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Matthew Jones

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# ENFORCEMENT OF U.S. FISHERIES LAWS IN THE EEZ: AN ILLUSTRATION OF THE VALUE OF THE COAST GUARD'S DEEPWATER MISSIONS TO THE NATION AND THE NEED TO PROVIDE IT WITH ADEQUATE DEEPWATER RESOURCES

*Matthew Jones*\*

## I. INTRODUCTION

The U.S. Coast Guard (Coast Guard) is a “multi-mission”<sup>1</sup> agency that is “widely recognized as being one of Government’s most efficient organizations”<sup>2</sup> and “offers the nation a highly motivated, well-trained, cost-effective Service that has demonstrated flexibility and adaptability to meet changing national priorities.”<sup>3</sup> As such, the Coast Guard has and continues to be tasked with a myriad of responsibilities<sup>4</sup> that can currently be divided into five fundamental roles: maritime safety, maritime security,

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\* J.D. Lewis & Clark Law School (2007). The author is an active duty Lieutenant in the U.S. Coast Guard. He would like to thank Chris Wold, an Associate Professor of Law at Lewis and Clark, for his editorial assistance.

1. INTERAGENCY TASK FORCE ON COAST GUARD ROLES AND MISSIONS, TASK FORCE REPORT EXECUTIVE SUMMARY (1999) (on file with author) [hereinafter INTERAGENCY EXECUTIVE SUMMARY].

While national policies from which Coast Guard missions are derived can be thought of in discrete terms, Coast Guard people and capital assets by which those policies are implemented are a unified whole. This is the essence of the term ‘multi-mission’—a singular, integrated human and capital asset system (ships, aircraft, Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)) with multiple synergy, capabilities, functionality, and civil and military policy utilities. *Id.*

2. *Id.*

3. *Id.*

4. *See* INTERAGENCY TASK FORCE ON COAST GUARD ROLES AND MISSIONS, TASK FORCE REPORT INTRODUCTION (1999) (on file with author) (stating that the Coast Guard provides services across a wide spectrum of programs that benefit millions of Americans through use of its military, humanitarian law enforcement, and diplomatic capabilities).

maritime mobility, protection of natural resources, and national defense.<sup>5</sup> These roles require the Coast Guard to conduct activities such as search-and-rescue, drug and migrant interdiction, military operations, marine environmental protection, icebreaking, and port and waterways security<sup>6</sup> throughout an area over one and a half times the size of the lower forty-eight states.<sup>7</sup>

Despite the Coast Guard's considerable value to the United States in conducting these activities, however, it has been and continues to be plagued by a lack of personnel and budgetary resources. For example, in 2006 the Coast Guard had only 39,000 active-duty members<sup>8</sup> to cover over 3.4 million square miles,<sup>9</sup> while the New York City Police Department had a force of similar size<sup>10</sup> to cover only 322 square miles.<sup>11</sup> In addition, the Coast Guard's total budget of \$8.7 billion in 2007<sup>12</sup> was over \$1 billion less than the Marine Corps' personnel budget alone.<sup>13</sup> Budget shortfalls have had a particularly detrimental effect over the years by preventing the Coast Guard from upgrading its major capital assets, especially its deepwater assets—those capable of operating in “deepwater,” that is, out to and on the

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5. U.S. Coast Guard, Missions, <http://www.uscg.mil/top/missions/> (last visited Mar. 31, 2008) [hereinafter Missions].

6. *Id.*

7. PEW OCEANS COMMISSION, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 3 (2003), [http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting\\_ocean\\_life/env\\_pew\\_oceans\\_final\\_report.pdf](http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Protecting_ocean_life/env_pew_oceans_final_report.pdf); see INTERAGENCY EXECUTIVE SUMMARY, *supra* note 1 (noting that the Coast Guard operates throughout “America's inland waterways, ports and harbors; along the approximately 95,000 miles of U.S. coastlines; in the U.S. territorial seas and our more than 3.4 million square miles of exclusive economic zones; on international waters and in other maritime regions of importance to the United States.”).

8. U.S. Coast Guard, Fact File: Personnel Statistics, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (follow “Publications” hyperlink) (last visited Mar. 31, 2008).

9. INTERAGENCY EXECUTIVE SUMMARY, *supra* note 1.

10. New York City Police Dep't, Frequently Asked Questions: How Many Police Officers are there in NYPD?, [http://www.nyc.gov/html/nypd/html/faq/faq\\_police.shtml](http://www.nyc.gov/html/nypd/html/faq/faq_police.shtml) (last visited Mar. 31, 2008) (noting that as of January 2007 the department has 37,838 officers).

11. Dep't of City Planning, New York City Land Use, <http://home2.nyc.gov/html/dep/html/landusefacts/landusefactshome.shtml> (last visited Mar. 31, 2008).

12. *Coast Guard: Observations on Agency Performance, Operations and Future Challenges: Hearing before S. Subcomm. on Fisheries and Coast Guard* 4 (June 15, 2006) (on file with author) (testimony of Stephen L. Caldwell, Acting Dir. Homeland Security and Justice Issues) [hereinafter Caldwell].

13. U.S. Department of the Navy, Highlights of the Department of the Navy FY2006/FY2007 President's Budget 9, [http://www.finance.hq.navy.mil/FMB/06pres/NWCF/NWCF\\_Book.pdf](http://www.finance.hq.navy.mil/FMB/06pres/NWCF/NWCF_Book.pdf) (last visited Mar. 31, 2007).

high seas.<sup>14</sup> Consequently, the Coast Guard's ability to conduct effective deepwater missions has been compromised<sup>15</sup> because many of its current deepwater assets are "aging and increasingly obsolete."<sup>16</sup>

Coast Guard enforcement of U.S. fisheries laws illustrates how the state of its deepwater assets can and does prevent it from providing the effective mission performance the nation requires. Specifically, the Coast Guard is charged with at-sea enforcement of fisheries laws throughout the U.S. exclusive economic zone (EEZ)—the area of ocean extending from three to 200 nautical miles offshore<sup>17</sup>—in order to protect the nation's extremely valuable fishery resources.<sup>18</sup> Although the Coast Guard's fisheries

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14. See U.S. COAST GUARD, ACQUISITION DIRECTORATE: INTEGRATED DEEPWATER SYSTEM FACT SHEET, <http://www.uscg.mil/acquisition/programs/pdf/deepwater.pdf> (last visited Mar. 31, 2008).

15. See Revised Deepwater Implementation Plan, before the S. Subcomm. on Fisheries and the Coast Guard, Comm. on Commerce, Science, and Transportation, 109th Cong 5 (2005) (statement of Admiral Thomas Collins, Commandant, U.S. Coast Guard), available at <http://commerce.senate.gov/pdf/collins-0621.pdf> [hereinafter Revised Deepwater Implementation Plan].

Despite spending increasing amounts to maintain operational assets, the Coast Guard is experiencing a continuing decline in fleet readiness. Legacy cutters are now operating free of major equipment casualties (equipment failures that significantly impact mission performance) less than 50 percent of the time, despite the investment per operational day increasing by over 50 percent over the last six years. The resulting 'readiness gap' negatively impacts both the quantity and quality of Coast Guard 'presence'—critical to our ability to accomplish all missions. *Id.* at 5.

16. Vasiliou Tasikas, *Unmanned Aerial Vehicles and the Doctrine of Hot Pursuit: A New Era of Coast Guard Maritime Law Enforcement Operations*, 29 TUL. MAR. L.J. 59, 64-65 (2004). See INTERAGENCY TASK FORCE, TASK FORCE REPORT DEEPWATER CAPABILITIES REPLACEMENT PROJECT (1999) (on file with author) [hereinafter INTERAGENCY DEEPWATER CAPABILITIES REPLACEMENT PROJECT REPORT] (noting that the Coast Guard's medium- and high-endurance cutters; entire aviation fleet of helicopters and patrol aircraft; the command, control, communications, and sensing equipment; and shore-based support infrastructure that connect these operational units "were originally procured starting in the 1960's, continuing through to the 1980's" and are currently coming to the end of their projected service lives).

17. See U.S. Coast Guard, Living Marine Resources Introduction, <http://www.uscg.mil/hq/g-o/g-opl/LMR/LMR.htm> (last visited Mar. 31, 2008) (noting that Magnuson-Stevens Fisheries Conservation and Management Act extended U.S. fisheries authority out to 200 miles offshore as authorized by international law and tasked Coast Guard to enforce fisheries laws at-sea).

