



August 11, 2018

Dr. Rebecca Lent, Executive Secretary
International Whaling Commission
The Red House
135 Station Road
Impington, Cambridge
CB24 9NP, UK

Re: Comments on the Proposal for a Schedule Amendment on Aboriginal Subsistence Whaling (IWC/67/01) and other related documents

Dear Dr. Lent:

On behalf of the Animal Welfare Institute (AWI) and Whale and Dolphin Conservation (WDC), I submit the following comments in response to IWC.CCG.1321. This notification, dated July 27, 2018, solicited comments on Aboriginal Subsistence Whaling (ASW) catch/strike limit requests found in the Proposal for A Schedule Amendment on Aboriginal Subsistence Whaling (IWC/67/01). AWI and WDC appreciate the opportunity to provide these comments for review and consideration by the Contracting Governments (i.e., Denmark/Greenland, the Russian Federation, St. Vincent and the Grenadines, and the United States) to the International Whaling Commission (IWC) whose nationals conduct ASW and look forward to participating in further discussions about these important issues at IWC67 in Florianopolis, Brazil.

This letter includes comments on IWC/67/01 (agenda item 6.1), a proposal for a Schedule amendment on ASW and, as appropriate, on additional ASW documents including the descriptions of the hunts, ASW catch/strike limit request, and needs statements. In evaluating IWC/67/01, with the exception of the inclusion of some general comments, the comments below follow the order of the different components of that Schedule amendment as they occur in the document (i.e., carryover provisions, one-time 7 year extension, limited automatic renewal, technical amendments to Schedule paragraphs 5 and 15(b), increased strike limit for common minke whales off of East Greenland, increased strike limit for Eastern North Pacific gray whales, and technical adjustments to Schedule paragraph 13(a). This is followed by an

examination of the proposed revisions to the ASW stock-specific text in Schedule paragraph 13(b).

IWC/67/01:

As a general matter, AWI and WDC strongly oppose the bundling of all ASW proposals into a single document. This structure is not required by the International Convention for the Regulation of Whaling (ICRW) or the IWC Schedule, and is not a practice with a long history within the IWC, other than where stocks are shared. Instead, by bundling these proposals, it results in reduced transparency, hinders the careful scrutiny of each individual ASW hunt, and minimizes the debate over the more controversial elements contained in the document.

While AWI and WDC would prefer that each ASW hunt be subject to a separate decisions by the IWC at a minimum the document should be separated into stock specific catch/strike limit requests (e.g., Eastern North Pacific gray whales, West Greenland fin whales, Bering-Chukchi-Beaufort Sea bowhead whales) while the other substantive proposed changes to the overall management of ASW (e.g., carryover provisions, automatic ASW renewal, technical amendments, and the one-time 7-year block quota) are considered together in a single proposal. AWI and WDC request that the proponents of IWC/67/01 consider separating the document as suggested here or that other Contracting Government move to separate the stock specific catch/strike limit requests from each other and the rest of the proposal.

In addition, AWI and WDC strongly encourage Contracting Governments to the IWC, including the ASW countries, to consider standardizing the stock specific catch/strike limit paragraphs in Schedule paragraph 13(b). The current set of paragraphs in 13(b) contains text that has been revised and amended multiple times resulting in stock-specific text that is far from consistent in terms of content and language. While the proposals to amend the text of these paragraphs included in IWC/67/01 may represent an incremental step toward improving the coherence of the text (e.g., by including strike limits in each sub-paragraph) it would not be difficult and should not be controversial to further this effort to rationalize the text in Schedule paragraph 13(b) (perhaps with the exception of the text for St. Vincent and the Grenadines).

While AWI and WDC recognize that there are differences between the various ASW hunts (i.e., in terms of the species involved, how the whales are hunted, how the whale products are used), Schedule language authorizing the hunts should be concise, clear, and consistent.

Carryover Provisions:

IWC/67/01 proposes to significantly alter the carryover provisions for most of the ASW hunts. For two hunts (bowhead and West Greenland humpback), the proposal is to permit the carryover of unused strikes from three prior quota blocks while for the other hunts (with the

exception of St. Vincent and the Grenadines) the proposed carryover provisions would apply either to only a single prior quota block or the time period is not defined. AWI and WDC have serious concerns about this proposal, particularly in regard to how providing additional strikes (including for some hunts dozens of additional strikes annually) may affect welfare considerations relevant to each hunt. Specific concerns about the carryover provisions of each hunt are articulated in the discussion of each ASW hunt below.

One time seven year extension through 2025:

AWI and WDC recognize the reason why the ASW countries have proposed this one-time change to the standard six-year quota block -- which is to provide a buffer year between future votes on ASW catch/strike limit requests and the expiration of ASW quotas – but believe that the benefits are outweighed by the risk of the IWC needing to conduct a special meeting prior to the expiration of the affected quotas. Such special meetings have high cost implications for Contracting Governments and, as evidenced by the special Commission meeting held in St. Petersburg, Florida in 2008, may not generate enough attendance by Contracting Governments to be quorate.

An alternate proposal, as suggested by AWI at the ASW Working Group meeting in Utqiagvik, Alaska in April 2018, is to retain the six-year quota blocks but encourage ASW countries to seek approval of their catch/strike limit requests in year four (which would be, for example, 2022 in the next quota block). If the catch/strike limit request is approved in 2022 it wouldn't take effect until 2025 but, if one or more ASW country catch/strike limit requests were rejected in 2022 there would be another regularly scheduled biennial meeting (in 2024) to try to secure approval for the request.

This alternative could be implemented without any changes to the Schedule as, at present, an ASW country can seek a change to or request approval of a new catch/strike limit request at any biennial meeting of the IWC. Furthermore, the suggestion that approving ASW catch/strike limit requests in year four of a six-year block would adversely impact the ability of the IWC Scientific Committee to provide advice on the ASW hunts due to concerns about the availability of relevant stock-specific strike limit algorithms (SLAs) is not relevant since all of the SLAs for ASW stocks are either done or will be completed before 2022 and since the IWC's Scientific Committee already routinely evaluates ASW hunts either on an annual basis or when requested.

Limited Automatic Renewals:

This is the most controversial element of IWC/67/01 as it proposes a change in the oversight of ASW by the IWC which is not consistent with the ICRW, violates the existing Rules of Procedure

for the IWC and would set a terrible precedent for the future management of commercial whaling.

This proposal seeks to establish a system by which, if specific criteria are met, an existing ASW catch/strike limit request would be automatically renewed without any affirmative action taken by the IWC. The criteria that would have to be met would include, for example, no change in catch/strike limits, IWC Scientific Committee advice that the status quo catch/strike limits would not harm the stock, ongoing IWC Scientific Committee review of the catch/strike limits including the regular conduct of implementation reviews, and that ASW countries would continue to follow any approved timelines and would provide all of the relevant information that they do now. Notably, of these criteria the last one (the continued submission of all relevant information) is not particularly clear as to which relevant information it refers and, therefore, additional clarification of that issue would be welcome.

More broadly, this proposal to authorize the automatic renewal of ASW catch/strike limit requests without an affirmative decision or action taken by the IWC is inconsistent with provisions in the ICRW for adopting Schedule amendments. Specifically, provision V.1 states:

“the Commission may amend from time to time the provisions of the Schedule by adopting regulations with respect to the conservation and utilization of whale resources, fixing ... (e) time, methods, and intensity of whaling (including the maximum catch of whales to be taken in any one season)...” .

Clearly, this provision requires that the IWC take an affirmative action to amend the Schedule. Establishing an automatic renewal options for ASW catch/strike limit requests does not meet that standards and, therefore, this proposal cannot proceed given the terms of the ICRW. If this automatic renewal provision were approved it also could establish a dangerous precedent if, for example, the IWC ever elected to re-authorize commercial whaling if those countries engaged in commercial whaling sought to create the same automatic renewal option for their hunts.

In addition, this proposal runs counter to Rule of Procedure E3b. This rule states that:

(b) Action in pursuance of Article V shall contain the text of the regulations proposed to amend the Schedule... A proposal that does not contain such regulatory text to revise the Schedule but would commit the Commission to amend the Schedule in the future can neither be put to a vote nor adopted.

Here, the proposal does not contain text establishing the ASW catch/strike limits for the 2026 to 2031 ASW quota block but it commits the IWC to amend the Schedule in the future. Consequently, this proposal cannot be put to a vote at IWC67.

In addition, even if the Contracting Governments to the IWC are willing to disregard the procedural issues (discussed above) that should prevent this automatic renewal proposal from being adopted, it requires further clarification or specificity particularly in regard to the circumstances where automatic renewal would not be permitted.

