

Report of the Aboriginal Subsistence Whaling Sub-Committee

Thursday 6 September 2018, Florianopolis, Brazil

Summary of Main Outcomes

| Agenda Item | Main outcomes |
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| 3. Report of the <i>Ad Hoc</i> Aboriginal Subsistence Whaling Working Group | The Sub-committee endorsed the report of the ASWWG and its recommendations (see Appendix 4) and recommended the revised timeline process for future use (see Appendix 5). It recorded its great appreciation for the dedication and leadership of Dr Mike Tillman who led the group since its inception in 2011. |
| 4. Aboriginal subsistence whaling management procedure | The Sub-committee endorsed the report of the Scientific Committee and its recommendations on: <i>Strike Limit Algorithms</i> for West Greenland fin whales and common minke whales; the Makah Management Plan; and the <i>Implementation Review</i> of Bering-Chukchi-Beaufort Seas stock of bowhead whales. |
| 5. Aboriginal Whaling Scheme (AWS) | The Sub-committee endorsed the report of the Scientific Committee and its recommendations on the scientific components of the Aboriginal Whaling Scheme (Carryover, Block quotas, Interim Relief Allocations, Guidelines for <i>Implementation Reviews</i> , Guidelines for surveys and other data) – see Appendix 6. |
| 6. Aboriginal subsistence whaling catch/strike limits | <p>The Sub-committee endorsed the report of the Scientific Committee and its management advice on all of the hunts: the proposed catch/strike limits and carryover provisions all met the conservation objectives of the Commission as did proposals to remove the minimum length limit for West Greenland fin whales and the 9-month season limit for common minke whales off Greenland.</p> <p>The Sub-committee also exchanged views on the Descriptions of the Hunt and Catch/strike limit requests for each hunt, as well as the joint proposal from the ASW countries for catch/strike limits, a one off seven-year block and autorenewal of quotas in specific circumstances. No consensus on the joint proposal was reached in the time available and discussions should continue in the Plenary.</p> |
| 7. Status of the ASW Voluntary Fund | The fund received generous donations from the USA and Switzerland and the money was used towards holding the Utqiaġvik/Barrow workshop (see Item 3.1) and evaluation of the Makah Management Plan (see Item 4.2). The balance of the fund is £7,577. The potential use of voluntary funds to address recommendations made at the Barrow workshop was noted. |

1. INTRODUCTORY ITEMS

The meeting was held on 6 September 2018 at the Costão do Santinho Resort, Florianopolis, Brazil. The list of participants is given in Appendix 1.

1.1 Appointment of Chair

Bruno Mainini (Switzerland) was elected Chair and welcomed the participants to the meeting.

1.2. Appointment of Rapporteurs

A team of rapporteurs took notes during the meeting. Donovan developed the draft report.

The Chair explained that the plan was to adopt the report by correspondence.

1.3 Review of documents

The list of documents is given as Appendix 2. The Chair noted that the ASW countries met the deadlines agreed in the trial process (see Item 3.1) for the submission of web text and documents related to information on the hunts and the catch/strike limit requests. He also noted that three documents were received on time with respect to questions on the information provided (IWC/67/ASW/08; IWC/67/ASW/NGO01 and IWC/67/ASW/NGO 02). Finally, he noted that additional information in response to those comments by the ASW countries (IWC/67/ASW/09) was also received on time.

1.4 Observer participation

The Chair explained the process for interventions of IGOs and NGOs.

2. ADOPTION OF AGENDA

The Chair stressed that was a particularly important meeting as the ASW limits are due for renewal. The Commission has been working to facilitate the discussion of ASW issues for some time and the objective is to avoid last minute surprises and agree catch/strike limits by consensus. An important component of this has been the work of the *Ad hoc* Aboriginal Subsistence Whaling Working Group (ASWWG) that will be discussed under Item 3, including the trial process agreed at IWC66 to be used at IWC67. He was looking forward to a full and honest discussion during this Sub-committee meeting that will hopefully pave the way to smooth discussions in the Plenary.

In light of the documents presented, including the Schedule amendment (IWC/67/01), the Chair proposed an additional sub-item to Item 6: Item 6.9: Consideration of the joint Schedule amendment (IWC/67/01).

This was agreed and the revised agenda was adopted as shown in Appendix 3.

3. REPORT OF THE AD-HOC ABORIGINAL SUBSISTENCE WHALING WORKING GROUP

At IWC63 in 2011, the Commission endorsed a recommendation to form an *Ad Hoc* Aboriginal Subsistence Whaling Working Group (ASWWG). The group's terms of reference were to identify and consider unresolved ASW issues. The Chair noted that the ASWWG has worked diligently since then under the excellent Chairmanship of Mike Tillman (USA).

3.1 Report of the *Ad Hoc* Aboriginal Subsistence Whaling Working Group (ASWWG)

3.1.1 Chair's summary

The Chair of the ASWWG and the Barrow meeting, Tillman, introduced the Report of the Meeting of the ASWWG (IWC/67/ASW Rep 01), held at the kind invitation of the United States on behalf of the Alaska Eskimo Whaling Commission and the North Slope Borough, in Utqiagvik/Barrow, Alaska from 10-13 April 2018. He was pleased to note that there was good participation from member governments of the ASWWG, scientific advisors, four IWC observer governments, one non-member government observer, one IGO as well as representatives from native hunter organisations, and 6 NGOs.

The primary purpose of the meeting was to address two tasks assigned by the Commission:

(1) complete deliberations on the seven long-term ASW issues assigned by the Commission in 2011 (IWC, 2012, pp.17-19) and make recommendations to the Commission;

(2) consider further the Report of the 2015 IWC Expert Workshop on Aboriginal Subsistence Whaling (the Maniitsoq Report - IWC/66/ASWRep01) including the long-term ASW issues, recommendations and potential financial implications of these.

In 2016 at IWC65, the Commission agreed to the pilot use for IWC67 of the ASW Timeline given in Table 2 of the Maniitsoq Report. Accordingly, the ASWWG addressed several related topics, including providing advice on the revision of Table 2 as requested by the Commission in 2016; the timeline used for 2018; the SC's recent work on the concept of 'carryover'; the use of and format for 'Description of the Hunt' in place of 'Need Statement'; and the Outline for the 'ASW Catch/Strike Limit Request', among others.

The ASWWG agreed that its report should not only incorporate information on the long-term ASW issues but also include a summary (Table 1 of IWC/67/ASW/Rep01) of the completed discussions on the short-term ASW issues that had occurred at earlier meetings and had been submitted to, and accepted by, the Commission. This was not to re-open discussion but rather to ensure that the ASWWG's views on all of the ASW issues were incorporated into a single document.

THE SEVEN LONG-TERM ISSUES

Tillman highlighted the summary of the ASWWG's conclusions with respect to the seven long-term issues in Table 9 of IWC/67/ASW/Rep01. These took into account previous discussions within the ASWWG and the Maniitsoq Expert Workshop as well as discussions in Utqiagvik/Barrow and completed the ASWWG's work on this topic.

REVIEW OF THE MANIITSOQ EXPERT WORKSHOP.

Tillman noted that Table 3 of IWC/67/ASW/Rep01 summarised the actions arising out of the Utqiagvik/Barrow meeting's review of the Maniitsoq Report. The table noted where costs would be incurred by a recommended action, upon the assumption that funding would be provided through contributions to the IWC's Voluntary ASW Fund. Table 10 of the same document provides a more thorough summary of the ASWWG's conclusions and recommendations arising out of the review of the Maniitsoq Report.

The ASWWG had noted the Commission's understanding that:

'Contracting Governments concerned will continue to submit information in support of proposed catch and strike limits for ASW to satisfy aboriginal subsistence needs (Rep. 66th Mtg Int. Whaling, Comm. p. 18).

It had also reviewed and recommended modified outlines for the 'Description of the Hunt' (Table 5 of IWC/67/ASW/Rep01) and the 'Catch/strike limit request' (Table 5 of IWC/67/ASW/Rep01). It agreed that these met the Commission's expectations and agreed upon their use prior to IWC67.

In this regard, Tillman noted that one of the most important outcomes from the Utqiagvik/Barrow meeting was the WG's revision of the ASW Timeline that had been developed in Maniitsoq (Table 2 in the Maniitsoq Report) in light of Commission discussions at IWC66 in 2016. The revised and recommended version is given as Annex E of IWC/67/ASW/Rep01.

Given the forthcoming Commission meeting, the ASWWG had also developed and agreed an abbreviated timeline for use prior to IWC67 (see Table 4 of IWC/67/ASW/Rep01). Table 7 of the same document summarises the actions and recommendations arising from the review of the pilot process for 2018.

In closing, the Chair of the ASWWG thanked the Secretariat, the US Delegation, the AEWG and the North Slope Borough for their substantial help in preparing for and undertaking the Utqiagvik/Barrow meeting. He also thanked the rapporteurs from the US and the Secretary and Head of Science for producing an outstanding draft report that required very few changes during review. Finally, he commented that chairing the ASWWG has been one of the great pleasures, as well as challenges, of his professional life. As this was an *ad hoc* Working Group he believed that now it had completed its terms of reference it could cease to exist. Should the Commission believe that further work on ASW matters was required then a new group should be constituted as a standing working group with updated terms of reference.

3.2 Discussion and recommendations

The Chair thanked Mike Tillman for his outstanding work in leading the ASWWG intersessionally as well as during meetings and for completing the difficult tasks set by the Commission in 2011. Before dealing with the recommendations and actions arising he invited general comments on the report. Many delegations also thanked Tillman for his leadership and the comprehensive ASWWG report and the USA, the AEWG, the North Slope Borough and the people of Barrow for their welcome and excellent hosting of the meeting in Barrow.

The USA, Denmark and the Russian Federation highlighted the great value in the recommendations and especially the use of the outline for the Descriptions of the Hunt and the Strike/Catch limit requests. They noted the value of

the timeline process whilst recognising its challenges and welcomed the collaborative nature of the ASWWG discussions. They believed that the timeline had been successfully implemented and supported adoption of the revised process whilst recognising that like any process it would evolve and improve through time.

The UK and Mexico also welcomed the new process and identified the USA description of the bowhead hunt as a good model for all ASW countries to follow in the future, suggesting that it may also form the basis for an elaboration of the outline provided in IWC/67/ASW/Rep01 Table 5 in the future. The UK also commented that the more information the Commission receives about cultural, nutritional, and subsistence needs, including how they are assessed, the smoother the progression of catch/strike limit requests will be.

Argentina welcomed the fact that the ASWWG had completed its original terms of reference and indeed addressed some additional important issues. It noted that it would not be taking forward the issue of whalewatching as described in Item 6.1 of IWC/67/ASW/Rep01, although it reiterated the view it had expressed at the 2016 Commission meeting that the rights of indigenous peoples are not absolute and that the rights of such people undertaking whale watching must also be taken into account. With respect to the recommendations in Table 10 regarding the nature and extent of indigenous rights in the context of the IWC, they commented that in the current financial climate, they could not support actions that required Commission core funding. They believed that the Maniitsoq report and other recent reviews provided an adequate understanding of the issues.

