

MEMORANDUM

TO: Council, SSC and AP Members
FROM: Chris Oliver *CO*
Executive Director
DATE: December 1, 2009
SUBJECT: Pacific Walrus in Bristol Bay

Bill

ESTIMATED TIME 8 HOURS All D-1 items
--

ACTION REQUIRED

Receive discussion paper on options for protection measures around a new Pacific walrus haulout on Hagemeister Island in northern Bristol Bay

BACKGROUND

At the April 2009 meeting, the Council received a discussion paper on trawl fishery interactions with other fisheries and with Pacific walrus in northern Bristol Bay. During discussions of this issue, the Council requested that a separate discussion paper (attached as D-1(c)(1)) be prepared that describes procedures for how the Council might designate an additional walrus protection zone around a new, emerging walrus haulout on the west side of Hagemeister Island. The U.S. Fish & Wildlife Service reported to the Council that this haulout is now used annually, and the Agency is concerned over potential disturbance of walrus at this site from fishing activities. The Council requested that the discussion paper include information on how such a protection area might be designed to allow vessel transit through Hagemeister Strait, and the mechanisms for establishing a corresponding protection area in State waters. Staff will provide an overview of the information, and a representative from the USFWS will present the Agency's perspectives and answer questions. The Council's Enforcement Committee may also have a report on this issue.

Establishing a Protection Zone Around a Walrus Haulout on Hagemeister Island in Northern Bristol Bay – A Discussion Paper

Prepared by:

Bill Wilson
Diana Evans

North Pacific Fishery Management Council
November 2009

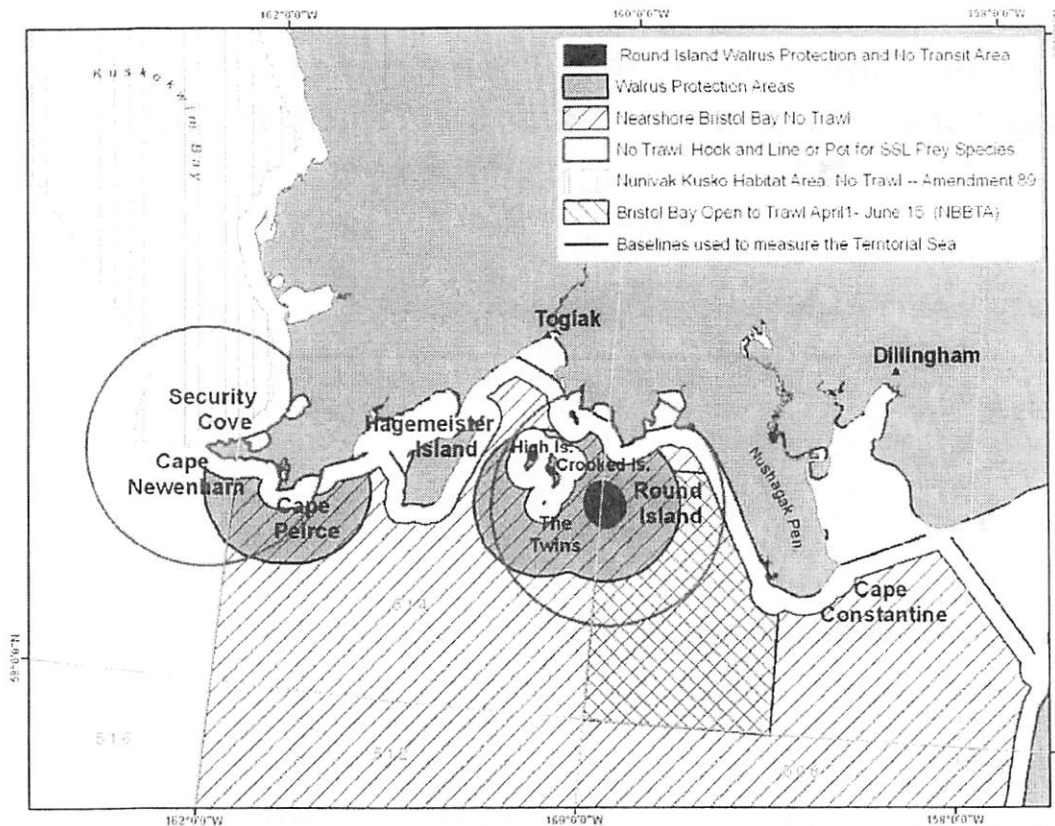
1 Introduction

1.1 The Issue Brought to the Council

In 2008, the North Pacific Fishery Management Council received letters and heard testimony at Council meetings regarding interactions in northern Bristol Bay between the yellowfin sole fishery, local halibut and other fisheries, and Pacific walrus and their habitat. At the October 2008 meeting, the Council tasked staff to prepare a discussion paper on these issues. At its April 2009 meeting, the Council received that discussion paper which described the characteristics of the fishery in the Nearshore Bristol Bay Trawl Area including groundfish harvests, bycatch amounts, vessel participation, and levels of observer coverage. The discussion paper also reviewed information on the Pacific walrus population, and it provided a description of issues surrounding fishing activities and walrus or their habitat during trawling and offloading, and information on walrus takes in commercial fishing activity. The various closed zones in this area are provided in Figure 1.

At the April 2009 meeting, the Council passed a motion based on a request from the U.S. Fish & Wildlife Service to gather additional information and describe the procedures for designating an additional walrus protection zone around a new, emerging walrus haulout on the west side of Hagemeister Island. The USFWS expressed concern over potential disturbance to walrus using this haulout from groundfish fishing and other activities in the northern Bristol Bay region. The USFWS has articulated their concerns in a letter to the Council dated October 13, 2009 (appended). Hagemeister Island is part of the Togiak National Wildlife Refuge administered by the USFWS (USFWS 2009). This discussion paper provides information on the new Hagemeister Island walrus haulout and procedures for designating a protection zone around this haulout.

Figure 1 Map of northern Bristol Bay, showing the Northern Bristol Bay Trawl Area (NBBTA), walrus protection areas, and other area restrictions



1.2 Existing Walrus Protection Measures

The Council has previously implemented groundfish fishery closure areas around walrus haulout habitats in northern Bristol Bay. In January 1990, Amendment 13 to the BSAI groundfish FMP was implemented with measures to prohibit groundfish fishing activities within 3 to 12 n mi closed areas around the Walrus Islands (Round Island and The Twins) and Cape Peirce in northern Bristol Bay April 1-September 30. Specific concerns were expressed by the public and the USFWS over noise emitted by fishing activities of the JVP (Joint Venture Processing) yellowfin sole fishery and apparent correlations between increased noise and observed declines in numbers of walrus using haulouts in northern Bristol Bay. This measure was put into place to reduce disturbance to walrus that inhabited these haulout areas.

Amendment 17 was adopted in April 1992 to permanently close from April 1-September 30 the 3-12 n mi zones around Round Island, The Twins, and Cape Peirce to reduce disturbance to walrus. This measure prohibits all Federally-permitted vessels from entering or transiting these closed areas during the closure period, including fishing support vessels. The Council indicated its intent that the State should match these closures around Round Island and The Twins in State waters. The specific regulation at 679.22(a)(4) is:

(4) Walrus protection areas.

From April 1 through September 30 of any fishing year, vessels with a Federal fisheries permit under § 679.4 are prohibited in that part of the Bering Sea subarea between 3 and 12 nm seaward of the baseline used to measure the territorial sea around islands named Round Island and The Twins, as shown on National Ocean Survey Chart 16315, and around Cape Peirce (58° 33' N. lat., 161° 43' W. long.).

Figure 1 above illustrates the geographic scope of the Amendment 17 walrus closures. A description of each of these closed areas was previously provided to the Council in a separate discussion paper (Wilson and Evans 2009).

The State of Alaska does not mirror this closure in State waters from 0 to 3 n mi offshore of these walrus haulouts. The annual Emergency Order (EO) issued by the Alaska Department of Fish and Game specifically references the Federal closures for Steller sea lion protection and extends those closures to State waters but does not implement a matching State waters closure for walrus protection. However, the State has closed all State waters to all trawling from Cape Newenham to Cape Menshikof (located on the north side of the Alaska Peninsula), thus prohibiting groundfish fishing (trawling) in State waters in this area.

