

**The Alaska Eskimo Whaling Commission:
Effective Local Management of a Subsistence
Resource**

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The Alaska Eskimo Whaling Commission:
Effective Local Management of a Subsistence Resource

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June 16, 1989

Submitted in partial fulfillment of the requirements for the degree of M.
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This thesis does not exceed 20,000 words, not including tables, appendices or references. It is my own work, except in those places where the work of others is acknowledged.

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Trinity Hall
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Abbreviations

ACZMN	<i>Arctic Coastal Zone Management Newsletter</i>
AEWC	Alaska Eskimo Whaling Commission
ICAS	Inupiat Community of the Arctic Slope
IWC	International Whaling Commission
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NSB	North Slope Borough

Foreword

This thesis began when, working for the North Slope Borough's whale census, I had the opportunity to observe Barrow's whale harvest. I became interested in the work of the Alaska Eskimo Whaling Commission, and how it had come to be. I would like to thank the many people and organizations who have helped me with the conception and research of this thesis: Dr. Thomas Albert, Ben Nageak, Geoff Carroll and Craig George of the North Slope Borough Department of Wildlife Management; Marie Adams of the North Slope Borough and formerly of the AEWG; Lynn Sutcliffe, Jessica Lefevre and Kate McGhee of Van Ness, Feldman, Sutcliffe & Curtis; Dr. Ray Gambell of the IWC; Jacob Adams of Arctic Slope Regional Corporation and first Chairman of the AEWG; Edward Hopson, Chairman, and Rosie Habeich of the AEWG; John Bockstoe of the Old Dartmouth Historical Society; Stephen Braund of Stephen R. Braund & Associates; Peter Speak of the Scott Polar Research Institute; Trinity Hall, Cambridge; and the B.B. Roberts Fund. They and many others have given support and encouragement, for which I am grateful.

Any errors of fact or judgment are, however, entirely mine.

ABSTRACT

In 1977 the International Whaling Commission (IWC) deleted the exemption that allowed Alaska Eskimos to harvest the bowhead whale. This sparked considerable controversy. The IWC had not previously exerted authority over aboriginal whaling. The Eskimos responded by forming the Alaska Eskimo Whaling Commission (AEWC). Protests by the whalers led to the establishment of a quota system still in effect today. In response to pressures from the IWC and other outside agencies, the AEWC developed its own Management Plan for bowhead harvests. In 1981, this was incorporated into a Cooperative Agreement between the AEWC and the National Oceanic and Atmospheric Administration, a Federal agency. Management authority and administration are delegated to the AEWC, and this system has worked effectively. The AEWC has also made great strides in increasing the efficiency of the harvest, through whaling workshops and through weapons improvements. The challenge ahead is to protect bowhead habitat from the effects of offshore industrial activity, primarily oil and gas exploration. This paper examines the formation of the AEWC, its development as an institution, its management of Eskimo whaling, and the implications for other local wildlife management regimes.

Chapter 1 Beginnings

The whale is more than food to us. It is the center of our life and culture. We are the People of the Whale. The taking and sharing of the whale is our Eucharist and Passover. The whaling festival is our Easter and Christmas, the Arctic celebration of the mysteries of life.

--Eben Hopson (*Indian Affairs*, 1978-79:7)

Pre-Contact Whaling

For several thousand years Eskimos have hunted the bowhead whale, *balaena mysticetus* (IWC, 1982c:36). Since about 800 A.D. Yupik and Inupiat Eskimos in northern Alaska have regularly taken bowheads (Bockstoece, 1980:54) (see Figure 1). The size of the whale--up to over sixty feet and sixty tons--made it an important part of the subsistence harvest. The taste of the whale made it a prized item. The communal nature of the hunt and the sharing of the whale gave it the central place in the spiritual and physical culture of the region. The bounty of the whale required and allowed the development of large, permanent settlements along the Alaska coast. The whale provided life, meaning and identity.

The invention that made whaling possible was the toggle-head harpoon (*ibid.*). A sealskin float would be attached by line to the harpoon head, which would remain stuck in the whale. Tired by the drag of the float, which also marked its position, the whale could be killed by lance. Many crews could be involved in the capture of a whale, attaching several floats to a single whale and helping to chase the harpooned whale. Cooperative hunting was an effective, efficient and reliable way to harvest the whales.

The number of people involved in this type of hunting created a need for much larger villages than could be supported without the whale (*ibid.*). These villages were--and are--located on points of land or islands where the whales pass close by as they migrate north each spring along near-shore leads in the pack ice (Rainey, 1947:235). While other sea mammals and land animals were available in large numbers, none allowed such a dramatic change in lifestyle. And no other animal produced the rich ritual, ceremonial and spiritual associations of the bowhead (Little and Robbins, 1984:35-6).

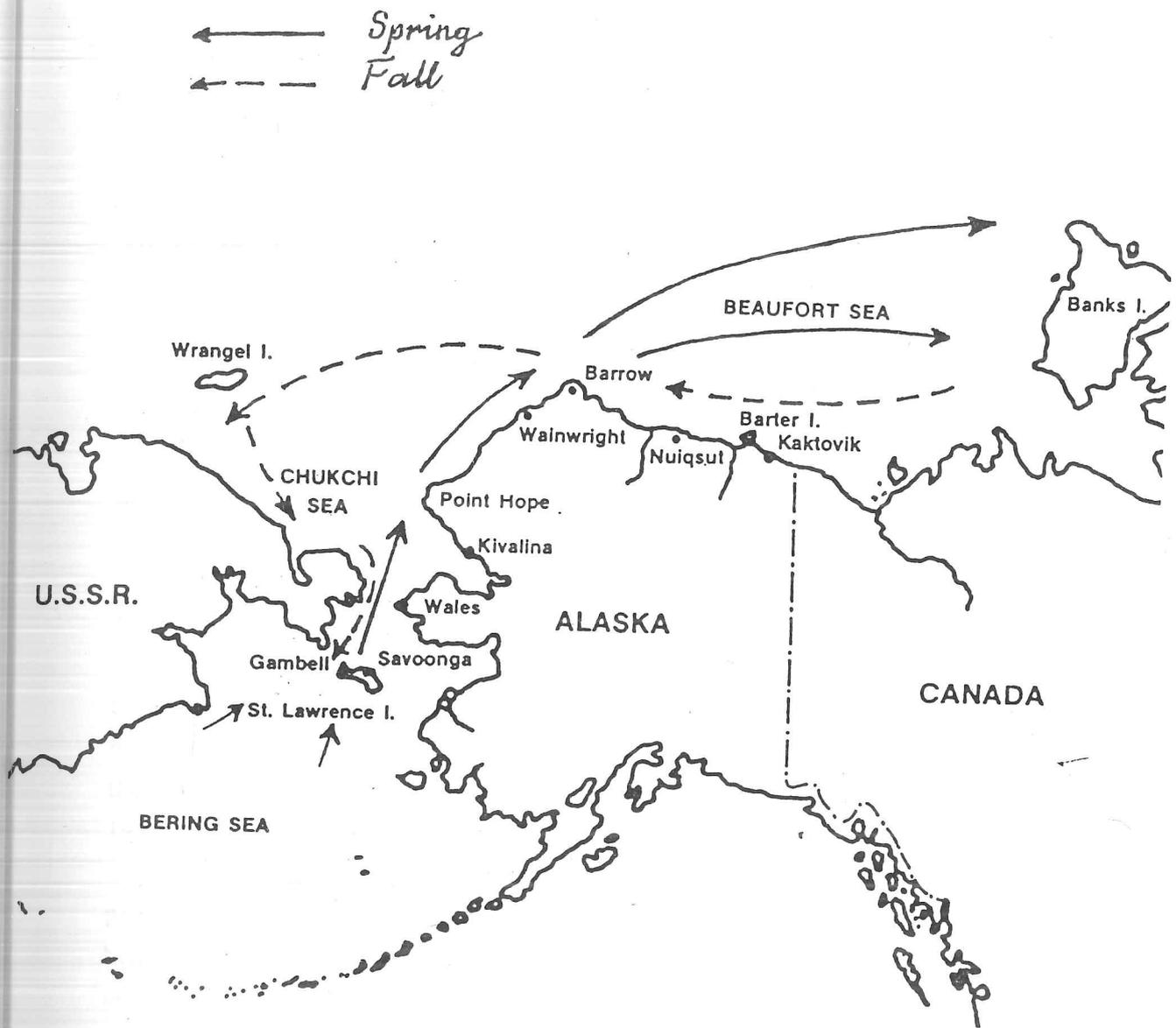


Figure 1. Map of Alaska Eskimo Whaling Villages and Bowhead Migration Routes

One great advantage of dependence on the sea was the stability of the food supply, which is more reliable than the fluctuating populations of land animals (Bockstocce, 1980:54). The complexity of whaling rituals and the limitations of whaling weapons kept the catch of whales down (Thornton, 1931:165). Perhaps this provided insurance that a year without a whale, due perhaps to the vagaries of ice and weather, would not be catastrophic to a community grown too large to support itself on other animals. In any case, people and whales lived together in a stable system (Bockstocce, 1980:54).

The Commercial Whaling Era

In 1848, that system was drastically changed. Captain Thomas Roys sailed the *Superior* through the Bering Strait, the first commercial whaler to reach the western Arctic (Bockstoce, 1986:21). Over the next seventy years, perhaps 18,000 whales were taken from an initial population of 30,000 (Bockstoce and Botkin, 1980). This decimation of the stock obviously affected the balance between whales and Native whalers. The presence of the Yankee whalers also influenced patterns of Eskimo whaling and of Eskimo society in general (Bockstoce, 1986; C. Brower, 1942).

Following Roys's discovery of an unexploited stock of whales--slow, docile and rich in oil and baleen--Yankee whale ships sailed north in huge numbers. At first, the whalers followed the opened leads of summer, and sailed south before the ice closed in. Then came the practice of overwintering locked in the ice, to get a head start on whaling the following year. The final development was the establishment of shore-based whaling stations, adopting the Eskimo practice of whaling in small boats based on the edge of the shore-fast ice (Bockstoce, 1977; 1986). This last stage brought many Eskimo whalers into the commercial system, and introduced them to the whale bomb, a considerable improvement over the lance (Thornton, 1931:171; Bockstoce, 1986).

Bockstoce writes that the Yankee and Eskimo whalers "for the most part co-existed peacefully and--in the perception of each--with mutual benefit (1986:13)." The techniques and knowledge of the Eskimos complemented the more modern weapons of the commercial whalers. But the practices and purposes of the two groups were at odds. The commercial whalers, in competition to get the most whales and the largest profit, did not have the Eskimos' spiritual relationship to the whales and to whaling. When whales became scarce, the whalers took walrus, reducing the walrus population so drastically that villages dependent upon walrus for meat starved during the winter (*ibid.*). An outside influence had destroyed the balance that had allowed the establishment of large permanent villages along the Alaskan Arctic coast.

The other tragic effect of the commercial whalers' presence was the introduction of disease. Influenza, measles, tuberculosis and other fatal or destructive illnesses killed many people, destroyed whole communities, and made some villages unable to continue whaling because there were too few people (C. Brower, 1942; Bockstoce, 1986; Burch, 1985). While the population of Arctic Alaska is increasing today, it is only rebounding to the pre-con-

tact level (Rosita Worl, 1977). Villages such as Kaktovik and Kivalina began whaling again in the 1960s; Nuiqsut was re-established in 1973 by families from Barrow; Little Diomed Island residents wish to start whaling again (Alaska Consultants and Stephen Braund, 1984; Burch, 1985; Hoffman *et al.*, 1988; Jessica Lefevre, pers. comm.). The established technological patterns have undergone considerable change. The underlying associations and beliefs have not.

By 1920, commercial whaling had effectively ended. The market gone, no one was willing to risk the expense of outfitting a whale ship (Bockstoe, 1977:52). The legacy of whale bombs and other Yankee innovations aided the Eskimo whalers in the harvest of the bowhead. In most other respects, whaling returned to the form and status it held before the commercial whaling era.

After Commercial Whaling

Although whaling practices had returned to the old way, the influence of Western culture on Eskimo culture continued. Missionaries, schoolteachers and nurses had arrived in the nineteenth century. Geologists, meteorologists and explorers came as well. The 1920s were the heyday of the Fur Market era. The fur trade replaced commercial whaling as the non-subsistence economic opportunity of the region (Arundale and Schneider, 1987:61-3).

In 1946 the Arctic Construction period began, providing for the first time substantial wage employment opportunities on the North Slope (*ibid.*:67). Part of this development, the Naval Arctic Research Laboratory (NARL), was established in Barrow in 1947. Albert summarizes the significance of NARL's presence on the North Slope:

By the mid-1970s many of the people moving into decision making positions in the North Slope Borough, the Arctic Slope Regional Corporation, and the Ukpeagvik Inupiat Corporation had earlier worked at the Naval Arctic Research Laboratory (NARL) in Barrow, Alaska, or they had worked in the field with NARL scientists. Almost without exception this involvement with NARL and its scientists helped create a positive outlook toward both research itself and the uses of science for helping Native people. NARL helped establish the idea that science was "good" (Albert, 1988:18).

This attitude is an important part of current management of Eskimo whaling, to which we will return.

In 1968, oil in vast quantities was discovered at Prudhoe Bay, greatly expanding the monetary wealth of the region. In 1971, Arctic Slope Regional Corporation (ASRC) was created under the terms of the Alaska Native Claims Settlement Act. In 1972, the North Slope Borough was established, with similar boundaries to ASRC. It provides governmental services to North Slope villages, and is financed chiefly from taxation of oil operations in the Prudhoe Bay area (McBeath and Morehouse, 1980:82).

