

**FINAL REGULATORY IMPACT REVIEW AND FINAL
REGULATORY FLEXIBILITY ANALYSIS FOR A FINAL
RULE TO REQUIRE ENHANCED MOBILE
TRANSMITTING UNIT (E-MTU) VESSEL
MONITORING SYSTEM (VMS) UNITS IN ATLANTIC
HIGHLY MIGRATORY SPECIES (HMS) FISHERIES**

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Final Action: Final rule to require replacement of currently required Mobile Transmitting Unit (MTU) Vessel Monitoring System (VMS) units with Enhanced Mobile Transmitting Unit (E-MTU) VMS units in Atlantic Highly Migratory Species (HMS) Fisheries

Type of statement: Regulatory Impact Review (RIR) and Final Regulatory Flexibility Analysis (FRFA)

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Abstract

The use of VMS to report vessel position when engaged in fishing activities has been required in certain Atlantic HMS fisheries since 2003. Properly functioning VMS units aid NMFS's Office of Law Enforcement (NMFS Enforcement) in monitoring and enforcing closed areas implemented to reduce bycatch of undersized swordfish, sharks, sea turtles, and other species necessary to comply with the Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), and National Standard 9 (bycatch and bycatch mortality reduction) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Currently, most participants in Atlantic HMS fisheries use MTU VMS units, which are only capable of reporting the vessel's location. E-MTU VMS units are available and are required in other Atlantic federally managed fisheries. These units are capable of both sending and receiving information via electronic messaging and represent an improvement over MTU VMS units. This final rule would mandate that Atlantic HMS vessels that are required to use VMS replace their MTU VMS unit with an E-MTU VMS and have the new unit installed by a qualified marine electrician. This rule would also implement a fishery declaration system where vessels would declare their target species, gear type(s) possessed onboard, and provide NMFS Enforcement agents advanced notice of departure and landing. Currently, reimbursement funds are available for participants upgrading to E-MTU VMS units in HMS fisheries on a first come, first served basis. Participants that have already received reimbursement funds may be ineligible to receive additional funds. These funds would only cover the costs of the E-MTU VMS units and would not reimburse costs associated with installation by a qualified marine electrician, activation costs, communication or maintenance costs. If the existing MTU VMS units fail and are not able to be repaired, participants would still be required to replace existing VMS units with an updated E-MTU model

and receive reimbursement, consistent with the latest type approval notice published by NMFS Enforcement.

1.0 PURPOSE AND MANAGEMENT HISTORY

The National Marine Fisheries Service (NMFS) has published a final rule to require mandating replacement of the currently required Mobile Transmitting Unit (MTU) VMS units with E-MTU VMS units in Atlantic HMS fisheries. The final rule would also require the E-MTU VMS units be installed by qualified marine electricians. Furthermore, a declaration system where vessels would declare their target species and gear type(s) possessed is being implemented.

Atlantic HMS are managed under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Atlantic Tunas Conservation Act (ATCA). Under the MSA, NMFS must ensure consistency with the National Standards and manage fisheries to maintain optimum yield, rebuild overfished fisheries, and prevent overfishing. Under ATCA, the Secretary of Commerce is required to promulgate regulations, as necessary and appropriate, to implement measures adopted by the International Commission for the Conservation of Atlantic Tunas (ICCAT). The implementing regulations for Atlantic HMS are at 50 CFR Part 635.

Maintaining NMFS's VMS monitoring program ensures compliance with both international and domestic requirements while facilitating enforcement of Atlantic HMS fisheries regulations. As a Contracting Party of ICCAT, the United States is required to collect biological statistics for research purposes (fishing effort and catch) and to implement, maintain, and monitor a viable VMS program for vessels in certain Atlantic HMS fisheries. Requirements to use VMS in the PLL fishery were implemented (June 25, 2003, 68 FR 37772) prior to ICCAT Recommendation's (03-14 and 04-11) that concern VMS usage in the convention area.

