

Comment on the Whale drive hunt in the Faroe Islands, with particular relation to the observed implementation of the NAMMCO North Atlantic Marine Mammal Commission 'Instruction manual on Pilot whaling'

Report prepared by Dr Andy Butterworth BSc BVSc PhD DipECAWBM FLS MRCVS.

Introduction

The drive hunt of pilot, bottlenose, white beaked and white sided dolphin in the Faroe Islands is a large scale, structured and, arguably, commercial slaughter. The hunters maintain that it has a long tradition, and is culturally important, and that improvements have been made in the techniques used.

Across a wide range of animal use areas, including commercial slaughter, animal science has advanced our understanding and recognition of sentience and the capacity of animal to suffer. Around the world, societies, and the law they enact to protect animals, has also grown, evolved and become more refined.

The Grind – the drive hunt, is looking very far behind in animal welfare terms – in the methods used, in the guidance provided, and, at a deeper level, in the very idea that hauling the animal by its blowhole (its nasal passages), and then severing the spinal cord (as an immobilisation and paralysis step in a killing process) could be considered acceptable.

In this short paper, I comment on 5 areas of the welfare of the whales and dolphins in the 2022 Grind. In particular, I reference the observations made from analysis of publicly available video of 2 Grind events – where driving, beaching and killing are observed. The reader may see the same material used in this analysis by viewing the publicly available videos.

I also comment specifically in relation to the guidance on drive hunt killing methods published by the North Atlantic Marine Mammal Commission: 'Instruction manual on Pilot whaling' ⁽¹⁾

Comment 1

“We have been doing this a long time, and we have been improving methods”

The NAMMCO 'Instruction manual on Pilot whaling' ⁽¹⁾ states;

“Pilot whales have been hunted in the Faroes for more than 1100 years. The hunting method – driving and killing – has in general been carried out in the same way for centuries. However during the last 30 years developmental work has taken place with respect to improving the techniques used, as well as the organisation of the drive and authorisation of whaling bays.”

- Long standing does not by default mean 'good', or even acceptable, in the face of improvements in understanding of animals, techniques, and evolving legislation regarding animal protection.
- Knowledge regarding the capacity of animals to experience pain and suffering, and of animal sentience, has been accompanied by improvements in understanding of methods to induce immediate insensibility (stunning) when animals are killed.
- Statements which imply that 'long established methods' are, by their antiquity, to be retained – miss the opportunity to engage with widely adopted principles for humane slaughter which are embedded in European and Global law.

One such principle is described in COUNCIL REGULATION (EC) No 1099/2009 of 24 September 2009 ⁽²⁾ on the protection of animals at the time of killing

3. The following methods of restraint shall be prohibited:
(c) severing the spinal cord, such as by the use of a puntilla or dagger;

- (1) Severing the spinal cord will result in an animal which is paralysed, but not immediately killed, and with no assurance of how long the next process (for example, exsanguination – bleeding out) would take to create unconsciousness, and finally, death. In European, and many other global societies, and their law,

use of spinal severance as a method for killing of animals is recognised as unacceptable, and is legislated against in EC - Regulation 1099/2009⁽²⁾ on the protection of animals at the time of killing

For this reason, the NAMMCO 'Instruction manual on Pilot whaling'⁽¹⁾ position -

"The whale is killed by stabbing the spinal lance at one hand's breadth behind the blowhole. This severs both the main blood supply to the brain as well as the spinal cord. Once the spinal cord has been severed in this way, the whale lies completely paralyzed and unconscious. The whaling knife – (in Faroese grindaknívur), is used to bleed the whale."⁽¹⁾

- is far away from the position articulated in European law which protects animals at the time of killing.⁽²⁾

"When the spinal cut is performed either with a knife or with the spinal lance, the spinal cord is cut and the whale is paralyzed and lies completely still. At the same time the blood supply to the brain is disconnected and the whale becomes unconscious and dies instantly."⁽¹⁾