The current proposal indicates that automatic renewal would not be permitted if: (1) there is a requested change in the catch/strike limit based on need; (2) the Scientific Committee is unable to advise that the status quo catch/strike limits will not harm the stock; or (3) the ASW countries do not follow an approved timeline for review of catch/strike limits or do not report relevant information on the hunts such that the Commission and its Scientific Committee were unable to evaluate the status quo continuation of the hunt. As previously noted this last provision is not clear or well-articulated and, therefore, Contracting Government's would be well advised to establish specific instructions on what information ASW governments would have to submit to verify that the status quo remains in place to avoid any future disagreements.

For example, while an ASW country may believe the criteria for an automatic renewal is met because it is retaining the same catch/strike limit request, this does not take into consider other factors that may be relevant to the hunt. Such factors could include a change in environmental conditions that adversely impacts the stock, or positively affects another food source, a change in food consumption patterns among native communities, or disease issues that may be harming the stock. These changes may justify reducing a strike/catch limit but if not brought to the attention of the IWC because of the availability of an automatic renewal provision then such changes will not be subject to consideration by the IWC. The reality is that, if an automatic renewal process is approved, catch/strike limit requests will either remain the same or, over time, increase but they likely would never decrease even if other circumstances warrant such a change.

Finally, even if the proponents of this proposal could overcome these obstacles and obtain approval for this automatic renewal process, it could not be applicable until the quota block beginning in 2032 since, in 2024 the ASW countries would have to amend the currently proposed catch/strike limit requests to revert back to a six-year quota block. Since this would involve a change in catch/strike limits, one of the fundamental criteria underlying this proposal could not be met.

Minor technical amendments to Schedule paragraphs 5 and 15b:

In regard to paragraph 5, Greenland proposed to amend the text that limits the duration of its minke whale hunts in East and West Greenland to nine months so that minke whales can be hunted year round. A significant concern with this proposal is in regard to its impact on female whales particularly given the significant female bias in the minke whale hunt statistics in Greenland. Indeed, in 1977, when the IWC Scientific Committee agreed that extending the

Greenlandic minke whale hunting season from eight to nine months would not adversely affect minke whale stocks, the Committee also noted that the issue should continue to be reviewed given the potential impact of an extended season on the sex ratio of the catch.¹

Notably, since the mid 1950s, a significant portion (70-76 percent) of the minke whales killed off West Greenland have been females. In East Greenland, between 1996 and 2003, female minke whales made up 92 percent of the whales killed while, since 2005, female whales have made up 63 percent of the catches. Overall, between 2005 and 2017, 73.23 and 75.58 percent of the minke whale kill in West and East Greenland, respectively, have been female whales. See Table 1. Notably, the United Kingdom, Australia, and Argentina asked the IWC Scientific Committee in 2003 and 2004 whether this heavy female bias in the hunt would harm the stock but it does not appear that the Scientific Committee responded to the inquiry.

Table 1: Female composition of West and East Greenland minke whale hunts. Source of data: Denmark's Progress Reports (and IWC SC2018 report for 2017 data).

	Common minke		East Greenland minke	
	Female	Male	Female	Male
2017	95	33	6	3
2016	110	35	12	3
2015	121	26	6	0
2014	115	27	9	1
2013	127	37	4	0
2012	111	33	-	-
2011	133	39	9	0
2010	120	53	2	4
2009	105	47	1	3
2008	55	86	1	0
2007	121	38	1	0

¹ Report of the International Whaling Commission 28, 1978. Page 22.

2006	128	43	0	2
2005	134	34	1	3
2004	129	44	?	?
Total	1341	457	52	19
Percentage female:	75.58		73.23	

More specifically, catch statistics reveal that more females are taken in early spring (>80 percent in April-June) and in autumn (October-December) than during the summer months.² This could mean that, if minke whales are allowed to be hunted year round, even more females may be killed during the hunt if more females are available between January and March (as the statistical evidence suggests will be the case). Consequently, this proposal could further exacerbate the already biased kill of females in the Greenlandic minke whale hunt.

Before this proposal is considered, AWI and WDC would request that Greenland include in the proposal the full breakdown of female and male minke whales killed in its East and West Greenland hunt going back to 2000, its analysis of the impact of extending the whaling season on the number of female whales that could be taken in the extended hunt, and for the IWC Scientific Committee to examine the heavy bias toward females in the existing hunt, how that could be exacerbated by the proposed extension of the hunting season to a year-round hunt, and the implications on the status of the stocks. There may also be increased welfare concerns related to the hunting of whales in the darkest months of the year.

In regard to paragraph 15(b), Greenland is requesting approval to remove the current restriction prohibiting the killing of fin whales less than 55 feet or 16.8 meters in length in the Northern Hemisphere. Greenland notes that this paragraph is applicable to commercial whaling operations but should not be applied to ASW and that native whalers engaged in ASW are less able to accurately determine the size of a whale thereby running the risk that they may kill an undersized whale which would constitute an IWC infraction.

AWI and WDC believe that this request may be less about the ability of subsistence whalers to determine the length of a fin whale but, rather, due to a preference for smaller whales in Greenland or due to the operational challenge of handling and processing such large animals. If this is the case, Greenland should explain why its whalers prefer the smaller fin whales. A

² www.marinebioacoustics.com/files/2009/Laidre_et_al_2009a.pdf.

significant concern with this proposal is that, if Greenland is allowed to hunt smaller fin whales (while not violating the prohibition on the take or killing of “suckling calves or female whales accompanied by calves”) this could lead to Greenland requesting a higher whale quota to compensate for the quantity of whale products lost by killing smaller fin whales.

Existing data (at least from 2005 and 2006) on the lengths of fin whales killed in Greenland suggest that its whalers prefer smaller fin whales. For example, of the 10 fin whales killed in 2005, the average length was 18 meters, the median 17, the maximum 22, and the minimum 16. For 2006, the average, median, maximum, and minimum lengths of the 6 fin whales killed was 17, 17, 19, and 16, respectively.

Notably, it is not clear how these lengths were measured as, in the past, Greenland has not followed the method mandated in Schedule chapter V, paragraph 23 for measuring killed whales (i.e., Greenland hunters measured over the curvature of the body rather than parallel to the body, which could overestimate length by up to 10 percent). If that incorrect measurement method was used to measure fin whales killed in 2005 and 2006 some of them likely were less than 55 feet long and, therefore, should have been reported as infractions.

Prior to any discussion of this proposal, AWI and WDC requests that Greenland fully disclose all length data for fin whales killed since at least 2000 and that it explain the measuring method or methods used. Furthermore, Greenland should explain how this proposal, if approved, may affect its fin whale ASW catch/strike limit requests in the future given that the overall meat yield of its hunt would be reduced by taking smaller fin whales.

Increased proposed strike limit for common minke whales off East Greenland:

Greenland has proposed to increase its strike limit of minke whales off East Greenland from 12 to 20 per year during the 2019-2025 quota block. Greenland suggests that this increase is needed to meet ASW need due to the reduced availability of other food sources. AWI and WDC question the need for this proposed increase based on the following factors:

- Greenland asserts that the minke whale quota must be increased due to a reduction in the availability of other food sources but it provides no evidence, either in the explanatory note in IWC/67/01 or in its White Paper on Management and Utilization of Large Whales in Greenland (hereafter White Paper) to demonstrate that the availability of other food sources has declined.

Such a decline, presumably, would either be due to a lack of availability of other traditional food sources (i.e., abundance or distribution patterns of wildlife species traditionally hunted for food has changed due to natural or anthropogenic factors) or due to a lack of accessibility (i.e., native hunters don't have the equipment to access or

capture food sources or their ability to secure such food has been hindered by regulation intended to conserve the species). In either case, Greenland should offer evidence of this decline in the availability of other food sources since, such proof, may reduce any concerns associated with this proposed increase in the minke whale quota;

- Greenland has not provided compelling evidence that there is a subsistence need for increasing the East Greenland minke whale quota. In its White Paper it notes that by increasing the minke whale quota in East Greenland to 20 the 3,389 residents of East Greenland (the average human population from 2013-2018) will be provided with 11.2 kilograms of minke whale product per capita. White Paper at 11. It notes that this amount is equal to the 11.8-12.5 kilograms minke whale meat available per capita in West Greenland. It does not, however, provide any information to demonstrate that the residents of East Greenland actually need 11.2 kilograms of minke whale product per person (additional information about the inadequacy of Greenland's needs statement for the East Greenland minke whale hunt is provided below).