18. See *e.g.*, NATIONAL MARINE FISHERIES COAST GUARD OFFICE OF SCIENCE AND TECHNOLOGY, FISHERIES OF THE UNITED STATES 2004, v (Elizabeth S. Pritchard ed., 2005), available at [http://www.st.nmfs.gov/st1/fus/fus04/fus\\_2004.pdf](http://www.st.nmfs.gov/st1/fus/fus04/fus_2004.pdf) (noting that commercial fishing industry contributed \$31.6 billion to the U.S. Gross National Product and that only 175,880 of the 9,808,639 thousand pounds of fish that contributed to that amount were from international waters).

enforcement program is “well managed overall,”<sup>19</sup> it has not been able to provide the level of activity necessary to ensure proper enforcement of fisheries laws in the EEZ, primarily because the Coast Guard’s current deepwater fleet cannot effectively patrol an area of that size while it is already stretched thin by many other missions.<sup>20</sup>

Although the effectiveness of Coast Guard fisheries enforcement is difficult to quantify, over the six years from 2000 to 2005 it has been inconsistent. In fact, during that period the Coast Guard only met its established fisheries enforcement performance targets half of the time.<sup>21</sup> This lack of effective enforcement has, at the very least, exacerbated U.S. fisheries management and protection problems<sup>22</sup> and contributed to the collapse of several major fisheries.<sup>23</sup> Twenty percent of major fish stocks are “already overfished, experiencing overfishing, or approaching an

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19. U.S. Office of Management and Budget and Federal Agencies, Program Assessment: Coast Guard Fisheries Enforcement, <http://www.whitehouse.gov/omb/expectmore/summary/10001072.2003.html> (last visited Mar. 31, 2008).

20. See Christopher J. Carr & Harry N. Scheiber, *Dealing with a Resource Crisis: Regulatory Regimes for Managing the World’s Marine Fisheries*, 21 STAN. ENVTL. L.J. 45, 61 (2002). “The main reasons for continuing overfishing and poor management are uncertainty of scientific methods and data, the institutional structure of the fishing industry, and enforcement difficulties.” *Id.* at 54.

The size of the ocean areas to be patrolled . . . [requires] high expenditures for effective enforcement. Even within EEZs, distances to be patrolled often pose an insuperable impediment to effective monitoring and surveillance . . . . The Coast Guard has estimated that it would cost in excess of twenty million U.S. dollars annually to effectively patrol [the Hawaiian Island tuna fishery] alone. *Id.* at 61. See also, Revised Deepwater Implementation Plan, *supra* note 15 and accompanying text.

21. See U.S. Office of Management and Budget and Federal Agencies, Detailed Information on the Coast Guard Fisheries Enforcement Assessment, <http://www.whitehouse.gov/omb/expectmore/detail/10001072.2003.html> (last visited Mar. 31, 2008) (detailing that between 2000 and 2005 the Coast Guard met its compliance rate target in 2000, 2004, and 2005 and incursion target in 2000, 2003, and 2005) [hereinafter Detailed Enforcement Assessment].

22. See Carr & Scheiber, *supra* note 20.

23. See, e.g., Garry Mitchell, *Overfishing Among Threats to Gulf of Mexico*, ASSOCIATED PRESS, July 10, 2006, available at <http://www.flmnh.ufl.edu/fish/InNews/gulf2006.html>; Felicity Barringer, *Weak Salmon Run Shuts Some Northwest Fisheries*, N.Y. TIMES, May 11, 2005, available at <http://select.nytimes.com/gst/abstract.html?res=F10D12F838540C728DDDAC0894DD404482>; Craig Welch, *Open Oceans being Sought to Save Variety of Species*, SEATTLE TIMES, Feb. 13, 2004, available at [http://seattletimes.nwsourc.com/html/localnews/2001857106\\_oceanreserves/3m.html](http://seattletimes.nwsourc.com/html/localnews/2001857106_oceanreserves/3m.html); Beth Daley & Gareth Cook, *A Once Great Industry on the Brink*, BOSTON GLOBE, Oct. 26, 2003, available at [http://www.boston.com/business/articles/2003/10/26/a\\_once\\_great\\_industry\\_on\\_the\\_brink/](http://www.boston.com/business/articles/2003/10/26/a_once_great_industry_on_the_brink/).

overfished condition.”<sup>24</sup> To ensure proper fisheries management in the future, effective fisheries enforcement is an essential first step.

A strong, at-sea “presence” of Coast Guard ships and aircraft in the EEZ is a necessary component of effective fisheries enforcement. The sustainability of our fish stocks is inextricably tied to “proper fishery management measures being effectively enforced both at-sea and ashore.”<sup>25</sup> Moreover, an at-sea presence is necessary to secure the EEZ, to intercept and board vessels that encroach on the EEZ, and to detect violations that can be subverted within the EEZ.<sup>26</sup>

The Coast Guard is the only U.S. agency able to conduct at-sea enforcement of fisheries laws, as it alone is capable of projecting the required law enforcement presence in the “deepwater” environment.<sup>27</sup> Consequently, in order for the United States to ensure successful protection of its fishery resources, the Coast Guard’s Integrated Deepwater System (IDS) must be properly funded. IDS, which currently is planned to be a twenty-five-year acquisition program, will provide the Coast Guard with the deepwater assets necessary to perform its many important missions. These assets include new and refurbished cutters, cutter small-boats, fixed-wing aircraft, helicopters, and unmanned air vehicles, as well as state-of-the-art command-and-control electronic equipment.<sup>28</sup> Presently, funding for IDS has been piecemeal, which has, and continues to, undermine the entire program.<sup>29</sup>

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24. U.S. COMMISSION ON OCEAN POLICY, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY 40 (2004), available at [http://www.oceancommission.gov/documents/full\\_color-rpt/000\\_ocean\\_full\\_report.pdf](http://www.oceancommission.gov/documents/full_color-rpt/000_ocean_full_report.pdf).

25. U.S. COAST GUARD, OCEAN GUARDIAN: U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN 2004-2014 1 (2004), <http://www.uscg.mil/hq/g-o/g-opl/LMR/LMR.htm> (last visited Mar. 31, 2008) (follow “Ocean Guardian Strategic Plan” hyperlink; then follow “Ocean Guardian Strategic Summary” hyperlink) [hereinafter U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN].

26. See U.S. COAST GUARD & NOAA FISHERIES, ENFORCEMENT CONSIDERATIONS FOR NOAA FISHERIES AND N. PACIFIC FISHERIES MANAGEMENT COUNCIL STAFF (2005), [https://www.fakr.noaa.gov/npfmc/misc\\_pub/EnforcementConsider405.pdf](https://www.fakr.noaa.gov/npfmc/misc_pub/EnforcementConsider405.pdf) (noting the enforceability of different types of fishery management measures).

27. U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN, *supra* note 25, at 1.

28. INTERAGENCY DEEPWATER CAPABILITIES REPLACEMENT PROJECT REPORT, *supra* note 16.

29. See U.S. GOVERNMENT ACCOUNTABILITY OFFICE, REPORT TO CONGRESSIONAL REQUESTERS: COAST GUARD: CHANGES TO DEEPWATER PLAN APPEAR SOUND, AND PROGRAM MANAGEMENT HAS IMPROVED, BUT CONTINUED MONITORING IS WARRANTED 9 (2006), <http://www.gao.gov/new.items/d06546.pdf> [hereinafter CHANGES TO DEEPWATER PLAN].

In conjunction with this funding, the United States must improve fisheries law enforcement through greater use of alternative enforcement mechanisms that would reduce the need for, or supplement the Coast Guard's activities, by providing different forms of at-sea law enforcement presence. The National Oceanographic and Atmospheric Administration's (NOAA) Vessel Monitoring Systems (VMS), the Office for Law Enforcement (OLE) Investigations and Patrols, and the Fisheries Observer Program represent the possible alternatives that currently exist and could be expanded upon. Specifically, VMS allows NOAA to monitor the movement of fishing vessels through global positioning system tracking devices, which better ensure compliance with fishing area restrictions.<sup>30</sup> OLE Investigations and Patrols provides law enforcement officers who are able to conduct fishery enforcement operations.<sup>31</sup> Finally, the Fisheries Observer Program places individual observers on board fishing vessels to monitor catch and by-catch information, as well as fisheries violations.<sup>32</sup>

This article uses the Coast Guard's at-sea fisheries enforcement program to demonstrate the importance of the Coast Guard's deepwater capability to the United States and to explain why the nation must commit to providing the deepwater resources the Coast Guard needs to effectively perform all of its missions. In so doing, Part II provides an overview of the laws governing fisheries in the U.S. EEZ and examines the Coast Guard's responsibilities and performance in enforcing those laws at-sea. Part III analyzes the primary reasons that the Coast Guard is unable to consistently achieve its fisheries enforcement goals. Finally, Part IV provides recommendations for what actions are necessary to improve at-sea enforcement of fisheries laws in the EEZ.

## II. OVERVIEW OF AT-SEA ENFORCEMENT OF U.S. FISHERIES LAWS IN THE EEZ

### A. *U.S. Fisheries Laws Applicable in the EEZ*

The Magnuson-Stevens Fishery Conservation and Management Act (Act), since its original adoption in 1976, has been the primary legislation

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30. NOAA Fisheries, Leveraging Technology and the Vessel Monitoring System (VMS), <http://www.nmfs.noaa.gov/ole/vms.html> (last visited Mar. 31, 2008).