In this statement, there are two key claims made -

a) *"Once the spinal cord has been severed in this way, the whale lies completely paralyzed and unconscious"*⁽¹⁾

As stated in Comment 2, inducing paralysis to make an animal immobile is abhorrent and is not permitted in humane society (and in European slaughter law)⁽²⁾.

b) *"The whale becomes unconscious and dies instantly"*⁽¹⁾

This is misleading rhetoric – animals take time to die from blood loss – for example, in a 2012 study⁽³⁾, the time to unconsciousness (as indicated by loss of corneal reflex) in lambs which were not stunned, when bleeding was performed through a transverse incision across the neck, loss of consciousness took 22 to 82 s (52 [± 20.2] s).

NAMMCO 'Instruction manual on Pilot whaling' recognises that it take time for bleeding to induce death.

"BLEEDING The whale bleeds extensively and dies after the cutting of the spinal arteries."⁽¹⁾

This 'reality' does not align with the statement that

"The whale becomes unconscious and dies instantly."⁽¹⁾

The risk of this misleading statement being made in a high level guidance document is that 'people will believe it', and therefore credibility will be associated with the method which it does not merit. It is interesting to note that no scientific papers are cited in the NAMMCO 'Instruction manual on Pilot whaling'⁽¹⁾

Comment 2

Requirement in the NAMMCO 'Instruction manual on Pilot whaling' to check the animal's state of consciousness between spinal severance (inducing paralysis) and cutting (to bleed).

Article 5 of COUNCIL REGULATION (EC) No 1099/2009⁽²⁾ makes it mandatory that it is established that an animal is unconscious (stunned in a slaughterhouse setting) before a further process is carried out;

Checks on stunning 1. Business operators shall ensure that persons responsible for stunning or other nominated staff carry out regular checks to ensure that the animals do not present any signs of consciousness or sensibility in the period between the end of the stunning process and death.

The NAMMCO 'Instruction manual on Pilot whaling'⁽¹⁾ adopts a similar requirement;

“CRITERIA OF UNCONSCIOUSNESS AND DEATH After the movement associated with the cutting of the spinal cord and the severing of the spinal arteries, the whale will not move. The whale does not lose consciousness and die from the cutting of the spinal cord but by the successive cutting of the spinal arteries. The unconsciousness is confirmed by checking if the animal blinks (the corneal reflex) or the eye moves when touched. If there is no reaction the whale is unconscious or dead. The hunter using the spinal lance is obliged to do this check. If the whale blinks or moves the eyes it is regarded as conscious and needs to be re-stabbed.”⁽¹⁾

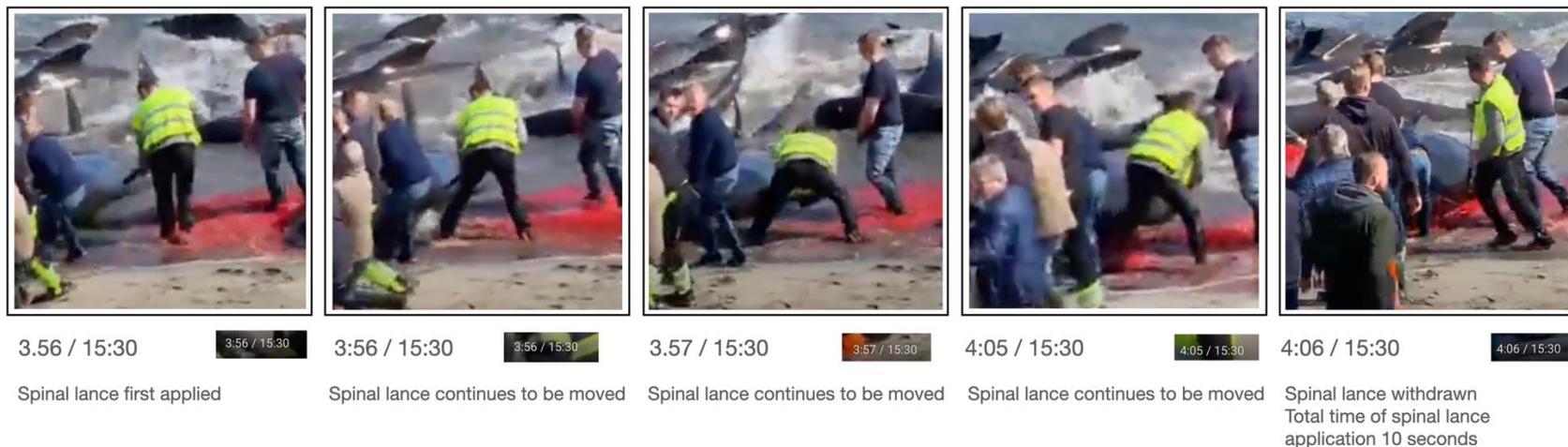
Analysis of video from 2022 drive hunts -