For example, it doesn't include any information about the total amount of traditional foods consumed per person per year in East Greenland, the past composition of that food (by type of food – meat/plant, or by species), or how that composition has changed over time due to natural or anthropogenic factors. If it could demonstrate that the amount of traditional foods available in East Greenland per person has declined, its request for additional minke whales for its ASW hunt may be less controversial. This is not to suggest that there is not a need for traditional foods for the residents of East Greenland but only to request that additional information be provided to substantiate the need to increase the East Greenland minke whale quota by 67 percent.

- Greenland should explain why whale meat from West Greenland could not be transported to East Greenland to meet any documented need so as to avoid any need to increase the East Greenland minke whale quota. Greenland notes in its Description of the Hunt, for example, that "some meat may be sold to the processing plants in Maniitsoq or Ilulissat to ensure that some meat can be distributed to villages with limited or no possibility to hunt large whales. The plants are only allowed to process, pack and transport whale meat, in accordance with veterinary regulations, to other places along the coast." Given this option, Greenland should explain whether whale meat from West Greenland is already being transferred to East Greenland or, if not, whether that option is available to meet the reported increased need in East Greenland. If that option is not available, Greenland should explain why it cannot supply East Greenland with whale meat from West Greenland.
- Greenland has failed to utilize 100 percent of its East Greenland minke whale quota in any of the past two quota blocks (and perhaps even in earlier quota blocks) which raises

concerns about why an increase of nearly 67 percent in the quota is even necessary. Specifically, in the 2008-2012 and 2012-2017³ quota blocks (the data for 2018 were not available) Greenland reports that it has used 39 and 67 percent of its East Greenland minke whale quota, respectively. Prior to any discussion of the merits of this proposal, Greenland should evaluate and explain whether 100 percent use of its existing quota would meet current estimated need in East Greenland or, if not, whether its proposed quota increase could be reduced if 100 percent of the revised quota was used.

Increase in strike limit for Eastern North Pacific minke whales to address stinky whales and to meet ASW need:

In the associated explanatory note for this proposal, it is claimed that this proposal retains the same 140 strikes in previous requests and, in Russia's Description of the Hunt this is referred to as status quo suggesting no change from the previously approved quota. However, this claim appears to be in error. Indeed, if this were status quo, then the proposed increase in the quota would be from 744 to 868 (124 x 7) and not to 980 (140 x 7) which adds an additional 112 whales to the quota (an increase of 12.9 percent). At present, while the quota does permit an annual take of 140 gray whales, there is a cap on the six year take of 744 (which is an average of 124 per year). Consequently, at present, up to 140 gray whales could be taken per year for five years of a six year block but then, in the sixth year, only 44 whales could be taken to remain below the 6 year cap.

As indicated in the explanatory note and in Russia's Description of the Hunt, this proposed 12.9 percent increase in the strike limit for Eastern North Pacific gray whales is to accommodate an increased need among Chukotkan people and communities in Russia and to compensate the whales for any "stinky" whales that are landed but are inedible.

In regard to the claim of increased need among the Chukotkan people, the Russian Federation provide no compelling evidence to substantiate this claim other than to indicate that the human population in Chukotka and surrounding towns/villages has increased. A mere increase in the human population, however, should not be grounds to claim that there is a 12.9 percent increase in need as this fails to consider the proportion that whale meat represents in the diet of people in the region, what other natural and western foods are consumed, and changes in dietary selection and consumption patterns over time (additional information about the deficiencies in the needs statement provided by the Russian Federation) is included below.

³ Any reference to Greenland's 2013-2018 ASW quota block, including any data or statistics from that block, in this comment letter should not be interpreted as condoning or accepting Greenland's decision to engage in ASW in 2013 and 2014 without a strike limit request approved by the IWC. As noted at IWC65, many Contracting Governments and observer organizations consider any takes during those two years to be infractions of the ICRW and it is regrettable that, to date, the IWC has not been able to reach a decision on that matter.

In regard to compensating whalers for “stinky” whales, the proposed increase of 112 whales (868 to 980), or 16 whales per year, over the 7 year block is far in excess of what is needed to compensate for actual stinky whales. According to Russia’s Description of the Hunt, from 2001 to 2017 a total of 37 whales (or slightly more than 2 whales per year) taken were determined to be stinky whales. When struck and lost whales from the same period are considered, the take of stinky whales represents approximately 3.15 percent of all whales taken. However, a closer examination of the data reveals, as the Russian Federation has reported, that its whalers are becoming better able to identify stinky whales before killing them. During the 2008-2013 quota block, the Russian Federation reported the killing of 27 stinky whales while, from 2013 through 2016, only four stinky whales were taken.⁴

Despite this small number of stinky whales taken, Russia has proposed to increase its quota by 112 whales over 7 years which equates to a 12.9 percent increase in the quota. Instead, if the Russian Federation were only interested in compensating its whalers for the potential take of stinky whales over the next quota block it should request a quota increase of 14 whales (2 per year) for a total quota of 882 (868 + 14). Prior to any discussion of this proposal, Russia must provide additional information to substantiate its alleged need for a quota request and/or to explain why it is seeking an increase in the gray whale quota of 112 whales over seven years when its take of stinky whales is so small.

It is also concerning that the cause of the repellent smell and flavor of stinky whales remains unknown and this extends to the effect of this phenomenon on the stock itself.

Technical adjustment to Schedule paragraph 13(a):

The proposal to add “The provisions for each stock identified in sub-paragraph 13(b) shall be reviewed by the Commission in light of the advice of the Scientific Committee” to paragraph 13(a) of the Schedule is unnecessary. Instead, AWI and WDC, suggest that existing language in Bering-Chukchi-Beaufort bowhead whale stock and Eastern North Pacific gray whale stock Schedule language (“This provision shall be reviewed annually by the Commission in light of the advice of the Scientific Committee”) should simply be moved to Schedule paragraph 13(a) so that it would apply to all ASW stocks.

Specific comments on ASW catch/strike limit requests:

Bering-Chukchi-Beaufort Sea bowhead whales:

⁴ See, Report of the Scientific Committee 2017, Annex E, Appendix 5: Scenarios Tested and Data Used in Gray Whale SLA Runs.

The catch/strike limit request for this stock for 2019-2025 (assuming the one-time 7-year block proposal is approved) retains the status quo annual strike limit of 67 whales while the landing limit is increased from 336 to 392 to compensate for the seventh year of the quota block. The significant change in this request is the proposal to allow for any used strikes from three prior quota blocks to be carried over to the next quota block provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.

As an initial matter, the proposed text for this stock in IWC/67/01 should be amended to add a “the” before “three prior quota blocks” to make clear which particular quota blocks are being used to determine the number of unused strikes to be carried over. At present, the text could be interpreted to permit the carryover of strikes from any three prior quota blocks instead of the most recent three prior quota blocks.

Based on a review of strike/landing statistics for this hunt dating back to 2002, the number of unused strikes from the three prior quota blocks (not including the 2013-2018 block since it has not ended) is 178. This would mean that, if this proposed Schedule amendment is approved, the strike limit for any year during the next quota block would be 92 strikes per year given the 50 percent criteria noted above. While the IWC Scientific Committee has indicated that there is no conservation concern associated with the carryover of such a large number of strikes, this does raise significant welfare concerns which may not have been properly considered.

These welfare concerns are not only applicable to the proposed carryover provision in this catch/strike limit request but is applicable to many of the ASW hunts where amendments to the catch/strike limit subparagraphs include changes to the authorized carryover provisions and where the number of unused strikes is high. Specifically, it is important for the IWC to see a breakdown (separated out for the spring and fall hunt) over time of the number of whales struck and lost during the hunt (including when the whales are being towed back to shore) and when the whales are landed. Reporting these two types of losses together can mask operational problems; for example harpooning methods may have become more efficient with the adoption of the penthrite harpoon, resulting in fewer losses but then more whales may be lost as they are hauled onto the ice.

AWI and WDC recognize the importance of each landed bowhead whale to native whalers and their communities in Alaska and Russia. Nevertheless, by providing such a significant increase in strikes this may result in a decline in the hunt efficiency if the extra strikes cause the whalers to not be as careful as to when to attempt to strike a whale or with shot placement. It may also encourage them to attempt a risky landing in areas where ice-edge conditions are not ideal. While this is not to suggest that extra strikes will cause any change in the diligence of whaling captains and their crews to try to strike, kill, and land whales, the reality is that it could cause a reduction in hunt efficiency which, in turn, has significant welfare implications for struck whales.

