ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON FISHERIES
March 9, 2007
8:38 a.m.

MEMBERS PRESENT

Representative Paul Seaton, Chair
Representative Peggy Wilson
Representative Bryce Edgmon

MEMBERS ABSENT

Representative Kyle Johansen
Representative Craig Johnson
Representative Gabrielle LeDoux
Representative Lindsey Holmes

COMMITTEE CALENDAR

OVERVIEW: NOAA, U.S. COAST GUARD VESSEL AND OCEAN MONITORING SYSTEMS

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

MICHAEL GONZALES, Deputy Special Agent
Office of Law Enforcement
Alaska Enforcement Division
National Oceanic and Atmospheric Administration (NOAA)
Juneau, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation on the Vessel Monitoring System (VMS).

GUY HOLT, Vessel Monitoring System (VMS) Program Manager
Enforcement Division
National Oceanic and Atmospheric Administration (NOAA)
Juneau, Alaska
POSITION STATEMENT: During presentation, answered questions.

ARTHUR E. "GENE" BROOKS, Rear Admiral, Commander
District 17

Joint Forces Maritime Component Commander, Alaska
United States Coast Guard
(No address provided)
POSITION STATEMENT: Discussed VMS and the automatic identification system (AIS).

RACHAEL POTTER
Institute of Marine Sciences
University of Alaska - Fairbanks (UAF)
Fairbanks, Alaska
POSITION STATEMENT: Provided a presentation regarding the surface current mapping Alaska using high-frequency radar.

SUSAN SAUPE, Director of Science and Research
Cook Inlet Regional Citizens Advisory Council (CIRCAC)
Anchorage, Alaska
POSITION STATEMENT: Discussed the relationship between surface current mapping and the mandates of CIRCAC.

STEPHANIE MADSEN, Chairman
North Pacific Fishery Management Council (NPFMC)
Anchorage, Alaska
POSITION STATEMENT: Provided the committee with a brief overview regarding NPFMC's position on VMS.

CARTER HUGHES, Commercial Fisherman
Pelican, Alaska
POSITION STATEMENT: Expressed concerns with VMS.

MATT DONAHOE, Commercial Fisherman
Sitka, Alaska
POSITION STATEMENT: Expressed concerns with VMS.

JOHN MURRAY
Sitka, Alaska
POSITION STATEMENT: Expressed concerns with VMS.

ACTION NARRATIVE

CHAIR PAUL SEATON called the House Special Committee on Fisheries meeting to order at 8:38:52 AM. Representatives Edgmon and Wilson were present at the call to order.

OVERVIEW: NOAA, U.S. COAST GUARD VESSEL AND OCEAN MONITORING SYSTEMS

8:39:02 AM

CHAIR SEATON announced that the only order of business would be a presentation by the National Oceanic and Atmospheric Administration regarding U.S. Coast Guard (USCG) vessels and ocean monitoring systems.

8:40:26 AM

MICHAEL GONZALES, Deputy Special Agent, Office of Law Enforcement, Alaska Enforcement Division, National Oceanic and Atmospheric Administration (NOAA), began by mentioning that he has been an employee of NOAA for almost 24 years. He called attention to the committee packet information, which included a page from the North Pacific Fishery Management Council (NPFMC) February 2007 newsletter and the Food and Agriculture Organization (FAO) Fisheries Report No. 761 of the United Nations dated October 25-27, 2004. The FAO Fisheries Report, in part, provides a global perspective on vessel monitoring and how it's applied. He noted that all of the aforementioned material, including the PowerPoint will be on a CD that will be provided to the committee.

8:44:45 AM

MR. GONZALES turned to his PowerPoint titled, "Vessel Monitoring System Overview." He informed the committee that in U.S. waters there are approximately 3.5 million square miles of ocean under stewardship. The NOAA Office for Law Enforcement handles about 37 statutes related to conservation and ocean stewardship. Furthermore, the NOAA Office of Law Enforcement employs 260 personnel, in 6 divisional offices and 59 field offices to accomplish this task.

8:45:56 AM

MR. GONZALES, in response to Chair Seaton, highlighted that around the coast of the US there are a variety of coastal state conservation agencies with whom the NOAA Fisheries Office for Law Enforcement is in formal arrangements that have resulted in cooperative enforcement agreements with nearly every coastal state. A cooperative enforcement agreement is the means by which the Alaska State Troopers, the California Department Fish & Game wardens, et cetera are deputized and thus are allowed to enforce federal fishery conservation laws as stipulated under various acts. In order to accomplish the aforementioned, NOAA has provided funding in the amount of approximately $15 million per year for the last 5 years. The NOAA Fisheries Office for

Law Enforcement has had five agreements with Alaska that has amounted to about $1-$1.7 million to the Department of Public Safety to fund the public safety technician program, rebuild aircraft engines, procure patrol boats, and basically for salaries, equipment, and repair. He noted that the same is in place in many other states.

