safety equipment to accommodate observers. Observers need space for their sampling equipment and room to work both on deck and in cramped living quarters. In sum, human observers impose costs, safety issues, intrusions, and disruptions for small fishing boats and their crews.

In contrast, electronic monitoring (EM), which is used to monitoring the same fisheries in neighboring British Columbia, collects necessary data without any of these issues. An EM unit sits idle while the boat waits for safe fishing weather, requiring neither a hotel nor food. EM units do not need bunk space to sleep. EM units do not get seasick, nor are they precluded from working on deck by safety concerns during particularly rough weather.<sup>3</sup> Vessel owners do not have to buy additional safety equipment or purchase liability insurance for EM units. EM automatically turns on when a boat sets or hauls gear, providing an accurate and recreatable record of catch. And EM is accurate. To quote a 2009 article that evaluated EM monitoring of yelloweye rockfish:

Since these data come from video footage collected at the moment of capture, the video estimate cannot be corrupted by misreporting of discards or by dumping fish after being retained. Thus, the video data provide an unbiased and virtually independent catch estimate—rare in fisheries monitoring—that captures the extent to which the official catch accounting systems might be biased.<sup>4</sup>

Alaska's halibut/sablefish fleet uses hook and line gear to harvest fish. Fish are hauled aboard one at a time, which makes this fleet particularly well suited to EM. As each fish is brought aboard, it can be recorded on video. Likewise the gear, a single line with hooks attached, is deployed from one point on the boat and can easily be video monitored. In short, EM can be used to secure the catch and bycatch data NMFS identified as its objective for this fleet.

During the two years leading to implementation of the restructured observer program, ALFA and other fixed gear organizations highlighted the importance of providing an integrated catch monitoring system that included EM to be compatible with small boats. To ensure EM was ready for implementation concurrent with the 2013 launch of the restructured observer program, ALFA initiated an EM Pilot Program 2011. Likewise, the Council signaled its intent that EM be used as an alternative to human observer coverage. The Council stated:

"The Council also approved a motion to task the Observer Advisory Committee, Council staff, and NMFS staff to develop electronic monitoring as an alternative

<sup>2</sup> [http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/conservation\\_issues/Observer/311OACreport.pdf](http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/conservation_issues/Observer/311OACreport.pdf)

<sup>3</sup> <http://www.afsc.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-213.pdf>. See page 54.

<sup>4</sup> <http://dx.doi.org/10.1577/C09-005.1>.

tool for fulfilling observer coverage requirements with the intent that it be in place at the same time as the restructured observer program.”<sup>5</sup>

In the pilot program, ALFA’s responsibility was to refine EM deployment and operation, capturing costs and equipment effectiveness. NMFS’ role was to identify the performance standards and regulatory structure necessary to integrate EM with the restructured observer program. As the Council noted, the pilot program was “intended to provide operational experience and thus a basis for adding any necessary specificity to the regulations.”<sup>6</sup>

EM lived up to the fleet’s expectation regarding performance, dependability and costs. Over two years, EM systems were deployed on 41 fishing trips and monitored 215 longline hauls. The EM systems captured a complete video record of 95.3 percent of the hauls. Notably, 94 percent of captured fish on sets reviewed were identified by species, with the remainder identified to a species grouping (*e.g.*, rougheye/shorttraker rockfish). It is also significant that at \$200–\$330 per day, EM monitoring costs were less than observer costs under Alaska’s previous “pay as you go” observer program and 1/3 of the \$980 per day observer costs under the 2013 restructured observer program. This finding is consistent with data from EM pilot programs in the U.S. and with the British Columbia EM program, which have daily costs that range from \$194 per day to \$580 per day, with the upper end cost in a Canadian trawl fishery.<sup>7</sup> In short, EM promises significant cost savings to the fishing industry, where observer programs are industry funded, and savings to NMFS where the Federal Government is footing the bill. EM has also proved reliable and fully capable of providing the assessment of catch and catch composition that NMFS identified as the primary monitoring objective for the North Pacific halibut/sablefish fisheries.

Despite these promising results, EM was dropped from the restructured observer program months before implementation. In its place, NMFS provided a voluntary EM pilot program in 2013 that did not provide an alternative to observer coverage. NMFS’ current focus is on testing new EM technology that automates review but requires stereo cameras in a controlled environment. This technology may prove reliable at some future point and may be compatible with small boats, although the former is uncertain and the later appears unlikely given costs and deck space requirements associated with this new system. Please remember that cost effective, reliable, and fleet compatible EM systems are available and in use now in other countries to gather at sea data. The absence of this monitoring alternative in the U.S. is inflating observer costs and contributing to fleet consolidation and job loss, particularly in small boat fisheries.

ALFA supports the collection of at-sea fisheries data to support sustainable management of our marine resources. We also support ongoing technology development. That said, an open ended pursuit of the perfect should not be the enemy of the good. We continue to work toward EM integration in Alaska and, with the support of our Congressional delegation, recently engaged NMFS in an Alaska EM fixed gear workshop to develop EM cooperative research strategies for 2014. This cooperative research will continue to pilot test the new stereo EM systems but will also deploy proven EM technology with pre-implementation objectives, a focus on fleet and community capacity building, and rapid feedback to vessel operators to improve performance.

To ensure success of this cooperative effort and EM advancement on a national scale, long-term funding, open collaboration, and Congressionally mandated commitment to EM integration are a necessity. We ask that Congress assist in furthering EM in Alaska and nation-wide by strengthening two MSA sections and creating a catch monitoring section:

- (1) Section 313 of the Magnuson-Stevens Act authorizes the North Pacific Council, in consultation with the Secretary of Commerce, to establish a fee system to fund Alaska’s observer program. The fee may be used to “. . . station observers or electronic monitoring systems on board fishing vessels . . .”<sup>8</sup> At present, the full revenue stream from the industry is dedicated to deploying observers on boats in Alaska and NMFS has determined that fees cannot be used to develop EM alternatives without further regulatory action. That needs to change. Observer fees paid by the industry must be available for EM devel-

<sup>5</sup>[http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/conservation\\_issues/Observer/ObserverMotion610.pdf](http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/conservation_issues/Observer/ObserverMotion610.pdf)

<sup>6</sup>[http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/conservation\\_issues/Observer/Council\\_EMLtr051412.pdf](http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/conservation_issues/Observer/Council_EMLtr051412.pdf)

<sup>7</sup>[http://www.pcouncil.org/wp-content/uploads/EM\\_AttB2b-Att1\\_FG\\_MorroBayPilot.pdf](http://www.pcouncil.org/wp-content/uploads/EM_AttB2b-Att1_FG_MorroBayPilot.pdf), p. 31.

<sup>8</sup><http://www.nmfs.noaa.gov/sfa/magact/>

opment and deployment. A portion of the observer tax revenue generated by the sablefish/halibut fleet should be dedicated to EM deployment as an alternative to observers. Only then EM will have a sustained, industry-funded revenue source.

- (2) Section 303(b)(8) Discretionary provisions, amend to read: Require **electronic monitoring, as a first consideration**, or observers be carried on board a vessel of the United States engaged in fishing for species that are subject to the plan, for the purpose of collecting data necessary for the conservation and management of the fishery; except that such a vessel shall not be required to carry an observer on board if the facilities of the vessel for the quartering of an observer, or for carrying out observer functions, are so inadequate or unsafe that the health or safety of the observer or the safe operation of the vessel would be jeopardized; (change in **bold**)
- (3) ALFA requests the following directives be included in a new catch monitoring/EM section:
  - Direct NMFS to identify fishery specific monitoring objectives for all fisheries with at-sea monitoring requirements, and to include all stakeholders in the planning process from the beginning to identify the right combination of cost effective and fleet compatible monitoring tools;
  - Direct NMFS to provide EM to small fixed gear boats now, as an alternative to observers, where at-sea monitoring is required.

#### Summary

In sum, ALFA's membership recognizes that the MSA created a successful management structure for our Nation's fisheries and we have benefited from that success in the North Pacific. The heightened emphasis on resource rebuilding that was central to the last reauthorization is still essential to long-term resource health and we ask that Congress recommit to resource goals. Healthy fisheries need fish and productive ecosystems.

We ask that the Committee also recognize the unintended consequences of fleet consolidation and the growing trend toward too few fishermen. These trends are creating significant challenges for the Nation's small fishing businesses and fishery dependent communities. Independent small boat fishermen need affordable access to a diverse array of fisheries and a flexible regulatory system scaled to meet their needs. Coastal fishing communities need relatively large, diverse fleets that provide jobs, revenue and long-term viability. We ask that the Committee build on existing National Standards and guidelines to identify durable strategies that strengthen small fishing businesses and secure sustained community participation in local fisheries. Finally, we urge the Committee to consider amendments to support integration of EM with existing and proposed catch monitoring systems to collect high quality data that is cost effective and fleet compatible.

Thank you for the opportunity to testify.

Senator BEGICH. Thank you very much.

Next, I have Mr. Gease.

Ricky? You're next. Thanks.

#### STATEMENT OF RICKY GEASE, EXECUTIVE DIRECTOR, KENAI RIVER SPORTFISHING ASSOCIATION

Mr. GEASE. Yes.

Thank you, Mr. Chairman, members of the Committee.

My name is Ricky Gease. I am the Executive Director of Kenai River Sportfishing Association and I recently served on the Morris-Deal Commission that looks for a vision of recreational fisheries management nationally, and also integration into the Magnuson-Stevens Act.

I want to first say that I think the Magnuson-Stevens Act is very successful and I support its reauthorization.

I want to take a moment to describe how you make a gem. There are three stages to gem making: first is you make a rough cut, you get the basic shape and characteristics; the second stage is you

make the finishing cuts where you get all the facets in place; and the third stage is you polish the gem so it sparkles and shines.

I think in the reauthorization process, we can hear from the commercial fisheries that we're in the polishing stage where we try and make these fisheries sparkle and shine. For conservation, I think we're in the second stage where we're trying to figure out all the different facets of the conservation that was based in the 2006 reauthorization process. For example, are the 10-year timelines correct for species that are long-lived, or maybe very low abundance, or incidentally caught, or we don't have enough data on it for scientific research?

I think for the recreational fisheries in this country, we're asking to be in stage one in this reauthorization process where we get the basic definitions, characteristics, and tools in the toolbox for regulators and managers to realize the full economic and social values of these very important recreational fisheries. I think on board are people on the regional councils and advisory panels that represent the recreational community. I think NOAA is on board. They're having recreational summits, the second one this year in 2014. They had the first one in 2011. I think MFAC, to the Secretary of Commerce, is on board with this, and I just talked about the Morris-Deal Commission that has a set of recommendations out for national recreational fisheries.

Fundamentally, recreational fisheries are different in management than commercial fisheries and they differ in four important manners. First one is: Recreational fisheries have a currency based in angler days, not in poundage harvested by the metric ton as in the commercial fisheries.

The second one has to do with maximum sustained production: Getting the most number of fish in an ecosystem, so anglers have a—more fish means more angler days, basically. That's in contrast with our commercial fisheries where you're looking for maximum sustain yields, where the harvest is maximized so, you know, through processors and harvesters and it goes through into the retail markets on to the consumer.

Fourth way—or the third way then is: In recreational fisheries we want stable seasons and we want stable bag limits. So there's not a lot of in-season tweaking to what's happening in a recreational fishery. In our commercial fisheries, we have very intense data management-driven systems so that you can fish at MSY without overfishing.

I think in the fourth way they differ is just in the economics themselves. Commercial fisheries generate small values per fish multiplied over large volumes of fish harvested. In the recreational fisheries there are large values generated but from the smaller numbers of fish. And those values percolate into the tourism industry, the retail industry through gear, boats, fishing rods and reels, and also into the transportation industry, and then also into the real estate industry, where people, to pursue their passion for fishing, buy second homes and cabins and whatnot.

I think, in Alaska, there are some important issues that we talk about in terms of economics. The king salmon issue has been brought up, I think, in the Cook Inlet recent declaration for king salmon. We've had some uncertainty whether or not the rec-

recreational losses that happen in Cook Inlet, whether they really factored into the overall allocation, or how they factored into the overall allocation for those losses that we experience in 2012.

I think in terms of the catch sharing plan for halibut, there were a couple of issues. One with catch shares, and with the allocation process. With catch shares, it's a great tool for the commercial fishing industry, but I think a better approach in the recreational industry is not individualized shares but a collective share, either based on a local level or on a regional level, where there are agencies that can have quota for the recreational sector. And we're unclear as to whether or not those tools exist in the toolbox currently in MSA.

And then, finally, for allocations, in the allocation issues on that. The decision between the halibut catch share plan was based on historical harvests of fish and not necessarily on social economic data. And I think that's an adjustment that we can look forward to try and get more of our allocation decisions based on socio-economic data instead of just historical harvest data.

Thank you for the opportunity.

[The prepared statement of Mr. Gease follows:]

PREPARED STATEMENT OF RICKY GEASE, EXECUTIVE DIRECTOR,  
KENAI RIVER SPORTFISHING ASSOCIATION

Thank you Mr. Chairman, members of the Committee, for the opportunity to testify on the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act or MSA).

First, MSA has been successful and I support reauthorization. Second, recreational fisheries values need to be given due consideration in the reauthorization.

The metrics that define success, and therefore the management strategies, between recreational and commercial fisheries are fundamentally different. While the purposes of the Act would be beneficial to both commercial and recreational fisheries conservation, the application of the Acts regulatory mechanisms and Stakeholder involvement largely focuses on commercial fisheries to the exclusion of recreational fisheries interests. In the current reauthorization process for MSA, a principal focus needs to be a clear recognition and understanding of the essential nature of recreational fisheries management, and then delivery of the necessary and proper tools to both regulators and managers so that recreational fisheries can be managed to realize their full economic and social values.

