



North Atlantic Marine Mammal Commission

WORKING DOCUMENT – version 160718

**Incorporated comments received by FO, IS and NO.
Comments from Greenland not received by 160718**

REVIEW OF THE NAMMCO OBSERVATION SCHEME -

*Prepared by Strahinja Ivanovic, Charlotte Winsnes and Geneviève Desportes, NAMMCO Secretariat
Thanks to Daniel Pike for his valuable comments on the draft manuscript.*

Contents

REVIEW OF THE NAMMCO OBSERVATION SCHEME	1
February 2018, Tromsø	1
1 INTRODUCTION	1
1.1 Background	1
1.2 Aim and structure of the report	1
2 METHODOLOGY	1
2.1 Coverage rate	2
2.2 Identifying relevant sources for the evaluation criteria	3
3 RESULTS AND DISCUSSION	5
3.1 Observation in practice	5
3.1.1 Nomination and selection of observers	5
3.1.2 Role of the observer	5
3.1.3 Identifying the scope of the annual observation, selecting observers	5
3.1.4 Instruction and information to observers	6
3.1.5 Reporting	6
3.2 Tabular overview of some elements of the Scheme	6
3.3 Infractions reported during the 20 years of the implementation	8
3.4 Review of the Scheme	9
3.4.1 The Faroe Islands (FO), pilot whale hunt	9
3.4.2 Greenland (GL), fin and minke whale, harp seal and harbour porpoise hunt	10
3.4.3 Iceland (IS), fin whale and minke whale hunts	12
3.4.4 Norway (NO), minke whale hunt, harp and hooded seal hunt	13
3.5 Evaluation of the Scheme	15
3.5.1 Evaluation of observer's reports	15
3.5.2 Coverage of the Parties' hunting activities	15
3.5.3 Coverage rate and representativeness of observation activities	16
3.5.4 On-land observation versus on-board observation	17
3.5.5 Observers' competence	18
3.5.6 Safety of observers	19
3.5.7 Establishing and reviewing the Observer Scheme	19
3.5.8 Costs effectiveness of the Observation Scheme	19
4 CONCLUSION AND RECOMMENDATIONS	21
REFERENCES	23
APPENDICES	23
ANNEXES	23

REVIEW OF THE NAMMCO OBSERVATION SCHEME

February 2018, Tromsø

1 INTRODUCTION

1.1 Background

The North Atlantic Marine Mammal Commission (hereinafter NAMMCO) since 1998 operates an international Observation Scheme (hereinafter often referred as the Scheme). The purpose is to monitor whether national legislation and decisions made by the Commission are implemented and complied with. NAMMCO appoints international observers to monitor sealing and whaling activities in selected areas in NAMMCO member countries under the Provisions of the Joint Control Scheme for the Hunting of Marine Mammals¹.

The last review of the Observation Scheme was prepared by the Secretariat for the Committee on Inspection and Observation (hereinafter CIO) meeting in January 2005² (Appendix 2). In 2017, the Secretariat undertook to review the Observation scheme for the CIO February meeting 2018.

1.2 Aim and structure of the report

The aim of the report is to:

- Review the implementation process of the NAMMCO Observation Scheme;
- Evaluate the Scheme's implementation;
- Recommend possible improvements in any domains related to the implementation process.

The review and evaluation of the Observation Scheme covers the period since its initiation in 1998 until and including 2017.

The report is structured as follows:

Following the introductory section 1, the report is broken into three sections:

- Section 2 "Methodology", clarifies methods used to review and evaluate the Scheme.
- Section 3 "Results and Discussions" is further divided into five sub-sections. The first shows how the observation process is carried out, including how observers are nominated and selected, what precisely is their role and what is the scope of observation. The second gives a tabular overview of some elements of the Scheme, while the third shows which infractions have been identified so far. The fourth sub-section reviews observed hunts. It is organised per member state, in alphabetical order. Emphasis has been placed on numerically expressing the findings, where possible, then to conduct a more precise evaluation and a comparison, where appropriate, with other regional observer programmes. The final sub-section explains the rationale behind the selection of evaluation criteria for the Scheme, before considering each criterion in turn.
- Section 4 "Conclusion and Recommendations", summarises provides the findings and the Secretariat's recommendations for improving the implementation process of the Observation Scheme.

2 METHODOLOGY

The review of the Scheme is based upon assessing the related NAMMCO documents, such as Provisions of the Joint Control Scheme for the Hunting of Marine Mammals, annual Secretariat's reports on the implementation of the Scheme, observers' reports and diaries and other relevant documents. In addition, some

¹ [Provisions of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals](#), 1997

² NAMMCO. 2005. Review of the NAMMCO Observation Scheme. Document NAMMCO I&O-2005-03.

more informal methods were used, such as consultations and interviews with key NAMMCO staff. The results are presented as a general overview, as well as per member country.

The evaluation relies on reviewing the implementation of the Scheme in light of criteria based on international instruments relevant to NAMMCO, as well as guidelines, standards and practices from other regional fisheries bodies practices and the Scheme objectives.

2.1 Coverage rate

An important parameter for assessing observer programmes is the level of observer coverage, in the NAMMCO case, the percentage of hunting effort observed. The observer coverage is the proportion of observed hunting effort to the total hunting effort. The level of observer coverage can be expressed in three ways:

a) As a fleet observation rate (FOR) - for on-board observation

The fleet observation rate per season, or season fleet observation rate (FOR), is the percentage of observed hunting vessels to the total number of hunting vessels in a specific season.

The fleet observation rate for observed seasons (OFOR) is the average of the fleet observation rates for all the observed seasons.

The fleet overall observation rate for all seasons since the inception of the scheme, or total fleet observation rate (TFOR), is the average of the season fleet observation rates for all seasons since the inception of the Scheme in 1998, with non-observed season having a fleet observation rate equal to 0.

The FOR is not a very precise representation of the observation coverage, as vessels are observed only part of the season and transit time to the hunting area is not accounted for. Transit time can represent several days in some hunts like minke whaling in the Barents Sea and sealing in the West Ice. A day observation rate would be a better measure for on-board observation activity. The data available from the observer reports did not allow for that to be calculated.

In the case of pilot whaling observation, a FOR could be estimated if the observers were asked to/could board some of the boats participating in a drive. However, this does not seem to have happened and has so far not been specifically asked for and is not applicable.

b) As a catching event observation rate (COR)

The catching event observation rate (COR) is the ratio of catching events under observation to the total catching events in a specific season. As the FOR above it can be calculated for observed season (OCOR) or for all hunting seasons since 1998 (TCOR).

In the case of the Norwegian sealing, the catching event is defined as every time a group of seals is targeted by the sealers, seals killed and retrieved on board, regardless of the number of seals killed. The COR is not available, as the observers have not been specifically asked to report on the number of catching events observed.

In the case of the Faroese pilot whaling, the catching event is the *grind*, or the pilot whale drive. The observed season observation rate (OCOR) and the total observation rate (TCOR) are calculated in similar ways as above.

c) As a kill observation rate (KOR)

The kill observation rate (KOR) would be the ratio of individual kill under observation to the total kill events (the total number of animal killed) in a catching event. In the case of large whale hunts, the COR and the KOR will be the same.

However, observers have not been specifically asked to report on individual kill neither for the Norwegian sealing nor the pilot whaling, so a kill observation rate is not available. This is a limitation of the Observation Scheme, as this could otherwise provide further information on the hunting process.

No parameters were calculated for Greenland as the data reported from the observers were too general and did not allow calculations of any observation rate. However, as in the other type of hunts, it should be possible to generate a FOR, COR and KOR if more precise reporting requirements were asked of the observers.

2.2 Identifying relevant sources for the evaluation criteria

NAMMCO is recognised by FAO as a regional fisheries body³. International legal instruments and guidelines and practices pertaining to fisheries and fisheries bodies were therefore used to identify criteria for evaluating the implementation of the NAMMCO Scheme. This sub-section describes the rationale for this.

State Parties to the Law of the Sea Convention (hereinafter LOSC)⁴ have general conservation obligations and responsibilities in their capacities as coastal and flag states. These obligations have been interpreted by the following relevant instruments⁵:

- **The Fish Stocks Agreement**⁶, as it sets out the regime for the conservation and management of straddling and highly migratory fish stocks, by reference to LOSC Annex I. Parts of the Fish Stocks Agreement, and in particular its provisions on regional management constitute generally accepted standards which coastal States must take into account when conserving and managing the living resources in their EEZ;
- **The FAO Code of Conduct**⁷, whilst not a legally binding instrument, mostly reflects customary international law;
- **FAO guidelines for responsible fisheries**⁸ supporting the Code of Conduct;
- **RFMO measures** pertaining to observer programmes. These measures can be argued to constitute generally recommended minimum standards;
- **Chatham House Recommended Best Practices for Regional Fisheries Organizations**⁹, a document produced by an expert panel, which was set up following one of the recommendations of the ministerial-led Task Force on Illegal, Unreported and Unregulated Fishing on the High Seas.

³ See <http://www.fao.org/fishery/rfb/nammco/en>.

⁴ UN General Assembly, Convention on the Law of the Sea, 10 December 1982.

⁵ All parties to the LOSC (which includes the NAMMCO Member States) are under the general obligation to protect and preserve the marine environment pursuant to Art. 192 LOSC in all maritime zones, whether within or beyond national jurisdiction. This includes marine living resources (see the Southern Bluefin Tuna Case), fish as well as marine mammals. This obligation to protect and preserve has to be interpreted quite extensively, including in light of the corpus of international environmental law (see the South China Sea Award).

More specifically, states in their capacity as flag state are under specific obligations to ensure that vessels flying their flag do not undermine these responsibilities (see LOSC Article 94, and Advisory Opinion to the SRFC). This requires taking the necessary administrative measures to ensure that this is so.

States are also, in their capacity as coastal state, under the specific obligation to conserve and manage the living resources in their EEZs so as to ensure that these are not endangered by over-exploitation. In so doing, states must inter alia take into account generally recommended international minimum standards, whether sub-regional, regional or global. The LOSC is therefore a relevant source for evaluating coastal State measures to conserve and manage living resources, including for example by adopting observation schemes. Being a framework convention, the LOSC contains no specific provisions on observation. However, in fulfilment of their obligations, state parties must consider subsequent instruments that do make reference to observation schemes when these measures are part of the general corpus of environmental law (thus informing states' obligations under Art. 192 LOSC) and when these measures match generally recommended standards which coastal and flag States must take into account.

⁶ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement).

⁷ 1995 FAO Code of Conduct for Responsible Fisheries.

⁸ Recent trends in monitoring, control and surveillance systems for capture fisheries. Flewelling, P.; Cullinan, C.; Balton, D.; Sautter, R.P.; Reynolds, J.E. FAO Fisheries Technical Paper. No. 415. Rome, FAO. 2002.

⁹ Recommended Best Practices for Regional Fisheries Management Organizations, Report of an independent panel Michael W. Lodge, David Anderson, Terje Løbach, Gordon Munro, Keith Sainsbury, Anna Willock, The Royal Institute of International Affairs Chatham House, 2007.

These instruments contain what could be considered criteria for evaluating observer programmes of regional fisheries bodies. The relevant criteria for evaluation of the NAMMCO Observation Scheme are as follows:

Coverage rate and representativeness of observation activities

Best practices among regional fisheries bodies show that the required observer coverage rates are quite variable: in tuna RFMOs a minimum of 5% observation coverage¹⁰ is demanded while CCAMLR's observer programmes calls for the 100%. Full coverage of fishing activities, however, does not appear to be a standard in RFMO practices.¹¹

Also, coverage needs must be assessed in line with the specific objectives and issues target of each monitoring programme.

On-land observation versus on-board observation

General practices of RFMOs show a preference for on-board observation as opposed to on-land observation. The motive for this is the higher effectiveness of the on-board observation, which documents both the process and its result - and issues if any, while on-land observation only documents the result, ignoring the process and its issues¹².

Observers' competence and safety of observers

Observers must be sufficiently qualified and trained. The FAO recognises that "large measure of the success of any observer program depends on the professional competence and personal integrity of the observers"¹³, and lists various criteria in this regard. Of particular relevance are the following:

- observers should not be granted enforcement powers;
- observers should receive appropriate training and evaluation;
- observers must be paid appropriately for their, often hazardous, duties.¹⁴

Establishing and reviewing the observer programme

Flag States should where appropriate, implement observer programmes for its vessels as part of the obligation to exercise effective monitoring, control and surveillance (MCS) measures, which include observer programmes. This obligation should be implemented by sub regional or regional fisheries management organisations and arrangements¹⁵ and procedures should be developed to review and assess the effectiveness of compliance and enforcement measures on a regular basis¹⁶.

Cost effectiveness of the observer programme

The obligation to implement observer programmes, where appropriate, is deriving from the Fish Stock Agreement and Code of Conduct (see discussion in the paragraph above). The implementation of the observer programme should be fulfilled in good faith, as required by the LOSC¹⁷. *Good faith* includes considering the cost effectiveness of a programme.

¹⁰ Tuna longline fisheries by IATTC and WCPFC where; the ICCAT CPC observer programme which only requires 20% coverage on large pelagic trawlers, longline and baitboat vessels; and the IOTC and CCSBT scientific observer programmes which only require 5% (IOTC) and 10% (CCSBT) coverage. SPRFMO Documents Observer Programmes

¹¹ Overview of current RFMOs practices is available *inter alia* in SPRFMO Secretariat Document COMM-04-INF-04, Observer Programmes of RFMOs, 2016.

¹² Overview of current RFMOs practices is available *inter alia* in SPRFMO Secretariat Document COMM-04-INF-04, Observer Programmes of RFMOs, 2016.

¹³ Supra note 21, p.60.

¹⁴ Ibid, p.61.

¹⁵ The Fish Stock Agreement Art. 18(3) and Code of Conduct Art. 7.7.3. This obligation is qualified with the text "as appropriate", however the Chatham House Recommendations note "observer programmes have long been regarded as an essential component of fisheries MCS" (p. 47 Chatham House Recommendations).

¹⁶ Supra note 22, p. 66.

¹⁷ See LOSC Article 300.

3 RESULTS AND DISCUSSION

3.1 Observation in practice

3.1.1 Nomination and selection of observers

Member countries nominate observer candidates which are formally appointed by the Council for each calendar year. From the pool of appointed observers, the Secretariat selects the ones that will be contracted in a specific year. As a rule, NAMMCO observers are required to have at least the same level of qualifications and training as national inspectors and must be familiar with all relevant regulations relating to the activities they observe.

3.1.2 Role of the observer

The role of the observer is to oversee hunting activities and the national inspection of these, in order to assess whether or not these are carried out in accordance with national legislation and advice given by NAMMCO. Thus, the observers must be given access to all items of importance for the task at hand such as hunting permits, vessel logbooks, reports of catch, hunting equipment etc.

Observers are required to report immediately any violations of the national regulations but have no authority to intervene in hunting activities in any way. Actions with respect to possible infringements are the responsibility of the national control authorities.

3.1.3 Identifying the scope of the annual observation, selecting observers

When the scope and range of the observation for the year is agreed (usually in January/February), the Secretariat contacts the observers to find out if and when they can go and for how long.

The selection of observer has been made considering factors like:

- using as many of the approved candidates as possible
- supporting knowledge sharing between NAMMCO countries, i.e., depending on the scope, contracting observers that may benefit from acquiring knowledge on how hunts are conducted other places
- using experienced observers when the activities in question have been special, i.e. when Iceland resumed whaling a very experienced observer was selected
- the availability of observers i.e. when and for how long can the observer be contracted. The observers have as a rule been fully employed persons, who have taken time off to work for NAMMCO. In the Norwegian seal hunt the main challenge has been the potential that the observer would have to be out for up to 8 weeks.

In dialogue with the authorities, information needed for the implementation are gathered, and national contact persons identified. The relevant authorities in the member states are:

- Norway and Iceland: Directorates of Fisheries
- Faroe Islands: Ministry of Fisheries
- Greenland: Ministry of Fisheries and Hunting

Planning the observation season requires different information depending on the hunts being targeted. The time spent planning and coordinating varies according to the target and the number of actors involved, e.g., the number of licenced boats in a season. In the Norwegian minke, whale hunt the number of active vessels in the observed seasons has ranged from 34 to 17, in Iceland the numbers are 4 to 2. Identifying actual observation period must be coordinated with the availability of observers, i.e. if they have time off from work in the actual period.

For the Norwegian minke whaling, the selection of vessels to observe and contact with the owner/captains has been done by the Secretariat. This also involves determining the most optimal time and place for the observer to board the vessel. The role of the Secretariat in the implementation of the Scheme for the Norwegian minke whaling compared to the other hunts has been much greater, and quite time consuming.

Kommentert [CW1]: Comment from NO: The hunters are only obliged to comply with national legislation. Advice given by NAMMCO has to be adopted as national legislation to be mandatory to the hunters

In Iceland, given the small number of vessels, the main issue is whether they plan to go hunting and when, and the Directorate of Fisheries has had the direct contact to the captains whereas the Secretariat has coordinated with the observers.

In Norway and Iceland, whaling vessels with harpoon gun are obliged to take an observer on-board if required. This is a condition of the licensing. This is also the case for the pack ice sealing (for Norway see footnote¹⁸). In Greenland there is no such condition, but hunters shall attempt to notify the wildlife officers well in advance of any planned hunting trip. The wildlife officer observes from a small boat, but never board the hunting vessel itself. NAMMCO observers have observed from the wildlife officer boat, and also onboard a hunting boat.

3.1.4 Instruction and information to observers

The observer shall conduct the observation activities in accordance with the Guidelines to Section B of the Provisions – Duties and Tasks of the Observer.¹⁹

To ensure independence and neutrality of the implementation of the Observer Scheme the Secretariat is operating the Scheme with minimum interference from the member states. When the observers have been selected, they receive all necessary documentation and information relevant for their assignment. The Secretariat ensures by communicating with observers that they understand the procedure and what is expected from them.

For Norwegian observation activities the Secretariat coordinates all contact with captains and boat owners and is the contact person for the observers while in Norway. For all other observations this has for practical reasons been done by the responsible authorities in the member country in question. The observers will typically have an initial meeting with representatives from the authorities where among other things the existing regulations and the control list will be reviewed. All observers have a contact person in the country they observe in.

3.1.5 Reporting

NAMMCO observers are employed by, and responsible to, NAMMCO alone. They are required to submit written reports to the NAMMCO Secretariat at the end of their assignment, using the mandatory forms (see Annex 3). They have also been asked to submit a diary for the use of the Secretariat. Otherwise it is a strict requirement for the observers to maintain the confidentiality of their observations. In the case of infringements of regulations, the observer shall send a written report with copy to flag state and owner of vessel²⁰. The Secretariat compiles an overview of observation activities each year for the annual review of the NAMMCO Council. The observer reports are sent to the national authorities after the season.