31. NOAA Fisheries, Investigations and Patrols, <http://www.nmfs.noaa.gov/ole/investigations.html> (last visited Mar. 31, 2008).

32. NOAA Fisheries, National Observer Program, <http://www.st.nmfs.gov/st4/nop/> (last visited Mar. 31, 2008).

governing fisheries in the U.S. EEZ.<sup>33</sup> The Act has been re-authorized and amended several times including the passage of the Sustainable Fisheries Act in 1996<sup>34</sup> and, most recently, the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.<sup>35</sup> Several other domestic laws and multiple international agreements also play a role in guiding fisheries management in the EEZ, but such laws and agreements are generally incorporated into the implementation of the management schemes required by the Act.<sup>36</sup>

The Act has two overarching purposes. First, it seeks to “conserve and manage the fishery resources found off the coasts of the United States . . . by exercising . . . sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the [EEZ].”<sup>37</sup> Second, the Act seeks to develop and implement “fishery management plans which will achieve and maintain, on a continuing basis, the optimum yield from each fishery.”<sup>38</sup> Together, these two purposes provide the framework for most of the fisheries laws applicable in the EEZ. The first is achieved through the Act’s ban on foreign fishing in the EEZ.<sup>39</sup> The second is accomplished through the Act’s creation of eight Regional Fishery Management Councils,<sup>40</sup> which establish

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33. Fishery Conservation and Management, 16 U.S.C. §§ 1801–1883 (2000).

34. NOAA Fisheries, Sustainable Fisheries Act, <http://www.nmfs.noaa.gov/sfa/index.htm> (last visited Mar. 31, 2008).

35. William T. Hogarth, Dir. NOAA Fisheries, President Bush Signs Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (2007), [http://www.nmfs.noaa.gov/mediacenter/docs/Director\\_Statement\\_011207.pdf](http://www.nmfs.noaa.gov/mediacenter/docs/Director_Statement_011207.pdf).

36. *See* NOAA Fisheries, Highly Migratory Species, [http://www.nmfs.noaa.gov/sfa/hms/intro\\_HMS.htm](http://www.nmfs.noaa.gov/sfa/hms/intro_HMS.htm) (last visited Mar. 31, 2008).

New provisions of the Magnuson-Stevens Act require managers to halt overfishing; to rebuild overfished fisheries; to minimize bycatch and bycatch mortality, to the extent practicable; and to identify and protect essential fish habitat. These provisions are coupled with the recognition that management of HMS requires international cooperation and that rebuilding programs must reflect traditional participation in the fisheries by U.S. fishermen, relative to foreign fleets. Besides the Magnuson-Stevens Act, U.S. fisheries management must be consistent with the requirements of other regulations including the Marine Mammal Protection Act, the Endangered Species Act, the Migratory Bird Treaty Act, the National Environmental Policy Act, the Small Business Regulatory Enforcement Act, the Coastal Zone Management Act, the Paperwork Reduction Act, and other Federal laws. *Id.*

37. 16 U.S.C. § 1801(b)(1)(A) (2000).

38. *Id.* § 1801(b)(4).

39. *Id.* §§ 1821, 1824 (banning foreign fishing in the EEZ unless certain conditions apply).

40. *Id.* § 1852(a); *see also id.* §§ 1854(c), (g) (detailing that NOAA Fisheries also creates fishery management plans for highly migratory species or when one of the Regional Fishery Management Councils fails to act as required).

and implement fisheries management plans<sup>41</sup> for each major fishery in their region. The plans are subject to approval by NOAA Fisheries.<sup>42</sup>

The Regional Fisheries Councils also propose to NOAA Fisheries any measures that they deem “necessary or appropriate” for implementing the fishery management plan or a plan amendment.<sup>43</sup> These recommendations become federal law barring any inconsistencies or notice and comment issues.<sup>44</sup> The types of regulations that may be recommended by a Regional Fisheries Council are very broad and include permit requirements, limits or prohibitions on fishing in certain areas, catch limits, or gear requirements.<sup>45</sup>

The Alaska Groundfish Fisheries Management Plans provide an excellent example of the use and complicated nature of fisheries regulations.<sup>46</sup> In particular, those plans limit fishermen to an allocated catch size for target species and other species found in the management area.<sup>47</sup> Moreover, the plans require each fishing vessel to obtain a license, which is “endorsed with area, gear, and vessel type and length designations,” and limits the types of gear that fishermen can use “to trawls, hook-and-line, pots, [and] jigs.”<sup>48</sup> The plans also include specific time and area restrictions on when, where, and how fishing can take place.<sup>49</sup>

The enforcement of the fisheries laws established under the Act is required because “fish stock sustainability cannot occur without proper fishery management measures being effectively enforced both at-sea and

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41. *Id.* § 1852(h)(1); *see generally* NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, FISHERY MANAGEMENT PLAN FOR GROUND FISH OF THE BERING SEA AND ALEUTIAN ISLAND MANAGEMENT AREA (2007), <http://www.fakr.noaa.gov/npfmc/fmp/bsai/BSAI.pdf> (example of a fishery management plan) [hereinafter NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, BERING SEA]; NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, FISHERY MANAGEMENT PLAN FOR GROUND FISH OF THE GULF OF ALASKA (2006), *available at* <http://www.fakr.noaa.gov/npfmc/fmp/goa/GOA.pdf> (example of a fishery management plan) [hereinafter NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, ALASKA].

42. *See* NOAA Fisheries, Domestic Fisheries, [http://www.nmfs.noaa.gov/sfa/domes\\_fish/index.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/index.htm) (last visited Mar. 31, 2007) (indicating that the Domestic Fisheries Division of the NOAA Fisheries Office of Sustainable Fisheries is “responsible for reviewing and coordinating the review of fishery management actions” for the Secretary of Commerce).

43. 16 U.S.C. § 1853(a)(1)(A) (2000).

44. *Id.* § 1854(b).

45. *Id.* § 1853(b); *see generally* U.S. Coast Guard & NOAA Fisheries, *supra* note 26.

46. *See generally* NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, BERING SEA, *supra* note 41; NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, ALASKA, *supra* note 41.

47. NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, ALASKA, *supra* note 41.

48. *Id.* at ES-3–ES-5; NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, BERING SEA, *supra* note 41, at ES-4.

49. NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, BERING SEA, *supra* note 41, at ES-3–ES-4; NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, ALASKA, *supra* note 41, at ES-3–ES-4.

ashore.”<sup>50</sup> Although many commercial and recreational fishermen follow the provisions of the Act “there are still those fishermen—both domestic and foreign—who attempt to thwart the law and conduct fraudulent business.”<sup>51</sup> The Act requires enforcement activities to 1) prevent illegal foreign fishing vessels within the EEZ and 2) ensure compliance with the regulations for each fisheries management area, both of which require some level of at-sea law enforcement presence. The former requires such presence to monitor the EEZ as well as intercept and board vessels encroaching on it, while the latter requires presence because violations of some types of fisheries regulations can be subverted or are otherwise undetectable once a fishing vessel returns to port.<sup>52</sup>

*B. Coast Guard Mandates and Standards for Enforcement of U.S. Fisheries Laws in the EEZ*

The Coast Guard has the duty to “enforce or assist in the enforcement of all applicable Federal laws on, under, and over the high seas and waters subject to the jurisdiction of the United States.”<sup>53</sup> Furthermore, the Act specifically provides that its provisions “shall be enforced by the Secretary [of Commerce] and the Secretary of the department in which the Coast Guard is operating.”<sup>54</sup> Thus, “living marine resource enforcement is a joint responsibility of both NOAA Enforcement and the U.S. Coast Guard, with assistance from [other federal and state agencies].”<sup>55</sup> The Coast Guard, however, acts as “the lead agency for at-sea enforcement of living marine resource laws” as it is “the only agency with the infrastructure and authority to project a law enforcement presence throughout the [EEZ,]”<sup>56</sup> while NOAA provides enforcement of the laws ashore.<sup>57</sup>

In its role, the Coast Guard’s stated goal is to “[p]rovide effective and professional at-sea enforcement to advance national goals for the conservation and management of living marine resources and their environments.” The Coast Guard seeks to achieve that goal in two ways.<sup>58</sup> First, the Coast Guard works to prevent foreign fishing vessels from encroaching on the

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50. U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN, *supra* note 25, at 1.

51. NOAA Fisheries, *supra* note 31.

52. *See* U.S. COAST GUARD & NOAA FISHERIES, *supra* note 26 (noting the enforceability of different types of fishery management measures).

53. 14 U.S.C. § 2 (2000).

54. 16 U.S.C. § 1861(a) (2000).