- a) Grindadrap Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands
Video available at; <https://www.youtube.com/watch?v=IGXNR7Q9K3o>
- b) Bottlenose dolphins killed 29th July 2022 at Skálafjørður, Eysturoy, Faroe Islands
Video available at; <https://www.facebook.com/OpBloodyFjords/>

- indicate that no checks were made between spinal cord severance and dorsal (upper body) cuts. Please see Figures 1 to 4 for image sequences from the video analysis.

Figure 1 Grindadrap Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands
 Video available at; <https://www.youtube.com/watch?v=IGXNR7Q9K3o> Image analysis from minutes 3:56 to 4:27

Spinal lance use



Cutting and bleeding



Requirement

Unconsciousness is confirmed by checking if the animal blinks (the corneal reflex) or the eye moves when touched.

Those using the spinal lance must ensure that the whale is dead by observing that it is lying straight and that eye movements cannot be seen or felt.

What is seen in the video? - The operator of the spinal lance stands up, and then moves away from the animal - it does not appear that he (or the person subsequently doing the cutting) carry out any checks on eye movements.

Figure 2 Grindadrap Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands

Video available at: <https://www.youtube.com/watch?v=IGXNR7Q9K3o> Image analysis from minutes 4:55 to 5:22

Spinal lance use

				
4:55 / 15:30 Spinal lance first applied	4:55 / 15:30 Spinal lance continues to be moved	4:56 / 15:30 Spinal lance continues to be moved	4:57 / 15:30 Spinal lance continues to be moved	4:58 / 15:30 Spinal lance withdrawn Total time of spinal lance application 3 seconds

Cutting and bleeding

		
5:02 / 15:30 Knife cut in dorsal (upper) neck started	5:14 / 15:30 Knife cut(s) in dorsal (upper) neck continue	5:22 / 15:30 Knife cuts stop Duration of knife cuts 20 seconds

Requirement

Unconsciousness is confirmed by checking if the animal blinks (the corneal reflex) or the eye moves when touched.

Those using the spinal lance must ensure that the whale is dead by observing that it is lying straight and that eye movements cannot be seen or felt.

What is seen in the video? - The operator of the spinal lance moves directly and rapidly to make the dorsal cuts and does not carry out any checks on eye movements.

Figure 3 Grindadráp Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands
Video available at: <https://www.youtube.com/watch?v=IGXNR7Q9K3o> Image analysis from minutes 7:05 to 7:30

Spinal lance use



7:05 / 15:30

7:05 / 15:30

Spinal lance first applied



7:06 / 15:30

7:06 / 15:30

Spinal lance continues to be moved



7:10 / 15:30

7:10 / 15:30

Spinal lance continues to be moved



7:12 / 15:30

7:12 / 15:30

Spinal lance withdrawn
Total time of spinal lance application 7 seconds

Cutting and bleeding



7:14 / 15:30

7:14 / 15:30

Knife cut in dorsal (upper) neck started



7:21 / 15:30

7:21 / 15:30

Knife cut(s) in dorsal (upper) neck continue



7:30 / 15:30

7:30 / 15:30

Knife cuts stop
Duration of knife cuts 16 seconds

Requirement

Unconsciousness is confirmed by checking if the animal blinks (the corneal reflex) or the eye moves when touched.

