Status Report to the North Pacific Fishery Management Council on the Implementation of the Groundfish Retention Standard Program

National Marine Fisheries Service
Alaska Region
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At its April 2010 meeting, the North Pacific Fishery Management Council (Council) requested NMFS report to the Council at its June 2010 meeting on the status of monitoring, enforcing, and prosecuting the Groundfish Retention Program (GRS) program. The Council requested that NMFS review the enforcement and prosecution concerns raised during the development of the GRS Program, Amendments 80 and 93 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Area (FMP), any new concerns about monitoring and enforcing the GRS program that have been identified by the agency or industry participants, and potential concepts for refinement of the GRS Program to address these concerns. This report is intended to provide a preliminary assessment of the GRS program responsive to the Council's request. The report also reiterates to the Council the agency's concern about expanding the scope of the GRS Program to multiple cooperatives formed by the Amendment 80 sector as proposed by the Council under Amendment 93 to the FMP.

Overview of the GRS Program

Amendment 79. The GRS program originally was adopted by the Council as Amendment 79 to the FMP in June 2003, to improve retention of groundfish by non-American Fisheries Act (AFA) trawl catcher processors (C/Ps) that were equal to or greater than 125 ft length overall. In adopting this action, the Council focused on these C/Ps because as a group, they had "the lowest retained catch rates of any groundfish trawl fishery in the Bering Sea and Aleutian Islands Area (BSAI)." Between 1999 and 2002, the retention rate for this sector ranged between 65 and 73 percent and the sector accounted for the majority of total discards in the BSAI groundfish fisheries. The Council's stated policy objective for developing the GRS program was based on the Council's commitment to "reducing bycatch, minimizing waste, and improving utilization of fish resources to the extent practicable….[and acknowledged] the fact that any solution to the problem of reducing discards must take into account the ability of NOAA Fisheries to monitor discards and adequately enforce any regulations that are promulgated."

The final rule implementing the GRS program was effective January 20, 2008, and required non-AFA trawl C/Ps $\geq$ 125 ft length overall (LOA) to retain and utilize an increasing percentage of groundfish caught during fishing operations, or groundfish retention standards. Non AFA trawl C/Ps < 125 ft LOA were excluded from the GRS program in spite of their contribution to the overall bycatch and discard of groundfish by all non-AFA trawl C/Ps in recognition that GRS compliance costs under Amendment 79 associated with observers and scale monitoring requirements would be relatively higher for these vessels.

The GRS Program was phased in over time to allow the affected vessels to adjust to retention requirements. The schedule for increasing retention standards established by Amendment 79 is

in regulations at 50 CFR Part 679.27(j) and listed below in Table 1. Although compliance with the GRS is calculated on an annual basis, the GRS is obtained from data collected throughout the year and from each haul by a vessel.

TABLE 1. GROUNDFISH RETENTION STRANDARD	
GRS Schedule	Annual GRS
2008	65%
2009	75%
2010	80%
2011 and each year after	85%

Regulations prohibit the owner or operator of a non AFA trawl C/P $\geq$ 125 ft LOA from retaining an amount of groundfish during a fishing year that is less than the amounts listed above and establish the equation used for the annual GRS calculation. This equation uses as the numerator a vessel's total round weight equivalent of retained catch based on primary groundfish production and NMFS product recovery rates divided by total catch of groundfish as weighed on a certified flow scale and using observer data on catch composition of each haul. This methodology for determining individual vessels' specific annual retention differs from the computation of retention percentages used by the Council in its analysis for Amendment 79 and upon which the Council based its selected groundfish retention standards. The regulatory equation for determining annual groundfish retention standards was implemented to achieve a basis for monitoring and enforcing the GRS program that was verifiable and enforceable at the individual vessel basis.

Amendment 80. In June 2006, the Council adopted Amendment 80 to the FMP, which was implemented under a final rule in 2007 and was fully effective starting with the 2008 fishing year. Among other measures, Amendment 80 authorized the allocation of specified groundfish species to harvesting cooperatives and established a catch share program for the non-AFA trawl catcher/processors (Amendment 80 sector). Amendment 80 was intended to meet a number of policy objectives which included (1) improving retention and utilization of fishery resources by the Amendment 80 sector, and (2) reducing potential bycatch reduction costs, encouraging fishing practices with lower discard rates, and improving the opportunity for increasing the value of harvested species. To meet these goals, Amendment 80 extended the application of the GRS Program to non-AFA trawl catcher/processor vessels of all sizes by including catcher/processor vessels less than 125 ft (38.1 m) LOA. The Council included all Amendment 80 sector vessels under the GRS because some of the compliance costs associated with the GRS Program, particularly for non-AFA trawl C/Ps less than 125 ft LOA, could be reduced under the Amendment 80 catch share program.