55. U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN, *supra* note 25, at 1.

56. *Id.*

57. U.S. Coast Guard, *supra* note 17.

58. U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN, *supra* note 25, at 3.

EEZ.<sup>59</sup> Second, the Coast Guard works to ensure that fishermen comply with domestic living marine resource laws and regulations in the EEZ.<sup>60</sup>

In order to meet these goals, the Coast Guard has established a series of standards. In particular, to prevent encroachment of the EEZ the Coast Guard believes it necessary to:

- Respond to all known incidents of illegal encroachment in progress;
- Based on threat assessments, sufficiently surveil high threat areas to detect all vessels engaged in or suspected of illegal encroachment;
- Intercept 100% of known suspects;
- Properly document every known violation discovered and take appropriate action.<sup>61</sup>

Similarly, in order to ensure compliance with fisheries laws within the EEZ, the Coast Guard believes that it should:

- Respond to all known significant violations in progress;
- Based on threat assessments, sufficiently surveil high threat areas of the EEZ to detect 80% of all significant violations, or suspected significant violations, of domestic living marine resource laws and regulations;
- Based on threat assessments, sufficiently surveil low threat areas of the EEZ to detect 20% of all significant violations, or suspected significant violations, of domestic living marine resource laws and regulations;
- Annually board 20% of the U.S. fishing fleet operating in high threat areas to promote compliance with domestic living marine resource laws and regulations;
- Annually board 10% of the U.S. fishing fleet operating in low threat areas to promote compliance with domestic living marine resource laws and regulations;
- Support all legitimate requests for Living Marine Resource (LMR) enforcement assistance by appropriate agencies.<sup>62</sup>

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59. *Id.*

60. *Id.*

61. *Id.* at 7.

62. *Id.* at 8-9.

The achievement of these goals can be difficult. In 2002, for example, the Alaska Groundfish Fisheries, which cover only eight species of fish,<sup>63</sup> had a fleet of 1167 vessels<sup>64</sup> operating throughout an area consisting of over 900,000 square miles.<sup>65</sup> To reach its annual goals for that single fishery, the Coast Guard would need to board between 116 and 232 vessels and monitor the entire area for significant violations.<sup>66</sup> Furthermore, the Coast Guard would have had to undertake this endeavor while also covering the rest of Alaska's expansive waters and monitoring the rest of the state's 14,000 commercial fishing vessels with an average of only two deepwater cutters underway per day.<sup>67</sup>

### C. Coast Guard Performance in Enforcing U.S. Fisheries Laws in the EEZ

The U.S. Office of Management and Budget and Federal Agencies (OMB) has described the Coast Guard's fisheries enforcement program as "moderately effective," stating that it "is well managed overall, but shows some deficiencies in strategic planning and performance measurement."<sup>68</sup> In part, the evaluation cited the two measures that the Coast Guard uses to determine its fisheries enforcement performance. Those measures are the number of known incursions into the EEZ and the observed rate of compliance with fisheries laws.<sup>69</sup> The former is determined "by dividing the number of significant violations detected by the number of fisheries

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63. NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, BERING SEA, *supra* note 41, at 62-4 (these eight species are pollock, pacific cod, sablefish, flatfish, pacific ocean perch, other rockfish, atka mackerel, and squid).

64. *See id.* at 89 (343 vessels); NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, ALASKA, *supra* note 41, at 77 (824 vessels).

65. NATIONAL MARINE FISHERIES SERVICE ALASKA REGION, NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION, ALASKA GROUND FISH FISHERIES: FINAL PROGRAMMATIC SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT ES-9 (2004), [http://www.fakr.noaa.gov/sustainablefisheries/seis/final062004/Exec\\_sum.pdf](http://www.fakr.noaa.gov/sustainablefisheries/seis/final062004/Exec_sum.pdf).

66. *See* Commercial Fisheries Entry Commission, State of Alaska, 2002 Vessel Characteristics & Statistics Menu (2002), [http://www.cfec.state.ak.us/vbycen/2002/00\\_ALL.htm](http://www.cfec.state.ak.us/vbycen/2002/00_ALL.htm) (noting that the state licensed 14,243 commercial vessels for 2002).

67. *See* CDR MICHAEL CERNE, OPERATIONAL PLANNING & POLICY DIVISION, 17TH COAST GUARD DISTRICT, 17TH COAST GUARD DISTRICT REPORT: 2004 YEAR IN REVIEW (2005), <http://www.fakr.noaa.gov/npfmc/USCG/USCG2004review.pdf> (678 major cutter days total for 2002).

68. U.S. Office of Management and Budget and Federal Agencies, *supra* note 19.

69. Detailed Enforcement Assessment, *supra* note 21.

boardings conducted” and the latter is determined by “count[ing] the number of foreign fishing vessel incursions into the [EEZ].”<sup>70</sup>

Whether these measures are an accurate evaluation of the Coast Guard’s fisheries enforcement program is not clear. That is, the statistical significance of the observed compliance measurement does not seem to be documented and the number of vessel incursions measurement appears to include only “detected” incursions. As such, these numbers may not provide a true evaluation of what is actually occurring along the boundaries of the EEZ. Regardless, the measures do indicate that, in recent years, the Coast Guard has been unable to consistently fulfill its fisheries enforcement duties as it has only met its annual performance targets half of the time, from 2000 to 2005.<sup>71</sup> Over that period, the number of detected incursions fluctuated around the Coast Guard’s stated goal of 202 per year, ranging between 152 and 250, while the observed compliance rate fluctuated around the Coast Guard’s stated goal of 96%, ranging between 95.8% and 98.6%.<sup>72</sup>

The Alaska Groundfish Fisheries provide a real-world example of the inability of the Coast Guard to meet its performance targets. According to the Coast Guard’s standards, effective enforcement for that fishery in 2002 would have required the Coast Guard to board between 116 and 232 vessels throughout the year in addition to providing surveillance of 900,000 square miles for significant violations. In actuality, however, the Coast Guard was only able to conduct a total of 484 at-sea fisheries boardings for *all* of Alaska’s many fisheries and 14,000 commercial fishing vessels.<sup>73</sup> More importantly, the Coast Guard observed a fisheries compliance rate of only 93%.<sup>74</sup> This means that, based on the number of vessels not boarded, upwards of 980 vessels in violation of fisheries laws went undetected. The violations that were discovered included breaches of closed area, by-catch, permit, recording and reporting, prohibited species, and shark finning regulations.<sup>75</sup>

Although the OMB report cites “deficiencies in strategic planning and performance measurement”<sup>76</sup> as problems with the Coast Guard’s fisheries enforcement program, it did not appear to consider the two more likely reasons for the Coast Guard’s failure: the limited number and capability of

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70. *Id.*

71. *Id.*

72. *Id.*

73. *Id.*

74. CERNE, *supra* note 67.

75. *Id.*

76. U.S. Office of Management and Budget and Federal Agencies, *supra* note 19.

its deepwater assets and the impact of its many other deepwater missions on the availability of those assets for fisheries enforcement.

### III. PRIMARY REASONS FOR THE COAST GUARD'S INABILITY TO CONSISTENTLY MEET ITS ENFORCEMENT GOALS FOR U.S. FISHERIES LAWS IN THE EEZ

#### A. *Coast Guard's Current Deepwater Assets are Limited in Number and Capability*

Coast Guard at-sea fisheries enforcement is necessarily a deepwater mission in that the majority of operations take place out to and on the high seas,<sup>77</sup> including the entire EEZ, most of which is “beyond the range of single-crewed shore-based small boats [and requires] either extended on-scene presence, long transit distances, or forward deployment.”<sup>78</sup> These operations require the use of assets capable of operating in the deepwater environment, which include “medium- and high-endurance cutters<sup>79</sup>[, the] entire aviation fleet . . . [as well as] the command, control, communications and sensing equipment and shore-based support infrastructure that connect these operational units.”<sup>80</sup> Unfortunately, the Coast Guard's current inventory of deepwater assets, in particular its cutters and aircraft, are limited in number and have already (or are nearing) the end of their projected service lives making them less and less capable of carrying out their missions effectively.<sup>81</sup>

The primary data cited below to support this point is mostly from the Coast Guard's own condition measures. Although the measures indicate significant problems with the Coast Guard's deepwater capabilities, the U.S. Government Accountability Office (GAO) has noted that “[s]imply put, the Coast Guard's measures of asset condition do not fully capture the extent

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77. U.S. COAST GUARD, *supra* note 14.

78. OFFICE OF LAW ENFORCEMENT AND DEF. OPERATIONS, U.S. COAST GUARD, DEEPWATER MISSION ANALYSIS REPORT EXECUTIVE SUMMARY I-1 (1995), <http://www.uscg.mil/deepwater/pdf/MAR.pdf> [hereinafter DEEPWATER MISSION ANALYSIS REPORT].

79. HISTORIAN'S OFFICE, U.S. COAST GUARD, WHAT IS A “CUTTER”? (2002), <http://www.uscg.mil/history/FAQS/Designations.html> (last visited Mar. 31, 2008) (noting that Coast Guard refers to all of its vessels over 65 ft. in length as “cutters” because the term was adopted by the U.S. Treasury Department when it created the Revenue Marine, the Coast Guard's predecessor agency).

