


MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver 
Executive Director

DATE: November 30, 2009

SUBJECT: Salmon Bycatch

ESTIMATED TIME 6 HOURS (All C-4 items)
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ACTION REQUIRED

- (a) Final action on salmon bycatch data collection

BACKGROUND

At its June 2009 meeting, the Council initiated an analysis of alternatives to collect data to be used to evaluate the effectiveness of the Amendment 91 bycatch management measures. At that time, the Council indicated that the primary purpose of such a data collection program would be to evaluate the information provided in the Incentive Plan Agreement (IPA) reports. In addition, the data could be used to assess the effectiveness of the bycatch management measures, including the IPAs, the hard cap, and the performance standard, and to assess the effects of those measures on where, when, and how pollock fishing and salmon bycatch occur. On receiving an initial review of the analysis at its October meeting, the Council adopted a purpose and need statement, revised the alternatives, and requested staff to return with the analysis of this item for action at this meeting. The analysis examines the effects of each alternative, including its potential to meet these purposes. The Executive Summary is attached as Item C-4(a)(1).

EXECUTIVE SUMMARY

This Regulatory Impact Review (RIR)/ Initial Regulatory Flexibility Analysis (IRFA)¹ evaluates the effects of the proposed Federal action to implement a data collection program to evaluate the effectiveness of the BSAI Amendment 91 Chinook salmon bycatch management measures. The Council has indicated that the primary purpose of a data collection program is to verify the conclusions drawn by industry in the Incentive Plan Agreement (IPA) annual reports. In addition, the data collection program could provide information that may be used to (1) evaluate the effectiveness of the IPA incentives, the hard cap, and the performance standard in terms of reducing salmon bycatch, and (2) evaluate how the Council's action affects where, when, and how pollock fishing and Chinook prohibited species catch (PSC) occur.

At its June 2009 meeting, the Council advanced for analysis of five potential data collection programs to supplement existing data sources. Those proposed alternatives would collect some or all of the following elements: price and quantity of Chinook PSC and pollock quota transactions, reports from skippers indicating the rationale for inseason choices of pollock fishing grounds, costs of inseason movements, roe quality, quantity, and price, and daily vessel operating costs (such as labor and observer costs). During the summer, a public stakeholder workshop was held to develop reporting instruments and to discuss the timing of reporting and the information to be collected. At its October 2009 meeting, the Council conducted an initial review of the analysis of these alternatives. At that time, the Council adopted the following purpose and need statement:

In April 2009 the Council approved Amendment 91 to the BSAI groundfish fishery FMP to reduce Chinook salmon bycatch in the Bering Sea pollock fleet. Under Amendment 91, the pollock fishery has the option of participating in a NMFS-approved Incentive Plan Agreement (IPA) to access a higher hard cap than is available in the absence of an IPA. The IPAs provide a new and innovative method of bycatch management. A data collection program is needed in conjunction with Amendment 91 to understand the effects and impact of the IPAs. The data collection program will focus on: (1) evaluating the effectiveness of the IPA incentives in times of high and low levels of salmon bycatch abundance, the hard cap, and the performance standard in terms of reducing salmon bycatch, and (2) evaluating how the Council's action affects where, when, and how pollock fishing and salmon bycatch occur. The data collection program will also provide data for the agency to study and verify conclusions drawn by industry in the IPA annual reports. To ensure that a full assessment of the program is possible, the data collection program should be implemented at the time Amendment 91 is implemented or as soon as practicable.

To ensure that a full assessment of the program is possible from the start of the program, the data collection program should be separated into two phases, with a suite of data collection measures implemented at the time Amendment 91 goes into effect and sent to the Comprehensive Economic Data Collection Committee after IPAs have been fully developed and submitted to NMFS.

¹ An Environmental Assessment (EA) was not prepared because the proposed action, and its alternatives, would have no effect on the human environment. The nature of the action is to collect data from fishermen to help the Council better assess the effectiveness of the Chinook salmon bycatch management measures. All predicted environmental effects resulting from the Chinook salmon bycatch management measures are analyzed in the EIS for Amendment 91.

In addition, the Council refined its alternatives consistent with this statement, retaining four alternatives to collect pollock and Chinook PSC transfer information, inseason movements to avoid Chinook PSC, fuel cost data, and reports from skippers.

After these modifications, the alternatives under consideration are:

Alternative 1, no additional data collection beyond the status quo would occur.

Alternative 2A would collect a) Chinook PSC transfer data, including information on the price of transfers and b) information concerning inseason vessel movements to avoid Chinook PSC. Two options could be considered for collecting transfer information. One would rely on IPA and cooperative reports to provide summaries of transfers; the other would require details of all transfers, including transfers among intermediaries.