3.2 Tabular overview of some elements of the Scheme

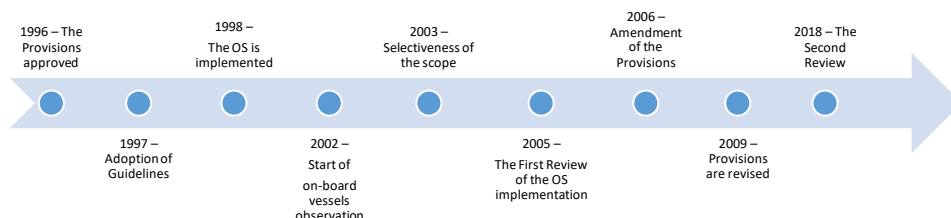
Figure 1 shows the key milestones events since the Observation Scheme came into force.

Figure 1: Observation Scheme (OS) milestone events

¹⁸ Norwegian national regulation J-11-2005, §16 makes it clear that an observer should be authorized on-board all vessels.

¹⁹ [Provisions of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals: Guidelines to Section B – International Observation Scheme / AD B.2.5 – Duties and tasks of the Observers](#)

²⁰ NAMMCO Guidelines to Section B, 6. And 7.



All milestone events chronologically

- 1996 – The Provisions of the Joint NAMMCO Control Scheme was approved by NAMMCO Council
- 1997 – Adoption of Guidelines to Section B
- 1998 – The Observation Scheme is implemented
- 2002 – Introduction of on-board vessels observation
- 2003 – Selectiveness, as opposed to comprehensiveness, of observation activities scope
- 2005 – First Review of the Observation Scheme
- 2006 – Provisions of the Joint NAMMCO Control Scheme text was amended
- 2009 – Provisions of the Joint NAMMCO Scheme were revised to incorporate new developments like electronic monitoring.
- 2010 – First observation of fin and minke whale hunts in Iceland
- 2018 – Second Review of the Observation Scheme

Table 1 provides a comprehensive overview of types of hunts in NAMMCO member countries.

Table 1 offers an overview of which hunts have been observed each year. The dotted line indicates the moment when on-board observation was implemented (2002), while the black line marks the period from 2003 onwards – when the scope of the observation became selective (not all regions and activities were observed each season).

Table 1: Overview of the yearly scope of observation

Year	comprehensive on-land observations										selective on-board observations (where possible)									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NO Minke whale																				
NO Harp & Hooded seal																				
IS Fin whale																				
IS Minke whale																				
FO Pilot whale																				
GL all hunts																				

* Cells marked in grey are observed events
 * Pink cells are years when there was no hunt

Figure 2 below provides the frequency (number of years) of observation for each hunt observed.

Figure 2: Number of years the different hunts were observed since 1998-2017

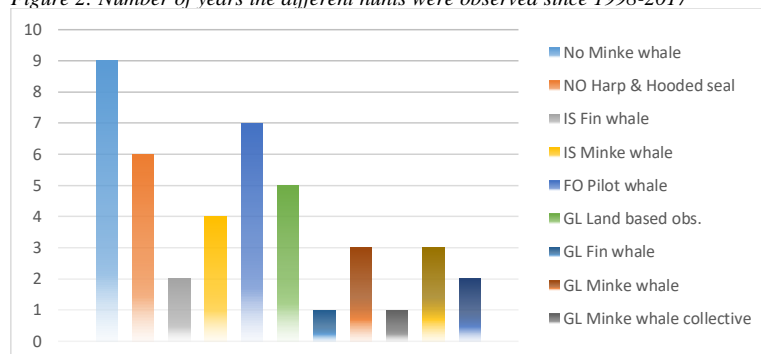


Table 2: Overview of types of hunts in member States

Country	Species	Type of hunt	Platform*1 - and conditions	Dispatching mean	Observed*6	Years observed
Faroes	Pilot whale	Drive hunt	Boats, killing from beach	Spinal lance	yes	1999-2001*, 2002, 2007, 2012, 2015
	Dolphins	Drive hunt	Boats, killing from beach	Spinal lance		
	Harbour porpoise		Boat	Shotguns with pellets cartridges		
	Grey seal	Around fish farm		Rifle		
Greenland*7	Bowhead whale	3 boats	Boat	Harpoon gun		
	Fin whale	2 boats or larger boat	Boat	Harpoon gun	yes	2006
	Humpback whale	1 boat	Boat	Harpoon gun		
	Minke whale	1 boat	Boat	Harpoon gun	yes	2002, 2004, 2006, 2011, 2014
	Minke whale - collective	Collective, min 5 skiffs	Open motor boat	Rifle hunt	yes	2011
	Narwhal	Collective	Open motor boat	Rifle		
	Beluga	Collective	Open motor boat	Rifle		
	Bottlenose whale					
	Killer whale	Collective	Open motor boat	Rifle		
	Pilot whale	Collective	Open motor boat	Rifle		
	Harbour porpoise	Collective	Open motor boat	Rifle	yes	2004, 2006, 2014
	Dolphins	Collective	Open motor boat	Rifle		
	Narwhal/Beluga	Collective	Open motor boat	Harpoon and rifle		
	Narwhal/Beluga	2 hunters	Kayaks	Harpoon and rifle		
	Narwhal, Beluga		Open water/under sea ice	Net		
	Walrus	2 or more hunters	Open water-from floe edge	Harpoon, rifle, lance		
	Harp seal		Boat	Rifle	yes	2011, 2014
	Hooded seal			Rifle		
	Bearded seal					
	Ringed seal		On the ice	Rifle		
	Ringed seal		From ice edge (with kayak or small boat to haul out)	Rifle		
	Ringed seal		Ice	Net		
	Harbour seal*3				yes	2006
Iceland	Fin whale*4		Boat	Harpoon gun	yes*4	2010, 2013
	Minke whale *5		Boat	Harpoon gun	yes*5	2010, 2011, 2013, 2017
	Grey seal			Rifle & club		
	Harbour seal		Land, in rivers' mouth	Net		
Norway	Minke whale	Boat	Boat	Harpoon gun	yes	1998-2001*, 2002, 2003, 2009, 2013, 2016
	Harp seal & Hooded seal*2	Boat - ice	Boat or ice	Rifle + hakapik	yes	1998-2001*, 2005, 2008
	Grey seal		Hunter laying on land or from water if retrievable	Rifle + slagkrok		
	Harbour seal		Hunter laying on land or from water if retrievable	Rifle + slagkrok		
	Ringed seal (Svalbard)		Water (16 August- 30 November), ice or land	Rifle + slagkrok		
	Bearded seal (Svalbard)		Ice or land	Rifle + slagkrok		
* Before 2002, the observation is land-based only						
*1 The platform mentioned is sometimes mandatory or the most usual platform used for that hunt						
*2 Hooded seal have been protected since 2007						
*3 Harbour seal have been protected since 2010						
*4 Iceland resumed scientific whaling in 2003. In 2006, first quotas given for commercial whaling. No hunt for fin whales in 2007-8, 2011-2012, 2016-2017						
*5 Iceland resumed scientific whaling in 2003. In 2006, first quotas given for commercial whaling.						
*6 Note that this covers the whole hunting process (the chase and kill) and not all observations resulted in a successful catch						
*7 1998 - 2001: only land based observations in Greenland, 2002 onwards a combination of land based and out at sea						

3.3 Infractions reported during the 20 years of the implementation

Two cases of infractions have been reported during the 20 years the Scheme has been running. Both occurred in 2001. In Greenland, the observer noted that two vessels did not have the proper line or trawler winch on-board as required by national law, but instead were equipped with a hydraulic “power block” mounted on the boom. In Norway, the observer was denied access to a minke whaling vessel, which is contrary to the license requirement.

3.4 Review of the Scheme

3.4.1 The Faroe Islands (FO), pilot whale hunt

General

Observation in the Faroe Islands has only targeted the pilot whale drive hunt (Table 1). The Faroese pilot whale hunt has been observed seven times, or 35% of the 20 years covered by the Scheme. Hunting takes place year-round, but 67% of the drives occur in the period July – September with a peak in August. Observers were usually sent during the “peak” hunting period to maximise the likelihood of observing a drive hunt. The opportunistic nature of the pilot whale hunt makes the observation effectiveness rather low, and a “best” observation period is difficult to identify. For example, there were six drives (grinds) of pilot whales in 2015, but only one happened during the 44 days the observer was present.

Coverage rate

The observation coverage rate in the Faroes (COR) is calculated as the ratio of total grinds and observed grinds per year (Table 3).

Table 3: Overview of drive hunt observation in the Faroe Islands

(observed years are marked grey - the number are based on available catch data from 1998 onwards as reported in the Annual Progress Reports to NAMMCO)

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No. of drive hunts	12	n/a	13	21	23	11	14	10	22	11	3	10	16	9	11	12	3	7	6	24
No. of pilot whale drive hunts	8	8	9	11	10	5	9	6	11	10	0	3	14	9	10	11	2	6	6	19
Catch of pilot whales	815	608	588	918	626	503	1100	302	856	633	0	310	1107	726	713	1104	48	501	295	1203
Drives occurred while the observer was in the Faroes		2	3	1	1					2					2			1		
Observed pilot whale drive hunts	0	1	2	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0

The catching event observation rate for observed seasons (OCOR) is around 11% and the total catching event observation rate (TCOR) is about 4%. About 60% of the grinds occurring while an observer was in the Faroes were observed.

Comments

Most of the drive hunts taking place in the Faroes are targeting pilot whales (around 68% since 1998), the others targeting mostly white sided and bottlenose dolphins²¹, and only the former have been observed.

Compared to other NAMMCO observation targets, the efficiency of the Observation Scheme is lowest in the Faroes, because of the opportunistic character of the hunt, and the fact that there is only the drive hunts that are observed. Unless some of the observers ‘waiting hours’ are transformed to ‘effective working hours’ with some other tasks performed in the interests of NAMMCO, the Observation Scheme in the Faroes will remain inefficient.

Only 60% of the grinds occurring while an observer was present in the Faroes were observed. The observation should be organized to increase and maximise the observation rate of the drives.

At present, it is not possible to assess the number of individual whale kill observed (KOR) or the qualification of the individual hunter as the observers have not been specifically asked to observe and report on that. Such information would be valuable and could be considered an element to be integrated in the mandate of the

²¹ See whaling.fo

observer. Although, the observer will only be able to observe a few kills, due to the nature of a grind where up to hundreds of animals can be killed during a short period of time, this would increase the value of the observation activity.

3.4.2 Greenland (GL), fin and minke whale, harp seal and harbour porpoise hunt

General

Hunting in Greenland is complex with a broad mixture of hunting methods and target species (Table 1). Minke, fin, bowhead and humpback whales are hunted with a harpoon gun from boats. The collective minke whale hunt is carried out in settlements without harpoon gun boats, normally by around 8 -10 skiffs. Harbour porpoise, white-sided and white-beaked dolphins, long finned pilot whales, killer whales, narwhal and beluga are shot with a rifle in a collective hunt from small, open motorboats. In East and North Greenland, hunters are allowed to hunt with nets. Seal hunters focus on hunting harp seals, ringed seals and hooded seals; the former two being by far the most dominant.²²

Hunting activities in Greenland are the most subsistence based hunts in the NAMMCO countries. Many hunters in Greenland are both fisherment and hunters and will switch between activities pertaining to “prey” availability and needs.

Observation activities

Hunting activities in Greenland were the target of NAMMCO’s observation activities nine times, or 45% of the 20 years since 1998. The rule has been that only one observer has been active during a season with the exception of 2004, where three observers were present.

From 1998 to 2001, observations in Greenland were land-based and focused on observing the landing/flensing and sale of products at “brættet” – the local market. From 2002 onwards, with the introduction of on-board observations, the observers in Greenland have observed both on land and at sea. Due to the opportunistic character of hunting activities in Greenland, observers have been instructed to observe any hunts that occurred during their stay. The following are examples of observations during some of the seasons:

In 2004, the three observers did both land based and on-board observations of whaling and sealing activities. They all observed the landings of seals and harbour porpoises. One observer also reported the chase, harpooning, and later the flensing of one minke whale.

In 2011, the observations were both land based and on-board three different vessels. The following was observed: two seal hunts, three minke whale hunts (two harpoon hunts and one communal rifle hunt involving 10 boats), flensing sites, the local markets and the landing and delivery sites²³.

In 2014, the observer participated in one hunt for minke whales, but only seals and one harbour porpoise were caught during this trip. Although the observer travelled around to different localities the overall situation was that the hunters did not go out due to bad weather conditions.²⁴

²² For detailed descriptions of hunts see NAMMCO 2017. Overview of Marine Mammal Hunting Methods and Monitoring/Observation in NAMMCO Member Countries.

²³ See observer’s report 2011

²⁴ See observer’s report 2014

Table 4: Overview of observed hunting activities in Greenland
(observed years are marked grey)

GI - observed hunting activities		1998	1999	2000	2001	2002	2004	2006	2011	2014
Location of observations		Nuuk	Nuuk	The Godthåb Fjord and Nuuk	Qaqortoq and Narsaq regions	Qaqortoq and South Greenland	South-West Greenland	Nuuk and in Sisimiut	Ilulissat, Qeqertarsuaq, Aasiaat and Aknnaaq	Ilulissat
Observed and total catch	land based*									
	Minke whale catch observed				n/a		2	1	2	1
	Unsuccessful hunts observed							4		
	Total catch for the whole Greenland	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Total catch only for observed areas	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Minke whale - collective catch observed						1		1	
	Unsuccessful hunts observed									
	Total catch for the whole Greenland	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Total catch only for observed areas	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Fin whale catch observed									
	Unsuccessful hunts observed							1		
	Total catch for the whole Greenland	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Total catch only for observed areas	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Harbour porpoise catch observed						n/a			1
	Unsuccessful hunts observed									
	Total catch for the whole Greenland	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Total catch only for observed areas	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Seal hunt catch observed**							2	n/a	n/a
	Unsuccessful hunts observed							several		
	Total catch for the whole Greenland	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed
	Total catch only for observed areas	n/a	n/a	n/a	data needed	data needed	data needed	data needed	data needed	data needed

*land based observations include observations of landings of product, market places, flensing sites, hunting activities at sea with binoculars from shore

**the seal species observed were not specified

n/a - unknown number of observations

Comments

Amongst the 23 types of hunts identified in Table 2, notably relatively few of them have been observed. The species specific observations were limited to hunts of fin and minke whale, harbour porpoise and harp seal. With respect to the observed seal hunts, the information is not complete as some observers only reported on generic seal hunts without specifying which species they observed being caught.

In 2001, the observer noted that two vessels did not have the proper line or trawler winch on-board, as required by national law. Instead, these vessels were equipped with a hydraulic “power block” mounted on the boom.

As noted in the 2005 Review of the Scheme, the hunting scene is more complex in Greenland than in the other NAMMCO countries. An increased focus on hunting activities in Greenland, with more observers present at the same time, would likely give a better understanding of the overall situation²⁵ and level of compliance.

3.4.3 Iceland (IS), fin whale and minke whale hunts

General

Iceland resumed commercial whaling under its ‘reservation’ to the IWC moratorium in 2006, and NAMMCO’s first observation of whaling in Iceland took place in 2010.

The fin whale hunt was subjected to NAMMCO’s observation activities in 2010 and 2013 and the minke whale hunt in 2010, 2011, 2013 and 2017, so both hunts were observed in 33% of the hunting years. The observations were both land-based and on-board.

Observer efficiency was fairly high, as nearly all the observation time was used related to actual observation activities. In 2017, however, the minke whale hunt was not observed 11 out of 21 days due to bad weather²⁶. The observation period per season lasted from one to a couple of weeks.

Fleet (OFOR and TFOR) and catch observations (OCOR and TCOR) rate of fin and minke whale hunt in Iceland are given in tables 4 and 5.

Coverage rate for fin whale hunt

Table 5: Overview of fleet and catch observation in Icelandic fin whaling
(observed years are marked grey, year without hunting are in pink)

IS Fin whale hunt, year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
total number of vessels	0	0	0	2	2	0	0	2	2	2	0	0
observed vessels	0	0	0	0	1	0	0	1	0	0	0	0
total catch	7	0	0	125	148	0	0	134	137	155	0	0
observed catch	0	0	0	0	13	0	0	4	0	0	0	0

With only two hunting vessels, the observation rate for observed seasons (OFOR) and total fleet observation rate (TFOR) were about 50% and 20%, respectively.

The fleet observation rate for observed seasons (OCOR) and total fleet observation rate (TCOR) are about 6% and 2.5%, respectively.

Coverage rate for minke whale hunt

Table 6: Overview of fleet and catch observation in Icelandic minke whaling
(observed years are marked grey)

²⁵ See supra note 2, 2005. Review of the Observation Scheme.

²⁶ Information retrieved from the observer’s, S. Petersen, diary 2017.

IS Minke whale hunt, year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
total number of vessels	n/a	n/a	n/a	5	4	3	3	3	2	1	3	2
observed vessels	0	0	0	0	1	1	0	1	0	0	0	2
total catch	61	45	38	81	60	58	52	49	24	29	46	17
observed catch	0	0	0	0	2	2	0	4	0	0	0	0

The fleet data was not available for all years. Based on available vessel data (2009-2017), the observation rate for observed seasons (OFOR) and total fleet observation rate (TFOR) were about 48% and 21%, respectively.

The fleet observation rate for observed seasons (OCOR) and total fleet observation rate (TCOR) in the period 2006-2017 are about 4%, and 1.5%, respectively.

Comments

Whaling in Iceland is small in scale with respect to actors and thus the implementation of the Scheme has been relative easy. At the most, the number of minke whale boats have been four (2010) and at present two companies are operating fin whale hunt, with two active boats.

3.4.4 Norway (NO), minke whale hunt, harp and hooded seal hunt

General, minke whale hunt

The only targeted whale species in Norway is the minke whale.

Norwegian minke whaling has been observed for nine seasons, with therefore, 45% of the 20 hunting seasons observed. Observation activities were land-based until 2002, focusing on delivery of catches in the Lofoten area. From 2002, observations were conducted on-board hunting vessels, observing the vessels' equipment, activities and the hunt. Norwegian vessels hunt minke whales in various locations: from the North Sea to Vestfjord (a fjord between the Lofoten archipelago and mainland Norway) and to the waters around Spitsbergen.

One to three observers were contracted per observation seasons.

The minke whale hunt in Norway generally takes place from mid-May until the end of August. The duration of the NAMMCO observations fluctuated from year to year. The land-based observations of delivery of catches were conducted for periods not longer than a week, while observations on-board vessels lasted between 20-40 days. Since 2002 when onboard observations were initiated, the average period of season observed corresponds to about 20% of the duration of the season.

