

# Interim Report on the Halibut Deck Sorting EFP, October 2017



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# Scope of the Report

- This report covers deck sorting operations from January to mid-September 2017
- Provides performance information from January 20<sup>th</sup> through September 15 2017 as well as comparisons to earlier deck sorting EFPs (some of which had different rules)
- 2017 was the first time deck sorting occurred from the start of the fishing year, earlier EFPs started in mid-May

Many vessels participating, from the relatively small...



...to medium-size...



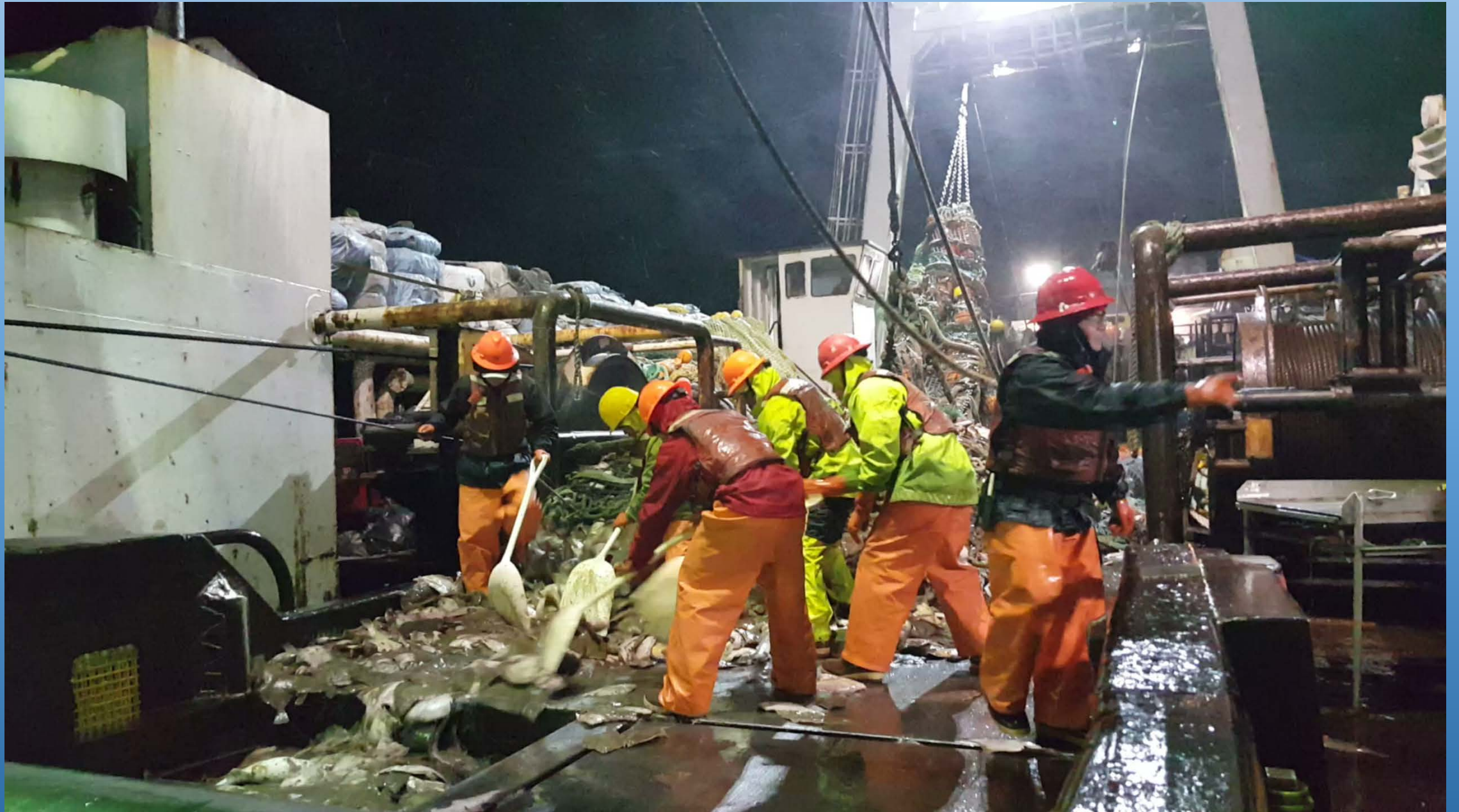
...to the larger ones in the trawl CP sector  
that target flatfish