Alternative 2B would collect a) Chinook PSC transfer data, including information on the price of transfers, b) pollock transfer data, including information on the price of transfers, and c) information concerning inseason vessel movements to avoid Chinook PSC. The two options for the collection of transfer information identified under Alternative 2A would also be considered under this alternative.

Alternative 3 would collect information on Chinook PSC and pollock transfers as identified under Alternative 2B. This alternative would also collect average fuel usage fishing and transiting and annual fuel purchases information that could be used to estimate fuel costs associated with fishing choices. In addition, post-season reports of skippers would be required to determine the rationale for decision making during the pollock season (i.e., fishing location choices and salmon bycatch avoidance measures).

Analysis of the Alternatives

Alternative 1

The data sources available under the status quo alternative provide analysts with the ability to answer a wide range of questions regarding salmon bycatch avoidance and the effectiveness of the incentives in Amendment 91. Currently existing data sources that may be used to answer questions about the BS pollock fishery, and Chinook PSC in the fishery, include observer data, Catch Accounting data, Vessel Monitoring System (VMS) data, ADFG Commercial Operator's Annual Reports (COAR), and annual AFA cooperative reports. Under Amendment 91, observer coverage of shore-based AFA CVs will increase—100% of the trips of vessels less than 125 ft in length overall will be observed, an increase from the current 30% of trips. It is estimated that a single observer on a shore-based pollock CV will be able to sample 70% of the vessel's tows.

Annual IPA reports will also provide information on industry efforts to reduce Chinook bycatch. Amendment 91 requires the managers of each IPA to submit an annual report to the Council. The Council's April 2009 motion on Amendment 91 listed the following elements that must be included in the IPA annual reports to the Council:

- 1) A comprehensive explanation of incentive measures in effect in the previous year.
- 2) An assessment of how incentive measures affected individual vessels.

- 3) An evaluation of whether incentive measures were effective in achieving salmon savings beyond levels that would have been achieved in absence of the measures.

In addition, the annual reports could be used as a platform to report on other optional measures that members have undertaken to reduce bycatch. These optional measures may include a summary of temporal and spatial shifts in effort undertaken by the fleets, as well as an overview of the use of new gear, technologies, or research to reduce Chinook bycatch. Analysts have assumed for purposes of this analysis that certain elements will be described in the IPA reports. The scope of these reports could be clarified with industry participants to ensure that this information is provided in the annual reports.

These status quo data sources may be used by analysts to answer a number of questions that provide an indication of the effectiveness of the Amendment 91 management measures. For example, existing data sources may be used to compare bycatch rates of individual vessels fishing in different areas and at different distances from port, and by vessels participating in IPAs and non-IPA participants; and to compare the percentage of the TAC harvested at times of relatively high and low Chinook PSC encounter rates. Existing data sources do not directly provide information on the costs of the bycatch measures to the fleet. However, existing data sources may be used to examine many of the behavioral changes that could result in higher costs to the fleet. For example, it will be possible to determine changes in towing times, number of tows, or the average elapsed times of trips for shore-based CVs. These changes may indicate cost changes to the industry. Although some data may exist from which inferences may be made, existing data sources do not provide direct information on inseason vessel movements to avoid Chinook bycatch, and the rationale for decision making during the fishing season.

Alternatives 2A and 2B

Alternatives 2A and 2B will both collect data on **transactions of Chinook PSC allowances and data on vessel movements related to Chinook PSC avoidance**. In addition, under Alternative 2B, data on **pollock quota transactions** will be collected. The alternatives would collect information on two aspects of transfers: (1) the number and direction of transfers, and (2) the cost of transferred Chinook PSC allowances and/or the cost of transferred pollock quota. Transfers may be tracked via a separate ledger form or via annual IPA reports, with price information reported by the individuals involved in those compensated transactions, in all cases. Alternative 2B will also distinguish joint transfers that include both pollock quota and Chinook PSC allowances.

Both Alternatives 2A and 2B would collect data indicating when a vessel has moved from one fishing location to another to avoid Chinook PSC, along with information on the fuel used in searching for and moving to cleaner fishing grounds. This information would be collected via logbooks and observer data.

When combined with information in annual IPA reports, data collected on salmon and pollock transfers may augment our understanding of incentives and changes in vessel behavior at times of high and low Chinook salmon encounter rates. If sufficient numbers of vessels are not participating in IPAs, data on transfers and vessel movements could also enhance our understanding of the behaviors within and outside of IPAs. The data collection proposed under this alternative also provides insight into inseason movements to avoid Chinook PSC. This information will facilitate comparisons of individual vessel bycatch rates prior to and following changes in fishing locations. Using currently existing data sources, the reason for a move may

only be inferred by analysts, and the accuracy of those inferences might be questionable. While these data could provide useful information for assessing motivations for moves, analysts will need to use care interpreting data, as a decision to move is subjective. Despite the potential for misleading information, the potential to gain insights into vessel operator decision making could prove useful for assessing Chinook PSC avoidance behaviors. Inclusion of fuel use, time, and distance traveled in this reporting requirement could provide additional information concerning the costs of moves. These data could also prove useful for assessing the extent to which vessel operators are willing to incur immediate costs to move from areas of high Chinook PSC. However, it is important to note that while these cost data may provide insights into the effectiveness of incentives to avoid Chinook PSC, these data likely cannot be verified.