Coverage rate, minke whale hunt

One observer was typically present on one hunting vessel per season. Except in 2003, when the observer changed vessel out in the open sea. This was possible because the weather was calm; one vessel was waiting for instructions from local authorities and could not hunt; and the other vessel was not moving because the crew was cutting up and processing a whale. Under normal circumstances calm weather means vessels are fully occupied in hunting operations and probably not very eager to assist an observer in changing vessels and in rough weather changing vessels is not feasible due to safety reasons²⁷.

Coverage rate is based on the data from the period from 2002 - 2017, as shown in Table 6 above. In the period from 1998 to 2002 observations were land-based and were exclusively on-board vessels thereafter. Coverage rates for observation of the minke whale hunt in Norway are as follows:

²⁷ See supra note 2.

- the observation rate for observed seasons (OFOR) and total fleet observation rate (TFOR) were about 10% and 3%, respectively.
- the fleet observation rate for observed seasons (OCOR) and total fleet observation rate (TCOR) were about 3% and 1%, respectively.

Table 7: Overview of fleet and catch observation in Norwegian minke whaling (observed years are marked grey, l-b: land-based)

Year	land-based						on-board													
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No. of hunting vessels	34	34	33	33	34	34	34	31	28	28	27	21	18	19	18	17	21	21	16	11
Observed vessels	l-b	l-b	l-b	l-b	3	4	0	0	0	0	0	1	0	0	0	2	0	0	2	0
Total catch	625	591	487	552	634	647	543	639	545	593	535	484	468	533	465	594	736	660	591	432
Observed catch	l-b	l-b	l-b	l-b	5	25	0	0	0	0	0	21	0	0	0	9	0	0	20	0

General, harp seal and hooded seal pack ice hunt

The harp and hooded seal hunts have been observed for six seasons, or 30% of the total hunting seasons (note that the hooded seal has been protected since 2007). Prior to 2002, the sealing was observed on land, in the Rieber port in Tromsø.

In 2005 and 2008, NAMMCO observers were placed on-board sealing vessels. This shift in observation activities directly influenced the length of the observation period. While the land-based observations lasted 3 to 6 days, observing onboard vessels was significantly longer. The hunt for harp and hooded seals takes place in the West Ice and East Ice²⁸, and may involve a sealing vessel, and thus the observer, being away for up to eight weeks.

One observer was contracted per given season.

Observer effectiveness was high with almost all of the planned observation time utilised, for both land-based and on-board observations. On the vessel, the time spent hunting was 36% of the total period in the field (data from 24.03-27.04.2005). Bad weather and night conditions accounted for the remaining 64% of the inactive time spent in the field.²⁹ Thus, one observer on-board the vessel was enough to cover the hunting activities taking place.³⁰

Coverage rate, harp seal and hooded seal pack ice hunt

From 1998-2001 observations of the harp and hooded seal hunt were focused on sealing vessels upon arrival to the Rieber port in Tromsø relating to the delivery of catch and checking the hunting permits, vessel logbooks, reports of catch.

Based on the data available from 2002 onwards and as shown in the Table 7 above, the observation coverage efforts are:

- the observation rate for observed seasons (OFOR) and total fleet observation rate (TFOR) were about 58% and 7%, respectively, with the observed vessels catching 22% and 7% of the season seal catch respectively.

As noted under 3.4.1 on observation of pilot whaling, the observers do not/are not asked to report on individual kill. This could be considered an element to be integrated in the mandate of the observer. The observer will

²⁸ West Ice: the pack ice areas in the Jan Mayen fishing zone and in the ocean areas of Jan Mayen outside Greenland EEZ and southwest of Svalbard, and adjacent areas to Greenland EEZ and Iceland EEZ. East Ice: the area east of 20°E in the Russian EEZ

²⁹ See supra note 2.

³⁰ One observer per vessel for example in tuna fishery is not sufficient, as fishing takes place without a break, 24/7.

likely only be able to observe a few kills, due to the nature of this sealing where often several seals are killed simultaneously by several sealers, but this would add to the precision of the observation.

Table 8: Overview of fleet effort/observation in Norwegian seal pack ice hunt (observed years are marked grey)

	land-based				on-board																
Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
No. of hunting vessels	5	3	3	3	3	3	4	6	6	5	1	3	2	4	2	4	3	1	1	1	
Observed vessels	3*	3*	2*	2*	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	
Total catch	16737	9796	9021	5793	20549	12020	10696	12858	14746	21497	1263	13980	1263	8437	4652	10334	5592	1168	1442	n/a	
Observed catch	n/a	n/a	n/a	n/a	0	0	0	2767	0	0	1263	0	0	0	0	0	0	0	0	0	

*vessels observed delivering catch in Rieber port

Comments – both whaling and sealing

In 2001 there was a violation of the regulations laid down by the Observations Scheme when the observer was denied access to one minke whaling vessel in Norway. The incident was a result of communication failure between the observer and the skipper, and perhaps also grounded in too little knowledge of the observation scheme on behalf of the skipper³¹. There are no other records of similar incident since.

Observations of Norwegian sealing may require the observer being away for up to eight weeks making it difficult to find an available observer for such a long period.

Coastal seals hunted off Norway's mainland include grey and harbour seals (targeted species), ringed and harp seals (exceptionally, do not frequently occur along the coastline of the Norwegian mainland), off Svalbard bearded and ringed seals. The hunt for those species takes place year-round in an opportunistic manner. These have not been observed by NAMMCO (Table 1).

The Secretariat reiterates its conclusion from its 2005 review that the nature of the Norwegian hunts both with regards to minke whaling and pack ice sealing makes the implementation of the Scheme relatively simple³². Observations of the minke whaling is time-consuming with respect to finding vessels that will accommodate the observer, but when that is accomplished, it usually runs smoothly.

3.5 Evaluation of the Scheme

3.5.1 Evaluation of observer's reports

Observers are only required to submit the basic report forms (see discussion in 3.1.5). On request from the Secretariat, more detailed written reports (diaries) have been submitted most of the times. However these reports can vary a lot with respect to how informative they are.. The practical input of this voluntary reporting has been important for this review/evaluation. Clearly the present mandatory reporting does not allow any quantitative assessment of the implementation.

Observers should be encouraged to produce more detailed reports and it is recommended that more detailed reporting templates be developed for each type of hunt and be made mandatory. At the same time, the Secretariat should be provided with the data allowing for a quantitative assessment of the implementation scheme, incl. a precise assessment of coverage and infraction rates.

3.5.2 Coverage of the Parties' hunting activities

The Provisions of the NAMMCO Control Scheme refer to the observation of *hunting activities*, hence referring to all hunting activities, both of organised and opportunistic character. As shown in Table 1, hunting activities in NAMMCO Countries are multiple and varied. This is especially true in Greenland, where the number of hunting types is the highest and where many hunts have a very opportunistic character. These factors probably

³¹ NAMMCO 2001 Report of the Observation Scheme.

³² See supra note 2.

explain why many Greenlandic hunts have not been observed during the 20 years the Scheme has been in place. The focus on Greenland needs to be increased in coming years to get a better overview of hunting activities in the remit of NAMMCO.

3.5.3 Coverage rate and representativeness of observation activities

The Table 8 below summarises the findings from section 2 relating to coverage rates.

Table 9: Overview of observation scheme coverage rate in NAMMCO member states (grey fields are not applicable to the member state and/or activity);

Acronyms:

- *fleet observation rate for observed seasons (OFOR)*

- *total fleet observation rate (TFOR)*

- *catching event observation rate for observed seasons (OCOR)*

- *total catching event observation rate (TCOR)*

Member state and activity	FO, pilot whale	GL	IS, fin whale	IS, minke whale	NO sealing	NO minke whale
OFOR			50.0%	48.0%	58.0%	10.0%
TFOR			20.0%	21.0%	7.0%	3.0%
OCOR	11.00%		6.0%	4.0%	n/a	3.0%
TCOR	4.00%		2,5%	1.5%	n/a	1.0%

The specific level of observer programme coverage depends on several factors, most importantly the observed region and activity. The specific mandate of the NAMMCO Scheme, observing all hunting activities and detecting infractions, makes it difficult to compare its coverage rate to other RFMOs' observer programmes. For example, recent measures adopted in WCPFC, ICCAT, IATTC and IOTC have established minimum observer coverage rates of 5% for observing by-catch. This level of coverage is estimated as being sufficient to identify where and when by-catch occurs for extrapolating to the entire fleet and obtaining reliable by-catch rate.

The purpose of NAMMCO observation is to observe the compliance with standards/regulations related to hunting methods. Thus, the 5% coverage rate indicator, often used as a minimum threshold of observer programmes coverage, might not be relevant in the NAMMCO case.

Although it would be ideal to have complete observer coverage of all hunting activities, this is an unrealistic expectation given the cost and other practical considerations. NAMMCO's relatively small observation budget presently do not allow for more than a partial coverage. Observing all activities and during the whole hunting seasons would require a significantly higher budget. The 2005 review concluded that this was not feasible nor desirable³³. However, what needs to be defined more clearly to be able to evaluate the adequacy of the coverage, is the overall objective of the NAMMCO observation scheme, as this will procure guidance for evaluating and implementing a scheme in appropriation with the objective.

Evaluating the selectiveness of the target of the observation

The Secretariat suggests the scope and range of the observation activities in any given year. The selection of scope has not followed any particular rules and has been primarily based on the idea of an equal distribution between countries and hunts.

³³ See supra note 2.

Evaluating the selectiveness and randomness of the observation (target and period)

Different factors come into play depending on country.

a) Norway

In the Norwegian minke whale hunt three categories of hunting boats have operated – small, medium and large vessels. The choice of the vessels to be observed depends on

- Whether the boats have room for one more person – safety and logistic issue. Some minke whaling vessels are small, and it is not always easy to accommodate an observer on-board, especially after the planning of the whaling season has been done. Although observation has also been conducted in the smaller category.
- The planned hunting schedule of the boat – when will they go hunting and back to port so an observer can either embark or disembark.

To facilitate the selection process and to lay the ground for good cooperation between observer and crew, the Secretariat informs the Norwegian Whalers Association prior to the whaling season and contacts the captains of the target vessels prior to the arrival of the observer. The consequence of this is that it removes the “surprise element”, which could be a positive aspect of the scheme. However, this was deemed necessary to maximise the efficiency of both the available budget and personnel.

Several of the captains/owners of the sealing vessels were not prepared to take an observer on-board when asked if the request comes late in the planning phase of their season. Therefore, the choice of the target vessel is not random, which may compromise the representativeness of the observation. This problem should be addressed in future implementation of the scheme, as it leads to a bias sampling and thus undermines the results of the Scheme for this hunt.

b) Iceland

In Iceland, the decisive factor has been which vessels were operating and when the vessels were going hunting, so the observation can be said to be more random.

c) The Faroe Islands

In the Faroes, the observation periods have been set to July and August as these months have been thought to be optimal for the likelihood of observing pilot whale drives. This means that only summer drives are observed, although drives in winter might be more difficult to conduct. The observation is random, only depending on if a drive hunt takes place and will be observed, if possible for the observer.

d) Greenland

In Greenland hunts take place nearly all year round and it is opportunistic by nature. The scope has therefore been to observe whatever can be observed, which in some way increases the randomness of the observation process.

Observers have only been sent in the early/late summer, although winter or ice-based hunts are different and therefore findings from the summer cannot be applied to the winter.

e) General

Generally, it has been easier to get observers (who are not permanently employed by NAMMCO) in the summer months as this often coincides with their holidays. Consequently, only spring to late summer hunting activities have been observed.

The implementation of the Scheme cannot be said to be a random process, which introduces some level of bias in different ways.

3.5.4 On-land observation versus on-board observation

In 2002, NAMMCO implemented on-board observations with a duration of more than a day. Ever since, on-board observation has become the norm, where appropriate. Land-based observations are still done in

Kommentert [CW2]: NO comment: The three categories were established at a time when the TAC was considerably lower, and the hunt was restricted by area quotas within the IWC areas (EW, EN, ESB). Since 2009 there has been no use of the three categories as a parameter in the regulation of the hunt.

Greenland and in the Faroes, where the nature of the hunt (e.g. pilot whaling in the Faroes) makes on-board observation more problematic.

By implementing on-board observation, NAMMCO acts in accordance with established international standards.

On-board observations when appropriate are more effective and allow for better coverage of the whole hunting activity. ~~Before the blue box, the Norwegian national inspectors were embarked for three weeks.~~ However, it removes the 'surprise element', which ~~has been~~could be viewed as an important aspect of an observation scheme. It is, however, also the case in fisheries, where ~~re~~n observers are placed onboard vessels for a longer period, while punctual "surprise" inspection by inspectors. ~~Inspection, on the other hand,~~ retain the element of surprise.

The presence of an observer may also influence the behaviour of the captain and the crew (the crew may act in accordance with regulations *only because* the observer is on-board). Again, this issue is similar for fisheries observation programmes in general, and not only related to NAMMCO's Scheme.

3.5.5 Observers' competence

a) Enforcement powers

NAMMCO Observers have no authority and consequently cannot intervene in the hunting or other activities connected with the hunting³⁴.

b) Qualifications and training of observers

The observers are formally appointed by the Council for each calendar year and are selected according to their qualifications from a list of candidates nominated by member countries. As a general rule, NAMMCO observers are required to have at least the same level of qualifications and training as national inspectors and must be familiar with all relevant regulations in relation to the activities they observe.³⁵

In the early years NAMMCO benefited from national courses for inspectors held by Norwegian authorities. However, after the introduction of the electronic surveillance system (Blue box), these national courses were no longer held on an annual basis. Consequently, the Secretariat in cooperation with the CIO convened a training course for observers in 2013 built upon the model of the Norwegian national courses. In so doing, NAMMCO directly contributed towards the observers' training and not the least, acted in accordance with international regulations and standards.

Nevertheless, even beside fulfilling the qualifications requirement, oversights may occur. For example, NAMMCO observers are required to check that the blue box is on³⁶, but in 2016 one observer did not do so. This pointed to an inadequate preparation by the observer. It is recommended that the hunt specific control lists are further developed as part of the mandatory reporting, and that these lists are developed for each observed catching event.

Another issue in the implementation of the NAMMCO observation scheme is the language barrier, particularly when observing in Greenland.

³⁴ This is clearly stated in the Provisions text, B.21.

³⁵ B.4.1 The Council has compiled guidelines for requirements for the competence, training, etc., of observers. These guidelines are found in Appendix 2 of the Provisions text.

B.4.2 As a general rule, observers must have at least the same level of professional competence as that required of inspectors in the country where the observations are to take place. In special circumstances, exemption from this requirement can be given.

³⁶ Provisions, Guidelines to Section B, 2(iv).

For many years it was a problem that deadlines were not kept and too few candidates were nominated. However, in connection with the 2013 training course member countries succeeded in assigning between 4 – 5 competent observer candidates each whom today represent a pool of observers from which to choose from.

c) Adequate pay

- Observers receive a daily salary of 1800 NOK for land based and 2400 NOK for on-board vessel observation per day. The salary level is a flat rate and reflects that the observer is expected to work long and odd hours without any overtime payment. In addition, an observer receives per diem 550 NOK to cover meals.
- Accommodation and travel costs are covered by NAMMCO.
- Additional costs may be reimbursed to cover extra necessary work clothing.
- The Observer will arrange for his own travel and accident insurance for the duration of his assignment as a NAMMCO Observer. Costs in this connection will be reimbursed by NAMMCO.

The payment rate is assumed to be adequate and has not been challenged by the observers.

3.5.6 Safety of observers

NAMMCO pays specific attention to the safety of the observers.

For safety reasons, the language competency of observers must be taken into consideration, especially for observer on board a hunting vessel as the observer must be able to communicate spontaneously with the crew³⁷. The Scheme stipulates that the observer should not come from the country in which he/she is doing observations. This poses a special problem for observations in Greenland as most foreigners do not speak or understand Greenlandic and the majority of hunters in Greenland do not speak English or any Nordic language. The same problem arises to a certain extent with observations out at sea in Norway.

When out at sea, it is the responsibility of the observer to ensure that he or she acquires the necessary information and knowledge related to safety issues and how to behave in an emergency³⁸. Presently there has not been any check of this, and luckily no incidents either. However, this should be the object of some random check by the Secretariat.

3.5.7 Establishing and reviewing the Observer Scheme

By establishing and implementing the Observation Scheme, NAMMCO Parties have implemented the observer programme through a regional body, to monitor whether decisions made by the Commission are respected.

NAMMCO has not developed a review procedure but is undertaking its second internal review of the implementation. The first – qualitative in essence – review of the Scheme was in 2005, after seven years of implementation. This report presents the second, more comprehensive, review of the Scheme, just over a decade later. Moreover, NAMMCO is in the process of undertaking its first Performance Review carried out by a Panel of External Experts, which will *inter alia* review the compliance and enforcement mechanism of NAMMCO (NAMMCO 2017).

Nevertheless, it is recommended to define a periodicity for such reviews and to develop a review procedure, incl. a set of criteria, in order to make sure that the necessary data is collected and reported by the observer and the Parties. This should then be kept in a database at the Secretariat, to facilitate the review process.

3.5.8 Costs effectiveness of the Observation Scheme

The costs of the NAMMCO Observation Scheme are given in Table 10 below.

³⁷ The Provisions text, B.4.3.

³⁸ Ibid B.4.4.

The average annual budget for the implementation of the Scheme ranged from NOK 45,362 to 196,860, with an average of NOK 110,669.

Table 10: Price of the Observation Scheme's implementation per year

Year	2003	2004	2005	2006	2007	2008	2009	2010	2010	2011	2011	2012	2013	2013	2013	2014	2015	2016	2017
Region and hunt	NO, minke whale	GL	NO, pack ice seal	GL	FO, pilot whale	NO, pack ice seal	NO, minke whale	IS, minke whale	IS, fin whale	GL	IS, minke whale	FO, pilot whale	NO, minke whale	IS, minke whale	IS, fin whale	GL	FO, pilot whale	NO, minke whale	IS, minke whale
Price per year, in NOK	145359	196860	92469	90771	45362	123172	66782	56816		109028		64252	166367			94644	174508	163338	70301
Price per hunt, in NOK	145359	196860	92469	90771	45362	123172	66782	28408	28408	90740	18288	64252	106878	29744	29744	94644	174508	163338	70301
Vessels (grinds for FO) observed	4	n/a	1	n/a	1	1	1	1	2	n/a	1	1	2	1	1	n/a	1	5	2
Catch observed	25	n/a	2676	n/a	n/a	1250	21	2	3	n/a	2	n/a	9	4	4	n/a	n/a	20	17
Obs. days utilised	44	40	50	25	16	31	21	4	7	23	3	22	26	10	10	21	44	49	21

The costs per observed events are as follows:

The Faroes, pilot whale drive hunt

Average observation day price is 3,240 NOK
Average price per observed grind is 94,707 NOK.

Greenland, all hunts combined

Average observation day price is 4,251 NOK.