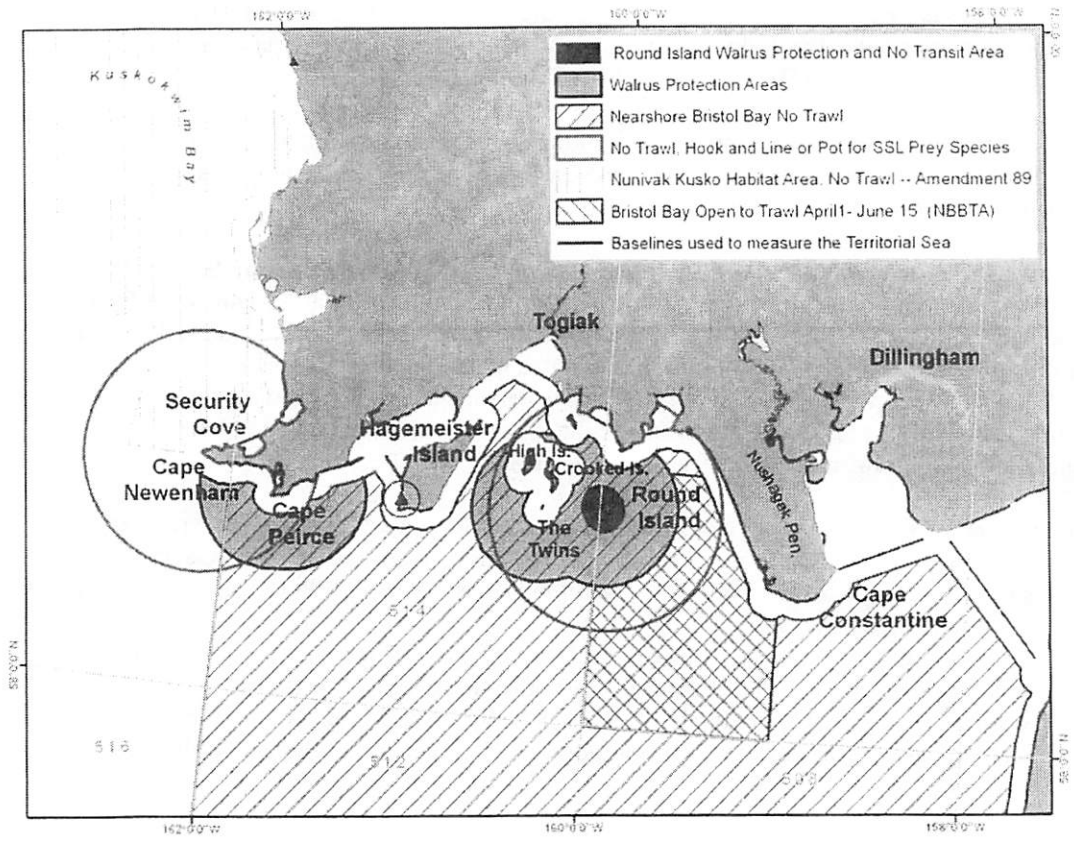
To summarize the existing Federal closures for walrus in northern Bristol Bay, these regulations affect fishing activities as defined in the Magnuson Stevens Act, they apply to these activities outside 3 n mi, and they affect vessels with Federal Fisheries Permits (FFPs). These closures do not affect vessels that do not carry a FFP, nor vessels involved in fishing for other species such as salmon, herring or halibut (unless they have a FFP). The Federal walrus closures do not affect activities of freight vessels, tug and barge traffic, or other commercial or personal activities at sea. And these regulations do not affect foreign (tramper) vessels that take on fish product as long as they took on product in established roadsteads, ports, or internal waters (Garland Walker, NOAA GC, pers. comm.).

2 Hagemeister Island Walrus Haulout

Bristol Bay provides haulout habitat for thousands of walrus, primarily males, during summer months. While nearly all females and juvenile walrus migrate northward in spring to feed in the northern Bering Sea, Chukchi Sea, and Beaufort Sea, most adult males remain in the Bristol Bay area and feed in adjacent waters. Counts of walrus on the various haulouts have been made sporadically over the years, and the available data on haulout use are provided in Wilson and Evans (2009). Overall, walrus use of haulouts in the general Bristol Bay region seems to be shifting; in some years, walrus abundance fluctuates up and down depending on geographic location. Some groups, such as at Cape Peirce, are declining, yet in other areas such as Cape Seniavin, walrus abundance is increasing (Joel Garlich-Miller, USFWS, pers. comm.).

In recent years, a new haulout appears to be consistently used by walrus. Located on the west coast of Hagemeister Island (58° 34.800' 161° 04.500'), this haulout is showing increases in walrus abundance during summer months. Hagemeister Island is part of the Togiak National Wildlife Refuge, and aerial surveys of walrus on Hagemeister Island have been conducted since 2005 (Jonathan Snyder, USFWS, pers. comm.). The haulout is identified in Figure 2.

Figure 2 Map of northern Bristol Bay showing the location of a new walrus haulout on the southwest shore of Hagemeister Island in relation to various fishing closed areas.



The USFWS is concerned that fishing activities may disturb walrus using this haulout as described in the following (Joel Garlich-Miller, USFWS, pers. comm.):

As noted in the NPFMC discussion paper, the primary conservation concern with respect to fisheries operations in this region is the potential for disturbances at terrestrial haulouts. Walrus often flee terrestrial haulouts in response to the sight, sound, or odor of humans and machines. Both natural and human related disturbances have caused stampedes resulting in animal injuries and mortalities. Large mortality events have been reported in recent years along the Chukotka coast where thousand of walrus have been stranded during the ice free season. It should be noted that these disturbance events and resulting stampedes involved many thousands of animals and that most of the resulting mortalities were young calves at the periphery of the herd (Bristol Bay haulouts are much smaller and used primarily by adult males, and injuries and mortalities are a relatively infrequent occurrence). Secondary effects on animals may also occur if disturbance events disrupt normal haulout behavior. Foraging is a significant activity for walrus using the coastal haulouts in the Bristol Bay region, and haulouts may occur in locations where animals can forage most efficiently. The abandonment of preferred haulout locations could displace animals from preferred feeding areas or require them to travel greater distances to reach the nearest refuge. The potential for long-term displacement of animals due to continuous or regular and frequent disturbances at the haulouts is also of

concern. There is some evidence of coastal walrus haulouts being completely abandoned as a result of prolonged or repeated disturbances (This was the basis for the establishment of the Walrus Island State Game Sanctuary).

The primary sources of human caused disturbances at Bristol Bay haulouts include: aircraft over flights, boating and fishing activities, and human activities at the haulouts.

Disturbance from aircraft: The most frequent source of disturbance to walrus resting at Bristol Bay haulouts is aircraft over flights. The frequency and intensity of aerial disturbance events are particularly acute at the Cape Seniavin walrus haulout on the Alaska Peninsula, which occurs along a heavily used flight path and lacks on-site monitoring or management programs. To minimize the potential impacts of aircraft noise to walrus on Round Island, the Alaska Department of Fish and Game has established a 3 mile buffer zone around the Island. The Federal Aviation Administration (FAA) has issued advisories and notations on aeronautical charts requesting that pilots maintain a 5,000 foot above ground level (AGL) minimum altitude within this zone. At the request of the USFWS, the FAA has also issued an aircraft advisory requesting that aircraft maintain a minimum altitude of 2,000 feet within 1/2 mile of the walrus haulouts at Cape Pierce, Cape Newenham and Cape Seniavin. Although the FAA advisories are not regulatory, USFWS law enforcement officers have cited violators for harassment of wildlife in violation of the federal Marine Mammal Protection Act and/or Airborne Hunting Act when disturbance to resting walrus occurs. The response of walrus to aircraft over-flights is highly variable, and walrus have been known to react to aircraft noise generated from beyond the altitude restrictions identified in the FAA advisories. There is a need to review existing regulations for this area and to issue and publicize clear and consistent regulations or guidelines to protect walrus from airborne disturbances.