In the face of such change, and perhaps aided by the increase in cash flow, there was an increase in whaling in the early and mid 1970s. Like the re-establishment of Nuiqsut, this may have reflected a growing cultural awareness and identity at the time (Alaska Consultants and Stephen Braund, 1984:4). A decline in caribou populations also increased dependence on marine mammals for food at this time (IWC, 1982c:41-2). Peterson (1978) claims that in the long-term view, this increase was not a dramatic change--under changing conditions, it had happened before.

Traditionally, a major obstacle to becoming a whaling captain was the accumulation of sufficient wealth to outfit a crew. The captain usually provides all the equipment, plus food for his crew for the duration of the hunt. Before the appearance of a cash economy, captaincy was often inherited, along with the necessary equipment. The development of the monetary system allowed the purchase of such equipment and supplies, hence allowing a greater number of men to outfit crews.

The cost of outfitting a crew was \$10,000 in 1978 and \$16,000 in 1985 (IWC, 1982c:39; Worl and Smythe, 1986:156), so that even with a cash-based economy, whaling is a major undertaking. Also, a whaling crew must be recruited. Worl observes,

Rare is the crewman who would join an inexperienced whaler to pursue a 30 to 60 foot whale in a 20 foot skin boat, no matter how much money the younger man had. Captains traditionally begin as young apprentices (Worl, 1977:4).

Worl also shows that during previous periods of economic wealth in this century--the Fur Market era of the 1920s and the Arctic Construction period of the late 1940s and early 1950s--there was a decrease in whaling activity, because men were working rather than whaling (*ibid.*). This supports the idea that other factors than money were involved in the increase in whaling in the 1970s.

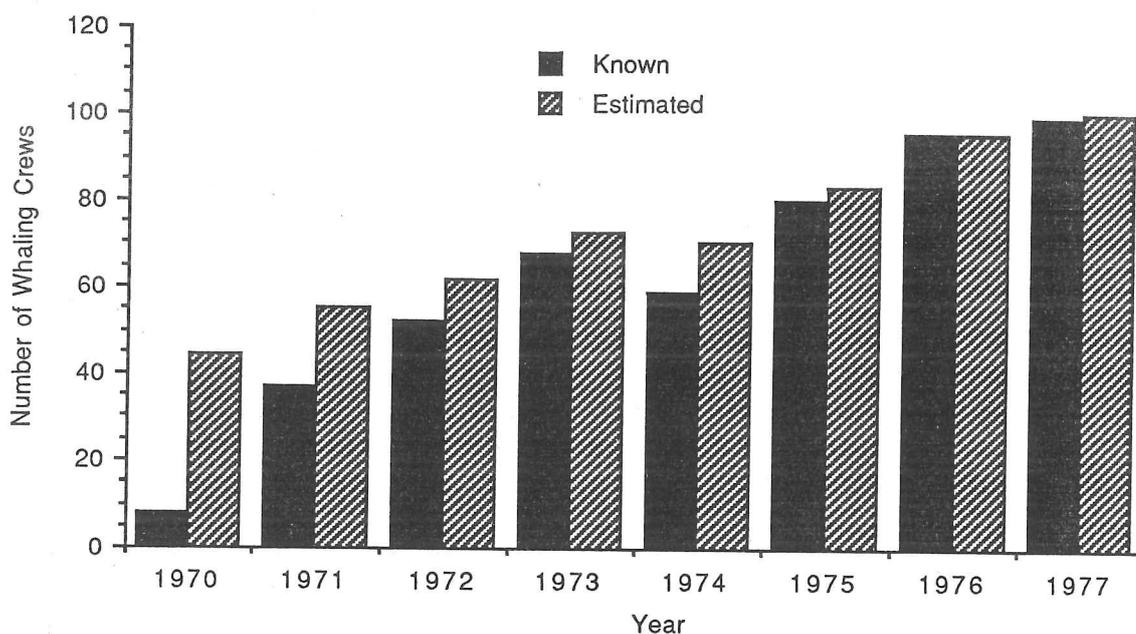


Figure 2. Number of Bowhead Whaling Crews in Alaska Eskimo Whaling Villages, 1970-77 (Alaska Consultants and Stephen R. Braund, 1984:29)

<u>Year</u>	<u>Landed</u>	<u>Struck-but-Lost</u>	<u>Total</u>
1970	26	--	--
1971	24	--	--
1972	41	--	--
1973	37	10	47
1974	20	31	51
1975	15	28	43
1976	48	43	91
1977	29	82	111

Table 1. Number of Bowhead Whales Landed and Lost by Alaska Eskimos, 1970-77 (Alaska Consultants and Stephen R. Braund, 1984:28)

Whatever the cause, in the 1970s, both the number of crews involved in the hunt and the number of whales struck increased greatly (see Figure 2 and Table 1). Great concern was voiced over the increase in crews and the increase in whales struck but lost (McVay, 1979; IWC, 1980; Van Note, 1981). Regarding the whaling effort as reflected in the number of crews, Marquette states that "although a large number of crews are outfitted with whaling gear, the number that actively engage in whaling throughout the season is significantly smaller (1977:11)." Of 36 crews in Barrow in 1976, an average of only 11 participated at every opportunity during the season (*ibid.*). Perhaps the demands of a wage economy lead to a great increase in part-time whalers, balancing both activities as best they can (Worl, 1977; author's obs.).

As far as struck-but-lost totals are concerned, it is likely that the apparent dramatic increase in this figure is misleading. Whether the accounting practices of the National Marine Fisheries Service (NMFS) over- or under-estimated the number (U.S. Department of Commerce, 1977:41), these figures had not been reported with any accuracy before the 1970s. For example, Thornton reports the catch at Wales in 1889 as 3 landed, 12 lost; 0 and 2 in 1890, and 1 and 29 for 1891 (1931:170-1).

Nonetheless, the harvests of the 1970s were much higher than for the previous 60 years. While the total catch between 1910 and 1969 was 704 whales for an average of 11.7 per year, the 1970-77 total was 259, an average of 32.4 (Marquette and Bockstoce, 1980:14). At its Annual Meeting in June 1977 the International Whaling Commission (IWC) reacted to concern over these figures and low population estimates for the bowhead, and deleted the right of the Eskimos for the aboriginal subsistence hunt of the bowhead whale (IWC, 1978a).

Chapter 2 Controversy

The Bering Sea stock gives most cause for concern, with increased catches and "struck-but-lost" whales reported. . . . The Commission . . . accepted the proposal . . . to delete the words "or right" from Schedule paragraph 7, which gives exemption for certain aboriginal whale fisheries.

--International Whaling Commission (1978a)

We were real angry, but we wanted to obey the law, too.

--Benjamin P. Nageak

The IWC Takes Action

When the International Whaling Commission (IWC) made its decision to remove aboriginal hunting rights to the bowhead whale, it knew it was taking a drastic step. Its data, however, indicated that drastic measures were needed to save the bowhead from extinction. The population in 1977 was estimated by the IWC to be between 800 and 2000 (IWC, 1978b:67). Though these figures were of doubtful reliability (Underwood, 1977), with the total whales struck in 1976 at 91 and the total for 1977 at 111, they caused great concern. Eskimo whaling appeared to be inefficient and out of hand (IWC, 1978; McVay, 1979).

Jacob Adams, a whaling captain and the first Chairman of the AEWCC, says that the whalers were considering methods of improving the harvest when the IWC's action forced their hand (pers. comm.). In Barrow, the Barrow Whaling Captains Association (BWCA) had existed since the middle of the century (Langdon, 1984:46). With written by-laws defining the shares of a whale for the crews involved in a catch and other rules of the harvest (BWCA, 1987), a mechanism existed for further management of the hunt. While such organizations existed in most of the whaling villages (Freeman, in press:13), nothing of the sort existed for the villages as a group.

Reactions to the IWC ban were quick and loud. The whalers felt betrayed by the U.S. government (*Arctic Coastal Zone Management Newsletter* [ACZMN], 1977[5]:3; J. Adams, 1979b). Under Federal law, the United States Government has a trust obligation to Native Americans (Case, 1984). The Eskimos felt that the government had not even bothered to inform the Eskimos about what was happening, much less live up to its responsibility to act on their behalf (J. Adams, 1982).

On September 1, 1977, whaling captains from the nine active whaling villages in Alaska formed the Alaska Eskimo Whaling Commission. In so

doing, the whalers set the battle at an institutional level, creating an organization to fight against the pressures and regulations imposed from the outside, and to protect the individual whalers and whaling villages against those forces. Acting alone, whalers and their villages could do little. Through the AEWC, the whalers could provide a solid front and a much more effective voice opposing those who would stop the hunt.

On the other side, most conservationists were pleased with the ban. In commenting on the Draft Environmental Impact Statement, many organizations argued that the U.S. should not file an objection to the IWC's action (U.S. Dept. of Commerce, 1977). Such an objection would remove the U.S.'s obligation to enforce that action, and the Eskimos tried without success to get the U.S. to file an objection. Within the government there was disagreement about the possibility of objecting. The Department of the Interior lobbied in favor of an objection, stating in a letter to Secretary of State Cyrus Vance, "filing an objection accompanied by responsible action is, in our opinion, the most honest and effective course (Joseph, 1977)." Conservationists argued that an objection would undermine the U.S. position as a leading advocate of whale conservation (Garrett, 1977).

Many conservationists and others also argued that Eskimo whaling is no longer a necessary subsistence activity, nor does it have any real cultural links to aboriginal whaling. Tony Mallin of Project Save Our Whales argued that:

Until the eskimo [*sic*] goes back to hunting with his primitive weapons such as bone tipped harpoons we cannot take seriously his claim about disrupting a culture that isn't even there to be disrupted (in U.S. Dept. of Commerce, 1977:116).

Addressing two other concerns of conservationists, an editorial in *Orca* claimed:

The crucial question is not whether food of comparable nutritional quality could be supplied or found locally. Rather the problem is precisely that Eskimos want to hunt, kill and eat whales so much that they refuse substitutes or alternatives. The vital significance of bowheads to modern Eskimos is trophy hunting (emphasis in original) (*Orca*, 1979:19).

Bonner also claims on similar grounds that "Bowhead whaling . . . is quite indefensible (1980:254)." Because whaling captains are the traditional leaders among the Eskimos, Bonner argues that whaling is therefore a matter of

status, of trophy hunting, to enhance the individual's image rather than to sustain a culture (*ibid.*).

The AEWC's Response

While the whalers had initially felt betrayed by the lack of governmental support, they became outraged by these statements that were perceived as a vicious attack on their culture. In a statement entitled "You Will Not Bury Our Hearts (at Wounded Knee or Anywhere Else)", the Commissioners of the AEWC framed the dilemma:

By October 24 the United States must decide whether to preserve the Eskimo's historic right to hunt the bowhead whale or whether to abide by the abrupt and culturally genocidal actions of the IWC (AEWC, 1977:1).

Jacob Adams described the Eskimos' battle as follows:

The struggle to convince the U.S. government to object to the action taken by the IWC was an uphill battle because we found that the U.S. delegation was dominated by the left-wing conservationist who knew nothing about Eskimo culture and its relationship to the bowhead whale. . . . Remaining firm and strong has gotten the Eskimos through what is probably the toughest assault ever on any culture in the world (J. Adams, 1982:10, 13).

Clearly there was no compromise between these positions.

Some outside organizations, however, were unwilling to jump on the bandwagon of conservation at the expense of the Eskimos. Pamela Rich of Friends of the Earth wrote to Eben Hopson:

The data disturbs us because we are concerned about the survival of the Bowhead, and because we recognize how important the survival of the Bowhead is to the well-being and livelihood of the Inupiat. . . . I think this places a responsibility on the Inupiat to put together a "conservation plan" which details your cultural/physical/economical relationship to subsistence hunting of the Bowhead, and the ways in which you can act as managers of the precious whale resource (Rich, 1977).

This recognizes one fact that was less than obvious to many outsiders:

no one cares more about or has a higher stake in the preservation of the bowhead whale than do the Eskimo (A. Brower, Jr., 1987a).

For the outsider, the bowhead is a matter of abstract concern; for the Eskimo, a very practical one.

The creation of the AEWG was a very practical step. By looking past the acrimony of the debate characterized above, the whalers began formulating a constructive response to the events that had occurred. The By-Laws of the AEWG state:

The purposes of the Commission shall be to preserve and enhance the marine resource of the bowhead whale including protection of its habitat; to protect Eskimo subsistence bowhead whaling; to protect and enhance Eskimo culture, traditions and activities associated with bowhead whales and bowhead whaling; and to undertake research and educational activities related to bowhead whales (AEWG, n.d.a).

The AEWG had the task of correcting the misconceptions of Eskimos, whales and the relationship between the two. In addition, the AEWG had to fill the gap left by the U.S. government. Little of the research requested by the IWC's Scientific Committee had been carried out, and little was known about the bowhead whale. To save the 1978 hunt, however, a quicker response was needed.

Fighting the Regulations

The whalers had three battles to fight. First, they fought the regulations that forbade them to whale. Second, they fought the jurisdiction of the IWC to regulate aboriginal whaling. Third, they fought the ignorance--scientific and cultural--that had led to the ban.

Because the concern of the IWC had been relayed to the Eskimos only after the ban had been adopted, the whalers had to respond quickly to protect their right to hunt the following year. Scientific studies or court battles could take considerable time. Fighting against the regulations, or enforcement of the regulations, was the most direct means of attack.

The easiest solution the Eskimos saw was for the U.S to file an objection with the IWC, which would exempt the U.S. from abiding by the IWC's action. In light of the considerable uncertainty about the status of the whale, many people thought this would be appropriate. The pressure would be off, and a better assessment of the situation could be made, leading to a better-informed response. Another possibility was to wait until the 1978 IWC Annual Meeting to make an attempt to convince the IWC to rescind its restriction. This would have meant no hunt in 1978. The third possibility, and the one taken, was to place the matter on the agenda for the December 1977 Special Meeting of the IWC in Tokyo (U.S. Dept of Commerce, 1977:110, 145, 194ff).

