

Alaska Region Groundfish Harvest Specification and Inseason Management Overview  
Inseason Management Branch  
Alaska Region, National Marine Fisheries Service  
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Alaska groundfish fishery managers use the best scientific information available to determine the status of the stocks and species quotas. Each year, the North Pacific Fishery Management Council (Council) recommends, and the Secretary of Commerce (Secretary) publishes, harvest specifications for the Bering Sea and Aleutian Islands (BSAI) and the Gulf of Alaska (GOA) groundfish fisheries. Harvest specifications establish specific limits on the commercial harvest of groundfish used to manage the groundfish fisheries. Harvest specifications establish the overfishing level (OFL), acceptable biological catch (ABC), and total allowable catch (TAC) for each groundfish species or species group, and prohibited species catch (PSC) limits. Prohibited species are Pacific halibut, Pacific herring, Pacific salmon and steelhead, king crab, and Tanner crab and must be avoided while fishing for groundfish and must be returned to the sea with a minimum of injury, except when their retention is required or authorized by other applicable law. The Inseason Management Branch of the Alaska Region monitors the catch rate of groundfish and prohibited species according to the quotas and allocations by gear, sector, and seasonal apportionments proscribe in regulation and found in the harvest specifications. The branch manages the harvest to attain the groundfish optimum yield (OY) through fishery openings and closures.

In the Alaska Region, groundfish management is increasingly complex. Individual species TACs are created to prevent overfishing as species groups are divided into components that become individual targets. The Alaska Region manages 104 TACs in the BSAI and GOA composed of over 50 individual species. Management programs granting individual or cooperative privileges are directed at particular socio/economic issues, such as individual fishing quotas for sablefish and halibut in the BSAI and GOA; Community Development Quotas in the BSAI; American Fisheries Act for pollock in the BSAI; Amendment 80 Program for flatfish, Atka mackerel, and Pacific ocean perch in the BSAI; Rockfish Program in the Central GOA; Chinook salmon bycatch limits. Endangered species and essential fish habitat require protection from fishery impacts, such as season and area closures to protect Steller sea lions; and area closures to protect habitat. Greater complexity in groundfish management means greater complexity in harvest specifications and greater complexity in managing those allocations.

### **Harvest Levels**

The OY for BSAI and GOA target species is a range or specific amount that can be harvested in accordance with 50 CFR part 679, and the amounts of “non-specified species” taken incidentally to the harvest of target species. The species categories are defined in Table 1 of the harvest specifications as provided at § 679.20(c). The OY for groundfish in the BSAI regulated by § 679.20 and by 50 CFR part 600 is 1.4 million to 2.0 million mt. The OY for groundfish in the GOA regulated by § 679.20 and by 50 CFR part 600 is 116,000 to 800,000 mt. The OY is based on the maximum sustainable yield for a given fishery. OY may be obtained by setting the TAC equal to or less than the ABC to account for ecological, social, or economic factors. The OY is created in response to objectives as established by law and the public participation process. In

2017, the BSAI ABCs totaled 4,013,993 mt which is 2,013,993 mt above the 2 million mt OY. In the GOA, the combined ABCs are usually lower than the OY. In 2017, the GOA ABCs totaled 667,877 mt.

The OFL is any amount of fishing in excess of a prescribed maximum allowable rate. Fishing at or above the OFL jeopardizes the stock's capacity to replenish. The OFL is prescribed through a set of six tiers that correspond to the amount and type of information available. Tier six represents the lowest level of information available and results in the most restrictive harvest level, while tier one represents the highest level of information.

The ABC is the annual catch limit and description of the acceptable harvest (or range of harvests) for a given stock. Its derivation focuses on the status and dynamics of the stock, environmental conditions, other ecological factors, and prevailing technological characteristics of the fishery. Conservative fishing mortality rates are used to calculate ABC.

The TAC is the annual catch target for a stock or stock complex, derived from the ABC by considering social and economic factors and management uncertainty (i.e., uncertainty in the ability of managers to constrain catch so the annual catch limit is not exceeded, and uncertainty in quantifying the true catch amount).

