

Alaska Region Groundfish Harvest Specification and  
Inseason Management Overview  
Andy Smoker and Mary Furuness, Inseason Management Branch  
Alaska Region NMFS  
August 29, 2005

Alaska groundfish fisheries are managed based on species quotas using the best scientific data available to determine the status of the stocks. 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 and are used to manage the groundfish fisheries. Harvest specifications include the establishment of an individual overfishing level (OFL), acceptable biological catch (ABC), total allowable catch (TAC) for each species or species group, and prohibited species catch (PSC) limits. The Inseason Management Branch of the Alaska Region monitors the rate of catch of groundfish and prohibited species relative to the harvest specifications. Through fishery closures and openings the branch manages the harvest schedule to attain optimum yield.

Groundfish management in the Alaska Region is increasingly complex. To prevent over fishing, species groups are fractured as components become an individual target, creating more TACs. Management programs granting individual or cooperative privileges are directed at particular socio/economic issues. Endangered species and essential fish habitat require protection if fisheries impact them. Programs developed in the last several years include; individual quotas for sablefish and halibut in the BSAI and GOA, Community Development Quotas in the BSAI, a cooperative system for pollock in the BSAI under the American Fisheries Act, gear and processing component allocations for Pacific cod in the BSAI and GOA, season and area closures to protect Steller sea lions, and area closures to protect habitat. Additional fishery programs involving cooperatives are in development for flatfish, Atka mackerel and rockfish in the BSAI; a pilot program for rockfish in the Central GOA; and for all groundfish in the GOA. Greater complexity in groundfish management means greater complexity in harvest specifications and greater complexity in administrating those allocations.

### **Council Process**

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

The ABC is a description of the acceptable harvest (or range of harvests) for a given stock or stock complex. 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 fishing mortality rates are capped as described below.

The OFL is defined as any amount of fishing in excess of a prescribed maximum allowable rate. Fishing at or above the OFL is considered to damage the capacity of the stock to replenish. This maximum allowable rate is prescribed through a set of six tiers.

The tiers correspond to information availability. Generally the least preferable tier utilizes the least amount of information and results in the most restrictive harvest level.

Stock management centers on the ABC and OFL. The ABC is lower in amount than the OFL. By convention the individual TACs can equal but do not exceed the individual ABCs. The sum of the recommended ABCs is larger than the sum of the TACs. 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. The Fishery Management Plans restrict TACs to an optimum yield amount (OY) of 2 million metric tons (mt) in the BSAI and 800,000 mt in the GOA. The OY is based upon the maximum sustainable yield for a given fishery. OY may be obtained by a deviation from ABC reduced by ecological, social, or economic factors. The OY is created in response to objectives as established by law and the public participation process.

In 2005, the BSAI ABCs totaled 3.04 million mt which is 1.04 million mt above the OY. In the GOA the combined TACs also are commonly much lower than the OY. In 2005 combined GOA TACs were about 291,000 mt.

The Council process establishes harvest specifications through three primary committees. The Plan Team (PT) and the Scientific and Statistical Committee (SSC) review the scientific approach and recommend the ABC and OFL for each species or species group. The Advisory Panel (AP) recommends the TAC.

Plan Teams organize around the BSAI or GOA. Experts in fish population dynamics, compose the majority of the membership. Economists, seabird biologists, marine mammal biologists, and inseason fishery managers complete the teams. The teams currently consist of fourteen members each. Stock Assessment and Fishery Evaluation (SAFE) reports are compiled by the respective PTs from chapters contributed by scientists at NMFS' Alaska Fisheries Science Center and the Alaska Department of Fish and Game. These SAFE reports include separate stock assessment and fishery evaluation sections. The separate teams recommend ABC and OFL for each stock or stock complex associated with each area. However, sablefish stock assessments and reports focused on the status of the ecosystem and economics of the fishery are reviewed jointly. The ABC recommendations, together with social and economic factors, are considered by the Council in determining TACs and other management strategies for the fisheries.

The SSC is composed of leading scientists in biology, economics, statistics, and social science. The SSC advises the Council on scientific and other technical matters and consists of 15 members. The SSC reviews the SAFE reports, either accepts them or makes their own recommendations concerning the ABCs and OFLs and reports to the Council.

The AP members represent major segments of the fishing industry; catching and processing, subsistence and commercial fishermen, fishery observers, consumers, environmental/conservation, and sport fishermen. The AP consists of twenty-one members. It considers the SSC's review of ABCs and OFLs and recommends the TAC levels to the Council.