Successful management of recreational fisheries differs from commercial fisheries in fundamental ways:

1. *Angler days (daily bag limits) vs. poundage (metric tons)*: whereas commercial fisheries maximize value by the metric ton, as measured by pounds of fish harvested and processed, recreational fisheries maximize economic and social values by optimizing the overall number of angler days sustained in a manner that provides for a reasonable expectation of harvesting fish throughout the season.
2. *Maximum sustained production (MSP) vs. maximum sustained yield (MSY)*: while economic value is optimized in commercial fisheries when managing for maximum sustained yield, economic and social values are optimized in recreational fisheries when managing for maximum sustainable production. More fish available in the overall ecosystem means more opportunity for the angler to catch a fish—more fish means more angler days.
3. *Predictable seasonal management vs. flexible inseason management*: whereas management for MSY in commercial fisheries requires that intense, timely and flexible inseason management systems be in place, management for MSP in recreational fisheries, through a conservative approach in daily and or annual bag limits, allows for seasonal reporting predicated on minimizing the need for inseason adjustments to methods and means or bag limits.
4. *Value-added economics vs. value economics*: while the economics of commercial fisheries are based upon profit generated by the metric ton, with smaller margins per fish generated from large numbers of harvested fish, the economics of

recreational fisheries is the inverse, where profit is generated from angler opportunity that produces larger margins per fish on fewer numbers of harvestable fish. Whereas profits from commercial fisheries are typically realized within the seafood industry (harvesters, processors, wholesalers, retailers), profits from recreational fisheries are typically more widespread to include the tourism, retail, and real estate industries (charters, lodging, restaurants; fishing equipment such as boats, rods, reels, tackle; and secondary residences for fishing, respectively.)

The value and benefits of recreational fisheries are largely ignored in the current authorization of MSA and the current MSA reauthorization process is the time to finally address this shortcoming with respect to recreational fisheries management. To illustrate this pressing need, let's look at our experiences with management of recreational fisheries in Alaska.

### **The Alaskan Experience in Recreational Fisheries Management**

Fisheries are big business in Alaska. Commercial fisheries in Alaska generate roughly one half of the landings of the U.S. commercial fishing industry.<sup>1</sup> Recreational fisheries in Alaska are among the top five states in generating non-resident fishing expenditures.<sup>2</sup> Together these fisheries generate approximately \$6 billion<sup>3</sup> in economic impacts and contributions to the Alaskan economy, with recreational values about \$1.4 billion<sup>4</sup> of the overall total, and split evenly between resident and non-resident angler activity.

- In Alaska, commercial and recreational fisheries generate comparable tax revenues to state and local governments, both typically in the \$100 million plus range.<sup>5</sup>
- About 80 percent of all angler activity in Alaska is focused on salmon and halibut, both species that are influenced by the regulatory authority of the MSA. Recreational fisheries utilize less than five percent of the overall salmon harvests and less than 10 percent of the overall halibut harvests in Alaska.<sup>6</sup>
- The Cook Inlet basin in Southcentral Alaska is home to the state's largest population center with some 400,000 residents, nearly two thirds of the overall population. Half of all tourism trips occur in the Cook Inlet region—while one in five visitors buy a non-resident sport fish license, these sport anglers generate 40 percent of the tourism revenues in Alaska.<sup>7</sup>
- In Cook Inlet, nearly 200,000 resident and non-resident anglers generate 60 percent of all recreational fishing activity in Alaska. The Kenai River watershed supports the largest and most intensively used recreational fisheries in the state.<sup>8</sup>
- Fisheries in Cook Inlet are a \$1 billion industry, with recreational fisheries generating some \$800 million<sup>9</sup> and commercial fisheries generating some \$200 million<sup>10</sup> in economic value. Commercial fisheries harvest more than 80 percent of

<sup>1</sup>NOAA Fisheries, *Fisheries of the United States*, 2012 (2013), [www.noaa.gov/commercial-fisheries/fus/fus12/](http://www.noaa.gov/commercial-fisheries/fus/fus12/)

<sup>2</sup>American Sportfishing Association, *Sportfishing in America: An Economic Force for Conservation* (2013), [asafishing.org/uploads/Sportfishing\\_in\\_America\\_January\\_2013.pdf](http://asafishing.org/uploads/Sportfishing_in_America_January_2013.pdf)

<sup>3</sup>Marine Conservation Alliance, *The Seafood Industry in Alaska's Economy* (2011), [www.marineconservationalliance.org/wp-content/uploads/2011/02/SIAE\\_Feb2011a.pdf](http://www.marineconservationalliance.org/wp-content/uploads/2011/02/SIAE_Feb2011a.pdf)

<sup>4</sup>Alaska Department of Fish and Game, *Economic Impacts and Contributions of Sportfishing in Alaska, 2007 Report (2008)*, [www.adfg.alaska.gov/static/home/library/pdfs/sportfish/2007\\_economic\\_impacts](http://www.adfg.alaska.gov/static/home/library/pdfs/sportfish/2007_economic_impacts)

<sup>5</sup>Alaska Resource Development Council, *RDC Annual Report (2013)*, [www.akrdc.org/membership/annualreport/annualreport2013.pdf](http://www.akrdc.org/membership/annualreport/annualreport2013.pdf)

<sup>6</sup>Kenai River Sportfishing Association, *Economic Values of Sport, Personal Use, and Commercial Salmon Fishing in Upper Cook Inlet (2008)*, [www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf](http://www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf)

<sup>7</sup>McDowell Group, Inc., *Alaska Visitor Statistics Program VI: Summer 2011 (2012)*, [www.mcdowellgroup.net/pdf/publications/2011AVSP-FullReport.pdf](http://www.mcdowellgroup.net/pdf/publications/2011AVSP-FullReport.pdf)

<sup>8</sup>Kenai River Sportfishing Association, *Economic Values of Sport, Personal Use, and Commercial Salmon Fishing in Upper Cook Inlet (2008)*, [www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf](http://www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf)

<sup>9</sup>Alaska Department of Fish and Game, *Economic Impacts and Contributions of Sportfishing in Alaska, 2007 Report (2008)*, [www.adfg.alaska.gov/static/home/library/pdfs/sportfish/2007\\_economic\\_impacts](http://www.adfg.alaska.gov/static/home/library/pdfs/sportfish/2007_economic_impacts)

<sup>10</sup>Alaska Salmon Alliance, *Cook Inlet Drift and Set Net Salmon Fisheries (2013)*, [www.aksalmonalliance.org/wp-content/uploads/2013/06/AlaskaSalmonAllianceReport060713.pdf](http://www.aksalmonalliance.org/wp-content/uploads/2013/06/AlaskaSalmonAllianceReport060713.pdf)

the salmon and halibut caught in Cook Inlet, while recreational fisheries harvest less than 20 percent of these fish.<sup>11</sup>

- In terms of generating food security for Alaskans, especially lower income families, ample access to locally harvested seafood by residents in the recreational fisheries of Cook Inlet affords people who live on the Kenai Peninsula to eat three times the national average of seafood per year. On the Kenai, 90 percent of seafood eaten by residents originates in the non-commercial fisheries; 50 percent of households eat fish two or more times a week, while 40 percent eat fish once a week.<sup>12</sup>

In Cook Inlet, the economic and social values of recreational fisheries greatly surpass those of the commercial fisheries by every available measure. Recreational fisheries are a classic value-added industry, and Cook Inlet is a prime example of this. State and Federal fisheries management systems—designed primarily to accommodate commercial fisheries—continue to grapple with the profound and ongoing challenges of integrating two fundamentally different visions of fisheries management in Cook Inlet, Alaska and elsewhere in the Nation.

Regionally, the most recent example of the ongoing and institutionalized bias against recreational fisheries comes in the form of the 2012 Federal emergency economic disaster declaration by the Secretary of Commerce for king salmon in Alaska, which includes the Yukon, Kuskokwim and Cook Inlet regions in Alaska.<sup>13</sup>

In Cook Inlet, 2012 estimates of lost revenues from low numbers of returning king salmon were \$33 million, with \$17 million in the recreational fisheries and \$16 million in the commercial fisheries. Problematic issues in Cook Inlet with the Federal declaration include:

- While significant losses have occurred in the Cook Inlet recreational fisheries since 2011 due to conservation issues with king salmon, only the commercial losses in 2012 have so far triggered an economic disaster declaration in Cook Inlet salmon fisheries.
- Debate is now ongoing at the state and Federal level as to whether or not economic losses in the Cook Inlet recreational fisheries in 2012 can be counted towards the overall lost fishing revenues to the region, or do only the commercial fishery losses count, based on competing interpretations of current MSA language.
- There is no discussion of the continuing economic losses being realized in the Cook Inlet recreational fisheries, whereas continuing economic losses in the commercial fisheries along the Yukon due to king salmon conservation issues are being tracked and accounted for in ongoing economic disaster declarations.
- In 2002 the Kenai king salmon fishery was voted as the number one sport fishery in the United States by Field and Stream; in the past few years the inseason restrictions and closures of the Kenai king sport fishery has made front page news of the *Wall Street Journal*, yet questions remain if such economic losses are applicable.

Regarding halibut in Cook Inlet and Alaska, for more than two decades there has been a contentious and ongoing dialogue on how to best conserve and allocate halibut between the recreational and commercial sectors. Catch shares and allocation have been front and center in the debate.

Commercial catch shares for halibut in Alaska have been used successfully but their application to recreational fisheries remains controversial:

- While catch shares in Alaska through commercial halibut IFQs have proven to be a beneficial tool for commercial fisheries management (reduced excess capitalization, increased prices, improved safety and fish quality), their implementation in recreational fisheries has been strongly resisted as being the wrong tool and impracticable.

<sup>11</sup> Kenai River Sportfishing Association, *Economic Values of Sport, Personal Use, and Commercial Salmon Fishing in Upper Cook Inlet* (2008), [www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf](http://www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf)

<sup>12</sup> Loring, Phillip, Gerlach, Craig, Harrison, Hannah, *Food Security on the Kenai Peninsula, Alaska: A Report on Local Seafood Use, Consumer Preferences, and Community Needs* (2013), <http://ine.uaf.edu/werc/wp-content/uploads/2013/02/Loring-et-al-2012-Kenai-Peninsula-Food-Security-Report-vfinal.pdf>

<sup>13</sup> Acting Secretary of Commerce Rebecca Blank, *Department of Commerce Determination for Alaska* (2012), [www.nmfs.noaa.gov/stories/2012/09/09\\_13\\_12disaster\\_determinations.html](http://www.nmfs.noaa.gov/stories/2012/09/09_13_12disaster_determinations.html) #see below



- There have been repeated failed attempts to introduce catch shares into the recreational community on an individualized basis through charter captains, whereas industry primarily supports a collective approach where the halibut allocation is provided to the charter sector as a whole then distributed through the traditional sport fishing management tools of methods and means, time and area, such as daily and or seasonal bag limits.
- Despite this, regulatory efforts still continue to force use of individualized catch shares in recreational fisheries through the Guided Angler Fish in the new Halibut Catch Share Plan. The recreational sector in Alaska is clear in its opposition to an individualize approach to catch shares in halibut management.
- The recreational fishing sector continues to be supportive of a market based solution whereby a fiscal mechanism exists to compensate reallocations of halibut in either direction between the recreational sector as a whole and commercial IFQ holders. Currently there is no such sector based approach for the recreational fishing industry as a whole to acquire, hold and trade halibut quota.

Allocation between the recreational and commercial sectors in the recent Halibut Catch Share Plan was based primarily on historical harvest data, not socio-economic data that would have based the primacy of allocation on an overall optimization of economic values of these fish.

- Federal regulators, managers and researchers basically punted when it came time to generate useful socio-economic data on the recreational sector that could be used when deciding how best to allocate the halibut resource between competing sectors.
- A variety of reasons were given in setting aside useful discussion of economic performance in the recreational sector—too difficult to generate data, too expensive to generate data, lack of familiarity with how socio-economic values are generated in recreational fisheries, not sure how to compare economic values between recreational and commercial fisheries.
- Nationally, NOAA does not generate economic values for recreational fishing in its annual report *Fisheries of the United States*. However, many state, industry, university, and non-governmental agencies can and do generate economic performance data and reports for recreational fisheries in the United States.

### Summary

Currently we lack standardized and operational methodologies to first account for economic values generated in recreational fisheries and then to provide economic analysis that puts all participants on equal footing in evaluating economic impacts and contributions of allocation decisions on national, regional and local economies. One cannot really imagine the landscape of our national or global financial markets if economic data on the performance of either stocks or bonds was unavailable in a timely manner, yet we continue to do so in the development and allocation of our national fisheries resources.

In Alaska and elsewhere in the United States, the recreational fishing community has long endured the adverse impacts that stem from the lack of recognition and corresponding lack of appropriate regulatory and management tools for recreational fisheries in MSA.

In the development of a gem stone, there are three stages: the first step is the initial rough cut; the second part involves refining and finishing cuts; and the third phase centers on multiple turns of polishing with increased refinement until a sparkle and shine.

Relative to this current MSA reauthorization process, I think it would be fair to characterize the following:

- For commercial fisheries, we are in the polishing stage as many of the facets have already been cut and refined in the initial and subsequent versions of the MSA;
- Regarding conservation issues, with the rough cuts made in the 2006 MSA reauthorization that aimed to end overfishing in 10 years, we are most likely in the second stage, with further refinements necessary in the 10 year timelines relative to long-lived species, to those species where scant research data is available, and or those species that are sporadic or sparse in abundance.
- For recreational fisheries, we find ourselves still awaiting action for the initial rough cut, where the characteristics and nature of the Nation's recreational fisheries are functionally recognized in MSA.

- It is reasonable that recreational fishery management objectives be stated in terms of angler-days of opportunity alongside guideline harvest quotas for shared fisheries.