8:49:33 AM

MR. GONZALES continued with the slide titled "What is VMS?" He explained that VMS is a fisheries monitoring system that predominately utilizes a secure shipboard navigation/communication hardware and satellites to provide land-based fishery managers with near real-time position and activity reports specific to individual vessels. This allows the persons on shore with real-time position and activity information on each specific vessel. He noted that VMS is a secure and reliable system that uses satellites and a land earth station that receives the satellite data. There is then a secure transmission from a land earth station to a monitoring center.

8:51:23 AM

MR. GONZALES then moved on to the slide titled "Where is VMS?" He pointed out that VMS is in use by fishery management authorities in nearly every coastal nation in the world. Less developed countries have formed cooperatives because individually they don't have the expertise or the funds for these monitoring centers. The aforementioned is the case in the Central Pacific. States, nations, subregional, and regional organizations have adopted the use of VMS to meet their stewardship responsibilities such that these entities are able to encourage, develop, and maintain fisheries as well as to have responsible oversight of the fisheries.

8:55:05 AM

MR. GONZALES, referring to the slides titled "What Does VMS Do?" pointed out that VMS enhances management and enforcement in a cost effective manner. Furthermore, VMS provides continual information about the location and activities of a fishing fleet at a fraction of the cost. He then highlighted that VMS deters unauthorized fishing and provides documentation, such that credible enforcement of a management scheme can be provided. The VMS data allows certain documentation that assists NOAA Office of Law Enforcement when investigating and prosecuting a

violator. Moreover, VMS provides a great tool in planning how a patrol will be prosecuted. Furthermore, VMS assists in conducting effective dockside inspections.

8:58:13 AM

REPRESENTATIVE WILSON asked if there is the capability to take a picture of a vessel fishing in an unauthorized area.

MR. GONZALES replied yes. A vessel with VMS uploads a data position approximately every hour and it's plotted on a screen and is saved. Therefore, if a vessel enters a no transit zone, for example, it will be tracked. The result would be alerts generated by the software so that follow-up action can be taken. Returning to his PowerPoint, Mr. Gonzales related that some vessel owners view VMS as an affordable and secure way to communicate with the fishery management authority as well as the vessel owner's home base.

9:00:41 AM

CHAIR SEATON related his understanding that there are several different [VMS] systems, one of which is a black box while others are tied into the vessel's computer.

MR. GONZALES replied yes. Continuing with his PowerPoint, Mr. Gonzales highlighted the slide relating that "VMS can potentially **free certain vessel operators from improper accusations** of wrongdoing." However, he pointed out that VMS simply documents activity.

9:02:38 AM

MR. GONZALES then turned to the slide titled "What Does VMS Cost?" He pointed out that the initial acquisition cost amounts to up to $1,750 and installation ranges up to $500. On average, there is an approximately $75 per month communication cost. In response to Chair Seaton, Mr. Gonzales confirmed that there have been decreases in the costs of hardware and communication since the program's inception in 1988. Furthermore, the acquisition costs can be offset by a reimbursement program.

CHAIR SEATON related his understanding that the fleet has been concerned that once VMS is on board it can't be shut off and the ongoing monthly cost continues even when the vessel is in port. He then asked if all of the systems cost in the $75 range or does it depend on the base equipment.

9:05:30 AM

MR. GONZALES clarified that a vessel using the system only to provide an hourly position report would result in the lowest cost. However, those systems used for communication access between a management authority or the vessel's home base have greater costs. The $75 is an average cost, he said. He related that an international view illustrates that there are different approaches. For example, Australia, as the managing authority, pays for the communication costs. He mentioned that Australia's particular approach was arrived at in large part due to its legal system.

9:07:26 AM

REPRESENTATIVE WILSON inquired as to whether an old wooden boat with outdated electronic systems would need to be rewired to handle VMS.

MR. GONZALES said that although he couldn't speak specifically to the wiring, he has observed installation of VMS on vessels of various age, shape, and size and it wasn't difficult. He noted that VMS has basic requirements for unobscured antennae placement. Depending upon the management authority under which a vessel falls, it may require an uninterrupted power supply, even dockside. He noted that in the U.S. there is VMS in which there are explicit instructions with regard to scenarios in which these devices can be powered down.

9:10:34 AM

CHAIR SEATON clarified that the crux of the question is whether these devices can operate on a 12 volt battery or require a generator.

MR. GONZALES responded that he doesn't know.

REPRESENTATIVE WILSON pointed out that the annual fee is also a concern and the $75 monthly cost amounts to $900 per year. She inquired as to the cost of the system if it's not used for telephone calls.