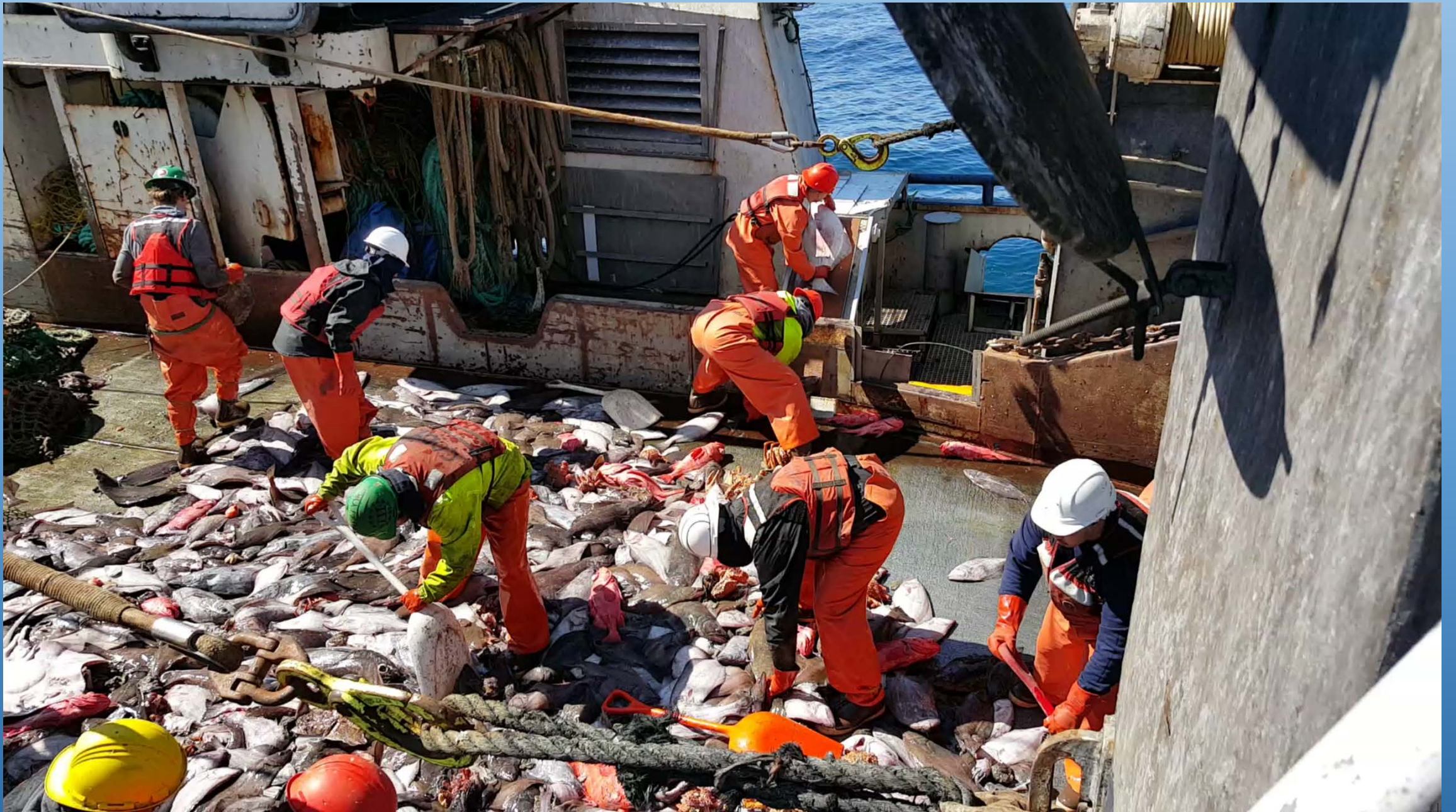
# Refresher on how is deck sorting done











# Rules for 2017 EFP

- Observer must be present on deck whenever deck sorting occurs
- Vessel cannot run fish out of stern tank in factory while deck sorting is occurring unless there are two observers on duty at that time
- 2017 permit allowed participants to select number of observers (2-4) based on their production needs
- Three observers would allow vessel to sort on deck while running fish out of tank for 12 hour window, Taking two observers means that fish could not be run out of tank until deck sorting operations are completed.