Alternative 3

Alternative 3 would collect information on **transfers of Chinook PSC and pollock**, as described above under Alternative 2B. In addition, annual surveys would collect data concerning **fuel costs**.² Vessel operators would report estimated hourly fuel consumption and annual fuel consumption. The **skipper survey** element of this alternative would pose a series of questions to elicit vessel operator input on important factors that impacted the vessel's performance during the year. The draft list of questions included in the analysis was developed through consultation with members of the industry, but would be refined further with additional consultation and finalized once pre-testing has occurred to ensure the questions are as clear as possible.

Data collected under this alternative is intended to provide analysts with a better ability to examine certain costs associated with Chinook PSC avoidance (including prices of allowances and pollock quota and travel costs) and vessel operator decision making. Data on transfers of Chinook allowances and pollock quota should help analysts understand incentives under the IPAs and Chinook PSC management measures. Data on fuel use and costs should to improve the ability of analysts to understand the costs of movement that are likely to affect responses to the incentives created by Chinook PSC limits (including the performance standard) and any IPAs. Vessel-specific average rates of fuel consumption can be combined with existing VMS and observer data to allow the estimation of the differences in travel costs to different fishing locations. Using existing data sources, differences in fishing behavior of high and low Chinook PSC vessels can be examined. Incorporating fuel costs into these analyses is intended to improve the understanding of the effects of Chinook PSC measures and IPA incentives on the choices that drive those differences. The data proposed to be collected under this alternative should provide analysts with an improved ability to understand and assess costs associated with changes in fishing operations that may be driven by IPAs and limits on Chinook PSC. When used in conjunction with pollock quota and Chinook PSC allowance data, this fuel data may provide improved insight into the effectiveness of IPAs and PSC limits on Chinook avoidance efforts in the fishery.

The skipper survey should qualitative information concerning several factors that may or may not appear in any proposed or collected quantitative information from the fishery. The information collected in the survey may be beneficial for understanding vessel operator decision making and responses to conditions, and may also provide information concerning variation in those decisions

² The alternatives analyzed for the October meeting also included a provision for the collection of data concerning gear acquisition or modification to avoid Chinook PSC. This provision was excluded from the motion adopted in October. The analysis of the provision was maintained, in the event the omission of the provision from the October motion was inadvertent.

with vessel characteristics, technology, and production goals. This information may help analysts understand decision making on vessels and the effects of Chinook PSC measures, including IPAs, on decision making. Although these data are subjective, they should provide some insights into responses to the incentives in an IPA, and variations in those responses over time, and across circumstances. These insights could, in turn, have several benefits. First, they could lead to revisions in IPAs. If certain incentives are found to be either more or less effective than expected, the IPAs could be modified to alter incentives. Within the fishery, it is possible that participants may gain some insights into methods of improving Chinook PSC avoidance. Managers may learn which aspects of the Chinook PSC measures affect on grounds decision making and the nature and timing of those affects.

PUBLIC TESTIMONY SIGN-UP SHEET

Agenda Item: C-4(a) Salmon Bycatch Data Collection

	NAME (PLEASE PRINT)	TESTIFYING ON BEHALF OF:
1	BRENT PAINE	UCB
2	Bubba Cook	WWF
3	ED RICHARDSON	BULLOCK CONSERVATION COOPERATIVE
4	Berra Robbins gisclair	Yukon River Drainage Fisheries Assoc.
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

C-4(a) Salmon bycatch data collection Motion

The Council adopts the purpose and need statement and elements of Alternatives 2 and 3 as the preferred alternative, as specified below. Below is the text of the Council's October 2009 motion with additions shown underlined and deletions shown in strikethrough.

Purpose and Need Statement

In April 2009 the Council approved Amendment 91 to the BSAI groundfish fishery FMP to reduce Chinook salmon bycatch in the Bering Sea pollock fleet. Under Amendment 91, the pollock fishery has the option of participating in a NMFS-approved Incentive Plan Agreement (IPA) to access a higher hard cap than is available in the absence of an IPA. The IPAs provide a new and innovative method of bycatch management. A data collection program is needed in conjunction with Amendment 91 to understand the effects and impact of the IPAs. The data collection program will focus on: (1) evaluating the effectiveness of the IPA incentives in times of high and low levels of salmon bycatch abundance, the hard cap, and the performance standard in terms of reducing salmon bycatch, and (2) evaluating how the Council's action affects where, when, and how pollock fishing and salmon bycatch occur. The data collection program will also provide data for the agency to study and verify conclusions drawn by industry in the IPA annual reports. To ensure that a full assessment of the program is possible, the data collection program should be implemented at the time Amendment 91 is implemented or as soon as practicable.

