## Enforcement of the MFCMA: An Economist's Perspective. Discussion

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This paper is based on the same premise as the Regional Councils' FMP's, that enforcement is represented by the monies spent by the U.S. Coast Guard. It is believed that such enforcement is the most effective available for any given set of regulations. The argument is that, since the boats are out there anyway, they might as well be enforcing fisheries regulations. Concern for a blanket reduction of this enforcement coverage is well founded, and the recommended cost-benefit analysis should be required. Nevertheless, these factors will serve only to maintain the status quo, which for the past 10 years has been inadequate enforcement capability.

The New England Fishery Management Council finds that enforcement of fishery regulations is the weak link in the chain of fishery management. This is important whether the measures are operational controls such as the New England Council proposes, or limited entry such as the NMFS proposes. Neither type of measure can work without being enforced. Lack of enforcement results in uncertain benefits in the future, and makes incremental approaches to management like operational controls preferrable because the initial loss sustained is less.

It is the Coast Guard's at-sea enforcement capability with which we must be primarily concerned. The estimated \$130 million spent by the Coast Guard is not the value of enforcement. In fact, and with good reason, other tasks such as safety, rescue, and drug interdiction take wide precedence over fishery enforcement. The marginal improvement in fishery benefits for a cutter day at sea or a 1-hour overflight not only are unmeasured, they virtually do not exist. Rather, what is needed is an increase in the guality of these days. For instance, more violations were issued in 1986 by the Coast Guard (almost as much as in the previous 5 years) during a period when the number of cutter days was halved. If the Coast Guard were required to give up the portion of its budget actually used for fishery enforcement and maintain the same level of coverge for all its other tasks, the amount available for enforcement would fall far short of \$130 million. Correspondingly, if an independent entity were charged with fishery enforcement and given enough funds to adequately enforce current regulations, the budget would probably also fall far short of \$130 million.

## Policy, Compliance and Benefits

In this section the author discusses the importance of a direct relationship between the expected penalty and the longrun flow of benefits. However, because estimates of illegal gains and probabilities of detection are not available, penalties necessary to deter violations are calculated for selected combinations of illegal gains and probabilities of detection (Frailey and Taylor, footnote 7). The result is that the required penalty amounts are many times greater than the \$25,000 maximum monetary penalty allowed by the FCMA, and the recommendation is for permit sanctions. Two other avenues may help, concentrating on the area of least coverage: 1) Increasing the probability of detection, through improved quality of Coast Guard boardings and developing the inshore fleet, and 2) making each \$1,000 worth of illegal gain a unique violation, each liable to a \$25,000 fine.

It makes economic sense to expense the cost of enforcement up to the level of expected benefits of an FMP, i.e., if benefits of a given regulations are worth \$100,000 per year, then we should be willing to spend up to \$100,000 to enforce them. In practice, we should at least be expensing a minimum proportion of the expected benefits for each regulation implemented, say, 10 percent. These funds could be used to supply fuel for small inshore enforcement fleet interceptions, such as Coast Guard boats that are currently not involved, which would be much more cost effective than \$26,000 cutter days (which require at least two violations at \$25,000 for each day at sea to be cost effective) with only two highendurance cutters being used out of a total of 29 cutters.

## **Enforcement Costs**

Fisheries enforcement by the Coast Guard is indeed a joint product. What is needed is fisheries enforcement as an entirely separate program, such that the expenditures are an appropriate measure of the social cost of the resources used. Otherwise, following the reasoning on page 42 relative to the multimission of the Coast Guard, estimated expenditures for FMP's which Councils regularly receive for the more valuable fisheries should be an overestimate of the social cost of these resources, relative to the FMP's for the less valuable fisheries.

Two-thirds of the Coast Guard's fishery enforcement expenditures goes toward foreign vessels. This leads one to question whether the elimination of foreign fishing may be justified, based solely on the improved realization of benefits from domestic fishery regulations if all of those enforcement resources were diverted towards domestic vessels.

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