The national recreational fishing community has been proactive in developing a conceptual framework for how recreational fisheries can and should be incorporated into the MSA. More so now than ever before, one can hear the recreational fishing voices from local, regional and national perspectives:

- recreational fishing advocates on the regional fishery councils and advisory panels;
- those on the Marine Fishery Advisory Committee to the Secretary of Commerce;
- those who participated in the Morris-Deal Commission on Recreational Fishing;
- those attending the upcoming 2014 NOAA Fisheries Saltwater Recreational Fishing Summit; and
- the millions of anglers who want to know that their voices are heard, concerns are met, and ultimately that conservation of our national marine fisheries and management of recreational fishing is secure.

Thank you for the opportunity to provide a perspective from a member of the Alaskan recreational fishing community. MSA has been successful and I support its reauthorization. Recreational fisheries values need to be given due consideration during the reauthorization process. MSA needs to recognize the unique ability of the recreational fishing community to generate very large economic values and important jobs, so that the full capacity of this value added industry is fully realized. Our hope is that this process will produce a more productive dialog that furthers the cause of marine conservation while providing recreational anglers with access and meaningful opportunity to our national fishery resources.

Senator BEGICH. Thank you very much.  
Michael LeVine.

**STATEMENT OF MICHAEL LEVINE,  
PACIFIC SENIOR COUNSEL, OCEANA**

Mr. LEVINE. Good morning, Mr. Chairman and Senator Cantwell.

My name is Michael LeVine. I'm Pacific Senior Counsel for Oceana. Oceana is an international non-profit organization dedicated to using science, law, and public engagement to protect and restore the world's oceans. Our Pacific work is headquartered in Juneau, Alaska. And I, along with eight colleagues, live and work there.

As you know well, Mr. Chairman, Alaskans have a special connection to the oceans. We are fortunate that for the most part, Alaska's oceans are healthy, vibrant and productive. And we depend on those healthy ocean ecosystems for economic opportunity, food security, recreation, cultural continuity, and many other aspects of our daily lives.

Our challenge now, in Alaska and around the country, is to make sustainable choices. In the face of changing conditions, including ocean acidification and growing population, how do we best meet our needs today without sacrificing the ability of future generations to meet theirs? Fortunately, the principle law governing management of fisheries provides tools and incentives to meet that challenge by moving toward ecosystem-based management.

The Magnuson-Stevens Act reflects a commitment to sustainable management and conservation of ocean resources in Alaskan waters and in the rest of the country. And it has been remarkably successful in meeting that goal. The success of the Magnuson-Stevens Act is reflected in the large invaluable commercial fisheries in

the Gulf of Alaska, Bering Sea and Aleutian Islands. These fisheries generate vast revenue, food and employment and they are generally recognized as some of the best managed in the world.

Healthy fisheries like these depend on healthy ocean ecosystems. They also affect those ocean ecosystems by removing large quantities of fish every year and reducing populations by 60 percent or more from their historic averages. If not properly managed, the substantial removals of biomass and other important impacts of large commercial fisheries, like bycatch and habitat destruction, can significantly alter the marine environment. We must, therefore, make choices about fisheries that ensure protection of the marine ecosystem on which they depend.

Ecosystem-based management approaches are the most effective way to guide those choices. For fisheries, ecosystem-based management requires moving away from decisions focused narrowly on one species or stock. It is not sufficient simply to maintain populations of individual species at levels that will sustain commercial fisheries. Rather, managers must seek to maintain the ecosystem in a healthy, productive and resilient condition so that it can provide the services like fisheries that humans need and want.

The North Pacific Fishery Management Council in Alaska region of the National Marine Fisheries Service have been leaders in the effort to implement these approaches. At its most recent meeting, the North Pacific Fishery Management Council voted unanimously to adopt an ecosystem approach and vision statement. The Council's action builds on its leadership to further a conversation about the ecosystem and to consider ecosystem impacts and its decisions about fisheries.

Congress can enhance these efforts by taking action, as it has in past reauthorizations, to strengthen the conservation mandate in the Magnuson-Stevens Act by providing additional tools and direction for ecosystem-based management. Congress can formalize some of the strategies from the North Pacific, requiring development and implementation of fishery ecosystem plans, for example, and formally requiring protection of forage species. It can also resist calls to undermine conservation measures under the guise of needed flexibility. Annual catch limits and specific rebuilding targets are important tools that have worked well in Alaska. They should not be changed to allow for decisions that prioritize short-term benefit over long-term sustainability. Nor should Congress undermine the National Environmental Policy Act. For all of their strengths, neither the substantive provisions in, nor the public process required by the Magnuson-Stevens Act substitute for NEPAs directives to consider a full range of alternatives and potential impacts to the environment.

More generally, good government choices are based on open, inclusive, and fair processes. The oceans are a public resource managed by public agencies and information collected pursuant to that management should be available to the public. Additional restrictions, either currently in place or purposed, are neither desirable nor necessary. Good management also requires diverse participation and broader representation on councils, including tribes and conservation organizations, will help achieve that goal.

Ultimately, good decisions will maximize benefits and efficiencies. It is certainly true that some of the economic benefit from commercial fisheries returns to the states, United States, and their residents. But it may be time to think carefully about whether we Alaskans and Americans are getting fair value. We also must think carefully about where we are investing our limited resources. There is a very clear need for science to guide management. We can and must find ways to increase funding for science that will help us better manage individual stocks and better understand the ocean ecosystem and the impacts of fisheries on it.

We all want healthy ocean ecosystems that support sustainable fisheries and vibrant communities. Though there is more to do, the Magnuson-Stevens Act has been overwhelming successful in helping move toward that goal. The very best thing we can do for the future of our oceans, and all of us, is to continue that momentum toward ecosystem-based management.

[The prepared statement of Mr. LeVine follows:]

PREPARED STATEMENT OF MICHAEL LEVINE, PACIFIC SENIOR COUNSEL, OCEANA

Good morning, Mr. Chairman and Members of the Committee. Thank you for the invitation to participate in today's hearing. My name is Michael LeVine, and I am Pacific Senior Counsel for Oceana. Oceana is an international nonprofit conservation organization dedicated to using science, law, and public engagement to maintain and restore the world's oceans. Our headquarters are in Washington, DC, and we have offices in five states as well as Belgium, Belize, Spain, Denmark, and Chile. Oceana has more than 600,000 members and supporters from all 50 states and from 250 countries around the globe. Our Pacific work is headquartered in Juneau, Alaska, and, together, our Pacific staff has more than 180 years of experience working and living in Alaska.

Oceana seeks to further the movement toward ecosystem-based management for healthy ocean ecosystems that include sustainable fisheries and vibrant communities. Our work in Alaska is central to that mission. The ocean waters off Alaska are vibrant and diverse—from relatively temperate areas in Southeast Alaska to the cold water coral gardens in the Aleutian Islands to the remote Chukchi and Beaufort seas. All of these productive waters provide important habitat for a diverse array of fish, seabirds, and mammals. This biological abundance helps support communities, recreation, and some of the most important commercial fisheries in the world.

Ecosystem-based management approaches are key to maintaining the healthy and resilient marine ecosystems that are the foundation of sustainable fisheries over the long-term. Changing climate and ocean conditions, habitat destruction, and declines in predator populations highlight the need to implement ecosystem-based management approaches, and the North Pacific Fishery Management Council (NPFMC) and National Marine Fisheries Service (NMFS) have taken important steps to move in this direction. The standards and process established by the Magnuson-Stevens Fishery Management and Conservation Act (MSA) are integral to those efforts, and we believe that—for the most part—the system is working well. In past reauthorizations, Congress has advanced the conservation mandate of the MSA by strengthening or adding provisions designed to further precautionary decisions and ecosystem-based management, and we encourage you to do so again. Fundamental changes are not necessary, and, certainly, Congress should resist efforts to move backwards toward a regime that we know leads to unsustainable fisheries and poor management of ocean resources.

My testimony today will focus on the importance of the ocean waters off Alaska and the manner in which the NPFMC and NMFS have implemented the MSA there. I will discuss the successes in moving toward ecosystem-based management and the opportunities to improve science, transparency, and representation.

**I. The North Pacific and Arctic Oceans**

Oceans and seas are our largest public domain. They cover more than 70 percent of the world's surface, and good stewardship of our ocean resources is vital to our lives and livelihoods. As the U.S. Commission on Ocean Policy recognized, "the importance of our oceans, coasts, and Great Lakes cannot be overstated; they are crit-

ical to the very existence and well-being of the Nation and its people.” Similarly, President Obama wrote that “America’s stewardship of the ocean, our coasts, and the Great Lakes is intrinsically linked to environmental sustainability, human health and well-being, national prosperity, adaptation to climate and other environmental changes, social justice, international diplomacy, and national and homeland security.”

Oceans provide economic opportunity, sustenance, recreation, cultural connection, and a variety of other services. Together, recreational and commercial fisheries provide over 1.5 million jobs in the United States. Coastal tourism provides another 28.3 million jobs and generates \$54 billion in goods and services annually. In addition, oceans provide essential protein to nearly half the world’s population. More than one billion people worldwide depend on fish as a key source of protein, and wild-caught ocean fish currently provide about as much animal protein to humans as eggs do. For these reasons and others, our priority for future decisions must be ensuring the long-term viability of our ocean resources through sustainable management based on science and precaution.

Nowhere are these statements and their implications for management more important than in Alaska. Our ocean waters—the Gulf of Alaska, Bering Sea, Aleutian Islands, and Chukchi and Beaufort seas—support rich and diverse marine life and important fisheries.

#### *A. The Gulf of Alaska, Bering Sea, and Aleutian Islands*

The Exclusive Economic Zone in the Gulf of Alaska, Bering Sea, and Aleutian Islands is larger than the combined Federal waters off the east and west coasts of the United States. It is home to thirty-eight species of seabirds, twenty-six species of marine mammals (including seals, Steller sea lions, walrus, sea otters, polar bears, whales, dolphins, and porpoises), and thousands of species of fish and invertebrates. As in all ecosystems, this richness and diversity are part of a complex, interconnected food web. Fish play vital roles in this food web, which supports other species, including humans.

The Aleutian Islands ecosystem, in particular, is one of the most vibrant, dynamic, productive and rare ocean environments on the planet. At more than 1,000 miles, the Aleutian Islands form the longest archipelago in the world, and the area draws millions of seabirds and hundreds of thousands of marine mammals each year. The Aleutian Islands support more than 450 species of fish and shellfish, 260 species of migratory birds, and 25 species of marine mammals. Whales—humpback, blue, minke, and orca—as well as sea lions, seals, and other marine mammals frequent these waters. More than 38 million seabirds—including a wide variety of, gulls, petrels, puffins, murre, auklets, and terns—flock to the islands to nest. The ocean waters support salmon, halibut, rockfish, cod, and crab, among other fish and shellfish.

The Aleutian Islands ecosystem also harbors some of the most diverse and dense aggregations of cold water corals in the world. The density and diversity of these Alaskan corals rival tropical coral reefs, and there are deep-sea coral gardens that are unique to the Aleutian Islands. This living seafloor forms habitat that provides nurseries, places to feed, shelter from currents and predators, and spawning areas for many marine species.

This biological richness supports extensive and lucrative fisheries. Each year, Federal waters in the North Pacific are host to the biggest fisheries in the United States, which are some of the largest in the world. Together, the groundfish fisheries off the coast of Alaska account for 46 percent of all domestic fish landings. The pollock fishery in the Bering Sea and Aleutian Islands is the largest by weight in the U.S. and the second biggest in the world. Other important targeted species include sablefish, rockfish, and Atka mackerel. Combined, this catch is worth approximately \$2.3 billion annually. In addition, the State of Alaska manages important fisheries in state waters. The Alaska salmon fisheries, for example, are one of Alaska’s most important industries, with a harvest value statewide in excess of \$650 million in 2013.

In addition to supporting a very important industry, fish also are crucial to other aspects of life in Alaska. In many places in the state, fish are central to subsistence culture. They also support recreation, tourism, and personal use. Healthy fish populations, of course are also an important component of the functioning ocean ecosystems on which Alaskans depend.

The success and continued viability of Alaska’s fisheries are a testament to healthy oceans, science-based management, and suitable regulatory guidance. It is equally true, however, that not all of the effects from these fisheries are well understood and that conditions in our oceans are changing. If not properly managed, fish-

eries can have substantial negative effects on long-term ocean health and can become unsustainable.

By design, commercial fisheries in the North Pacific cause fish populations to decline to levels well below the historical norm. For most species, managers seek to maintain populations at 40 percent of their “unfished” state—meaning that 60 percent of the fish that were once in the ocean have been removed. Even this target, however, is not always met, and many stocks have been depleted well below the 40 percent threshold. As of 2009, fishery stocks in the North Pacific were projected at the following percentages of their unfished levels: Aleutian Island Atka mackerel (41 percent), Aleutian Island pollock (30 percent), Gulf of Alaska pollock (33 percent), Bering Sea pollock (27 percent), Bering Sea/Aleutian Islands Pacific cod (36 percent), and Gulf of Alaska Pacific cod (51 percent). In other words, today there exist nearly 70 percent fewer pollock, and nearly 50 percent fewer cod, in the Gulf of Alaska than were historically present.

While none of these species are considered overfished under the law, removing substantial amounts of biomass can have significant effects on the marine ecosystem beyond the immediate reduction in the population of that species. Large reductions in biomass of one species can affect predator-prey dynamics and create other disturbances in the food web. In addition, many of these fisheries are allowed to discard millions of tons of unwanted bycatch and, particularly through bottom trawling, destroy important habitat. As explained below, important progress is being made to address these potential problems, and we can best build on that progress by continuing the momentum toward ecosystem-based management.