Opposition to filing an objection was based primarily on two arguments. One, the Eskimos had no right to hunt the bowhead anyway, and so the IWC action should be allowed to stand on its own merits (*ibid.*:116, 118, etc.). Two, objecting to an action restricting whaling would end U.S. leadership in the whale conservation movement. In neither view was much account taken of the Eskimos. Either they had no legitimate claim--cultural or otherwise--to their whaling activities, or they were an expendable adjunct, worthy only to be sacrificed for the cause of saving the whales.

Because no objection was filed, the IWC deletion of aboriginal hunting rights for the bowhead whale took force. Under pressure from the Eskimos and the recognition of the government's responsibility to them, the U.S. placed the bowhead question on the IWC agenda for the December 1977 meeting (J. Adams, pers. comm.; ACZMN, 1977[6]:3). The Federal Register, the bulletin of government regulations and actions, on November 25, 1977, contained the following in relation to Native bowhead whaling:

. . . bowhead whale is designated as a depleted species (NMFS, 1977:60150).

The bowhead has been determined to be depleted and, therefore, regulations are being proposed for the taking of that species. . . . all taking will be prohibited unless the IWC takes further action prior to the 1978 hunt. In order to provide for a controlled subsistence hunt by the Eskimos which would preserve the central elements of their culture and which would protect the bowhead stock, the United States has developed a comprehensive scientific research program and a conservation regime for bowheads. The scientific research program and the conservation regime will be presented to the IWC Scientific Committee meeting on November 21-25, 1977, and to a special meeting of the IWC December 6-7, 1977. The United States will seek an exemption from the Convention for an Alaskan Eskimo bowhead whale hunt on the basis of the U.S. domestic implementation of the scientific research and conservation programs and consistent with the regulations proposed herein. . . . The total number of bowhead whales authorized to be taken in calendar year 1978 shall not exceed 30 struck or 15 landed, whichever occurs first (NOAA, 1977:60185-6).

The IWC granted a quota of 18 struck or 12 landed (IWC, 1979a), later raised by two whales for the 1978 fall hunt (IWC, 1979b).

The quota took the immediate pressure off the situation, but did little to address the concerns of the Eskimos. They felt the quota to be absurdly low. Relations between the U.S. delegates to the IWC and the Eskimos were strained at best. Eben Hopson had declared in September 1977 that the

whalers would hunt, that the IWC had no jurisdiction over the Eskimos (ACZMN, 1977[6]:1). When no objection was filed, the only hope for a legal hunt was convincing the IWC to amend its restrictions. Here, too, the whalers felt their rights were given little consideration.

The suspicion that existed between the whalers and the relevant government officials ran deep. The whalers felt they could not trust the U.S. delegates to the IWC. Tom Garrett, Deputy Commissioner to the IWC and a lobbyist for Defenders of Wildlife, testified at the Environmental Impact Statement hearings in Washington, D.C., September 1977:

I think the increasing hunt is evidence of the dissolution of the Eskimo culture. I believe the hunt, as it is at present being conducted, and its current expansion, are in fact nothing more or less than a function of dissolution of the Eskimo culture, which is tragic but none-the-less happening. . . . this is a sort of bastard culture, not used in the pejorative sense, of the methods that commercial whalers brought in and original Eskimo methods (in ACZMN, 1977[6]:6).

The Eskimos did not feel well represented at the IWC.

Recognizing the limitations of fighting within this system, the whalers also fought against the system. In October 1977, Jacob Adams filed suit against Cyrus Vance to compel Vance to file an objection to the IWC action (*Adams v. Vance*, 1977). In the District Court, Vance was ordered to file such an objection, but an appeal overturned this decision. The opinion stated:

an order directing action by the Secretary of State in foreign affairs, would deeply intrude into the core concerns of the executive branch . . . an objection, even subsequently withdrawn, would substantially harm the efforts by the United States to promote an effective international machinery for the protection of marine mammals (*ibid.*:950).

To the whalers, politics again seemed to overshadow their rights. Jacob Adams describes what happened next:

The Eskimos then went to the Supreme Court. Word came that Justice Marshall would hear our plea, then at the last moment, the Chief Justice personally took the case and refused to hear the case. To this day, I believe this was a result of political pressure on the Carter Administration by the conservationist (J. Adams, 1982:10).

Again, the whalers had come to a dead end.

Fighting IWC Jurisdiction

Taking a different tack, in July 1978 Eben Hopson filed suit against Juanita Kreps, Secretary of Commerce, claiming that the IWC had no jurisdiction over aboriginal whaling, and therefore enforcing the quota violated the Eskimos' rights. The District Court dismissed this case on the grounds that questions of IWC authority were a foreign relations issue, and thus outside the court's jurisdiction (*Hopson v. Kreps*, 1979). An appeal found that the District Court did have jurisdiction, so the Appellate Court sent the case back to the District Court (*Hopson v. Kreps*, 1980). At this stage, both parties agreed to suspend the case without prejudicing either side's position (S. Lynn Sutcliffe, pers. comm.)

Fighting Ignorance

The third front on which the Eskimos fought was the most difficult. The whalers had to counteract the ignorance of the outside world in regard to their way of life. They also had to fight to earn the respect of outside agencies and other interested groups.

In 1977, not a great deal was known to Western science about the bowhead whale. Population figures were at best only informed guesses, behavior and migration patterns were only roughly charted, reproduction and mortality were estimated by comparison with other baleen whales. Through the Naval Arctic

<u>Year</u>	<u>Whales</u>	<u>Year</u>	<u>Whales</u>
1977	600-1800	1983	3857
1978	2264	1984	3871
1979	2264	1985	4417
1980	2264	1986	4417
1981	2264	1987	7200
1982	3857	1988	7200

Table 2. IWC Bowhead Population Estimates, 1977-88
(IWC Reports, AEWG files)

Research Laboratory, many of the Eskimo leaders during this crisis had seen the fruits of scientific research and the importance of scientific information (see Chapter 1). Thus, obtaining accurate data was one of the initial priorities of the AEWC:

The whalers recognized that their intuitive knowledge of the bowhead could not be easily communicated to the outside world. They also realized that the present body of information concerning the bowhead whale was woefully inadequate and even misleading. The whalers therefore recognized the need for extensive scientific investigation of the bowhead whale to insure continuing existence of both the bowhead whale and Eskimo society (AEWC, 1981a).

Of primary interest to the whalers, of course, was a population study to prove the whalers' claim that the bowhead population was large and increasing (Rosita Worl, 1977)(see Table 2).

Promoting Scientific Research

One key to sound management of a resource is a detailed understanding of both the resource and the role it plays in its environment. Because such information about the bowhead whale was not known or was not in scientific form at the time of the IWC's first action, sound scientific management was not then possible. The Scientific Committee of the IWC recommended a zero quota because its information was insufficient to recommend any other course. Like its development of a management plan to fill a gap, the AEWC quickly embraced scientific research as a means of proving the biological acceptability of the Eskimos' harvest.

The AEWC's commitment to science was and is greater than just supporting the research of others. In addition to cooperating with the scientists of various government agencies, the AEWC in 1980 formed its own Science Advisory Committee. The advantage of this was noted in the Prospectus of the Committee:

The AEWC already has cooperated in a number of research programs on the bowhead whale and has recently conducted its own research effort. The AEWC always has sought consultation and advice for the design of environmental research programs. Recently, it has expressed a desire to formalize this procedure through a Science Advisory Committee reporting to the Chairman of the AEWC (AEWC, 1981d:5).

Now the AEWEC could focus research efforts on its own priorities rather than relying on the directions of others.

The AEWEC had already sponsored some research in addition to that carried out by the government, but the Science Advisory Committee was able to recommend a more comprehensive approach to the marine ecosystem of the Arctic coast (*ibid.*:7-9, 17-19). Another advantage of the Committee format was the ability to take a long-term view of the AEWEC's needs and goals relating to bowhead whaling management.

Of prime concern is the extent of off-shore oil exploration which may or may not alter the migration and behavior of the whales, in addition to creating the potential threat of an oil spill (AEWEC, 1981d; Gambell, 1983; Neilsen, 1988; Edward Hopson, pers. comm.). Marie Adams, then Executive Director of the AEWEC, addressing the First Conference on the Biology of the Bowhead Whale in January 1982, summed up the situation:

We are gathered here together to discuss how best to obtain knowledge about the bowhead whale. It is an elusive animal that lives in the last frontier, the environment now being threatened by development. The reason why we human beings would like to know more about the bowhead whale is basically for man to decide the fate of an entire subsistence whaling culture that depends on the bowhead whale. If science shows that the bowhead whales are increasing, we as subsistence hunters have a slight chance of surviving as true Eskimo whalers. Then there is the other side: if science is used to show that the bowhead whale is declining, the Eskimo is endangered, as is the bowhead whale, because of the strong tie that we have with the whale and no one strives to protect the whale as the Eskimo. Either way we look at it, the responsibility that the Alaska Eskimo Whaling Commission has undertaken in sponsoring this conference is indeed a grave one (M. Adams, 1982:16).

The controversy over whaling had sparked the whalers' interest in obtaining scientific data that could be used to protect the whalers and the whales.

Promoting Eskimo Culture

In addition to lack of knowledge about whales was the lack of knowledge and understanding about the whalers. Already upset because they had heard little in advance about the possibility of the whaling ban, the whalers then faced what they felt was a frontal assault on their culture. A brief characterization of the conservationists' views regarding Eskimos

and Eskimo whaling has been given above. Part of the AEW's mission was to correct these misconceptions.

One illustrative misconception was the idea that gray whales would be a suitable substitute for bowheads. Abundant, migrating north as far as Barrow, about the same size as bowheads, and even occasionally hunted by the Eskimos, the gray whales appeared to some as the perfect substitute for the endangered bowhead. Storro-Patterson (1980) argued that existing objections to gray whaling could be overcome, and that since Eskimos have traditionally adapted to changing conditions, why not do so now by switching whales? While Durham argued that gray whale meat is acceptable for eating (in Storro-Patterson, 1980), both neglected the more fundamental issue of cultural significance.

Marie Adams and Ray Dronenburg of the AEW responded to the Storro-Patterson report, pointing out the shortcomings of the gray whale: it arrives late, and according to whalers on St. Lawrence Island who occasionally take a gray whale, the meat is often wasted because it does not taste good (Adams and Dronenburg, 1980). The pattern of whaling would also shift, interfering with caribou and bird hunting, as well as changing the form of the hunt and the cooperation that is so important (Marquette and Braham, 1982). Krupnik, with reference to aboriginal whaling along Siberia's Chukchi coast, shows that gray whales are unacceptable as nutritional or cultural substitutes. Despite continued gray whaling,

Most of the local inhabitants in Chukotka still mourn the loss of bowhead whaling and express a desire to rebuild it as soon as possible. They stress that . . . bowhead whaling formed the basis of their native culture. It is still considered very important to their national self-consciousness and to the conservation of cultural and linguistic traditions (Krupnik, 1987:29).

Simply put, the Eskimos need, not just whales, but bowhead whales.

The North Slope Borough helped by producing several films showing the Eskimo perspective on whaling and what the whale and the whale hunt mean to the people involved (ACZMN, 1980[28]:24). In 1980, the AEW invited five observers from Friends of the Earth, one of the conservation organizations that had given support to the whalers from the start, to see the spring hunt in Barrow. These observers reported, "It was apparent to each of us that this activity is vitally important to the community (Friends of the Earth, 1980)."

Outside studies helped confirm the Eskimos claims, showing the importance of the whale in an active, dynamic culture. A Cultural Anthropology Panel sponsored by the IWC concluded:

The bowhead whale complex is the foundation of Eskimo culture and society. The cooperative hunting activities throughout the year and the communal patterns of sharing the whale integrates the society as a cohesive unit. Continued limitations on hunting of the bowhead whale, together with severe restrictions on other subsistence activities, such as caribou hunting, threaten the survival of Eskimo culture and the organization of their society. . . . the continued appropriation, acquisition and consumption of these resources constitutes the most meaningful and socially sustaining celebration of life in north Alaskan Eskimo communities (IWC, 1982:39-40).

Not everyone was convinced, however, and many still wished to see the end of whaling in any form.

Management of Whaling: IWC vs. AEWG

If the recognition of the Eskimos right to whale was gaining ground, the whalers still faced the problem of respect, both for the culture and for their capability as managers of the whale. As Jacob Adams stated in his address to the First Conference on the Biology of the Bowhead Whale,

The history of actions affecting the Alaska Eskimo hunt of the bowhead whale is a sad drama of failure to accord the native people the consideration and respect they deserve as responsible arctic resource managers (J. Adams, 1982:9).

Many observers at the time doubted whether the Eskimos could or would act responsibly without strict outside enforcement. And given the difficulties of outside enforcement in Arctic Alaska, these observers worried whether there was any hope of effectively regulating the whalers (e.g., McVay, 1979).

Recognizing the scrutiny to which they would be subjected, the whalers made clear in 1978 that they would obey the quota. They felt that by following the rules and acting responsibly, they would find a more receptive audience during the next round of quota discussions (J. Adams, 1979a). Instead, the 1978 IWC meeting was a disaster for the Eskimos. The AEWG sought a 2% quota based on the 1978 census estimate of 2260 whales (ACZMN, 1978[13]; IWC, 1979c). This foundered on IWC resistance, and, in the whalers' opinion, the ineffectiveness of the U.S. delegates' negotiations (ACZMN, 1978[13]).