Those using the spinal lance must ensure that the whale is dead by observing that it is lying straight and that eye movements cannot be seen or felt.

What is seen in the video? - The operator of the spinal lance moves rapidly away after using the lance, and another person starts to make dorsal cuts immediately, and does not carry out any checks on eye movements.

Figure 4 Grindadráp Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands

Video available at; <https://www.youtube.com/watch?v=IGXNR7Q9K3o> Image analysis from minutes 13:38 to 14:10

Spinal lance use



13:38 / 15:30

13:38 / 15:30

Spinal lance first applied



13:41 / 15:30

13:41 / 15:30

Spinal lance continues to be moved



13:42 / 15:30

13:42 / 15:30

Spinal lance continues to be moved



13:45 / 15:30

13:45 / 15:30

Spinal lance withdrawn
Total time of spinal lance application 7 seconds

Cutting and bleeding



13:46 / 15:30

13:46 / 15:30

Knife cut in dorsal (upper) neck started



14:04 / 15:30

14:04 / 15:30

Knife cut(s) in dorsal (upper) neck continue



14:10 / 15:30

14:10 / 15:30

Knife cuts stop
Duration of knife cuts 24 seconds

Requirement

Unconsciousness is confirmed by checking if the animal blinks (the corneal reflex) or the eye moves when touched.

Those using the spinal lance must ensure that the whale is dead by observing that it is lying straight and that eye movements cannot be seen or felt.

What is seen in the video? - The operator of the spinal lance moves rapidly away after using the lance, and another person starts to make dorsal cuts immediately, and does not carry out any checks on eye movements.

Comment 3

Putting a hook into the blowhole, and pulling the conscious whale with this hook.

The NAMMCO 'Instruction manual on Pilot whaling' ⁽¹⁾ states;

"The blowhole hook is not inserted into the nostrils but in one of the two pocket-like formations, vestibular air sacs, which are located on either side of the blowhole between the skull and the skin. Although the surrounding tissue is solid and will withstand considerable strain, the use of the blowhole hook should be kept to a minimum." ⁽¹⁾

The blowhole of the whale & dolphin is its breathing opening. Whilst cetaceans do have the voluntary capacity to take breaths after prolonged intervals during diving, when they are at the surface, they do not usually do so. In the event of the extreme stressors of the chase, beaching, noise, harm to their conspecifics, and the physical assault of humans, it is likely that enforced prevention of breathing by partial or complete obstruction of the blowhole and alteration to the function of the blowhole (to keep water out) will be a profound stressor for the animal.