#### *B. The Arctic Ocean*

The North Pacific region also includes the United States’ portion of the Arctic Ocean, which encompasses the U.S. parts of the Chukchi and Beaufort seas. The majority of the coastal residents in the Arctic region of the United States are Alaska Natives and, for many, their culture is tied to subsistence harvesting; sharing of food; teaching youth how to fish, hunt, and gather resources; and celebrating successful harvests. The Arctic seas are a foundation of this subsistence way of life in coastal communities.

In addition to vibrant communities, Arctic waters also support some of the world’s most iconic wildlife species, such as beluga whales, polar bears, walrus, and ice seals. The endangered bowhead, as well as beluga and gray whales spend time in these waters. In addition, millions of birds, including more than 100 species, migrate from nearly every corner of the world to feed and nest in the Arctic each summer. More than 100 fish species live in the U.S. Arctic Ocean, including all five species of Pacific salmon, capelin, herring, and various species of cod and sculpin.

Currently, there are no commercial fisheries in the U.S. Beaufort or Chukchi seas. As the region changes, however, commercial fisheries may become viable, and forethought is necessary to ensure that any fisheries that do develop do not compromise the health of ocean ecosystems or opportunities for the subsistence way of life. Basic scientific information would be needed to guide management. Large areas of the U.S. Arctic Ocean have never been surveyed for fish, and roughly half of the handful of surveys that were conducted in the U.S. Arctic Ocean occurred more than 20 years ago. In addition, sampling has not been conducted frequently enough to provide a good understanding of year-to-year variability in fish distributions and abundance. The Arctic Fishery Management Plan provides the needed guidance now by precluding commercial fisheries until and unless sufficient science is in place to ensure good management decisions.

## **II. Conservation Successes**

The Magnuson-Stevens Act is one of our country’s important success stories and, one, of course, with special significance in Alaska. As Senator Begich noted in 2011:

This landmark legislation was originally sponsored by several great friends of Alaska—Senator Magnuson, our own Senator Ted Stevens, and Senator Inouye—and co-sponsored by several Republican and Democratic members of the Committee. It represented a truly bipartisan effort to carefully manage one of America’s greatest assets, our fisheries.

In the nearly 40 years since it was passed by Congress in 1976, the law has helped prevent overexploitation by foreign fleets while providing managers with the legal tools to sustainably manage our Nation’s ocean fisheries. Its subsequent amendments have strengthened the conservation mandate in the statute with significant bipartisan support. The amendments have encouraged movement toward ecosystem-based management, and that movement has been led by managers in the North Pacific.

*A. Implementing Ecosystem-Based Management Will Best Meet the MSA's Goals*

According to the 2005 Scientific Consensus Statement on Marine Ecosystem-Based Management,

[e]cosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors. Specifically, ecosystem-based management:

- emphasizes the protection of ecosystem structure, functioning, and key processes;
- is place-based in focusing on a specific ecosystem and the range of activities affecting it;
- explicitly accounts for the interconnectedness within systems, recognizing the importance of interactions between many target species or key services and other non-target species;
- acknowledges interconnectedness among systems, such as between air, land and sea; and
- integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependences.<sup>1</sup>

In the context of fisheries management, implementing ecosystem-based management approaches requires moving away from decisions focused narrowly on one species or stock. It is not sufficient simply to maintain populations of individual fish species at levels that will sustain commercial fisheries. Rather, managers must establish catch levels, allocate among gear types, and make other choices about where, when, and under what conditions fisheries may be prosecuted with an understanding of the implications of those choices on the rest of the marine ecosystem.

While managers need information about the manner in which environmental conditions affect fish productivity, consideration must be given to the effects that removing large quantities of biomass is having on the marine environment as a whole. Precautionary choices that are designed to protect the health and resiliency of the entire ocean ecosystem will help to ensure sustainable fisheries into the future. The MSA specifically encourages this approach and provides tools that allow for its implementation.

*B. The MSA is Intended to Further Conservation of Ocean Resources*

The MSA is the primary Federal law governing fisheries management. Congress enacted it in 1976 to “provide for the protection, conservation, and enhancement of the fisheries resources of the United States.”<sup>2</sup> It requires stewardship of the Nation’s marine resources, which Congress deemed a “valuable national heritage.”<sup>3</sup> In supporting the 1996 amendments to the MSA that he authored, Senator Stevens himself stated that the “whole purpose” of the Act is to “protect our fisheries and have a conservation ethic to be the major goal.”<sup>4</sup>

The statute requires development of fisheries management plans (FMPs) which must include measures for the “conservation and management” of fisheries resources. “Conservation and management” is defined broadly to include considerations of food supply, recreational benefits, long-term adverse effects to the marine environment, and preserving options for the future. The MSA focuses on these broad conservation objectives, and FMPs must include measures designed to achieve them.

Since it passed the MSA, Congress has recognized areas in which improvement was necessary and amended the law to strengthen its conservation direction.<sup>5</sup> In 1996, for example, Congress—led by the Alaska delegation—took action designed to

<sup>1</sup>McLeod, K. L., et al., *Scientific Consensus Statement on Marine Ecosystem-Based Management* (2005), available at <http://compassonline.org/?q=EBM>.

<sup>2</sup>S. Rep. No. 94–711, at 37 (1976) (Conf. Rep.), reprinted in 1976 U.S.C.C.A.N. 660, 660–61.

<sup>3</sup>S. Rep. No. 104–276, at 2 (1996), reprinted in 1996 U.S.C.C.A.N. 4,073, 4,074.

<sup>4</sup>142 Cong. Rec. S10,794, at 10,810–11 (1996); see also *id.* at 10,811 (Sen. Stevens lauding the amendments as “the hallmark of conservation of fisheries throughout the world”).

<sup>5</sup>See, e.g., 142 Cong. Rec. S10,811 (statement of Sen. Kerry) (recognizing that the 1996 amendments would be critical to putting fisheries “back onto a sustainable path and literally avert an environmental catastrophe on a national level”); *id.* at S10,813 (statement of Sen. Gorton) (the passage of the amendments reflected “a statement by Congress that conservation of the resource must be a priority.”).

halt the “shameful waste” occurring in the Nation’s fisheries.<sup>6</sup> Senator Stevens noted the particularly dire circumstances in the North Pacific: “[I]n 1995, 60 factory trawlers discarded nearly as much fish in the Bering Sea as was kept in the New England lobster fishery, the Atlantic mackerel fishery, the Gulf of Mexico shrimp fishery, the Pacific sablefish fishery, and the North Pacific halibut fishery combined.”<sup>7</sup> He went on to say that “[t]he waste in that area was as great as the total catch of all the major fisheries off our shores. These 60 factory trawlers threw overboard—dead and unused—about one out of every four fish they caught” and that, in enacting the bill, Congress “had a singular purpose,” which was to put a stop to “this inexcusable amount of waste.”<sup>8</sup>

Similarly, when it reauthorized and amended the MSA in 2006, Congress took action to require Annual Catch Limits and accountability measures designed to help prevent overfishing. It also refined the description and duties of Councils’ Science and Statistical committees and provided explicitly for mechanisms to protect deep sea corals.

*C. Substantial Progress Has Been Made in Alaska Toward Ecosystem-Based Management*

In amending the MSA in 2006, Congress recognized that “[a] number of the Fishery Management Councils have demonstrated significant progress in integrating ecosystem considerations in fisheries management using the existing authorities provided under this Act.” The North Pacific region was at the forefront of that progress and has continued its leadership since 2006.

The most apparent evidence of management success, of course, has been the sustained health of Alaska’s ocean ecosystems and the continued viability of commercial fisheries in the Gulf of Alaska and Bering Sea. Moreover, the management structure in the North Pacific—including the manner in which it uses its Science and Statistical Committee—and the manner in which catch levels are established have been used as models for improvement in other areas.

In addition, the NPFMC and NMFS have taken a series of concrete steps to promote sustainability and move toward ecosystem-based management:

- At its February 2014 meeting, the NPFMC voted unanimously to adopt an ecosystem approach and vision statement. The policy includes value and vision statements and an implementation plan, and it is the Council’s intent “to affirm the importance of healthy ecosystems for maintaining sustainable fisheries, and synthesize the Council’s policy on ecosystem-based management.” The NPFMC has an Ecosystem Committee, and the ongoing dialogue at the Council about ecosystem-level considerations is an important mechanism through which to ensure that future decisions account for changing ocean conditions and continue to provide for sustainability.
- The NPFMC created the Aleutian Islands Fishery Ecosystem Plan (AIFEP) in 2007 and has committed to moving forward with an FEP for the Bering Sea. The AIFEP is designed to “provide enhanced scientific information and measurable indicators to evaluate and promote ecosystem health, sustainable fisheries, and vibrant communities in the Aleutian Islands region.” More generally, it provides a holistic look at the Aleutian Islands ecosystem, the available scientific information, and the potential implications of management choices. It is, therefore, an important tool through which ecosystem considerations can be integrated with specific fishery management choices. The Bering Sea FEP will be the second prepared in the North Pacific. It is likely to begin with a series of stakeholder meetings and hopefully will provide useful guidance for choices in that region in the future, including protecting representative habitats such as deep sea canyons.
- In 2009, the NPFMC unanimously approved, and NMFS implemented, the Arctic FMP. In recognition of the changing conditions in the Arctic and the fact that “unregulated, or inadequately regulated, commercial fisheries in the Arctic EEZ off Alaska could have adverse effects on the sensitive ecosystem and marine resources of this area,” the Arctic FMP closes the U.S. Chukchi and Beaufort seas to commercial fishing until any proposed fishing can be conducted without harming the ecosystem or opportunities for subsistence. As the NPFMC noted, its “management policy for the U.S. Arctic EEZ is an ecosystem-based management policy that proactively applies judicious and responsible fisheries

<sup>6</sup>See *id.* at S10,820 (statement of Sen. Murkowski); 142 Cong. Rec. H11,418 (daily ed. Sept. 27, 1996) (statement of Rep. Young).

<sup>7</sup>142 Cong. Rec. S10,810.

<sup>8</sup>*Id.*



management practices, based on sound scientific research and analysis, to ensure the sustainability of fishery resources, to prevent unregulated or poorly regulated commercial fishing, and to protect associated ecosystems for the benefit of current users and future generations.”

- Since 2006, the NPFMC and NMFS have taken important steps to identify and protect Essential Fish Habitat. In recognition of the importance of coral and sponge habitat as EFH, the Council and NMFS closed large areas of identified EFH to bottom trawling. Currently, almost 700,000 square miles of important habitat are protected from bottom trawling in the Gulf of Alaska, Bering Sea, and Aleutian Islands. In addition, through this process, the NPFMC and NMFS created the Northern Bering Sea Research Area, which is off limits to trawling pending development of a scientific research plan to guide management in the region.
- Over the past several years, important steps have been taken to cap and reduce bycatch. The NPFMC and NMFS have implemented caps on Chinook salmon bycatch in the groundfish fisheries in the Bering Sea/Aleutian Islands and Gulf of Alaska. The Council also has voted to reduce halibut bycatch in the Gulf of Alaska groundfish fisheries and is considering options to cap chum salmon bycatch. While these are important first steps, the caps are set at relatively high levels, and there is more work to be done to reduce bycatch and improve these measures.
- The NPFMC and NMFS have retained the overall harvest caps in the Bering Sea/Aleutian Islands and Gulf of Alaska management areas. The overall cap of two million metric tons in the Bering Sea/Aleutian Islands has been in place since 1984. It is an important conservation measure that helps ensure that catch levels are sustainable and that fish are available as prey in the ecosystem.

Steps like these will help ensure there are healthy ocean ecosystems for future generations, allow us to better meet the challenges of changing ocean conditions, and improve resiliency. The MSA requires conservation and encourages this sort of innovation.

### III. Opportunities Moving Forward

The NPFMC and NMFS have used tools available in the MSA to move toward ecosystem-based management. Managers have been in the fortunate position to do so because we have healthy oceans that include many healthy fish populations. In order to continue moving toward ecosystem-based management in the North Pacific and to encourage similar progress in other places, we must: (1) maintain and restore fish populations to levels capable of supporting sustainable fisheries and healthy ecosystems; and (2) encourage holistic management based on ecosystem considerations, precaution, and inclusive, public decision-making.

It is important to note that, despite progress, management in the North Pacific is far from perfect. The lengthy, contentious history and current controversy surrounding protections for the endangered Western population of Steller sea lions is a good example of the problems that could be avoided by precautionary management. Beginning in the 1960s, the Western population declined precipitously, and it reached a low point in 2000, when it was estimated at 42,500 individuals—a decline of more than 80 percent from historic levels. That decline led to protection under the Endangered Species Act (ESA), a lengthy debate about how best to address it, and eventually contentious litigation that lasted from 1998 to 2003.

New protections were implemented in 2001 to limit the competition between the Atka mackerel, pollock, and Pacific cod fisheries and Steller sea lions, which depend on those species as prey. The new measures appear to have had some beneficial effect, as the population stabilized overall. Declines continued, however, in the western Aleutian Islands, and the population was not meeting criteria established in the Revised Recovery Plan that NMFS completed in 1998.

A new ESA consultation process was started in 2006 and completed in 2010. It concluded—as have all agency analyses of the issue—that fisheries may compete with predators, like Steller sea lions for prey and found that the groundfish fisheries, as then managed, still did not comply with the ESA mandates to prevent jeopardy to Steller sea lions and to prevent adverse modification of their critical habitat. As a reasonable and prudent alternative, NMFS implemented new protections for the species in the areas in which the population was still declining sharply—the Western Aleutian Islands. Those new protections touched off a new round of litigation—this time brought by the State of Alaska and fishing industry. The Federal district court in Alaska and Ninth Circuit Court of Appeals upheld the agency’s analysis and the new protections.