80. Revised Deepwater Implementation Plan, *supra* note 15.

81. *See id.*

of the problems.”<sup>82</sup> In fact, the GAO gathered independent evidence regarding the condition of the Coast Guard’s deepwater assets confirming that “deteriorating and obsolete systems and equipment [are] a major cause of the reduction in mission capabilities for a number of [the Coast Guard’s] deepwater legacy aircraft and cutters.”<sup>83</sup>

### 1. Cutters

A “cutter” is any Coast Guard vessel greater than sixty-five feet in length that has adequate accommodations for a crew to live aboard.<sup>84</sup> The primary cutters capable of conducting deepwater missions, not including buoy tenders and icebreakers, which are normally used only for the specialized missions they are designed for, are High Endurance Cutters (WHEC), Medium Endurance Cutters (MHEC), and Patrol Boats (WPB). The Coast Guard fleet currently includes only eighty-two such deepwater cutters to cover its massive operating area: twelve 378-foot WHECs commissioned in the 1960s, one 282-foot MHEC commissioned in 1971, thirteen 270-foot MHECs commissioned in the 1980s and early 1990s, one 213-foot MHEC commissioned in 1946, fourteen 210-foot MHECs commissioned in the 1960s, and forty-one 110-ft WPBs commissioned in the 1980-1990s.<sup>85</sup>

In addition to the limited number available, the Coast Guard’s cutters are also “aging and increasingly obsolete.”<sup>86</sup> In particular, the ages of the Coast Guard’s cutters range from approximately fifteen to seventy years old. As such, each one has either already past or is currently coming to the end of its projected service life.<sup>87</sup> In fact, in 1999, “average age of the Coast

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82. MARGARET T. WRIGHTSON, DIR. HOMELAND SEC. AND JUSTICE ISSUES, U.S. GOV’T ACCOUNTABILITY OFFICE, TESTIMONY BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, COAST GUARD AND MARITIME TRANSPORTATION: PRELIMINARY OBSERVATIONS ON THE CONDITION OF DEEPWATER LEGACY ASSETS AND ACQUISITION MANAGEMENT CHALLENGES 11 (2005), *available at* <http://www.gao.gov/new.items/d05307t.pdf> [hereinafter GAO REPORT].

83. *Id.* at 3-4.

84. U.S. COAST GUARD, AIRCRAFT, BOATS, AND CUTTERS, <http://www.uscg.mil/datasheet/> (last visited Mar. 31, 2008).

85. *Id.* The website also indicates that the Coast Guard has eight 123-foot cutters that were commissioned in 2004. Those assets are actually re-furbished 110-foot cutters, which have since been removed from service because of safety problems. *See* Press Release, U.S. Coast Guard, Coast Guard Suspends Converted Patrol Boat Operations (Nov. 30, 2006), *available at* <https://www.piersystem.com/go/doc/786/138897/>.

86. Tasikas, *supra* note 16, at 64-65.

87. *See* INTERAGENCY DEEPWATER CAPABILITIES REPLACEMENT PROJECT REPORT, *supra* note 16 (“Over the next 10 years, each of the [Coast Guard’s deepwater assets] will begin to approach its projected service life.”); GAO REPORT, *supra* note 82, at 6 (detailing the average age and service lives of the Coast Guard’s deepwater cutters and aircraft).

Guard's Deepwater cutters is 27 years, making this force older than 40 of the world's 42 major naval fleets."<sup>88</sup> The age and effectiveness of the Coast Guard's cutters is already limiting its ability to conduct effective deepwater missions.<sup>89</sup> For example, the Coast Guard's deepwater cutters suffer from "major equipment casualties (equipment failures that significantly impact mission performance) [more than] 50 percent of the time."<sup>90</sup> The Coast Guard's WHECs, WMECs, and WPBs have all "operated free of deficiencies in mission-essential equipment" despite being "substantially below the Coast Guard's target level" for each year from 2000 to 2004.<sup>91</sup> The result of these problems is that "[cutter] and aircraft failures are occurring at an increasing rate affecting not only the Coast Guard's efficiency, but also putting crew members in danger in the field."<sup>92</sup> For example, "[t]he 110-foot patrol boat, the workhorse of the Coast Guard's fleet, . . . suffered 23 hull breaches requiring emergency repairs [in 2004 and] the largest cutters have a similarly poor readiness record, having lost 358 patrol days in 2004."<sup>93</sup> These casualties "amount[ed] to the effective loss of two Cutters, or 5% of the fleet, for the entire year."<sup>94</sup>

## 2. Aircraft

The Coast Guard uses a variety of aircraft to conduct its deepwater missions throughout its massive operating area. Specifically, the Coast Guard's current inventory of primary operational aircraft includes only twenty-two HC-130 long-range surveillance and transport fixed-wing aircraft, twenty HU-25 medium-range surveillance fixed-wing aircraft, thirty-five HH-60J medium-range recovery helicopters, and eighty HH-65A short-range recovery helicopters.<sup>95</sup> These various types of aircraft were procured at different times throughout the 1970s to 1990s.<sup>96</sup>

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88. Deepwater Capability Replacement Project: Programmatic Environmental Impact Statement, 65 Fed. Reg. 67,441, 67,442 (Nov. 9, 2000).

89. See Revised Deepwater Implementation Plan, *supra* note 15 and accompanying text.

90. *Id.*

91. GAO REPORT, *supra* note 82, at 9.

92. *Id.*

93. Letter from Joe Lieberman & Susan Collins, U.S. Senators, to Joshua Bolten, Director of the U.S. Office of Management and Budget (Mar. 17, 2005), *available at* [http://hsgac.senate.gov/index.cfm?FuseAction=PressReleases.Detail&Affiliation=C&PressRelease\\_id=938&Month=3&Year=2005](http://hsgac.senate.gov/index.cfm?FuseAction=PressReleases.Detail&Affiliation=C&PressRelease_id=938&Month=3&Year=2005).

94. *Id.*

95. U.S. COAST GUARD, *supra* note 84.

96. See GAO REPORT, *supra* note 82, at 6 (providing the average age of the Coast Guard's aircraft types given).

Similar to the Coast Guard's deepwater cutters, its aircraft are limited in number and nearing the end of their projected service lives. As a result, the aircraft are unable to perform their missions effectively.<sup>97</sup> Specifically, the average age of the Coast Guard's different types of aircraft is 21.9 years for the HC-130, 22.1 years for the HU-25, 12.6 years for the HH-60, and 17.6 years for the HH-65, as compared to the expected service lives of thirty, twenty, twenty, and twenty years respectively.<sup>98</sup> More importantly, two out of four aircraft types as a whole, were "consistently below the Coast Guard's target level" for mission availability from 2000 to 2004.<sup>99</sup> All of them "have limitations on their operating capabilities" including even those that "have received upgrades in engines, operating systems, and sensor equipment since they were originally built."<sup>100</sup> These problems result in both decreased efficiency as well as increased danger for crews in the field. For example, the HH-65 had "329 in-flight power losses . . . in [2004 alone], . . . more than five times the number that occurred 2003."<sup>101</sup>

*B. Current Mission Prioritization Results in Few Deepwater Assets for Fisheries Enforcement Mission*

The majority of the Coast Guard's deepwater assets can be used for its many different deepwater missions because "[m]ost [of those] missions can be broken down into the function tasks of target detection, classification or sorting into targets of interest, specific target identification, and prosecution."<sup>102</sup> The upshot of this flexibility is that the Coast Guard does not generally require specialized assets for each type of deepwater mission. Often, it requires the Coast Guard, due to limited resources, to prioritize its deepwater missions, and dedicate what assets are available only to the

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97. See INTERAGENCY DEEPWATER CAPABILITIES REPLACEMENT PROJECT REPORT, *supra* note 16 ("The Coast Guard's aircraft are approaching the end of their planned economic service lives and continue to operate in a rigorous, highly corrosive, and often dangerous environment, posing support challenges to the Coast Guard."); GAO REPORT, *supra* note 82, at 7 ("Similarly, while a number of the deepwater legacy aircraft have received upgrades in engines, operating systems, and sensor equipment since they were originally built, they too have limitations in their operating capabilities.").

98. GAO REPORT, *supra* note 82, at 6.

99. *Id.* at 9.

100. *Id.* at 7.

101. Lieberman & Collins, *supra* note 93.

102. OFFICE OF LAW ENFORCEMENT AND DEF. OPERATIONS, U.S. COAST GUARD, DEEPWATER CAPABILITIES PROJECT MISSION NEED STATEMENT 6 (1996) (on file with author) [hereinafter MISSION NEEDS STATEMENT].

highest priorities.<sup>103</sup> Unfortunately, due to the urgent nature of many of the Coast Guard's deepwater missions, this prioritization usually results in less urgent missions, such as fisheries enforcement receiving fewer resources.<sup>104</sup> In the context of fisheries enforcement, the Coast Guard has noted that the "[a]llocation of resources and mission priorities must be balanced as the Coast Guard operates in a resource-constrained environment."<sup>105</sup>

### 1. Current Deepwater Missions

The Coast Guard's general mission is "to protect the public, the environment, and U.S. economic and security interests in any maritime region in which those interests may be at risk, including international waters and America's coasts, ports, and inland waterways."<sup>106</sup> Under this umbrella, the Coast Guard has five fundamental roles: maritime safety, maritime security, maritime mobility, protection of natural resources, and national defense.<sup>107</sup> Each of these roles involve some deepwater activities<sup>108</sup> and, thus, require some commitment of deepwater resources.