The whalers were dejected by this meeting. The AEWK walked out of the proceedings, and Jacob Adams issued the following statement:

The Alaska Eskimo Whaling Commission (AEWC) hereby gives notice to the International Whaling Commission that it objects to any action taken by the IWC concerning bowhead whales. By filing this objection, the Alaska Eskimo Whaling Commission removes itself from any asserted jurisdiction of the IWC. The Alaskan Eskimo whalers will conduct a bowhead hunt in the fall and next spring. That hunt will only be subject to AEWK regulations.

Despite the good faith efforts of Eskimo whalers to abide by an unjust quota of 12 landed or 18 struck whales during 1978, the IWC ignored the proposal of the United States to permit a hunt at a level to meet nutritional and cultural needs. The IWC ignored the advice of people who know most about the bowhead whale and who are most interested in its conservation (in ACZMN, 1978[13]:6).

While not a member of the IWC and therefore unable to object formally, this statement obviously reflects great bitterness at the IWC's intransigence. The whalers had suffered from the 1978 quota (Worl, 1979b), and vowed, "Never again will the whalers agree to allow unfair political bias to affect their natural pursuit of happiness (AEWC, 1979:2)."

Despite their opposition to the IWC's actions, the whalers felt a need to exercise proper management over the hunt. They had also found a voice in the AEWK. In a January 1979 meeting between officers of the Barrow Whalers Association and the AEWK, Eugene Brower asked why the AEWK was presenting a management plan, "since the Barrow Whalers agreed to an AEWK Management Plan for one year only (AEWC, 1979:3)." Jacob Adams explained that, although not trying to follow IWC directives,

the AEWK feels that it is a good idea to continuously maintain an accepted management plan which addresses the concerns raised over our whaling. For example, following the AEWK 2% conservation plan in order to show people that the Eskimos' harvest is well below the natural recruitment rate of these whales (*ibid.*:4).

The one year trial in response to outside pressures was over, and the AEWK had evolved into the institution representing Eskimo whaling.

Conclusion

The IWC ban of Eskimo bowhead whaling in 1977 created a tremendous controversy. Not a great deal was known to western science about the bowhead, nor was a great deal known about Eskimo whaling. While battles

about aboriginal rights raged on, often in ignorance of the facts of the situation, the whalers also began a practical response to the actions from the outside. They formed the AEWC, and through it fought for their rights to whale, and fought to show the outside world the cultural significance of the whale in the Eskimo communities.

With the establishment of a quota in place of a total ban, the whalers were able to continue whaling, though in a severely limited way. Through the AEWC, the whalers established a means of expressing their displeasure and their concerns, and to fight for the right to whale. In assuming a management role, the AEWC filled a gap that concerned many observers. But the AEWC was constrained by the Federal government, which claimed management authority. Within the Eskimo community, the AEWC had begun to establish itself as a permanent and useful institution.

Chapter 3

Here to Stay

ENCOURAGED by the Cooperative Agreement entered into by the US government and the AEWG and the good will and effort shown by the Inupiat people of Alaska . . .

THE IWC COMMENDS the Inupiat people of Alaska on their efforts to control the hunt, and their essential contribution of finance and effort in the gathering and provision of data and research.

--International Whaling Commission (1982a:36)

Problems of Management from Outside

At the 1978 IWC meeting, the AEWG suggested to the U.S. delegates that the U.S. should object to the IWC's jurisdiction over aboriginal whaling. By so doing, the U.S. could resume its leadership in seeking a moratorium on commercial whaling. It was with this reasoning that Eben Hopson filed suit against Juanita Kreps, arguing that only the U.S. Congress had the power to limit aboriginal whaling, since authority only over commercial whaling had been granted to the IWC (ACZMN, 1978[13]:6). Hopson stated that:

The lawsuit does not mean that the hunt will be unregulated or the whale population endangered. It simply means that internal rather than international regulations will be followed (*ibid.*).

While receptive to the goals of hunt management, the whalers had had enough of politics.

The feelings of the whalers were summarized in an article in the journal *Indian Affairs*:

The Inupiat Eskimos of today are fighting for their survival as a people against a harsher environment than any they have ever known. The victims of derogatory and untruthful public relations campaigns by environmental extremists, subjected to politics masquerading under the guise of biological science and living under the threat of armed suppression of the bow-head hunt, they already have been severely injured. Their survival as a people depends in large measure on the outcome of their present struggle (*Indian Affairs*, 1978-79:8).

Understandably the Eskimos were reluctant to leave regulatory authority to the outsiders who had caused the crisis in the first place.

Phrasing their position more constructively, the AEWC put it this way:

For centuries Alaska Eskimos have hunted the bowhead whale in a controlled and intelligent fashion. Hunters who have shown disrespect to the bowhead by harvesting it in an inefficient way have been ostracized from the community. Nevertheless, the Eskimos realized that even the most ingrained traditions sometimes need emphasis and reinforcement, particularly when outside forces are promoting social change (AEWC, 1981a).

Management could only be effective if it included the hunters in the assessment of the situation.

The failure to acknowledge the role of the Native hunters as a part of the system led to the AEWC walk-out of the IWC meeting. The Eskimos felt that only they understood and appreciated their position. After the 1978 spring harvest, the whalers threatened to ignore the IWC quota. Jacob Adams stated:

The time for Eskimo sacrifice has passed. The personal and communal upheaval that resulted from compliance with this Spring's unfair IWC quota will not be repeated. That compliance occurred for a reason: to give the scientists time to show what the Eskimos already knew about the whales, and to give the U.S. and the IWC a chance to develop an equitable method of management, and thereby to redeem themselves from their past injustices to Alaskan Eskimos. All that resulted, however, was that the scientific standards for exactitude were raised and the conservationists again used the Eskimos as a pawn in their commercial whaling conservation game. The Eskimos do not want to hinder the work of the IWC, but they cannot let themselves be destroyed to preserve the IWC. They demand that rationality and fairness prevail at the IWC.

The Alaska Eskimo Whaling Commission has filed an objection to the IWC action on Bowhead whales, thereby symbolically and perhaps legally removing its applicability to them. For the fall hunt and for 1979, the Eskimo whalers will ignore the IWC limits and will proceed as follows:

1. They will engage in their own research on the bow head;
2. Hunting methods and subsistence need limits will be established under AEWC management;
3. Those United States regulations implementing the IWC quota will be ignored; and
4. The jurisdiction of the IWC over Bowhead whaling by Alaskan Eskimos will be challenged in court.

(J. Adams, 1979b:12)

The point of this was not any desire to break the law, but a feeling that an unfair regulation could not be tolerated.

For Barrow, this was not the first time outside laws had been broken. In 1961, Inupiat hunters who had taken ducks out of season were arrested. Worl and Smythe describe the reaction of the other hunters:

The arrest . . . led to the famous "Duck-In" incident in which a hundred hunters brought their ducks and demanded to be arrested as well. The case was dropped, but the issue of hunting rights had been raised in the minds of the Inupiat (Worl and Smythe, 1986:47).

When unfair and uninformed laws create hardship, the responsible course for the community is to stand up to them. The Duck-In concerned traditional hunting rights. The bowhead issue involved a great deal more.

The Federal Government's Perspective

From the government's point of view as well, the bowhead was a very important issue. Although the National Marine Fisheries Service (NMFS) had not informed the Eskimos of the IWC's concern prior to 1977, the agency had begun spending large amounts of money on bowhead research. In 1974, \$52,000 was spent on the project, increasing by 1977 to \$309,000. In 1978, the first complete census was carried out, at a cost of \$921,000 (ACZMN, 1979[18]:3). NMFS undoubtedly felt it was making a substantial effort to find out the status of the bowhead. On such a closely-watched issue as bowhead whaling, NMFS's authority and ability were being tested.

To monitor the harvest, NMFS had officers present during the whaling season (M. Adams, pers. comm.). The agency did not have the ability to enforce the harvest limits by itself, and so looked to the AEWC to help with management in 1977 (ACZMN, 1977[6]:3). Through the AEWC, NMFS could establish reliable communications with the whalers, to forestall the problems that had led to the initial ban. While this worked in 1978, by 1979 the whalers were again feeling distrustful of the government's intention to support the Eskimos' position.

The main source of trouble was the whalers' feeling that the U.S. was unwilling to stand up to what were perceived as the political machinations of the IWC. While NMFS was sponsoring a large research effort into the whale, the whalers felt that, once again, they were left out of the considerations of the authorities (J. Adams, 1979a). In a memorandum to the AEWC commissioners, Chairman Jacob Adams wrote:

Given this difficult situation, the only way to avoid or minimize conflict is for the Eskimos to exercise responsible self-regulation through the AEW (ibid.).

The difficulty lay in convincing the U.S. government, and the IWC, that this was appropriate and effective.

For the fall hunt of 1978, the U.S. had successfully negotiated two additional strikes from the IWC (see Table 3). The Eskimos promised to ignore the IWC quota, and regulate the catch themselves. The weather, however, prevented any fall hunt at Barrow, enforcing the harvest limit more effectively than anything else could have done. NMFS had announced that in the event of quota violations, investigations but not prosecutions would be made (ACZMN, 1978[15]:4). An article in the Arctic Coastal Zone Management Newsletter commented:

<u>Year</u>	<u>Quota (struck/landed)</u>	<u>Landed</u>	<u>Struck-but-lost</u>	<u>Total Harvest</u>
1978	20/14	12	6	18
1979	27/18	18	9	27
1980	26/18	18	9	27
1981	65/45	16	9	25
1982		5	8	13
1983		11	5	16
1984	43 strikes	12	13	25
1985		11	6	17
1986	32 strikes	20	8	28
1987	32 strikes	22	9	31
1988	35 strikes	23	6	29
1989-91	41/44 per year, three strike carry-over per year			

Table 3. Quota and Harvest, 1978-91 (AEWC files)

The Eskimos' attitude toward possible governmental attempts to enforce the IWC quota is not one of hostility but rather one of disbelief: "The U.S. government can't and won't enforce the illegal IWC quota. It's illegal and unfair; and our government knows it. We are regulating ourselves. They can't take away our way of life," said one Eskimo whaling captain (*ibid.*:4).

This perceived ambivalence on the part of NMFS, caught between the whalers and the IWC, was naturally a source of conflict. The AEWC suffered from no such internal conflict, and felt better equipped to do the job.

The 1979 Hunt

The 1979 spring hunt, like the previous fall's, was hindered by bad weather. Only six whales were landed, again preventing the whalers from reaching either the IWC quota or AEWC harvest limits (ACZMN, 1979[22]). A successful fall hunt brought the totals up to the IWC limit. The whalers's plans to exercise their own management had not gone unnoticed at the IWC, which drily noted that "The catch appeared to be limited by the weather more than by the quota (IWC, 1980:104)."

Elders in the community blamed the low catch on the arrogance of the whalers in stating how many whales they would catch (Langdon, 1984:49). A whale presents itself to a worthy hunter, an arrangement which cannot be violated (Attungana, 1985; Pulu *et al.*, n.d.:26-7). During the 1979 hunt, whalers reported a dead whale being "rescued" by four other whales, as is said to happen when a whale is not ready to be taken (ACZMN, 1979[20]:10). Worl (1979a, b) notes that this change in the relationship between the whalers and the whales is the most significant aspect of the quota system--the whales no longer decide how many will give themselves to the whalers.

The 1980 Hunt and Grand Jury Investigation

In 1980, the issue came to a head. Initially, the IWC claimed the whalers had exceeded the 1980 quota by five strikes, and had continued whaling after the season had ended in 1979 (IWC, 1981). Later, their figures showed an excess of eight strikes for 1980 (IWC, 1982a). Curiously, the IWC took this opportunity to pass a resolution commending the whalers on their efforts to control the hunt and to help gather information about the whales. The only cautionary note urged the whalers to hunt only sexually immature whales and to reduce the struck-but-lost total to zero (*ibid.*:36).

The U.S. government, on the other hand, was not so willing to look to the future. The federal district attorney in Anchorage began a grand jury investigation of alleged quota violations during the 1980 hunt. This was greeted with dismay and outrage. Senator Ted Stevens of Alaska called the probe "a despotic attempt to intimidate Arctic Slope Eskimos (in Abbott, 1980)." Jacob Adams described it as an "ill-conceived witch hunt (*ibid.*)" Even U.S. attorneys questioned the validity of the investigation (Hunter, 1980). One reporter wrote, "The State Department ordered prosecution of four Eskimo whalers as a diplomatic tool, and the U.S. attorneys here [in Anchorage] agreed to prosecute only under threats of firing (Blewett, 1980)." The Anchorage Daily News wrote an editorial arguing that the investigation was a waste of time and energy that could come to no good (*Anchorage Daily News*, 1980).

In defense of the government's actions, Deputy Attorney Charles Renfrew wrote to Congressman Don Young of Alaska:

The grand jury investigation, to which you refer, was initiated only after the fullest consideration of the matter. . . .

The information available to the Department of Justice indicated that the illegal activity was most likely to be repeated and had been engaged in after the fullest possible notice to the individual communities involved in whaling activities. Another important factor was the fact that, in addition to the obligation of the Department to enforce our criminal laws, the United States has the obligation to enforce our commitments under international treaties controlling such whaling. The activities in question are in violation of both the criminal laws and our treaty obligations (Renfrew, 1980).

The Department has the right and the obligation to investigate violations. But was such an investigation merited in this case?

The Friends of the Earth observers in Barrow for the spring hunt in 1980 reported:

As the AEWC had set its own quota for the hunt this year--two percent of the best estimated population, or 45 whales--no one knew until the day the captains decided to come off the ice if the IWC quota would be exceeded or not. It was impressive to us that, in light of their strongly-held feeling that the present quota is unfair . . . the crews did come off the ice when the struck quota of 26 was reached (Friends of the Earth, 1980).

