

benefit-cost ratio presented above, the Coast Guard will share with the Congress any significant information provided by the public that addresses the reasonableness of implementing the statute.

Because there is not yet a mass market for AIS, the cost per unit in the next few years, when the domestic fleet is required to purchase AIS, is likely to be higher than when it is replaced (around 2012). Because the AIS market is in its infancy, we cannot estimate how much the unit cost will decrease over the next decade. If many manufacturers enter the market, costs are likely to drop through competition. Because manufacturers have a potential world market and a significant U.S. market, many may attempt to capture a segment. Conversely, if only a few players emerge worldwide, AIS costs could remain high. Because manufacturers must engage in a rigorous approval process and cannot be assured that they will recoup research and development costs through unit sales, there is the potential that only a few dominant players will emerge in the AIS market. Because we cannot determine the trend of the AIS market, and we did not want to understate the cost for AIS, we assumed that the cost for units in 2012 would again be approximately \$9,000 per unit. It is possible that an AIS unit will not be this expensive to replace.

In terms of security, we estimated that we will not experience a significant benefit from a decrease in risk, as measured in risk points reduced in the N-RAT, as a result of AIS installation. There are two primary reasons for this estimate. First, the N-RAT was an internal Coast Guard tool that was modified to estimate the national benefits attributable to the suite of security rulemakings mandated by the MTSA. The tool was not designed to measure the security benefits of AIS specifically. The N-RAT does not, therefore, robustly capture the risk mitigation potential of AIS. Secondly, the Coast Guard strongly believes that AIS is critical to maritime domain awareness. We are unable to quantify or

monetize the benefits of this Coast Guard mission or the individual contribution of AIS.

While the monetized benefit of the rule does not exceed its cost, the Coast Guard believes that AIS has the potential to mitigate a Transportation Security Incident (TSI) as described in the MTSA. The Coast Guard recognizes that a single sensor, such as AIS, will not likely prevent a TSI alone—but if AIS can have a mitigating effect on just a single TSI, the security benefit could be significant. The Coast Guard must consider AIS in its suite of security rulemakings and has developed an interim rulemaking that considers the mandates of the MTSA in light of the high initial costs of purchasing the unit, by requiring AIS in VTS areas only for the domestic fleet. We are concentrating our efforts in VTS areas, since this is where we can begin accruing the most benefit—for industry, the public, and the Coast Guard—in the shortest period of time. Through our interim rulemaking, we are attempting to maximize the return to our investment as quickly as practical.

Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this rule would have a significant economic impact on a substantial number of small entities. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. This rule does not require a general notice of proposed rulemaking and, therefore, is exempt from the requirements of the Regulatory Flexibility Act. Although this rule is exempt, we have reviewed it for potential economic impacts on small entities. An Initial Regulatory Flexibility Analysis discussing the impact of this rule on small entities is available in the docket where indicated under **ADDRESSES**.

Number and Types of Small Entities Affected

U.S. Flag SOLAS Vessels

Of the affected population, we estimate that 205 U.S. flag SOLAS vessels, of 438 total, are owned by 122 small businesses. Approximately 40 large companies own the remaining 233 U.S. flag SOLAS vessels.

We estimate the cost of an AIS per vessel in the first year will be \$9,330. Of this, \$7,000 is for the AIS unit, \$2,000 is for installation, and \$330 is for mariner training. We estimate that following installation, each AIS will require \$250 in annual maintenance to replace such items as the antenna, keyboard, and display screen. The entire unit will be replaced after 8 years.

We found that annual maintenance costs will have a less-than-1-percent impact on annual revenue for all small businesses with U.S. flag SOLAS vessels. First-year impacts to small businesses, therefore, are the focus of this assessment. To estimate the revenue impact on small businesses in the first year, the cost per vessel for an AIS, \$9,330, is multiplied by the number of vessels owned by each company, then divided by the average annual revenue for each company, as reported in the online databases noted above. Of the 122 small businesses that own U.S. flag SOLAS vessels, we found revenue for 59 of them (48 percent). If we could not find revenue data for a business, we assumed the business was small. For the remaining 63 small entities without revenue data, we expanded the revenue impacts from the known 59 companies. For example, if 73 percent of 59 small entities (43 entities) had a 0–3 percent impact on their average annual revenues, then 73 percent of 63 small entities (47 entities) had a 0–3 percent impact, for a total of 90 small entities with an annual revenue impact of 0–3 percent. Table 5 presents the revenue impact for the 59 entities with known average annual revenue and the expanded results for the 63 entities without revenue information.

TABLE 5.—EFFECT OF FIRST-YEAR COST ON AVERAGE ANNUAL REVENUE FOR SMALL ENTITIES OWNING U.S. FLAG SOLAS VESSELS

Percent of annual revenue that is first-year AIS cost	Number of entities with known annual revenues	Percent of entities with known annual revenues	Expanded number of entities with unknown annual revenues	Total small entities per impact category
0–3%	43	73	47	90
> 3–5%	5	8	5	10
> 5–10%	4	7	4	8
> 10–20%	6	10	6	12
> 20–30%	0	0	0	0