Report to the

North Pacific Fishery Management Council

on the 2013

Bering Sea Pollock

Mothership Salmon Savings Incentive Plan

James Mize, IPA Representative

This report is to the North Pacific Fishery Management Council and covers the Bering Sea and Aleutian Islands Management Area (BSAI) Pollock Mothership Salmon Savings Incentive Plan Agreement ("MSSIP" or "Agreement").

Amendment 91 Reporting Requirements

Amendment 91 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Fishery combines a hard cap on the amount of Chinook salmon that may be caught incidentally with an incentive plan agreement ("IPA") and a Performance Standard designed to minimize bycatch to the extent practicable in all years and prevent bycatch from reaching the limit in most years. The regulations implementing Amendment 91 require participants engaged in an IPA to submit to the Council an annual report including:

(1) A comprehensive description of the incentive measures in effect in the previous year;

(2) A description of how these 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; and

(4) A description of any amendments to the terms of the IPA that were approved by NMFS since the last annual report and the reasons that the amendments to the IPA were made.

Each is addressed below.

Description of MSSIP Incentive Measures

The MSSIP contains two key incentive measures: the ability to earn Salmon Savings Credits for use in later years, and the Rolling Hotspot Closure ("RHC") program that restricts access to fishing grounds where bycatch is unacceptably high.

Each operator of a Vessel participating in the MSSIP is motivated to avoid Chinook salmon as a means to earn Salmon Savings Credits. Credits give a Vessel the ability to exceed the Annual Threshold in years when encounter rates are particularly high and bycatch amounts, even after best avoidance efforts are taken, are higher than the Amendment 91 Performance Standard. These credits are only earned, however, by reducing bycatch below the Annual Threshold in other years. In years of high salmon encounters, credits offer a Vessel the ability to harvest more of its annual pollock allocation than it otherwise could due to the Annual Threshold, and so serve as "insurance" against risks of closure due to high encounters of salmon bycatch. Each Vessel's desire to earn these credits for insurance is the primary incentive in the MSSIP.

The RHC program establishes the incentive to maintain low bycatch rates in order to have access to all productive fishing grounds. Fleets achieving relatively low Chinook salmon bycatch rates are not constrained by hotspot closures, while Fleets with average or higher rates are. The RHC program creates the incentive to find ways and means to harvest pollock while avoiding Chinook salmon bycatch at all times. The RHC program insures that Fleets failing to meet that standard are excluded from the fishing areas with the highest bycatch rates.

The RHC program provides for the designation of Bycatch Avoidance Areas closed to fishing when the rate of Chinook salmon bycatch in that area (the "Area Rate") exceeds the Base Rate. The Base Rate is an index of relative Chinook salmon abundance defined as the ratio of the three week rolling sum of total Chinook salmon taken incidentally in the Fishery to the three week rolling sum of the total number of metric tons of pollock caught in the Fishery. The Base Rate is updated weekly, with rules in the first three weeks of the "A" season or "B" season to determine initial Base Rates.

Effect of Incentive Measures on Individual Vessels

Mothership fishing operations are uniquely dependent upon individual fishermen's ability to work cooperatively. Under the MSSIP, incentives to avoid Chinook salmon bycatch at all rates of encounter must not only be at the individual Vessel level but also at the Fleet level such that individual incentives are carefully balanced with the need to maintain a cohesive and efficient Fleet. Since many decisions related to salmon avoidance strategies must be made collectively by the Vessels and processor working together in a Fleet (or two processors in a "Pooled Fleet"), it is at that level where the incentive to avoid Chinook salmon at all rates of encounter is most appropriately directed.

Under the MSSIP, each Fleet manages a share of the Mothership Sector Annual Threshold equal to that Fleet's percentage of the mothership pollock allocation. In 2013, three Fleets participated in the MSSIP, consisting of nineteen Vessels. Two of these Fleets participated as a Pooled Fleet, where the Fleets' shares of salmon bycatch were aggregated. Each Fleet avoided Chinook salmon bycatch such that total incidental catch remained significantly below the

Fleet's share of the Annual Threshold, thus generating Salmon Savings Credits. At the end of the season, the total Salmon Savings Credits generated by each Fleet or Pooled Fleet was disaggregated and distributed to each Vessel in proportion to the Vessel's percentage of contribution to the Fleet's pollock allocation. Accordingly, Vessels participating in a Fleet with lower Chinook salmon bycatch generated more Salmon Savings Credits than Vessels participating in a Fleet with higher bycatch.

During the course of the 2013 fishery, the MSSIP and RHC program implemented a total of five area closures to fishing in order to avoid bycatch of Chinook salmon. Under the terms of the Agreement, the "Chinook Salmon Conservation Area" (approximately 735 square miles) remained closed to Vessels participating in the MSSIP during the entire 2013 "A" season. In addition, four Bycatch Avoidance Areas were identified and closed in the RHC program during the 2013 "A" season. During the "B" season, no Bycatch Avoidance Areas were identified in the RHC program. Maps and effective dates of the Chinook Salmon Conservation Area closure and the Bycatch Avoidance Areas are shown in Appendix 1.

Evaluation of Effectiveness

In 2013, the three Fleets participating in the mothership sector collectively avoided incidental catch of Chinook salmon such that the total bycatch was approximately 16% of the mothership sector's portion of the Base Cap. Total Chinook salmon bycatch was 604 salmon, 3,103 below the Annual Threshold. As a result, the participants in the MSSIP in the 2013 fishery generated a total of 1,355 Salmon Savings Credits. It is not possible to assess how many salmon would have been incidentally caught in the mothership sector in the absence of a salmon savings IPA for the mothership sector; however, if there were no salmon savings IPA, Vessels would not have had the incentive to avoid Chinook salmon bycatch in order to earn Salmon Savings Credits.

