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IPHC Regulatory Area 2A Directed Commercial Pacific Halibut Fishery Sample Vessel Fishing Period Limit Options for Longer Fishing Periods

Purpose

This paper provides input from the International Pacific Halibut Commission (IPHC) for the discussion of Pacific halibut fishery management in IPHC Regulatory Area 2A. Specifically, the Pacific Fishery Management Council (PFMC) requested information on how vessel fishing period limits might change with longer fishing periods for Pacific halibut.

Background

The IPHC submitted a letter to the PFMC recommending a move away from derby-style management for the directed commercial Pacific halibut fishery in IPHC's Regulatory Area 2A (Agenda Item G.1.a, Supplemental IPHC Letter 2, June 2017). The IPHC noted concerns over safety and discards, as well as limitations on fishers and processor flexibility. At the PFMC's June 2017 meeting, the PFMC reviewed the IPHC's letter and heard further input from the PFMC's Groundfish Advisory Subpanel (GAP) regarding possible alternatives to the commercial derby fishery (Agenda Item G.1.b, Supplemental GAP Report, June 2017). In response, the PFMC informally asked the IPHC to provide examples of vessel fishing period limits for longer fishing periods.

Current Management of the Directed Commercial Fishery

In the management of the Pacific halibut fishery, the IPHC sets the overall catch limit for IPHC Regulatory Area 2A and then endorses the PFMC's Pacific Halibut Catch Sharing Plan, which further allocates the IPHC Regulatory Area 2A catch limit among user groups, including the directed commercial fishery (<u>Agenda Item G.1</u>, <u>Attachment 1</u>, <u>June 2017</u>). The National Marine Fisheries Service (NMFS) then implements the resulting catch limits by user groups in domestic regulations, which may be more restrictive than IPHC regulations. All agencies work closely together to facilitate each step of the annual process.

For the non-Indian directed commercial Pacific halibut fishery in IPHC Regulatory Area 2A, the IPHC is responsible for issuing licenses and setting the fishing periods and individual vessel fishing period limits. The IPHC sets the directed commercial fishery fishing periods and fishing period limits to match the Catch Sharing Plan allocation for this sector.

Licenses

The IPHC issues licenses to participate in Pacific halibut fisheries in IPHC Regulatory Area 2A, as specified in IPHC Regulation Section 4 (Licensing Vessels for Area 2A), including:

- the directed commercial fishery,
- retention of Pacific halibut incidental to the sablefish fishery,
- · retention of Pacific halibut incidental to the salmon troll fishery, and
- · sport charter fisheries.

These are annual licenses, for which an application must be submitted to the IPHC each year by the specified deadline. There is no set maximum number of licenses allowed, and the number of licenses issued from year to year may vary. If a vessel chooses to participate in the sport charter fishery or to retain Pacific halibut incidental to the salmon troll fishery, it may not participate in any other Pacific halibut fisheries in IPHC Regulatory Area 2A. However, vessels may apply for two separate licenses to participate in both the directed commercial fishery and the Pacific halibut fishery incidental to the sablefish fishery. Not all vessels issued a license for a given year actually participate in the Pacific halibut fishery.

Commercial Pacific halibut licenses specify the vessel's length class, which ranges from A to H, with A being the smallest vessels (25 ft and under) and H being the largest (56 ft and over).

Table 1 provides a summary of commercial Pacific halibut licenses issued by IPHC each year between 2012 and 2017, along with how many vessels actually participated in the Pacific halibut fishery that year. About half of the vessels issued licenses to participate in the directed commercial fishery actually fished. The number of licenses issued for the directed commercial range from a low of 143 in 2013 to a high of 208 in 2017. The greatest number of vessels that actually participated in the directed commercial derby was 97 in 2012.

Table 1. Number of vessels issued an IPHC commercial Pacific halibut license and percent fished in IPHC Regulatory Area 2A between 2012 and 2017 by commercial license type. Data on the 2017 licenses fished are not yet available.

