

## U.S. COAST GUARD REPORT ON IMPLEMENTATION OF THE AUTOMATIC INFORMATION SYSTEM AND VESSEL MONITORING SYSTEM

The United States Coast Guard (USCG) has issued a notice of rulemaking to expand the Automatic Identification System (AIS) to include coverage of any fishing vessel with a length overall greater than 65 feet (Agenda Item E.1, Attachments 1 and 2). This satellite based system would be in addition to the satellite based vessel monitoring system (VMS) system required for trawl vessels beginning in 2004.

The action would be pursuant to the Maritime Transportation Security Act of 2002 and is intended to enhance the USCG ability to identify and track vessels, detect anomalies, improve navigation safety, and heighten our overall maritime domain awareness. Concern has been expressed about the additional burden represented by these requirements, in particular for vessels already carrying VMS units. The USCG will make a presentation on this proposal and respond to Council questions.

AIS is a requirement for all commercial vessels 65 feet or greater as of November 2003. The "new" rule for carriage in commercial fishing vessels is actually an implementation of the 2003 rule, expanding it to all of the vessels contemplated under the initial regulation.

Fishing vessels were initially "deferred" in the carriage requirement to allow time for the USCG to review the more than 200 comments it received from the commercial fishing industry during the public hearings and public comment period associated with the proposed rule in 2002 and 2003. The USCG considered the comments, notified Congress of the content of the comments and was given direction to move forward with complete implementation of the carriage requirements for AIS, as contemplated under the Maritime Transportation Security Act of 2002.

Also included in this agenda item is a letter from Dr. William Hogarth in response to concerns of the Council regarding the distribution of Fiscal Year 2006 funding for VMS units.

### **Council Task:**

**Discussion and guidance, as needed.**

### **Reference Materials:**

1. Agenda Item H.1.a, Attachment 1: Automatic Identification Systems and Mandatory Use Aboard.
2. Agenda Item H.1.a, Attachment 2: Notice of Rulemaking: Vessel Requirements for Notice of Arrival and Departure, and Carriage of Automatic Identification System. Federal Register: 70(209) 64171-64172, October 31, 2005.
3. Agenda Item H.1.a, Attachment 3: Letter from William Hogarth to Donald McIsaac in response to Council letter regarding VMS funding, March 7, 2006.

Agenda Order:

- a. Agenda Item Overview
- b. U.S. Coast Guard Report
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. Council Discussion

Jim Seger

PFMC  
03/20/06

## Automatic Identification Systems & Mandatory Use Aboard Commercial Fishing Vessels

*In less than 10 seconds the 83-foot fishing vessel STARBOUND sank, taking three of her four crewmen with her. STARBOUND was working 130 miles off the New England coast on a foggy night in 2001 when a 590-foot Russian tanker ran the fishing boat over. The Russian tanker never stopped; its crew had no idea it had hit another vessel. Unfortunately accidents like this are not uncommon.*

[As described by the SignOnSanDiego.com article “Vanished: The Mystery of the Gina Lisa – Missing at sea”]

*Perhaps the outcome of the STARBOUND’s voyage off the coast of New England would have been different if they were equipped with AIS.*

### AIS:

- Purpose
  - Enhances safety by improving mariners’ situational awareness
  - Improves authorities’ maritime domain awareness
- Provides the User
  - Near real time navigation information; such as vessel identity & type, position, course, speed, heading, dimensions, etc.
  - Ship-to-ship and ship-to-shore-to-ship communication
  - Ability to identify visual/radar contacts by name, bearing, & range -- No more “vessel off my port bow” radio calls, eliminating radio confusion and improving collision avoidance abilities
  - Utility of sending/receiving short safety-related text messages.
  - Connectivity with over 4000 vessels in the U.S and over 35,000 world-wide.
- How it Works
  - Digital VHF-FM radio self-organizing local area network (imagine a party line cell phone system where all users within radio range talk to each other and know where each is).
  - Data transmitted every 2, 4, 6 or 10 second dependent on the vessel’s speed or course change; 3 minute intervals when at anchor or at speeds under 3 kts.

