

A80 Bycatch Reduction EFP

PREPARED BY: IPHC STAFF AND ALASKA SEAFOOD COOPERATIVE (S. KEITH; 6 JANUARY 2017)

Under an experimental fishing permit (EFP) issued by the U.S. National Marine Fisheries Service, the Alaska Seafood Cooperative (ASC), an “Amendment 80” (A80) fishing cooperative, has been experimenting with deck sorting methods in an effort to reduce Pacific halibut bycatch among its trawl vessels. The object of deck sorting is to reduce Pacific halibut bycatch mortality by returning the bycaught fish to the sea more quickly than when the trawl catch is sorted below decks, which is the currently mandated standard procedure.

A copy of the slide presentation prepared for the IPHC 2017 Annual Meeting by John Gauvin of ASC is provided in Appendix A.

APPENDIX A

Deck Sorting EFP Presentation

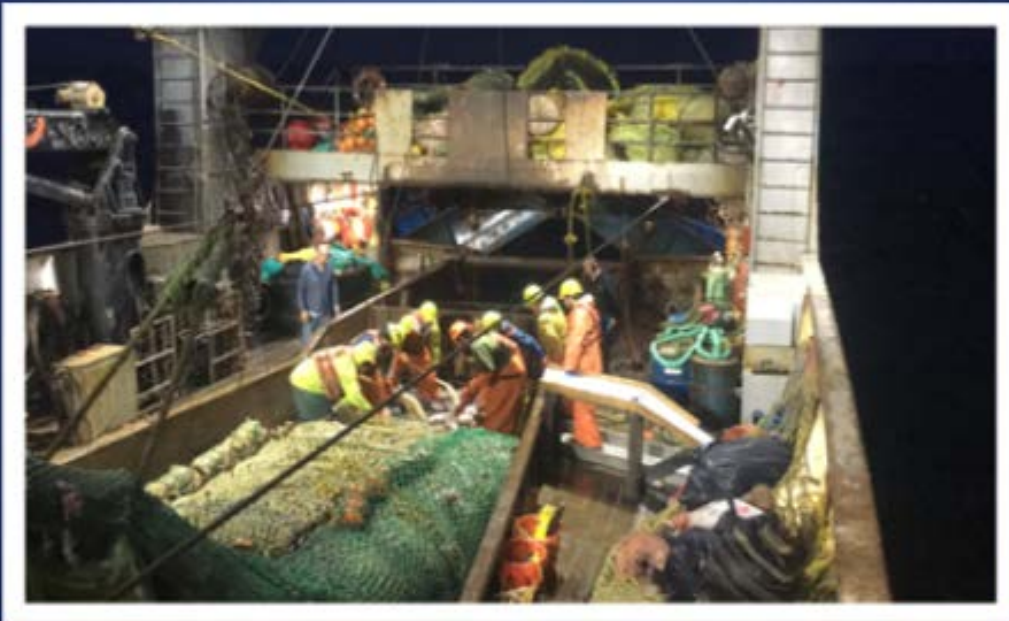
**Interim Report on Deck Sorting EFP
(EFP 16-01) December, 2016**



John Gauvin

Fishery Science Projects Director
Alaska Seafood Cooperative

**Report Covers Data from May – December, 2016
Updated from report to NPFMC Dec 2016**



Metrics of Interest

- Increase in EFP participation from 9 boats in 2015 to 12 boats in 2016
- Participants tended to do a far greater percentage of their flatfish/related fishing inside the EFP than occurred in 2015
- Deck sorting expanded greatly to fisheries beyond flathead sole and ATF. 2016 had a much higher frequency of EFP trips in Yellowfin sole, Pacific cod, Pacific Ocean Perch, Atka mackerel in 541.

2016 Deck Sorting Performance

Vessel	Dates in EFP	EFP Groundfish (MT)	Halibut Catch (MT)	EFP Halibut Mortality (MT)*	EFP Mortality Rate	Assume non-EFP mortality (MT)**	Net Savings (MT)
Arica	May - Oct	10,728	73.27	33.48	46%	62.28	28.80
Cape Horn	Jun - Oct	6,608	49.96	26.85	54%	42.47	15.62
Constellation	May - Oct	9,901	62.75	31.61	50%	53.34	21.73
Defender	Jun - Oct	7,889	75.08	33.71	45%	63.81	30.10
Katie Ann	Sep - Nov	2,174	30.46	13.27	44%	25.89	12.62
Legacy	Jun - Nov	6,632	118.54	44.42	37%	100.76	56.34
Northern Glacier	Jul - Oct	7,872	66.69	25.61	38%	56.69	31.08
Rebecca Irene	Jun - Nov	12,060	87.60	42.20	48%	74.46	32.26
Seafisher	Aug - Sep	2,647	32.56	13.14	40%	27.67	14.53
Seafreeze America	Oct - Nov	3,205	35.40	19.60	55%	30.09	10.49
Unimak	May - Oct	9,601	97.62	46.62	48%	82.97	36.35
Seafreeze Alaska	Nov - Dec	588		insufficient data			
Total		79,905	729.9	330.5	45%	620.4	289.9
*EFP Halibut Mortality for Deck and Factory Halibut							
**Assumes halibut catches with regular fishery mortality rate of 85%							