#### *a. Maritime Safety*

The purpose of the Coast Guard's maritime safety mission is "to reduce crewmember deaths and injuries on U.S. commercial vessels; passenger deaths and injuries; and the number of collisions and groundings in the waters under Coast Guard jurisdiction."<sup>109</sup> In the deepwater context, the Coast Guard's maritime safety mission is primarily limited to search and rescue "throughout the Maritime [search and rescue] area, a massive region which includes all waters subject to the jurisdiction of the United States,

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103. See Caldwell, *supra* note 12, at 10 (stating that "[r]elative to other military services, the Coast Guard is small, and when resources are shifted to any one specific mission area, other mission areas may suffer.").

104. See Constantie G. Papavizas & Lawrence I. Kiern, *2001-2002 U.S. Maritime Legislative Developments*, 34 J. MAR. L. & COM. 451, 461 (2003) ("Over the long run, the domestic security focus of DHS will likely drive the new department to emphasize the security responsibilities of its component agencies to the detriment of other missions. For the Coast Guard, this may lead to the diminution of its non-security related functions [including] environmental protection.").

105. U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN, *supra* note 25, at 7.

106. Missions, *supra* note 5.

107. *Id.*

108. See generally MISSION NEEDS STATEMENT, *supra* note 102, at 1-23.

109. U.S. Coast Guard, Maritime Safety, [http://www.uscg.mil/top/missions/M\\_Safety.asp](http://www.uscg.mil/top/missions/M_Safety.asp) (last visited Mar. 31, 2008).

and high seas areas covering much of the North Atlantic and Pacific Oceans, as well as a substantial portion of the Arctic Ocean.”<sup>110</sup> In addition, “maritime tradition and international law require Coast Guard assets to respond to distress requests for assistance in any area that they are operating in, regardless of location.”<sup>111</sup>

*b. Maritime Security*

The goal of the Coast Guard’s maritime security mission is to reduce America’s vulnerability to terrorism by preventing waterborne terrorist attacks; securing maritime borders; halting the flow of illegal aliens and contraband; and suppressing maritime violations of federal law.<sup>112</sup> In undertaking this mission, the Coast Guard conducts a variety of deepwater missions. In particular, the Coast Guard accomplishes its drug interdiction mission primarily by patrolling for “smugglers [using the] air and maritime routes in the Transit Zone, a six million square mile area, including the Caribbean, Gulf of Mexico and Eastern Pacific.”<sup>113</sup> Similarly, migrant interdiction is accomplished by “conduct[ing] patrols and coordinat[ing] with other federal agencies and foreign countries to interdict undocumented migrants at sea.”<sup>114</sup> Port, waterways, and coastal security requirements are met through “increased . . . vigilance, readiness, and patrols [by Coast Guard units] to protect the country’s 95,000 miles of coast line, including the Great Lakes and inland waterways.”<sup>115</sup> Finally, general maritime law enforcement is conducted using boarding teams from cutters and small boats that inspect underway vessels for violations of federal law.<sup>116</sup>

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110. U.S. Coast Guard, *A History of Coast Guard Aviation*, <http://uscgaviationhistory.aoptero.org/history05.html> (last visited Mar. 31 2008).

111. DEEPWATER MISSION ANALYSIS REPORT, *supra* note 78, at I-16.

112. U.S. Coast Guard, Maritime Security, [http://www.uscg.mil/top/missions/M\\_Security.asp](http://www.uscg.mil/top/missions/M_Security.asp) (last visited Mar. 31, 2008).

113. U.S. Coast Guard, Fact File: Drug Interdiction, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (last visited Mar. 31, 2008).

114. U.S. Coast Guard, Fact File: Migrant Interdiction, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (last visited Mar. 31, 2008).

115. U.S. Coast Guard, Fact File: Homeland Security, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (last visited Mar. 31, 2008).

116. *See* U.S. Coast Guard, Fact File: Maritime Security, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (last visited Mar. 31, 2008).

*c. Maritime Mobility*

The Coast Guard's maritime mobility mission stems from its traditional role to facilitate maritime commerce by eliminating interruption to the economic movement of goods and people and maximizing recreational access to the water.<sup>117</sup> As part of this mission, the Coast Guard manages and maintains the U.S. aids-to-navigation system and conducts ice-breaking operations throughout the country and world. Both of these activities involve significant deepwater responsibilities.<sup>118</sup> Generally, however, these missions require specialized deepwater cutters, not normally used for other responsibilities.

*d. Protection of Natural Resources*

The Coast Guard's protection of natural resources mission involves two primary responsibilities: marine environmental protection and living marine resources law enforcement.<sup>119</sup> In order to meet this responsibility, the Coast Guard conducts a variety of deepwater activities, including the protection of endangered species, the protection of the maritime environment from pollution, and the enforcement of fisheries laws. The protection of endangered species involves the Coast Guard "patrolling National Marine Sanctuaries and other protected areas, providing support to other agencies involved in disentanglement operations, and providing logistical support efforts to reintroduce rehabilitated animals to the wild."<sup>120</sup>

The protection of the maritime environment from pollution includes: responding to maritime pollution incidents with the National Strike Teams; enforcing federal refuse and sewage dumping regulations; educational awareness regarding the necessity of maintaining a clean marine environment; and international enforcement measures to ensure a reduction in marine accidents involving both spills and safety.<sup>121</sup> Finally, the enforcement of fisheries laws requires the Coast Guard to: 1) patrol the U.S. EEZ to prevent foreign encroachment within the EEZ; 2) ensure compliance with

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117. U.S. Coast Guard, Maritime Mobility, [http://www.uscg.mil/top/missions/M\\_Mobility.asp](http://www.uscg.mil/top/missions/M_Mobility.asp) (last visit Mar. 31, 2008).

118. See U.S. Coast Guard, Fact File: Mobility, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (last visited Mar. 31, 2008).

119. U.S. Coast Guard, Protection of Natural Resources, [http://www.uscg.mil/top/missions/Protect\\_NR.asp](http://www.uscg.mil/top/missions/Protect_NR.asp) (last visited Mar. 31, 2008).

120. U.S. Coast Guard, Fact File: Marine Protected Species, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (follow "Marine Protected Species" hyperlink) (last visited Mar. 31, 2008).

121. *Id.*

domestic fisheries laws; and 3) patrol the high seas to ensure compliance of both U.S. and foreign fishing vessels with international agreements.<sup>122</sup>

*e. National Defense*

The Coast Guard's national defense mission requires it to be involved in in-theatre defense operations and also as a lead participant in the Maritime Defense Zone.<sup>123</sup> Many of the Coast Guard's activities for national defense are deepwater missions. In particular, the Coast Guard, when working with the Department of Defense, must conduct "maritime intercept operations, deployed port operations [for] security and defense, peacetime engagement, and environmental defense operations."<sup>124</sup> In addition, the Coast Guard's role as a lead participant in the Maritime Defense Zone requires it to counter "potential threats to American's coasts, ports, and inland waterways through numerous port-security, harbor-defense, and coastal-warfare operations and exercises."<sup>125</sup>

## 2. Current Deepwater Resource Allocations

Each of the Coast Guard's many deepwater missions detailed above requires the dedication of some of the deepwater resource hours that the Coast Guard has available each year. Due to the Coast Guard's limited number of deepwater assets, resource hours dedicated to one mission area results in fewer hours available for other mission areas.<sup>126</sup> Often, the importance of search and rescue or national defense missions take precedence over less urgent missions such as environmental protection.<sup>127</sup> As such, few resources are currently available for fisheries enforcement. For example, in 2006 only twelve percent of the Coast Guard's total aircraft resource hours were spent on living marine resource and EEZ boundary enforcement.<sup>128</sup> This effect will likely continue to reduce the number of

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122. DEEPWATER MISSION ANALYSIS REPORT, *supra* note 78, at I-7.

123. U.S. Coast Guard, Fact File: National Security, <http://www.uscg.mil/hq/g-cp/comrel/factfile/index.htm> (last visited Mar. 31, 2008).

124. *Id.*

125. *Id.*

126. *See* Caldwell, *supra* note 12.

127. *See* Papavizas & Kiern, *supra* note 104 and accompanying text.