In addition, NMFS issued a rule on December 24, 2003 (68 FR 74746), which required VMS operation for vessels with BLL gear onboard between 33°00' N. latitude and 36°30' N. latitude to ensure compliance with the mid-Atlantic shark closed area. This same rule extended VMS requirements for shark gillnet vessels operating during the right whale calving season. This rule was implemented for purposes of domestic Atlantic shark management and to ensure compliance with the Atlantic Large Whale Take Reduction Plan (ALWTRP) regulations established at 50 CFR 229.32. The effective dates for the shark BLL and gillnet VMS requirements were established by a final rule that published on August 17, 2004 (69 FR 21010).

This final rule will require the replacement of the MTU VMS models that are currently required in Atlantic HMS fisheries. The newer E-MTU VMS units include technological advancements that would represent an improvement over the MTU VMS units. The MTU VMS unit technology is dated and NMFS Enforcement has reported that these units have failed to report while vessels were at sea (approximately 5 vessels per month). Furthermore, the E-MTU VMS units employ technology that also allows for two-way communication. By removing dated MTU VMS units from HMS fishing vessels and requiring that E-MTU VMS units be professionally installed, NMFS would not only improve fisheries monitoring and enforcement of regulations, but also provide NMFS enforcement the ability to communicate directly with individual vessels at sea via electronic messaging and other means. Using this technology, NMFS would have the ability to notify vessels of emergency changes to closed areas, provide notice of fishery closures in real time, inform operators of environmental disasters (oil rig fires/oil spills), send notices concerning dangerous weather, and receive distress or emergency transmissions. Providing vessels the ability to communicate electronically with shore-based personnel would also allow fishery participants to communicate directly with NMFS enforcement agents after a power outage has occurred to explain any lapses in communicating vessel location, communicate with vessel owners and fish houses, communicate with family, and send distress calls in the event of an emergency. Use of this technology could also provide additional flexibility for management measures in the future such as real-time reporting of landings.

Many vessels that participate in Atlantic HMS fisheries are also permitted to participate in other fisheries that employ different gears. Vessels with E-MTU VMS units are able to communicate through electronic messages with shore-based fishery personnel. Creating a fishery declaration system would facilitate enforcement and compliance monitoring. Vessels may be permitted to participate in multiple fisheries that authorize numerous fishing gears. The declaration system would provide NMFS enforcement with advance notice of the target fishery and gear possessed onboard which provides enforcement with critical information concerning which regulations apply to that particular vessel during that trip. Any new declaration system would be compatible with the capabilities of newly required E-MTU VMS units, if required. Additionally, the requirement to notify NMFS enforcement agents at least three hours prior to returning to port provides notification that fishing activities are being completed, and the vessel is transiting back to port. These requirements are often referred to as hail-in/hail-out provisions and have been implemented in other Atlantic fisheries where E-MTU VMS units are required.

NMFS enforcement agents have reported instances of existing MTU VMS units not reporting while vessels are at sea. One reason for this may be because installers of the units were not aware of the proper installation procedures. This rulemaking would require that an installation and activation checklist be completed and signed by a qualified marine electrician and sent to NMFS by the vessel owner. This additional requirement is being finalized in

response to a request from NMFS enforcement to ensure the unit is properly installed and is not anticipated to be overly burdensome on vessel owners.

Reimbursement funds for the purchase of E-MTU VMS units are available for fishermen participating in Atlantic HMS fisheries and required to use VMS. The reimbursement is limited to \$3,100 per unit and does not cover the costs of having the new units installed by a qualified marine electrician or costs of sending or receiving data. Reimbursement funds will be distributed on a first come, first served basis. Furthermore, individuals that have previously received reimbursement funds for an E-MTU VMS unit required in another fishery would not be eligible for additional funds.

2.0 FINAL REGULATORY FLEXIBILITY ANALYSIS

2.1 Description of the Reasons Why Action is Being Implemented

The action is being implemented to facilitate enhanced communication with HMS vessels at sea, provide HMS fishery participants with a means of sending and receiving information at sea, ensure that HMS VMS units are consistent with the current VMS technology and requirements used in other U.S. VMS monitored fisheries, and to provide NMFS Enforcement with additional information describing gear onboard and target species. Requiring that an E-MTU VMS unit be installed by a qualified marine electrician and implementing a declaration system would provide NMFS with improved communication capabilities with vessels at sea and fishing for HMS. The declaration system would also provide valuable information concerning target species and gear possessed onboard vessels to ensure enforcement of closed or restricted areas and other regulations.