The suggestion that by providing extra strikes this could improve the welfare of the hunt by, for example, allowing a whaler to forego attempting to strike a whale under inclement conditions is misplaced. First, at present, AWI and WDC would hope that native whalers would automatically avoid attempting to strike a whale if the conditions increased the likelihood that the whale may be lost. Second, if a whaler elects not to strike a whale due to inclement conditions, there is no loss in the number of strikes still available to the whaler.

Finally, and most importantly, given the scenario described, it would seem that that a whaler with a significant number of extra strikes available to be used would be more, not less, likely to attempt to strike a whale since, even if that whale is lost, there are additional strikes available to be used. Conversely, if the number of available strikes is limited then a whaler would have to be more careful as to when he/she elects to try to strike a whale as the potential loss of a whale would be more significant since there would not be a large number of additional strikes available.

Notably, because this hunt includes a landing limit (in addition to a strike limit), the welfare implications of this proposed carryover provision for this particular hunt are somewhat mitigated compared to those hunts where there is no landing limit. Indeed, given the proposed new carryover provisions for most of the ASW hunts, we would encourage all ASW countries to consider including landing limits in their ASW catch/strike limit requests (emphasis added).

Eastern North Pacific gray whales:

The Russian Federation (and the United States) seek to replace a take limit with a strike limit for Eastern North Pacific gray whales and to increase the strike limit to 980 whales over the next ASW quota block of 1019-2025 (assuming the one-time 7 year block proposal is approved). AWI and WDC approve of the proposed change from a take to a strike limit but, as discussed in detail above, oppose the proposal to increase the strike limit to 980 whales over the seven year block and request that a landing limit is also included in the strike limit request.

The other proposed change to this strike limit request pertains to the carryover provision. The proposal is to permit “any unused portion of the strike quota for each year” to “be carried forward and added to the strike quotas of any subsequent years, provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.” As an initial matter, the text of the proposal should be amended to add “from the prior quota block” after “any unused portion of the strike quota for each year” since, at the moment, the language would allow any unused strike for any year since Eastern North Pacific gray whale quotas have been in place to be carried over to the next quota block.

Notably, the IWC Scientific Committee was not asked, nor did it provide, any advice as to the conservation implications of this proposed carry forward provision on these whale stocks and, consequently, it would be premature to discuss this proposal until such advice is provided.

In regard to the welfare implications associated with the proposed revision to the carryover provisions for this stock, as there has been no past strike limit there are no strikes available to carry forward and, therefore, the welfare implications of this proposal for the next quota block are nil. This may not be the case in the future now that a strike limit has been proposed and depending on how many unused strikes are available to be carried forward.

Such future welfare concerns could be reduced (as is the case with the bowhead whale catch/strike limit request) if Russia and the United States would agree to the imposition of a landing as well as a strike limit for Eastern North Pacific gray whales.

West Greenland fin whales:

Greenland proposes to retain the strike limit of 19 fin whales per year for the 2019-2025 quota block (assuming the one-time 7-year quota block proposal is approved). The proposed carryover provision for this stock, however, would be amended to permit “any unused portion of a strike quota from one prior quota block under a Strike Limit Algorithm management advice shall be carried forward and added to the strike quotas of any subsequent years, provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.”

As an initial matter, the text of this proposal should be amended to replace “one prior quota block” with “the prior quota block” to clarify that the only unused strikes that can be carried over are from the prior quota block (not any previous quota block). In addition, in the explanatory note associated with the proposed carryover provision for this stock, it is reported that the initial starting year for the accumulation of unused strikes would be 2018. It is unclear why this year was chosen so additional information from Greenland to clarify that issue would be welcome.

Notably, the IWC Scientific Committee was not asked, nor did it provide, any advice as to the conservation implications of this proposed carry forward provision on these whale stocks and, consequently, it would be premature to discuss this proposal until such advice is provided.

In regard to the welfare implications associated with the proposed revision to the carryover provisions for this stock, the number of unused strikes from the prior quota block (in this case 2008-2012) is 28 strikes which, given the 50 percent rule, could increase the annual strike limit by 9 whales for up to 3 years or 4 whales per year over the entire 7-year quota block. Consequently, the carryover of this number of strikes would have welfare implications for the

next quota block with such concerns becoming even more serious in future depending on the number of unused strikes that are carried over into future quota blocks.

Such welfare concerns could be reduced (as is the case with the bowhead whale catch/strike limit request) if Greenland would agree to the imposition of a landing as well as a strike limit for West Greenland fin whales.

East Greenland minke whales:

As previously noted, Greenland proposed to increase its strike limit for East Greenland minke whales from 12 to 20 per year for the 2019-2025 quota block (assuming the one-time 7-year quota block proposal is approved. AWI and WDC oppose this increase for reasons explained above.

The proposal to amend the carryover provision for this stock contains two parts. The existing quota permits the unused portion of a strike quota for each year to be carried forward and added to the strike quota for any subsequent year provided that no more than 3 strikes are added to the strike quota for any one year. Greenland seeks to amend this carryover provision to permit, in 2020 provided that an SLA has been developed for this stock, “any unused portion of a strike quota from one prior quota block under a Strike Limit Algorithm management advice (to) be carried forward and added to the strike quotas of any subsequent years, provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.”

As an initial matter, the text of the proposal should be amended to replace “one prior quota block” with “the prior quota block” to clarify that the only unused strikes that can be carried over are from the prior quota block (not any previous quota block). For this stock, 2020, which is when the SLA is expected to be available for this stock, would be when the accumulation of unused strikes would begin.

Notably, the IWC Scientific Committee was not asked, nor did it provide, any advice as to the conservation implications of this proposed carry forward provision on these whale stocks and, consequently, it would be premature to discuss this proposal until such advice is provided.

In regard to the welfare implications associated with the proposed revision to the carryover provisions for this stock, the number of unused strikes from the prior quota block (in this case 2008-2012) is 32 strikes which, given the 50 percent rule and the proposal to increase the annual strike limit to 20 whales, could increase the strike limit by 10 whales over the first three years or by approximately 4.5 whales each year during the 7-year block. Consequently, the carryover of this limited number of strikes would not have significant welfare implications for

the next quota block but such welfare concerns could be more serious in the future depending on the number of unused strikes that are carried over into future quota blocks.

Such welfare concerns could be reduced (as is the case with the bowhead whale catch/strike limit request) if Greenland would agree to the imposition of a landing as well as a strike limit for East Greenland minke whales.

West Greenland minke whales:

Greenland proposes no change to the annual strike limit of 164 minke whales for the 2019-2025 quota block (assuming the one-time 7 year proposed quota block is approved).

The proposed carryover provision for this stock, however, would be amended to permit “any unused portion of a strike quota from one prior quota block under a Strike Limit Algorithm management advice shall be carried forward and added to the strike quotas of any subsequent years, provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.”

As an initial matter, the text of this proposal should be amended to replace “one prior quota block” with “the prior quota block” to clarify that the only unused strikes that can be carried over are from the prior quota block (not any previous quota block). In addition, in the explanatory note associated with the proposed carryover provision for this stock, it is reported that the initial starting year for the accumulation of unused strikes would be 2015. It is unclear why this year was chosen so additional information from Greenland to clarify that issue would be welcome.

Notably, the IWC Scientific Committee was not asked, nor did it provide, any advice as to the conservation implications of this proposed carry forward provision on these whale stocks and, consequently, it would be premature to discuss this proposal until such advice is provided.

In regard to the welfare implications associated with the proposed revision to the carryover provisions for this stock, the number of unused strikes from the prior quota block (in this case 2008-2012) is 103 strikes which, given the 50 percent rule, could result an increase in the strike limit in the first year of the next quota block to 246 and to 185 in the second year or an annual increase of nearly 15 whales per year over the full 7-year block. Consequently, the carryover of this number of strikes has significant welfare implications for the next quota block and such concerns could become even more serious in the future depending on the number of unused strikes that are carried over into future quota blocks.

Such welfare concerns could be reduced (as is the case with the bowhead whale catch/strike limit request) if Greenland would agree to the imposition of a landing as well as a strike limit for West Greenland fin whales.

West Greenland bowhead whales:

Greenland proposes no change to the annual strike limit of 2 bowhead whales for the 2019-2025 quota block (assuming the one-time, 7-year proposed quota block is approved).

The proposed carryover provision for this stock, however, would be amended to permit “any unused portion of a strike quota from one prior quota block under a Strike Limit Algorithm management advice shall be carried forward and added to the strike quotas of any subsequent years, provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.”