AEWC files show a total of 27 strikes and 18 landed whales for 1980, versus an IWC quota of 26 and 18. AEWC attorneys pointed out that the govern-

ment's figures were not published at the time of the alleged violations, because the government was unsure about the number of strikes:

Given the amount of confusion and doubt as to whether the 1980 quota was either never reached or exceeded, any criminal investigation of the taking of an additional bowhead in the fall hunting season by a whaling captain is merely harassment and should be quashed (Van Ness, Feldman & Sutcliffe, 1980).

The underlying cause of this situation was the combative relationship between the government and the whalers. The whalers, unsure of the government's understanding of the Eskimos and its commitment to them, were further antagonized by the presence of armed enforcement officers from NMFS (M. Adams, pers. comm.). Because they had been let down in the past, the whalers were also very wary of the government. As Marie Adams says, "We were at odds." In retrospect, the relationship between the whalers and the government had not been stable before the grand jury problem. An untenable position had broken.

Breakthrough

In early 1981, the stalemate seemed locked. In response to the proposed rules regarding bowhead whaling issued by NOAA in January, the AEWC filed its comments on the rules, noting:

The AEWC files these comments under protest and does not by commenting concede that the Secretary of Commerce has statutory authority . . . to regulate subsistence whaling by Alaskan Eskimos (AEWC, 1981b:1).

The whalers were angry at having been left out of making the rules, and at the continued use of out-of-date, discredited or incomplete data to formulate bowhead whaling regulations (*ibid.*). The government having successfully obtained contempt-of-court orders against two of the individuals involved in the grand jury investigation, a dark cloud still loomed over the scene.

Then came the breakthrough. After months of planning strategy with its attorneys, the AEWC entered negotiations with NOAA. Senator Stevens gave his considerable support to the whalers, making the negotiations much easier (M. Adams, pers. comm.). The result of the negotiations, and the major step in securing effective management of bowhead whaling, was entitled "Cooperative Agreement between the National Oceanic and

Atmospheric Administration and the Alaska Eskimo Whaling Commission" (NOAA and AEWC, 1981), signed March 26, 1981 (see Appendix 1).

Under the Cooperative Agreement, NOAA delegates responsibility for management of Eskimo whaling to the AEWC. While reserving the right to withdraw the authority given to the AEWC, NOAA (and thus NMFS) stepped back from its direct involvement with the hunt. The Arctic Coastal Zone Management Newsletter heralded this as "The first U.S. commitment of the management of a subsistence resource to the subsistence users (1981[34]:3)." In the same issue, Rosita Worl commented:

The management plan is based on customary laws, some of which have been codified in a few of the communities, biological principles, and a scientific research orientation. . . .

While traditional laws may have their limitation in the applicability to formal governmental regulations, they nevertheless may form the basis for effective resource management (Worl, 1981:15, 17).

Finally, through self-regulation, the whalers could be assured of knowledgeable management of the harvest.

Following the adoption of the Agreement, the grand jury investigation was dropped in April, 1981. Senator Stevens, in the spirit of conciliation, called the investigation:

a cultural misunderstanding. . . . It took time for them to realize they were dealing with a cultural problem. . . . You can't just look at a tradition like that and say it is violating federal law (ACZMN, 1981[34]:3).

Under the terms of the Agreement and the AEWC Management Plan, the AEWC could levy fines for violations of hunting methods or of the quota. Alongside the Agreement was a government provision that would allow up to fifteen extra whales to be landed over the quota of seventeen, for a fine of \$1,000 per extra whale. Criminal penalties had been replaced by civil ones, which were to be assessed by the AEWC.

Another provision of the Agreement is that the AEWC must provide harvest reports to NOAA for each spring and fall hunt, including information on the number of whales landed and descriptions of the circumstances of whales lost, with estimates of the chance of survival of the whale. In the first such report, on the spring hunt of 1981, the AEWC stated:

The United States government believes that the most effective aboriginal bowhead hunt management requires joint management by the Eskimos and the government. The AEWC is

greatly encouraged by this spirit of cooperation and looks forward to continuing to work closely with the government to ensure that future hunts will be well managed (AEWC, 1981c:1).

The AEWC noted good compliance with the Management Plan and good cooperation with research scientists. Three violations of the Management Plan were reported; in each case, the whaler had not attached a line and float to the whale prior to firing a bomb (*ibid.*).

Responsibility and Controversy

Of course, with the authority of self-regulation comes the responsibility to manage effectively. The AEWC now had to allocate village quotas out of the overall quota, investigate violations and continue its efforts to improve the efficiency of the hunt. The Agreement also meant that the AEWC had to abide by the outside quotas, applied through NOAA (Langdon, 1984:50-1). The AEWC found itself in a dual role as an advocate of aboriginal whaling and as the enforcer of the IWC-established quota.

This last aspect of the Agreement brought about renewed controversy among the whalers in 1982. After a successful first year, the Agreement was tested by bad weather and ice conditions. Only thirteen whales were struck and five landed between all nine villages (AEWC files). Barrow landed no whales, having lost all of its allocated five strikes (Alaska Consultants and Stephen Braund, 1984:A41; E. Brower, 1982). Billy Neakok, President of Inupiat Community of the Arctic Slope (ICAS), the tribal organization of the Inupiat, wrote a stinging and bitter letter to all those involved or concerned with regulating Eskimo whaling (Neakok, 1982). ICAS also passed a resolution attempting to decertify the AEWC (ICAS, 1982), which had in part received its authority from ICAS (ICAS, 1978). ICAS in 1981 had also called on the AEWC to uphold its responsibility to Inupiat sovereignty by not entering into the Cooperative Agreement with NOAA (ICAS, 1981).

By this stage, Neakok's view was that of the minority. He called on the whalers to continue the hunt to provide for the community, saying that the alternative was to let people starve (Neakok, 1982). After receiving the letter, Eugene Brower, President of the Barrow Whaling Captains Association, called a meeting of the Barrow whalers. The letter came as a surprise to the whalers, who voted to abide by the existing quota (BWCA, 1982:4). Tom Brower, Sr., referring to Neakok's letter, stated:

The content of this letter is strong to me. I want to see it answered and some apology [made] to the Federal government. The whale census should be continued, and we have approved the quota for the spring (*ibid.*:2).

Edward Hopson pointed out:

We have had [AEWC] Commissioners that have been praised by the IWC. . . . We should take a careful look on this letter and abide with our quota this year. If we break our agreement, it will be more difficult to manage over whaling by AEWC next year (*ibid.*).

Eugene Brower wrote back to Neakok: "The Barrow Whaling Captains Association will comply with the established quota," sending copies to the organizations to which Neakok's letter had been directed (E. Brower, 1982). Despite the unhappiness of the whalers at not landing a whale, the AEWC's position in the community was strong enough to prevent a violation that would damage its credibility.

At this time, views outside the whaling villages were also changing. The IWC published a Special Issue Report entitled *Aboriginal/Subsistence Whaling*, examining the special considerations of aboriginal and subsistence whaling as compared to commercial whaling (IWC, 1982b). Recognizing the special situation of subsistence whalers, the IWC was in a position to revise its approach to subsistence whaling management. The tone of the IWC reports on Eskimo bowhead whaling changes in the reports of the early 1980s from one of begrudging tolerance to one of greater respect and sensitivity (see IWC Chairman's Reports and Reports of the Scientific Committee for this period). This is not to say that the IWC now supports the Eskimos. The whalers feel that the IWC should not and does not have authority over them (author's obs.). Nonetheless, the relationship has improved considerably.

The AEWC Management Plan

The key to the success of the whalers and of the AEWC has been the successful implementation of the AEWC Management Plan (see Appendix 2). Developed in response to the IWC ban in 1977, the Plan was put into its present form in 1981, when under the Cooperative Agreement the AEWC was given the power to enforce the Plan. Reporting on the formation of the AEWC, the Arctic Coastal Zone Management Newsletter commented:

It is expected that the new Whaling Commission will be the vehicle for the development of any subsistence whaling reg-

ulations that might be developed. . . . [NMFS sees] the Alaska Eskimo Whaling Commission as evidence of progress toward cooperative management being sought by the International Whaling Commission. . . . The NSB [North Slope Borough] regards the organization of the Eskimo Whaling Commission to be an important milestone in Arctic Coastal Zone Management. It could pioneer in the complex politics of management of subsistence resources both on shore and off (ACZMN, 1977[6]:3).

Three and a half years later, this optimism was rewarded, and the AEWC was indeed able to begin cooperative management of bowhead whaling.

According to Marie Adams, the AEWC had been reacting to outside forces until the grand jury investigations. That probe started the AEWC moving forward, a change which culminated in the development of the Cooperative Agreement. At this point, "real movement began": the AEWC had an expressed and authorized purpose to manage the whale hunt, rather than a general mandate to protect the rights of the whalers (M. Adams, pers. comm.).

The inclusion of the whalers in the management of the hunt had strong support at the time, and has drawn favorable responses from many observers. The IWC Cultural Anthropology Panel wrote:

Eskimo involvement in research and management is necessary for several reasons. First, documented research results are not available in many areas, and the Eskimos are often possessors of exclusive knowledge. . . . Second, Eskimo participation in management greatly enhances the potential success of the management regime. . . . Finally, participation by Eskimos is a most efficient means of disseminating information concerning the management regime (IWC, 1982c:45).

On the subject of wildlife management in Greenland, Kapel and Petersen write:

Game regulations passed by local authorities seem to be regarded as the most relevant for the practicing hunters, in that they seem to be more conscientiously obeyed than government notes and international agreements at a central level. . . . Game regulations seem to be better observed the more clearly the underlying reasons are understood by and brought to the attention of the hunters and in this connection game regulations at the local authority level seem to be the best for effective management (Kapel and Petersen, 1982:70).

The relevance to Alaska Eskimo whalers is clear.

Involving the whalers themselves in the management and reporting of the hunt means that information can pass both ways quickly and with-

out impediment. Strikes are reported immediately, and a constant tally is kept to ensure that no over-quota strikes occur simply because no one knew how many had been made. This is a vast improvement over the circumstances that led to the grand jury investigation. It is possible because of the use of CB radios by everyone concerned with the hunt. Communications are kept open continuously during whaling season, so that other crews are alerted in time to assist in catching a struck whale (author's obs.; M. Adams, pers. comm.). Suppressing news of a strike is nearly impossible.

Enforcement

Enforcing the regulations of the Management Plan is also a much easier task when done by the AEWC. As Marie Adams says, "Captains are more willing to listen to one of their own (pers. comm.)." A violator receives a hearing in front of his peers, not an outside body. Fines are paid to the AEWC, and denial of hunting rights for a specific period is in keeping with traditional methods of controlling wasteful or disrespectful hunters (AEWC, 1981a; Worl, 1981:16).

Most violations of the Management Plan come under Subsection 100.24: Permissible Harvesting Methods. Typically, the shoulder gun is fired before a line is attached. This was one of the problems in the 1970s that led to so many struck-but-lost whales. Jacob Adams says the fines have cut down on the number of violations, but sometimes whalers get over-excited and fire the shoulder gun first (pers. comm.). For these incidents, penalties are generally assessed at the minimum level: \$1,000 fine and a one year suspension of the violator (e.g., M. Adams, 1983; Silook, 1983; AEWC, 1983:5; A. Brower, Jr., 1987).

Hunting Over the Quota

For the more serious violation of hunting over-quota, stricter measures must be taken. Percy Nusunginya, a Barrow whaling captain, in 1985 and 1988 knowingly hunted beyond Barrow's village quota. In so doing, Nusunginya and his crew claimed they were following traditional law and custom which neither the IWC nor anyone else had any right to supersede (Barrow Sun, 1989:6; author's obs.). In his trial in 1989, Nusunginya stated his case:

My family has been whalers since time immemorial we have been whale hunters, sea mammal hunters. And we understand the anthropomorphism of the animal. We Inupiat, Eskimos, believe the animals think like us. . . . Before any Inupiat

hunter or whaler goes out hunting, they do not make predetermination on how much, or how many, they're going to get. Their belief is that the animals out there who they are going to be hunting are listening. So, therefore, the Inupiat do not make a predetermination on how much they would get so that is why I have been opposing the quota system (Barrow Sun, 1989:7).

It is this change in the cultural view of how whales and whalers interact that Worl argues is the most profound effect of the quota (Worl, 1979a, b). But in attempting to uphold one cultural norm, Nusunginya abandoned another: that of cooperation and consensus within the community.

Following Nusunginya's violations in 1985, the AEWG fined him a total of \$20,000, and suspended him from whaling for five years. Lennie Lane, then-Chairman of the AEWG, said in a press release:

No one likes the quota system. But every whaling captain except one has agreed to go along this year in the hope that the International Whaling Commission will finally treat us fairly. . . . Our traditions teach us to act together in community with nature and one another. It tears at the fabric of our culture when one person defies elder whalers. We will do everything in our power to enforce our rules (AEWG, 1985c).

The AEWG also requested that the case be referred to a NOAA administrative law judge for further determinations regarding Nusunginya's violations (Lane, 1985). Anthony Calio of NOAA wrote back:

I do not believe it appropriate at this time to involve the NOAA administrative law judge in what would amount to a rehearing of proceedings already conducted by the AEWG. . . . In light of the AEWG's action against Mr. Nusunginya . . . I do not dispute that the AEWG has acted responsibly in trying to control the spring bowhead harvest, pursuant to the Cooperative Agreement and the AEWG's Management Plan (Calio, 1985).

For the moment, the situation was stable. Only the village quota had been exceeded, not the overall quota, and so Nusunginya was not liable for federal penalties (AEWG, 1987a).

In 1988, Nusunginya again went out whaling after Barrow's quota had been reached. This was too much. The Barrow Whaling Captains Association expelled him, and the AEWG followed suit (J. Adams, pers. comm.). The case was turned over to the federal courts, and Nusunginya was tried in Fairbanks. In his decision, Judge Andrew Kleinfled said:

If you sincerely believe, as you're entitled to, that the IWC has no right to regulate whaling, you're entitled to think that, and

I believe you're entitled to say it, you're just not entitled to do anything about it (Barrow Sun, 1989:7).