2.2 A Summary of the Significant Issues Raised by the Public Comments in Response to the Initial Regulatory Flexibility Analysis, A summary of the Assessment of the Agency of Such Issues, and a Statement of Any Changes Made in the Rule as a Result of Such Comments

The Agency received comments concerning the Initial Regulatory Flexibility Analysis. Commenters stated that the Agency's estimate of \$200 for installation of E-MTU VMS units by a qualified marine electrician was not appropriate for vessels that may be docked at remote ports far from larger population centers because of the travel time necessary for a qualified marine electrician. As a result, the estimate for installation of an E-MTU VMS unit by a qualified marine electrician has been increased from \$200 to \$400 in response to these comments. Estimates of the economic impacts of compliance with the final regulations have been updated in the FRFA and final rule.

Comments were also received on the delayed implementation date discussed in the IRFA and proposed rule. The Agency proposed a delayed implementation date of 90 days after publication of the final rule in the Federal Register to mitigate economic impacts and provide stakeholders with some additional time to get new E-MTU units installed and operating. Commenters asked for additional time, up to six months, to comply with the new requirements. NMFS is implementing the provisions of this final rule with two effective dates. The requirement to have the E-MTU VMS units installed by a qualified marine electrician will be effective January 1, 2012. Requirements to have an E-MTU VMS installed and operational and the requirement to commence providing declarations to NMFS enforcement would be effective March 1, 2012. These dates balance the need for fishermen to save money for the initial outlay to procure the unit with the need to expedite the requirement so fishermen are likely to have access to reimbursement funds while they last. The extended implementation period would also allow vendors of type approved E-MTUs to ensure they have an adequate supply of units in stock.

2.3 Description and Estimate of the Number of Small Entities to Which the Final Rule Will Apply

This action would apply to all 249 participants in the Atlantic HMS pelagic PLL fishery, 50 participants in the shark bottom longline (BLL) fishery, and 30 participants in the shark gillnet fishery. These permit estimates are based on October 2010 permit data and fishery-specific assumptions to determine the potential affected universe of participants. Atlantic HMS pelagic longline (PLL) vessels are required to use VMS year-round whenever they are away from port. The number of vessels was determined by adding the number of swordfish directed (177) and incidental (72) permit holders. One of these permits is required to retain swordfish with PLL gear and the majority of swordfish fishermen with those permits use PLL gear. The estimate for BLL participants was derived by adding the number of shark incidental and directed permit holders residing in states adjacent to the Mid-Atlantic closed areas, including: Virginia (3), North Carolina (28), and South Carolina (19). The estimate for shark gillnet vessels was based on recent analysis conducted in Amendment 3 to the Consolidated Atlantic HMS Fishery Management Plan (HMS FMP) which determined that there were 30 directed permit holders fishing with shark gillnet gear. All of these vessel owners are commercial fishermen and considered small entities.

2.4 Description of the Projected Reporting, Recordkeeping, and other Compliance Requirements of the Final Rule, Including an Estimate of the

Classes of Small Entities which will be Subject to the Requirements of the Report or Record

The final action will require that the small entities (commercial fishermen) procure an approved E-MTU VMS unit and have the new units installed by a qualified marine electrician. A form describing the technical specifications of the unit will be filled out by the qualified marine electrician and then submitted to NMFS enforcement by the vessel owner. This represents a slight deviation from existing protocols for installation of VMS units. Currently, vessel owners themselves are able to complete the installation and then submit the checklist.

The E-MTU VMS units allow for two-way communication including the ability to send and receive electronic messages. Consistent with existing regulations, fishermen would be required to send hourly location reports while they are away from port using the VMS units. Additionally, the final rule will require new reporting and compliance requirements using the E-MTU VMS units in addition to providing location reports. Vessels will be required to send an electronic message to NMFS enforcement, two hours prior to departing the dock and describe target species and what fishing gear(s) will be possessed on board the vessel. Creating a fishery declaration system would allow NMFS enforcement officials to more accurately track and monitor vessels for compliance in specific fisheries. Any new declaration system would be compatible with the capabilities of newly required E-MTU VMS units. Additionally, the requirement to notify NMFS enforcement at least three hours prior to returning to port provides notification that fishing activities are being completed, , and the vessel is transiting back to port.