Near-shore boating and fishing activities: Noise generated from near-shore boating and fishing activities can also cause disturbances at walrus haulouts. In 1989, the NMFS issued regulations prohibiting groundfish operations closer than 22 km (12 nm) to Round Island, the Twins (both WISGS) and Cape Peirce (TNWR) after reports that fisheries operations were causing disturbances at these haulouts. Although we have been focusing here on federally managed fisheries, near shore fisheries (such as for herring and salmon) also have the potential to disturb walrus.

The haulout is used during spring through fall months. Aerial surveys conducted by staff at the Togiak National Wildlife Refuge have resulted in the following walrus counts at this site:

Walrus counts on new Hagemeister Island haulout, 2005-2009

Date	#	Date	#	Date	#	Date	#	Date	#
27-Jun-05	0	21-Feb-06	0	8-Aug-07	803	4-Feb-08	0	20-Mar-09	0
27-Jul-05	80	5-Oct-06	1	16-Aug-07	450	25-Mar-08	0	15-May-09	0
12-Aug-05	37	12-Oct-06	190	11-Dec-07	500	24-Apr-08	0	23-Jun-09	851
15-Aug-05	115	20-Oct-06	0			17-Jun-08	393	5-Aug-09	532
16-Aug-05	136	25-Oct-06	943			28-Jul-08	1816	19-Aug-09	84
18-Aug-05	51	31-Oct-06	384			28-Jul-08	2158	22-Sep-09	500
17-Sep-05	855	8-Dec-06	0			18-Aug-08	2941	30-Sep-09	1500
14-Nov-05	12					25-Aug-08	685	28-Oct-09	0
27-Jun-05	0					19-Sep-08	4		
						2-Oct-08	2092		
						16-Oct-08	866		
						4-Nov-08	336		

Walrus were counted from digital photographs taken from the air.
 Data courtesy of U.S. Fish & Wildlife Service, Togiak National Wildlife Refuge.
 (Jonathan Snyder, USFWS, pers. comm.)

The USFWS does not have telemetry data from the haulout to inform questions regarding animal movement and behavior patterns near the haulout. Data collected from other haulouts in the region (Round Island and Cape Pierce) suggest that long foraging excursions from the haulouts to offshore feeding locations is the normal pattern (Jay et al. 2001; Jay and Hills 2005; Joel Garlich-Miller, USFWS, pers. comm.). Telemetry studies have also shown that animals often use more than one haulout location during the course of a season, and this might hold true for the Hagemeister haulout as well (Joel Garlich-Miller, USFWS, pers. comm.).

3 Vessel Traffic in Hagemeister Strait

3.1 Vessels Associated With Fisheries

3.1.1 Yellowfin Sole Fishery

As described in Wilson and Evans (2009), a groundfish fishery, almost entirely targeting yellowfin sole, is prosecuted in northern Bristol Bay. This fishery is restricted to the Northern Bristol Bay Trawl Area (NBBTA) (Figure 1). When enroute to or from the NBBTA fishing grounds, vessels that participate in this fishery are restricted to transit areas outside the walrus protection areas around Cape Peirce, The Twins, and Round Island. Vessels that participate in

this fishery are catcher vessels or catcher-processor vessels, and occasionally a domestic processing vessel may be present in the area to receive catcher vessel catch. These fishing vessels arrive on the NBBTA fishing grounds in May and fish to approximately early to mid June. Transit routes to and from these fishing grounds are across Bristol Bay and not likely through Hagemeister Strait unless weather conditions require seeking shelter in the Strait. Occasionally fishing vessels may shelter on the west side of Hagemeister Island or in Hagemeister Strait (Tim Sands, ADF&G, pers. comm.). However, during the fishery, vessels harvest groundfish within the NBBTA and deliver catches to processor vessels or to refrigerated freighters that anchor in this area. Foreign freight vessels or "trampers" can only receive fish products in established roadsteads, ports, or internal waters. Transit to the processors or freighters may require transit through Hagemeister Strait.

A roadstead, one of which is north of Hagemeister Island (Figure 3, area between the two red lines), is a location outside State waters where foreign vessels are allowed to onload product, in this case from the yellowfin sole fishery. Domestic vessels that onload product to domestic freight vessels can do so in any location that is not closed to general vessel transit. Given its location, some vessel traffic to and from the Hagemeister roadstead will transit Hagemeister Strait. Depending on the nature of the fishery or individual company business plans for a given season, domestic vessels may onload to domestic freighters in or near Hagemeister Strait or in other locations. In 2008, foreign vessels receiving groundfish harvested from the NBBTA included the M/V Mononok (6 offloads from May 18 – May 27), the M/V No 1 Pohah (offloads on May 28 and 31, and June 2 and 15), the M/V Sohoh (3 offloads May 29-31), and the M/V Baron (offloads on June 2, 6, 11, and 16). In 2009 only two offloads from fishing vessels to a foreign vessel occurred in the area, specifically in the Port of Togiak (see below) (Jason Anderson, BUC, pers. comm.). Figure 4 depicts those offload locations; confidentiality of these data was waived for this report (Jason Anderson, BUC, pers. comm.).

Another area in northern Bristol Bay used by both domestic and foreign transport vessels is the Port of Togiak where foreign vessels may load fishery products for export. This area in Togiak Bay is designated by NOAA Office of Law Enforcement as a Port for the purpose of MSA enforcement (Garland Walker, NOAA GC, pers. comm.). The vessels offloading product in 2009 identified in Figure 4 were in the Port of Togiak. Figure 5 shows the approved Port of Togiak. This area is less preferred by the groundfish fleet, however, as it is shallower and occasionally less protected from weather (Susan Robinson, Fishermen's Finest, pers. comm.). However, foreign vessels very often anchor in areas where offloads of herring are more practical, and thus the yellowfin sole fleet must occasionally go to those sites to offload, even if they are less preferred by the YFS fleet. The Togiak herring fishery is large, with thousands of tons of product offloaded annually during the same season as the yellowfin sole fishery is prosecuted. Thus, YFS vessels and domestic herring tender vessels all may offload during the same periods of time in this part of northern Bristol Bay.

Access to/from the NBBTA fishing grounds is limited by the existing walrus protection areas, as a vessel with a Federal Fisheries Permit (FFP) may not transit those 3 to 12 n mi closed areas during the YFS fishing season, forcing vessels to depart the fishing grounds and move south and west of the closures and then through Hagemeister Strait; industry reports that the east side of Hagemeister Island is too shallow for safe transit and is not used. Another possible route is north and east of Round Island and then through State waters north of Round Island (see Figure 1). Travel routes are often influenced by location of freight vessels that receive fishery product, as noted above.

Figure 4 Locations of some offloads to freight vessels during the 2008 and 2009 yellowfin sole fishery (Jason Anderson, BUC, pers. comm.)