After these comments, the Sub-committee **endorsed** the report of the ASWWG and its recommendations and **recommended** the revised timeline process for future use (Appendix 5). Appendix 4 incorporates the relevant summary tables of conclusions, actions and recommendations, including discussions of costs and the use of the ASW Voluntary Fund.

At the conclusion of the item, the Sub-committee reiterated its great appreciation for the dedication and leadership of Mike Tillman.

4. ABORIGINAL SUBSISTENCE WHALING MANAGEMENT PROCEDURE

Greg Donovan, as Chair of the Scientific Committee's Standing Working Group on the Aboriginal Management Procedure (SWG on the AWMP), provided an overview of the work of the Scientific Committee on this topic that originated in Resolution 1994-4. This is available as IWC/67/AWS/10. Given the availability of that document only a short summary of the presentation is provided below under the relevant agenda items.

4.1 Progress with *Strike Limit Algorithms* for Greenland

4.1.1 Report of the Scientific Committee

The Chair of the SWG on the AWMP explained the general background to the management procedure approach in the context of subsistence whaling. He noted the strengths of the approach, emphasising the incorporation of uncertainty, the use of computer simulations to cover plausible scenarios, the importance of evaluating candidate *Strike Limit Algorithms* (methods to calculate safe removal levels) against conservation and user objectives agreed by the Commission over the range of plausible scenarios ('trials'). The importance of feedback mechanisms (*Implementation Reviews*) was emphasised. The approach has been developed over many years and is recognised around the world as the most rigorous approach to providing advice on the management of natural resources.

He then focussed on the intense work undertaken to finalise the remaining Greenland *SLAs* (West Greenland fin whales and West Greenland common minke whales). He noted that it had not originally been envisaged that an *SLA* would be required for the East Greenland hunt of common minke whales as the proposed catches were very small compared to the relevant population size. This is discussed further under Item 6.4 below.

WEST GREENLAND FIN WHALES

The Chair of the SWG on the AWMP summarised the work undertaken by the Committee, highlighting the key factors that influenced the trials, especially stock structure.

Under Item 7.1.1.3 of its report, the Committee drew attention to the extensive work undertaken over recent years to develop an *SLA* for the West Greenland hunt for fin whales. In concluding its work, the Committee:

- (1) agreed that the combined *SLA* (which sets the strike limit to the average of the values obtained by the two best *SLAs* considered) performed satisfactorily in terms of conservation performance and was to be preferred over the individual *SLAs* in terms of need satisfaction;
- (2) recommended that this '*WG-Fin SLA*' be used to provide management advice to the Commission on the subsistence hunt for West Greenland fin whales (provided the need request falls within need scenarios A and B);

(3) expressed its great thanks to the developers, Brandão and Witting for the vast amount of work put into the development process and to Allison and Punt for their extensive work developing the operating models and running the trials; and

(4) agreed that one focus of the next *Implementation Review* will be to examine further stock structure in relation to the two hypotheses being considered at present, and especially the ‘influx’ model which was developed in the context of low abundance estimates in some years, rather than being based upon genetic information.

WEST GREENLAND COMMON MINKE WHALES

The Chair of the SWG on the AWMP summarised the work undertaken by the Committee, highlighting the key factors that influenced the trials, especially stock structure.

Under Item 7.2.1.3 of its report, the Committee drew attention to the extensive work undertaken over recent years to develop an *SLA* for the West Greenland hunt for common minke whales. In concluding this work, the Committee:

- (1) agreed that the tested *SLA* performed satisfactorily in terms of conservation performance;
- (2) agreed that this ‘*WG-Common minke SLA*’ be used to provide management advice to the Commission on the subsistence hunt for West Greenland common minke whales provided the need request falls within need scenario A (i.e. does not exceed 164 annually);
- (3) expressed its great thanks to the developers, Brandão and Witting for the vast amount of work put into the development process and to Allison and Punt for their extensive work developing the operating models and running the trials; and
- (4) agreed that one focus of the next *Implementation Review* will be to examine further stock structure in relation to the two hypotheses being considered at present, should be consideration of the results of analyses of genetic data using additional samples from Canada (as well as the additional samples that will become available from West Greenland and Iceland); and
- (5) agreed to establish an intersessional advisory group to facilitate issues relating to samples.

4.1.2 Discussion and Recommendations

Argentina thanked the Chair of the SWG on the AWMP and the Scientific Committee for their excellent work. It asked for clarification on the issue, originally raised by some countries 15 years ago, of the high percentage of females (with limited information on the proportion that might be pregnant) caught in the Greenland hunts for common minke whales and particularly on any long-term conservation implications if this continues, and whether this might also be affected by the extension of the hunting season to the full calendar year.

The Chair of the SWG on the AWMP noted that the issue of imbalanced sex ratios of common minke whales throughout the North Atlantic (in some areas there were fewer females) in particular was a phenomenon well known to the Scientific Committee. It was one reason why the population modelling framework (for each of the alternative stock structure hypotheses) developed for large whale populations in the North Atlantic was both age class and sex-based. The operating models took account of the historic sex ratio data and the projections into the future under a wide range of scenarios also tracked both numbers of females (and males) by area. These projections (that also allowed for different productivity related to different reproductive rates) in effect allowed modelling of the female population and the *SLA* met the conservation objectives of the Commission over the 100-year period. The modelling is not sensitive to the time of year that catches are taken (the Committee did not see any conservation issues with a year-long season) but, in addition, the Committee’s regular *Implementation Reviews* consider catch data by sex amongst other factors and will identify if there are any causes for concern with respect to sex ratio data in the future.

Senegal also thanked the Chair of the SWG on the AWMP and the Scientific Committee for their excellent work. It asked several questions related to whether the Scientific Committee was involved in assessing the needs of subsistence communities and food security, possible effects of climate change, protection of calves.

The Chair of the SWG on the AWMP noted that the Scientific Committee was not involved in determining ‘need’ but, in developing *SLAs*, had taken into account the strike/catch limit requests provided by the ASW countries whilst ensuring that conservation objectives were met. The question of the effects of climate change on cetaceans was an important long-term topic that was also the subject of discussions within the Committee outside an ASW

context. Such factors are considered Monitoring changes in availability, distribution and other factors over time was an important component of *Implementation Reviews*.

In conclusion, the Sub-committee thanked the Chair of the SWG on the AWMP for his informative presentation, congratulated it for completing the new *WG-Fin* and *WG-Common minke SLAs* and **endorsed** the Scientific Committee report on this issue and its recommendations.

4.2 Review of the Makah Management Plan

4.2.1 Report of the Scientific Committee

The Chair of the SWG on the AWMP reported that the Committee had been requested in 2018 by the USA to review a new management plan for the Makah hunt of gray whales (the Committee had endorsed a previous plan for this hunt in 2012). The complex plan contained measures to restrict the number of PCFG (Pacific Coast Feeding Group) whales that are struck or landed in a given 10-year period and to avoid, to the extent possible, striking or killing a WFG (Western Feeding Group) gray whale. It includes as factors: time of year, odd and even year limits, photo-identification of individuals. The plan was tested using the modelling framework developed as part of the rangewide review of gray whales. The Committee:

- (1) agreed that the performance of the Management Plan was adequate to meet the Commission's conservation objectives for the Pacific Coast Feeding Group, Western Feeding Group and Northern Feeding Group gray whales;
- (2) noted that the proposed management plan is dependent on photo-identification studies to estimate PCFG abundance and the mixing proportions of PCFG whales available to the hunt (and to bycatch in its range);
- (3) stressed that its conclusions are dependent on the assumption that these studies will continue in the future; and
- (4) expressed its great thanks to Punt, Brandon and Allison for their excellent work in developing and validating the testing framework and running the trials.

4.2.2 Discussion and Recommendations

In conclusion, the Sub-committee thanked the Chair of the SWG on the AWMP for his informative presentation and **endorsed** the Scientific Committee report on this issue and its recommendations.

4.3 Implementation Review for BCB bowhead whales

4.3.1 Report of the Scientific Committee

At its 2018 meeting, the Committee undertook an *Implementation Review* of the Bering-Chukchi-Beaufort Seas stock of bowhead whales. The objective was to (a) review available information to examine whether new trials are required to ensure that the *Bowhead SLA* still meets the Commission's objectives and (b) review catch and abundance data required by the *SLA*. Previous reviews had occurred in 2007 and 2012 – both concluded that the Bowhead *SLA* was still appropriate to provide advice.

The Committee carried out a full review of the following major topics: (1) stock structure; (2) abundance; (3) biological parameters; (4) removals; and (c) health.

Under Item 7.3.6 of its report, the Committee concluded that:

- (1) the *Implementation Review* had been satisfactorily completed; and
- (2) the range of hypotheses and parameter space already tested in *Bowhead SLA* trials was sufficient and therefore the *Bowhead SLA* remained the best way to provide management advice for this stock.

In addition, it thanked the US scientists for the extremely hard work that they put into providing comprehensive papers to facilitate this review.

4.3.2 Discussion and Recommendations

In conclusion, the Sub-committee thanked the Chair of the SWG of the AWMP for his informative presentation and **endorsed** the Scientific Committee report on this issue and its recommendations.

5. ABORIGINAL WHALING SCHEME (AWS)

5.1 Report of the Scientific Committee

The Chair of the SWG on the AWMP reported that AWMP uses case-specific SLAs to provide advice on strike/catch limits. However, as has been agreed in principle since 2002, AWS management in the broader sense includes several issues, several with scientific components:

- (1) SLAs (case-specific)
- (2) Operational rules (generic to extent possible)
- (3) Carryover, block quotas, interim relief allocations
- (4) Guidelines for *Implementation Reviews*
- (5) Guidelines for data and analyses (e.g. abundance, other data)

The proposed AWS in 2003 was not accepted in detail and the Committee has been working on updating this in recent years, as reported previously to the Commission in 2014 and 2016. This work has now been completed and the Committee recommends the AWS provided in Appendix 6 to the Commission. In doing so it noted that any Commission AWS may include additional non-scientific provisions. He then summarised the main components.

Carryover

Carryover is a provision to enable (some) strikes not used in one year to be used in a subsequent year or years. It is not a new concept and allows for inevitable fluctuations in the success of the hunt due to environmental conditions and/or whale availability. It is important to note that this does not allow hunts to take more than total strikes agreed by Commission for the period covered by the carryover provision.