Vessels also saved Chinook salmon by avoiding areas of higher Chinook salmon encounters in order to avoid triggering the closure of Bycatch Avoidance Areas under the RHC. It is not possible to assess precisely how many Chinook salmon would have been incidentally caught in the mothership sector in the absence of this RHC program; however, if there were no RHC program, Vessels would not have had the incentive to avoid Chinook salmon bycatch in order to avoid being restricted from fishing in Bycatch Avoidance Areas designated under the RHC program. Generally, areas closed by the RHC program result in lower bycatch rates in the weeks following the closures, and if Vessels encounter high bycatch rates when relocating to new fishing grounds, additional closures are designated, which tends to reduce Chinook salmon bycatch overall. In 2013, using an evaluation of pollock catch and bycatch rates before and after establishment of Bycatch Avoidance Areas, the RHC program saved an estimated 955 Chinook salmon due to Vessels avoiding or being restricted from fishing in Bycatch Avoidance Areas, as summarized in Table 1.

As an additional measure of effectiveness, the MSSIP requires that on an annual basis the participants engage knowledgeable and competent third-parties to conduct compliance audits of the MSSIP rules and the RHC program. Audit results are attached at Appendix 2.

Table 1 - Evaluation of Effectiveness of IPA Incentives, 2013

Closure Date	Area Bycatch Rate Pre-Closure (Chinook per MT Pollock)	MSSIP Bycatch Rate Post-Closure (Chinook per MT Pollock)	Difference (Chinook per MT Pollock)	MSSIP Catch of Pollock Week After Closure	Imputed Reduction in Bycatch (Number of Chinook Savings)
2/1/2013	0.13	0.01	0.12	4,665	556
2/15/2013	0.07	0.01	0.05	2,934	161
2/22/2013	0.09	0.01	0.08	2,258	185
4/5/2013	0.17	0.01	0.17	313	53
				Total	**955**

Amendments to IPA Approved by NMFS

No Amendments were made to this IPA effective during the 2013 reporting period. The current MSSIP, effective starting in the 2011 reporting period, was approved by NMFS on March 20, 2012, as previously reported in the 2011 MSSIP Report.

During the 2014 reporting period, the Mothership Fleet Cooperative Entity met and discussed potential amendments to incorporate chum salmon protections into the MSSIP. Draft revisions were considered, discussed, and tasked back to the Salmon Bycatch Committee for further development. In addition, the Mothership Fleet Cooperative amended its Agreement to substitute James Mize as the IPA Representative, approved by NMFS on March 18, 2014, as reflected in this report.

Additional Reporting Requirements

In a final rule published February 3, 2012, NMFS published additional reporting requirements to be included in annual IPA reports, including information about sub-allocations of Chinook salmon PSC amounts and information regarding any in-season transfers of Chinook salmon PSC. Specific information to be included regarding sub-allocations include the number of Chinook salmon PSC and amount of pollock (mt) at the start of each fishing season allocated to participating Vessels, and the number of Chinook salmon PSC and amount of pollock (mt) caught at the end of each season. With regard to in-season transfers of Chinook salmon PSC, the final rule requires reporting of transfers between entities and transfers among vessels in the IPA. For each, the specific information to be reported includes the date of transfer; name of transferor and transferee; number of Chinook salmon PSC transferred; and amount of pollock (mt) transferred.

Sub-allocations of Chinook Salmon PSC

The MSSIP provided for individual vessel sub-allocations in proportion to the individual vessels' percentages of pollock under the terms of the MFC. These percentages are detailed in Table 2, grouped by Fleet within which the individual vessels participated.

Table 2 - Sub-Allocations of Chinook Salmon PSC and Pollock Amounts, By Vessel, Start 2013

Vessel	Co-op %	2013 Base Cap	2013 Pollock Amount
Mar-Gun – 25%	1.56%	57.93125	1,639.73
Margaret Lyn	5.64%	209.186	5,920.97
Mark I	6.25%	231.725	6,558.92
Morning Star	3.60%	133.489	3,778.39
Traveler	4.27%	158.363	4,482.44
Excellence Fleet Total	***21.33%***	***790.69***	***22,380.45***
Aleutian Challenger	4.93%	182.607	5,168.65
Alyeska	2.27%	84.223	2,383.92
American Beauty	6.00%	222.42	6,295.56
Ocean Leader	6.00%	222.42	6,295.56
Pacific Challenger	9.67%	358.504	10,147.39
Vanguard	5.35%	198.325	5,613.54
Golden Alaska Fleet Total	***34.22%***	***1,268.50***	***35,904.63***
California Horizon	3.79%	140.347	3,972.50
Mar-Gun – 75%	4.69%	173.79375	4,919.19
Misty Dawn	3.57%	132.303	3,744.81
Nordic Fury	6.18%	228.981	6,481.28
Oceanic	7.04%	260.899	7,384.69
Pacific Fury	5.89%	218.305	6,179.09
Popado II	2.95%	109.468	3,098.46
Vesteraalen	6.20%	229.871	6,506.46
Western Dawn	4.15%	153.841	4,354.43
Ocean Phoenix Fleet Total	***44.45%***	***1,647.81***	***46,640.92***
MFC Total	**100%**	**3,707**	**104,926.00**

Season Totals

The number of Chinook salmon PSC and amount of pollock (in metric tons) caught at the end of each season are detailed in Table 3, by Fleet (pollock amounts differ from Table 2 due to in-season adjustments to the Bering Sea DFA by NMFS).