As an initial matter, the text of this proposal should be amended to replace “one prior quota block” with “the prior quota block” to clarify that the only unused strikes that can be carried over are from the prior quota block (not any previous quota block). In addition, in the explanatory note associated with the proposed carryover provision for this stock, it is reported that the initial starting year for the accumulation of unused strikes would be 2015. It is unclear why this year was chosen so additional information from Greenland to clarify that issue would be welcome.

Notably, the IWC Scientific Committee was not asked, nor did it provide, any advice as to the conservation implications of this proposed carry forward provision on these whale stocks and, consequently, it would be premature to discuss this proposal until such advice is provided.

In regard to the welfare implications associated with the proposed revision to the carryover provisions for this stock, the number of unused strikes from the prior quota block (in this case 2008-2012) is 3 strikes which, given the 50 percent rule, could result in only a minor increase in strikes per year over the next quota block. Consequently, the carryover of this limited number of strikes would not have significant welfare implications for the next quota block but such welfare concerns could be more serious in the future depending on the number of unused strikes that are carried over into future quota blocks.

Such welfare concerns could be further reduced (as is the case with the bowhead whale catch/strike limit request) if Greenland would agree to the imposition of a landing limit for West Greenland bowhead whales. While it is unclear how Greenland may calculate such a landing limit, if, for example, the bowhead hunt strike and landing limit is used as a guide (where the landing limit is 83.6 percent of the strike limit), the landing limit for West Greenland

bowhead whales would be 11.7 whales over the seven year quota block if the strike limit is set at 2 whales per year ($2 \times 7 \times .836$).

West Greenland humpback whales:

The strike limit request for this stock for 2019-2025 (assuming the one-time 7-year block proposal is approved) retains the status quo annual strike limit of 10 whales. The significant change in this request is the proposal to allow for any used strikes from three prior quota blocks to be carried over to the next quota block provided that no more than 50 percent of the annual strike limit shall be added to the strike quota for any one year.

As an initial matter, the text in the proposed text for this stock in IWC/67/01 should be amended to add a “the” before “three prior quota blocks” to make clear which particular quota blocks are being used to determine the number of unused strikes to be carried over. At present, the text could be interpreted to permit the carryover of strikes from any three prior quota blocks instead of the most recent three prior quota blocks.

Based on a review of strike/landing statistics for this hunt dating back to 2002, the number of unused strikes from the three prior quota blocks (not including the 2013-2018 block since it has not ended) is zero since Greenland used 100 percent of its humpback whale strikes during the last partial quota block (2010-2012) and since Greenland had previously ceased killing humpback whales in 1985. Furthermore, as noted below, Greenland identified 2014 as the starting date for accumulating unused strikes for carryover purposes. This would mean that, if this proposed Schedule amendment is approved, the strike limit for any year during the next quota block would remain at 10 strikes per year since there are no unused strikes from a completed quota block to carry forward.

While the IWC Scientific Committee has indicated that there is no conservation concern associated with the carryover of such a large number of strikes, this does raise the same significant future welfare concerns as previously noted in the discussion above regarding the Bering-Chukchi-Beaufort bowhead whale stock and if the number of unused strikes in the future is high. Notably, for the partial quota block of 2015-2018 (Greenland didn't have an IWC approved strike limit in 2013 and 2014), there are a number of unused strikes for humpback whales that, if carried forward in the future, could have significant welfare implications.

In addition, in the explanatory note associated with the proposed carryover provision for this stock, it is reported that the initial starting year for the accumulation of unused strikes would be 2014. It is unclear why this year was chosen and, indeed, as Greenland was engaged in ASW without an approved ASW strike limit request in 2014, the selection of 2014 in this case is even more troubling. Additional information from Greenland to clarify why 2014 was selected for this stock would be welcome.

Unlike the bowhead stock catch/strike limit, the West Greenland humpback whale strike limit does not include a landing limit. This exacerbates the potential welfare concerns associated with this hunt. Such concerns could be reduced (as is the case with the bowhead whale catch/strike limit request) if Greenland would agree to the imposition of a landing as well as a strike limit for West Greenland humpback whales.

Additional comments on reported need and other matters associated with each ASW hunt:

United States (Alaskan bowhead hunt) -- The Extent and Geographic Scope of the Sharing of Bowhead Whale Products Through Native Alaskan Sharing Networks may be Inconsistent with the IWC Schedule:

IWC/67/ASW2 (Description of Alaskan Eskimo Bowhead Whale Subsistence Sharing Practices Including an Overview of Bowhead Whale Harvesting and Community-Based Need) provides a significant amount of information about the sharing networks of Alaskan native whalers which are considered to be part of the Inupiat culture. The extent of the sharing network within Alaska (which was the primary geographic focus of the report) and the existing amount of sharing of bowhead whale products was, however, disconcerting. This is not due to any objection to the sharing of whale products among family members and with others for which there is a social relationship but because this seems to be inconsistent with the terms of the catch/strike limit previously approved by the IWC which permits bowhead whales to be taken by “aborigines ... but only when the meat and products of such whales are to be used exclusively for local consumption by the aborigines.”

While “exclusively,” “local,” and “used exclusively for local consumption” is not defined by the IWC or in any relevant law or regulation in the United States, it is antithetical to the common understanding and dictionary definition of such terms or phrases to suggest that the sharing of whale products throughout the large state of Alaska is consistent with the “used exclusively for local consumption by the aborigines” language in the catch/strike limit text in the Schedule. For example, the Merriam-Webster’s online dictionary (<https://www.merriam-webster.com/>) defines “exclusive” to mean “limiting or limited to possession, control, or use by a single individual or group” and “local” to mean “of, relating to, or characteristic of a particular place: not general or widespread.”

Given these definitions and the obvious meanings of “consumption,” it defies logic to believe that the current sharing of whale products by Alaskan native whalers throughout Alaska is consistent with the Schedule text. This is not to say that AWI and WDC oppose aboriginal

whaling by Alaskan native whalers as overseen through a joint management agreement between the United States government and the Alaska Eskimo Whaling Commission or that we disrespect the Inupiat's culture of sharing but only that the geographic extent of the sharing, with the exception of sharing among adjacent villages/towns, is inconsistent the plain language and intent of the Schedule text in paragraph 13(b)(1). Consequently, while AWI and WDC respect the extensiveness, complexity, and generosity that underlie indigenous peoples' sharing network in Alaska, we question its use for sharing bowhead whale products given the restrictions imposed in Schedule paragraph 13(b)(1).

Furthermore, given the geographic size of Alaska (see Figure 1), sharing of whale products, for example, between Kaktovik and Perryville, Alaska would be similar to sharing an edible product of some other species between International Falls, Minnesota and Oklahoma City, Oklahoma. Surely that would not qualify as "used exclusively for local consumption."

Figure 1: Map with Alaska Overlaid on Lower 48 States:



Furthermore, as revealed on pages 40 and 41 of IWC/67/ASW2, the geographic extent of the Alaskan native whale product sharing network extends to at least eight states in the contiguous United States and to two villages/towns in Canada. Indeed, we note with concern the reported sharing of bowhead whale products between Kaktovik, Alaska and Inuvik and Aklavik, Canada given that such international trade must comply with the Convention on International Trade in Endangered Species of Wild Fauna and Flora. As bowhead whales are listed on CITES Appendix I, AWI and WDC would welcome any information from the United States to confirm that all relevant requirements of Article III of CITES, including the requirement for an export permit,

import permit, legal acquisition finding, and making of a credible non-detriment finding are being met before bowhead whale products are exported from the United States to Canada.

Notably, IWC/67/ASW2 only provides a short analysis of the subsistence, nutritional, and cultural need for bowhead whales and their products. This analysis largely evaluates how the current catch/strike limit does not fully satisfy the need of Alaskan native whalers and their communities because it does not consider the extensive native sharing network. While some whaling captains who were interviewed reported that the current quota was adequate, others suggested that an increase to 75 landed whales (17 whales more than the 58 landed whales assessed in 2010) was needed to satisfy need. While the United States has not proposed any increase in the landed whale limit for bowhead whales to satisfy this need, it has proposed, as previously discussed, a significant change in the carryover provision for this stock that could foreshadow a future change to the bowhead whale landing limit.