He stressed that the SC's role was not to recommend a particular approach but rather to provide advice on these when asked by Commission. In 2001 and 2016 Commission approved examination of scenarios incorporating a 50% interannual variation within blocks and a 50% allowance to the next block whilst noting that this did not commit the Commission to use these variations or allowances. The Committee examined the conservation performance of carryover provisions using the *SLA* evaluation framework. To do this it needed at least: (1) an initial start date (e.g. start of new block, specific year); (2) an expiration period (strikes cannot be carried over indefinitely) and (3) limits on use (e.g. a maximum number of strikes allowed in any one year). The Committee also noted that carryover provisions should be monitored via the *Implementation Review* process. Should new information (e.g. abundance data) result in severe decrease in quota, this would trigger review of existing carryover provisions and conservation implications and may lead to recommendations for change. As an example, the Chair of the ASWWG of the Scientific Committee reported on the work undertaken to review a request from the USA and Denmark to:

‘...allow for the carry forward of unused strikes from the previous three blocks, subject to the limitation that the number of such carryover strikes used in any year does not exceed 50% of the annual strike limit’.

This was tested using the *Bowhead SLA* and *WG-Humpback SLA* and it was found that the Commission's conservation objectives were met. This is discussed further when considering individual hunts under Item 6.

Block quotas

The Committee has agreed that block quotas of up to 8 years are acceptable (this advice was provided in 2013 in the context of biennial Commission meetings in 2013). The Committee also noted the need for abundance estimates every 10 years.

Interim relief

As for hunts, a variety of factors including environmental conditions can prevent a successful abundance estimate being obtained (recognising that there will be time delay from completing field work to completing the data analyses and for estimates to be accepted by the Committee). However, it is recognised that it is not wise to have uncurtailed strike/catch limits in long-term absence of data and the Committee has recommended 10 years for *SLAs*. The Committee has developed an interim relief approach should this period be exceeded in rare and unforeseen cases (note that two successive interim allowances are not allowed). In essence this involves a ‘Grace period’ allowing a one-block extension of the existing limits while a new estimate is approved. This has been tested so far for BCB bowhead whales and West Greenland humpback whales so far and testing of the other *SLAs* is on the Committee's workplan.

If (in extreme circumstances) no acceptable estimate is achieved during the grace period, this would trigger an immediate *Implementation Review*. In absence of positive alternative evidence, the Committee would not be able to use *SLAs* to provide advice and the Commission should use great caution.

Implementation Reviews

Regular (every 5-6 years) *Implementation Reviews* are central to the functioning of the AWMP. They review new information to see if new trials are needed and review information required for the *SLA* e.g. catches and abundance.

Under exceptional circumstances (e.g. major mortality events, major habitat changes (natural or anthropogenic), a dramatically low abundance estimate etc.), the Committee may call an immediate *Special Implementation Review*.

The possible outcomes of an *Implementation Review* are: (1) no need for new trials and the existing *SLA* is acceptable; (2) new trials run and the existing *SLA* is acceptable; (3) no need for new trials or change to advice but special topic identified for next review; and (4) new trial results require development of modified or new *SLA* requiring reconsideration of management advice.

Guidelines for surveys and data

Abundance data are essential for providing management advice under *SLAs* and the AWS provides guidelines to ensure that acceptable estimates are obtained. Similarly, in addition to catch data, there are other data that are valuable in the context of *Implementation Reviews* (e.g. data related to stock structure) and the AWS also provides guidelines on these.

5.2 Discussion and Recommendations

In conclusion, the Sub-committee thanked the Chair of the SWG on the AWMP for his informative presentation and **endorsed** the Scientific Committee report on this issue and its recommendations.

6. ABORIGINAL WHALING SUBSISTENCE CATCH/STRIKE LIMITS

The Chair noted that for each of the sub-items on individual hunts, he would ask the relevant ASW country or countries to briefly introduce their catch/strike limit request and description of the hunt. He would then receive the report from the Scientific Committee before opening the floor for discussion on all aspects of the hunt. In introducing the item, he also noted the extensive information presented both on the IWC website and in documents presented to this meeting, in accordance with the timeline discussed under Item 3.1.

6.1 Bering-Chukchi-Beaufort Seas (BCB) stock of bowhead whales

In introducing the proposal, the USA noted that the BCB bowhead aboriginal subsistence whaling catch limits (paragraph 13(b)(1)) have been updated with the following information:

- (1) the years have been changed to 2019 - 2025 (i.e. including the 'buffer' year - see Item 6.9) and consequently the block limit of landed whales had been increased by one-seventh from 336 to 392; and
- (2) whilst the annual strike limit (67) remains unchanged, the SC-approved 50% carryover provision of unused strikes from three prior quota blocks has been incorporated.

The USA also briefly presented the additional information provided in IWC/67/ASW/02 on sharing of bowhead whale to relatives and other Native people who live outside the 11 Alaska Eskimo bowhead whaling communities, as well as on the methods used to assess cultural and nutritional requirements.

The Russian Federation noted that the Chukotkan whalers occasionally take bowhead whales (1-2 per year on average) within the proposed strike/catch limits.

6.1.1 Report of the Scientific Committee

The Scientific Committee:

- (1) agreed that the *Bowhead Whale SLA* remains the best available way to provide management advice for this stock;
- (2) advised that a continuation of the present average annual strike limit of 67 whales will not harm the stock and meets the Commission's conservation objectives; and
- (3) advised that provisions allowing for the carry forward of unused strikes from the previous three blocks, subject to the limitation that the number of such carryover strikes used in any year does not exceed 50% of the annual strike limit, has no conservation implications (see SC/67b/Rep04).

6.1.2 Discussion and Recommendations

There were no questions or comments made. In conclusion, the Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

6.2 North Pacific Eastern stock of gray whales

The Russian Federation referred to the extensive information it had provided via the IWC website and meeting documents. It emphasised that whaling is culturally and nutritionally essential for the people of Chukotka, noting the adverse health effects of replacing traditional marine mammal food with alternatives. All parts of the whales are used – either eaten or used in the household as been the case throughout history in this region. The quota request is not new. The present Schedule states that:

‘For the years 2013, 2014, 2015, 2016, 2017 and 2018, the number of gray whales taken in accordance with this sub-paragraph shall not exceed 744, provided that the number of gray whales taken in any one of the years 2013, 2014, 2015, 2016, 2017 and 2018 shall not exceed 140’.

Taking into account possible struck and lost and ‘stinky’ whales in the harvest (also removals from the population), the proposed total annual take of 140 whales including above-mentioned unused portion was confirmed as sustainable by the Scientific Committee.

The USA presented a summary of the extensive information it had provided on the Makah hunt both for this and earlier meetings, and especially that in IWC/67/ASW/03. The Makah Indian Tribe is the only American tribe that has a treaty with the USA that expressly protects the right of its people to hunt whales and whaling remains central to the Makah culture, spirituality, identity, and health. A recent (winter 2017) household survey of Makahs living on the reservation had highlighted the importance of whaling to the tribe with 95% of respondents supporting the continued efforts to resume whaling. A high percentage of Makahs recognised the value of incorporating whale products in their diet, noting the positive effect of whaling on tribal identity, health, pride and quality of life. The Makah strongly desire and support opportunities to maintain the central role that the whale has provided for the Tribe’s health and well-being for at least the last two millennia.

6.2.1 Report of the Scientific Committee

The Scientific Committee:

- (1) agreed that the *Gray Whale SLA* remains the best available way to provide management advice for the gray whale hunts;
- (2) advised that an average annual strike limit of 140 whales will not harm the stock and meets the Commission’s conservation objectives;
- (3) noted that its previous advice that the interannual variation of 50% within a block with the same allowance from the last year of one block to the first year of the next remains acceptable;
- (4) advised that the Makah Management Plan (see Item 2.3) also is in accord with the Commission’s management objectives.

6.2.2 Discussion and Recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

In response to questions, the USA noted that the Makah had stopped whaling voluntarily in 1921 for conservation reasons and when the increase in abundance meant that gray whales were no longer endangered, whaling was resumed in 1999 before it was stopped for legal reasons in 2002. The Makah management plan has been designed to address concerns that have been made. It hoped that these legal considerations will be completed soon.

It was also noted that a gray whale was killed illegally under domestic law by five members of the Makah tribe in 2007.

Senegal noted that for both Chukotka and the Makah, whaling had not only subsistence and cultural importance but also health benefits over alternative non-traditional food sources (e.g. whale meat is rich in vitamin A and fatty acids).

The UK, Argentina and Mexico thanked the Russian Federation for the additional information provided following submission of its catch limit request for an increase in quota from 124 to 140 whales annually. They noted that the objective of the increase was to protect against future uncertainty in the context of ‘stinky’ whales. However, they noted that the incidence of stinky whales in the hunt has been decreasing in recent years (perhaps as a combination of increased ability of hunters to detect such whales before striking them and a real reduction in their incidence) whilst the 2001-2017 average was around two whales – suggesting that the requested increase is higher than necessary. The UK also noted that the cause of ‘stinky’ whales is still unknown despite the time that the phenomenon has been recognised. It recalled the invitation by the European Union at IWC66 to work with

appropriate experts and the Russian Federation to develop a detailed workplan to better understand why, and how many, gray whales are affected by this phenomenon. It believes that this work should be given high priority. Mexico noted that it had also agreed to assist in investigating the cause of stinky whales and requested information on whether further increases in quota request could be expected.

The Russian Federation responded that the phenomenon of stinky whales began in 2001 and that annual numbers of such whales have fluctuated over time with up to six whales a year between 2004-2009 and a maximum of 8 in 2012 but that they have observed a slow decline since then to zero or one stinky whale a year. It noted that in 2018, at least two such whales have been taken thus far so it is important to recognise that the numbers may increase again. Account must also be taken of struck-and-lost whales given the difficult conditions within which the hunt takes place. They noted that predicting future needs is complicated. In terms of subsistence needs, it has been estimated that the population may require as many as 350 whales a year but the request has to take into account the practicalities of the hunt which is dependent on weather conditions, equipment and resource availability, hunter experience and whale behaviour.

The Russian Federation welcomed the offers of help with respect to understanding the cause of the 'stinky' whales. It noted that it had in the past co-operated with US scientists on the issue without solving it. It would take these offers of help into account but also highlighted the technical difficulties it has encountered in preserving samples in such a remote area and transporting them in their original condition to suitable laboratories, even within Russia.

6.3 Common minke whales off West Greenland

In introducing this proposal, Denmark/Greenland referred to the extensive documentation that it had presented (e.g. IWC/67/AWS/05), including web text on the Description of the Hunt and responses to questions received in accordance with the agreed timeline (see IWC/67/ASW/06). It noted that it was the responsibility of the governments concerned to determine their needs. Finally, it noted that the annual strike/catch limits were unchanged and this and the proposed 50% carryover was in accord with Scientific Committee advice (see Item 6.3.1 below). It also summarised the rationale for the request (applicable to both common minke whale hunts) that the limitation on a nine-month season be removed. This regulation was in fact an old regulation related to commercial whaling at the time that did not take into account the opportunistic nature of ASW whaling.