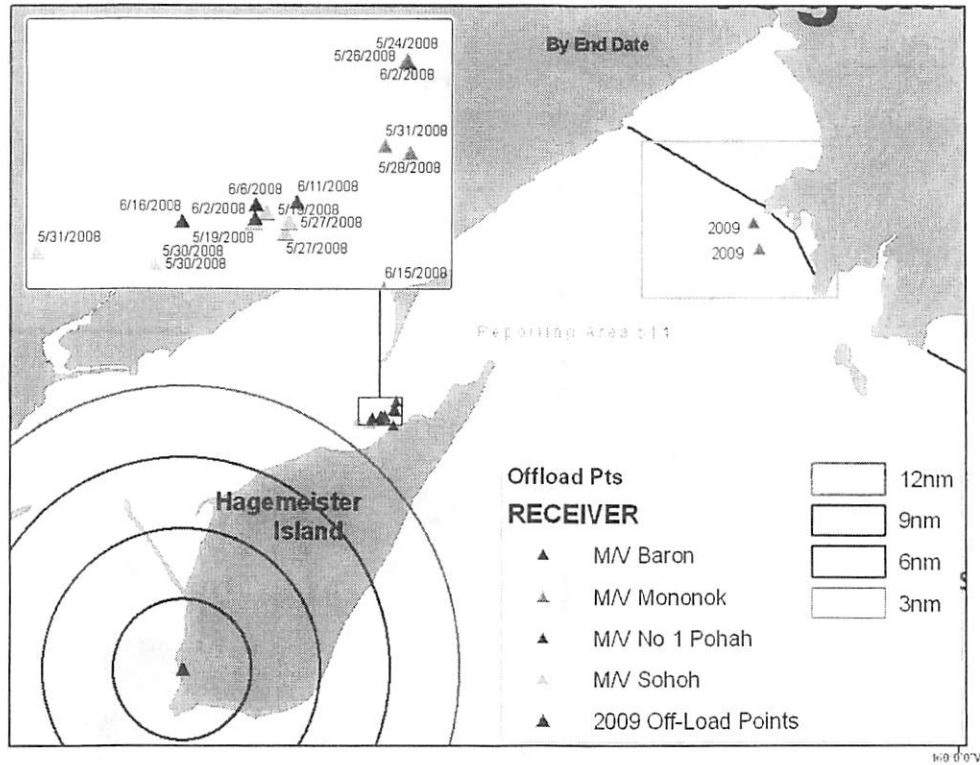
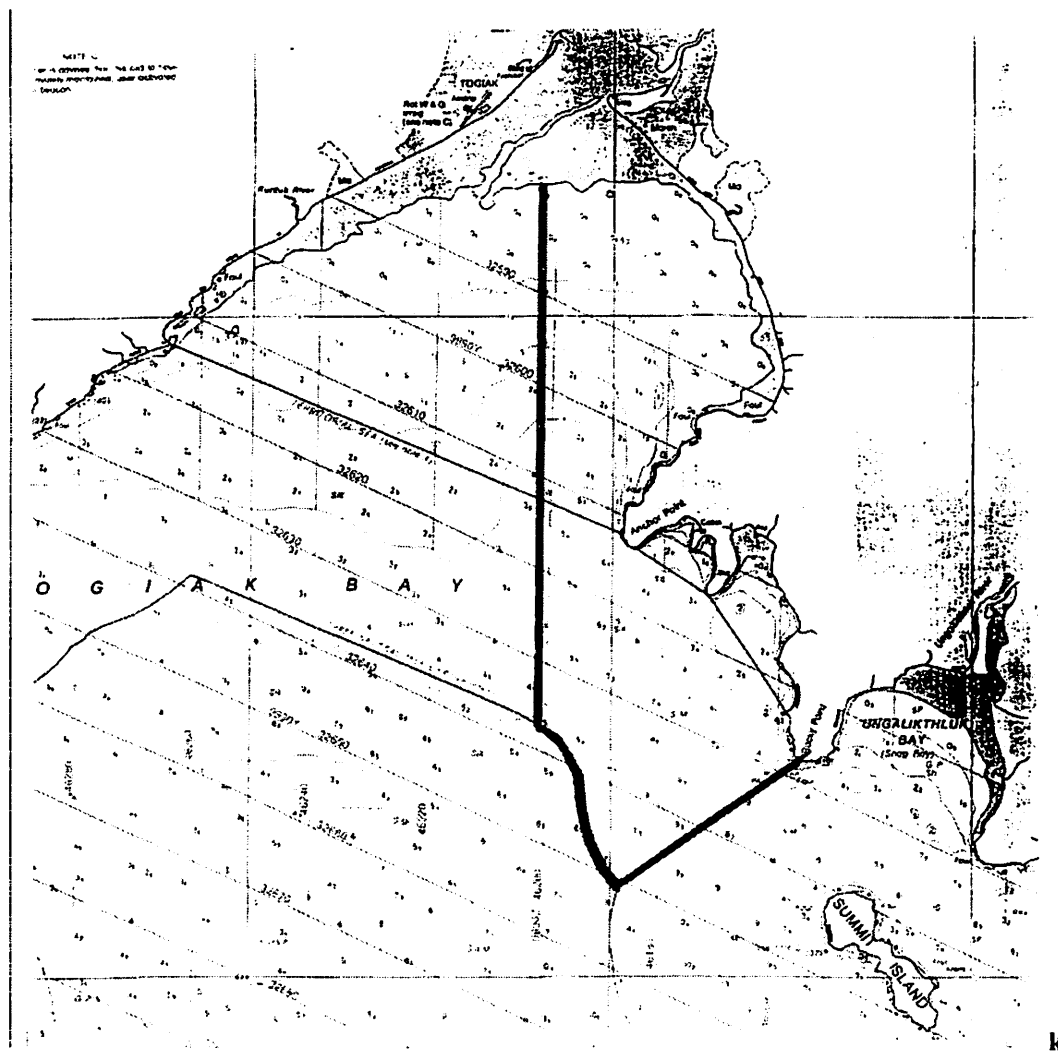


Figure 5 Designated Port of Togiak (inside or east of the lines shown)(Garland Walker, NOAA GC, pers. comm.)



3.1.2 Halibut Fishery

A small domestic halibut fishery occurs in this area. According to testimony to the Council in April 2009, some of the preferred halibut fishing areas are offshore the Nushagak Peninsula, around Cape Constantine, and in the southern part of the NBBTA (see named locations on Figure 2). Vessels that participate in the halibut fishery are from Togiak and Dillingham and other villages in the region. Some halibut vessels transit Hagemeister Strait during the spring through fall halibut open season. Some local fishermen may also fish for halibut closer to the coast; it is possible some halibut fishing may occur in Hagemeister Strait (Tim Sands, ADF&G, pers. comm.).

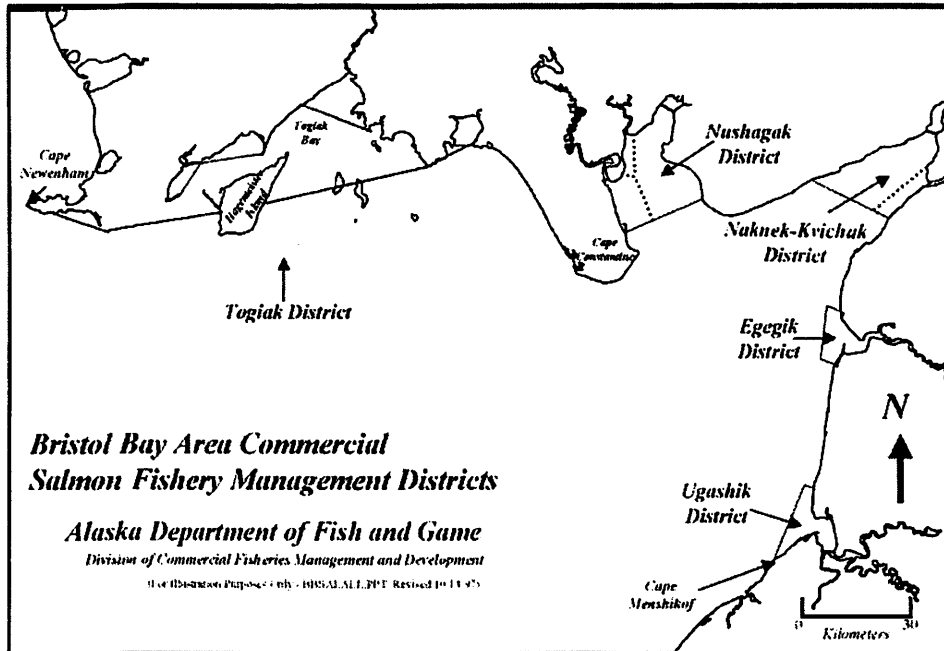
3.1.3 Herring Fishery

Two herring fisheries occur in northern Bristol Bay, a sac roe fishery using gillnets and purse seines, and a herring spawn on kelp fishery harvested by hand (Westing et al. 2005; Sands et al. 2008) in late April through May. The herring fishery tends to be prosecuted close to shore, in State waters (Tim Sands, ADF&G, pers. comm.). At least one of the floating processors that has been active in the yellowfin sole fishery will also process herring from the Togiak fishery (R. Hatton, pers. comm.). A few vessels participating in the herring fisheries may transit Hagemeister Strait, but this fishery only occurs in a narrow window of time. Occasionally a freight vessel may be present during the herring season; tender vessels also may transit Hagemeister Strait during the fishery (Tim Sands, ADF&G, pers. comm.). Up to 15 spotter planes and related aircraft may be used during the herring seine fishery; nearly all of this activity is further north and along the south shore of the mainland and generally not near Hagemeister Strait. Occasionally vessels fish for herring along the northwest shore of Hagemeister Island (Tim Sands, ADF&G, pers. comm.).