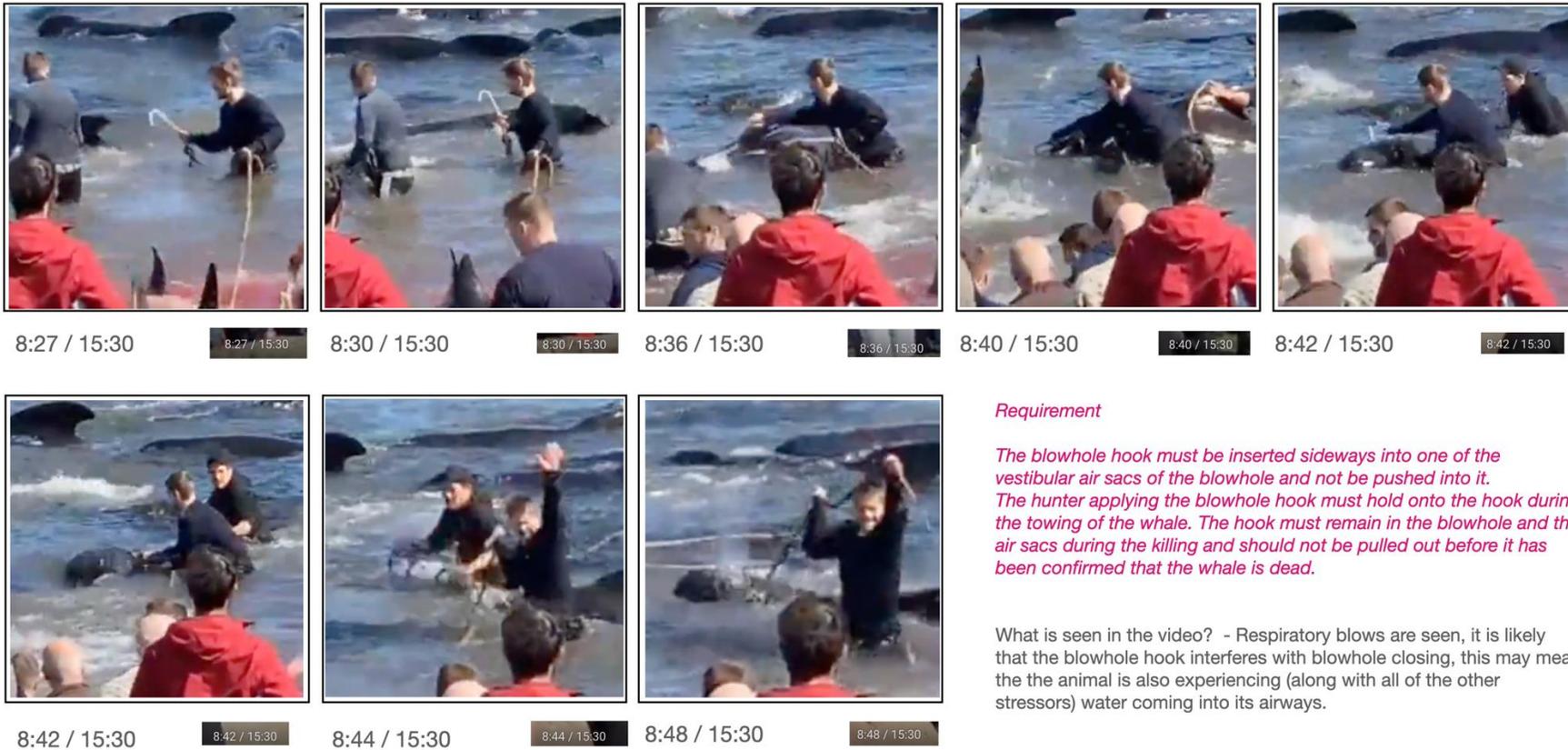
In Figure 5 (below) – a pilot whale is positioned in the water, the blowhole hook is inserted, the person indicates with a wave that the whale is 'held' – and then the rope starts to be pulled.

In the video analysis, it is apparent that the whale makes blows (respiratory efforts) and the visible blow can be seen. This indicates that the animal is not breath holding – and hence, the hook must be a form of obstruction (but not complete, else the blow would not be visible). There is no discussion or reference to published material in the NAMMCO 'Instruction manual on Pilot whaling' ⁽¹⁾ on the potential impacts on the whales;

- a) The blowhole hook will reduce the openness of the blowhole, by the space taken up by the blowhole hook.
- b) The potential that the blowhole hook may prevent the blowhole from sealing, and hence the potential to allow water into the airway of the animals (risk of drowning in severe case).

Figure 5 Grindadrap Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands
 Video available at; <https://www.youtube.com/watch?v=IGXNR7Q9K3o> Image analysis from minutes 8:27 to 8:48

Blowhole hook use



Requirement

The blowhole hook must be inserted sideways into one of the vestibular air sacs of the blowhole and not be pushed into it. The hunter applying the blowhole hook must hold onto the hook during the towing of the whale. The hook must remain in the blowhole and the air sacs during the killing and should not be pulled out before it has been confirmed that the whale is dead.