2A LICENSES (2012	2013	2014	2015	2016	2017	
Total	Issued	175	143	162	144	169	208
commercial	Fished	97	68	71	77	93	
derby	% fished	55%	48%	44%	53%	55%	
Directed	Issued	156	123	138	129	159	192
commercial	Fished	81	55	54	65	85	
	% fished	52%	45%	39%	50%	53%	
Licensed for	Issued	19	20	24	15	10	16
both directed and incidental	Fished	16	13	17	12	8	
to sablefish	% fished	84%	65%	71%	80%	80%	
Incidental to sablefish	Issued	2	6	5	7	8	8
	Fished	1	6	3	6	6	
	% fished	50%	100%	60%	86%	75%	
Incidental to salmon	Issued	311	333	424	364	310	222
	Fished	104	101	181	151	128	
	% fished	33%	30%	43%	41%	41%	
Total commercial	Issued	488	482	591	515	487	438
	Fished	202	175	255	234	227	
	% fished	41%	36%	43%	45%	47%	

Fishing Periods

The IPHC sets the fishing period dates as a series of potential 10-hour (0800-1800 hours local time) fishing periods specified in IPHC Regulation Section 8 (Fishing Periods), paragraph (2). In recent years, the potential fishing period dates have been on Wednesdays in late June and early July. The fishing period dates are decided each year through the IPHC's Annual Meeting process. Table 2 shows the potential dates for the commercial fishery between 2012 and 2017, along with the total number of days the fishery was open. From 2012 to 2015, the commercial fishery was open for two 10-hour fishing periods; in 2016 and 2017, there were three.

Table 2. Potential directed commercial Pacific halibut fishing period dates for IPHC Regulatory Area 2A between 2012 and 2017 and total number of days open.

FISHING PERIODS	2012	2013	2014	2015	2016	2017
Total open days	2	2	2	2	3	3
Potential open days (bold	27 Jun	26 Jun	25 Jun	24 Jun	22 Jun	28 Jun
dates were open)	11 Jul	10 Jul	9 Jul	8 Jul	6 Jul	12 Jul
	25 Jul	24 Jul	23 Jul	22 Jul	20 Jul	26 Jul
	8 Aug	7 Aug	6 Aug	5 Aug	3 Aug	9 Aug
	22 Aug	21 Aug	20 Aug	19 Aug	17 Aug	23 Aug
	5 Sep	4 Sep	3 Sep	2 Sep	31 Aug	6 Sep
	19 Sep	18 Sep	17 Sep	16 Sep	14 Sep	20 Sep
					28 Sep	

Vessel Fishing Period Limits

Along with announcing open dates for the directed commercial fishery, the IPHC announces what the per-vessel catch limits will be by vessel class in accordance with IPHC Regulation Section 12 (Fishing Period Limits). IPHC determines the fishing period limits before each 10-hour fishing period opens, based on the number of vessels in each length class, the average performance of vessels in that length class, and the amount of catch allocated to (or remaining for) the directed commercial fishery for that year. The IPHC vessel length classes range from A to H, with A being the smallest vessels (25 ft and under) and H being the longest (56 ft and over). The IPHC first set limits by vessel class size to address the concern that having a single limit would disadvantage larger vessels while smaller vessels would be unaffected. The IPHC adopted the relative vessel size limits at its Annual Meeting in 1988.

In recent years the IPHC has set fishing period limits for the first 10-hour fishing period of the year that range from 9,000 lbs (4.08 mt)(net weight¹) for the H-class vessels down to a limit of 755 lbs (0.34 mt) for the smallest A-class vessels. After each open fishing period, IPHC reviews available fish tickets and contacts processors and state biologists to estimate the Pacific halibut landings by vessel. This landings and participation information is used to determine how much of the directed commercial fishery allocation remains, whether there can be another open fishing period, and what the fishing period limits should be for the next open fishing period.