Iceland, minke whale hunt

Average price per observed vessel is 27,897 NOK
Average observation day price is 4,880 NOK
Average price per observed whale is 8,729 NOK.

Iceland, fin whale hunt

Average price per observed vessel is 21,974 NOK
Average price per observation day is 3,516 NOK
Average price per observed whale is 8,452 NOK.

Norway, minke whale hunt

Average price per observed vessel is 47,307 NOK
Average price per observation day is 3,482 NOK
Average price per observed whale is 7,259 NOK.

Norway, pack ice seal hunt

Average price per observed vessel is 107,821 NOK
Average price per observation day is 2,911 NOK

Clearly the budget allocated to the Observation Scheme activities changes a lot from year to year and per equivalent events. Evaluating whether the budget is appropriate is problematic without having clearly defined

and stated overall objectives for the NAMMCO Observation Scheme, as this will procure guidance for assigning an appropriate budget. One would need to estimate how an increase in budget for a targeted hunt would increase the chance of increasing the number of actual observation events and the quality of the observation.

It could be envisaged, for example, to not automatically conduct the observation every year, but sometimes to focus several years budget on one country and/or hunt. Particularly in Greenland, having several observers present, targeting any hunting events might be cost-effective. In this case, a combination of non-national and national observers may help alleviating the language issue. Another, maybe more effective solution for observations in Greenland would be for the observer to always have a local assistant knowing both the language of the observer and the local situation.

4 CONCLUSION AND RECOMMENDATIONS

The purpose of the Scheme is specified in the Provisions text³⁹, but the objective is not defined. This lack of definition is problematic, as the implementation level should be tuned to achieve this objective. Therefore, it makes it difficult to say whether the implementation is adequate or not.

The purpose of the Scheme is to detect infractions. Thereby, a logical objective would be to estimate an infraction rate for specific hunts. The Scheme is in essence a sampling program, and as such one should be able to extrapolate from the number of infractions detected to estimate the number occurring in the hunt. However, the present infraction rate of two infractions in 20 years for a total of between 30 and 40 types of hunting activities (depending on definition) and many actors involved seems unlikely low. This could point to an inadequacy of the present implementation of the Scheme for assessing reliable infraction rates.

We know from other [bodilessources](#), that infractions occur. For example, [Greenland reported to the IWC](#) Infractions Sub-Committee Report [indicates that there were six reported](#) infractions of national legislation on large whales in Greenland [in for the year 2013 only](#)⁴⁰. The infractions were related to the use of minke whale grenade for fin/humpback whale and cold harpoon used for minke whale as secondary weapon and sale of whale products without prior stamping of sale license and hunting without proper license. There was no NAMMCO observation in Greenland that year.

The reasons for this apparent inadequacy of the Observation Scheme in providing infraction rates which can be assumed to be reliable are likely many, including:

- The low overall and hunt specific coverage rates. The level of observation needed to achieve a reliable infraction rate per hunt must be seen in relation to the infraction rate. If the infraction rate is very low, then a very high observation rate is needed.
- The fact that the sampling is somewhat biased. For example, in some instance the observers only observe on vessels that agree to take them, or observation only occurs in spring/summer.
- The lack of detailed and systematic reporting for many observations, which makes it difficult to assess whether the observation is in fact carried out in a faithful, efficient and comprehensive manner.

For the Scheme to be unbiased, one has to ensure as a minimum that all hunting actors submit to being observed at any time. The reasoning being that hunters who are inclined to "cut corners" or who have the wrong equipment will not agree to being observed. There are of course practical difficulties with this (as noted above in 3.1.3), but it is the only way the Scheme can produce reliable results.

³⁹ See Section B.1.

⁴⁰ See 3/Rep 4Rev Report of the Infractions Sub-Committee, available at: https://iwc.int/document_667

To solve some of the coverage rate and logistic problems, the possibility of using technology to monitor hunts should be investigated. Security video systems, remote electronic monitoring systems (multiple videos system used on fishing vessels to observe discard and by-catch) and GoPro cameras are some ideas. There might be resistance to "spying" like this, but on the other hand it is less intrusive than a human observer and would have high practical advantages, e.g. not having to take out a human observer and no language issues. The reading of the tapes could be performed by the observers and would provide them with occupation on their many "off" days. The Norwegian blue box seems to have been well accepted so maybe something like this would be feasible for some hunts.

The recommendations suggested in the course of the report are summarised below.

General

- Define more precisely the objective of the Observation Scheme for procuring better guidance to defining the appropriate level of coverage and the appropriate budget.
- Consider not implementing observations activities every year and making a bigger effort possible in a certain year. The budget of the observation Scheme is limited, and this could allow more comprehensive effort on some hunts in some years, giving a better cost-efficiency.
- In general, be more flexible in setting the scope and the frequency of the observation, and for example compensate a decreased frequency with increased effort in one year. For example, Norwegian minke whaling could be observed less frequently, but then with a higher fleet coverage (OFOR) when it is covered, may be up to 30 or 50%.
- For transparency sake, it is recommended that an overview of hunting activities, e.g., since 1998 when the observation scheme was implemented, be made available in a friendly manner on the NAMMCO website, not under species, but as an overview under the CIO for example, – including quota, number of hunting boats when relevant, total catch and observation.

Scope

- Focus future observation activities on certain areas with low coverage in previous years.

Reporting

- Develop standardised more detailed reporting templates for each type of hunts. At the same time, the Secretariat should be provided with the data allowing for a quantitative assessment of the implementation scheme, incl. a precise assessment of coverage and infraction rates.

Observer mandate

- The observation of drive hunts and sealing activities, should encompass the observation of the kill of individual animals to gain some information on the compliance to the legal killing procedure.
- Consider the possibility for observers of recording struck and lost for target hunts.

Evaluation of the Scheme

- An evaluation procedure should be developed, including a periodicity and a set of criteria. A day observation rate would be for example a better measure for on-board observation activity than the fleet observation rate, as it would reflect the fact that the vessels are observed only part of the season and would account for the time lost in transit.
- Observers and Parties should collect the data necessary for evaluating the Scheme. The data should be delivered annually by the parties for inclusion in a database at the Secretariat, thus facilitating any review of the Scheme.
- Define the units of observation for the different hunts and make sure that the relevant information is collected and submitted to the Secretariat, so a more precise evaluation is possible in the future.
- Define more precisely the objective of the Observation Scheme for procuring better guidance to defining the appropriate level of coverage and the appropriate budget.
- Compare results of the NAMMCO observation and that of the national observer for specific hunts and season, to see whether they differ and thus indicating some possible issues.
- The next evaluation should compare the observation rate between the three vessels categories in Norway.

Kommentert [CW3]: Se comment under 3.5.3.

Increasing the efficiency of observers

- Encourage that observers observe different vessels in one season, i.e. in Norway changing vessels at sea, in Iceland observing several vessels.
 - Consider the possibility for observers of recording struck and lost, in particular in Greenland.
 - For all regions, consider the possibility of the observer doing other tasks when no hunting takes place.
- It is recommended that the hunt specific control lists are further developed as part of the mandatory reporting, and that these lists are developed for each observed catching event.

Safety issues

- Implement a random check of whether on-board observers are aware of safety issues and safety measures.
- That the Secretariat should keep a precise and updated record of hunting activities in NAMMCO countries, also in years where there is no observation, to facilitate future evaluations of the Scheme.

REFERENCES

1995 FAO Code of Conduct for Responsible Fisheries.

Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement).

Konradsson Observer's report 2001.

Michael W. Lodge, David Anderson, Terje Løbach, Gordon Munro, Keith Sainsbury, Anna Willock, The Royal Institute of International Affairs Chatham House, 2007.

NAMMCO 2001 Report of the Observation Scheme.

NAMMCO. 2005. Review of the NAMMCO Observation Scheme. Document NAMMCO I&O-2005-03.

NAMMCO 2016. NAMMCO Annual Report 2015.

NAMMCO 2017a. Overview of Marine Mammal Hunting Methods and Monitoring/Observation in NAMMCO Member Countries.

NAMMCO 2017b. NAMMCO Annual Report 2016.

Provisions of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals, 1997.

Flewellling, P.; Cullinan, C.; Balton, D.; Sautter, R.P.; Reynolds, J.E. 2002. Recent trends in monitoring, control and surveillance systems for capture fisheries. FAO Fisheries Technical Paper. No. 415. Rome, FAO.

SPRFMO. 2016. Recommended Best Practices for Regional Fisheries Management Organizations, Report of an independent panel. SPRFMO Secretariat Document COMM-04-INF-04, Observer Programmes of RFMOs.

UN General Assembly. 1982. Convention on the Law of the Sea, 10 December 1982.

APPENDICES

Appendix 1. NAMMCO 2017. Overview of Marine Mammal Hunting Methods and Monitoring/Observation in NAMMCO Member Countries

Appendix 2. Data (excel tables) from the Observation Scheme implementation 1998-2017.

ANNEXES

Annex 1. Provisions of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals, 1997.

Annex 2. NAMMCO. 2005. Review of the NAMMCO Observation Scheme. Document NAMMCO I&O-2005-03.

Annex 3. NAMMCO International Observation Scheme Report of Observation.

Appendix 1.



OVERVIEW OF MARINE MAMMAL HUNTING METHODS INC. NATIONAL REGULATIONS, MONITORING/OBSERVATION IN NAMMCO MEMBER COUNTRIES *date 01/2018*

INTRODUCTION

The overall aim of the hunt is to kill the animal instantaneously or as quick as possible in a manner that maximizes hunter's safety and the efficiency of the hunt while minimizes animal suffering.

A prerequisite for responsible resource management is to have mechanisms to monitor the resources not only with respect to abundance and trends but also hunting methods and utilisation. In recognition of this, NAMMCO established in 1998 an International Observation Scheme whereby observers monitor hunting activities in member countries on an annual basis. Each year a different hunt is chosen randomly to be observed.

The purpose is to provide a mechanism to monitor the conduct and regulation of marine mammal hunting activities, to ensure international transparency in whaling and sealing operations in the region. NAMMCO observation is two-fold: 1) observing whether member countries implement the national inspection scheme they have committed to (in other words do they correctly fulfil their own inspection) and 2) observing whether there is compliance with the hunting regulations. The observer scheme also facilitates possibilities for the recording and collection of reliable data on struck-and-lost animals.

1. FAROE ISLANDS

Whale hunting is subject to detailed regulations laid down by the Faroese Parliament and the Ministry of Fisheries. Seal hunting is not governed by any special legislation¹.

1.1 Whales

Long-finned pilot whale, white-sided dolphin, white-beaked dolphin and bottlenose dolphin are the four cetacean species that can be hunted in the Faroe Islands as drive hunts. In addition, it is permitted to shoot harbour porpoise with shotguns loaded with pellets cartridges. This hunt is carried out using boats.

When a school of pilot whales or other small whales, except harbour porpoise, is sighted the district administrator must be notified. The district administrator, in consultation with the whaling foremen, decides into which whaling bay the school shall be driven, following currents. A whaling bay must fulfil certain criteria and there are presently 23 authorised whaling bays in the Faroes. Once the decision on location is made, the boats form in a semi-circle behind the whales and stones are thrown into the water to make air bubbles, which help herd the whales in the desired direction. Upon approaching the whaling bay the boats are arranged by size, the smallest boats which can get closest to the beach, are in the front row, while the larger boats are kept behind. In this manner the school is beached or driven so close to the beach that people can wade out to the whales to secure them for the killing.

¹ Parliamentary Act No 56 of 19 May 2015 on pilot whales and other small whales, most recently amended by Parliamentary Act No 44 of 6 May 2016. Executive order No 100 of 5 July 2015 on pilot whale drive.

The actual killing method has changed very little throughout history. The whale is secured with a blowhole hook, after which the spinal lance is positioned in the midline between the blowhole and the dorsal fin at one hand's breadth behind the blowhole and directed at an angle approximately 10 degrees backward. With a single thrust followed by sideways movements the spinal cord and the surrounding blood vessels are severed, directly followed by severing the jugulars and the carotids with a whaling knife so that the whale can be bled properly. Once the cut is made, the whale lies completely paralyzed and unconscious.

1.1.1 Training

New legislation was introduced in 2015 and hunters are now obliged to have received certification following an accredited course in pilot whaling to be entitled to kill whales. The course includes a review of the NAMMCO instruction manual on pilot whaling.

1.1.2 Monitoring

Monitoring and systematic reporting of the whale hunt takes place through the district administrators report to the Ministry of Fisheries. For each drive hunt information is reported about where and when the school of pilot whales was found, whaling bay, total killing time, number of whales, size and sex, number of participating boats, number of hunters on shore and in boats and if there have been any violations of the regulations as well as appraisal, marking and sharing of the pilot whales.

If any harbour porpoise is hunted, hunters are obliged to report the number of shot harbour porpoises to the district administrators, which report to the Ministry of Fisheries.

1.2 Seals

Grey seals are only intentionally killed in the Faroe Islands as nuisance animals around fish farms in the Faroese fjords. There is no specific legislation pertaining to the hunting of seals and the seals that are killed are shot with rifles. In 1969 new weapons legislation banned the use of rifles as hunting weapons in the Faroes. However, in response to the complaints from fish farmers, permission was granted to kill seals with rifles of minimum calibre 6.5 mm using hollow pointed bullets.

1.2.1 Reporting

Fish farms are obliged to report the number of seals that are shot to the Ministry of Fisheries. According to the weapon legislation, completion of a firearms training course and possession of a firearms license are required to be entitled to handle weapons.

2. GREENLAND

The responsibility for whaling and sealing lies with the Ministry of Fisheries, Hunting and Agriculture. They regulate and administer the hunts, while the Fisheries License Control Authority, through their wildlife officers, supervise and control the activities. The Ministry issues regulations that detail the scope and requirements for obtaining hunting permits, reporting requirements and sanctions. Whale and walrus hunting are regulated by a quota system and seal hunting is not, though the municipality may set local regulations².

² Greenland Home Rule Act

No 1 of 16 May 2008 on revisions to Greenland Home Rule Act No 12 of 29 October 1999 on hunting

No 25 of 18 December 2003 on animal welfare

No 29 of 18 December 2003 on nature protection

Executive Order No 26 of 24 October 1997 on extraordinary check and approval of harpoon canons

No 22 of 19 August 2002 on trophy-hunting and fishing

2.1 Whales

2.1.1 Minke whales, fin whales, bowhead whales and humpback whales with harpoon gun

The hunt is opportunistic and seasonal, *i.e.* the hunters are not full-time whalers. Fin whales are caught either by two boats of a minimum length of 30 ft working together, or by one boat of a minimum length of 36 ft. One boat with a minimum length of 36 ft is required for the humpback whale. The bowhead is caught by three boats of a minimum length of 36 ft working together. The majority of the minke whales are also taken by this method by one boat with a length of 30-70 ft. Each boat should be equipped with one certified 50mm Kongsberg harpoon gun, which is checked every second year.

The primary weapon is a harpoon with the Norwegian penthrite “Whale Grenade 99”. This whale-grenade was produced for minke whales but has been modified for the hunt of larger whales (triggering cord extended from 40 cm to 90 cm, and explosive increased from 30 g to 45 g of penthrite). Primary and secondary weapons for the three larger whale species are the modified “Whale Grenade 99”. Gunners target the heart and lung region by aiming at an area close to the pectoral fins.

The secondary weapon for the minke whale is either a new grenade or rifle of a minimum calibre of 7.62 mm (30.06) employing full mantled bullets. Some hunters use solid round-nosed bullets together with rifles with higher calibre (.375), due to its better penetration. Rifle shots are aimed at the neck, in the back of the animal’s head.

Hunting generally occurs in good sea conditions only (<Beaufort 3) as the main method of hunting is stealth. Trips generally last less than 24 hours and once a vessel has caught a whale it tows it to the nearest suitable flensing site. Hunting usually occurs within 60 nmi of the home port of the vessel and depending on conditions up to 10 nmi offshore.

2.1.2 Collective minke whale hunt

The collective minke whale hunt is carried out in settlements without harpoon gun boats. The collective minke whale hunt is the only hunt of large whales in areas with little infrastructure, such as East Greenland and West Greenland north of Disko Bay.

A minimum of five skiffs are required to carry out a hunt, but normally it will be around 8 -10 small (usually around 19 ft and never more than 29 ft) boats equipped with outboard motors. Each boat generally contains around 2-4 people. Boats of larger size without harpoon gun can also take part, but not as the lead boat. Each skiff must be equipped with at least one hand harpoon with line and buoys. This harpoon is attached to the whale at the first opportunity, to prevent the animal from sinking. During the hunt, the whale is herded towards shallow and inshore waters.

The weapons used are rifles of a calibre of 7.62 mm. (30.06) or larger using full mantled bullets. As a rule, the whales are first wounded and then secured with the hand harpoons. When possible, the hand harpoon is used before wounding the animal. One hunter is the designated leader and it is his task to secure the animal with the hand harpoon. Once a whale has been secured, it is killed by shots

-
- No 21 of 22 September 2005 on protection and hunt of polar bears
 - No 20 of 27 October 2006 on protection and hunting of walrus
 - No 12 of 16 July 2010 on reporting from hunting and strike of large whales
 - No 16 of 12 November 2010 on protection and hunting of seals
 - No 12 of 22 December 2014 on protection and hunting of large whales
 - No 13 of 30 December 2014 on hunting licenses for full time hunters
 - No 14 of 30 December 2014 on hunting licenses for part-time hunters
 - No 1 of 15 January 2016 on protection and hunting of beluga and narwhal

aimed at the neck. Round-nosed solid bullets together with rifles of higher calibre, such as .375, are often used to kill the whale.

2.1.3 Small whale hunts

Harbour porpoise, white-sided and white-beaked dolphins, long-finned pilot whales, killer whales, narwhal and beluga are the small cetacean species that are hunted in Greenland. Of these only narwhal and beluga are restricted by national regulations (see below). The hunting method is essentially similar for all the species; a collective hunt with small, open, motorboats. The whales are shot with rifles with a minimum calibre of .30-06 full metal jacket bullets (exception is the smaller harbour porpoise where recommended calibre is .222). The hunter aims at the thorax region which will kill the whale rapidly by hitting the heart, lungs or vertebrae. The shot ranges vary from 5 – 30 meter. After a successful shot the hunter secures the whale with a long shafted gaff hook (*nissik*) before it sinks.

In the narwhal and beluga hunt which takes place in the open sea and ice-cracks, the whale will first be harpooned to attach floats to secure the whale before being shot. The desired target is the brain, but the neck and heart are also regarded as good target points. Harpoon hunts from qayaqs takes place close to the ice edge in North Greenland. Two hunters will often cooperate and when the whale is spotted from shore they will very quietly embark the kayak. They will secure the whale with hand held harpoons and then shoot it using 30.06 or .375 calibre rifle with full metal jacket pointed ammunition. It is not a national requirement to secure the animals before shooting. However some regional regulations recommend harpooning to secure the animal before killing it, and within the Melville Bay protected reserve this is a requirement.