What is seen in the video? - Respiratory blows are seen, it is likely that the blowhole hook interferes with blowhole closing, this may mean the the animal is also experiencing (along with all of the other stressors) water coming into its airways.

Comment 4

The same guidance is provided by NAMMCO for a wide range of species sizes

The NAMMCO 'Instruction manual on Pilot whaling' ⁽¹⁾ states;

"For all the above mentioned species the anatomical features with respect to blowhole and spinal cord are comparable and therefore the hunting and killing method is the same. The utilisation of pilot whales is by far the most common and thus this species will be the focus of this manual." ⁽¹⁾

And

"The whale is killed by stabbing the spinal lance at one hand's breadth behind the blowhole. This severs both the main blood supply to the brain as well as the spinal cord. Once the spinal cord has been severed in this way, the whale lies completely paralyzed and unconscious. The whaling knife – (in Faroese grindaknívur), is used to bleed the whale." ⁽¹⁾

- This statement seems to very much simplify the anatomical (particularly size) differences between the 4 hunted species – Long-finned pilot whale (*Globicephala melas*), Bottlenose dolphin (*Tursiops truncatus*), White-beaked dolphin (*Lagenorhynchus albirostris*), Atlantic White-sided dolphin (*Lagenorhynchus acutus*). See Annex 2 for some data on length and mass of these species.
- A male pilot whale may be 2.5 x the length, and 10 times the mass of an Atlantic White-sided dolphin.
- It seems unlikely that the same anatomical guidance on positioning of the spinal lance can be adopted across such a range of animal sizes.



Figure 6a, 6b, 6c 100 Bottlenose dolphins killed 29th July 2022 at Skálafjørður, Eysturoy, Faroe Islands. Video available at; <https://www.facebook.com/OpBloodyFjords/>
This species is smaller than the Pilot whale, and yet the same anatomical guidance is used for spinal lance placement.

Comment 5

Because you are hunted does that mean that you are less worthy of appropriate, biologically logical, protection?

The NAMMCO 'Instruction manual on Pilot whaling' ⁽¹⁾ states;

"The overriding principle pertaining to any killing is that it is carried out as quickly and painlessly as possible with due respect to the safety, as well as taking into account the purpose of the slaughter, such as if the animal is intended for human consumption."

This is very similar in tone and intent to the text which introduces COUNCIL REGULATION (EC) No 1099/2009 ⁽²⁾

*“Killing animals may induce pain, distress, fear or other forms of suffering to the animals even under the best available technical conditions. Certain operations related to the killing may be stressful and any stunning technique presents certain drawbacks. Business operators or any person involved in the killing of animals should take the necessary measures to avoid pain and minimise the distress and suffering of animals during the slaughtering or killing process, taking into account the best practices in the field and the methods permitted under this Regulation. Therefore, pain, distress or suffering should be considered as avoidable when business operators or any person involved in the killing of animals breach one of the requirements of this Regulation or use permitted practices **without reflecting the state of the art, thereby inducing by negligence or intention, pain, distress or suffering to the animals.**”*

An interesting part of this introductory text is the phrase;

“without reflecting the state of the art, thereby inducing by negligence or intention, pain, distress or suffering to the animals” ⁽²⁾

It would seem, by comparison, that the method promoted by the NAMMCO ‘Instruction manual on Pilot whaling’ ⁽¹⁾ (Spinal cord severance) does not;

“reflect on the state of the art”

(in fact, it adopts a method now rejected, and outlawed in European law for killing of farm animals)

The Spinal severance method adopted by NAMMCO ‘Instruction manual on Pilot whaling’ ⁽¹⁾ has the capacity, (in the words of COUNCIL REGULATION (EC) No 1099/2009 ⁽²⁾) to;

“thereby induce by negligence or intention, pain, distress or suffering to the animals”

+++++

Summary

Comment 1 “During the last 30 years developmental work has taken place with respect to improving the techniques used” ⁽¹⁾

The analysis of video indicates that the ‘improvements’ described in the NAMMCO ‘Instruction manual on Pilot whaling’ are a long way behind common accepted methods, and the promotion of spinal cord severance is promotion of a method long ago outlawed in relation to slaughter of farm animals.