Nonetheless, the agency is now completing an Environmental Impact Statement and new ESA consultation process in which it is evaluating alternatives that would roll back the protections deemed necessary in 2010. Despite more than \$100 million having been spent, largely in an effort to prove otherwise, the best evidence still suggests that competition with fisheries—which have been allowed to deplete important prey species by 50–70 percent—may cause jeopardy to the Western population. Thus, while there may be other factors contributing to the ongoing decline and failure to recover, competition with fisheries for food is one that we have the ability—and obligation—to mitigate directly. The best way to achieve this goal, while allowing for sustainable fisheries and supporting communities, is to implement an ecosystem-based approach in which fisheries management decisions ensure that there is sufficient prey for sea lions. If less time and energy had been spent fighting to take more fish from the ocean, we would be much further toward that goal.

Ecosystem-based management approaches will help to rebuild depleted stocks to levels at which they can support healthy ocean ecosystems and to ensure that currently healthy stocks do not become depleted. Thus, as Congress considers mechanisms through which it can improve standards and decision-making, it also must reject ideas that will move the country backwards toward a regime that results in overfishing and poor management. Weakening requirements for rebuilding depleted stocks or annual catch limits would prioritize short-term gain ahead of long-term sustainability. Though there are few examples in Alaska, we have seen fisheries collapse in other parts of the country, and there is no reason to step backwards from current rules designed to prevent that from happening again. According to NMFS, rebuilding all U.S. fish populations would lead to a \$31 billion increase in annual sales and support for half a million new U.S. jobs. We should continue moving in that direction and resist pressure to sacrifice future generations' livelihoods to increase current profit.

From that foundation, Congress can make small changes in the MSA that will continue the movement forward toward ecosystem-based management. Formalizing some of the strategies and tools from the North Pacific would be a place to start; for example Congress could advance conservation and ecosystem-based management by requiring development and implementation of fishery ecosystem plans and formally requiring protection of forage species. In addition, small changes could be made to strengthen requirements for counting and reducing bycatch and for protecting essential fish habitat.

Further, Congress could foster open and transparent decision-making by ensuring disclosure of important catch and bycatch data. The oceans are a public resource managed by public agencies, and information collected pursuant to that management should be publicly available. As one of his first acts upon taking office, President Obama committed to create “an unprecedented level of openness in Government,” and “a system of transparency, public participation, and collaboration.”<sup>9</sup> The administration has taken steps to implement this commitment to open government, and Congress can do the same.

Federal law sets a general standard for public access to information through the Freedom of Information Act (FOIA) while protecting private personal information, genuine trade secrets, and other valid confidentiality interests through FOIA and the Privacy Act. By layering additional unnecessary barriers to transparency on top of FOIA and the Privacy Act, fisheries law and regulations have hindered public participation and hindered the transition to sustainable fisheries. Unnecessary disclosure restrictions also hinder management choices. According to NMFS, the Bering Sea/Aleutian Islands and Gulf of Alaska groundfish fisheries “produce high levels of catch, ex-vessel revenue, processed product revenue, exports, employment, and other measures of economic activity while maintaining ecological sustainability of the fish stocks. However, the data required to estimate the success of these policies with respect to net benefits to either the participants in these fisheries or the Nation, such as cost or quota value (where applicable) data, are not available.”<sup>10</sup> Removing barriers to disclosure will improve management and allow for full and fair public participation in the decision-making process.

In addition to public access to information, good management requires broad participation and consideration of diverse viewpoints. In that vein, we support broader representation on Councils, including tribes and conservation organizations. A more

<sup>9</sup>Memorandum for the Heads of Executive Departments and Agencies, Transparency and Open Government (Jan 21, 2009), available at [http://www.whitehouse.gov/the\\_press\\_office/TransparencyandOpenGovernment/](http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment/).

<sup>10</sup>Fissel, B., et al., *Stock Assessment and Fishery Evaluation Report for the Groundfish Fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands Area: Economic Status of the Groundfish Fisheries Off Alaska 1–2* (2012).

diverse set of voices at the decision-making table will help ensure that all information is given full consideration and that decisions are in the best interests of all stakeholders.

Further, it is absolutely vital to ensure compliance with other important environmental protections. Neither the substantive provisions nor the public process undertaken pursuant to the MSA are a substitute for the consideration of alternatives and important evaluation of potential impacts to the environment required by the National Environmental Policy Act (NEPA). Congress addressed this issue in 2006 when it required NMFS “in consultation with the Councils and the Council on Environmental Quality, [to] revise and update agency procedures for compliance with [NEPA].” There is no reason to do more at this time. Similarly, the Endangered Species Act provides an ultimate backstop for managers—proactive and precautionary decisions should be made far in advance of causing jeopardy to an endangered species or adverse modification of critical habitat. Managing simply to avoid ESA restrictions is not conducive to recovering protected species or ensuring sustainable fisheries. As the Steller sea lion example above demonstrates, Councils, NMFS, and industry should strive for precautionary, science-based management to sustain fisheries and the predators they support.

Ultimately, good decisions will maximize benefits. Under the MSA, fisheries are managed to achieve “optimum yield,” which is defined as “the amount of fish which—(A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems; (B) is prescribed on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant social, economic, or ecological factor; and (C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.” The large commercial fisheries in Alaska reap substantial economic benefit. This benefit derives from a public resource—fish—managed by publicly funded entities—the NPFMC and NMFS. It is certainly true that some of the economic benefit returns to the States, the United States, and residents in the form of food, employment, taxes, the Community Development Quota program, and other associated opportunities. Similarly, there has been movement to implement the cost recovery provisions in the MSA.

In light of the current state and Federal fiscal climates, however, it may be time to think carefully about how we craft this balance. We can and should think about the financial value of the public resource we allow private companies to extract and whether we are getting fair value for it. Similarly, there is a very clear need to invest in science to guide management—we can and must find ways to increase funding for science that will help us better manage individual stocks, understand the ocean ecosystem, and the impacts of fisheries in the ocean. It may likewise be possible to find new efficiencies in the Council process.

#### **IV. Conclusion**

Alaska’s oceans are vibrant places that support our cultures, livelihoods, and recreation. We are making progress toward ecosystem-based management that ensures sustainable fisheries into the future and allows us to meet today’s needs without compromising the long-term food security of our Nation. The best path forward is to continue that progress and to rely on science and precaution to guide management choices. Just as America uses and treasures its national forests for more than timber production, so too do we now realize that Americans treasure our ocean habitat and marine life for more than maximizing commercial fisheries. We can best address the coming changes and challenges by providing for resiliency and holistic management to help maintain healthy ocean ecosystems that include sustainable fisheries and vibrant communities.

Senator BEGICH. Thank you very much.  
Our last speaker, Julianne Curry, thank you very much.  
Good to see you, Julianne.

#### **STATEMENT OF JULIANNE CURRY, EXECUTIVE DIRECTOR, UNITED FISHERMEN OF ALASKA**

Ms. CURRY. Hello, Mr. Chair, Senator Cantwell. My name is Julianne—

Senator BEGICH. Is your—microphone. There we go.  
Ms. CURRY. I am—red button means go?

Senator BEGICH. Yes.

Ms. CURRY. Mr. Chairman, Senator Cantwell, my name—

Senator BEGICH. Oh, it's still not on.

Ms. CURRY. May I borrow a different one?

Mr. LEVINE. Of course.

Senator BEGICH. There we go.

Ms. CURRY. Third time is the charm.

Senator BEGICH. There we go.

Ms. CURRY. Thank you, Mr. Chairman.

My name is Julianne Curry; I'm the Executive Director of United Fishermen of Alaska. I'm also an active commercial fisherman and I'm an active participant in the Council process as a past member of the Advisory Panel.

UFA is the largest fishing industry trade association in Alaska, representing 36 member organizations and over 450 individual and business members from around the state. Our membership is very diverse in terms of the gear types we use, the species we target, and the areas in Alaska that we fish. But we are united in our commitment to sustainable fisheries and protecting fishing-dependent coastal communities. Based on that commitment, we are honored to provide you with comments on Magnuson-Stevens Act Reauthorization.

By working with colleagues from around the Nation to sponsor regionally focused hearings and listening sessions, this deliberative approach reflects the fact that, while fishermen and fishing communities from across the nation are impacted by MSA, they're all impacted differently. Understanding those regional and fleet-specific differences is crucial in moving forward and we thank you for this approach.

Alaska has long been a leader in promoting sustainable fisheries. You can say that our state was founded on this premise. Sustainable fisheries management was mandated back in 1959 when it was written into our state constitution. Alaska's leadership continued in the 1970s when Senator Stevens and Magnuson led the charge to extend U.S. jurisdiction out to 200 miles and created the Regional Fishery Management Councils that manage our Federal fisheries today. At that time, foreign fleets fishing in what is now the exclusive economic zone were enjoying a free-for-all at the expense of U.S. citizens. With the passage of MSA in 1976, this changed.

Taking a cue from Alaska, the U.S. entered a new phase of fisheries management and developed a domestic fleet to harvest our resources for the benefit of all Americans. Subsequent reauthorizations of the Act have further refined our understanding of how to best manage fisheries resources in Federal waters. These reauthorizations reflect much of what we in the North Pacific have been doing for years; scientifically informed catch limits that never exceed the recommendations of the scientific and statistical committee; protecting habitats important to manage species; full accountability for removals; industry funded observers; frequent stock assessments; precautionary approach in the face of uncertainty; considering impacts on fishing dependent communities; an open and transparent process, including robust public involvement; and promoting safety of life at sea.

We feel that this approach has contributed greatly to the fact that Alaska has no finfish stocks listed as overfished, we have no stocks subject to overfishing, and there are no stocks approaching an overfished condition. Changing environmental conditions are the limiting factor for the stock of crab that is currently listed as overfished. However, there are still significant protection measures in place and that stock is not subject to overfishing.

The success of our approach is evident in the fact that Alaska accounted for 56 percent of total U.S. commercial fishery harvest and 36 percent of total ex-vessel value in 2011. The combined value of Alaska's seafood exports and retail sales in the U.S. is estimated at \$6.4 billion. The Alaskan seafood industry directly employed 94,000 workers who earn \$2.8 billion in wages. Including indirect employment, the jobs total is over 165,000 accounting for \$15.7 billion in economic output. In short, the seafood industry is by far the largest private sector employer in Alaska and in many remote communities it is the backbone of the local and regional economy.

Over the past several years, this committee has heard many ideas for how to improve MSA. One of the key components of MSA has always been to empower the councils to manage fisheries within their region. We firmly support the Council systems in general and the North Pacific Council in particular.

Many regions of the country have called for increasing flexibility. While we feel that this is a good idea and concept, the end goal must be to generate optimum yield for fisheries that are in good shape and to rebuild those stocks that are depleted. Limiting the management tools available to the regional councils is contrary to providing flexibility and should be avoided.

We also support increased options for the use of electronic monitoring. We support the current composition of the North Pacific Council and do not support the concept of specific user-group seat designations. We strongly support maintaining adequate funding for stock assessments. We support funding for ocean acidification research so that we are better able to understand how those changes might impact fisheries. We support the increased use of cooperative research. And we support streamlining the regulatory process so that decisions made by the councils can be more quickly implemented by the executive branch agencies.

In general, the MSA is working well in the North Pacific and we don't want to see a radical overhaul of the Act. If you ultimately choose to make substantive changes, please do so cautiously so that the success we've had in the North Pacific is not jeopardized.

In conclusion, thank you again for the opportunity to testify and I'm happy to answer any questions.

[The prepared statement of Ms. Curry follows:]

PREPARED STATEMENT OF JULIANNE CURRY, EXECUTIVE DIRECTOR,  
UNITED FISHERMEN OF ALASKA

Good morning Mr. Chairman and Members of the Committee. Thank you for the opportunity to testify today. My name is Julianne Curry and I am the Executive Director of the United Fishermen of Alaska. UFA is the largest fishing industry trade association in Alaska, representing 36 Member organizations and over 450 individual members and seafood industry support businesses from around the State. Our membership is very diverse in terms of the gear types we use, the species we target, and the areas in Alaska that we fish. But we are united in our commitment

to sustainable fisheries and protecting fishing-dependent coastal communities. Based on that commitment, we are honored to provide you with comments on Magnuson-Stevens Act (MSA) reauthorization.

We appreciate the deliberative approach you have taken in moving forward with this important reauthorization. As a national Act, we feel it is appropriate to seek input from stakeholders across the Nation and to gather adequate facts before taking action that could have repercussions for years to come.

By working with colleagues from around the Nation to sponsor regionally-focused hearings and listening sessions, this approach reflects the fact that while fishermen and fishing communities across the Nation are all impacted by MSA, they are all impacted differently. Understanding those regional and fleet-specific differences is crucial in moving forward and we thank you once again for this approach.

Alaska has long been a leader in promoting sustainable fisheries. You could say our state was founded on this premise. Sustainable fisheries management was mandated back in 1959 when it was written into our State Constitution. Alaska's leadership continued into the 1970s when Senator Stevens and Senator Magnuson of Washington led the charge to extend U.S. jurisdiction out to 200 miles and created the Regional Fishery Management Councils that manage our Federal fisheries to this day. At that time foreign fleets, fishing in what is now the Exclusive Economic Zone, were enjoying a free-for-all at the expense of U.S. citizens. With the passage of MSA in 1976 this changed. Taking a cue from Alaska, the U.S. entered a new phase of fisheries management and began developing a domestic fleet to harvest our resources for the benefit of all Americans.

Subsequent reauthorizations of the Act have further refined our understanding of how best to manage fisheries resources in Federal waters. These reauthorizations reflect much of what we in the North Pacific have been doing for years:

- Scientifically-informed catch limits that never exceed the recommendations of the Scientific & Statistical Committee
- Protecting habitats important to managed species
- Full accountability for all removals
- Industry-funded observers
- Frequent stock assessments
- Precautionary approach in the face of uncertainty
- Considering impacts on fishing dependent communities
- Open and transparent process including robust public involvement
- Promoting safety of life at sea

We feel that this approach has contributed greatly to the fact that Alaska has no finfish stocks listed as overfished. We have no stocks subject to overfishing. And there are no stocks approaching an overfished condition. Changing environmental conditions are the limiting factor for the two stocks of crab that are currently listed as overfished. However there are still significant protection measures in place and neither stock is subject to overfishing.