128. U.S. COAST GUARD, 2007 BUDGET IN BRIEF 8 (2006), *available at* <http://www.uscg.mil/top/about/doc/FiscalYear2006Report.pdf> (noting that 2005 aircraft mission employment was 37% search and rescue, 19% drug interdiction, 14% migrant interdiction, 11% ports, waterways, and coastal security, 10% living marine resources (including fisheries enforcement), 3% marine environmental protection, 3% aids-to-

resource hours that the Coast Guard can expend on its fisheries enforcement mission in the future as the Coast Guard's homeland security responsibilities increase and its deepwater assets continue to deteriorate.<sup>129</sup>

#### IV. RECOMMENDATIONS TO IMPROVE ENFORCEMENT OF U.S. FISHERIES LAWS IN THE EEZ

##### A. *Properly Fund and Accelerate the Coast Guard's Deepwater Acquisition Plan*

The enforcement of U.S. fisheries laws in the EEZ can be significantly improved if the two primary problems with the Coast Guard's current situation as described above are addressed. The limited number and narrow capability of the Coast Guard's deepwater assets can be rectified through the proper funding of the Coast Guard's current deepwater acquisition plan. This plan, called the Integrated Deepwater System (IDS), is a twenty-plus year program aimed at replacing the Coast Guard's aging fleet with "three new classes of new cutters and their associated small boats, upgraded legacy cutters, a new fixed-wing manned aircraft fleet, a combination of new and upgraded helicopters, and both cutter and land-based unmanned air vehicles" and linking them with state-of-the art "command, control, communications computers, intelligence, surveillance, and reconnaissance."<sup>130</sup> These new deepwater assets are expected to greatly enhance the Coast Guard's capabilities with "an integrated approach to upgrade existing assets while transitioning to newer, more-capable platforms with improved systems for command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) and integrated logistics."<sup>131</sup>

Although Congress has provided funding to begin the IDS, it has done so only on a piecemeal basis.<sup>132</sup> Consequently, the success of the program currently hinges on the Coast Guard receiving the necessary budget allocation each year. In fact, the GAO has noted that "[i]f full funding is not available in any given year . . . the shortfall could have cascading effects

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navigation, and 2% other law enforcement (including EEZ boundary enforcement)).

129. See Caldwell, *supra* note 12; see also Papavizas & Kiern, *supra* note 104, at 460-61.

130. U.S. COAST GUARD, *supra* note 14, at 2.

131. *Id.* See generally Integrated Coast Guard Systems, Deepwater, <http://www.icgdeepwater.com/index.php> (last visited Mar. 31, 2008).

132. See e.g., Eric Lipton, *Billions Later, Plan to Remake The Coast Guard Fleet Stumbles*, N.Y. TIMES, Dec. 9, 2006, at A1 ("In September 2005, Congress agreed to increase the annual financing for Deepwater to nearly \$1 billion.").

on overall costs for [IDS].”<sup>133</sup> As such, in order to improve Coast Guard fisheries law enforcement and its many other deepwater missions, the United States must make a clear commitment to fund the Coast Guard’s deepwater acquisition plan now and in the future. In addition, the IDS would be less expensive and provide substantial increases in mission performance if it were accelerated into a ten-year timeframe. The Coast Guard has estimated that acceleration would save four billion dollars and add approximately 943,000 mission hours.<sup>134</sup>

Recently, IDS has been in the national news for problems that have occurred during the acquisition process.<sup>135</sup> For example, the refurbishment of the Coast Guard’s 110-foot patrol boats “has been canceled after hull cracks and engine failures made the first eight boats unseaworthy,” and “plans to build a new class of 147-foot ships with an innovative hull have been halted after the design was found to be flawed.”<sup>136</sup> As Senator Olympia Snowe noted, however, “[w]e don’t want to waste money [and] we don’t want ineffective programs. At the same time, we can’t allow the Coast Guard to languish.”<sup>137</sup> The program has also had a number of successes including the beginning of the planned HH-65 helicopter upgrades,<sup>138</sup> the arrival of the first HC-144 medium-range surveillance maritime patrol aircraft,<sup>139</sup> and the christening of the first National Security Cutter.<sup>140</sup> Even more important, the GAO has also recently found that “Coast Guard officials have . . . taken strong efforts to address concerns about program management and contract performance and have largely implemented or are in the process of implementing steps that would help mitigate these concerns.”<sup>141</sup> As such, the most prudent choice at this point,

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133. CHANGES TO DEEPWATER PLAN, *supra* note 29, at 9.

134. U.S. COAST GUARD, REPORT TO CONGRESS ON THE FEASIBILITY OF ACCELERATING THE INTEGRATED DEEPWATER SYSTEM, *available at* <http://www.uscg.mil/deepwater/pdf/IDSReportExecutiveSummary.pdf> (last visited Mar. 31, 2008)

135. *See generally* Lipton, *supra* note 132, at A1.

136. *Id.*

137. *Id.*

138. Press Release, U.S. Coast Guard, Coast Guard Receives First of Three Upgraded HH-65C Helicopters (June 26, 2006), *available at* <http://www.piersystem.com/go/doc/21/123311/?previewDraftID=212654>.

139. *A Great Airplane and a Great Day in Coast Guard Aviation: First Deepwater HC-144A Maritime Patrol Aircraft Arrives in United States*, U.S. COAST GUARD DEEPWATER NEWS, Dec. 2006, *available at* [http://uscg.mil/acquisition/deepwater/newsletters/dec06/newsletter\\_dec06-02.asp](http://uscg.mil/acquisition/deepwater/newsletters/dec06/newsletter_dec06-02.asp).

140. Press Release, Northrop Grumman, Bertholf Christening Honors U.S. Coast Guard’s First National Security Cutter and Celebrates Recovery Milestone (Nov. 11, 2006), *available at* [http://www.irconnect.com/noc/press/pages/news\\_releases.mhtml?d=108633](http://www.irconnect.com/noc/press/pages/news_releases.mhtml?d=108633).

141. CHANGES TO DEEPWATER PLAN, *supra* note 29, at 39.

particularly considering the needs of the Coast Guard, continues to be the proper funding or acceleration of IDS.

*B. Increase Utilization of Alternative Enforcement Programs*

The enforcement of U.S. fisheries laws in the EEZ could also be aided by increasing the utilization of alternative enforcement programs. Although such programs cannot replace the necessary presence of law enforcement assets at sea, they may help reduce the need for Coast Guard deepwater resources by providing alternative forms of presence and improving enforcement activities when Coast Guard resources are available.<sup>142</sup> Examples of programs that may be beneficially expanded include: the National Oceanographic and Atmospheric Administration's (NOAA) Vessel Monitoring Systems (VMS), NOAA Office of Law Enforcement (OLE) Investigations and Patrols, and the Fishery Observer Program. Although it is difficult to determine the comparative costs of using these programs to augment Coast Guard fisheries enforcement activities, basic cost information can be generally compared to the estimated \$431 million cost of building a new National Security Cutter<sup>143</sup> or the \$11,094 per hour cost of operating a WHEC.<sup>144</sup>

1. Vessel Monitoring Systems

VMS allows NOAA to use global positioning satellites to track the position of fishing vessels with global positioning transponders.<sup>145</sup> Vessel positions are then transmitted to NOAA OLE, and ultimately the Coast Guard,<sup>146</sup> allowing the agencies to “monitor and survey vessels.”<sup>147</sup> As such,

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142. See U.S. COAST GUARD FISHERIES ENFORCEMENT STRATEGIC PLAN, *supra* note 25, at 5 (“[P]resence can be provided through traditional means such as cutter and aircraft patrols, or by cutting-edge technologies such as Vessel Monitoring Systems (VMS) and Unmanned Aerial Vehicles (UAVs), or through improved targeting of illegal fishers using maritime domain awareness, intelligence and random, focused pulse operations.”).

143. Lipton, *supra* note 132, at A1.

144. U.S. COAST GUARD, COMMANDANT INSTRUCTION 7310.1J: STANDARD RATES ENCLOSURE (1) (2006), available at [http://www.uscg.mil/hq/npsc/Documents/PDFs/urg/URG\\_3\\_11.pdf](http://www.uscg.mil/hq/npsc/Documents/PDFs/urg/URG_3_11.pdf).

145. OFFICE OF INSPECTOR GENERAL, U.S. DEPARTMENT OF COMMERCE, FINAL INSPECTION REPORT NO. IPE-15154: NMFS SHOULD TAKE A NUMBER OF ACTIONS TO STRENGTHEN FISHERIES ENFORCEMENT 16 (Mar. 2003), available at <http://www.oig.doc.gov/oig/reports/2003/NOAA-IPE-15154-03-2003.pdf> [hereinafter FINAL INSPECTION REPORT].