In regard to the bowhead ASW hunt, AWI and WDC agree that it satisfies the definition of aboriginal subsistence whaling as agreed to by the IWC in 1982 and that the 11 native whaling villages have a demonstrable need for whale products. We do, however, have concerns that the welfare impacts of the hunt are hard to judge, given that the United States should but does not report time to death to the IWC, preventing a qualitative or quantitative analysis. We recognize that the Alaskan native whalers and AECW are engaged in ongoing efforts to reduce the cruelty of the hunt through the use of penthrite grenades, that they have a training program to expand use of these less cruel hunting methods, and that they are actively engaged in efforts to reduce the struck and lost rate. Indeed, we encourage the United States to increase its subsidies to the AECW and its whalers to help defray the costs of these initiatives. Given such efforts, the high struck and lost rate reported in the Economist⁵ for the spring 2018 hunt in Utqiagvik (where 10 of 18 struck whales were lost of mid-June 2018) is of concern but, we hope, an anomalous event. It would be helpful to see a breakdown of the losses that occur during the course of the hunt and when attempting to land the whales.

United States (Makah hunt) -- The Makah Tribe has no continuing traditional dependence on whaling and on the use of whales and has not demonstrated a nutritional, subsistence, and cultural need for whale products:

⁵ Economist. (2018, June 14). Whaling in Alaska, A dispatch from the melting north. Available at: <https://www.economist.com/united-states/2018/06/14/whaling-in-alaska>

IWC/67/ASW03, Whale Hunting and the Makah Tribe: A Needs Statement, although containing interesting claims, survey results, and anecdotal information, does not provide credible evidence that the Makah Tribe has a legitimate subsistence, cultural, and nutritional need for gray whales or their meat and other products. This document, while providing information about the Makah culture and its past whaling tradition, relies largely on historical writings, archeological data, and household survey data to paint a picture of how the Makah Tribe purportedly continue to “use” and “need” whales when, in reality, the tribe has legally killed only a single whale in the past 90 years and has no demonstrable or compelling need for whale meat or other products. It is simply impossible for the Makah Tribe to legitimately argue that its desire to hunt gray whales qualifies as aboriginal subsistence whaling when it hasn’t engaged in whaling, with that single exception in 1999, for at least 90 years.

The Makah Tribe, using claims of family tradition, archeological evidence, photographs of its whaling heritage, carved whales that decorate building and homes, traditional practices (including secret practices), and song and dance, continue to promote their alleged continuing traditional dependence on whales but such claims are fragile and easily countered. Indeed, while it may be understandable that Makah whalers may have forgotten how to properly and efficiently flense a whale given the lack of opportunity to practice, the Makah can’t credibly claim that it both has a continuing and enduring relationship with whales while also conceding that many of its tribal members don’t know how to cook whale meat/blubber, render blubber into oil, or don’t practice former whaling-related traditions since those traditions have been lost. Such inconsistencies are claimed to be due to the passage of time, the inability to hunt or use whales, and the tragic widespread deaths of Makah tribal members in the late 19th and early 20th centuries due to their exposure to European diseases (before they were able to pass on their whale-related traditions and practices).

AWI and WDC are not discounting the Makah’s tradition of whaling and the significance of whale-related events, activities, traditions, and rituals to the tribe including to particular families but we do not believe that such cultural practices satisfy the criteria for the Makah to even qualify for, or for the United States to request, a strike limit for ASW from the IWC.

In 1982 the IWC agreed that “aboriginal subsistence whaling” means “whaling, for purposes of local aboriginal consumption, carried out by or on behalf of aboriginals, indigenous or native peoples who share strong community, social and cultural ties related to a continuing traditional dependence on whaling and on the use of whales” (emphasis added). “Local aboriginal consumption” means the traditional uses of whale products by local aboriginal, indigenous or

native communities in meeting their nutritional, subsistence and cultural requirements. The term includes trade in items which are by-products of subsistence catches” (emphasis added).

Based on these definitions, to qualify as aboriginal subsistence whaling and, in turn, to obtain IWC approval for an ASW strike limit request, the Makah must demonstrate “a continuing traditional dependence on whaling and on the use of whales” and that the tribe has a “nutritional, subsistence, and cultural need for whale meat and products. The Makah have failed to provide such evidence:

- The Makah cannot demonstrate a continuing, traditional dependence on whaling and on the use of whales. This is not merely due to the fact that the tribe, with a single exception, hasn’t engaged in whaling for at least 90 years, but, under relevant laws in the United States the Makah can’t satisfy this basic requirement. While the term “whaling” is not defined in the ICRW or the Schedule, it is defined in US law to “mean(s) the scouting for, hunting, killing, taking, towing, holding onto, and flensing of whales, and the possession, treatment, or processing of whales or of whale products.” Whaling Convention Act, 16 USC 916. Given that definition, for the Makah to satisfy the continuing traditional dependence on whaling and the use of whales, it would have to demonstrate that it can satisfy the definition of whaling under US law. Since the US law doesn’t include a cultural connection to whales in its definition of “whaling,” the Makah can’t satisfy this definition and, therefore, shouldn’t qualify for a strike limit approved by the IWC;
- The Makah can’t engage in whaling and the United States cannot allocate any IWC approved quota to the Makah. In 2002, 2007, 2012, and now in 2018, the United States is seeking the approval of the Contracting Governments of the IWC for a strike limit for gray whales which cannot be used by the Makah tribe. Such approval, if granted, provides no tangible benefit for the Makah because of the domestic, legal requirements relevant to the hunt, including compliance with the Marine Mammal Protection Act and National Environmental Policy Act, which have not been met. While the United States may argue that it has trust responsibility to the Makah tribe, this responsibility does not require it to seek a strike limit request from the IWC when it cannot authorize whaling or allocate the quota to the tribe.

Consequently, AWI and WDC strongly encourage the United States not to join the Russian Federation in seeking a strike limit for gray whales until completion of the domestic legal requirements related to Makah whaling in the United States. If the

United States does not do this voluntarily, AWI and WDC encourage Contracting Governments to call upon the United States to forego its request for a strike limit for gray whales at IWC67 but to return to the IWC to seek approval for such a request once its domestic legal obligations are fulfilled.

- The Makah tribe has not provided any credible evidence to demonstrate that it has a nutritional, subsistence, and cultural need for whales and whale products. To satisfy that definition, there must be credible evidence that all three requirements can be met. The Makah can't provide such evidence. Indeed, a review of IWC/67/ASW03 demonstrates that the Makah's request for five gray whales annually is based on the original five communities occupied by the Makah and a rather convoluted analysis that considers the number of Makah living in Neah Bay, American consumption of red meat and table spreads, the results of multiple household surveys, and the quantity of whale meat/blubber and oils available from a gray whale. In explaining its alleged need, the Makah include information about their cultural connections to whales which is replete with inconsistencies and how regaining access to whaling and whales will cure many of the social and medical ills that afflict Neah Bay and the Makah people.

The Makah do not include any credible evidence of a nutritional, subsistence, or cultural need to whale. The use of the household survey results to prove need is deceptive as the survey, notwithstanding any flaws in the survey design, only demonstrates a desire for whale products, not a need. Similarly, while the Makah appear convinced that whaling and access to whale products will address the social problems and help improve the health of the Makah people, it appears to ignore the other factors that may be contributing to such societal ills (i.e., unemployment, illicit use of drugs, poverty) and medical problems (i.e., obesity, sedentary lifestyle, smoking) which whaling and the use of whale products will not solve. While AWI and WDC recognize that traditional diets likely have benefits over westernized diets, the Makah have not cited to a single, published study to substantiate this claim or to support its assertion of how access to whale products will help reverse or cure certain diseases afflicting members of the Makah tribe. Finally, the Makah have offered no evidence to demonstrate why or how the tribe requires access to whaling and whale products to meet its subsistence needs.

Admittedly, the IWC has approved a request for a strike limit for gray whales (for the United States and Russian Federation) four times including in 1997 when the quota was first approved. Notably, however, the IWC's original approval of the gray whale strike limit request was solely due to the fact that it was a joint request endorsed by both the United States and the Russian

Federation. Indeed, at the 1997 IWC meeting where the Makah's quota was first approved, a number of Contracting Governments, including Australia, the Netherlands, Spain, the United Kingdom, New Zealand, Mexico, and Argentina opposed the US ASW quota request for the Makah because the hunt did not meet the IWC's definition of ASW and/or due to insufficient evidence of a nutritional, subsistence, and cultural need. While these countries ultimately voted in favor of the strike limit, they did so only because they did not want to penalize Russian native whalers – who qualified for an ASW quota and had a legitimate need for whale products.

The past, however, need not be a blueprint for the future. In 2018, AWI and WDC strongly encourage all Contracting Government's, particularly those who questioned the legitimacy of the strike limit request for the Makah in 1997, to raise concerns about the Makah hunt and the credibility of its needs statement. In doing so, they should specifically call on the United States to withdraw its request for the Makah or move to amend the proposal to split the request for the Makah and the Russian Federation.