In East and North Greenland hunters are allowed to hunt narwhal and beluga with net during the dark period of the year when there is no daylight. The nets are set in open water or under the sea-ice, and they are checked daily. An average of 20 whales are hunted by this method annually.

2.2 Seals and walrus

Six species of seal are found in the waters surrounding Greenland. These are harp seal, ringed seal, hooded seal, harbour seal, bearded seal and grey seal. Today, the focus of the hunt is on harp and ringed seals but also, to a much lesser extent, hooded seals. From 1 December 2010 the harbour seal and grey seal are completely protected pending biological advice indicating that the stocks are in a condition to be hunted. For all seal species lactating female and pup pairs and pups with lanugo hair (white-coats) are protected.

Hunting methods vary depending on season, region and species. The hunt for harp and hooded seals takes place all year round, but predominantly during summer and fall in open water. The hunter approaches the seal and shoots it with a rifle. In northern Greenland during the dark winter months netting is the preferred hunting method for ringed seals. The use of nets is a local small-scale hunt compared to the traditional rifle hunt. In spring, when ringed seals haul-out on the ice, hunters use white screens to sneak up to an appropriate shooting distance and shoot the seal dead in the head.

No quotas are set for the Greenland seal hunt, because of the very large seal population and relatively small sustainable hunt. Hunters are required to report their catches to the Ministry on an annual basis. Seals can be hunted by all Greenlandic residents, provided they have either a full time or a part time hunting permit. The rifle is the most common weapon for seal hunting. The .30-06 calibre is common in some districts during the winter, while the calibres .17, .22 Mag., and .222 are the most common in the spring and summer hunts. There are no specific guidelines defining the types of rifles that can be used, however the ammunition used must have a muzzle energy $E_{100} > 160$ Joule, for shotgun the

minimum allowed calibre is 20. Some communities may have more restrictive local rules on transportation.

Walrus can only be killed by fulltime hunters with licenses issued by the municipality. The walrus is shot with rifles with a minimum calibre of .30-06 full metal jacket sharp point bullets. Full- and semi-automatic rifles are not allowed. It is mandatory to harpoon the animal before delivering the deadly shot to prevent it from sinking. The harpoon must have one or several attached floats. Sometimes the first shot will be a body shot with the aim of slowing down the animal before harpooning it. Walrus may only be hunted at sea, not on land.

2.3 Training – whales, seals and walrus

There are no required training courses on how to shoot or where to aim at the animal in Greenland. Knowledge is passed on from generation to generation and between captain and crew. For the whale hunts there are courses on the handling and maintenance of harpoon grenades. Furthermore, the NAMMCO instruction manual on hunting of small cetaceans has been sent out to all hunters reporting a catch of a small cetaceans for the last five years.

2.4 Monitoring and inspection system – whales, seals and walrus

The wildlife officers work in close cooperation with the municipality authority, the police, Arctic Command and the Government of Greenland. The wildlife officers monitor the whale, seal and walrus activity itself by inspections of some of the hunts at sea and / or by controlling permits, licenses and equipment used on-board the vessels and skiffs and at the open markets where the hunters can sell their products.

2.5 Reporting system – whales, seals and walrus

The reporting system in Greenland is a self-reporting system where all catches are reported to the Ministry of Fisheries, Hunting and Agriculture. For every marine mammal taken under license the hunter or the responsible person (captain of the harpoon boat or the chosen leader in the collective hunt) is required to fill out a reporting form that is submitted to the Ministry shortly after the hunt.

The report includes information about the hunter, his license and boat, description of the weapon used to kill the animal, serial number of the grenade in the case of a large whale, etc. Furthermore, it gives information on species, catch area and different kinds of biological data depending on the species e.g. for large whales: flensing place, body length, sex, reproductive state of females, stomach contents, weight of edible products and estimated time to death (TTD). Cases of “struck and lost” are also reported.

No edible products from a licensed marine mammal may be sold before the catch is reported to the municipality. By this reporting the hunter will obtain a stamp on their license. To get a stamp it is required that a completed reporting scheme is handed in and for whalers with a harpoon boat license also the receipt for the purchase of the whale grenade as well as the used grenade with serial number must be presented.

3. ICELAND

The responsibility for whaling lies with the Ministry of Industries and Fisheries and is regulated, administrated and supervised by the Directorate of Fisheries. Whale hunting is subject to detailed regulations whereas no special legislation governs seal hunting³.

³ Law No 26, May 3, 1949 on whaling, No 92, July 1, 1991 on amendments to Law 26/1949 on whaling (cf. Law No 40/1979 and 23/1991)

3.1 Whales

Iceland hunt two species: The minke whale and the fin whale.

The minke whale hunt in Iceland is carried out with similar weapons and boats as are described for Norwegian minke whaling above. Minke whales are hunted in Icelandic coastal waters from small or medium sized (60-70 feet) fishing boats that are rigged for whaling in the spring and summer season. The weapons are deck mounted 50 mm Kongsberg harpoon guns equipped with the penthrite grenade (Whale Grenade-99) developed in Norway in 1997-1999. The grenade is loaded with 30 g pressed penthrite as explosive. Back-up rifles of calibres .375 or .458 using full metal jacket, round-nosed bullets are used if the whale is not instantly killed by the grenade detonation. The vessels usually search for whales at slow speed (4-6 knots/h) and the whales are often shot from a relatively short range (< 30m). No sonar or similar instruments are used during the hunt as such instruments are thought to scare the whales off.

Fin whale hunting is conducted from medium-sized boats that are exclusively used for whaling. Hunting grounds are within Iceland's 200-mile exclusive economic zone and the whales are towed to a land station for flensing and processing. The whales are killed using 90 mm Kongsberg harpoon guns and a modified Whale Grenade-99 designed to trigger the detonation of 100 g pressed penthrite explosive at a depth of 110 cm after penetration into the whale. The back-up weapon is a new grenade.

Hvalur hf.—the company hunting fin whales in Iceland—has, since 1985, worked to improve the killing efficiency in the hunt. Whale Grenade-99 replaced the former “Black Powder Grenade” (filled with 650 g of black powder as explosive) that had been used for large whales for at least 70-80 years. The killing by the “Black Powder Grenade” is a combination of the concussion from the blow and the wounds and tissue lacerations caused by the heavy splinters from the cast iron grenade. However, the wounding and killing efficiency of such splinters is highly unpredictable.

3.1.1 Training

No training courses /requirements exists on an annual basis. However, courses for gunners have been held regularly, and in order to get a whaling license, the gunner must complete a course on handling of harpoon guns and grenades. In addition, he must have a general license for firearms.

3.1.2 Monitoring and inspection system

There are random inspections carried out by the Directorate of Fisheries.

3.1.3 Reporting system

In Iceland there is a self-reporting system to report the position, sex and length, foetus/size of foetus where all whale catches are reported to the Directorate of Fisheries.

3.1.4 DNA register

DNA samples of minke and fin whales are taken and recorded from all whales ensuring full traceability of whale products. The register, which includes the DNA profiles of all whales captured, permits the control and validation of all whale products sold in the domestic or international markets.

No 359, April 6, 2009 on amendments to Regulation No 163 of May 30, 1973 on whaling (cf. Regulation No 304/1983, 239/1984, 862/2006, 822/2007, 456/2008 58/2009 and 263/2009). No 414, April 29, 2009 on the ban on whale hunting in specific areas.

Rules in the licenses for minke whaling and fin whaling.

It has also been used for a range of scientific purposes. The samples are analysed and stored at the Marine and Freshwater Research Institute (MFRI) in Reykjavik.

3.2 Seals

In Iceland, primarily harbour and grey seals are hunted. Landowners have the right to hunt seals on their land. No quotas are set for the Icelandic seal hunt.

Traditional hunt: The traditional seal hunt in Iceland revolves around hunting pups. Harbour seal pups are mainly hunted using netting. Nets used for this purpose are large meshed nets, often referred to as sealing-nets. The pups are caught in nets set close to small rocky islands or across creeks and channels. The seal pups are then clubbed and subsequently bled. Recent animal welfare laws in Iceland forbid drowning as a killing method of animals, which means that the nets need to be monitored regularly to avoid that the pups drown. Grey seal pups, on the other hand, are almost entirely killed on land in pupping areas during the pupping period in October, using either a seal club or by shooting. Adult grey seals are sometimes hunted as well, using calibre rifles (.222 -243 calibre).

Culling around salmon estuaries: The largest removal of seals in Iceland currently occurs due to culling of harbour seals around river mouths that are considered important for salmon angling. The cull is intended to reduce the potential effect that seal predation is believed to have on salmonid stocks. Mainly adult harbour seals are killed in the river mouth, and the method used is shooting, usually by .22 calibre rifles. Hunters are required by law to collect the culled animals, and it's forbidden to leave the carcass in the water.

3.2.1 Reporting

Hunters are not required to report their catches. Hunt statistics are collected by MFRI by direct contact with the hunters.

3.2.2 Training

There are no regulatory training courses on how to shoot or where to aim at the animal in Iceland, though a normal firearms license must be attained.

4. NORWAY

Marine mammal hunting is subject to detailed regulations (hunting seasons, quotas, methods of stunning and killing, training of hunters and their supervisors etc). The rules and regulations are instituted by the Ministry of Trade, Industry and Fisheries, and are administered and supervised by the Directorate of Fisheries.⁴

4

Act of 29 May 1981 No 38 - Wildlife and Wildlife Habitats (the Wildlife act)

Act of 27 March 1999 No 15 - The Right to Participate in Fisheries and Hunting

Act of 6 June 2008 No 37 - The Marine Resources Act

Act of 19 June 2009 No 97 - Animal Welfare

Executive Orders from the Ministry:

31 March 2000 - Regulation of the practice of hunting minke whales.

11 March 2003 - Regulation of the practice of hunting seals in the West Ice and the East Ice

22 December 2009 - Regulation of the practice of hunting seals on the coast of Norway

Executive orders pertaining to the participation and governing of the hunt of Whales and Seals are issued annually by the Ministry and the Directorate of Fisheries.

4.1 Whales

The only targeted species is the minke whale.

Norwegian fishermen are hunting minke whales from small (50 feet) or medium sized (60-120 feet) fishing boats that are rigged for whaling in the spring and summer season. The weapons are 50 mm and 60 mm harpoon guns. The harpoon is equipped with a penthrite grenade (Whale Grenade-99) developed in Norway in 1997-1999. The grenade is loaded with 30g pressed penthrite as explosive. The back-up weapon is a rifle of .375 or .458 calibre, using full metal jacket, round-nosed bullets. The vessels usually search for whales at slow speed (4-6 knots/h) and the whales are often shot from a relatively short range (< 30m). No sonar or similar instruments are used during the hunt as such instruments are considered to scare the whales off.

4.1.1 Training

Starting in 1984, all gunners and license holders have been required to attend obligatory training courses. Shooting tests with harpoon gun and rifle must be passed annually. The recommendation is to fire the grenade at the whale from a side position (45°-135° - relative to the animal's long axis) and aim at the thorax (chest). The rifle is usually fired at close range and when the whale's head is above the water. The shot is directed at the brain.

4.1.2 Monitoring system

In 2006 Norway introduced and made mandatory an automated monitoring system, and is thus far the only country to do so. This electronic system verifies when and where a shot has been fired and when a whale has been taken on board. Consequently, struck and lost whales are also recorded. All licensed whaling boats are equipped with an Electronic Trip Recorder (the Blue Box). The system cannot be manipulated and consists of a control and data logger box (Blue Box) designed to independently monitor and log hunting activity data. An independent GPS and different sensors deployed in certain areas and structures of the boat collect the data, and the programmes are designed for continuous operation and logging of data for at least 4 months. It is equipped with back-up batteries and automatic restart functions if system interruption occurs.

After the hunting season, the encrypted data from the Blue Box are decrypted and analysed by authorized personnel in the Directorate of Fisheries. For more information see document Øen, EO: electronic monitoring of Norwegian minke whaling, IWC 2005

4.1.3 Inspection

There are also random inspections occurring carried out by the Directorate of Fisheries. These inspectors have attended the same training courses as the whalers.

4.1.4 Reporting system

There is no mandatory reporting of TTD or IDR.

The reporting system in Norway is a combination of a self-reporting system and the automated blue box. The automatic monitoring system is a supplement to the electronic catch reporting system. The hunters are obliged to electronically report the catch (or no catch) on a daily basis. This report includes information on catch, position of catch, sex, length, circumference, blubber dimension, foetus/size of foetus and number of grenades used in the catch.

4.1.5 DNA register

DNA samples are taken and recorded from all whales ensuring full traceability of whale products. The Norwegian minke whale DNA register was first established in the mid 1990's when Norway reinstated commercial minke whale hunting. The register, which include the DNA profiles of all

whales captured (approximately 9000 as of 2014), permits the control and validation of all meat and whale products sold in the domestic or international markets. It has also been used for a range of scientific purposes. The samples are analysed at the Institute of Marine Research and the register is hosted by the Directorate of Fisheries.

4.2 Seals

4.2.1 The pack ice hunt

Today only the harp seal is hunted in the Greenland Sea (West Ice). Traditionally also hooded seals were hunted but this hunt was prohibited from 2007. Norwegian vessels have been allocated an annual quota in the Barents Sea (East Ice) in the Russian Economic Zone but no Norwegian vessels have conducted sealing in the REZ for several years.

Ocean going vessels suitable and equipped for seal hunting are licensed. The crew usually consists of 13 – 15 persons and they normally stay out at sea from 4 to 6 weeks during the hunting season (1 April to 30 June).

Weaned harp seal pups and adult harp seals (over one year) are subject for the hunt. The seals must be on the ice and are shot either from the ice or from the vessel or from a smaller boat. Seals are shot in the head, and the shooting range is normally 30 – 70 meters. All adult animals are to be shot with a rifle. Pups may be shot with a rifle or killed on the ice by using a hakapik or a seal blow hook, named slagkrok as the only weapon. The hakapik is mandatory to use as secondary weapon on all animals that are shot. Slagkrok may be used as secondary weapon on pups. The secondary weapon should be used as soon as possible after the animal is shot. Bleeding of the animal should be performed immediately after the use of the secondary weapon. When the hakapik or slagkrok is used as the only weapon on pups, a blow to the head with the blunt part is immediately followed by a blow the with the spike. Then the animal is bled. Today, almost all seals are killed with a rifle. Hakapik as the only weapon is only occasionally used to kill pups.

According to the regulations relating to the seal hunt it is explicitly forbidden to:

- Kill un-weaned pups
- Hunt adult harp seals in whelping areas
- Hunt seals that are in the water
- Shoot seals if conditions are such that they cannot be struck with a hakapik and be bled on the ice
- Hunt in artificial light
- Use lines, nets or any form of trap
- Use shotguns
- Use a hakapik on adult animals that have not been shot first
- Use a slagkrok on adult animals
- Strike with a hakapik or a slagkrok anywhere but on the skull.

The prescribed ammunition used for pups is similar to what is prescribed for the hunting of smaller terrestrial games (roe deer, fox, etc.), which is soft-nosed, expanding bullets with impact energy of minimum 981 Joules (100 kgm) at 100m (.222 calibre and higher).

The prescribed ammunition for adult seals is similar to large terrestrial mammal ammunition (moose, red deer, etc.) which is soft-nosed, expanding, projectiles with impact energy of at least 2700 Joules (275 kgm) at 100m for 9g bullets and 2200 Joules (225 kgm) at 100m for 10g bullets (6.5, .308 calibre and higher).

4.2.2 Coastal seal hunting

Grey seals and harbour seals are harvested along the Norwegian coast and ringed seals and bearded seals along Spitsbergen. The hunt is conducted from land or from smaller boats and is carried out using rifles and slagkrok. The requirement for the ammunition is the same as the requirement for ice-breeding seals. It is a requirement that the depth of the water must be so that the seal may be retrieved if shot in water. In Spitsbergen the seals are hunted on the ice or on land, except for ringed seals that may be hunted in the water during the period 16 August – 30 November. The hunt is licensed.

4.2.3 Training, reporting and inspection.

Hunters and inspectors are trained prior to the pack-ice hunt. The shooters have to pass an annual shooting test. It is mandatory to keep a catch log book and to have an inspector on-board (usually a veterinarian) during the hunt. Vessels may also be required to take on-board international observers. In the coastal seal hunt the hunter also must pass an annual shooting test. There is no mandatory reporting of TTD or IDR for either of the two hunts.

Appendix 2. Data (excel tables) from the Observation Scheme implementation 1998-2017.