In addition to the fact that not all vessels with licenses traditionally participate in the open derby fishing periods, most vessels also do not come close to their full vessel limit during a fishing period. On average among all vessel size classes in 2016 and 2017, vessels caught from 20 to

¹ "Net weight" is defined in IPHC Regulation 3 as the weight without gills and entrails, head-off, washed, and without ice and slime. All weights in this paper are expressed in terms of "net weight."

40 percent of the fishing period limit for their vessel size class. In general, only a handful of vessels come close to or achieve their full vessel limit during a fishing period.

Table 3 provides the vessel length overall and the corresponding vessel class, along with the fishing period limits for each open fishing period from 2012 through 2017. Table 3 also provides the estimated landings by open fishing period compared to the overall directed fishery catch limit for that year.

Table 3. Vessel limits by vessel class and estimated landings (lbs, net weight) by open fishing period for IPHC Regulatory Area 2A between 2012 and 2017. Note: 2017 landing estimates are preliminary.

Vesso	el Class	Fishing Period & Limits (lb, net weight)								
		27 Jun	11 J		26 Jun	10 Jul	25 J		9 Jul	
feet	letter		2012 2012 2013 2013 2014 755 200 755 250 755			2014				
1-25	A			200	755	250		755	200	
26-30	В	94			945	315		945	210	
31-35	С	1,51		250		1,510 505		1,510	335	
36-40	D	4,16		695	4,165	-	1,390		925	
41-45	E	4,48	0	745	4,480	1,495	4	4,480	995	
46-50	F	5,36	5	895	5,365 1,7		!	5,365	1,190	
51-55	G	5,98	5 1	,000	5,985	1,995	!	5,985	1,330	
56+	Н	9,00	0 1	,500	9,000	3,000		9,000	2,000	
estim	nated landings	150,00	0 29	,000	118,000	54,000	133	3,000	30,000	
total estim	ated landings		179	,000		172,000			163,000	
	catch limit		173	3,216		173,390			168,137	
	difference		-5	5,784		1,390			5,137	
Vess	el Class	Fishing Period & Limits (lb, net weight)								
		24 Jun	8 Jul	22 Jun			28 Jun	12 Jul	26 Jul	
feet	letter	2015	2015	2016	2016	2016	2017	2017	2017	
1-25	Α	755	505	755	755		755	755	590	
26-30	В	945	630	945	945	265	945	945	735	
31-35	С	1,510	1,010	1,510	1,510	420	1,510	1,510	1,175	
36-40	D	4,165	2,780	4,165	4,165	1,160	4,165	4,165	3,240	
41-45	E	4,480	2,990	4,480	4,480	1,245	4,480	4,480	3,485	
46-50	F	5,365	3,575	5,365	5,365	1,490	5,365	5,365	4,170	
51-55	G	5,985	3,990	5,985	5,985	1,665	5,985	5,985	4,655	
56+	Н	9,000	6,000	9,000	9,000	2,500	9,000	9,000	7,000	
estim	estimated landings		75,000	89,800	83,200	25,000	83,000	77,500	69,500	
total estim	total estimated landings		180,000			198,000			230,000	
	catch limit		164,529			193,364			225,591	
difference			-15,471			-4,636			-4,409	

Fishing Period Options under Discussion

In response to the PFMC's informal request, the IPHC details below information regarding examples of fishing period limits for the directed commercial Pacific halibut fishery for the 3 requested fishing period durations of 1 week, 20 days, or 30 days, compared to the current 10-hour derby-style fishing periods. These examples are built using the 2017 allocation and 2017 license numbers as the most recent year with complete information. **NOTE**: THE IPHC DOES NOT RECOMMEND OR ENDORSE ANY OF THE 3 OPTIONS DETAILED BELOW.