9:11:25 AM

GUY HOLT, Vessel Monitoring System (VMS) Program Manager, Enforcement Division, National Oceanic and Atmospheric

Administration (NOAA), returned to an earlier question, and relayed that VMS is basically on the same level electronically as an onboard color plotter or GPS. He specified that VMS doesn't take excess power and thus shouldn't be of concern. With regard to costs, it depends upon the vendors as there are three different vendors of the equipment. He informed the committee that the cost estimates Chair Seaton recalled were for a system that is no longer available for purchase, and therefore the cost estimates reflect what can currently be purchased. The cost estimates average $75 per month, depending upon communication. Most of those systems have a method by which the system can be turned off resulting in a reduced monthly fee of say, $10 per month. He mentioned that the range of cost could go as low as $50 for just positioning activity.

9:13:17 AM

REPRESENTATIVE WILSON inquired as to who will make repairs and how repairs will be handled on the fishing grounds.

MR. HOLT stated that enforcement actions are performed on a case-by-case basis. He opined that no one has been stopped from fishing, although once in port the system may be required to be fixed before leaving port. He related that NOAA doesn't become involved with who makes the repairs, although he noted that the vendors do have [retailers] in Southeast. Although it's incumbent upon the fishermen to ensure VMS is working, NOAA hasn't been Draconian in its approach.

CHAIR SEATON surmised then that these systems are sold by local radar and electronic shops who could install, repair, and honor warranties.

REPRESENTATIVE WILSON inquired as to how long the equipment is going to last.

MR. HOLT said that a number of the Argos (ph) units have been in use since 2000/2001. He mentioned that another brand has lasted for about five years plus. Depending upon the system, parts such as the antennae can be replaced and the electronic portion stays in tact. He noted that Argos, since they are no longer available for purchase offered a lifetime warranty. In further response to Representative Wilson, specified that only the first replacement is provided. He explained that the reimbursement program is funded year-to-year, although the expectation is for the program to be fully funded through 2009.

REPRESENTATIVE WILSON inquired as to how long between the time the fisherman puts out his/her money for the initial system and when he/she is reimbursed.

MR. HOLT said he couldn't answer that. However, he offered that after activation, the fisherman must purchase it, provide documentation, and activate it through NOAA. After the aforementioned, the paperwork is provided to the specific state's marine fisheries which provides the check for reimbursement. Mr. Holt related that he hasn't heard any remarks with regard to how long it takes, but he also hasn't heard any complaints.

CHAIR SEATON requested that further information be provided to the committee.

9:17:20 AM

REPRESENTATIVE EDGMON, referring to page 5 of the North Pacific Fishery Management Council (NPFMC), February 2007 document, highlighted the sentence stating that NPFMC decided to postpone indefinitely any further work on a comprehensive VMS program. He noted that he was one of many legislators requesting that NPFMC discontinue that work due to the concerns with regard to the impacts on smaller vessels. He related that he is lost with regard to the overall intent of the program.

MR. GONZALES said that the aforementioned NPFMC document referred to a comprehensive VMS program, which reflects a different approach to the implementation of VMS. The approach in the fisheries in Alaska had been to identify within the waters of the state, those areas for which vessel monitoring was a key feature to measure compliance within that fishery. The program was being applied on a fishery-by-fishery basis, which he indicated was a formidable task. What was then reviewed was the approach used throughout the world, which is to apply vessel monitoring to all participants in commercial fisheries as a base-line requirement. Under that requirement, there are exceptions such as those related to tonnage requirements and certain area operations. The aforementioned is how the comprehensive plans are put into place and that's the track NPFMC followed. He noted that there were a large number of exemptions. As the newsletter describes, NPFMC halted that practice. However, at no time was there an expectation that a small vessel would be required to carry VMS as there would be exemptions specified.

9:23:12 AM

CHAIR SEATON surmised then that the two approaches are: identifying the fisheries with problems that need monitoring and requiring VMS; requiring the entire fleet as a general provision to have VMS with some exemptions.

MR. GONZALES noted his agreement.

9:24:04 AM

REPRESENTATIVE EDGMON opined that enforcement and compliance would be the overriding feature of VMS with the secondary purpose of navigation and safety.

MR. GONZALES concurred.

9:24:46 AM

REPRESENTATIVE WILSON called attention to a letter from [Charles Piedra], which suggests including exemptions for the following: all federal fisheries permit holders with less than 5,000 pounds individual fishery quota (IFQ), all Alaska licensed salmon gillnet boats, all Alaska licensed salmon seine vessels, all Alaska licensed small fishing vessels fishing in state waters, and all Alaska Native small boat fishermen with incomes less than the national poverty level.

CHAIR SEATON clarified that NPFMC has placed the system on hold.