To ensure that a full assessment of the program is possible from the start of the program, the data collection program should be separated into two phases, with a suite of data collection measures implemented at the time Amendment 91 goes into effect and sent to the Comprehensive Economic Data Collection Committee after IPAs have been fully developed and submitted to NMFS. The objective of this collection is to provide an improvement in the amount of data available to evaluate the effectiveness of incentives to minimize Chinook salmon bycatch under Amendment 91.

Alternatives

~~The Council has adopted the following alternatives for analysis and consideration:~~

~~Alternative 1~~

~~Status quo (existing data sources)~~

~~Alternative 2A~~

~~In addition to the status quo data sources:~~

- (1) ~~Transaction data for salmon—quantity and price of transfers (survey will be used to determine whether these are arm’s length transactions). As defined by:~~

~~Option 1—Transfer Ledger: All entities holding Chinook bycatch credits will track all transfers from the beginning of each year in an official ledger that would be submitted to NMFS at the end of the year.~~

~~Option 2—Compensated Transfer Form: Require that IPAs and AFA Cooperatives summarize initial holdings of Chinook by vessels or other entities, and that they summarize all transfers regardless of whether the transfers were “compensated” transfers. For all “compensated” transfers, each party (transferor and recipient) must complete and submit to NMFS a Compensated Transfer Form. A transfer is “compensated” if there is an exchange of dollars (or any currency) for bycatch credits from one party to another.~~

- (2) ~~Information regarding change in fishing grounds:~~

~~Defined by the collection of estimated gallons of fuel burned in moving to the next fishing location when moving to avoid salmon bycatch~~

~~[To be used with existing information allowing examination of:~~

- ~~a. For both the original and new fishing grounds, the date, time, bycatch rate, location, and CPUE of tow.~~
- ~~b. Pollock quota remaining for harvest and salmon allowance remaining at time of event.~~
- ~~c. Time, distance, and use of fuel in searching for cleaner fishing grounds.]~~

Alternative 2B

In addition to the status quo data sources:

- (1) Transaction data for salmon and pollock – quantity and price of salmon transfers (survey will be used to determine whether these are arm’s length transactions) and quantity of pollock transfers.

Require that IPAs and AFA Cooperatives summarize the assignment of Chinook and pollock to each participating vessel at the start of each fishing season, and that they summarize all in-season transfers of Chinook and pollock regardless of whether the transfers were “compensated” transfers.

For all “compensated” salmon transfers, each party (transferor and recipient) must complete and submit to NMFS a Compensated Transfer Form. A transfer is “compensated” if there is an exchange of dollars (or any currency) for bycatch credits from one party to another.

For all compensated transfers, the transfer form will indicate the amount of any monetary compensation for Chinook salmon and whether any other assets were included in the transaction (e.g., pollock quota or non-monetary compensation).

~~By expanding Options 1 and 2 from Alternative 2A to include pollock quota.~~

- (2) Information regarding change in fishing grounds ~~(as defined under Alternative 2B)~~ defined by via identification of any tow prior to a move that is due primarily to salmon bycatch avoidance (implemented through a logbook check box).

~~the collection of estimated gallons of fuel burned in moving to the next fishing location when moving to avoid salmon bycatch~~

~~{To be used with existing information allowing examination of:~~

- ~~d. For both the original and new fishing grounds, the date, time, bycatch rate, location, and CPUE of tow.~~
- ~~e. Pollock quota remaining for harvest and salmon allowance remaining at time of event.~~
- ~~f. Time, distance, and use of fuel in searching for cleaner fishing grounds.]~~

Alternative 3

~~In addition to the status quo data sources:~~

- ~~(1) Transaction data for salmon and pollock – quantity and price of transfers (survey will be used to determine whether these are arm's length transactions). (as defined under Alternative 2)~~
- ~~(2) (3) NMFS will administer annual reporting to collect:~~
 - Average annual hourly fuel burned fishing and transiting and annual fuel purchases in cost and gallons for each to be used to estimate costs of moving vessels to avoid salmon bycatch (vessel fuel use, transit time, and lost fishing time).
- ~~(3) Post-season surveys of each skippers for each vessel to determine rationale for decision making during the pollock season (fishing location choices and salmon bycatch reduction measures).~~

The regulations will be developed to provide some flexibility in the information collected on survey forms to respond to data quality and evolving IPA formation and design. The Council will review draft regulations and the initial form structure and any subsequent changes to the form prior to submission to either the Secretary of Commerce or OMB for implementation.