Table 3 – Number of Chinook Salmon PSC and Pollock Amounts Caught, by Season, 2013

Season	Fleet/Pooled Fleet	Chinook Salmon (#)	Pollock (mt)
A season	Excellence	154	9,208.70
	Golden Alaska	176	14,455.9
	Ocean Phoenix	227	19,664.11
	Total MSSIP	**557**	**43,328.71**
B season	Excellence	8	8,933.72
	Golden Alaska	26	23,132.91
	Ocean Phoenix	14	34,645.85
	Total MSSIP	**48**	**66,712.47**

In-season Transfers of Chinook Salmon PSC

In the 2013 MSSIP, no in-season Transfer of Chinook salmon PSC or pollock occurred among AFA cooperatives, entities eligible to receive Chinook salmon PSC allocations, or CDQ groups. No Transfers occurred among Vessels participating in the MSSIP during the 2013 pollock fishery. No Fleet to Fleet Paired Transfers (Transfers of pollock and corresponding Chinook salmon PSC) occurred during 2013.

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Appendix 1 – 2013 Area Closures Under the MSSIP and RHC Program

Figure A1-1. Chinook Conservation Area closure, effective entire A season.

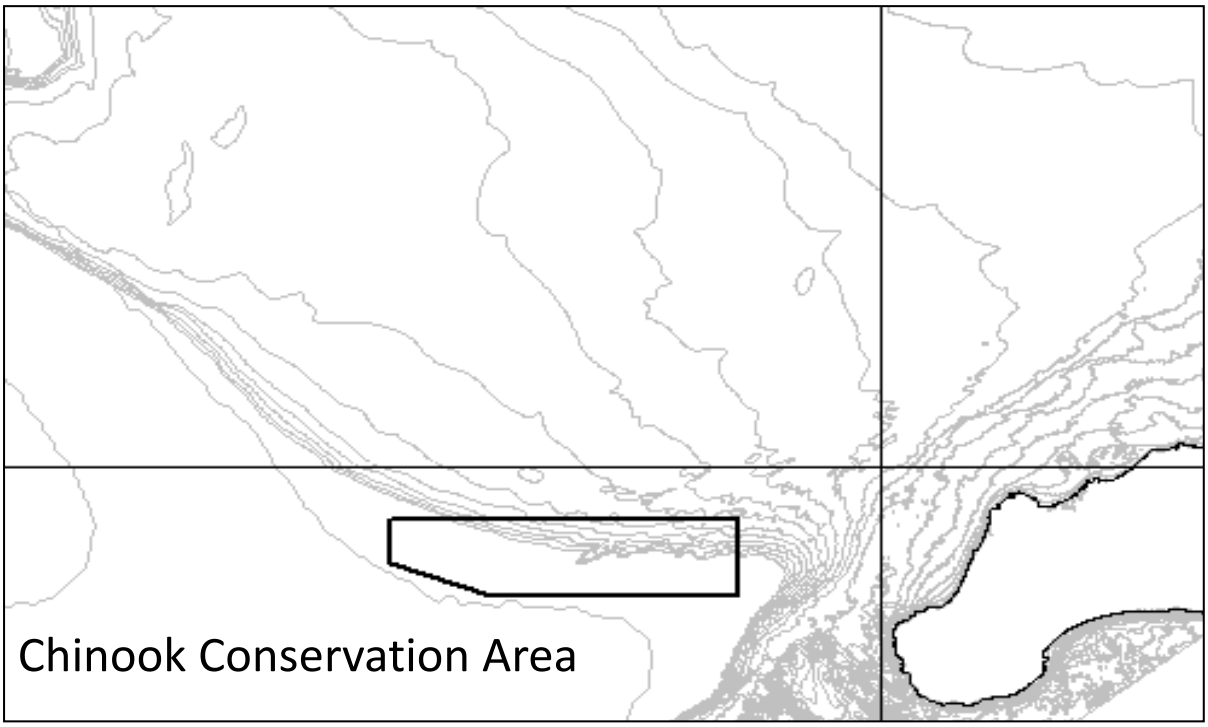


Figure A1-2. A season Bycatch Avoidance Area closure, effective 2/1/2013 to 2/8/2013.