6.3.1 Report of the Scientific Committee

The Scientific Committee:

- (1) agreed that the *WG-Common minke SLA* is the best available way to provide management advice for this stock under need scenario A (i.e. up to 164 whales annually);
- (2) advised that a continuation of the present average annual strike limit of 164 whales will not harm the stock and meets the Commission's conservation objectives;
- (3) although the Committee has not yet had time to examine the request from the US/Denmark (SC/67b/Rep06, annex F, appendix) for this *SLA*, reiterated its previous advice, applicable for all *SLAs*, that interannual variation of 50% within a block with the same allowance from the last year of one block to the first year of the next is acceptable;
- (4) that changing the length of the season to 12 months had no conservation implications; and
- (5) encouraged the continued collection of samples for collaborative genetic analyses (and see Item 7.1.2.3).

6.3.2 Discussion and Recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

In discussion, Argentina commented that in the context of the extended hunting season, consideration should be given to the absence of daylight in winter and the potential effect this might have on hunting including times to death and struck-and-lost rates, noting that this applied to all hunts. Denmark noted that the other three hunts take place during the whole year, and it believes that these factors have already been taken into consideration by the Scientific Committee.

6.4 Common minke whales off East Greenland

In introducing this item, Denmark reiterated the general comments it made under Item 6.3 with respect to the provision of information. It noted that the proposal was for an increase in its annual catch/strike limit from 12 to 20 animals to meet increased need. As a formal *SLA* was not expected to become available until 2020, the text

ensured that the 50% carryover provision would not come into force until one had been adopted. Until then the current carryover of 3 strikes had been proposed to continue.

6.4.1 Report of the Scientific Committee

The Scientific Committee:

- (1) noted that in the past its advice for the East Greenland hunt had been based upon the fact that the catch was a small proportion of the number of animals in the Central Stock;
- (2) noted the process to develop an SLA for common minke whales off West Greenland resulted in a simulation framework that produces a considerably more rigorous way to provide advice for this hunt than before, by taking into account stock structure issues;
- (3) noted that the 2015 aerial survey abundance estimate of 2,762 (CV=0.47; 95%CI 1,160-6,574) is only a small part of the wider western and central stocks;
- (4) advised that the results of the simulation trials that incorporated a continuing catch of 20 whales from East Greenland gave rise to no conservation concerns;
- (5) advised that a continuation of the present average annual strike limit of 20 whales will not harm the stock and meets the Commission's conservation objectives;
- (6) advised that changing the length of the season to 12 months had no conservation implications; and
- (7) agreed that an SLA should be developed for this hunt in the future; and
- (8) encouraged the continued collection of samples from collaborative genetic analyses.

6.4.2 Discussion and Recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

6.5 Fin whales off West Greenland

In introducing this item, Denmark/Greenland reiterated the general comments it made under Item 6.3 with respect to the provision of information. It noted that the catch/strike/ limit was unchanged from the previous block and that a carryover provision of 50% had been included that was in accord with Scientific Committee advice. It also proposed that the length limit restriction be removed (the restrictions on taking calves or females accompanied by calves would remain in both the Schedule and national legislation). This was also a restriction from the days of commercial whaling but it was also an additional and unnecessary strain on hunters as it was not possible to accurately estimate the length of whales at sea. The Scientific Committee had noted that there were no conservation implications to the removal of this limitation.

6.5.1 Report of the Scientific Committee

The Scientific Committee:

- (1) agreed that the *WG-Fin SLA* is the best available way to provide management advice for this stock;
- (2) advised that a continuation of the present average annual strike limit of 19 whales will not harm the stock and meets the Commission's conservation objectives; and
- (3) although the Committee has not yet had time to examine the request from the US/Denmark (SC/67b/Rep06, annex F, appendix) for this SLA, reiterated its advice, applicable for all SLAs, that interannual variation of 50% within a block with the same allowance from the last year of one block to the first year of the next is acceptable;
- (4) advised that removing the length limits has no conservation implications; and
- (5) encouraged the continued collection of samples for collaborative genetic analyses.

6.5.2 Discussion and Recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

In response to questions from Chile and Mexico regarding tonnes of edible products by species and the method used to measure lengths, Denmark/Greenland referred to the Report of the Commission's Small Working Group on conversion factors (from whales to edible products) for the Greenlandic large whale hunt (IWC/62/9) presented to the Commission in 2010 and subsequently endorsed by the Scientific Committee. That document provides information on edible whale products for each species based upon data collected by hunters and scientists in

Greenland, as well as consulting the existing scientific literature. It should be noted that the average amount of edible products for fin, humpback and bowhead whales are similar in that report (around 11 tonnes). In response to recommendations in that report, training of hunters had occurred to standardise length measurements of caught whales (and see the additional information provided in IWC/67/AWS/09).

Chile also questioned whether the removal of the length restriction might result in it being more likely that calves may be caught. Denmark/Greenland commented that calves were rarely if ever seen in Greenlandic waters (newborn fin whales are around 20 feet in length) and underlined that hunts for suckling calves and females accompanied by calves would still be prohibited.

6.6 Bowhead whales off West Greenland

In introducing this item, Denmark/Greenland reiterated the general comments it made under Item 6.3 with respect to the provision of information. It noted that the strike/catch limit was unchanged from the previous block and that a carryover provision of 50% had been included that was in accord with Scientific Committee advice.

6.6.1 Information from the Government of Canada

The Secretariat noted that, as it has regularly done in the past, Canada had kindly provided information on its 2016 and 2017 catches of Eastern Arctic bowhead whales to the IWC and that these had been incorporated into the Scientific Committee discussions. Canadian scientists had also attended the 2018 Scientific Committee meeting and provided valuable information on abundance and stock structure of the Eastern Arctic bowhead whale stock.

The ASW Sub-committee thanked Canada for its continued co-operation and provision of information.

6.6.2 Report of the Scientific Committee

With respect to the new information from Canada, the Committee accepted, for the provision of management advice and use in an *SLA*, the abundance estimate from a 2013 aerial survey of 6,446 bowhead whales (CV=0.26, 95% CI 3,722-11,200). The survey covered the major summering area for the Eastern Canada/West Greenland (EC/WG) stock.

In terms of management advice, the Scientific Committee:

- (1) agreed that the *WG-Bowhead SLA* remains the best available way to provide management advice for the Greenland hunt;
- (2) noted that this *SLA* had been developed under the conservative assumption that the number of bowhead whales estimated off West Greenland represented the total abundance between West Greenland and Eastern Canada;
- (3) based on the agreed 2012 estimate of abundance for West Greenland (1,274, CV=0.12), the catch of one whale in Canada in 2017, and using the agreed *WG-Bowhead SLA*, agreed that an annual strike limit of two whales will not harm the stock and meets the Commissions conservation objectives; and
- (4) although it has not yet had time to examine the request from the US/Denmark (SC/67b/Rep06, annex F, appendix) for the *WG-Bowhead SLA*, reiterated its advice, applicable for all *SLAs*, that interannual variation of 50% within a block with the same allowance from the last year of one block to the first year of the next, is acceptable.

6.6.3 Discussion and Recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

6.7 Humpback whales off West Greenland.

In introducing this item, Denmark/Greenland reiterated the general comments it made under Item 6.3 with respect to the provision of information. It noted that the strike/catch limit was unchanged from the previous block and that a carryover provision of 50% had been included that was in accord with Scientific Committee advice.

6.7.1 Report of the Scientific Committee

The Scientific Committee:

- (1) agreed that the *WG-Humpback SLA* is the best available way to provide management advice for this stock;
- (2) advised that a continuation of the present annual strike limit of 10 whales will not harm the stock and meets the Commission's conservation objectives;

(3) advised that that provisions allowing for the carry forward of unused strikes from the previous three blocks, subject to the limitation that the number of such carryover strikes used in any year does not exceed 50% of the annual strike limit' has no conservation implications (see SC/67b/Rep04); and

(4) encouraged the continued collection of samples and photographs for collaborative analyses.

6.7.2 Discussion and Recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

6.8 North Atlantic humpback whales off St. Vincent and The Grenadines

No representative was present from St Vincent and The Grenadines but it was noted that there was no proposal to increase the present strike/catch limits.

6.8.1 Report of the Scientific Committee

The Scientific Committee:

(1) noted that it does not have an approved abundance estimate for western North Atlantic humpback whales since that for the year 1992;

(2) noted that in accord with the advice provided in the AWS (see Annex E, Appendix 8), it therefore considered the available evidence to see if was sufficient to provide safe management advice;

(3) advised that, given the information available on recent abundance in the North Atlantic combined with the size of the requested catch/strikes (an average of four annually), continuation of the present limits will not harm the stock.

The Scientific Committee also reiterated its previous advice that:

(1) the status and disposition of genetic samples collected from past harvested whales be determined and reported next year;

(2) photographs for photo-id (where possible) and genetic samples are collected from all whales landed in future hunts; and that

(3) the USA (NOAA, NMFS) provides an abundance estimate from the MONAH data as soon as possible for the Committee.

6.8.2 Discussion and recommendations

The Sub-committee **endorsed** the Scientific Committee report on this issue and its recommendations.

6.9 Consideration of the joint Schedule amendment (IWC/67/01)

The USA introduced the three elements common to each of the ASW hunts as contained in IWC/67/01, which was submitted by the four ASW countries on 12 June 2018.

(1) The one-time 7-year extension provides for a 'buffer' year by updating the number of years for each block to 7 years as opposed to 6. This extension will allow an additional year for the Commission to consider strike limits. In practice with this revision, the catch limits will be reviewed in 2024, but they would not expire until 2025.

(2) Carryover provision allows for greater flexibility in the face of uncertainty. As noted under Item 5 by the Scientific Committee, this affects when whales are struck, not how many. The total number of whales struck over the carryover time span will still be subject to the total block limit set by the Commission.

(3) The automatic renewal provision addresses the challenges regarding ASW catch limits renewals (one of the seven long-term issues addressed by the ASWWG (see Item 3). There are restrictions in how this would be applied to safeguard the stocks. The catch limits must not be proposed to change, and the Scientific Committee must continue to advise that the *status quo* catch limits will not harm the stock. No other changes to the present process would occur: all of the data would continue to be provided; there would still be regular *Implementation Reviews* and annual reviews by the Scientific Committee; the new six-year timeline process would occur and ASW would be open for discussion by the Commission.

In discussion, attention was drawn to an alternative suggestion to the seven-year one-off extension made during the ASWWG meeting (IWC/67/ASW/Rep01, Item 5.5) by the Animal Welfare Institute. In that, the IWC would continue to set six-year blocks for ASW hunts but that the Commission could vote on their renewal in year four (e.g. in 2022); the new quota would be entered into the Schedule with its delayed implementation date. The Chair

of the ASWWG noted that the ASWWG had recognised merits in both these proposals, recognising that it was up to individual ASW countries to determine what to propose.

New Zealand requested clarification on the need for going back three quota blocks for carryover provisions. The USA reiterated the need to provide as much flexibility as possible to the hunters in the light of the variable environmental conditions faced and associated hunting success in any one year; shortfalls in one year/block could thus be met in other years. In addition, they noted that this flexibility reduces pressures on hunters that might make them try to catch whales in sub-optimal conditions; thus the carryover provisions may also assist with reducing numbers of struck-and-lost animals and also assist in reducing times to death. Denmark/Greenland supported the explanation of the USA.