The success of our approach is evident in the fact that Alaska accounted for 56 percent of total U.S. commercial fishery harvest and 36 percent of total ex-vessel value in 2011. The combined value of Alaska seafood exports and retail sales in the U.S. is estimated at \$6.4 billion. The Alaskan seafood industry directly employed 94,000 workers who earned \$2.8 billion in wages. If you include indirect employment, the jobs total is closer to 165,800, accounting for \$15.7 billion in economic output stemming from Alaska's seafood industry. In short, the seafood industry is by far the largest private-sector employer in Alaska and in many remote communities it is the backbone of the local and regional economy.

Over the past several years this Committee has heard many ideas for how to improve MSA. One of the key components of MSA has always been to empower the Regional Fishery Management Councils to manage fisheries within their region. We want to see this continue. We firmly support the Council system in general and the North Pacific Fishery Management Council in particular.

Many regions of the country have called for increasing flexibility. While we feel this is a good idea in concept, the end goal must still be to generate optimum yield for fisheries that are in good shape and to rebuild those stocks that are depleted. Limiting the management tools available to the Regional Councils is contrary to providing flexibility and should be avoided.

We support increased options for the use of electronic monitoring.

We support the current composition of the North Pacific Fishery Management Council and do not support the concept of specific user-group seat designations.

We want to voice our strong support for maintaining adequate funding for stock assessments.

We support funding for ocean acidification research so that we are better able to understand changes in seawater chemistry and how those changes might impact fisheries.

We support maintaining the confidentiality of proprietary data provided by fishermen and seafood processors for management purposes.

We support the increased use of cooperative research.

And we support streamlining the regulatory process so that decisions made by the Regional Councils can be more quickly implemented by Executive Branch agencies.

In general, MSA is working well in the North Pacific. While we understand this may not be the same feeling in some parts of the country, we don't want to see a radical overhaul of the Act. If you ultimately choose to make substantive changes, please do so cautiously so that the success we've had in the North Pacific is not jeopardized.

In conclusion, thank you again for the opportunity to testify today. I request that my written testimony be included in the record and I would be happy to answer any questions.

Senator BEGICH. Thank you very much.

I'm going to ask Senator Cantwell to start the questioning and then I'll be secondary to that.

Senator CANTWELL. Thank you, Mr. Chairman.

And you know these panelists remind me, obviously some are from the Pacific Northwest, but I just want to mention again how many people are here from the Pacific Northwest? The United Catcher Boats are here, Fishermen's Finest, Commercial Fishermen for Bristol Bay, the Groundfish Forum, American Seafoods, At Sea Processor's Association, Alaska Bering Sea Crabbers. Yes, that's in Seattle. And the Pacific Seafood Processors Association.

I might add, Mr. Chairman, you and I were down at Fishermen's Terminal. We were on one of the boats and took a picture and someone in Seattle said, "Well, when did you get back from Alaska?"

[Laughter.]

Senator CANTWELL. So the fact that—

Senator BEGICH. We're all connected.

Senator CANTWELL.—you know, our fisheries are so connected.

But anyway, I wanted to thank all of those people from the Northwest for being here and we know how important the reauthorization of Magnuson-Stevens is for you.

And I will just say, Ms. Curry, adequate resources for stock assessment. What I'm trying to propose here today, is robust funding for stock assessment. I don't think adequate gets it done. And so, I hope that we can work with NOAA and come up with something that meets the needs of this part of our economy because I think we're going to be challenged.

And Mr. LeVine, I didn't hear you say the word climate change or impacts. And so, maybe we can get to that but I got to get to Ms. Swanson first. So you can think about that.

Senator BEGICH. If I can just add: We don't mind you talking about climate change here. OK? We don't have our heads in the sand here. So—

Senator CANTWELL. Well, we definitely want to make sure we are understanding the risks to our fisheries. And ocean acidification, I think, is huge on that. No matter what you want to say is what your global thinking on it is, we have some real-life situations that our occurring.

But, Ms. Swanson, I wanted to ask you about stock assessments and what's working and what isn't on that. And then, I also wanted to ask you about vessel replacement because, you know, part of this is making sure we continue to modernize. I think good fisheries management is about having the modernization of equipment, as well.

And, how old are some of these vessels that you're talking about on the Groundfish Forum and what they need to do to be replaced? And my sense says here that somehow fishing and banking, fishing and financing, is an understanding, something as, you know, particular as this industry, and what you're trying to do to upgrade the equipment.

So, if you could answer those questions, I'd appreciate it.

Ms. SWANSON. Thank you, Mr. Chairman. Thank you, Senator. Senator BEGICH. Your microphone.

Ms. SWANSON. Thank you, Mr. Chairman, Senator Cantwell.

Regarding stock assessments, I think the key for the North Pacific is frequent stock assessments. If the assessments are less frequent, the fish stocks will still be fine. The management is very conservative, but will happen is the less certainty we have in the stocks, the lower the quotas will be and they'll be disproportionately lower. So I think the loss is to the Nation in terms of the resource if we lose surveys. Also, I think it's very, very important, as you pointed out, the jobs and the livelihoods that are dependent on—the North Pacific depend on frequent surveys.

Regarding vessel replacement, with the rationalization of our sector, we're now in the position where we can start replacing vessels. Our vessels. I believe the newest vessel in our fleet was built in 1986, the oldest going back at least into the 1960s. They're still safe and productive vessels but they're not modern vessels. A newer vessel will certainly be more efficient; they'll be able to do much more extensive processing than the vessels that we have now. They'll be much more environmentally friendly as well.

Since we've gotten past the obstacle of stability in terms of economic stability of the fishery, I think now the question is actually getting the contracts out. We have one vessel that is in the process of being built right now and several that are close, I think, to starting as well. There's a lot of interest in some sort of assistance with vessel financing. In terms of supporting loans to begin construction, I think, that that's a good investment in a sector that is really poised to become world class.

Thank you.

Senator CANTWELL. And why isn't vessel financing just happening on its own? What has been missing there in the private sector that people don't understand about this business?

Ms. SWANSON. Chairman Begich, Senator Cantwell, I'm not sure I'm really qualified to answer that question. I think that, in general, there's some caution when the value of a particular entity is in the permit that it holds. And I believe that there may also be some legal constraints on the use of Federal support as well, but I'm afraid I'm not qualified to answer beyond that.

Senator CANTWELL. OK. Thank you.

I see my time is up, Mr. Chairman.

Senator BEGICH. No, go ahead.



Senator CANTWELL. Well, I'll just go back to Mr. LeVine and that question about, you know, you were talking about ecosystems, and isn't one of the biggest threat to the ecosystem acidification?

Mr. LEVINE. Thank you, Senator Cantwell, Mr. Chairman.

And, yes, that is absolutely true. And also, it shouldn't be just me talking about acidification or climate change. It is something that concerns all the people at this table and all the people in this room. And it is something that the North Pacific Fishery Management Council is considering and working to address. This ecosystem vision and the movement to our Bering Sea Fishery Ecosystem Plan, in part, will enable us to consider ecosystem impacts not just from fisheries but from potentially acidifying water, changing ocean conditions from climate change and other affects, and make a robust and resilient plan for how to ensure that these fisheries make it through whatever changes are coming.

And so absolutely. We appreciate your support for funding for research, your concern for ocean acidification and climate change, both you and Senator Begich, and certainly think that this is a place where we have opportunity to get in front of it, to understand what changes might be coming and to prepare for them. And the best way to do that is to understand what's happening in the ocean and how the choices we're making about fisheries, and other industrial impacts, are affecting it.

Senator CANTWELL. Thank you.

Senator BEGICH. I want to quickly follow up.

I'm assuming you've done some work on this and, if not, maybe you could check with your peers and others, but as we work on budgetary issues as well as reauthorization, you know, the fact that there is no, really, mention in the current Magnuson-Stevens Act issue of acidification, warming waters, climate change, is because at the time it was done, no one really talked about it; except a lot of people were raising their hand in the corner but no one was paying attention, to be frank. And here we are now at a time when it's common conversation, at least in Alaska and the Northwest region. There's no question that we talk about this issue.

Do you think there's some information that you can share with us? At a later time obviously. But, of what are those kind of issues that we should make—what kind of research should we be making investments in, in order to help kind of look the long-term for this so that, the North Pacific Fisheries Council as an example, has data that they can start using in order to think long term of the impacts of acidification, or warming of waters, or generally climate change, to the conditions of our fisheries. Is there, you know, I know it's a very new area in Alaska State legislature and I want to, you know, thank those guys. They put \$3 million toward it in Alaska because it wasn't happening in the Federal level. And so, is there somebody you can reach out to and maybe report back to us on some ideas that we could consider within our reauthorization, or what kind of language and ideas we should be incorporating so there's more of a recognition and understanding in the research models?

Mr. LEVINE. Mr. Chairman, absolutely. That's something we'd be very happy to do.

I would say that at first, though, thank you for the question and for your comment earlier that we're not afraid to talk about it. It reflects enormous progress in the 10 years, or 8 years, since the last reauthorization.

Senator BEGICH. In the last year, too.

[Laughter.]

Senator BEGICH. To be frank with you.

Mr. LEVINE. Fair enough. And we appreciate that.

And, yes, I would be happy to talk to my colleagues who have more expertise and specific scientific research and get back to you with the note that we know that the waters in the Pacific Northwest, the colder waters, the more fresh water inputs, we're particularly susceptible to these common changes. And so, not only is it important to consider it in the reauthorization, generally it is something of particular importance to you, to Senator Cantwell, and to all of us here. And so we appreciate your leadership on all this.

Senator BEGICH. Thank you. And just to underline this, this is not a commercial fishing issue. This is a commercial, rec and subsistence fishing issue. It has direct impact all the way around.

Mr. LEVINE. Absolutely.

Senator BEGICH. Joe, if I can ask you a question. It came up in Alaska and it came up a little bit here in this issue of overfishing versus depletion as an example. And you know, an example was this fish stock in Alaska that's considered overfished, but it has never been fished. And it's our definitions in this legislation.

Can you give me any general comment on that? Then I want to take off on an issue that Senator Cantwell talked about and actually we had a listening session in her state regarding kind of ship construction and this gap we keep hearing about and where we need to target, but maybe first, on this issue, because it's somewhat surprising. It's a definition issue, right?

Mr. PLESHA. It is a definition issue, Senator. And the stock is the Pribilof Island blue crab.

Senator BEGICH. Right.

Mr. PLESHA. And it hasn't been fished on for decades.

Senator BEGICH. Right. So it's overfished according to—

Mr. PLESHA. It's defined under the Act as overfished. And it should be considered to be depleted or some other term of ours.

Senator BEGICH. Which helps it understand how we rebuild, too.

Mr. PLESHA. Right. That's exactly correct.

Senator BEGICH. Right. OK.

Mr. PLESHA. And, there are very strict limits on the rebuilding schedule, so there had to be controls on bycatch of other's fisheries even though they had very rare occurrences of catching any of these crab. And add that the analysis show they have no impact at all on its rebuilding but it was required to be done anyway.

Senator BEGICH. Very good.

I do want to thank you for your commentary on the harvest/processor cooperative issue. It's an interest and I'll probably do further conversation with you and others in regards to this but I thank you for that.

If I can ask you a question, Julianne, and this is one that kind of goes both on—it's a two-part investment issue. One is, I think,

what Senator Cantwell brought up and that is for fishermen to be able to get into the business of fishing, is the first piece. How do you incentivize that? What's the capital requirement? Where do we figure out financing mechanisms?

But, on the other side is, these ships that need to be rebuilt or people need new ships totally because they're too old or they're larger ships. How do we—give me a sense of what, you know, because I'm not a commercial fisherman so I don't know what it's like to go to a bank and say, "Hey, I got, you know, this permit. See this piece of paper? And I want to be able to catch all this fish, or halibut, or crab, or whatever it might be, and jeez, I need a loan for a very expensive boat." How can we grab at this issue?

We have had this discussion. I think every time we've had one of these hearings, this has come up and we don't necessarily feel like there's an answer yet. Maybe I'm wrong but it seems like there are pieces. And the financial industry is kind of here, then you got the fishing industry over here, and then you have the ship builders kind of here. And each one has kind of a different story of what the problem is.

Give me your thoughts on—

Ms. CURRY. Thank you, Mr. Chair.

It's a really good question and it has a really complex answer, actually.

There was a long period of time where, kind of in America, ship-building wasn't really a viable industry and we lost a lot of our really good shipyards across the country. And when our fisheries got to the point where they were building back up and people had the capital to be able to either buy new vessels or build new vessels there was less availability. So, supply and demand is definitely one of the limiting factors in being able to replace our fleets.

So some of the other limiting factors are the fact that building a commercial fishing vessel these days isn't as cheap as it used to be; that the cost of the materials, whether it's the electrical systems or whether it's the metal to build your boat or whether it's finding a good fiberglasser, is an extreme challenge, not just in Alaska, but countrywide. Materials are extremely expensive.

And when it comes to financing there are lots of banks out there, especially we're very fortunate in Alaska and I think Washington as well, I'm not so sure about the other places in the country, we're very fortunate to have bankers that are willing to work with the Alaska fishing industry and other industries to help obtain the capital that we need to be able to build vessels, but we all need to recognize that we built our business plans on a fluctuating biomass. We built our business plan on the fact that we are willing to sacrifice our bottom line in order to ensure the sustainability and the health of the resource for future generations. So it can be a little bit awkward for banks to say, "Hey, I would love to give you this chunk of money and not really be sure if you're going to make it back."