While only about half of the licenses issued have actually participated in open derby-style fishing periods since 2012 (Table 1) and most vessels only catch between 20 and 40 percent of their fishing period limit, the IPHC assumes for this analysis that more licensed vessels would likely participate and that more vessels would catch their limits during a longer fishing period.

Using 2017 numbers, these examples assume 208 licensed vessels would participate, and that each vessel's fishing period limit could be fished at any time during the fishing period. The fishing period limits are based on the 2017 non-treaty directed commercial fishery catch limit of 225,591 lbs (102.33 mt) (net weight). These options assume that IPHC Regulations would allow vessels to also fish for other species while fishing for Pacific halibut, subject to the U.S. domestic regulations and license requirements for those species.

Option 1 – 1-week fishing period

Option 1 assigns a 1-week fishing period limit by vessel size class. At any time during the 7-consecutive-day fishing period announced by the IPHC, vessels could retain the amount of Pacific halibut associated with their vessel size class.

The IPHC, working with the state agencies and NMFS, would manage the fishery in season, similar to the current derby fishery. If enough allocation remained after the first 1-week fishing period, the IPHC would reopen the fishery for another 1-week period. Any subsequent 1-week fishing periods would likely be two to three weeks after the preceding 1-week fishing period to allow time to gather and review the Pacific halibut landings data and vessel participation.

The IPHC provides several examples of fishing period limits using the 2017 allocation (Table 4). Note that these example fishing period limits are provided only for purpose of discussion.

For comparison with these examples of fishing period limits, Table 4 also lists the recent historical (or status quo) series of fishing period limits based on the 9,000-lb (4.08 mt) (net weight) limit for the H-class vessels used in the current 10-hour fishing periods, with the smaller vessel classes scaled accordingly. This option would not be chosen for a longer fishing period because it is projected to exceed the allocation. Other potential H-class fishing period limits range from 2,000 to 6,000 lbs (0.91 to 2.72 mt) (net weight). The bottom of Table 4 shows three scenarios: 1) the estimated landings if all of the licensed vessels participate and land their full limits, 2) if half of the licensed vessels participate and land their full limits, and 3) if half of the vessels participate and land half of their limits. The third scenario is estimated to be unlikely to occur, given the longer fishing period. The level of participation and attainment of individual vessel limits will more likely fall somewhere between the first and third scenarios. As the season is extended longer in subsequent options, from 1 week to 20 days or 30 days, the IPHC expects there to be a higher likelihood of more licensed vessels participating and landing a higher percentage of their fishing period limits.

Under Option 1, using the 2017 allocation of 225,591 lbs (102.33 mt) (net weight), the IPHC would likely choose fishing period limits based on an H-class limit of 4,000 to 6,000 lbs (1.81 to 2.72 mt) (net weight) for the first 1-week fishing period. This is based on attainment of the H-class fishing period limit when it was 9,000 lbs (4.08 mt) by the vessels in this size class (2012-16). In these years, approximately 40 percent of these vessels attained the trip limit with 60 percent landing 6,000 lbs (2.72 mt) or more, and 90 percent landing 4,000 lbs (1.81 mt) or more.

Table 4. Vessel limits options by vessel class and estimated landings (lb, net weight) for IPHC Regulatory Area 2A using 2017 allocation and licenses.

2017 allocation (lb, net weight)