Chile commented that the joint proposal contained considerable new and sensitive issues that require more time for consideration. Given the complex nature of the proposal they requested the ASW countries to split the proposal into separate proposals.

The USA, on behalf of the four countries re-emphasised that they have followed the agreed timeline process and as such this proposal has been available for almost 3 months. The four ASW countries have worked extremely hard together in a transparent manner, providing considerable written information in a timely manner and responding to requests for additional information in accordance with the agreed timeline. They have been available for consultations for the past 3 months and remain available during IWC67 to find a consensus agreement on this proposal. They stated their strong opposition to splitting this proposal in any way. There is nothing new conceptually in this proposal. Carryover is not new. Rolling over 'status quo' proposals is not new and has been done multiple times. The one-time 7-year extension was discussed at IWC66 and at the 2015 Maniitsoq workshop. Denmark supported the views of the USA commenting that the proposal represents a comprehensive and coherent package for aboriginal subsistence whaling.

The Chair concluded that there was not consensus on the proposal and that further discussion would be needed in plenary. He urged delegates to read carefully the extensive material presented according to the new timeline to enable focussed discussions in Plenary.

7. STATUS OF THE VOLUNTARY FUND

The Secretariat reported on the status of the ASW Voluntary Fund. The Fund received generous donations from the USA and Switzerland totalling around £96,000. Key activities related to the holding of the Utqiaġvik/Barrow workshop (see Item 3.1) and modelling work to provide advice on North Pacific gray whales to allow the evaluation of the Makah Management Plan (see Item 4.2). The balance of the fund is £7,577. It was noted that reference was made in the Utqiaġvik/Barrow report to the potential use of voluntary funds to address recommendations made at the Barrow workshop (IWC/67/ASW/Rep01).

8. ADOPTION OF THE REPORT

The report was adopted by correspondence on 8 September 2018.

Appendix 1

List of Participants

Argentina

Miguel Iñiguez

Australia

Nick Gales
Mike Double
Frank LaMacchia
Nicola Beynon

Austria

Andrea Nouak
Michael Stachowitsch
Moritz Schwarz

Belgium

Stephanie Langerock
Mark Simmonds

Brazil

Alexandre Zerbini
Pedro Fruet
Camila Domit

Chile

Barbara Galletti

Costa Rica

Eugenia Arguedas

Denmark

Peter Linde
Amalie Jessen
Nette Levermann
Lars Witting

France

Vincent Ridoux

Germany

Walter Duebner
Nicole Hielscher

Guinea, Rep. of

Balla Moussa Keita

Iceland

Stefan Asmundsson
Gisli Víkingsson

Italy

Luca Gangheri
Maria Francesca Granata
Caterina Fortuna

Japan

Joji Morishita
Hideki Moronuki
Dan Goodman
Yuki Morita
Ryota Terai
Yuki Yamamoto
Kazunari Tanaka

Korea, Republic of

Hawsun Sohn
Kyum Joon Park

Liberia

Augustine Manoballah

Luxembourg

Pierre Gallego

Mexico

Lorenzo Rojas Bracho

Netherlands

Anne-Maria Svoboda

New Zealand

Amy Laurenson
Dave Lindquist
Megan Addis
Jonathan Martin

Norway

Ole David Stenseth
Hild Ynnesdal
Kathrine Ryeng
Truls Soløy
Tore Haug
Arne Bjørge

Panama

Lisette Trejos-Lasso

Russian Federation

Irina Fominykh
Vladimir Piny
Dennis Litovka
Natalia Slugina
Gulnara Radionova
Kirill Zharikov

Senegal

Mamadou Goudiaby
Madou Mbengue

Saint Lucia

Horace Walters

Slovenia

Andrej Bibič

Switzerland

Martin Krebs

UK

Gemma Harper
Jamie Rendell
Elizabeth Morrow
Sue Fisher
Lindsay Porter
Jenny Lonsdale

USA

Ryan Wulff
 Roger Eckert
 Lisa Phelps
 Carolyn Doherty
 Doug DeMaster
 Mike Tillman
 Crawford Pakotak
 Harry Brower Jr.
 Greig Arnold
 Grace Ferrara
 Dave Weller
 Robert Suydam

Inter-Governmental Organisations**NAMMCO**

Charlotte Winsnes

Non-Governmental Organisations**Animal Welfare Institute**

DJ Shubert
 Kate O'Connell

Alaska Eskimo Whaling Commission

Stephen Briand
 Jessica Lefevre
 Arnold Brower Jr.
 George Noongwook
 Neal Johnson
 Julius Rexford
 Taqulik Hepa
 Nicole Kanayurak
 Lucia Johnston
 Bill Hess
 John C. George
 Geof Givens
 Cheryl Brower
 Laura Patkotak
 Flower Brower
 Marietta Aiken
 Arlene Glenn

American Cetacean Society

Noel Hawkins

ATMMHC

Vladimir Susyp
 Nikolay Kalanto
 Eduard Zdor

Cetacean Society International

Heather Rockwell
 Dolphin Connection
 Nancy Azzam
 Ute Brady

Helena Symonds
 Paul Spong

Environmental Investigation Agency

Juliet Phillips
 Daniel Hubbell
 Taylor Trench

Fundacion Cethus

Carolina Cassani

Humane Society International

Bernard Unti
 Rebecca Regnery
 Grettel Delgadello

Instituto Baleia Jubarte

Eduardo Camargo
 Maria Morete
 Jose Truda Palazzo

Instituto de Conservacion de Ballenas

Diego Taboada
 Roxana Schteinbarg
 Elsa Cabrera

Makah Tribe

Brian Gruber
 Katie Wrubel
 Ann Renker
 Patrick DePoe

Monash University – Faculty of Law

Gerry Nagtzaam

Oceancare

Nicolas Entrup
 Fabienne McLellan
 Thomas Schweiger

Pro Wildlife e.V.

Sandra Altherr

**Society for the Conservation of Marine Mammals,
Danish Section**

Birgith Sloth

Whaleman International

Jeff Pantukhoff

IWC Secretariat

Greg Donovan
 Sarah Ferriss
 Rebecca Lent
 Sarah Smith
 Kate Wilson

Appendix 2

List of Documents

| | |
|----------------|--|
| IWC/67/ASW | |
| 01 | 2018 ASW Catch/Strike Limit Requests for the United States (submitted by USA) |
| 02 | Description of Alaskan Eskimo Bowhead Whale Subsistence Sharing Practices (submitted by USA) |
| 03 | Whale Hunting and the Makah Tribe: A Needs Statement (submitted by USA) |
| 04 | ASW Catch/Strike Limit Request for Greenland (submitted by the Kingdom of Denmark) |
| 05 | White Paper on Management and Utilization of Large Whales in Greenland (submitted by the Government of Greenland) |
| 06 | 2018 ASW Catch/Strike Limit Request for the Russian Federation (submitted by the Russian Federation) |
| 07 | 2018 ASW Catch/Strike Limit Request for St. Vincent and the Grenadines (submitted by St Vincent and the Grenadines) |
| 08 | Response on the Proposal for a Schedule Amendment on Aboriginal Subsistence Whaling (submitted by Austria on behalf of EU member states party to the ICRW) |
| 09 | Additional Information on the Aboriginal Subsistence Whaling Proposal in response to comments made on the original proposal (see IWC Circular IWC.CCG.1325) |
| 10 | Summary of the work of the Scientific Committee on matters related to the ASW Sub-committee – PowerPoint (submitted by Greg Donovan, Chair of the Scientific Committee’s SWG of the AWMP) |
| IWC/67/ASW/NGO | |
| 01 | Comments on the Proposal for a Schedule Amendment on Aboriginal Subsistence whaling (IWC/67/01) (submitted by the International Environmental Law Project) |
| 02 | Comments on the Proposal for a Schedule Amendment on Aboriginal Subsistence Whaling (IWC/67/01) and other related documents (submitted by Animal Welfare Institute and Whale and Dolphin Conservation) |
| IWC/67/ASW/Rep | |
| 01 | Report of the meeting of the Aboriginal Subsistence Whaling Working Group, Utgiakvik (Barrow), Alaska, 10-13 April 2018 |
| IWC/67/ASW/GEN | |
| 01 | Provisional Agenda |
| 02 | List of documents |
| 03 | List of participants – to come |
| 04 | Extract from the 2018 (SC67b) Report of the Scientific Committee related to the AWMP |
| 05 | Extracts from the 2018 (SC67b) Report of the Scientific Committee (main report and Annex E) related to the Aboriginal Whaling Scheme (AWS) |
| 06 | Extract from the 2018 (SC67b) Report of the Scientific Committee related to catch and strike limit requests |
| 07 | French translation of ASW Agenda |
| 08 | Spanish translation of ASW Agenda |

Appendix 3**AGENDA**

1. INTRODUCTORY ITEMS
 - 1.1 Appointment of Chair
 - 1.2. Appointment of Rapporteurs
 - 1.3 Review of Documents
 - 1.4 Observer Participation
2. ADOPTION OF AGENDA
3. REPORT OF THE AD-HOC ABORIGINAL SUBSISTENCE WHALING WORKING GROUP
 - 3.1 Report of the *Ad Hoc* Aboriginal Subsistence Whaling Working Group
 - 3.2 Discussion and recommendations
4. ABORIGINAL SUBSISTENCE WHALING MANAGEMENT PROCEDURE
 - 4.1 Progress with Strike Limit Algorithms for Greenland
 - 4.1.1 Report of the Scientific Committee
 - 4.1.2 Discussion and Recommendations
 - 4.2 Review of the Makah Management Plan
 - 4.2.1 Report of the Scientific Committee
 - 4.2.2 Discussion and Recommendations
 - 4.3 Implementation Review for bowhead whales
 - 4.3.1 Report of the Scientific Committee
 - 4.3.2 Discussion and Recommendations
5. ABORIGINAL WHALING SCHEME (AWS)
 - 5.1 Report of the Scientific Committee
 - 5.2 Discussion and Recommendations
6. ABORIGINAL WHALING SUBSISTENCE CATCH/STRIKE LIMITS
 - 6.1 Bering-Chukchi-Beaufort Seas stock of bowhead whales
 - 6.1.1 Report of the Scientific Committee
 - 6.1.2 Discussion and Recommendations
 - 6.2 North Pacific Eastern stock of gray whales
 - 6.2.1 Report of the Scientific Committee
 - 6.2.2 Discussion and Recommendations
 - 6.3 Common minke whales off West Greenland
 - 6.3.1 Report of the Scientific Committee
 - 6.3.2 Discussion and Recommendations
 - 6.4 Common minke whales off East Greenland
 - 6.4.1 Report of the Scientific Committee
 - 6.4.2 Discussion and Recommendations
 - 6.5 Fin whales off West Greenland
 - 6.5.1 Report of the Scientific Committee
 - 6.5.2 Discussion and Recommendations
 - 6.6 Bowhead whales off West Greenland
 - 6.6.1 Information from the Government of Canada
 - 6.6.2 Report of the Scientific Committee
 - 6.6.3 Discussion and Recommendations
 - 6.7 Humpback whales off West Greenland.
 - 6.7.1 Report of the Scientific Committee
 - 6.7.2 Discussion and Recommendations
 - 6.8 North Atlantic humpback whales off St. Vincent and The Grenadines
 - 6.8.1 Report of the Scientific Committee
 - 6.8.2 Discussion and recommendations
 - 6.9 Consideration of the joint Schedule amendment (IWC/67/01)
7. STATUS OF THE VOLUNTARY FUND
8. ADOPTION OF THE REPORT