9:26:12 AM

MR. GONZALES returned to his presentation, and drew attention to the slides titled "Summary of Benefits" and "Summary of Benefits to Industry." He highlighted that VMS allows enforcement related agencies improved surveillance. Furthermore, VMS builds in efficiency with regard to responding to identified problem areas. The VMS also increases safety for the Coast Guard as well as the industry. He noted that there are owners who track the location of their vessels from their own computer. Mr. Gonzales emphasized that VMS lengthens and broadens the fishing opportunity. He then expressed the need for there to be control mechanisms in place in order to ensure confidence that a responsible fishing effort is occurring.

9:30:02 AM

REPRESENTATIVE WILSON surmised then that charter fishermen will likely not be included in this requirement.

MR. GONZALES answered that it remains to be seen and will be part of NPFMC's process. He reminded the committee that the comprehensive VMS program is currently on hold indefinitely.

9:30:57 AM

CHAIR SEATON pointed out that NOAA doesn't set the policy, but rather enforces the policy. He noted his appreciation of Mr. Gonzales' insight regarding how the system functions.

CHAIR SEATON announced that the committee would now receive a presentation regarding the automatic identification system.

The committee took an at-ease from 9:32 a.m. to 9:36 a.m.

9:36:59 AM

ARTHUR E. "GENE" BROOKS, Rear Admiral, Commander, District 17, Joint Forces Maritime Component Commander, Alaska, United States Coast Guard, informed the committee that he is responsible for all of the Coast Guard operations in Alaska. He further informed the committee that he has been in the Coast Guard for 32.5 years and in Alaska since last May. Rear Admiral Brooks remarked that most of his adult life has been spent either regulating or rescuing fishermen. Some time ago, he said he became tired of pulling the dead from the water. Rear Admiral Brooks told the committee that he is present today to discuss the automatic identification system (AIS), which is a completely different system than VMS. The Coast Guard utilizes both AIS and VMS. The Coast Guard's primary law enforcement mission in Alaska is fisheries, unlike in other areas where the Coast Guard's mission involves drugs and migrants.

9:38:52 AM

CHAIR SEATON reminded the committee that it's reviewing these applications in relation to fisheries issues only, not security issues.

9:39:26 AM

REAR ADMIRAL BROOKS began his presentation with the slide titled "What is AIS?" He informed the committee that AIS developed as a Safety of Life At Sea (SOLAS) requirement by the International

Maritime Organization (IMO) and is internationally imposed on vessels 300 tons or larger. He explained that AIS is an autonomous, continuous station-to-station navigation broadcasting system that essentially provides vessel position, course, and speed. The standards are imposed to address vessel safety, collision avoidance, and to aide vessels in avoiding accidental groundings or collisions. In the Maritime Transportation & Safety Act of 2002 (MTSA) Congress mandated that the following vessels must have an AIS: all commercial self-propelled vessels 65 feet or greater, towing vessels over 26 feet with 600 horse power or more, passenger vessels as determined by USCG, and those USCG deems necessary for safety. However, MTSA provided exemptions for commercial fishing vessels and a number of other [types of vessels].

REAR ADMIRAL BROOKS announced that the USCG intends to go forward with a notice of proposed rule-making to impose the 2005 requirement for AIS on all commercial vessels 65 feet and greater, including fishing vessels. The AIS requirement will also be imposed on vessels 26 feet and greater and with more than 600 horse power, vessels carrying 50 passengers or more, high-speed vessels carrying 12 passengers or more, as well as dredges and floating plants. This requirement is being put in place for safety and security. One of the goals of AIS, he related, is to provide awareness of who's on the water.

REAR ADMIRAL BROOKS explained that essentially AIS is a mobile identifier that transmits position, course, speed, heading, rate of turn, the IMO number, and the Convention on the International Regulations for Preventing Collisions at Sea (COLREG) navigation data number every two to ten seconds. Every six minutes or so, the vessel name and call sign, type and dimensions, static draft, hazardous cargo flag, and destination and estimated time of arrival is relayed. The current regulation [33 CFR 164.46] exempts fishing vessels and provides special requirements, and therefore is the regulation that the USCG will look to change in the rule-making process. Essentially, the USCG is seeking to remove an exception that has been in existence since 2005.

9:43:27 AM

REPRESENTATIVE WILSON asked if data regarding the type of vessel and such is input into AIS when it is installed on the vessel.

REAR ADMIRAL BROOKS replied yes. He highlighted that commercial vessels always use systems such as AIS because they need to know the location of their vessels and the cargo on the vessel. He

noted that commercial vessels may change voyage orders in transit. Therefore, this requirement wasn't difficult for the commercial vessels.