3.1.4 Salmon Fishery

Commercial fishing for salmon, primarily sockeye, chum, and Chinook, occurs in State waters of the Togiak District (Figure 6). This district encompasses much of Hagemeister Island, and salmon vessels participating in this fishery occasionally transit Hagemeister Strait during the salmon fishing period. However, there hasn't been much traffic in the Strait in recent years as most of the salmon fishery occurs in Togiak Bay and Kulukak Bay (Tim Sands, ADF&G, pers. comm.). The Togiak district opens to commercial salmon fishing on June 1, but typically no fishing occurs until about June 20th. In 2008, the commercial salmon fishery in the Togiak district made deliveries from June 19th to August 6th. Approximately 45 vessels participate in the Togiak salmon fishery, and 70 set net permit holders participate (Tim Sands, ADF&G, pers. comm.). Subsistence fishing for all five species of salmon occurs in this area as well, with small local vessels transiting Hagemeister Strait during those fisheries.

Figure 6 Map of the salmon fishing districts in northern Bristol Bay



Source: Westing et al. 2005.

3.1.5 Other Vessel Activity

Other vessel activity in the Hagemeister Strait area include coastal freighters, local tug and barge traffic to supply coastal and upriver villages, and some subsistence and recreational vessel traffic. While navigating in waters east of Hagemeister Island may be difficult given the shallow depths, some caution also is required when navigating Hagemeister Strait. The US Coast Pilot 9 describes Hagemeister Strait as follows:

Hagemeister Strait is about 16 miles long between the island of that name and the mainland. It is 3 to 4 miles wide, but shingle spits contract it in two places to less than 2 miles. Good anchorage was found under **Tongue Point**, the shingle spit making out from the mainland about midway of the channel. Good anchorage can be found throughout the strait avoiding the shoal areas NE of Hagemeister Spit. In 1991 NOAA Ship RAINIER observed currents of 0.5 to 1.5 knots flooding 060° and ebbing 220° near Estus Point. Currents are significantly stronger near the western end of Hagemeister Spit causing tide rips in the area. Strong currents and an unstable bottom result in shifting sand waves throughout the strait and its approaches. Shoal areas that lie directly S of the spits on both sides of the strait cause waves to break at times of heavy swell.

Some skiff traffic occurs in Hagemeister Strait as local residents travel to and from seasonal fishing and hunting camps or subsistence camps (Tim Sands, ADF&G, pers. comm.).

Other vessel activity in this area is sporadic and involves deliveries of freight and fuel and other items to Dillingham and Togiak and other western Alaska and upriver communities. Local private vessels may deliver freight and supplies to more remote locations. Vessels include tug and

barge, lightering barges, and smaller freight carrying vessels. Shallow water depths in northern Bristol Bay limit some deeper draft vessel transits. Tug and barge freight activities are limited to ice free waters, and generally operate from late April or into May up to September and October.

Northland Services provides barge freighting from Seattle and Anchorage to the northern Bristol Bay region including Dillingham and Togiak; nine sailings to Dillingham are scheduled for 2009 from March to September and six sailings to the Togiak Fish Dock from March to June (<http://www.northlandservicesinc.com/pdf/Schedule/WesternVillageSchedule.pdf>).

Crowley Maritime provides fuel delivery and other freight services to the region using tug and barge operations. Crowley's tug, ocean barge, and lightering barge specifications are at <http://www.crowley.com/fuel-sales-distribution/vessel-Information.asp>. Crowley also assigns a designated fuel barge to Bristol Bay to support seasonal commercial fisheries. Crowley provides fuel and freight to many coastal Alaska villages, including Dillingham.

Alaska Logistics also provides freight barge services to this region, including Dillingham and Naknek (<http://www.alaska-logistics.com/sailsched.htm>). And Bigfoot LGM, Inc. provides one annual tug and barge sailing from Tacoma, Seattle, and Seward to western Alaska (<http://www.bigfootlgm.com>), and charters their barge to a variety of clients that require freight services in the Bristol Bay region. According to Bigfoot office personnel, access to shallow water areas such as Togiak or Clarks Point requires smaller vessels and are infrequently visited.

Coastal Villages Region Fund owns and operates barge freight services to western Alaska villages and hauls seafood from western Alaska to Dillingham and Naknek (<http://www.coastalvillages.org/pdf/cvrf07annualreport.pdf>).

4 Vessel Disturbance of Walrus

As described in the analysis that supported Amendments 13 and 17, commercial groundfish fishing activities may disturb walrus, in some cases causing walrus to depart haulouts or interrupt their feeding activities. And as further described in Wilson and Evans (2009), specific concerns were expressed by the public and the USFWS over noise emitted by fishing activities of the joint-venture yellowfin sole fishery in northern Bristol Bay and apparent correlations between increased noise and observed declines in numbers of walrus using haulouts in this area. The analyses for Amendments 13 and 17 indicated that noise from engines or propeller cavitation, net winches, other deck machinery, and other fishing activities disturbed walrus and made it more difficult to successfully hunt walrus for subsistence purposes.

The extent to which walrus may be similarly disturbed, or subsistence hunting affected, by smaller vessel activities or merely the transit of vessels near a haulout is largely unknown. Anecdotal information suggests that any vessel movement close to a haulout could disturb walrus, and this is one reason the 0 to 3 n mi closure around Round Island was established by the State of Alaska.

Mariners are requested to remain some distance from walrus haulouts to avoid disturbance. For example, in Coast Pilot 9, the walrus haulout at Cape Seniavin is characterized as such:

Cape Seniavin is an important resting area (haulout) for Pacific walrus and nesting area for seabirds. Operating a watercraft in a manner which results in disturbing, harassing, herding, hazing or driving of walrus is prohibited under provisions of the Marine Mammal Protection Act. To ensure that walrus are not disturbed, marine vessel operators are requested to avoid transiting or anchoring within 0.5 mile of the Cape Seniavin walrus haulout.

Undoubtedly other activities in northern Bristol Bay may disturb walruses, such as salmon or herring fishing, overflights for walrus surveys, activities of herring spotter planes, tug and barge movements, or subsistence or recreational vessel movements and related activities. Human presence near walrus haulouts may result in stampedes of walrus resulting in injury or mortality to walrus (see appendix); Wilson and Evans (2009) provide additional information on human disturbance. Up to 15 aircraft may be involved in the herring fishery each year over an approximately 10-14 day period (Tim Sands, ADF&G, pers. comm.). These spotter aircraft usually fly at altitudes of 1000-3000 ft or higher or lower to locate herring schools; they are requested to stay 1500 ft above ground level around walrus haulouts (Tim Sands, ADF&G, pers. comm.) However, herring fishing activities generally occur away from walrus haulouts and do not occur around the Walrus Islands area. Some herring fishing occasionally occurs on the west side of Hagemeister Island, especially near the northwest end (Tim Sands, ADF&G, pers. comm.). It is uncertain the degree to which herring fishing might disturb walruses using the west Hagemeister Island haulout. Industry reports indicate that, since during the herring fishery there are many herring fishing vessels, tenders, and processors transiting waters around parts of Hagemeister Island, these activities combined may impose disturbance to walrus on the Hagemeister Island haulout.