## **VMS vs. AIS**

- The systems are not currently compatible; they differ in purpose, communication method, & capability.
- **VMS** is used as a fisheries management and enforcement tool and will remain so the near future.
  - Satellite-based, gives periodic long-range position reports, & fishing information from vessels to shore.
  - Information confidential to protect privacy concerns of commercial fisherman.
- **AIS** is used as a collision avoidance and Vessel Traffic Service tool.
  - Primarily VHF based, gives consistent navigation information to other AIS vessels
  - Requires an external system for long-range satellite communications
  - Allows vessels to be seen ship-to-ship and ship-to-shore.
  - No additional communications fees like VMS.

## **WHY NOW?**

- Marine Transportation Security Act of 2002 mandated a December 31<sup>st</sup>, 2004 deadline
- Initial AIS requirements were limited to Vessel Traffic Service areas (VTSA) and those vessels coming from abroad.
- Requirements were temporarily deferred outside VTSA's in order to seek further guidance on how to go about expansion of the requirements and obtain comment regarding the impact of AIS on 'small entities'
- Tragic events such as the collision between LEE III and ZIM MEXICO III, in 2004, and known intelligence on terrorists compels us to push forward.

## **COST**

- Models range between \$2,500 and \$7,000
- Additional costs for installation & level of integration of AIS with other shipboard systems like radar, gyro, charting system, etc.

## **TIMELINE**

- A firm timeline will be given when the regulations are published, but, rest assured that reasonable time will be given for purchase, installation, and use of AIS.
- The current regulations allotted 14 months for implementation.

**DHS—USCG**

**60. VALIDATION OF MERCHANT MARINERS' VITAL INFORMATION AND ISSUANCE OF COAST GUARD MERCHANT MARINER'S LICENSES AND CERTIFICATES OF REGISTRY (USCG-2004-17455)**

**Priority:**

Other Significant

**Legal Authority:**

46 USC 2103; DHS Delegation No. 0170.1, para (92)

**CFR Citation:**

46 CFR 10

**Legal Deadline:**

None

**Abstract:**

This rule would impose certain security-related requirements in order to obtain a license or certificate of registry. Applicants would be required to appear in person at least once during the application process, to provide two acceptable forms of identification, and be fingerprinted by Coast Guard personnel.

**Statement of Need:**

A Coast Guard-issued license authorizes its holder to serve in the capacity of vessel's officer allowing him or her to assume positions of responsibility in the command and control of merchant marine vessels. The harm that can be caused by persons who wrongfully obtain licenses with the intention of committing crimes or terrorist acts jeopardizes mariner safety and welfare, as well as national security. Our goal is to protect the licensing process from abuse. We recently identified several omissions and ambiguities in the former rule that could facilitate licensing abuse. This interim rule corrects those omissions and clarifies those ambiguities to promote maritime safety and security within the United States.

**Summary of Legal Basis:**

In the interests of marine safety and seamen's welfare, the Coast Guard was given general superintendence of merchant marine personnel by 46 U.S.C. 2103, 46 U.S.C. chapter 71, and Secretary of Homeland Security Delegation No. 0170.1. In 2002, Congress found that U.S. ports are susceptible to large-scale acts of terrorism that could cause a large loss of life or economic disruption, that "ports are often a major locus of Federal crime," (Maritime

Transportation Security Act of 2002, section 101, Public Law 107-295, 116 Stat. 2064) and that it is in the best interest of the United States to increase port security. This rulemaking aligns with a similar interim rule for Merchant Mariner's Documents (MMD) published on 6 January 2004.

**Alternatives:**

We considered non regulatory alternatives such as Navigation and Vessel Inspection Circulars and Marine Safety Manual Guidance, however, while these can be used for the development of policy and directives that provide guidance for the implementation of a regulation, they do not lay a sufficient legal basis for the Coast Guard to deny issuance of these credentials. We considered issuing an NPRM but believe we have sufficient good cause to go forward with an Interim Rule.

**Anticipated Cost and Benefits:**

This interim rule will affect mariners who apply for licenses and CORs. We estimate that the annual cost of this rulemaking will be \$16 million. A detailed regulatory evaluation will be published in the preamble of the interim rule.

We anticipate several qualitative benefits from the new requirements established by this rule. All applicants for licenses and CORs will be required to have their fingerprints taken by Coast Guard personnel at an REC and will be required to have their ID checked by Coast Guard personnel at an REC. In the past, applicants could have had their fingerprints taken and their identity checked by outside entities and submitted them by mail without a guarantee of accuracy or validity. The cumulative effect of the changes in this rulemaking will be to increase the likelihood that the Coast Guard will process applications only from, and issue credentials only to, applicants who can prove they are who they claim to be, and whose backgrounds can be verified to make sure they meet security-related requirements.