Russian Federation (gray and bowhead whale hunt) -- Evidence to Demonstrate a Nutritional, Subsistence, and Cultural Need for Whale Products is not Included in the Description of the Hunt:

The Russian Federation submitted a "Description of the Aboriginal Subsistence Hunt in Chukotka, Russian Federation." This document has taken the place of what was previously referred to as a needs statement and should include credible evidence to document the nutritional, subsistence, and cultural needs of the Chukotkan people for whale meat and other products. This document fails to provide such evidence.

Instead, the Russian Federation supports its assertion of increased need by referencing an increase in the indigenous population on the Chukotkan peninsula from 17,600 people (Chukchi and Inuit) in 2010, including 14,300 residents in whaling settlements to over 19,000 individuals in 2015. It also notes that the number of communities participating in whaling has declined from 21 in the past to only 15 today due, reportedly to a lack of technical equipment and a loss of skill due to the rarity of the hunts during Soviet times. Furthermore, the Russian Federation notes the traditional sharing relationship between reindeer herding families and maritime hunters. Finally, it is claimed that an annual total of 350 gray whales and 10 bowhead whales (which reportedly was the take during the Soviet whaling period) would satisfy the needs of the native people for whale meat and products. As noted in the description of the hunt, the amount of whale products currently available is half of what is claimed to be needed due, in

part, to the lack of availability of experienced whalers. Consequently, strike limit requests submitted to the IWC have not met the needs of the local people.

While this information may be true, the Russian Federation has not provided any credible information about: the amount of whale product consumed per capita by the native people on the Chukotkan peninsula; how such consumption rates have changed (increased or decreased over time); the type, quantity, and availability of other traditional foods consumed, the importance of whale products to a subsistence lifestyle; the nutritional importance of whale products to the diet of indigenous people on the Chukotkan peninsula; or the actual mechanics of how the Russian Federation determines how much whale product the Chukotkan people need and, consequently, what number of whales to request in its ASW strike limit request.

While AWI and WDC do not question that the Chukotkan people have a continuing traditional dependence on whaling and the use of whales along with a legitimate need for whale products, the actual level of need has not been demonstrated. At a minimum, Contracting Governments should request that the Russian Federation submit a revised and more complete description of its ASW hunt for review at the 68th meeting of the IWC in 2020.

In addition to the lack of any credible evidence of need for whale products by indigenous people on the Chukotkan peninsula, the information the Russian Federation provides in the description of the hunt raises significant welfare concerns with this hunt. Specifically, the hunting of large whales in Russia uses hand-harpoons, rifles, and darting-guns. When pursuing a whale, the harpooner will first use a 'control' harpoon to permit the struck animal to be followed. This is followed by 7-9 additional harpoons to prevent the whale from diving or sinking. Only then are rifles, considered a secondary killing method, used to kill the whale. While the whalers, based on the struck and lost data reported by the Russian Federation, rarely strike and lose a whale, this method of hunting results in significant suffering of the struck whales. Indeed, while the Russian Federation reports that "significant efforts have been put into ... reducing the time to death of the animals," "recent mean times to death have ranged from 24 to 38 minutes for the gray whale hunt." Notably, the description of the hunt does not provide any information about the time to death for bowhead whales hunted in Russia.

While AWI and WDC commend the Russian Federation for disclosing this time to death data for gray whales, such an extended time to death is unacceptable. Contracting Governments to the IWC should make clear to the Russian Federation that it must do more to reduce time to death and improve other welfare markers in its whale hunt, including by fully subsidizing a whaling methods improvement program and provide additional training to the native whalers.

St. Vincent and the Grenadines (humpback whale hunt) -- Evidence to Demonstrate a Nutritional, Subsistence, and Cultural Need for Whale Products is not Included in the Description of the Hunt:

The description of the hunt submitted by St. Vincent and the Grenadines fails to provide compelling evidence of the nutritional, subsistence, and cultural need for whaling and whale products. With the exception of some basic information about a “sharing system” for the distribution of whale products, the description of the hunt does not demonstrate a need for the catch limit request for humpback whales.

Greenland – The Methodology Used to Calculate Need and Welfare Concerns about Greenlandic Hunts Merit Additional Review and Analysis by the Government:

Greenland’s White Paper provides information on nearly all elements of its whaling operations including the status of the hunted stocks, calculation of need, commerciality of the hunt, welfare issues, IWC Scientific Committee advice on its ASW hunts, and justification for its proposed increase in the strike limit request for East Greenland minke whales. The information that is not discussed, which includes changes in dietary preferences and/or food consumption patterns in Greenland over time and alternative strategies to fulfill reported need without increasing strike limit requests, merits attention, additional disclosures of information, and renewed analysis by Greenland.

The methodology used by Greenland to calculate need continues to raise concerns due to the use of past catch data to calculate current need and because of the ongoing use of the entire West and East Greenland human population to determine need for each population, respectively. For example, Greenland reports that, prior to 1986 and based on catch statistics and conversion factors to determine the amount of edible tons of product from different whale species, approximately 670 tons of meat (112 from humpback whales, 90 from fin whales, 464 from minke whales) were consumed in West Greenland annually. At that time there were approximately 44,000 people in West Greenland, including persons who were not born in Greenland. It then claims, with no credible supporting data, that “the aggregated ‘need for whale meat’ as such has never changed” and that the 18 percent increase in West Greenland’s human population increases the need by 124 tons for a total need of 794 tons.

As explained in the White Paper, if the actual tonnage of whales killed equaled these calculated need levels (670 in the past and 794 tons today), the per capita amount of whale product consumed in West Greenland would be 15 kilograms annually (or 41 grams per day). In reality,

as Greenland concedes, the actual per capita consumption rate in West Greenland based on actual catch data (428 tons of edible products landed) and given the 2013-2018 quotas is 8.2 kilograms per year (22.46 grams per day) which is even less than the 27.6 grams of whale product per day calculated by Jeppesen et al (2012).⁶ Notably, as reported by Greenland, if the current full quota of whales were taken and if adjusted to consider the number of whales struck and lost, per capita consumption rates would be 11.8-12.5 kilograms each year.

Greenland characterizes the per capita consumption rate of 15 kilograms per year as approved by the IWC and, therefore, uses it as a benchmark for need. Its claim that the IWC has approved the per capita consumption rate rests on the IWC's previous acceptance of Greenland's request for a strike limit which, if fully used, would correspond to 670 tons of edible whale product. Where Greenland errs is in assuming that this 15 kilogram per capita consumption rate is set in stone and can't be changed and/or that the IWC, by indirectly approving this rate, cannot subsequently approve a quota that would result in a lower rate. Furthermore, while conceding that, given current quota utilization rates, the per capita consumption rate is 8.2 kilograms per year in West Greenland, Greenland fails to offer any evidence that this current consumption rate is not sufficient to meet need.

In East Greenland, where the minke whale is the only whale species that can be hunted, the current ASW quota of 12 whales annually provides 6.7 kilograms of whale product per capita annually, far short of the reported need of 15 kilograms. With the size of the human population in East Greenland averaging 3,389 from 2013-2018, an increase in the strike limit to 20 whales (as Greenland is requesting) would raise the per capita consumption rate to 11.2 kilograms which is just below the range in West Greenland.

This claim is misleading since the actual current per capita consumption rate in West Greenland is 8.2 kilograms per person each year. The 11.2 rate is, therefore, far higher than the actual per capita consumption rate in West Greenland but lower than its potential per capita consumption rate if the current quota was fully utilized and then adjusted for the number of struck and lost whales.

Furthermore, in seeking this increase in the minke whale ASW quota for East Greenland, Greenland claims that recent scientific advice has reduced hunting opportunities in East Greenland over the past couple of years for other species including seabirds and other marine

⁶ Jeppesen, C., M. Eika Jørgensen, and P. Bjerregaard. 2012. Assessment of consumption of marine food in Greenland by a food frequency questionnaire and biomarkers. *International Journal of Circumpolar Health*, 71: 18361. Available at: <http://www.circumpolarhealthjournal.net/index.php/ijch/rt/printFriendly/18361/html>.

mammals. This may be true but, as noted previously, Greenland has offered no evidence that hunting opportunities have declined, that actual takes of hunted species have declined, or of the reported scientific advice precipitating these changes. Greenland should cite this information in support of its request for an increase in its strike limit for East Greenland minke whales.