The USFWS is concerned over potential adverse effects from fishing activities near the Hagemeister haulout. Their concerns were described above in Section 2 and also are described in their October 13, 2009 letter to the Council (appended).

5 Designating a Protection Area to Mitigate Disturbance to Walrus

As described in Wilson and Evans (2009), Amendments 13 and 17 to the BSAI groundfish FMP were established specifically to mitigate concerns over disturbance to walrus haulouts from groundfish fishing activities. Closures of zones around The Twins and Round Island and Cape Peirce were imposed from 3 to 12 n mi during a portion of the year. The mechanism for implementing these closures was analysis of various alternative measures to achieve the Council's goal, and then amending the BSAI groundfish FMP and publishing implementing regulations. The Council chose to adopt closed areas to distance, and thus mitigate, vessel noise and disturbance at specific walrus haulouts. The Council also chose to extend these regulations to all vessels that carry a Federal Fisheries Permit (FFP), thus affecting not only catcher vessels but also freighters, tenders, or any other vessel involved in "fishing" as defined in the MSA.

If the Council decides to pursue another amendment to this FMP to expand the walrus protection zones in northern Bristol Bay, this would involve the usual process the Council has followed in past actions: defining the issue, articulating a problem statement, identifying alternatives to resolve the problem, conducting an analysis of the alternatives (which could probably occur through an Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis), allowing a process of SSC, AP, and public review of a draft analysis and a final

analysis, selecting a preferred alternative, and adopting the FMP amendment and new regulatory changes. This would be followed by preparation and submittal of an FMP amendment package to the Secretary for approval and then rulemaking. The process usually takes a period of 1 1/2 to 2 years (or more) to complete. Given the nature of such an action, the Council may choose to conduct an outreach program to seek local input and to inform local fishermen and subsistence harvesters of the alternatives being considered, thus requiring additional time and effort in the analysis process.

The Council conceivably could ask for an emergency action (an Emergency Rule issued by NMFS), which could take much less time to implement, but this action would require analysis and has to be followed up by regular rulemaking.

The Council also would need to decide on the spatial nature of a protection area around this haulout. Should it be for a prescribed distance? Should it be the same as other walrus protection areas in northern Bristol Bay (3 to 12 n mi)? Or the Council may choose a smaller area, such as out to 6 or 9 n mi (Figure 7 illustrates 3, 6, 9, and 12 n mi circles radiating out from the new haulout) or another closure with a different shape. If any geographic closure is proposed, the synergistic impacts of such a closure when superimposed on other closures in this area should be analyzed. For example, a 3 to 12 n mi closure would overlap slightly other walrus protection zones and overlap the mainland coast, effectively closing transit by vessels with FFPs to all areas around Hagemeister Island unless a vessel can pass north of The Twins and Round Island closures through State waters or south of the mainland through State waters (see Figure 8).

Figure 7 Alternative 3, 6, 9, and 12 n mi zones around the new Hagemeister Island walrus haulout

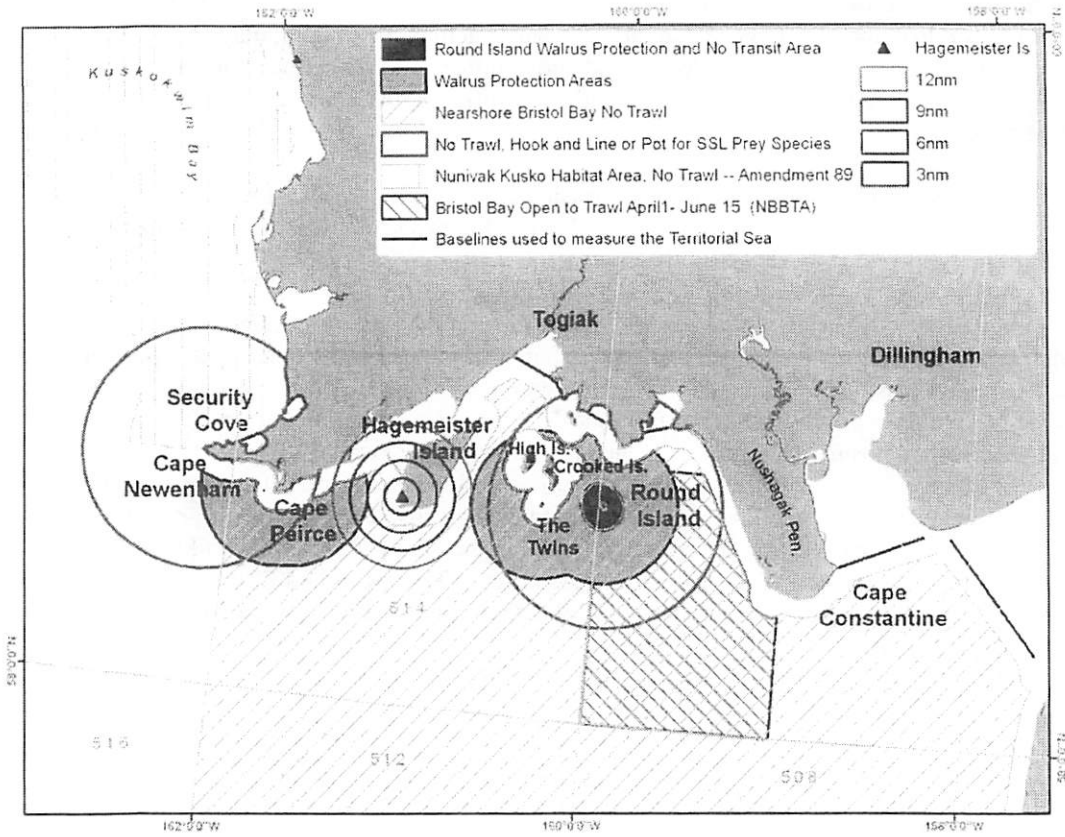
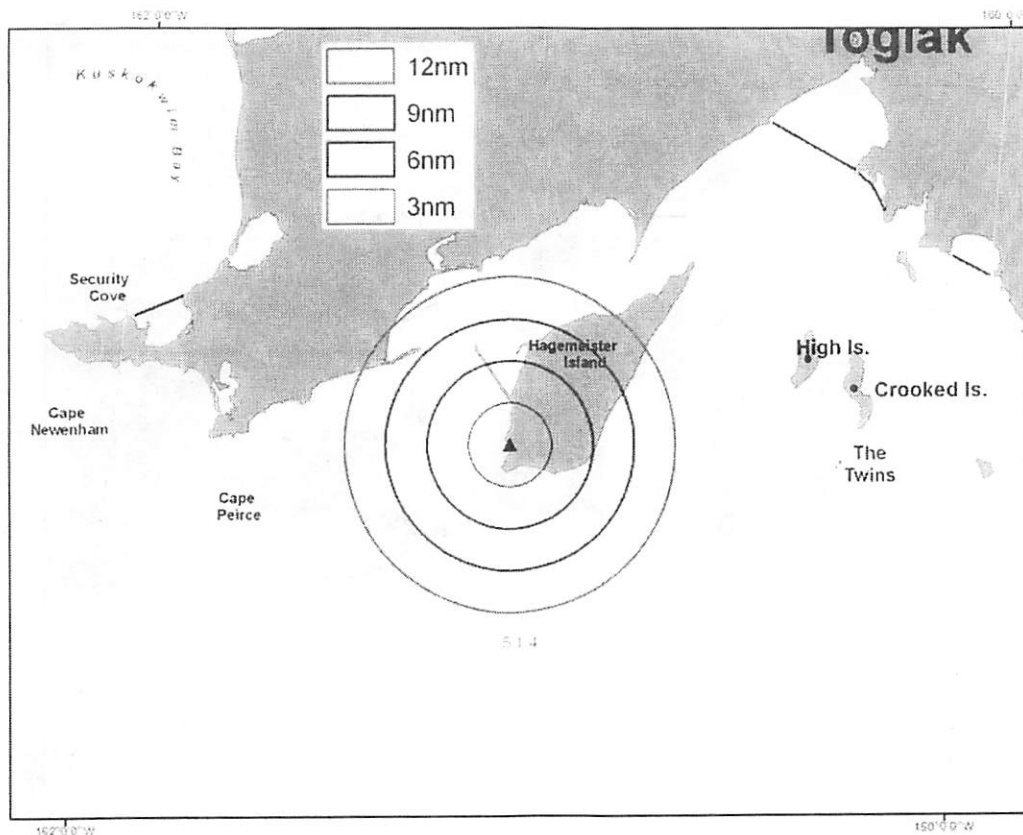
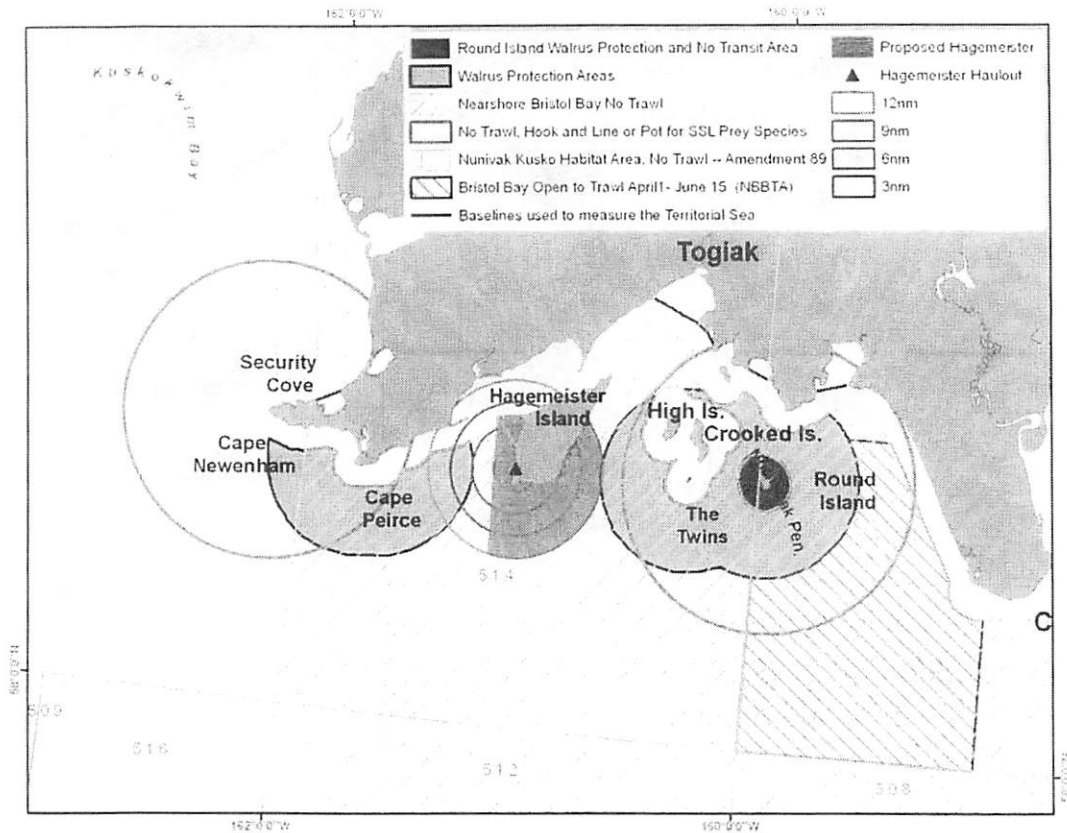