Appendix 4

SUMMARY TABLES OF THE MAIN OUTCOMES OF THE ASWWG, EXTRACTED FROM
IWC/67/ASW/REP01

Table 9

Summary of conclusions and recommendations on the seven long-term issues.

| Item(s) | Conclusions/recommendations |
|---|---|
| (1) Standardised need statement | |
| 3.1, 4.2.9, 5.2, 5.3, 5.4 | <p>The ASWWG agreed to use the term 'Description of the Hunt' rather than 'need statement' and that the outline (and the associated web templates) for the 'Description of the Hunt' included as Table 5 to this report was appropriate, a positive step and high priority, providing the needed consistency and flexibility. It stressed the importance of posting these descriptions on the IWC website in conjunction with the submission of ASW catch limit requests in advance of IWC67, following the revised Table 2 timeline. ASW Governments will ensure that these are completed and submitted to the Secretariat at least one week before the 90-day deadline to ensure ample time for formatting and posting on the IWC website. The Secretariat will be responsible for including the most recent Scientific Committee advice and updating it, as appropriate. In future, these descriptions will only need to be modified when circumstances change.</p> <p>The 'Description of the Hunt' should be seen in conjunction with the 'Outline for ASW catch/strike limit requests' (Table 6).</p> <p>Modifications to the formats for the 'Description of the Hunt' and the 'Outline for ASW catch/strike limit requests' may be considered in the light of their use for IWC67.</p> |
| (2) Removing ASW catch limits from political discussions | |
| 3.2, 4.2.10, 5 | <p>Much of the focus of trying to remove ASW catch limits from political discussion involved the development of a timeline and process for the submission and consideration of ASW hunts. The ASWWG agreed to a modified version of the 'long-term' process (Annex E) as well as to the abbreviated process for IWC67; these may be reviewed in the light of experience. The agreed formats for the 'Description of the Hunt' and the 'Outline for ASW catch/strike limit requests' given in Tables 5 and 6 should also assist in removing the politicisation.</p> <p>In addition, the ASWWG considered two ways to account for problems arising out of the objection procedure and the late dates of the Commission Plenary, both of which had merit. The ASW countries indicated their preference for the one-off seven-year option and indicated that they would include this concept in their proposals at the 2018 meeting.</p> <p>The USA outlined a concept for the 'autorenewal' of quotas if the following conditions were met:</p> <ol style="list-style-type: none"> (1) the catch limit requests are status quo with no major changes to needs of description of the hunt; (2) it must be subject to Scientific Committee advice on the sustainability of the hunt; (3) regular (5-6 years) <i>Implementation Reviews</i> will continue; and (4) ASW countries would still follow any approved timeline and provide all the information they do now. <p>If these conditions are met, the renewal provision would automatically extend those catch limits for the next 6-year block. This proposal was intended to eliminate the fear of voting down a proposal; build trust and transparency and increase the time that the Commission could spend on other issues. There was support for this concept from other members but work would be needed to develop appropriate language for consideration by the Commission. The development of such Schedule language was the responsibility of the individual ASW countries.</p> |
| (3) Changing the term 'aboriginal' in ASW | |
| 3.3 | The ASWWG agreed that while this issue should be retained as an issue for the ASW sub-committee, it is not a high priority. |
| (4) Obtain adequate information for ASW catch limits | |
| 3.4 5.3 5.4 | The ASWWG noted that the information required by the Scientific Committee was regularly reported and that countries had regularly provided sufficient information relevant to 'need' via 'need statements' in the past (and see discussion under Items 5.3 and 5.4). |
| (5) Ensure 'local consumption' versus 'commercialism' | |
| 3.5 | <p>The ASWWG agreed that discussion of this matter had been completed at the Maniitsoq workshop. A short summary of the conclusions from there can be found under Item 3.5.</p> <p>The Workshop recognised the high costs of aspects of the hunts especially those related to improved technologies, agreed that such improvements should be encouraged and did not negate or diminish the status of the hunts and agreed that provision of a broad indication of costs associated with hunting and distribution systems is useful.</p> <p>The Workshop had concluded that:</p> <p style="padding-left: 40px;">'The use of cash in ASW communities varies from region to region – this is to be expected and reflects the modern world both with respect to costs associated with hunting equipment and whale product distribution methods. It does not imply that ASW in any one community is more or less 'acceptable' than any other.'</p> |
| (6 and 7) Improve operational efficiencies and the welfare of the hunt | |
| 3.6/ 3.7 | The ASWWG considered ongoing efforts to improve hunting methodology and recognised that this has financial implications; noted the effect of climatic changes (e.g. on sea ice or other environmental conditions) on the efficiency of hunting and thus the need for hunters to adapt the methods and timing of the hunts; and recognised the legitimacy of efforts to use new technology to assist in improving the hunts under changing conditions. The ASWWG welcomed the work that been undertaken and referred to its comments under Items 3.5 and 4.2.5. |

Table 10

Summary of conclusions and recommendations on the guidance and recommendations from the Maniitsoq report

| Item(s) | Conclusions/recommendations |
|--|--|
| (1) Informing the Commission about Indigenous rights | |
| 4.2.1 | The ASWWG agreed that this item had been completed with the presentation made at IWC66 |
| (2) Preparing a resolution or statement on indigenous rights | |
| 4.2.2 | At present, no members had been working on this issue but this does not preclude any Government or group of Governments submitting a Resolution or statement to IWC67 should they wish. The ASWWG stressed the importance of any submission being consensus-based, appropriately reflecting States' views regarding the status of such rights under international law and being within the scope of IWC competence. |
| (3) Undertaking a survey of Indigenous and human rights instruments | |
| 4.2.3 | The ASWWG agreed that conducting such a review was a high priority and that this would be assisted by being able to refer to information in the Wold (2017) study. It recommended that the Secretariat, in consultation with interested members of the ASWWG and experts who attended the Maniitsoq Workshop develop Terms of Reference for such a review with a view to putting out a tender for such work. Switzerland generously offered to provide funds towards this work. |
| (4) Inviting and expert on Indigenous rights to attend IWC meetings | |
| 4.2.4 | The ASWWG advises the Commission, that as a high priority (provided sufficient funds are available in the ASW Voluntary Fund), it should consider inviting the UN Special Rapporteur on the rights of indigenous peoples to the IWC plenary meeting on a one-time trial basis. |
| (5) Inherent change in Indigenous communities | |
| 4.2.5 3.6 3.7 3.8 | The ASWWG: (1) recognised the constant and complex changes hunting communities (and indeed all societies) undergo, inter alia due to external pressures such as political and economic developments, climate change and other factors affecting the access to natural resources; (2) agreed that responding to these changes does not affect their status and rights; (3) agreed that any perception that hunts must be depicted as using old hunting and distribution methods for them to be considered ASW is misplaced; and (4) agreed that the use of new technologies to improve animal welfare and the safety and the efficiency of the hunt is to be commended and encouraged. |
| (6) Improving the status of Indigenous delegates at IWC meetings | |
| 4.2.6 | The ASWWG acknowledged the limits imposed by the Convention (and the difficulties in amending the Convention) and also noted that all of the ASW countries include hunting representatives on their delegations and agreed that this should continue. Recognising that the IWC is in the process of undertaking a thorough Governance Review, the ASWWG encouraged members to work with the Chair of the Commission's ASW sub-committee to consider ways in which processes may be improved with respect to participation of representatives of hunting communities; should improvements be identified these could be recommended to the Commission. |
| (7) Appointing an IWC representative to attend the UN Permanent Forum on Indigenous Issues (PFII) | |
| 4.2.7 | The ASWWG agreed that having an IWC representative was a high priority. It noted that the next (17th) annual session will be held shortly i.e. from 16-27 April 2018. It preferred options that required no additional funding and noted that several PFII representatives nominated by Governments are from IWC countries (Cameroon, China, Denmark, Mexico, Peru, Russian Federation, USA) although they may not be part of the ministries responsible for the IWC. It encouraged ASWWG members to consider whether they may be able to volunteer to request their PFII members to act as an IWC representative and report back on relevant discussions to the ASW sub-committee meeting in Brazil. To assist in this, it also requested the Secretariat to contact the other relevant member governments to see if they could to report to the Commission on relevant discussions at the PFII. |
| (8) Exploring IWC joining the UN Inter-Agency Support Group on Indigenous Issues | |
| 4.2.8 | This recommendation has financial implications. The ASWWG agreed that this is a high priority and recommended that the Secretariat develops a proposal to (a) explore the potential benefits of joining the UN Inter-Agency Support Group on Indigenous Issues by contacting the Chairperson and Secretariat of the UN PFII and (b) to take this action forward, including possible financial implications, for submission to the Commission. It noted that the experts who attended the Maniitsoq Workshop offered their assistance in this regard. |
| (9) Replacing the term 'need statement' by the term 'description of the hunt' | |
| 4.2.9 | This is covered under Item 1 of the seven long-term issues in Table 9 (see also Item 3.1) |
| (10) Reviewing the ASW timetable | |
| 4.2.10 | This is covered under Item 2 of the seven long-term issues in Table 9 (see also Item 3.2) |
| (11) Voluntary ASW Fund | |
| 4.2.11 | The ASWWG strongly encouraged IWC member states and interested organisations to contribute to the fund established at IWC65 to provide financial assistance towards achieving compliance with IWC measures identified in Schedule amendments. The ASWWG further recommended that the IWC does not impose requirements on ASW hunters unless those members supporting such action have worked with the Secretariat, affected countries and hunter groups to assess the additional burden and made available the necessary resources to ensure effective implementation, including through donations to the ASW voluntary fund. |
| Additional: potential conflict between ASW and whale watching | |
| 6.1 | The Chair noted that at IWC66 Argentina, Chile, the Dominican Republic and Mexico stated that they '...could not accept the report and recommendations contained in the Maniitsoq workshop in their entirety, being particularly concerned with what they considered to be the unresolved issue of potential conflicts over shared resources between different sets of indigenous rights.' After considerable discussion, the ASWWG agreed that: (1) clarification was needed from the Commission as to what was the appropriate forum for further discussion of this topic, should it occur (the Chair noted that in his view the ASWWG was not the appropriate forum); (2) as agreed in Maniitsoq, dialogue amongst interested parties was essential; and (3) Argentina and other interested parties should develop a formal workshop proposal (including objectives, draft agenda, participants etc.) for consideration by the Commission. |