So thank you, Mr. Chair, for the question. It's a good one. I can talk for a very long time about some of the barriers of building a new vessel. I can talk for a long time about the barriers of entering a fishery just for an individual, as well.

Senator BEGICH. Let me ask you, I got two quick—one quick one and then one other issue on this. The first one: is there a problem with the production lines of the ships? Meaning that, let's say a fairly large ship says, you know, "I got to get a new ship," and contracting with whoever it might be and then making sure that actually happens; or they have the capacity to do it. Maybe they say they can do it, but then the capacity to really do it—because we've heard kind of mixed stories on this that the production lines are not as robust because there's not a frequency or a consistency they can depend on, therefore, it's hard to make sure that a ship can be done.

Give me your thoughts. I'm trying to be nice about how I'm saying this.

[Laughter.]

Ms. CURRY. Fair enough. Fair enough, Mr. Chair.

And I may have to defer to some of my colleagues to my right about a few of the answers, but I think your concern is definitely valid.

Senator BEGICH. Question to you and then maybe someone else might answer that question additionally.

We know at the end of—the impact on a regulation is going to come into effect which is incidental vessel discharge by EPA. Can you give me a sense from your members—which I think this starts in December if I remember right. And as you know, we're working on legislation to solve this problem. But can you tell me what the impacts might be?

Ms. CURRY. Thank you, Mr. Chair.

We appreciate you meeting with my board last week via teleconference and as a result of that there will be a letter coming your way. As soon as it's finalized we'll be able to send it to your office, but—

Senator BEGICH. Excellent.

Ms. CURRY.—the vessel discharge regulations are extremely impactful, not just to Alaska but to commercial fishing vessels across the country and recreational vessels can sometimes be included in that legislation as well. Those impacts are, I don't want to use the word devastating because I don't want to be overdramatic, but they're so draconian that they're almost absurd to be able to follow. Their requirement to be able to collect and datalog rainwater that is washing off the deck of your vessel is, quite frankly, silly.

Senator BEGICH. Perfect.

That's the kind of testimony I like. It's just you don't mince words. So thank you.

Ms. CURRY. I have never been accused of not being direct.

Senator BEGICH. That is true.

Thank you very much with that. Let me, and I know we're over a little time here, but I got a couple quick ones.

Linda, you gave some great testimony in regards to electronic monitoring, but your comment I thought was interesting. Should we, and this probably is a very simple one but I want to hear from you that, do you think within the Magnuson-Stevens Reauthorization we should have some sort of time schedule or some sort of, and I'll use the word carefully here, mandate for them to, NOAA,

NMFS, to get on the stick here and do it? Because I think we've been talking about this since the day I came into office. And it always is an answer why it's hard. I know today we've heard some testimony that they're kind of moving, but Canada is doing it.

I mean is that what you were kind of referring to? That we put some hard structure that says, "Look, it's great to keep studying it but actually let's implement it and that's probably the best study that we could do?"

Ms. BEHNKEN. Yes.

Mr. Chairman, I would certainly agree with that. The term is maybe "integrating" electronic monitoring. We all recognize there's a need for dockside monitoring. There's a need for observers. There's a need for electronic monitoring, but there's particularly a need for electronic monitoring on small boats that just can't accommodate a human being; an additional person.

I think the other piece of that, with a mandate to get this in the water, is to recognize there needs to be sustained funding. That you can't fund electronic monitoring for 1 year and be able to go through the iterative process that it takes to test the technology, to develop the contacts, the socialization, the education, the fleet, the capacity building, to support successful implementation in achieving the monitoring objectives.

So in Alaska, as you know, we have an industry-funded observer program. And what we have supported is that a portion of the funds that are collected from the industry be dedicated to funding electronic monitoring deployment in fleets where EM is integrated. That's authorized under Section 313, but right now our understanding in the North Pacific is it's not reachable.

So clarification of that piece as well as mandated action to move, to fund, and to get EM integrated into the system.

Senator BEGICH. Great.

I have two quick ones. One for you and one for Ricky, then I'm going to turn it back to Senator Cantwell if she has some additional questions.

You heard me ask the question on the discharge issue and the EPA. Can you give me your thoughts on that, too? And again, how it affects your folks or could affect or not affect your folks as discharge, the EPA regulation on discharge that will occur in December.

Ms. CURRY. Mr. Chairman, I think Julianne gave you a good, direct answer on that.

I would add that not only is it impossible for the boats to capture the water, the technology doesn't exist to carry on these boats to do what the EPA is saying we have to do. It's simply not out there. So it is impossible on a number of levels.

I think the other aspect to the discharge permits—it's a real problem for the industry—are new requirements that the shore-based processors may be facing in areas that are currently remote but maybe re-designated as non-remote, such as Sitka which is on an island; feels pretty remote to us. But the need to discharge fish ground up to no larger than one millimeter; again, there isn't the technology. We don't see the issue and it could be really crippling to the processors as well as to the commercial boats that are being asked to comply.

Senator BEGICH. Very good. Thank you.

Ricky, I just have—actually, on that last question, I don't know if you want to respond from a recreational user standpoint on that and then I have a specific question about Magnuson-Stevens.

Mr. GEASE. I think specifically on the recreational user mandates from the EPA are concerning to the recreational industry. I think some of the E15, the motor issues, are very concerning to the industry.

Senator BEGICH. Let me ask you, just in general, I appreciate you being here in regards to kind of the recreational users and how they fit in: Do you think the Magnuson-Stevens Act, as it's written today, and I think I know your answer based on your testimony but I want to just hear it, the valuation analysis or how you're viewed in comparison to commercial or even subsistence but really commercial, is at the very least not as clear as it could be? I mean, I think that's what I was hearing from your testimony. I want to make sure—I was starting to be a gemologist, so I was following you very easily on this so I knew exactly where you were going. So what it sounded like is you had a rough, from a recreational standpoint.

Mr. GEASE. Right.

Senator BEGICH. And so, I've been there in the lapidary shops, so I know exactly what you're talking about.

[Laughter.]

Mr. GEASE. Well—

Senator BEGICH. What are your thoughts on that so I understand?

Mr. GEASE.—our experiences with MSA is that whether it's NOAA, NMFS or the councils, the tools may be there but the ability to fully understand the socioeconomic values that are generated in the industry, whether it's due to a lack of application of data, or a lack of data, a lack of standards to collect data so we can have some apples-to-apples comparisons between recreational data and commercial data. All that, I believe, is lacking. And what it leaves you with is making allocation decisions based on historical harvests. Now typically in Alaska, let's say for the halibut issue, when catch shares were implemented in the halibut fishery, that tends to, when you announce that you're going to do a catch share, leads to an enlargement of harvest because everybody wants to get history in there and have a stake in the catch share program.

On the recreational side, through institution of kind of bag limits, anglers aren't just going to jump in there. So ours is more of a conservative approach in terms of it doesn't have typical changes in balances there.

Let me put it in financial terms. Let's say we were sitting here trying to maximize our performance on stock and bond portfolios. If you didn't know what the stock performance was or a bond performance and you're just saying, "Hey, we're just going to invest in bonds because historically we've invested 30 percent in bonds and 70 percent in stock," well, if you didn't know what the economic performance was over time, you could never rebalance that portfolio. That's kind of where we're at within the allocation process of the Council levels where we're kind of stuck in historical harvest

levels as our allocation set points. We don't really fully understand or evaluate the economic performance of the different industries.

Senator BEGICH. Very good. Thank you very much. Senator Cantwell.

Senator CANTWELL. Thank you, Mr. Chairman.

Again, we have such a distinguished panel here. I wanted to make sure we covered a couple of things I didn't hear too much about in the testimony.

And, Mr. Plesha, maybe you could help us on this. One is about safety. You know, as we look at Magnuson-Stevens Reauthorization, where do you think we are with vessel safety and what else we need to be doing, if anything, there? And second, if you could address this issue, too, is just this issue of fish labeling. I feel like we have such a great product here in the Northwest. You know, you go to the store and you don't know what you're eating. It'd be nice to have some labeling to know this is where this fish is caught and this is the product.

So where are we on that issue and how important do you think it is?

Mr. PLESHA. I think that on the labeling issue is very important and there's also a lot of fraud that occurs in seafood sales because often people will under weigh their amount of seafood that they'll sell or they'll, you know, put too much ice in the packaging. So there's an opportunity for FDA to be much more active in enforcing existing laws with regard to labeling of seafood. But the laws are in the books.

With regard to safety at sea: it's one of the considerations the Council must take into consideration in the developing fishery management plans and they've done a very good job in doing that. One of the best tools that they have is to rationalize fisheries. And what we found is once the fisheries rationalize it becomes dramatically safer. The crab fleet is the best example. My recollection is that there were an average of five or six lives lost per year crabbing in the Bering Sea. And since it has been rationalized, I think there has only been one individual who passed away from a heart attack. So it has been dramatically safer post-rationalization as are most fisheries.

Senator CANTWELL. Thank you for that.

And on the labeling question, do you think the FDA has the ability now to then label for, what my colleague has termed, "Frankenfish" so that we can be clear to consumers when they're going to consume fish in the future?

Mr. PLESHA. No, they did not.

Genetically engineered fish is a completely different issue. And add the question there is, what do you define as genetically engineered? There are some people who believe that hatchery production is genetically-engineered salmon. So you got to be careful about how you define that. But certainly the "Frankenfish" species, which is really a mix of two different species of animals, should be labeled as that so that the consumer is aware of what they're purchasing.

Senator CANTWELL. I agree. Thank you.

Senator BEGICH. Thank you very much.

You know, I would say that if they have the capacity to do labeling on our wild stock, they should spend time on that then rather than “Frankenfish,” but we’re trying to prevail on that.

Let me close by saying first to this witness panel, as well as the other, fantastic information. It’s helpful. This helps build the record on many different issues and we appreciate your testimony.

The other thing I’d like to point out, and I know Senator Cantwell feels the same way I do, you know, we just passed a massive farm bill for this country. And we do it every few years, and, you know, the only difference between farming and what you all are doing, and both ends of it, is we harvest from the sea; the farm bill harvests from the land. Can you imagine if we had a complementary type of legislation that had all those great things that the farmers get that we could get? I mean, Land and Water Conservation Fund, can you imagine that for our seas and all this research they get?

Senator CANTWELL. Market access.

Senator BEGICH.—market access, just a variety of things but, and in a lot of ways part of what we’re hoping to do here, and I thank Senator Cantwell because she’s been on the bandwagon longer than I have on this issue, and that is to make sure that at the end of the day, as we move on Magnuson-Stevens and other fisheries issue, we had a great sustainable fisheries issue here not long ago, to really point out, we get, we don’t disrespect the farmers in the Midwest and everywhere, but fishing is an important part of our industry in this country in the sense of industry and what we can do; from subsistence to recreational to commercial. And we’re just trying to get equity in a lot of these things.

So thank you for helping us build the case additionally that fisheries is important. And people always think, and from Alaska’s perspective, that oil and gas is the biggest employer when they look from outside in but the reality is, as it’s laid out, it is the fishing industry that’s the largest employer and has a multiplier effect that is significant for people who live and work in the state.

So thank you for your testimony. We are going to keep that record open for 2 weeks for additional questions. I do have something I’ll submit to each panel. And, I really appreciate you all attending today.

Thank you very much.

The meeting is adjourned.

[Whereupon, at 12:26 p.m., the hearing was adjourned.]



## A P P E N D I X

THE TATITLEK CORPORATION  
*Anchorage, AK, March 12, 2014*

Hon. MARK BEGICH, Chairman,  
Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard,  
Commerce, Science, and Transportation Committee,  
United States Senate,  
Washington, DC.

RE: STATEMENT FOR THE RECORD ON HEARING "NORTH PACIFIC PERSPECTIVES ON  
MAGNUSON-STEVENS ACT REAUTHORIZATION"

Dear Mr. Chairman:

Please include the following statement in the Subcommittee's record for the February 27, 2014 hearing entitled "North Pacific Perspectives on Magnuson-Stevens Act Reauthorization." This statement offered by the Tatitlek Corporation, an Alaska Native Village Corporation ("ANC"), on behalf of its subsidiary, GeoNorth, seeks to aid the Committee in addressing the serious, persistent problem of Illegal, Unreported, and Unregulated ("IUU") Fishing through the utilization of groundbreaking satellite monitoring technology.

IUU fishing activities have a direct impact on the Alaskan economy and affect the more than 80,000 citizens directly or indirectly, yet the logistical problems of operating in the North Pacific have inhibited government agencies from being able to properly monitor and enforce the restrictions. These operational and strategic challenges are exacerbated by the combined effect of constrained budgets, compliance mandates and reduced manpower. It is imperative the Federal Government identify new ways of doing business to maximize the limited monetary and human capital resources available to them while aligning their goals of their agency's mission and strategic direction.

The Tatitlek Corporation has recently invested in the first commercial Multi-Satellite Direct Receiving Station (DRS) in the world, based at the University of Alaska Satellite Research Facility in Fairbanks. This station has the capability of linking with polar orbiting satellites to download very high-resolution optical and radar satellite imagery each time a satellite passes over the stations. The applications for NOAA, Coast Guard, and other naval agencies are, to be blunt, obvious. The technology used by the Federal agencies with fisheries management and with marine transportation safety is critical cost effective program management.

Therefore, we propose instituting a monitoring program which would take advantage of these recent technological advancements to provide information and intelligence gathering through satellite tracking of suspicious activity. The patterns and hotspots discovered by polar orbiting satellites can be used to predict illegal behavior, and subsequently, provide near real time alerts to assist authorities in intercepting suspicious vessels. As such, polar-orbiting satellite imagery can offer profound access to expansive and otherwise difficult to monitor waters in the North Pacific.