2.5 Description of the Steps the Agency has Taken to Minimize the Significant Economic Impact on Small Entities Consistent with the Stated Objectives of Applicable Statutes, Including a Statement of the Factual, Policy, and Legal Reasons for Selecting the Alternative Adopted in the Final Rule and the Reason that each one of the Other Significant Alternatives to the Rule Considered by the Agency Which Affect Small Entities was Rejected.

One of the requirements of an FRFA is to describe any alternatives to the final rule which accomplish the stated objectives and which minimize any significant economic impacts. These impacts are discussed below. Additionally, the RFA (5 U.S.C. § 603 (c) (1)-(4)) lists four general categories of “significant” alternatives that would assist an agency in the development of significant alternatives. These categories of alternatives are:

1. Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
2. Clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;

3. Use of performance rather than design standards; and,
4. Exemptions from coverage of the rule for small entities.

In order to meet the objectives of this final rule, consistent with the MSA, NMFS cannot exempt small entities or change the reporting requirements only for small entities because all of the participants in Atlantic HMS fisheries are considered small entities. The requirement to have an updated E-MTU VMS unit installed by a qualified marine technician and expand reporting requirements to include a declaration system is expected to improve the reliability of VMS transmissions, and provide NMFS enforcement agents with additional information to accurately monitor fishing activities. NMFS does not specify a particular manufacturer or model of VMS unit that vessel owners would need to procure to comply with the final action. There are several models available that meet the specifications described in the latest type approval notice (January 31, 2008; 73 FR 5813). NMFS performance standards are outlined in type approval notices published periodically as updates become available.

NMFS is considered two alternatives in compliance with the Final Regulatory Flexibility Act. Alternative one, the no action alternative, would maintain the existing VMS requirements in Atlantic HMS fisheries. Alternative two would mandate that Atlantic HMS vessels that are required to use VMS replace their MTU VMS unit with an E-MTU VMS and have the new unit installed by a qualified marine electrician. This alternative would also implement a fishery declaration system where vessels would declare their target species, gear type(s) possessed onboard, and provide NMFS enforcement advanced notice of departure and landing. Alternative two is the preferred alternative.

Under the no action alternative, vessels that are required to use VMS would be able to continue to use the MTU VMS units currently being employed in the PLL, BLL, and gillnet fisheries *or* avail of reimbursement funds (\$3,100/VMS unit) to replace these units with E-MTU VMS units. The decision to replace existing units with E-MTU VMS units would be at the discretion of individual vessel owners. Costs for individual E-MTU VMS units that meet the type approval specifications start at approximately \$3,100 per unit depending on the manufacturer, model, and additional features of the unit. In the event that existing MTU units failed beyond repair, E-MTU VMS units would need to be installed and owners would be eligible for reimbursement funds. In the event of necessary replacement, the E-MTU VMS units would need to be procured by vessel owners before returning to fishing activities, consistent with existing regulations, depending on the gear possessed onboard the vessel, timing, and location of the fishing activity. This alternative would not require that the new units be installed by a qualified marine electrician, rather, the new units could be installed by vessel owners/operators an installation checklist would need to be completed and sent to NMFS enforcement per existing requirements.

Existing units are not capable of sending or receiving electronic messages, therefore, vessel operators would not be required to provide NMFS enforcement with information concerning target species, gear possessed onboard, or provide advanced notice of departure and landing. Vessels would still be required to provide hourly position reports, starting two hours before leaving port, when away from port. It is estimated that these reports would continue to cost \$1.00 per day assuming 24 reports are sent. Maintenance costs for these units are estimated at \$500 per vessel per year. Some vessel owners may be committed to long-term service contracts with communication service providers and maintaining the status quo would not require vessel owners to break these contracts, avoiding any early termination fees.