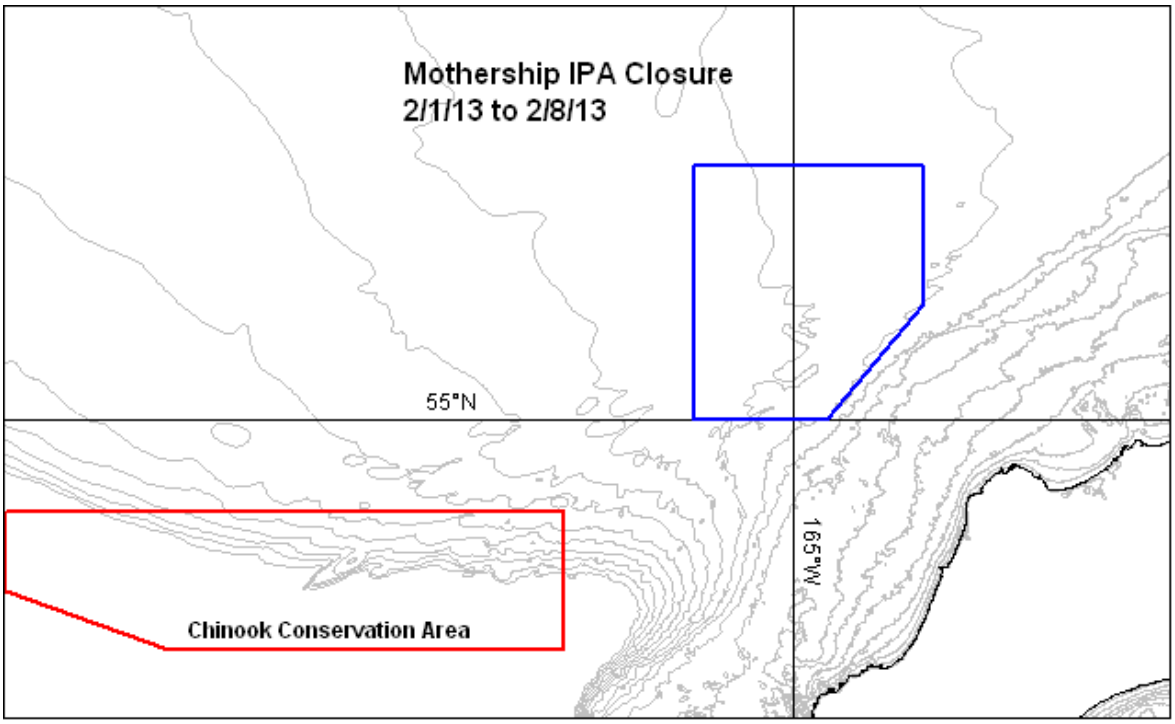


Figure A1-3. Bycatch Avoidance Area closure, effective 2/15/2013 to 2/22/2013.

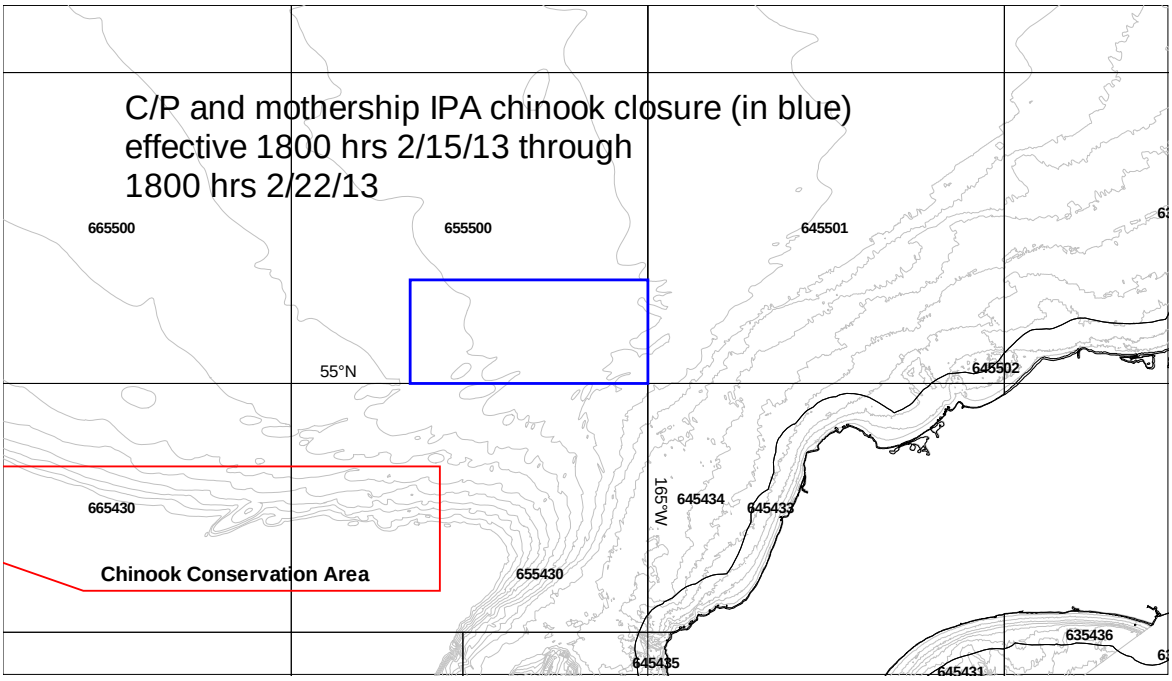


Figure A1-4. Bycatch Avoidance Area closure, effective 2/22/2013 to 3/1/2013.