Appendix 5

**REVISED TIMELINE TO ASSIST IN THE PROCESS TO AGREE ASW CATCH/STRIKE LIMITS
EXTRACTED FROM IWC/67/ASW/REP01**

| Time | Who | Action |
|---|---|---|
| Years 0-6 | | |
| (1) Ongoing | ASW Contracting Governments and Secretariat | Develop or amend when/if circumstances and information changes 'Descriptions of the hunts relevant to ASW catch/strike limit requests' and make them publicly available through the IWC website. |
| Year 4 | | |
| (2) 2 weeks prior to SC meeting | ASW Contracting Governments | If known, submission of proposed ASW catch/strike limits (including carryover provisions) to the SC. This is especially important if there is an increase being considered or proposed. |
| (3) 2 weeks after close of SC meeting | SC and Secretariat | Publication of SC report, including advice on sustainability of existing and, if required, proposed ASW catch/strike limits. If new proposals under step (2) are outside the values tested during <i>SLA</i> development, the Committee may propose a work programme to investigate the implications of the new proposals. |
| (4) 3 weeks after close of SC meeting | Chair of ASW Sub-committee and Secretariat | Send Circular Communication to IWC Contracting Governments, as well as IGO and NGO Observer organisations, to highlight: (a) upcoming (2 years ahead) catch/strike limit renewals and indication of any actual or potential changes to catch/strike limit requests if known; (b) SC advice on sustainability of ASW catch/strike limits proposals or its workplan to complete analysis of proposals; and, (c) availability of 'Descriptions of the hunts relevant to ASW catch/strike limit requests' on the website and timing of any updates if intended by ASW Contracting Governments (see also step (1)). The Circular will conclude with a request for written comments related to proposed catch/strike limits at least 60 days before the Biennial Commission Plenary Meeting and a request for interested governments to attend the ASW Sub-committee meeting. |
| (5) [60] days prior to Commission Plenary meeting | Contracting Governments, IGOs, NGOs | Submission of written comments on the ASW catch/strike limit proposals in accordance with step (4). These comments may be developed into documents for review by the ASW Sub-committee. |
| (6) 4-5 days prior to Commission Plenary meeting | ASW Sub-committee meeting | Opportunity for discussion of written comments in accordance with the above Circular Communication, including initial responses (which may take the form of documents to the ASW Sub-committee meeting, verbal responses or a combination of both) by ASW Governments and taking into account consideration of Indigenous peoples' rights, as described in conclusions (a) – (f) in Section 8 of the Maniitsoq Workshop Report (<i>Rep. 66th Int. Whaling Comm.</i> pp. 181). The ASW Sub-committee may develop a workplan, if necessary, to assist in reaching consensus regarding ASW catch/strike limit proposals in Year 6 (in addition to the general steps outlined below for Year 6). |
| (7) Commission Plenary meeting | Contracting Governments | Debate and discussion of Year 6 catch/strike limit renewal including acceptance or modification of any workplan developed under step (6). |
| Year 5 | | |
| (7) May-June | SC | SC continues its work and provides advice in its report circulated two weeks after the end of its meeting. |
| (8) Ongoing | To be decided | Activities under workplan if necessary (see steps (6) and (7)). |
| Year 6 | | |
| (9) 2 weeks prior to SC meeting | ASW Contracting Governments | Submission of final (in the sense of enabling the Scientific Committee to provide appropriate advice) proposed ASW catch/strike limits to the SC. |
| (10) 2 weeks after close of SC meeting | SC | Publication of SC report including advice on sustainability of proposed ASW catch/strike limits. |

| Time | Who | Action |
|---|--|--|
| (11) 3 weeks after close of SC meeting | Chair of ASW Sub-committee and Secretariat | Send Circular Communication to IWC Contracting Governments, as well as IGO and NGO Observer organisations to highlight: (a) upcoming quota renewal and indication of any actual or potential changes to catch/strike limit requests if known; (b) publication of SC advice on sustainability or its workplan; and, (c) availability of 'Descriptions of the hunts relevant to ASW catch/strike limit requests' on the IWC website – and timing of any updates if intended by ASW Contracting Governments (see also step (1)). The Circular Communication will conclude with a request for written comments related to proposed catch/strike limits by at least 60 days before the Biennial Meeting and a request for interested governments to attend the ASW Sub-committee meeting. |
| (12) 90 days before Commission Plenary meeting | ASW Contracting Governments | Proposed Schedule amendments (adapted if necessary in light of SC advice) provided to IWC, are made a Commission document and placed on meeting website. |
| (13) Endeavour to submit at least 30 days before Commission Plenary meeting | Contracting Governments, IGOs, NGOs | Submission of written comments in accordance with step (11). These may be made documents for the ASW Sub-committee meeting. |
| (14) Endeavour to submit at least 10 days] before the ASW Sub-committee meeting | ASW Contracting Governments | Written responses by ASW Contracting Governments to comments received in response to step (11) provided to IWC, made ASW Sub-committee documents and placed on meeting website. |
| (15) 4-5 days prior to Commission Plenary meeting | ASW Sub-committee meeting | Discussion of papers submitted in steps (12) - (14) and taking into account consideration of Indigenous peoples' rights. The ASW Sub-committee should try to develop consensus advice, or if not possible develop a formal or informal workplan to try to achieve this prior to Plenary discussions. |
| (15.1) At least 1 day before Commission Plenary meeting | ASW Contracting Governments | Submit amended Schedule proposals to the Commission, if necessary. |
| (16) Commission Plenary meeting | Contracting Governments | Debate and decision (ideally by consensus) on proposed Schedule amendments. *Note that it is possible for any Contracting Government to submit a revised proposal or proposals should the first proposal fail or amendments fail (e.g. see IWC, 1980, <i>Rep. int. Whal. Commn</i> p. 30). It should not be the case that the meeting is closed with no catch/strike limits set. |
| (17) Within two days of close of Commission Plenary meeting | IWC Secretariat | Notification of Schedule amendments to all Contracting Governments and establishment of timescale for objections procedure. |
| Year 7 | | |
| (18) Within proscribed period (May be year 6) | Contracting Governments | Lodge objection to Schedule amendment, if required. |
| (19) After close of Commission Plenary meeting, but prior to Schedule amendments formally coming into force | ASW Contracting Government(s), Secretariat | If necessary, send letter to confirm that the Government will not be objecting to the amendments agreed at the Commission meeting and stating that the hunts were about to start in conformity with the agreed limits. Secretary circulates letter and posts it on the IWC website. |

Appendix 6

SCIENTIFIC ASPECTS OF AN ABORIGINAL WHALING SCHEME (EXTRACTED FROM THE 2018 SCIENTIFIC COMMITTEE REPORT)

The Scientific Committee's Aboriginal Whaling Management Procedure (AWMP) applies stock-specific *Strike Limit Algorithms (SLAs)* to provide advice on aboriginal subsistence whaling (ASW) strike/catch limits.

ASW management (as part of an AWS, the aboriginal whaling scheme) incorporates several components, several of which have a scientific component:

- (a) *Strike Limit Algorithms* (case-specific) used to provide advice on safe catch/strike limits;
- (b) operational rules (generic to the extent possible) including carryover provisions, block quotas and interim relief allocations;
- (c) Guidelines for *Implementation Reviews*; and
- (d) Guidelines for data and analysis (e.g. guidelines for surveys, other data needs)

The scientific components are considered below.

1. CARRYOVER

Carryover is a provision to enable (some) strikes not used in one year to be used in a subsequent year or years, in order to allow for the inevitable fluctuations in the success of hunts (e.g. due to environmental conditions and/or whale availability). Whilst providing flexibility, carryover does not allow hunts to take more than the total number of strikes agreed by the Commission. This flexibility may produce additional benefits for the local management of the hunt. The concept is not new and *ad hoc* provisions incorporating carryover have been included in the Schedule for many years (see the summary provided in *J. Cetacean Res. Manage* 19 (Suppl.), pp. 169-72). As general guidance, the Commission has (in 2001 and 2016), approved examination by the Committee of scenarios incorporating a 50% interannual variation within blocks and 50% allowance to the next block, noting that this did not imply any commitment by the Commission that these values would be used in the Schedule.

1.1 The Committee's role

The Scientific Committee's role is not to recommend a particular carryover approach (there are many possibilities e.g. see *IWC In Press*) but rather to provide advice on the conservation and need performance of carryover options when asked by the Commission or ASW countries. Formal evaluation of the performance of options (see Item 1.2) by the Committee will allow a more consistent approach to carryover across hunts. The Committee's evaluation began in the year 2000 as the Committee began to develop its first recommended components of an AWS (IWC, 2001).

1.2 Examining conservation performance

The Committee examines the conservation performance of options using the same simulation testing approach used to develop *SLAs*. This allows the Committee to provide guidance as to the acceptable limits within which carryover provisions can be developed. In requesting guidance on carryover provisions, at least the following information should be provided by ASW countries or the Commission:

- (1) an initial start date for the provision (e.g. 2003, start of new block);
- (2) an expiration period (unused strikes cannot be carried over indefinitely);
- (3) limits on use (e.g. the maximum number of strikes allowed in any one year).

1.3 Additional provision

The Committee's *Implementation Review* process (see section 4 below) includes the monitoring of carryover provisions. Should new information (e.g. abundance data) lead an *SLA* to indicate a severe decrease in the quota then this will trigger an appropriate review of the existing carryover provisions and any implications for conservation performance. If necessary, the review may lead the Committee to recommend changes in carryover provisions that may, for example, result in a 'reset' of the starting year or other amendments to carryover provisions.

1.4 Schedule language

The Committee advises that the incorporation of carryover provisions in the Schedule should avoid ambiguity. Rather than try to encode general provisions in the Schedule, the Committee offers to assist the Commission in by providing the actual numbers for each hunt in a new quota block, based upon agreed general provisions.

1.5 Example

An example of a response to a request for advice on a carryover option is given in (IWC, *In press*). The request from the USA and Denmark/Greenland was to

‘...allow for the carry forward of unused strikes from the previous three blocks, subject to the limitation that the number of such carryover strikes used in any year does not exceed 50% of the annual strike limit’.

This request was tested using the *Bowhead SLA* (applicable to the Bering-Chukchi-Beaufort Seas stock) and the *WG-Humpback SLA* (applicable to West Greenland) and three types of options were examined:

- (1) baseline case - all strikes taken annually (i.e. no need for carryover);
- (2) ‘frontload’ case - strikes taken as quickly as possible within block (+50% limit annually until the block limit is reached); and
- (3) Two alternative scenarios where carryover strikes are accrued for one or three blocks, followed by a period of carryover usage subject to the +50% limit.