Two cycles of meetings advance the harvest specifications. The initial series develops the proposed harvest specifications; the second series the final specifications. In September, the BSAI and GOA PTs recommend proposed OFL and ABC levels. At the

October Council meeting, the SSC receive reports from the PTs. The SSC forward their recommended proposed ABCs to the AP and to the Council. The AP reviews the proposed ABCs and recommend to the Council proposed TACs. The public provides comment to the Council. The Council deliberates and recommends proposed OFL, ABC, and TAC levels to the Secretary of Commerce. NMFS publishes the proposed harvest specifications in the Federal Register (FR) and requests comments. In November, the BSAI and GOA PTs meet again to review the most recent stock assessments and revise their OFL and ABC recommendations. The same Council process described above occurs at the December Council meeting resulting in final recommendations to the Secretary. Final harvest specifications are published in the FR in late February or early March.

### **Structure of the Harvest Specifications**

TACs may be broken down by area, season, gear, and processing sector (mothership, catcher/processor, or shoreside processor). Some fishery participants granted special privileges (i.e. the ability to co-op) are limited to competing for a portion of the TACs. The restrictions are referred to as 'sideboards'. In addition PSC limits are specified for Pacific halibut, king and Tanner crab, chinook salmon, other salmon, and Pacific herring. Apportioned by gear type and season, the PSC limits can restrict groundfish catch. The directed fisheries for prohibited species are managed by other agencies.

In the BSAI, a quota reserve system plays an important role in managing the groundfish TACs. With the exception of pollock and the hook-and-line and pot gear allocation of sablefish, fifteen percent of each TAC is set aside in the reserve. The harvest specifications allocate one half of the reserve, or 7.5 percent of most species, twenty percent of the hook-and-line and pot gear allocation of sablefish, and ten percent of the BSAI pollock TACs to the Community Development Quota (CDQ) program. 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 TAC and functions as a common pool to supplement particular fisheries. The reserve system provides a limited amount of flexibility to respond to yearly fluctuations in catch rates and maximise value to the industry. Management has the option of increasing an individual TAC beyond that originally specified, up to its ABC so long as the OY is not exceeded. In the GOA the reserve system isn't normally used, all the reserves are released back to each TAC and there is no CDQ allocation.

The Alaska Region manages 240 TACs in the BSAI and GOA, comprised of over 50 individual species. Both retained and discarded fish is credited against species specific TACs. Quotas are managed using observer data and industry reports. Including sideboards, but not including individual fishing quotas, about 500 quotas are generated each year.

### **Inseason Management Activities**

The Inseason Management Branch writes the proposed and final rules that establish the harvest specifications. The group supports the Regional Administrator in the day-to-day operations of the fisheries using the harvest specifications and current regulations. The branch compiles catch and production data from at-sea catcher/processor vessels, motherships, shore plants, and groundfish observers. Inseason Management

announces openings and closures using information bulletins and publications in the FR. Processors, vessel operators, other fishing industry servicing businesses, and the media are quickly notified of any actions through postings on the Alaska Region web site.

The Inseason Management Branch determines the amount of an individual TAC necessary as incidental catch (the incidental catch account (ICA)) in other target fisheries. For example, Pacific cod taken incidentally in a pollock target fishery contributes to the Pacific cod ICA. After deducting the ICA, the remaining TAC is the directed fishing allowance (DFA) which allows vessels full retention of the species. Once the DFA is caught the fishery closes. Closure limits retention to a portion of other TACs open to directed fishing. That portion is called the maximum retainable amount or MRA. The MRA is a percentage of an alternate 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. Retention is prohibited if the total TAC is caught before the end of the year. Retention prohibition removes any incentive to increase incidental catch as a portion of other fisheries. If the ABC is taken and the trajectory of catch indicates the OFL may be approached, additional closures are imposed. To prevent overfishing, specific fisheries identified by gear and area that incur the greatest incidental catch are closed. Closures expand to other fisheries if the rate of take is not sufficiently slowed. Over fishing closures are rare.

In the Bering Sea pollock, Aleutian Island pollock and CDQ fisheries, allocations are granted to particular groups. In exchange, the recipients limit their catch rather than the agency imposing fishing time limits.

A fishery may also be closed if a PSC limit of halibut, crab, salmon, or herring is taken. Other than for scientific purposes or donations programs, prohibited species may not be retained in the groundfish fisheries.

## **Conclusion**

Management of groundfish stocks in the Alaska Region is successful. Most are considered healthy. Some stocks are currently above their long term average, and some below. In general, stock size increases and decreases 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 90% of ABC. For all stocks, ABC's are less than overfishing levels. When the OFL is approached regulations require conservative action to prevent over fishing. The Council and NMFS have developed and continue to develop programs responding to a complex of ecological, social, and economic factors.