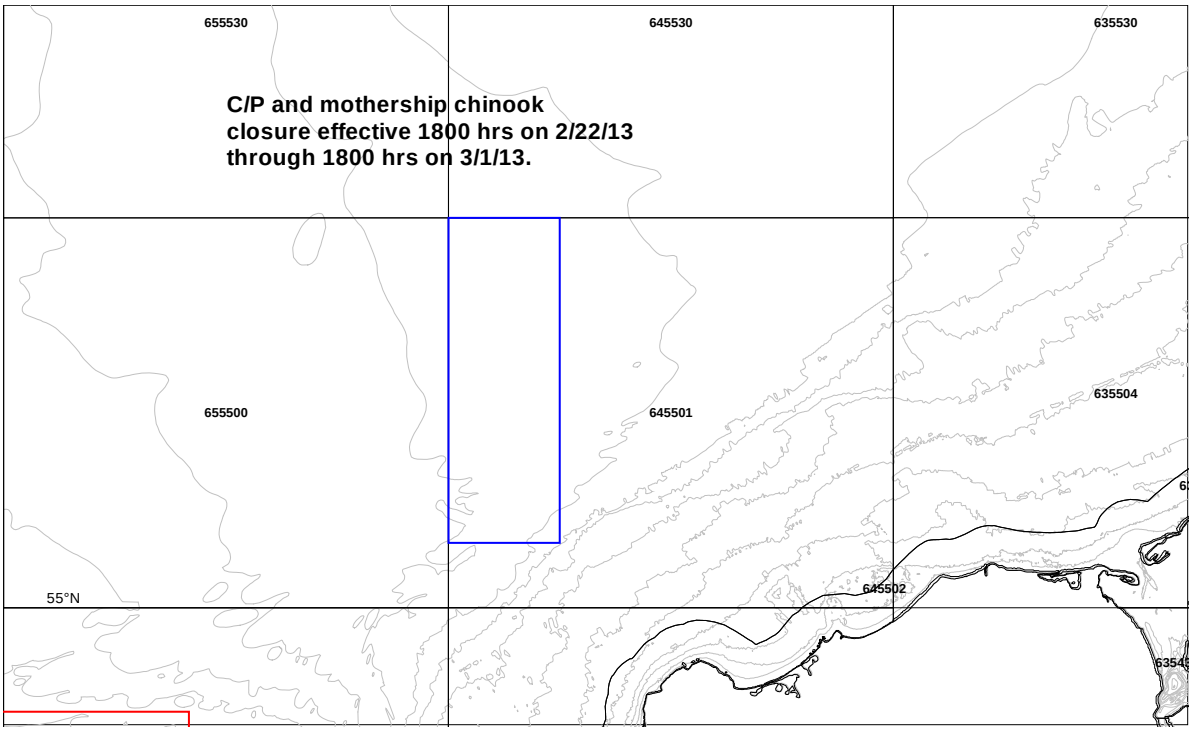
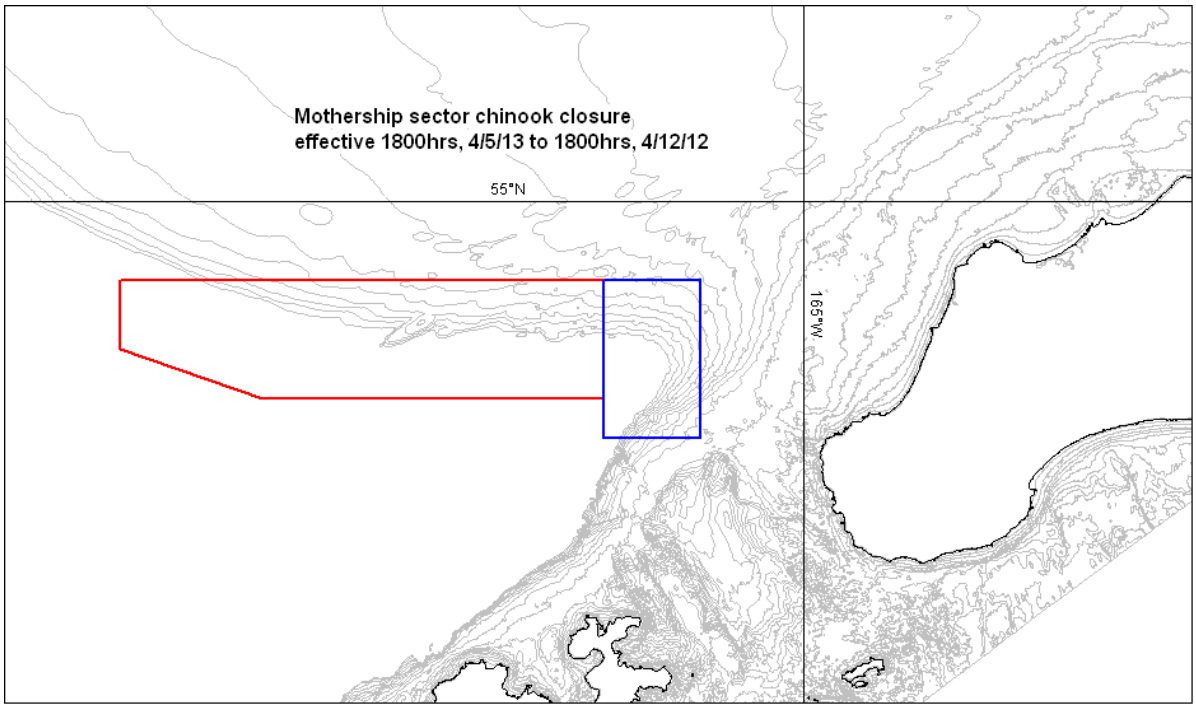


Figure A1-5. Bycatch Avoidance Area closure, effective 4/5/2013 to 4/12/2013.



Appendix 2 – Third-Party Audit of RHC Program and MSSIP Rules

MSSIP AUDIT, MOTHERSHIP FLEET COOPERATIVE, BERING SEA POLLOCK FISHERY, 2013

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Background

The Mothership Sector of the Bering Sea / Aleutian Islands Pollock Fishery has agreed to follow the rules set up in the Mothership Salmon Savings Incentive Plan Agreement (MSSIP). This agreement includes the provision that "knowledgeable and competent third-parties" will "conduct compliance audits of the MSSIP rules and the Rolling Hotspot Closure program." The following report briefly describes the results of the compliance audit conducted by ABR, Inc.—Environmental Research and Services (hereafter, ABR) for the Mothership Fleet Cooperative (MFC).