YEAR 1998					
Member State and hunt	Norway Harp & Hooded seal	Norway Minke whale	Greenland	Faroe Islands	Iceland
1. Observer	Jakob Sørensen (GL)	Atli Konradsson (IS)	Lars Kleivane (NO)	x	x
1.1. Observer's report available	yes; short, in norwegian language	yes; detailed	yes; detailed, in norwegian	x	x
2. Observation period	24 - 30 April - 6 days	02 - 08 June - 6 days	27 August - 14 September	x	x
2.1. Observation days utilized	6 days	6 days		x	x
2.2. Total target hunting days	Harp seal: 10 April - 30 June; hooded seal 20 March - 10 July	mid May - end of August		x	x
3. Location	Tromsø, Rieber Port	Lofoten/Land Based - delivery of catch	Nuuk	x	x
3.1. Observed events	n/a	8		x	x
3.1.1. Total target events	n/a	n/a		x	x
3.2. Observed vessels	boarded 3 vessels in the port	8 vessels boarded in the port		x	x
3.2.1. Total number of vessels	4 active sealing vessels	n/a	n/a	x	x
4. Observation price	n/a	n/a	n/a	x	x
YEAR 1999					
Member State and hunt	Norway Harp & Hooded seal	Norway Minke whale	Greenland - Sealing and Whaling	Faroe Islands - Pilot Whaling	Iceland
1. Observer	Atli Konradsson (IS)	Jakob Sørensen (GL)	Bjarni Mikkelsen (FO)	Hedvig Johanne Rud (NO)	x
1.1. Observer's report available	yes; short	no	no	no	x
2. Observation period	22 - 24 April - 2 days	31 May - 08 June - 12 days		19 Jul - 2 August	x
2.1. Observation days utilized	2	n/a			x
2.2. Total target hunting days	Harp seal: 10 April - 30 June; hooded seal 20 March - 10 July	mid May - end of August			x
3. Location	Tromsø - Rieber Port; catches from West Ice and East Ice in spring	Lofoten/Land Based - delivery of catch	West Greenland		x
3.1. Observed events	n/a	n/a			x
3.1.1. Total target events	n/a	n/a			x
3.2. Observed vessels	3 vessels boarded	n/a			x
3.2.1. Total number of vessels	4 active sealing vessels	n/a			x
4. Observation price	n/a	n/a	n/a	n/a	x
YEAR 2000					
Member State and hunt	Norway Harp & Hooded seal	Norway Minke whale	Greenland - Sealing and Whaling	Faroe Islands - Pilot Whaling	Iceland
1. Observer	Bjarni Mikkelsen (FO)	Hans Svendsen Mølgaard (GL)	Tore Tøllersrud (NO)	Atli Konradsson (IS)	x
1.1. Observer's report available	no	no	no	no	x
2. Observation period	29 May - 3 June - 6 days	3 - 9 June - 6 days	10 - 19 October	31 Jul - 21 Avg	x
2.1. Observation days utilized	6	6 days			x
2.2. Total target hunting days	Harp seal: 10 April - 30 June; hooded seal 20 March - 10 July	mid May - end of August			x
3. Location	Tromsø - Rieber Port	Lofoten/Land Based - delivery of catch	The Godthåb Fjord and Nuuk	Islands of Suduroy and Vidoy	x
3.1. Observed events	n/a	4 vessels boarded		Two pilot whale drives observed	x
3.1.1. Total target events	n/a	487			x
3.2. Observed vessels	2 vessels	4 vessels boarded			x
3.2.1. Total number of vessels	n/a	33			x
4. Observation price	n/a	n/a	n/a	n/a	x
YEAR 2001					
Member State and hunt	Norway Harp & Hooded seal	Norway Minke whale	Greenland - Sealing and Whaling	Faroe Islands - Pilot Whaling	Iceland
1. Observer	Bjarni Mikkelsen (FO)	Hans Svendsen Mølgaard (GL)	Tore Tøllersrud (NO)	Atli Konradsson (IS)	x
1.1. Observer's report available	no	no	no	yes (a very good one)	x
2. Observation period	3-7 May - 4 days	11 - 18 June - 7 days	3 - 19 August	3 - 19 August	x
2.1. Observation days utilized	4	7 days			x
2.2. Total target hunting days	Harp seal: 10 April - 30 June; hooded seal 20 March - 10 July	mid May - end of August			x
3. Location	Tromsø - Rieber Port	Lofoten/Land Based - delivery of catch	Qaqortoq and Narsaq regions	Island of Eysturoy	x
3.1. Observed events	n/a	4 vessels boarded			x
3.1.1. Total target events	n/a	552			x
3.2. Observed vessels	2 vessels	4 vessels boarded			x
3.2.1. Total number of vessels	n/a	33			x
4. Observation price	n/a	n/a			x
YEAR 2002					
Member State and hunt	Norway Harp & Hooded seal	Norway Minke whale	Greenland - Sealing and Whaling	Faroe Islands - Pilot Whaling	Iceland
1. Observer	x	Bjarni Mikkelsen (FO)	Siri K. Knudsen (NO)	Hans Svendsen Mølgaard (GL)	x
1.1. Observer's report available	x	no	no	no	x
2. Observation period	x	22 May to 7 June - 16 days	28 August to 7 September	25 July to 11 August	x
2.1. Observation days utilized	x	n/a	n/a	n/a	x
2.2. Total target hunting days	x	mid May - end of August	n/a	n/a	x
3. Location	x	Vessel off coast of Finnmark	n/a	n/a	x
3.1. Observed events	x	5 minke vhales (3 on vessel and 2 onland)	n/a	n/a	x
3.1.1. Total target events	x	634	n/a	n/a	x
3.2. Observed vessels	x	one vessel on the sea, 2 on land	2 boat trips - Whaling observations	n/a	x
3.2.1. Total number of vessels	x	34	n/a	n/a	x
4. Observation price	x				x
YEAR 2003					
Member State and hunt	Norway Minke whale				
1. Observer	Atli Konradsson (IS)	Hans Mølgaard (GL)	Per Nukaraaq Hansen (GL)	Bjarni Mikkelsen (FO)	
1.1. Observer's report available	no	no	no	no	
2. Observation period	23 May - 06 July - 44 days				
2.1. Observation days utilized	29 days				
2.2. Total target hunting days	mid May - end of August				
3. Location	Vessel based: the North Sea, Spitsbergen, Vestfjorden - and off the coast of Finnmark				
3.1. Observed events	25 minke whales				
3.1.1. Total target events	647				
3.2. Observed vessels	4 vessels				
3.2.1. Total number of vessels	34 vessels				
4. Observation price	145359				
YEAR 2004					
Member State and hunt	Greenland - Sealing and Whaling				
1. Observer	Bjarni Mikkelsen (FO)	Tore Tøllersrud (NO)	Vilhjálmur Svansson (IS)		
1.1. Observer's report available	no	no	no		
2. Observation period	3 August - 18 September				
2.1. Observation days utilized					
2.2. Total target hunting days	Sealing - year round; Harbour seal - 1 October - 30 April; Whaling - year round; minke whales 1 April - 31.12				
3. Location	Three different regions, one in South-West Greenland mainly in Qaqortoq and Narsaq, one in Nuuk and one in Sisimiut. The last one also travelled to Ilulissat and Maniitsoq; observations were predominantly land based due to bad weather				
3.1. Observed events	n/a				
3.1.1. Total target events	n/a				
3.2. Observed vessels	n/a				
3.2.1. Total number of vessels	n/a				
4. Observation price	196860				

YEAR 2005	
Member State and hunt	Norway Harp & Hooded seal
1. Observer	Atil Konradsson (IS)
1.1. Observer's report available	yes - very detailed and organized
2. Observation period	10 March - 2 May; ca 50
2.1. Observation days utilized	ca 50
2.2. Total target hunting days	24 March to 27 April
3. Location	West Ice; vessel: Havsel
3.1. Observed events	n/a
3.1.1. Total target events	n/a
3.2. Observed vessels	1
3.2.1. Total number of vessels	n/a
4. Observation price	92 469
YEAR 2006	
Member State and hunt	Greenland Whaling
1. Observer	Atil Konradsson (IS)
1.1. Observer's report available	yes
2. Observation period	15 July to 11 August
2.1. Observation days utilized	
2.2. Total target hunting days	
3. Location	
3.1. Observed events	
3.1.1. Total target events	
3.2. Observed vessels	seven days on board a vessel
3.2.1. Total number of vessels	
4. Observation price	90 771
YEAR 2007	
Member State and hunt	Faroe Islands - Pilot Whaling
1. Observer	Vilhjálmur Svansson (IS)
1.1. Observer's report available	yes
2. Observation period	15 til 31. august
2.1. Observation days utilized	
2.2. Total target hunting days	year round, but mostly July - September, 67% of all hunting in August.
3. Location	
3.1. Observed events	
3.1.1. Total target events	
3.2. Observed vessels	
3.2.1. Total number of vessels	
4. Observation price	45 326
YEAR 2008	
Member State and hunt	Norway Harp & Hooded seal
1. Observer	Vikars Jan Danielsson (SE)
1.1. Observer's report available	yes, in swedish
2. Observation period	30 mars – 28 april- ca31
2.1. Observation days utilized	ca 31
2.2. Total target hunting days	Harp seal: 10 April - 30 June; hooded seal 20 March - 10 July
3. Location	on board Havsel, West Ice
3.1. Observed events	n/a
3.1.1. Total target events	n/a
3.2. Observed vessels	1
3.2.1. Total number of vessels	3-4 bg vessels
4. Observation price	123 172
YEAR 2009	
Member State and hunt	Norway Minke whale
1. Observer	Vikars Jan Danielsson (SE)
1.1. Observer's report available	yes, in swedish
2. Observation period	27 June to 19 July
2.1. Observation days utilized	21 days on board the vessel
2.2. Total target hunting days	mid May - end of August
3. Location	Spitsbergen and Bjørnøya (vessel based)
3.1. Observed events	21 minke whales hunt
3.1.1. Total target events	484 minke whales caught
3.2. Observed vessels	1 vessel
3.2.1. Total number of vessels	21 vessel
4. Observation price	66 782

YEAR 2010		
Member State and hunt	Iceland - Fin and Minke Whaling	
1. Observer	Bjarni Mikkelsen (FO) - Fin Whaling	Vikars Jan Danielsson (SE) - Minke Whaling
1.1. Observer's report available	yes (norsk)	
2. Observation period	12-19 Jul	12-16 Jul
2.1. Observation days utilized		
2.2. Total target hunting days		
3. Location		
3.1. Observed events	observed at the land base during the delivery and flensing of 10 animals	observed at the delivery station in Kópavogur
3.1.1. Total target events	148	60
3.2. Observed vessels	2 whaling vessels and observed the taking of 3 fin whales	was onboard one day and observed the taking of 2 minke whales
3.2.1. Total number of vessels		
4. Observation price		56816
YEAR 2011		
Member State and hunt	Greenland Sealing and Whaling	Iceland Whaling (focus on minke whales)
1. Observer	Eythor Thordarson (IS)	Bjarni Mikkelsen (FO)
1.1. Observer's report available	yes - detailed	yes (norsk)
2. Observation period	15th of August to 8th of September	15 – 18 juli
2.1. Observation days utilized		
2.2. Total target hunting days		
3. Location	Illulissat, Qeqerarsuaq, Aasiaat and Aknnaaq	
3.1. Observed events	two seal hunts, three minke whale hunts (two harpoon hunts and one communal rifle hunt involving 10 boats), flensing sites, the local markets and on one occasion he observed the landing and delivery from a boat that had been out hunting. In total 6 seals were hunted of which 2 were struck and lost and 3 minke whales of which 1 was struck and lost.	one hunting trip with a minke whale boat and observed the taking of two minke whales.
3.1.1. Total target events		58
3.2. Observed vessels		1
3.2.1. Total number of vessels		
4. Observation price		109 028
YEAR 2012		
Member State and hunt	Faroe Islands - Pilot Whaling	
1. Observer	Eythor Thordarson (IS)	
1.1. Observer's report available	yes - detailed	
2. Observation period	13 August to 3 September - 22 days	
2.1. Observation days utilized	8 days	
2.2. Total target hunting days	year round, but mostly July - September, 67% of all hunting in August.	
3. Location	FO, several grind beaches and places	
3.1. Observed events	one slaughtering - 61 animals; two unsuccessful drives	
3.1.1. Total target events		
3.2. Observed vessels	n/a	
3.2.1. Total number of vessels	n/a	
4. Observation price	64,252	
YEAR 2013		
Member State and hunt	Norway Minke whale	Iceland Whaling
1. Observer	Björgvin Guðmundsson (IS)	Hogni Arnbjarnson (FO)
1.1. Observer's report available	yes, in norwegian	yes, very brief
2. Observation period	09 to 20 June - 12 days	08 to 20 June - 14 days
2.1. Observation days utilized	n/a	n/a
2.2. Total target hunting days	mid May - end of August	ca 21
3. Location	5 days on board one vessel, 7 days on land	9 days on board one vessel, 9 days on land, Vesterålen
3.1. Observed events	4	5
3.1.1. Total target events	593 minke whales	8 minke whales hunts; on land observation
3.2. Observed vessels		49 minke whales were caught by 3 boats and no struck and lost was reported.134 fin whales were caught by 2 vessels and 5 struck and lost had been reported.
3.2.1. Total number of vessels	17 vessels	5
4. Observation price		260,508
YEAR 2014		
Member State and hunt	Greenland Sealing and Whaling	
1. Observer	Kristian Franer (NO)	
1.1. Observer's report available	yes - detailed and organized!	
2. Observation period	15.aug-05.Sept	
2.1. Observation days utilized	different obaservations, but almost every day was utilized	
2.2. Total target hunting days		
3. Location	West Coast	
3.1. Observed events	hunts for minke whales, flensing of the whale, seal hunt on the board of vessel, monitored sales of product on the market	
3.1.1. Total target events		
3.2. Observed vessels		
3.2.1. Total number of vessels		
4. Observation price	94 664	

YEAR 2015		
Member State and hunt	Faroe Islands - Pilot Whaling	
1. Observer	Ado Holm (GL)	Björgvin Guðmundsson (IS)
1.1. Observer's report available	yes, in Norwegian	yes - detailed
2. Observation period	3 – 24 August (22 days charged)	7 – 28 September (22 days charged)
2.1. Observation days utilized		
2.2. Total target hunting days	year round, but mostly July - September, 67% of all hunting in August.	
3. Location	Torshavn	
3.1. Observed events	n/a	none
3.1.1. Total target events	6 drives; 501 pilot whales were taken	
3.2. Observed vessels		
3.2.1. Total number of vessels		
4. Observation price	174,508	
YEAR 2016		
Member State and hunt	Norway Minke whale	
1. Observer	Ingibergur Sigurðsson (IS)	Høgni Arnbjarnarson (FO)
	no, only overview of observation activities	no, only overview
1.1. Observer's report available		
2. Observation period	8 to 31 May - 24 days	18 April to 13 May - 25 days
2.1. Observation days utilized	17 days activley utilized; 10/5-17-5 Bad weather - no sailing On board: 9/05-10/5 and 17/5-31/5;	23 days activley utilized
2.2. Total target hunting days	Hunting period: 1. April – 7. September	
3. Location		
3.1. Observed events	20 whale hunts were observed of which 18 whales were landed and two were struck and lost	
3.1.1. Total target events	Total catch, including struck and lost: 591 minke whales	
3.2. Observed vessels	One vessel during the whole period	One vessel - Sørøyfisk observed during the whole period
3.2.1. Total number of vessels	Active hunting boats: 16 vessels	
4. Observation price	163,338	
YEAR 2017		
Member State and hunt	Iceland Whaling	
1. Observer	Signar Petersen (FO)	
1.1. Observer's report available	no, only overview of activities	
2. Observation period	27 Jun - 18 July (around 21 days)	
2.1. Observation days utilized	6 days (The observer spent 11 days on shore not observing due to bad weather)	
2.2. Total target hunting days		
3. Location	Vessel based	
3.1. Observed events	0	
3.1.1. Total target events		
3.2. Observed vessels	2 vessels: Hrafnreydur 28/6-30/6 and Rorrarin 01/7-02/7; 03/7-05/7; 11/7	
3.2.1. Total number of vessels		
4. Observation price	70301	

	YEAR 1999	YEAR 2000	YEAR 2001	YEAR 2002	YEAR 2007	YEAR 2012	YEAR 2015	
Member State and hunt	Faroe Islands - Pilot Whale	Faroe Islands - Pilot Whale	Faroe Islands - Pilot Whale	Faroe Islands - Pilot Whale	Faroe Islands - Pilot Whale	Faroe Islands - Pilot Whale	Faroe Islands - Pilot Whale	
1. Observer	Hedvig Johanne Rud (NO)	Anil Konradsson (IS)	Anil Konradsson (IS)	Hans Svendsen Mølgaard (GL)	Vilhjálmur Svarsson (IS)	Eythor Thordarson (IS)	Ado Holm (GL)	Björgvin Guðmundsson (IS)
2. Observation period	19 Jul - 2 August	31 Jul - 21 Avg	3 - 19 August	25 July to 11 August	15 til 31. august	13 August to 3 September - 22 days	3 – 24 August (22 days charged)	7 – 28 September (22 days charged)
2.1. Observation days utilized				n/a		8 days		
2.2. Total target hunting days	year round, but mostly July - September, 67% of all hunting in August.							
3. Location		Islands of Suduroy and Vidoy	Island of Eysturoy	n/a		FO, several grind beaches and places	Torshavn	
3.1. Observed events	1	2 pilot whale drives observed	1	0	1	1	1	0

	YEAR 1998	YEAR 1999	YEAR 2000	YEAR 2001	YEAR 2002	YEAR 2004	YEAR 2006	YEAR 2011	YEAR 2014
Greenland, observed hunt	Land Based observation	Land Based observation	Land Based observation	Land Based observation	Greenland - Seal and Whale hunt		Greenland whale hunt	Greenland - Seal and Whale hunt	
1. Observer	Lars Kleivane (NO)	Bjarni Mikkelsen (FO)	Tore Tollersrud (NO)	Tore Tollersrud (NO)	Siri K. Knudsen (NO)	Vilhjálmur Svansson (IS)	Atli Konradsson (IS)	Eythor Thordarson (IS)	Kristian Franer (NO)
2. Observation period	27 August - 14 September		10 - 19 October	3 - 19 August	28 August to 7 September		15 July to 11 August	15th of August to 8th of September	15.aug-05.Sept
2.1. Observation days utilized							26		low effectiveness - bad weather
2.2. Total target hunting days	Sealing - year round; Harbour seal - 1 October - 30 April; Whaling - year round; minke whales 1 April - 31.12								
3. Location	Nuuk	West Greenland	The Godthåb Fjord and Nuuk	Qaqortoq and Narsaq regions	Qaqortoq		Nuuk and in Sisimiut	Ilulissat, Qeqarsuaq, Aasiaat and Akmaaq	Ilulissat
3.1. Observed events	Minke whale; fin whale; grenade harpoon hunt and flensing		Seals, small whales; delivery of catch and hunt	minke whale on board, seal and whale catch delivery	land based observation seal and whale hunt and catch delivery	two minke whales, harbour poeipoises and seals	one successful minke whale hunt, one minke whale carcass at the flensing place, • four unsuccessful minke whale hunts, • four unsuccessful minke whale hunts, • one unsuccessful fin whale hunt, • one unsuccessful harbour seal hunt and • two successful hunts of seals and several unsuccessful seal hunts	two seal hunts, three minke whale hunts, landing places and local markets	seals and harbour porpoises. Minke whale hunt,

	YEAR 2010		YEAR 2011	YEAR 2013	YEAR 2017
Member State and hunt	Iceland - Fin whale	Iceland - Minke whale	Iceland - Minke whale	Iceland - Fin whale and Minke Whale	Iceland - Minke whale
1. Observer	Bjarni Mikkelsen (FO) - Fin Whaling	Vikars Jan Danielsson (SE) - Minke Whaling	Bjarni Mikkelsen (FO)	Anthón Hegelund (GL)	Signar Petersen (FO)
2. Observation period	12-19 Jul	12-16 Jul	15 – 18 juli	11. June- 2. July - ca 21 days	27 Jun - 18 July (around 21 days)
2.1. Observation days utilized				ca 21	6 days (The observer spent 11 days on shore not observing due to bad weather)
2.2. Total target hunting days	Whaling season in Iceland for both fin and minke starts when the first animal is taken and closes 6 months later.				
3. Location					
3.1. Observed events	observed at the land base during the delivery and flensing of 10 fin whales	observed at the delivery station in Kópavogur; was onboard	two minke whales.	8 minke whales hunts; on land observation	
3.1.1. Total target events	148	60	58	49 minke whales were caught by 3 boats and no struck and lost was reported. 134 fin whales were caught by 2 vessels and 5 struck and lost had been reported.	
3.2. Observed vessels	2 whaling vessels and observed the taking of 3 fin whales	one day on board vessel and observed the taking of 2 minke whales	1	2	2 vessels: Hrafnreydur 28/6-30/6 and Rorrarin 01/7-02/7; 03/7-05/7; 11/7