**Risks:**

This rulemaking is intended to reduce the vulnerability of a transportation security incident occurring in US ports and waterways resulting from merchant mariners who fraudulently obtain licenses and CORs. These licenses and CORs could potentially be used to fraudulently portray ones self as a deck, engineer or staff officer.

**Timetable:**

Action	Date	FR Cite
Interim Rule	11/00/05	

**Regulatory Flexibility Analysis Required:**

No

**Small Entities Affected:**

No

**Government Levels Affected:**

None

**Agency Contact:**

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**RIN:** 1625-AA85

**DHS—USCG**

**61. • VESSEL REQUIREMENTS FOR NOTICES OF ARRIVAL AND DEPARTURE, AND CARRIAGE OF AUTOMATIC IDENTIFICATION SYSTEM (USCG-2005-21869)**

**Priority:**

Other Significant. Major status under 5 USC 801 is undetermined.

**Legal Authority:**

33 USC 1223, 1225, 1231; 46 USC 3716, 8502 and Chapter 701; Sec. 102 of Pub. L. 107-295

**CFR Citation:**

33 CFR 160; 33 CFR 161; 33 CFR 164

**Legal Deadline:**

None

**Abstract:**

This rulemaking would expand the applicability for Notice of Arrival and Departure (NOAD) and Automatic Identification System (AIS) requirements. These expanded requirements would better enable the Coast Guard to correlate vessel AIS data with NOAD data, enhance our ability to identify and track vessels, detect anomalies, improve navigation safety, and heighten our overall maritime domain awareness.

The NOAD portion of this rulemaking would expand the applicability of the NOAD regulations by changing the minimum size of vessels covered below the current 300 gross tons, require that a notice of departure be submitted for

all vessels required to submit a notice of arrival, and mandate electronic submission of NOAD notices to the National Vessel Movement Center.

The AIS portion of the rulemaking would expand our AIS carriage requirements to all commercial vessels Congress specifically identified in the Maritime Transportation Security Act of 2002, and would include vessels carrying 50 or more passengers, vice the current 150 or more passengers for hire, carrying or towing certain dangerous cargo, certain dredges, and certain high speed passenger craft.

#### Statement of Need:

We do not have a current mechanism in place to capture vessel, crew, passenger, or specific cargo information on vessels less than or equal to 300 gross tons (GT) intending to arrive at or depart from U.S. ports unless they are arriving with certain dangerous cargo (CDC) or are arriving at a port in the 7th Coast Guard District. The lack of NOA information on this large and diverse population of vessels represents a substantial gap in our maritime domain awareness (MDA). We can minimize this gap and enhance MDA by expanding the applicability of the NOAD regulation beyond vessels greater than 300 GT, cover all foreign commercial vessels, more U.S. commercial vessels, and all U.S. commercial vessels coming from a foreign port; and enhance maritime domain awareness by tracking them (and others) with AIS. There is no current Coast Guard requirement for vessels to submit notification of departure information. In order to expand our MDA this information is necessary.

#### Summary of Legal Basis:

This rulemaking is based on Congressional authority provided in the Ports and Waterways Safety Act and the Maritime Transportation Security Act of 2002.

#### Alternatives:

Our goal is to increase MDA and to identify anomalies by correlating vessel AIS data with NOAD data. NOAD and AIS information from a greater number of vessels would provide even greater MDA than the proposed interim rule. We considered expanding NOAD and AIS to even more vessels, but we determined we needed additional legislative authority to expand AIS beyond what we propose in this rulemaking; and that it was best to combine additional NOAD expansion with future AIS expansion.

Although not in conjunction with a proposed rule, the Coast Guard sought comment regarding expansion of AIS carriage to other waters and other vessels not subject to the current requirements (68 FR 39355-56, and 39370, July 1, 2003; USCG 2003-14878). Those comments were reviewed and considered in drafting this rule and will become part of this docket.

To fulfill our agency obligations, the Coast Guard needs to receive AIS reports and NOADs from vessels identified in this rulemaking that currently are not required to provide this information. Policy or other non-binding statements by the Coast Guard addressed to the owners of these vessels would not produce the information required to sufficiently enhance our MDA to produce the information required to fulfill our agency obligations.