Note: "EFP Halibut Mortality" includes the haul-specific mortality rate applied to deck sorted halibut and a fixed (90%) mortality rates factory halibut.

Performance from 2015 Deck Sorting EFP (Table 1 from 2015 Final Report Revised)

Vessel	Groundfish	Halibut	EFP mortality	EFP mortality	IPHC mortality	Net Savings	Dates in EFP
	MT	catch MT	MT	rate	MT*	MT	
Constellation	9,818	117	58.5	50%	99.5	41.0	May 24-July 4; July 17-Oct 24
Legacy	794	21.6	9	41%	18.4	9.4	May 16-June 4
Arica	11,130	140.4	68.2	49%	119.3	51.1	June 9-Nov 17
Cape Horn	5,589	74.2	34.4	46%	63.1	28.7	June 3-July 26; Sept 14-Nov 6
Rebecca Irene	944	15	6.5	43%	12.8	6.3	July 20-Sept 2
Defender	5,153	65.4	34.2	52%	55.6	21.4	June 22-Oct 16
Unimak	3,656	21.3	10.7	50%	18.1	7.4	Aug 29-Oct 11
Ocean Peace	1,318	26.6	12.2	46%	22.6	10.4	Aug 12-Sept 2
Enterprise	159	0.2	0.1	70%	0.2	0.1	Sept 17-Sept 19
Totals	38,561	481.7	233.8	49%	409	175.6	

*Using 85% mortality rate as per Oct 2016 DMR analysis

Note: "EFP Mortality" includes the haul-specific mortality rate applied to deck sorted halibut and a fixed (90%) mortality rates factory halibut.

Comparing 2016 EFP to 2015 EFP

Comparison of key performance indicators 2015 to 2016						
	Groundfish	Halibut	EFP mortality	EFP mortality	Non-EFP mortality	Net Savings
	MT	catch MT	MT	rate	MT*	MT
2015 Totals	38,561	481.7	233.8	49%	409.4	175.6
2016 Totals	79,905	729.9	330.5	45%	620.4	289.9
Delta	+41,344			-4%		+114.3

Other Metrics of Interest

- Halibut bycatch “catch rate” in EFP fishing, not accounting for mortality rates, was lower in 2016 (1.3% in 2015 and 0.9% in 2016)
- Halibut excluders and deck sorting used together extensively (some hiccups, siltation with new device)
- Fraction of total halibut catch sorted on deck ~85%, same as 2015
- Crews did a better job keeping sorting times to under 20 minutes (some exceptions especially for boats new to deck sorting)

Other Metrics of Interest continued

- Inclusion of CDQ into EFP was successful from operational and NMFS catch accounting perspective (huge effort by NMFS)
- Trawl limited Access fishing could not be incorporated in 2016 even if permit allowed it
- Data collections by NMFS Observers instead of sea samplers (workload of training/debriefing shifted to NMFS)
- EFP field project manager on all EFP vessels for first EFP trip and troubleshooting

Other Metrics of Interest continued

- Video Monitoring on deck and in factory (commitment of follow-up work on fish handling feedback from NMFS Region)
- NMFS standards for work tables on deck and other improvements for chutes used to move halibut from the trawl alley to observer and then overboard