# 2017 rules continued

- Observer data collections on deck (one in five fish selected via stratified random sample) determines amount of halibut sorted on deck and its viability
- Observer sampling in factory determines amount of halibut in factory and 90% mortality rate applied for those
- Deck sorting allowed for Amendment 80, CDQ, and Trawl Limited Access deliveries

# 2017 rules continued

- Opt out tow (e.g. rough weather) defaults to factory sampling to account for all halibut on tow and 90% mortality rate applied
- Crew collects all factory halibut post observer sampling and observer weighs factory halibut (for analytical comparisons)
- No deck sorting in GOA. A. 80 boats that switch back and forth needed to brief crew on which rules applied (deck sorting or normal Amendment 80)

# Performance Metrics of Interest

- Increasing EFP participation
  - 9 CP vessels in 2015
  - 12 CP vessels in 2016
  - 17 CP vessels in 2017
- More EFP fishing; this year's EFP began in January with some participants spending the vast majority of their 2017 fishing in the EFP
  - Over 200,000 tons of groundfish harvested in the EFP as of September 15
- Diverse fisheries represented in the EFP; a high percentage of yellowfin sole and other flatfish is now harvested in the EFP, as well as increasing amounts of Pacific Ocean perch and Atka mackerel

# 2017 Deck Sorting Performance

Vessel	Total Catch (MT)	Halibut Catch (Encounter) Rate	EFP Halibut Mortality (MT)†	EFP Mortality Rate	Mortality if not in EFP (MT)‡	Net Savings (MT)
American No 1*	13,867	0.8%	78	68%	97	19
Alaska Spirit*	288	**	**	**	**	**
Arica	14,029	1.0%	80	56%	121	41
Cape Horn	13,274	0.8%	54	48%	94	41
Constellation	16,765	0.5%	49	53%	78	29
Defender	12,381	0.9%	56	51%	93	37
Enterprise*	11,554	1.2%	72	50%	121	50
Katie Ann	8,798	0.6%	29	57%	44	14
Legacy	8,988	1.2%	42	38%	95	53
Northern Glacier	18,552	0.4%	48	63%	65	17
Rebecca Irene	15,561	0.9%	69	49%	118	50
Seafisher	2,450	1.1%	13	46%	24	11
Seafreeze Alaska	18,645	0.7%	67	55%	103	36
Seafreeze America	24,078	0.8%	116	61%	162	46
Unimak	16,395	0.9%	80	52%	132	51
US Intrepid*	8,490	0.7%	34	58%	49	16
Vaerdal*	2,653	0.5%	8	56%	11	4
<b>Total</b>	<b>206,768</b>	<b>0.8%</b>	<b>895</b>	<b>54%</b>	<b>1,409</b>	<b>514</b>

\* new to EFP as of 2017

\*\* insufficient data

† mortality for deck and factory halibut in EFP (using haul-specific and fixed 90% mortality rates, respectively)

‡ mortality using an assumed DMR of 85%

# EFP Performance Across Years

<b>Year</b>	<b>Total Catch (MT)</b>	<b>Halibut Catch (Encounter) Rate</b>	<b>EFP Halibut Mortality (MT)</b>	<b>EFP Mortality Rate</b>	<b>Mortality if not in EFP (MT)</b>	<b>Net Savings (MT)</b>
2015	38,561	1.3%	234	49%	409	176
2016	79,905	0.9%	331	45%	620	290
2017 (to Sep 15)	206,768	0.8%	900	54%	1,418	519
<b>Change from 2016</b>	<b>126,863</b>	<b>-0.1%</b>	<b>569</b>	<b>9%</b>	<b>798</b>	<b>229</b>

# Winter/Spring Compared to Summer

Time Period	Total Catch (MT)	Halibut Catch (Encounter) Rate	EFP Halibut Mortality (MT)	EFP Mortality Rate	Mortality if not in EFP (MT)	Net Savings (MT)
Jan - April	93,341	0.8%	420	58%	616	196
May - September 15	113,426	0.8%	479	51%	802	323