The three-block scenario considered in (3) served as a direct test of the provision described in the request of USA and Denmark/Greenland. The Committee agreed that the Commission’s conservation objectives were met for both *SLAs* for all of the options above and would also be met for a proposal carrying forward strikes from the previous two blocks.

2. BLOCK QUOTAS

The Committee has advised the Commission (in the context of moving to biennial meetings) that block quotas of up to 8 years are acceptable (IWC, 2013, p. 22), noting the requirement for abundance estimates every ten years (see Item 3).

3. INTERIM RELIEF

A variety of factors, including environmental conditions, beyond the control of the hunters may prevent the completion of a successful whale population abundance estimate. While recognizing such difficulties, the Committee notes that uncurtailed aboriginal whaling quotas cannot be continued indefinitely in the long-term absence of data. Therefore, the AWS must address what should be done in the event that efforts to obtain an agreed abundance estimate are unsuccessful after some time limit. For the purposes of applying *AWMP Strike Limit Algorithms*, the Committee has agreed that this limit is 10 years (IWC 2003; IWC, 2016a).

A third quota block begun after the 10-year limit has expired is termed a ‘grace period’ and the Committee has endorsed the use of an ‘interim allowance’, namely a grace period strike limit equal to the limit produced by the applicable *Strike Limit Algorithm*, without reduction, for a single block. This approach has been simulation tested for BCB bowheads and WG humpbacks to confirm that it meets the conservation and need satisfaction goals of the Commission (IWC, 2016a, pp.190-193; 2016b, pp. 471-484; IWC, 2017, p. 498) and the results are summarized in IWC (2017b; 2018 p. 159). It will be tested for eastern NP gray whales at the next *Implementation Review* for that stock. Testing for the remaining ASW stocks will be added to the future workplan of the Committee.

The 10-year survey interval requirement is complicated by the fact that (a) there will usually be a delay between when a survey is conducted and when the resulting abundance estimate is agreed by the Committee and (b) because surveys, estimates and quota blocks need not be synchronised, as recognised in IWC (2003). For the sake of counting years between surveys, a survey is not considered to have occurred until the resulting abundance estimate is agreed. At that point, the 10-year time window is deemed to have begun in the year during which the survey was conducted. Further details and examples are given in IWC (In press [SC 67b Annex E]).

The Committee recommends (IWC, 2003; 2006) that, during the grace period, a new strike limit is established immediately a new abundance estimate is agreed. this approach. However, it notes that if the Commission refrains from updating the strike limit until the grace period expires, this would not pose a conservation risk. If the strike limit is updated during a grace period block, the number of strikes taken to that point of the grace period should be subtracted from the updated quota, with the remainder being the strike limit for the rest of the grace period. Carryover is not affected.

The Committee emphasises that the interim allowance approach is intended to be applied only in the event that exceptional unforeseen circumstances had delayed obtaining an agreed abundance estimate beyond the end of the second quota block. It should not be interpreted as a routine approach for extending quotas for a third block without a concerted effort to obtain a successful survey prior to that time. Furthermore, the Committee would not recommend two consecutive interim allowances.

It is important to consider a scenario in which no acceptable abundance estimate is obtained by the end of the grace period. *SLAs* are not designed or intended to be applied if new abundance data are not forthcoming after

such a long period. Given good faith efforts to obtain an abundance estimate, such a situation would probably have arisen from profound and unexpected environmental change (e.g. related to climate or a disaster such as a massive oil spill). Under such circumstances, an immediate *Implementation Review* (see Item 4.1.2) would probably have been initiated, irrespective of the timing of (un)successful surveys and quota blocks. As soon as it becomes apparent that an abundance estimate may not be obtained in time, researchers should immediately begin to develop alternative approaches to obtaining abundance estimates (or at least indices of abundance) that do not depend on the problematic circumstances. Nevertheless, if no abundance estimate is available the year before the end of the grace period, the Scientific Committee should immediately initiate an *Implementation Review*. The approach of the Committee in the absence of positive alternative evidence would be that the Committee could not provide advice on the quota using the *SLA* and the Commission should exercise great caution when agreeing any further strike limits. The level of caution will depend on the specifics of the situation.

4. IMPLEMENTATION REVIEWS

The concept of an *Implementation Review* is central to the functioning of the AWMP. The primary objectives of an *Implementation Review* are to:

- (1) review the available information (including biological data, abundance estimates and data relevant to stock structure issues) to ascertain whether the present situation is as expected (i.e. within the space tested during the development of a *Strike Limit Algorithm (SLA)*) and determine whether new simulation trials are required to ensure that the *SLA* still meets the Commission's objectives; and
- (2) to review information required for the *SLA*, i.e. catch data and, when available at the time of the *Review*, new abundance estimates (note that this can also occur outside an *Implementation Review* at an Annual Meeting).

4.1 Timing of *Implementation Reviews*

4.1.1 Regular *Implementation Reviews*

Implementation Reviews are undertaken regularly, normally every five to six years. This does not have to coincide with the renewal of catch/strike limits in the Commission. For logistical and resource reasons, only one major *Implementation Review* shall be undertaken at a time. The Committee shall begin planning for the *Review* at the Annual Meeting at least two years before the Annual Meeting at which the *Review* is expected to be finished. This is to enable the Committee to schedule additional work or Workshops if it believes that new information or analyses are likely to be presented that will necessitate the development of new simulation trials. Early planning will enhance the likelihood that the Committee will complete an *Implementation Review* on schedule. It is not expected that every *Implementation Review* will entail a large amount of work.

4.1.2 Special *Implementation Reviews*

In addition to regular *Implementation Reviews*, under exceptional circumstances the Committee may decide to call for *special Implementation Reviews*, should information be presented to suggest that this is necessary and especially if there is a possibility that the Commission's conservation objectives may not be met.

Calling such a *Review* does not necessarily mean revising the Committee's advice to the Commission, although it may do so. The Committee has not tried to compile a formal comprehensive list of what factors might trigger such an early review, which implies unexpected/unpredictable factors. However, the following list is provided to give examples of some possible factors.

- (1) Major mortality events (e.g. suggested by large numbers of stranded animals).
- (2) Major changes in whale habitat (e.g. the occurrence of natural or anthropogenic disasters or changes, an oil spill, dramatic change in sea-ice, development of a major oil/gas field, etc.).
- (3) Major ecological changes resulting in major long-term changes in habitat or biological parameters.
- (4) A dramatically lower abundance estimate (although the *SLA* has been tested and found to be robust to large sudden drops in abundance, the Committee would review the potential causes of unexpected very low estimates).
- (5) Information from the harvest and hunters (this might include very poor harvest results, reports of low abundance despite good conditions, reports of large numbers of unhealthy animals).
- (6) Changes in biological parameters that may result in changes to management advice (e.g. reproduction, survivorship).
- (7) If there are cases when need is not being satisfied, strong information that might narrow the plausibility range and allow an increase in block limits.

4.1.3. Outcomes of Implementation Reviews

There are a number of possible conclusions of *Implementation Reviews*:

- (1) there is no need to run additional trials and that the existing *SLA* is acceptable;
- (2) the results from the additional trials developed and run reveal that the existing *SLA* is acceptable;
- (3) there is no need for any immediate additional trials or changes to management advice but work is identified that is required for consideration at the next *Implementation Review*; or
- (4) the results of the additional trials require the development of a new (or modified and then retested) *SLA* in which case management advice will have to be reconsidered until that work is complete.

4.1.4 Data availability

Implementation Reviews fall under the Committee's Data Availability Agreement Procedure A (IWC, 2004). By the time of the Annual Meeting prior to that at which the *Implementation Review* is expected to be completed, the scientists from the country or countries undertaking the hunts, or others intending to submit relevant analyses, shall develop a document or documents that explains the data that will/could be used for the *Implementation Review*. Such a document will:

- (a) outline the data that will be available, including by broad data type (e.g. sighting data, catch data, biological data): the years for which the data are available; the fields within the database; and the sample sizes;
- (b) provide references to data collection and validation protocols and any associated information needed to understand the datasets or to explain gaps or limitations; and
- (c) where available, provide references to documents and publications of previous analyses undertaken of data.

The data themselves shall be available in electronic format one month after the close of that Annual Meeting.

In the case of complex *Implementation Reviews* that may last more than one year and involve one or more workshops, new data can be submitted, provided that the data are described and made available at least nine months before the Annual Meeting at which the *Implementation Review* is expected to be completed.

4.1.5 Computer programs

Programs used in analyses submitted to the *Implementation Review* may be requested by the Committee, who may decide that the programmes need independent validation in accordance with its guidelines at the time. All *SLA* simulation testing and evaluation software shall be undertaken by the Secretariat using validated programmes.

5. GUIDELINES FOR SURVEYS

The Committee's general advice on surveys is applicable. Some more specific considerations are given below.

5.1 Survey/census methodology and design

Plans for undertaking a survey/census should be submitted to the Scientific Committee in advance of their being carried out, although prior approval by the Committee is not required. This should normally be at the Annual Meeting before the survey/census is carried out. Sufficient detail should be provided to allow the Committee to review the field and estimation methodology. Considerably more detail would be expected if novel methods are planned.

5.2 Committee oversight

Should it desire, the Scientific Committee may nominate one of its members to observe the survey/census to assess the scientific integrity of the process.

5.3 Data analysis and availability

Data to be used in the estimation of abundance will be made available to the Committee in accordance with Procedure A of the Data Availability Agreement (IWC, 2004). If new estimation methods are used in the data analysis, the Committee may require that computer programs (including documentation to allow such programs to be validated) be provided to the Secretariat for eventual validation.

5.4 Estimates to use in the *SLA*

The most recent estimate(s) accepted by the Committee for any year(s) should be incorporated in the *SLA* calculations. If there is more than one accepted estimate for a given year and the Committee agrees that the estimates are based on sufficiently independent data, then both estimates should be incorporated in the *SLA* calculations. If a revised estimate is obtained for a particular year, then the old one should be replaced before the *SLA* is next used.

6. GUIDELINES FOR DATA/SAMPLE COLLECTION

The Schedule states that data from each harvested animal should be collected and made available to the IWC. The following information should normally be provided for each harvest or individual whale as appropriate:

- (1) species;
- (2) number of animals;
- (3) sex;
- (4) season;
- (5) location of catch (at least to the nearest village);
- (6) length of catch (to 0.1m).

The Committee recognises the importance of additional information, especially in the context of *Implementation Reviews* e.g. on reproductive status and health. It highlights the importance of collecting tissue samples for genetic studies in accordance with guidance provided by the Committee¹ especially in the context of stock structure issues. It notes that photo-identification data can be valuable for estimating biological parameters, assessing anthropogenic injuries, and encourages such research where possible. The value of traditional knowledge is also noted, and such information can also provide valuable input to conducting *Implementation Reviews*.

7. REVISIONS TO THE AWS

Revisions or additions to this AWS may be recommended by the Committee at any time, including during *Special Implementation Reviews*.

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¹ (e.g. <https://iwc.int/index.php?CID=60&cType=document>)