146. *Id.*

147. NOAA Fisheries, *supra* note 30.

VMS systems are primarily useful for enforcing closed area restrictions.<sup>148</sup> It is important to note that even when a violation is observed through VMS, an at-sea law enforcement vessel or aircraft is generally required to document the violation.<sup>149</sup> Today, VMS is already in use for several fisheries around the country.<sup>150</sup> Specifically, “[i]n 1998, when the U.S. implemented VMS for its EEZ fisheries, only 1000 foreign high-seas drift-net vessels were required to carry the devices.”<sup>151</sup> In 2003, however, “the number of VMS-equipped fishing vessels jumped to 1528.”<sup>152</sup>

Expanding the use of VMS systems would add to the presence necessary for effective fisheries enforcement by providing constant monitoring of fishing vessels and useful intelligence information that could be used to target specific vessels for at-sea inspection by available Coast Guard assets.<sup>153</sup> Furthermore, “dollar for dollar, VMS is more cost effective than traditional methods of surveillance,”<sup>154</sup> as the initial cost to establish a VMS for an individual fishery is only around \$40,000.<sup>155</sup>

## 2. Office of Law Enforcement Investigations and Patrols

In addition to operating VMS, NOAA’s OLE has law enforcement officers and special agents that investigate civil and criminal fishery violations and conduct patrols, both on their own and with other agencies,

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148. U.S. Coast Guard & NOAA Fisheries, *supra* note 26, at 10 (noting that closed areas are fairly easy to monitor with VMS).

149. *Id.*

150. See DALE JONES & BOB HENDRICKSON, FISHERIES ENFORCEMENT: NOAA/USCG, *available at* [http://www.nmfs.noaa.gov/sfa/reg\\_svcs/Council%20stuff/council%20orientation/Enforcement.Jones.Hendrickson.pdf](http://www.nmfs.noaa.gov/sfa/reg_svcs/Council%20stuff/council%20orientation/Enforcement.Jones.Hendrickson.pdf).

151. *Id.*

152. *Id.*

153. OFFICE FOR LAW ENFORCEMENT, NATIONAL MARINE FISHERIES SERVICE, FY 2005 Budget Highlights, *available at* [www.nmfs.noaa.gov/mb/docs/VMS.doc](http://www.nmfs.noaa.gov/mb/docs/VMS.doc)

The expanded use of VMS provides one of the strongest potential solutions to supplement traditional enforcement activities . . . VMS can be used to provide a more comprehensive surveillance framework and to more efficiently direct the limited number of OLE enforcement agents/officers and Coast Guard assets that are available. . . . While the VMS program does not replace traditional surveillance, it greatly reduces the number of personnel required to monitor the nation’s fleet of commercial fishing vessels. VMS allows for effective management of fishery regulations while reducing the delays and costs associated with routine vessel boardings and increased human surveillance.

*Id.*

154. FINAL INSPECTION REPORT, *supra* note 145, at 18.

155. *Id.* at 16.

to detect and deter such violations.<sup>156</sup> OLE, however, only has 167 law enforcement officers: 150 Special Agents to conduct investigations and seventeen Enforcement Officers to patrol and complete vessel boardings.<sup>157</sup> These officers cover an area of responsibility consisting of approximately 3.4 million square miles of open-ocean, over 95,000 miles of coastline, thirteen National Marine Sanctuaries, as well as the high seas and the international wildlife trade to the extent that they involve U.S. treaties and international law.<sup>158</sup> Additionally, OLE is responsible for enforcing a multitude of laws beyond the Magnuson-Stevens Act including: the Endangered Species Act, the Marine Mammal Protection Act, the Lacey Act, and the Marine Protection, Research, and Sanctuaries Act, among many others.<sup>159</sup>

Considering the obvious lack of resources for completing OLE's expansive mission, any increase in the number of its law enforcement personnel would likely improve the effectiveness of fisheries law enforcement. Specifically, such an increase could, at the very least, provide an additional deterrent for violating fisheries laws and increase the presence both at-sea and ashore because more OLE investigations and patrols could be accomplished. The base salary of an entry-level Enforcement Officer is only \$38,000 to \$57,000 per year. However, that is just one cost factor to consider in increasing the number of OLE Enforcement Officers.<sup>160</sup>

### 3. Fisheries Observer Program

The NOAA Fisheries Observer Program contracts with "observer provider companies" to place trained fishery observers onboard commercial fishing and processing vessels while at-sea to collect fisheries data under the authority of the Magnuson-Stevens Act and the Marine Mammal Protection Act.<sup>161</sup> Although observers collect a variety of data, they most

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156. Office for Law Enforcement, National Marine Fisheries Service, About OLE – Office for Law Enforcement, [http://www.nmfs.noaa.gov/ole/ole\\_about.html](http://www.nmfs.noaa.gov/ole/ole_about.html) (last visited Feb. 10, 2008).

157. JONES & HENDRICKSON, *supra* note 150, at 6.

158. *Id.*

159. Office for Law Enforcement, NOAA Fisheries, Laws We Enforce, <http://www.nmfs.noaa.gov/ole/about/laws.html> (last visited Mar. 31, 2008).

160. U.S. Office of Personnel Mgmt., USAJobs Job Posting: National Oceanic and Atmospheric Administration Enforcement Officer, <http://jobsearch.usajobs.opm.gov/getjob.asp?JobID=54032358&AVSDM=2007%2D02%2D20+11%3A03%3A49&Logo=0&q=law+enforcement&sort=dt&FedEmp=Y&jbf574=CM54&brd=3876&vw=d&ss=0&FedPub=N&caller=/a9noaa.asp> (last visited Mar. 31, 2008).

161. Office of Science & Technology, NOAA Fisheries, National Observer Program

often “collect data on species composition of the catch, weights of fish caught, disposition of landed species and protected species interactions.”<sup>162</sup> In addition, observers record potential violations of fisheries law.<sup>163</sup> According to the NOAA, all of the information obtained by fisheries observers may be used for law enforcement purposes under the Magnuson-Stevens Act.<sup>164</sup>

Currently, the Fishery Observer Program covers forty-two fisheries for which observers log over 60,000 days at-sea annually<sup>165</sup> at an annual cost in 2005 of approximately twenty-two million dollars.<sup>166</sup> The expansion of this program, combined with the increased use of observer data for law enforcement purposes, could provide a significant addition to the presence needed for effective fisheries enforcement. In particular, although such observers are not law enforcement officers, their physical presence on fishing vessels alone may encourage fishermen to comply with the applicable laws because the vessel’s activities are closely monitored and may be reported to law enforcement agencies. Furthermore, the fisheries data and specific information on violations provided by observers, such as the use of prohibited gear or exceeding catch or by-catch limits, could assist law enforcement agencies in the prosecution or targeting of specific vessels for inspection in the future.

## V. CONCLUSION

Coast Guard enforcement of U.S. fisheries laws in the EEZ, as well as its many other deepwater missions, is extremely important to the United States.<sup>167</sup> Coast Guard fisheries enforcement in particular is essential to ensure the effective protection of the nation’s valuable yet fragile fisheries resources.<sup>168</sup> In order to be effective, however, the Coast Guard requires adequate deepwater resources. Unfortunately, the Coast Guard’s current

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Frequently Asked Questions, <http://www.st.nmfs.gov/st4/nop/faq.html> (last visited Mar. 31, 2008).

162. *Id.*

163. FINAL INSPECTION REPORT, *supra* note 145, at 30.

164. *Id.*

165. NOAA Fisheries, *supra* note 32.

166. NOAA Fisheries, FY 2005 Budget Highlights: Fisheries Observers Program, [www.nmfs.noaa.gov/mb/docs/Observers.doc](http://www.nmfs.noaa.gov/mb/docs/Observers.doc) (last visited, Mar. 31, 2008).

167. See *supra* Part II(B) for specific information on the Coast Guard’s at-sea fisheries law enforcement mission and Part IV(B) for an overview of all of the Coast Guard’s important deepwater missions.

168. See *supra* Part II for an explanation of the importance of having effective Coast Guard at-sea fisheries enforcement.

deepwater assets, specifically its cutters and aircraft, are both limited in number and have already, or are quickly becoming, incapable of performing all of its missions.<sup>169</sup> The number of deepwater missions for which those assets must be used prevents the allocation of adequate resources to lower priority missions such as fisheries enforcement.<sup>170</sup> As such, the United States must provide the funding necessary to ensure the success and preferably the acceleration of the Coast Guard's IDS acquisition program.<sup>171</sup> In addition, the United States should increase the use of alternative enforcement methods to reduce the need for, or supplement, Coast Guard at-sea fisheries law enforcement.<sup>172</sup> These two actions will improve, if not ensure, the Coast Guard's ability to effectively execute its fisheries enforcement and other deepwater missions.

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169. See *supra* Part III(A) for an explanation of the state of the Coast Guard's current deepwater assets.

170. See *supra* Part III(B) for an examination of the Coast Guard's necessary mission prioritizations.

171. See *supra* Part IV(A) for details on the Coast Guard's Integrated Deepwater System program and why it is essential to the Coast Guard's ability to provide effective fisheries enforcement in the future.

172. See *supra* Part IV(B) for information on several possible alternative enforcement mechanisms that may also help to improve fisheries enforcement.