REAR ADMIRAL BROOKS then turned the committee's attention to the slide of the side-by-side comparison of AIS and VMS. The primary difference between the two is that VMS is a satellite system while AIS is a VHF-FM system that's limited to line of site coverage. Therefore, one's ability to see an AIS transmission depends on whether he/she has an antennae that can see the vessel. The reality is that all fishing vessels out on the 100 fathom bank or slime bank are beyond the range of any AIS antennae since the antennae only reaches 30 miles or so. The large difference between the two systems is that AIS currently doesn't work offshore because there has to be a receiving antennae to accept the signal. However, VMS works offshore because it's a satellite-based system. He pointed out that AIS is an IMO system that the US has implemented while VMS is a US-based system run by NOAA and NPFMC. He highlighted that AIS is for SOLAS while VMS is for fisheries management. Furthermore, AIS has no confidentiality as anyone with an antennae can accept the signal, but VMS is a closed confidential system due to the proprietary nature of the fishing information. He then pointed out that AIS is a self-reporting system while VMS is an interrogated system.

9:46:11 AM

REAR ADMIRAL BROOKS addressed the cost of AIS, which he estimated to be between $1,700 to $3,500 for the AIS equipment. He highlighted that for AIS there's no continuous service fee. The USCG intends to provide a reasonable implementation period of the new requirement. Rear Admiral Brooks moved on to the slide titled "Benefits of VMS." He said that VMS allows an instant focus as to who needs to be monitored versus the existing 20-mile radar sweep by the cutters that doesn't locate violators. He characterized VMS as an important enforcement tool.

9:48:51 AM

CHAIR SEATON asked if foreign fleets, say the Russian fleet, fishing near U.S. waters are required to utilize VMS.

REAR ADMIRAL BROOKS answered that the Russians have a very viable VMS, but the U.S. doesn't have access to Russia's VMS data and can't share the U.S. VMS data with Russia. Therefore,

[foreign fleets] have to be monitored via aircraft and vessels. He pointed out that Alaska is one of the last places with a fishery large enough for people to want to come and steal, and thus one of the USCG's major missions is to monitor the boundaries and keep foreigners out of U.S. fishing grounds.

9:50:44 AM

REAR ADMIRAL BROOKS, referring to the slide titled "VMS Uses in Alaska," emphasized that VMS wasn't designed to be a safety tool. He then discussed search and rescue situations in which the emergency position indicating radio beacon (EPIRB) is utilized. Use of the EPIRB is the primary way that vessels are located. However, the beacon may not deploy or the beacon may go down with the ship and doesn't work under water/ice. Furthermore, sometimes the EPIRB is incomplete in that it merely provides an alert without a position as there wasn't enough data in the transmission to the satellite and then it takes an hour to three hours more for the satellite to uplink again and provide positioning. The other major difficulty is that over 90 percent of alarms emitted from beacons are false. However, VMS solves all of those problems because it specifies the location of a vessel and thus provides instant corroborating information. Rear Admiral Brooks also pointed out that the satellites are also problematic because they often provide two locations and only one of which is accurate and thus it requires work to determine the accurate location. The VMS also solves the aforementioned. He then recalled the automated merchant vessel emergency reporting system (AMVER), which was a voluntary system in which merchant vessels around the world relayed their location to the USCG. The AMVER system was used exclusively for a search and rescue system and allows the USCG to contact a nearby vessel and divert it to the vessel in distress. He highlighted that most of the rescues in Alaska are performed by other fishermen and good Samaritans as they can arrive faster than USCG. The VMS allows the USCG to know the vessels located near the vessel in distress. Furthermore, in a situation in which a vessel goes down or is overdue, VMS provides a last known position and provides a place to start the search that wouldn't be available with VMS or some like system.

9:55:40 AM

REAR ADMIRAL BROOKS related his pleasure in the fact that to this point there have been no deaths in the crab fleet this season. He attributed the aforementioned partially to rationalization, which has resulted in fewer boats over a longer

period of time and thus the vessels don't have to go out in bad weather. Furthermore, in conjunction with the state, the USCG performs mandatory safety checks on the crab fleet prior to leaving and those vessels which left prior to the safety inspection can be located with the use of VMS. He opined that the main reason that there have been no deaths in the crab fleet is due to good decisions by skippers.

9:57:20 AM

CHAIR SEATON surmised that AIS is required in vessel traffic system areas.

REAR ADMIRAL BROOKS specified that AIS is required in all US waters.

CHAIR SEATON recalled that there were exemptions to the AIS requirement.

REAR ADMIRAL BROOKS explained that currently USCG relies on AIS for vessels 200 tons or greater. He noted that the USCG knows the location of all commercial vessels, such as cruise ships, because they are routinely reporting their location. The question is in regard to all other vessels. The situation is similar to what the Federal Aviation Administration (FAA) has experienced with small aircraft.

CHAIR SEATON surmised then that the new regulations will apply to all commercial fishing vessels over 65 feet in length.

REAR ADMIRAL BROOKS explained that the proposal USCG is going forward with will, among other things, remove the exception for commercial fishing vessels 65 feet in length or greater. He said that he couldn't answer whether a VMS equipped vessel would be compliant, although he assumed so.