# Other Metrics of Interest

- Halibut bycatch “catch rate” even lower than in 2016
  - 1.3% in 2015
  - 0.9% in 2016
  - 0.8% in 2017
- Excluder use during deck sorting was lower to avoid potential for adversely affecting viabilities (siltation effects on halibut that do not escape)
- Addition of TLAS fishing, with extensive support from NMFS, was a success operationally and logistically
  - Halibut mortality rate for CV deliveries averaged 65%

## Other Metrics of Interest (cont.)

- Focusing on the most viable halibut helped to reduce production loss to some extent but deck sorting still affects production negatively
- Fraction of total halibut catch sorted on deck was ~72%, down some from the 2015 and 2016 figure of ~85%; targeting the most viable halibut and starting EFP in January probably explains this

# Consistency Between Observer Sampling Estimation and Census in Factory

Vessel	Factory Census (MT)	Observer Sampling (MT)	Census Exceeds Estimate?
American No 1	48	56	No
Alaska Spirit	2	3	~ equal
Arica	33	36	No
Cape Horn	22	18	Yes
Constellation	40	31	Yes
Defender	40	31	Yes
Enterprise	28	27	~ equal
Katie Ann	22	20	Yes
Legacy	13	12	~ equal
Northern Glacier	27	30	No
Rebecca Irene	35	35	~ equal
Seafisher	7	6	~ equal
Seafreeze Alaska	29	24	Yes
Seafreeze America	49	64	No
Unimak	42	39	Yes
US Intrepid	22	26	No
Vaerdal	8	5	Yes
<b>Total</b>	<b>469</b>	<b>463</b>	<b>Yes</b>

# Potential Interactions with Whales

- Sightings of killer whales once again were reported intermittently while fishing in arrowtooth flounder target
- Sightings don't always mean predation on released halibut. When whales were present vessels attempted to reduce potential for predation on released halibut (e.g. steaming while deck sorting)
- Arrowtooth flounder comprised about 7% of total catch in EFP through September 15