The Council recognized that if harvesters could apply the GRS to a cooperative by aggregating the retention rate of all vessels assigned to a cooperative, owners of non-AFA C/Ps <125 ft LOA could choose to join a cooperative, assign their harvest privilege to the cooperative, and allow

other larger vessels to harvest the cooperative's exclusive allocation of fish without incurring the compliance costs associated with monitoring the GRS. Additionally, for those non-AFA trawl C/Ps that do fish under a cooperative's exclusive harvest privilege, the costs associated with retaining less valuable fish under the GRS may be offset by increased profitability from those vessels because they are no longer operating in a race for fish.

Differences in Calculating Retention Under the GRS Program

Since the GRS program was implemented, the retention rate of groundfish by the non-AFA trawl C/Ps has increased from 77 percent in 2008 to 81 percent in 2009 based on the regulatory methodology for calculating groundfish retention (Table 2). However, concern has been expressed by this sector that the data used by the Council to establish the GRS schedule (Table 1), differ from the data used by NMFS to calculate vessel or cooperative specific retention percentages and regulate compliance with the annual groundfish retention standards. The Best Use Cooperative (BUC) reported in its 2009 annual report to the Council[1] that the GRS calculation specified in regulations results in a lower retention percentage than the methodology used in the Amendment 79 analysis to establish the standards themselves. NMFS confirms that the regulatory calculation of groundfish retention standards result in a consistently lower percentage (Table 2). In 2008, this difference was 14 percent. The reason for this difference is not clear, but likely reflects a mixture of factors that include the GRS Program's use of scale weights in measurement of total catch, reliance on observer sampling to develop estimates of total groundfish catch, and use of standard product recovery rates that may differ from vessel specific recovery rates. NMFS also suggests that a difference exists between the apparent improvements in retention by vessels in the Amendment 80 sector versus meeting regulatory standards established for the GRS Program retention percentage. Nonetheless, as retention requirements are increased through 2011, BUC is concerned that the effect of this difference is to require a level of retention that will not be possible to achieve by many vessels, and perhaps not by the BUC as a whole. This issue is addressed below as a new and additional enforcement and prosecution complication for the GRS program.

Enforcement and Prosecution Considerations

When the GRS Program was approved by NMFS as Amendment 79, NOAA General Counsel raised concerns about the likely difficulty in prosecuting vessel specific violations of the Program. These concerns primarily focused on the Program's reliance on an annual groundfish retention percentage based in part on data collected by numerous observers deployed on a vessel over the course of a year and whether these observers would be available in future years to support the prosecution process. These concerns are aggravated under Amendments 80 and 93 because the number of observers necessary to support an enforcement case and associated prosecution increases significantly from a single vessel scenario to a multiple vessel cooperative under Amendment 80 and a multi cooperative GRS compliance standard under proposed Amendment 93.

[1] Best Use Cooperative Report to the North Pacific Fishery Management Council for the 2009 Fishery. Dated March 31, 2010. Presented to the North Pacific Fishery Management Council April 2010.

Table 2. Comparison of groundfish retention calculations derived under the approach used by the analysis supporting Amendment 79 and the regulatory calculations for GRS compliance (table originally presented in the 2009 annual BUC report to the Council).

Year	Regulatory GRS percentage	Total catch[1] (A)	Retained catch[2] (B)	Round weight equivalent of reported production[3] (C)	Amd 79 approach for deriving % retained catch (B)/(A)	Regulatory approach for determining compliance with GRS (C)/(A)	Differences
1999		155,667	101,856	88,633	65%	57%	8%
2000		178,563	120,474	98,705	67%	55%	12%
2001		158,781	116,455	102,434	73%	65%	9%
2002		190,247	132,061	116,800	69%	61%	8%
2003		188,257	129,620	114,116	69%	61%	8%
2004		217,658	145,767	130,801	67%	60%	7%
2005		201,586	153,673	136,311	76%	68%	9%
2006		196,360	151,422	133,929	77%	68%	9%
2007		211,325	163,437	147,119	**77%**	**70%**	8%
2008	**65**	260,296	235,580	200,161	**91%**	**77%**	14%
2009	**75**	251,602	226,886	203,673	**90%**	**81%**	9%

1. Prior to 2008 total catch based on combination of observer data and weekly production reports. After 2008, based on scale weights of total groundfish catch from observer data.
2. Prior to 2008, retained catch estimates are based on a combination of observer estimates of discard and data from weekly production reports. After 2008, retained catch is based on observer estimates of discard.
3. Retained catch for purposes of the GRS program is based on the round weight equivalent of reported production.

In early 2010, the NOAA Office of Law Enforcement (OLE) was referred an alleged violation of the GRS Program for the 2009 fishing year. This alleged violation involves one vessel not part of a cooperative, which fished for a reduced portion of the fishing year. This relatively simple case created an opportunity to evaluate the evidence collection processes necessary for prosecution of a GRS violation.