10:00:06 AM

CHAIR SEATON related his understanding that a commercial fishing vessel 65 feet in length or over operating in a vessel transient area, such as the eastern half of the Prince William Sound, was required to have AIS.

REAR ADMIRAL BROOKS indicated his agreement, noting that Prince William Sound has a vessel tracking systems (VTS). In places in which there are historic problems with close traffic, such as in Valdez, Prince William Sound, and Puget Sound, there are shore-

based radar vessel traffic systems that physically monitor and manage the movement of large vessels to prevent collisions.

CHAIR SEATON surmised, "If that exemption would be limited, then the same requirements would be for all vessels, commercial fishing vessels 65 [feet in length] and over, whether they're inside or outside of a vessel's traffic."

REAR ADMIRAL BROOKS responded, "I think so."

10:01:49 AM

REPRESENTATIVE WILSON inquired as to why the decision was made to keep AIS rather than have new entrants install VMS.

REAR ADMIRAL BROOKS pointed out that VMS is not a universal requirement. On the other hand, the USCG believes it has a universal requirement, which is what he speculated to be the reason to go forward with [AIS].

CHAIR SEATON admitted to confining his fishing to the western side of Prince William Sound to avoid having to install an AIS.

10:03:43 AM

CHAIR SEATON asked if there is a reimbursement possibility under AIS.

REAR ADMIRAL BROOKS said that he didn't know and that he's present to relay that he would expect notice soon that the USCG is going forward with notice of proposed rule-making to essentially move the requirement down to 65 feet for AIS.

CHAIR SEATON expressed his gratitude to the USCG for providing this clarity.

10:05:47 AM

RACHAEL POTTER, Institute of Marine Sciences, University of Alaska - Fairbanks (UAF), explained that UAF is utilizing a high-frequency radar system to map surface currents around the state. The surface currents are the top layers of the ocean waters. The technology allows the production of maps in real time that relate the direction in which the surface waters are moving and how quickly the waters are moving. She likened the technology to that used by policemen when tracking vehicles.

MS. POTTER, referring to the slide titled "Why Measure Ocean Currents?" pointed out that knowing where surface water is moving and the rate at which it's moving has implications with regard to spill response planning, search and rescue, marine navigation, marine ecosystem/fisheries issues, currents transport heat, nutrients, fish larvae, current affect climate and weather. All these issues require measurements in near real-time over a large area. Moving to the slide titled "Measuring Ocean Currents," Ms. Potter explained that the moored current meter is placed on the bottom of the ocean and it looks up through the water column to relay how fast water is moving at that point. She noted that ocean currents have also been measured by satellite-tracked drifters, which provides only a snapshot in time and is very dependent upon the current weather conditions. Therefore, it may not be indicative of a long-term average. The high frequency radar allows the measurement of currents in a broad spatial area and returns data via satellite hourly and the university posts an image on the Internet hourly. She mentioned that this is a shore-based operation in which a transmit antenna sends a signal across the ocean at a certain frequency that is returned to the receive antenna. Although the system needs to be calibrated on board a ship, it can be setup within a day, she related. Ms. Potter drew attention to the slide titled "HF Radar Theory," which illustrates how the technology works.

MS. POTTER, moving on to the slide titled "Upper Cook Inlet," which illustrates that a monitoring system was set up in the Upper Cook Inlet in 2002-2003. The [mapping] illustrates that the waters are mainly moving southward and that there's a stronger current through the middle of Cook Inlet. Ms. Potter noted that this system was funded by the Coastal Marine Institute. The next slide shows the mapping done in Prince William Sound in 2004-2006. The largest challenge in Prince William Sound was that the system was remotely powered by wind, and other methods. She noted that they had to adhere to U.S. Forest Service regulations since it was located on their land. Ms. Potter highlighted that the system in Prince William Sound was the beginning of an ocean observing system for Alaska, as it was one of the first components to provide operational real-time data. In 2005 a long range system monitored the Gulf of Alaska, funded by the Tsunami Warning and Environmental Observatory. That system illustrates the range of currents that can be obtained offshore. The slide titled "Beaufort Sea" illustrates the findings of the system in Prudhoe Bay. The Minerals Management Service funded the 2005-2006 Beaufort Sea monitor as it was interested in improving its oil spill risk analysis

models. She then pointed out that in 2006-2007 a system was located in the Lower Cook Inlet. The system spans the entire inlet, but is dependent on the stage of the tide cycle. This system was also funded by the Minerals Management Service. She moved on to the slide titled "Overlay Currents and Temperatures," which relates the surface currents and sea surface temperatures. The counter clockwise motion in the middle of Prince William Sound causes an upwelling of the cooler waters from the subsurface. Therefore, the current data provides information regarding temperature gradients.