Rolling Hotspot Closure Program

Audit Methods

All vessels participating in the pollock fishery, including those in the MFC, have fisheries observers which provide haul deployment and retrieval times, catch, and bycatch weights for pollock and Chinook salmon. In addition, vessels are equipped with Vessel Monitoring System (VMS) units, which transmit vessel locations periodically during the fishing seasons.

We received observed haul data, processed VMS locations, and closure documents from the Rolling Hotspot Closure (RHC) Manager. Haul data and VMS locations were derived from raw data obtained from the National Marine Fisheries Service. Closure polygons and Fleet-level closure dates were generated from the closure documents. In order to assess compliance with the RHC program, we examined the geospatial and temporal relationship between VMS locations, observed hauls, Vessel / Fleet assignments, and closure polygons. Intersections between closures (both spatially, temporally, and according to Fleet membership) and VMS locations indicate vessels fishing in a hotspot closure (or Chinook Conservation Area for all "A" season locations) when it applied to their Fleet, and constitutes a violation of the RHC program.

To the extent possible, we also examined the RHC Manager's calculations of rates and performance benchmarks, and the implementation of Bycatch Avoidance Areas.

Results and Discussion

For the "A" season we compared VMS locations during observed fishing activity against the Chinook Conservation Area and found no violations of the closure (Figure 1). Because this wasn't a rolling closure, it falls under Rule 16 of the MSSIP, rather than Rule 15 (RHC program), but the analysis is similar so we report the results here.

We repeated this analysis for the four other "A" season closures identified in the documents from the RHC Manager and found no violations. There were 31 locations found where a vessel was fishing inside a closure while the closure was in effect, but in all cases the vessel was fishing for a fleet that was not subject to the closure and thus were not violations. Figures 2–4 show the closures and vessel locations where all members of the fleet subject to the closure were fishing. No members of the fleet

subject to the April 5–12th closure were fishing during this period so this closure is not included in the figures.

There were no "B" season closures in 2013.

Mothership Salmon Savings Incentive Plan Agreement Rules

Audit Methods

We used 2013 MFC pollock allocation percentages, Vessel / Fleet Assignments, Mothership MSSIP Transfer Request forms (of which there were none), salmon bycatch data from the RHC Manager, and 2010–2012 credit data from previous audits of the MSSIP Agreement to assess compliance with MSSIP Agreement rules.

Results and Discussion

We performed per-Vessel and per-Fleet calculations of Available Cap (Rule 1), Management Buffer Adjustment (2), Aggregation of Available Cap (3), Chinook Salmon Bycatch (4), Salmon Savings Credits (5), and Disaggregation of Remaining Available Cap (7) and concluded that these rules were applied appropriately. There was also a Change of Platform (11) done in accordance with the MSSIP Rules.

Rules 8, 9, 10, 12, and 14 did not occur or didn't apply in 2013, and the remaining rules (6 and 13) required no calculations or are part of this report (15 and 17).

Conclusions

ABR concludes that, based on the data available, 1) there were no violations of the Chinook Salmon Conservation Area, nor of the closures established as part of the Rolling Hostspot Closure Program, and 2) the rules established in the Mothership Salmon Savings Incentive Plan Agreement were followed, and Salmon Savings Credits were calculated in accordance with the Plan rules. We did not consider data sources beyond the Mothership Fleet Cooperative and the RHC Manager, but the concordance of the data between these sources supports the use of this information and our conclusion.