Further information on both the problems faced by these Federal agencies in monitoring and enforcing IUU Fishing, and our proposed program to help ameliorate these issues is provided in detail within our Statement for the Record. We urge the Committee to explicitly encourage utilization of this technology in the upcoming Reauthorization.

Sincerely,

The Tatitlek Corporation,  
ROY TOTEMOFF,  
*President and CEO.*

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA), in amending the High Seas Driftnet Fishing Moratorium Protection Act (Moratorium Protection Act), called attention to the need for international cooperation to address fishing activities that have a deleterious effect on sustainable fisheries worldwide. Congress directed the Executive Branch to strengthen its leadership in improving international fisheries management and enforcement, particularly with regard to illegal, unreported, and unregulated (IUU) fishing, and to fishing practices such as bycatch that may undermine the sustainability of living marine resources. The Shark Conservation Act of 2010 (SCA) amended the Moratorium Protection Act to add a third focus: directed and incidental catch of sharks, especially the practice of finning, in areas beyond national jurisdiction. *The Moratorium Protection Act requires the Secretary of Commerce to identify nations whose fishing vessels were engaged in these activities, and to consult with those nations on improving their fisheries management and enforcement practices.*

### **Background**

Alaska is the only state to have coastlines on three different seas: Arctic Ocean, Pacific Ocean and Bering Sea. Over half of the Nation's commercially harvested fish come from Alaska, nearly four times more than the next largest seafood producing state. Eight of Alaska's ports consistently rate in the top thirty U.S. ports in terms of volume or value of seafood delivered.

The vast fishery resources of Alaska are of tremendous importance to the economies of the state and the Nation. These resources are self-renewing if properly managed. It is the mission of both state and Federal fishery management agencies to sustainably manage and maximize the economic benefits from these resources for generations to come.

#### *Facts & Economic Impact*<sup>1</sup>

- Alaska seafood directly accounts for 94,000 workers who, in total, earned \$2.8 billion in 2011. This figure consists of American workers who caught, processed, managed, sold, cooked, or served Alaska seafood. On an average monthly basis, Alaska seafood directly created 61,200 U.S. jobs in 2011.
- Estimates of direct economic effects do not include multiplier effects, *i.e.*, jobs and income created as a result of business and personal spending connected to the Alaska seafood industry. Including multiplier effects, the Alaska seafood industry is the basis for over 120,000 U.S. jobs, employing over 165,000 people, and \$6.4 billion in labor income.
- Total direct and secondary economic output in the U.S. stemming from the Alaska seafood industry was estimated to be \$15.7 billion in 2011.
- It is estimated the industry directly accounted for 7 percent of all private sector resident earnings in 2011. Amongst basic sectors, the seafood industry ranks second to the oil/gas industry in terms of resident earnings.
- The Alaska seafood industry creates more labor income and employs more workers in Alaska than the visitor industry and mining industry combined.
- The seafood industry is Alaska's second largest basic sector industry, in terms of employment created, labor income, and production (including secondary impacts). It is the biggest industry in terms of exports. Seafood is also a renewable resource, which can provide economic benefits in Alaska for centuries if properly managed.
- Alaska's seafood industry generates \$6.4 billion in direct economic output. This does not include indirect or induced impacts, rather it represents the value of Alaska seafood sold in the U.S. as well as the value of Alaska seafood exported abroad.

#### **The Problem:** Illegal, Unreported, and Unregulated (IUU) Fishing

The international community uses the term "IUU fishing" to describe activity that does not comply with national, regional, or global fisheries conservation and management obligations, wherever such fishing occurs. Unregulated or unreported fishing may also occur in international waters where no management authority or regulation is in place. IUU fishing activity affects fisheries of all types—from small scale to industrial. Shipment, processing, landing, sale, and distribution of IUU fish and fish products perpetuate the financial reward from illegal harvests. IUU fishing

<sup>1</sup>Alaska Seafood Marketing Institute report titled "Economic Value of the Alaska Seafood Industry" released in 2013

thwarts attempts by nations and international organizations to manage fisheries in a responsible manner. It also affects the ability of governments to support sustainable livelihoods of fishermen and, more broadly, to achieve food security.

Illegal maritime fishing activities have a direct impact on the Alaskan economy and affect more than 80,000 citizens directly or indirectly impacted by these activities. *“Since 1990, illegal and unlawful fishing is estimated to be a half a billion dollar problem to Alaska’s economy—and we can regain control over our fisheries by better policing and enforcement at the ports where the fishing boats dock and unload their illegal haul,”* said Senator Lisa Murkowski (R-AK).

In order to combat any threat, the first priority is to gather as much information as possible and develop strong situation awareness. Situation awareness (SA) involves being aware of what is happening in the vicinity, in order to understand how information, events, and one’s own actions will impact goals and objectives, both immediate and the near future.

Governmental agencies are faced with operational and strategic challenges caused by the combined effect of constrained budgets, compliance mandates, and reduced manpower that creates operational difficulties to continue to be able to manage and monitor coastal waters and waterways against illegal fishing activities. In order to address these issues, it is imperative that the Federal Government identify new ways of doing business to maximize the limited monetary and human capital resources available to them while aligning their goals of their agency’s mission and strategic direction. However, many Federal agencies often are faced with pushback from within their own organization along with the lack of funding. This highlights the need for greater communication of shared service benefits of utilizing technological solutions that can help governmental agencies address expanded responsibilities.

#### **Remote Sensed Technology**

Technology is currently available that provides enhanced situational awareness for maritime monitoring by complementing optical and SAR imagery analysis with additional AIS (Automatic Identification System) matching.

This supports:

- Identification of AIS non-cooperative ships
- AIS information reliability estimation based on ship parameter correlation
- AIS ship tracking on the basis of correlated AIS information in times between satellite data takes
- Ship identification based on (reliability proven) AIS and ship register information.
- Identification of typical behavior, patterns, etc. of illegal activities based on statistical analysis: starting points, destinations, routes, hot spots
- Baseline information for effective setup of:
  - Traffic Monitoring & Early-Warning
  - Interception Mission Support
- Urgent tasking: short-term priority satellite programming
- Near-real-time information delivery

#### **Monitoring Technology**

Currently most maritime monitoring efforts are centered on near shore activities because terrestrial sensor systems, such as radar or Automatic Identification System (AIS) have an effective range of ~20 nautical miles (nm) off the coast. In Alaska, these terrestrial based systems provide little to no visibility into activity on going in the Alaskan fisheries. Air and seaborne sensor systems can provide information beyond this ~20nm limit. However, these typically are expensive to operate and only cover a relatively small geographic area each day. As a result, these two types of monitoring technologies alone make it difficult to accurately document the full extent of ongoing activity with the fisheries.

In the last 10 years, satellite capabilities have improved to a point where they can provide regular monitoring of vessel traffic over large areas of the ocean. Maritime satellite monitoring capabilities come in two main types, satellites equipped with AIS receivers and imaging satellites. Satellite’s capable of AIS reception provide access to AIS information beyond the ~20nm range of the terrestrial AIS systems. Both satellite technologies offer global access making them ideal for monitoring fisheries worldwide.



A fishing vessel identified using satellite imagery

Understanding the utility of this technology to both Alaska and the United States, in 2013 Tatitlek Native Corporation through its GeoNorth subsidiary invested in the first commercial Multi-Satellite Direct Receiving Station (DRS) in the world with a unique offering of both high-resolution and very high-resolution optical and radar satellite imagery capabilities. The DRS is located at the University of Alaska Satellite Research Facility in Fairbanks. Alaska will be part of an extensive global DRS network which means that imagery can now be a downlink instantly each time a satellite passes over the stations, providing rapid delivery of fresh imagery in near-real time. Imaging satellites, like those accessible through the GeoNorth direct receiving station (DRS), provide imagery which can be used to locate, identify, and monitor vessel activity.

While extremely useful for vessel tracking both terrestrial and satellite AIS has one major downfall, it relies on a vessel to transmit the AIS information. Vessel's engaged in illicit activity often disable the AIS in an effort to evade authorities or conceal their activity. Satellite imagery on the other hand can identify every vessel regardless of whether the vessel's AIS is enabled or not. Satellite imagery provides an accurate picture of all vessel traffic. However when the two satellite information sources are combined, the suspicious vessel will stand out because they can be seen on the image having no corresponding AIS information. From the imagery information, such as vessel type, size, speed and direction can be extracted for these suspicious vessels. This information can then be used to determine the extent and nature of the illegal fishing, as well as other illegal activity.

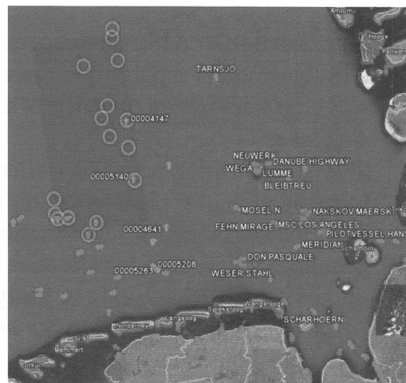


Figure 1 Orange circle show the locations of ships identified using satellite imagery. The Green arrows are ships locations using AIS information. Where satellite imagery was collected in purple an additional 10 ship have been identified which were not known with AIS only

### **Proposed Monitoring Program**

Successful monitoring programs involve a multi-phased operational approach. In the case of monitoring illegal fishing, a three phased approach would be appropriate.

- *Phase 1—Information Gathering:* A board area is monitored for a defined period of time. The purpose of this phase is to quantify the volume of suspicious activity and identify areas with a high concentration of activity.
- *Phase 2—Intelligence Gathering:* The small high activity area identified in phase 1 is regularly monitoring. The purpose is to identify any potential activities patterns and activity hotspots, which could be exploited in Phase 3.
- *Phase 3—Interdiction Support:* During this phase, information is provided in near real time (NRT) to authorities assisting in intercepting suspicious vessels.

While each of the three phases relies on satellite imagery and AIS information, each phase requires a different operational processing. Below is a description of the operational process which is required for each phase.

#### **Phase 1—Information Gathering**

The information gathering phase generally sets the back drop of the whole monitoring program because it provides a synoptic picture of the area being monitored and provides information of the volume of ongoing activity, both legal and illegal in a given area. Information gathered during this phase is used to assist in the phases 2 & 3. As well information gathered, can be used to evaluate the effectiveness of any efforts introduced to reduce illegal activity.

During Phase 1 the goal is to collect as much information as possible over as large an area as possible. To support Phase 1, the GeoNorth DRS has the ability to access up to 7 different imaging satellites providing the ability to monitor more than 200,000km<sup>2</sup> of ocean each day. The collected images are analyzed daily and information about all the vessels found within the images is extracted. This information is provided daily to authorities allowing them to remain updated with maritime activity. Over time, this daily monitoring information can be used to identify areas where there are higher concentrations of activity.

#### **Phase 2—Intelligence Gathering**

Once higher activity areas are identified during Phase 1, it is time to refine the collection strategy from a synoptic coverage to a targeted one. The purpose of the targeted coverage is providing daily monitoring so any activity patterns can be identified. These activity patterns are used to assist in determining the nature of any suspicious vessel and help build knowledge which can be used during any possible interdiction efforts.

During Phase 2, the objective is to collect information over a targeted area with high frequency. Fortunately, Alaska's high latitude location makes multiple daily collections because the 7 satellites GeoNorth's accesses are polar orbiting. On most days, the targeted area can be imaged at least 3 times per day providing a clearer picture of ongoing daily activity. As in phase 1, each image collected is analyzed and vessel information is extracted. This information is then shared with authorities and used to identify activity patterns.

#### **Phase 3—Interdiction Support**

If it is determined by the authorities that there is a need to engage suspicious vessels, or place themselves in locations to disrupt the ongoing activity, then we move to Phase 3. The purpose of phase 3 is to provide authorities with actionable near real time information on the location of a suspicious vessel. This information is then used to assist authorities to effectively position themselves to intercept suspicious vessels or disrupt suspicious activity.

Phase 3 requires rapid collection, analysis, and distribution of information in order to provide the maximum value to the enforcement authorities. This type of rapid support can only be accomplished using a direct receiving station, where vessel information can be provided in as little as 45 minutes from data collection. As in phase 2, images can be collected multiple times per day providing authorities with updated information.

### **Conclusion/Summary**

Fisheries are in a serious state of decline across the world. As population demands increase and global fishing stocks become depleted, the Alaskan economy and United States will have more demands placed upon their resources to monitor, protect, and maintain this vital natural resource. Throughout human history, ocean waters have been a critical food source. Once it was thought that our fisheries resources were limitless, but it has now become clear that their resources are not lim-

itless and are in jeopardy. It is imperative that these critical resources be protected. The only way this can be accomplished is through prudent management and enforcement.

As incursions increase with foreign fishing vessels in the Exclusive Economic Zone and without proper management, Alaska and the United States will face serious economic consequences from illegal fishing activities. Protecting and managing these natural resources has become an issue of National Security.

Proven technology is now in place that will allow Alaska and the United States to better maintain and manage these resources. Synthetic Aperture Radar (SAR) and optical imagery for surveillance of commercial fishing grounds can aid in the detection of illegal fishing activities and provide more efficient and cost effective use of limited aircraft or patrol craft resources. Alaska's convergent economic enterprise zones cannot effectively be monitored for illegal fishing activities with the currently available patrol resources.

With the utilization of SAR and optical satellite imagery, Alaskan coastal waters can now be monitored on a regular schedule. Assisting patrol vessel and locating suspicious ships for further observance and identification.

Tatitlek's DRS presents an unprecedented tool for the State of Alaska to assist in combating illegal fishing which by some reports has cost the Alaskan economy half a billion dollars. The capability is here and operational. Now all that needs to be done is to implement the capabilities and begin battling Illegal, Unreported, and Unregulated Fishing in Alaskan waters.