10:15:45 AM

MS. POTTER moved on to the slide titled "Overlay Currents and Sea Ice," which highlights that measurements can be taken in ice. She noted that [UAF] is currently coordinating with CODAR Ocean Sensors who manufactures this instrument in order to develop algorithms to also obtain ice velocities, which should help with marine navigation in icy waters as the movement of the ice could also be known. Referring to the slide titled "Why Measure Ocean Currents?" Ms. Potter reminded the committee that these instruments are in use worldwide. She noted that these instruments can measure wave properties, such as wave height and length. Ms. Potter concluded her presentation by thanking everyone for their interest and inviting everyone to log onto www.cookinletcurrents.com to see information on the Cook Inlet currents.

MS. POTTER, in response to Chair Seaton, stated that for the Lower Cook Inlet this information has been available since November 2006 and will be in place until November 2007. She noted that it's the only operational system as the systems in other locations have run out of funding.

10:17:47 AM

MS. POTTER, in continued response to Chair Seaton, confirmed that the information is updated hourly. Furthermore, every hours worth of data since November 2006 is housed on the Internet. Much of the data analysis is continuing. At this point there are average maps for the seasons, although they haven't been placed on line. The models are being created by the Minerals Management Service and the university doesn't take part in that. In further response to Chair Seaton, Ms. Potter specified that the overlay with the temperature and currents can be accessed through the Alaska Ocean Observing System (AOOS) website, www.aoos.org. She related her understanding that

currently AOOS displays the surface currents as well as the temperatures and is working on technology to overlay the two.

10:20:05 AM

REPRESENTATIVE EDGMON asked whether there are any forthcoming efforts to apply this technology in Southwest Alaska, near the Bering Sea.

MS. POTTER replied no.

10:20:32 AM

CHAIR SEATON inquired as to the cost of this program for a year.

MS. POTTER specified that the hardware itself costs about $300,000 and she estimated that the operational costs are about $150,000 per year. In further response to Chair Seaton, Ms. Potter clarified that the [university] owns the equipment and thus basically the operational costs are what need to be covered.

10:21:58 AM

SUSAN SAUPE, Director of Science and Research, Cook Inlet Regional Citizens Advisory Council (CIRCAC), provided the following testimony:

> You might be familiar with Cook Inlet RCAC ... formed under the Oil Pollution Act of 1990 and we were given a list of mandated tasks that relate directly to crude oil operations in Cook Inlet. Our board of directors is represented by 13 entities, one of which is commercial fisheries in Cook Inlet as well we are represented by aquaculture on one of our seats, and that is retained by the Cook Inlet Aquaculture Association, right now. So, we do have definite interest in the work that we do and how it ties with fisheries issues. One specific mandate that relates to what you're talking about today, surface current mapping, is in ... Oil Pollution Act of 1990 (OPA) to study wind and water currents and other environmental variables that affect our ability to prevent, respond to, or cleanup oil spills. And this was the big mandate as well as our task to conduct a comprehensive environmental monitoring program in Cook Inlet and surrounding areas [which] has led us to identify

physical oceanography as ... a very high priority in our strategic plan. And the projects under this program include data collections or observations as well as the development of better forecast or trajectory models, preferable assimilation models that can incorporate real-time observations. And that's what really ties in with what we're talking about here, is very few instruments out there can provide you with real-time measurements over a large area. As with many of our programs, we work closely with federal and state agencies and other organizations to leverage funds and build more robust programs and projects. So, we are currently working with several organizations to develop an ocean observing system for Cook Inlet and surrounding areas that fits into a larger Gulf of Alaska plan. As we are working very closely with the Alaska observing system.

10:25:07 AM

MS. SAUPE continued:

I'm going to try to address some of the needs that they've [AOOS] identified for surface current measurements. The Alaska Ocean Observing System, or AOOS, has provided needs assessments for ocean observation throughout coastal Alaska, including separate needs assessments for Prince William Sound, Cook Inlet, Kodiak, Southeast Alaska, the Bering Sea, and the Arctic. They've separated out their strategic plan into regional areas: the Arctic, the Bering and Aleutians, and the Gulf of Alaska. And then within each of these, for example within the Gulf of Alaska there will be smaller areas that have observing systems, such as a Cook Inlet, or Kodiak, or Prince William Sound, or Southeast Plan. And then all of those integrate into a larger Gulf plan. But, through this assessment, AOOS prioritize the development of high frequency radars for surface current measurements in the Gulf of Alaska that can track the Alaska coastal current in its counter clockwise path around the Gulf, that can provide circulation detail for Central Prince William Sound gyros to monitor the seasonal influence of the Alaska coastal current and the western boundary current on Cook Inlet, and even be able to resolve Cook Inlet rip zones that could vastly improve our understanding of those complex