Figure 8 Alternative 3, 6, 9, and 12 n mi zones around the new Hagemeister Island walrus haulout relative to Hagemeister Strait and the mainland



An optional protection area suggested by the USFWS is illustrated in Figure 9 (Greg Balogh, USFWS, pers. comm.). This would close to groundfish fishing an area from 3 to 12 n mi from the new haulout, except where it intersects with the Cape Peirce closure, leaving open a vessel transit corridor through Hagemeister Strait (solid blue area on Figure 9). Additional USFWS suggestions on an appropriate closed area are described in their letter to the Council dated October 13, 2009 (appended).

Figure 9 Map showing alternative walrus protection area as suggested by the USFWS (solid blue shaded area)



The Council also would likely need to consult with the Alaska Board of Fisheries (BOF) to explore possible complementary State closures as well. Currently, the State does not mirror the walrus protection area closures around Cape Peirce, Round Island, and The Twins in adjacent State waters (see Wilson and Evans 2009). While the 0 to 3 n mi areas in Hagemeister Strait are closed by the State to trawling, vessels with FFPs still may transit State waters in this area. Thus, a Federal closure to vessels with FFPs could be circumvented by open transit in State waters. (Note that Round Island State waters are closed to all vessel transit except in some specific instances for research or tourist visits.)

Related to the above, the Council (and BOF) would need to specify what species or fishing activity would be regulated by a new protection measure. Would this apply to groundfish fishing only, or would it extend to halibut or herring. Would anchoring be affected, or transit, or tendering?

Another issue to address would be the temporal nature of a closure around this haulout, and the types of vessels or activities that might be regulated. Would the closure apply to all vessels with FFPs? Or would this closed area only apply to vessels actively fishing, or only for certain sizes or classes of vessels? The Council also would need to determine the time period it would be in effect each year. The Council would likely seek comments from its Enforcement Committee, NOAA Office of Law Enforcement, and the U.S. Coast Guard for an optimal design for a closed

area. Additional suggestions are provided by the USFWS in their October 13, 2009 letter (appended).

The Council also could choose to put into place a protection area and related measures but have it sunset after a few years. This would afford an opportunity to allow time to observe the effects of the closure on walrus using this haulout, and then revisit the issue with new data in hand.

Finally, a Federal closure at west Hagemeister Island for walrus protection, if constructed similar to the existing walrus protection measures in northern Bristol Bay, would only affect areas outside 3 n mi, and would apply only to Federal fishing and vessels with FFPs. It would not apply to other fishing vessels and activities, transits by freight vessels and barges or trampers, human presence on the island and near the haulout, aircraft activities, etc. A Federal closure could have implications for other fisheries, however, as reviewed below.

6 Implications for Non-groundfish Fishing Activities

As described above, herring, salmon, and halibut fishing occurs in the areas near the new Hagemeister haulout. If the Council, and the Alaska Board of Fisheries, agree to implement a protection area around this haulout, other fisheries could be affected, depending on the measures implemented.

Reports from industry indicate that not only yellowfin sole product may be offloaded to foreign or domestic freighters in the roadstead area near Hagemeister Island or in the Port of Togiak. It is reported that trumper freighters take deliveries of other products such as herring. Much of the domestic fishing activity near Hagemeister Island at that time of year may be associated with the herring fishery, as herring processors are frequently observed near trumper freight vessels (John Gauvin, pers. comm.). Reports provided to Council staff indicate that during the herring fishery this area sees activity from herring fishing vessels, tenders, and processors, which may transit protection areas otherwise closed to vessels with FFPs. In addition to yellowfin sole, herring product is shipped out on foreign trampers located at approved roadsteads or Ports. Trampers follow the herring fishery, and offload locations of YFS product to trampers is typically predicated on the location of the herring fishery (John Gauvin, pers. comm.).

Industry reports that the Hagemeister roadstead is the only site where the offload operations are protected from adverse weather conditions since it's behind (north of) the island and in the lee of much of the storm activity in northern Bristol Bay. Transit to the Hagemeister roadstead from the YFS fishing grounds takes on average 12 hours because as Federally permitted vessels, the YFS vessels cannot transit through the protection zones, as do herring vessels, tenders, and/or certain processors. Alternative offload sites are less desirable, more susceptible to weather impacts, or are longer distances from the current fishing grounds. Areas such as Togiak or Nushagak¹ have been used in the past, but the YFS fishing industry has pointed out that these areas are less desirable and potentially less safe. For example, Togiak is further from the grounds than Hagemeister, and Nushagak is in the river mouth, exposed to fast water currents, shallow depths, and overall is difficult to use for offloading.