The preferred alternative would *also* allow participants to access reimbursement funds (\$3,100 per VMS unit) to offset the initial costs of the units. Furthermore, NMFS is considering a delayed implementation date of 90 days after the final rule is published to allow vessel owners time to procure and have an E-MTU VMS unit installed by a qualified marine electrician (\$400 per installation) and operational on their vessels. NMFS received comments from the public that the estimated costs for installation (\$200) were inaccurate. The cost estimates for installation were revised to \$400 per unit based on public comment. This cost was at the high end of the range presented in the IRFA and may more accurately reflect the costs involve with requiring a qualified marine electrician to travel to more remote ports to install E-MTU units. NMFS also received several comments requesting an extended period of time for implementation of the requirements in the final rule; however, extending the implementation date beyond March 1, 2012, may overlap with increased fishing activities and does not expedite the requirement to replace MTUs with E-MTUs so that fishermen are likely to have access to reimbursement funds while they last.

One of the objectives of this action is to modify the requirements in order to ensure that small entities affected can avail of the reimbursement funds and make the transition to E-MTU VMS gradually. The final action would require that the units are installed by a qualified marine electrician to ensure that units are installed and operating properly to avoid transmission failures that may occur when vessels are away from port and subject to VMS requirements. Furthermore, marine electricians are capable of providing information on E-MTU VMS use and troubleshooting during the installation process.

Costs of compliance with the preferred alternative for vessel owners are estimated to be \$3,971, \$3,830, \$3,737 per vessel for PLL, BLL, and shark gillnet vessels, respectively, in the first year (Table 1). These are the costs of compliance, pre-reimbursement. Reimbursement funds of \$3,100 per VMS unit would reduce the costs to \$745 per vessel, on average, across all fisheries. Costs in year two (and beyond) would be limited to the costs of sending or receiving declaration reports (\$0.06 per report) and providing vessel location information on an hourly basis (\$1.56 per vessel per day) and is estimated to be \$471, \$331, and \$237 per vessel for PLL, BLL, and shark gillnet vessels, respectively.

Table 1 summarizes some of the costs associated with the final rule. A description of the estimates and calculations used in Table 1 is provided below the table.

Table 1. Costs of Compliance Expected as a Result of Requiring E-MTU VMS Units in Affected HMS Fisheries.

| | Pelagic Longline Vessels | Shark Bottom Longline Vessels | Shark Gillnet Vessels |
|--|---|---|---|
| E-MTU VMS Unit | \$3,100 | \$3,100 | \$3,100 |
| Estimated Installation Costs (one-time) | \$50-400 (\$400 used for estimation purposes) | \$50-400 (\$400 used for estimation purposes) | \$50-400 (\$400 used for estimation purposes) |
| Daily Position Report Costs (Hourly, 24/day) (\$0.06/report *24 reports/day) | \$1.44 | \$1.44 | \$1.44 |
| Estimated Days Fishing/Year | 324 | 212 | 152 |
| Annual Position Report Costs/ Vessel (\$1.44/day * days fishing/year) | \$466.56/vessel | \$305.28/vessel | \$218.88/vessel |
| Annual Number of Fishing Trips | 36 | 212 | 152 |
| Annual Gear/Spp. Declaration Costs (\$0.12/trip)/Vessel (\$0.12/trip * trips/year)** | \$4.32 | \$25.44 | \$18.24 |
| Total Estimated Costs/Vessel (Year 1) (VMS unit +installation+position reports+declaration reports) | \$3,970.88 | \$3,830.72 | \$3,737.12 |

| | Pelagic Longline Vessels | Shark Bottom Longline Vessels | Shark Gillnet Vessels |
|---|---------------------------------|--------------------------------------|------------------------------|
| | | | |
| Number of Affected Vessels | 249 | 50 | 30 |
| Total Costs by Fishery (Year 1) (Total Estimated Costs/Vessel*Number of Affected Vessels) | \$988,749 | \$191,536 | \$112,113 |
| Gross Cost of Compliance, Year One (all HMS vessels combined) | \$1,292,398 | | |
| Potential Reimbursement Funds (\$3,100/vessel * Number of Affected Vessels) | \$1,019,900 | | |
| Compliance Costs (Year 1) (avg. cost/vessel) (installation + position reports + declaration reports) | \$870/vessel | \$730/vessel | \$637/vessel |
| Compliance Costs/Vessel (Year 2 and Beyond) (position reports + declaration reports) | \$470/vessel | \$330/vessel | \$237/vessel |

**The declaration costs per trip will vary based upon the number of target species and gear types possessed onboard as operators would be required to submit one declaration for each target fishery/fishing gear possessed.