circulation patterns. From the Bering Sea and Aleutian Island areas, AOOS identified a need for deploying several long-range high frequency radar mappers at post points. For example, the Bering Strait, the Aleutians Strait in circulations and major fishing grounds. This information will enhance fisheries and ecosystem information collection and data presentations by expanding the area covered by surveys .... The benefit of the ... radar systems for measuring surface currents is that they provide real-time measurements of circulation patterns over large areas and they can be deployed to measure at a range of resolutions. ... In relation to fisheries issues, the improved knowledge of coastal circulation will improve our ability to understand, model, and forecast future circulation patterns. We all know that near-shore coastal areas are extremely important to certain life stages of many commercially harvested finfish and shellfish species. These coastal currents carry larvae, eggs, dissolve them, ... food from one area to areas downstream. High frequency radars can help us monitor, in basically real-time, the physical movement of surface layer that is so important to many biological processes. And finally, given our OPA '90 mandates, I can't stop without touching on the fact that by improving our ability to track or predict oil movement in the event of a large oil spill in Alaska, we can better protect near-shore habitats that are essential for future healthy fisheries. We believe that high frequency radar surface current mappers can provide us with information that can vastly improve our understanding of Alaska's complex coastal currents and that can help to improve our ability to model and predict oil spill trajectories, which will thus improve our ability to pre-plan and respond to spill oil.

10:29:52 AM

STEPHANIE MADSEN, Chairman, North Pacific Fishery Management Council (NPFMC), informed the committee that the topic of VMS was discussed at the February 2007 meeting of NPFMC. The council was concerned about the number of exemptions being crafted in response to public comment and asked the National Marine Fisheries Service (NMFS) enforcement and the USCG to readdress the issue to minimize the need for these exemptions. She indicated that such action may result in NPFMC taking up VMS

again. Ms. Madsen explained that a comprehensive VMS document arose when closure areas were passed for essential fish habitat issues several years ago, VMS was required in the Aleutians, but not elsewhere. She related that it was surprising that VMS was going to be required in the Gulf of Alaska, and the council was concerned. "We felt that we may not have required some of those closures or maybe not as many of those closures had we understood that the enforcement agencies believed that the only way they can enforce those closures were through VMS," she opined. Therefore, NPFMC commented on the proposed rule and requested that the VMS requirements not be enforced. During the discussion, there was discussion regarding the need for a comprehensive approach.

10:32:46 AM

CARTER HUGHES, Commercial Fisherman, began by clarifying that although he is a member of the Alaska Trollers' Association, he is speaking on his own behalf today. Mr. Hughes opined that NMFS and the Coast Guard don't seem to understand the small boat perspective. He further opined that he isn't receiving any acceptable answers with regard to cost and down time due to repairs. He noted that many fisherman live on their vessels. The suggested benefits don't apply to many of the fishing vessels. Mr. Hughes said that [VMS] doesn't work for a small private business. In fact, he said that he couldn't agree to it unless it was fully paid for and if he could keep fishing when it was sent for repairs. He opined that in small villages such as Pelican there will be no way to repair VMS in a cost-effective manner.

CHAIR SEATON related his belief that NPFMC will listen to Mr. Hughes' concerns, many of which have been expressed by the legislature.

10:36:29 AM

MATT DONAHOE, Commercial Fisherman, relayed that he has recently come to understand that he will possibly be required to utilize VMS for his small single bar fishery, which grosses less than $10,000 on average. Contrary to earlier testimony, these devices aren't available locally, he noted. Furthermore, there's no one in the region who knows about repairing VMS. Most would consider this VMS requirement as an obnoxious federal intrusion. He expressed resentment for categorizing fishermen as cheaters because most don't. He characterized the VMS requirement as an Orwellian nightmare.

CHAIR SEATON clarified that the testimony wasn't that all fishermen cheat, but that there are some cheaters.

MR. DONAHOE pointed out that the testimony was that "People invariably cheat." He disagreed with that statement, and specified that although some individuals may cheat, people as a whole don't.

10:40:24 AM

JOHN MURRAY expressed the need for USCG, NOAA, and NMFS to work with the effected fishing fleets to identify alternatives to VMS coverage. The different gear groups in Southeast Alaska, Eastern Gulf of Alaska are willing to develop solutions that address the safety, scientific, and enforcement needs. He opined that the groups could reach some common ground without the use of VMS, which many view as intrusive, expensive, and unnecessary. Furthermore, VMS doesn't work in the spirit of cooperation and seems to be a sign of big government going astray. Mr. Murray echoed Mr. Hughes' concerns with regard to the expense of VMS for a small boat. With regard to safety, he noted that most who fish outside the boundary lines already carry a lot of safety gear. He then turned to enforcement and reminded the committee that when IFQs first occurred, there was a tremendous amount of enforcement, which doesn't seem to be the case now. He opined that it's incumbent upon enforcement to obtain the data necessary. He related that he will write these agencies regarding alternatives to VMS.

10:44:32 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 10:44 a.m.