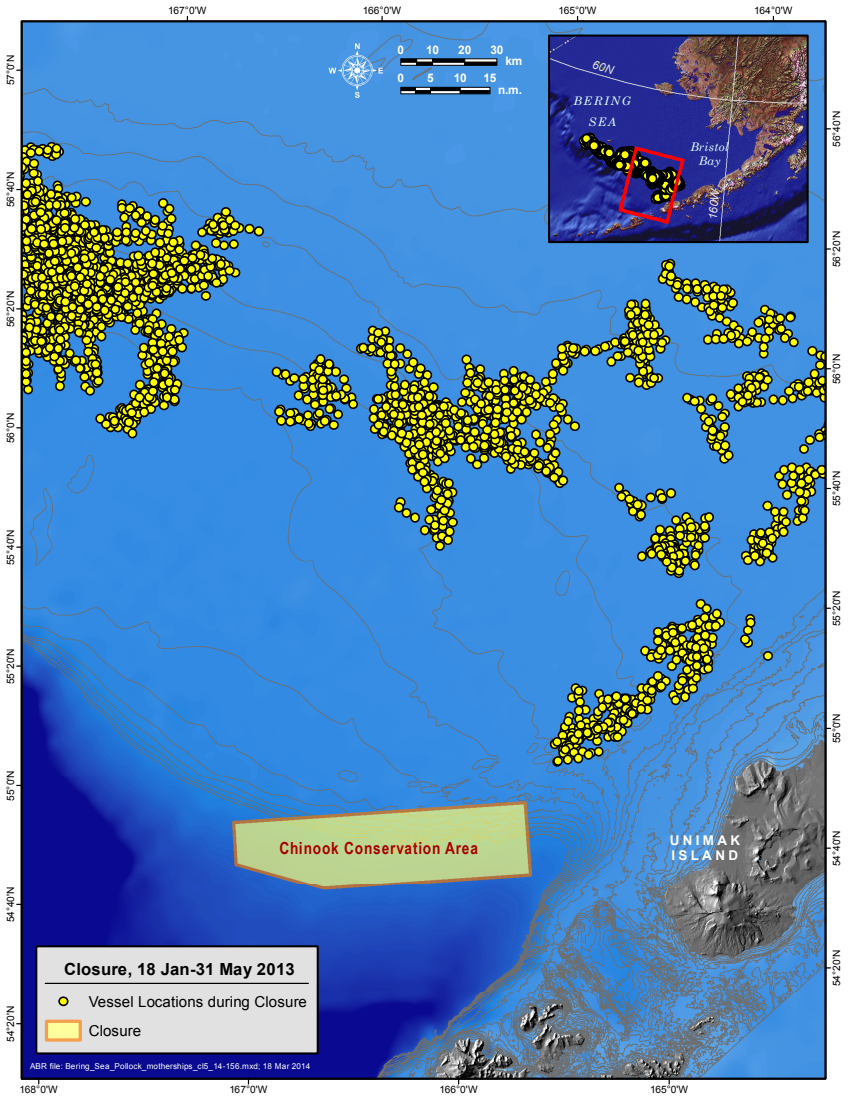


Figure 1: Chinook Salmon Conservation Area

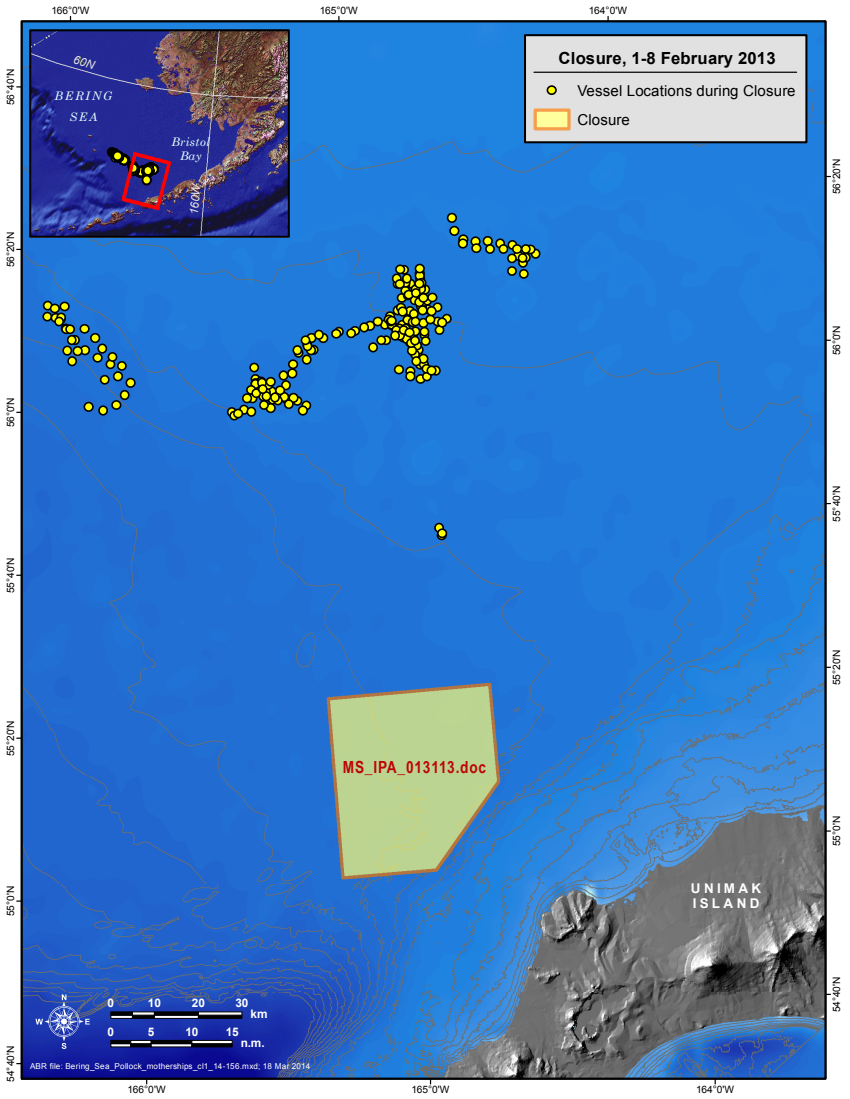


Figure 2: February 1, 2013 Closure