The most inexpensive E-MTU VMS unit that meets the technical specifications of NMFS enforcement can be purchased for approximately \$3,100.00. Units would then need to be installed by a qualified marine electrician, effective January 1, 2012. Wage rates may vary depending on a variety of factors, however, Bureau of Labor Statistics indicated that wages for

an electrician were approximately \$25 per hour (2009) and for marine engineers approximately \$31 per hour (2007). However, these rates are likely what the electrician/engineer themselves receive and not representative of what someone would actually be charged by a business for these services. Based on experience in other fisheries with E-MTU VMS units, NMFS suggests that installation can range from \$50 to \$400, depending on the vessel, proximity to the qualified marine electrician, and the difficulty of the installation. For estimation purposes, \$200 was initially used to calculate the costs of compliance with this final rule. Based on public comment, this estimate was revised to \$400 to reflect costs of installation at remote ports. Vessels at these ports would expect to pay more to cover costs of having a marine electrician travel to and from these areas. Costs and time associated with installation of the updated E-MTU units is expected to be consistent for PLL, BLL, and gillnet vessels.

NMFS estimated the total number of days that vessels could be at sea and required to use VMS. The estimates vary by gear type possessed onboard. These estimates represent maximum number of days that vessels would be required to use VMS and are likely much greater than the actual number of days at sea. Logbook data (2006-2009) for PLL vessels indicates that across all regions and months of the year, vessels make approximately 6.7 sets per trip. Each set takes approximately one day. For the purpose of estimation, seven sets per trip was used in the following calculations. Vessels would require at least one day transiting to and from fishing grounds and at least one day in between fishing trips for offloading during which they would not be required to provide position reports. Therefore, NMFS estimates that average PLL trips are 10 days (7 days fishing + 2 days transit + 1 day offload/resupply) in duration, meaning vessels *could* make up to 36 complete trips per year (365 days per year / 10 days per trip). Of the 10-day trip, they would only need to provide position reports when away from port (9 days). On an annual basis, vessels could be away from port and required to send position reports 324 days per year (365 days per year / 9 days at sea per trip = 40.5 (365 – 41 = 324 days per year)). Transmitting and receiving data costs are \$0.06 per transmission. Revised costs for sending location reports are \$0.06 per report which would equate to \$1.44 per day for the location reports and additional costs for both the declaration (\$0.12 per trip, and \$0.06 per message for anything they receive from NOAA/USCG, etc). Providing position reports could cost a PLL vessel fishing 324 days per year (maximum) \$466.56 per year (324 days per year * 24 location reports per day * \$0.06 = \$466.56). Declaration reports would only be required before the vessel leaves port and prior to its return (2 declarations/trip). Assuming the vessels make 36 trips per year, they would submit 72 declarations (36 trips per year * 2 declarations per trip = 72 declarations per year) at a cost of \$4.32 per vessel per year (\$0.06 per declaration * 72 declarations per year = \$4.32). Declaration costs would vary depending on the number of target fisheries and fishing gears possessed as a separate declaration (\$0.06/declaration) would be required for each fishery. These calculations represent a maximum possible burden on PLL vessels. It is assumed that costs will vary among individual vessel owners based on the number of days at sea per year and the number of messages sent and received using the E-MTU VMS unit.

Determining the number of days fishing per year for the affected BLL and gillnet vessels employed different assumptions. Bottom longline vessels primarily target large coastal sharks (LCS) and Council-managed species (snapper/grouper, tilefish, etc). In recent years, the seasons for LCS in the South Atlantic have not opened until July 15, resulting in a two-week period where vessels could be targeting LCS with BLL gear and would be required to use VMS. However, seasons for small coastal sharks (SCS), pelagic sharks, and council-managed species also require consideration as affected vessels may be targeting other species with BLL gear onboard. NMFS assumes that approximately 50 BLL vessels could be fishing (day trips) in the VMS required area during the entire 212 day-closure (January 1–July 31) resulting in 212 trips per year. Vessel location reports would be required throughout this period resulting in a maximum economic impact of \$305.28 per vessel (212 days at sea * 24 reports per day * \$0.06 per report = \$305.28). Declaration reports would be required for each fishing gear possessed on the vessel (2 reports per trip) resulting in estimated costs of \$25.44 per vessel per year (212 trips * 2 declarations per trip * \$0.06 per declaration report = \$25.44).