Kleinfeld fined Nusunginya \$3,000 and sentenced him to two months confinement and three years probation, during which time he would be prohibited from whaling. In explaining the sentence, Kleinfeld continued:

I want your incarceration to take place during this year's whaling season. It appears to me essential for two reasons. One reason is, the people of Barrow, when they ask, "Where is Percy Nusunginya?" should get the answer, "He is in jail because he whaled in violation of the AEWC provisions during the whaling season." . . . Second, I don't particularly want you to get into more trouble by feeling compelled to go and hunt whales during this year's whaling season. (ibid.:8, 18).

In Nusunginya, the AEWC found a violator they could not control. With the Cooperative Agreement, however, they were able to turn the matter over to someone who could. What will happen when Nusunginya returns to Barrow for the 1990 harvest is an open question. He has pushed beyond the limits of AEWC enforcement, but because the AEWC can call in the federal government for assistance, Nusunginya is not a threat to AEWC authority.

Conclusion

The imposition of the IWC quota and the U.S. government's acceptance of it created a tense, bitter stand-off from 1978 to 1981 between the whalers and the federal agencies charged with regulating the whale hunt. Following threats to go over-quota, and stalemated by the grand jury investigation of the 1980 hunt, the AEWC pushed forward in 1981 to negotiate the Cooperative Agreement with NOAA. Under this agreement, the AEWC manages the hunt and enforces its Management Plan and other relevant laws, reporting its activities to NOAA. The Agreement was a major breakthrough that continues to work smoothly.

The AEWC's record under the Cooperative Agreement has been excellent. The hunt has been managed effectively, minor violations have been handled internally, and the two major violations by Percy Nusunginya have resulted in his expulsion from both the Barrow Whaling Captains Association and the AEWC. As an institution, the AEWC is strong and well-respected both within the community and outside it. AEWC management of bowhead whaling is an unqualified success.

Chapter 4

New Challenges

The expectation and hope of the Alaska Eskimo subsistence whalers is that the penthrite projectile, used in combination with the new recovery technology, . . . will enable the whalers to conduct a safer, more humane and more efficient bowhead hunt.

--Alaska Eskimo Whaling Commission (1988d:4)

We continue to have serious concerns regarding the adverse impact of offshore oil and gas activities on endangered marine mammals, including the bowhead whale.

--Thomas Napageak, AEWK Chairman (1989a)

Improving Whaling

The AEWK has been an effective advocate and manager of Eskimo bowhead whaling. It has also provided a forum for sharing knowledge and expertise among the whalers and for promoting improvements in both equipment and techniques that lead to a more efficient harvest. Because the basic purpose of subsistence whaling is to provide food for the community, comprehensive management of the harvest includes the efforts of the whalers to improve their ability to provide that food. We shall now examine that side of AEWK management.

The first major improvement was the regulation that a line and float must be attached to the whale at the same time as or before the shoulder gun was fired. In fact, this was not a new development, but a return to older techniques. In the early 1970s whaling had gotten out of hand, not so much by numbers or effort, but by losing touch with the wisdom of the elders. The AEWK has made a big effort to help the elders share their knowledge with the younger whalers through workshops and other programs (e.g., Attungana, 1985; M. Adams, pers. comm.).

During a discussion on whaling improvements between officers of the AEWK and the Barrow Whaling Captains Association,

several persons remarked on and re-emphasized that the whaling captains and crew are the physical elements which make each execution safe, fast and without loss (AEWK, 1979:2).

The AEWK reported in 1988:

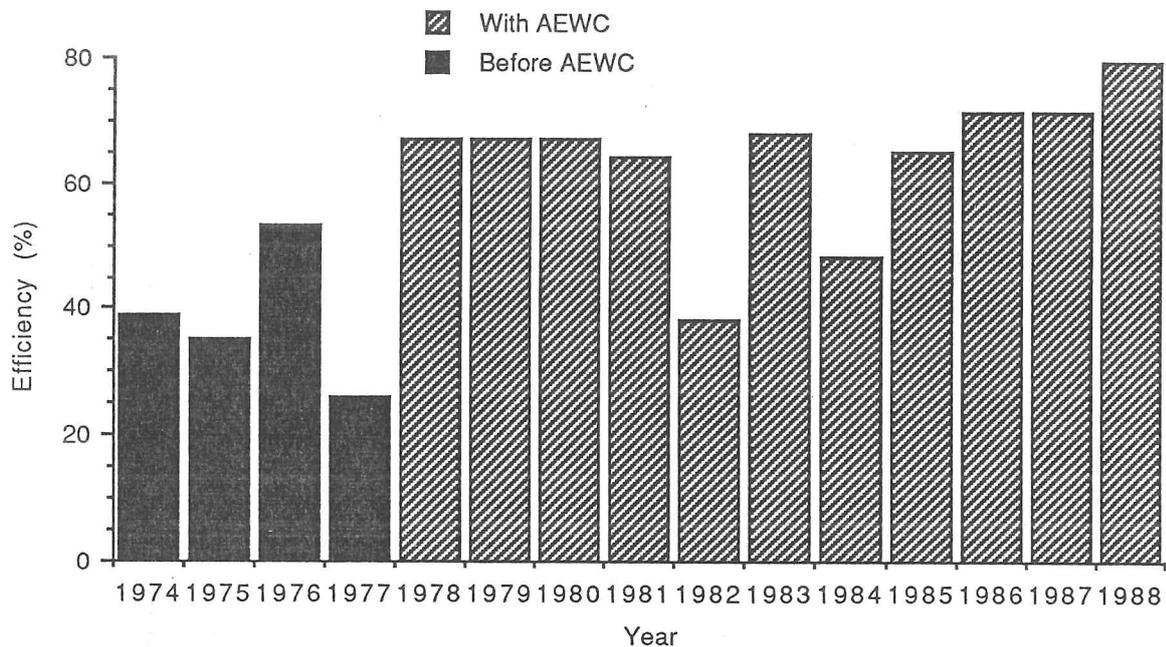


Figure 3. Hunting Efficiency, % Landed of Struck Whales, 1974-88
(AEWC files; Alaska Consultants and Stephen Braund, 1984:29)

Weapons instruction is also offered each year at the AEW's Annual Whaling Captains' Convention. In this "hunting efficiency" workshop elders from the different villages provide instruction on the most successful techniques for striking the whale--i.e., how to position the boat and where to strike to produce an instant kill. This workshop alone has resulted in a substantial increase in the efficiency of the hunt, with the 1986 and 1987 seasons both producing an efficiency rate of 71% (AEWC, 1988a:8).

There is no substitute for expert knowledge (see Figure 3).

Weapons Improvement

A more tangible part of the AEW's efforts has been the weapons improvement program. At the onset of the bowhead controversy, the Eskimo whalers were caught in double jeopardy:

The conservationists also object to Eskimo use of "modern" weapons to hunt the bowhead but fail to point out that these "modern" weapons are replicas of the weapons introduced to the Eskimo in the days of Yankee whaling. . . . These "modern" weapons have been in use by us since the 1880s and we have

not been allowed to improve these weapons even though they are responsible for some losses of struck whales (AEWC, 1977:2).

As Thornton had noted the inefficiency of the old-style lances compared to the bombs of the Yankee whalers in the nineteenth century (1931:170-1), the present-day whalers knew their weapons were outdated. Since the numbers of struck but lost whales caused so much concern, both at the IWC and for the whalers, improvements in technology would help all concerned. The traditional techniques of Eskimo whaling are sound (e.g., Bockstoe, 1986; C. Brower, 1942). Improvements were needed primarily in two areas: a more effective bomb and a means of locating lost whales. These changes would affect neither the character nor the practice of the hunt, but would make the harvest more efficient and reliable.

The whale bombs, although an improvement over lances, are still not completely reliable. Failure to detonate and failure to kill the whale quickly are the main shortcomings of these bombs, which use black powder as the explosive (AEWC, 1979:1; also see AEWC, 1981c and other harvest reports). The IWC's Sub-Committee on Humane Killing Techniques noted:

The hand harpooning methods and those employed by Alaskan Eskimos are both inefficient and undeniably prolong death times.

Loss of whales struck but not landed is inevitable (IWC, 1979d:92).

The AEWC weapons improvement program was started with three objectives:

(1) to increase the lethality of the projectile used in both the darting gun and the shoulder gun; (2) to increase the reliability of the projectile exploding; and (3) to increase safety factors in general (AEWC, 1985b:1).

The explosive and the fuse were the main objects of this improvement effort.

The improvements were not instant successes. In the 1985 hunt, mishaps occurred, including one premature detonation (*ibid.*:3). In 1986, the IWC's Humane Killing Working Group recommended that the whalers try a new weapons program. Egil Oen, a Norwegian weapons expert, made suggestions, including the use of penthrite as the explosive. The AEWC contracted with Oen and manufacturer Henrik Henriksen to produce a new penthrite bomb. The AEWC stated:

the penthrite bomb is expected to provide both a more efficient and more humane bowhead hunt (AEWC, 1987b:3-5).

In 1988, the penthrite bombs were used with great success. The AEWC reported:

As of the date of this report, 7 bowhead whales have been struck with the penthrite projectile. Six of the whales were landed, while severe weather conditions prevented the landing of the seventh. In each case, the penthrite projectile performed according to specification, with no indication of design or material defect or of mechanical malfunction.

The behavior of the whales struck with the penthrite projectiles and a preliminary analysis of the autopsies performed on 5 of the whales indicate that each of the animals died or lost consciousness within seconds of the detonation of the penthrite projectile. The whales struck with the penthrite projectiles were taken with fewer bombs, and they lost consciousness and died much more quickly and humanely than the bowheads taken with the old black powder projectiles (AEWC, 1988d:1).

The enthusiastic response of the whalers to the penthrite bombs can be gauged from the response of Edward Itta, who landed a whale in May 1988 without a penthrite projectile. While his whale was being cut up on the ice, he told Oen and Henriksen who were observing the harvest, "You have done a great thing for the Eskimo people. We cannot thank you enough. This new bomb is a great thing (author's obs.)."

Radio Floats

The other major effort has been in attempting to recover lost whales. Dr. Erich Follmann of the University of Alaska has been developing a radio transmitter float which would allow tracking of whales even in poor weather. This program is proving to be very successful. Trials have been made during the fall hunt in Kaktovik and Nuiqsut, and the floats and transmitters have worked perfectly in all nine attempts to use them (Follmann, 1987; AEWC, 1987b:6-7). The AEWC reported:

With the installation of the transmitters three years ago, the results have been excellent. In the past three years, only one whale has been lost and several of those landed were located with the aid of the transmitters. One whale was located 30 miles off the coast by an airplane tracking the radio-transmitter (AEWC, 1988a:9).

Ice conditions during the spring hunt make use of a radio transmitter difficult. Struck whales may swim under the ice, dragging the float with

them, and saltwater blocks signal transmission (*ibid.*). A new idea is being developed to overcome this: acoustic "pingers" which could be located with a portable hydrophone. The sound would not be stopped by the ice. The AEWC plans to test the two together during the 1989 spring hunt (*ibid.*:10).

The AEWC's 1988 report on hunting efficiency concludes:

With the improvements made to the projectiles used in the Native Alaskan subsistence hunt and with the new recovery aids--the radio transmitter and the acoustic "pingers"--the AEWC and the whaling captains expect a continuation of the increase in hunting efficiency of their hunt. By using techniques practiced over centuries and today's inventions, the whalers hope to reach their goal of a struck/landed ratio of 75% or more. The result of these improvements will be a safer, more humane and effective way to hunt the bowhead whale (*ibid.*).

The AEWC provides an effective mechanism for helping the whalers improve their harvest, increasing their ability to provide the nutritional and spiritual sustenance of the bowhead whale.

Need-Based Quotas

The usual basis for IWC quotas is an estimate of the capacity of the stock to sustain the harvest of whales. For the bowhead, this estimate is made with imprecise data. The calculations of net recruitment rate and other figures have caused arguments and accusations of bad faith (ACZMN, 1978[13]:3-6). A different approach to the quota is to try to determine the historical need of the communities, and then to compare that figure with what is known about the whale population.

Stephen Braund, Sam Stoker and John Kruse compiled data from 1910 to 1969 as a baseline comparing whales landed with village populations (Braund *et al.*, 1988). This base period allows calculations of need after the commercial era and before the events of the 1970s--a period of minimal outside influence on whaling. For each village in each year, the number of whales is divided by the population of the village. This number averaged over the base period is multiplied by the present population to give the number of bowheads needed today (see Table 4). The researchers' figure of 41 bowheads landed is the basis for the current three year quota of 41 landed or 44 struck per year. The team also projected the future population of the whaling villages to 2020, and calculated a need then of 48 landed whales (*ibid.*:59).

Quantifying the Eskimos' need recognizes the importance of the whalers in their interaction with the bowhead. The AEWC's goal of protecting the harvest is greatly helped by removing the guesswork from this half of the equation. The Eskimos' historical need for bowheads is as important as the historical bowhead population and is critical to the effective management of subsistence whaling.

The Next Threat: Development

The third side of AEWC management is the protection of the bowhead's habitat. In the context of increased interest in offshore development, the AEWC's biggest challenge is protecting the marine ecosystem so that it will continue to provide the subsistence resources that support the Eskimo communities along the Arctic coast. Concern about the risks of offshore development existed before the AEWC, but as the representative of the whalers and the focus of the Eskimos' ties to the sea, the AEWC has pushed for tight constraints on offshore activities.