	YEAR 1998	YEAR 1999	YEAR 2000	YEAR 2001	YEAR 2002	YEAR 2003	YEAR 2009	YEAR 2013	YEAR 2016
Member State and hunt	Norway Minke whale	Norway Minke whale	Norway Minke whale	Norway Minke whale	Norway Minke whale	Norway Minke whale	Norway Minke whale	Norway Minke whale	Norway Minke whale
1. Observer	Atli Konradsson (IS)	Jakob Sørensen (GL)	Hans Svendsen Mølgaard (GL)	Hans Svendsen Mølgaard (GL)	Bjarni Mikkelsen (FO)	Atli Konradsson (IS) Hans Mølgaard (GL) Per Nakaraa Hansen (GL) Bjarni Mikkelsen (FO)	Vikars Jan Danielsson (SE)	Björgvin Guðmundsson (IS) Hogni Arnbjarnsson (FO)	Ingibergur Sigurðsson (IS) Hogni Arnbjarnsson (FO)
2. Observation period	02 - 08 June - 6 days	31 May - 08 June - 12 days	3 - 9 June - 6 days	11 - 18 June - 7 days	22 May to 7 June - 16 days	23 May - 06 July - 44 days	27 June to 19 July	09 to 20 June - 12 days	08 to 20 June - 14 days
2.1. Observation days utilized	6 days	n/a	6 days	7 days	n/a	29 days	21 days on board the vessel	n/a	n/a
2.2. Total target hunting days	mid May - end of August								
3. Location	Lofoten/Land Based - delivery of catch	Lofoten/Land Based - delivery of catch	Lofoten/Land Based - delivery of catch	Lofoten/Land Based - delivery of catch	Vessel off coast of Finnmark	Vessel based: the North Sea, Spitsbergen, Vestfjorden and off the coast of Finnmark	Spitsbergen and Bjørnøya (vessel based)	5 days on board one vessel, 7 days on land	9 days on board one vessel, 9 days on
3.1. Observed events	8	n/a	4 vessels boarded	4 vessels boarded	5 minke whales (3 on vessel and 2 onland)	25 minke whales	21 minke whales hunt	9	20 whale hunts were observed of
3.1.1. Total target events	n/a	n/a	487	552	634	647	484 minke whales caught	593 minke whales	Total catch, including struck
3.2. Observed vessels	8 vessels boarded in the port	n/a	4 vessels boarded	4 vessels boarded	one vessel on the sea, 2 on land	4 vessels	1 vessel	1	1
									One vessel during the whole period. One vessel - Seaoyfisk observed

	YEAR 1998	YEAR 1999	YEAR 2000	YEAR 2001	YEAR 2005	YEAR 2008
Member State and hunt	Norway Harp & Hooded seal	Norway Harp & Hooded seal	Norway Harp & Hooded seal	Norway Harp & Hooded seal	Norway Harp & Hooded seal	Norway Harp & Hooded seal
1. Observer	Jakob Sørensen (GL)	Atli Konradsson (IS)	Bjarni Mikkelsen (FO)	Bjarni Mikkelsen (FO)	Atli Konradsson (IS)	Vikars Jan Danielsson (SE)
2. Observation period	24 - 30 April - 6 days	22 - 24 April - 2 days	29 May - 3 June - 6 days	3-7 May - 4 days	10 March - 2 May; ca 50	30 mars – 28 april- ca31
2.1. Observation days utilized	6 days	2	6	4	ca 50	ca 31
2.2. Total target hunting days	Harp seal: 10 April - 30 June; hooded seal 20 March - 10 July					
3. Location	Tromsø, Rieber Port	Tromsø - Rieber Port; catches from West Ice and East Ice in spring	Tromsø - Rieber Port	Tromsø - Rieber Port	West Ice; vessel: Havsel	on board Havsel, West Ice
3.1. Observed events	n/a	n/a	n/a	n/a	n/a	n/a
3.1.1. Total target events	n/a	n/a	n/a	n/a	n/a	n/a
3.2. Observed vessels	boarded 3 vessels in the port	3 vessels boarded	2 vessels	2 vessels	1	1

Annex 1.



**PROVISIONS OF THE
JOINT NAMMCO CONTROL SCHEME
FOR THE
HUNTING OF MARINE MAMMALS**

Please cite this report as:

Provisions of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals, 1997

Sections A and B adopted by Council in 1996

Guidelines to Section B adopted in 1997

Amended in 2006

All text revised in 2009

NAMMCO

Postbox 6453, Sykehusveien 21-23, N-9294 Tromsø, Norway,
+47 77687371, nammco-sec@nammco.no, www.nammco.no, www.facebook.com/nammco.no/

CONTENTS

Section A	Common elements for national inspection schemes for coastal whaling in NAMMCO member countries.....	5
Section B	International Observation Scheme	8
Appendix 1	Items for inclusion in whaling logbooks.....	11
Appendix 2	Guidelines to Section B - International Observation Scheme.....	12

PROVISIONS FOR THE JOINT NAMMCO CONTROL SCHEME FOR THE HUNTING OF MARINE MAMMALS

The Scheme contains the following sections:

Section A Common elements for national inspection schemes for coastal whaling in NAMMCO member countries; this part of the scheme concerns hunting of whales from vessels with a harpoon gun on board, and

Section B An international observation scheme with the participation of NAMMCO member countries; this part of the scheme relates, in principle, to all hunting of marine mammals.

Appendix 1 Items for inclusion in whaling logbooks

Appendix 2 Guidelines to Section B – International Observation Scheme

Section B is administered by the NAMMCO Secretariat hereafter called the Secretariat.

SECTION A

COMMON ELEMENTS FOR NATIONAL INSPECTION SCHEMES FOR COASTAL WHALING IN NAMMCO MEMBER COUNTRIES

A.1 Introduction

The national inspection schemes include national inspectors who either

- i) remain permanently on-board whaling vessels or at landing/receiving places during the hunting season, or
- ii) carry out random control of hunting vessels and landing/receiving places,

or a combination of i) and ii).

The aim of these regulations is to establish a standard of common elements, which shall be a minimum requirement in the random control, included in national inspection schemes. In addition to these elements, the individual member countries may include new elements as considered appropriate in relation to national laws and regulations for their specific whaling activities.

The national authorities decide the extent of inspection within their own jurisdiction.

A.2 Near-coast whaling operations

A.2.0 In these provisions, near-coast whaling operations is defined as whaling from vessels which bring their catch fresh to land.

A.2.1 The relevant authorities in each NAMMCO member country (hereafter called "the national authorities") design and publish a whaling logbook. The captain on board vessels equipped to carry out whaling must keep the logbook continually updated during the hunting season. A minimum requirement for the whaling logbook is that it includes the information listed in Appendix 1- *Items for inclusion in whaling logbooks*.

A.2.2 In addition to the logbook the national authorities may develop and implement regulations for the electronic monitoring of information to enable the controlling authorities to ascertain the vessel's position and activities etc.

The electronic monitoring system shall as a minimum sample the following types of data:

- i) *Vessel activity* - by continuous logging of time, position and speed of vessel
- ii) *Catching activity* - by continuous logging of data on the use of the harpoon gun, hauling of whales etc

A.2.3 The national authorities implement an arrangement whereby national inspectors carry out random checks on whaling vessels and at landing/receiving places. The national authorities compile a set of provisions for this arrangement, which specify requirements for the inspectors' qualifications and competence, duties, rights, etc.

A.2.4 One of the duties of the inspectors, as required by the national authorities, (cf. item A.2.3), shall be to examine the whaling logbook in order to check whether it has been filled in correctly, and in general to control that national regulations have been followed. If an electronic monitoring system is mandatory, the inspector shall check the system certificates, that the seals of amplifiers and control boxes are not broken and that the system is activated. Sealed components shall not be broken by the inspector.

Inspectors shall

- i) draw attention to violations of regulations on board whaling vessels or at landing/receiving places, and in these instances demand changes according to the regulations in effect;
- ii) collect samples and record data in accordance with national and international requirements;
- iii) report to their national authorities, and
- iv) have access to the logbooks of the vessel, check the electronic monitoring system (see A.2.4) and have the right to communicate with the national authorities through the communication equipment of the vessel.

The national authorities develop a reporting form for use by the inspectors.

A.2.5 The national authorities develop and implement regulations for storage of the catch on board a vessel. Meat, blubber and "mattak" (hide, including a thin layer of blubber) from individual animals caught must be stored on board separately from other catches. Separation of these parts shall occur within a minimum of six hours after the catch report is made.

A.3 Off-coast whaling operations

A.3.0 In these provisions, off-coast whaling operations is defined as whaling where the whale is flensed on board vessels which are equipped to handle and store meat and blubber either frozen or chilled with ice, or preserved by other means, in connection with transport/storage.

A.3.1 The requirements referred to under A.2.1 and A.2.3 - A.2.5 also apply to off-coast whaling operations.

A.3.2 The national authorities may develop and implement regulations for the electronic transmission of information to enable the controlling authorities to ascertain the vessels position etc.

The regulations shall require the following types of reports:

- i) *Report of commencement of activity* - report on time and place when leaving port or when weighing anchor
- ii) *Report of position* - regular daily report on position.
- iii) *Report of catch* - report on the time and position of the catch, and subsequent treatment of catch (i.e. flensing).
- iv) *Report of termination of activity* - report on time and place when arriving at port or when anchoring

SECTION B

INTERNATIONAL OBSERVATION SCHEME

B.1 Introduction

The purpose of establishing an international observation scheme among NAMMCO member countries is to provide a mechanism for NAMMCO to monitor whether decisions made by the Commission are respected. For this purpose, NAMMCO appoints observers who oversee hunting and inspection activities in NAMMCO member countries.

B.2 Duties and competence

- B.2.1 Observers are responsible for overseeing hunting activities and for observing whether or not these are carried out in accordance with decisions made through NAMMCO and national regulations. Observers have no authority of jurisdiction, and consequently cannot intervene in the hunting, or other activities connected with the hunting.

Observations can take place on board a vessel, or on shore, in connection with flensing, storage and landing/delivering of the catch.

- B.2.2 The observer shall be allowed to check licences and relevant certificates, logbooks/whaling logbooks, all rooms on board or on land, hunting equipment, and communication equipment, etc., which are relevant for his/her work. If an electronic monitoring system is mandatory, the observer shall check the system certificates, that the seals of amplifiers and control boxes are not broken and that the system is activated. Sealed components shall not be broken by the observer.
- B.2.3 The observer shall report any violation of the regulations in a given area, and as soon as possible, send a report of such to the Secretariat, with a copy to the authorities in the country in question, as well as to the owners of the vessel. The captain, those in possession of the licence, and, if present, the inspector, shall be given the opportunity in a special paragraph of the report, to record their comments.
- B.2.4 The observer is required to prepare a report of the observations made, and send it to the Secretariat.
- B.2.5 The observer shall carry out his/her duties on the basis of the guidelines adopted by the Council (see Appendix 2 - Guidelines to Section B).
- B.2.6 The observers are responsible to NAMMCO, and can neither seek nor receive instructions from any other person or authority.

B.3 Appointment of observers

- B.3.1 The Council appoints observers for one year at a time. Appointments are made through a procedure that ensures member countries the opportunity both to nominate candidates as well as to oppose the appointment of candidates. The appointment procedure is described in Appendix 2: guidelines to Section B.

NAMMCO can invite non-member countries to nominate candidates.

- B.3.2 An observer shall only in exceptional circumstances be appointed to observe in the country - or on a vessel registered in the country - of which he or she is resident.

B.4 Qualifications and safety issues

- B.4.1 The Council has compiled guidelines for requirements for the competence, training, etc., of observers. These guidelines are found in Appendix 2.
- B.4.2 As a general rule, observers must have at least the same level of professional competence as that required of inspectors in the country where the observations are to take place. In special circumstances, exemption from this requirement can be given.
- B.4.3 For safety reasons, the language competency of observers must be taken into consideration. An observer on board a hunting vessel must be able to communicate spontaneously with the crew. For communication on land, a translator may be used.
- B.4.4 When out at sea, the observer must ensure that he or she acquires the necessary information and knowledge related to safety issues and how to behave in an emergency situation. As a minimum the observer must know where to find survival suits and be familiar with how the suits work, where to evacuate, emergency exits, life boats etc.

B.5 Scope of activities

- B.5.1 The Council identifies annually priorities for the scope of observation activities for the coming year, within the budget adopted by the Council. The Secretariat is responsible for the practical administration and co-ordination of these activities.

B.6 Integrity

- B.6.1 The authorities in the country where observations take place shall take appropriate measures to ensure the safety, freedom and dignity of the observer, and shall, in addition, be of assistance in both word and deed, so that the duties of the observer can be carried out properly and efficiently.
- B.6.2 Neither the owner or the captain of a vessel, nor the owner or the manager of a landing/receiving place that is to be observed, can oppose observation by a person appointed by NAMMCO according to guidelines referred to in B.3.1.

B.7 Administration and Costs

- B.7.1 The International Observation Scheme is administered by the Secretariat, in accordance with guidelines set down by the Council (Appendix 2).
- B.7.2 The Secretariat prepares an annual report of the observation scheme, in which the implementation of the scheme is described, for the review of the Council. The document shall include reports of any violations, as well as other relevant comments.

- B.7.3 The Secretariat shall send a copy of the observer report to the authorities in the country in which the observations have taken place.
- B.7.4 Costs in connection with the activities of NAMMCO observers are covered by the NAMMCO budget in cases where different arrangements have not been agreed by NAMMCO and the country which sends the observer. The Council may give guidelines for such arrangements.

ITEMS FOR INCLUSION IN WHALING LOGBOOKS

I Vessel, whaling equipment and formalities

- 1 Registration number of the vessel
- 2 Call sign.
- 3 Name of captain/licence holder
- 4 Name(s) of gunner(s)
- 5 Number of licence
- 6 Calibre of harpoon gun
- 7 Type of grenade used
- 8 Calibre of rifle
- 9 Number of grenades and propellant charges (and their serial numbers) on board at end of last whaling trip
- 10 Number of grenades and propellant charges (and their serial numbers) taken on board in connection with present whaling trip
- 11 Number of grenades and propellant charges (and their serial numbers) on board at end of present whaling trip

II Activities

- 1 Port of departure
- 2 Date and time of departure from port or weighing anchor
- 3 Port of landing or position of anchoring
- 4 Time catch landed
- 5 Location catch landed

III The hunt

- 1 Species hunted
- 2 No. of whales caught in the season
- 3 Time first harpoon fired
- 4 Number of harpoons fired
- 5 Number of hits
- 6 Time of catch
- 7 Position of catch
- 8 Sex
- 9 Caught / lost
- 10 Location of flensing (flensing site)

In addition the following items may be included:

Research data

- 1 Length
- 2 Sex
- 3 Foetus
- 4 Time search started
- 5 Time of first sighting of whale (species to be reported)
- 6 Position of sighting
- 7 Number of whales and groups of whales sighted (species to be reported)
- 8 Samples taken

IV Other

- 1 Comments
- 2 Date and signature (captain)

GUIDELINES TO SECTION B

INTERNATIONAL OBSERVATION SCHEME - OF THE JOINT NAMMCO CONTROL SCHEME FOR THE HUNTING OF MARINE MAMMALS

AD B.2.5 - DUTIES AND TASKS OF THE OBSERVER

1. According to article B.2.1 of the Joint NAMMCO Control Scheme, the observer is responsible for the observation of marine mammal hunting activities in NAMMCO member countries. The observer shall control whether these activities are carried out in accordance with decisions made by NAMMCO and relevant national regulations.

Control objects¹

2. In connection with observation of whale hunting with harpoon guns in which the catch is taken to land and flensed/processed at a permanent installation, the observation shall, if it has not been carried out on board, take place at the flensing site. To the extent that such are required by regulation, the following shall, where possible, also be observed:
 - i) Hunting permit²
 - ii) Vessels logbook
 - iii) Whaling logbook/report of catch (cf. Control Scheme, art. A.2.1 & art. A.3.1). The observer checks whether it has been kept correctly. In connection with controlling the number of whales on board in relation to the records of the logbook in off-coast whaling operations, where the products are stowed on ice or frozen on board, the observer shall only be concerned with those products which are kept separately according to the provisions set out in the Control Scheme, art. A.3.1, cf. art. A.2.5. The entire catch is controlled according to point 4 of these guidelines.³
 - iv) Electronic monitoring system where such equipment is mandatory⁴
 - v) Hunting equipment and its use⁵

1 Observation activities can be carried out in four areas:

- 1) observation of whaling carried out with the use of a harpoon gun or of flensing of whales taken with a harpoon gun;
- 2) observation of sealing or forms of whaling other than with harpoon guns, or the flensing of animals from such hunting;
- 3) observation of the landing/delivery of marine mammal catches; and
- 4) observation of national marine mammal inspection activities.

2 The term hunting permit refers to the permit which in some countries is issued as proof of the vessels authorisation for hunting. The term also includes any licences and certificates of training required to hunt marine mammals.

3 According to article A.2.5 of the Control Scheme, meat from individual whales shall be kept separate for at least six hours after the catch has been reported. When individual animals are no longer stored separately, observation is not relevant, as the number of whales caught can no longer be accurately determined. Control of catches chilled and stowed on board, will occur upon landing (as described in point 4 of these guidelines).

4 The observer shall check that the system is certified, correctly sealed and activated. Sealed components shall not be broken by the observer or unauthorized personnel. The control consists of checking system certificates and checking the seals of components like amplifiers and control boxes.

5 The term hunting equipment covers all equipment that is directly connected to the hunting or the flensing process.

- vi) Hunting procedures
 - vii) Killing methods
3. In connection with observation of hunting or flensing of whales and seals not covered by point 2 of these guidelines, the observer shall, to the extent that such are required by regulation, control the following⁶:
 - i) Hunting permit
 - ii) Whaling logbook / report of catch
 - iii) Hunting equipment and its use
 - iv) Hunting procedures
 - v) Killing methods
 4. If the observation cannot be carried out during hunting or flensing, it may be done in connection with the delivery of catch, which is understood to be the physical and legal transfer to a third party. In this connection the items mentioned under 2 and 3 above, as well as documents necessary for the sale and production of the catch, can be controlled.⁷
 5. In cases where a national inspector is also present during hunting activities, the observer shall report whether the national inspection is carried out in accordance with existing regulations.

Reports⁸

6. No later than one month after the end of the employment period the observer must submit a report on activities (cf. the Control Scheme art B.2.4). The report shall be sent to the NAMMCO Secretariat (hereafter called the Secretariat) on a NAMMCO observer report form. The language of the report shall be either English or a Scandinavian language.
7. In case of infringements of regulations, the observer shall send a written report on the specified form as soon as possible to the Secretariat, with a copy to relevant authorities in the flag state and to the owner of the vessel (cf. the Control Scheme art. B.2.3). The report shall contain all relevant information regarding the nature of the infringement, including date, position at the time of violation, which regulations have been violated, and how the infringement occurred. The captain, the licence holder and the national inspector shall have the opportunity of making their own remarks to the report.
8. In cases where a national inspector is not present, and where an infringement involves the catch of a protected species/stock, the exceeding of a quota, hunting in restricted areas, hunting without a license where such is a requirement for hunting, or the use of unauthorised equipment, the observer shall at once inform the control authorities of the flag state through the Secretariat.