NMFS made similar assumptions for the shark gillnet fleet. Shark gillnet vessels can target LCS, SCS, and Council-managed species throughout the time period when VMS is required (November 15–April 15) depending on quota availability and season length; therefore, NMFS assumes that vessels could take 152 day- trips during this interval. Providing position reports during this time could cost vessels a maximum of \$218.88 (152 trips * 24 position reports per day * \$0.06 per report = \$218.88) on an annual basis. Declaration reports before and after fishing activities would add another \$18.24 (152 trips * 2 declarations per trip * \$0.06 per declaration = \$18.24) to an individual vessels' costs associated with compliance with this final rule.

Total costs of compliance with the final action vary by fleet and number of days fishing per year. Table 1 outlines these costs associated with the preferred alternative for the first year and thereafter. Estimated costs of compliance for all vessels in the first year are estimated to be \$1,292,398. Subtracting reimbursement funds (\$3,100 per unit x 329 VMS units = \$1,019,900) from this total would result in overall compliance costs, post-reimbursement, of \$272,498 relative to the no-action alternative in the first year. Costs thereafter would be reduced and limited to transmission costs (declarations and location reports), equating to \$1.56/vessel/day.

The preferred alternative was selected even though it was not the lowest cost alternative because it will ensure that all Atlantic HMS vessels that are required to use VMS are using a more reliable type of unit that is also capable of two-way communication (E-MTU VMS). The no action alternative would require that these updated units are installed only in the event of the MTU VMS units failing. Once the MTU units fail, then individual vessels would be required to install E-MTU VMS units. The preferred alternative would require that all vessels make the transition to E-MTU VMS at the same time to ensure that all vessels have the same capabilities.

The preferred alternative would also require that E-MTU VMS units are installed by a qualified marine electrician. Installation of these units can be complicated and improper installation has been responsible for VMS units failing at sea during fishing activities. Ensuring that the units are properly installed and a qualified marine electrician provides valuable information about the unit and installation to NMFS enforcement will increase the reliability and functionality of the updated units.

One of the primary objectives of the rulemaking is to improve NMFS enforcements' ability to monitor fishing vessels and ensure compliance with fishery management measures. The preferred alternative implements a fishery declaration requirement where vessels would provide valuable information concerning fishing gear onboard and target species prior to leaving port. With this information, NMFS enforcement will know which regulations should apply to an individual vessel without having to dispatch an aircraft or enforcement vessel to board a fishing vessel to discern its activities.

3.0 REGULATORY IMPACT REVIEW

A Regulatory Impact Review (RIR) is conducted to comply with Executive Order 12866 (E.O. 12866) and provides analyses of the economic benefits and costs of this final action to the nation and the fishery as a whole. The information contained in this document, taken together with the data and analysis incorporated by reference, comprise the complete RIR.

The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the order:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits should be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

E.O. 12866 further requires Office of Management and Budget review of proposed regulations that are considered to be "significant." A significant regulatory action is one that is likely to:

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments of communities;

- Create serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the president's priorities, or the principles set forth in this Executive Order.

3.1 Description of Management Objectives

The objective of this action is to aid NMFS in monitoring and enforcing fisheries regulations including those at 50 CFR part 635 pertaining to HMS. Requiring that an E-MTU VMS unit be installed by a qualified marine electrician and implementing a declaration system would provide NMFS enforcement agents with enhanced communication with HMS vessels at sea and provide valuable information concerning target species and gear being deployed to ensure sound enforcement of closed areas and other regulations.

3.2 Description of the Fishery

Descriptions of the commercial HMS fisheries (shark gillnet, shark BLL, and PLL) that would be affected by this final action are contained in the 2006 Consolidated HMS Fishery Management Plan (NMFS, 2006) and the most recent Stock Assessment and Fishery Evaluation (SAFE) Report (NMFS, 2010) and are herein incorporated by reference.