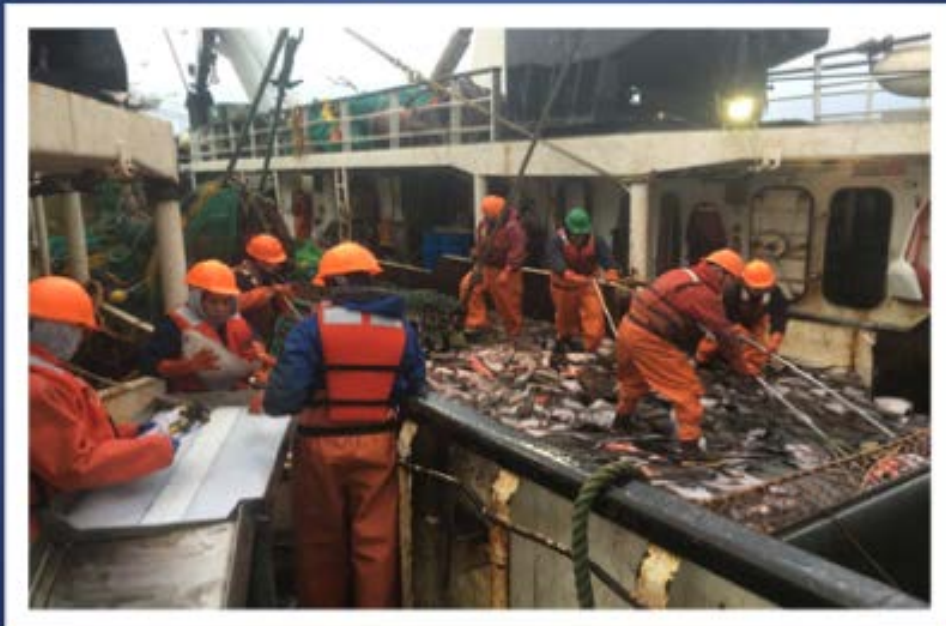
Extensive Chute for Larger Vessel in EFP



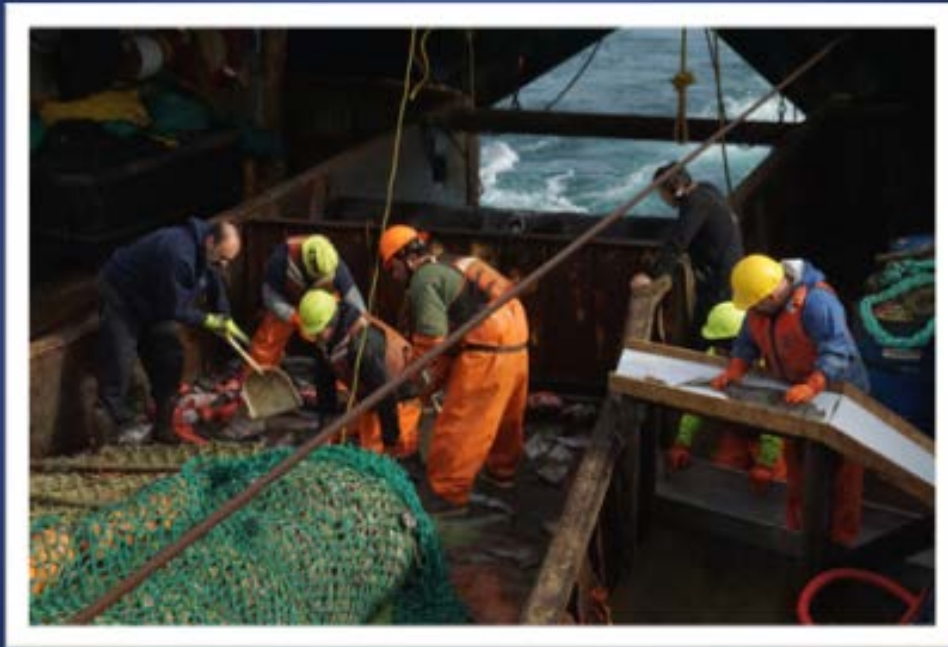
Chute for Medium-Sized Vessel



Chute Designed to Address Specific Vessel Deck Configuration Challenges



Chute Set-Up on Smaller Vessel



Note captain out on deck helping with deck sorting

Other Metrics of Interest

- Three observers working 8 hour deck/other and 4 hour paperwork worked, could be improved
- Daily fish production loss from not being able to run fish over scale during deck sorting problematic for some EFP vessels. Also production loss from redirecting labor to deck sorting even for factories that are not slowed down by deck sorting

Modifications to EFP for 2017



Modifications to Address What Was Learned in 2016

- Options for two, three, or four observers depending on vessel production constraints
- Overlapping 12 hour shifts for boats using three or more provides ability to run fish over scale during deck sorting (details on how to do that)
- Table height requirements, data collection with NMFS data forms
- Add additional participants, new construction boats

Preparations for 2017 EFP

- Several vessels indicating earlier start to DS EFP participation, some in January
- Working with AK Region and FMA to finalize detailed changes to permit
- Concurrent work on implementation of regulatory program

Videos illustrating different aspects of 2016 deck sorting