General conduct of observers

6 This point refers to all other forms of marine mammal hunting besides whaling with harpoon guns, such as the hunting of pilot whales and other small whale species, and all forms of sealing, whether opportunistic near-coast hunting or Norwegian sealing in the West and East Ice.

7 Observation should take place at one or more of the following stages: 1) On board the hunting vessel; 2) in connection with flensing, whether this takes place at a permanent flensing place or elsewhere; 3) in connection with delivery of the catch (both in physical and legal terms). Once the catch is delivered, the observer will be precluded from further control. By both physical and legal delivery of the catch is meant that observation can take place as long as it is practically possible, and even if, for example, the catch has been sold while still on a vessel. Once the catch is sold and delivered to the buyer, observation shall no longer take place.

8 It is at all times the responsibility of the authorities in the observed country to assess and act on any reports of infringements. In cases where regulations are broken by accident and where the infringement is reported correctly and at once, there will in general be no basis for the observer to prepare a specific report on the occurrence, although reference should be made to it in the general observation report.

9. During the exercise of their duties, observers shall conduct themselves with appropriate tact and respect. Upon arrival at a vessel, a landing/receiving station or other place where observation duties are carried out, the observer shall always display his/her authorisation and identification card to the person in charge.

Confidentiality

10. Observers shall ensure the confidentiality of their duties and shall not report on observations carried out under the NAMMCO Control Scheme to any other parties than the Secretariat or those institutions determined by the Secretariat (see also point 6-8 of these guidelines).

AD B.3.1 - APPOINTMENT OF OBSERVERS

11. Member countries develop a list of candidates for the following year and send it to the Secretariat by 15 November. The list shall include information on the qualifications of the candidates. The Secretariat circulates a combined list of suggested candidates to member countries for approval. In the event that a member country wishes to make a reservation to any candidate, this must be done before 15 December⁹. The Secretariat then circulates the list of candidates approved by all member countries to the Council for appointment.

AD B.4.1 - COMPETENCE, TRAINING ETC. OF OBSERVERS

12. The requirements for the professional, linguistic and safety at sea qualifications of the observers are set out in the Control Scheme, articles B.4.2, B.4.3 and B 4.4. If, due to special circumstances, a member country wishes to make use of the exemption clause under article B.4.2, priority shall nevertheless be given to the following qualifications: experience with similar inspection activities, hunting experience, with administration of hunting and biological studies, with an emphasis on the killing of animals and/or management.¹⁰
13. In order to ensure that the persons appointed as observers are sufficiently informed about the relevant hunting regulations and the duties of national inspectors, observers shall participate in whatever annual training courses are compulsory for inspectors in the flag state. If such courses are not held, or if the observer is unable for other reasons to participate in such courses, the observer must receive other relevant training, developed in co-operation between the authorities of the flag state and the Secretariat.

AD B.5.1 - ADMINISTRATION OF INTERNATIONAL OBSERVATION SCHEME

Plans for observation and activities

14. By October each year the Secretariat develops a proposal for the Council for the scope and range of observation activities during the following year in accordance with budgeted funds for these activities. The Council shall approve this proposal and appoint the observers by 1 January. The Secretariat, in co-operation with control authorities in respective member countries, then develops a specific plan for observation activities. The plan shall, among other things, define the time frame for observation activities and shall specify the observation areas for each observer. The Secretariat may for practical reasons, and in co-operation with the authorities of the relevant member countries, make changes in the plan if necessary. The detailed plan of observation activities shall only be known to the control authorities in the relevant member countries and the Secretariat.

⁹ It is understood that a reservation to the appointment of a particular candidate is a reservation to his/her appointment as a NAMMCO observer in any area of activity.

¹⁰ As the duties of national inspectors vary from member country to member country due to the differences in the activities which they control, it is expected that the exemption clause in Control Scheme art. B.4.2 will be applied to some extent. The notes to the Control Scheme outline which areas of competence are considered most important in relation to the application of art. B.4.2. To this has also been added biological studies, with an emphasis on the killing of animals and/or management.

Appointment of observers

15. When a detailed plan of observation activities for the year is finalized, those observers who will be called upon for active observation will receive an employment contract from the Secretariat. When both parties sign this, the observer will receive an identification card, as well as other relevant documentation necessary for his/her duties. The observer shall return his/her identification card to the Secretariat together with the final report of activities, and shall then receive a letter from the Secretariat confirming his/her completion of duties according to the Scheme.

Annex 2.

REVIEW OF THE NAMMCO OBSERVATION SCHEME

Prepared for the CIO January meeting 2005

At its last meeting in January 2004 the Sub-Committee on Inspection and Observation asked the Secretariat to review and recommend improvements to the implementation of the Observation Scheme. The evaluation should only consider the implementation process and not the actual Provisions and Guidelines texts. The Management Committee in its deliberations at its meeting in March 2004 endorsed this recommendation from the Sub-Committee.

In 2003 the Secretariat had prepared a document outlining the experiences with the Observation Scheme. The document was two-folded, and part one gave statistical data such as where and for which period observations had taken place, observation targets and land of origin of the observer. The second part summarised earlier recommendations made by the then Working Group on Inspection and Observations.

Updated to include the 2004 season the statistical information is as follows:

The Scheme came into force in 1998 and has been in operation for seven seasons.

No violation of national or hunting related regulations has occurred during these seven seasons. In 2001 there was a violation of the regulations laid down by the NAMMCO Inspection and Observations Scheme when the observer was denied access to one vessel in Norway. The incident was a result of communication failure between the observer and the skipper, and perhaps also grounded in too little knowledge of the observation scheme on behalf of the skipper. However, the national inspector reported no infringements or violations of the Norwegian laws and regulations on the same vessel.

Until 2003, with the exception of 1998 when no observer was sent to the Faroe Islands, observers were each season placed in all three member countries engaged in hunting activities (the Faroe Islands - pilot whaling, Norway - sealing and minke whaling and Greenland - sealing and whaling). In 2003 observation activities were limited to Norway only, and three observers were placed on board different whaling vessels. In 2004, following the good experience with focusing the observation effort to one region and/or activity, three observers were active in Greenland.

Until 2001 all observations had been land-based. In 2001 the observer in Greenland went out to sea with the hunters and from 2002 observers on the Norwegian minke whale hunt have been placed on board vessels for a duration of more than one day and up to several weeks.

Below is given a very brief outline of some of the characteristics of the hunts having an impact on the implementation of the observation scheme in Greenland, the Faroe Islands and Norway. Iceland is not being described as no observations have taken place here yet.

Norway

Commercial hunt of both minke whales and seals (harp and hooded seals).

Whaling: approx. 35 hunting-vessels, five hunting areas of which four involves hunting-trips of a duration of more than a day, some like in the Jan Mayen and Svalbard area involve several weeks out at sea.

Sealing: between 3 – 4 big vessels hunting in the west and east ice involving being away for 6 to 8 weeks.

Both the whaling and sealing seasons are restricted to certain periods of the year whaling usually from mid May to end of August, sealing harp seal 10 April – 30 June, hooded seal 20 March – 10 July.

The nature of the Norwegian hunt both with regards to whaling and sealing makes the implementation of the observation scheme relatively simple. When the actual hunting seasons commence several factors are defined like number of vessels, quotas and which hunting areas a certain vessel will operate in and to a certain extent the approximately time-period.

There are however uncontrollable/unpredictable factors in the implementation of the Observation Scheme, among which weather conditions play a major role. As an example one observer was contracted for a total of 16 days of which he was landed for 14 days due to bad weather. Another observer changed vessels out in open sea. This was possible because the weather was calm, one vessel was waiting for instructions from local authorities and could not hunt and the other vessel was not moving because the crew was cutting up and processing a whale. Under normal circumstances calm weather means vessels are fully occupied in hunting operations and probably not very eager to assist an observer in changing vessels and in rough weather changing vessels is not feasible due to safety reasons.

The whaling fleet in Norway consists largely of small vessels, and has it not always been possible to find accommodation for the NAMMCO observer i.e. additional bed. With the introduction of the Blue box this element will be greatly reduced.

In Norway all sales of meat from the whaling vessels are sold through “Salgslag” of which Norges Råfiskelag is the biggest. When deemed necessary they will issue regulations with respect to the landing of catches i.e. when they see that the markets are not able to process the volume. This may create unforeseen halt in the hunt which can have implications for the observer scheme. For instance in 2003 Norges Råfiskelag had prior to the season issued a regulation pertaining to the landing of catches. The rationale for the regulation was to spread the distribution of the catches throughout the season and thereby avoiding a pile up of meat at the end of the season as had been the case in previous years. The regulation meant that as a minimum the vessels had to land their catches twice during the season, and the first landing had to be before or when half of the quota was taken. Nice weather and good accessibility in May/June led to unusually large catches and the receiving plants did not have the required capacity to handle the catches. Further regulations were therefore issued in late June ordering all vessels to land their catches after 7 animals were taken and then to stay on shore in 7 days before returning to the hunting grounds. The implication for the

observation scheme was that the observer who was contracted to work late in the season only stayed on board one vessel. When the allowed 7 animals were taken the vessel had to return and stay on shore for 7 days and because no other vessels were hunting in this area there was no reason to prolong the observers stay.

Greenland

Sealing can take place all year round with the exception of adult and breeding Harbour seal in the period 01.10-30.04. Seals are predominately hunted with rifles. Whaling (fin whales, minke whales, beluga and narwhals, pilot whales and harbour porpoises) all year round except minke whales which can only be hunted in the period 01.04-31.12. Quotas exist on minke and fin whales, beluga and narwhal. Larger whales (fin and minke) should predominately be harpooned (approx. 75% of the quota), but some joint riffle hunt is allowed with respect to minke whales. There are special flensing areas for whales around the villages and towns. Walrus may be hunted north of 70 degrees 30/N in Western Greenland and south of the National Park in East Greenland all year round, otherwise it is not allowed. There is a regulation stipulating that reallocation of the remaining quotas for fin and minke whales must take place before 15 October each year. While this takes place there is full stop in hunting activities for these species. In 2004 the stop had a duration of 4 days.

In order to go hunting a person needs a “jagtbevis” and a license for species that are quota regulated issued by the Department of Fisheries and Hunting. In order to sell the products from the hunt a “ervervsjagtbevis” is required. The whalers do not write a “logbok” but have to fill out and submit a “fangstrapport” to the community office before they can sell their products at the market. At the same time their license is stamped. It is the community office that reports to the Department of Fishing and Hunting. The whalers are not obliged to report a hunt to the regional “jagtbetjenter”. Every year all hunters must fill out and submit a “årsregistreringsskema” to the Department of Fishing and Hunting.

The total annual catch of all important species is published in the information booklet PINIARNEQ. This publication gives information on hunting seasons, laws and regulations, registration forms and hunting statistics and is distributed to every person receiving the “Jagtbevis” for the following year.

The hunting of marine mammals in Greenland is an opportunistic hunt. With respect to whaling, most boats are fishing boats, which are also licensed to go whale hunting. The boats are usually out fishing and when spotting a whale they terminate the fishing activity and go after the whale if they believe this to be the most lucrative option. The joint rifle hunts is by nature more organised in the sense that if the weather conditions are good the parties to the hunt will go out primarily with the aim of hunting whales. Most boats are small with limited space for accommodation. Most boats seem to operate fairly close to their home-place, going out to sea in the morning and returning in the evening. Most boats do not have freezers onboard and consequently need to sell the products as soon as possible. Seals are hunted from dinghies and from the ice and happen on an individual basis.

Weather is by far the most decisive factor when considering to go hunting or not. Other important factors to consider seems to be market conditions, i.e. the possibilities of getting the products from the hunt sold. This again is depended upon people’s supply of money.

Judging from observer's reports it seems to be a connection between the official pay-days and incitement for the hunters to go hunting. When you use a harpoon you naturally want to know that you have the money to replace it plus some surplus. Most of the marine mammal hunters in Greenland also hunt reindeer, musk ox and birds. The hunting season for these terrestrial mammals is fall and winter. These hunts have implications for the marine mammal hunt with respect to time and market possibilities. Products from both hunts compete in the market place.

The Faroe Islands

An opportunistic hunt. Schools of pilot whales may arrive all year round, but the period July – September with a peak in August has accounted for 67 % of all hunting in the period 1584 – 1999. The drive and killing of pilot whales may only take place at authorised whaling bays, today there are 24 such authorised whaling bays. Everybody may participate regardless of occupation and the returns from the hunt are divided after specific rules between the participating hunters and households in the “grinde” district. The processing takes place at home. No quotas exist, but Sysselmannen may close a certain area when he/she realises that it is enough pilot whale meat and blubber in that area for a period. In other words the underlying assumption is that the hunt should only take place when there is a need for the products.

A majority (58%) of the sightings of schools of pilot whales is from fishing boats and one third of these happen on Friday or Saturdays. The reason for this is that then the Faroes have time to go out fishing.

From the point of view of the implementation of the observer scheme to observe in the Faroe Islands is relatively easy. The only thing the observer has to make sure of is to have good communication lines to the Sysselmann (in reality this means the local police) because he/she is always notified of sightings of grinds and gives the formal go ahead for the drive to begin. Another factor may be transportation to the actual whaling bay.

General comments and points for improvement

The observation “scene” is more “unorganised” in Greenland compared to Norway and the Faroe Islands. Although very different by nature the hunting activities are more easily accessible in Norway and the Faroe Islands than in Greenland. In Norway, and especially so after the introduction of the blue box, the main obstacle will be to locate possible whaling vessels and make a decision as to which area the observers should work from. With respect to sealing in Norway the main obstacle is the time period needed in order to have an observer on board a vessel. The observer in question will need to be away from his job up to 8 weeks. In the Faroes the main elements will be to decide the observation period and establishing well functioning communication lines with the various Sysselmenn. In Greenland the hunting takes place more or less throughout the whole year, but in a very random fashion. Sealing is conducted from small dinghies or on the ice and it will probably be difficult to observe the actual chase and kill without interrupting the hunt itself. Documents like Fritidsjagtbevis and ervervsjagtbevis are both required documents in order to go hunting and these are easily controllable, and land based observations are fairly easy to conduct given that there are hunting taking place. From the point of view of the Secretariat it would be beneficial to keep focusing on activities in Greenland in order to gain a better understanding of the overall situation.

How should the success of the observation scheme be assessed? It seems important to remember that it is not necessarily a high number of actual observations during a period that makes the scheme successful but the fact that an observer is present and able to conduct his or her job without interference's of any sort. A consequence of this is that an observer may be active for a long period without actually witnessing any hunt.

Nomination process: member countries to keep deadlines and nominate more then one observer candidate. In this connection remember the possibility of nominating observers from other countries. In such a case the nominating country is obliged to cover the possible extra expenses incurred due to for instance longer travel. The procedures governing the nomination and appointment of observers are somewhat time-consuming and bureaucratic. It is never the less very important that these procedures are followed as they secures the legitimacy of the scheme and also guarantee transparency of the system.

Information flow to the Secretariat: detailed information on time frames, quotas and places for the most optimum areas of observation, names of contact persons etc. To have updated information in the Secretariat is very important for the smoothly running of the observation scheme. By focusing on one region the Secretariat has gained valuable information on how the different hunts are being organised in the different countries. It would be beneficial to continue this practice especially with regards to Greenland.

The language and cultural barrier: The Scheme stipulates that the observer should not come from the country in which he/she is doing observations. This poses a special problem for observations in Greenland as most foreigners do not speak or understand greenlandic. Furthermore a majority of hunters in Greenland do not speak English or may not have a good understanding of a Nordic language. The implication of this is that the observer needs to be accompanied by an interpreter or the national "jagtbetjent". To be able to communicate well is of the outmost importance when being on board a hunting vessel due to security reasons. The same problem arises to a certain extent with observations out at sea in Norway. Although Norwegian and Danish are similar languages it still may be difficult to understand each other due to dialect differences. Another aspect of the observation scheme is cultural differences. It is not necessarily a problem, but it is an element of the scheme that should be kept in mind.

Budget: The budget of NOK 200 000 will never allow for more than partial coverage. In order to observe all activities the whole season the budget would go sky high something that is not feasible or desirable.

Duration of the observation period: Especially with respect to observations of sealing in Norway it might be a problem to get observers who can actually be away for such a long period of time as is required. The vessels are out at sea for 6 – 8 weeks. Most observers have jobs and will not easily be able to take off for two months on a relatively short notice. The sealing fleet leaves Norway around the middle of March which means that the observer in question will have a maximum of two months but more likely one month to arrange his leave from work etc. A possibility could be to nominate two years ahead.



Annex 3.

CS/Report 1

NAMMCO INTERNATIONAL OBSERVATION SCHEME

OVERVIEW OF OBSERVATION ACTIVITIES

Country in which observation took place

Observation period (date/time): From To

Observation objects (specify objects and periods):

Infringements: Infringement Report no:

- | | |
|---------|--|
| a. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| b. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| c. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| d. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| e. | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Was the national inspection carried out in accordance with national regulations, cf. Guidelines to Section B of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals, item 5? ☐ Yes ☐ No If no, specify

.....
.....

Other comments

.....
.....
.....
.....

Number of attachments

Observers name

Date and signature



Annex 3.

CS/Report 2

NAMMCO INTERNATIONAL OBSERVATION SCHEME

REPORT OF OBSERVATION

1. Observation object (vessel (name and call sign), flensing place (locality or position), production plant (name and address), other (type and position)).....
.....
.....
 2. Observation period: From (date) _____ To (date) _____
 3. Observation area (ICES-/NAFO- or IWC-codes)
 4. Name of person in charge
 5. Name of national inspector
 6. Infringements (attach completed form CS/Report 3)
 7. Could observation be carried out in accordance with the provisions of Section B of the Joint NAMMCO Control Scheme for the Hunting of Marine Mammals (The International Observation Scheme)? ☐ Yes ☐ No
If no, specify.....
.....
.....
 8. Name of observer
- Date and signature

1. A) Observation object (vessel, name and call sign).....
B) Flensing place (locality or position).....
C) Production plant (name and address).....
D) Other (type and position).....
2. Date, time (UTC), position
3. Type of infringement
4. Description of infringement
-
.....
..... (Attach extra sheets if necessary)
5. Name of person in charge of observation object
6. Remarks from person in charge of observation object
-
.....
7. Name of national inspector
8. Remarks from national inspector
-
.....
9. Name of observer
- Person in charge Date
- Inspector Date

Observer Date