Groundfish stock management focuses on the ABC and OFL. The ABC is lower than the OFL. The TAC can equal but not exceed the ABC. The sum of the ABCs is larger than the sum of the TACs.

$$TAC \leq ABC < OFL$$

Inseason management objectives limit catch to the TAC and/or ABC. To prevent overfishing, catch in excess of the ABC is restricted. Details of the inseason management process are described below.

TACs may be further allocated by area, season, gear, and processing sector (mothership, catcher/processor, or shoreside processor). Some fishery participants granted special privileges (i.e., the ability to form cooperatives or participate in catch shares) are limited to harvesting and/or processing a portion of the TACs. These catch limits, referred to as sideboard limits, restrict the ability of participants eligible for special privileges to expand their harvest efforts in other fisheries. Retained and discarded groundfish are credited to the TACs. TACs are managed using observer data and industry reports. Including sideboard limit allocations, but not including individual fishing quotas, over 600 quotas are generated each year.

In the BSAI, the TAC reserve amounts play an important role in managing the groundfish TACs. Fifteen percent of each TAC is set in the reserve, with the exception of pollock, Amendment 80 species (Pacific ocean perch in the Aleutian Islands, Atka mackerel, flathead sole, Pacific cod, rock sole, and yellowfin sole), and the hook-and-line and pot gear allocation of sablefish. The reserves support allocations to the Community Development Quota (CDQ) program. The regulations allocate 10.7 percent of eight species (Atka mackerel, arrowtooth flounder, flathead sole, Greenland turbot (Bering Sea), Pacific cod, Pacific ocean perch (Aleutian Islands), rock sole, and yellowfin sole), 20 percent of the hook-and-line and pot gear allocation of sablefish, 7.5

percent of the trawl gear allocation of sablefish, and 10 percent of the BS and AI pollock TACs to CDQ. Required by Congress, the CDQ program provides an economic engine for development programs for qualifying communities in western Alaska. The non-CDQ portion of the reserve is not specific to a particular species TAC and functions as a common pool to supplement particular species. The reserve system provides a limited amount of flexibility to respond to yearly fluctuations in catch rates and maximize value to the industry. The Inseason Management Branch through the Regional Administrator has the option of increasing an individual TAC, as long as the ABC and OY are not exceeded. In the GOA, there is no CDQ allocation and all the reserves are allocated back to each respective species TAC in the harvest specifications.

NMFS manages PSC limits specified for Pacific halibut, king and Tanner crab, Chinook salmon, other salmon, and Pacific herring. The PSC limits can restrict groundfish catch, and are further apportioned by area, gear type, processing sector, and season. The directed fisheries for prohibited species are managed by other agencies (State of Alaska – Department of Fish and Game and the International Pacific Halibut Commission).

### **Council Process**

The Council develops recommendations for fisheries management policy in the Alaska Region. NMFS provides policy review, performs required analysis, develops regulatory text, and forwards the action for Secretarial approval or disapproval. If approved, NMFS includes the policy as management practice.

The Council process establishes harvest specifications through three committees. The Groundfish Plan Team (PT) review and recommend to the Scientific and Statistical Committee (SSC) which then reviews and sets the OFL and ABC for each stock for the Council. Based on the SSC's OFL and ABC, the Advisory Panel (AP) recommends the TAC to the Council. The Council recommends the final TACs to the Secretary of Commerce for publication in the *Federal Register*.

The Groundfish PT is divided into the BSAI PT and the GOA PT. Experts in fish population dynamics compose the majority of the membership. Other PT members include economists, seabird biologists, marine mammal biologists, and inseason fishery managers. Each PT consists of about 14 members from NMFS, Alaska Department of Fish and Game (ADF&G), universities, US Fish and Wildlife, and the International Pacific Halibut Commission. The PTs compile Stock Assessment and Fishery Evaluation (SAFE) reports from chapters contributed by scientists at NMFS' Alaska Fisheries Science Center and ADF&G. These SAFE reports include separate stock assessment and fishery evaluation sections. The BSAI and GOA PTs recommend the ABC and OFL for each stock associated with their area; however, the PTs jointly review some stock assessments and the status of the ecosystem and the economics of the fishery reports. The Council considers the ABC recommendations and social and economic factors in determining TACs and other management strategies for the fisheries.