Comment 2 Requirement in the NAMMCO ‘Instruction manual on Pilot whaling’ ⁽¹⁾ to check the animal state of consciousness between spinal severance (inducing paralysis) and cutting (to bleed).

Analysis of publicly available video of 2022 drive hunts indicate that **no checks** were made between spinal cord severance and dorsal (upper body) cuts.

Comment 3 Putting a hook into the blowhole, and pulling the conscious whale with this hook.

The blowhole hook may reduce the openness of the blowhole, by the space taken up by the blowhole hook. The hook may also prevent the blowhole from sealing, and hence the potential to allow water into the airway of the animals (risk of drowning in severe case). This seems an abhorrent thing to do to an air breathing marine mammal, and hauling by the airway / nostril would not be permitted for other terrestrial species.

Comment 4 Same guidance for a wide range of species sizes?

The NAMMCO ‘Instruction manual on Pilot whaling’ ⁽¹⁾ indicates that the same guidance on techniques and placement locations can be adopted for all of the 4 species killed in the Grind. This seems to over simplify the anatomical (particularly size) differences between the 4 hunted species, and it seems unlikely that the same anatomical guidance on positioning of the spinal lance can be adopted across such a range of animal sizes.

Comment 5

It would appear that the methods which the Grind whale killing on the Faroes adopts, and accepts, are at a very much lower standard of animal welfare than that adopted in the Faroes and in Denmark for other species. This seems illogical, and in fact, perverse.

Annex 1

Events described;

- a) Grindadrap Hunt 7th May 2022 at Sandágerði, Tórshavn, Faroe Islands
Video available at; <https://www.youtube.com/watch?v=IGXNR7Q9K3o>
- b) Bottlenose dolphins killed 29th July 2022 at Skálafjørður, Eysturoy, Faroe Islands
Video available at; <https://www.facebook.com/OpBloodyFjords/>

Annex 2

Dimensions and mass of the 4 species hunted;

Long-finned pilot whale (*Globicephala melas*)

Females - up to 5.7 meters (19 ft) and 1,300 kg (2,900 lb)

Males – up to 6.7 meters (22 ft) and 2,300 kg (5,070 lb)

Bottlenose dolphin (*Tursiops truncatus*)

Up to 4 meters (13 feet) in length, and weigh 300 kg (660 pounds) (range 150 and 650 kg (330 and 1,430 lb)

White-beaked dolphin (*Lagenorhynchus albirostris*)

Up to 3.1m (10 ft) in length, and weigh 180 to 354 kg (397 to 780 lb).

Atlantic White-sided dolphin (*Lagenorhynchus acutus*)

Females - 2.5 m (8.2 ft)

Males - 2.8 m (9.2 ft)

Weigh 180–230 kg (400- 510 lb)

Annex 3

NORTH ATLANTIC MARINE MAMMAL COMMISSION Instruction manual on Pilot whaling –
'Important information'

WHEN A SCHOOL OF WHALES HAS BEEN OBSERVED MAKE SURE THAT IT IS PERMITTED TO HUNT THIS PARTICULAR SPECIES.

THE RELEVANT AUTHORITIES MUST BE INFORMED OF ALL DRIVES.

DRIVING AND KILLING WHALES IS ONLY PERMITTED WHEN AUTHORISED BY AND UNDER THE AUSPICES OF THE DISTRICT ADMINISTRATOR (SYSSELMAN) AND THE FOREMEN.

THE AUTHORITY OF THE DISTRICT ADMINISTRATOR AND THE FOREMEN MUST BE RESPECTED.