Investigation of a GRS violation relies upon a detailed examination of the underlying data and the data collection processes used to generate both the numerator and denominator of a GRS retention rate. The numerator of the GRS equation is principally based upon vessel-derived and reported data and is the total primary groundfish product produced by the vessel during a year extrapolated to round weight equivalent using standard product recovery rates. The denominator of the GRS equation is derived principally from observer data using the scale weight of total catch as modified by haul-specific observer data on catch composition to generate

total catch of groundfish. Under regulations implementing the GRS program and then Amendment 80, two observers are embarked aboard vessels subject to the GRS regulations. Over a fishing year, this results in numerous observers collecting data aboard a vessel subject to the GRS regulations.

Prior to considering an alleged GRS violation for prosecution, OLE investigators must perform a detailed analysis and verification of the sampling procedures and protocols employed by embarked observers, and find a high degree of reliability in the observer data. This task is both time and labor intensive. Experience to date with the current one-vessel investigation provides valuable insights into the essential tasks for any future investigation and prosecution of a cooperative-level GRS rate violation. For example, following a lengthy investigation, prosecution of a case may be unsuccessful if OLE is unable to locate or gain the cooperation of the involved observers for adjudication processes. For various reasons, some portions of observer-collected data may be unusable or excluded from a data set. Because the sufficiency of data sets for prosecution purposes must be evaluated for each alleged GRS violation, the difficulty increases exponentially with a violation involving a cooperative of multiple vessels because this process must be completed for each vessel in a cooperative. As indicated above, expansion of the groundfish retention standard to multiple cooperatives under proposed Amendment 93 would further aggravate this difficulty because the data and data collection protocol of potentially every observer on every vessel in the Amendment 80 sector would need to be evaluated and observers available to support the investigation.

The recent OIG investigation of OLE recommends greater emphasis on prioritizing enforcement work at the regional and national levels. Given the limited resources of OLE, the agency must correlate the priority of particular regulatory schemes with a cost-benefit analysis of enforcement efforts. Knowledge gained through the current one-vessel GRS case indicates future investigations will be labor and time intensive. This level of investment may not coincide with the agency's designated priorities.

At this time, NOAA General Counsel has not yet determined the extent to which the different methodologies used to establish the groundfish retention standards (Table 1) and to monitor compliance with those standards will frustrate or impede prosecution of violations of the GRS Program. Recent awareness of this situation poses concern, however, and likely provides rationale for an analysis of alternatives to modify the GRS program to establish closer consistency.

Additionally, OLE has noted that ongoing focused enforcement resources would be required to ensure retained product amounts are not misreported to misrepresent retention. OLE intends to use information from product offload audits to detect and prevent violations of this sort, as well as US Coast Guard information from onboard vessel audits. These compliance monitoring costs are substantial and together with potential costs associated with prosecution of GRS Program violations, may not be justified relative to other enforcement priorities, particularly if the Council's objective for improved groundfish retention largely has been met and alternative, non regulatory incentives to maintain this improvement can be pursued through Amendment 80 cooperative agreements.

Potential Concepts for Refinement of the GRS Program to Address Concerns

Given the estimated increase in groundfish retention since 2007, it appears that the Council's policy objectives to decrease bycatch and waste in the non AFA trawl C/P sector has been largely successful. The Amendment 80 sector has operated under a cooperative system for 2.5 years in a manner that seems to facilitate compliance with the GRS program to date. The fact that the Council has taken action under Amendments 80 and 93 to facilitate the participation of all Amendment 80 vessels in one or more cooperatives in the future would seem to further the ability of vessels to minimize discards in a cooperative environment.

NMFS now has limited experience suggesting that the costs to NOAA of developing a GRS compliance case are high and will be even higher if GRS compliance cases are pursued at the cooperative level. These costs may become prohibitive relative to other enforcement and prosecution priorities, especially given that management objectives for the GRS program seem to be met generally, especially if the methodology used by the Council to develop the groundfish retention standards under Amendment 79 is used to assess annual retention rates (Table 2, 6th column from the left). Changes to the GRS program, including changes to the groundfish retention standards themselves, may be necessary to respond to some of the issues raised by BUC, to better position the program for effective enforcement action, or to respond to changes to the fisheries that could influence practical expectations for retention rates. Such changes to support a cost effective program may be difficult to identity and justify, especially if potential benefits have eroded over time as groundfish retention percentages have increased since 2007, and future enforcement and prosecution costs increase.

NMFS recommends, therefore, that the Council consider policy implications of continuing to dedicate resources to keep or refine the GRS program. The Council also could consider a more flexible, non-regulatory approach for assessing whether or not the Amendment 80 sector is maintaining recent apparent improvements to retention rates by withdrawing the specific regulatory provisions for a GRS Program and instead relying on cooperative formation and annual reports to the Council on cooperative activity relative to catch and discard. If under this approach, the Amendment 80 sector is not able to meet Council policy expectations for minimizing bycatch to the extent practicable, the Council could consider alternative regulatory approaches that a catch share program, such as the Amendment 80 cooperatives, may offer for reducing bycatch. Alternative approaches are beyond the scope of this discussion paper, and would require assessment of why a cooperative approach failed and of alternatives to address the specific nature of the failure.

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