The SSC members include leading scientists in biology, economics, statistics, and social science. The SSC advises the Council on scientific and other technical matters and consists of about 16

members. The SSC reviews the SAFE reports, either accepts them or makes changes before setting the OFL and ABC amounts for the Council.

The AP members represent major segments of the fishing industry: catching and processing sectors; subsistence, recreational, and commercial fishermen; fishery observers; consumers; and environmental/conservation groups. The AP consists of about 21 members. The AP considers the SSC's ABCs and OFLs, public comments, and recommends the TACs to the Council.

The annual harvest specifications process is about six months. In September, the PTs meet and recommend proposed ABCs and OFLs. At the October Council meeting, the SSC receives reports on the PTs recommendations. The SSC forwards its recommended proposed ABCs and OFLs to the AP and to the Council. The AP uses the proposed ABCs and recommends proposed TACs to the Council. Opportunity exists for public comment at each stage. The Council deliberates and recommends proposed ABC, OFL, and TAC levels to the Secretary. In late November or early December, NMFS publishes the proposed harvest specifications in the *Federal Register* and requests comments. In November, the PTs meet again to review the most recent stock assessments and revise their ABC and OFL recommendations. At the December Council meeting, the Council process results in final harvest specification recommendations to the Secretary. Final harvest specifications are published in the *Federal Register* in late February or early March.

### **Inseason Management Branch Activities**

The Inseason Management Branch prepares the proposed and final harvest specification documents for publication in the *Federal Register*. The branch also supports the Regional Administrator in the day-to-day operations of the fisheries using the harvest specifications and current regulations. The Data Quality and Catch Accounting Branch compiles catch and production data from at-sea catcher/processor vessels, motherships, shore plants, and groundfish observers, which is used by the Inseason Management Branch to monitor the catch and allocations. The Inseason Management Branch announces openings and closures using Information Bulletins and publications in the *Federal Register*. Processors, vessel operators, and other businesses servicing the fishing industry, and the media, are quickly notified by email of any actions through Information Bulletins posted on the Alaska Region web site.

The Inseason Management Branch determines the amount of an individual TAC necessary as the incidental catch allowance (ICA) in other target fisheries. For example, Pacific cod caught incidentally in other target fisheries contribute to the Pacific cod ICA. After deducting the ICA, the remaining TAC is the directed fishing allowance, which allows vessels full retention of the target species or species group. The directed fishery closes once the directed fishing allowance is reached. A fishery closure limits retention of that species to a percentage of the retained catch of other species open to directed fishing. This portion is called the maximum retainable amount, which is a percentage of an alternate open target fishery. The percentage relates to the expected rate of catch and may be used as a tool to harvest a species that is low in volume but high in value.

If the total TAC of a species is caught before the end of the year then retention of that species is prohibited. Prohibiting retention removes any incentive to increase incidental catch. If the ABC

is reached and the incidental catch indicates the OFL may be approached, additional closures are imposed. To prevent reaching the OFL, specific fisheries identified by gear and area that incur the greatest incidental catch are closed. If the rate of catch is not sufficiently slowed, then closures expand to other fisheries. Overfishing level closures are rare.

In the catch share and CDQ fisheries, allocations are granted to particular groups. In exchange, the recipients actively monitor their fisheries and limit their catch rather than Inseason Management Branch issuing fishery closures.

The Inseason Management Branch closes a fishery if a PSC limit of halibut, crab, salmon, or herring is taken. Prohibited species may not be retained in the groundfish fisheries other than for scientific purposes or certain donation programs.

## **Conclusion**

Management of groundfish stocks in the Alaska Region is successful. Most stocks are considered healthy. Some stocks are currently above their long term average, and some below. In general, stock sizes increase and decrease with variable recruitment strengths driven to some extent by ecological and environmental conditions. Catches are closely monitored, conservatively managed, and kept within ABC limits. For many stocks, TAC is set at or less than the ABC. For all stocks, ABCs are less than OFLs. When the OFL is approached, regulations require conservative action to prevent overfishing. The Council and NMFS have developed and continue to develop programs responding to a complex of ecological, social, and economic factors.