<u>Village</u>	<u>Landed whales per capita, 1910-69</u>	<u>Current Eskimo Population</u>	<u>Current Need (rounded)</u>
Gambell	0.00572	495	3
Savoonga/1	0.00572	485	3
Wales	0.000724	154	1
Kivalina	0.003240	275	1
Point Hope	0.016764	534	9
Wainwright	0.010072	445	5
Barrow	0.008481	1,823	16
Nuiqsut/1	0.008481	227	2
Kaktovik	0.009174	154	1
-----	-----	----	--
Region	0.008815	4,592	41

1/There are no data for Savoonga and Nuiqsut for landed bowheads between 1910 and 1969. The Gambell per capita need is used for Savoonga, Barrow's for Nuiqsut.

Table 4. Subsistence and Cultural Need for Landed Bowhead Whales
(Braund *et al.*, 1988:56)

For the whalers there are two main concerns with offshore activity. First, the noise of the drilling rigs and the support ships may affect the migration routes and patterns of the whales. Little is currently known about the whales' reactions to industrial noise, but they appear very sensitive to such noises as snowmachines driving across the ice and outboard motors (author's obs. from the whalers). The second concern is the possibility of an oil spill.

Because much of the activity occurs near the coast, the whalers fear that the noise may push the whales further out to sea, beyond the reach of the whalers. So far, this has primarily been a concern for the fall harvest from Kaktovik, Nuiqsut and Barrow. Drilling has been confined to the Beaufort Sea, and has not affected the whales spring migration. However, lease sales and drilling plans in the Chukchi Sea threaten to change this (Edward Hopson, pers. comm.). Bockstoece notes apparent changes in the whales' behavior after commercial whalers began hunting bowheads (1986:101), and whalers today report unusual behavior by whales migrating past Barrow in the fall, having passed through industrial activity in the Beaufort Sea (Hopson, pers. comm.).

The whalers are understandably concerned. But what can they do about it? Alaska's State territorial waters extend three miles offshore; beyond that, only the federal government has jurisdiction. While the State has been cooperative in placing seasonal limitations and other restrictions on drilling activities, the federal government has opened its leases to year round drilling (Jessica Lefevre, pers. comm.). The AEWC has no power or authority in the leasing process, which is administered by the Minerals Management Service (MMS) of the Department of the Interior. The AEWC can only make its views known to MMS and NOAA, calling for appropriate limitations on drilling and comprehensive safety standards to guard against spills (Hopson, pers. comm.).

In 1986, the oil companies and the whalers produced a cooperative agreement. The stated purpose of the agreement was to ensure communication and cooperation between the oil companies and the whalers, so that drilling and ship traffic would not interfere with the hunt (Oil/Whalers Working Group, 1986:i-iii). This seems to work reasonably well (Neilsen, 1988:68-8; Edward Hopson, pers. comm.), but its long-term impact may be very different. Neilsen cautions:

it seems hard to accept that the oil companies can buy their way out of threats to Inupiat culture and whaling as well as environmental damage.

The oil industry benefits from public relations by "helping the Inupiat whalers," while the Inupiat have gone a further step backwards, pressed by an ever-growing resource hungry industry (Neilsen, 1986:69).

Jessica Lefevre, an AEWG attorney, sees the oil/whalers agreement as a one-sided arrangement, lasting only until the industry is granted a permit to "take" a bowhead (pers. comm.).

A group of six oil companies applied in 1988 for permission for the "incidental take" of bowhead and gray whales during the Outer Continental Shelf operations (Amoco Production Company, Inc., *et al.*, 1988). (In this context, "take" is defined as killing, harming or harrassing whales.) In submitting AEWG comments on the industry petition, then-Chairman Thomas Napageak wrote:

the AEWG believes that it may be possible for exploration in the Beaufort and Chukchi Seas to proceed with a negligible impact on endangered marine mammals and without an adverse impact on Native Alaskan subsistence hunting activities. However, the present application does not provide enough information to ensure such a result (Napageak, 1988).

The AEWG's comments are concerned with the inadequacy of information about anticipated impact and with the possibility of lethal takes by industry (AEWG, 1988b). The legal mechanisms exist to regulate the industry strictly (e.g., under the Marine Mammal Protection Act). The AEWG must try to ensure that those regulations are enforced.

The second, and more ominous, threat from industry is the possibility of an oil spill contaminating the bowhead's habitat or coming in direct contact with the whales. The spill of 200,000 barrels of oil from the *Exxon Valdez* in March 1989 showed the industry's inability to handle a disaster of that scale (see *Anchorage Daily News*, March 24, 1989, and the following weeks). Whatever the intentions of the oil companies, their promises ring hollow after the *Valdez* accident. A draft report by an industry task group in 1983 on Arctic oil spills promises adequate response by various techniques (Industry task Group, 1983). One of these, an ice-breaking hover-berge, proved useless during the rescue of two gray whales trapped in the ice near Barrow in October 1988 (Hess, 1988:28). It seems unlikely that any effective response to an Arctic oil spill could be made.

Outside AEWG Authority

In this as well, the AEWG has no authority, and can only try to influence the federal government's decisions regarding its operating standards and liability requirements for activities in Arctic waters. ICAS in 1981 filed a lawsuit claiming Inupiat sovereignty over the Beaufort and Chukchi Seas beyond the State territorial limit (ACZMN, 1981[33]:11). The North Slope Borough in 1986 filed suit to halt exploration for ten days during the fall whale hunt (Nielsen, 1988:66). These and other similar lawsuits failed:

A sad proof that commercial consideration weighs more than cultural and environmental concern (*ibid.*).

In this battle the whalers have been left on their own. The North Slope Borough opposes Outer Continental Shelf activities (Matumeak, 1988), but they have no jurisdiction there. Environmentalists seem content to fight onshore drilling but to let offshore activity proceed unopposed (Jessica Lefevre, pers. comm.; author's obs.). Whether the AEWG can conclude a cooperative agreement with the oil companies that offers true protection for the whales and the whalers while allowing exploration to take place remains to be seen. Gambell notes,

It would be ironic indeed if the hard-won accommodation between the conservation of the stock and the subsistence needs of the aboriginal hunters were rendered irrelevant by an outside factor of this kind (Gambell, 1983:472).

For the whalers it would not be ironic. It would be catastrophic.

One theme of AEWG management has been the recognition that the whalers are part of the bowhead's ecosystem. In line with this approach to an overall system, the management of the bowhead must expand to become part of a regional marine resource management regime. Such a regime is certainly beyond the scope of the AEWG, but without one, the AEWG's efforts will be ineffective against the pressures of industrial development. Cooperative management between government, subsistence hunters and industry would be capable of providing for the needs of all concerned.

Conclusion

The AEWG's efforts at improving the whaling skills and tools of its members have been effective. Because of the limitations of the quota, hunting efficiency is of great importance. By sponsoring workshops to help elder whalers pass on their knowledge, the AEWG has helped ensure a

continuity in culture and in activity among the whaling communities during a time of rapid change. The AEWC has promoted the development of better weapons and tools--such as the penthrite bomb and the radio float--to improve the efficiency of the harvest. Both the workshops and the weapons improvement programs have led to great reductions of struck but lost whales.

The AEWC's attempts to protect the bowhead's habitat from the effects of industrial development have not been so successful. Oil exploration near the coast and on the Outer Continental Shelf threaten to disrupt the migration patterns and behavior of the bowheads, and the possibility of an oil spill is a great danger to the whales. The pressure to develop these resources has created less restrictive regulations for activity in Federal waters. Litigation has not yet produced a victory for the whalers, and there are no other channels for direct action on their part. The challenge ahead for bowhead management is to find a way to ensure habitat protection in the face of seemingly inevitable development.

Chapter 5

The AEWK's Success

The Eskimos deserve a lot of credit. They've had very good people working on their side, and they've had the patience to go along for ten years before getting credit and vindication.

--Stephen R. Braund

I, a whaling captain like yourselves, would like to express the appreciation I feel towards the Alaska Eskimo Whaling Commission, and toward those of you who have been leading this organization's most valiant fight to protect our way of life and culture. The success of this effort was so abundantly demonstrated this past spring and fall, as we gathered together at feasts and celebrations all along the Arctic coast, to share the muktuk and mikigaq from the 20 bowhead we brought home to our people; to feel the oil upon our hands, and the warmth inside our bodies.

--NSB Mayor George N. Ahmaogak, Sr.(1987)

Perseverance, Achievement and Respect

The AEWK is a success. It has achieved its stated objectives--protecting the bowhead hunt, promoting educational efforts regarding the hunt, undertaking research projects--and has established itself as a powerful, stable and useful institution in the whaling communities. This has not been accomplished, however, without great efforts by the whalers and those working with them--attorneys, scientists, and the local, state and federal agencies that helped with funding and research. A decade of perseverance by the whalers has paid off in changed attitudes about and approaches to aboriginal subsistence whaling. The quota, still an annoying intrusion, is much less restrictive. As Jacob Adams says, "We won (pers. comm.)."

The AEWK in this regard is held up as a model by other subsistence hunting groups. The whalers have earned the respect of those who would regulate their whaling. The AEWK has forcefully shown the effectiveness of local, hunter-oriented management in the context of subsistence hunting. Superficially, such an arrangement seems like the wolves guarding the sheep. But that is simplistic, and does not take into account the inter-relationship between the hunter and the resource. Whales are not the pets or the possessions of an absentee landlord; whalers are not marauding interlopers. In the words of elder whaler Patrick Attungana:

Our body fluids are mixed with the blood of the animals, with the oil of the animals (1985:3).

The AEWC has been able to incorporate both traditional concepts and western scientific concepts into one system of management. This is a key element of its success.

Other Native Interest in Bowhead Whaling

The efforts of the whalers and the U.S. government to establish a cooperative research and management program have been acclaimed by Soviet researchers trying to re-establish bowhead whaling along the Chukchi Peninsula (Bogoslovskaya *et al.*, 1982:398). The Soviet researchers are interested in restoring the cultural pillar of the bowhead harvest to the Chukotkan Natives, by allowing the harvest of three whales (*ibid.*; Krupnik, 1987). The work of the AEWC has given legitimacy to the claims of aboriginal whalers, and has shown that subsistence whaling deserves protection.

In 1988, the Aklavik Hunters and Trappers Committee (HTC) of Aklavik, Northwest Territories, Canada, made a request for the harvest of one bowhead, stating:

We need this for the survival of the Inuvialuit tradition, culture and skills thus filling in some of the generation gaps between the young and the old (Aklavik Hunters and Trappers Committee, 1988:2).

The Canadian government advised the HTC to seek advice first from the AEWC. Billy Archie, President of the HTC, said in a presentation to the AEWC:

The Inuvialuit commend the Inupiat on their long and difficult road in gaining international respect and recognition as the leading experts on all subjects concerning the bowhead whale (Archie, 1989).

The HTC requested assistance from the AEWC in the form of moral support and technical advice about whaling and about the process of obtaining a quota (*ibid.*). Although the AEWC has no authority to grant quotas outside the nine Alaska whaling villages, Thomas Napageak wrote to Andy Carpenter of the Inuvialuit Game Council:

When you have obtained a permit or allocation . . . , we will be very happy to assist you in preparing for a successful and humane bowhead hunt. This would involve inviting you to our hunting workshops and introducing you to the use of our new penthrite bomb (Napageak, 1989b).

An April 1989 news report said that the Inuvialuit will probably receive a permit for a bowhead the following summer from the Canadian government (Spence, 1989:2).

Other Cooperative Management Regimes

The lessons of hunter management have not been lost on other subsistence groups. In a speech on cooperative management of marine mammals, Director of the North Slope Borough Department of Wildlife Management Ben Nageak said:

Never again must the knowledge of aboriginal people be second guessed. The use of cooperative management and agreements between statewide, federal, international and local entities must be encouraged and implemented whenever possible. Since the formation of the Alaska Eskimo Whaling Commission, there have been several organizations formed in order to do what the AEWK has been able to do with the bowhead whale. . . . Each of these organizations . . . is working hand in hand with both the State and Federal governments in order to achieve the goal of cooperation on the management of our marine mammals (Nageak, 1989:4-5).

Let us examine two of these organizations.

The Eskimo Walrus Commission (EWC) was formed in 1978 in response to a quota system established by the State of Alaska in 1976. The quota and other restrictions were felt to be excessively strict, especially since the walrus population was healthy. Langdon observes:

The establishment of the AEWK in 1977 provided a model for the walrus hunters and several of the founders of the walrus commission had participated in the forming of the AEWK providing them with useful experience (Langdon, 1984:59).

With similar purposes to the AEWK--protecting the harvest, encouraging research, promoting local involvement in management--the EWC prepared a management plan in 1984 (*ibid.*:61), and in 1987 entered into an agreement with the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game.

This agreement declares:

That there should be open and continuous communication and exchange of information among agencies and groups interested in the health, well-being, and utilization of the Pacific walrus . . . , and that a sound management policy for this species is best implemented as the result of mutual coopera-

tion and assistance (U.S. Fish and Wildlife Service *et al.*, 1987:1).

One major difference between the AEWG and the EWC is enforcement: the U.S. Fish and Wildlife Service retains full authority to enforce laws regarding walrus. Nageak calls this agreement "an important first step (1989:8)." Perhaps because the controversy of walrus hunting has not been as intense as that over the bowhead, there has been less pressure to create an agreement that is as far-reaching as the bowhead Cooperative Agreement. In any case, the present situation is far better than when the State first imposed its quotas.

External pressure to limit subsistence harvests is the main incentive to form user groups. The possibility of IWC action involving beluga whales has added to concern about changes in whale distribution and perhaps population in recent years (Nageak, 1989:12-3). Geoff Carroll, a biologist with the North Slope Borough, initiated efforts by local groups to create a self-regulatory regime and to assist in research efforts to obtain the sort of information that was not known about bowheads until after the IWC imposed its ban. Having such a regulatory mechanism in place and having the quantified biological information could preempt any IWC action or at least minimize its impact (Carroll, pers. comm.).