3.3 Statement of the Problem

Please see Section 1 for a description of the problem and need for this rulemaking.

3.4 Description of Each Alternative

Please see Section 2.6 for a description of the issues, objectives, and need for action.

3.5 Economic Analysis of Expected Effects of the Final Action Relative to the Baseline

Social and economic impacts from the proposed action are expected. Section 2.6 of the FRFA provides a summary of the potential impacts of the final action relative to the baseline or no-action alternative considered. Table 1 describes the total costs of compliance with the regulations. It is estimated that the total costs for all participants (fishery wide) to comply with this final rulemaking would be \$1,292,398 (pre-reimbursement) and \$272,498 (post-reimbursement). Benefits to society that have not been quantified, but may occur as a result of this rulemaking, include: reductions in target species and bycatch interactions in time area closures as a result of improved monitoring of these areas, reduced interactions with threatened and endangered species, improved communication between vessels and fish dealers to ensure

product is sold at a more favourable price, and reductions in lost fishing time that may occur as a result of vessels being boarded by NMFS or Coast Guard enforcement.

Table 2. Net Economic Benefits and Costs of Alternatives

| Alternatives | Net Economic Benefits | Net Economic Costs |
|--|---|--|
| <p>Alternative 1: No Action</p> | <p>This alternative may result in minor economic benefits to vessel owners because they would be able to continue to use existing VMS units until they fail beyond repair.</p> | <p>There could be economic costs of requiring that vessel owners replace existing MTU VMS units with E-MTU VMS units only when existing MTU VMS fail. Vessels using MTU VMS units may incur higher maintenance costs. Costs are also accrued if NMFS enforcement has to observe vessel activities using planes or boats and that activity disrupts fishing activities. Additionally, reimbursement funds are currently available on a first-come, first-serve basis. If the existing VMS unit fails after reimbursement funds are no longer available, the vessel owner would be required to replace their VMS unit on their own for a minimum of \$3,100.</p> |
| <p>Alternative 2: Require E-MTU VMS be installed and require that VMS units be installed by qualified marine electricians; implement gear/species/return port declaration.</p> | <p>Improved monitoring of closed or gear restricted areas to ensure conservation and management objectives are met. Reduced failure rate of VMS units at sea which can result in lost fishing time.</p> | <p>This alternative would cost vessel owners, on average, \$745 in the first year and \$345/year in subsequent years. Vessel owners would also have to purchase an E-MTU VMS unit (\$3,100) and then wait to be reimbursed.</p> |

There are benefits associated with the final action relative to the no-action alternative. Requiring that an E-MTU VMS unit be installed by a qualified marine electrician would improve the reliability of VMS data transmitted from HMS vessels. Implementing a declaration system would provide NMFS enforcement with enhanced communication with HMS vessel operators at

sea and provide valuable information concerning target species and gear possessed onboard vessels to ensure sound enforcement of closed areas and other regulations. Furthermore, the delayed implementation date associated with the preferred alternative would allow more time for fishermen to make the transition to the new VMS units and trip declaration system.

3.6 Conclusion

Under E.O. 12866, a regulation is a "significant regulatory action" if it is likely to: 1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; 2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; 3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights, and obligation of recipients thereof; or 4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order. The final action described in this RIR/IRFA does not meet the above criteria, for example, the economic impacts as reflected in this final rule are under the \$100 million threshold. This action raises no novel or legal policy issues as it requires participants in Atlantic HMS fisheries to have existing VMS units replaced with updated models by a qualified marine electrician and also implements a trip declaration system where vessel operators send an electronic message to NMFS describing target species and gear types possessed onboard for each fishing trip. The final action is not expected to result in any inconsistency with other agency actions. Therefore, under E.O. 12866, the final action described in this document has been determined to be not significant for the purposes of E.O. 12866.

4.0 REFERENCES

- NMFS. 2006. Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Sustainable Fisheries, Highly Migratory Species Management Division, Silver Spring, MD. Public Document. pp. 1600.
- NMFS. 2010. Stock Assessment and Fishery Evaluation (SAFE) Report for Atlantic Highly Migratory Species 2010. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Sustainable Fisheries, Highly Migratory Species Management Division, Silver Spring, MD. Public Document. pp. 233.