225,591

Vessel Class vessel		2017	status quo		6,000 vessel limit		4,000 vessel limit		2,000 vessel limit		
feet	letter	limit ratio	# Lic (208 total)	vessel limit	est. landings	vessel limit	est. landings	vessel limit	est. landings	vessel limit	est. landings
1-25	Α	0.084	15	755	11,325	505	7,575	335	5,025	200	3,000
26-30	В	0.105	11	945	10,395	630	6,930	420	4,620	210	2,310
31-35	С	0.168	19	1,510	28,690	1,010	19,190	670	12,730	335	6,365
36-40	D	0.463	39	4,165	162,435	2,780	108,420	1,850	72,150	925	36,075
41-45	Е	0.498	43	4,480	192,640	2,990	128,570	1,990	85,570	995	42,785
46-50	F	0.596	36	5,365	193,140	3,575	128,700	2,385	85,860	1,190	42,840
51-55	G	0.665	14	5,985	83,790	3,990	55,860	2,660	37,240	1,330	18,620
56+	Н	1	31	9,000	279,000	6,000	186,000	4,000	124,000	2,000	62,000
If 100	If 100% of licenses participate & land 100% of vessel limit			961,415		641,245		427,195		213,995	
If 50	If 50% of licenses participate & land 100% of vessel limit			480,708		320,623		213,598		106,998	
If 5	If 50% of licenses participate & land 50% of vessel limit			240,354		160,311		106,799		53,499	

Option 2 - 20-day fishing period

Option 2 assigns a 20-day fishing period limit by vessel size class. At any time during the 20-consecutive-day fishing period announced by the IPHC, vessels could retain the amount of Pacific halibut associated with their vessel size class.

The IPHC, working with the state agencies and NMFS, would manage the fishery in season, similar to the current derby fishery. If enough allocation remained after the first 20-day fishing period, the IPHC would reopen the fishery for another 20-day period. A sub-option could allow subsequent fishing periods of less than 20 days but not shorter than one week. Any subsequent fishing periods would likely start at least 10 days after the preceding fishing period to allow enough time to gather and review the Pacific halibut landings data and vessel participation.

The IPHC provides several examples of fishing period limits using the 2017 allocation (Table 4). Note that these example fishing period limits are provided only for purpose of discussion.

For comparison with these examples of fishing period limits, Table 4 also lists the recent historical (or status quo) series of fishing period limits based on the 9,000-lb (4.08 mt) (net weight) limit for the H-class vessels used in the current 10-hour fishing periods, with the smaller vessel classes scaled accordingly. This option would not be chosen for a longer fishing period because it is projected to exceed the allocation. Other potential H-class fishing period limits range from 2,000 to 6,000 lbs (0.91 to 2.72 mt) (net weight). The bottom of Table 4 shows three scenarios: 1) the estimated landings if all of the licensed vessels participate and land their full limits, 2) if half of the licensed vessels participate and land their full limits, and 3) if half of the vessels participate and land half of their limits. The third scenario is estimated to be unlikely to occur, given the longer fishing period. The level of participation and attainment of individual vessel limits will more likely fall somewhere between the first and third scenarios. As the season is extended, the IPHC expects there to be a higher likelihood of more licensed vessels participating and landing a higher percentage of their fishing period limits.

Under Option 2, using the 2017 allocation of 225,591 lbs (102.33 mt) (net weight), the IPHC would likely choose fishing period limits based on an H-class limit of 2,000 to 4,000 lbs (0.91 to 1.81 mt) (net weight) for the first 20-day fishing period. With a 20-day fishery, as opposed to a 1-week fishery, IPHC would have to be more conservative in setting the vessel limit because with more time to fish, more vessels would likely participate and would more likely catch their vessel limit.

Option 3 – 30-day fishing period

Option 3 assigns a 30-day fishing period limit by vessel size class. At any time during the 30-consecutive-day fishing period announced by the IPHC, vessels could retain the amount of Pacific halibut associated with their vessel size class.

The IPHC, working with the state agencies and NMFS, would manage the fishery in season, similar to the current derby fishery. If enough allocation remained after the first 30-day fishing period, the IPHC would reopen the fishery for another 30-day period. A sub-option could allow subsequent fishing periods of less than 30 days but not shorter than one week. Any subsequent fishing periods would likely start at least 10 days after the preceding fishing period to allow enough time to gather and review the Pacific halibut landings data and vessel participation.

The IPHC provides several examples of fishing period limits using the 2017 allocation (Table 4). Note that these example fishing period limits are provided only for purpose of discussion.