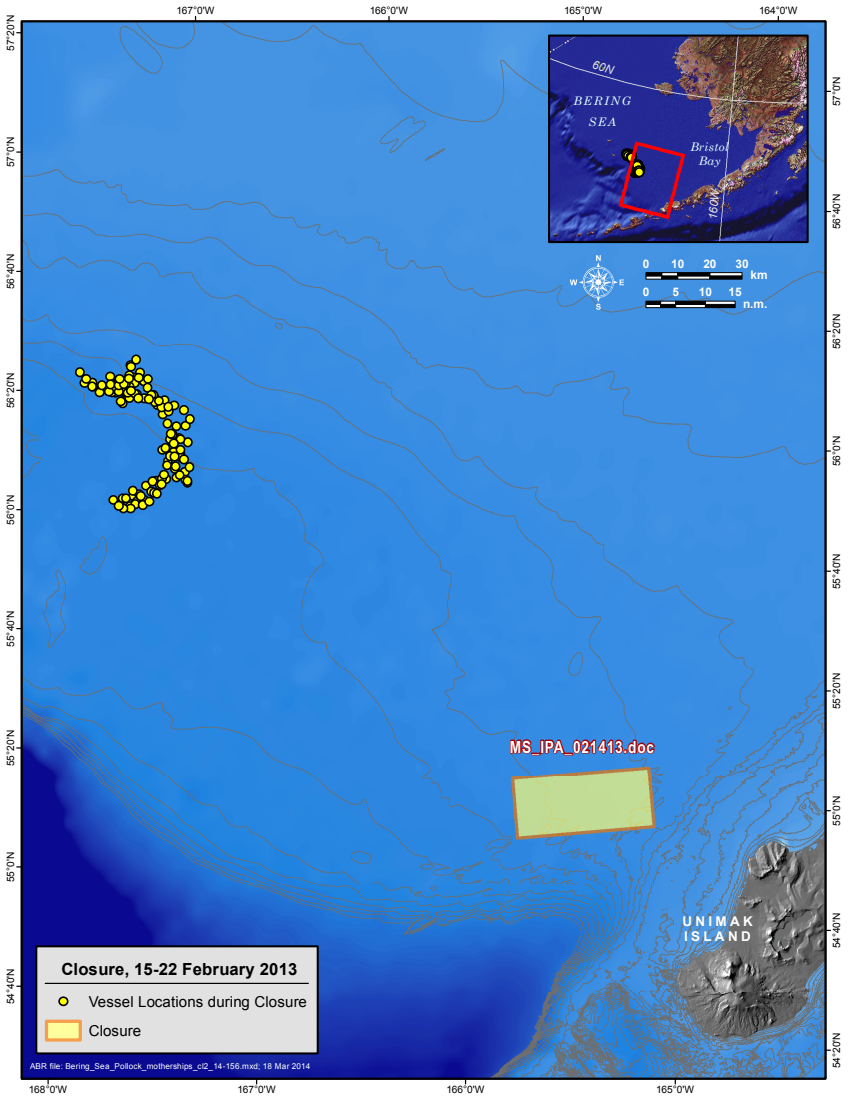


Figure 3: February 15, 2013 Closure

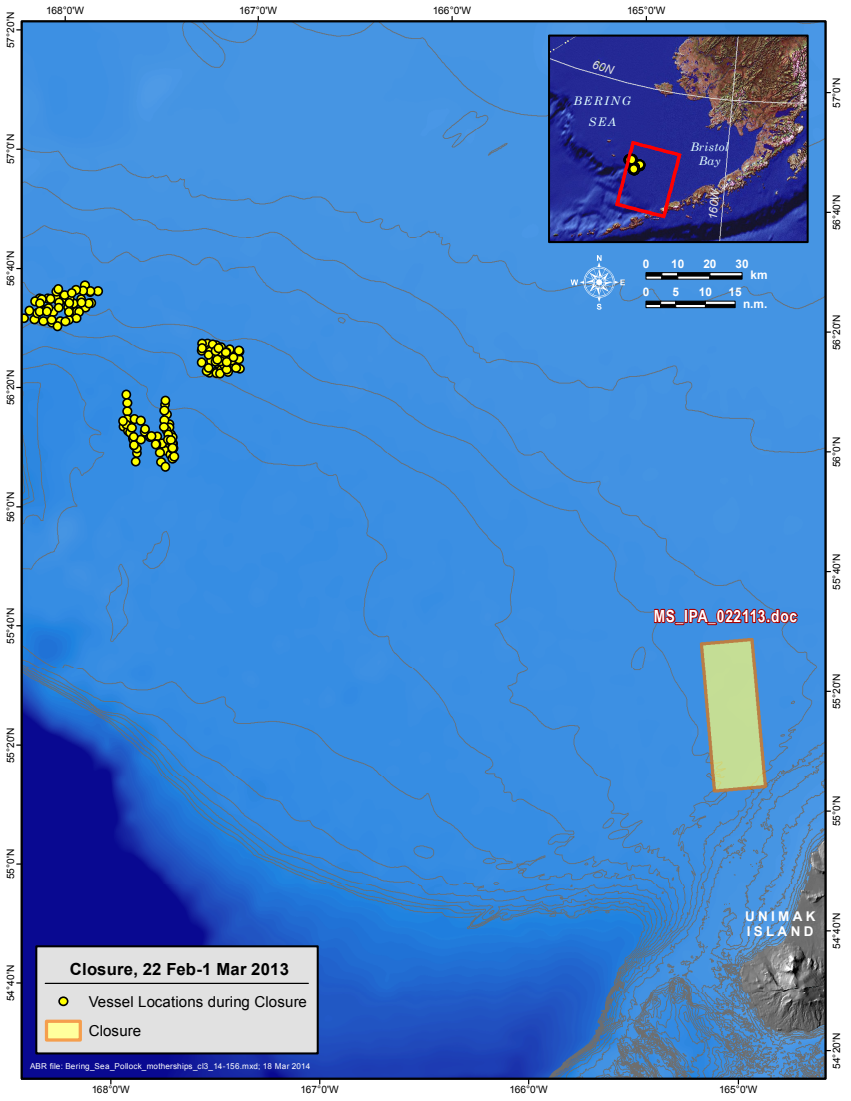


Figure 4: February 22, 2013 Closure