¹ Waters landward of a closing line across Nushagak Bay are considered "internal waters" and in these waters foreign freight vessels may onload fishery products from domestic fishing vessels for transshipment (Garland Walker, NOAA GC, pers. comm.).

If the Council chooses to move forward with a full analysis of alternatives in support of an eventual decision on protection measures for the Hagemeister haulout, additional research into non-groundfish fishing activities may be warranted. State of Alaska staff may be included in the analysis process if a joint Council/Board of Fisheries action is contemplated. A more thorough characterization of what fisheries may be affected by alternative protection measures would include summarizing the numbers of non-groundfish fishing vessels that could be limited in fishing activity or transit, including domestic processors, tenders, and other support vessels. Other information could include domestic vessel sizes and processing capacity. Aircraft activities also could be included in the analysis, since spotter planes typically work with the herring fishery and their activities could be affected if the State chose to limit these activities.

7 ESA Listing

The USFWS is reviewing the status of the Pacific walrus to determine whether to list it as threatened or endangered under the Endangered Species Act. On September 8, 2009, the USFWS announced its 90-day finding that a listing may be appropriate, and has initiated a 12-month status review. Should the USFWS list the walrus, then the Agency would convene a recovery team and pursue the designation of critical habitat for the Pacific walrus. An excerpt from the USFWS September 9 press release is as follows:

*The U.S. Fish and Wildlife Service today announced that a petition to protect the Pacific walrus (*Odobenus rosmarus divergens*) under the Endangered Species Act presents substantial scientific or commercial information indicating that adding the species to the federal list of threatened and endangered species may be warranted. This preliminary finding is based, in part, upon projected changes in sea ice habitats associated with climate change.*

As a result, the Service is initiating a more detailed status review to determine if listing the species is warranted and opening a 60-day public comment period in order to give all interested parties an opportunity to provide information on the status of the Pacific walrus throughout its range. The 60-day public comment period will close November 9, 2009.

A listing also would likely initiate procedures under the Section 7 of the ESA. A Section 7 consultation would likely be required for any fisheries prosecuted in the northern Bristol Bay area (and other areas where Federal fisheries or State fisheries overlap with walrus distribution in the general Bering Sea region). The ESA Section 7 consultation would be between NMFS, the Action Agency, and the USFWS (the Consulting Agency), to determine if Council-managed fisheries adversely affect Pacific walrus and their designated critical habitat. It is most likely that a formal consultation would be required to determine if these fisheries could jeopardize the continued existence of the Pacific walrus or adversely modify its designated critical habitat. Those findings would be published in a Biological Opinion, which may contain reasonable and prudent alternatives or measures to mitigate adverse effects.

A consultation process would include the Hagemeister Island walrus haulout and would review and assess the proximity of walrus to fishing activities. If it is determined that the fisheries are likely to jeopardize walrus or modify or destroy designated critical habitat, protection measures

for this haulout, if deemed necessary, may be included in any Reasonable and Prudent Alternative (RPA) that is included in the Biological Opinion.

8 REFERENCES

Jay, C.V. and S. Hills. 2005. Movements of walrus radio-tagged in Bristol Bay, Alaska. *Arctic* 58(2):192-202.

Jay, C.V., S.D. Farley, and G.W. Garner. 2001. Summer diving behavior of male walrus in Bristol Bay, Alaska. *Mar. Mamm. Sci.* 17(3):617-631.

Sands, T., C. Westing, P. Salomone, S. Morstad, T. Baker, F. West, and C. Brazil. 2008. 2007 Bristol Bay Area Management Report. Alaska Dept. of Fish & Game, Fishery Management Report No. 08-28. 135 p.

U.S. Fish & Wildlife Service (USFWS). 2009. Summary Comprehensive Conservation Plan. Togiak National Wildlife Refuge. U.S. Dept. of the Interior, FWS, September, 2009, Anchorage and Dillingham, Alaska. 33 p.

Westing, C., S. Morstad, K. Weiland, T. Sands, L. Fair, F. West, and C. Brazil. 2005. Fishery Management Report No. 05-41: Annual Management Report 2004 Bristol Bay Area. Alaska Department of Fish and Game. June 2005.

Wilson, B. and D. Evans. 2009. Groundfish Trawl Fishery, Pacific Walrus, and Local Fishery Interactions in Northern Bristol Bay – A Discussion Paper. North Pacific Fishery Management Council, Anchorage, AK.

9 APPENDICES

Attached is a letter from the U.S. Fish & Wildlife Service dated October 13, 2009 that outlines the agency's concerns over disturbance from fishing activities to walrus hauled out on the west side of Hagemeister Island in northern Bristol Bay.



PS-G114-01PR-110

United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Road
Anchorage, Alaska 99503-6199



AFES/MMM

OCT 13 2009

Mr. Eric Olson, Chairman
North Pacific Fisheries Management Council
605 West 4th, Suite 306
Anchorage, Alaska 99501-2252

Dear Chairman Olson:

As a follow up to the walrus discussion at the April 2009, NPFMC meeting, here are further considerations relative to the importance of protecting the walrus haulout at Hagemeister Island as well as thoughts on how a protection zone might be structured.

In recent years walrus have begun to use a terrestrial haulout on the NW side of Hagemeister Island, which lies within the Togiak National Wildlife Refuge. Refuge staff has conducted periodic aerial surveys of the haulout since 2005. Haulout numbers vary greatly between survey dates, but as many as 2,941 walrus have been observed there at one time.

The primary conservation concern in this region is the potential for anthropogenic disturbances at terrestrial haulouts. Walrus often flee terrestrial haulouts in response to the sight, sound, or odor of humans and machines. Both natural and anthropogenic disturbances have caused stampedes resulting in animal injuries and mortalities.

Foraging is a significant activity for walrus in Bristol Bay and haulouts may occur in locations where animals can forage most efficiently. Detrimental secondary effects including displacing animals from preferred feeding areas or requiring them to travel greater distances to reach alternate haulout sites may result if repeated disturbance events disrupt normal haulout behavior. The potential for long-term displacement of animals due to continuous, or regular and frequent, disturbances at the haulouts is also of concern. There is some evidence of coastal walrus haulouts being completely abandoned as a result of repeated disturbances (this was the basis for the establishment of the Walrus Island State Game Sanctuary).

Noise generated from near-shore boating and fishing activities can cause disturbances at walrus haulouts. As you know in 1989, regulations were implemented prohibiting groundfish fishing operations within 12 nautical miles of Round Island, the Twins and Cape Peirce after reports that fisheries operations were causing disturbances at these haulouts.

Although the waters adjacent to Hagemeister Island are closed to groundfish fishing, there is a roadstead site located on the west side of the island, and these waters are transited by groundfish

**TAKE PRIDE
IN AMERICA** 

Mr. Eric Olson, Chairman

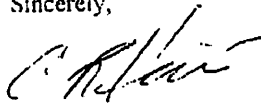
2

vessels and tenders. To mitigate potential disturbances to walrus resting at the haulout, we suggest a walrus protection area be established around the Hagemeister haulout. We envision that this protection area would be structured to include waters from 3 to 12 nautical miles from April 1 to September 30 excluding vessels with Federal Fisheries Permits and their tenders. Realizing that this protection zone would overlap with the Cape Peirce zone and that the groundfish vessels and their tenders need access to the roadstead site via the waters on west side of Hagemeister, we advocate establishing a designated transit zone through the protection area. This transit zone would ideally be positioned as far from the haulout as safe and practical.

Although we have been focusing here on federally managed fisheries, near shore fisheries taking place in State waters also have the potential to disturb walruses. Designing a complementary protection area in State waters would provide an additional measure of protection, but would require coordination with the State of Alaska as part of this process.

Thanks you for the Council's interest and support in protecting vital Pacific walrus habitat. If you or council staff have any questions or would like to discuss this matter please contact myself or Jonathan Snyder of my staff at (907) 786-3800.

Sincerely,



Charles Hamilton
Acting Chief, Marine Mammals Management

cc: Greg Balogh, USFWS
Paul Liedberg, Refuge Manager, Togiak National Wildlife refuge