For comparison with these examples of fishing period limits, Table 4 also lists the recent historical (or status quo) series of fishing period limits based on the 9,000-lb (4.08 mt) (net weight) limit for the H-class vessels used in the current 10-hour fishing periods, with the smaller vessel classes scaled accordingly. This option would not be chosen for a longer fishing period because it is projected to exceed the allocation. Other potential H-class fishing period limits range from 2,000 to 6,000 lbs (0.91 to 2.72 mt) (net weight). The bottom of Table 4 shows three scenarios: 1) the estimated landings if all of the licensed vessels participate and land their full limits, 2) if half of the licensed vessels participate and land their full limits, and 3) if half of the vessels participate and land half of their limits. The third scenario is estimated to be unlikely to occur, given the longer fishing period. The level of participation and attainment of individual vessel limits will more likely fall somewhere between the first and third scenarios. As the season is extended, the IPHC expects there to be a higher likelihood of more licensed vessels participating and landing a higher percentage of their fishing period limits.

Under Option 3, using the 2017 allocation of 225,591 lbs (102.33 mt) (net weight), the IPHC would likely choose fishing period limits based on an H-class limit of 2,000 lbs (0.91 mt) (net weight) for the first 30-day fishing period. With a 30-day fishery, as opposed to a 1-week or 20-day fishery, IPHC would have to be more conservative in setting the vessel limit because with more time to fish, more vessels would likely participate and would more likely catch their vessel limit.

Other Considerations for Longer Fishing Periods

The IPHC expects the overall attainment of the directed commercial fishery allocation would be approximately the same with longer fishing periods, with the management target of attaining but not exceeding the allocation. There might be some shift in the spatial distribution of fishing with an extended fishing period as fishers have more time to explore fishing grounds without the pressure of a short deadline to catch their vessel fishing period limits.

For the IPHC, longer fishing periods would require revisions to the biological sampling program that provides age, length, and weight data for the annual Pacific halibut stock assessment. Historically, the IPHC has focused biological sampling effort around the first two or three 10-hour open fishing periods, in the port where the highest number of pounds are landed. In 2017, in response to changes in landing patterns, the IPHC increased this effort and collected biological samples in three separate ports over the three open fishing periods. With longer fishing periods, the landings would likely be spread over a longer period of time and the individual landings may be smaller. Therefore, in order to obtain the necessary biological data for the Pacific halibut stock assessment, the IPHC would likely need to staff more ports for a greater length of time or coordinate with state agencies to obtain biological samples.

Conclusions

As noted in the discussion of the suggested options above, the IPHC expects that fishing period limits for individual vessels would be lower with longer fishing periods under the current

management system in place for the directed commercial Pacific halibut fishery in IPHC Regulatory Area 2A.

The IPHC noted in its letter to the PFMC (<u>Agenda Item G.1.a</u>, <u>Supplemental IPHC Letter 2</u>, <u>June 2017</u>) that it sees no compelling reason to maintain the directed commercial Pacific halibut fishery in IPHC Regulatory Area 2A as a derby-style fishery, and that there may be a number of advantages in shifting to a management system that reduces the concentration of fishing effort and eliminates or reduces the race to fish.

The primary potential advantage of longer fishing periods is improved safety as fishers experience less pressure to fish in poor weather or dangerous conditions. The IPHC believes that this is the strongest rationale for change, and this position has been supported by the U.S. Coast Guard. Other potential advantages include reduced Pacific halibut mortality from regulatory discards and increased flexibility for fishers and processors as they manage their industry sector.

The IPHC desires to understand the views of those affected by longer fishing periods and reduced fishing period limits in IPHC Regulatory Area 2A before making any such changes, and appreciates the opportunity to discuss possible changes with the PFMC, its advisory bodies, and the relevant state and federal agencies. The IPHC also welcomes other suggestions or recommendations to improve the management of the directed commercial Pacific halibut fishery in IPHC Regulatory Area 2A.