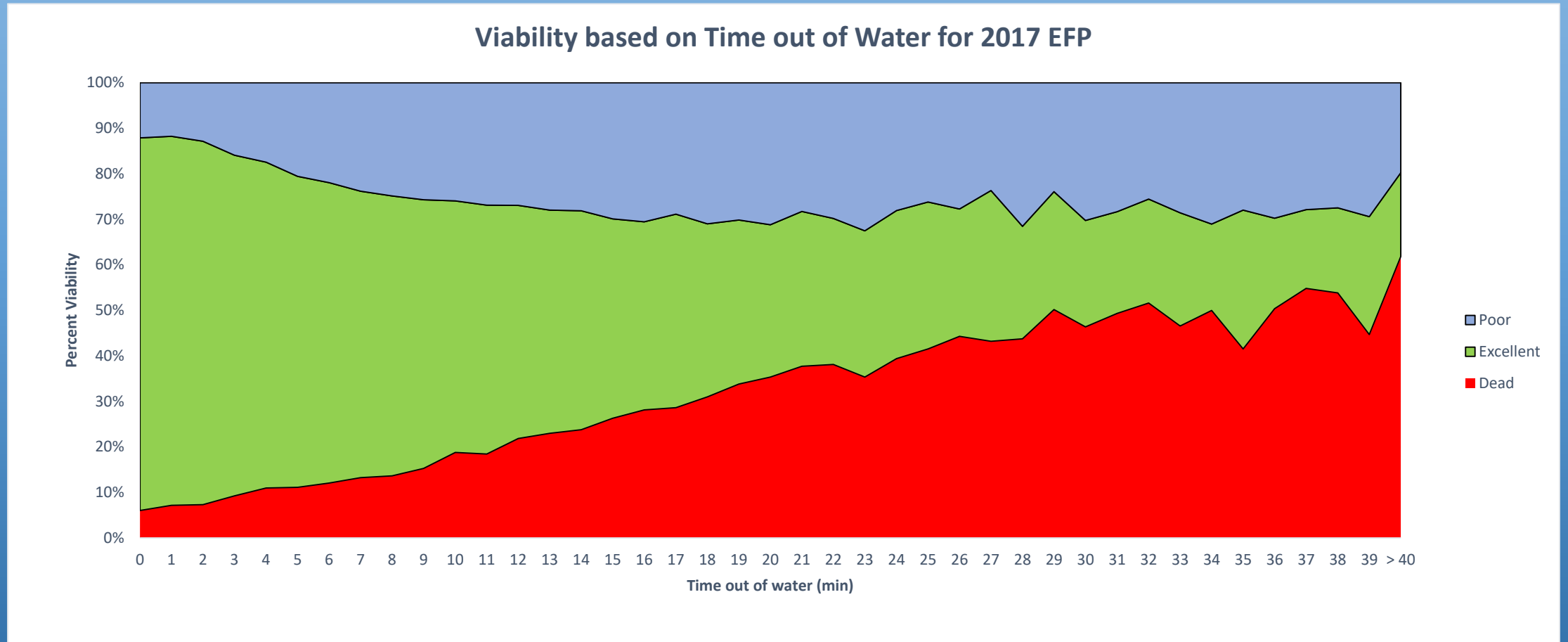
# Elements of 2018-2019 EFP

- No substantive changes to fish handling and other procedures and rules of EFP
- Collecting more data and experience on deck sorting with same protocols and rules a good thing (single year with January 20<sup>th</sup> start to EFP)
- Adding additional vessels planned (e.g. former FCA vessels are interested; possibly Araho)