In 1988, beluga hunters met in Fairbanks to organize a committee. Because of the shared beluga population, Inuvialuit hunters from the Northwest Territories were invited to join. The result is the Alaska and Inuvialuit Beluga Whale Committee (AIBWC), which in March 1989 adopted bylaws. The purpose of the AIBWC is to:

facilitate and promote wise conservation, management, and utilization of beluga whales based on the best available information and socioeconomic considerations (AIBWC, 1989).

Included in this is providing information to the public, working to protect beluga habitat, promoting research and harvest improvements, and advocating international cooperation on beluga conservation and management (*ibid.*).

Following the experiences of the AEWG and the EWC and recognizing the merit of co-management from the start, the AIBWC includes members from both the beluga hunting communities and from NMFS and the Alaska Department of Fish and Game (Carroll, pers. comm.). Others can be added by vote of the Committee. Only representatives of the hunting communities can vote on hunting matters, but in other respects the government repre-

sentatives are full members of the Committee. It is too soon to evaluate the performance of the AIBWC, but the concept is sound and follows the trend started by the AEWK of extensive local involvement in the management of subsistence resources.

Conclusions

If imitation is the sincerest form of flattery, the Alaska Eskimo Whaling Commission has many genuine admirers. Created in a turbulent time, nurtured amid controversy, and made strong by the will of its members, the AEWK is a hardy, appropriate and effective institution. Its success has been in achieving its goal of protecting bowhead whaling and also in proving by example the ability of Native hunters to provide leadership in proper management of a subsistence resource. The former is the AEWK's contribution to the whaling villages; the latter, to the general practices of wildlife management.

Withstanding attacks from inside the community such as the ICAS conflict in 1982, and subject to great pressures from the outside, such as the 1980 grand jury investigation, the AEWK has shown resilience and hardiness. The whalers endured the sufferings of few or no whales due to the quota they felt was unfair, and in the AEWK they created a way to make themselves heard. Despite internal conflicts over such matters as the allocation of village quotas, the AEWK remains the representative of the whaling villages, allied in common cause.

Much of the AEWK's strength comes from the appropriateness of such a body in the context of the whaling communities. The whalers organized themselves and established the AEWK in a manner consistent with traditional custom (Worl, 1981). Having its foundation firmly in the Eskimo culture allowed the AEWK to incorporate Western scientific ideas into the management of whaling without losing sight of the importance of the whale and the relationship between the whale and the whaler. It is appropriate that those with the most interest in the whale should be those most involved in managing it.

AEWK management is also the most effective course. Management by an outside agency did not work in the 1970s. While the quota is still seen as unnecessary and unfair, the AEWK's management efforts have led to increased efficiency in the harvest and accurate monitoring of strikes and landings of whales. The whalers are much more willing to cooperate with their own people than with outsiders. Government assistance and oversight

helps the AEWC achieve its management and research goals, but the AEWC is an effective buffer between the government agencies and the individual whalers and whaling communities.

While the AEWC has protected the whale harvest and earned respect for its management efforts, it still faces many challenges. The main concern is over offshore drilling and the risks of interfering with bowhead migration and behavior and of an oil spill. The AEWC has no power to control the decisions made about offshore industrial activity, and can only try to exert its influence on the decision-making process. If need be, the AEWC will probably attempt legal action, but this has met with little success in the past.

Habitat protection is the looming issue for the next decade and beyond. The AEWC must expand its scope to help encourage and provide comprehensive regional management of marine resources, which would be best accomplished in conjunction and cooperation with the other agencies and groups involved in the area. The whalers have shown that by working together they can make themselves heard. Their challenge is to continue to do so.

Appendix 1

COOPERATIVE AGREEMENT BETWEEN THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND THE ALASKA ESKIMO WHALING COMMISSION

Purpose

The purpose of this agreement is to provide for cooperation between members of the Alaska Eskimo Whaling Commission (AEWC) and the National Oceanic and Atmospheric Administration (NOAA) in management of the bowhead whale hunt for 1981 and 1982 [currently extended to 1991].

Responsibilities

NOAA has primary responsibility within the United States Government for management and enforcement of programs concerning the bowhead whale. The AEWC is an association governing Alaskan Eskimo whalers who hunt for bowhead whales. The AEWC adopted a Management Plan on March 4, 1981, to govern hunting for bowhead whales by Alaskan Eskimos. Under this cooperative agreement the AEWC will, in cooperation with NOAA, manage the 1981 and 1982 bowhead whale hunt. The authority and responsibilities of the AEWC are contained in and limited to this Agreement and the Management Plan as amended on March 25, 1981, to the extent the Management Plan is not inconsistent with this agreement. If the AEWC does not meet the conditions of this agreement, or the Management Plan, NOAA may withdraw the authority of the AEWC for management and will manage the bowhead whale hunt in a manner consistent with federal law, this agreement and the Management Plan.

Inspection and Reporting

NOAA personnel shall monitor the hunt and the AEWC shall assist such personnel with such monitoring. The AEWC will provide an oral report to NOAA daily regarding the number of strikes and landings. The AEWC will also inform all whaling captains who are engaged in whaling activities of the number of whales struck or landed at all times. The AEWC will also provide a report to NOAA within 30 days after the conclusion of the spring hunt and the fall hunt containing at least the following information:

- (1) The number, dates, and locations of every strike or landing;
- (2) The length (as determined from the point of the upper jaw to the notch between the tail flukes), the extreme width of the flukes, and the sex of the bowhead whales landed;
- (3) The length and sex of a fetus, if present, in a landed bowhead whale; and
- (4) An explanation of circumstances associated with the striking of any bowhead not landed, and an estimate of whether a harpoon or bomb emplacement caused a wound which might be fatal to the animal (e.g., the harpoon entered a major organ of the body cavity and the bomb exploded).

NOAA will provide technical assistance in collection of the above information. The AEWG shall assist appropriate persons in collection of specimens from landed whales, including but not limited to ovaries, ear plugs, and baleen plates. Such specimens shall be available to appropriate government officials. NOAA personnel cooperating with AEWG will work closely with the AEWG Commissioner in each whaling village to facilitate the accurate monitoring of the hunt.

Management

- (1) No more than a total of 32 whales shall be struck in 1981 [amended yearly]. The AEWG and NOAA shall determine the total number of whales that may be struck in 1982 through negotiations that shall be concluded by March 15, 1982.
- (2) The AEWG may determine the allocation of these permitted strikes among the whaling villages.
- (3) The AEWG agrees that whaling captains will be subject to civil monetary assessments for whales struck over the strike limit contained in this agreement, and for whales landed over 17 in 1981 or 1982 (if 17 are not landed in 1981) or over 15 in 1982, if 17 are landed in 1981. The AEWG will collect the assessments from the whaling captains and will deposit them with NOAA representatives. In the event of a dispute between NOAA and the AEWG over the number of whales landed or struck, or the amount of the assessment, or other factual matters, NOAA will consult with the AEWG about the matter. If the dispute cannot be resolved, it will be referred to a NOAA administrative law judge for determination under a trial-like administrative proceeding of factual findings and the amount of assessment. The procedures contained in 50 CFR §§ 218.21-218.25 will control these proceedings. The decision of the administrative law judge may be appealed to the Administrator of NOAA. Whaling captains may also be liable for civil assessments for other violations of the management plan as determined by the AEWG or by an administrative law judge under the procedures described above.

Authorities

This cooperative agreement is concluded under the authorities governing management of living marine resources, including but not limited to the Marine Mammal Protection Act of 1972.

Duration

This agreement expires on December 31, 1982 [now, 1991].

Consultation

NOAA and the AEWG shall consult during the operation of this agreement concerning the matters addressed herein as well as other matters related to bowhead whale management which either party believes are suitable for such consultation.

Amendment

This agreement may be amended by the written agreement of the parties.

Done in duplicate in Washington, D.C., on the 26th of March, 1981.

James P. Walsh
For NOAA

Eugene Brower
For the Alaska Eskimo Whaling
Commission

Appendix 2

AEWC MANAGEMENT PLAN

Subpart A -- Introduction

§100.1 Purpose of Regulations

It is the purpose of the regulations contained herein to: (a) insure an efficient subsistence harvest of bowhead whales; and (b) to provide a means within the Alaskan Eskimo customs and institutions of limiting the bowhead whale harvest in order to prevent the extinction of such species.

§100.2 Scope of Regulations

The regulation contained herein applies to the subsistence hunting of bowhead whales by Eskimos located in the State of Alaska.

Subpart B -- Alaska Eskimo Whaling Commission

§100.11 Powers

(a) The Alaska Eskimo Whaling Commission (hereinafter AEWK) is empowered to administer the regulations contained herein to insure that the purpose of §100.1 of these regulations are attained.

(b) The AEWK is empowered to enforce these regulations by:

(1) denying any person who violates these regulations the right to participate in hunting the bowhead whale.

(2) making civil assessments.

(3) acting as an enforcement agent for any governmental entity authorized to enforce these regulations.

(c) The AEWK is empowered to promulgate interim regulations that are in addition to, but not inconsistent with, regulations contained herein.

§100.12 Duties

(a) The AEWK shall administer and enforce the regulations contained herein (including any interim regulations).

(b) The AEWK shall conduct village educational programs to facilitate compliance with these regulations, including training programs for whaling captains and crews.

(c) The AEWK shall initiate research for improvement of the accuracy and reliability of weapons.

Subpart C -- Regulations

§100.21 Definitions

(a) "bowhead whale" means a whale whose scientific name is *Balaena mysticetus* and which migrates past whaling villages in Alaska.

(b) "captain" means the person in charge of a whaling crew.

(c) "harvest" means to kill and bring to shore or butchering area.

(d) "non-traditional weapon" means any instrument that could be used to harvest a bowhead whale that is not a traditional weapon.

(e) "traditional weapon" means a harpoon with line attached, darting gun, shoulder gun, lance or any other weapon approved by the AEWK as such a weapon in order to improve the efficiency of the bowhead whale harvest.

- (i) "harpoon with line attached" means a harpoon with a rotating head which is attached to a line and float and which has no explosive charge.
- (ii) "darting gun harpoon" means a harpoon with an explosive charge and with a line and float attached.
- (iii) "shoulder gun" means a whaling gun, adapted from the era of commercial whaling in the 19th Century, which has an explosive charge and which has no attached line and float.
- (iv) "lance" means a non-explosive sharply pointed weapon without a harpoon head.

(f) "whaling crew" means those persons who participate directly in the harvest or attempted harvest of the bowhead whale and were under the supervision of a captain.

(g) "whaling village" means the Alaska Eskimo village in which resides a whaling captain and crew which participate in the harvest of bowhead whales and which is represented by a Commissioner of the AEW C.

(h) "whaling season" means customary period of time during which the bowhead whale is harvested, either in the Spring or Fall.

§100.22 Registration

(a) Each captain shall register with the AEW C on forms provided by the AEW C for that purpose which disclose his name, address, age, qualifications as captain, names of the crew members, name(s) of harpooner(s), and his willingness to abide by the regulations of the AEW C and to require his crew to abide by those regulations.

(b) The AEW C shall take into account any reading or language difficulties in developing procedures and forms for registration.

§100.23 Reports

(a) Each whaling captain shall be responsible for keeping a written record of the number of whales:

- (1) attempted to be harvested by using traditional weapons but not harvested,
- (2) harvested by the captain or his crew, and
- (3) sighted by the captain or his crew.

(b) Each whaling captain shall report the date, place, and time of any striking not resulting in harvesting and shall describe:

- (1) the size and type of bowhead whale,
- (2) any known later attempted harvest or actual harvest of said whale,
- (3) the reason for the captain or crew not harvesting the whale, i.e., environmental factors, the failure of traditional weapons, or other reason, and
- (4) the condition of the whale that was not harvested.

(c) Each whaling captain shall make such other reports as the AEW C requires in order to accomplish the purposes of the regulations herein or in order to advance the scientific knowledge of the bowhead whale.

§100.24 Permissible Harvesting Methods

(a) No whaling captain or crew shall harvest or attempt to harvest the bowhead whale in any manner other than the traditional harvesting manner.

(b) "Traditional harvesting manner means:

- (1) only traditional weapons shall be used, as defined in §100.21(e).
- (2) the bowhead whale may be struck with a harpoon or darting gun with line and float attached or simultaneously with harpoon and shoulder gun or darting gun.
- (3) the shoulder gun may be used

- (i) when accompanied by harpoon with or without a darting gun
 - (ii) after a line has been secured to the bowhead whale, or
 - (iii) when pursuing a wounded bowhead whale with a float attached to it.
- (4) the lance may be used after a line has been secured to the bowhead whale.

§100.25 Traditional Proprietary Claim

The bowhead whale shall belong to the captain and crew which first strikes the bowhead whale in the manner described in §100.24.

§100.26 Level of Harvest

(a) The AEWG shall establish the levels of harvest or attempted harvest for each whaling village during the season or seasons.

(b) In establishing the levels of harvest or attempted harvest, the AEWG shall consult with each whaling village.

§100.31 Denial of Participation in Harvest

(a) Any person who the AEWG determines has violated the regulations herein shall, after opportunity for a hearing before the AEWG, be prohibited from harvesting or attempting to harvest the bowhead whale for a period of not less than one whaling season nor more than five whaling seasons.

(b) Any person who violates the regulations contained herein shall be subject to a fine of not less than \$1,000 nor more than \$10,000 as assessed by the AEWG. No person shall harvest or attempt to harvest the bowhead whale until such fine has been paid.

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NSB North Slope Borough Department of Wildlife Management, Barrow, Alaska
VFSC Van Ness, Feldman, Sutcliffe & Curtis, a Professional Corporation, Washington, D.C.

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