More generally, Greenland must revisit its calculation of need for West and East Greenland to provide actual data on annual per capita need for edible whale products to satisfy documented nutritional, subsistence, and cultural need. Relying on previously approved need statements or levels and multiplying those by the number of additional people in the population or by trying to correlate per capita need between West and East Greenland (as is the methodology Greenland has used to calculate its present need) is either entirely ill-suited as a method to determine need or fails to incorporate important elements that may influence need. For example Greenland, while claiming that the availability of other foods (including sea birds and other marine mammals) has declined recently, does not disclose the level of take of other wildlife species by native hunters and what proportion of overall need is covered by such take.

In addition, Greenland fails to include a consideration of how dietary patterns and food preferences in Greenland may affect its calculation of need. While such changes could theoretically either increase or decrease need for edible whale products, all of the available evidence suggests that, at present, Greenlandic people are reducing their consumption of edible whale products.⁷ In the abstract to a study by Bjerregaard and Mulvad (2012), which is included at the end of the White Paper, the authors note that “[T]he proportion of the total diet that comes from marine mammals is on a constant decrease, and especially children and young adults consume rather little seal and whale.” While we recognize, as Bjerregaard and Mulvad report, that the foods being consumed in place of these traditional foods may not be as healthy and that other lifestyle choices are causing an increase in severe obesity and diabetes, it is inescapable that dietary preferences in Greenland are changing.

Notably, the changes occurring to the dietary or food preferences of the Greenlandic people including a decline in the consumption of whale products may, in part, be linked to concerns about contaminants. As noted by Bjerregaard and Mulvad:

Jeppesen, C., M. Eika Jørgensen, and P. Bjerregaard. 2012. Assessment of consumption of marine food in Greenland by a food frequency questionnaire and biomarkers. *International Journal of Circumpolar Health*, 71: 18361. Available at: <http://www.circumpolarhealthjournal.net/index.php/ijch/rt/printFriendly/18361/html>.

The traditional diet in Greenland consists to a large extent of meat and organs of seal and other marine mammals, which is polluted by POPs and mercury. These substances are present in the blood of Greenlanders in concentrations well above international guidelines, and as these contaminants are suspected of having negative impacts on health...

And, in Mulvad et al. (1996), the abstract of which is also included in the White Paper:

The level of methyl mercury in organs is generally high. PCB concentrations found in organs of Greenlanders are higher than among other populations. Health and risk effects of the traditional foods need further investigation.

Similarly, the White Paper, while acknowledging the reported health benefits from consuming whale products including by providing a natural source of vitamins A and C, thiamine, riboflavin, niacin, increasing selenium levels, and protecting from cardiovascular disease, cautions against the consumption of such products by some segments of the population. For example, Greenland includes the following cautionary text in the White Paper:

If you have passed child-bearing age or no longer wish to have more children, you can eat marine mammals with no consequences for your health, despite the contamination of the marine food chain. Since contaminants from the marine food chain accumulate over a lifetime, and a number of them are not excreted, consuming marine mammals will generate levels during pregnancy that can affect the health of the foetus, as has been ascertained in cases in Greenland. Therefore, until you have had the children you plan to have, the Greenland Nutrition Council would suggest exercising restraint in consuming marine mammals. If you want to be completely sure of not exposing the foetus to such contaminants, consumption of marine mammals should be avoided until you have had the children you wish. After this there is no risk to health, given the doses measured and the knowledge available in this area. ...

These factors should be considered when calculated the need for edible whale products.

In regard to welfare concerns, the time to death (TTD), struck and lost (S&L), and instantaneous death rate (IDR) statistics continue to raise significant concerns about the humaneness of the different hunts. Table 2 contains the relevant welfare data provided by Greenland in the White Paper for its species specific ASW hunts for 2013 through 2017.

Table 2: Welfare Data for each Greenlandic ASW Hunt by Species (and Primary Killing Method) (adapted from Table 3 in the White Paper):⁸

	Fin (Harpoon-Penthrite-Whale Grenade 99)	Minke (Harpoon-Penthrite-Whale Grenade 99)	Minke (Collective-Rifles)	Humpback (Harpoon-Penthrite-Whale Grenade 99)
# Reports TTD/S&L	44/8	325/5	422/16	25/0
Average TTD (minutes)	17	4	27	18
Median TTD (minutes)	8	1	21	13
Maximum TTD (minutes)	71	24	264	54
% Killed 1 Minute	39	55	3	16
% Killed 5 Minutes	48	78	10	48
Loss Rate (% Struck Animals Lost)	10	0	4	5

AWI and WDC commend Greenland for collecting and disclosing TTD, S&L, and IDR data which are not provided by other governments that authorize ASW. Moreover, while Greenland reports that the welfare statistics for 2013-2017 are in improvement from previous quota blocks, these data reflect an ongoing unacceptable level of cruelty in all of the Greenlandic hunts and, in particular, in the fin and humpback whale harpoon hunt and in the minke whale rifle hunt.

Greenland reports that it now mandates the use of the exploding Whale Grenade-99 for all of the hunts where the whaling vessels are equipped with harpoon cannons. The cannons and grenades are expensive costing 1,200 and 60,000 USD, respectively; a cost which is partially offset by government subsidies. In addition, whalers who utilize these harpoons must participate in training and the harpoon cannons themselves must be approved every two years. For the harpoon hunt of fin, humpback, and bowhead whales, the Whale Grenade-99 is reported to be both the primary and secondary method of killing thereby requiring whalers who use harpoon cannons to have at least two Whale Grenade-99 devices on their vessels during each voyage. For the minke whale harpoon hunt, the secondary killing method is either the Whale Grenade-99 or high powered rifles.

For whalers who intend to sell any whale product, they must obtain a whaling license and then, if a whale is killed, must produce the receipt documenting the purchase of the Whale Grenade-

⁸ Table 3 in the White Paper provided no welfare data for the Greenlandic bowhead whale hunt.

99 to have his/her license stamped which then permits the edible whale product to be sold. It is unclear, however, if proof of grenade purchase is sufficient to obtain a stamp to allow the sale of whale products or if the whaler also has to demonstrate that the grenade was used.

AWI and WDC are concerned about the welfare implications of the collective hunt of minke whales in both east and west Greenland where high-powered rifles are the primary killing method. This hunting method results in significant cruelty as the data in Table 2 and the description in the White Paper, demonstrate:

As a rule, the whales are first wounded and then secured with the hand harpoons.

When possible, the hand harpoon is used before wounding the animal. One hunter is designated the leader and it is his task to secure the animal with the hand harpoon.

Once a whale has been secured, it is killed by shoots (sic) aimed at the neck.

Considering Greenland's reported interest in addressing the welfare concerns associated with its whale hunts (as noted in the White Paper), it should endeavor to ensure that rifles are of sufficient caliber to ensure a swift death and avoid the use of non-exploding hand-harpoons as a killing method for large whales. It is of concern that an increasing number of minke whales originally assigned to the harpoon hunt in West Greenland are, if not taken, subsequently reassigned to the much less humane collective hunt. Greenland should report data to document this trend.

As one alternative to the collective minke whale hunts and to satisfy any legitimate need for edible whale products in West or East Greenland that is currently being met through minke whales killed with rifles, Greenland could use its existing distribution network to transport whale products from West Greenland to those communities with credible need for the products including in East Greenland.

AWI and WDC recognize that there is a credible need for edible whale products to meet subsistence needs in Greenland. While we continue to have concerns over the commerciality of the sharing of whale meat in Greenland, we recognize that the cost of ASW and particularly the harpoon cannons and penthrate grenades, is high. We acknowledge the subsidies provided by the government to try to reduce these costs for the whalers and we would ask Greenland and Denmark to consider increasing the amount of the subsidy to help further defray such costs and, in turn, reducing the incentive to sell edible whale products. The Norwegian suppliers of the weapon could also consider defraying the cost to their subsistence customers.

Conclusion:

AWI and WDC reiterate their thanks for the opportunity to submit these comments and to participate in this process allowing all Contracting Governments and observer organizations to offer their input and to seek clarification about ASW related issues to be discussed at IWC67. As noted above, while there are some changes proposed in IWC/67/01 that AWI and WDC endorse, many others generate considerable concern and require far more analysis and discussion before they should be approved.

Should you have any questions about the content of this letter or require clarification on any issues raised, please contact me at dj@awionline.org.

Sincerely,

A handwritten signature in black ink, appearing to read "D.J. Schubert". The signature is written in a cursive style with a large initial "D" and "J".

DJ Schubert
Wildlife Biologist
Animal Welfare Institute