AUTHORISED DRIVING AND HUNTING EQUIPMENT INCLUDES: LOOSE STONES, STONES FASTENED IN ROPE LINES, THE BLOWHOLE HOOK WITH ROPE OF SISAL OR MANILA, THE SPINAL LANCE AND THE WHALING KNIFE.

IT IS FORBIDDEN TO USE THE TRADITIONAL WHALING HOOK, UNLESS AUTHORISED BY THE DISTRICT ADMINISTRATOR OR THE FOREMEN.

THE HUNTER SECURING THE WHALE WITH THE BLOWHOLE HOOK MUST STAY WITH THE WHALE AS IT IS HAULED UP AND UNTIL IT HAS BEEN KILLED.

THE HUNTER OPERATING THE SPINAL LANCE MUST POSITION HIMSELF ON THE SIDE OF THE HEAD OR IN FRONT OF THE HEAD.

ALL PARTICIPANTS IN THE HUNT SHOULD BE AWARE OF THE DANGER OF SUDDEN TAIL MOVEMENTS OF THE WHALES IN THEIR VICINITY.

POSITION THE SPINAL LANCE IN THE MIDLINE BETWEEN THE BLOWHOLE AND THE DORSAL FIN AT ONE HAND'S BREADTH BEHIND THE BLOWHOLE AND STAB IT INTO THE SPINAL CORD.

WHEN THE SPINAL CORD HAS BEEN CUT, THE SPINAL LANCE SHALL BE MOVED FROM SIDE TO SIDE TO CUT THE BLOOD VESSELS IN THE SPINAL CANAL.

THOSE USING THE SPINAL LANCE MUST ENSURE THAT THE WHALE IS DEAD BY OBSERVING THAT IT IS LYING STRAIGHT AND THAT EYE MOVEMENTS CANNOT BE SEEN OR FELT.

WHEN IT HAS BEEN CONFIRMED THAT THE WHALE IS DEAD, THE BLOOD VESSELS IN THE VENTRAL PART OF THE NECK MUST BE CUT TO BLEED THE WHALE.

IF WHALES ARE DRIVEN OUT OR ESCAPE TO OPEN SEA ONE MUST INVESTIGATE WHETHER ANY WHALE IS WOUNDED. IF SO, THIS MUST BE COMMUNICATED TO THE DISTRICT ADMINISTRATOR WHO WILL TAKE ACTION TO HAVE THE WHALE(S) KILLED IF THIS IS CONSIDERED NECESSARY FOR ANIMAL WELFARE REASONS.

Annex 4

Graphical event summary – a simplified sequence showing the entire timeline for the whole group (from start 0:46 to end 14:45 = 13 minutes, 59 seconds) with larger images provided to allow more detail to be seen.



0:46 / 15:30

0:46 / 15:30

First close contact with mankind



2:09 / 15:30

2:09 / 15:30

Beached, distressed, vocalising



2:26 / 15:30

2:26 / 15:30

Humans are a cooperative species



13:45 / 15:30

13:45 / 15:30

Impaled, paralysed, cut, destroyed



14:45 / 15:30

14:45 / 15:30

14 Minutes later, the interaction with humans is definitively over

References

- 1) NAMMCO North Atlantic Marine Mammal Commission 'Instruction manual on Pilot whaling' 2016
<https://nammco.no/wp-content/uploads/2016/10/manual-on-pilot-whaling-english-version.pdf>
- 2) EC - COUNCIL REGULATION (EC) No 1099/2009 of 24 September 2009 ⁽²⁾ on the protection of animals at the time of killing
<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:303:0001:0030:EN:PDF>
- 3) Rodríguez P, Velarde A, Dalmau A and Llonch P Assessment of unconsciousness during slaughter without stunning in lambs. *Animal Welfare* 2012, 21(S2): 75-80 doi: 10.7120/096272812X13353700593644 ISSN 0962-7286
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