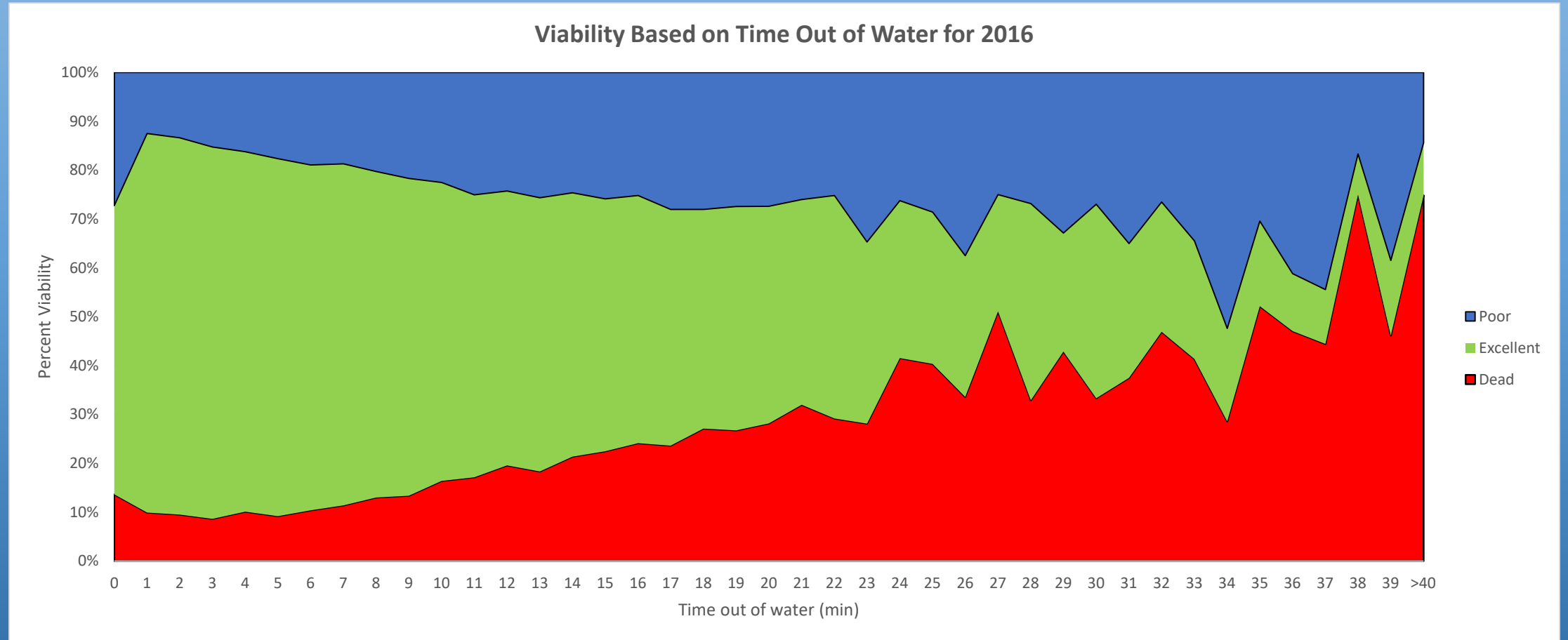
# New Elements of 2018-2019 EFP

- Observer Safety Plans (vessel specific, drafted by captains, approved by NMFS)
- Adding the allowance to do deck sorting in the Gulf of Alaska for vessels meeting all requirements of the EFP in the BS/AI
- Only deck sorting chutes with a single pathway allowed
- Not all boats will be collecting halibut in factory
- Steps to emphasize the objective of reducing halibut mortality

# How time out of water affected viability 2017

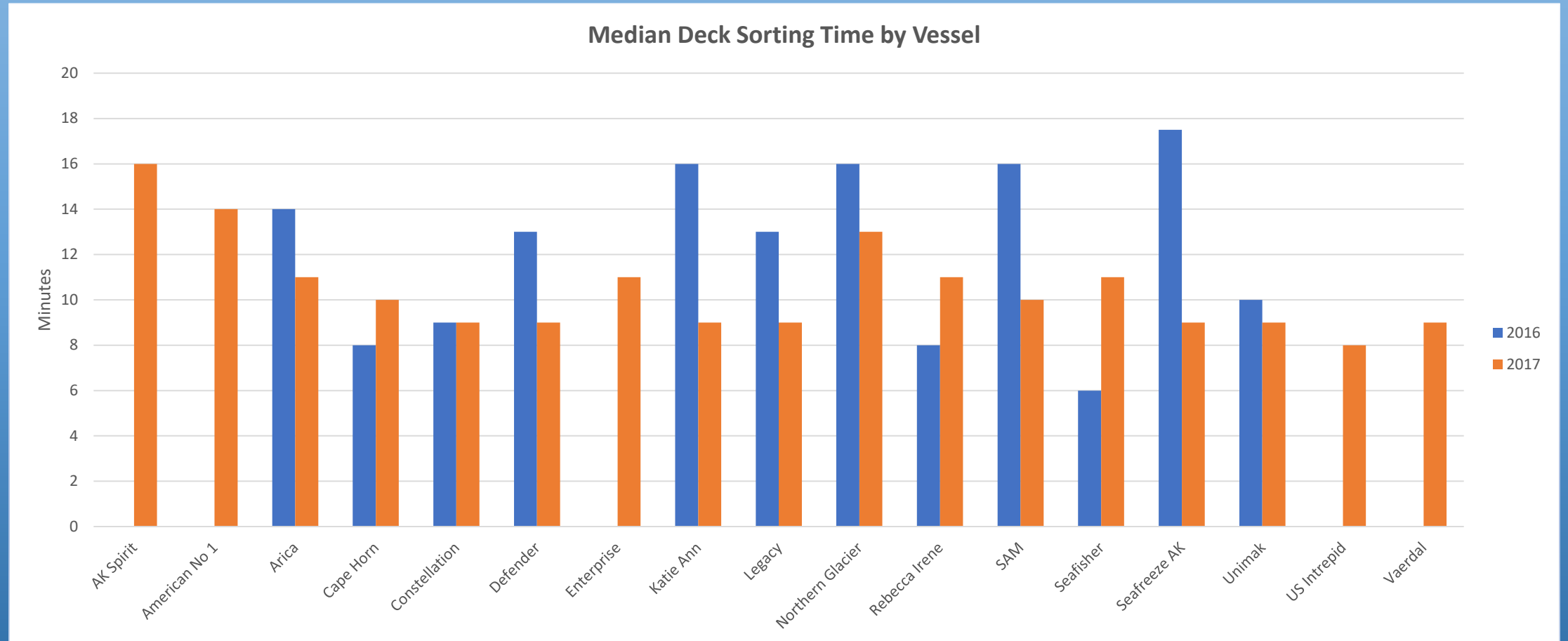


# How time out of water affected viability 2016





# Deck sorting time per tow (median) per vessel



Thank You!