#### Anticipated Cost and Benefits:

We expect vessel owners to incur costs from the additional NOA requirements in order to comply with the mandatory requirement of submitting notices by utilizing the Coast Guard's electronic Notice of Arrival and Departure (eNOAD) system.

Currently, vessels greater than 300 gross tons, foreign commercial and recreational vessels less than 300 gross tons entering the 7th Coast Guard District, and all vessels carrying certain dangerous cargoes (CDCs) are required to submit NOAs.

This rulemaking will expand the applicability of NOADs to include all foreign commercial vessels, regardless of tonnage, more U.S. commercial vessels, and all U.S. commercial vessels arriving from a foreign port.

From the Coast Guard's database, we believe that we have an accurate estimate of the number of vessels greater than 300 gross tons submitting NOAs and the approximate number of voyages they make. These vessels are currently required to submit NOAs and will be required to submit NOAs/NODs through a mandatory submission method. Approximately 20,000 vessels greater than 300 gross tons, with foreign vessels comprising nearly 17,000 of this amount, and U.S. vessels comprising the balance, are currently affected. We, however cannot at this time provide an estimate of the number of vessels less than 300 gross tons that will be affected by this rulemaking or the number of U.S. vessels coming from a foreign port since these vessels are not required to report nor do we have an effective means to capture this

information. We will determine the affected population and include that information in the detailed regulatory analysis.

For the AIS portion of this rulemaking, we expect vessel owners to incur costs for the installation of AIS on board vessels that do not currently have AIS. The vessel groups affected are all commercial self-propelled vessels 65 feet or greater (including fishing and passenger vessels), towing vessels 26 feet or greater and over 600 horsepower, vessels carrying 50 or more passengers or certain dangerous cargoes; dredges and certain high speed passenger craft; operating on U.S. navigable waters. We estimate that the number of vessels affected by the AIS portion of this rulemaking is approximately 17,400 foreign and domestic vessels. The NOA and AIS populations will be reconciled in the regulatory analysis.

We anticipate unquantified benefits will be associated with both portions of this rulemaking. We anticipate that quantified benefits derived from marine casualty cases will be associated with the AIS portion of this rulemaking. A detailed benefit analysis will be included in the regulatory analysis.

#### Risks:

In terms of threat, vulnerability, and consequence, there are few more valuable and vulnerable targets for terrorist attack than the U.S. Maritime Transportation System (MTS). Considering the economic utility of U.S. ports, waterways, and coastal approaches, it is clear that a terrorist incident against our MTS would have a disastrous impact on global shipping, international trade, and the world economy. This rulemaking is instrumental in expansion of MDA and consequently instrumental in reduction of those risks posed by terrorist actions against the MTS.

#### Timetable:

Action	Date	FR Cite
Interim Final Rule	02/00/06	

#### Regulatory Flexibility Analysis Required:

Undetermined

#### Government Levels Affected:

None

#### Additional Information:

With regard to the legal deadline, we have indicated in past notices and rulemaking documents, and it remains the case, that we have worked to

Agenda Item H.1.a  
Attachment 3  
April 2006



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
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THE DIRECTOR

MAR - 7 2006

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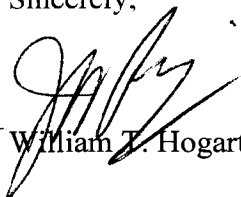
Dear Dr. McIsaac:

Thank you for your letter relaying the recommendations of the Pacific Fishery Management Council regarding the use and distribution of Vessel Monitoring System (VMS) funding. As you indicated, we are developing a spending plan and policy for distribution of the funding appropriated in FY 2006. It is important that this funding be obligated before the end of FY 2006; as you know, congressional appropriations are provided each year for the support and funding of initiatives and services within the fiscal year.

Your letter suggested several possibilities for how the funds may be distributed. There are also a number of possible parameters for determining who will be eligible for the funds. Our staff is working to ensure the development and implementation of an equitable, efficient, and effective plan. We intend to develop a system that not only ensures the most effective use and distribution of the current funds in a fair and effective manner, but that produces a credible model to perpetuate and support the appropriation of ongoing funding for this purpose in future years. Given that Congress has recognized the importance of the VMS program, it is our hope that funding levels for the program will remain constant and that we will be able to continue to fund the purchase of VMS units as additional fisheries are brought online.

Our staff has been notified of your recommendations, and they will consider your concerns as we finalize this process.

Sincerely,

  
For William T. Hogarth, Ph.D.

